83-#545 - #11410

GREAT WESTERN PETROLEUM CORP. 9/84

GEOPHYSICAL REPORT ON AN AIRBORNE VLF-ELECTROMAGNETOMETER AND MAGNETOMETER SURVEY

SPECTRUM 1-4 CLAIMS, LILLOOET M.D.

Lat.50°26'N Long.123°10'W NTS.92J/6E

Authors: E.Trent Pezzot B.Sc.,
Geophysicist
Glen E. White B.Sc.,P.Eng
Consulting Geophysicist

Date of Work: September 19, 1983
Date of Report: October 19, 1983

WESTERN GEOPHYSICAL AERO DATA LTD.

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ILLUSTRATIONS

INTRODUCTION

On September 19, 1983 Western Geophysical Aero Data Ltd. conducted an airborne magnetometer and VLF-electromagnetometer survey across the SPECTRUM 1-4 claims on behalf of Great Western Petroleum Corporation. Approximately 240 line kilometres of survey was flown with a 100 metre terrain clearance on east-west oriented flight lines spaced at 200 metre intervals.

Previous exploration across the claims area detected a northwest-southeast trending gossan zone across the SPECTRUM 1 and 2 claims with associated gold, silver, copper and molybdenum geochemical anomalies. It was the intention of this survey to determine whether the airborne system could detect the source of this feature or any additional anomalous geological environments and direct the next exploration phase.

PROPERTY

The property surveyed consists of the 4 mineral claims listed below and illustrated on Figure 1.

CLAIM NAME	RECORD #	UNITS	EXPIRY DATE
SPECTRUM 1	983	20	Oct. 31,1983
SPECTRUM 2	984	20	Oct. 31,1983
SPECTRUM 3	1558	20	Sept.25,1983
SPECTRUM 4	1559	20	Sept.25,1983

LOCATION & ACCESS

The claims are located approximately 20 kilometres due west of Pemberton Meadows on the south side of the Ryan River. They lie within the Lillooet Mining Division and NTS 92J/6E. Approximate geographical co-ordinates are latitude 50°26'N and longitude 123°10'W.

Access to the property is via a logging road which follows the Ryan River and crosses the northern portion of the SPECTRUM 4 claims. This logging road originates some 3 kilometres north of Pemberton Meadows on a secondary B.C. highway. The majority of the claims area lies to the south of this logging road at much higher elevations. Helicopter support is at this time the most feasible method of accessing the property.

GENERAL GEOLOGY

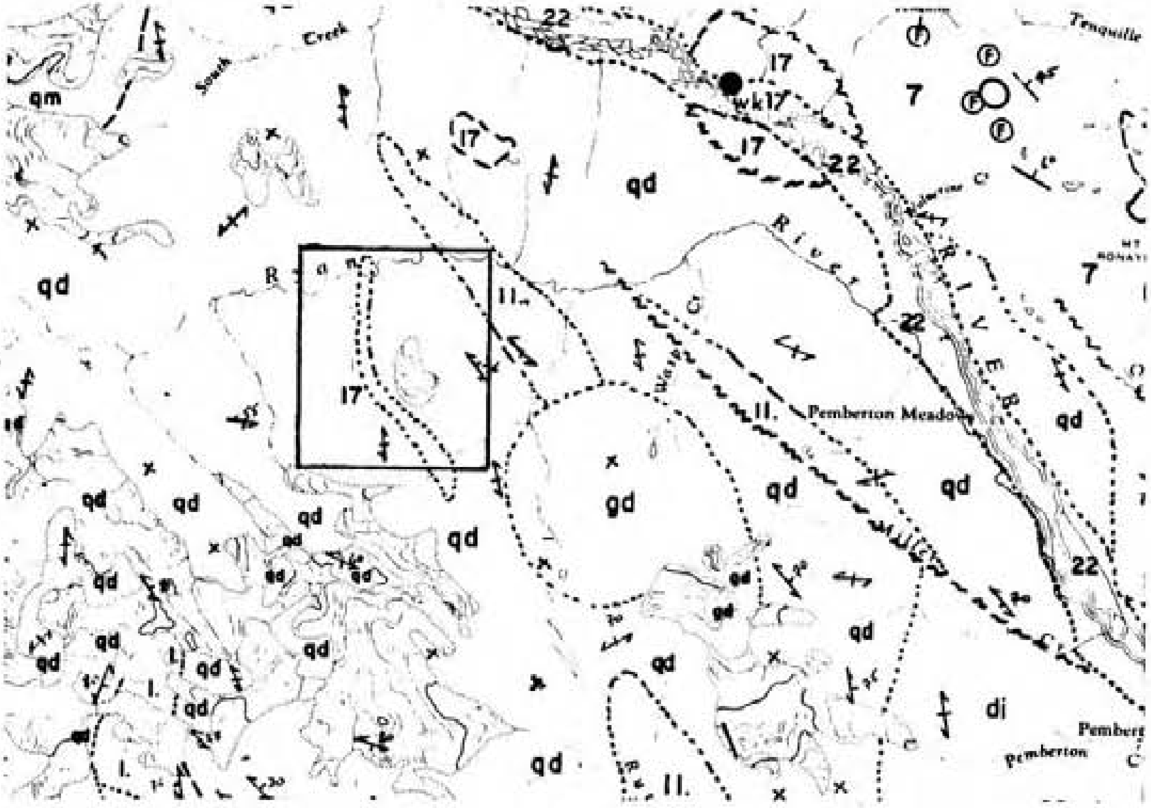
The portion of the Geological Survey of Canada's open file map 482 which covers the SPECTRUM Claims area is reproduced as Plate 1 of this report. The majority of the claims area is shown to be underlain by quartz diorite of unknown age. A finger of Gambier Group (andesitic to dacitic tuff, breccia, agglomerate) elongated in a northwest-southeast direction cuts across the northeast section of the SPECTRUM 4 claim. A narrow zone of andesitic to basaltic flows and breccia is mapped trending north-south through the SPECTRUM 1 claim and northwest-southeast through the SPECTRUM 2 claim.

