

ASSESSMENT REPORT
on
GEOLOGICAL MAPPING

DA VENT PROPERTY

Negro Creek Area

FORT STEELE MINING DIVISION

NTS 82 G/5W

Latitude 49° 26' N
Longitude 115° 56' W

UTM 5476000 N 578000 E

By

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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,131

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1.00 INTRODUCTION

This report describes the results of a geological mapping program completed on the DA Vent property near the confluence of Palmer Bar Creek and the Moyie River, SW of Cranbrook, B.C. during 1999.

1.10 Location and Access

The DA Vent property is located approximately 15 kilometers southwest of Cranbrook, B.C. in the Fort Steele Mining Division (Fig. 1). The claims are centered near 49° 26' N Latitude and 115° 56' W Longitude (UTM 5,476,000 N, 578,000 E), on NTS reference map 82 G/5 W (Fig. 2).

Access to the property is via the Lumberton logging road which leaves Highway 3/95 approximately 10 kilometers south of Cranbrook. Other logging roads in the Negro Creek area provide local access.

1.20 Property

The DA Vent property includes the Plum and DA Vent claims, a contiguous group of 22 two-post claims (Fig. 2), currently under option to Ascot Resources Ltd. Three 2-post claims within the Plum claim block are held by another party and are not part of the DA Vent property.

1.30 Physiography

The DA Vent property is west of the Rocky Mountain Trench, within the Moyie Range of the Purcell Mountains. The claims cover the lower portion of Palmer Bar Creek; topography consists of gentle to moderate mountain slopes ranging in elevation from about 1090 to 1450 meters.

Forest cover consists of a mixture of mainly pine, fir and larch in various stages of maturity. Parts of the claim block have been clear-cut logged.

1.40 History of Previous Exploration

The area of the DA Vent property was previously held by Cominco Ltd. who have conducted a long-standing search for zinc-lead-silver deposits in the general vicinity of Kimberley where the Sullivan orebody has been mined for most of the past 100 years. Specific details of Cominco's exploration work near the DA Vent property are unknown.

Southeast flowing tributaries of the Moyie River have historically been worked for placer gold. Negro and Palmer Bar Creeks which drain the DA Vent property both carry placer gold. A number of adits and other workings within the Plum claim block (but on the three 2-post claims which are not part of the property) tested a series of gold-bearing quartz veins.

In 1998 a small program of localized geological mapping and VLF-EM geophysical surveying was completed over a fragmental which occurs on the Vent 3 claim (AR 25,783).

1.50 Purpose of Survey

During 1999 a geological mapping program was carried out on and near the DA Vent property to evaluate surface bedrock for indicators of economic base metal mineralization.

2.00 GEOLOGY

2.10 Regional Geology

The area of the DA Vent property has been recently mapped by Hoy and Diakow (1982): the property is underlain by the Mesoproterozoic Purcell Supergroup, a thick sequence of fine-grained terrigenous clastic, carbonate, and very minor volcanic rocks exposed in the core of the Purcell Anticlinorium in southeastern British Columbia. These rocks are believed by most workers (eg. Harrison, 1972) to have been deposited in an epicratonic re-entrant of a sea that extended along the western margin of the Precambrian North American Craton.

The basal member of the Purcell Supergroup is the Aldridge Formation, a thick sequence (~4000 meters) of fine-grained siliciclastic rocks deposited largely by turbidity currents. Reesor (1958) has divided the Aldridge Formation in the Purcell Mountains into three informal units: rusty weathering siltstone, quartzitic wacke and argillite of the lower Aldridge Formation; grey weathering quartz wacke and siltstone of the middle Aldridge Formation; and laminated argillite of the upper Aldridge Formation.

The base of the lower Aldridge Formation is not exposed; within southeastern British Columbia this unit is about 1500 meters thick; the middle Aldridge is about 2500 meters thick and includes periodic inter-turbidite intervals of thin bedded, rusty-weathering argillites some of which form finely laminated marker beds that are time stratigraphic units and which can be correlated over great distances within the Aldridge basin and equivalent stratigraphy in the United States. The upper Aldridge Formation is about 300 meters thick. The lower and middle units of the Aldridge Formation are host to a proliferation of gabbroic to dioritic composition Moyie Intrusions, predominantly as sills. These intrusions are interpreted to be penecontemporaneous with deposition of their host sediments (Hoy, 1989).

