

ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 89.03.30

ASSESSMENT REPORT 17244

MINING DIVISION: Liard

PROPERTY: Adoog
 LOCATION: LAT 57 30 39 LONG 127 32 42
 UTM 09 6374974 587172
 NTS 094E12E

CLAIM(S): Adoog 7
 OPERATOR(S): Delaware Res.
 AUTHOR(S): Beattie, B.C.
 REPORT YEAR: 1988, 20 Pages

COMMODITIES
 SEARCHED FOR: Gold
 GEOLOGICAL

SUMMARY:
 The claim is underlain by Middle Jurassic Toadogone Volcanics. Units from the Adoogatcho Creek, Moyez Creek, and Tuff Peak Formations are exposed on the property. Silt and rock geochemistry indicate possible areas of gold mineralization. No mineralization is currently located.

WORK
 DONE: Prospecting
 PROS 500.0 ha
 Map(s) - 1; Scale(s) - 1:10 000

RELATED
 REPORTS: 15619

Adoog 7

LOC NO: 0406	RD.
ACTION:	
FILE NO:	

PROSPECTING REPORT
on the
ADOOG 7 Mineral Claim
Liard Mining Division
NTS 94-E/11E + 12E
Latitude 57°31'05" North
Longitude 127°34'25" West
British Columbia

January 15, 1988

on behalf of
DELAWARE RESOURCES CORP.
Vancouver, B.C.

FILMED

by
Brent C. Beattie, B.A.Sc.
TAIGA CONSULTANTS LTD.
#400, 534 - 17th Avenue S.W.
Calgary, Alberta T2S 0B1

GEOLOGICAL BRANCH
MINERAL REPORT

17,244

SUB-RECORDER RECEIVED
MAR 30 1988
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VANCOUVER, B.C.

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MAPS

1 Compilation Map Au/Ag Geochemistry 1:10,000	
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INTRODUCTION

Taiga Consultants Ltd. was contracted by Delaware Resources Corp. to complete a reconnaissance prospecting program on the Adoog 7 mineral claim. A total of four rock samples were collected and analyzed for Au and Ag. The results of this program are described in this assessment report which includes a compilation and interpretation of all current and previous work.