N.T.S. 92 J/6E

GREAT WESTERN PETROLEUM CORP.
— SPECTRUM CLAIMS —
LOCATION AND CLAIMS MAP

Western Geophysical Aero Data Ltd.

FIGURE 1



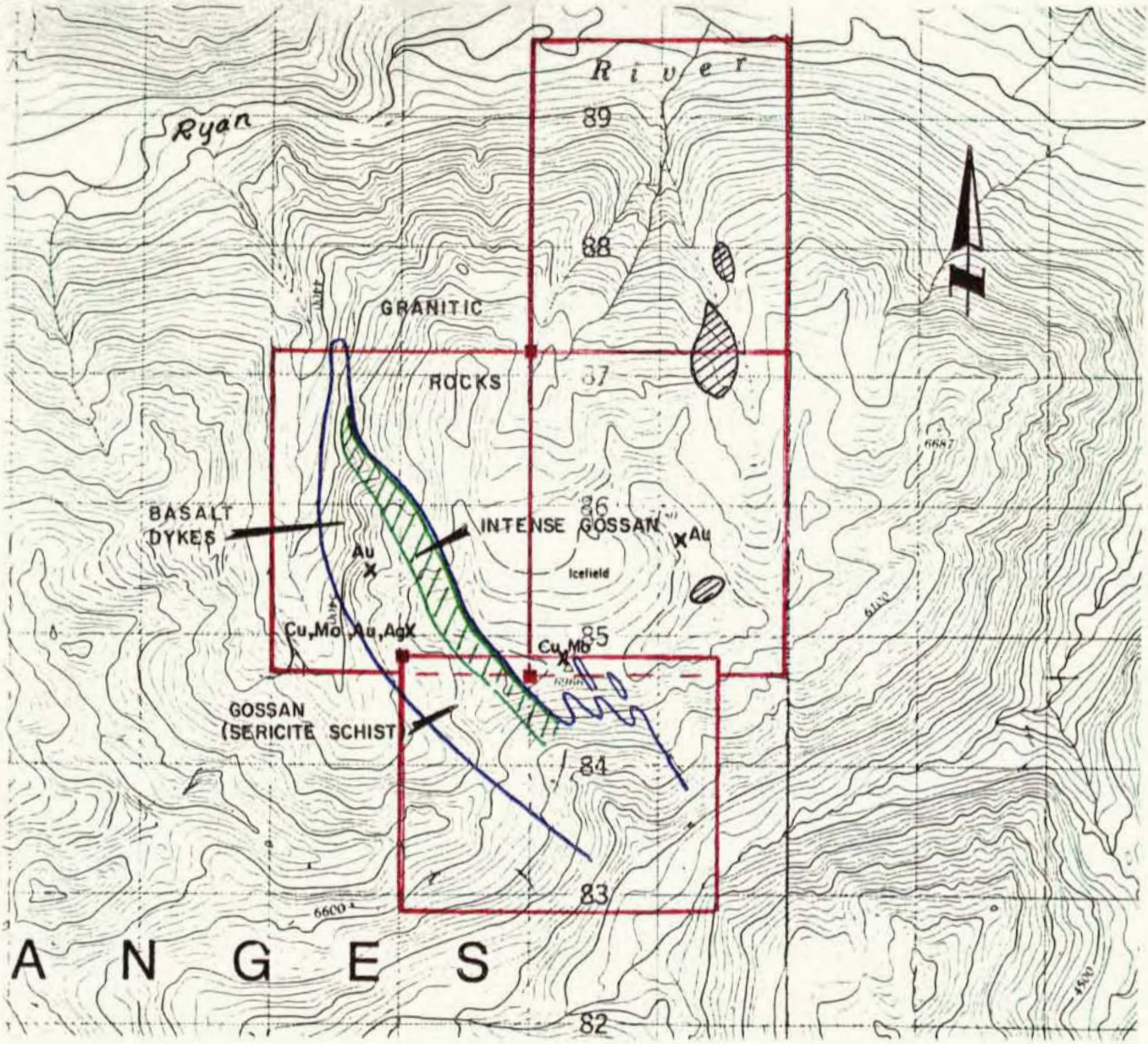
LEGEND:

