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APPLIED MINE TECHNOLOGIES INC.

**BOWSER CLAIM GROUP, BIF CLAIM
GREENWOOD MINING DIVISION, B.C.**

**GEOLOGICAL AND GEOPHYSICAL REMOTE SENSING
ASSESSMENT REPORT**

January, 1998

25,332

ERSI EARTH RESOURCE SURVEYS INC.

**GEOLOGICAL AND GEOPHYSICAL REMOTE
SENSING ASSESSMENT REPORT**

on the
BOWSER CLAIM GROUP AND BIF CLAIM
(BOWSER 01 to BOWSER 011, BOWSER, BIF)

located in the
GREENWOOD MINING DIVISION, B.C.
BIF CLAIM: 49° 05'N, 118° 59'W, N.T.S. 82E/2W
BOWSER GROUP: 49°N, 118° 09'W, N.T.S. 82E/1E

owned by:

APPLIED MINE TECHNOLOGIES INC.
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Burnaby, B.C. V5J 3J9

by:

K.V. CAMPBELL, Ph.D., P.Geo., F.G.A.C.

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1. Introduction

This report describes the initial results of a remote sensing study and GIS compilation of two claim areas currently under investigation by **Applied Mine Technologies Inc.** in the Greenwood Mining Division of southern British Columbia. The objectives of the study were to commence the preparation of a GIS and geological database to assist in planning of future exploration programs on the two mineral properties, and identify geological structures through the analysis and interpretation of Landsat TM multispectral data. In conjunction with the study of satellite imagery a compilation and review of available geophysical data were made to determine if the understanding of the structural geology of property could be improved upon.

A major part of the current work involved color imaging of satellite and elevation data. Assessment report requirements precluded incorporation of color reproductions and therefore grayscale renditions only are included in copies of the report submitted to the government.

1.1. Location, Topography and Access

The current study focused on two mineral claim areas, the BIF claim and Bowser Group, located in Figure 1. Both claim areas lie within the Greenwood Mining Division. The physiographic region in this part of British Columbia is known as the Okanagan Highland, which is characterized by rounded mountains, ridges and gentle open slopes.

1.1.1. BIF Claim

The BIF claim is located near the Kettle River and is centered about 3km northeast of the village of Rock Creek on the southern Transprovincial Highway (No.3), within NTS map sheet 82E/2W at approximately 49° 05'N, 118° 59'W. The claim straddles a northeast trending ridge on the east side of the Kettle River. The elevation of the claim ranges from 610m along the Kettle River to about 1,125m on the ridge crest.

The vegetation cover is fairly open second growth fir and pine. Access to the property is by tracks from the Kettle River valley to the west.

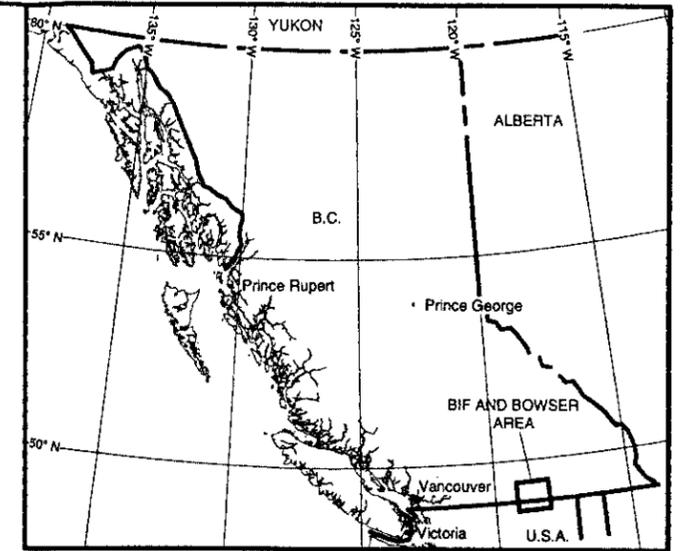
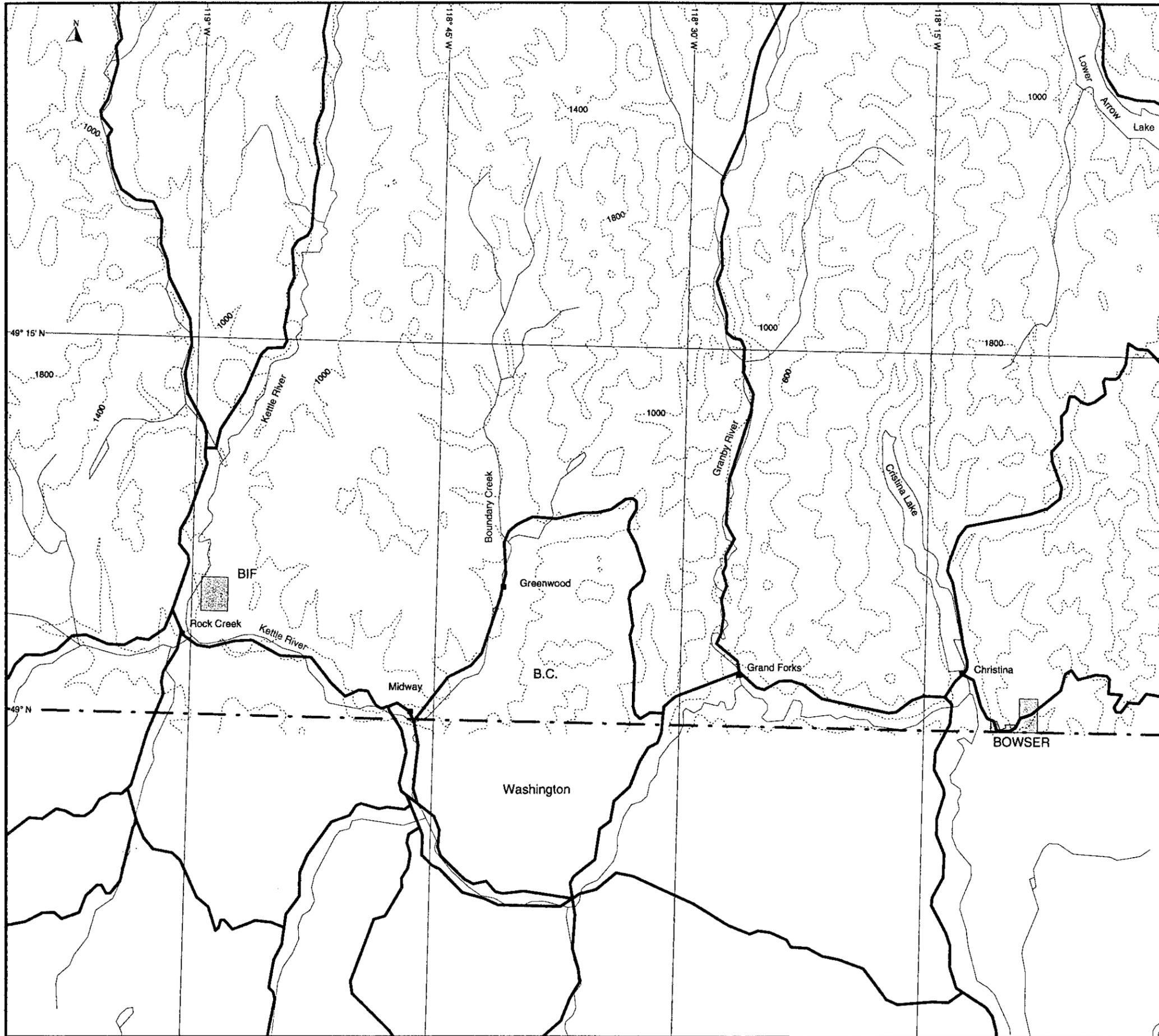
1.1.2. Bowser Group

The Bowser claim group lies along the Canada-US border and is centered about 6km southeast of Christina Lake, within NTS map sheet 82E/1E, at approximately 49°N, 118° 09'W. The claim group is located on the southern slopes of Castle Mtn., and ranges in elevation from about 870m on the western margin to about 1280m on the northern margin.

