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Owner/Operator:

ENERGEX MINERALS LTD.**GEOPHYSICAL REPORT ON AN
AIRBORNE VLF-EM AND MAGNETOMETER SURVEY
WINKLE CLAIM GROUP**OMINECA, ~~LEAD~~ MINING DIVISIONS

LAT. 57°28.1'N, LONG. 127°16'W, NTS 94E/6W, 11W, 6E

AUTHORS: E. Trent Pezzot, B.Sc.

GEOPHYSICIST

GLEN E. WHITE, B.Sc., P.Eng.

CONSULTING GEOPHYSICIST

DATE OF WORK: Feb 20, 21, March 13, 14, 26, 27, 28/1986

DATE OF REPORT: August 6, 1986

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT****15,183**

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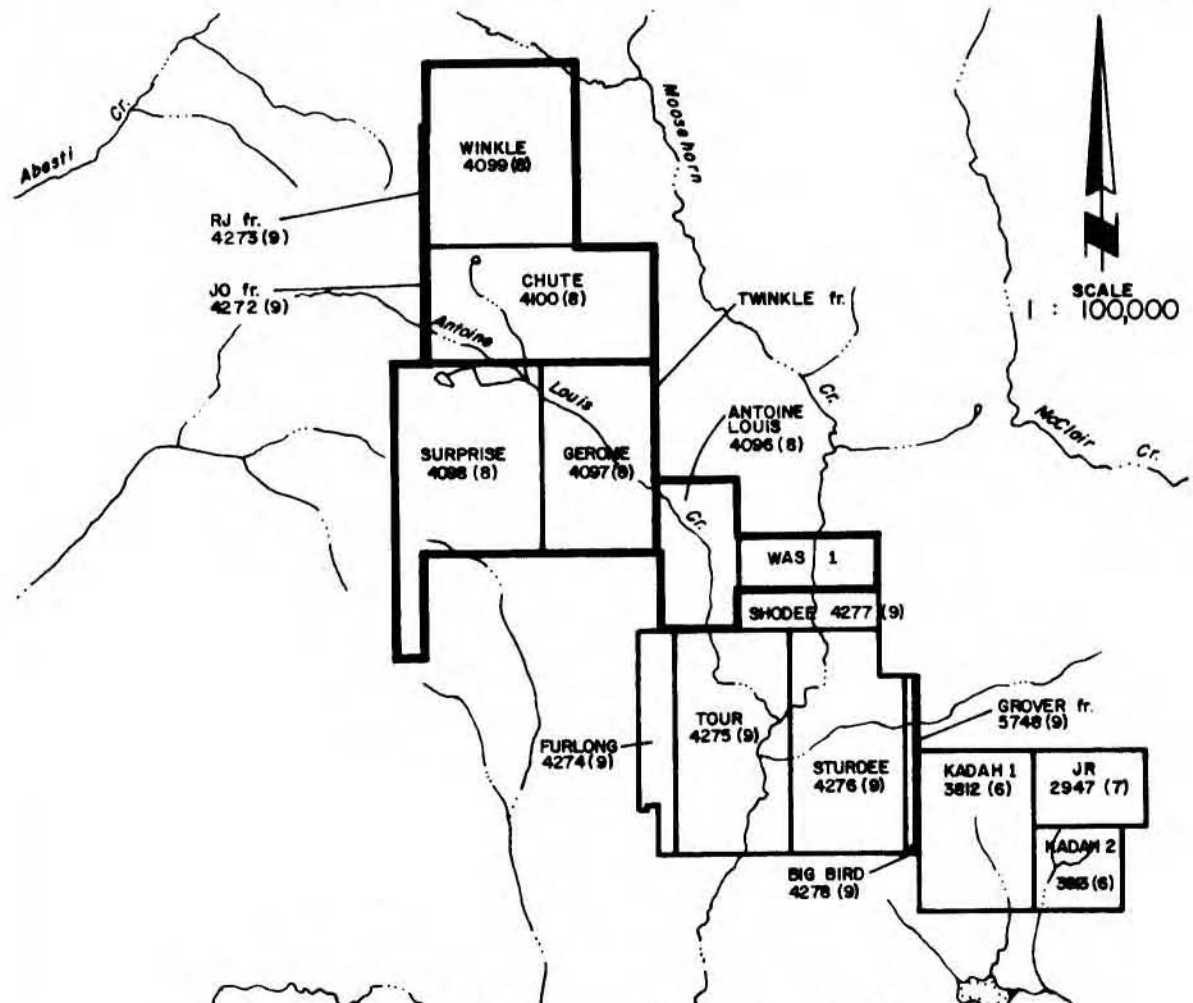
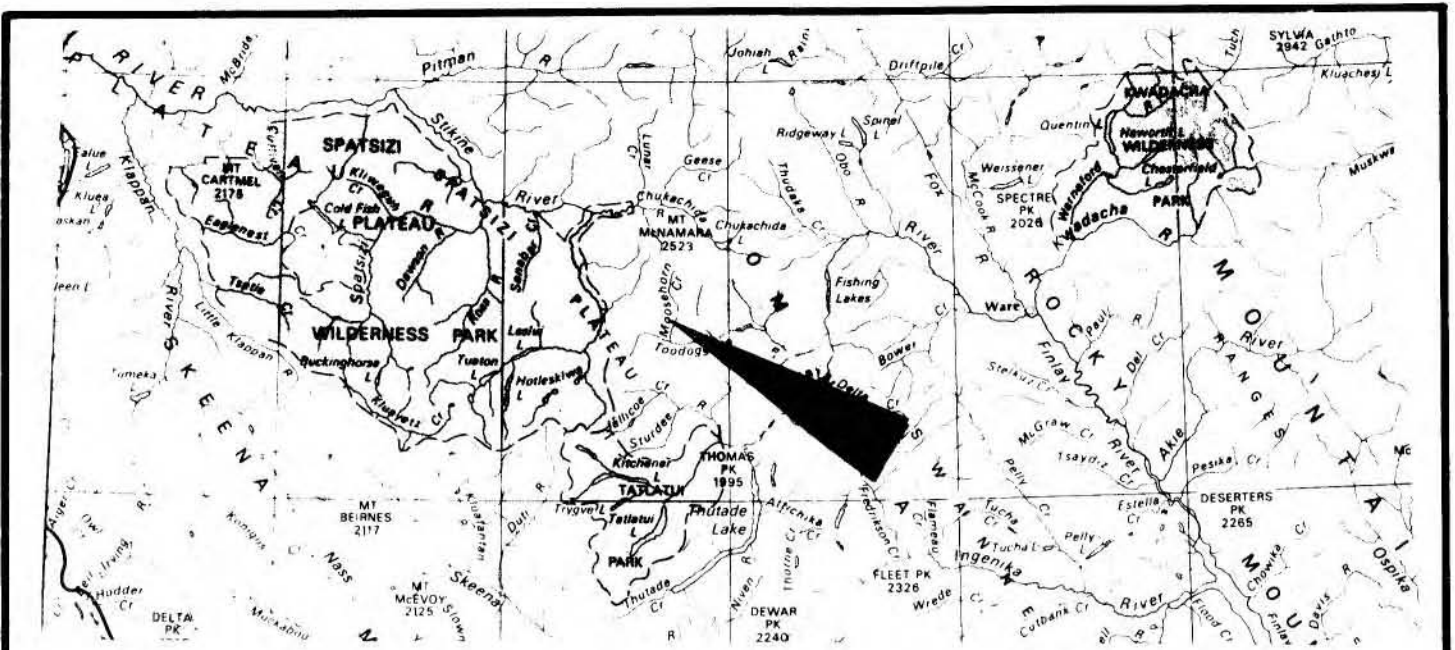
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ENERGEX MINERALS LTD.
 — WINKLE CLAIM GROUP —
LOCATION AND CLAIMS MAP



FIGURE 1

INTRODUCTION

A regional program, totalling over 10,000 line kilometres, of airborne magnetometer and VLF-electromagnetometer surveying was conducted across the Toodoggone Gold Belt area in early 1986. Western Geophysical Aero Data Ltd. was commissioned by Energex Minerals Ltd. to recover and examine in detail the data gathered across a 97 unit claim group referred to as the **Winkle Group**.

These claims are located immediately east of the Thesis gold deposits. It was the intention of this survey to assist the geological mapping of the area and direct ground exploration to any favourably anomalous locations.

PROPERTY

The property referred to in this report as the **Winkle group** is comprised of 10 claims totalling 97 units as described in the table below.

CLAIM NAME	RECORD NO.	UNITS	RECORD DATE
JO (fr)	4272	1	Sept. 8, 1981
RJ (fr)	4273	1	Sept. 8, 1981
Winkle	4099	20	Aug. 13, 1981
Chute	4100	18	Aug. 13, 1981
Surprise	4098	20	Aug. 13, 1981
Gerome	4097	15	Aug. 13, 1981
Wankle	4095	3	Aug. 13, 1981
Tinkle	4093	1	Aug. 13, 1981
Was II	7249	8	Aug. 29, 1985
Antoine Louis	4096	10	Aug. 13, 1981



LOCATION AND ACCESS

The Toodoggone River area is located approximately 280 kilometers north of Smithers, B.C. The **Winkle claim group** is centred about Antoine Louis Creek, a feeder stream west of Moosehorn Creek. The group is positioned immediately east of the Thesis and Alberts Hump mineral deposits, also held by Energex Minerals Ltd. The claim group lies primarily within NTS 94E/6W and the Omineca Mining Division although small portions of some of the claims cross the borders into NTS 94E/11W and the Liard Mining Division. The approximate geographical co-ordinates of the centre of the claim group are latitude 57°28'N and longitude 127°16'W (see Figure 1).

