	,
District	Geologist, Smithers Off Confidential: 89.03.31
ASSESSMEN	T REPORT 17250 MINING DIVISION: Liard
PROPERTY:	Adoog
LOCATION:	LAT 57 31 33 LONG 127 30 00 UTM 09 6376702 589831 NTS 094E11W 094E12E
CLAIM(S):	Adoog 1-5
OPERATOR (S): Delaware Res.
AUTHOR(S)	: Beattie, B.C.
REPORT YE	AR: 1988, 27 Pages
COMMODITI	ES
SEARCHED	FOR: Gold, Silver
GEOLOGICA	L
SUMMARY:	The Adoog 1 claim is underlain by the Upper Triassic Takla Group
	comprising augite porphyry basalt flows/breccias and minor siltstones
	and cherts. Unit 1 of the Adoogatcho Creek Formation covers the rest
	of the claims and comprises guartzose biotite-hornblende phyric ash
	flows. Silt and rock geochemistry indicate some areas of elevated
	gold values although no mineralization has been located.
WORK	
DONE:	Prospecting, Geochemical
	PROS 2700.0 ha
	Map(s) - 1; Scale(s) - 1:10 000
	ROCK 36 sample(s) ;AU,AG
-	· 사실장 (가슴) · · · · · · · · · · · · · · · · · · ·

LOG NO. 0406	RD.
ACTION:	
EUE NO.	

RECONNAISSANCE PROSPECTING REPORT on the ADOOG 1-6 Mineral Claim Liard Mining Division NTS 94-E/11W + 12E Latitude 57°32' North Longitude 127°30' West British Columbia

January 15, 1988

SUB-RECORDER RECEIVED MAR 31 1983 M.R. # VANCOUVER, B.C.

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 OB1

GEOLOGICAL BRANCH ASSESSMENT REPORT

TAIGA CONSULTANTS LTD.

Adoog 1-6

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INTRODUCTION

Taiga Consultants Ltd. was contracted by Delaware Resources Corp. to complete a reconnaissance prospecting program on the Adoog 1-6 mineral claims. A total of 36 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 1-6 mineral claims (Figure 1) are located approximately 520 km northwest of Prince George, B.C., in the Stikine River area on N.T.S. map sheets 94-E/11W and 12E. The centre of the claims is located at 57°31' North latitude and 127°30' West longitude. The claims are accessible from Smithers (300 km to the south) to the Sturdee Airstrip via fixed-wing aircraft, then by helicopter to the claims, approximately 50 km.

Property Status

The Adoog 1-6 mineral claims (Figure 2) were staked under the modified grid system and are currently registered in the name of Goroen King Res. Relevant claim data are as follows:

<u>Claim</u>	_	No.of <u>Units</u>	Record <u>Number</u>	Date of <u>Record</u>	Assessment Due Date
ADOOG	1	20	3404	Mar 4, 1986	Mar 4, 1988
ADOOG	2	20	3405	Mar 4, 1986	Mar 4, 1988
ADOOG	3	20	3406	Mar 4, 1986	Mar 4, 1988
ADOOG	4	20	3407	Mar 4, 1986	Mar 4, 1988
ADOOG	5	20	3408	Mar 4, 1986	Mar 4, 1988
ADOOG	6	8	3409	Mar 4, 1986	Mar 4, 1988



LOCATION MAP

FIGURE 1



Physiography/Glaciation

The claims lie 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 ranges from 1300 m in the valley of Adoogacho Creek to 1916 m on the Adoog 2 claim, giving the area a maximum relief of 616 m.

Vegetation varies from mixed woodlands consisting of spruce and poplar in the valley bottoms to alpine meadows generally located above 1600 m. The highest elevations with north-facing slopes within the claims area have permanent snow cover.

Bedrock is moderately well exposed within the area. In the valleys, bedrock is mantled by glacial and glacio-fluvial deposits with only scattered exposures. However, in the uplands, especially above tree line, bedrock exposures and felsenmeer are abundant, allowing effective prospecting and geological mapping to be conducted.

EXPLORATION HISTORY

Gold was first discovered in the Toodoggone River area by C. McClair in 1925. Placer gold was located along what is now called McClair Creek in the period 1925 to 1927 when operations were suspended. Cominco carried out a base metals exploration program in the area in 1933 which resulted in the location of several showings.

