BC Geological Survey Assessment Report 31742

## Assessment Report

## 2010 Magnetic Survey; Silver Streak Project

#### **Omineca Mining Division**

#### NTS 93L/2

Latitude 54 deg 11 min North; Longitude 126 deg 45 min West

### For: Cadillac Mining Corporation

By: Andre J. Audet P.Eng Courtenay, BC

May 31, 2010

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#### Summary Summary

The Silver Streak project is located approximately 25 kilometers southwest of Houston British Columbia, within the Omineca Mining Division. It consists of 55 claim cells covering 1040 hectares. The project focuses on a silver showing discovered as a result of road construction in 1989. The property has been worked intermittently over the past decades, with virtually all efforts directed at tracing and extending the initial showing.

In 2007, Cadillac Mining Corp acquired the claim group by option and drilled three core holes in an attempt to identify controlling structures on strike to the south and at depth below earlier drilling and trenching. No mineralization of consequence was seem in that drilling.

In the late winter of 2010, Cadillac completed a small detailed ground-based magnetic survey to cover a perched swampy area that covers a two km square area located at what was then the southern margin of the claim group. Results of the survey reveal two strong positive linear magnetic anomalies that had not been anticipated. These are flanked by a broad area of elevated magnetic response that is not readily explained.

It is recommended that Cadillac conduct a pilot soil geochemical survey over parts of the anomaly in anticipation that mineralization may be associated with the speculated intrusive source of these magnetic anomalies.

#### INTRODUCTION

Cadillac Mining completed a ground magnetic survey consisting of 42 line km and covering 2 square Kilometers. Work was conducted between March 5<sup>th</sup> and March 14<sup>th</sup>, 2010 from the frozen and snow covered surface of a roughly rectangular east trending marsh covered region at the southern extremity of the claim group. The program was conducted to test the magnetic expression of lithology concealed beneath several tens of meters of overburden and was execute by Meridian Mapping Ltd. of Nanaimo, British Columbia.

#### LOCATION AND ACCESS

The Silver Streak property is located approximately 25km SW of Houston, B.C.; in North-central British Columbia. (Figure 1). The property is accessible via the Morice River road off Highway 16, 4 km west of Houston, then, at about 26.5km, south for 6km along the Carrier logging road.

#### TOPOGRAPHY, CLIMATE AND VEGETATION

Topography is gently rolling generally with meandering streams numerous small lakes and localized swamps at about 2500m with occasional hills and ridges reaching 3000m and greater. Climate is moderate with warm generally dry summers with cold winter Vegetation in the area has was completely burned over in 1983 and is partially regenerated with juvenile conifers.

#### TENURE

The property is held under option from a group of prospectors as shown in the table below. A map of claims showing boundaries and location is presented in Figure 2

Claim Name	Tenure # Area (hec)		Good to	Number of Cells
BIRD	566533	37.8	Nov 1 2014	2
Z00	566788	37.8	Nov 1 2014	2
HAT	564827	75.6	Nov 1 2014	4
CARRIER 1	533152	113.5	Nov 1 2014	6
BUG	566465	56.7	Nov 1 2014	3
TEA	566521	37.8	Nov 1 2014	2
START	538876	113.5	Nov 1 2014	6
SHARP	538877	37.8	Nov 1 2014	2
SILVER STREAK	532613	94.5	Nov 1 2014	5
SILVER LODE	615143	18.92	Nov 1 2014	1
	740342	340.64	Nov 1 2014	18
WESTLAKE	713302	75.68	Nov 1 2014	4
	BIRD ZOO HAT CARRIER 1 BUG TEA START START SHARP SILVER STREAK SILVER LODE	BIRD       566533         ZOO       566788         HAT       564827         CARRIER 1       533152         BUG       566465         TEA       566521         START       538876         SHARP       538877         SILVER       532613         SILVER LODE       615143         Y40342       540342	BIRD         566533         37.8           ZOO         566788         37.8           HAT         564827         75.6           CARRIER 1         533152         113.5           BUG         566465         56.7           TEA         566521         37.8           START         538876         113.5           SILVER         532613         94.5           SILVER LODE         615143         18.92           740342         340.64         4000000000000000000000000000000000000	BIRD         566533         37.8         Nov 1 2014           ZOO         566788         37.8         Nov 1 2014           HAT         564827         75.6         Nov 1 2014           CARRIER 1         533152         113.5         Nov 1 2014           BUG         566465         56.7         Nov 1 2014           TEA         566521         37.8         Nov 1 2014           START         538876         113.5         Nov 1 2014           SHARP         532613         94.5         Nov 1 2014           SILVER         532613         18.92         Nov 1 2014           SILVER LODE         615143         18.92         Nov 1 2014