Access to the area is normally achieved via fixed wing aircraft from Smithers, B.C. to any of the larger lakes in the area or to the Sturdee River airstrip, located some 30 kilometres south-southeast of the **Winkle claim group**. Historically, a number of helicopter companies have established summer bases at the Sturdee River airstrip and are available for casual charter to nearby properties.

HISTORY AND PREVIOUS WORK

The Toodoggone area was investigated for placer gold in the 1920's and 1930's. A public company, Two Brothers Valley Gold Mines Ltd., undertook considerable test work, including drilling in 1934. Most of this work was directed towards extensive gravel deposits principally near the junction of McClair Creek and the Toodoggone River.

Gold-silver mineralization was discovered on the Chappelle (Baker Mine) property by Kennco Explorations (Western) Ltd. in 1969. DuPont of Canada Exploration Ltd. acquired the property in 1974 and began production at a milling rate of 90 tonnes per day in 1980.

Numerous other gold-silver discoveries were made in the



1970's and 1980's, including the Lawyers deposit which was discovered by Kennco in 1973 and optioned by SEREM Ltd. in 1979. Work on this property to date has included considerable trenching, drilling and underground development and a feasibility study is currently underway.

The Toodoggone area has been the scene of intense exploration activity during the past four years with numerous companies exploring over 3,000 mineral claim units. Exploration and development expenditures to date are estimated to be in the order of \$33 million.

To the west of the **Winkle group** is Energex Minerals Ltds.' Alberts Hump property. Exploration consisting of trenching and diamond drilling has outlined several gold bearing zones. To the east is Energex's Moosehorn property which was explored by diamond drilling during the summer of 1985.

No specific exploration of the **Winkle claim group** is known of by the authors.

GENERAL GEOLOGY

The claim group lies within what is often termed the Toodoggone River epithermal precious metal district which is mapped as a 100 by 25 kilometer northwest trending belt of volcanic, sedimentary and intrusive rocks extending from Thuade Lake in the south to the Stikine River in the north. Permian age limestones, argillites and cherts of the Asitka group are the oldest rocks in the area and normally are in fault contact with Takla volcanic rocks of Upper Triassic age. Lower Jurassic Toodoggone volcanics, consisting predominantly of subaerial dacite, latite, trachyte and rhyotite pyroclastics, unconformably overlie the Takla group. These rocks are bordered to the east by the Hazelton Group, consisting of intermediate volcanic conglomerate, breccia, lakas and feldspar porphyry dikes and sills. The



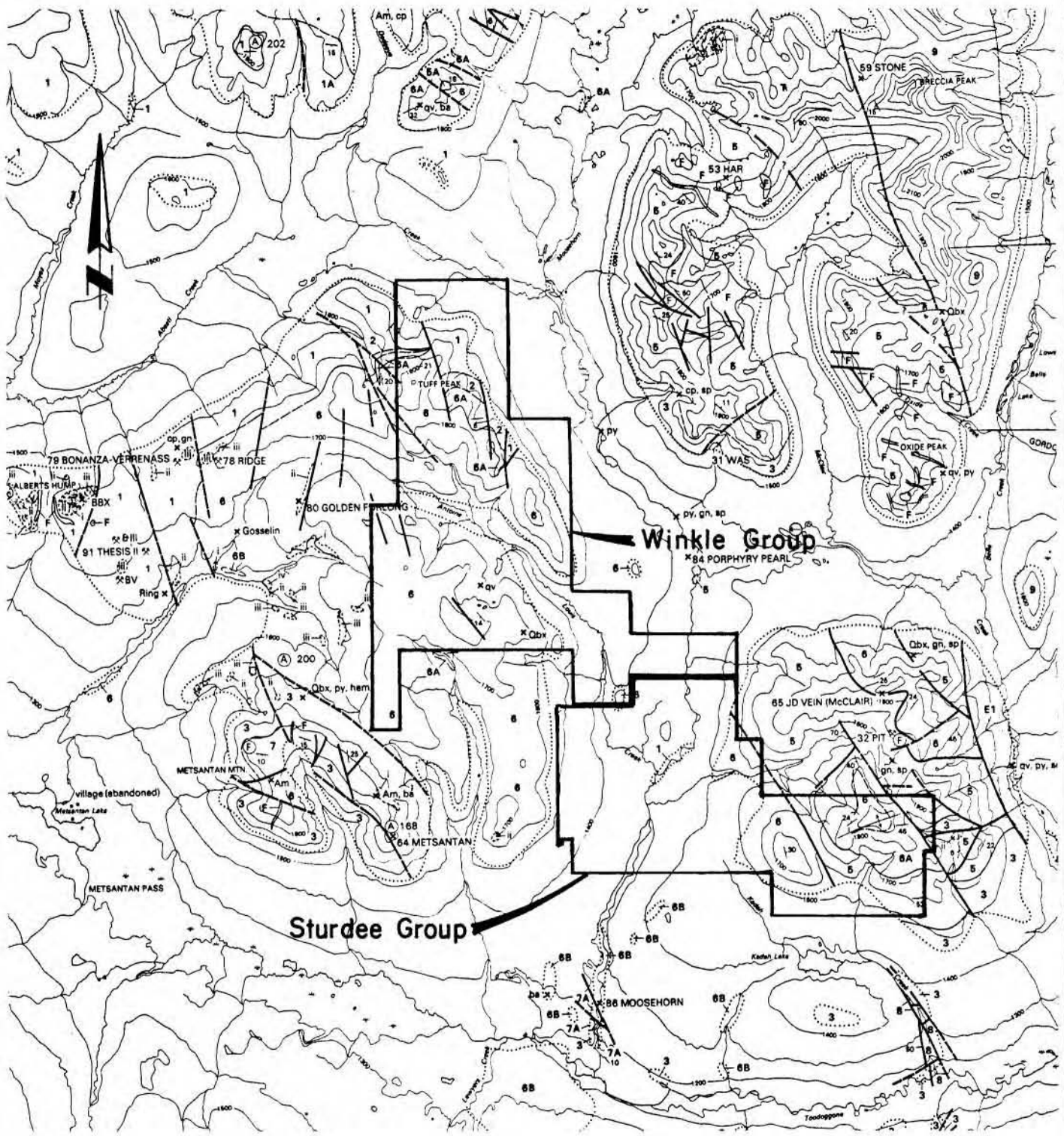
Hazelton Group ranges from Lower to Upper Jurassic age and may include members of the Toodoggone Group. Acid to intermediate stocks and plugs intrude many of the sedimentary and volcanic rocks of the area.

Regional fault systems trend northwesterly and northerly throughout the Toodoggone area. Epithermal deposits are the most common type of precious metal mineralization in the area and are predominantly associated with the Toodoggone volcanics. They occur as massive quartz veins or as silicified and amethystine breccia zones generally close to major northwest faults and associated with siliceous volcanic centres, exhalative vents and zones of alteration within the Triassic and Jurassic volcanics. Vein minerals are acanthite, pyrite, electrum, chalcopyrite, native gold, sphalerite and galena and grades range from 0.1 to 1.0 oz/T Au and 1.0 to 20.0 oz/T Ag.

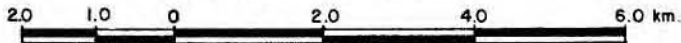
Examples include Baker mine, a fissure vein system developed in Takla volcanic rocks, but spatially related to dikes believed to be associated with Toodoggone volcanic rocks. Pre-mining indicated reserves were 90,000 tonnes grading 30 grams/tonne gold and 600 grams/tonne silver. Recovered grades during the three year mine life were about half the indicated grades due to initial mill recovery problems and greater than expected dilution during mining.

The lawyers deposit has gold-silver mineralization in banded chalcedony-quartz stockwork veins and breccia zones developed in Toodoggone volcanic rocks. Three potential ore zones have been defined to date and recently announced reserves are 1 million tonnes grading 7.27 grams/tonne gold and 254 grams/tonne silver. Numerous other epithermal gold-silver deposits in the area are hosted by lower and middle units of the Toodoggone volcanic sequence. These include the Sha, Saunders, Graves, Moosehorn, Mets, Metasantan, AL, JD and Golden Lion prospects.





LOCAL GEOLOGY



PROPERTY GEOLOGY

The B.C. Department of Mines preliminary map 61, titled "Geology of the Toodoggone River Area, NTS 94E", is the most recently published geological map of the claims area. This work was authored by L.J. Diakow, A. Panteleyev and T.G. Schroeder in 1985 and the portion covering the subject claims is reproduced as Plate 1 of this report.

This map shows the claims to be underlain predominantly by rocks of the Tuff Peak Formation, a subdivision of the Toodoggone volcanics, which consists of biotite augite hornblende plagioclase prophyry flows, autobrecciated flows, minor sills and plugs and some crystal and lapilli tuff.