In 1968, Kennco Explorations (Western) Ltd. carried out a regional stream sediment geochemical survey in the area. During the acquisition of these samples, gold- and silver-rich float was noted. Follow-up exploration by Kennco, during the period 1969-1974, resulted in the discovery of most of the gold and silver occurrences on the Chappelle and Lawyers properties. In addition, exploration by several other mining companies active in the area located a number of gold occurrences. Convest optioned the Chappelle claims in 1973 and constructed an adit to sample underground. In 1974, DuPont of Canada Exploration Ltd. optioned the Chappelle claims and put the Baker Mine into production based on the drill indicated reserves on the "A" vein. This mine operated from May 1981 to late 1983 when suspended due to exhaustion of the orebody.

Further work by Kennco on the Amethyst Gold Breccia (AGB) zone on the Lawyers property consisted of prospecting, mapping, trenching, and diamond drilling until 1975.

In 1978, the Lawyers property was optioned to Serem who have carried out exploration and development work until the present. In addition, the original AGB zone, two other gold zones (the Duke's Ridge and the Cliff Creek) have been discovered on the Lawyers property. At present, there are three levels of underground development on the AGB zone and a production decision is expected in 1989 by Cheni Gold Mines Ltd. (formerly Serem).

To the north of the Lawyers property, toward the Adoog claims, several other gold/silver deposits have been discovered in the last several years

including the "A" Zone on the Mets claims held by Manson Creek Resources Ltd., and the Thesis III, BV, and Bonanza Ridge Zones held by Energex Minerals Ltd.

At present, reported reserves on the Lawyers property are 1,037,600 tons grading 0.209 oz/ton gold and 7.57 oz/ton silver. Reserves developed to date on the Manson Creek "A" Zone deposit are 92,000 tons grading 0.334 oz/ton gold. Reserves identified to date by Energex are estimated to be in excess of 250,000 tons grading approximately 0.3 oz/ton gold. The Baker Mine, although not currently in production, is undergoing additional exploration by International Resources Ltd., and if additional gold reserves are located, may be placed back into production.

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. C. 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 The 'Toodoggone' volcanic rocks (named informally by Carter, Group. 1971) are complexly intercalated volcanic and volcanic-sedimentary of Early and Middle Jurassic age, 500 metres or more in rocks 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:

- 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. 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.

- Upper volcanic-intrusive division -- grey to green to maroon crystal tuffs and quartz-eye feldspar porphyries.
- 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 geological map (Figure 4) and the Table of Formations were modified after L. J. Diakow et al. (Preliminary Map 61, B.C. Ministry of Energy, Mines and Petroleum Resources). This map is the most recent and detailed compilation of the geology of the Toodoggone River area.

The oldest rock units found on the property are the augite porphyry basalt flows and breccias and minor interbedded siltstones, tuffaceous sediments, and cherts of the Upper Triassic Takla Group (Schroeter, 1985). The Takla Group is exposed along the northern boundary of the Adoog 1 Unit 1A of the Adoogacho Creek Formation is exposed on the Adoog 2 claims. and 3 claims, and is comprised of numerous ash-flow sheets with intercalated crystal-lithic tuffs. The tuffs are composed of plagioclase, hornblende, biotite, and subordinate quartz and apatite phenocrysts set within a pink to brick-red vitric matrix. Unit 1 is found on all of the Adoog claims and is comprised of reddish grey to dark red-brown quartzose biotite/hornblende phyric ash flows. Unit 2 (Moyez Creek Volcaniclastics) is comprised of a diverse assemblage of interbedded air-fall tuff, thin ash-flow sheets, and epiclastic and chemical sedimentary rocks. Unit 6 (Tuff Peak Formation) is the youngest volcanic unit exposed on the property and is composed of a sequence of pyroclastics comprised of crystal tuff, lapilli tuff, and breccia, with local interformational conglomerate. This unit is exposed on the Adoog 2, 3, and 5 claims.