The Aldridge Formation is gradationally overlain by shallower-water deltaic clastics of the Creston Formation. The Creston Formation is in turn overlain by predominantly dolomitic siltstones of the Kitchener Formation.

The Purcell Anticlinorium is transected by a number of steep transverse and longitudinal faults. The transverse faults appear to have been syndepositional (Lis and Price, 1976) and Hoy (1982) suggests a possible genetic link between mineralization and syndepositional faulting.

Longitudinal faults which more closely parallel the direction of basin growth faults may have played a similar role. The Sullivan orebody, which occurs at the upper contact of the lower Aldridge Formation, is part of a NNE oriented structural corridor that hosts extensive evidence of disturbed sedimentation, hydrothermal vent products and the base metal sulfides themselves. This corridor is parallel to longitudinal basin growth faults and is probably related to such a structure.

Cretaceous felsic intrusives of quartz monzonite to diorite composition have intruded Precambrian metasedimentary rocks and are typically controlled by large faults. The Kiakho stock occurs 3 to 4 kilometers north of the DA Vent property, within the Cranbrook Fault. The Cranbrook Fault is a major east-west striking transform fault, dipping to the north with north side down, an attitude similar to the Kimberley Fault located on the immediate north side of the Sullivan orebody.

2.20 Property Geology

Geologic mapping of the DA Vent property was done at a scale of 1:5000; the geologic map is provided as Figure 3. Mapping by Hoy and Diakow (1982) shows the area of the DA Vent property to be underlain by middle Aldridge Formation rocks, and this was substantiated by the 1999 mapping program. Bedding generally strikes northwest and dips gently to moderately northeast. Slight variations in recorded bedding attitudes attest to gently undulating beds within the map area.

Hoy and Diakow show the axis of a north-plunging anticline occurring on the east side of Negro Creek and on the west edge of the DA Vent property. The gentle dip of sedimentary beds in the area indicate this is a shallow plunging fold, and they further suggest the DA Vent property occurs entirely within the area of the fold axis.

The claims are crossed by a northeast-striking fault which parallels the Moyie River southwest of the property. This structure is parallel to the Moyie Fault located about 10 kilometers to the south. Hoy and Diakow show no name for this fault; local workers refer to it as the Van Horne Fault. No direct evidence for this structure was found during the course of geological mapping on the DA Vent property.

Only two occurrences of gabbroic intrusives were noted on the property, both on the western Plum claims. A narrow NNE trending gabbro dike cuts through middle Aldridge Formation sediments in a discontinuous, en echelon manner. This dike is of the same attitude as the NNE 'corridor' at the Sullivan orebody, where extensive hydrothermal venting and base metal sulfides are present. The second occurrence of a gabbro intrusion is at the northern limit of mapping where a relatively thin, medium to coarse grained sill is present within middle Aldridge Formation sediments.

About 400 meters northeast of Negro Lake and immediately west of the gabbro dike on the DA Vent property there is local development of vent-related alteration, including tourmalinization, albitization, sericite and biotite. The alteration is evident on surface over a north-south strike length of about 250 meters.

This alteration occurs in the immediate vicinity of a series of quartz veins, some of which are reported to carry gold mineralization. A number of old adits and a shaft are developed in this area of quartz veining and vent alteration. The old workings tested what appears to be two separate styles of quartz veining; a flat-lying set which consists of a few larger quartz veins, up to 1.5 meters thick, and a more complex suite of steep-dipping, thinner veins that are rarely as thick as 20 cm. The tourmalinization, albitization and sericite are closely associated with the steeply dipping quartz veins.

Two southern adits on the trail north from the Negro Creek bridge are developed on and under a northeast striking, shallow to moderately SE dipping (068/25 SE), milky white, rusty quartz vein that is up to 1.5 meters thick where it can be seen. The quartz vein carries pyrite, chalcopyrite and galena (with reports of visible gold). Both adits are actually dug on a brown-orange 'dolomitic weathering' carbonate-rich weakly pyritic felsic intrusive which underlies the quartz vein in the two adits and apparently is a dike paralleling the quartz vein. Most of the dump waste rock is of intrusive material and this may have been mined because it carries gold values. Another possibility is that the intrusive was mined preferential to the quartz vein because of its softer and fractured nature, simply to gain access to the overlying quartz vein for further testing.

