

'85-114-13518

3/86

REDFERN RESOURCES LTD.
GEOPHYSICAL REPORT

ON

GRID PREPARATION & MAGNETOMETER SURVEY
PLACER LEASE #497,498 CARIBOO M.D.

LAT. $53^{\circ}04'30''$ N - LONG. $121^{\circ}51'30''$ W
NTS 93H/4W

AUTHORS: F. TRENT PEZZOT, B.Sc.,
GEOPHYSICIST

GLEN E. WHITE, B.Sc., P.ENG.,
CONSULTING GEOPHYSICIST

DATE OF WORK: FEB. 27 - MARCH 2, 1985

DATE OF REPORT: MARCH 4, 1985

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,518

Glen E. White

GEOPHYSICAL CONSULTING & SERVICES LTD.

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
PROPERTY	1
LOCATION AND ACCESS	2
PROTON PRECESSION MAGNETOMETER SURVEY	2
DISCUSSION OF RESULTS	3
SUMMARY AND CONCLUSIONS	4
RECOMMENDATIONS	5
INSTRUMENT SPECIFICATIONS	6
COST BREAKDOWN	7
STATEMENT OF QUALIFICATIONS	8-9

ILLUSTRATIONS

- Figure 1 - Location & Claims Map
- Figure 2 - Survey Grid Map
- Figure 3 - Magnetic Profiles - Lines 1250N, 1150N, 400N

INTRODUCTION

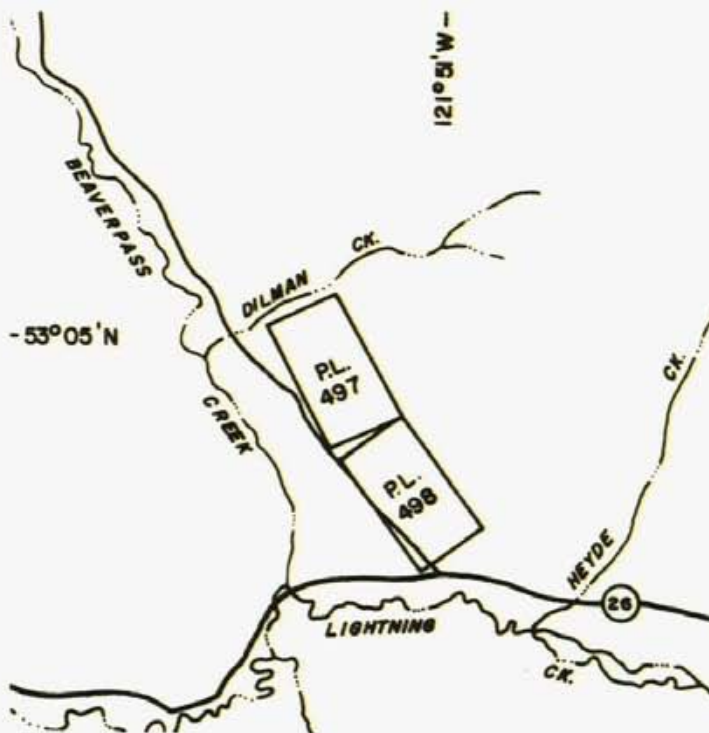
White Geophysical Inc. was contracted by Redfern Resources Ltd. to conduct a brief program of grid preparation and magnetometer surveying on two placer leases in the Wells-Barkerville area of B.C. The project was conducted from Feb. 27 to March 2, 1985 and totalled approximately 2.25 kilometres of line cutting and 1.0 kilometres of magnetometer survey.

The intention of the survey was to search for buried stream channels within the Beaverpass Creek valley. In addition, magnetite bearing sands, often associated with placer gold accumulations, would appear as localized magnetic highs.

PROPERTY

The property is comprised of two placer leases as described below:

<u>LEASE NO.</u>	<u>TAG NO.</u>	<u>EXPIRY DATE</u>
497	494706m	March 11, 1985
498	494705m	March 11, 1985



REDFERN RESOURCES LTD.
PLACER LEASES 497 & 498
LOCATION MAP

Glen E. White
geophysical consulting
&
services ltd

LOCATION AND ACCESS

The leases are located approximately 24.5 kilometres west-southwest from the town of Wells, B.C. near the confluence of Beaverpass Creek and Lightning Creek. They are situated within the Cariboo Mining Division and NTS 93H/4W. Approximate geographical co-ordinates are latitude $53^{\circ}04'30''\text{N}$ and longitude $121^{\circ}51'30''\text{W}$. (Figure 1)

B.C. Highway #26 passes along the southern border of lease #498 approximately 25 kilometres west of the town of Wells. From this point a 4 x 4 passable road follows Beaverpass Creek northwesterly and provides direct access to the western part of the leases. A cat trail is mapped near the centre of lease #498, however, it was not passable during the winter months.