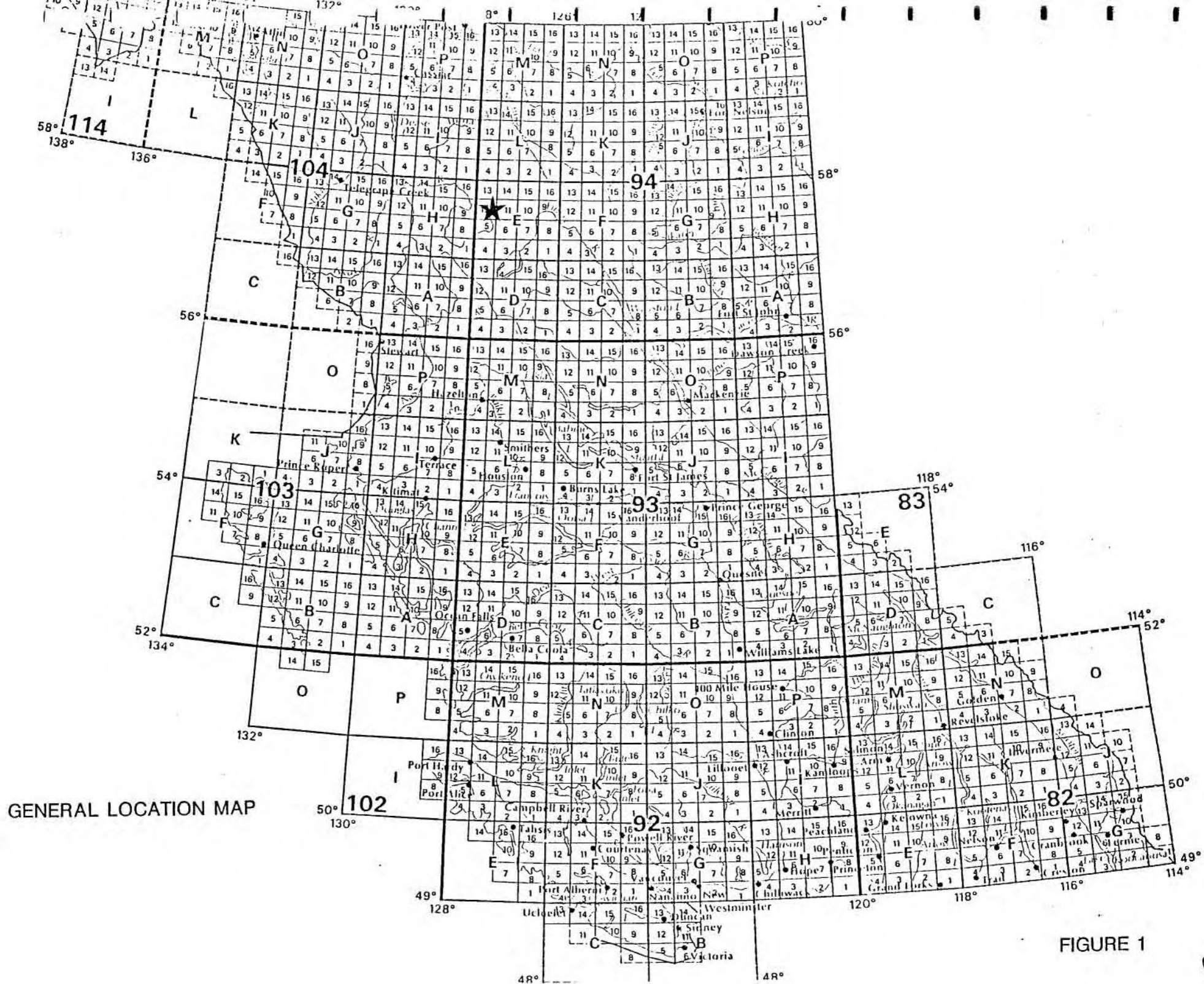
Location and Access

The Adoog 7 mineral claim (Figure 1) is located approximately 520 km northwest of Prince George, B.C., in the Stikine River area on N.T.S. map sheets 94-E/11E and 12E. The legal corner post is located at 57°31'05" North latitude and 127°34'25" West longitude. The claim is accessible from Smithers (300 km to the south) to the Sturdee Airstrip via fixed-wing aircraft, then by helicopter to the claim, a distance of approximately 50 km.

Property Status

The Adoog 7 mineral claim (Figure 2) was staked under the modified grid system and is currently registered in the name of Delaware Resources Corp. Relevant claim data are as follows:

<u>Claim</u>	<u>No. of Units</u>	<u>Record Number</u>	<u>Date of Record</u>	<u>Assessment Due Date</u>
ADOOG 7	20	3535	May 2, 1986	May 2, 1988



GENERAL LOCATION MAP

FIGURE 1

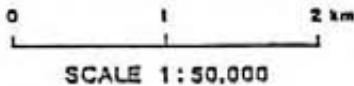
2

127° 30'



57° 30'

127° 30'



LEGEND

- POSTS PLACED
- X POSTS NOT PLACED
- ⊗ LEGAL CORNER POST (LCP)

LASLUI LAKE 94E/5
 MOOSEHORN LAKE 94E/11
 SPRUCE HILL 94E/12

TAIGA CONSULTANTS LTD.
 F.M.C. #278880

ADOOG 7 STAKED APRIL 19, 1988

FIGURE 2

Physiography/Glaciation

The claim lies in the Cassiar Mountains physiographic subdivision of the Interior Plateau. The region was entirely glaciated and is characterized by wide U-shaped drift-filled major valleys. Incised V-shaped stream valleys occur locally at higher elevations.

Topographic relief within the claim averages about 330 m, varying from 1730 m ASL in the northeast corner progressively decreasing to 1400 m in the southwest corner.

Previous Work

In 1982, Newmont Exploration conducted geological, geochemical, and geophysical surveys on the ADOO claims located east of the property. No anomalous zones of gold, silver, copper, lead, or zinc geochemistry were identified. In late September 1985, Delaware Resources completed a brief reconnaissance geological mapping, prospecting, and rock/stream silt geochemical sampling program on the surrounding Adoog 1-6 mineral claims.