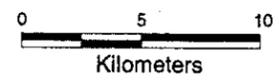
Like the BIF claim, the vegetation cover is fairly open second growth fir and pine. A logging road gives access to the property from the village of Christina Lake which crosses the claim group. It is about 5km from Highway No.3 to the northwest corner of the claims area.

1.2. Claim Ownership and Status

The BIF claim and Bowser Group are wholly owned by **Applied Mine Technologies Inc.** Particulars of the claims are summarized in Table 1. Figure 2 is a claim plan of the Bowser Group and Figure 3 is a claim plan of the BIF claim. There are 20 units in the BIF claim and 23 units in the Bowser Group.



..... approximate topographic contours
400m interval



NTS 82 E

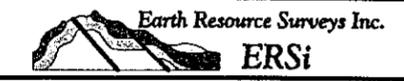
APPLIED MINE TECHNOLOGIES INC.

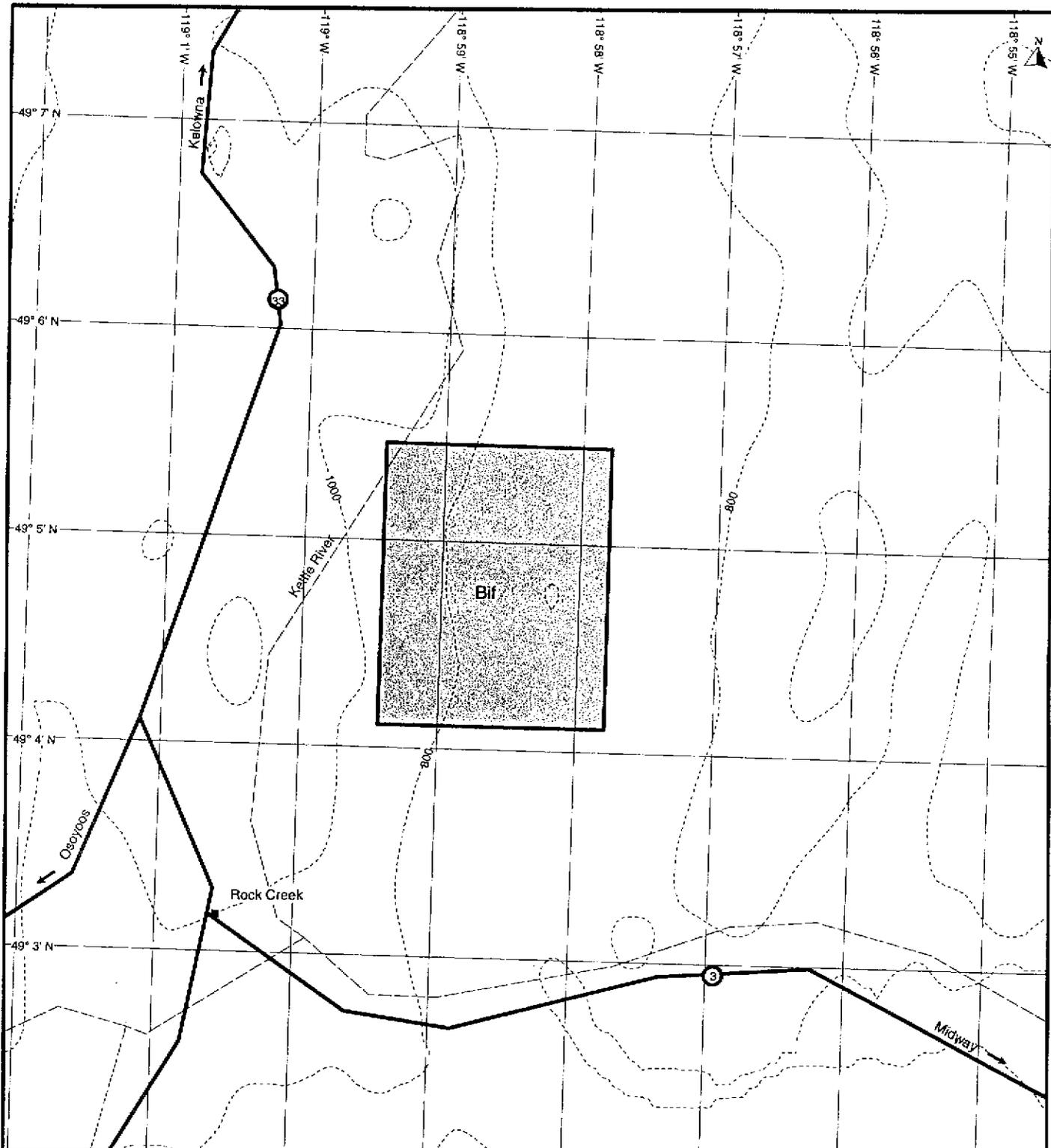
BIF AND BOWSER CLAIMS

GREENWOOD MINING DIVISION, B.C.

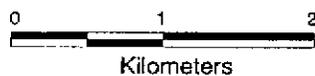
LOCATION MAP

Project: 97-288 Date: Dec, 1997 Scale: 1:300,000 Figure: 1





NTS 82 E/2,3



..... approximate topographic contours
200m interval

APPLIED MINE TECHNOLOGIES INC.

