

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 89.08.29

ASSESSMENT REPORT 18018

MINING DIVISION: Nicola

PROPERTY: Dawn
LOCATION: LAT 49 56 24 LONG 120 36 24
UTM 10 5534486 671733
NTS 092H15E

CLAIM(S): Dawn 100
OPERATOR(S): Graham, C.F.
AUTHOR(S): Smitheringale, W.G.
REPORT YEAR: 1988, 29 Pages

COMMODITIES

SEARCHED FOR: Copper

GEOLOGICAL

SUMMARY: The underlying rocks are mainly basalt and andesite flows, lahar and related intrusives of the Upper Triassic Nicola Group. Drilling intersected native copper disseminated in andesite, and chalcopyrite and bornite in small carbonate-filled fractures.

WORK

DONE: Drilling
DIAD 160.1 m
Map(s) - 1; Scale(s) - 1:10 000
SAMP 13 sample(s) ;AU,AG,CU

MINFILE: 092HNE004,092HNE005,092HNE077

LOG NO: 1122	RD.
ACTION:	
FILE NO:	

DIAMOND DRILLING REPORT

DAWN 100 CLAIM

NICOLA MINING DIVISION

SOUTH CENTRAL BRITISH COLUMBIA

NTS MAP-SHEET 92H/15E

FILMED

LAT. 49 56.4 N, LONG. 120 36.4 W

OWNED BY CHARLIE F. GRAHAM

OPERATED BY CHARLIE F. GRAHAM

SUB-RECORDER
RECEIVED
NOV 9 1988
M.R. # \$.....
VANCOUVER, B.C.

prepared by

W.G. SMITHERINGALE Ph.D., P.Eng.

W.G. SMITHERINGALE & ASSOCIATES LTD.