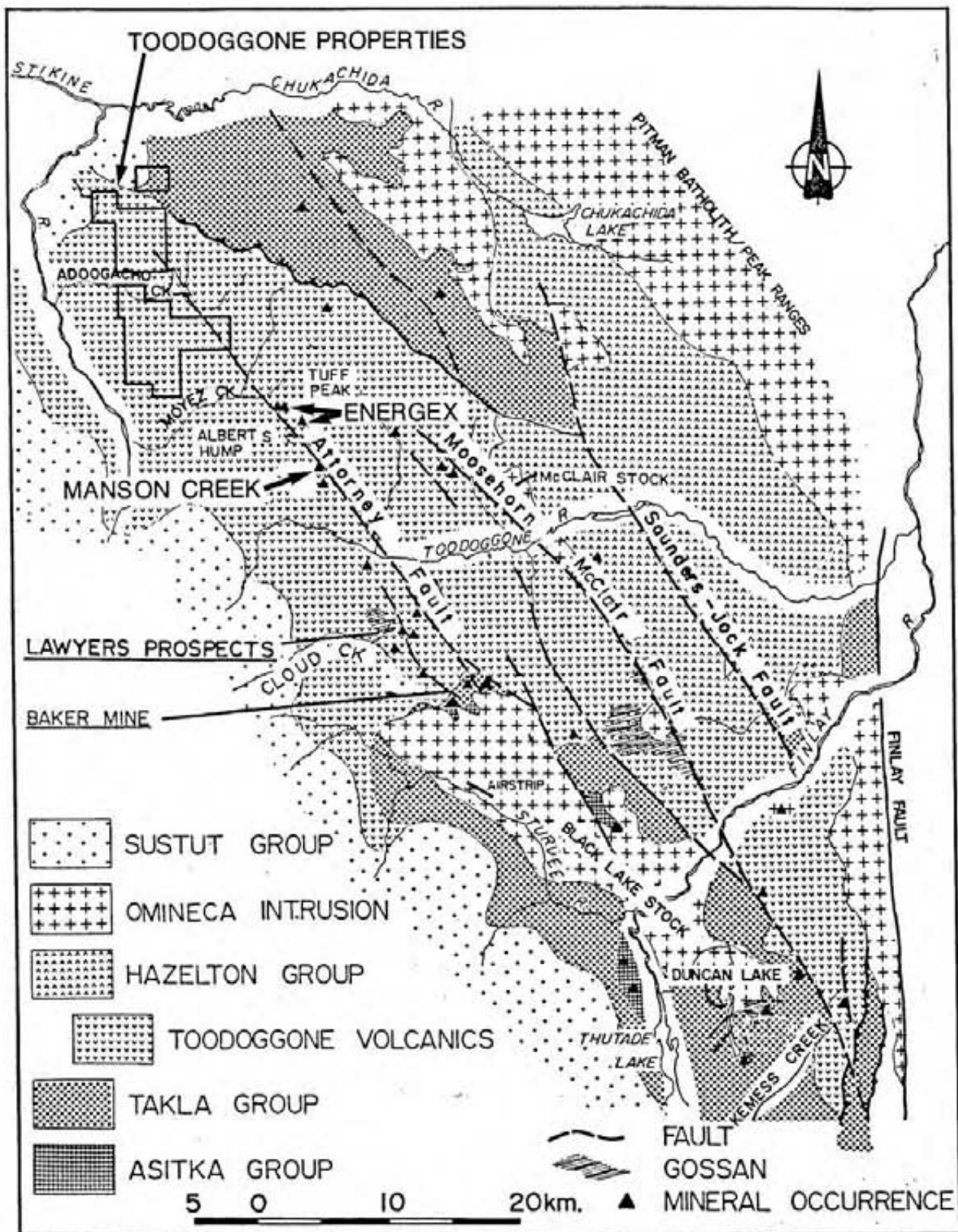
REGIONAL GEOLOGY

The regional geology was mapped by the Geological Survey of Canada at a scale of 1:250,000 under the direction of Dr. H. Gabrielse during 1971-1975, with the results published in 1977 as Open File 483.

During 1971 to 1985, the British Columbia Ministry of Energy, Mines and Petroleum Resources carried out a mapping program in the Toodoggone area, with a compilation (Preliminary Map 61) published at a scale of 1:50,000 in 1985. This mapping, carried out under the direction of T. G. Schroeter, details the units of the Toodoggone Volcanics. The following description of the regional geology is excerpted from his 1981 report.

The Toodoggone area lies within the eastern margin of the Intermontane Belt. The oldest rocks exposed are wedges of crystalline limestone more than 150 metres thick that have been correlated with the Asitka Group of Permian age. The next oldest rocks consist of andesitic flows and pyroclastic rocks including augite-tremolite andesite porphyries and crystal and lapilli tuffs that belong to the Takla Group of Late Triassic age. The Omineca intrusions of Jurassic and Cretaceous age (potassium-argon age of 186 to 200 Ma obtained by the Geological Survey of Canada) range in composition from granodiorite to quartz monzonite. Some syenomonzonite bodies and quartz feldspar porphyry dykes may be feeders to the Toodoggone rocks which unconformably overlie the Takla Group. The 'Toodoggone' volcanic rocks (named informally by Carter, 1971) are complexly intercalated volcanic and volcanic-sedimentary rocks of Early and Middle Jurassic age, 500 metres or more in thickness, along the west flank of a northwest trending belt of 'basement' rocks at least 90 km in length by 15 km in width (Geological Survey of Canada, Open File 306, replaced by Open Files 483 and 606). A potassium-argon age of 186 ± 6 Ma was obtained by Carter (1971) for a hornblende separate from a sample collected from a volcanic sequence 14 km southeast of Drybrough Peak. Four principal subdivisions of 'Toodoggone' rocks have been recognized:

1. Lower volcanic division -- dominantly pyroclastic assemblage including purple agglomerate and grey to purple dacitic tuffs.
2. Middle volcanic division -- an acidic assemblage including rhyolites, dacites, 'orange' crystal to lithic tuffs, and quartz feldspar porphyries; includes welded tuff. The 'orange' colour of the tuffs resulted from oxidation of the fine-grained matrix while the rock was still hot. A coeval period of explosive volcanism included the formation of 'laharic' units and intrusion of syenomonzonite bodies and dykes. This event was accompanied by explosive brecciation along zones of weakness, predominantly large-scale



from : 'Lawyers gold-silver deposits, British Columbia';
 Mineral Deposits of Northern Cordillera,
 special vol. 37, ed. by J. A. Morin, 1983.