PROPERTY GEOLOGY

FIGURE 4

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

UPPER CRETACEOUS

K SUSTUT GROUP (Tange Greek 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 mediumgrained, 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.
- ADDOGATCHO CREEK FORMATION pale reddish grey to dark rod-brown guartzose biotice hornblende phyric 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

TAKLA GROUP Dark green augice 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

10	layering
x 43	mineral occurrence (with file number)
@ 104	radiometric date sample site (age in Ma)
x bo,qv	Barium, quartz vein
+	synform
÷	antiform
	main outcrop areas
	geologic contact (defined, assumed)
	fault (observed, inferred)

elaim boundary

SUMMARY OF PREVIOUS WORK

In 1982, Newmont Exploration conducted geological, geochemical, and geophysical surveys on the ADOO claims which were adjacent to the southern boundary of the Adoog 1 and 2 claims and the eastern boundary of the Adoog 5 and 6 claims. A total of 307 soil, 11 rock, and 23 silt samples were collected and analyzed; however, no anomalous zones of gold, silver, copper, lead, or zinc geochemistry were identified on the ADOO property.

The DAR mineral occurrence on the Adoog 4 claim was examined by Newmont Exploration at the same time. The company prospected the area of the occurrence and analyzed ten rock smaples for Au, Ag, Pb, and Zn. Minor galena, sphalerite, and chalcopyrite occur in four quartz vein zones cutting maroon tuffs of the Toodoggone Volcanics.

In late September 1985, silt geochemistry and prospecting identified a number of anomalous creek basins, several highly altered and silicified shear zones, and several mineralized quartz breccia boulders, reporting significant values in gold and silver (see Map 1).

1987 EXPLORATION PROGRAM

A brief reconnaissance prospecting program was carried out on the Adoog 1-6 mineral claims in late September and early October. A total of 36 rock samples were collected and forwarded to Barringer Magenta Laboratories Ltd. in Calgary, Alberta, for Au and Ag analysis. Analytical procedures and results are presented in the Appendix. Map 1 shows the sample locations and results.

The program consisted of a helicopter-supported investigation and sampling of gold geochemical anomalies and mineralized zones delineated in previous exploration programs. Prospecting also covered previously unexplored areas of the claims. Winter conditions prevailed throughout the program, reducing the effectiveness of the prospecting at elevations higher than 1500 m. No elevated Ag values were returned; however, several anomalous Au values were returned, as detailed below:

Location	Sample	ppb Au	Comments
Adoog 1	DM 27	63	shear zone, siliceous
	DM 28	38)	same zone as EDA 74 (224 ppb Au)
	DM 29	34)	same zone as EDA 74 (224 ppb Au)
	DM 31	62	float
	DM 32	46	quartz vein
	GM 14	64	quartz vein
	GM 16	35	quartz vein
	GM 17	57	quartz vein
	GM 18	60	quartz vein
	SE 24	48	shear zone, siliceous
Adoog 2	TK-2	40	quartz-calcite in andesite
Adoog 3	TE 22	13	andesite, reddish brown, trace pyrite

The elevated gold values from the Adoog 1 claim were from a geochemically anomalous zone in the northeastern corner of the claim. The mineralized zones are silicified, brecciated shear zones 0.1m to 2.0m wide, found for 300 m along the north-draining creek (Map 1). The consistantly elevated Au values in this area require detailed prospecting and trenching to further define the mineralized zones.

The elevated Au value from the Adoog 2 claim was from an outcropping siliceous zone. Sample collection was hampered by snow cover, and the extent of this zone is unclear.

The marginally anomalous Au value returned from the Adoog 3 claim was collected from an outcrop beside the north-draining creek. The drainage area of this creek was covered with a recent snow fall and could not be explored. However, this creek returned anomalous silt geochemical samples in the 1985 exploration program. This warrants further prospecting and detailed mapping.

SUMMARY AND RECOMMENDATIONS

Nine man days were spent exploring the Adoog 1-6 claims, which are underlain by formations of the "Toodoggone Volcanics", generally considered prospective for epithermal vein-hosted precious metals deposits in the Toodoggone area.

The prospecting and geological mapping done during extremely adverse weather conditions in late September 1985 identified several highly altered, silicified shear zones on the claims, as well as several mineralized quartz breccia boulders reporting significant values in gold and silver.

The brief prospecting program completed in 1987 further defined the silciified shear zone located on the Adoog 1 claim, as a series of shear zones through a 300 m section along the main north-draining creek.

Further exploration of the claims, in the form of reconnaissance geological mapping and prospecting, should cover areas not explored in previous programs. Lithogeochemical sampling should be completed in prospective mineralized zones and those already delineated from previous work.