qm	Quartz monzonite
gd	Granodiorite
qd	Quartz diorite
di	Diorite; dioritic complexes containing diorite, quartz diorite, amphibolite, greenstone, and dyke swarms
17	Andesitic to basaltic flows and breccia, minor dacite; 17a, basalt flows with interbedded conglomerate and siltstone
11	GAMBIER GROUP: Andesitic to dacitic tuff, breccia, agglomerate; andesite, argillite, conglomerate, lesser marble, greenstone, and phyllite
7	CADWALLADER GROUP (undivided; includes Hurley, Pioneer and Noel strata, may include older and younger rocks): andesitic breccia, tuff, and flows, greenstone; lesser slate, argillite, phyllite, conglomerate, limestone, rhyolitic breccia and flows

Western Geophysical Aero Data Ltd

GENERAL GEOLOGY

PLATE 1



GOSSAN - SERICITE SCHIST
INTENSE GOSSAN ZONE
METAVOLCANIC SCREENS

GREAT WESTERN PETROLEUM CORP.
LOCAL GEOLOGY AND PREVIOUS WORK

SCALE — 1 : 50,000

Western Geophysical Aero Data Ltd.

PLATE 2

PREVIOUS WORK

No assessment reports available to the public were found which apply specifically to the SPECTRUM claims. It is known by the authors however, as evidence by the geological sketch map presented as Plate 2 of this report, that Great Western Petroleum Corporation, has conducted some amount of geological prospecting and soil and/or rock geochemistry within the area. This work has outlined an area of intense gossan which roughly traces the narrow zone of flows and breccias described by the G.S.C. Anomalous values of copper, molybdenum, gold and silver have been noted in geochemical samples taken along this gossan.

AIRBORNE VLF-ELECTROMAGNETIC AND MAGNETIC SURVEY

This survey system 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 on-board 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 on magnetic cassettes in a format compatible with the Hewlett-Packard 9845 computer. The flight path locations are digitized, thus the information can be processed as either time series or space point 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 receiver oscillation. Oscillation effects can be removed by filters tuned to the dominant period. Long period terrain effects can be removed by subtracting a polynomial fitted base level from the data. The degree of the polynomial can be selected to best represent terrain variations observed in the survey area.

Short period terrain effects often have similar response parameters to target conductive features. An interpretational technique often useful in distinguishing between terrain anomalies and conductor anomalies is to observe the difference between the responses from two transmitter stations. Terrain variations normally affect both data sets to a similar degree and are much reduced on a difference plot. The amplitude of the response due to a conductive body is dependent upon the relationship between the conductors' strike and direction to the transmitter station. In most instances the anomalous responses will vary between frequencies and therefore remain evident on the difference plot.

DISCUSSION OF RESULTS

Approximately 240 line kilometres of survey were completed to evaluate the area of the SPECTRUM claims. Thirty-eight lines were flown in an east-west direction, spaced at 200 metre intervals and connected with 2 north-south tie lines. The magnetic data is presented in contour form as Figure 2 of this report and the VLF-EM data as profiles on Figures 3-5. This data is presented over a photographic base map of the area. Due to the extreme topographic relief of the area there is significant distortion of this base map, as evidenced by the irregular shapes and sizes of the claims boundaries outlined.

The magnetic contour map (Figure 2) infers a much more complex geological environment than that described by the G.S.C. The SPECTRUM 1,3 and 4 claims possess a background magnetic intensity of approximately 57,000 gammas to 57,200 gammas and a general northwest-southeast contour orientation. The southernmost claim (SPECTRUM 2) possess a lower background magnetic intensity (56,800 gammas to 57,000 gammas). Contours are oriented east-west along the southern boundary of the SPECTRUM 2 claim then swing to the north to follow the western border of the SPECTRUM 1 claim.

Three relatively large areas of extremely high magnetic intensity are observed. They occur in the southwest, northwest and northeast corners of the survey area. The anomaly located on the east ends of lines 1-9 correlates with a finger of Gambier group andesitic to dacitic tuff, breccia and agglomerate mapped by the G.S.C. The

other two zones are not identified by the G.S.C. mapping. The anomaly in the southwest corner (the strongest of the three) is also characterized by a high degree of magnetic noise. This is most likely caused by pockets or lenses of concentrated magnetite in the area. Two other smaller zones of high magnetic intensity were also observed in the area. One on the west ends of lines 19 and 20 which forms part of a general north-south trending magnetic lineament and the other on lines 24,25 and TLE. This later anomaly forms part of the general northwest-southeast oriented magnetic high which crosses the property and is associated with interesting dipolar magnetic lows to the immediate north and south.

