

## Geological Survey Branch Assessment Report Indexing System



[ARIS11A]

#### ARIS Summary Report

Regional Geologist, Smithers Date Approved: 2005.03.03 Off Confidential: 2005.10.19

ASSESSMENT REPORT: 27527 Mining Division(s): Atlin

Property Name: Bighorn Creek

Location: NAD 27 Latitude: 59 32 20 Longitude: 134 27 18 UTM: 08 6599979 530822

NAD 83 Latitude: 59 32 21 Longitude: 134 27 25 UTM: 08 6600216 530710

NTS: 104M09W

BCGS: 104M058

Camp:

Claim(s): Pit, Stan, Sheron, Glen

Operator(s): Micrex Develoment Corp.

Author(s): Armstrong, John P.

Report Year: 2004

No. of Pages: 30 Pages

Commodities
Searched For:

General PROS

**Work Categories:** 

Work Done: Prospecting

PROS Prospecting (225.0 ha;)

Keywords: Triassic-Jurassic, Yukon Group, Coast Plutonic Complex, Orthogneisses, Quartz veins, Pyrite, Gold

Statement Nos.: 3218646

MINFILE Nos.: 104M 006

**Related Reports:** 05910, 21816

## Report on Activities for the SHERON, STAN, GLEN, and PIT Claims, Bighorn Creek Project, Atlin Mining District, British Columbia, CANADA. NTS 109M/9

**Approximate Property Location:** 

Latitude: 59° 32' N Longitude: 134° 26' W

Approximately 45 km west of Atlin, British Columbia (NTS 104M/9)

Atlin Mining District M104M058

Bighorn Creek Area, British Columbia

MINERAL TOLES BRANCH

DCT 1 9 2004

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FOR \_\_\_\_\_\_\_

VANCES IVER B.C.

Completed By:
APEX Geoscience Ltd.
Suite 200, 9797-45 Avenue
Edmonton, Alberta, Canada
T6E 5V8

Completed For:

Karl Sr., Karl Jr. and Jenny Gruber PO Box 20072 Whitehorse, Yukon Y1A 7A2

Ğ.

Micrex Development Corp.

156 Laurier Deve
Edmonton, AB
T5R 5P9

October 14, 2004 Edmonton, Alberta, Canada John P. Armstrong Ph.D.

# Report on Activities for the SHERON, STAN, GLEN, and PIT Claims, Bighorn Creek Project, Atlin Mining District, British Columbia, CANADA. NTS 109M/9

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### Report on Activities for the SHERON, STAN, GLEN and PIT Claims, Bighorn Creek Project, Atlin Mining District, British Columbia. NTS 109M/9

#### SUMMARY

The Bighorn Creek project is located approximately 45 kilometres west of the town of Atlin, in northwest British Columbia, Canada. This area has been the focus of base and precious metal exploration since the turn of the century. The Sheron, Stan, and Glen claims are contiguous with the Pit claim, ownership is in the names of Karl Sr., Karl Jr., and Jenny Ann Gruber in trust for Micrex Development Corporation of Edmonton Alberta, and is the latest of many claims to cover the auriferous Lawson vein. The immediate vicinity of the Lawson vein, located on Bighorn Creek, has been staked in the past under various claim names including Spokane, Mohawk, Edwin, Norm and Sephil. The project will be referred to as the Bighorn Creek Project throughout this report.

The Bighorn is being explored for potential precious metal vein-type mineralization of either mesothermal or epithermal affinity. The property is underlain by hornblende orthogneiss that has undergone Cordilleran deformation and has been intruded by feldspar porphyry dykes. Quartz veins developed within these rocks that contain significant concentrations of gold, with elevated silver, lead, zinc and copper. No significant production has been achieved on the property to date; however, a number of adits have been opened along the Lawson vein, and historical values include 9.4 grams per tonne (g/t) gold (Au) across 0.76 metres and 10.6 g/t Au across 0.91 metres from the "Incline Adit".

From September 29 to October 4, 2004, APEX Geoscience Ltd. of Edmonton, Alberta, completed preliminary prospecting and sampling within the STAN, SHERON, GLEN, and PIT claims and the surrounding area in order to evaluate the potential for economic precious metal mineralization. Previous sampling by APEX Geoscience Ltd., led to the staking of the STAN, SHERON and GLEN claims. Exploration comprised data compilation followed by rock grab sampling and chip sampling of vein and alteration selvages at the Incline adit, and prospecting (including rock grab, rock measured rock chip, and boulder sampling) on the STAN, SHERON, GLEN, and PIT claims and limited regional sampling. Total costs related to exploration by APEX, within the claims are \$11,056.57 (Appendix 1).

Results of the sampling program include:

- Identification of the Incline Adit quartz vein, in outcrop, 400 metres along strike to the west
- Identification of additional mineralized quartz vein material in outcrop north of the Blacksmith adit

- Further delineation of mineralized alteration material located south of "unnamed creek"
- Regional prospecting in the Bighorn Creek region to identify other areas of disseminated mineralisation

Based on the preliminary results of the 2004 exploration and previous work by APEX on the Bighorn Creek Project, further work is warranted. Additional claims should be staked to the west of the STAN claim to cover the westward strike extent of the Incline Adit quartz vein. Detailed sampling and mapping is required north of the Blacksmith Adit and in the area of the "unnamed creek" to better delineate additional mineralization. Given the new results it is reasonable to assume that mineralization is of greater extent than previously thought. A diamond drill program to test the mineralised system at depth and along strike should also be planned for the Incline adit and "unnamed creek" areas of the property. If feasible an airborne magnetic survey should also be flown over the property. Regional sampling and prospecting should be conducted to look for similar alteration to that seen by the "unnamed creek".

#### PROPERTY DESCRIPTION AND LOCATION

The Bighorn Project is located on the west side of Bighorn Creek approximately 45 kilometres west of the town of Atlin in northwestern British Columbia, and 48 kilometres east of Skagway, Alaska, U.S.A. (Figure 1). More specifically, the property is located 11 km upstream of the confluence of Bighorn Creek and Fantail River, on the western slope of the Bighorn Creek valley. The property is located within the Skagway 1:250 000 scale National Topographic System (NTS) map sheet 104M. More specifically, the property is located within the Fantail Lake 1:50 000 scale NTS map sheet 104 M/9. The claims are located in Atlin Mining District minerals titles reference map sheet M104M058. The claims has not been surveyed, however, the legal corner post of the Pit Claim is approximately located at latitude 59°32.18'N and Longitude 134°26.13'W

A legal claim description for the claims is provided in Table 1, and the claim boundaries are shown on Figure 2. The property encompasses a total of 9 claim units, 7 claim units which form the basis of this report.



