Regional Geologist, Cranbrook **Date Approved:** 1999.03.17 **Off Confidential:** 1999.09.30

ASSESSMENT REPORT: 25783 **Mining Division(s):** Fort Steele

Property Name: Da Vent

Location:

NAD 27	Latitude:	49 26 00	Longitude:	115 56 00	UTM:	11	5475957	577341
NAD 83	Latitude:	49 26 00	Longitude:	115 56 04	UTM:	11	5476175	577258
NTS:	082G05W							

Camp: 001 Purcell Belt (Sullivan)

Claim(s): Plum 1-10, Vent 1-12

Operator(s): Ascot Resources Ltd.
Author(s): Klewchuk, Peter

Report Year: 1998

No. of Pages: 15 Pages

Commodities Searched For: Lead, Zinc, Silver

General Work Categories: GEOP, GEOL

Work Done:

Geological
GEOL Geological (16.0 ha;)
Geophysical
EMGR Electromagnetic, ground (2.5 km;VLF)

Keywords: Aldridge Formation, Argillites, Fragmentals, Helikian, Quartz wackes, Siltstones

Statement Nos.: 3125195

MINFILE Nos.:

Related Reports:

ASSESSMENT REPORT

on

GEOLOGY & VLF-EM GEOPHYSICS

DA VENT PROPERTY

Negro Creek Area

FORT STEELE MINING DIVISION

NTS 82 G/5W

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

By

PETER KLEWCHUK, P.Geo.

December, 1998

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

1.00 INTRODUCTION

This report describes the results of a geological mapping and VLF-EM geophysical survey completed on the DA Vent property near the confluence of Palmer Bar Greek and the Moyie River, SW of Cranbrook, B.C. during 1998.

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, 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 recently 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.