REGIONAL GEOLOGY, TOODOGGONE RIVER AREA

FIGURE 3

faults and attendant splays, followed by silicification and deposition of precious and base metals to varying degrees in the breccias. Rounded fragments of Omineca intrusive rocks are rare components in Toodoggone tuffs.

3. Upper volcanic-intrusive division -- grey to green to maroon crystal tuffs and quartz-eye feldspar porphyries.
4. Upper volcanic-sedimentary division -- lacustrine sedimentary rocks (sometimes varved), stream bed deposits, and possible local fanglomerate deposits and interbedded tuff beds.

Many Toodoggone rocks have a matrix clouded with fine hematite dust implying a subaerial origin; however, some varieties may have accumulated in shallow water. The host rock for mineralization (division 2) is an orange to chocolate brown coloured crystal tuff with varying minor amounts of lithic and vitric ash. Broken crystals of plagioclase and quartz are set in a fine-grained 'hematized' matrix of quartz and feldspar. The exact chemical composition(s) and rock name(s) await chemical analyses. Carter (1971) determined the composition of a suite of rocks collected from the Toodoggone area to range from latites to dacite (less than 30 weight per cent quartz); fused beads gave refractive indices between 1.505 and 1.535. Apatite may be a common accessory mineral.

To the west, Upper Cretaceous to Tertiary pebble conglomerates and sandstones of the Lower Tango Creek Formation of the Sustut Group (Eisbacher, 1971) unconformably overlie both Takla Group volcanic rocks and Toodoggone volcanic rocks.

STRUCTURE

The structural setting was probably the most significant factor in allowing mineralizing solutions and vapours to migrate through the thick volcanic pile in the Toodoggone area. The entire area has been subjected to repeated and extensive normal block faulting from Jurassic to Tertiary time. It is postulated that a northwesterly trending line of volcanic centres along a gold/silver-rich 'province' marks major structural breaks, some extending for 60 km or more (for example, McClair Creek system, Lawyers system). Prominent gossans are often associated with structural zones but many contain only pyrite; sulphides occur as disseminations and fracture fillings in Toodoggone and Takla Group rocks. Thrusting of Asitka Group limestones over Takla Group rocks probably occurred during Middle Jurassic time.

Today, Toodoggone rocks display broad open folds with dips less than 25°. The Sustut Group sedimentary rocks have relatively flat dips and do not appear to have any major structural disruptions.

EXPLORATION TARGETS

Precious metals exploration activity in the Toodoggone district is focused mainly on epithermal gold mineralization associated with subaerial Early Jurassic intermediate to acidic volcanism (Toodoggone Volcanics). Gold mineralization found within Late Triassic alkaline andesitic rocks (Takla Group) and in Early Jurassic calc-alkaline volcanic rocks (Hazelton Group) is generally viewed as being in the "root zone" of the epithermal event related to Toodoggone volcanism (e.g., Baker Mine).

The structural settings of these epithermal vein systems are of primary importance in the development of economic gold mineralization within the Toodoggone Volcanics. Faulting and concomitant brecciation form the conduits for ascending gold-bearing hydrothermal solutions and vapours. It is also essential that repeated fault movement and brecciation occur, allowing multiple infusions of hydrothermal solutions.

Both lateral and vertical alteration patterns occur adjacent to these epithermal vein deposits. The outer propylitic zone consists of chlorite, epidote, calcite, and pyrite. This grades inward to an argillic/phyllic zone consisting of sericite, montmorillonite, illite, and silica. The silicified core zone is comprised of silica, adularia, and/or albite, immediately adjacent to the vein system.

Mineralized zones generally carry abundant hematite and manganese oxides. Native gold, electrum, barite, and minor pyrite occur within these silica-rich zones along with amethystine quartz. Anomalous silver, lead, zinc, and copper values have been found associated with the gold-bearing epithermal vein systems. However, the systems appear to be relatively free of arsenic and antimony.