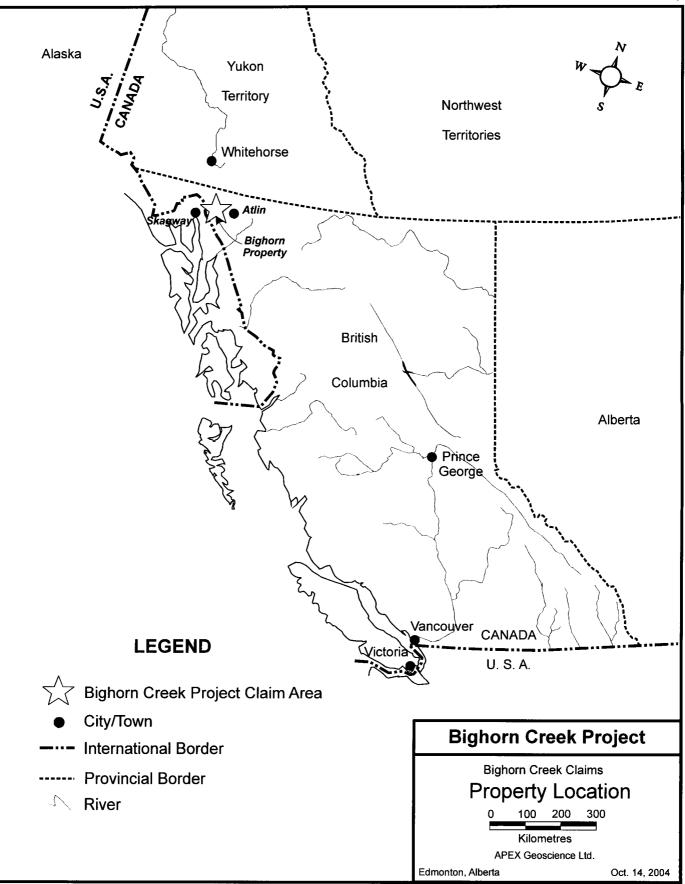
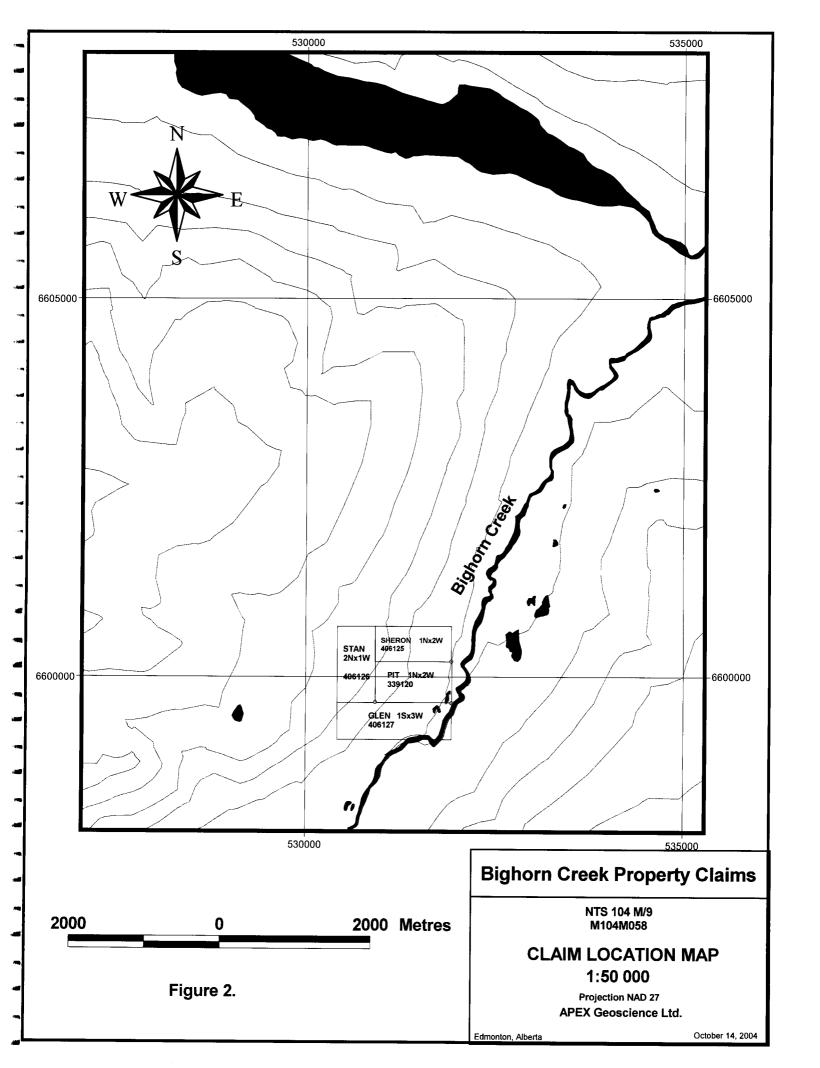


Figure 1.



	<u>TAB</u>	<u>LE 1</u>
<b>LEGAL</b>	<b>CLAIM</b>	<b>DESCRIPTION</b>

Claim Name	Record Number	Number of Units**	Expiry Date
PIT	339120	2	Aug 20, 2006
SHERON	406125	2	Oct. 20, 2004
STAN	406126	2	Oct. 20, 2004
GLEN	406127	3	Oct. 20, 2004

<sup>\*\* 1</sup> unit = 500 m<sup>2</sup>

### ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Bighorn Property is accessed by helicopter from Atlin, British Columbia. For the 2004 work program a Bell 206 Jet Ranger was chartered from Discovery Helicopters of Atlin BC. Alternatively, the area can be accessed by float plane from Atlin or Whitehorse to the east end of Fantail Lake, where in order to reach the claims, it is required to trek approximately 7 km south on a trail located on the west side of Bighorn Creek (Figure 2). Also, the property area may be accessed from Tagish or Carcross by boat, traveling to the west shore of the Taku Arm of Tagish Lake (Carlyle, 1993a).

The property is situated at the boundary of two geomorphological subdivisions, the Boundary Ranges of the Coast Mountains and the Teslin Plateau of the Intermontane Belt (Mihalynuk, 1999). The Bighorn Property claims are located on the eastern edge of the Boundary Ranges on a steep eastern-facing slope along Bighorn Creek. Elevations range from 800 metres to 1300 metres above sea level (a.s.l.) at the property, and from 700 metres to 2300 metres a.s.l. regionally. Tree line elevations vary from 1100 to 1400 metres a.s.l. with lower slopes timbered by lodgepole pine, spruce, aspen, balsam poplar, black spruce, and hemlock, while near tree line subalpine fir, juniper, and dwarf birch dominate (Mihalynuk, 1999). Bighorn Creek flows to the northeast into the Fantail River, which in turn flows east into Tagish Lake that is part of the extensive headwater reservoir for the Yukon River.