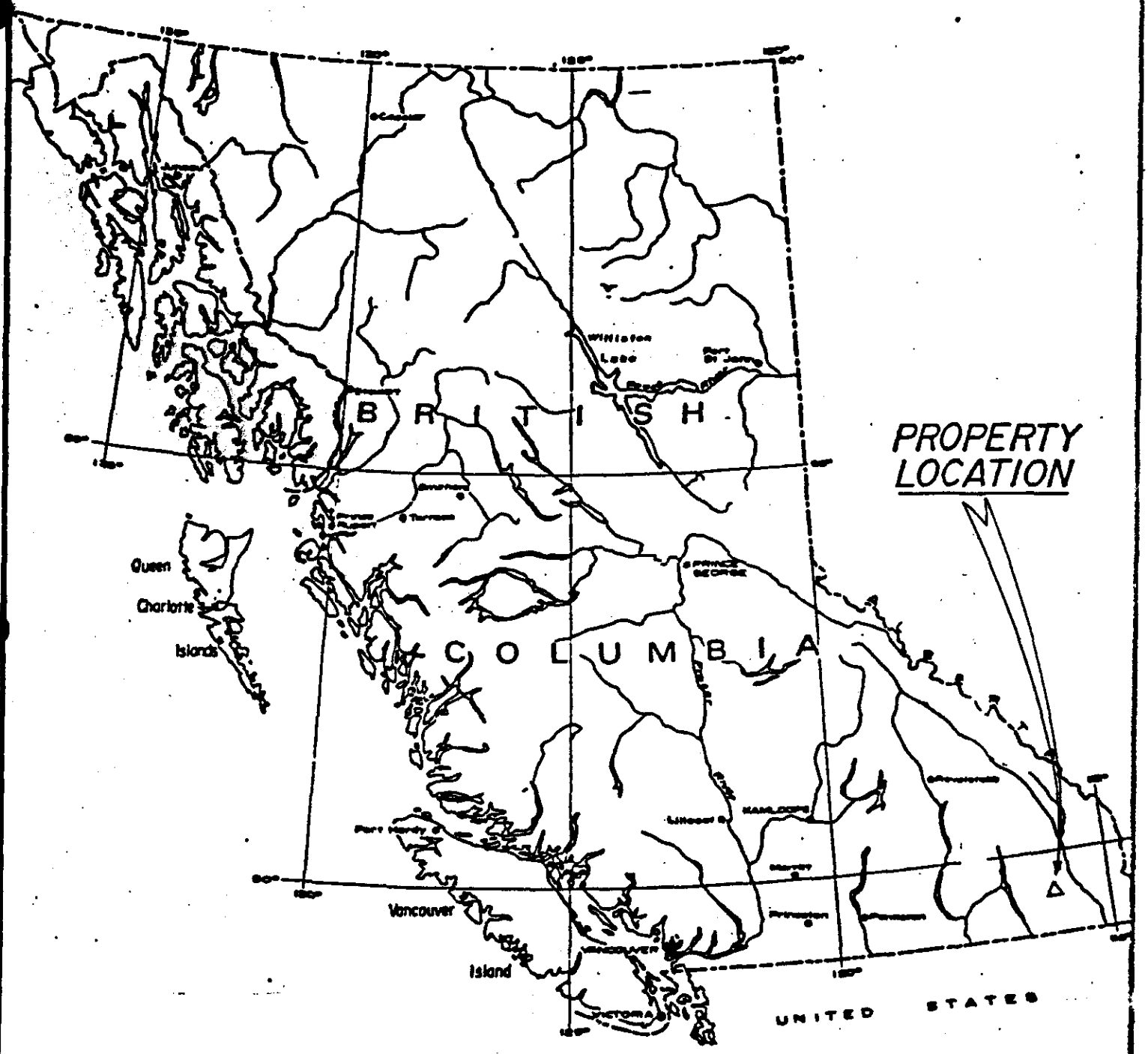
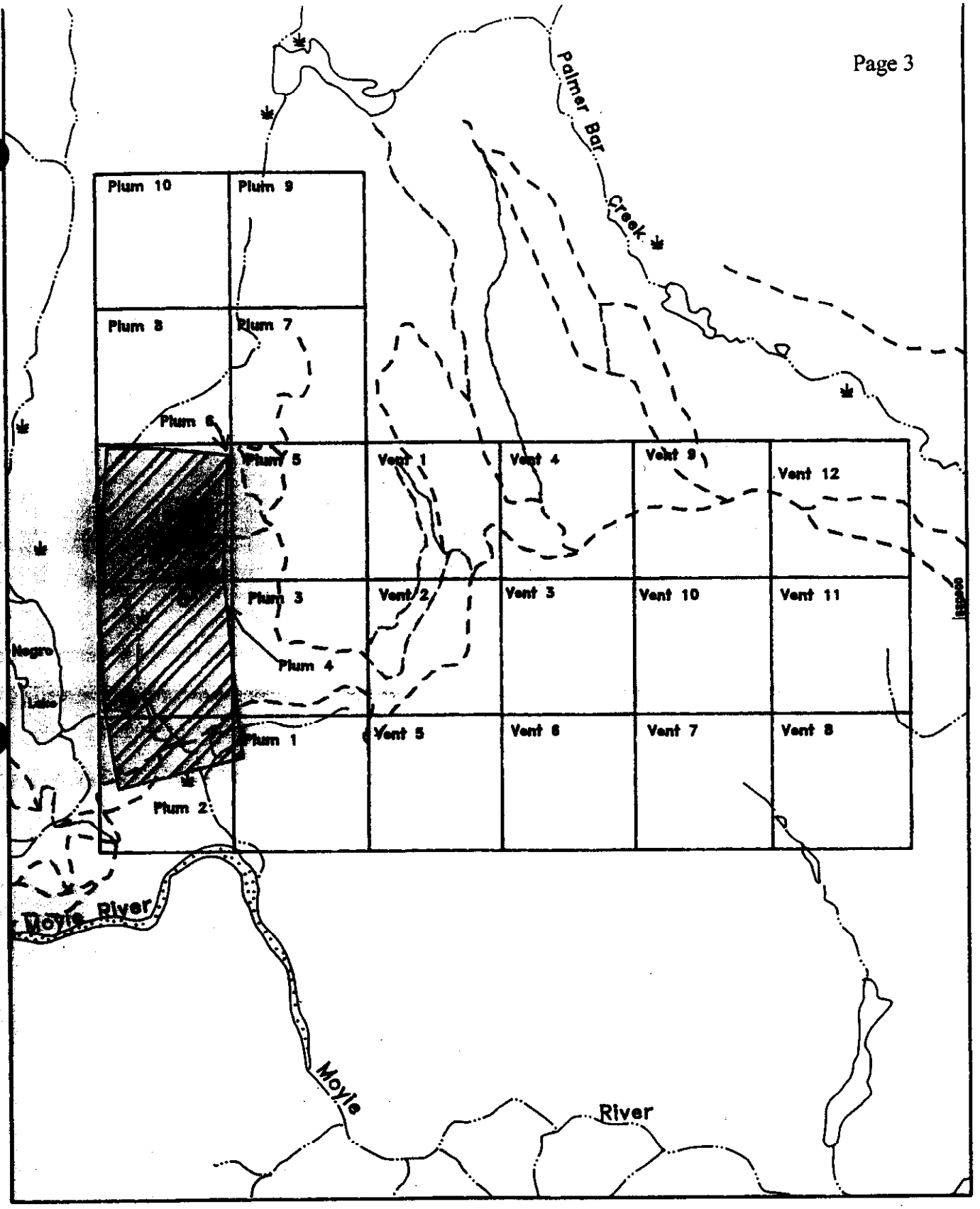