August 15, 1988

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,018

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INTRODUCTION

Property Location and Definition

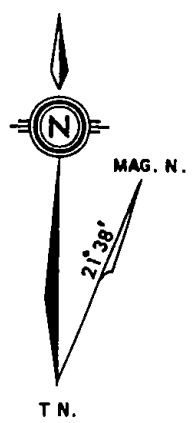
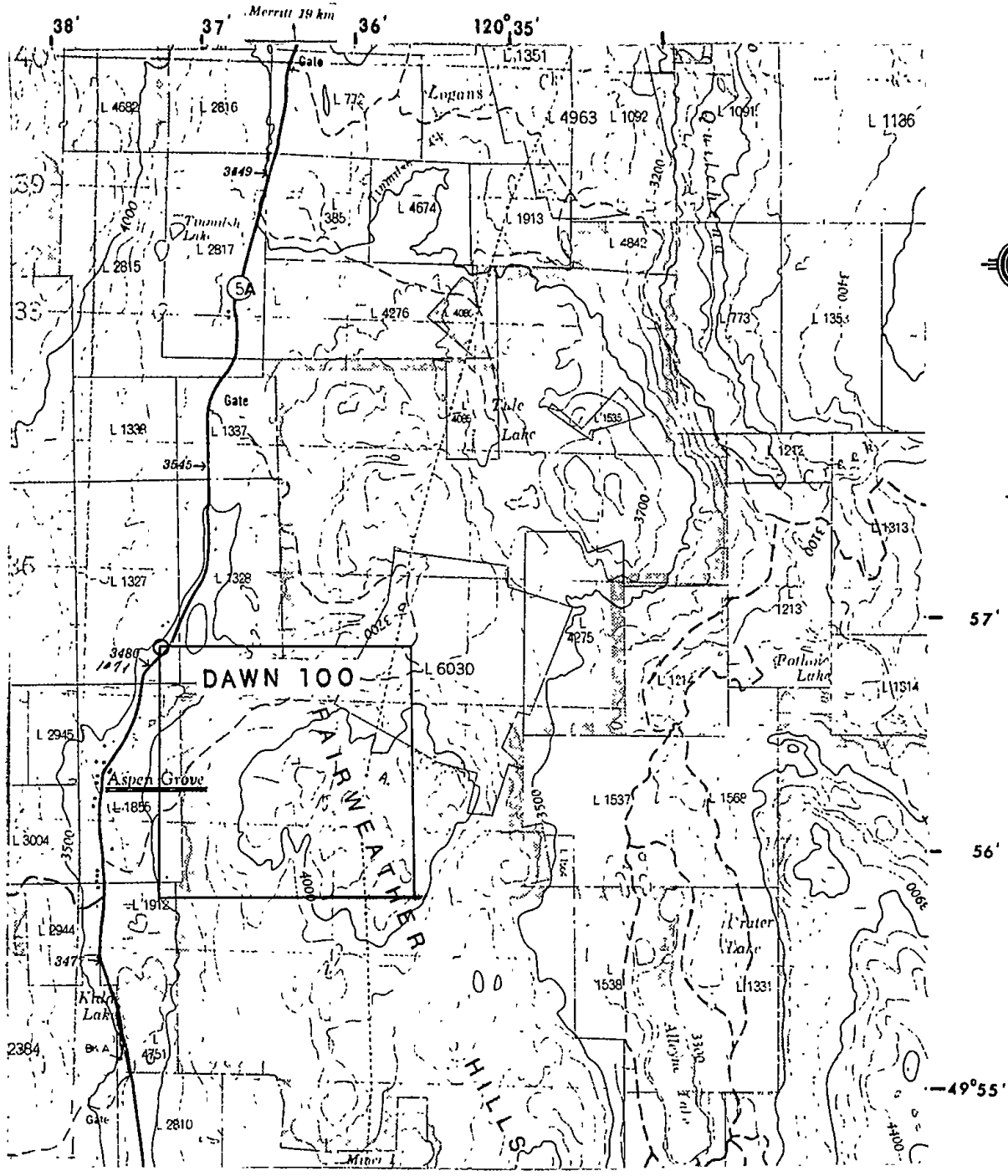
The Dawn 100 claim lies in south-central B.C., 26 km SE of Merritt and directly east of Aspen Grove (Fig. 1). Access is from Hwy. 5A by several dirt roads that traverse the claim. The area, which comprises the northern part of the Fairweather Hills, is hilly cattle range land containing aspen groves and small stands of second growth fir. Elevations vary from about 1060 m to 1310 m. The 1988 drill site is 1.9 km east of Aspen Grove and is reached by 4.5 km of dirt road leaving Highway 5A 3 km north of Aspen Grove.

The Dawn 100 claim consists of 16 units and was staked by Charlie F. Graham in late August, 1987. The date of record is August 28, 1987 and the record number is 1860.

The owner and operator of the Dawn 100 claim is Charlie F. Graham of Merritt, B.C.

History

Numerous showings of copper minerals are known in the Aspen Grove area. The 1901 Annual Report of the Minister of Mines, B.C. (p. 1179) describes the "Aspen Grove Camp" as being a year old and including 100 or more claims. Most of the early exploration in the area was done between 1912 and 1928, and is described in the Annual Reports of the Minister of Mines, B.C. for those years. The area was explored again between 1965 and 1975 for porphyry copper deposits, this work being described in Annual Reports of the Minister of Mines, B.C., in annual issues of Geology, Exploration and Mining in B.C. and in Assessment Reports. Complete lists of references in government documents are given by Rice (1947) and Preto (1979).



Scale 1:50,000

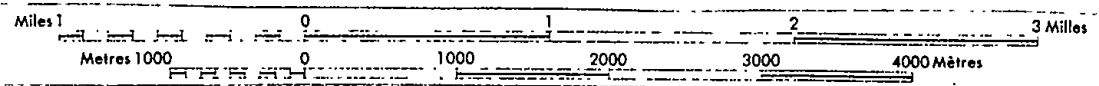
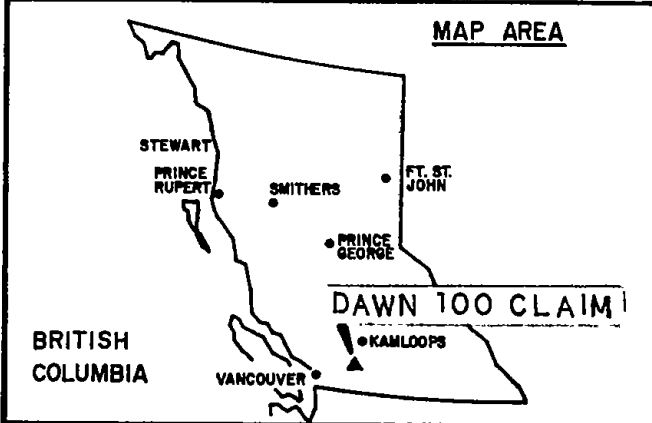


