3508

GEOPHYSICAL REPORT on the
Induced Polarization Survey of the W. and D.G.
Mineral Claims situated immediately North of the
West shore of Sam/Goosly Lake, Bulkley-Nechako
Region, Houston Area, Omineca M. D.
Latitude 54°10'N; Longitude 126°20'W
N.T.S. 93L/1W
on behalf of

PAYETTE RIVER MINES LIMITED
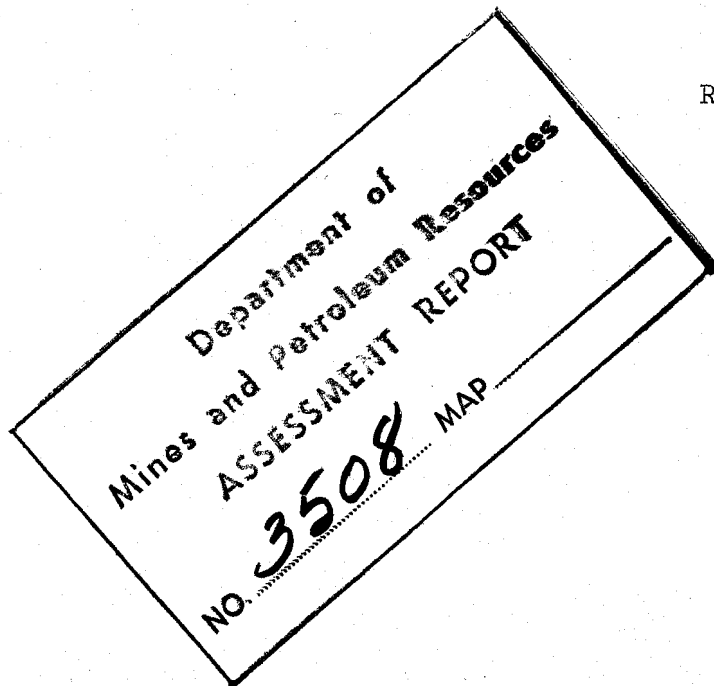
Field Work Between

October 24th and November 6th, 1971

by

D. R. Cochrane, P. Eng.

Report by -

Alan R. Scott, B. Sc.

D. R. Cochrane, P. Eng.,
Delta, B. C.,
November 25, 1971

TABLE OF CONTENTS

*NOTE: PAGE NUMBERING ERROR
Section D-1: Self Potential Gradient Results should
be numbered 12 and not 11. Subsequent page numbers
should therefore be increased by one.

FIGURES

APPENDICES

A - 1: SUMMARY -

During the period October 24 - November 6, 1971, a
field crew employed by D. R. Cochrane, P. Eng., completed 6.3
line miles of induced polarization surveying and one induced
polarization depth probe on the W and D.G. Claims owned by
Payette River Mines Ltd.

The claims are situated immediately north of the west
shore of Goosly Lake, some 30 road miles southeast of Houston,
British Columbia.

A geochemical soil sampling survey, conducted by Silver
Standard Mines in the summer of 1969, outlined a copper soil anomaly
in the southeast claims area. Patches of "slightly anomalous"
silver values are coincident with the copper anomaly.

The induced polarization survey was conducted in order
to determine the chargeability response of this geochemically
anomalous area. A Hewitt Enterprises pulse-type IP unit was
deployed using the Wenner array with an "a" spacing of 500 feet.
A depth probe was conducted over the peak chargeability area using
the Lee partition of the Wenner with spacings varying from 5 to
1000 feet. The pulse current was of 4 seconds in duration, with
a 0.3 second delay and an integration time of 0.8 seconds.

Data reduction and statistical analysis of the results
was facilitated with the use of a Diehl Algotronic Programmable
Calculator.

A - 1: SUMMARY (cont'd) -

The induced polarization survey outlined a "thumbprint" shaped chargeability anomaly that peaks at 37.5 msecs. A weak SP gradient trend and a pronounced change in apparent resistivity lies immediately west of this anomaly. 8/4 second current pulse ratios indicate a hybrid-sulphide type of polarization.

The depth probe conducted over the anomaly indicates a depth of burial of roughly 90 feet and there is evidence to suggest an easterly or south-easterly dip to the polarizing body.

A - 2: CONCLUSIONS -

1. The induced polarization survey conducted on the W and DG Claims on behalf of Payette River Mines outlined a "strongly anomalous" chargeability zone.

2. Apparent Resistivity results indicate a change in subsurface resistivities immediately west of this anomaly, suggesting a change in bedrock lithology in this area.

3. The depth to the top of the polarizing body is estimated to be roughly 90 feet.

4. Diamond drilling to determine the source of this induced polarization anomaly is recommended.

Respectfully submitted,

A. R. Scott, B. Sc.
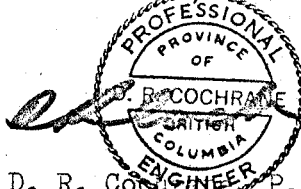
D. R. Cochrane, P. Eng.,
November 25, 1971,
Delta, B. C.

B - 1: INTRODUCTION -

. Between October 24 and November 6, 1971, a field crew
employed by D. R. Cochrane, P. Eng., completed 6.3 line miles of
induced polarization surveying and one induced polarization depth
probe on the D. G. Claims owned by Payette River Mines Ltd.

