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Assessment Report

for the

#### DARDENELLES CLAIM GROUP

FORT STEELE MINING DIVISION

NTS: 82G/12E Latitude 49° 43'N, Longitude 115° 32'W UTM Zone 11; Northing 5506640, Easting 6055514

## GEOLOGICAL BRANCH ASSESSMENT REPORT

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bу

T. Termuende P.Geo. of Toklat Resources Inc. 2720-17th St. S. Cranbrook, BC V1C-4H4

Submitted: March 31, 1993

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#### SUMMARY

The Wildhorse 1 and Wildhorse 2 mineral claims were located on August 26th, 1992 to cover ground made available to staking as a result of a Government Crown Grant Release. The claims were originally surveyed in 1898, and were named Dardenelles and Motherlode, title numbers L10329 and L10330, respectively. The Wildhorse 1 and Wildhorse 2 claims were grouped under the name Dardenelles.

The claims cover a high-grade gold occurrence associated with silver and base-metals, hosted by a multi-phase fault-related quartz vein system hosted within phyllitic sediments of the Precambrian Creston Formation.

The property has seen past-production in the late 1800s and early 1900s, with the most recent development carried out in 1975, consisting of the open-pit mining of 95 tons of ore which was shipped to the Cominco smelter in Trail. This shipment averaged .463 oz/ton Au and 88.02% SiO2. Two inclined development tunnels are present on the property, and are at this time inaccessible.

The focus of the \$3,000, 1992 program was to carry out a systematic review of all existing documentation, ground-check drillhole and tunnel locations, and to complete limited geological sampling of selected exposures.

Information on the property is abundant, located within 1898-1925 B.C. Ministry of Mines reports, G.S.C. Memoirs, and publicly available assessment reports.

#### **INTRODUCTION**

#### LOCATION, ACCESS, CLIMATE, AND PHYSIOGRAPHY

Wildhorse 2 Two-Post mineral claims Wildhorse 1 and The (Dardenelles Group) were acquired by the author on August 26th. 1993 to cover ground which became open to staking as a result of a Government Crown Grant Release. The original claims were located in 1898, and contain two inclined tunnels and a number of trenches driven into a gold, silver, and lead-bearing quartz vein structure hosted by Proterozoic-aged metasediments. The crown grants were previously known as the Dardenelles (#L10329) and Motherlode (#L10330).

The claims are situated on the northwesterly slopes of Vertical Mountain at an elevation of approximately 1950m. They are located 40 km north of Cranbrook, BC, at latitude 49° 43'N, longitude 115° 32'W, and drain into the Wildhorse River, an historic placer gold producing valley (see Location Maps, figures 1,2). Access to the property is provided through a network of well-maintained forest service roads and drill-access tote-roads. Plans are currently in place to upgrade forest service haul-roads to within property boundaries (J. Gnucci-personal communication).

The property is covered by a moderate overgrowth of mature spruce and fir, with bedrock well exposed throughout the property area in natural exposures and drill access cut banks.