No distinctive magnetic anomaly appears to correlate with the geologically identified gossan zone. There are however, gross magnetic features across the survey grid which likely define the geological environment. The medium to high magnetic intensities (greater than 57,200 gammas) are interpreted as reflecting a batholith or pluton which underlies the area. Lower magnetic intensities are interpreted as reflecting volcanic rocks. Based on these criteria the narrow zone of low magnetic intensity at the northwest corner of the SPECTRUM 1 claim which broadens to the southeast is interpreted as representing a volcanic roof pendant. This structure would be relatively thin to the northwest and increases in thickness to the southeast as evidenced by the decreasing magnetic intensity in this direction. The magnetic lows observed to parallel this major trend to the northeast are also interpreted as reflecting volcanic rocks surrounded by a

more dioritc pluton or batholith.

The extremely high magnetic intensities observed within the interpreted batholith are likely areas of increased chemical activity or metasomatic alteration which has concentrated the higher magnetic susceptibility materials.

The VLF-EM data is very weak across the survey grid. No isolated or narrow conductive lineaments were observed which can be interpreted as reflecting near surface massive sulphide bodies. There are however, a number of broad, weak anomalies which might be interpreted as reflections of an increase in the bulk conductivity of the near surface rocks. These trends are outlined on the appropriate maps (Figures 2-5). The trends generally follow topographic ridges in the area and are very possibly terrain slope effects commonly observed with the VLF-EM systems. Although noted here, they should be considered to be of questionable reliability.

SUMMARY AND CONCLUSIONS

On September 19, 1983 approximately 240 line kilometres of airborne magnetometer and VLF-electromagnetometer survey were flown across the SPECTRUM 1-4 claims on behalf of Great Western Petroleum Corporation.

A geological interpretation based on the magnetic information gathered is presented as Figure 6. The area appears to be underlain by a large dioritic batholith or pluton as reflected by moderate to high magnetic intensities. Strong variations within this magnetic province may well represent areas of increased chemical activity or alteration processes which have concentrated the high magnetic susceptibility materials. A roof pendant of volcanic rocks is interpreted as a narrow, shallow zone originating near the northwest corner of the SPECTRUM 1 claim which

both expands and thickens to the southeast. The intense gossan zone mapped by geological prospecting lies in the centre of this interpreted feature. A parallel volcanic roof pendant is interpreted to the northeast of this larger structure.

A strong magnetic dipole anomaly is located near the southeast corner of the SPECTRUM 3 claim. This feature lies along a topographic ridge and may have resulted from an erosional process which has left the higher magnetic susceptibility rocks at the top of the mountain ridge.

No VLF-EM anomalies were observed which can be interpreted as reflecting near surface, highly conductive zones. The VLF-EM system however, is a very shallow penetrating technique and these results do not exclude the possibility of a conductive massive sulphide zone existing at depth. Neither would the system respond dramatically to a near surface disseminated sulphide zone.

RECOMMENDATIONS

A regional magnetic low roughly correlates with the observed gossan zone across the SPECTRUM 1 AND 2 claims. However, neither the magnetic nor the VLF-electromagnetic responses have detected a specific source to this geological target. This infers the target zone is conductive and located at depth or disseminated and located at surface or at depth. An induced polarization survey would be the most effective geophysical technique for locating a disseminated sulphide body and a time domain electromagnetometer system for conductive bodies at depth.

A northwest-southeast trending magnetic low which cuts across the SPECTRUM 3 and 4 claims (open to the northwest) is of similar intensity to the regional feature associated with the gossan zone. This area should be explored for similar geochemical anomalies.

The localized magnetic high and associated dipole lows located near the southeast corner of the SPECTRUM 3 claim should be examined by normal geological prospecting techniques. A limited amount of ground magnetometer survey may be required to precisely locate the anomaly.

Areas which possess very sharp magnetic gradients likely reflect abrupt, possibly fault controlled, geological contacts. These anomalies, particularly along the southwest corner of the SPECTRUM 2 claim, are often associated with skarn type mineralization.

Respectfully submitted,

E.Trent Pezzot B.Sc.,
Geophysicist

PROFESSIONAL ENGINEER
GLEN E. WHITE

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

INSTRUMENT SPECIFICATIONS

BARRINGER AIRBORNE MAGNETOMETER

MODEL:	Nimbin M-123
TYPE:	Proton Precession
RANGE:	20,000 to 100,000 gammas
ACCURACY:	± 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 airfoil.