PROPERTY GEOLOGY

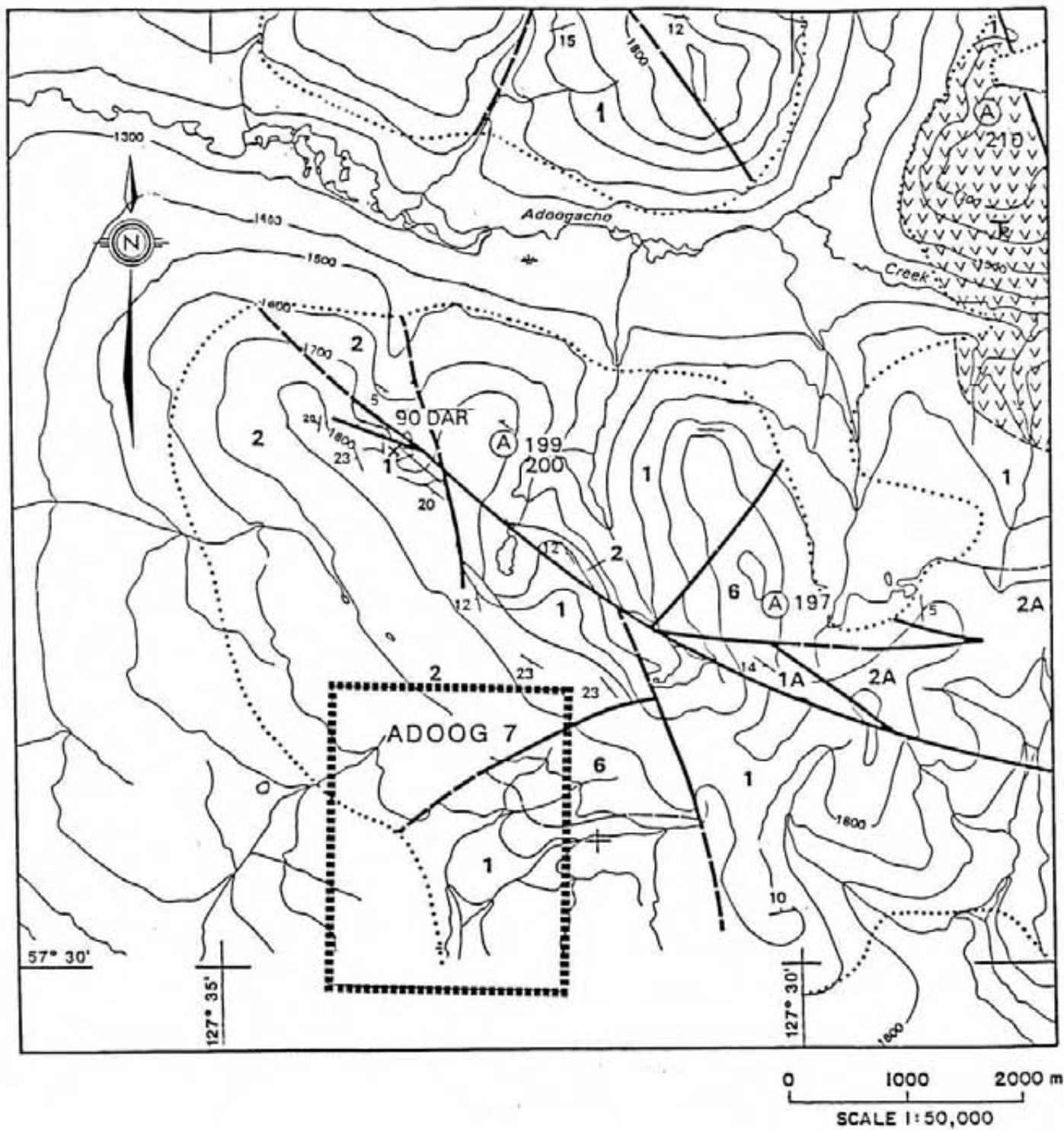
The Adoog 7 mineral claim is underlain by Lower to Middle Jurassic "Toodoggone Volcanics". Unit 1 of the Adoogatcho Creek Formation underlies the southern half of the claim, and is comprised of numerous ash-flow sheets with intercalated crystal-lithic tuffs. Unit 2 of the Moyez Creek Volcanic-clastics underlies the northern portion of the property and is comprised of a diverse assemblage of interbedded air-fall tuff, thin ash-flow sheets, and epiclastic and chemical sedimentary rocks. Unit 6 of the Tuff Peak Formation is the youngest volcanic unit exposed on the property, and is composed of biotite-augite-hornblende plagioclase porphyry flows and some autobrecciated flows and crystal and lapilli tuffs.

Figure 4 shows the property geology (from Preliminary Map 61, B.C. Min. of Energy, Mines & Petroleum Resources, 1985).

1986 EXPLORATION PROGRAM

A reconnaissance stream silt geochemical sampling program was carried out on the Adoog 7 mineral claim during September and October, 1986. A total of 52 silt samples were collected and forwarded to Bondar-Clegg in Vancouver, B.C. for Au and Ag geochemical analysis.

No anomalous silver values were obtained from the samples. Seven sites returned detectable gold values (detection limited 5 ppb) ranging from 10 to 100 ppb (see Map 1). Six of these samples were collected from two creeks draining the east portion of the property, with only one of these returning greater than 20 ppb. This site (100 ppb) occurs at the eastern edge of the property. The source responsible for the elevated values has yet to be defined in the limited amount of work completed.