Older subdivisions of the Toodoggone volcanics, the Moyez Creek Volcaniclastics and the Addogatcho Creek Formation, are mapped across the northern end of the property (**Chute and Winkle claims**). Extensive northerly and northwesterly trending faulting is also mapped in this area.



AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey simultaneously monitors and records the output signal from a proton precession magnetometer and two VLF-EM receivers installed in a bird designed to be towed 100 feet below a helicopter. A gimbal and shock mounted TV camera, fixed to the helicopter skid, provides input signal to a video cassette recorder allowing for accurate flight path recovery by correlation between the flight path cassette and air photographs of the survey area. A KING KRA-10A radar altimeter allows the pilot to continually monitor and control terrain clearance along any flight path.

Continuous measurements of the earth's total magnetic field intensity and of the total horizontal VLF-EM field strength of two transmission frequencies are stored in three independent modes: an analogue strip chart recorder, digital magnetic tapes and a digital video recovery system. A three-pen analogue power recorder provides direct, unfiltered recordings of the three geophysical instrument output signals. A Hewlett-Packard 9875 tape drive system digitally records all information as it is processed through an onboard micro-computer. The magnetic and electromagnetic data is also processed through the onboard micro-computer, incorporating an analogue to digital converter and a character generator, then superimposed along with the date, real time and terrain clearance upon the actual flight path video recording to allow exact correlation between geophysical data and ground location. The input signals are averaged and updated on the video display every second. Correlation between the strip chart, digital tape and the video flight path recovery tape is controlled via fiducial marks common to all systems. Line identification, flight direction and pertinent survey information are recorded on the audio track of the video recording tape.



DATA PROCESSING

Field data is digitally recorded, with the time of day fiducial, on magnetic cassettes in a format compatible with the Hewlett-Packard 9845 computer. The recovered flight path locations are digitized and the field data is processed to produce plan maps of each of the parameters. A variety of formats are available in which to display this data.

Total field intensity magnetic information is routinely edited for noise spikes and corrected for any diurnal variations recorded on a base magnetometer located in the survey area.

Total field intensity VLF-EM signals are sensitive to topographic changes and sensor oscillation. Oscillation effects can be reduced by filters tuned to the dominant period. Long period effects attributable to topography can be removed by high pass filtering the planimetric data.



DISCUSSION OF RESULTS

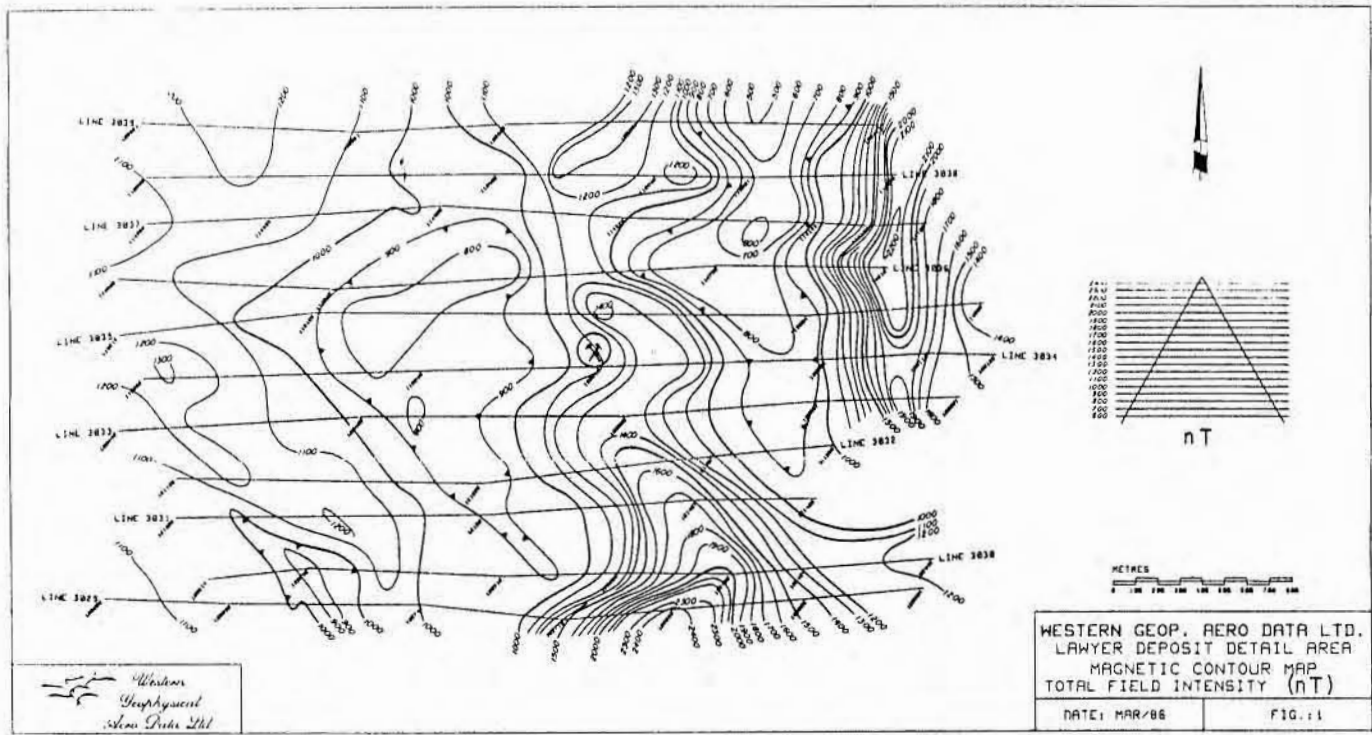
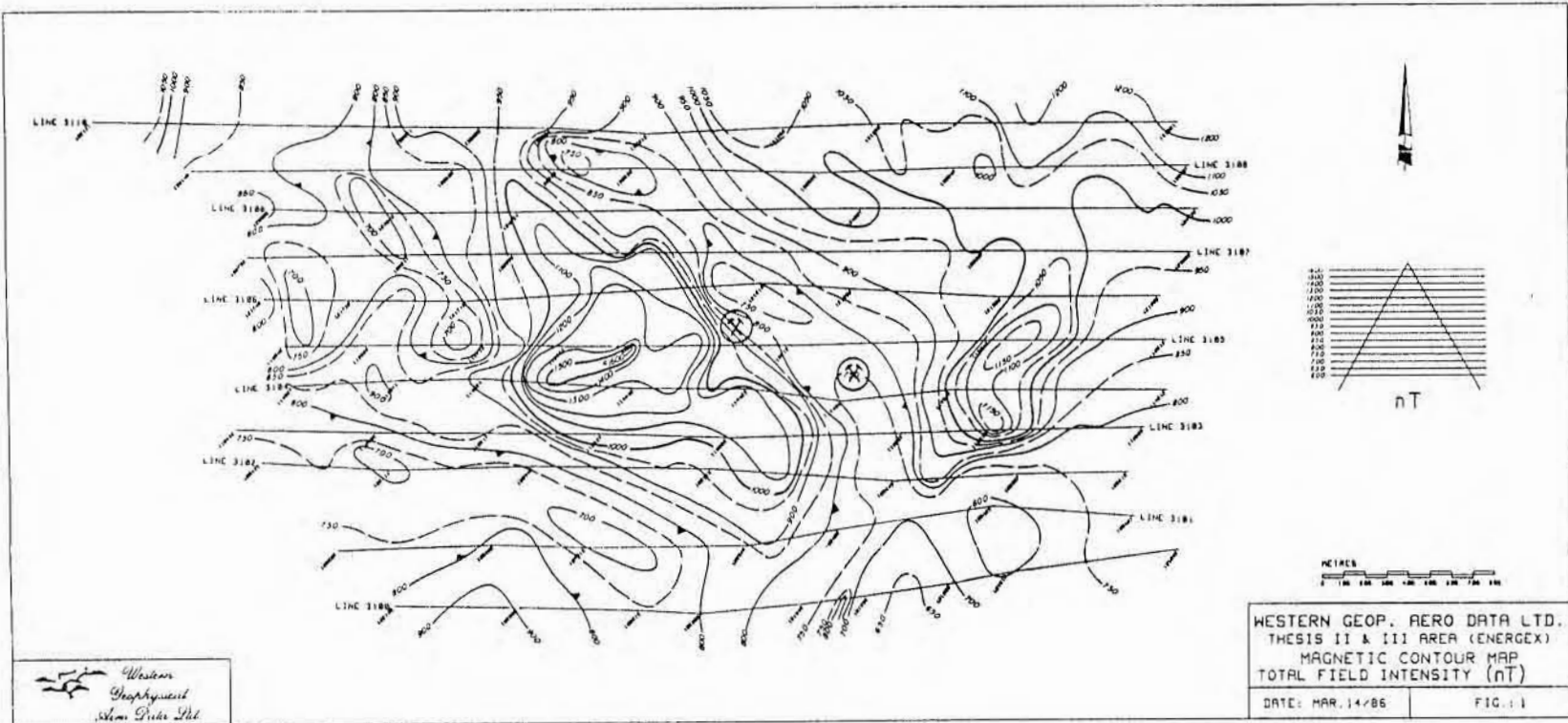
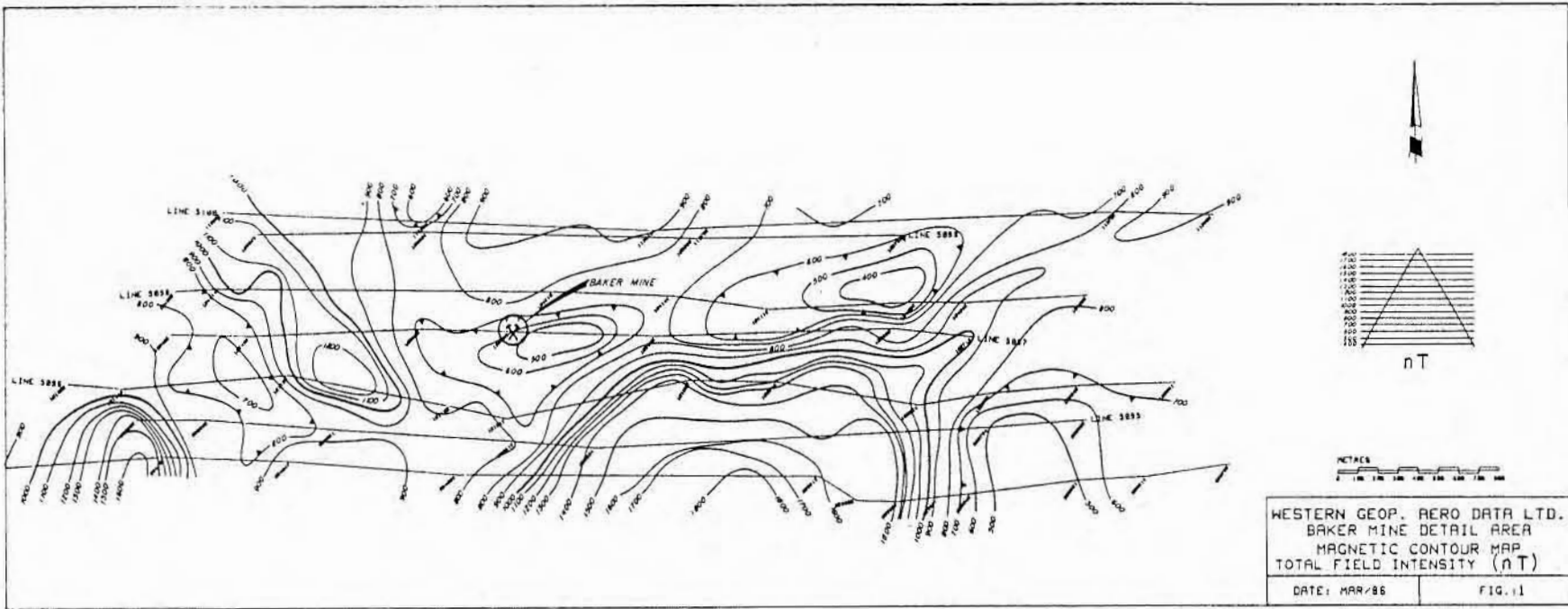
The **Winkle claim group** was surveyed on Feb 20, 21 and March 13,14,26,27 and 28, 1986 and 242 line kilometers of magnetic and VLF-electromagnetic data have been examined to evaluate the area. Survey lines were flown in an east-west direction on 200 meter centres with data being digitally recorded at one second intervals, providing an average sample spacing of 25 meters. The geophysical sensors maintained a terrain clearance of approximately 60 metres. The magnetic data is presented in contour form as Figure 2 of this report and the VLF-EM data is in profile format as Figures 3 and 4 representing the Seattle and Annapolis frequencies respectively.