Figure 1
DA VENT PROPERTY
LOCATION MAP



DA VENT PROPERTY

Claim Map

This Plot: R.SUDO	Date: 98/11/16
Map Ref.: 82G.041	Scale: 1:20,000

Last Update (Y/N/D): LAST-UPDATE-DATE

CAD Filename: C:\FORS\DAVENT-BW1C.DWG

Figure 2

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 northwest-striking gold-bearing quartz veins.

1.50 Purpose of Survey

During 1998 a small program of local detailed geologic mapping and VLF-EM geophysical surveying was carried out on a part of the DA Vent claims where a large fragmental body is exposed at surface. Geololgic mapping was conducted to define the surface exposure of the fragmental and provide information on its geometry and character. The VLF-EM geophysical survey was conducted to try and identify underlying structures that influenced development of the fragmental.

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 succession of fine grained clastic and carbonate sedimentary rocks exposed in the core of the Purcell Anticlinorium in southeast 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 oldest known member of the Purcell Supergroup is the Aldridge Formation, a thick sequence 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 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 Aldridge Formation has been intruded by a series of gabbroic sills and dikes which are interpreted to be penecontemporaneous with deposition of their host sediments (Hoy, 1989).

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 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

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 1998 mapping program. Bedding generally strikes northwest and dips gently to moderately northeast.