FIGURE 1



DAWN 100
LOCATION MAP
 AUG. 15, 1988
 W.G. SMITHERINGALE & ASSOCIATES LTD.

The old Blue Bird, Copper Belle and part of the Big Kid showings, all of which were explored during the early history of the Aspen Grove Camp, lie within the Dawn 100 claim.

The Big Kid showing, which is one of the most notable in the area, straddles the northeast corner of the Dawn 100 claim. Early exploration work on this showing included three adits 12 m to 90 m in length. In 1956 Noranda Mines Limited conducted a program that included geochemical and geophysical surveys, trenching and several diamond drill holes (Preto, 1979). Work recorded in B.C. Ministry of Mines and Petroleum Resources Assessment Reports between 1968 and 1980 for claims covering the showing include I.P., magnetometer, and soil geochemistry surveys, trenching, rock sampling and diamond drilling 5 holes (Assessment Report numbers 1670, 1827, 3512, 5719, 5849, 5944, 6035, 6555, 7100, 7716 and 8743). It is difficult to tell from the reports how much of this work was done on ground now covered by the Dawn 100 claim, but it is probable that most of the trenching, sampling and drilling was done in the area of the best showings and old adits, which are outside the Dawn 100 claim. The mineralization exposed by this work is described below under property geology.

Other exploration in the area now covered by the Dawn 100 claim is reported by Dawson (1981). It includes a VLF EM survey over much of the claim area in 1970 (the name of the operator is not given), 12 percussion holes from 50 ft to 120 ft deep drilled under the supervision of Kennco Explorations (Western) Ltd. in 1971 and a magnetometer survey conducted by Amax Exploration Inc. in 1972.

As part of their 1972 program Amax conducted an I.P. survey and diamond drilled three holes on ground immediately east of the Dawn 100. The drilling intersected pyritic argillite, siltstone and tuff beneath an I.P. anomaly. Economically

unimportant values in copper and silver were obtained from core samples.

During June, 1988, Mr. Graham, owner of the Dawn 100 claim, conducted a 3 hole, 160 m diamond drill program, which is the subject of this report.

GEOLOGY

Regional

The Aspen Grove Camp lies in the Princeton-Merritt copper belt, which includes the Ingerbelle and Afton porphyry copper deposits. This belt is underlain by andesitic and basaltic volcanic rocks, intrusive bodies of diorite and syenite that are comagmatic with the volcanic rocks and associated volcanoclastic and sedimentary rocks. All of these units belong to the Upper Triassic Nicola Group (Preto, 1979). In the Quesnel Trough Nicola rocks host the QR gold prospect as well as numerous other copper-gold occurrences.

Mineralization in the Aspen Grove area consists principally of pyrite, chalcopyrite, bornite, chalcocite, native copper and malachite. It occurs in breccia zones and as disseminations, replacements and fillings in small fractures in Nicola volcanic and related intrusive rocks and in associated argillaceous and limey sediments. Copper mineralization is widespread but low grade, and is often accompanied by minor gold and silver values.

Property

The Dawn 100 claim is underlain mainly by basalt and andesite flows, related subaqueous and subaerial lahar deposits, a dioritic stock that intrudes the volcanics and a small

trachytic plug containing a breccia pipe that intrudes the diorite stock (Lefebure, 1976, Map 1; Preto, 1979, Fig. 1). These rocks belong to the 'central belt' of the Nicola Group, which is Upper Triassic in age.

About 15 m east of the 1988 drill site there is an old exploration shaft that exposes a northerly trending zone of foliation, which might be interpreted as a poorly defined shear zone, that is heavily stained with malachite.

