

82-#852 -#10902



SAWYER CONSULTANTS INC.

GEOLOGICAL REPORT  
ON THE BLACK PANTHER GROUP  
including the  
JAN, MAR, REMY, NAT CLAIMS  
and the  
WAR LION, CONQUEROR, MAJESTIC,  
EMPRESS OF INDIA, IXL, RIDGE, APEX, SKYLINE  
REVERTED CROWN GRANT CLAIMS  
Victoria Mining Division, British Columbia

NTS 92 F/2  
49°07'N, 124°37'W

for

JAN RESOURCES LTD.  
#811 - 543 Granville Street  
Vancouver, B.C. V6C 1X8

by

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NOVEMBER 30, 1982

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**10,902**

SUMMARY

Exploration by Jan Resources Ltd. since 1979 has been directed at the assessment and delineation of numerous gold-bearing quartz veins known to exist on the Black Panther Group. This work has demonstrated that values might be locally persistent (i.e. 10,000 to 20,000 ton chutes) along persistent regional structures. Cut and diluted drill indicated tonnages for three zones are as follows.

<u>Zone</u>	<u>Tonnage</u>	<u>Cut and Diluted Grade (oz./ton Gold)</u>
Black Panther	12,500	0.2
High Grade North	3,130	0.26
High Grade South	3,530	0.12

These do not represent closed chutes of higher grade mineralization. Uncut values have included up to 6 oz./ton in gold over 15 centimetres with numerous values of over 1 oz./ton and wider widths. Visible gold occurs in at least one location. The above grades therefore reflect cut and diluted values which might represent a value lower than a recoverable value in selective mining. Numerous other high grade assays have been obtained at the Summit Lake showings as well as the Middle Vein, a yet unexplored showing.

The 1982 program was carried out to test wall rock values and to substantiate 1980 results. Values averaged over the entire width of the structure and including anomalous wall rock are lower but values of up to 0.11 oz./ton gold over 2 metres and 1.96 oz./ton gold (uncut) over 90 centimetres have been indicated. A number of samples of visible gold were also collected.

The next logical stage of exploration, as has been previously recommended, includes detailed delineation of mineable chutes by diamond drilling. An eighteen hole program from two set-ups and totalling 1300 metres of controlled BQ diamond drilling is recommended to assess further the North and South zones at the High Grade Vein. This is estimated to cost \$138,534.00, including contingency, to be spent over an eight week period.

Due to the nature of the mineralization sufficient ore reserves for a production decision will necessarily come from a number of sources. A regional property assessment must be completed as the detailed assessment of various locations progresses. Continued surface sampling and 1:10,000 geological mapping is recommended at a cost of \$39,150.00 including contingency to be spent over an eight week period.

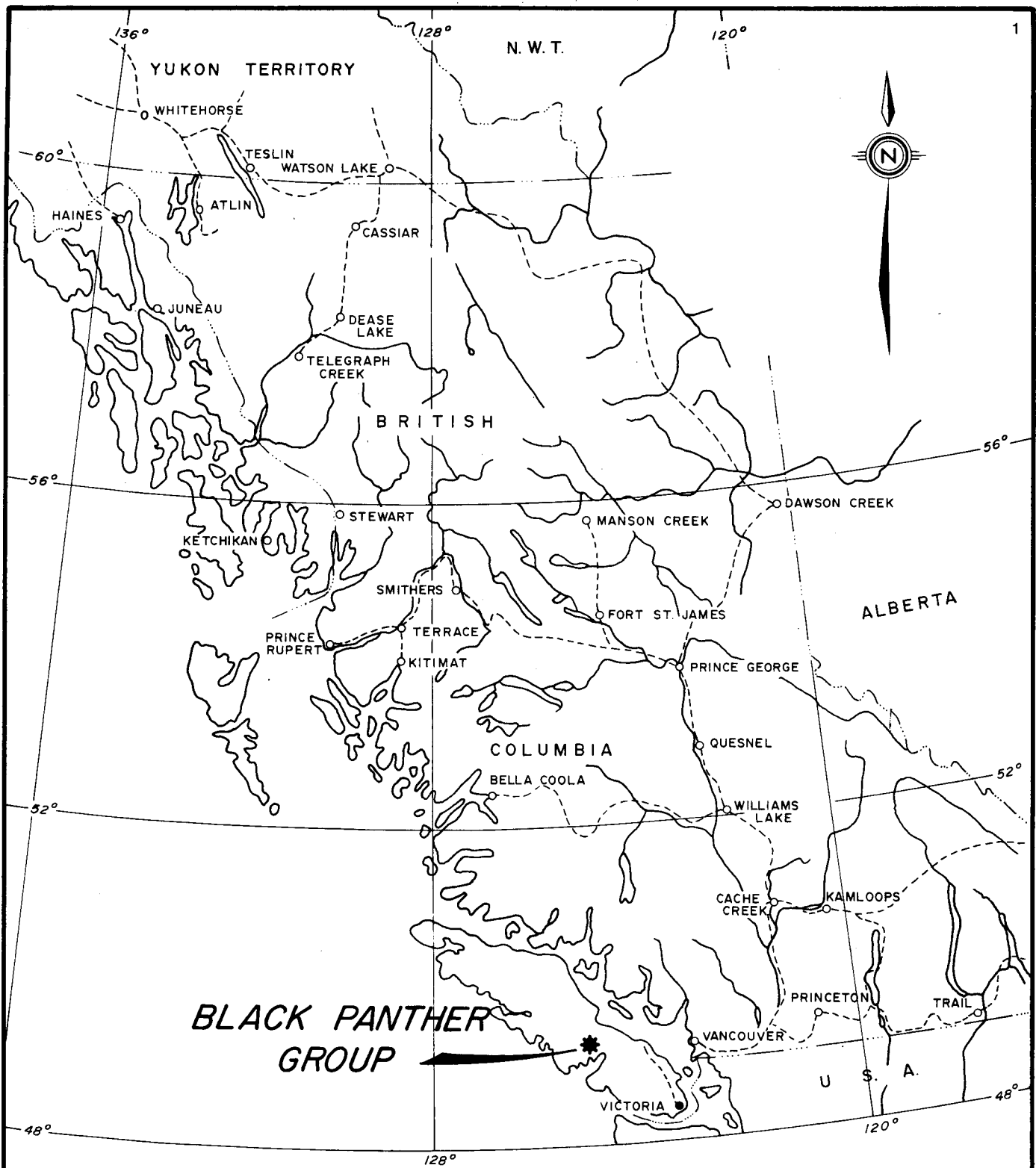
Project management and reporting costs are estimated at \$15,316.00 for an estimated total project expenditure of \$193,000.00 to be spent over an eleven week schedule.

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**BLACK PANTHER  
GROUP**

<b>JAN RESOURCES LTD.</b>	
<b>GENERAL LOCATION MAP</b>	
<b>BLACK PANTHER GROUP</b>	
<b>VICTORIA MINING DIVISION, B.C.</b>	
DATE: NOV, 1982.	SCALE 1" = 125 MI.
DRAWN BY: G.H.	REF. NTS 92F/2
SAWYER CONSULTANTS INC.	FIGURE NO. 1

## INTRODUCTION

This report is a description of work carried out as partial fulfillment of a July 9, 1982 proposal to Jan Resources Ltd. as a recommended detailed assessment of the High Grade Vein system. The program that was described in that proposal was not completed in its entirety and as such not all of the objectives of the original program were realized. Six days of field work involving two men resulted in the completion of blasting of three trenches, some geological mapping and some check sampling, as was outlined in a new proposal to Jan Resources Ltd. and Strato Geological Engineering Ltd. on September 30, 1982.

PROPERTY, LOCATION, ACCESS, TITLE

The central portion of the Black Panther Claim Group is approximately  $12\frac{1}{2}$  miles due southeast of Port Alberni in the Mount McQuillan area, British Columbia, on Alberni Inlet NTS Map Sheet 92F/2, at  $124^{\circ}37'W$  longitude and  $49^{\circ}07'N$  latitude. (Figures 1 and 2.)

Road access to the property is provided by MacMillan Bloedel logging roads south from China Creek main through to Museum main and on to the Rift Creek spur. Northern access is provided from the China Creek main into the northern end of the property or from the west up the Nitinat River main. The majority of the access to drill sites and to the top of Mount McQuillan properties has previously been provided by helicopter service from Vancouver. Cheaper service is now available from Nanaimo and Qualicum on the Island and this will be required due to the very steep terrain and lack of road access to the area that includes the High Grade Vein.

The property consists of 61 units controlled by Jan Resources Ltd. and 16 Crown Grants optioned by Jan Resources Ltd. from various owners by a joint venture agreement dated March 21, 1980 and amended June 19, 1980. Oliver Resources Ltd. acquired the right to earn up to 40% of the Mount McQuillan properties of Jan Resources Ltd. This agreement has since been cancelled and Oliver now carry a 7.5% interest by virtue of their expenditure of \$250,000. The property ownership is summarized below in Table 1.