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:

- I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 - 17th Avenue S.W., Calgary, Alberta.
- 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.
- I am the author of the report entitled "Prospecting Report on the ADOOG 1-6 Mineral Claims, Liard Mining Division, NTS 94-E/11W+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

- 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
- Nagy, L.J.; Netolitzky, R.K. (1986): Reconnaissance Geological and Geochemical Report, ADOOG 1-6 Claims, Liard Mining Division, British Columbia; <u>for</u> Delaware Resources Corp., private company report
- 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

Name / Address	Position	Dates	<u>Man Days</u>
Brent Beattie Calgary, Alberta	Project Geologist	Sep.24,0ct.1,2	3
Ted Eninew La Ronge, Sask.	Sr.Prospector	Sep.24	1
Don McLeod La Ronge, Sask.	Sr.Prospector	Sep.24	1
Sam Eninew La Ronge, Sask.	Jr.Prospector	Sep.24	1
George McLeod La Ronge, Sask.	Jr.Prospector	Sep.24	1
Ken Ray Fort Fraser, B.C.	Jr.Prospector	Oct.2	1
Terry Kennedy Calgary, Alberta	Camp Cook	Oct.2	1

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ROCK SAMPLE DESCRIPTIONS

110764	siltstone, blue-green-grey, pyrite as disseminations and cubes,
110765	quartz stringers, rimonice staining
110/05	success, blue-green-grey, pyrice as disseminations and cubes,
110766	ciltetone blue-green-grey purite as discominations and subse
110/00	guartz stringers limonite staining
110767	siltstone blue-green-grey pyrite as disseminations and cubes
110/07	quartz stringers limonite staining
110768	green-grey, pyrite as disseminations and cubes. limonite staining
110812	plagioclase porphyry, purple-grey
110813	plagioclase porphyry, purple-grey
110877	quartzite, fine-grained, pale blue-grey, limonite stained
110878	siltstone, brecciated, siliceous, disseminated pyrite, limonite and
	manganese staining
110879	siltstone, brecciated, siliceous, disseminated pyrite, limonite and
	manganese staining
110880	siltstone, brecciated, siliceous, disseminated pyrite, limonite and
	manganese staining
110881	float: siltstone, siliceous, brecciated, pyrite as disseminations
	and cubes, two stages of quartz flooding
110882	siltstone, fine-grained, blue to green-grey, siliceous, pyrite as
	disseminations and cubes
110883	porphyry, reddish, vuggy; barite-calcite crystals
110884	porphyry, reddish; calcite-quartz, no visible sulphides
110885	porphyry, reddish; calcite-quartz, no visible sulphides
110886	porphyry, reddish; calcite-quartz, no visible sulphides
110887	tuff, siliceous, fine-grained, white, float
110888	tuff, siliceous, fine-grained, white, float, disseminated pyrite
110890	crystal tuff, argillically altered
110891	porphyry, pink, medium-grained; minor pyrite and quartz clasts,
	feldspar argillically altered
110892	porphyry, pink, medium-grained; minor pyrite and quartz clasts,
	feldspar argillically altered, with minor barite
110893	porphyry, dark grey, argillically altered, barite/calcite float
110894	calcite-quartz stringer
110895	calcite-quartz stringer
110896	calcite-quartz stringer
110897	quartz-calcite in grey tuff, no visible sulphides
110916	siltstone, green-grey to blue-grey, disseminated pyrite, occasional
	fracture, limonite staining
110917	siltstone, green-grye, trace pyrite, limonite and manganese staining
110918	siltstone, green-grye, trace pyrite, limonite and manganese staining
110956	barite in reddish porphyry; hornblende, epidote, trace sulphides
110996	barite in porphyry; hornblende, minor quartz, float
110997	float: barite in reddish porphyry; calcite crystals, minor quartz
110998	barite in porphyry; calcite stringers
110999	barite with malachite specks, calcite stringers
110200	quartz-calcite vein in reddish porphyry; coarse-grained

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SUMMARY OF EXPENDITURES

Pre-Field			\$ 378.31
Field Personnel			
Project Geologist	1.0 man day @ \$275	275.00	
Sr. Prospectors	4.0 man days @ \$225	900.00	
Jr. Prospectors	5.5 man days @ \$185	1,017.50	
Sampler	1.0 man day @ \$185	185.00	
Camp Cook	3.0 man days @ \$185	555.00	2,932.50
Accommodation (incl dril)	l crew) 23.5 man days @ \$50	1,175.00	
Travel Expenses		348.43	
Fixed-Wing Support	Central Mountain	1,230.66	
	Trans North Air	87.00	
Helicopter Support	Okanagan Helicopters	571.80	3,412.89
Equipment Rental			
Radio-Telephone	4 days @ \$ 9	36.00	
Generator	4 days @ \$16	64.00	
Core Splitter/Water Pu	mp 4 days@\$6	24.00	124.00
Miscellaneous			
Disposable Field Suppl	ies	337.26	
Maps, Reproductions; C	ourier, Freight	106.49	443.75
Analyses			
36 rock samples @ \$9.6	0/each		345.60
Post-Field			
Data Compilation, Repo	rt Writing, Drafting	1,545.00	
Handling Charges			1.850.00
			inina strana bar