This survey was flown as part of a regional package covering the Toodoggone Gold Belt from the Finlay River in the south to the Chukachida River in the north. Over 10,000 line kilometres of data was gathered to assist the geological mapping of the area as well as to locate specific targets for ground exploration.

The magnetic data is a useful tool for mapping both regional and local geological structures. Many localized magnetic variations are observed which are attributed to lithological changes, however the geological information is too sparse to define direct correlations between magnetics and lithology.

There are however two distinctive magnetic signatures observed which appear consistent across the large survey area. Firstly, Jurassic intrusions appear as magnetic highs; typically with an intensity of greater than 59,300 nT. Secondly, major fault and shear zones appear as linear magnetic lows, generally with intensities of less than 58,600 nT, and often positioned along the flanks of intrusive bodies. The combination of these two signatures are observed across many of the larger epithermal precious





**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

MAGNETIC RESPONSE EXAMPLES
BASE VALUE 58,000 nT

15,183

*Western
Geophysical
Aero Data Ltd.*

metal deposits in the area. Plate 2 of this report illustrates this effect at the Baker Mine, Lawyers and Thesis deposits. The magnetic response is interpreted as reflecting only the general geological environment of these areas and does not map any mineralization directly.

The magnetic data presented as Figure 2 shows a broad magnetic low which follows the Moosehorn Creek valley in the area of the **Was #2 claim**. This response probably reflects a thickening of the overburden layer. Immediately to the north of the **Was #2 claim**, Moosehorn Creek swings to the northwest and skirts the eastern borders of the **Chute and Winkle claims**. In this area the magnetic low narrows, forming a distinctive fault response which generally lies parallel to and is offset some 500 metres to the east of Moosehorn Creek.

The southern part of the claim group displays relatively quiet magnetic data of the amplitude normally attributed to Toodoggone volcanic rocks. This area is geologically mapped as Tuff Peak Formation, a subdivision of the Toodoggone volcanics. A number of magnetic lows are delineated in this area and interpreted as reflecting faults as illustrated on Figure 2.

The centre of the claim group shows an extremely complex pattern of magnetic lows and highs which separate the moderate magnetic intensity area to the south from a high magnetic area to the north. The magnetic lineations in this contact area suggest extensive faulting. The structural deformation appears to be locally dominated by two faults; a northerly trending zone centred on the **Chute claim** and a northwesterly trending fault on the **Surprise claim** which parallels to the south, the headwater course of Antoine Louis Creek. Superimposed on these features are a number of short, isolated magnetic lows which are interpreted as cross and splay faults. It is highly unlikely that the airborne



magnetic data is fully resolving and delineating these structures. It is more likely producing a simplified overview of a complex geological contact area.

The magnetic high referred to in the preceding paragraph is the southeastern nose of a large oval shaped magnetic feature which is oriented northwesterly and exhibits a strike length of approximately 7.5 kilometres. Although the magnetic high and the geologically mapped Addogatcho Creek Formation coincide in the area of the **Winkle claims**, this correlation is not observed elsewhere in the survey area and the two responses are not believed to be related. It is more likely that the magnetic high is reflecting a previously unmapped Jurassic intrusion. The Addogatcho Creek Formation rocks mapped in the area of the magnetic high are likely forming a relatively thin cover over this buried intrusive. The bulk of the area reflecting this magnetic anomaly is covered by glacial till and unmapped geologically.

The Seattle frequency VLF-EM information is presented as profiles on Figure 3. Three extremely high amplitude responses, observed on lines 3091, 3092 and 3097 are electronic spikes, most likely produced at the transmitter, and are not valid conductivity anomalies. No Seattle VLF-EM information was available on the northern-most lines; 2008B to 2014 inclusive.

The Seattle VLF-EM data is relatively quiet, particularly in the southern part of the claim group and across Moosehorn Creek valley. No regional lineations were observed in the data although a number of short strike length features have been noted and flagged on Figures 2 and 3.

The Annapolis frequency VLF-EM information is presented as profiles on Figure 4. Extremely high noise levels were



observed on lines 2010 to 2014 inclusive however the majority of the data is better behaved.

More conductivity responses are observed in the Annapolis data than in the Seattle data. This is a result of dominant northwesterly strike of the Toodoggone Gold Belt area. Most of these responses are however relatively weak and generally cluster together. This suggests that these airborne anomalies are generated from closely spaced, multiple conductors and will require a detailed ground investigation to be resolved.

Most of the conductivity responses flagged correlate with or occur along side of either geologically or geophysically mapped faults. Alteration zones associated with these faults are the most probable explanation of these conductivity features.

SUMMARY AND CONCLUSIONS

The area of the **Winkle claim group** was included as part of a regional airborne magnetic and VLF-electromagnetic survey conducted in the Toodoggone Gold Belt area. Two hundred and forty-two line kilometres of this data was recovered and examined in detail on behalf of Energex Minerals Ltd. to evaluate these properties.

Two subdivisions of the Toodoggone Volcanic series dominate the **Winkle claim group** area; the Tuff Peak Formation covers the southern claims and the Addogatcho Creek Formation is mapped on the northern claims. Both of these formations are generally reflected by moderate magnetic values, similiar in character and intensity to that mapped elsewhere as undivided Toodoggone volcanic rocks. However, in the area of the **Chute and Winkle claims**, the Addogatcho Creek Formation rocks as mapped, appear to correlate with an area of increased magnetic intensity. In the more regional view,

this magnetic high is the southeastern nose of a large, oval shaped magnetic anomaly which is interpreted as reflecting a Jurassic intrusion, buried beneath a cover of Addogatcho Creek Formation rock.

The contact area between the Toodoggone subdivisions and the interpreted intrusion is centred about the **Chute claim**. Extensive faulting and alteration is magnetically and electromagnetically delineated in this area.

The northwesterly trending portion of Moosehorn Creek, located immediately east of the claim block, appears to be following a major fault zone.