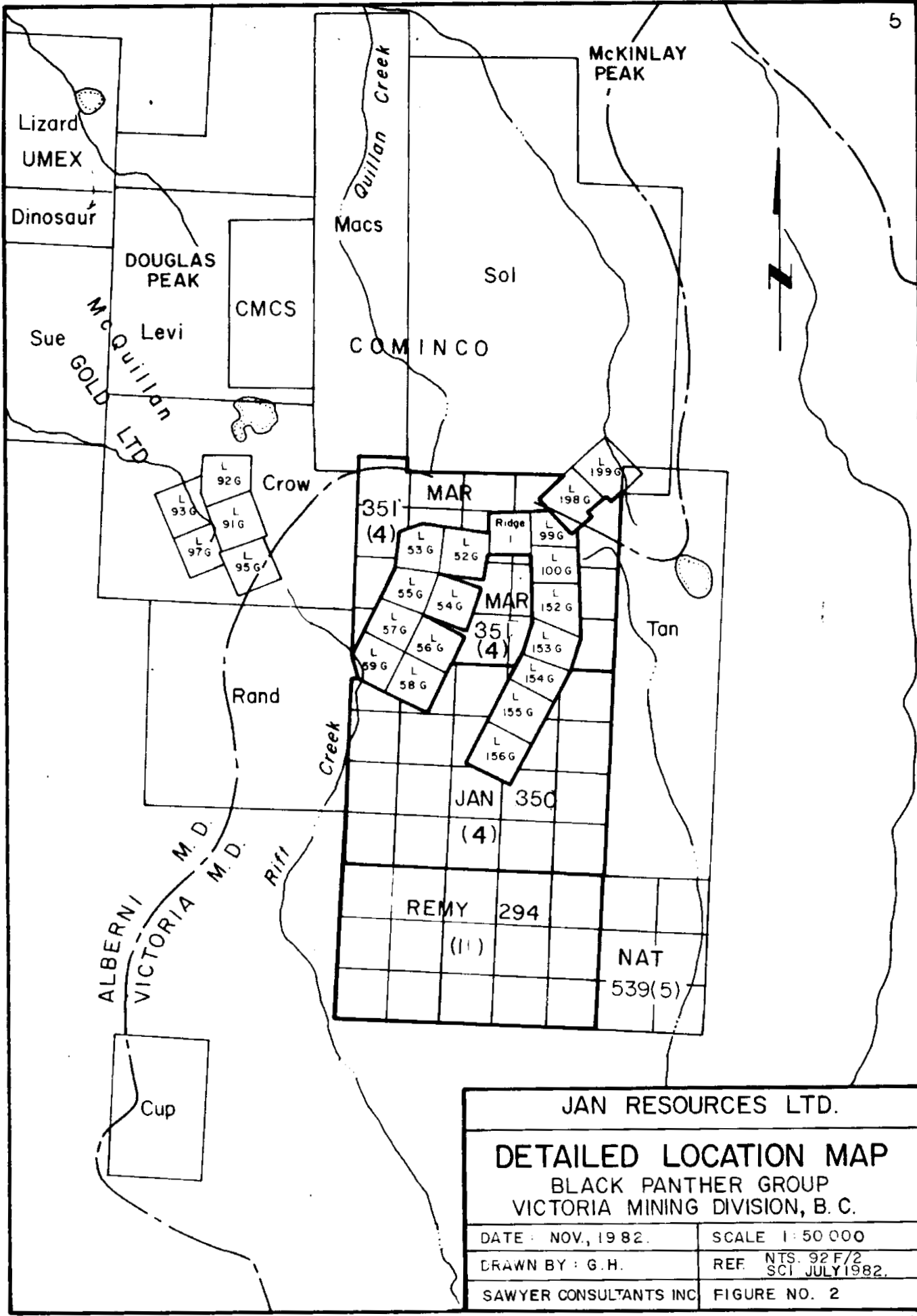
Claim/ Grant	No. of Units Lot No.	Record No.	Registered Owner	Recording Date	Expiry Date	Status
Jan	20	350 )	Elden Schorn	2/4/80	2/4/83)	Optioned to Jan
Mar	20	351 )				
Remy	15	294)	T.F. Schorn	15/11/79	15/11/85)	Owned by Jan
Nat	6	539)	Jan Resources Ltd.	14/5/82	14/5/83)	Resources Ltd.
War Lion	L152G	497)	H. Miller and	-	3/7/85)	Optioned by Jan Resources Ltd.
Conqueror	L153G	498)				
Majestic	L154G	499)	J. Kruzick	-	3/7/85)	
Empress of India	L155G	500)				
IXL	L156G	501)		-	3/7/85)	
Ridge	-	18249)	Thomas D. McEwan	5/9/74	5/9/85)	Optioned by Jan Resources Ltd.
Apex	L99G	- )				
Skyline	L100G	- )		5/9/74	5/9/85)	
Black Panther Crown Grants	L52G to L59G	- )	Black Panther Mining Company	-	2/7/83)	Optioned by Jan Resources Ltd.

PROPERTY OWNERSHIP - JAN RESOURCES LTD.

BLACK PANTHER GROUP

Table 1

**SAWYER CONSULTANTS INC.**



<b>JAN RESOURCES LTD.</b>	
<b>DETAILED LOCATION MAP</b>	
BLACK PANTHER GROUP VICTORIA MINING DIVISION, B. C.	
DATE : NOV, 1982.	SCALE 1 : 50 000
DRAWN BY : G.H.	REF NTS. 92 F/2 SCI JULY 1982.
SAWYER CONSULTANTS INC	FIGURE NO. 2



## HISTORY

Mineral prospecting and production from the China Creek/Franklin Creek areas was initiated in 1862 with placer gold mining. At the turn of the century hardrock prospecting began and resulted in the discovery and sporadic preliminary development of eight properties up to 1940. Recorded production in 1945 in the area totalled about 8400 tons of ore containing 3200 ounces of gold, 3000 ounces of silver, and 300 tons of copper. These prospects have been basically of two types, volcanic hosted polymetallic quartz vein and "replacement skarn" (Thistle Mine), the latter producing the most significant volumes of ore and metal. Historical records and more recent work continued to indicate high grade values but very small tonnages and widths of ore have been a prime deterrent to development.

In 1960 Gunnex Limited completed geochemical and airborne magnetic surveys over the present claim area. Nothing warranting advanced exploration at that time was noted but the work continued into 1964-65. During that time Laanela visited numerous properties for Gunnex Limited including the holdings of Gold Eagle Mines Ltd. which company had during 1964 and 1965 cleaned out the old workings along the strike of the High Grade Vein and resampled their workings. During this work the most northerly extensions were increased into the area now marked by Trench #3. A report by Apps in 1965 completed for Gold Eagle Mines Ltd. indicated two zones that had been outlined by surface work. The northern zone indicated, by sampling, a strike length of 40 feet averaging 0.78 oz./ton gold (uncut) across 2 feet, and a southern zone 100 feet along strike averaged 1.10 oz./ton gold

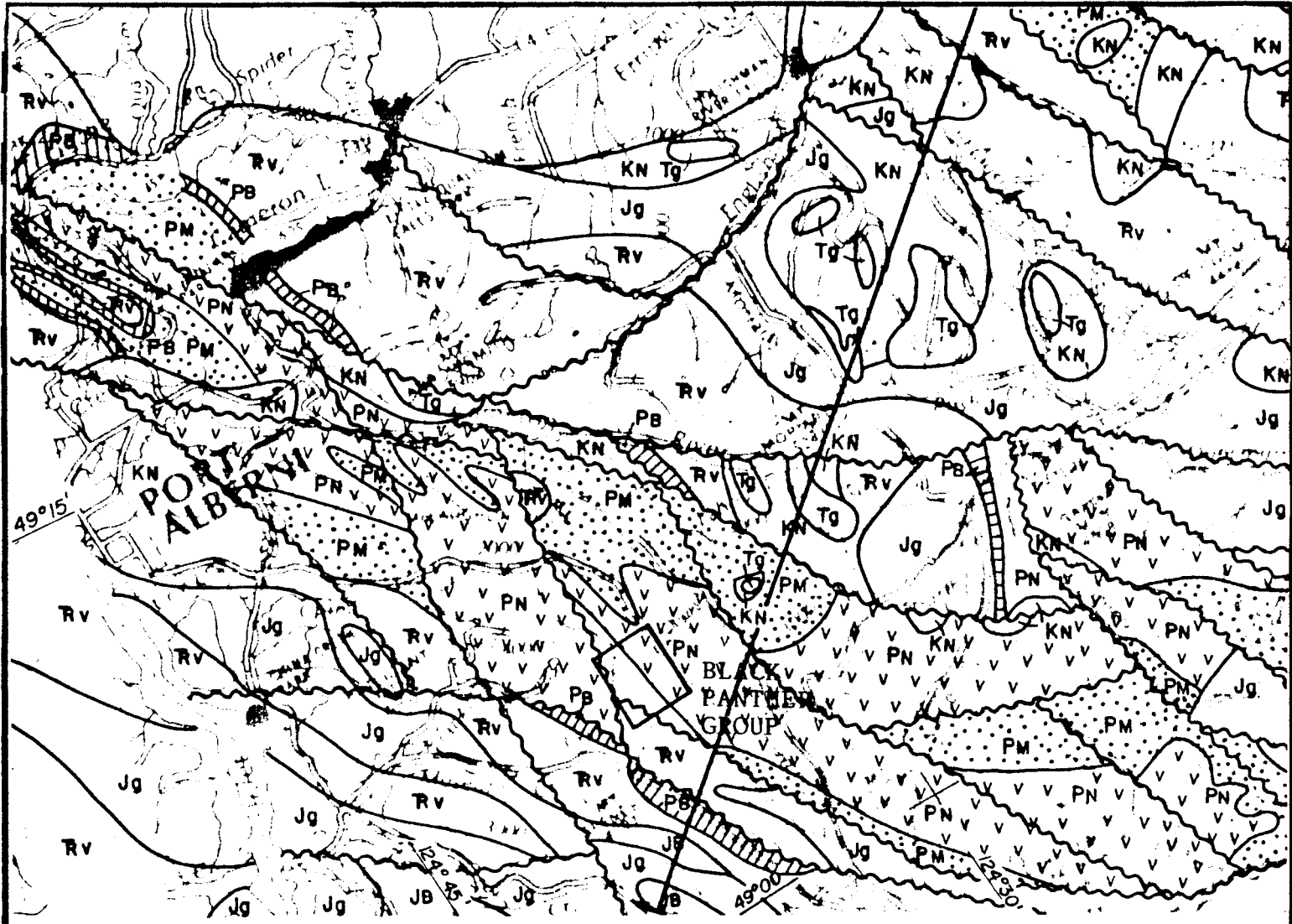
(uncut) across 2 feet. Other areas visited by Laanela included the Gold Eagle adits to the northeast of the High Grade Vein. He reported that a quartz vein striking  $N30^{\circ}E$  and dipping  $65^{\circ}$  to the southeast cut a small mass of feldspar porphyry ribbon quartz with pyrite, and other minor sulphides had been traced for a strike length of 400 feet and along a vertical trend of 325 feet. Assays above \$130.00 per ton in gold were reported in the 1894 Minister of Mines report. One very long tunnel 2100 feet had been driven from a very low elevation in an attempt to intersect this vein but it was never intersected. Similarly, Laanela visited the Summit Lake or Lakeview area and the BK showings which included the High Grade Vein and the Middle Vein.