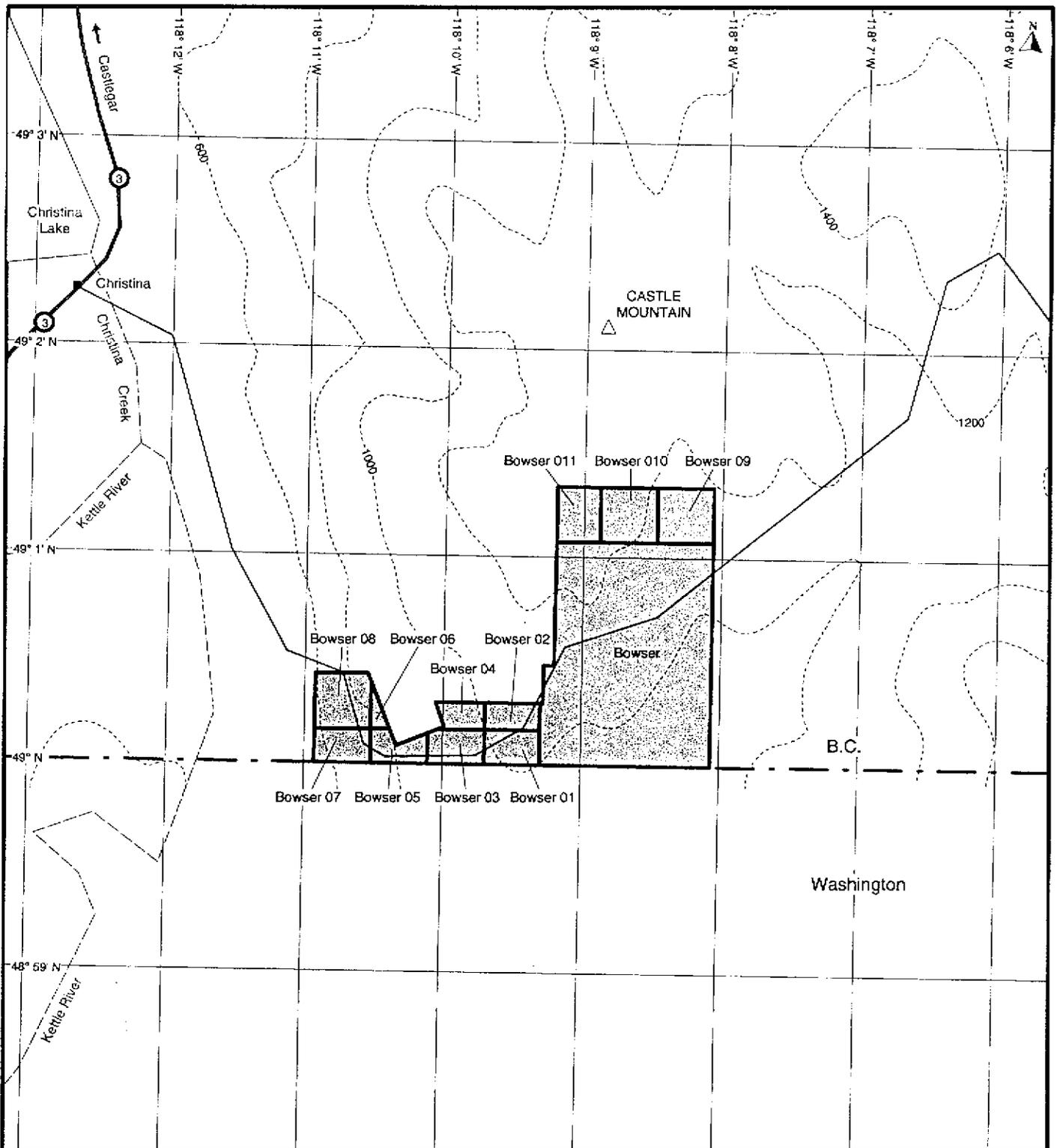
BIF CLAIM

GREENWOOD MINING DIVISION, B.C.

CLAIM MAP

Project: 97-288 Date: Dec., 1997 Scale: 1:50,000 Figure: 2





NTS 82 E/1



..... approximate topographic contours
200m interval

APPLIED MINE TECHNOLOGIES INC.

BOWSER CLAIMS

GREENWOOD MINING DIVISION, B.C.

CLAIM MAP

Project: 97-288	Date: Dec., 1997	Scale: 1:50,000	Figure: 3
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Table 1. Summary of claim particulars for the BIF Claim and Bowser Group.

Group	Claim	Claim Number	Claim Units	Current Expiry Date
	BIF	353105	20	7-Dec-1997
Bowser	Bowser	353090	12	13-Dec-1997
Bowser	Bowser #1	353091	1	11-Dec-1997
Bowser	Bowser #2	353092	1	11-Dec-1997
Bowser	Bowser #3	353093	1	11-Dec-1997
Bowser	Bowser #4	353094	1	11-Dec-1997
Bowser	Bowser #5	353095	1	11-Dec-1997
Bowser	Bowser #6	353096	1	11-Dec-1997
Bowser	Bowser #7	353097	1	11-Dec-1997
Bowser	Bowser #8	353102	1	11-Dec-1997
Bowser	Bowser #9	353103	1	13-Dec-1997
Bowser	Bowser #10	353104	1	13-Dec-1997
Bowser	Bowser #11	353106	1	13-Dec-1997
Total units:			43	

1.3. Previous Work

Applied Mine Technologies Inc. has undertaken no previous work on either the BIF claim or Bowser Group.

1.3.1. BIF Claim

There is one mineral occurrence reported on the area of what is now the BIF claim. This is the RIFF occurrence (Minfile No. 082ESW199).

1.3.2. Bowser Group

The current Bowser claim group encompasses the mineral occurrence known as the Mastadon or Castle Mtn. Nickel (Minfile No. 082ESE091). Exploration and development work here started in the 1900's and has continued intermittently up to the late 1980's. The Minfile summary for this occurrence shows an indicated (by diamond drilling in the 1970's) reserve of 354,676,100 tonnes of ore with an average grade of 0.2% total nickel that are considered to be mineable by open pit methods. Work on the property is said to have included not only the diamond drilling but also an adit and open cuts, although no details are at hand.

2. Regional Geology

Figure 4 shows the regional geology of the southern portion of the Penticton map sheet, NTS 82E, from the GSC digital Open File, 2948 (1995) which for this area is based on work by Templeman-Kluit (1989).

Both claim areas lie within the Omineca morphogeological belt. It is an uplifted region, extensively underlain by metamorphic and granitic rocks, which straddles the boundary between the accreted terranes to the west and ancestral North America to the east (Gabrielse and Yorath, 1992). In southernmost B.C. the Omineca belt includes parts of both the Quesnellia and Kootenay accreted terranes. Quesnellia was an oceanic and volcanic island arc terrane whereas the Kootenay terrane was a pericratonic assemblage. Both claim areas are situated in what is mapped (Templeman-Kluit, 1989) as Quesnellia terrane proximal to post-accretionary granitic rocks.