GEOLOGY MAP

FIGURE 4

GEOLOGICAL LEGEND
(units appearing on Property Geology, Figure 4)

UPPER CRETACEOUS

- K SUSTUT GROUP (Tango Creek Formation)
polymictic conglomerate, sandstone, shale, carbonaceous mudstone

LOWER TO MIDDLE JURASSIC "Toodoggone Volcanics"

- 6 TUFF PEAK FORMATION
pale purple, grey, green biotite augite hornblende plagioclase porphyry flows
- 5 McCLAIR CREEK FORMATION
purple, lavender, grey, and rarely grey-green, fine- to medium-grained, plagioclase porphyritic flows, includes some lapilli tuff and breccia.
- 2 MOYEZ CREEK VOLCANICLASTICS
conglomerate with some granitic clasts, graded, cross-bedded greywacke, well-bedded crystal tuff, epiclastic sediments, local laminated calcareous silt.
- 2A crystal tuffs in thin well-layered units, some epiclastic sandstone and mudstone.
- 1 ADGOGATCHO CREEK FORMATION
pale reddish grey to dark red-brown quartzose biotite hornblende phytic ash flows.
- 1A crystal ash tuff, lapilli tuff, and rare agglomerate with interspersed epiclastic beds, tuffaceous sediments and minor conglomerate.
- 1B quartzose plagioclase porphyry, jointed, domal intrusion(?) of homogeneous appearing grey to green chloritized and epidote altered rock containing abundant inclusions of Takla volcanics.

UPPER TRIASSIC





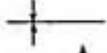
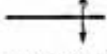
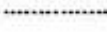



- T TAKLA GROUP
Dark green augite porphyry basalt flows and breccias with lesser fine-grained andesite to basalt flows and minor interbedded siltstone, tuffaceous sediments and chert.

INTRUSIVE ROCKS

LOWER JURASSIC (dykes, sills, small plugs)

- C biotite hornblende diorite/gabbro

SYMBOLS

-  layering
-  mineral occurrence (with file number)
-  radiometric date sample site (age in Ma)
-  Barium, quartz vein
-  synform
-  antiform
-  main outcrop areas
-  geologic contact (defined, assumed)
-  fault (observed, inferred)
-  claim boundary

1987 EXPLORATION PROGRAM

One man-day was spent prospecting the southeastern portion of the Adoog 7 mineral claim. Four rock samples were collected from quartz-carbonate veins or siliceous zones cropping out in the area of anomalous gold-in-silt values from the previous exploration program.

The samples were forwarded to Barringer Magenta Laboratories Ltd. in Calgary, Alberta, for Au and Ag analysis. Analytical results and procedures are presented in the Appendix. Map 1 shows the sample locations and results.

The samples returned no anomalous silver values, and one anomalous gold value of 40 ppb. This sample was collected from the primary creek in the southeast section above two 1986 anomalous gold-in-silt values. Detailed mapping and prospecting in this area are recommended.

SUMMARY AND RECOMMENDATIONS

One man day was spent prospecting the claim which is underlain by Lower to Middle Jurassic "Toodoggone Volcanics". The Toodoggone Volcanics form a belt 5 to 20 km wide and 100 km long, which hosts a number of precious and base metals occurrences.

The 1987 prospecting program combined with previous exploration has delineated two areas that require detailed geological mapping and prospecting: a siliceous zone crossing the creek below the centre of the claim; and upstream towards the eastern edge of the claim. Reconnaissance geological mapping and prospecting should be completed over the rest of the claim.

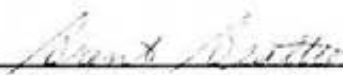
CERTIFICATE

I, Brent Coleman Beattie, of #1406, 1310 - 14th Avenue S.W. in the City of Calgary in the Province of Alberta, do hereby certify that:

1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.
2. I am a graduate of the University of British Columbia, B.A.Sc. Geological Engineering (1984), and I have practised my profession continuously since 1985.
3. I am the author of the report entitled "Prospecting Report on the ADOOG 7 Mineral Claim, Liard Mining Division, NTS 94-E/11E+12E, British Columbia", dated January 15, 1988.
4. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of DELAWARE RESOURCES CORP., in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 15th day of January, A.D. 1988.

Respectfully submitted,



Brent C. Beattie, B.A.Sc.

BIBLIOGRAPHY

- Aussant, C.H. (1986): Geochemical Report on the ADOOG 7 Mineral Claim, Liard Mining Division, British Columbia; for Delaware Resources Corp., private company report
- Gabrielse, H.; Dodds, C.J.; Mansy, J.L.; Eisbacher, G.H. (1977): Geology of Toodoggone River [94-E] and Ware West Half [94-F]; Geol.Surv.Cda., Open File 483
- Schroeter, T.G. (1981): Toodoggone River [94-E]; B.C. Min.Energy,Mines,and Petro.Res.; Geological Fieldwork 1980, pp.6-7
- (1985): Geology of the Toodoggone River Area, NTS 94-E; B.C. Min. Energy,Mines,and Petro.Res.; Prelim.Map 61

APPENDIX

Summary of Personnel
Rock Sample Descriptions
Summary of Expenditures
Certificates of Analysis
Analytical Techniques

SUMMARY OF PERSONNEL

<u>Name / Address</u>	<u>Position</u>	<u>Dates</u>	<u>Man Days</u>
Brent Beattie Calgary, Alberta	Project Geologist	Sept.28	1
Terry Kennedy Calgary, Alberta	Cook / Prospector	Sep.28	1
		TOTAL	<u>2</u>