The claims extend northeast of the north shore of Goosly
Lake approximately thirty (30) road miles southeast of Houston,
British Columbia.

The purpose of the survey was to determine the
chargeability response of the southeast claims area, which ex-
hibits patchy geochemically high copper values.

This report describes instrumentation, field procedure
and data processing. It also discusses the survey results.

B - 2: LOCATION AND ACCESS -

The D. G. claims are situated in the Omineca Mining
Division, just over 30 road miles southeast of Houston, B. C.
They are immediately north of the west shore of Goosly Lake,
in the Buck Creek drainage system. Facile access by car or truck
from Houston is via an all weather road which runs from Houston
to Goosly Lake. A mining 4 x 4 access road (Orequest-Dorita-
Largo) proceeds easterly from the main Goosly to Kennco camp
road, and bisects the claim group. The National Topographic
System Code number for the area is 93L/1W. The approximate co-
ordinates are Latitude $54^{\circ}10'$ N; Longitude $126^{\circ}20'$ W.

BRITISH COLUMBIA

Payette River Mines Ltd. [n·p·l]

Goosly Lake Project

Location Map

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1508 MAP #1 Figure 1

Goosly Lake
Project

MAP NO. 1SD

B - 3: CLAIMS AND OWNERSHIP -

The D. G. numbers 1 to 42 inclusive and W numbers 3

to 8 inclusive form a contiguous "L" shaped block of claims as

shown on B. C. Department of Mines Mineral Claims Map 93L/1W (M).

The D. G. claims were located by Mr. D. Homenuke, of Smithers,

B. C., and recorded in Smithers on April 30, 1971. Title to

the 48 claims has been transferred   to Payette

River Mines Limited, 1118 Melville Street, Vancouver 5, B. C.

The following lists pertinent claims information.

Claim Name	Tag No. (s)	Record No. (s)	Anniversary Date
D.G. No. 1 to 42 (incl.)	226501 - 42	98305 - 46	April 30
W No. 3 to 8 (incl.)	--------	97088 - 93	------

These claims apparently occupy the same positions as the now ex-

pired NWB and ARC claims.

B - 4: GENERAL SETTING: -

The W and D. G. claims lie within the Nechako Plateau

physiographic subdivision of the Interior Plateau region of British

Columbia. It is a relatively gently rolling upland surface which

varies in elevation from about 3,000 feet at Goosly Lake to just

over 5,000 feet above sea level. The regional geology is shown on

Map 671A of the Geological Survey of Canada, and on a more recent

compilation by the B. C. Department of Mines (Map 69-1). However,

until recently, there has been a deficiency of published geological

B - 4:   GENERAL SETTING (cont'd) -

information on the region, due primarily to the thick blanket of

glacial till which covers much of the district and to the lack of

economic interest.

The Houston-Goosly area is underlain by an Upper

Triassic to Upper Jurassic eugeosynclinal sequence of volcanics

and intercalated sediments belonging to the Hazelton Series.   It

has been highly folded, faulted and variously altered and meta-

morphosed.   The Hazelton is overlain by large patches of relatively

flat lying volcanics which are believed to be equivalent to the

Ootsa and Endako series.   Kennco's Goosly Lake property is a win-

dow in the Tertiary volcanics, and locally the Hazelton is

exposed.

B - 5:   GROUND CONTROL GRID -

Baseline Number 2 West, which was utilized for a previous

geochemical survey was located and re-chained and picketed for

the **induced polarization** (IP) **survey.**   It runs three (3) degrees

east of north and cross lines run west at right angles from this

baseline.

Cross lines were blazed and flagged and chainage was

obtained using the IP wire.   Pickets were numbered and driven in

the ground at the IP stations, that is at 500 foot intervals.

A reconnaissance line was run along the road from 147.5N

B - 5: GROUND CONTROL GRID (cont'd) -

on the baseline north-westerly across the claims. This line was

called Line A and station A-1 is on the baseline (at 147.5 N). A-2

is 500 feet north-westerly along the road, and so on to station A-20.

The bearing of the road (Line A) was recorded with a

Silva compass.

C - 1: FIELD PROCEDURE -

A standard Wenner Array with an "a" spacing of 500 feet was used for the I.P. survey of Payette's Goosly Lake property. For this array, the distance between pots and electrodes is equal, as illustrated below:

$$E_1 --- \text{"a"} --- P_1 --- \text{"a"} --- P_2 --- \text{"a"} --- E_2$$

transit direction $\longrightarrow$
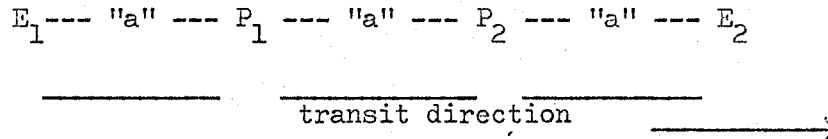
The front positions are positive and rear positions negative.