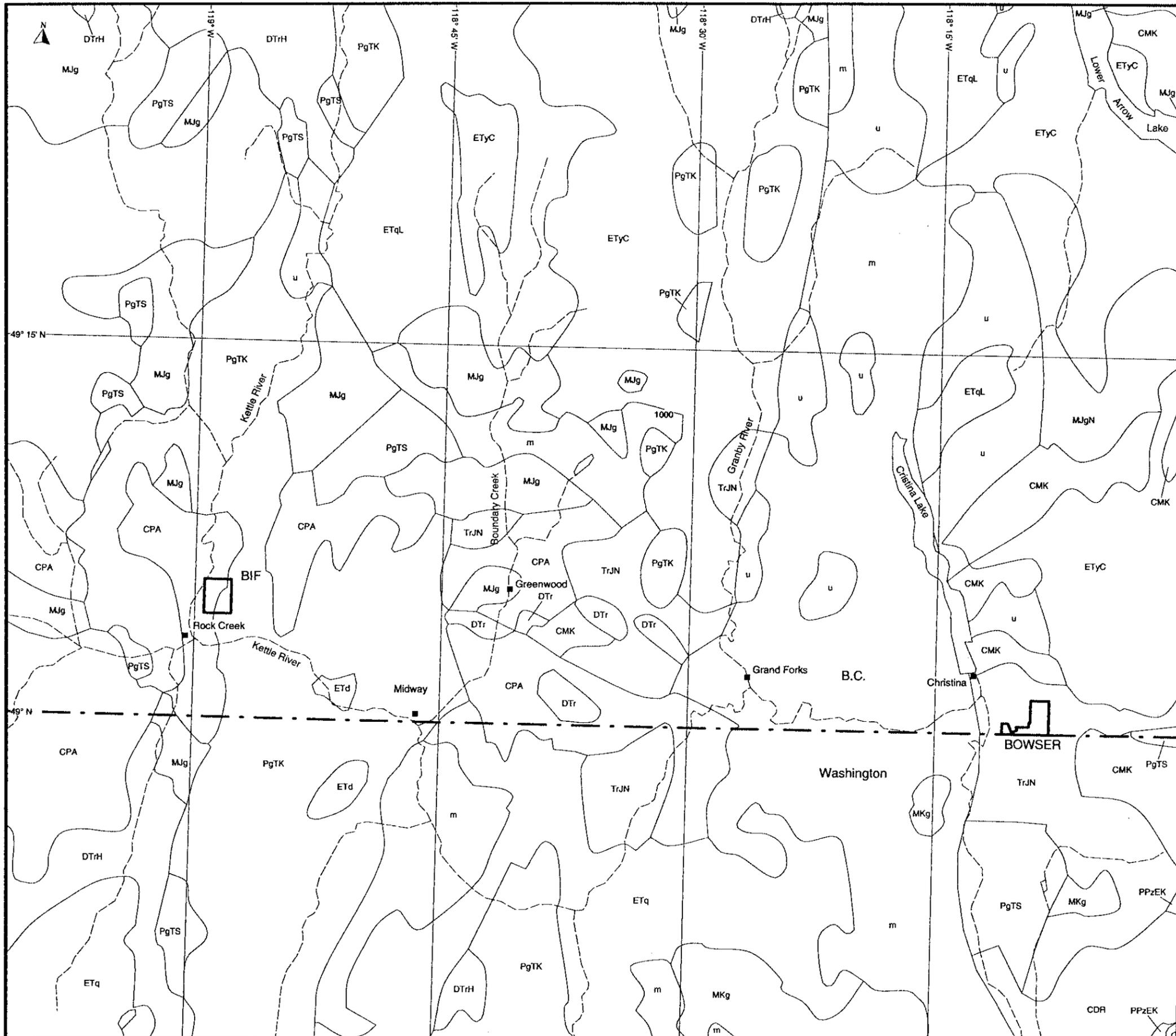
In southern B.C. the Upper Paleozoic strata of Quesnellia are relatively poorly known and are referred to by many local names. There does appear to be two distinct rock assemblages that characterize two of the subterrane of Quesnellia; the Harper Ranch and Okanagan subterrane (Gabrielse and Yorath, 1992). The Harper Ranch subterrane includes arc-related clastic, volcanoclastic and carbonate rocks and occurs from north of Kamloops to south and east of Vernon. The Okanagan subterrane includes chert, argillite, basalt, greenstone and ultramafic rocks and occurs largely in the Boundary District. It includes a number of assemblages, some of which may be correlatives: limestone and argillite of the Carboniferous to Permian Mt. Attwood Fm.; chert and greenstone of the Knob Hill Group; and quartzite, metachert, phyllite, schist, greenstone and marble of the Kobau Group. Rocks of the latter group, particularly chert, argillite, basalt and associated ultramafic rocks, are correlated (Okulitch, 1973) with the Anarchist assemblage in Canada and are identified mostly west of 119° longitude. However, in Washington State the Anarchist Group includes rocks similar to the Harper Ranch Formation, both of which are assumed to be late Paleozoic. In Washington State the Anarchist Group is described (Hickey, 1992) as unconformably overlain by the Kobau Formation. (Note that usage of the terms 'group', 'formation' and 'assemblage' are after those given by the source reference.)

Granitic intrusives in the Rock Creek area include Middle Jurassic Nelson plutonic rocks and Eocene porphyritic granite (Shingle Creek Porphyry). A relatively large batholith of Eocene Coryell Syenite occurs northeast of the Bowser claims.

The Rock Creek area is characterized by windows of Paleozoic and Mesozoic volcanic and sedimentary rocks between large down-faulted blocks of Tertiary cover. Despite being one of the older mining districts in the province the level of geological mapping is best described as scarce, the most recent sources of information for the west half of NTS sheet 82E being Fyles (1988) and Templeman-Kluit (1989). There are points of disagreement between these authors, particularly in the assignation of the Paleozoic rock units.

Most of the pre-Tertiary rocks in the Rock Creek area are mapped by Fyles as belonging to the Knob Hill Group, a thick assemblage of mainly greenstone and chert. These rocks are ascribed by Templeman-Kluit to the Carboniferous or Permian. Templeman-Kluit maps some of these as belonging to the Carboniferous or older Anarchist Group, Unit CPA on Figure 4; greenstone, amphibolite and serpentized equivalents, which are similar for the most part to the Knob Hill Group of Fyles. North of the Kettle River these rocks are relatively undeformed pillow lavas, greenstones and fine-grained diorite. Small irregular masses of altered serpentinite or listwanite are a common occurrence in these rocks. Sedimentary rocks within the Knob Hill Group or Anarchist Group include chert, argillite and limestone. A white dolomite south of the Kettle River and the BIF claims on the Canadian side of the border is ascribed to this group.

The structure of the Rock Creek region is dominated by Tertiary faults that mark the boundaries of the Tertiary rock units. Many faults are intruded and obscured by Tertiary dykes. Fyles (1988) considers the faulting to be the result of east-west extension. The predominant structural fabric is the north to northeastern trending faults associated with Tertiary block faulting. The Paleozoic rock units in the local area of Rock Creek have a foliation trending northwesterly.



- | | | | |
|--------------------------------|-----------------|----------------------------|-----------|
| TECTONIC ASSEMBLAGES | | INTRUSIVE SUITES | |
| TERTIARY PALEOGENE | | | |
| PgTK | Kamloops | ETyC | Coryell |
| PgTS | Sifton | ETqL | Ladybird |
| | | ETq | undivided |
| | | ETd | undivided |
| MESOZOIC | | | |
| TrJN | Nicola | CRETACEOUS | |
| | | MKg | undivided |
| | | JURASSIC | |
| | | MJgN | Nelson |
| | | MJg | undivided |
| DEVONIAN - TRIASSIC | | DEVONIAN - TRIASSIC | |
| DTrH | Harper Ranch | DTr | undivided |
| CARBONIFEROUS - PARMIAN | | | |
| CPA | Anarchist | | |
| CARBONIFEROUS | | | |
| CMK | Milford | | |
| CAMBRIAN - DEVONIAN | | | |
| CDR | Rocky Mountains | | |
| PROTEROZOIC | | | |
| PPzEK | Eagle Bay | | |

m uncertain age, undivided metamorphic **u** uncertain age, undivided plutonic



NTS 82 E

APPLIED MINE TECHNOLOGIES INC.

BIF AND BOWSER CLAIMS

GREENWOOD MINING DIVISION, B.C.

TECTONIC ASSEMBLAGE MAP
(from Journeay and Williams, 1995)

Project: 97-288	Date: Dec, 1997	Scale: 1:300,000	Figure: 4
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Earth Resource Surveys Inc.
ERSi

The local geology of the Bowser Claims area is apparently more complex and variable than that in the BIF region. The regional mapping, Figure 4, shows the Bowser group to be underlain by the Mesozoic Nicola assemblage. Templeman Kluit's mapping (1989) indicates the presence of Ordovician (?) to Devonian (?) schist and limestone, Carboniferous or older Anarchist Group, Middle Jurassic Nelson plutonic rocks and the Upper Triassic Rosland Group which is equivalent to the well known Nicola Group.