ROCK SAMPLE DESCRIPTIONS

110957 porphyry, pale purple; plagioclase, minor silicification
 110958 porphyry, purple, silicified; trace sulphides
 110959 shear zone: numerous pink calcite stringers, minor quartz
 110960 fault zone: quartz-calcite stringers, slickensides, no visible sulphides

SUMMARY OF EXPENDITURES

Pre-Field			\$ 296.63
Field Personnel			
Project Geologist	1 man day @ \$275	275.00	
Cook/Prospector	1 man day @ \$185	<u>185.00</u>	460.00
Accommodation	2 man days @ \$50	100.00	
Travel Expenses		72.29	
Fixed-Wing Support	Central Mountain	265.07	
	Trans North Air	18.76	
Helicopter Support	Okanagan Helicopters	<u>123.15</u>	579.27
Equipment Rental			
Radio-Telephone	1 day @ \$ 9	9.00	
Generator	1 day @ \$16	16.00	
Core Splitter/Water Pump	1 day @ \$ 6	<u>6.00</u>	31.00
Miscellaneous			
Disposable Field Supplies		72.68	
Maps, Reproductions; Courier, Freight		<u>65.75</u>	138.43
Post-Field			
Data Compilation, Report Writing, Drafting		686.00	
Handling Charges		<u>65.36</u>	<u>751.36</u>
	TOTAL EXPENDITURES		\$ <u>2,256.69</u>

BARRINGER MAGENTA
Laboratories (Alberta) Ltd.

4200B - 10 STREET N.E., CALGARY, ALBERTA, CANADA T2E 6K3
PHONE: (403) 250-1901

AUTHORITY: D. DUPRE

TAIGA CONSULTANTS LTD.
100, 1300 - 8 STREET S.W.
CALGARY, ALBERTA T2K 1B2

BARRINGER
Laboratories (NWT) Ltd.

P.O. BOX 864, YELLOWKNIFE, NWT, CANADA X1A 2N6
PHONE: (403) 920-4500

12-NOV-87
PAGE: 2 OF 2
COPY: 1 OF 2

PROJECT: BC-87-10

WORK ORDER: 4401D-87

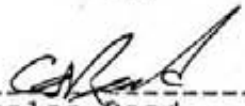
*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: ROCK

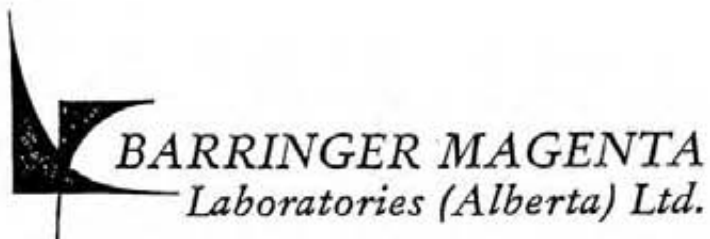
SAMPLE NUMBER	FIRE ASSAY	FIRE ASSAY
	AU PPB	AG PPM
111000	2.0	0.1
110956	3.0	<0.02
110957	2.0	<0.02
110958	36.0	0.02
110959	2.0	0.1
110960	3.0	<0.02

SIGNED: _____


C. Douglas Read,
LABORATORY MANAGER

FOOTNOTES:

P=QUESTIONABLE PRECISION; * = INTERFERENCE; TR=TRACE; ND=NOT DETECTED;
IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE



4200B - 10 STREET N.E.
CALGARY, ALBERTA
T2E 6K3
PHONE: (403) 250-1901

Taiga Consultants Ltd.,
Suite 100 - 1300 - 8 St. S.W.,
Calgary, Alberta
T2R 1B2

As per your recent request, following are descriptions of the sample preparation and subsequent analysis for gold and silver soil and rock samples.

Rock samples are routinely crushed, split and pulverized to minus 150 mesh. Soils are sieved to minus 80 mesh.

For the determination of gold and silver, the procedure followed by Barringer Laboratories utilizes a one assay-ton (29.16 gram) of material. This is mixed with the standard charge and an aliquot of known concentration of palladium. The palladium acts as an inquant to enhance the collection of trace amounts of gold. Following cupellation, the bead is completely dissolved in aqua regia. The gold is extracted into methyl isobutyl ketone (MIBK) and subsequently analysed by atomic absorption spectrophotometry (A.A.S.). A detection limit of 2 ppb is achieved.