During 1980 Sawyer Consultants Inc. carried out numerous grid surveys and diamond drilling on three separate areas within the claim area including the Summit Lake area, the Black Panther area, and the High Grade Vein area (Figure 4). 1980 surface sampling along the High Grade Vein structure during that year indicated a minimum of 3130 tons of 0.26 oz./ton (cut) recoverable gold in the northern area and 3530 tons of 0.12 oz./ton (cut) recoverable gold in the southern zone. Relatively low grades are due to the cutting and averaging of values. The uncut values ranged from greater than 1.0 oz./ton gold to greater than 5.0 oz./ton gold over narrow widths.

Drilling in the same year in the southern area at HG80-1 and HG80-2 provided two intersections of this vein system. Drill core intersections from 126 feet to 128.5 feet in HG80-1 assayed 0.43 oz./ton gold and 0.27 oz./ton silver. In HG80-2 intersections averaged 0.32 oz./ton gold and 0.269 oz./ton silver from 111 feet to 114 feet, and

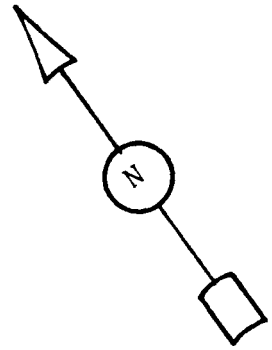
0.68 oz./ton gold and 0.32 oz./ton silver from 167.5 feet to 169 feet. Drilling at the Summit Lake and Black Panther areas also indicated a similar type of mineralization over similar widths but with lower grades. However, the exposures and accessible sampling areas are not as extensive as at the High Grade Vein. (The results of these drilling programs are summarized in reports by Sawyer Consultants Inc. dated December 31st, 1980 and April 27th, 1982.)

In 1981 Western Geophysical Aero Data Ltd. carried out an airborne VLF-EM magnetic survey over the entire claim area. Coincident anomalies were outlined adjacent a number of known prospects and an "extremely favourable" anomaly in proximity to both Black Panther and High Grade showings was recommended for further work (Figure 4).



LEGEND

- Tg** CATFACE INTRUSIONS
- Kn** NANAIMO GROUP
- Jg** ISLAND INTRUSIONS
- Jb** BONANZA GROUP
- Rv** VANCOUVER GROUP
- Pb** BUTTLE LAKE FORMATION
- Pmsd** SEDIMENT-DIABASE UNIT
- Pgs** SALTSRING INTRUSION
- Pm** MYRA FORMATION
- Pnv** NININAT FORMATION



JAN RESOURCES LTD.	
REGIONAL GEOLOGY MAP BLACK PANTHER GROUP VICTORIA MINING DIVISION, B.C.	
DATE: NOV. 1982	SCALE: 1:250,000
DRAWN BY: G.H.	REF.: Muller 1980
SAWYER CONSULTANTS INC.	FIGURE NO. 3

Similarly, this lithology outcrops on the east of this large dike. The eastern boundary of the Nitinat Formation is an unconformable contact with the Myra Formation (Muller) or Older Sediments (Stevenson). These are composed of limestone, jasper, chert, tuff and volcanic breccia. Feldspar porphyry has been noted on the top of Douglas Peak to the east of Father and Son Lake and to the south of the Black Panther, Black Lion showings. Although Stevenson has not mapped this feldspar porphyry he noted that the Gold Eagle showing is hosted in a feldspar porphyry body and, in addition, it is suspected that the High Grade Vein is at least spatially related to a similar feldspar porphyry. In general, these units are described as follows.

The older diorite intrusive is a very much fractured and brecciated "sill" and is believed to cut the older sediments and volcanics. It is basically a coarse grained diorite that forms a fault contact with the Nitinat Formation. The in-filling of the breccia is more acidic material and quite possibly related to the feldspar porphyry which is reported to consist principally of feldspar with little quartz and no mafics.

The older sediments, or Myra and Buttle Lake equivalents are reported by Stevenson to be mainly pyroclastics. Two belts of these rocks occur, one through the Lizard Lake, Thistle Mine area, a second through the eastern side of Summit Lake and Black Lake area. These are basically identified by limestone (Buttle Lake Formation) and associated jasper, chert, tuff, and volcanic flows and breccias which trend northwesterly in discontinuous lenses. The occurrence of a certain amount of jasperoid float coming from the cliff faces

of the east of Mount McQuillan suggest that minor remnants of Sicker sediments might form the top of Mount McQuillan although the bulk of the underlying rocks in the claim area are andesites of the Nitinat Formation. This andesite is principally a fine grained amygdaloidal unit which is dark green in colour. A very minor amount of dark grey chert and red jasper is found intercalated with the andesite. Although Stevenson has indicated that this China Creek andesite overlies the older sediments it is suggested by Muller that the China Creek andesite or Nitinat Formation directly underlies the sediments of the Middle and Upper Sicker Group. The occurrence of this chert and jasper might suggest that the top of the Nitinat Formation coincides closely with the top of Mount McQuillan.

Mapping on and around the small 1982 grid on the High Grade Vein revealed that the majority of the outcropping rock in the area is Nitinat Formation andesites which are generally grey to green weathering to dark grey and black. Highly carbonatized andesite mentioned by Stevenson, Laanela and others is also in evidence in the area. The carbonatized material appears to trend  $N5^{\circ}-10^{\circ}E$  and is approximately 100 feet to 200 feet wide, although this material is not confined to this area. The belt also occurs in the area where the vein appears to have pinched out between the northern and southern extremities. This highly carbonatized material also appears above the northern vein area. Essentially it is comprised of andesite that is lighter green and weathers to buff. It is highly veined and injected with quartz and minor carbonate veinlets.

The andesite displays various degrees of flow characteristics including minor brecciation and increases in crystal size from micro-

dioritic textures to massive aphanitic andesite. Both tectonic and flow brecciation is evident. Basic porphyritic feldspar float can be found locally around the 1980 drill site. It might be similar to the dacitic feldspar porphyry mentioned by other authors (or at the Gold Eagle adits). It would form a relatively small unit in the area. The exact outcrop of it is not certain as the area directly above the float is permanently snow-covered. It is expected this is probably a minor dike. A much more leucocratic (silicified?) porphyritic intrusive occurs on the top of Mount McQuillan. This has fractured and silicified the contact andesites. However, the carbonatization that is noted below these outcrops does not seem directly related to contact with this intrusive.

#### Mineralization

The mineralization of the High Grade Vein is confined to quartz/carbonate/sulphide within a north-south striking  $60^{\circ}$ - $70^{\circ}$  westerly dipping structure. The mineralization is both comb and banded quartz with lead, zinc, iron sulphides occurring very sporadically but occasionally in easily detectable amounts. Pyrite, chalcopyrite mineralization is noted in another shear quartz vein that strikes  $N25^{\circ}W$  and dips at  $75^{\circ}$  to the west. This is not considered to be the same type of mineralization or the same structure.

A complimentary and younger set of quartz filled shears strike at  $N10^{\circ}$ - $15^{\circ}E$  and intersect the High Grade Vein in at least three places that are known on the southern extremity of the vein system. Similarly, in the northern area this trend is noted sandwiched between the two north-south trending shears that are parted by up to 3 feet

of fractured and brecciated andesite host. This particular structural control is apparently very prominent in localizing higher grade pockets of mineralization. The Black Panther mineralization is noted to be strongest at the intersection of a northeasterly trending vein that runs into the north-south trending contact shear which terminates the former. Similarly, the north-south trending lineaments at the BK, Summit and Gold Eagle showings predominate as can be seen from air photo studies. The Summit Lake area represents the intersection of a north to northeasterly trending fault and a north-northwesterly trending fault. Between the High Grade Vein and Summit Lake Stevenson reported another vein that has been identified by more recent work as the Middle Vein, and it appears to lie on a northeasterly trending structure that would intersect the High Grade structure approximately 750 metres to the south of the present workings. This also coincides with a description by Stevenson as follows:

"Near the south end of this zone, about three-quarters of a mile south of the High Grade Vein two open cuts at elevations 3340 and 2270 feet in the bed of the creek have been driven on a small amount of pyrite, galena and sphalerite contained in narrow veinlets in the carbonatized rock."

Clearly, the evidence suggests that on both macro and micro scales structural intersection plays a role in the localization of mineralization.

The purpose of the 1982 field work was to initiate the substantiation of 1980 and previous results which proved to be very high grade. The 1980 assays, however, were taken over relatively narrow widths on the vein itself. Footwall material was indicated to be



anomalous in some areas as well and economics of production necessitates increases in indicated tonnages and widths. The sampling summary (Appendix II) demonstrates a resampling of areas that were indicated as high grade in 1980. The narrow widths of the sampling previously done shows very high grade values of over 3 oz./ton gold. Samples taken across the vein shear material and including analyses of wall rock that indicated the presence of at least some gold, proved to be much lower for the most part. Values in samples located at 2+25S taken in 1982 indicate the presence of extremely high grade values that are reflected in the +3 oz./ton gold over the narrow width. Values in 1980 returned 0.23 oz./ton gold over 20 centimetres whereas values in 1982 (which include anomalous results in both hangingwall and foot-wall and the vein) average 1.196 oz./ton gold (uncut) over 90 centimetres. These differences in values clearly demonstrate the sporadic occurrence of free gold. This characteristic of variability has been noted in the past sampling in the area and is also known to occur in most high grade gold deposits. The most reliable results are therefore acquired by taking larger rock samples in the order of 100 pounds or more. These results could then be utilized for numbers that would be acceptable for reliable tonnage and grade calculations.