North of these two adits, the trail leads to another three adits and one shaft / adit complex which are developed in separate occurrences of discontinuous, generally narrow light gray quartz veins. These occur as discrete veins and local quartz vein swarms. These quartz veins are within an albite-tourmaline-sericite alteration zone that is spatially (and possibly genetically) related to a NNE striking gabbro dike. The dike occurs immediately east of the alteration. Tourmaline in particular appears preferentially developed within some beds immediately adjacent to the quartz veins. There is also local lensey to vein-like development of coarse biotite or phlogopite which weathers rusty; these micas are probably also related to the venting process. The light gray quartz veins are NW oriented and may be an orthogonally-developed feature to the main NNE structure which is represented by the gabbro dike.

One adit is collared in a small, locally developed, disrupted 'fragmental' zone of broken and folded beds which are also albitized.

Near the southernmost adits, the gabbro dike is offset about 10-15 meters in a left lateral manner, along a possible NW striking fault.

Another adit is below the trail, immediately north of the small pond that is in the valley bottom at the south end of most of the adits. This adit starts in the gabbro dike and trends northeast. It appears to be one of the larger workings, judging from the size of the dump. The surface material on the dump is mostly sedimentary rock so development was within the gabbro for only a short distance. Considerable fine disseminated chalcopyrite and pyrrhotite are present in some of the dump material but there is no quartz vein material and it is not readily evident why this adit was driven.

A large fragmental which occurs on the eastern Vent claims of the DA Vent property was mapped in detail in 1998. This fragmental was looked at again in 1999 and its description is included here for completion.

The surface exposure of the fragmental is oval in plan, elongate in a NNE direction (Fig. 3) and is approximately 300 m long and just over 200 m wide. The fragmental occurs on a low rounded hill and its relatively massive character results in rock exposures being mostly glacially rounded surfaces. Furthermore, much of the fragmental is covered by thin overburden, vegetation and moss, impeding a detailed evaluation of the geology. The fragmental is close to being in exposed contact with its host rocks only at its south end.

Middle Aldridge sedimentary rocks occur close by to the east and north, providing an approximate surface exposure limit but more extensive cover exists to the immediate west. Thus the inferred 'outcrop limit' depicted in Figure 3 is based on limited data and inferences derived from the topography.

The fragmental is hosted by a mixture of lithologies including thin bedded siltstone and argillites and thicker bedded quartz wackes. These lithologies are compatible with typical middle Aldridge stratigraphy. Bedding attitude tends to be east-west to northwest, dipping gently to the north and northeast. Immediately north of the fragmental, northwest-striking, steeply southwest-dipping quartz veins are present.

There is no obvious evidence in the adjacent bedding for any structural disturbance that the fragmental might be related to.

Lithologically the fragmental shows some variation in texture and composition although these phases have been only generally defined, in part due to the inadequate bedrock exposure.

Generally the fragmental has a relatively massive texture and a sericitic quartz wacke to siltstone

composition. The fragmental is weakly to moderately rusty in character with a relatively higher concentration of sulfides evident along the northwest part of its exposure. Relatively small, isolated and rather indistinct rounded to sub-angular clasts are common but tend to be quite similar in composition to the fragmental matrix. Along the southeast margin, where the exposed fragmental is closest to its host rocks, the fragmental appears to be interfingered with the host sediments with distinct ragged clasts of dark gray argillite locally present in a quartz wacke to siltstone matrix.

Along the northwest margin of the fragmental, much of the bedrock consists of a clean white sandy or quartzitic material with small vugs and fine enclosed sulfides. This 'sand' facies has the character of vented siliceous material and it may be closer to the actual controlling structure.

Along and within the northwest portion of the fragmental is a gray-weathering calcitic and biotite-rich phase which crops out as a narrow northeast-striking arcuate band. This biotite-calcite band appears to be a distinct vented layer within the fragmental complex; it may be closer to the structural control for the fragmental.

A pale yellowish-brown sericitic alteration is present in the vicinity of the adit on the west edge of the exposed fragmental. This alteration feature may also be related to the controlling vent structure.