Adits and trenches on the Big Kid showing located a short distance outside the northeast corner of the Dawn 100 claim expose irregularly distributed mineralization consisting of pyrite, magnetite and chalcopyrite, with silver values in places. The mineralization occurs as disseminations, replacements and fracture fillings in a breccia plug consisting of volcanic rocks, diorite and monzonite-syenomonzonite porphyry. The breccia is hydrothermally altered in places and it is there that mineralization is most intense (Preto, 1979, pp. 77-78).

THE 1988 DIAMOND DRILL PROGRAM

Description

Three BQ wireline holes totalling 160.1 m were drilled between June 3 and June 10, 1988, by Iron Mountain Diamond Drilling Ltd. of Merritt, B.C. The core is stored at the residence of Charlie F. Graham in Merritt.

The drill site was inspected, its location within the boundaries of the Dawn 100 claim was verified and the core was logged and sampled by the writer on July 5, 6 and 7, 1988. Samples were submitted to CDN Resource Laboratories Ltd. of Burnaby, B.C. for geochemical analysis for gold, silver and copper. The core logs and assay certificates are

presented in Appendicies 1 and 2.

The orientation and other details of each hole are given in Table 1 and the collar locations are shown on Fig. 2.

TABLE 1. Details of 1988 Diamond Drill Holes

Drill Hole	Collar			
	<u>Azimuth</u>	<u>Elevation</u>	<u>Inclination</u>	<u>Length</u>
88-1	127	1270 m	-50	61 m
88-2	127	1270 m	-70	61 m
88-3	127	1270 m	-90	38.1 m

Purpose

The purpose of the 1988 drill program was to intersect at depth the apparently steeply dipping zone of copper mineralization exposed in an old shaft 15 m east of the drill site.

Results

The holes were collared in andesite. At depth all three holes encountered first pyroxene porphyritic andesite, then short intervals of interbedded agglomerate and andesite, and finally agglomerate. Agglomerates with a red matrix were interpreted in the logs as subaerial lahar deposits and those with a green matrix were interpreted as subaqueous lahar deposits. From the drill hole data the units appear to dip steeply westward.

Mineralization in the core consists of native copper, chalcopyrite, bornite and malachite. The native copper occurs as tiney threads in microfractures disseminated

throughout the andesite and pyroxene porphyritic andesite. It usually is present in amounts less than 0.05%. Chalcopyrite and bornite occur sparingly and irregularly distributed in thin calcite filled conjugate fractures and small calcite flooded breccia zones adjacent to slips. Secondary malachite occurs principally in the upper portions of the holes. The best assays obtained are listed in Table 2.

TABLE 2.

Sample Number	Drill Hole	Interval	Cu ppm	Ag ppm	Au ppb
50729	88-3	10.7-12.2 m	2250	1.0	< 5
50734	88-1	18.9-20.4 m	13600	5.6	< 5
50736	88-2	12.2-13.7 m	5800	1.8	< 5

Interpretation and Conclusions

Economically significant mineralization was not encountered by the 1988 drill program.

The steeply dipping zone of malachite staining exposed in the old shaft east of the drill site does not continue to depth. The primary mineralization from which it formed is probably restricted to local shearing or fracturing at a flow contact.

Native copper in trace quantities is likely widespread in the andesitic units intersected by the drill holes. Although native copper disseminated in volcanic rocks can form economic deposits, such deposits are uncommon on a world wide basis and it is improbable that such a deposit is present on the Dawn 100 claim.

The fracture controlled calcite-chalcopyrite-bornite style of mineralization could be of economic interest in large zones of close spaced fractures, but such fracture zones are not

described in review articles of the Aspen Grove Camp.

Gold values do not accompany copper mineralization at the location of the 1988 drilling.

The writer considers the northeast quadrant of the Dawn 100 claim to warrant exploration for breccia pipe related copper-gold mineralization. This conclusion is based on the possibility that the Big Kid breccia pipe is in part structurally controlled and that the structure and breccia might extend into the Dawn 100 claim. The most effective exploration program would be one in which the Dawn 100 and Big Kid properties are explored as one.