A suitable station was chosen for instrument to set up at and the stake men and front pot man moved to the appropriate positions on the line. A small hole was dug beneath the humus and cleared of rocks in order to seat the pots (positions P_1 and P_2). In dry soil, a small amount of salt water was added to improve electrical contact.

The stakemen (positions E_1 and E_2) cleared a strip of ground (roughly 1 foot square) of moss, leaves and rocks, spread aluminum foil over the cleared part and buried the foil. Salt water was poured into the foil to assure good ground contact. If contact was still subnormal, two more stakes were set out some 6 feet to either side of the foil.

Communication with the instrument operator was facilitated by small transceivers and when all positions were reported "ready", the instrument operator commenced measurement. Firstly, the self potential (SP) of the ground between front (P_1) and rear (P_2) pots

C - 1: FIELD PROCEDURE (cont'd) -

was balanced and recorded in millivolts (front pot was always

defined as positive pole and data was corrected when plotted to

account for changes in transit direction). A 4 second current

pulse was then initiated during which the transmitter current and

impressed EMF between the pots was noted. On cessation of the

current pulse, an integrated value of the residual decay voltage

is automatically registered on the receiver galvanometer. This

value was recorded along with position of instrument, RC filter,

integration function, output voltage of the transmitter, notes

on terrain, steadiness of SP, and the "sharpness" of the I. P.

The I.P. was normalized and the procedure repeated until three

successive values agreed to within ten percent. Often an 8 second

current pulse was used and various combinations of filters and

integration times to assist in interpretation of results.

The order was then given to move on 500 feet to the

next station and the procedure was repeated.

Depth Probe -

The Lee variation of the Wenner electrode array was

used for the four depth probes on the Payette property. The

Lee array is illustrated below: -

C - 1: FIELD PROCEDURE -

Depth Probe (cont'd)

The additional receiving pot (P_0) and the instrument are located at the site chosen for the depth probe and the "a" spacing is increased outwards from this point. For the Payette depth probes, "a" spacings of 5, 10, 20, 40, 80, 150, 250, 500 and 1000 feet were used.

The same field procedure was utilized for the depth probes as for the main survey except that three sets of readings were taken for each "a" spacing:

$$P_1 P_2, \quad P_1 P_0, \quad \text{and } P_2 P_0.$$

C - 2: DATA PROCESSING -

Chargeability values were normalized and apparent resistivities were calculated, by slide rule, at the end of each day's work while in the field. At the completion of the survey the raw geophysical data, compiled on to standard pre-printed field note forms, were punched on to computer paper tape. A standard program to calculate (a) normalized chargeability, (b) apparent resistivity, (c) metal factors, (d) and grouping of data and standard deviation and arithmetic mean of sets in (a) and (b) above, were carried out on a Diehl Algotronic Programmable Desk Top Computer. In addition, the coefficient of correlation between chargeability and apparent resistivity was calculated.

C - 2: DATA PROCESSING (cont'd) -

The computer-calculated values were utilized for final drafting purposes.

Self potential gradient information was corrected for sign such that the arbitrary positive (electric) pole is either north or west on any particular line.

The Metal Factor (MF) values were calculated by dividing the chargeability, (M in milliseconds) by the apparent resistivity, (R in ohm-feet) and multiplying by 10^3. Thus,

$$MF = \frac{M}{R} \times 10^3 \text{ seconds/ohm-feet.}$$

D - 1:   SELF POTENTIAL GRADIENT RESULTS   -

An iso-self potential gradient plan accompanies this report as Figure 4 (map pocket at rear of report). The values represent the potential difference (in millivolts - mv) between receiving pots 250 feet east and 250 feet west of the plotted point.

The frequency distribution of the 36 SP gradient values obtained over the "main grid" is displayed graphically in Figure (a) on the next page. The arithmetic mean is -6 mv's and the standard deviation is 17 mv's. The mode lies in the -10 to -20 mv range which encompasses 28 percent of the values. The greatest positive gradient is +40 mv over 500 feet and the greatest negative gradient is -48 mv over 500 feet.

Statistically those gradients greater than plus 11 mv and less than minus 23 mv (over 500 feet) can be defined as "moderately anomalous". A ridge of steep positive SP that is flanked by depressions of steep negative SP gradient is noted on lines 175N (22.5W), 163N (30.5W), and 143N (27.5W) . This SP trend is indicated by a dashed line on Figure 4.