Minor faulting is magnetically evident in the southern portion of the claim group however no intrusive activity is mapped.

RECOMMENDATIONS

The most important type of economic mineralization identified in the Toodoggone area are epithermal precious and base metal deposits hosted principally by lower and middle units of Toodoggone volcanics. Mineralization occurs principally in fissure veins, quartz stockworks breccia zones and areas of silicification, generally close to major fault systems and associated with intrusive activity.

The results of the airborne survey indicate that these conditions are all present in the central portion of the subject claim group, specifically on the **Chute, Winkle, Surprise and Jerome claims**. Continued exploration for this type of mineralization is strongly recommended in this area.

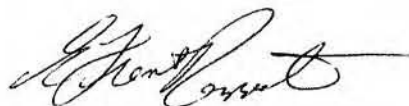


General geological prospecting and mapping, with particular attention being afforded to areas of silicification and faulting is recommended as an initial phase. It is unlikely that any direct evidence of intrusive activity will be detected however it should be carefully mapped if observed.

Geochemical sampling of this same area is also recommended at this time.

Contingent upon favorable results, trenching and diamond drilling may be warranted.

Respectfully submitted,



E. Trent Pezzot, B.Sc.
Geophysicist



Glen E. White, B.Sc., P.Eng.
Consulting Geophysicist



INSTRUMENT SPECIFICATIONSBARRINGER AIRBORNE MAGNETOMETER

MODEL: Nimbin M-123
TYPE: Proton Precession
RANGE: 20,000 to 100,000 gammas
ACCURACY: \pm 1 gamma at 24 V d.c.
SENSITIVITY: 1 gamma throughout range
CYCLE RATES:
 Continuous - 0.6, 0.8, 1.2 and 1.9 seconds
 Automatic - 2 seconds to 99 minutes in 1 second steps
 Manual - Pushbutton single cycling at 1.9 seconds
 External - Actuated by a 2.5 to 12 volt pulse longer than 1 millisecond.

OUTPUTS:
 Analogue - 0 to 99 gammas or 0 to 990 gammas
 - automatic stepping
 Visual - 5 digit numeric display directly in gammas

EXTERNAL OUTPUTS:
 Analogue - 2 channels, 0 to 99 gammas or 0 TO 990 gammas at 1 m.a. or 1 volt full scale deflection.
 Digital - BCD 1, 2, 4, 8 code, TTL compatible

SIZE: Instrument set in console
 30 cm X 10 cm X 25 cm

WEIGHT: 3.5 Kg.

POWER REQUIREMENTS: 12 to 30 volts dc, 60 to 200 milliamps maximum.

DETECTOR: Noise cancelling torroidal coil installed in air foil.



INSTRUMENT SPECIFICATIONSSABRE AIRBORNE VLF SYSTEM

Source of Primary Field: -VLF radio stations in the frequency range of 14 KHz to 30 KHz

Type of Measurement: -Horizontal field strength

Number of Channels: Two;
Seattle, Washington at 24.8 KHz
Annapolis, Maryland at 21.4 KHz

Type of Sensor: -Two ferrite antennae arrays, one for each channel, mounted in magnetometer bird

Output: -0 - 100 mV displayed on two analogue meters (one for each channel)
-recorder output posts mounted on rear of instrument panel

Power Supply: -Eight alkaline "AA" cells in main instrument case (life 300 hours)
-Two 9-volt alkaline transistor batteries in bird (life 300 hours)

Instrument Console: -Dimensions - 30 cm X 10 cm X 25 cm
-Weight - 3.5 Kg



INSTRUMENT SPECIFICATIONSFLIGHT PATH RECOVERY SYSTEMi) T.V. Camera:

Model: RCA TC2055 Vidicon
Power Supply: 12 volt DC
Lens: variable, selected on basis of expected terrain clearance.
Mounting: Gimbal and shock mounted in housing, mounted on helicopter skid.

ii) Video Recorder:

Model: Sony SLO-340
Power Supply: 12 volt DC / 120 volt AC (60Hz)
Tape: Betamax 1/2" video cassette - optional length.
Dimensions: 30 cm X 13 cm X 35 cm
Weight: 8.8 Kg
Audio Input: Microphone in - 60 db low impedance microphone
Video Input: 1.0 volt P-P, 75 Ω unbalanced, sync negative from camera.

iii) Altimeter:

Model: KING KRA-10A Radar Altimeter
Power Supply: 27.5 volts DC
Output: 0-25 volt (1 volt /1000 feet) DC signal to analogue meter,
0-10 v (4mv/ft) analogue signal to microprocessor.
Mounting: fixed to T.V. camera housing, attached to helicopter skid.



INSTRUMENT SPECIFICATIONSDATA RECORDING SYSTEMi) Chart Recorder

Type: Esterline Angus Miniservo III
Bench AC Ammeter - Voltmeter
Power Recorder.

Model: MS 413B

Specification: S-22719, 3-pen servo recorder

Amplifiers: Three independent isolated DC
amplifiers (1 per channel)
providing range of acceptable
input signals.

Chart: 10 cm calibrated width z-fold
chart.

Chart Drive: Multispeed stepper motor
chart drive, Type D850, with
speeds of 2,5,10,15,30 and 60
cm/hr. and cm/min.

Controls: Separate front mounted slide
switches for power on-off,
chart drive on-off, chart
speed cm/hr. - cm/min. Six
position chart speed selector
individual front zero
controls for each channel.

Power Requirements: 115/230 volts AC at 50/60 Hz
(Approximately 30 W).

Writing System: Disposable fibre tipped ink
cartridge (variable colors)

Dimensions: 38.6 cm X 16.5 cm X 43.2 cm

Weight: 9.3 kg.



ii) Digital Video Recording System

Type: L.M. Microcontrols Ltd.
Microprocessor Control Data
Acquisition System.

Model: DADG - 68

Power Requirements: 10 - 14 volts DC, Maximum 2
amps.

Input Signal: 3,0 - 100 mvolt DC signals
1,0 - 25 DC signals

Microprocessor: Motorola MC-6800

CRT Controller: Motorola MC-6845

Character Generator: Motorola MCM-6670

Analogue/Digital
Convertor: Intersil 7109

Multiplexer: Intersil IH 6208

Digital Clock: National MM 5318 chip
9 volt internal rechargeable
nickle-cadmium battery.

Fiducial Generator: internally variable time set
controls relay contact and
audio output.

Dimensions: 30 cm X 30 cm X 13 cm

Weight: 3 kg.



iii) Digital Magnetic Tape

Type: Hewlett Packard cartridge
tape unit.

Model: 9875A

Power Requirements: 24 volt d.c.

Data Format: HP'S Standard Interchange
Format (SIF)

Tape Cartridge: HP 98200A 225K byte cartridge
compatible with HP Series
9800 desktop computers.

Tape Drive: Dual tape drives providing up
to 8 hours continual
recording time.

Controller: Internal micro-computer
provides 23 built in commands
External computer generated
commands.



COST BREAKDOWN

The geophysical data was analyzed and this report prepared for an all inclusive fee of \$10,000.00. This figure includes the proportional cost of the larger field program as well as the computer and office expenses and is considered to be the full assessment value of this report.

TOTAL ASSESSMENT VALUE**\$10,000.00**

242.0 line km



STATEMENT OF QUALIFICATIONS

NAME: PEZZOT, E. Trent

PROFESSION: Geophysicist - Geologist

EDUCATION: University of British Columbia -
B.Sc. - Honors Geophysics and Geology

**PROFESSIONAL
ASSOCIATIONS:** Society of Exploration Geophysicist

EXPERIENCE: Three years undergraduate work in geology -
Geological Survey of Canada, consultants.

Three years Petroleum Geophysicist,
Senior Grade, Amoco Canada Petroleum Co. Ltd.

Two years consulting geophysicist,
Consulting Geologist - British Columbia,
Alberta, Saskatchewan, N.W.T., Yukon,
Western U.S.A.

Seven years geophysicist with
White Geophysical Inc. and Western
Geophysical Aero Data.



STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P.Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - Geology
University of British Columbia

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia.