ITEMIZED COST STATEMENT

Wages & Fees

W.G. Smitheringale, consultant:

3.2 days @ \$400.00/day\$1280.00

Food & Accommodation

W.G. Smitheringale, July 5 to 7:

Food, 3 days @ 16.12/day\$48.35

Accommodation, 2 days @ \$38.8877.76.....126.11

Transportation

Vehicle costs, July 5 to 7: 3 days

@ \$18.35/day for part share of costs\$55.05

Toll road charges 10.00

Fuel 54.79.....119.84

Analyses

12 core samples, geochem analysis for Au, Ag & Cu

@ \$12.90 each154.80

Report

Consultants fees\$800.00

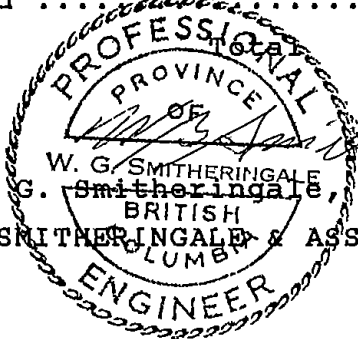
Typing, maps & reproduction.....200.00.....1000.00

sub total \$2680.75

Diamond drilling (Iron Mountain Diamond Drilling Ltd.)

526 ft. @ 24.66/ft. all found12976.00

Total \$15656.75



 W. G. SMITHERINGALE, Ph.D., P.Eng.

 W.G. SMITHERINGALE & ASSOCIATES LTD.

August 15, 1988

REFERENCES

Dawson, J.R.(1981): Geophysical, Geochemical and Property Geology Compilation Report on the Borex and Norex Group of Claims. Private report.(N.B. this author lives in Merritt, and is not to be confused with the consultant J.R. Dawson of Kamloops).

Lefebure, D.V. (1976): Geology of the Nicola Group in the Fairweather Hills, B.C. Unpubl. M.Sc. thesis, Queen's University.

Preto, V.A.(1979): Geology of the Nicola Group Between Merritt and Princeton. B.C. Ministry of Energy, Mines and Pet. Res., Bull. 69.

Rice, H.M.A.(1947): Geology and Mineral Deposits of the Princeton Map-Area, British Columbia. Geol. Surv. Canada, Mem. 243.

CERTIFICATION

I, William G. Smitheringale, hereby certify that:


I am a practising Professional Geological Engineer, resident at 4611 Hoskins Road, North Vancouver, B.C.

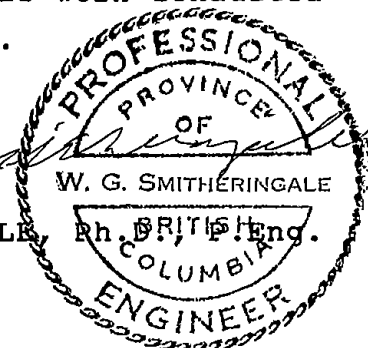
I am a graduate of the University of British Columbia with the degree of Geological Engineer (B.Ap.Sc., 1955) and of the Massachusetts Institute of Technology with the degree of Doctor of Philosophy in Geology (Ph.D., 1962).

I have practised my profession continuously for twenty six years as Geologist with the Geological Survey of Canada, as Assistant and Associate Professor, Department of Geology, Memorial University of Newfoundland and, since 1974, as a Consulting Geologist.

I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia (Registration No. 10802).

This report is based on field and office work conducted by me between July 5 and August 15, 1988.


W.G. SMITHERINGALE, Ph.D., P.Eng.



August 15, 1988

APPENDIX 1
Assay Certificates

Geochemical analysis for Au, Ag and Cu was carried out by CDN Resource Laboratories Ltd. of Burnaby, B.C.

The core samples were crushed, subsampled and the subsample was pulverized to pass a 100 mesh screen. Gold was determined on a 15 gm portion of the pulp that was fused to produce a gold bead which was then leached with HNO₃ to remove Ag. The remaining bead was dissolved in aqua regia and the gold content was determined using atomic absorption. Ag and Cu were determined using HNO₃ extraction and atomic absorption analysis.