Environment Canada data for Atlin indicate that historical daily mean temperatures range from -16°C (-20°C minimum) in January to +12.5°C (+20°C maximum) in July. The normal work season extends from late May through October (Mihalynuk, 1999).

Provincial government services, accommodations, groceries and supplies are available in the town of Atlin, British Columbia.

#### **HISTORY**

To facilitate the great influx of gold seekers to the rich gold fields discovered in the Klondike in 1896, a southern rail route was sought from tidewater across the Coast Mountains (Mihalynuk, 1999). Engineers working on this route discovered gold-bearing quartz veins on the east shore of Tagish Lake in 1900. These veins became known as the Engineer Mine, which produced 597,176 grams, or 17,318 ounces (oz), of gold between 1913 and 1932 (Baldys, 1991).

Other gold-bearing quartz veins in the area include the Venus deposit, located north of Tutshi Lake and the Mount Skukum Mine, and northwest of Tagish Lake. The Venus deposit hosts a significant quartz-sulphide vein that averages 0.8 m to 1.0 m in width with reserves estimated at 68,300 tons of 11.03 grams (0.32 oz) per ton of Au, and 306.90 grams (8.9 oz) per ton silver (Ag) (Morin, 1989). The Mount Skukum Mine also hosts gold in an epithermal quartz-vein which yielded 29,622,270 grams of Au from 201,461 tons of ore before recently closing (Mihalynuk, 1999).

Closer to the currently held Bighorn Property claims, rock samples from the Main and Camp Showings on Teepee Peak, north of Fantail Lake, yielded values up to 10.83 grams (0.31 oz) Au per ton and 147.4 grams (4.27 oz) per ton Ag (Olson, 1987).

In addition to gold, copper deposits are historically significant in the area. The Whitehorse Copper belt's southern-most extension is located just north of Carcross. This belt comprises 28 separate copper-iron skarn deposits that are hosted within the same geological environment as that found in the northern Tagish Lake area. Roughly 10,250,000 tons of ore were mined from the Whitehorse Copper belt between 1967 and 1982 with 2,850,000 tons grading 1.06 percent (%) copper (Cu) and 7,400,000 tons grading 1.5% Cu (Mihalynuk, 1999).

Fueled by the discovery of gold at the Engineer Mine, many prospectors began exploring the area around Tagish Lake. The first intensive prospecting in the vicinity of the present-day Pit Claim was conducted by Mr. Fred Lawson and associates during the early 1900's which led to the staking of the Spokane Group (Baldys, 1991; and Carlyle, 1993a). This group consisted of the Spokane, Mohawk, and Edwin claims, which were trenched and developed with adits between 1921 and 1932. The North Tunnel (830 m a.s.l.), Peter's (at an elevation of 1035 m a.s.l.), Blacksmith (1080 m a.s.l.), and Incline (1265 m a.s.l.) adits traced a quartz vein, with an average exposed width of 1.1 m, over a

horizontal distance of 920 m and a vertical distance of 460 m (Carlyle, 1993a). Figures 3 and 4 illustrate the historical workings at the Pit Claim.

In 1933, the Spokane Group was bonded to Norgold Mines Limited which later changed its name to Atlin-Pacific Mining Co. Ltd. It was at this time that the quartz vein was channel sampled in six places along underground workings driven from the Incline Adit. The channel samples averaged 9.4 grams (0.27 oz) per ton Au over an average width of 0.76 m (Baldys, 1991). In 1934, an independent engineer obtained assay results of 10.6 grams (0.31 oz) per ton Au over an average width of 0.91 m (Baldys, 1991). Also during 1934, Bobjo Mines acquired an interest in the Atlin-Pacific Mining Co. Ltd. and assumed management of the Spokane Group property until relinquishing its interest in 1935 (Carlyle, 1993a).

In 1975, Lobell Mines Ltd. obtained 20 samples from the property, with 8 samples assaying over 3.45 grams (0.1 oz) per ton Au. The highest value obtained was 17.93 grams (0.52 oz) per ton Au across 1.52 m from the Incline Adit drift (Carlyle, 1993a). Further prospecting was undertaken in 1981 by Silver Ice Mining Ltd., which obtained 20 samples, two of which yielded over 3.45 grams (0.1 oz) per ton Au (Carlyle, 1993a).

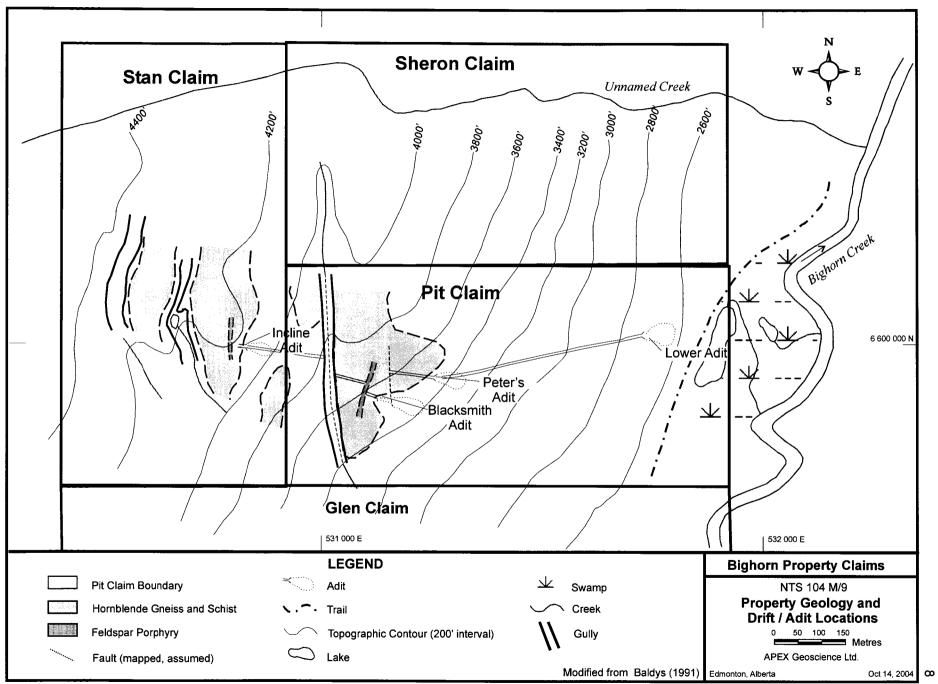
In 1985, the British Columbia Ministry of Energy, Mines, and Petroleum Resources sampled the adits on what is currently known as the Pit Claim. These assays returned values as high as 297 grams (8.61oz) per ton Au and 120 grams (3.52 oz) per ton Ag (Carlyle, 1993a).