The sampling demonstrates also at location 0+29S that although abundant visible gold hand specimens were taken from that location a chip channel sample across this structure and the wall rock material averaged only 0.015 oz./ton gold across 1 metre. A 1980 figure of 3.68 oz./ton gold over 8 centimetres represents the very high grade values. Clearly, in the sampling that was done in 1982 none of the free gold was selected during the sampling process for analyses.

The geochemical analyses were run on the rock samples in order to determine if there was any correlation between a particular base metal and the gold values. A very striking coincidence between the lead/silver values and the gold values is very evident although the magnitude of gold above background is not necessarily proportional to the magnitude of lead/silver above background. This apparent association to lead was mentioned in the Gunnex Limited corporate files on the Gold Eagle Group, and is apparent from detailed soil sampling carried out on the Summit Lake showings (Sawyer Consultants Inc. July 1980). Coincidence with zinc and copper is not nearly as consistent. This may then suggest when one is taking limited sized samples that coincident lead/silver geochemistry might aid in indicating the presence of favourable mineralogy/structure although gold assays may not prove to be high. Of course larger samples in the areas indicated would be needed for the purposes of tonnage and grade calculations. Certainly at this great level of uncertainty in information no factor can be applied to adjust gold values to reflect a recoverable proportion of gold over a larger tonnage.

Other rock types were also tested for possible gold and silver/base metal associations including the intrusives along the top ridge of Mount McQuillan and at the contact volcanics. The intrusive rocks proved to be void of any anomalous mineralization. The contact andesitic volcanics did provide a gold assay of 0.005 oz./ton which represents a slightly anomalous value.

In summary, programs on the Jan, Mar, Remy claims since 1980 have indicated numerous gold/silver bearing quartz vein structures at:

- 1) Black Panther, Black Lion
- 2) High Grade
- 3) Summit Lake, BK
- 4) Middle Vein

These showings have been the subject of exploration programs varying from grid and detailed sampling and drilling programs to very basic surface grab sampling as in the case of the Middle Vein. Full development and production of these veins has not been realized due to the lack of sustained mineralization over mineable widths resulting in insufficient mineable tonnages. This is complicated by the relatively difficult access to the area. However, the grades in these veins are known to be very high in gold with subsidiary values in silver and minor amounts of lead, zinc and copper. The main economic value would come from gold production.

A continued program in the claim area must be aimed at delimiting more reserves. Certainly the structures along which zones of mineralization occur are very persistent. The mineralized structures demonstrate both lateral and vertical persistence of the showings occurring sporadically over strike lengths of several thousand feet along a given trend. In addition, the elevation between the Gold Eagle Vein at 2675 feet and the High Grade Vein at 4600 feet is approximately 2000 feet. Similarly, at the Black Panther the same structure and associated gold values are seen to persist over at least 500 feet. The mineralized zones discovered to date, however, are small, i.e. in the order of 10,000 to 20,000 tons per chute. Future efforts must therefore be directed at the delineation of chutes of mineable ore along a known trend.

The following are proposed for selecting favourable areas for detailed work.

- (1) North-south/northeast-southwest structural intercepts (air photo studies). Higher grade mineralization seems to occur at the intercepts and to the north of the intercepts and also rakes to the north along the north-south structural trend. This is apparent in the Black Panther Vein, and High Grade Vein and the Summit Lake Veins.
- (2) Anomalous lead/silver geochemistry in rocks and/or soils where gold value do not appear to be of ore grade.
- (3) Favourable host rocks (sediments and/or volcanoclastics) might prove more friable and acceptable for the deposition of the larger lines of precious metals. In the Black Panther area the grades at depth in the drill holes do not appear to be as high but highly anomalous values in gold and silver in some of the schistose rocks occur over core lengths of 7 feet regularly with up to 15 feet of 0.013 oz./ton gold (DDH BP 81-1, Sawyer Consultants Inc. April 1981).

**RECOMMENDED WORK PROGRAM 1983**  
**Black Panther Group**

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The following mapping, sampling and drilling program is directed at providing a geological map and economic mineralization compilation for the entire group and delineation of economic chutes of gold and silver mineralization at the High Grade Vein.

In order to accomplish these two objectives further drilling and detailed surface bulk sampling on the High Grade Vein is recommended (Figure 5, Table 3). In addition, surface trenching and mapping at the Middle Vein is highly recommended, and finally, claim area geology and prospecting is required.

The drilling program is aimed at detailed subsurface delineation of the two areas that have produced the best surface results. Two drill set-ups of nine drill holes each will provide nine intersections of the structure to a down dip limit of 60 metres and lateral strike limit of 50 metres. Additional set-ups to the north and between the north and south zones would be completed if favourable results are obtained in the initial drilling. This drilling would essentially be drilled in areas where the surface geology, and therefore, the vein geology is unknown. Drill indicated tonnage and grade figures will result.

The regional geology maps would provide a detailed 1:10,000 scale compilation of structures and lithologies as they relate to economic mineralization for the entire claim area. An air photo study prior to implementation of this program will locate key areas of favourable structure. The detailed follow-up and trenching program will provide further information on the High Grade, Middle Vein and Summit Lake

areas including follow-up to the high 1980 soil geochemistry at the latter location.

The following cost estimates and schedule reflect this work.

### Cost Estimates

#### A. Field Preparation

Air photo studies		
20 photos @ \$5.00/photo	\$	100.00
Interpretation		
3 days @ \$400.00/day		1,200.00
Drafting		<u>300.00</u>
		<u>\$1,600.00</u> \$ 1,600.00

#### B. Field Work

1 Mobilization, Geology/Prospecting		\$1,000.00
Drilling (to property boundary)		<u>3,000.00</u>
		<u>\$4,000.00</u> 4,000.00

#### II Geological Mapping/Sampling

##### a) Regional

##### 1) Personnel

Geologist		
30 days @ \$300.00/day	\$	9,000.00
Assistant		
30 days @ \$150.00/day		<u>4,500.00</u>
		<u>\$13,500.00</u> \$13,500.00

##### 2) Analyses

Assay (Au, Ag)		
100 samples @ \$13.50	\$	1,350.00
Geochem (Cu, Pb, Zn)		
100 samples @ \$4.40		<u>440.00</u>
		<u>\$1,790.00</u> 1,790.00

##### 3) Petrographical Studies

1,000.00

##### 4) Transport - 4x4 plus fuel

30 days @ \$60.00/day     1,800.00

##### 5) Camp and Supplies

60 man days @ \$30.00/man day     1,800.00

\$19,890.00

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Carried forward

\$19,890.00

21

b) Detailed Trenching

High Grade/Middle Vein, etc.

1) Personnel

Geologist

21 days @ \$300.00/day \$6,300.00

Assistant

21 days @ \$150.00/day 3,150.00

\$9,450.00 \$ 9,450.00

2) Camp and Supplies

42 man days @ \$30.00/man day 1,260.00

3) Blasting Supplies

600.00

4) Analyses

Assay (Au, Ag)

100 samples @ \$13.50 \$1,350.00

Geochem (Cu, Pb, Zn)

100 samples @ \$4.40 440.00

\$1,790.00 1,790.00

\$13,100.00 32,990.00

III Diamond Drilling

High Grade (Figure 6)

1) Mobilization, Drill Move,  
Demobilization (to drill site)

Labour

3 days @ \$800.00 \$ 2,400.00

Helicopter (Hiller)

Contract Rate (including  
fuel)

45 hours @ \$350.00 15,750.00

\$18,150.00 \$ 18,150.00

2) 1300 m. (2 set-ups @ \$650.00/m. set-up)  
@ \$70.00/m. (all inclusive)

91,000.00

3) Geologist (logging, sampling,  
surveying, supervision)

40 days @ \$300.00/day 12,000.00

4) Analyses

Assay (Au, Ag)

100 samples @ \$13.50 \$1,350.00

Geochem (Cu, Pb, Zn)

100 samples @ \$4.40 440.00

\$1,790.00 1,790.00

\$122,940.00 122,940.00

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IV Project Management, Consulting		
20 days @ \$400.00/day		8,000.00
V Report Preparation		
Report costs	\$2,000.00	
10 days @ \$400.00/day	<u>4,000.00</u>	
	<u>\$6,000.00</u>	<u>6,000.00</u>
		\$175,530.00
Contingency @ 10%		<u>17,553.00</u>
	Say	<u>\$193,000.00</u>



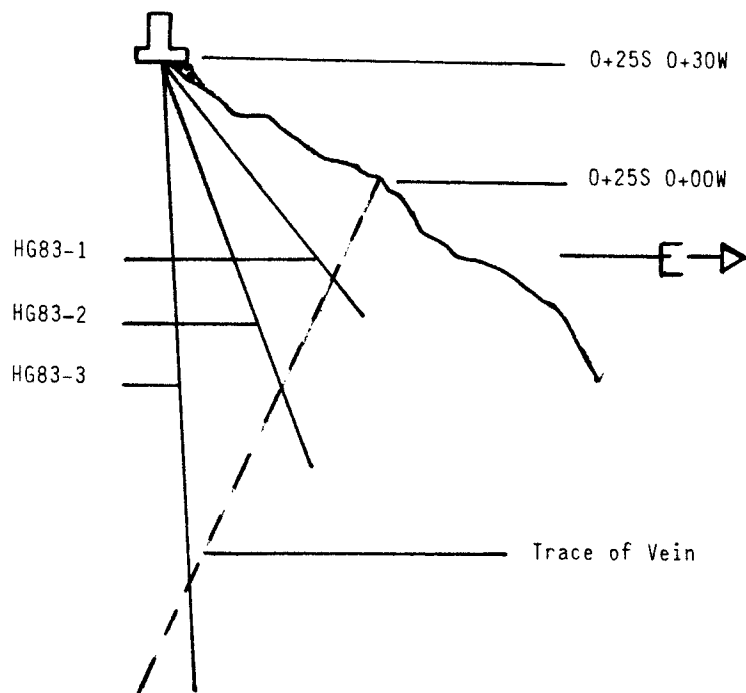
WEEK	1	2	3	4	5	6	7	8	9	10	11
AIR PHOTO STUDY	.....										
MOBILIZATION	—————										
GEOLOGY											
REGIONAL	—————										
LOCAL (TRENCHING)	—————										
DRILLING											
DDH 83-1, 9	—————										
DDH 83-10, 18	—————										
ANALYSES	—————										
REPORTING	.....										
CONSULTING/PROJECT MANAGEMENT	—————										