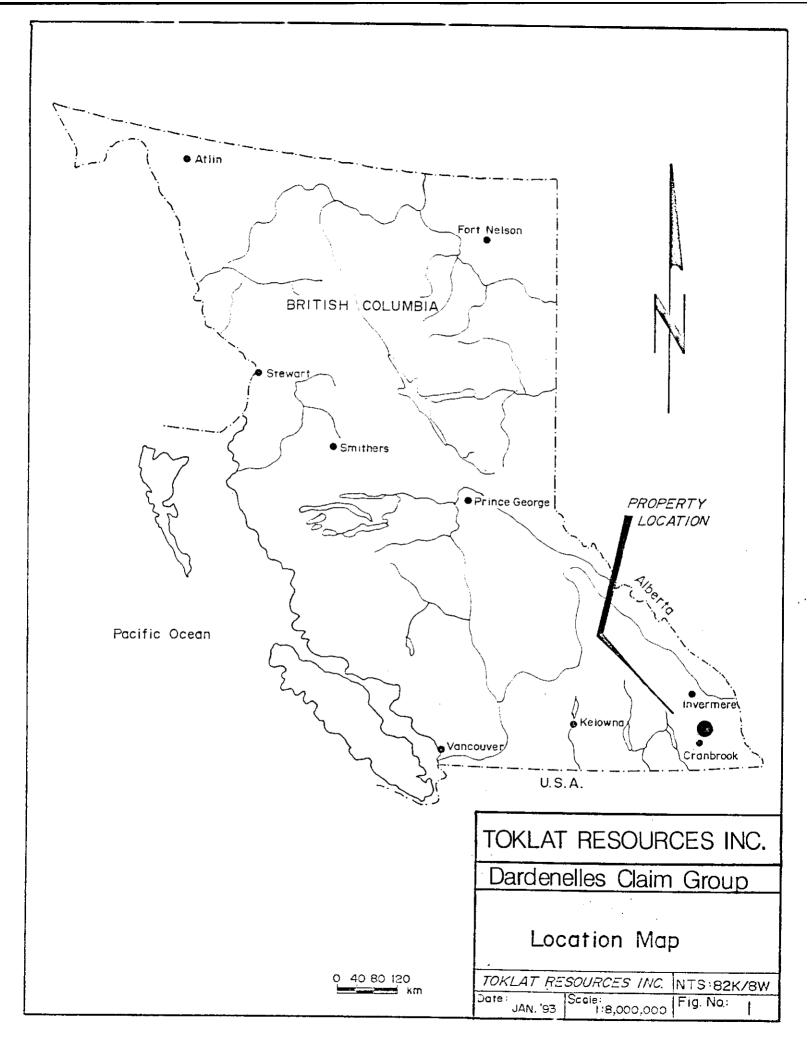
The property is in an area of low to moderate precipitation, and is free of snow cover from late May to early November. Water for drilling operations is available from Shepherd Gulch Creek to the south, and an un-named creek immediately to the north of the claim area.

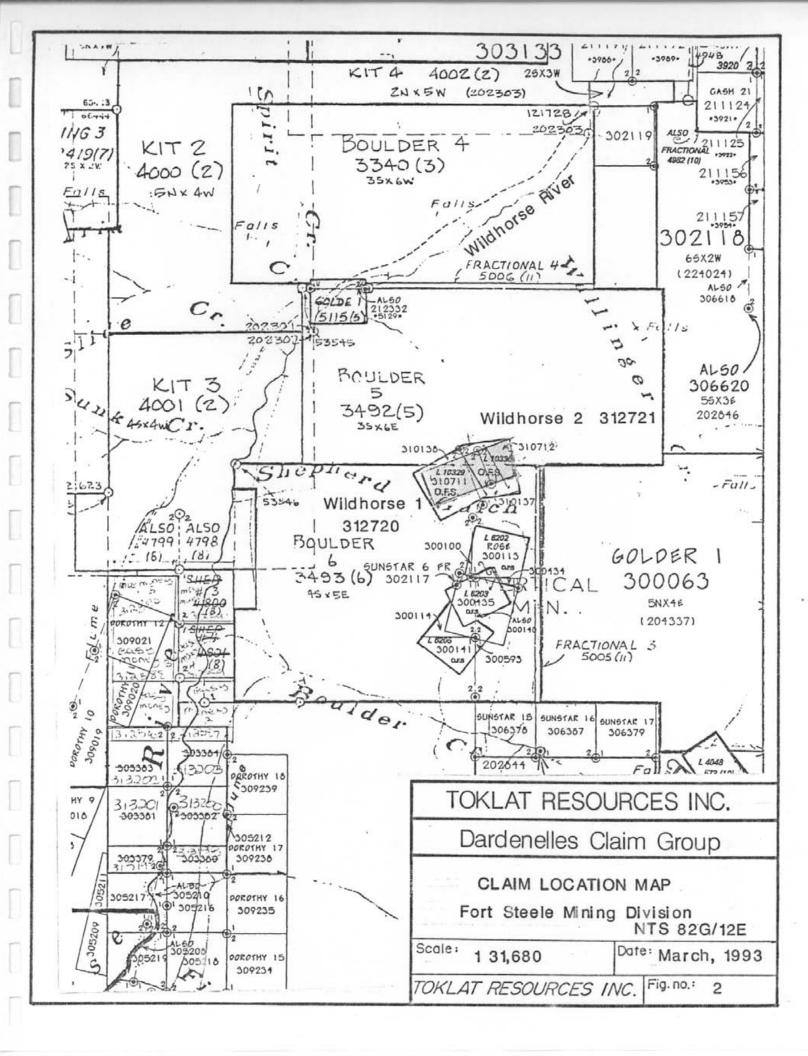
#### TITLE

The Dardenelles Group consists of 2 two-post claims, recorded in August, 1992 (see Claim Location Map, figure 2). A proper survey is required before absolute dimensions of the property are known, but present workings and mineralized vein exposures are well within the boundaries of the Wildhorse 2 claim. Table 1, below, summarizes claim tenure. Claim records may be viewed in the back of this report; Appendix III.