These values are relatively low amplitude and hence SP response must be considered of minor importance on this survey.
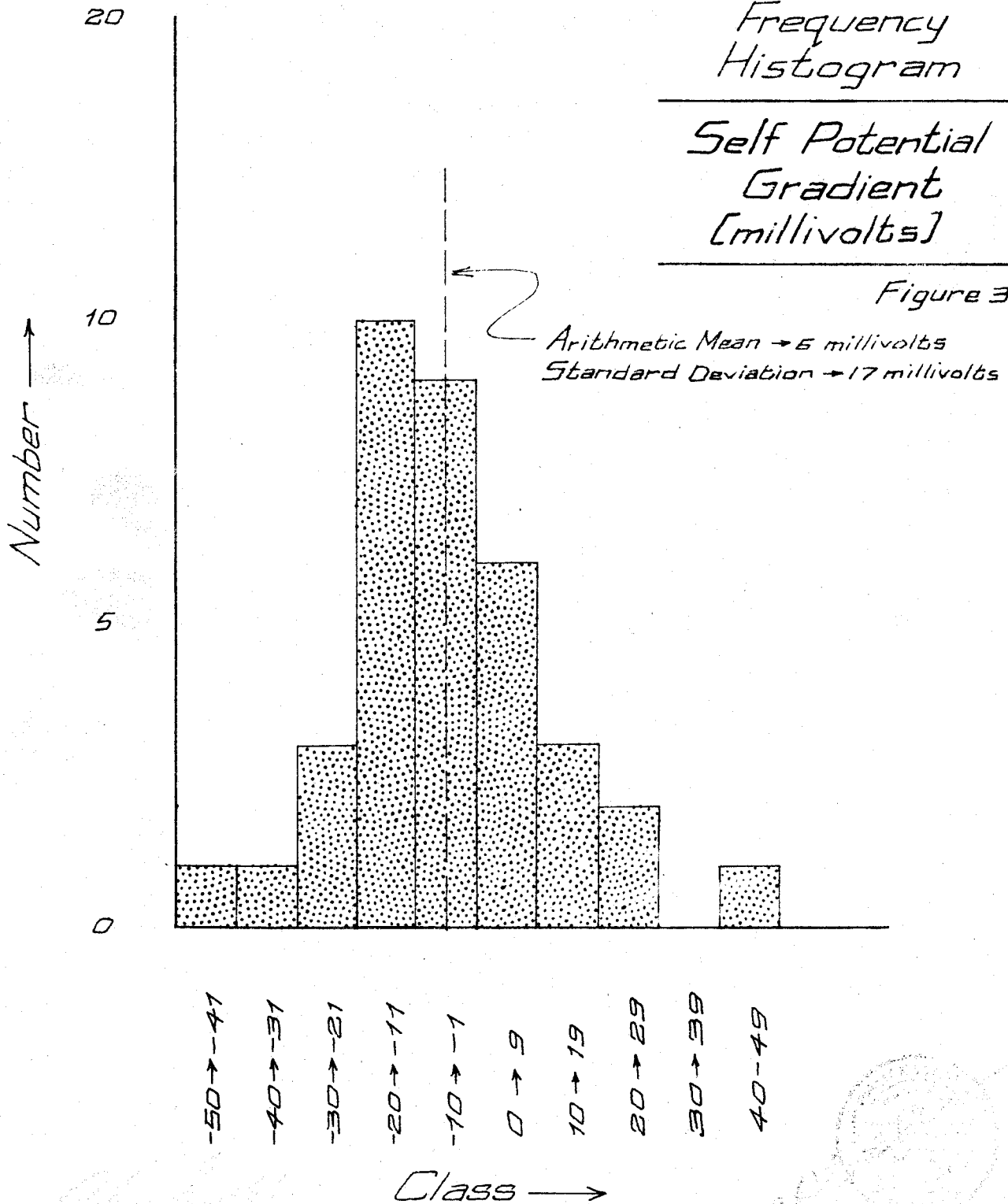
Goosly Lake Project

Frequency
Histogram

Self Potential
Gradient
[millivolts]

Figure 3a.

Arithmetic Mean → 6 millivolts
Standard Deviation → 17 millivolts

Number →

20

10

5

0

Class →

-50→-41
-40→-31
-30→-21
-20→-11
-10→-1
0→9
10→19
20→29
30→39
40-49

D - 2: APPARENT RESISTIVITY RESULTS: -

An iso-apparent resistivity plan accompanies this report as Figure 5 (map pocket) and Figure 3 (b) - following page - shows the frequency distribution of the 54 values.

The following statistical information was obtained:

Maximum value ....1200 ohm-feet (42.5W, 143N)

Minimum value .... 214 ohm-feet (road, A-17)

Arithmetic mean .... 515 ohm-feet

Standard deviation .... 170 ohm-feet

The frequency distribution is positively skewed and the mode lies in the 400 - 500 ohm foot range (encompassing 44 percent of the values). Statistically the following classification can be defined:

greater than 685 ohm-feet   resistivity high

345 - 685 ohm-feet   background

less than 345 ohm-feet   resistivity low

The apparent resistivity plan is characterized by a hill of "high apparent resistivities" in the southwest region, surrounded by a plain of "low-background resistivity".