INSTRUMENT SPECIFICATIONS

SABRE AIRBORNE VLF SYSTEM

Source of Primary Field:	VLF radio stations in the frequency range of 14KH_z to 30 KH_z.
Type of Measurement:	-Horizontal field strength
Number of Channels:	-Two; Seattle, Washington at 24.8 KH_z -Cutler, Maine at 17.8 KH_z
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 100 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 Specifications

FLIGHT PATH RECOVERY SYSTEM

i) 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 to housing - housing bolted to helicopter skid

ii) Video Recorder:

Model: Sony SLO - 340
Power Supply: 12 volt dc / 120 volt AC (60 H_z)
Tape: Betamex ½" 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: Bonzer Mk 10 Radar Altimeter
Power Supply: 12 - 25 volts dc
Output: 0 - 25 volt (1 volt / 1000 feet) dc signal split to microprocessor and analogue meter
Mounting: fixed to T.V. camera housing, attached to helicopter skid

Instrument Specifications

DATA RECORDING SYSTEM

i) Chart Recorder

Type: Esterline Angus Miniservo III Bench AC Ammeter - Voltmeter Power Recorder
Model: MS 413 B
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 2-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 H_z (Approximately 30 VA)
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 d c signals
1, 0 - 25 volt d c signal
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

DATA RECORDING SYSTEM (CON'T)

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

DATE	PERSONNEL	PRODUCTION	RATE	CHARGEABLE TIME (DAYS)	TOTAL
Sept.1-18	E.T.Pezzot	Pre-survey preparation	425.00	5	$2,125.00
	M.McDermott	(logistics, mosaic)			
Sept.19	E.T.Pezzot	Survey	550.00	1	550.00
	M.McDermott				
Oct.3-7	M.McDermott	Flight path	350.00	5	1,750.00
	D.Hyrnyk	Recovery			
			Subtotal		$4,425.00

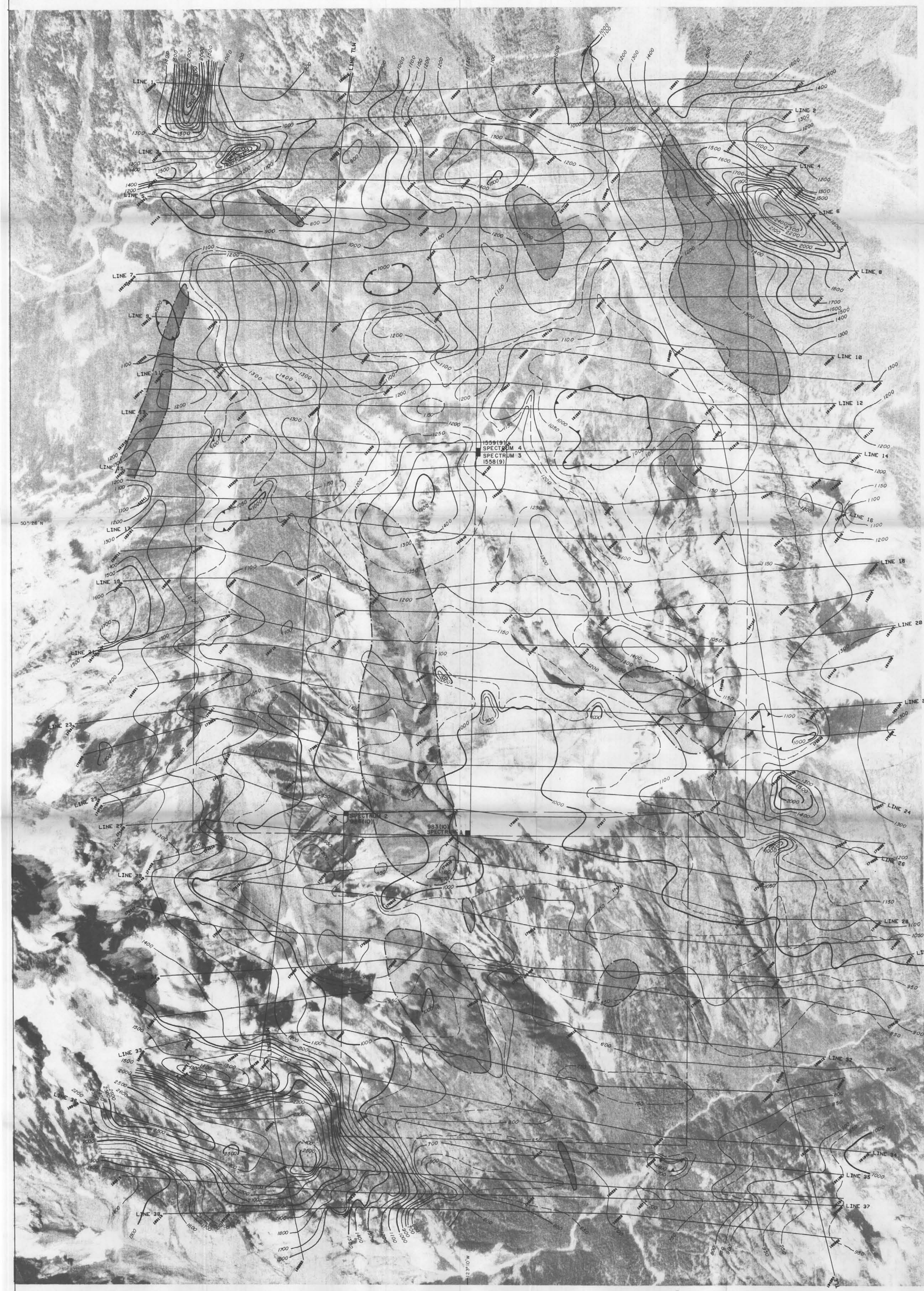
Helicopter and fuel (475/hr x 3.8 hrs)	1,805.00
Vehicle	180.00
Meals & Accommodations	35.00
Equipment lease	650.00
Materials & supplies	140.00
Air photography	15.00
Photographic reproduction	550.00
Drafting, reproduction,binding	570.00
Computer Processing & plotting	1,780.00
Interpretation & report	1,800.00
Miscellaneous (phone, shipping, courier,etc.)	50.00
	$12,000.00