SCHEDULE 1983 WORK PROGRAM  
BLACK PANTHER GROUP

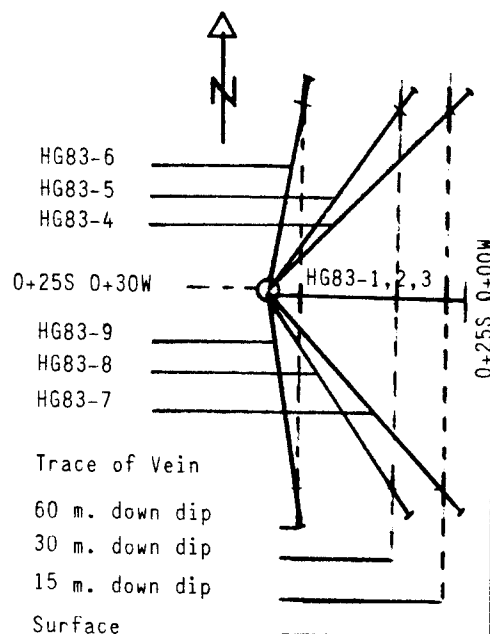
Table 2

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SAWYER CONSULTANTS INC.



DRILL SECTION



DRILL PLAN

1:1000

Diamond Drill Hole No.	Location	Azimuth	Dip	Anticipated Final Depth	Anticipated Vein Intercept (Distance Down Dip)
DDH HG83-1	0+25S 0+30W	N90°E	-36°	50 m.	35 m. (15 m.)
DDH HG83-2	0+25S 0+30W	N90°E	-68°	60 m.	45 m. (30 m.)
DDH HG83-3	0+25S 0+30W	N90°E	-85°	80 m.	70 m. (60 m.)
DDH HG83-4	0+25S 0+30W	N46°E	-52°	65 m.	56 m. (15 m.)
DDH HG83-5	0+25S 0+30W	N35°E	-60°	70 m.	61 m. (30 m.)
DDH HG83-6	0+25S 0+30W	N10°E	-73°	95 m.	88 m. (60 m.)
DDH HG83-7	0+25S 0+30W	S46°E	-52°	65 m.	56 m. (15 m.)
DDH HG83-8	0+25S 0+30W	S35°E	-60°	70 m.	61 m. (30 m.)
DDH HG83-9	0+25S 0+30W	S10°E	-73°	95 m.	88 m. (60 m.)
				<u>650 m.</u>	

Note: Pattern to be completed at two set-ups: 0+25S 0+30W; 2+25S 0+22W.

1983 PROPOSED DIAMOND DRILL PLAN  
AND SUMMARY  
HIGH GRADE VEIN

Table 3

## CONCLUSIONS

- (1) The Jan Resources Ltd. Black Panther Group hosts four known gold quartz vein structures. Undoubtedly other as yet undiscovered mineralization exists.
- (2) The structures are typically narrow and in volcanic host lithologies but wall rock values increase in sheared and more porous hosts.
- (3) These chutes appear to be controlled at least partly by the intersections of north-south and northeast-southwest trending structures.
- (4) Values of up to 6.00 oz./ton gold and associated silver, lead and zinc values are known to occur in discretely defined narrow veins and in local ore chutes. A major proportion of this gold value occurs as visible free gold.
- (5) The widths of the mineralized High Grade Vein are 35-40 cms. maximum whereas the structure including sheared and intercalated wall rock material may be greater than 100 cms. Maximum (uncut) values over these widths are 1.96 oz./ton gold to date.
- (6) In order to delimit tonnages and grades sufficient for a production decision a number of chutes must be delineated and a number of structures must be explored. The best potential for higher grades appears to be within the High Grade Vein system. Further work is required at the Middle Vein and at Summit Lake.

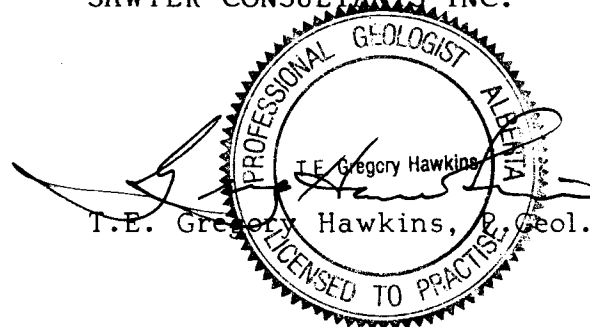
- (7) General target areas within the property boundaries can be selected through air photo study and definitions of favourable structural methods.
- (8) Base metal and silver rock geochemistry will aid in defining favourable areas that may not exhibit good gold values with limited sampling.
- (9) Detailed diamond drilling and further large volume surface sampling at the North and South zones of the High Grade Vein are required in order to prove them worthy or unworthy of further development.

RECOMMENDATIONS

- (1) Continued assessment of the Black Panther Group and more specifically the High Grade Vein system must be directed at the detailed delineation of chutes of high grade gold mineralization.
- (2) It is, therefore, recommended that continued detailed delineation of the High Grade North and South zones through a diamond drilling program and close spaced surface sampling program be carried out as the next logical exploration phase.
- (3) Property assessment must be aimed at locating more potential high grade targets with follow-up similar to that prescribed for the High Grade Vein system.
- (4) All assessments must be directed at the potential for small tonnage, high grade gold deposit(s) and selective mining.
- (5) Regional property assessment and detailed delineation of the High Grade Vein are recommended at a total cost of \$193,000.00 to be spent over a period of eleven weeks.

Respectfully submitted,

SAWYER CONSULTANTS, INC.




**SAWYER CONSULTANTS INC.**

CERTIFICATE

I, T.E. Gregory Hawkins, DO HEREBY CERTIFY:

- (1) That I am a Consulting Geologist, of Sawyer Consultants Inc., with business offices at 1201 - 675 W. Hastings St., Vancouver, British Columbia, V6B 1N2.
- (2) That I am a graduate in geology of The University of Alberta, Edmonton (B.Sc. 1973), and of McGill University, Montreal (M.Sc. 1979).
- (3) That I have practised within the geological profession for the past twelve years.
- (4) That I am a Fellow of the Geological Association of Canada, and a Professional Geologist registered in the Province of Alberta.
- (5) That the opinions and recommendations expressed in this report are based on personal field work carried out on the job site in 1982, and on other field work carried out in the area in 1981 and 1982, and on research of materials relating to the area.
- (6) That I own no direct, indirect, or contingent interests in the area, the subject property, or shares or securities of Jan Resources Ltd. or associated companies, nor do I expect to receive any interest.

A circular seal for the Professional Geologists of the Province of Alberta. The outer ring contains the text "PROFESSIONAL GEOLOGIST" at the top and "PROVINCE OF ALBERTA" at the bottom. The center of the seal features a signature in cursive that reads "T.E. Gregory Hawkins". Below the signature, the text "T.E. Gregory Hawkins, P.Geol." is printed.

T.E. Gregory Hawkins, P.Geol.

Dated at Vancouver, British Columbia, this 30th day of November, 1982.

**SAWYER CONSULTANTS INC.**

BIBLIOGRAPHY

- Apps, G.E., 1965: Report on the property of Gold Eagle Mines Ltd. N.P.L.; corporate file, Aug. 23, 1965.
- Hawkins, T.E.G., 1982: Report with Recommendations for Detailed Assessment of the High Grade Vein System, Black Panther Group; for Jan Resources Ltd., Sawyer Consultants Inc., July 9, 1982.
- , 1981: Report on the Diamond Drilling Program, Black Panther Veins to March 1981 with Recommendations for the Jan-Mar-Remy Claims for the 1981 Season; for Jan Resources Ltd., Sawyer Consultants Inc., April 27, 1981.
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APPENDIX I

Summary of Expenditure  
and  
List of Personnel  
for  
Assessment Purposes

**SAWYER CONSULTANTS INC.**

STATEMENT OF EXPENDITURE

The expenditures shown below were made by Jan Resources Ltd. in connection with grid geology and sampling carried out on the Black Panther Group in the period October 3 to November 30, 1982.

Field Work (October 3 to October 12, 1982)

Mobilization, demobilization, geological mapping and sampling

1 geologist, 10 days @ \$400.00/day	\$4,000.00	
1 assistant, 8 days @ \$150.00/day	1,200.00	
1 assistant, 1 day @ \$150.00/day	150.00	
	<u>\$5,350.00</u>	\$ 5,350.00

Field Crew Expenses		774.94
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Blasting supplies (drill, steel, powder, fuse, caps)		3,801.26
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Analyses

Rock geochemistry	\$173.90	
Rock assays	594.50	
	<u>\$768.40</u>	768.40

Truck Rental (plus fuel)		254.23
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Helicopter (4 hours @ \$438.00/hour)		<u>1,752.00</u>
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\$12,700.83

Office Compilation

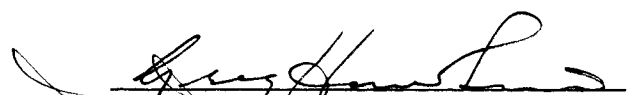
1 geologist

4 days @ \$400.00/day	\$1,600.00	
11 hours @ \$70.00/hour	770.00	
	<u>\$2,370.00</u>	2,370.00

Secretarial service		297.50
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Report and disbursements costs		<u>1,240.79</u>
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TOTAL		<u>\$16,609.12</u>
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T.E. Gregory Hawkins, P.Geol.