Baldys (1991) collected 29 samples from the property (Pit Claim) and conducted geological mapping at the request of the directors of 489166 Alberta Limited (Figure 4). Of these samples, 11 assayed greater than 0.1 oz/t gold with the highest assay being 0.48 oz/t gold from a 0.8 m thick section of vein in the Blacksmith Adit (Baldys, 1991). The average length-weighted gold grades for samples collected from three of the adits (drifts) were as follows;

Peter's Drift - 0.06 oz/t gold across 1.3 m vein Blacksmith Drift - 0.13 oz/t gold across 0.9 m vein Incline Drift - 0.20 oz/t gold across 1.0 m vein

Based upon the assay results obtained, Baldys (1991) calculated a resource estimate of 76,000 tons of material averaging 0.17 oz/t gold between the Blacksmith and Incline drifts.

In 1993, Larry Carlyle was retained by L. Whelan and Associates to review all available information regarding the Bighorn Creek Property on behalf of Micrex Development Corporation. Upon reviewing the data from Baldys (1991), Carlyle (1993a) concurred with the reserve calculation arrived at of 76,000 tons grading 0.17 oz/t gold. In addition to data review, Carlyle (1993b) also conducted



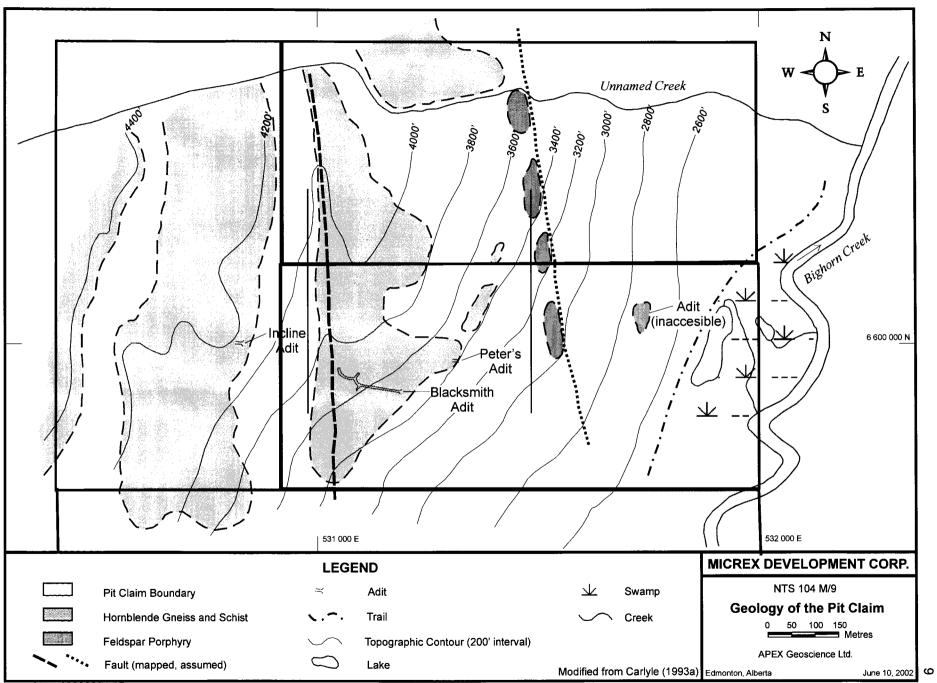


Figure 4.

geological and geophysical exploration over the property (Figure 4), which included chip sampling of the existing adits and grab sampling of the adit dumps. The highest assays obtained for the adits were as follows:

North Tunnel Drift – 1.78 oz/t gold Peter's Drift – 0.371 oz/t gold Blacksmith Drift – 0.612 oz/t gold Incline Drift – 1.375 oz/t gold

Additionally, Carlyle (1993b) conducted a short (6 line) Very Low Frequency Electromagnetic (VLF-EM) geophysical survey at an approximate strike of 100° over the Incline Drift. In total, 2400 metres of VLF-EM surveying was completed at 10 metre stations and 50 metre line spacing.

#### **GEOLOGICAL SETTING**

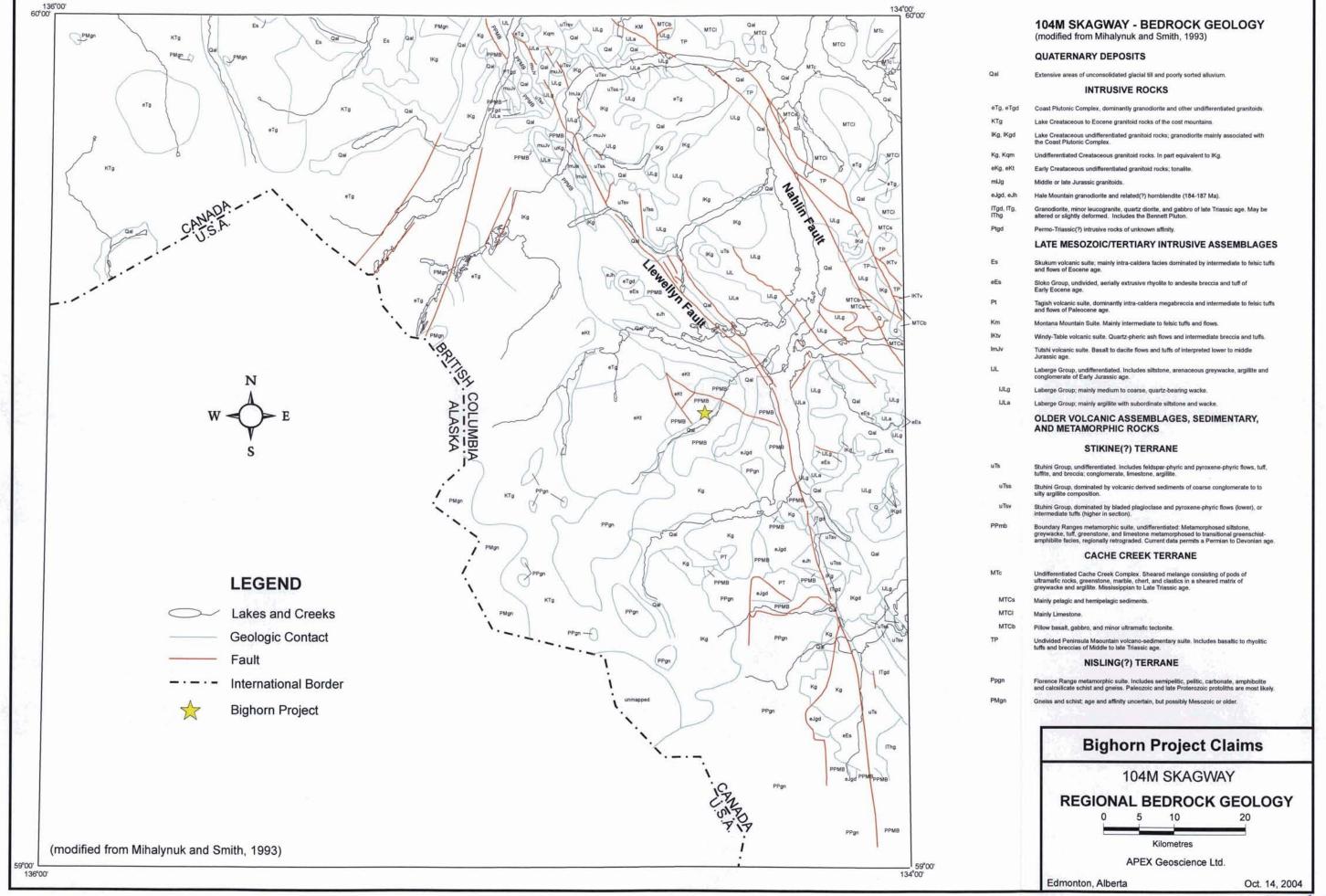
The Taku Arm area of Tagish Lake is underlain by Upper Triassic to Middle Jurassic strata of the Whitehorse Trough, Pre-Permian metamorphic rocks of the Yukon Group, and intrusions of the Mid-Jurassic Coast Plutonic Complex (Baldys, 1991; Carlyle, 1993a; Jackaman and Matysek, 1993). The geological setting of the Bighorn Property claims is illustrated on Figure 4 and 5.