#### Table 1 Claims and Ownership

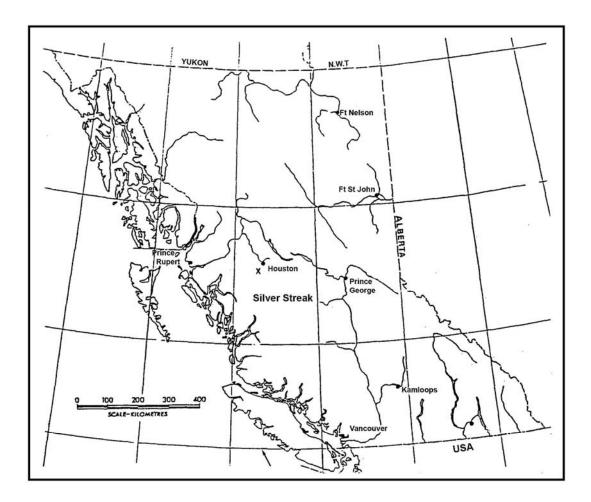


Figure 1

# Silver Streak Project

# **British Columbia Canada**

#### HISTORICAL EXPLORATION WORK

The Silver Streak prospect was initially staked in 1989 following the discovery of significant silver and copper mineralization while constructing the Carrier logging road. Exploration by Equity Silver from 1990 to 1992 consisted of local trenching, a small IP survey and several short diamond drill holes. Little of the work was recorded and the information available to the writer is sketchy. In 2002 Tenajon Resource completed at least one trench but do not appear to have conducted diamond drilling.

In December of 2007, Cadillac drilled four core holes with a combined length of 549.2m to test known mineralization down-dip and along strike. This work did not encounter economic mineralization but did find evidence that weak structures controlling mineralization trend roughly North-South.

#### GEOLOGY

The area is underlain by a succession of volcanic and sedimentary rocks ranging in age from lower Jurassic to upper Cretaceous. Andesitic to rhyolitic volcanics of the Hazelton and Kasalka Groups are dominant. Intrusive units consist of Late Cretaceous granodioritic and quartz-monzonitic stocks and minor dykes or sills related to volcanism.

Hazelton volcani-clastics composed of hematitic tuffs and ash of mainly andesitic composition underlie and host known mineralization on the prospect. Details of stratigraphy and structure are obscured by moderately deep till cover within a broad east-west trending fault controlled valley and by tabular sub-horizontal geometry of the strata. There are indications that crossfaulting and possibly local intrusive activity influenced mineralizing events.

### **PROGRAM OBJECTIVES AND EXECUTION**

The southern section of the property, bounded on the north by the Carrier logging road and to the south by the then existing property boundary, is a perched marsh-land with no outcropping geological features. The subject survey was designed to test for the presence of anomalous magnetic patterns by taking continuous readings along closely-spaced east-west oriented lines in order to maximize resolution across anticipated N-S trending features (Figure 3).

This work was conducted within a rectangular block measuring approximately 1.0 by 2.0 kms, oriented at 105 deg Azimuth, as shown in figures 4. Lines were run E-W at 50m spacing as shown in Figure 4. Data was collected using two continuous reading magnetometers in conjunction with a base station unit used to correct diurnal variations. Position was determined by GPS with 'real-time' determination capabilities. Approximately 42 line kilometers of readings were completed, exclusive of tie-lines.

## STATEMENT OF COSTS

Costs incurred in completing this program amount to \$18,325.38 net of GST, as detailed in Appendix 3.

#### **RESULTS AND DISCUSSION**

The survey area lies on the southern flank of a large moderately strong magnetic high measuring about 7kms in diameter. The region shows a complex pattern of very strong magnetic positive magnetic elements linked by sub-linear second-order patterns and separated by parallel weak to negative regions. Overall, patterns form a mosaic of rectangular domains organized in random directions. Within the survey limits outlined in

Figure 4, the low-definition data recently generated by Geo-Science BC shows no disruption of a smooth gradient sloping to the south-southwest.