<u>Claim Name</u>	Type	<u>Record #</u>	<u>Units</u>	Recording Date	<u>Expiry Date</u> *
Wildhorse 1	2P	$312720 \\ 312721$	1	26/08/92	26/08/99
Wildhorse 2	2P		1	26/08/92	26/08/99

#### Table 1- Claim Tenure, Dardenelle Group





#### HISTORY

#### Regional

The East Kootenay area has long been known as a mineral resourcerich area, with numerous mineral showings documented over the years. The turn of the century discovery of Cominco's world-class Sullivan deposit near the present city of Kimberley, put the area into focus with mineral explorationists world-wide. The Sullivan massive sulphide ore body hosted 180,000,000 tons of ore averaging 6.5% zinc, 6.4% lead and 1.90 oz/t silver, with a mineable lifetime of over 80 years, and a contained metal value in present dollars estimated to be in excess of 25 billion dollars. (Over 10 years of mineable reserves still exist within the deposit).

Numerous other past-producers in the area reflect the excellent mineralogic potential of the region. These include:

- 1) St. Eugene Mine (1899-1929) 1.63 million tons grading approximately 8% lead, 1% zinc, 4.4 oz/t silver
- 2) Estella Mine (1951-1967) 120,000 tons grading 4.8% lead, 9.0% zinc, 6.4 oz/t silver
- 3) Kootenay King Mine (1952-1953) 14,616 tons grading 5.3% lead, 15.1% zinc, 1.94 oz/t silver.

The area is also well known for the presence of once-rich placer gold deposits, though no economic hard-rock concentrations have yet been located. The Wildhorse River saw frenzied placer mining activity beginning in 1864, with over 1,500,000 ounces of gold extracted from its gravels. Placer mining operations are still in place along the river.

#### Local (Property)

Mineralization in the property area was first located in 1892, when prospectors discovered gold bearing quartz material in the Shepherds Gulch area. In 1896 an arrastra was built on Victoria Creek to crush ore from the Dardenelles vein system. Miners dragged ore from initial mining operations in raw-hide bundles down the steep trail to the valley bottom, only to find that metallurgical problems existed in recovering the gold. During this short mining operation, two inclined tunnels were driven on the vein, one 67m long, the other, 30m long. A long period of relative quiescence followed on the claims.

"In 1975, a bulk sample from the Dardenelles quartz veins totalling 95.93 tons was shipped to the Cominco smelter at Trail. Smelter sheets averaged .463 oz/t gold, 1.807 oz/t silver, minor lead-zinc, copper, iron, and traces of antimony, arsenic, and bismuth. The quartz ore ran 88.02% SiO2, qualifying it as a quartz flux ore. The total sample consisted of 3 lots, varying from .214 to .810 oz/t gold" (Groves, 1987). In 1986, a \$105,000, 10-hole (1223.4 ft.) drilling and surface sampling program was carried out by Justice Mining Corp. This work concluded that the vein system was variable in width and grade at depth, and significantly; that traces of vein mineralization were evident in previously untested areas. In the course of drilling, all holes were surveyed (many markers which were recoverable in 1992), providing a controlled framework for further work (see Figure 5, in pocket).

Geological mapping carried out during this program appears to be very well done, and eliminates the need for repeated surface mapping at this time. The report for this work, authored by W.D. Groves, P.Eng., provides an excellent comprehensive database for the property area.