This change in resistivity response is most likely caused by a change in bedrock lithology and could represent a "wedge" of high resistivity material overlying low resistivity material or vice versa.
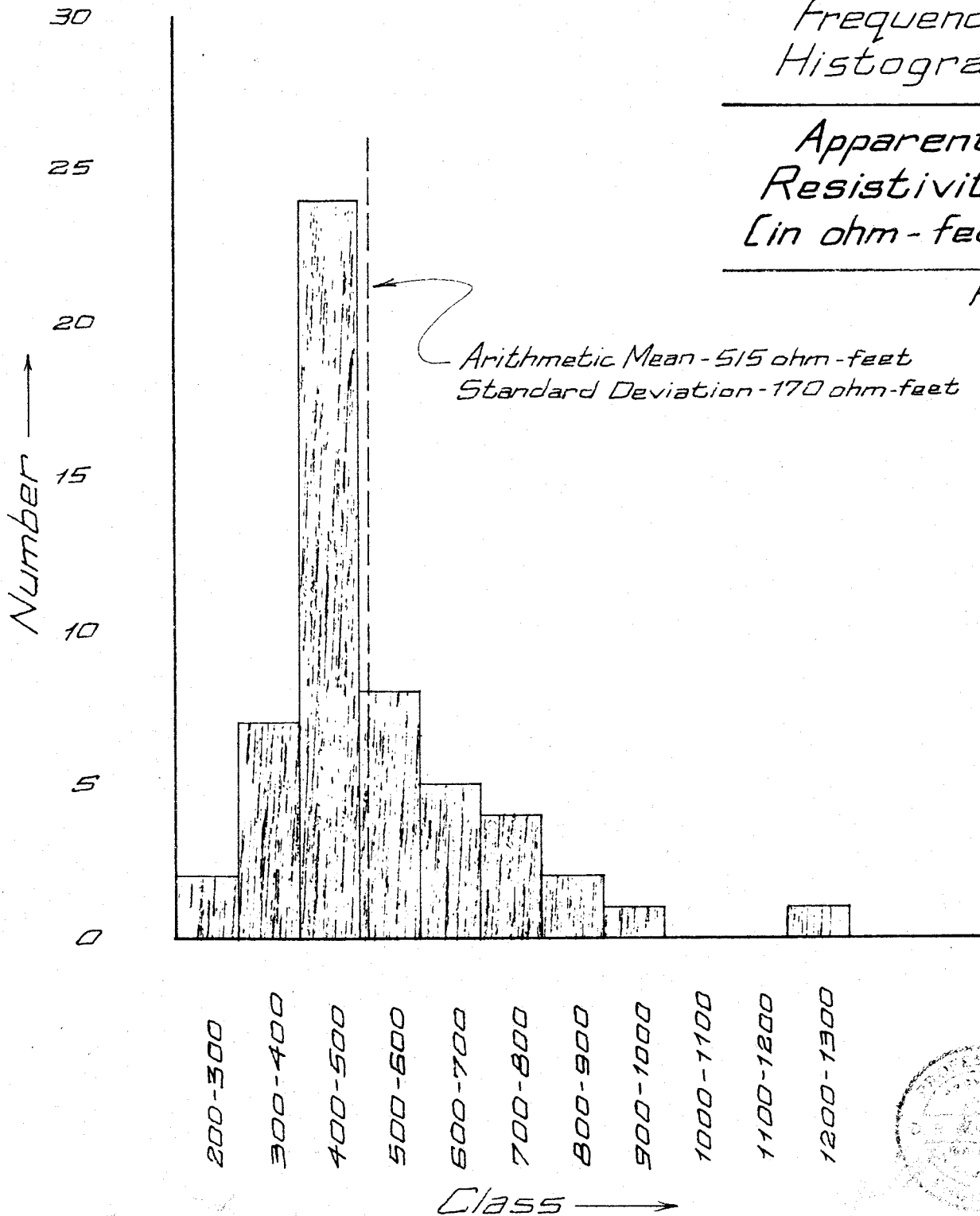
Payette River Mines Ltd. [n.p.l.]

Goosly Lake Project

Frequency Histogram

Apparent Resistivity [in ohm - feet]

Figure 3b.

Arithmetic Mean - 515 ohm-feet
Standard Deviation - 170 ohm-feet

Number →

Class →

Classes: 200-300, 300-400, 400-500, 500-600, 600-700, 700-800, 800-900, 900-1000, 1000-1100, 1100-1200, 1200-1300

D - 3:   CHARGEABILITY RESULTS -

A contoured chargeability plan accompanies this report as Figure 6 (map pocket). Figure 3(c) on the following page shows the frequency distribution of the 54 values.

Maximum value .... 37.9 msecs.*   (20.5W, 163N)

Minimum value .... 2.5 msecs.   (Road, Sta. A-13)

Arithmetic mean .... 12.7 msecs.

Standard deviation .... 8.3 msecs.

Primary mode .... 8-12 msec. range   28% of total

Secondary mode .... 20-24 msec. range   9% of total

Tertiary mode .... 28-32 msec. range   7% of total

The frequency distribution is trimodal and is positively skewed. Based on statistics and previous experience in the immediate area, the following chargeability families have been defined: -