There are two major subparallel north-northwest-trending faults in the area. The Nahlin Fault marks the western extent of the Cache Creek Terrane, and is a steeply dipping to a vertical fault, or series of faults which have been intermittently active since the Triassic into the Tertiary (Mihalynuk, 1999). The Llewellyn Fault forms the contact between regionally metamorphosed rocks and Mesozoic strata of the Stuhini Group (Mihalynuk, 1999). Similar to the Nahlin Fault, the Llewellyn Fault is believed to have been sporadically active over the Late Triassic into the Tertiary, with displacements being greatest during earlier episodes (Mihalynuk, 1999).

The Bighorn Project is underlain by the meta-intrusive Bighorn Creek Orthogneiss which is found within the Yukon-Tanana Terrane, and contains localized schistose zones (Mihalynuk, 1999). This unit outcrops over an area of about eight square kilometres and is characterized by Mihalynuk (1999) as being a well foliated, medium-grained, leucocratic body containing 50% quartz, and 40% feldspar with 6 to 7% combined muscovite, biotite, hornblende, chlorite, and accessory pyrite. Intruding into the orthogneiss are dykes of andesite and feldspar porphyry (Carlyle, 1993a). The feldspar porphyry is composed of phenocrysts of white feldspar in a fine-grained pyroxene matrix.

The rocks within the property strike north-northeasterly and are generally found to be dipping gently to the east. A large north-south striking fault is recognized at an elevation of 1220 metres with a right-handed, horizontal displacement of roughly 75 metres (Carlyle, 1993a).





#### **DEPOSIT TYPES**

The goal of exploration efforts within and near the Bighorn Property Claims is to identify economically viable precious metal-bearing quartz veins. According to Mihalynuk (1999), the quartz veins found on the Pit Claim most closely resemble mesothermal precious metal vein deposits that form at temperatures of 200 to 400°C. Analysis of fluid inclusions from samples of quartz veins give average temperatures of more than 250°C. These veins are podiform, sheared, and concordant with enclosing schists of a transitional greenschist-amphibolite grade (Mihaynuk, 1999). The veins are located along second or third-order structures related to the regional Llewelyn Fault zone.

#### **MINERALIZATION**

As previously mentioned, mineralization at and near the property consists of mesothermal precious metal-bearing quartz-sulfide veins, which appear to be located along second or third-order structures related to the regional Llewelyn Fault zone. The veins are podiform, sheared, and discordant with enclosing schists of a transitional greenschist-amphibolite grade (Mihaynuk, 1999 and Baldys, 1991). Numerous small quartz veins were observed around the property, however, the majority of exploration efforts to date have been focussed on the Lawson vein.

The Lawson vein has been traced intermittently along a horizontal distance of 920 m and a vertical distance of 460 m (Figures 3 and 4). The vein strikes roughly east-west and dips 85° to the north. The vein averages 1.1m in thickness and contains pyrite and minor chalcopyrite, galena, sphalerite and native gold. Baldys (1991) notes that the wall rock does exhibit significant alteration or mineralization and that feldspar porphyrytic dykes were observed underground to cross-cut the vein. Baldys (1991) also notes that gold content appears to correlate well with sulfide (pyrite) content, both of which appear to increase in a vertical direction from the Lower adit to the Incline adit.

The most thorough evaluation of the Lawson vein to date was conducted by Baldys (1991), during which a total of 29 chip samples were collected from 3 of the 4 adits. The length-weighted average gold grades are presented below.

Peter's Drift - 0.06 oz/t gold across 1.3 m, (the vein was sampled over a 135 m horizontal length)

Blacksmith Drift - 0.13 oz/t gold across 0.9 m, (the vein was sampled over a 47 m horizontal length)

Incline Drift – 0.20 oz/t gold across 1.0 m, (the vein was sampled over a 23 m horizontal length)

#### **2004 EXPLORATION**

From September 27, 2001 to October 4, 2001, APEX Geoscience Ltd. conducted exploration within and near the Bighorn Claims on behalf of the Grubers' and Micrex Development Corp. Exploration expenditures within the claim, including initial data compilation and follow-up reporting total xxxxxxx. In total, APEX collected 31 rock grab/chip samples (identifiers 04JAP200-025 and 04JHP001-006), on the Bighorn Creek property claims (PIT, STAN, SHERON, GLEN). Appendix 2 lists all sample locations and descriptions, Figure 6 shows sample locations.

Representative chip samples were taken of the vein and adjacent wallrock at the entrance to the Incline adit (Figure 7; Sample series 04JAP200-205). Chip samples were also taken of vein material and wallrock immediately upslope from the adit entrance (Sample Series 04JAP206-08). The vein at this location is up to 45 cm wide, is milky white, has sharp wallrock contacts and may contain up to 5% pyrite and associated sulphosalts. Wallrocks are silicified, likely have some albite alteration are mineralized (disseminated pyrite) friable. Internal wallrock septa were also observed internal to the veins. The potential strike extensions to the Incline Adit vein were observed in outcrop approximately 100 (04JAP210-11) and 400 metres (04JAP221-222; Figure 8) to the west of the Incline Adit entrance. The quartz vein has the same milky white appearance with internal septa, shear wallrock, and up to several percent disseminated pyrite and sulphosalts. Representative chip samples were taken as well as rock grab and representative samples for further study.