PROTON PRECESSION MAGNETOMETER SURVEY

The magnetometer survey was carried out utilizing two GSM-8 proton precession magnetometers. One of these was operated in conjunction with a CMG MR-10 base magnetometer recorder to allow diurnal and micropulsation variation removal. Operator precautions of demagnetization and consistency were observed and field clock to base magnetometer timing skew was maintained within one second per day. Corrected, unfiltered data are plotted on each of the base maps.

DISCUSSION OF RESULTS

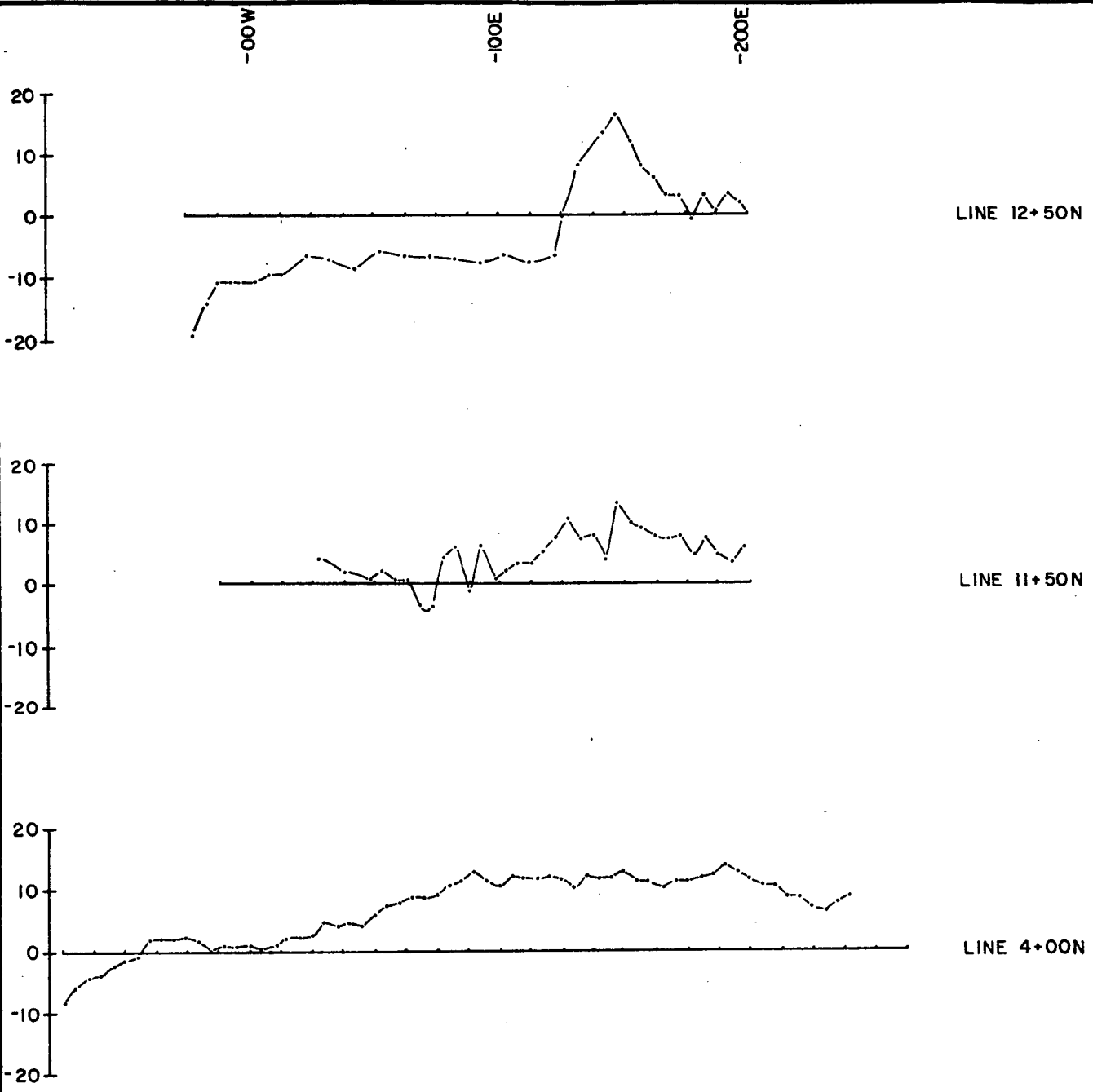
The survey grid was established by compass and hip chain. It consists of a 1.25 kilometre base line trending north-westerly and three cross lines totalling 1.0 kilometres in length. Stations were flagged and magnetic intensities recorded at 5 metre intervals along the cross lines.