3.00 CONCLUSIONS

Geologic mapping of the DA Vent property at a scale of 1:5000 in 1999 has identified two areas with potentially significant indicators of possible base metal mineralization at depth. One is the fragmental mapped in detail in 1998 (AR 25,783), while the second is an area of Sullivan-style venting east of Negro Lake where tourmalinization, albitization, sericite and biotite are developed in association with quartz veining on the west edge of a NNE trending gabbro dike.

4.00 REFERENCES

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6.00 STATEMENT OF EXPENDITURES

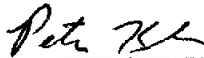
7 man-days, field work, drafting and report @ \$330/day	\$2310.00
4X4 truck 5 days @ \$80/day	400.00
Map preparation	140.00
Field, drafting and report supplies	35.00
TOTAL EXPENDITURE	<u>\$2985.00</u>

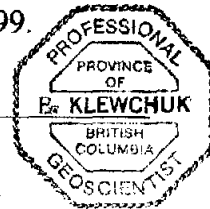
6.00 AUTHOR'S QUALIFICATIONS

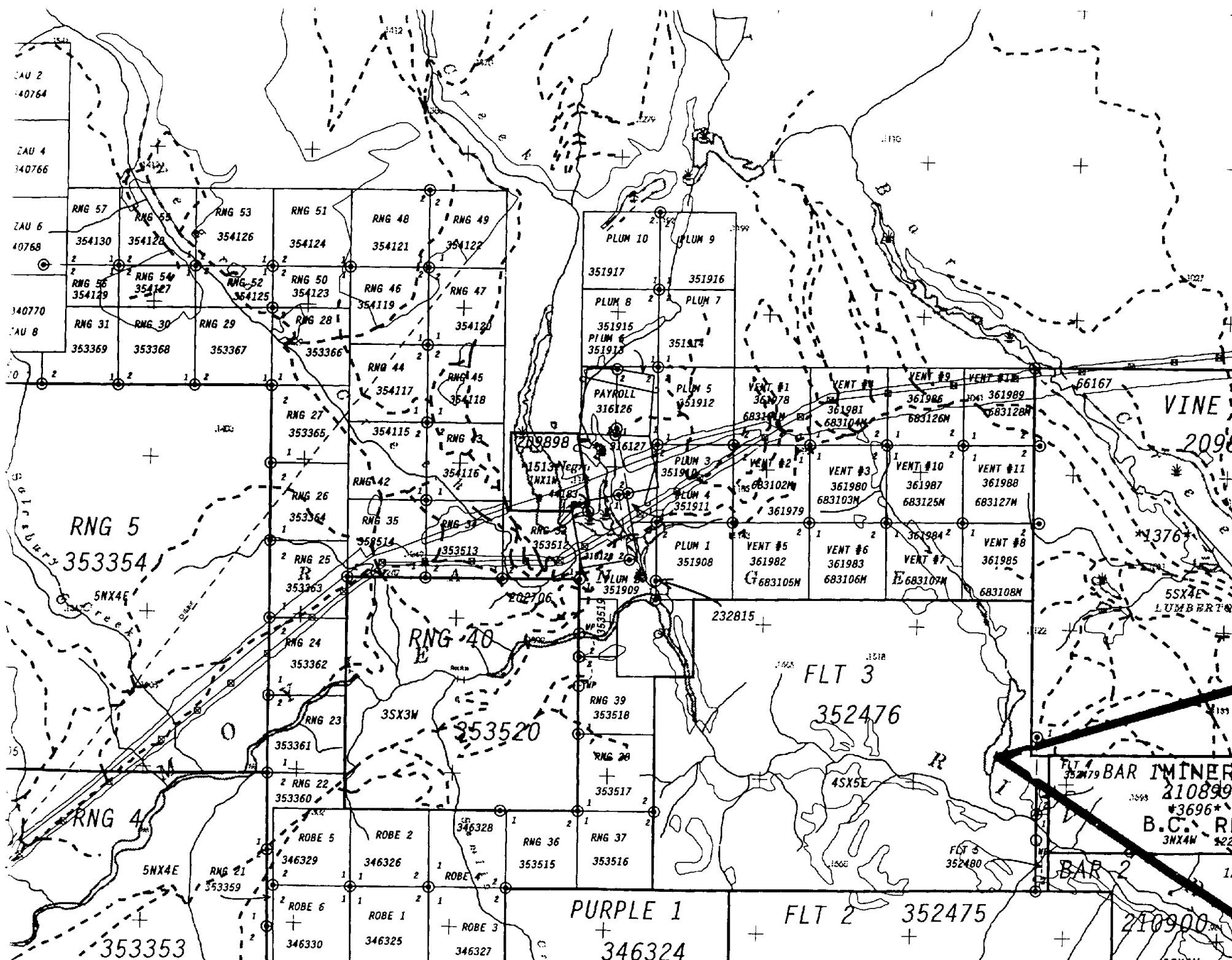
As author of this report I, Peter Klewchuk, certify that:

2. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.
3. I am a graduate geologist with a B.Sc. degree (1969) from the University of British Columbia and an M.Sc. degree (1972) from the University of Calgary.
4. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 24 years.
6. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 27th day of December, 1999.


Peter Klewchuk
P. Geo.





ZAU 2
40764

ZAU 4
340766

ZAU 6
40768

340770
ZAU 8

RNG 57 354130	RNG 56 354128	RNG 53 354126	RNG 51 354124	RNG 48 354121	RNG 49 354122
RNG 56 354129	RNG 54 354127	RNG 52 354125	RNG 50 354123	RNG 46 354119	RNG 47 354120
RNG 31 353369	RNG 30 353368	RNG 29 353367	RNG 28 353366	RNG 44 354117	RNG 45 354118

PLUM 10 351917	PLUM 9 351916
PLUM 8 351915	PLUM 7 351914
PLUM 6 351913	

PAYROLL 316126	PLUM 5 351912	VENT #1 361978 683107M	VENT #4 361981 683104M	VENT #9 361986 683126M	VENT #12 361989 683128M
PLUM 3 351910	VENT #2 361979	VENT #3 361980 683103M	VENT #10 361987 683125M	VENT #11 361988 683127M	
PLUM 4 351911	PLUM 1 351908	VENT #5 361982 683105M	VENT #6 361983 683106M	VENT #7 361984 683107M	VENT #8 361985 683108M