CDN RESOURCE LABORATORIES LTD.

6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

GEOCHEMICAL REPORT

To: Gerle Gold Ltd.
904 - 675 West Hastings
Vancouver, B.C.
V6B 1N2

Number: 88340
Date: July 21, 1988
Proj.: Dawn 100

Attn: Ray Hrkac cc. Bill Smitheringale

	DH #	Au ppb	Ag ppm	Cu ppm
50726	3	< 5	0.2	550
50727	3	< 5	0.6	690
50728	3	< 5	0.2	380
50729	3	< 5	1.0	2250
50730	3	< 5	0.2	420
50731	3	< 5	0.4	410
50732	3	< 5	0.2	210
50733	3	< 5	0.2	110
50734	1	< 5	5.6	13600
50735	1	< 5	0.2	80
50736	2	< 5	1.8	5800
50737	2	< 5	0.2	310
50652			<0.1	160

Duncan Sanderson

APPENDIX 2

1988 Diamond Drill Hole Logs

**GERLE GOLD LTD.
DIAMOND DRILL RECORD**

LOCATION: 1550m E & 1500m S of JCP
AZIMUTH: 127

HOLE NO. DWN 88-1
PROPERTY: Dawn 100

PAGE 1 OF 5

DIP: -50 LENGTH: 61m ELEVATION: about 1270m CLAIM NO.: Dawn 100

STARTED: CORE SIZE: BQ DATE LOGGED: July 6, 1988 SECTION:

COMPLETED: DIP TESTS: EOH: (61.0)

LOGGED BY: W. Smitheringale

PURPOSE:

FLAG	METRES		DESCRIPTION	ALTERATION			SULPHIDES		SAMPLE No.	INTERVAL		LENGTH Metres	% Recovery	Au oz/ton	Au ppb	Ag ppm	C/Ag	
	from	to		Q	Carb	Chl	Ser	Ox		%Py	%Cp							from
	0	2.1	CASING															
	2.1	8.5	ANDESITE: Medium green, f.gr. 30 - 50% dark aphanitic matrix 30% plag. now altered to chlorite and sericite, 20% mafic (mostly amphibole?) now altered to epidote; approx. 5% magnetite, no py. Not calcitic. Veins: about 5% hairline to 5mm; mostly calcite with or without epidote, local minor hematite; locally vuggy; walls of some are silicified. These are fracture fillings of mainly 3 conjugate sets, one sub parallel to core and two 40 to 60 to C.A.															
			7.9- 8.2: zone of bleaching and calcite -quartz-epidote replacement containing less than 0.5% chalcocite/much malachite. AND 8.5: shear 60 to C.A.; chloride,							CC								

GERLE GOLD LTD.
DIAMOND DRILL RECORD

HOLE NO. DWN 88-1

PAGE 4 OF 5

FLAG	METRES		DESCRIPTION	ALTERATION			SULPHIDES		SAMPLE No.	INTERVAL		LENGTH Metres	% Recovery	Au oz/ton	Au ppb	Ag g/ton	Cu g/ton
	from	to		O	Carb	Chl	Ser	Ox		%Py	%Cp						
			19.1-19.2: core contains about 5% cp and bornite in calcite flooded bx and stringers.														
			20.1: 2cm wide chlorite calcite bx zone contains 5% cp.														
			N.B. Is this mineralization related to the colour change?														
			22.6-23.9: greyish-green; similar to 18.3-20.7.														
	23.9	61.0	"AGGLOMERATE": greyish-green matrix containing grey, green and red angular fragments. Frags are clearly unsupported and comprise about 70% of rock. Typical size 1 to 5cm but some up to 10cm. One frag vesicular basalt at 42.1 is 0.5m across. This is a sub-aqueous lahar. Some frags are limey (calcite alteration) but matrix is non calcitic up to about 100 ft. Thereafter both frags and matrix are generally limey. No py; non-magnetic. Most frags are andesite, but some are latite. Alteration is moderate epidotization. Chlorite should be present but is obvious only in slips. Veins as above.														
			36.0-36.6: minor py in several veins and several specks of cp.														
									x	50735	35.1	36.6	1.5		<5	0.2	80