less than 10 msecs. .... background

10-20 msecs .... weakly anomalous

20-30 msecs .... moderately anomalous

greater than 30 msecs .... strongly anomalous

The chargeability plan is characterized by a "thumbprint" anomaly surrounded by a zone of low-background response. The anomaly peaks at 37.9 milliseconds at station 20.5W on Line 163N. The "strongly anomalous" core extends roughly 800 feet East-West by 1500 feet North-South.
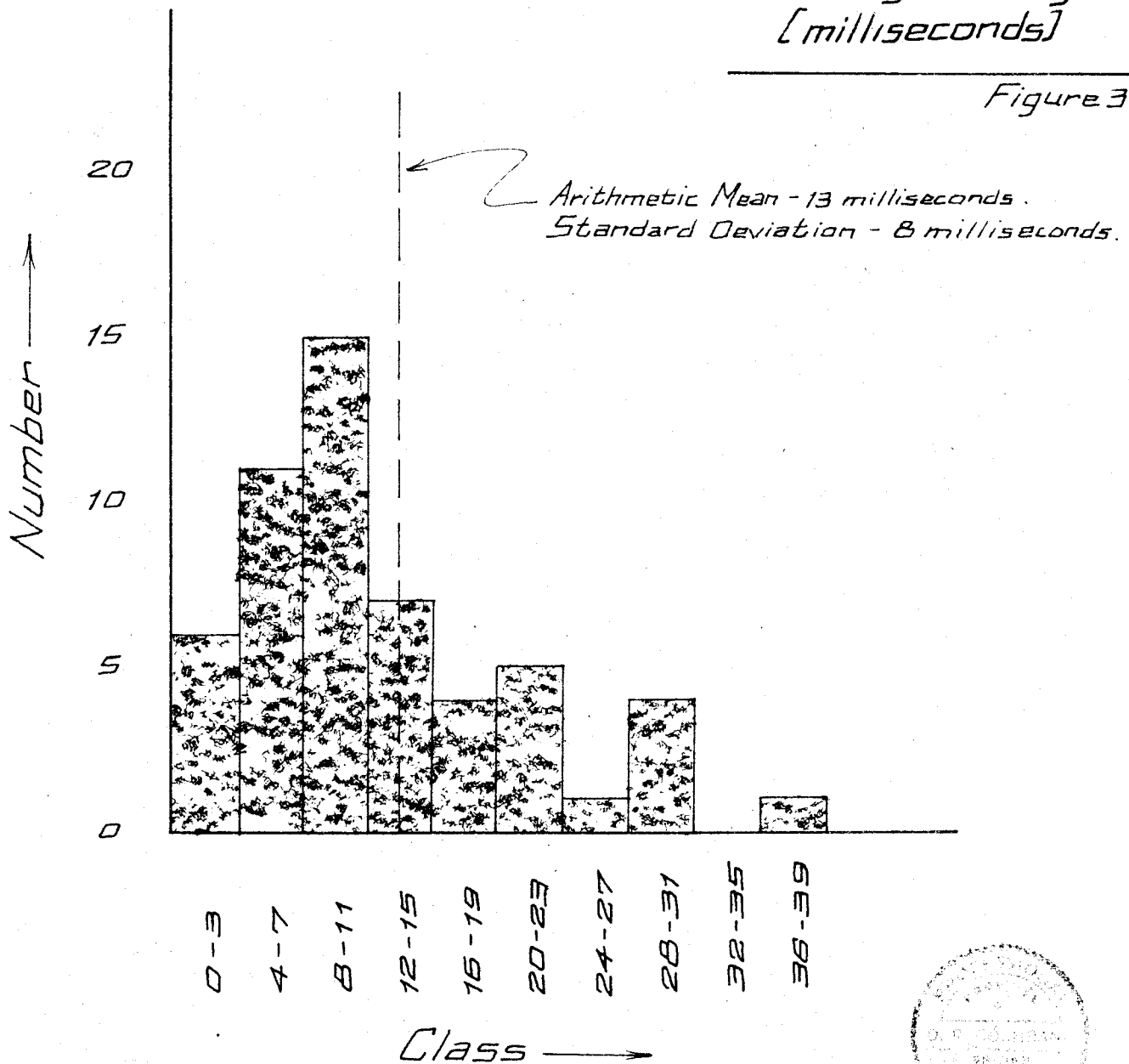
* msecs. - milliseconds

Payette River
Mines Ltd. [n.p.l.]

Goosly Lake Project

Frequency
Histogram

Chargeability
[milliseconds]

Figure 3c.

Arithmetic Mean - 13 milliseconds.
Standard Deviation - 8 milliseconds.

D - 3: CHARGEABILITY RESULTS (cont'd) -

The type of polarization is indicated by the ratio of chargeabilities obtained using a 4 second and 8 second current pulse time. A standard classification is as follows:

8/4 second chargeability   type of polarization -
      ratio -

Less than 1.2 .... membrane type (e.g. clays, alter-
                                        ation products, etc.)

1/2 - 1.35 .... hybrid (e.g. clays and sulphides)

Greater than 1.35 .... sulphide type (e.g. pyrite,
                                        chalcopyrite, graphite)

The 8/4 second ratios are plotted on the chargeability plan (Figure 6) and the chargeability depth probe profile (Figure 9). The ratios indicate a hybrid-sulphide source.

D - 4: METAL FACTOR PLAN -

A parameter that is often useful in interpretation of induced polarization data is the metal factor (MF). It is obtained by dividing the chargeability by the apparent resistivity and multiplying by 1000. Units are seconds/ohm-foot.