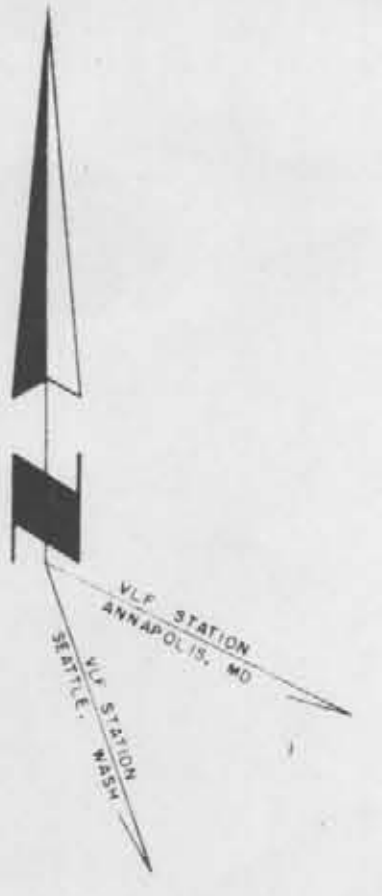
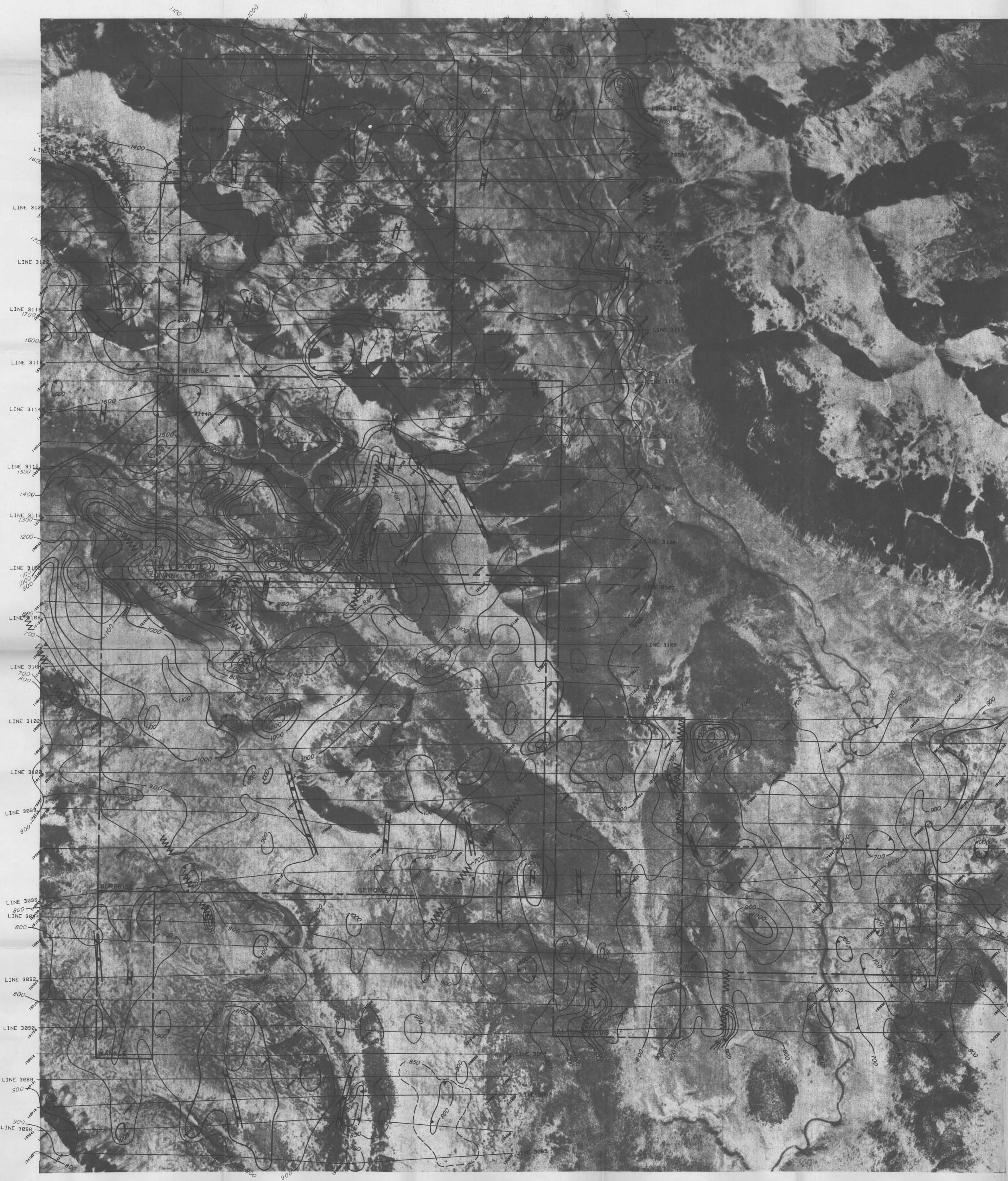
Associate Member of Society of Exploration
Geophysicists.

Past President of B.C. Society of Mining
Geophysicists.

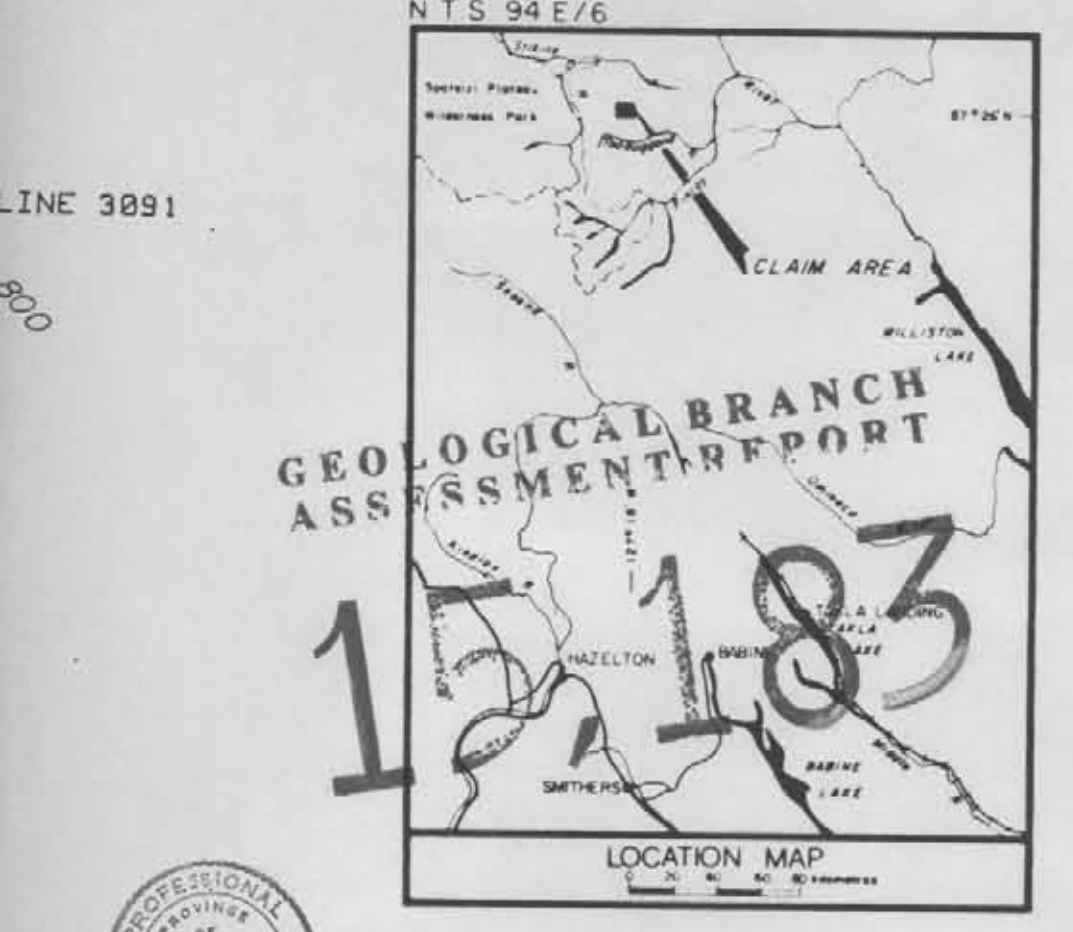
EXPERIENCE:

- Pre-Graduate experience in Geology -
Geochemistry - Geophysics with Anaconda
American Brass.
- Two years Mining Geophysicist with Sulmac
Exploration Ltd. and Airborne Geophysics
with Spartan Air Services Ltd.
- One year Mining Geophysicist and Technical
Sales Manager in the Pacific north-west for
W.P. McGill and Associates.
- Two years Mining Geophysicist and
supervisor airborne and ground geophysical
divisions with Geo-X Surveys Ltd.
- Two years Chief Geophysicist Tri-Con
Exploration Surveys Ltd.
- Fourteen years Consulting Geophysicist.
- Active experience in all Geologic provinces
of Canada.





- KEY**
- INSTRUMENT: Barringer M-123 Magnetometer
 - Data corrected for diurnal variations
 - Base value = 58000 nT
 - Contour interval = 100 nT
 - Sensor Elevation = 60 metres
 - Claim boundary
 - Claim post
 - Magnetic Low
 - W W W Inferred Fault
 - |||| VLF-EM Conductor