The subject survey shows well defined anomalous magnetic features that had not previously been recognized and that are not explained by corresponding geological maps. Most dominant are two well defined south-southeast trending dyke-like features displaying strong positive magnetic contrast. These appear to broaden and partially coalesce in the central grid area. Secondary features labeled 'West and East' zones show a similar magnetic intensity and also show a partial geometric relationship with the prominent 'dykes'. High magnetic values seen at the north edge of the grid correspond with sub-cropping volcanic units that terminate more-or-less abruptly along a possible buried scar marking the north edge of marshy ground. The bulk of this study area is underlain by relatively deep glacially transported tills (15 or more metres) that mutes any high-frequency basement signal. Interestingly, there is a moderately well defined west-northwest component that corresponds to the general trend of the valley but which does not correspond with any know geological feature.

Both dyke-like features are marked by strong and symmetrical axial cores that probably correspond with steeply dipping dyke-like intrusives of substantial width extending to bedrock surface surface. The broad zone of elevated magnetic response extending laterally may reflect the presence of a much larger intrusive at depth and/or to skarn mineralization related to intrusive bodies.

A strong north-south fabric showing a cyclic 30m ripple pattern is thought to be an artifact of gridding algorithms used in generating contours from closely-space readings. While this is probably the case, some of the trends show continuity over three or more survey lines and 'may' reflect signal from steeply dipping strata at depth.

It is noteworthy that the above anomalies were not tested by trenching or drilling conducted by Cadillac and earlier workers.

#### CONCLUSIONS

-Two strongly anomalous south-southwest trending linear magnetic features extending onto the target area from the unsurveyed area to the north are consistent those expected from vertically dipping igneous dykes measuring 20 or more meters in width.

-A broad magnetically anomalous envelope extending over approximately 900m could be skarn related to such igneous activity, or may reflect the presence of a larger deeply buried intrusive.

-West trending magnetic lineaments suggest that this gently sloping valley could occupy a distinctly fault-bounded sub-domain differing significantly from well exposed terrains to the north.

#### RECOMMENDATIONS

Given that the area showing anomalous magnetic response is completely concealed by glacial drift, that the overall area is large enough to be of economic significance if found

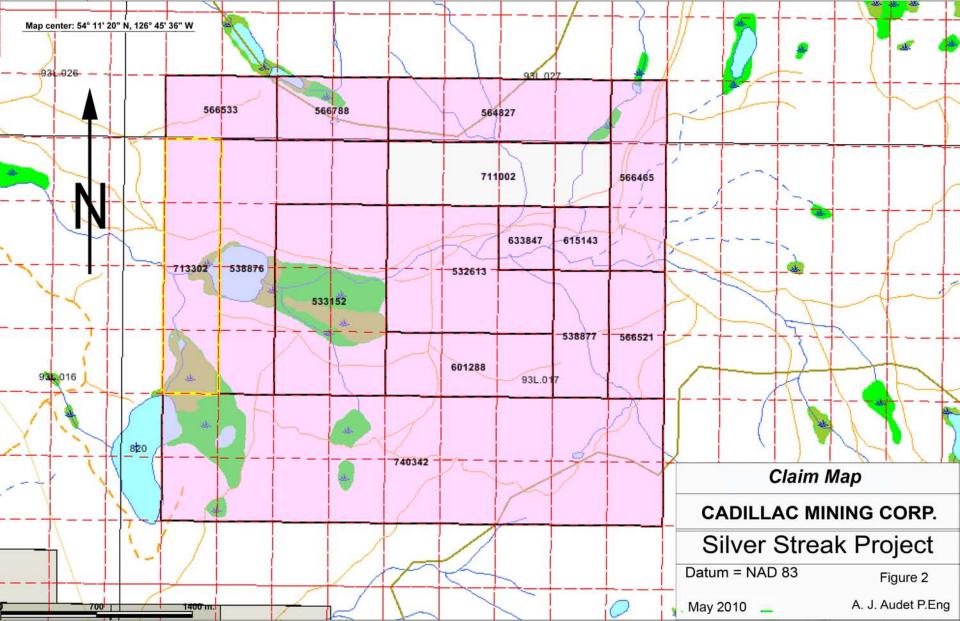
to be mineralized and because the defined targets were not tested by earlier work, it is recommended that:

-Cadillac conduct an orientation soil geochemical survey over selected targets when flood-waters have receded sufficiently.