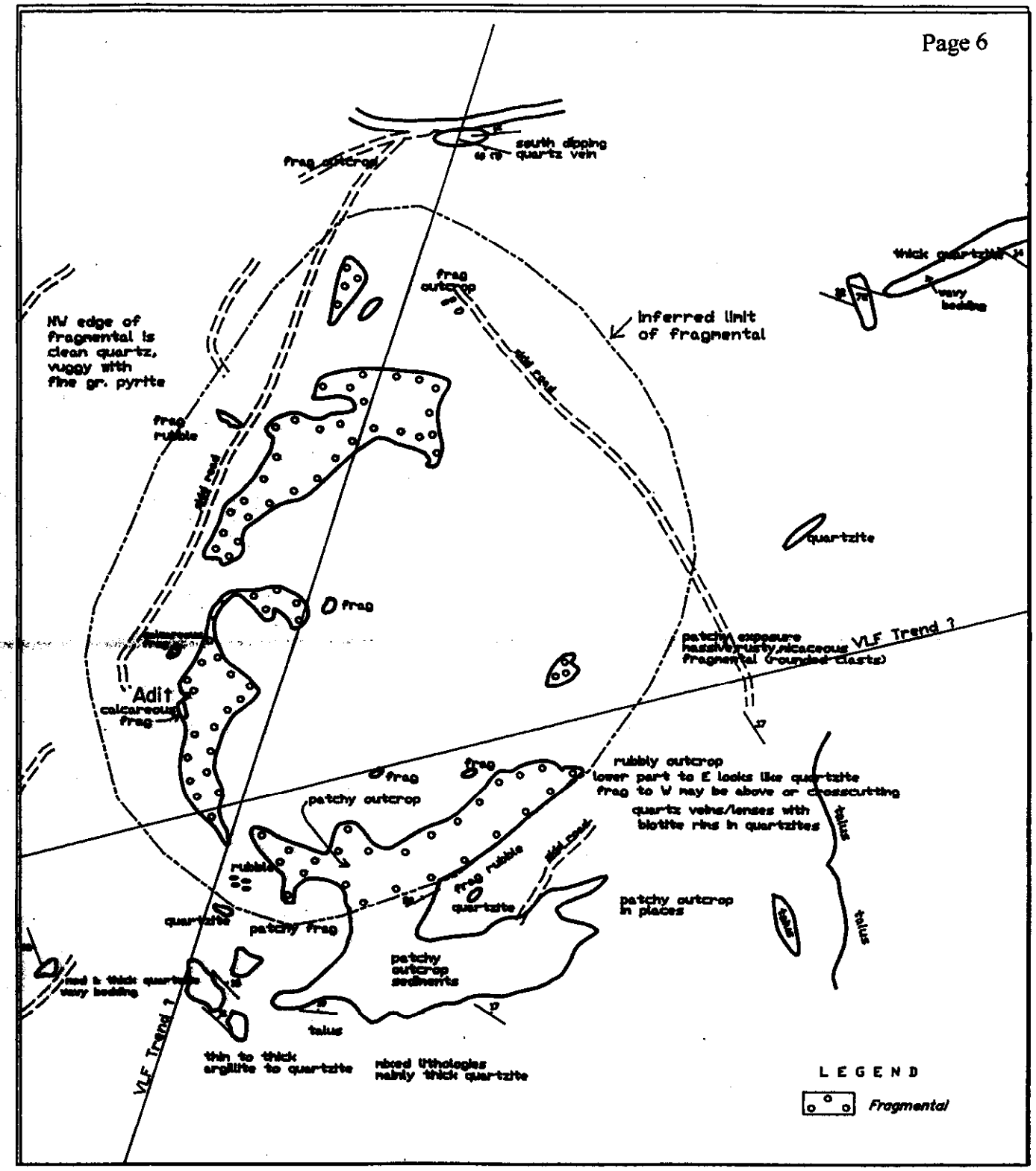
Hoy and Diakow show the axis of a north-plunging anticline occurring on the east side of Negro Creek and on the west edge of the DA Vent property. This is a subtle fold owing to the gentle dip of sedimentary beds in the area.

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 but with a similar strike. Hoy and Diakow show no name for this fault; local workers refer to it as the Van Horne Fault.

The DA Vent claims cover an exposure of fragmental within Aldridge Formation rocks. In 1998 a small geological mapping program was undertaken on this fragmental to determine the size and geometry of its exposure. Geologic mapping and VLF-EM surveying were utilized to identify a possible structural control for the fragmental.

North-south and east-west control lines for the VLF-EM survey were located on or near the margins of the fragmental; these lines and additional internal lines, not used for VLF, formed the basis of control for geologic mapping.

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



0 10 20 30 40 50 100 150

SCALE
metres

ASCOT RESOURCES LTD.

DA VENT PROPERTY

FRAGMENTAL SURFACE GEOLOGY

Geology by: P.Klewchuk	Map Ref.: 82G/5W
Drafted by: R. Sudo	Scale: 1:2,500

Last Update (Y/M/D): 98-Nov-2

QD Filename: C:\FORS\DAVent-geol-pl.dwg

Figure 3

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.

Host Rocks

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 bedding of any structural disturbance that the fragmental might be related to.

Description of Fragmental

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 fragmental 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 appears to occur as a northeast-striking narrow dike-like feature. This phase of the fragmental may be closer to or may actually be part of the structural control for the fragmental.

Alteration

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

3.00 GEOPHYSICS

3.10 Introduction

The VLF-EM survey on the DA Vent property was conducted on 5 lines; 4 lines (2 are oriented east-west and 2 are north-south) bound the fragmental and were surveyed to identify any possible controlling structure(s) while a 5th line is along a road extending west from the fragmental area (Fig. 4). Survey lines were run by compass and measured with a hip-chain with VLF-EM readings taken at 25 meter spacings.

A total of 2.525 kilometers of line was surveyed; Figure 4shows the location of the survey lines and detailed profiles of the data are provided in Figure 5. The VLF-EM data includes Field Strength (+ symbol), Dip Angle, (. symbol) and Fraser Filter (x symbol) values.