North of the Blacksmith Adit on the PIT claim further prospecting was completed in the vicinity of a sample taken by APEX in 2001. The 2001 sample ran 82.1 g/t Au from a grab of mineralized material. In 2004 efforts were made to identify further material in outcrop. Samples 04JAP213-118 are outcrop samples taken in a 30 metre wide zone bleaching, silicification, with localized gossanous material associated with disseminated pyrite. Samples were taken of boudinaged quartz veins and altered wallrock within this domain.

On the SHERON claim 3 samples were taken within an approximately 20 metre wide alteration zone with quartz veining and localized disseminated sulphide. Previous sampling by APEX in 2001 resulted in on 8.4g/t Au assay from a sample taken of the alteration. The alteration in this locality south of the "unnamed creek" appears to lack distinct quartz veins, however the altered monzogranite does contain disseminated pyrite and is locally sheared.

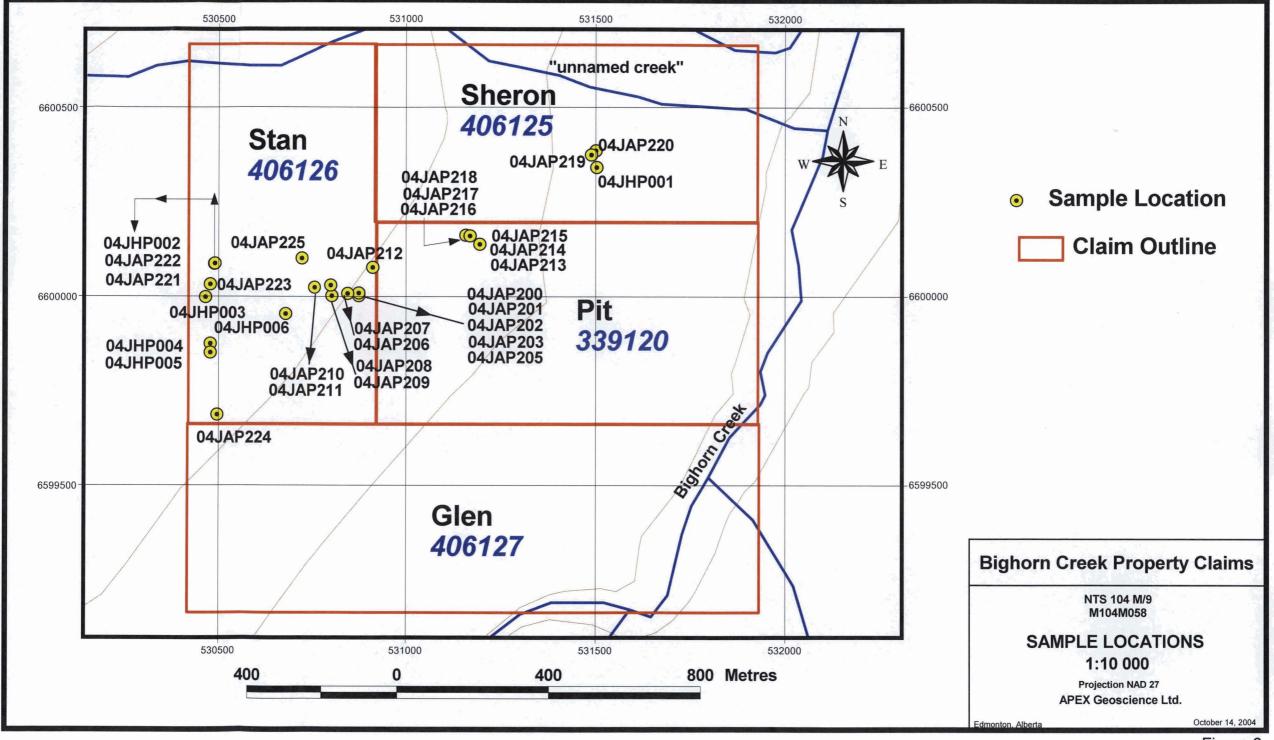


Figure 6.

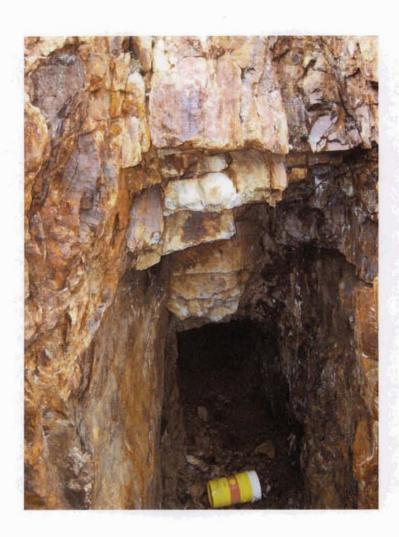


Figure 7. Incline adit entrance. Quartz vein material with silicified sheared, gossanous wallrock. Samples 04JAP200-205.



Figure 8. Incline adit vein extension, approximately 400 metres west of Incline Adit entrance. Hammer for scale view looking west. Samples 04JAP221-22.

A traverse was conducted across the western edge of the GLEN claim, however no samples were taken as none were warranted.

The rock grab samples were sent to Loring Assay lab. Results at the time the report was prepared have not been returned from the assay lab, once they are received the results will be filed as an amendment to the report.

#### INTERPRETATION AND CONCLUSIONS

The 2004 exploration effort was successful in extending exposed expression of the Incline vein 400 metres to the west, where the vein disappears under cover. Two additional mineralized zone were sampled north of the Blacksmith adit and immediately south of the "unnamed creek". The presence of the new areas of mineralization away from the Incline adit is encouraging and indicates that the mineralization is more widespread than previously understood and is not restricted entirely to a quartz vein host. The Incline adit vein is now known to have an additional 400 metres of strike length and is open to the west.

Once assay results are returned a more thorough discussion and interpretation will be presented as an amendment to this report.

#### **RECOMMENDATIONS**

Based on the results of the 2004 exploration and in conjunction with previous exploration by APEX in 2001 and by others, further work is warranted. Additional claims should be staked to the west of the STAN claim to cover the westward strike extent of the Incline Adit quartz vein. Detailed sampling and mapping is required north of the Blacksmith Adit and in the area of the "unnamed creek" to better delineate additional mineralization. Given the new results it is reasonable to assume that mineralization is of greater extent than previously thought. A diamond drill program to test the mineralised system at depth and along strike should also be planned for the Incline adit and "unnamed creek" areas of the property. If feasible an airborne magnetic survey should also be flown over the property. Regional sampling and prospecting should be conducted to look for similar alteration to that seen by the "unnamed creek".