-and, if results of this work prove encouraging, conduct a grid-wide soil survey covering all of the magnetic survey area.

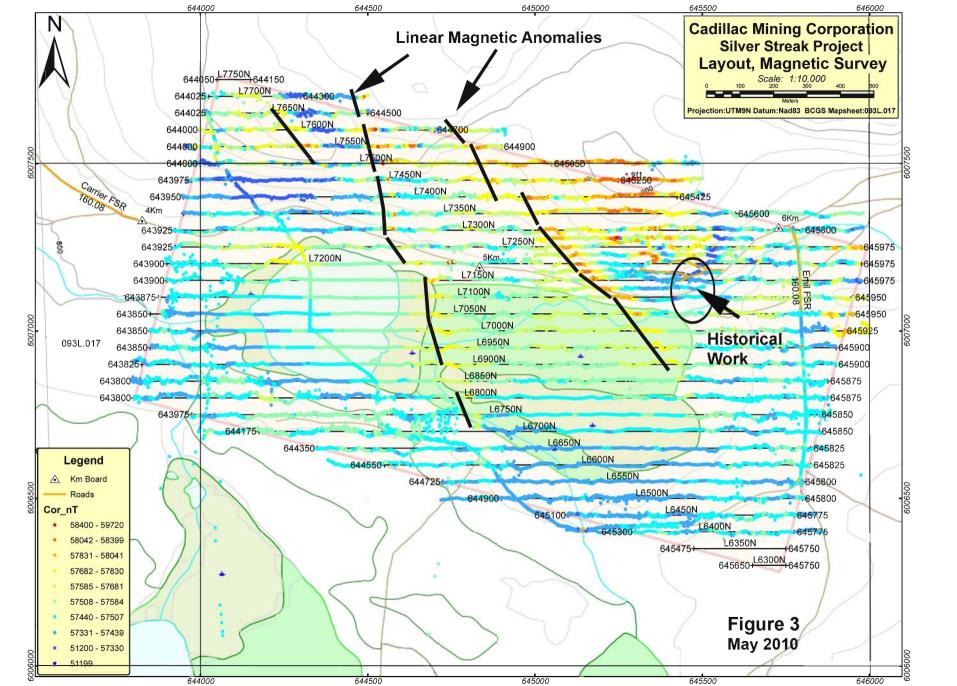
# Appendix 1

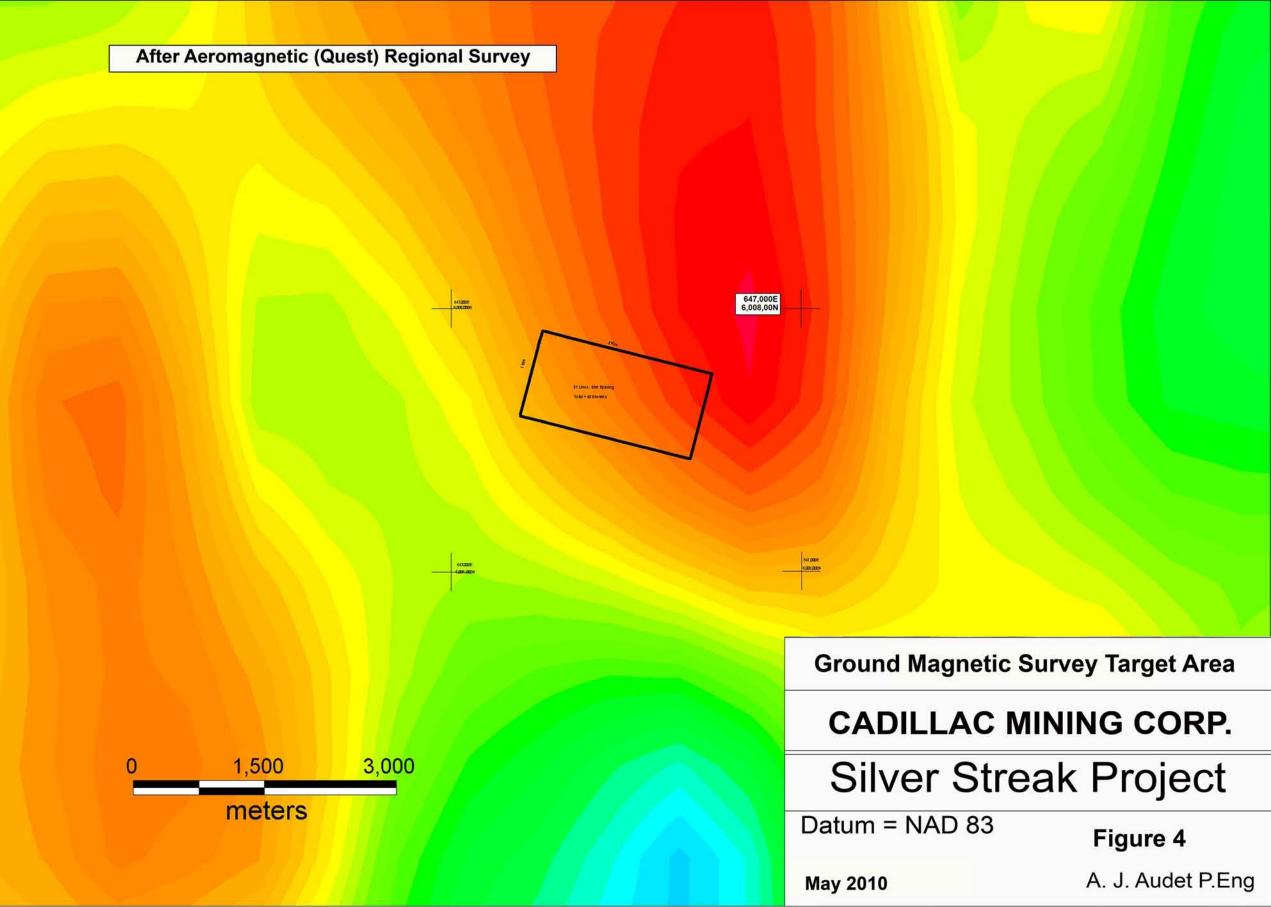
Claims Map

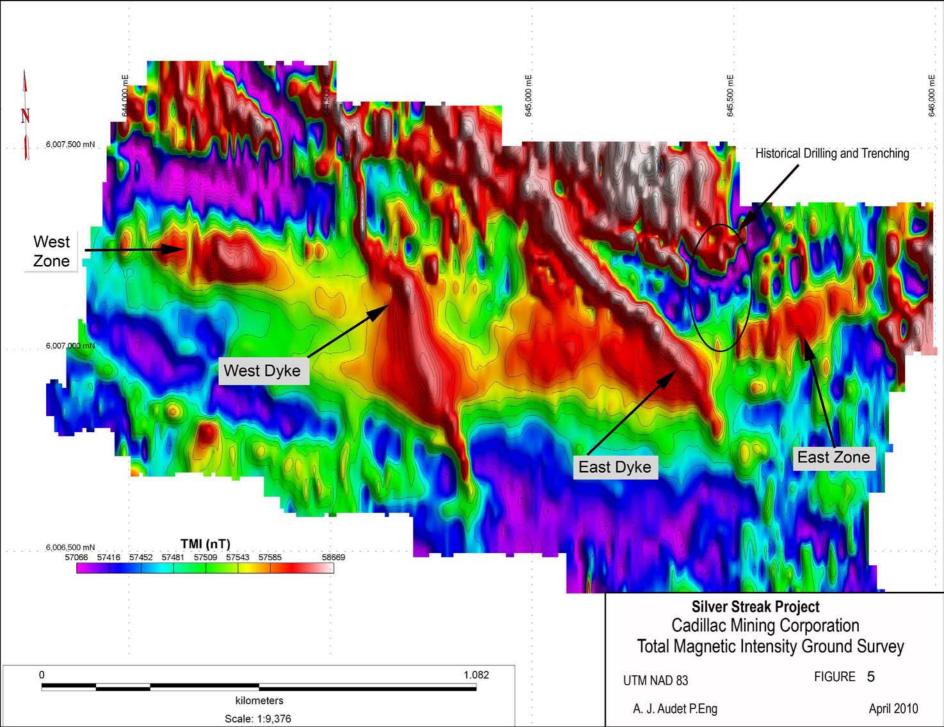


# Appendix 2

Figures 2, 3, 4 & 5







Appendix 3

**Details of Costs** 



1895 Bay Street, Nanaimo, BC, V9T-3A4 Tel: (250)758-6277 Fax: (250)758-7180 www.MeridianMapping.ca

## ΙΝΥΟΙCΕ

#### Bill To: Cadillac Mining Corp. 3741 West 36th Avenue Vancouver, BC V6N 2S3

Invoice: 10-0006 Date: 03/15/2010 Project: Silver Streak Page: 1 of 2

#### Silver Streak Project 2010 - Invoice #1 - 03/04/10 to 03/15/10

#### GIS:

Date	By	Work Description	Work Code	Hours	Rate	Total
2/25/2010	DD	Assemble Silver Streak basemap, draft proposed grid,	ArcView GIS	2	\$75.00	\$150.00
		email map to Andre.				
3/05/2010	DD	Re-draft grid square to UTM, email map to Andre	ArcView GIS	1.5	\$75.00	\$112.50
3/15/2010	DD	Add initial grid image and GPS data to map.	ArcView GIS	2	\$75.00	\$150.00
					Total	\$412.50
					GST	\$20.63

#### Time:

Dates	Description	Rate	Units	Cost