A contoured MF plan accompanies this report as Figure 7. The arithmetic mean of the 54 values is 26 and the standard deviation is 18. The following MF families are herein defined: -

Less than 26 .... background

26 - 44   .... weakly anomalous

D - 4: METAL FACTOR PLAN (cont'd) -

    44 - 62   .... moderately anomalous

    Greater than 62 .... strongly anomalous

        The general form of the MF anomaly is similar to the
apparent chargeability anomaly. However, a south-easterly dip to
the polarizing body is suggested by the MF plan. This is caused
by the increase in the apparent resistivities on the west grid
area, thereby decreasing the MF value in that direction. This
apparent dip (which is most definitive on the MF depth probe profile,
see Figure 10) is therefore open to doubt and should not be re-
lied on if a drilling program is to be considered.

D - 5:   DEPTH PROBE RESULTS -

An induced polarization depth probe was conducted at station 20.5W on Line 163N. The results are presented in standard profile form in Figures 8, 9 and 10 (apparent resistivity, charge-ability and metal factor respectively).

The vertical scale represents the "a" spacing and is not generally equal to the depth of investigation. The latter is a complex relationship depending on subsurface conductivity, layering, "a" spacing and type of array used. In their recent paper "Depth of Investigation in Direct Current Methods", Geophysics Vol. 36, Number 5 (October, 1971), Roy and Apparao cite the depth of investigation, defined as the depth of maximum signal con-tribution,with the Wenner array as 0.33 "a".

Comparison of the log-log plot of the chargeability and apparent resistivity to standard type curves gives a depth to the top at the polarizing body of roughly 90 feet.

The structural attitude of a polarizing body is not well defined by IP methods, particularly in areas of even moderate topographic relief. (For discussion of the problem the reader is referred to Grant and West, "Interpretation Theory in Applied Geophysics", McGraw Hill,   (1965,p419). However the overall in-dication is to a easterly dip of the polarizing body and a westerly dipping contact between the two apparent resistivity families.
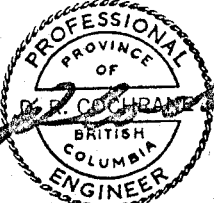
D -6 :   CORRELATION OF DATA -

A strongly anomalous chargeability zone is centered about 20.5W on Line 163N. 8/4 second current pulse ratios indicate a hybrid-sulphide type of polarization.

A high resistivity zone and a weak-moderately anomalous SP gradient trend lie immediately west of the chargeability anomaly. These may indicate a change in lithology in this area.

The depth probe conducted over the anomaly indicates a depth to the top of the polarizing body of 90 feet and there is evidence to suggest an easterly or south easterly dip.
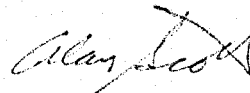
Diamond drilling to determine the source of this induced polarization anomaly is recommended.

Respectfully submitted,

D. R. Cochrane, P. Eng.,
November 25, 1971.
Delta, B. C.

Alan R. Scott, B. Sc.

Certificates

Name: COCHRANE, Donald Robert
Education: B.A. Sc. - U. of T., M.A. Sc. - Queen's University
Professional
Associations: Professional Engineer of B, C., Ontario, and Saskatchewan.
Member of C.I.M.M., G.A.C., M.A.C., Geological Eng.
Experience: Engaged in the profession since 1962 while employed with
Noranda Exploration Co. Ltd., Quebec Cartier Mines Ltd.,
and Meridian Exploration Syndicate.

Name: SCOTT, Alan R.
Education: B. Sc. - Geophysics, U.B.C.
Experience: Two summers-crew member and operator with Geo X Surveys
Ltd. Presently employed with D. R. Cochrane - Geophysicist
Professional
Associations: Member of S.E.G.

Name: CHASE, William
Age: 20
Education: Grade 12 Diploma
Experience: Employed since September, 1970 and engaged in EM and IP
surveying. Previous experience at the Anvil Mine, Y.T.,
Summer, 1970.

Name: ESTACAILLE, N.
Age: 24
Education: Grade 12 Diploma
Experience: One-half year exploration experience with Huntec.

Name: WHELEN, Michael A.
Age: 19
Education: First year university - - Douglas College
Experience: No previous experience

Name: COCHRANE, Bruce
Education: O.C.A. Certificate
Experience: Geo-X Surveys Ltd. - one full season

APPENDIX II

Personnel and Dates Worked

The following personnel, employed by D. R. Cochrane, P. Eng., were employed on the Payette - Sam/Goosly Lake Project on the dates set out below.

D. R. COCHRANE	Report Preparation	November 22
A. R. SCOTT	Mobilize - demobilize IP Survey Report Preparation	Oct. 23, 24, Nov. 5, 6 Oct. 25 - 29, Oct. 31 - Nov.4 Nov. 9 - 12; 16th & 22'nd
ESTACAILLE, N.	Mobilize - demobilize IP Survey	Oct. 23,24, Nov. 5, 6 Oct. 25 - 29, Oct.31 - Nov. 4
WHELEN, M. A.	Mobilize - demobilize IP Survey	Oct. 23,24, Nov. 5,6 Oct. 25 - 29, Oct. 31 - Nov.4
CHASE, W.	Mobilize - demobilize IP Survey	Oct. 23,24, Nov. 5, 6 Oct. 25-29, Oct. 31 - Nov. 4
COCHRANE, B.	Draughting	Nov. 15 - 19

Declared before me at the *City*
of *Vancouver* , in the
Province of British Columbia, this
10th
day of *Oct*
1972, A.D.