RNG 5
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RNG 40

FLT 3
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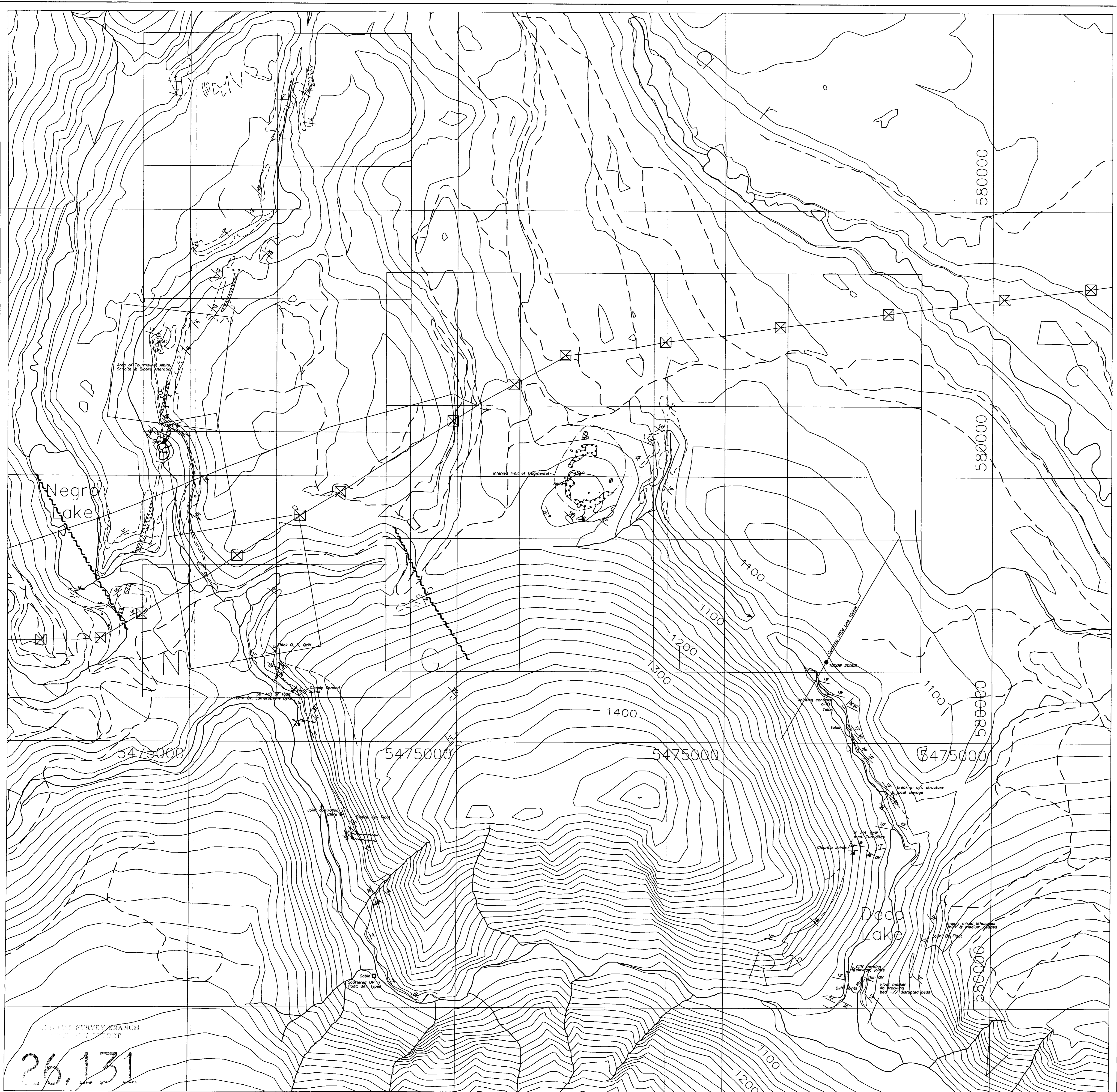
PURPLE 1
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FLT 2
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BAR 1 MINER
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B.C. RE
3NX4W 3221

BAR 2

210900



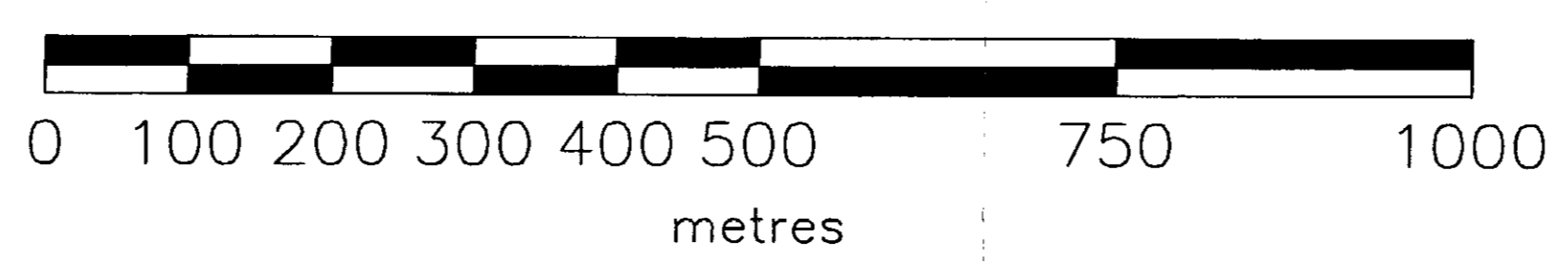
LEGEND

	MIDDLE ALDRIDGE FORMATION
	MOYIE INTRUSIONS; GABBRO
	FRAGMENTAL
	TOURMALINITE \ TOURMALINITE NEEDLES

SYMBOLS

	Outcrop Boundaries		Trench
	Geological Boundaries		Adit
	Faults		
	Bedding (Strike/Dip Shown)		
	Shearing (Strike/Dip Shown)		
	Quartz Vein (Strike/Dip Shown)		
	Jointing (Strike/Dip Shown)		

26.131
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 DA VENT PROPERTY
 Surface Geology
 This Plot: Date: December 1999
 Map Reference: Figure 3 Scale: 1:5000