The current level of available geological mapping on both properties is not considered adequate for any mineral exploration program.

3. Geophysics

Regional aeromagnetic surveys published by the Geological Survey of Canada in 1973 cover both claim areas.

3.1. BIF Claim

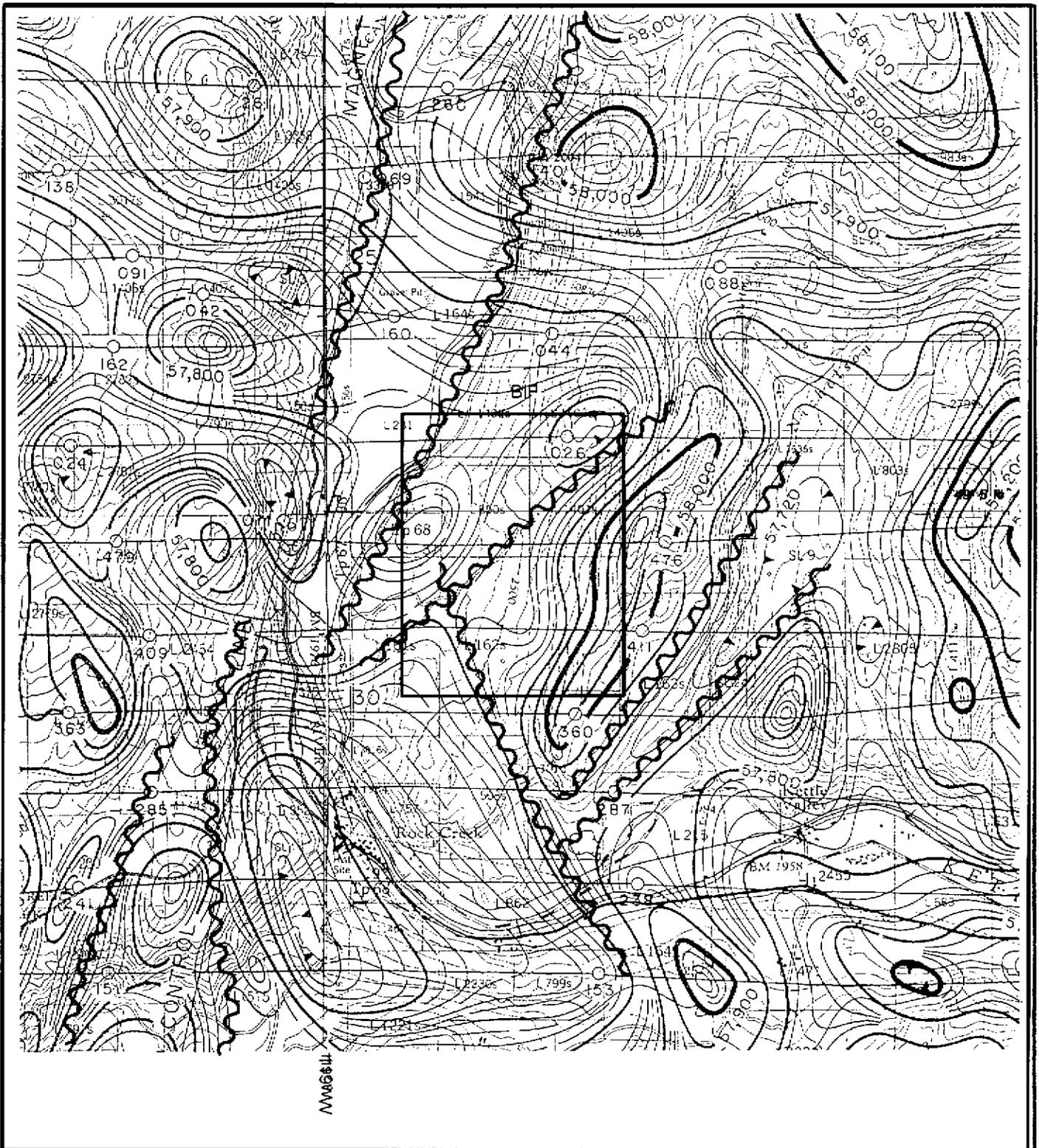
Figure 5 shows a portion of the GSC maps 8497G and 8508G for the Rock Creek area, originally published at a scale of 1 inch to 1 mile.

The north-northeast trending tertiary faults mapped by Church (1980) and Fyles (1989) are well expressed by the magnetics. Those along the south-flowing section of Kettle Creek north of Rock Creek are interpreted as being part of a structural corridor running along the stream valley. Field mapping should help elucidate why the prominent north-northeast trending ridge crossing the BIF claim has a greater magnetic susceptibility.

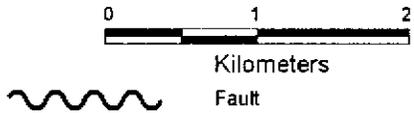
3.2. Bowser Group

Figure 6 shows a portion of the GSC map 8487G for the Bowser claims, originally published at a scale of 1 inch to 1 mile.

The southwest trending Christina Lake fault marks a well-developed discontinuity in the magnetic patterns subparallel to the lake and to the Kettle River in this area. A few other less well-expressed pattern discontinuities are interpreted. The Tertiary Coryell intrusive is interpreted in the northeast corner of Figure 6 and middle Jurassic Nelson plutons are interpreted in the north central and south central areas of Figure 6.



11199M



APPLIED MINE TECHNOLOGIES INC.

BIF CLAIM

GREENWOOD MINING DIVISION, B.C.

**REGIONAL OVERLAY OF
AEROMAGNETIC DATA IN THE BIF CLAIM**

Project: 97-288

Date: Dec, 1997

Scale: 1:50,000

Figure: 5



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ERSi



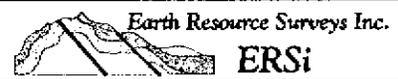
49° 10' 00" N
118° 00' 00" W



 Fault

APPLIED MINE TECHNOLOGIES INC.
BOWSER CLAIMS
 GREENWOOD MINING DIVISION, B.C.
 REGIONAL AEROMAGNETIC INTERPRETATION
 AEROMAGNETIC INTERPRETATION

Project: 97-288	Date: Dec, 1997	Scale: 1:50,000	Figure: 6
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Latitude Longitude Projection

4. Remote Sensing Investigation

4.1. Introduction

The scenes of Landsat Thematic Mapper (TM) digital data acquired for the study were those for Track 044, Frames 025 and 026, imaged on August 31, 1987. The full scene measures about 185 x 170km and the original pixel size of the raw data is 28.5m.

Basic principles and characteristics of Landsat TM imagery are provided in Appendix I.

4.2. Method

The full scene of Landsat data was orthorectified using 1:50,000 topographic maps in a NAD27 ellipsoid, UTM Zone 11. A subset of data, covering the study area, was extracted and used for the generation of image maps and study.

A number of band combinations, ratios and principal components were experimented with, TM bands 345 (BGR) showing the most differentiation of cover types. Figure 7 is a small scale image map of the border district. Figures 8 and 9 are approximate 1:50,000 scale image maps of the BIF Claim and Bowser Group, respectively.