Due to the deep snow conditions at this time of the year, no claim posts were located by the field operator. The survey grid is tied to the road network as illustrated on Figure 2 and the lease boundaries shown have been transferred from pre-existing maps.

A magnetic base station was set up on the property to record diurnal variations during the course of the survey. The corrected magnetic intensities recorded along the three survey lines are illustrated in profile form on Figure 3.

The strongest magnetic feature observed was located on line 1250N. It consists of a 30 gamma magnetic high between stations 130E and 150E which separates two levels of background magnetic intensities, 58065 gammas to the west and 58085 gammas to the east. An abrupt decrease in the magnetic intensity is observed on the three westernmost stations. Line 1150N is the noisiest of the three lines but illustrates some long period variations of approximately 30 gammas amplitude. Line 400N is relatively quiet but does show long period, low amplitude magnetic variations.

The magnetic data contains very subtle, yet consistent variations on each line. The source of these responses is unknown at this time but they are most likely due to variations in the depth to bedrock.



VERTICAL SCALE = 1 cm = 20 gammas
 BASE VALUE = 58,080 gammas
 INSTRUMENT - GMS B PROTON PRECESSION
 MAGNETOMETER

MAGNETIC PROFILES—LINES 4+00N, 11+50N, 12+50N

Glen E. White
 geophysical consulting
 services Ltd.

SUMMARY AND CONCLUSIONS

A small program of line cutting and magnetometer surveying was conducted across Redfern Resources Limited's placer leases #497 and #498 on March 1 and 2, 1985. Approximately 2.25 kilometres of survey grid was established by hip chain and compass and 1.0 kilometres were surveyed with a proton precession total field intensity magnetometer.

The magnetic data contains very subtle yet consistent variations in the background intensity on each line. These responses are most likely due to changes in the overburden thickness along the lines and with detailed topographic information may be useful for mapping the depth to bedrock. The strongest magnetic anomaly was observed on line 1250N. It appears as a 30 gamma magnetic high, approximately 20 metres wide and separates two distinct levels of background magnetic intensity. This response could originate from an accumulation of magnetic sands near a buried channel, however, at this time, there is insufficient information to form any reliable interpretation.

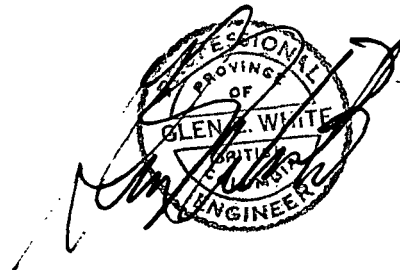
RECOMMENDATIONS

Exploration of the area should be conducted during the summer months in order to avoid areas of bedrock exposure. A detailed magnetic and electromagnetic survey (Geonics EM-31) are recommended to map overburden thickness. Depending upon these results a program of detailed seismic refraction or backhoe trenching may be warranted.

Respectfully submitted,



E. Trent Pezzot, B.Sc.,
Geophysicist



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

GSM-8 PROTON PRECESSION MAGNETOMETER

SPECIFICATIONS

RESOLUTION: 1 gamma

ACCURACY: ± 1 gamma over operating range

RANGE: 20,000-100,000 gamma in 23 overlapping steps

GRADIENT TOLERANCE: Up to 5000 gamma/metre

OPERATING MODES: MANUAL PUSHBUTTON, new reading every 1.85 sec., display active between readings

CYCLING, pushbutton initiated, 1.85 sec. period

SELFTEST, pushbutton controlled, 7 sec. period

OUTPUT: VISUAL: 5 digit 1 cm (0.4") high Liquid Crystal Display, visible in any ambient light

DIGITAL: Multiplied precession frequency and gating pulse

ANALOG: Optional 0-99 or 0-999 gamma

EXTERNAL TRIGGER: Permits externally triggered operation with periods longer than 1.85 sec. (optional minimum period 0.9 sec.)

POWER REQUIREMENTS: 12V 0.7A peak, 5mA standby

POWER SOURCE: INTERNAL: 12V 0.75Ah NiCd rechargeable battery 3,000 readings per full charge

EXTERNAL: 12-32V

BATTERY CHARGER: Input: 110/220V 50/60Hz; output: 14V 75mA DC

OPERATING TEMPERATURE: -35 to +55C

DIMENSIONS: CONSOLE: 15x8x15cm (6x3 $\frac{1}{4}$ x6")

SENSOR: 14x7cm dia (5 $\frac{1}{2}$ x3" dia)