**SAWYER CONSULTANTS INC.**

LIST OF PERSONNELSawyer Consultants Inc.

T.E. Gregory Hawkins, P.Geol.  
Consulting Geologist

Mapping, report preparation, project management.

Field Work (Oct. 3-12, 1982)

10 days @ \$400.00/day \$4,000.00

Office Compilation (Oct. 13 to Nov. 30, 1982)

4 days @ \$400.00/day 1,600.00

11 hours @ \$70.00/hour 770.00

\$6,370.00

\$6,370.00

Ashworth Explorations Ltd.

R. Garcia, Assistant

Trenching and grid work. (Oct. 3-10, 1982)

8 days @ \$150.00/day \$1,200.00

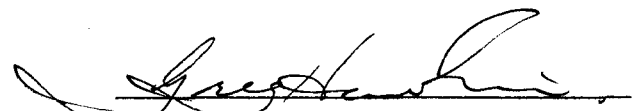
Clive Ashworth, Expeditor (Oct. 3, 1982)

Expediting

1 day @ \$150.00/day 150.00

\$1,350.00

\$1,350.00



T.E. Gregory Hawkins, P.Geol.

**SAWYER CONSULTANTS INC.**

APPENDIX II

Sample Descriptions and Summary  
Comparative Results 1980/1982  
Bondar-Clegg & Co. Ltd. Lab Reports

**SAWYER CONSULTANTS INC.**

**SAMPLING SUMMARY**  
**COMPARATIVE RESULTS 1980/1982**  
**(UNCUT)**

Location 1982	Sample No.		Assay oz./ton Au	
	1980	1982	1980/Width (cm.)	1982/Width (cm.)
0+18S	21,38	50343,44	3.05/12; 10.002/22	0.154/90
0+25S	18,39	50323,24	3.70/22; 0.28/22	0.029/90
0+29S	16	50345,46	3.68/8	0.015/100
0+37S	15	50349	1.44/10	0.056/40
1+75S, 8E	-	50332	-	0.002/3
2+00S, 10E	33(?)	50336,37	0.090/26	0.29/95
2+25S, 10E	32	50317,18,19	0.23/20	1.196/90
2+50S, 10E	25	63052	0.35/11	0.110/200
2+65S, 10E	1(?)	50340	0.20/8	0.160/10

JAN RESOURCES LTD. - HIGH GRADE PROSPECT

SAMPLE DESCRIPTIONS AND SUMMARY

Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
50311	Along westerly extent of 1982 grid.	Grab of carbonatized andesite, greenish/grey when fresh, quartz stringered, minor chalcopyrite/pyrite, weathers rust/brown.	L0.002	0.02	34	10	210
50312	Above drill set-up and snowslide.	Grabs of highly siliceous contact intrusive, feldspar porphyry (float).	L0.002	0.04	23	6	56
50313	(As 50311).	Grabs of jasperoid chert and chert breccia cutting(?) altered andesite and as core of quartz filled fissure (float).	L0.002	0.04	35	8	50
50314	1980 drill site.	Quartz porphyry intrusive float and outcrop(?) at 1980 drill site.	L0.002	0.02	2	6	60
50315	Ridge top due west of 1980 drill site.	Quartz porphyry dike, fairly coarse grained, leucocratic and silicified; occasionally rusty (grab).	L0.002	0.02	22	2	56
50316	(Adjacent 50315).	Rusty, fractured and veined andesitic volcanics in contact with 50315 (grab).	0.005	0.02	52	6	72
50317	2+25S, 10E (1980 32,32)	Drusy and banded quartz vein with fine grey sulphide parting, minor pyrite, sphalerite across 30 cm.	3.470	2.01	110	7600	460
50318	2+25S, 10E (1980 32,32)	Vein hangingwall across 30 cm., sheared to massive, red-brown weathering grey/green andesite.	0.105	0.03	19	500	316

APPENDIX II

SAWYER CONSULTANTS INC.

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Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
50319	2+25S, 10E (1980 32,32)	Vein footwall, andesite across 30 cm., possibly more sheared, chlorite(?).	0.014	0.02	16	36	350
50320	2+40S, 0-10E (1980 5)	Resample of massive grey/green unaltered andesite along 10 cm.; chip grab.	0.003	0.02	9	22	124
50321	2+40S, 10E-20E (1980 5)	Resample of massive grey/green andesite as continuation of 50320 along bench face, chip grab, 10 m.	0.002	0.03	29	12	108
50322	0+25S, 0+00 (1980 39,18)	Hangingwall of altered andesite along 30 cm., chip grab.	0.002	0.02	85	20	270
50323	0+25S, 0+00 (1980 39,18)	Footwall of veined and fractured andesite across 60 cm.	0.017	0.03	54	17	344
50324	0+25S, 0+00 (1980 39,18)	Banded quartz, shear gouge, and drusy quartz of main H.G. structure, minor pyrite across 30 cm.	0.041	0.08	72	240	380
50325	0+25S, 0+00 (1980 39,18)	Drusy quartz vein preceding and cut by main H.G. across 5 cm.	0.350	0.16	58	114	208
50326	0+10S, 0+00	Float from northernmost talus slide, quartz/pyrite/chalcopyrite in andesite breccia. (Hand specimen.)	0.002	0.04	1970	10	84
50327	Trench #1 (1980 36)	Vein/shear structure with no major quartz vein included but altered and veined andesite with pyrite and minor chalcopyrite, chip channel across 100 cm.	0.002	0.04	320	10	730

Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
50328	Trench #1 (1980 36)	Massive quartz pyrite vein across 10 cm., minor wall rock clasts.	0.120	0.08	1250	157	980
50329	Trench #2 1+50S	Chip channel across 1.75 m. of ubiquitous pyrite in quartz veined green andesite.	0.002	0.02	122	10	248
50330	Trench #2 1+50S	Very minor 1 cm. oxidized shear paralleling H.G. trend. Select grab of gouge.	0.004	0.04	94	20	170
50331	Trench #2 1+50S	Select grab of heavily pyritized and quartz veined andesite. (Hand specimen.)	0.002	0.02	41	8	184
50332	1+75S, 8E	Chip channel across 0.6 m. of relatively unaltered andesitic hangingwall material.	0.002	0.02	15	6	176
50333	1+75S, 8E	Very minor shear and quartz across 3 cm. along main H.G. trend.	0.002	0.02	47	14	230
50334	1+75S, 8E	0.6 m. across altered andesitic footwall of 50333, chip channel.	0.002	0.02	45	8	168
50335	2+00S, 10E	Chip channel across 0.6 m. of andesitic hangingwall.	0.003	0.02	63	14	260
50336	2+00S, 10E	Chip channel across 35 cm. of main H.G. structure including 8 cm. of banded and drusy quartz with minor sulphides and including shear and vein wall gouge.	0.834	0.97	182	+10000	800



Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
50337	2+00S, 10E	Chip channel across 0.6 m. of footwall of 50336a, oxides of manganese/iron and also black chlorite(?) in heavily sheared parallel structures.	0.030	0.02	54	220	460
50338	Trench #3 1+75S, 0+00	Grab sample of weakly pyritic and unaltered andesite.	10.002	10.02	45	30	160
50339	2+65S, 10E	Chip channel across 30 cm. of andesite hangingwall.	10.002	10.02	37	10	150
50340	2+65S, 10E	Chip channel across 10 cm. of quartz (4 cm.) and shear gouge.	0.160	0.22	47	174	120
50341	2+65S, 10E	Chip channel across 30 cm. of footwall andesite from 50340.	0.003	0.06	56	14	172
50342	0+18S, 0+00 (1980 21,38)	Chip channel across 30 cm. of andesite hangingwall.	10.002	0.06	86	20	334
50343	0+18S, 0+00 (1980 21,38)	Chip channel across 30 cm. of shear with 4 cm. of quartz.	0.303	0.16	84	310	308
50344	0+18S, 0+00 (1980 21,38)	Chip channel across 30 cm. of footwall andesite with minor alteration.	0.004	0.02	63	360	460
50345	0+29S (1980 16)	Chip channel across 60 cm. of footwall andesite.	0.004	0.09	34	117	460
50346	0+29S (1980 16)	Chip channel across 40 cm. including two cherty quartz veins of 10 cm. each. Visible gold, sulphides and gouge. (Hand specimen.)	0.026	0.02	80	185	510

Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
50347	0+29S (1980 16)	Chip channel across 60 cm. of hangingwall of 50346.	0.004	0.02	34	35	216
50348	0+37S, 0+00	Chip channel across 60 cm. of hangingwall of quartz veined and carbonatized andesite.	0.002	0.02	30	14	300
50349	0+37S, 0+00	Chip channel across 40 cm. of shear structure including 4 cm. of quartz.	0.056	0.10	120	400	360
50350	0+37S, 0+00	Chip channel across 60 cm. of footwall.	LO.002	0.02	72	24	480
63051	1+25N	Grab sample on bench of slightly altered, veined andesite along extension of high grade structure(?).	LO.002	0.02	3	6	150
63052	2+50S (1980 25)	Chip grab across 2 m., including wall rock, 8 cm. of main quartz structure and 6 cm. of spar quartz structure.	0.110	0.19	46	640	280
63053	1+70S	Chip grab along base line exposure and bench of highly veined pyritic andesite (as at Trench #2).	0.002	0.02	61	14	236
63054	1+58S, 0+00	Chip grab along baseline, exposure of highly varied pyritic andesite (as at Trench #2).	0.005	0.04	67	13	204
63055	1+40S, 0+00	Chip grab along banded exposure of highly veined pyritic andesite.	LO.002	LO.02	37	6	294

Sample No.	Location (Fig. 4)	Description	ASSAY		GEOCHEM		
			Au oz./ton	Ag oz./ton	Cu ppm	Pb ppm	Zn ppm
63056	1+00S, 0+00	Grab of relatively fresh but fractured (minor oxides) green andesite in trench.	L0.002	L0.02	84	6	780
63057	0+75S, 0+00	Grab of relatively fresh (minor oxides) green andesite in trench.	L0.002	L0.02	60	8	164

L = Less than.