03-06 to 03-12	Geologist	\$600.00	7	\$ 4,200.00
03-06 to 03-12	Senior Field Tech	\$425.00	7	\$ 2,975.00
			Total	\$7,175.00
			GST	\$ 358.75

#### Rentals:

Dates	Description	Rate	Units	Cost
03-06 to 03-12	Basic Field Equipment	\$12.50/m.d.	10	\$ 125.00
03-06 to 03-12	4wd Vehicles	\$35/day	10	\$ 350.00
03-06 to 03-12	Vehicle Mileage	\$0.35/Km	2752	\$ 963.20
03-06 to 03-12	Snowmobile	\$100/day	2	\$ 200.00
03-06 to 03-12	Trimble ProXH GPS, CDGPS real-time receiver	\$125/day	1	\$ 125.00
03-06 to 03-12	Laptop/Printer	\$30/day	7	\$ 210.00
03-06 to 03-12	VHF road radio	\$10/day	5	\$ 50.00
			Total	\$2023.20
			GST	\$ 101.19

#### Expenses:

Dates	Description	Rate	Units	Cost
03-06 to 03-12	Accommodation	At Cost		\$ 633.20
03-06 to 03-12	Meals	At Cost		\$ 145.83
03-06 to 03-12	Groceries	At Cost		\$ 289.31
03-06 to 03-12	Fuel & oil	At cost		\$ 531.65
03-06 to 03-12	Field Supplies	At cost		\$ 2.62
03-06 to 03-12	Hub International –Mag Insur Rider (Inv 2028427)	At cost		\$ 100.00
03-06 to 03-12	Indicator – magnetometer rental.	At cost		\$ 2,750.00
03-06 to 03-12	Welke Enterprises – Initial mag processing & Software	At cost		\$ 2,096.13