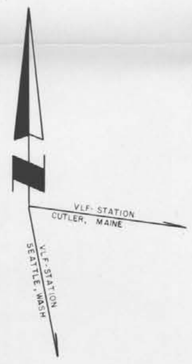
STATEMENT OF QUALIFICATIONS

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 - B.C., Alberta, Saskatchewan, N.W.T., Yukon, western U.S.A. Four years geophysicist with Glen E. White Geophysical Consulting & Services Ltd.

STATEMENT OF QUALIFICATIONS

NAME:	WHITE, Glen E., P. Eng.
PROFESSION:	Geophysicist
EDUCATION:	B.Sc. Geophysicist - 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. Eleven years Consulting Geophysicist. Active experience in all Geologic provinces of Canada.





GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,410

KEY

INSTRUMENT: Barringer M-123 Magnetometer

Data corrected for diurnal variations

Base Value= 56000 gammas

Contour Interval= 50 gammas

=== Roads

—·— Claim boundary

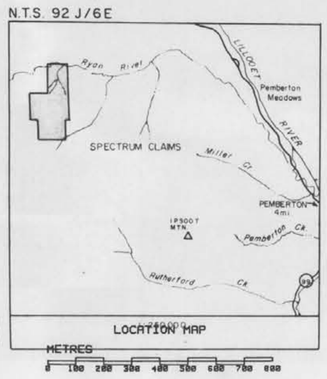
■ Claim post

WW Inferred Fault

VLF-EM Conductor

Magnetic Low

N.T.S. 92 J/6E



Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the SPECTRUM Claims

GREAT WESTERN PETROLEUM CORP.
SPECTRUM CLAIMS
MAGNETIC INTENSITY CONTOUR MAP
TOTAL MAGNETIC FIELD INTENSITY (GAMMAS)

DATE: SEPT 19/83	FIG.: 2

LINE 1
LINE 2
LINE 3
LINE 4
LINE 5
LINE 6
LINE 7
LINE 8
LINE 9
LINE 10
LINE 11
LINE 12
LINE 13
LINE 14
LINE 15
LINE 16
LINE 17
LINE 18
LINE 19
LINE 20
LINE 21
LINE 22
LINE 23
LINE 24
LINE 25
LINE 26
LINE 27
LINE 28
LINE 29
LINE 30
LINE 31
LINE 32
LINE 33
LINE 34
LINE 35
LINE 36
LINE 37
LINE 38
LINE TLN

1559(37)
SPECTRUM 4
SPECTRUM 3
1558(9)

SPECTRUM 2
584(10)

583(10)
SPECTRUM

50° 26' N

124° 0' W

V.L.F. STATION
CUTLER, MAINE

V.L.F. STATION
SEATTLE, WASH.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,410

KEY

INSTRUMENT: Sabre Total Field Intensity VLF-EM

Transmitter Station, Seattle (24.8 Khz)

Vertical Scale, 5%/cm.