Primary coniferous forest cover in the TM345 composites is shown by the dark green hues. Leafy green vegetation along the drainage courses and in the alpine areas are shown by the lime to yellow green hues. Bare outcroppings are shown by magenta hues. Water is shown by black.

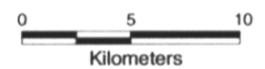
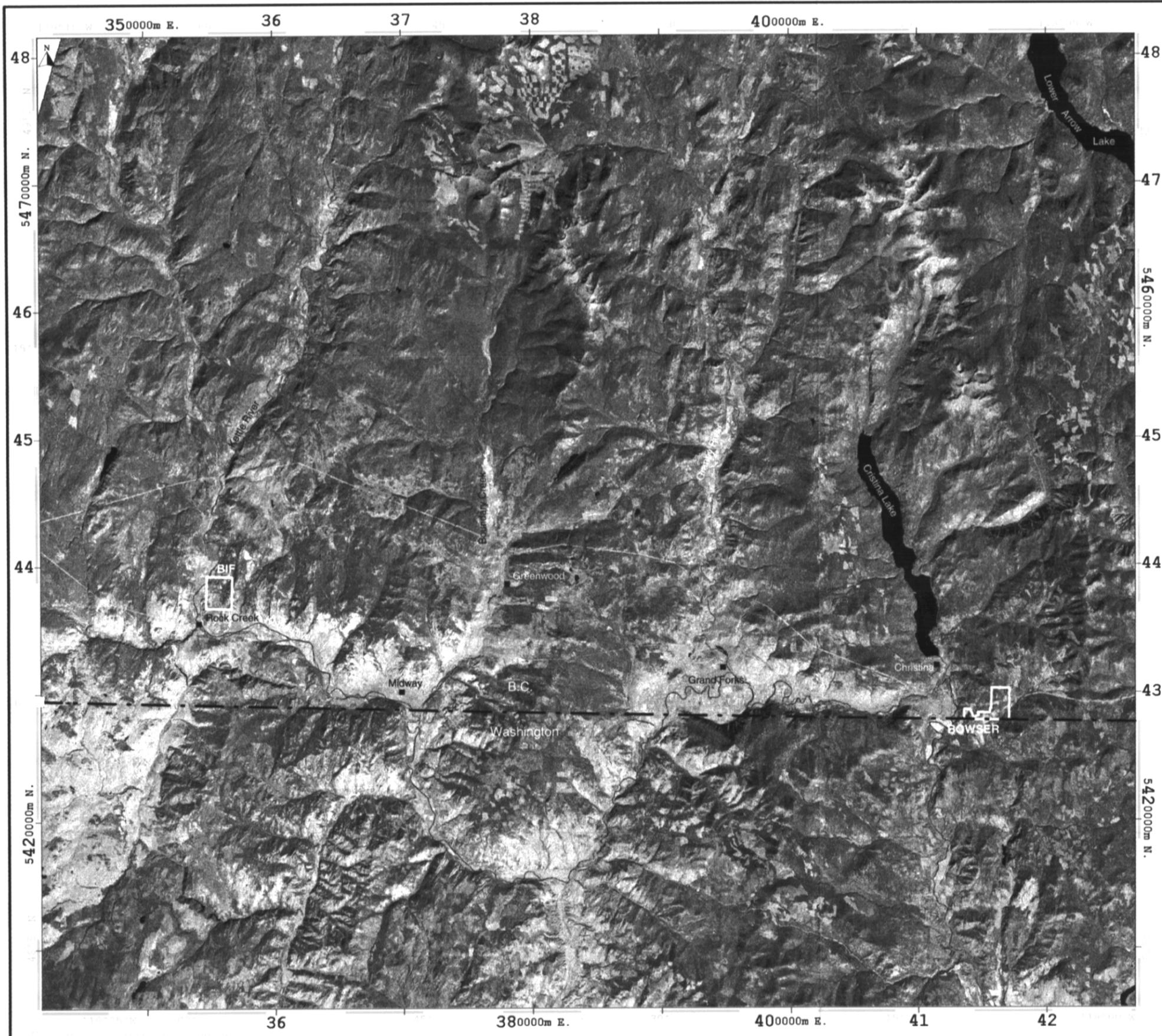
Conventional feature analysis and interpretation procedures are followed in working with Landsat imagery. Two factors are considered; the *spectral* aspects (relative brightness and color combinations) and the *spatial* aspects (distribution of data groups). Analysis of imagery is concerned only with the *spectral* aspects. In contrast, interpretation is the explanation of the meaning or significance of any part with respect to the whole and relates to both *spectral* and *spatial* aspects of the data as well as their relevance to the surficial conditions which they reflect or the subsurface relationships which they are imposed upon. Image interpretation (in the current study) is the identification of geologically correlated elements of landscape; namely landform, drainage and cover patterns, according to the *spatial* aspects.

Cover patterns are determined by spatially related spectroradiometric groups of data that relate to the reflective properties of surficial materials (vegetation, soil, rock, etc.). The topographic position of these patterns is not a necessary parameter in establishing their presence or boundaries. Geologic materials and/or conditions can be inferred by direct or indirect evidence.

Landform patterns are determined by spatially related spectroradiometric groups of data that relate to topographic conditions of the landscape without respect to the materials present. In the manual interpretive technique, familiar to any air photo interpreter, these boundaries are usually determined by a change in slope or alignment. The objective is to classify an area into terrain units, based on landform shape, size, drainage density, etc., the premise being that an area of similar landform infers similar resistance to surficial agents of erosion and/or to the competence of geologic materials.