**GERLE GOLD LTD.
DIAMOND DRILL RECORD**

FLAG	METRES		DESCRIPTION	ALTERATION			SULPHIDES			SAMPLE No.	INTERVAL		LENGTH Metres	RECOVERY %	Au oz/ton	Au ppb	Ag ppb	Cu ppm	
	from	to		Q	Carb	Chl	Se	Ox	%Py		%Cp	from							to
	12.8	37.0	<p>PYROXENE PORPHYRITIC ANDESITE. Same rock as in DWN 88-1 8.5 to 14.9</p> <p>12.8-14.6: pyrox. phenos comprise about 10% of rock.</p> <p>14.6-17.7: pyrox phenos comprise up to 40% of rock.</p> <p>Alteration as in 88-1 8.5 to 14.9.</p> <p>Veins: as above, except chlorite is present in most slips.</p>																
			<p>11.9-14.6: broken core in small pieces due to many chlorite coated calcite stringers and slips.</p> <p>12.8-13.1: scattered stringers and blebs of bornite and cp in veins and slips - perhaps 1% of core.</p> <p>14.6-17.1: shear and bx zone. Highly chloritic matrix is locally sheared, producing a preferred orientation of the pyrox. phenos. Subsequent to this the rock was brecciated and flooded with calcite veining. Veins comprise 10 to 15% of the core. This brecciation and veining postdates an earlier stage of veining that carries minor cp between 16.2 and 16.8.</p>								x	12.2	13.7	1.5		<5	1.8		
											x	15.2	16.8	1.6	<5	0.2			310


**GERLE GOLD LTD.
DIAMOND DRILL RECORD**

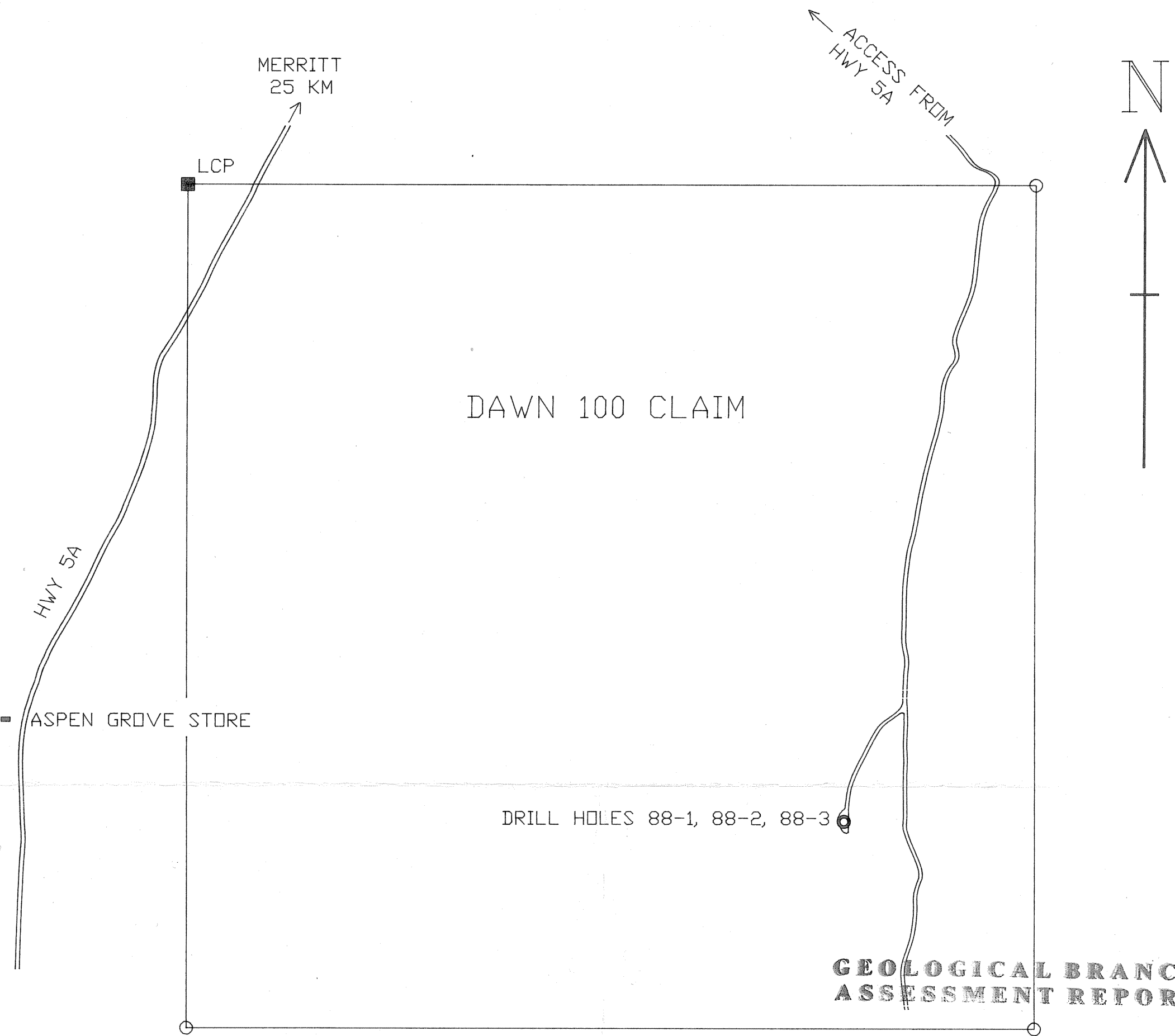
LOCATION: 1550m E. & 1500m S. of ICP
AZIMUTH: 127