#### GEOLOGY

#### Regional Geology (see Figure 3, following)

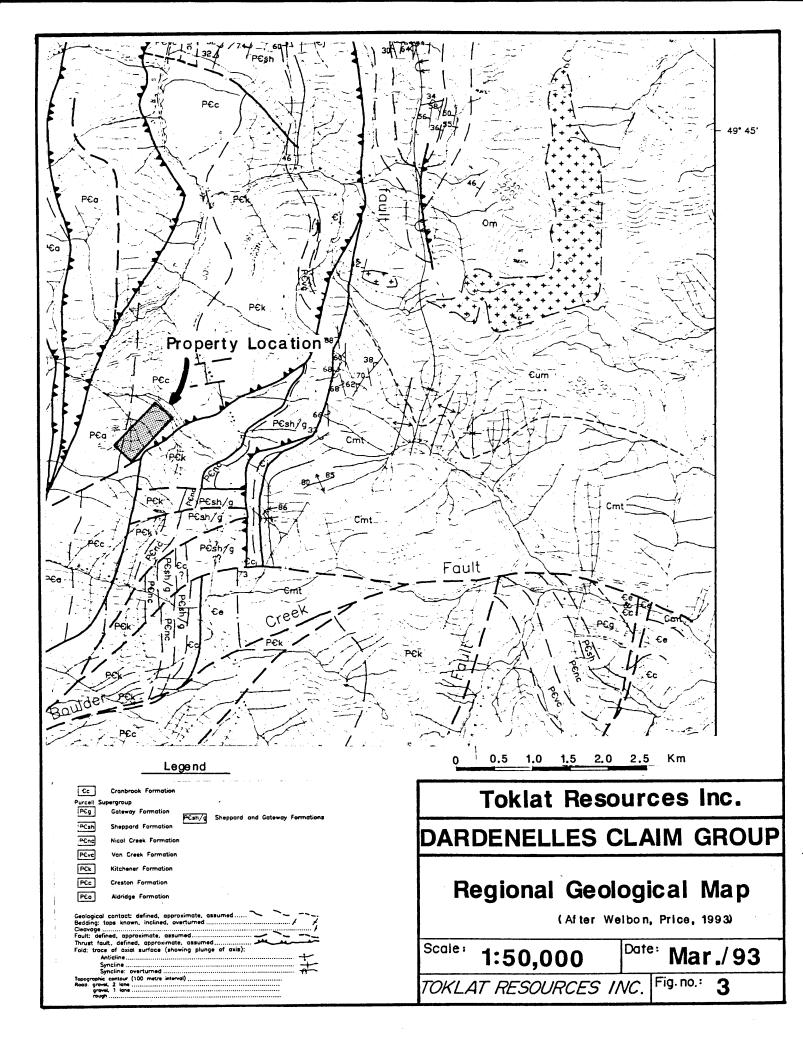
Regionally the area is underlain by rocks of the Purcell Supergroup on the western flank of the Purcell Anticlinorium, a broad, northplunging arch-like structure in Helikian and Hadrynian aged rocks. The oldest rocks exposed in the area are greenish, rusty weathering thin bedded siltites and quartzites of the Lower Aldridge Formation. Overlying the Lower Aldridge is a continuous section of Middle Aldridge quartz wackes, subwackes and argillites some 3000+ Within the Middle Aldridge formation, fourteen varved m thick. marker horizons can be correlated over hundreds of kilometres. These represent the only accurate stratigraphic control. A number of aerially extensive diorite sills are present within the Lower and Middle Aldridge Formations. The Middle Aldridge is overlain conformably by the Upper Aldridge, 300 to 400 meters of thin, fissile, rusty weathering siltite/argillite.

Conformably overlying the Aldridge Formation is the Creston Formation, the dominant stratigraphy overlain by the Dardenelles Group claims. This formation is comprised of approximately 1800 meters of grey, green and maroon, cross-bedded and ripple marked platformal quartzites and mudstones. The Kitchener-Siyeh Formation includes 1200 to 1600 meters of grey-green and buff coloured dolomitic mudstone and similar shallow water sediments overlying the Creston Formation.

Despite the relative abundance of placer gold in the area, no economic lode gold occurrences have been located to date. In the Wildhorse River area, a number of gold showings have been reported. These include the Ford Vein, Fisher, Big Chief, Midas, Guggenheim, Bird-dog, and Tit for Tat occurrences (B.C. Minfile Reports, MMPR Assessment Reports). Each of these showings, though individually unlikely to be responsible for the rich placers of the Wildhorse, may be part of a larger mineralized system present in the area.