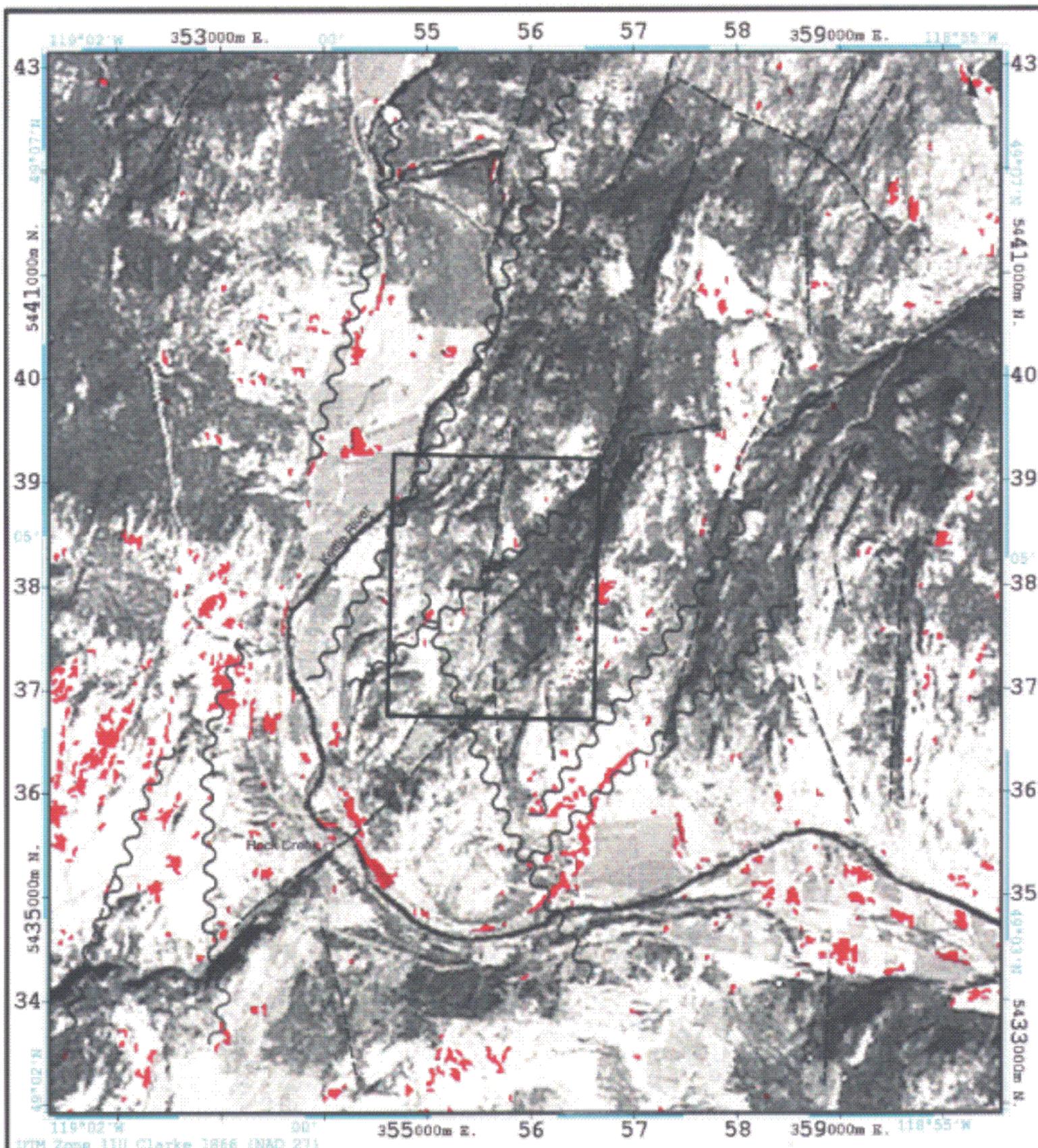
Drainage is a special condition of landform; that being the line(s) of lowest landform per unit area. There are three important factors in assessing drainage; pattern, density and gully shape. Landsat imagery can evaluate and compare the first two of these up to scales of 1:25,000 but gully shape can only be assessed in a general way.

Lineaments are mappable simple or composite linear features which may be geomorphic (caused by relief) or tonal (caused by reflectance contrasts). Their inference is dependent upon various assumptions. Geomorphic lineaments may be landforms, linear boundaries between different types of terrain or breaks within uniform terrain. Tonal lineaments may be a straight boundary

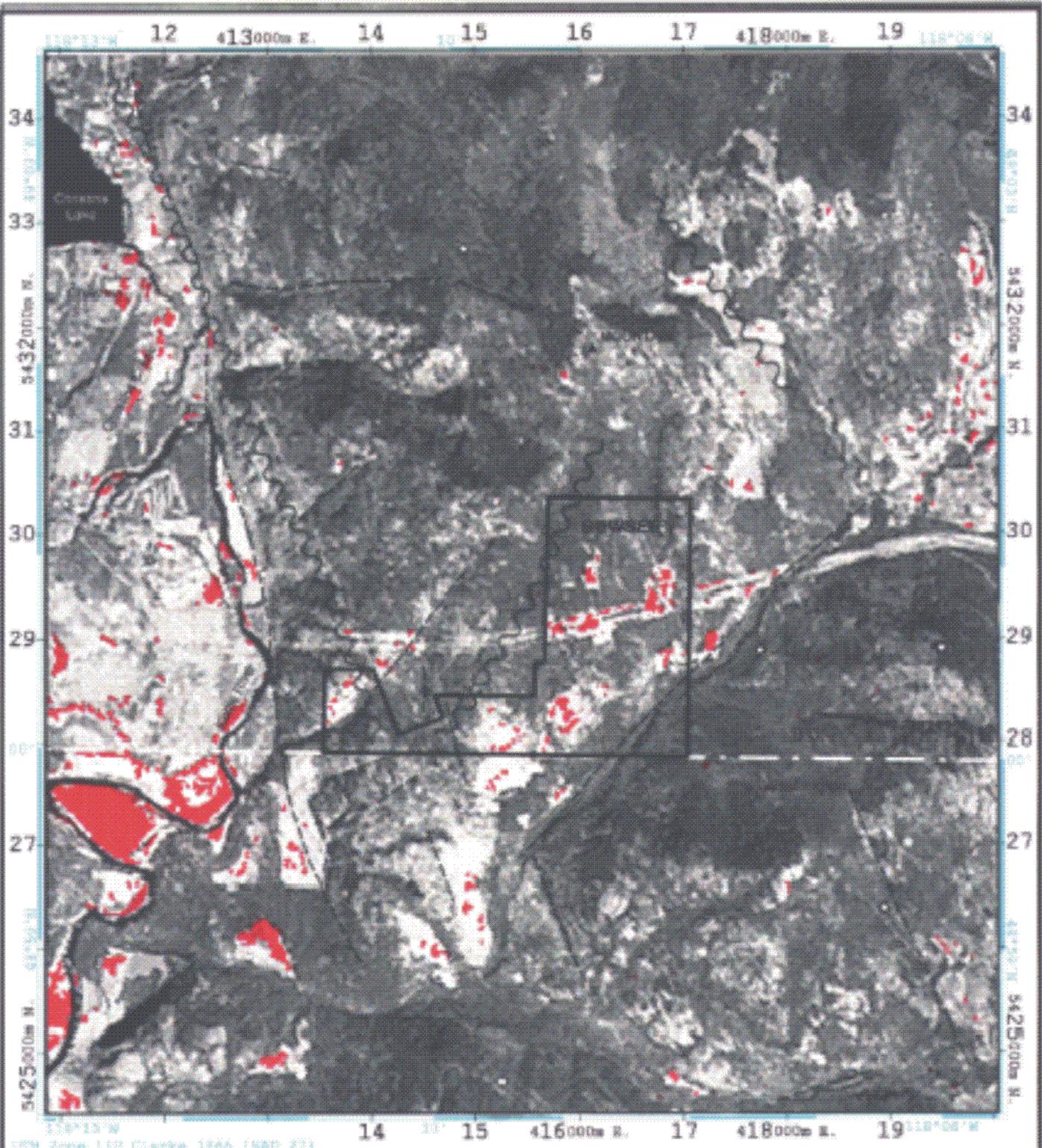


NTS 82 E

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BIF AND BOWSER CLAIMS			
GREENWOOD MINING DIVISION, B.C.			
REGIONAL IMAGE MAP LANDSAT TM BAND 5			
Project: 97-288	Date: Dec, 1997	Scale: As Shown	Figure: 7
 Earth Resource Surveys Inc. ERSi			



NTS 82 E/2,3		APPLIED MINE TECHNOLOGIES INC.	
0 1 2 Kilometers		BIF GLAIM	
Discontinuities interpreted from aeromagnetics		GREENWOOD MINING DIVISION, B.C.	
Bedrock structural discontinuities interpreted from Landsat TM		PROPERTY IMAGE MAP	
Areas of possible iron-oxide enrichment; discount low-lying areas of alluvium and clearings due to farms, powerlines		LANDSAT TM BAND 5	
Project: 97-288	Date: Dec., 1997	Scale: As Shown	Figure: 8
(Overlay to Property Image Map)		Earth Resource Surveys Inc. ERSi	



UTM Zone 18Q Clarke 1866 (NAD 27) 118°08'W 118°08'W

NTS B2 E/1

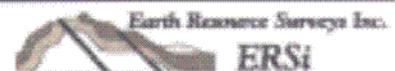
APPLIED MINE TECHNOLOGIES INC.