#### STATEMENT OF COSTS

A cost statement is supplied in Appendix 1. The field portion of the 2004 program took place during the period of September 27 to October 8, 2004. Exploration and prospecting took place on the SHERON, GLEN, STAN, and PIT claims as well as regional prospecting. Helicopter costs are allocated to the specific days that were spent on the Bighorn Creek Property claims, general field costs (hotel, food, car rental, field supplies) are allocated on a pro rata basis. The pro rata basis was arrived at by:

Total field time=8 days (3 travel, 4 field, 1 weather) 50% allocated to Bighorn, so all general field costs have been split and 50% charged to the PIT, SHERON, GLEN, and STAN claims.

Office charges for preparation and report writing are directly charged to the PIT, SHERON, GLEN, and STAN claims. (See Appendix 1).

Total costs applied to the PIT, STAN, SHERON, and GLEN claims is 11,056.57 or 356.66/sample.

#### **REFERENCES**

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#### **CERTIFICATE OF AUTHOR**

I John P. Armstrong, Ph.D., do hereby certify that:

- I am currently a senior geologist at:
   APEX Geoscience Ltd., Ste.200, 9797 45 Avenue, Edmonton, Alberta, T6E 5V8
- 2. I graduated with a degree (B.Sc.) in Earth Sciences (Geology) from the University of Western Ontario, London, Ontario in 1989 and a Doctorate degree in Geology from the University of Western Ontario in 1997, and have practised my profession continuously since 1989.
- 3. I am responsible for the preparation of the report titled 'Report on activities for the SHERON, STAN, GLEN, and PIT Claims, Bighorn Creek Project, Atlin Mining District, British Columbia, Canada' and dated October 14, 2004 relating to the Bighorn Creek Project. I visited the Property and surrounding area on September 27, 2004 for 8 days.

4. The author has no direct interest in the Bighorn Creek Project Claims that basis for the report.

Appendix 1 - Cost Statement

Cost Statement										
Days worked	Day	/s	Rate					Total		Bighorn Co
J.Armstrong (APEX)		8	550					4400		
J. Heimbach (Contractor)		8	350					2800	_	
								7200	x50% for Bighorn Property Assessment	3600
Office Days (Armstrong)		6	450					2700	x100% for Bighorn Property Assessmen	t 2700
lelicopter Support	Но	urs	Rate	F	uel		GST	Total		
<b>29-S</b>	эp	1.4	925	1295	150.13	1445.13	115.6104	1560.74	100% Bighorn Property Assessment	1560.74
30-S	эp	1.7	925	1572.5	175	1747.5	139.8	1887.3	100% Bighorn Property Assessment	1887.5
1-0	ct	1.5	925	1387.5	157.32	1544.82	123.5856	1668.406	no charge to Bighorn	
3-0	ct	2.3	925	2127.5	241.22	2368.72	189.4976	2558.218	no charge to Bighorn	
Accommodation Brewery Bay - Atlin)								854.39	x50% for Bighorn Property Assessment	427.195
ood								542.1	x50% for Bighorn Property Assessment	271.05
Vehicle Rental/Fuel								785.86	x50% for Bighorn Property Assessment	392.93
Supplies								176.06	x50% for Bighorn Property Assessment	88.03
Sample Shipping								258.24	x50% for Bighorn Property Assessment	129.12
							Total	27391.31	Total cost/sample = 11,09 cost/sample = 356.	

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Appen	dlx 2	Samp	le L	ocati	ion	Table

	aampie Cocas	_						
Sample	Assay (ppb)		Date	Easting**	Northing*	Elevation(It.asl)	Claim	Description
04JAP200	2700	2 64	29-Sep-04	530875	6600004	4094	STAN	Incline vn, FW afteration SiO2 all'd wallrock 1-2% py 30cm wide zone
04JAP201	>30⁄30	5.32	•	5 <b>3</b> 0876	6600009	4096	STAN	Incline vn. HW alth SiO2 py alln 80cm wide 31/2py cb
04JAP202	<b>256</b> 0	2.47	29-Sep-04	530876	6600002	4134	STAN	Incline vn 1.5ft walm above adit
04JAP203	>3000	5 01	29-Sep-04	530876	6800002	4134	STAN	incline yn 2 0 ft alin aboye adit
04 JAP205	680		29-Sep-04	530876	6600009	4096	STAN	incline vn vn material 1.5ft wide whi qv w grey sulph py to 3% minor recrystalisati
04JAP206	200		29-Sep-04	530847	6600008	4185	STAN	upslope from Incline vn hw alth 5ft sio2 oc alth
04JAP207	330		29-Sep-04	530847	6600008	€185	STAN	If 7 inch vn whi qtz vn recry 2%py some gny sulph
04JAP208	520		29-Sep-04	530847	5600008	4185	STAN	3ft 6inch hw alln Sio2 v/k bx'n porphy host?
04JAP209	>3000	4.18		530805	5600002	4223	STAN	105 trending 15 inch wide whil qtz vn 1% g py minov internal septa
04JAP210	25		29-Sep-04	530758	6600024	4175	STAN	3ft 6 inch vn w (e-cb(10%) ir sulph whit to milky whit no internal lamination wallrook, hematised local but
04JAP211	290		29-Sep-04	530802	6600030	4223	STAN	gossanous bx'd Sio2 altri alb CO2 bx'd w chi matrix 2% py local conc of chi
04JAP212	25		29-Sep-04	530913	6600077	4123	STAN	taius slope 50 cmx50cmx30cm slab of qtz vn material it gry whi 3%py tr gry suiph
04JAP213	>3000	5.93	29-Sep-04	5311 <del>9</del> 5	6600138	3893	РIT	qtz vn 30cm wide w grey sulph py
04JAP214	380		29-Sep-04	531195	8600138	3893	PΠ	domain of alln SiO2, 2% diss py hw alln
04JAP215	>3/200	3.43	29-Sep-04	531158	6600162	3968	शा	lel/talus qtz vn vuggy ir grey suiph ir py
04JAP2 [6	980		29-Sep-04	531 169	6600160	3962	PIT	/w wallrockSiO2 altn 3%py minor ab gossanous
04JAP217	940		29-Sep-04	531 169	6600160	3962	PIT	qtz vn boudin milky wht vig 3%py minor gry sulph locally vuggy 30cm wide discontinuous vn'g
04JAP218	1320		29-Sep-04	531 169	6600160	3962	PIT	hw alth gossanous bid tr to 1%py
04JAP219	15		29-Sep-04	531501	6600385	3483	SHERON	gossanous material inlarge attn zone ir sulph yellow weathering
04JAP220	20		29-Sep-04	531489	6600374	3490	SHERON	up slope from 219 in lg altn package 12inch rusty wk sio2 minor cb tr sufp
04JAP221	130		30-Sep-04	530489	6600086	4391	STAN	1ft 6 inch qtz vn 100 85 N 3-4% disspy gry sulp minor shearing along fw contact reptaken pale yellow py
04JAP222	85		30-Sep-04	530489	6600086	4391	STAN	fw grab on vn malerial sulphide rich
04JAP223	20		30-Sep-D4	530478	6600032	4369	STAN	metamorphic sweat vn gry whit 1% py very shalloow 30deg dipo
04JAP224	<5		30-Sep-04	530496	65 <b>996</b> 87	4268	STAN	6inch wide 100 deg Irending qAr flat dip Ir sulph likely sweat
04JAP225	300		30-Sep-04	530724	6600101	4248	STAN	sio2 alt'd wk to mod foin monzo gn 1-2%py
04JHP001	190		29-Sep-04	531503	6600341	3447	SHERON	12 inch but qtz vn, 100azim, 40South dip
D4JHP002	<5		30-Sep-04	530490	8600087	4348	STAN	conforted vein, 1 metre chip, ir py
04JHP003	5		30-Sep-04	530465	6599998	4368	STAN	qtz vn, 180/40, rusty shear, sph, py trace
04JHP004	5		30-Sep-04	530478	6599875	4336	STAN	24inch chip sample, bull quartz vein
04JHP005	5		30-Sep-04	530478	6599851	4319	STAN	10 inch vein, bull quartz vein
04JHP006	25		30-Sep-04	530680	6599954	4195	STAN	45 cm , buil white giz vein, ir suitch