3.20 VLF-EM Survey

3.21 Instrumentation and Survey Procedure

A Crone Radem VLF-EM receiver, manufactured by Crone Geophysics Ltd. of Mississauga, Ontario was used for the VLF-EM survey. Seattle, Washington, transmitting at 24.8 Khz and at an approximate azimuth of 247° from the survey area, was used as the transmitting station.

In all electromagnetic prospecting, a transmitter produces an alternating magnetic (primary) field by a strong alternating current usually through a coil of wire. If a conductive mass such as a sulfide body is within this magnetic field, a secondary alternating current is induced within it, which in turn induces a secondary magnetic field that distorts the primary magnetic field. The VLF-EM receiver measures the resultant field of the primary and secondary fields, and measures this as the tilt or 'dip angle'. The Crone Radem VLF-EM receiver measures both the total field strength and the dip angle.

The VLF-EM uses a frequency range from about 15 to 28 Khz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can detect zones of relatively lower conductivity. This results in it being a useful tool for geologic mapping in areas of overburden but it also often results in detection of weak anomalies that are difficult to explain. However the VLF-EM can also detect sulfide

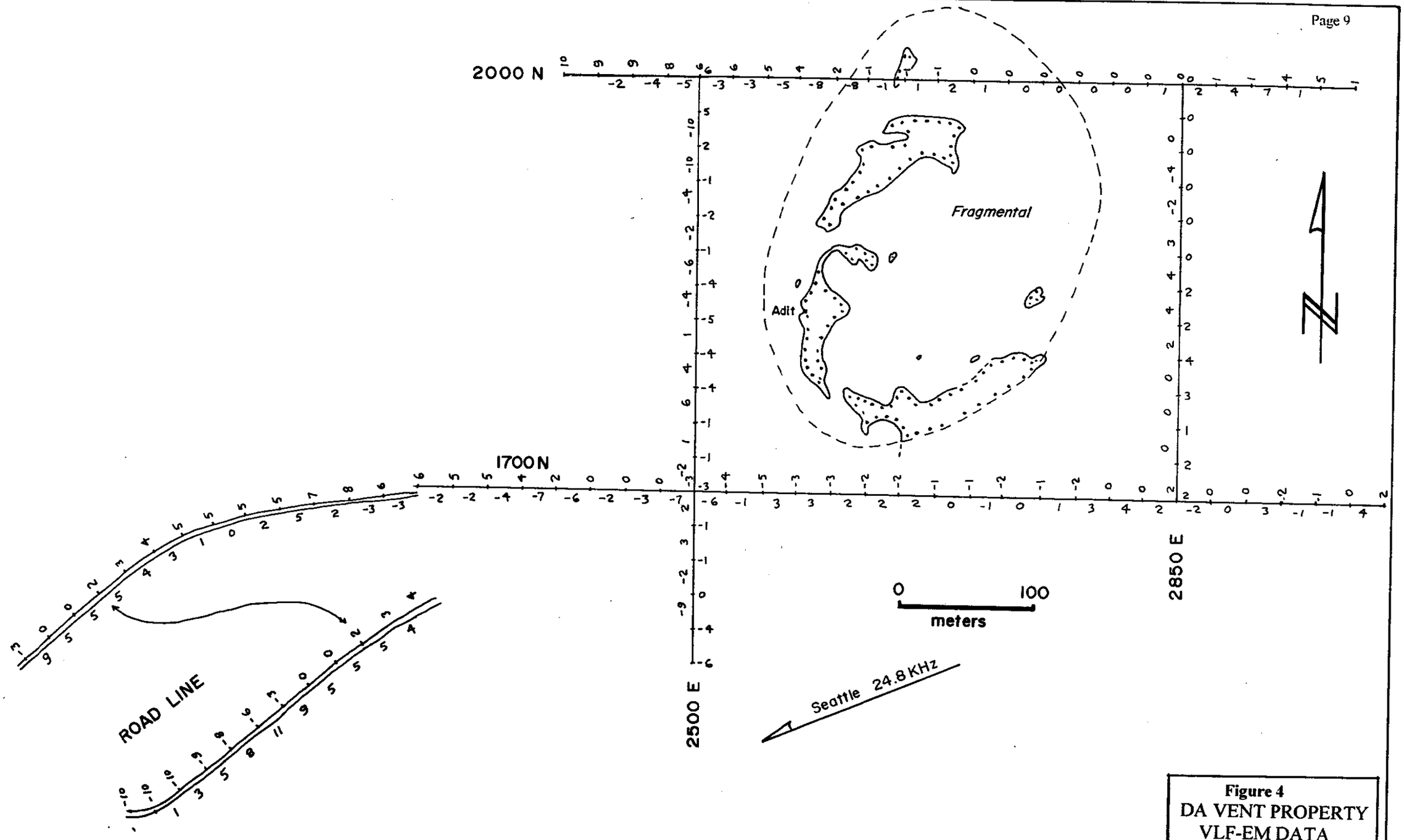


Figure 4
DA VENT PROPERTY
VLF-EM DATA
Dip Angle & Fraser Filter Values
Scale 1: 2500

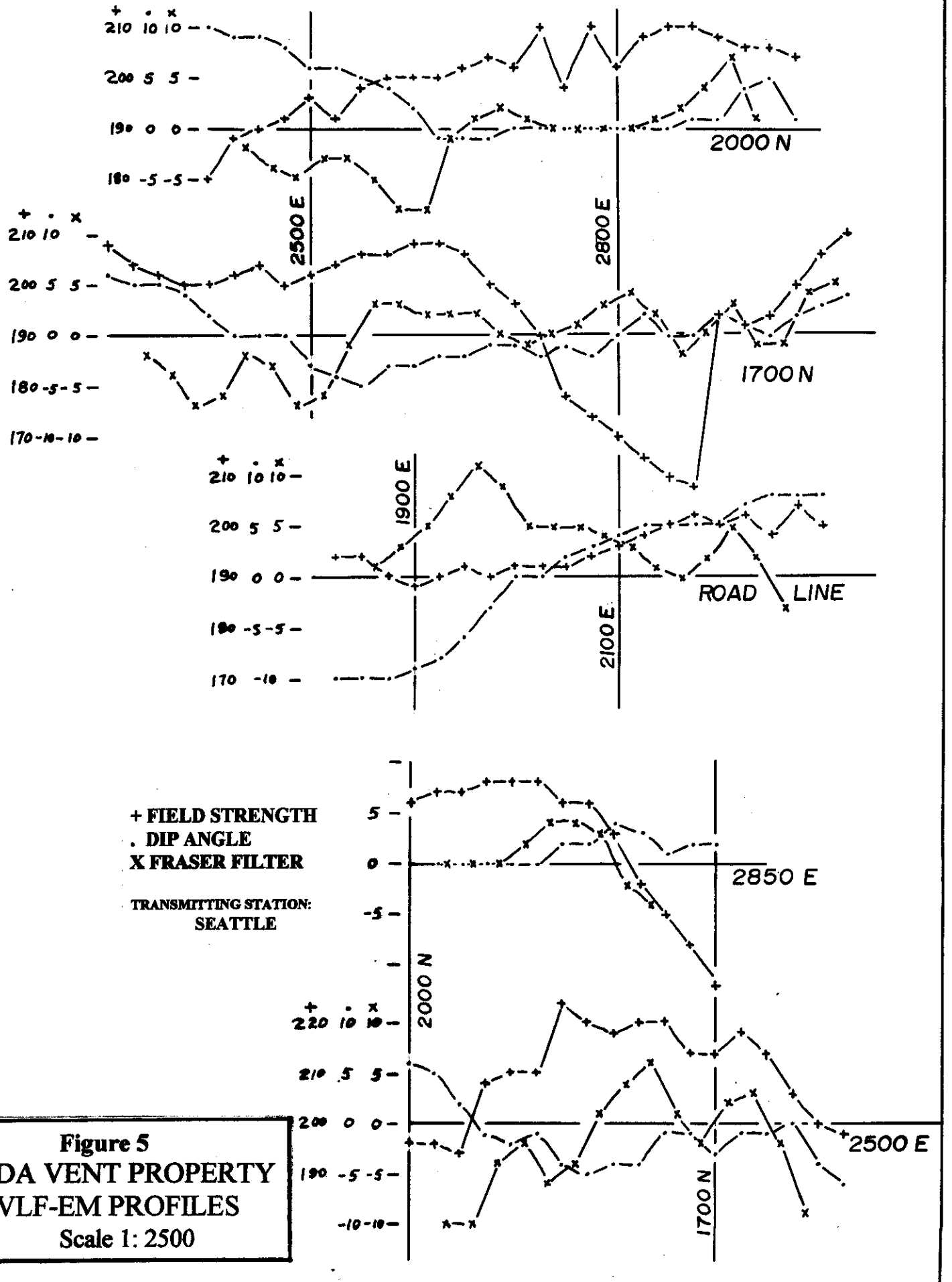


Figure 5
DA VENT PROPERTY
VLF-EM PROFILES
Scale 1: 2500

bodies that have too low a conductivity for other EM methods to pick up.