Bondar-Clegg & Company Ltd.  
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Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352867



BONDAR-CLEGG

Geochemical  
Lab Report

REPORT: 122-3753

FROM: SAWYER CONSULTANTS INC.

SUBMITTED BY: P.SAWYER

DATE: 20-OCT-82 PROJECT: JAN HG

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Cu	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100	PREPARED PULP	AS RECEIVED, NO SP
Pb	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		
Zn	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100		

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INVOICE TO: SAWYER CONSULTANTS INC.

REMARKS: ASSAY OF HIGH Pb TO FOLLOW ON 622-3753

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North Vancouver, B.C.  
Canada V7P 2R5  
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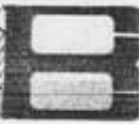
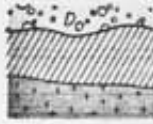
Geochemical  
Lab Report

REPORT: 122-3753 PROJECT: JAN HG

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	NOTES	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	NOTES
P 50311		34	10	210		P 63051		3	6	150	
P 50312		23	6	56		P 63052		46	640	280	
P 50313		35	8	50		P 63053		61	14	236	
P 50314		2	6	60		P 63054		67	13	204	
P 50315		22	2	56		P 63055		37	6	294	
P 50316		52	6	72		P 63056		84	6	780	
P 50317		110	7600	460		P 63057		60	8	164	
P 50318		19	500	316							
P 50319		16	36	350							
P 50320		9	22	124							
P 50321		29	12	108							
P 50322		85	20	270							
P 50323		54	17	344							
P 50324		72	240	380							
P 50325		58	114	208							
P 50326		1970	10	84							
P 50327		320	10	730							
P 50328		1250	157	980							
P 50329		122	10	248							
P 50330		94	20	170							
P 50331		41	8	184							
P 50332		15	6	176							
P 50333		47	14	230							
P 50334		45	8	168							
P 50335		63	14	260							
P 50336		182	> 10000	800							
P 50337		54	220	460							
P 50338		45	30	160							
P 50339		37	10	150							
P 50340		47	174	120							
P 50341		56	14	172							
P 50342		86	20	334							
P 50343		84	310	308							
P 50344		63	360	460							
P 50345		34	117	460							
P 50346		80	185	510							
P 50347		34	35	216							
P 50348		30	14	300							
P 50349		120	400	360							
P 50350		72	24	480							

Bondar-Clegg & Company Ltd.  
 130 Pemberton Ave.  
 North Vancouver, B.C.  
 Canada V7P 2R5  
 Phone: (604) 983-0681  
 Telex: 04-352667



**BONDAR-CLEGG**

**Certificate  
 of Analysis**

REPORT: 422-3753

FROM: SAWYER CONSULTANTS INC.  
 DATE: 27-OCT-82 PROJECT: JAN HG

SUBMITTED BY: T.HAWKINS

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Au	.002 OPT			-100	ROCKS	RETENTION OF REJECTS
As	.02 OPT			-100		CRUSH,PULVERIZE -100

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INVOICE TO: SAWYER CONSULTANTS INC.

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Certificate  
 of Analysis

REPORT: 422-3753 PROJECT: JAN HG

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	As OPT	NOTES	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	As OPT	NOTES
R 50311		<0.002	0.02		R 63051		<0.002	0.02	
R 50312		<0.002	0.04		R 63052		0.110	0.19	
R 50313		<0.002	0.04		R 63053		0.002	0.02	
R 50314		<0.002	0.02		R 63054		0.005	0.04	
R 50315		<0.002	0.02		R 63055		<0.002	<0.02	
R 50316		0.005	0.02		R 63056		<0.002	<0.02	
R 50317		3.470	2.01		R 63057		<0.002	<0.02	
R 50318		0.105	0.03						
R 50319		0.014	0.02						
R 50320		0.003	0.02						
R 50321		0.002	0.03						
R 50322		<0.002	0.02						
R 50323		0.017	0.03						
R 50324		0.041	0.08						
R 50325		0.350	0.16						
R 50326		0.002	0.04						
R 50327		0.002	0.04						
R 50328		0.120	0.08						
R 50329		0.002	<0.02						
R 50330		0.004	0.04						
R 50331		<0.002	<0.02						
R 50332		<0.002	<0.02						
R 50333		0.002	0.02						
R 50334		<0.002	0.02						
R 50335		0.003	0.02						
R 50336		0.834	0.97						
R 50337		0.030	0.02						
R 50338		<0.002	<0.02						
R 50339		<0.002	<0.02						
R 50340		0.160	0.22						
R 50341		0.003	0.06						
R 50342		<0.002	0.06						
R 50343		0.303	0.16						
R 50344		0.004	0.02						
R 50345		0.004	0.09						
R 50346		0.026	0.02						
R 50347		0.004	0.02						
R 50348		0.002	0.02						
R 50349		0.056	0.10						
R 50350		<0.002	0.02						

Bondar-Clegg & Company Ltd.  
130 Pemberton Ave.  
North Vancouver, B.C.  
Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352667



# BONDAR-CLEGG

Certificate  
of Analysis

REPORT: 622-3753

FROM: SAWYER CONSULTANTS INC.  
DATE: 26-OCT-82 PROJECT: JAN HG

SUBMITTED BY: P-SAWYER

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Pb	.01 PCT			-100	PREPARED PULP	AS RECEIVED, NO SF

REPORT COPIES TO: SAWYER CONSULTANTS INC.

INVOICE TO: SAWYER CONSULTANTS INC.

*R.H.*  
Registered Assayer, Province of British Columbia



Bondar-Clegg & Company Ltd.  
130 Pemberton Ave  
North Vancouver, B.C.  
Canada V7P 2R5  
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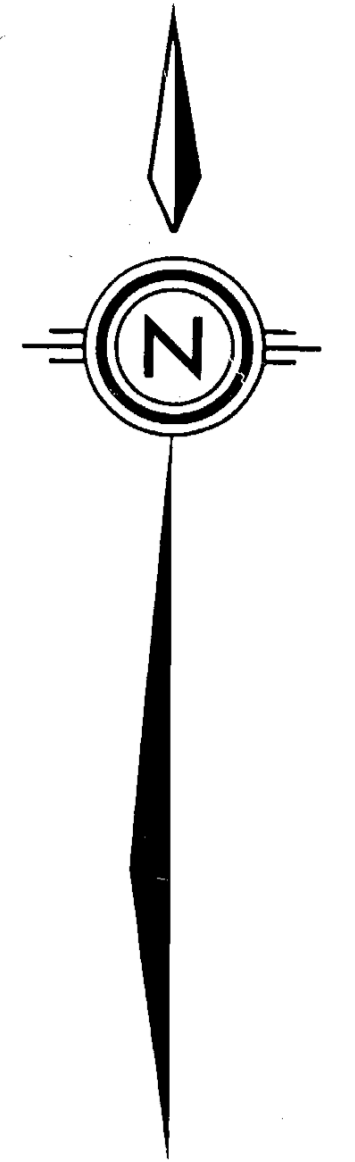
**BONDAR-CLEGG**

**Certificate  
of Analysis**

REPORT: 622-3753 PROJECT: JAN HG

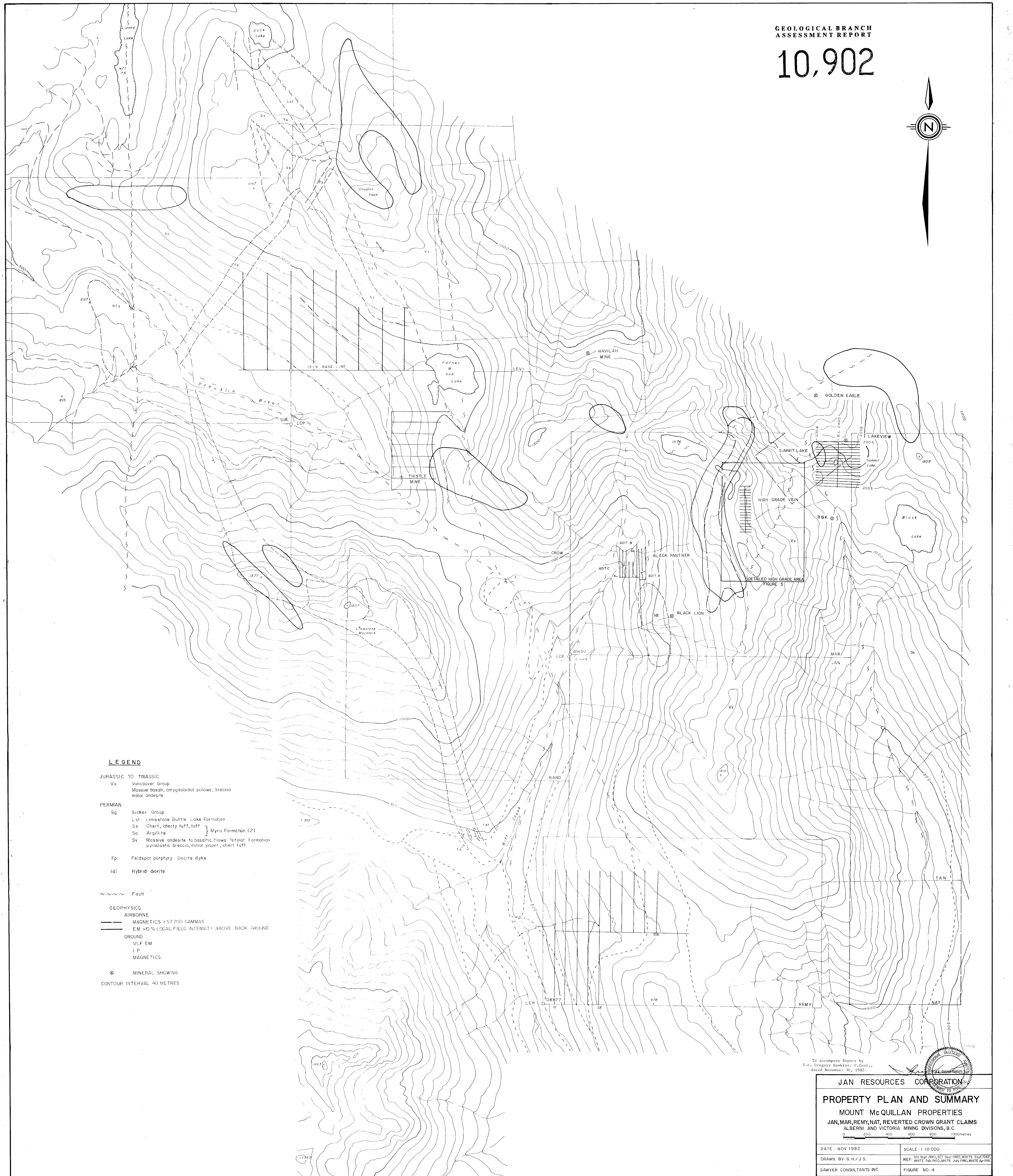
PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Pb PCT	NOTES
P 50336		1.34	