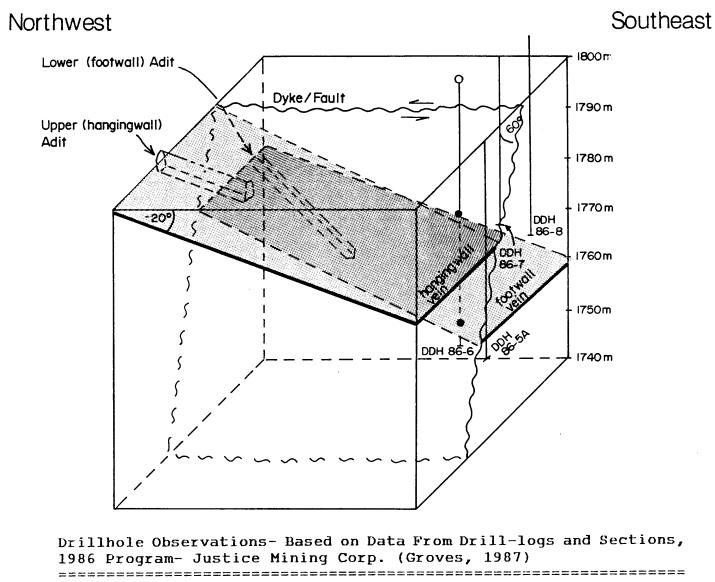
#### **Property Geology**

The host rock to the vein structure consists of green, purple and white argillaceous quartzites of the Proterozoic Creston Formation. Stratigraphy within the property area strikes 150°-190° Az, dipping 40°-60° to the west. The quartz vein has a northeasterly strike, and dips 12°-30° southeasterly into the mountain, cross-cutting Vein material consists of creamy-white, weakly stratigraphy. fractured quartz material with galena, argentite and minor copper sulphides occurring as irregularly shaped clusters and stringers. The vein appears to represent two separate phases of emplacement. The first, a barren, bull quartz vein 0.9-1.1m wide, forms both a hangingwall and a footwall host to a high-grade, 0.2-0.3m wide, gold-mineralized band. Both phases carry gold values, but the narrower core band is by far the more richly mineralized of the two. Earlier reports reference visible free gold within the vein, though none was observed during 1992 property work.



Earlier workers report two or more separate structures exposed in tunnels and trenches, but inspection of surface workings and drillhole logs leads one to interpret that the vein is offset and duplicated by a horizontal fault in the two adit areas. This is evidenced by a number of geologic features, including pronounced horizontal slickensides seen to intersect the vein in the Lower Adit exposure and the remarkable similarity in vein appearance, grade, and width at both the Upper Adit and Lower Adit exposures (see Figure 4, following, and Figure 5, in pocket). With this interpretation in mind, the 1987 drill program carried out by Justice Mining is inconclusive with respect to vein continuity to the north, and at depth.

The vein is thought to represent the northern extension of the Tit for Tat quartz vein system, located some 800m to the south. Here the vein width varies up to one meter, but is more consistently 25-50 cm wide. The Tit for Tat structure can be traced over 140m, and exhibits strong structural features with minor pinching. The vein is thought to be faulted off in the southerly direction. Four inclined shafts follow the structure into the mountainside. Ground conditions of the shafts are excellent, and the shallow depth of each allows adequate ventilation. The shafts are spaced at roughly 30m intervals, and are 10-15m long. Three blast trenches are also present along the trace of the vein. High grade gold values are commonly recovered from this structure as well, with grab samples to 2.38oz/t reported from 1991 work carried out by SCC Resources (Termuende, 1992).



DDH	86-5A:	Hole	intersects	both	Hangingwall	and	Footwall	Veins,
		also	Dyke/Fault.	•				

DDH 86-6: Hole intersects Dyke/Fault and Footwall Vein, missing Hangingwall Vein.

- DDH 86-7: Hole drilled just to Dyke/Fault, does not pass through to footwall.
- DDH 86-8: Collared in footwall; does not intersect Dyke/Fault, does not extend deep enough to intersect Footwall Vein.

TOKLAT RESOURCES INC.							
Dardenelles Claim Group							
Geological Interpretation Sketch							
(Based on 1986 Drilling)							
Scale: 1:800 (approx) Date: March, 1993							
TOKLAT RESOURCES INC. Fig. no.: 4							

#### 1992 PROGRAM

The focus of the \$3,000 1992, program was to carry out a detailed examination of existing information relating to the property, complete a reconnaissance of the property area and its access, and undertake a cursory geological investigation and sampling program in specific areas of interest. A total of eight rock samples were collected, with representative material taken from both the Upper Adit and Lower Adit areas. Samples were shipped to Eco-Tech Labs at Kamloops, BC, and to Loring Labs at Calgary, AB, where Au geochemistry and 30 element ICP analyses were completed. Samples which returned high grade geochemical values were subsequently fire assayed.