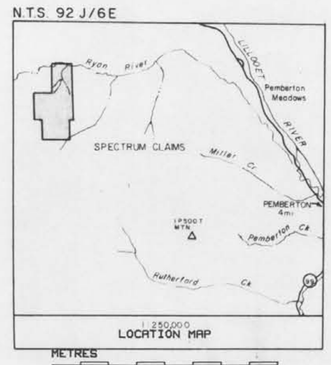
=== Roads

--- Claim boundary

■ Claim post

VLF-EM CONDUCTOR

N.T.S. 92 J/6E



METRES
0 100 200 300 400 500 600 700 800

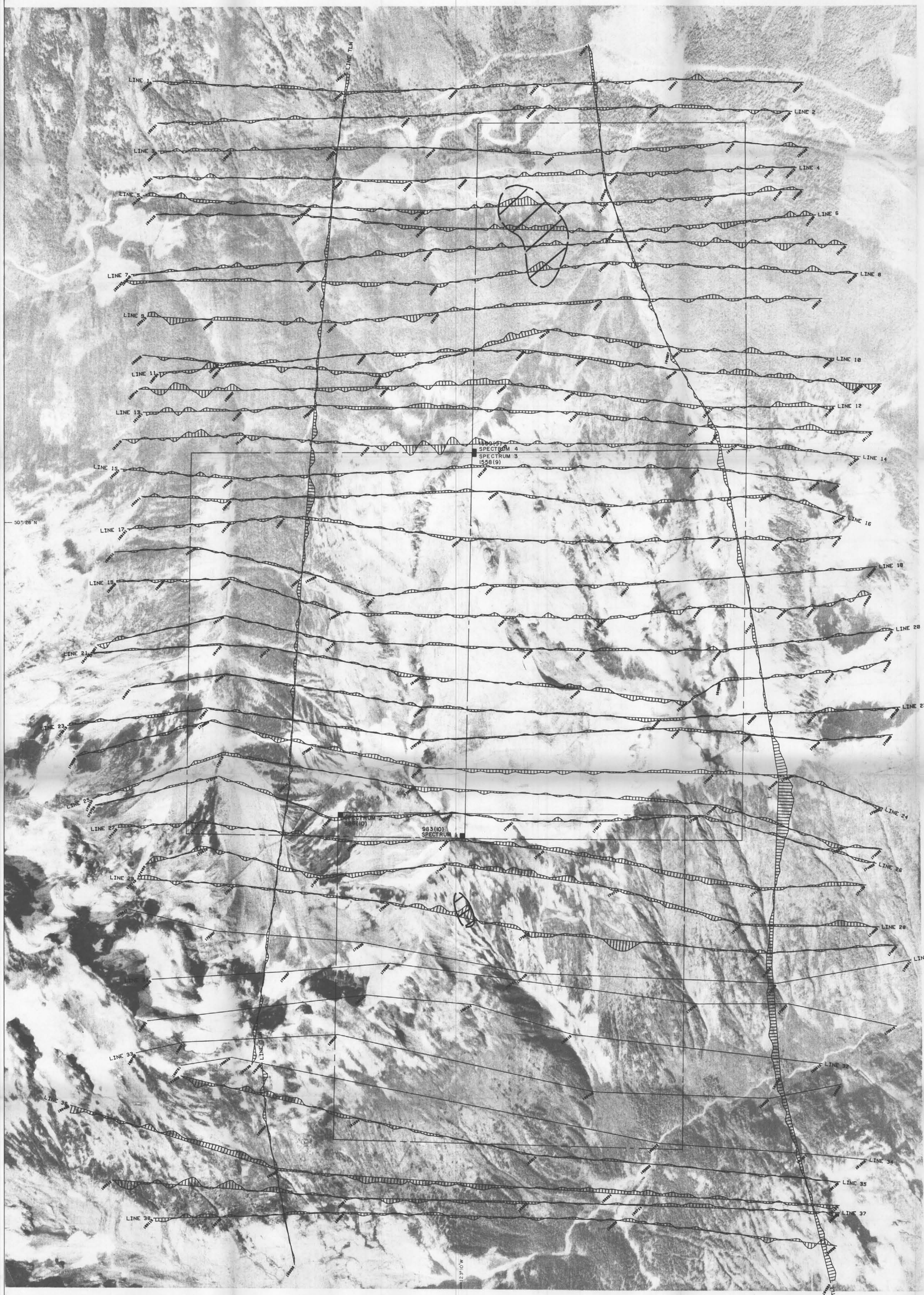
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GLEN E. WHITE

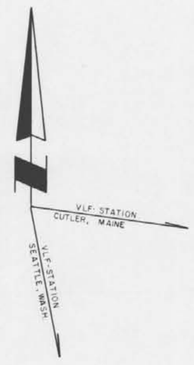
Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the SPECTRUM Claims

GREAT WESTERN PETROLEUM CORP.
SPECTRUM CLAIMS
TOTAL FIELD INTENSITY VLF-EM
VLF-EM PROFILES (SEATTLE)

DATE: SEPT 19/83 | FIG.: 3





GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,410

KEY

INSTRUMENT: Sabre Total Field Intensity VLF-EM

Transmitter Station, Cutler (17.8 Khz)

Vertical Scale, 5%/cm.