<sup>\*\*</sup> UTM co-ordinates in NAD27 Zone 8 V



2 - 302 48th Street . Saskatoon, SK . S7K 6A4 P (306) 931-1033 F (306) 242-4717 E info@tsilabs.com



Company:

APEX Geoscience Ltd.

Geologist.

J Armstrong

Project:

Purchase Order:

99/105 - Bighorn Pit, Sheron, Stan, Glen

TSL Report: Date Received: S15294

Date Reported:

Nov 03, 2004 Nov 08, 2004

Invoice:

34802

Remarks:

Sample Type:

Number

Size Fraction

Sample Preparation

Rock

73

Reject ~ 70% at -10 mesh (1.70 mm)

Crush, Riffle Split, Pulverize

Pulp ~ 95% at -150 mesh (106 μm) Pulp Size requested ~ 1000 g

Standard Procedure:

Samples for Au Fire Assay/AA (ppb) are weighed at 30 grams. Samples for Au Fire Assay/Gravimetric (g/tonne) are weighed at 1 AT (29.16 grams)

Au ppb

- Initial analysis of sample

Au1 ppb

Repeats that accompany initial analysis, usually two every twenty samples

Au g/t, Au1 g/t

Gravimetric repeats on values in either Au ppb column

GS-1A

Value is based on a 30 gram sample weight

AuM-2

Value is based on a 1 AT sample weight

Element Name Au	Unit ppb	Extraction Technique Fire Assay/AA	Lower Detection Limit 5	Upper Detection Limit 3000
Au	g/tonne	Fire Assay/Gravimetric	0.10	6500

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#### **CERTIFICATE OF ANALYSIS**

SAMPLE(S) FROM

APEX Geoscience Ltd. 200 - 9797 - 45th Ave. Edmonton, Alberta

TGE 5V8

REPORT No. S15294

SAMPLE(S) OF

73 Rock/0 Pulp

INVOICE #:34802

P.O.: 99105

J. Armstrong Project:

Sample bags 04JHP014/015 had tags 04JHP014 in both

-465		Au	Au.l.	Au	File
		ppb	dqq	g/t	Name
-		Ì			
	04JAP200	2700		2.64	S15294
6 Manager	04JAP201	>3000		5.32	\$15294
	04JAP202	2560		2.47	S15294
	0 <b>4JAP</b> 203	>3000	>3000	5.01,	S15294
1	04JAR205	680			S15294
داا					
TAR	04JAR206	200			S15294
TAR	04JAR207	330			S15294
" «/ m/g	04JAR208	520			S15294
~ 2~ 1	04JAR209	>3000		4.1,8	S15294
مرها "	04JAR210	25			S15294
- 400					
JAP	04JAR211	290 <sup>1</sup>			\$15294
•	04JAR212	25			\$15294
	04JAR213	>3000		5.93	S15294
	04JAR214	380	410		\$15294
: 56	04JAR215	>3000		3.43	S15294
% <b>#</b>	04JAR216	980			515294
	04JAR21,7	940			S15294
1994	04JAR218	1320			S15294
	04JAR219	15			\$3,5294
: ===	04JAR220	20 )			S15294
		ì			

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Nov 08/04

Me

SIGNED \_\_\_\_\_\_ Mark Acres - Quality Assurance



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File

SAMPLE(S) FROM

APEX Geoscience Ltd. 200 - 9797 + 45th Ave. Edmonton, Alberta T6E 5V8

REPORT No. S15294

SAMPLE(S) OF

73 Rock/O Pulp

INVOICE #:34802 P.O.: 99105

J. Armstrong Project:

Αu

			110	Z 3 C
	ppb	ppb	g/t	Name
04JAR221	1.30			S15294
04JAR222	85			\$15294
04JAR223	20			S15294
04JAR224	<5			S15294
04JAR225	300 Í			S15294
			,	S15294
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CHARLES THE REAL PROPERTY.				S15294
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Nov 08/04

Mark Acres - Quality Assurance

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AuJ,

ppb

REPORT No. \$15294

SAMPLE(S) OF

73 Rock/O Pulp

INVOICE #:34802 P.O.: 99105

J. Armstrong
Project:

A11 ppb

04JHP001 1.90
04JHP002 <5
04JHP003 5
04JHP004 5
04JHP005 25

Αu File g/t Name S15294 \$15294 S15294 S15294 S15294 S15294 S15294 S15294 S15294 \$1.5294 515294 \$15294 \$15294 S15294 \$15294 S15294 S15294 S15294 S1.5294

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04JHP007

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Mark Acres - Quality Assurance

S15294



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REPORT No. S15294

SAMPLE(S) OF

73 Rock/O Pulp

INVOICE #:34802 P.O.: 99105

File

S15294

J. Armstrong
Project:

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ppb

9/t Name

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J. Armstrong

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Nov 08/04

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