HOLE NO. DWN 88-3 PAGE 1 OF 3
PROPERTY: Dawn 100

DIP: -90 LENGTH: 38.1m ELEVATION: about 1270m CLAIM NO.: Dawn-190
STARTED: CORE SIZE: DATE LOGGED: July 7, 1988 SECTION:

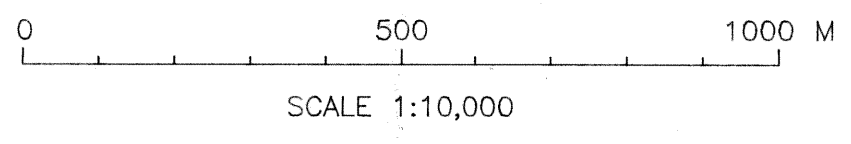
COMPLETED: DIP TESTS: EOH: (38.1) LOGGED BY: W. Smitheringale
PURPOSE:

FLAG	METRES		DESCRIPTION	ALTERATION			SULPHIDES		SAMPLE No	INTERVAL		LENGTH Metres	% Recovery	Au g/ton	Au ppb	Ag ppm	Cu ppm
	from	to		0	Carb	Chl	Ser	Ox		%Py	%Cp						
	0	2.1	CASING														
	2.1	33.8	ANDESITE: Medium greyish green. F.gr. plagioclase and mafic grains about 40%, very f.gr. matrix 60%, about 3-5% magnetite, no py; tiny micro-fractures limey. Plagioclase and mafics variably altered to epidote and chlorite. Colour, texture and properties of matrix, plagioclase and mafics vary - probably reflecting different flows or flow tops and bottoms.														
			Veins: calcite with or without quartz and epidote; hairline to 0.5cm thick. Fill conjugate fractures.							50726	6.1	7.6	1.5	<5	0.2	550	
										50727	7.6	9.1	1.5	<5	0.6	690	
										50728	9.1	10.7	1.6	<5	0.2	380	
										50729	10.7	12.2	1.5	<5	1.0	2250	
			Vein orientation							50730	12.2	13.7	1.5	<5	0.2	420	
																	



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

18-018



DAWN 100 CLAIM

PLAN

SHOWING LOCATION OF
1988 DIAMOND DRILL HOLES



DRAWN BY: W.G. SMITHERINGALE & ASSOCIATES LTD.	DATE: AUG. 1988	FIG. 2
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