STAFF: 175cm (70") extended, 53cm (21") collapsed

WEIGHT: 2.7kg (6 lb) per standard complete with batteries

COST BREAKDOWN

<u>PERSONNEL</u>	<u>DATE</u>	<u>SURVEY</u>	<u>RATE</u> <u>(\$/DAY)</u>	<u>CHARGEABLE</u> <u>TIME (DAYS)</u>	<u>SUB-</u> <u>TOTAL</u>
W.F.McKenzie	Feb.27-28	Mobiliza- tion	150.	2	\$300.
W.F.McKenzie	Mar. 1-2	Survey/ Demob	225	2	<u>450.</u>
				Subtotal	\$750.
Equipment lease					80.
Vehicle 4 days @ 70/day					280.
Meals & Accommodations 4 @ 30					120.
Drafting					50.
Reproduction.....					70.
Report & Interpretation					<u>150.</u>
Subtotal					\$750.
Total					<u>\$1,500.</u>

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

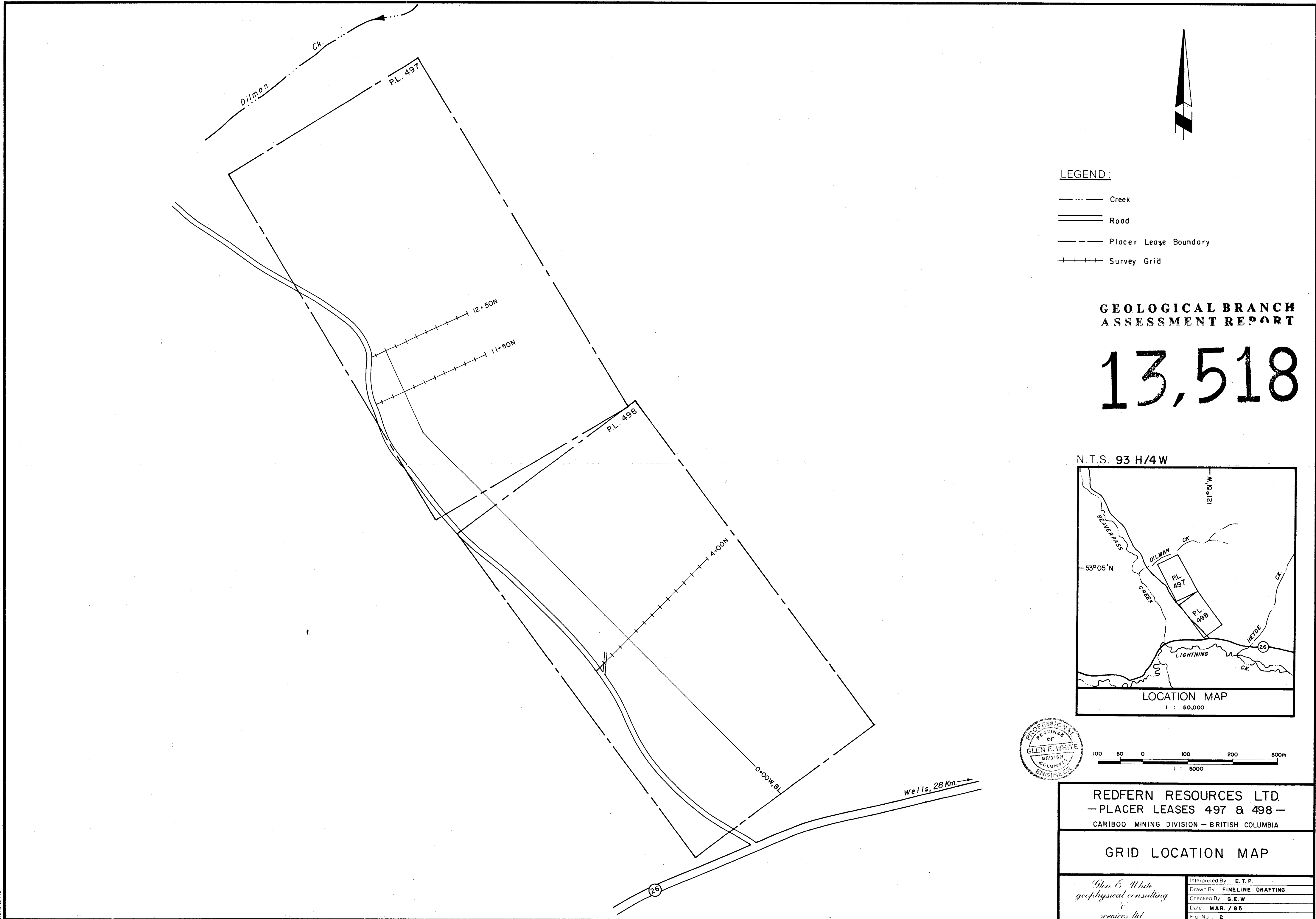
NAME: WHITE, Glen E., P.Eng.

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.
Twelve years Consulting Geophysicist.
Active experience in all Geologic provinces of Canada.



MANICAL 7134