BOWSER CLAIMS

GREENWOOD MINING DIVISION, B.C.

PROPERTY IMAGE MAP
LANDSAT TM BAND 5

Project: 97-288 Date: Dec., 1997 Scale: As Shown Figure: 9



Wavy line symbol: Contour lines interpreted from aeromagnetics.

Dashed line symbol: Bedrock structural discontinuities interpreted from Landsat TM



Areas of magnetic iron-oxide enrichment; discolor low-lying areas of alluvium and clastics due to ferric, pyroxenes

(Overlay to Property Image Map)

between areas of contrasting tone or a stripe against a background of contrasting tone. Differences in vegetation, moisture content, soil or rock type or land-use practices account for most tonal contrasts.

In this project almost all the lineament delineation was done at an approximate scale of 1:50,000 directly on the computer digital file. Because the minimum mapping length is about 0.5cm this means the shortest lineament mapped is about 250m in length.

The types of lineaments delineated on the Landsat imagery are linear segments of large valleys, linear depressions (mostly linear drainage segments), linear ridges, linear bases of steep slopes, *linear concave breaks in the slope and tonal lineaments*. *Linear geomorphic lineaments* were compiled for both the BIF and Bowser properties.

Processing was also done to enhance surface iron oxidation enrichment. Two techniques were employed, both based on the fact that iron oxides have their maximum reflectance in the visible red (TM Band 3) and minimum reflectance in the visible blue (TM Band 1). The first technique is a simple ratio of TM3/TM1. The second technique uses the arithmetic sum of $(TM3 - TM1) + TM3$. The common result is a range of values normally distributed between DN of 0 and 255, the brightest values being indicative of strong visible red reflectance. An arbitrary judgement is then made as to the DN value above which any pixel can be considered spectrally anomalous. As a starting point, the top 1 to 2½% of the population is encoded as being anomalous and worthy of follow-up. The reader is cautioned that this technique, which is widely used in remote sensing investigations, is not foolproof. In an area completely devoid of iron alteration an arithmetic technique will still result in a normal distribution of results and the top few percent may be only due to the occurrence of dark colored rocks. Field checking is mandatory.

4.3. Results

Fieldwork is absolutely necessary to test any conclusions. No structural remote sensing study can replace the geological field examination. At best it can provide some overview and compilation benefits and hopefully lead to some hypothesis for subsequent fieldwork focus.

The overlays accompanying Figures 8 and 9 show the compilation of features for the BIF and Bowser properties, respectively.

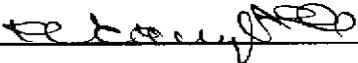
The BIF property is dominated by a north-northeast trending fracture set. It has strongly influenced both the trend and configuration of the unconsolidated deposits, both glacial and alluvial, which blanket the local area. A second northeast trending fracture is also interpreted. There is reasonable agreement of the interpreted fractures and the discontinuities interpreted from the aeromagnetics. A number of possible gossanous areas occur on the BIF claim. These are along the ridge on the eastern side of the property and along the northeast trending magnetic discontinuity that crosses the center of the property.

The Bowser property is cut on its western edge by the north-northwest fault that runs down the east side of Christina Lake. There is also a northeast trending fracture set represented. The trends of interpreted fractures are in agreement with those of the interpretation of the magnetic data. The results of the iron oxide enrichment enhancement are very suspect for the Bowser property. *Most of the top few percent of the spectrally anomalous pixels occur on alluvial terraces and along the transmission lines*. Nevertheless, there are a few sites on the property that should be field checked to determine their nature.

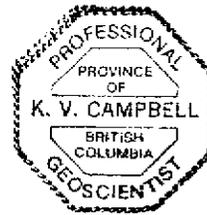
5. Recommendations

1. The limited work done is the first step in building up a GIS and satellite image database for the two projects. The products of the work include orthorectified Landsat TM imagery, a digital elevation model of the region, geocoded aeromagnetic data and a preliminary overview of the gross bedrock structures on the BIF and Bowser properties.
2. An understanding of the lithologies and structures on both properties is paramount. To this end it is recommended that both claim areas be field mapped to a scale of at least 1:10,000.
3. Prior to the first pass at the field mapping it is recommended that an air photo interpretation be done using 1:15,000 or 1:20,000 air photos. Detailed topographic mapping, including the creation of a 3 dimensional elevation data set, should be done before the commencement of fieldwork.

Respectfully submitted,

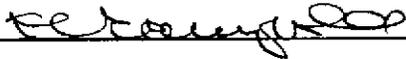


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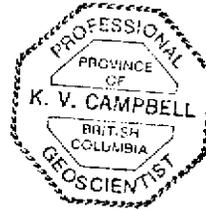
6. Itemized Cost Statement

Data acquisition and preprocessing	
One full scene of Landsat TM digital imagery, orthorectified, on CD-ROM, cut from 2 full scenes	\$ 1,200.00
Topographic and mineral claim maps	\$ 153.05
Digital terrane models	\$ 267.50
Remote Sensing Analysis:	
K.V. Campbell; 17 hours @ \$100/hour	\$ 1,700.00
GIS, CADD work, map preparation (color and B&W sets)	
M. Goyer; 60 hours @ \$35/hour	\$ 2,100.00
G. Rigby; 10½ hours @ \$50/hour	\$ 525.00
Report preparation, materials and reproduction; 5 copies	\$ 1,500.00
Secretarial	\$ 100.00
Total:	\$ 7,545.55



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January 15, 1998

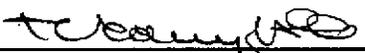


7. Certificate

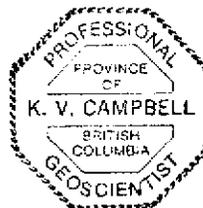
I, KENNETH VINCENT CAMPBELL, resident of North Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a geologist employed by ERSI Earth Resource Surveys Inc., Suite 311A, 255 West First St., North Vancouver, British Columbia
2. I graduated with a degree of Bachelor of Science, Honours Geology, from the University of British Columbia in 1966, a degree of Master of Science, Geology, from the University of Washington in 1969, and a degree of Doctor of Philosophy, Geology, from the University of Washington in 1971.
3. I have practiced my profession for 31 years. I am a Fellow of the Geological Association of Canada (F0078) and have been a member of the Association of Professional Engineers and Geoscientists of British Columbia since August 11th, 1992.
4. This report, dated January 15th, 1998 is based on my understanding of the geological setting of the BIF and Bowser Properties and a examination of satellite imagery over the area.
5. I have no direct, indirect or contingent interest in shares or business of Applied Mine Technologies Inc. nor do I intend to have any such interest.
6. This report is made available both in printed and digital formats. Permission is given by the author to Applied Mine Technologies Inc. to use this report, in all or in part, in any format in their Prospectus or Statement of Material Facts.

Dated at North Vancouver, Province of British Columbia
This 15th day of January, 1998


K.V. Campbell, Ph.D., P.Geo., F.G.A.C.
Geologist

January 15th, 1998



8. Bibliography

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