TOTAL EXPENDITURES \$9.487.05

BARRINGER MAGENTA Laboratories (Alberta) Ltd.

42008 - 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 T2R 1B2 BARRINGER Laboratories (NWT) Ltd.

- P.O. BOX 564, YELLOWKNIFE, NWT, CANADA X1A 2N6 - PHONE: (403) 920-4500

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PROJECT: BC-87-10

WORK ORDER: 4401D-87

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

		ETER ACCAY	ETDE ACCAY	RUCK	E	YPI	T	LE	P	AM	
		FIRE ASSAT	FIKE ASSAI								
		AG	HU						-		
		PPM	PPB	1 B E R	N U	N	E	L	P	M	5 1
		0.44	4.0	2	0812	110	10				
		0.45	13.0	3	0813	110					
		<0.02	8.0	4	0914	110					
		5.2	5.0	5	0915	110					
		0.25	14.0	6	0910	110					
				-							
		0.16	3.0	/	0917	110					
1		0.44	48.0	В	0918	110					
		0.2	3.0	5	0875	110					
		0.2	7.0	G	0876	110					
		0.43	63.0	7	0877	110					
	-	0.26	38.0	8	0878	110					
		0.64	34.0	9	0879	110					
	0.0	0.33	7.0	0	0880	110					
		0.52	62.0	1	088	110					
		0.48	46.0	2	088	110					
		3 00	33.0	2	076	11				•	
		0.00	2.0	2	070	11					
		0.02	64.0	3	070	111					
		0.0	64.0	4	0/6	110					
		0.04	8.0	5	076	11					1
Sec	A	0.33	35.0	6	076	110		-	1	£1. (
		0.8	. 57.0	7	076	11		10			
		1.62	60.0	8	076	11				12	
		0.1	6.0	2	099	11					
		0.11	5.0	3	099	11					
		1.32	4.0	4	099	11					
		2.6	5.0	5	099	11					
		0.54	6.0	6	099	11					
		0.06	2.0	7	099	11					
		0.04	6.0	8	000	11					
		0.69	2.0	0	000	11					

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BARRINGER MAGENTA Laboratories (Alberta) Ltd.

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PROJECT: BC-87-10

WORK ORDER: 4381D-87

*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

	S	AM	(P)	LE	I	YP	E:	1	RO	СК	1	FIR	E ASSI	AY	FIRE	ASSA	Y						*1	
s	A	M	P	L	E	N	U	M	B	E	R	P	PB		199	1								
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						11	08	84					<2.0		ō	.04								
				4		11	08	85					<2.0		0	.08								
						11	08	86					(2.0		<0	.02								10
						11	08	87					<2.0		<0	.02								
						11	08	88					<2.0		0	.04								
						11	08	89					3.0		0	.11								
						11	08	90					<2.0		0	.05								
						11	08	91					<2.0		0	.06								
						11	08	92					3.0		0	.05								
				÷	1.000								1.							4		135		
	۰.	÷ 1				11	08	93					<2.0	1	0	.1	1					6 P.	8.14	
			1.0			11	08	94		÷			2.0		0	.05		1.1		60 B			1.02	
						11	08	95					<2.0		0	.08							(*)	
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												14				5								
																		16						

FOOTNOTES: P=QUESTIONABLE PRECISION; *=INTERFERENCE; TR=TRACE; ND=NOT DETECTED; IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE ADVANCED TECHNIQUES AND INSTRUMENTATION FOR THE EARTH SCIENCES

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*** FINAL REPORT ***

GEOCHEMICAL LABORATORY REPORT

		AU	AG
AMPLI	ENUMBER	PPB	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
SI	GNED:	colad	
51	C. Dou	iglas Read,	

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BARRINGER MAGENTA Laboratories (Alberta) Ltd.

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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 inquart 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

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