#### DISCUSSION OF RESULTS

Results of the 1992 program were extremely encouraging. Workings were located with ease, as were all 1986 drillhole locations. Of the eight samples taken of vein material, all returned anomalous gold values, a number of which were high-grade. Values ranged from 0.027 oz/t Au to 0.801 oz/t Au. At the Upper Adit location, the vein structure averaged 0.149 oz/t Au over 1.35m, while at the Lower Adit location, assay values averaging 0.208 oz/t Au over 1.10m were recovered. Geological observations of slickenside fault scarps in t he Lower Adit exposure add substance to the interpretation that the Upper and Lower Adit vein occurrences are one and the same structure (see Figure 4, following, and Analytical Results, Appendix II).

A study of ore microscopy, carried out by J.A. Chamberlain (1992) and Associates on vein material from the Tit for Tat claims revealed that "sulphide emplacement was controlled by faults cutting the sedimentary sequence. These acted as conduits for fluid transmission and deposition of quartz-sulphide materials".

#### CONCLUSION and RECOMMENDATIONS

The **Dardenelles** claims contain a significant gold bearing structure which has to this point, seen only a minimum of exploration work. Sampling carried out during the 1992 program confirms the highgrade nature of vein mineralization.

With a new geological interpretation of the structural features of the vein in mind, there is a significant potential for vein continuity in size and grade to the north and down-dip. In fact, a soil geochemical profile study carried out in 1986 suggests that a mineralized structure does exist to the northeast of the Lower Adit, where stratum-contours indicate the surface trace to outcrop.

The high-grade nature of vein mineralization is such that a small mining operation may exist profitably, providing enough ore-grade material could be defined to the northeast. The likelihood that a haul grade road will be built in 1993 by a local logging company (Crestbrook Forest Industries), only adds to the economic feasibility of the deposit.

A 1000-1500 foot diamond-drilling program is recommended in order to test for vein continuity to the north and down-dip. The possibility of extending or re-drilling holes 1986-7 and 1986-8 should be investigated, as it appears that they were not drilled to sufficient depth to test whether a fault duplication of the vein structure exists. Soil geochemical sampling and a VLF-EM geophysical survey at 10m station intervals should be carried out prior to drilling in order to better define collar locations.

It is suggested that this work be suspended, however, pending construction of the Wallinger logging haul road to the property area, as this would greatly reduce costs, and may possibly result in further exposure of the main structure (or others). A budget proposal for the above work is as follows:

#### PROPOSED BUDGET-DARDENELLES PROGRAM

Personnel	
Geologist/Supervisor: 20 days x \$350.00/day	\$ 7,000.00
Assistant: 20 days x \$225.00/day	4,500.00
Equipment Rental	
4WD Vehicle: 20 days x \$50.00/day	1,000.00
Mileage:	320.00
EM-16 Rental: 5 days x \$50.00/day	250.00
Miscellaneous	500.00

#### Diamond Drilling

1000 ft	х	\$30/ft	(all-in)	30,000.00
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-Continued-

Anal	ytical						
	Core:	100	samp	les	х	\$25/sample	2,500.00
	Soil:	300	samp	les	х	\$20/sample	6,000.00
Food	and Ac \$60/ma				la y	/s	4,800.00
Repoi	rt and	Repi	oduc				3,000.00
						Sub-Total: S	\$ 59,070.00
						10% Contingency:	5,907.00

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Grand Total: \$ 64,977.00

#### REFERENCES

Barlee, N.L. (1976): Guide to Gold Panning in B.C.

- Canadian Institute of Mining (1957): Structural Geology of Canadian Ore Deposits (Volume II), from 6th Commonwealth Mining and Metallurgical Congress, Canada, 1957.
- Grove, W.D. (1987): Assessment Report, Diamond Drilling, Surface Geological and Geochemical Work-Dardenelle and Motherlode Claims. B.C. MMPR A.R. #16,327.
- Hoy, T. and Carter, G. (1988): Geology of the Fernie W1/2 Map Sheet (and Part of Nelson E1/2), Open File Map No. 1988-14
- Kregosky, R. (1982): Prospecting Report on the Tit For Tat Claim Group (BCDM A.R.#10,732)
- McMillan, W.J. et al (1991): Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera. BCMMPR Paper #1991-4.
- Report of the Minister of Mines, British Columbia, 1934, p29

Rice, H.M.A.(1937): G.S.C. Memoir #207; p47

Schofield, S.J. : G.S.C. Memoir #76, pp147-152

- Termuende, T.J. (1992): Assessment Report for the Tit for Tat Mineral Claims, Fort Steele Mining Division, unreleased MMPR Assessment Report.
- Welbon, A.I. and Price, R.A. (1993): Geology of the Wildhorse River-Lussier River Area, S.E. British Columbia, BCMMPR Geological Survey Branch Open File 1993-7.