03-06 to 03-12	Petra Geophysical – Final mag processing	At cost		\$500.00
			Total	\$7,048.74
			GST	\$ 332.12

Sub-Total : \$ 16,659.44 Project Supervision (10%) : \$ 1,665.94 GST on Project Supervision (5%): \$ 83.30

> Total : \$ 18,325.38 Total PST : \$0.00 Total GST : \$895.96

Grand Total : \$ 19,221.34

Less Partial Advance: \$ <10,000.00>

**TOTAL DUE: \$9,221.34** 

## Bibliography

Audet, A.J. 2007; 2007 Diamond Drilling; Silver Streak Project

Aziz, M. L.; Dec 1990; Induced Polarization Geophysics on the Eric Property Mineral Claims.

Carter, N.C. Jan 2003; Silver Streak Property; letter report

#### **Statement of Qualifications**

I, Andre J. Audet of Courtenay British Columbia do hereby certify that:

I am a graduate of the University of British Columbia, British Columbia and hold a Bachelor of Applied Science degree in Geological Sciences.

I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.

I have practiced professionally in geology and mining since 1972.

I am a consulting Geological Engineer.

I have authored this report

Courtenay, British Columbia; May 30, 2010

Respectfully Submitted:



A. Tourt

Andre J. Audet P.Eng