Results were reduced by applying the Fraser Filter; dip angle readings and the Fraser Filter values are shown in plan in Figure 4. Fraser Filter values are plotted between the dip angle readings which are at survey points. Profiles of the survey lines are plotted on Figure 5, with Field Strength, Dip Angle and Fraser Filter values shown.

The Fraser Filter is essentially a 4-point difference operator which transforms zero crossings into peaks, and a low pass operator which induces the inherent high frequency noise in the data. Thus the noisy, often non-contourable data are transformed into less noisy, contourable data. Another advantage of this filter is that a conductor which does not show up as a zero crossover in the unfiltered data quite often shows up in the filtered data.

3.22 Discussion of Results

Only weakly anomalous responses were detected on the grid lines. Dip angle and Fraser Filter profiles on lines 2000 N and 1700 N are generally similar, suggesting the lines have crossed similar terrain. A weak anomaly seen on both lines is compatible with a NNE structure.

Similar weak responses seen on lines 2500 E and 2850 E are compatible with an ENE structure.

Further surveying is needed on additional lines to be confidant that these weak VLF-EM anomalies actually persist across the survey area.

4.00 CONCLUSIONS

1. Detailed mapping of the DA Vent fragmental has defined a NNE-aligned oval shaped surface exposure just over 300 X 200 m in size.

2. The south edge of the fragmental appears interfingered with enclosing sediments.

3. The west or northwest edge of the fragmental carries both a vuggy sulfide-bearing white 'sand' phase and a linear NNE-trending biotite-calcite phase. These results support a NNE structural control.

4. Four lines of VLF-EM surveying detected only very weak responses but these weak responses on east-west lines near the north and south margins of the exposed fragmental also support an underlying NNE structural control.

5.00 REFERENCES

Harrison, J.E., 1972, Precambrian Belt basin of northwestern United States — its geometry, sedimentation, and copper occurrences: Geological Society of America Bulletin, v.83, n.5, p. 1215-1240.

Hoy, T., 1982, The Purcell Supergroup in southeastern British Columbia: Sedimentation, tectonics, and stratiform lead-zinc deposits, in Precambrian Sulfide Deposits, H.S. Robinson Memorial Volume, R.W. Hutchinson, C.D. Spence, and J.M. Franklin, eds. , Geological Association of Canada, Special Paper 25, p. 127-147.

Hoy, T, 1989, The age, chemistry and tectonic setting of the Middle Proterozoic Moyie sills, Purcell Supergroup, southeastern British Columbia, Can. J. Earth Sci. v.29, p.2305-2317.

Hoy, T., 1993, Geology of the Purcell Supergroup in the Fernie West-half map area, southeastern British Columbia: B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 84, 157p.

Hoy, T., and Diakow, L., 1982, Geology of the Moyie Lake Area: B.C. Ministry of Energy, Mines and Petroleum Resources, Preliminary Map 49.

Lis, M.G. and Price, R.A., 1976, Large scale block faulting during deposition of the Windermere Supergroup (Hadrynian) in southeastern British Columbia: Geol. Surv. Can. Paper 76-1A, p 135-136.

Reesor, J.E., 1958, Dewar Creek Map-area with special emphasis on the White Creek batholith, British Columbia: Geological Survey of Canada, Memoir 292, 78p.

6.00 STATEMENT OF EXPENDITURES

5.75 man-days, field work, drafting and report @ $330/day	$1897.50
4X4 truck 4 days @ $100/day	400.00
VLF-EM rental 2 days @ $30/day	60.00
Field, drafting and report supplies	69.50
TOTAL EXPENDITURE	$2427.00

7.00 AUTHOR'S QUALIFICATIONS

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

5. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.
6. 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.
7. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
8. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 23 years.
9. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 20th day of December, 1998.

Peter Klewchuk
P. Geo.