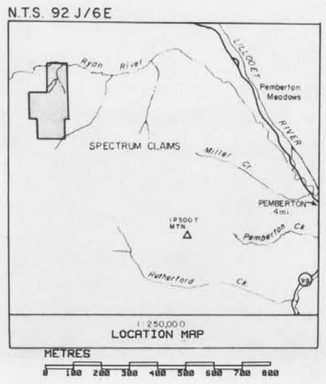
Roads

Claim boundary

Claim post

VLF-EM CONDUCTOR

N.T.S. 92 J/6E



METRES
0 100 200 300 400 500 600 700 800

PROFESSIONAL ENGINEER OF GLEN E. WHITE BRITISH COLUMBIA ENGINEER

Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the SPECTRUM Claims

GREAT WESTERN PETROLEUM CORP.
SPECTRUM CLAIMS
TOTAL FIELD INTENSITY VLF-EM
VLF-EM PROFILES (CUTLER)

DATE: SEPT 19/83 | FIG.: 4

LINE TLW

LINE 1

LINE 2

LINE 3

LINE 4

LINE 5

LINE 6

LINE 7

LINE 8

LINE 9

LINE 10

LINE 11

LINE 12

LINE 13

LINE 14

LINE 15

LINE 16

50° 26' N

LINE 17

LINE 18

LINE 19

LINE 20

LINE 21

LINE 22

LINE 23

LINE 24

LINE 25

LINE 26

LINE 27

LINE 28

LINE 29

LINE 30

LINE 31

LINE 32

LINE 33

LINE 34

LINE 35

LINE 36

LINE 37

LINE 38

LINE

LINE

SPECTRUM 4

SPECTRUM 3
1558(9)

SPECTRUM 2
985(10)

123° 10' W

VLF STATION
CUTLER, MAINE

VLF STATION
SEATTLE, WASH

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,410

KEY

INSTRUMENTS: Sabre Total Field Intensity VLF-EMS

Transmitter Station #1, Seattle (24.8 Khz)

Transmitter Station #2, Cutler (17.8 Khz)

Vertical Scale, 5%/cm.

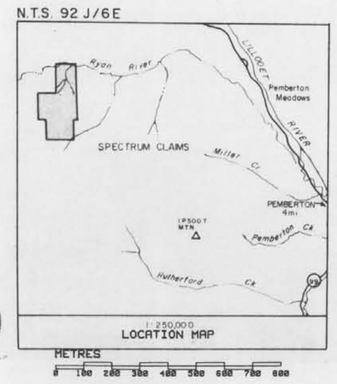
Roads

Claim boundary

Claim post

VLF-EM CONDUCTOR

N.T.S. 92 J/6E



1:250,000
LOCATION MAP

METRES
0 100 200 300 400 500 600 700 800

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GLEN E. WHITE

Western Geophysical Aero Data Ltd.

To accompany the Geophysical Report on the SPECTRUM Claims

GREAT WESTERN PETROLEUM CORP.
SPECTRUM CLAIMS
VLF-EM DIFFERENCE PROFILES
(SEATTLE - CUTLER)

DATE: SEPT 19/83	FIG.: 5

AREA OF POTENTIAL SKARN DEVELOPMENT

1559(9) SPECTRUM 4
SPECTRUM 3 1558(9)

983(10) SPECTRUM 1

VOLCANIC ROOF PENDANT THICKENING TO SOUTH EAST

AREA OF POTENTIAL SKARN DEVELOPMENT

50°22'N

122°10'W

V.L.F. STATION CUTLER, MAINE

V.L.F. STATION SEATTLE, WASH.

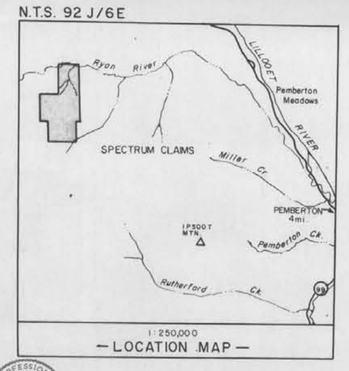
LEGEND:

- × GAMBIER GROUP
- UNDERLYING DIORITIC BATHOLITH OR PLUTON
- V VOLCANIC ROOF PENDANT
- AREA OF INCREASED CHEMICAL ACTIVITY, ALTERATION ZONES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,410

N.T.S. 92 J/6E



1:250,000
— LOCATION MAP —

PROFESSIONAL ENGINEER OF GLEN E. WHITE BRITISH COLUMBIA ENGINEER

GREAT WESTERN PETROLEUM CORP
— SPECTRUM CLAIMS —

LILLOOET MINING DIVISION — BRITISH COLUMBIA

PHOTOMOSAIC BASE & INTERPRETATION MAP

Western Geophysical Aero Data Ltd.

INTERPRETTED BY:	E.T.P.
DRAWN BY:	FINELINE DRAFTING
CHECKED BY:	E.T.P.
DATE:	JUNE /83
FIG.	6