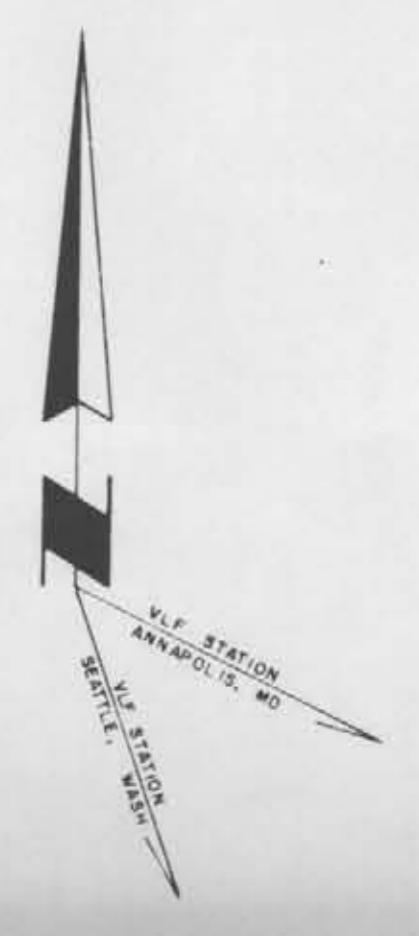
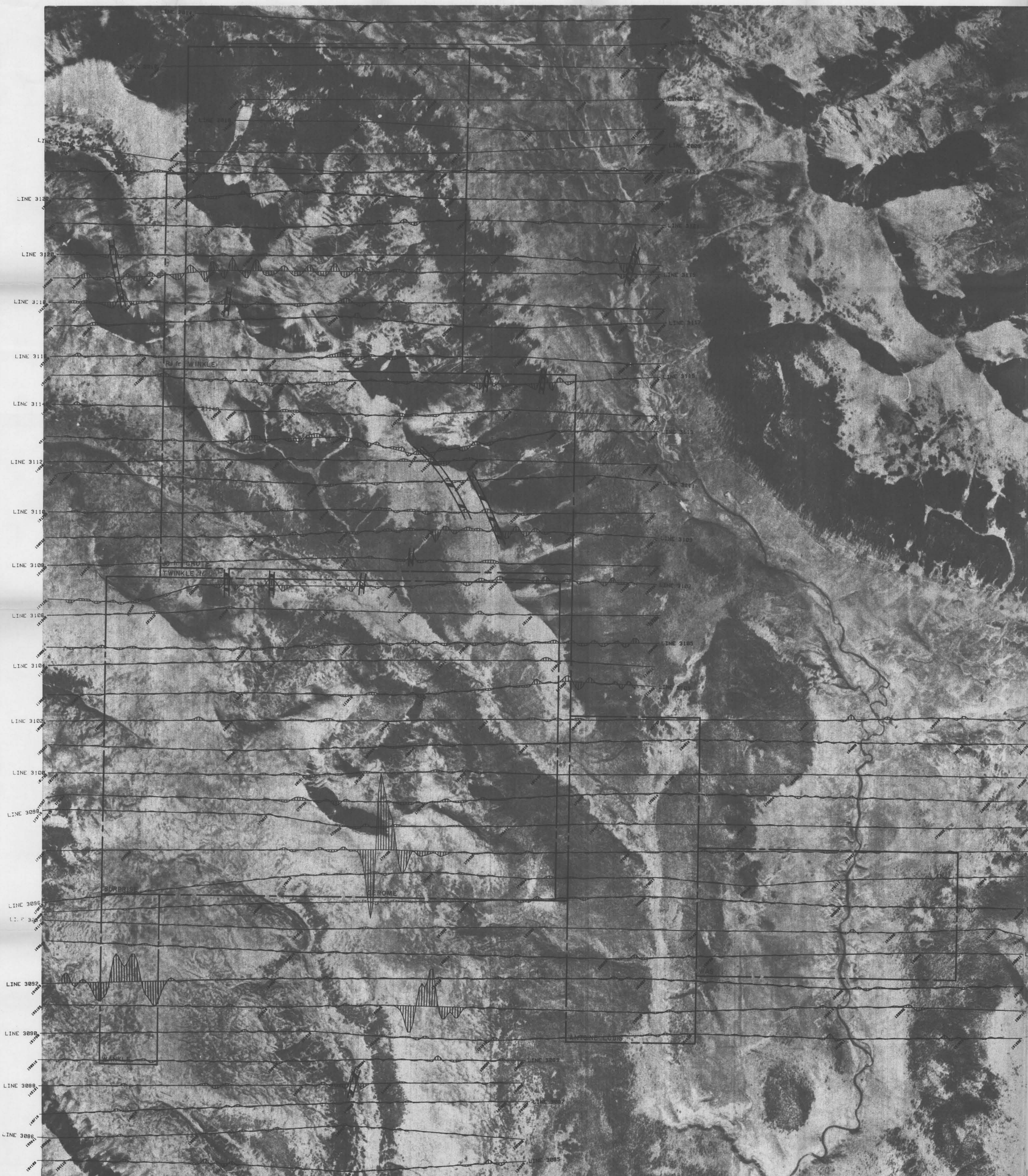
Western
Geophysical
Service Ltd.

To accompany the Geophysical Report on the Winkle Claim Group

ENERGEX MINERALS LTD.
WINKLE GROUP
MAGNETIC CONTOUR MAP
TOTAL FIELD INTENSITY (nT)