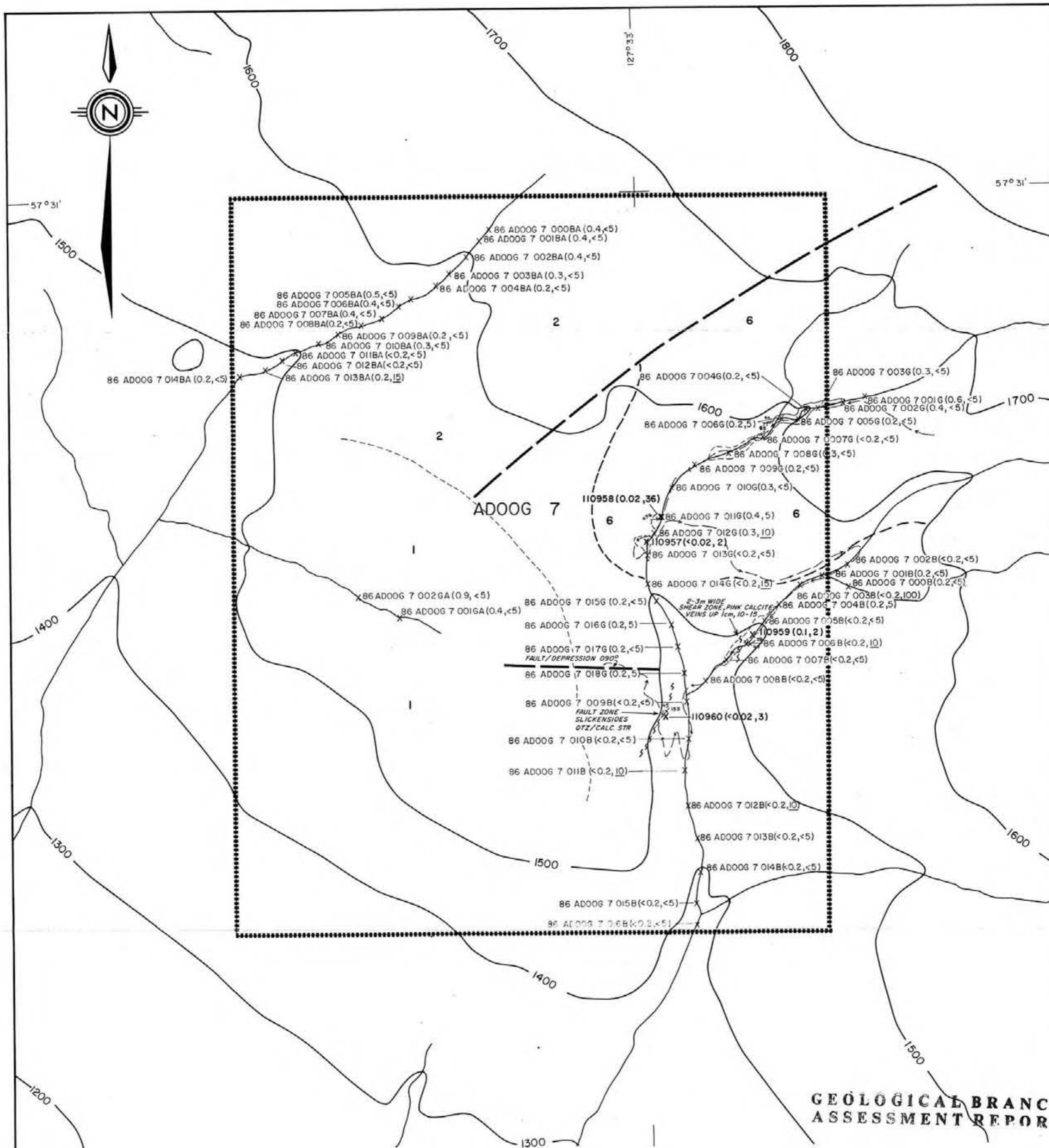
Silver is determined by direct aspiration of the solution by A.A.S. prior to the extraction stage. The detection limit for silver is 10 ppb.

Should you have any further questions please do not hesitate to contact me.

Yours truly,

C. Douglas Read,
Manager, Analytical Services

CDR/th



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,244

GEOLOGICAL LEGEND

LOWER TO MIDDLE JURASSIC "Toodoggone Volcanics"

- 6** TUFF PEAK FORMATION
pale purple, grey, green biotite augite hornblende plagioclase porphyry flows
- 2** HOYEZ CREEK VOLCANICLASTICS
conglomerate with some granitic elasts, graded, cross-bedded greywacke, well-bedded crystal tuff, epiclastic sediments, local laminated calcareous silt.
- 1** ADOOGATCHO CREEK FORMATION
pale reddish grey to dark red-brown quartzose biotite hornblende phytic ash flows.

SYMBOLS

- 1986 SAMPLE No. Ag(ppm), Au(ppb)
X 86 ADOOG 7 016G (0.2, 5) STREAM SILT
- 1987 SAMPLE No. Ag(ppm), Au(ppb)
X 110959 (0.1, 2) ROCK SAMPLE
- - - main outcrop areas
- - - geologic contact (defined, assumed)
- - - fault (observed, inferred)
- - - traverse

DELAWARE RESOURCES CORP.

ADOOG 7 MINERAL CLAIM
GEOLOGICAL COMPILATION
AND SAMPLE LOCATIONS

Rev. JAN/88

DATE	DECEMBER, 1986.	NTS	94 E/11 E. & 12 E
PROJECT	DLW-BC-7	MAPPED/ DRAWN BY	C. AUSSANT
SCALE	1:10,000	0 100 200 300 m	
TAIGA CONSULTANTS LTD		MAP 1	