#### CERTIFICATE OF QUALIFICATION

I Timothy J. Termuende, of 2720 - 17th St. S., Cranbrook, British Columbia hereby certify that:

- 1) I am a consulting geologist with Toklat Resources Inc. of Cranbrook, British Columbia,
- 2) I am a member in good standing of the Association of Professional Engineers, Geoscientists and Geophysicists of British Columbia (#19201)
- I am a graduate of the University of British Columbia at Vancouver, BC, having received a B.Sc. in Geological Sciences in 1987,
- 4) I have practised my profession continuously since 1987, and have had 15 years of geological fieldwork experience.
- 5) This report is based on data existing in Provincial government archives, and on field data obtained from the property on two separate visits.

Dated at Cranbrook, this 31st day of March, 1993.

Termuende,

### APPENDIX I

### Statement of Expenditures

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### STATEMENT OF EXPENDITURES

The following expenses were incurred on the **DARDENELLES Claim Group** as defined in this report for the purposes of mineral exploration on August 26th, and December 5th, 1992.

PERSONNEL			
T. Termuende, P.Geo	•	2.0 days x \$300.00 \$	600.00
R. Termuende, P.Geo		1.0 day x 450.00	450.00
C. Downie, B.Sc.(Ge		1.0 day x 300.00	300.00
EQUIPMENT RENTAL			
4WD Vehicle:	2.0 days x 50	0.00/day	100.00
Mileage:	160km x \$.20	0/km	32.00
Snowmobile:	1.0 day x \$'	75.00/day	75.00
ANAL YT I CAL			
	•••••	• • • • • • • • • • • • • • • • • • • •	211.59
MI SCELLANEOUS			
			34.30
Field Supplies: 4.	0 man-days x S	\$20.00/day	80.00
			20.00
Shipping			22.79
Miscellaneous	•••••	• • • • • • • • • • • • • • • • • • • •	59.03
DRAFTING AND REPORT REP			
		/day	600.00
		5.00/hour	200.00
			50.00
Reproduction	• • • • • • • • • • • • •		150.00
			2984.71
		7% G.S.T. :	208.93
		TOTAL : \$	3,193.64

### APPENDIX 11

### Analytical Results

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ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy. Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

DECEMBER 17, 1992

CERTIFICATE OF ASSAY ETK 92-645

TOKLAT RESOURCES INC. 2720-17th STREET S. CRANBROOK, B.C. V1C 4H4

ATTENTION: T. TERMUENDE

SAMPLE IDENTIFICATION: 8 ROCK samples received DECEMBER 7, 1992 ----- PROJECT: WILDHORSE

ET# ======	Description	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)	Pb (%)
1-	DVA 92 - 1	19.76	.576	247.8	 7.23	30.60
2-	DVA 92 - 2	1.91	.056	9.7	.28	.67
3-	DVA 92 - 3	20.25	.591	72.3	2.11	14.08
4 -	DVA 92 - 4	.94	.027	13.8	.40	.65
5-	DLA 92 - 1	.97	.028	1.9	.06	.07
6-	DLA 92 - 2	27.48	.801	187.3	5.46	41.60
7 -	DLA 92 - 3	8.33	.243	7.7	.23	1.40
8 -	DLA 92 - 4	42.55	1.241	291.4	8.50	66.80

ECO-TECH LABORATORIES LTD. FRANK J. PEZZOTTI, A.Sc.T. B.C. Certified Assayer

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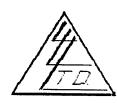
SC92/kmisc2

To: TOKLAT RESOURCES INC.,

<u>SS1, Site 7-95,</u>

<u>272. - 17th Street S.,</u>

Cranbrook, B.C. V1C 4H4



File No. <u>35392</u> Date <u>September 21, 1992</u> Samples <u>Rock Chip</u>

ATTN: Bob Termuende

# Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.

OZ./TON GOLD

OZ./TON SILVER

"Assay Analysis"

# 1Rock

0.337

33.62

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month. Fulps retained one month unless specific arrangements are made in advance.