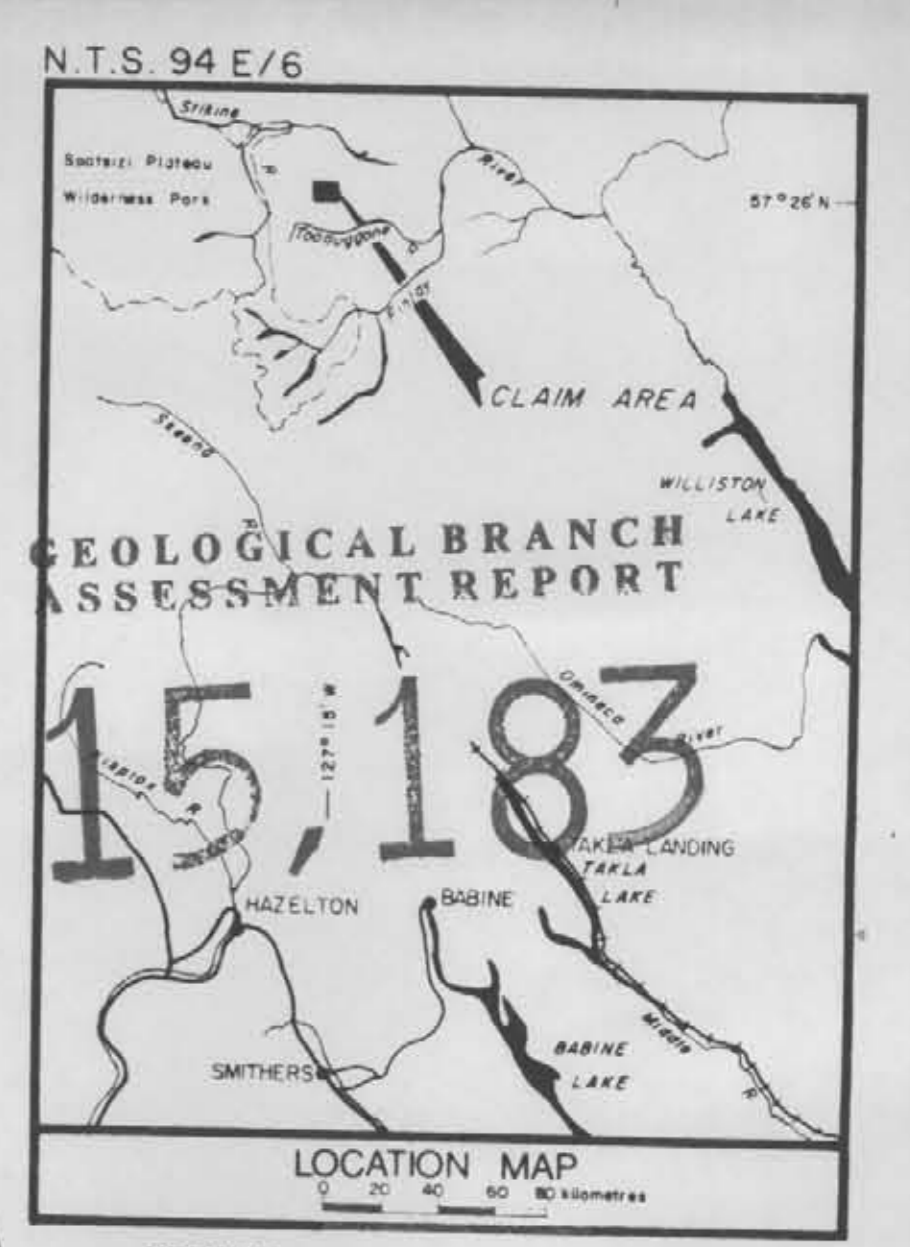
DATE: FEB-MAR/86

FIG.: 2



LINE 3101
 LINE 3099
 LINE 3097
 LINE 3095
 LINE 3093
 LINE 3091
 LINE 3089
 LINE 3087
 LINE 3085

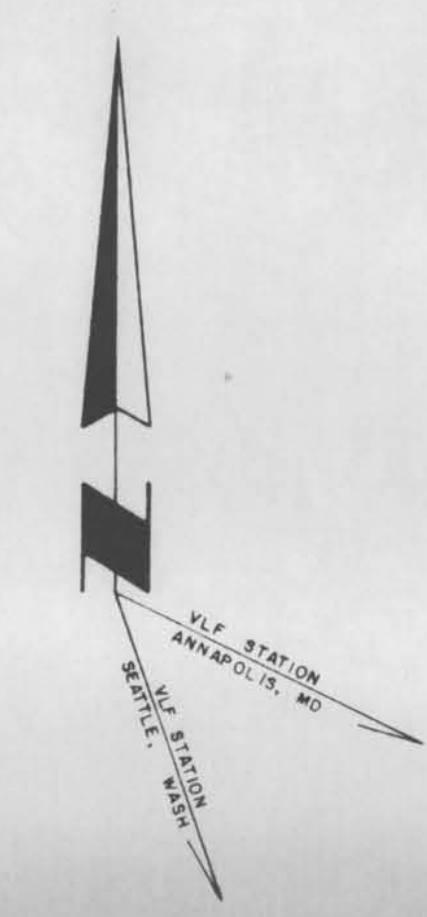
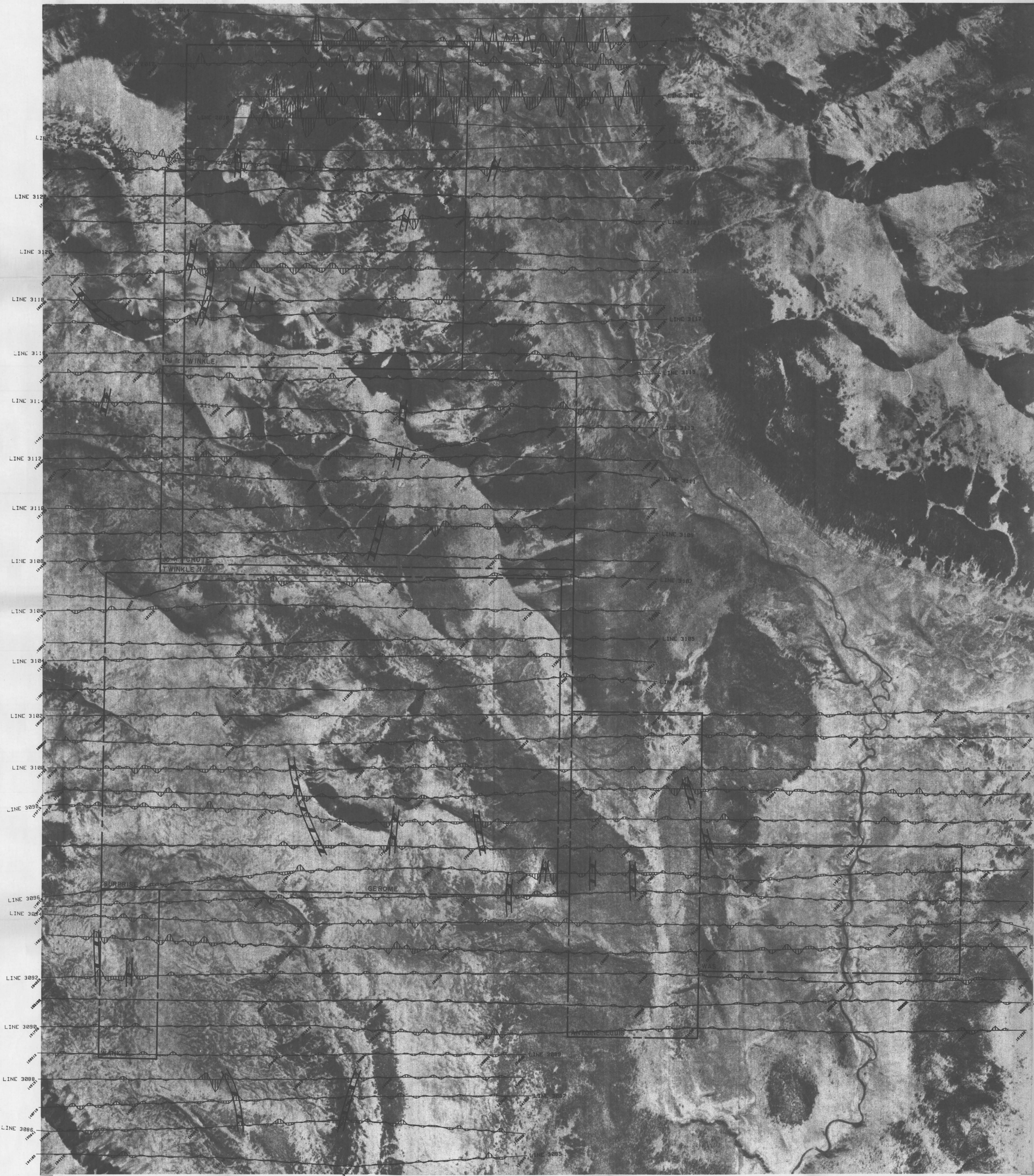
KEY
 INSTRUMENT: Sabre Total Field Intensity VLF-EM
 Transmitter Station: Seattle, Wa. (24.8 Khz.)
 Vertical Scale: 10X/cm.
 Sensor Elevation: 60 metres
 --- Claim boundary
 ■ Claim post
 W W W Inferred Fault
 V V V VLF-EM Conductor Axis



ENERGEX MINERALS LTD.
 WINKLE GROUP
 VLF-EM PROFILE MAP (SEATTLE)
 TOTAL HORIZONTAL FIELD INTENSITY (%)
 DATE: FEB-MAR/86
 FIG.: 3

Western
 Geophysical
 Services Ltd.

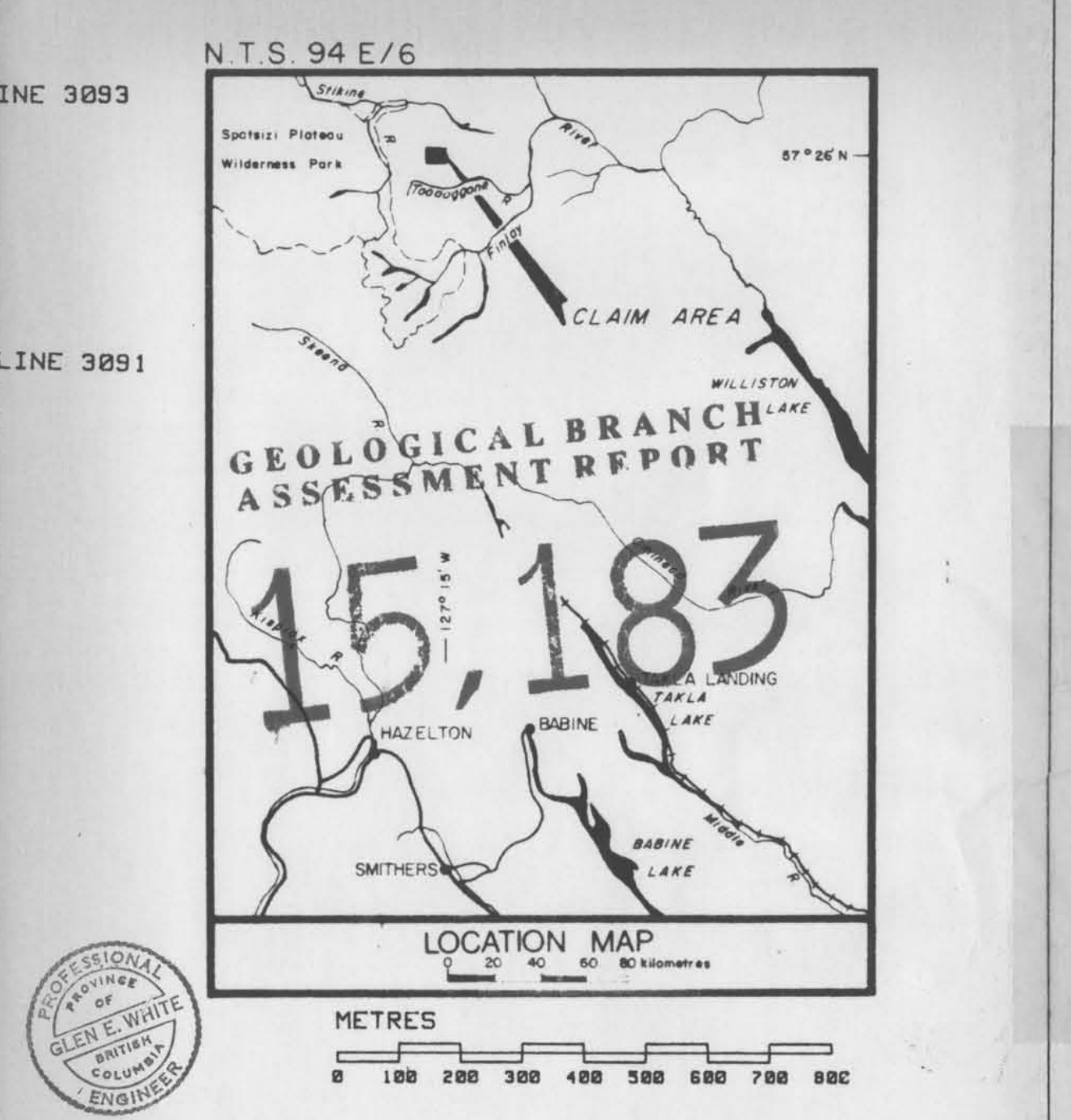
To accompany the Geophysical Report on the Winkie Claim Group



KEY

INSTRUMENT: Sabre Total Field Intensity VLF-EH
 Transmitter Station: Annapolis, Md. (21.4 Khz.)
 Vertical Scale: 10%/cm.
 Sensor Elevation: 60 metres

--- Claim boundary
 ■ Claim post
 WWW Inferred Fault
 ||| VLF-EH Conductor Axis



ENERGEX MINERALS LTD.
 WINKLE GROUP
 VLF-EM PROFILE MAP (ANNAPOLIS)
 TOTAL HORIZONTAL FIELD INTENSITY (%)

DATE: FEB-MAR/86 FIG.: 4

Western
 Geophysical
 Services Ltd.

To accompany the Geophysical Report on the Winkle Claim Group