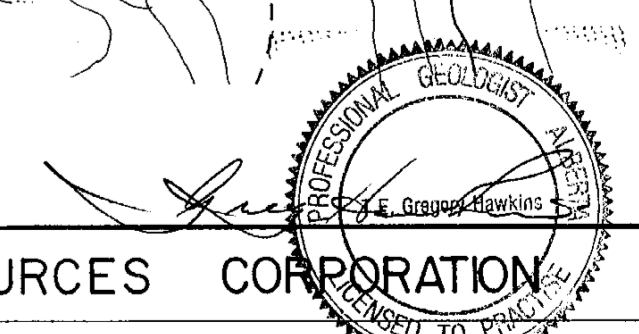


**LEGEND**

- JURASSIC TO TRIASSIC**  
 Vv Vancouver Group  
 Massive tuff, amygdaloidal pillows, breccia  
 minor andesite
- PERMIAN**  
 Sg Sicker Group  
 Lst Limestone, Buttle Lake Formation  
 Ss Chert, cherty tuff, tuff } Myra Formation (?)  
 Sa Argillite  
 Sv Massive andesite to basaltic flows, Nihmat Formation  
 pyroclastic breccia, minor jasper, chert tuff
- Fp Feldspar porphyry Dacite dyke  
 idi Hybrid diorite
- ~~~~~ Fault
- GEOPHYSICS**  
**AIRBORNE**  
 MAGNETICS >57200 GAMMAS  
 EM >10% LOCAL FIELD INTENSITY ABOVE BACK GROUND
- GROUND**  
 VLF EM  
 I P  
 MAGNETICS
- ⊙ MINERAL SHOWING
- CONTOUR INTERVAL 40 METRES



To accompany Report by  
 T.K. Gregory Hawkins, P. Geol.,  
 dated November 30, 1982

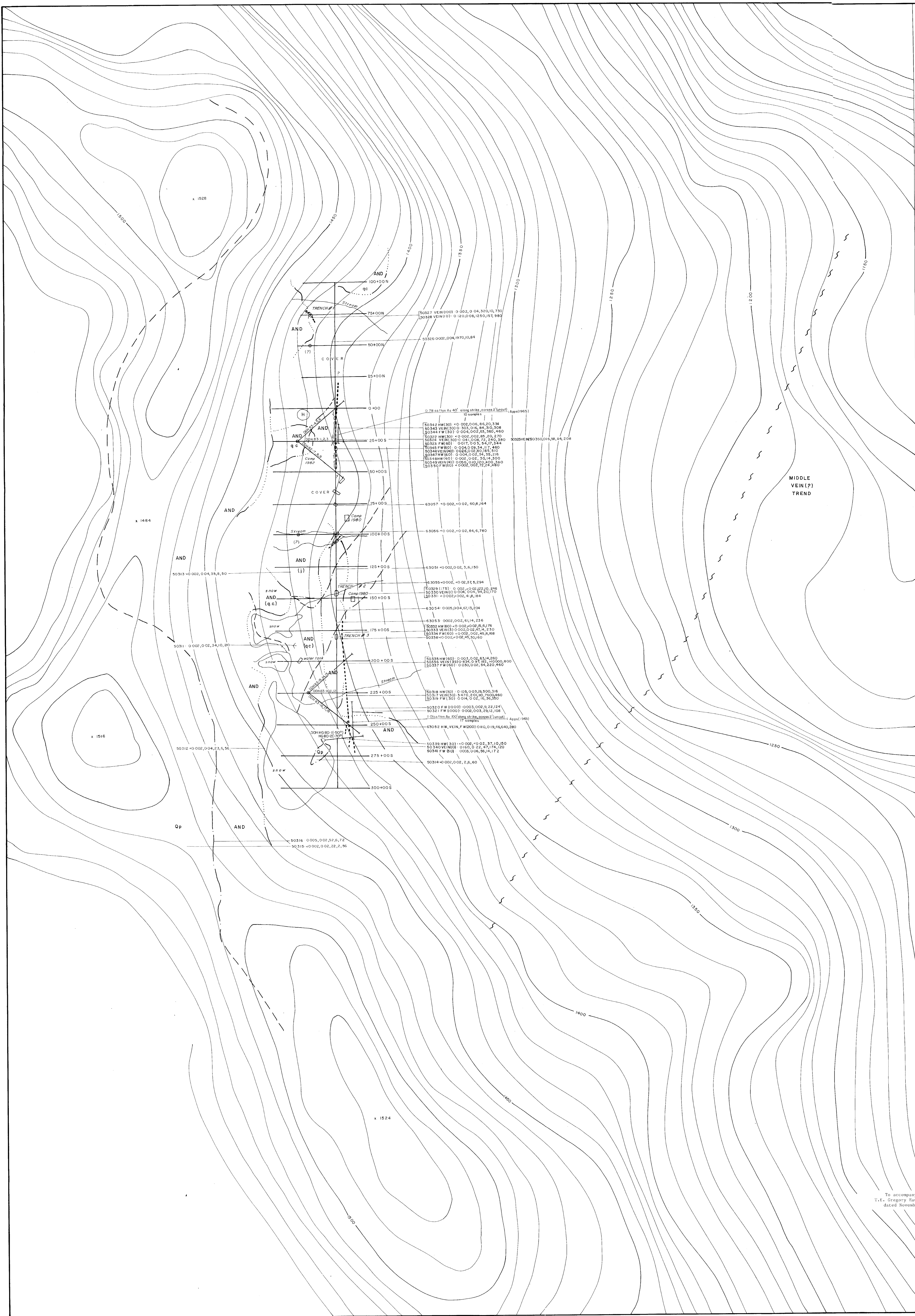
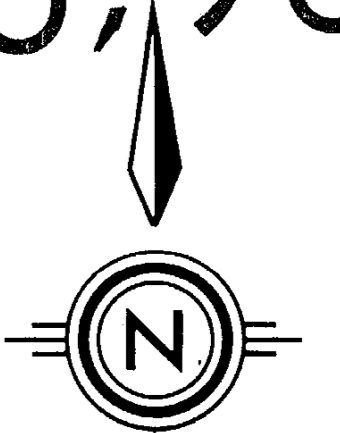


**JAN RESOURCES CORPORATION**

**PROPERTY PLAN AND SUMMARY**  
 MOUNT McQUILLAN PROPERTIES  
 JAN, MAR, REMY, NAT, REVERTED CROWN GRANT CLAIMS  
 ALBERTA AND VICTORIA MINING DIVISIONS, B.C.

0 200 400 600 800 1000 metres

DATE: NOV 1982	SCALE: 1:10 000
DRAWN BY: G.H./J.S.	REF: WHITE Feb 1980, WHITE July 1980, WHITE Apr 1981
SAWYER CONSULTANTS INC	FIGURE NO. 4



**LEGEND**

- Qp LEUCOCRATIC QUARTZ PORPHYRY, SILICIFIED AND OCCASIONALLY LIMONITIC.
- AND BLACK / GREEN MASSIVE ANDESITE (TITINAT FM)
- qc INTENSE VEINING WITH QUARTZ CARBONATE ALTERATION
- j JASPEROID VEINS

**SAMPLING**

Sampling number, Hanging Wall (width cm), Gull or Ton, Silver or Ton, Copper ppm, Lead ppm, Zinc ppm, Vein (width cm)  
Foot Wall (width cm)

50332 HW(60) 0 002, 0 02, 0 15, 0 17

- VEIN TRACE
- GEOLOGICAL CONTACT, ASSUMED
- OUTCROP BOUNDARY
- OLD TRENCH
- DRILL HOLE 1980
- PROPOSED DRILL HOLE 1983
- (H) HELICOPTER PAD (1982)

To accompany Report by  
T.E. Gregory Hawkins, P.Geol.,  
dated November 30, 1982

<b>JAN RESOURCES LTD</b> <b>GEOLOGY AND SAMPLING COMPILATION</b> <b>HIGH GRADE VEIN SYSTEM</b> <b>MAR CLAIM</b> VICTORIA MINING DIVISION, B.C.	
DATE: OCT. 1982.	SCALE: 1:1000
DRAWN BY: G.H./J.S.	REF: SCI JULY 1982, APPS 1965.
SAWYER CONSULTANTS INC.	FIGURE NO. 5