R. Addison

Phillips
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

Instrument Specifications - IP

Transmitter Unit

Current pulse period (D.C. Pulse)	
Manual initiated timer	1 - 10 seconds
Current measuring ranges	0 - 500
	0 - 1000 milliam-
	peres
	0 - 5000
Internal voltage converter	250
27 volt D.C. 350 watt output with	500 volts D.C.
belt pack batteries	1000 Nominal

500 watts using 27 volt aircraft batteries

Transmitter can switch up to 3 amps at 1000 volts from generator
or battery supply with resistive load. The switching is done internally
in the transmitter unit. Remote control output can switch up to 10
kilowatts of power by using a separate control unit. A remote control
cord is supplied with auxiliary equipment.

Receiver Unit

Self Potential Range	0 - 1000 millivolts
	1 millivolt resolution
Integration time periods	.8 seconds
	1.6 seconds
Tandem Integration time periods	1.6 seconds
	3.2 seconds
Input filtering	3 ranges plus 4 integration combinations
Delay time from cessation of current pulse	.3 seconds

(Combined Photo Electric Coupled Receiver and Transmitter)

Operation Temperature   .25°F - 120°F

POWER SUPPLY
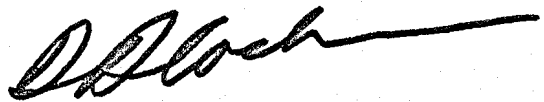
Receiver Unit	4 Eveready E136 Mercury Batteries
	2 Eveready E134 " "
	2 Eveready E401 " "

Transmitter Unit (recon. mode) Sealed Rechargeable 8 amp. hr.
belt pack capable of driving the converter
at 350 watts for a minimum of one day's
operation before recharge.

Transmitter Unit (med. power mode) Aircraft 11 amp. hr. Battery

Battery Charger   Custom Automatic cutoff for charging
sealed batteries.

APPENDIX IV

Cost Breakdown
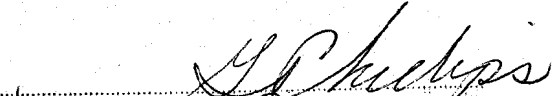
As per contract between Payette River Mines Ltd. (N.P.L.)

and D. R. Cochrane, P. Eng., dated October 18, 1971 - re: geophysical

services on the D. G. Claims, Goosly Lake, British Columbia.

(a) 6.3 line miles of induced polarization surveys and line
     cutting @ $665.00 per line mile $4,189.50
     (ie. at $600. and $65. per line mile respectively)

(b) One day detailing (depth probe) at $355 per day 355.00
                                              Total - $4,544.50

D. R. Cochrane P. Eng.

Declared before me at the *City*

of *Vancouver*, in the

Province of British Columbia, this 10th

day of *Feb.* 1972, A.D.

R Addison

....
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

A17
A15   98334 D
       DG 30

98333 D
DG 29

98309 D
DG 5

98310 D
DG 6

CREEK

A13

ROAD

98336 D
DG 32

A11
98335 D
DG 31

CAMP   A9

98307 D
DG 3

98308 D
DG 4

175 N

A7

BASELINE
FORMERLY 2+00 W

98318 D
DG 14

98317 D
DG 13

A5

163 N

PEAR CHART.

25 milli second
contour

98305 D
DG 1

98306 D
DG 2

A3

153 N

98315 D
DG 11

98316 D
DG 12

CREEK

CREEK

ROAD A1

APPROXIMATE
CLAIM BOUNDARIES

98345 D
DG 41

98346 D
DG 42

143 N

98313 D
DG 9

98314 D
DG 10

98343 D
DG 39

98344 D
DG 40

133 N

0+00 (Baseline)

ASTRO

Scale: feet
0   400   800   1600

3508 M-2

Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Grid and Claims Map

To accompany Geophysical Report
by D. R. Cochrane, P. Eng. and A. Scott,
B. Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca M.D.,
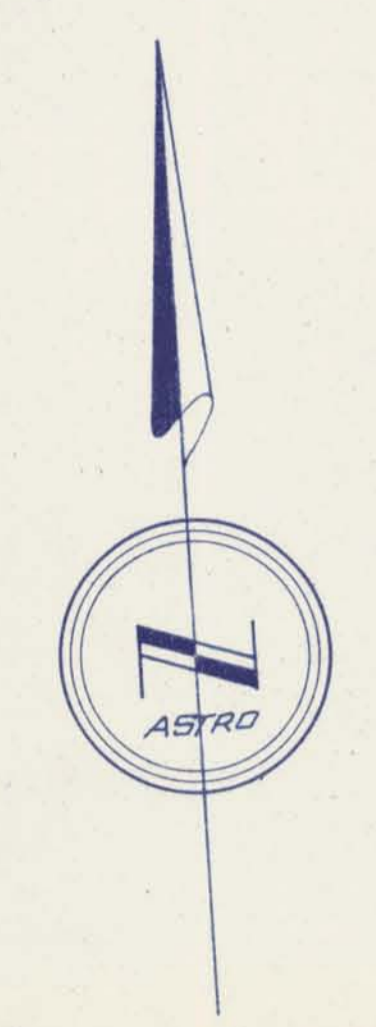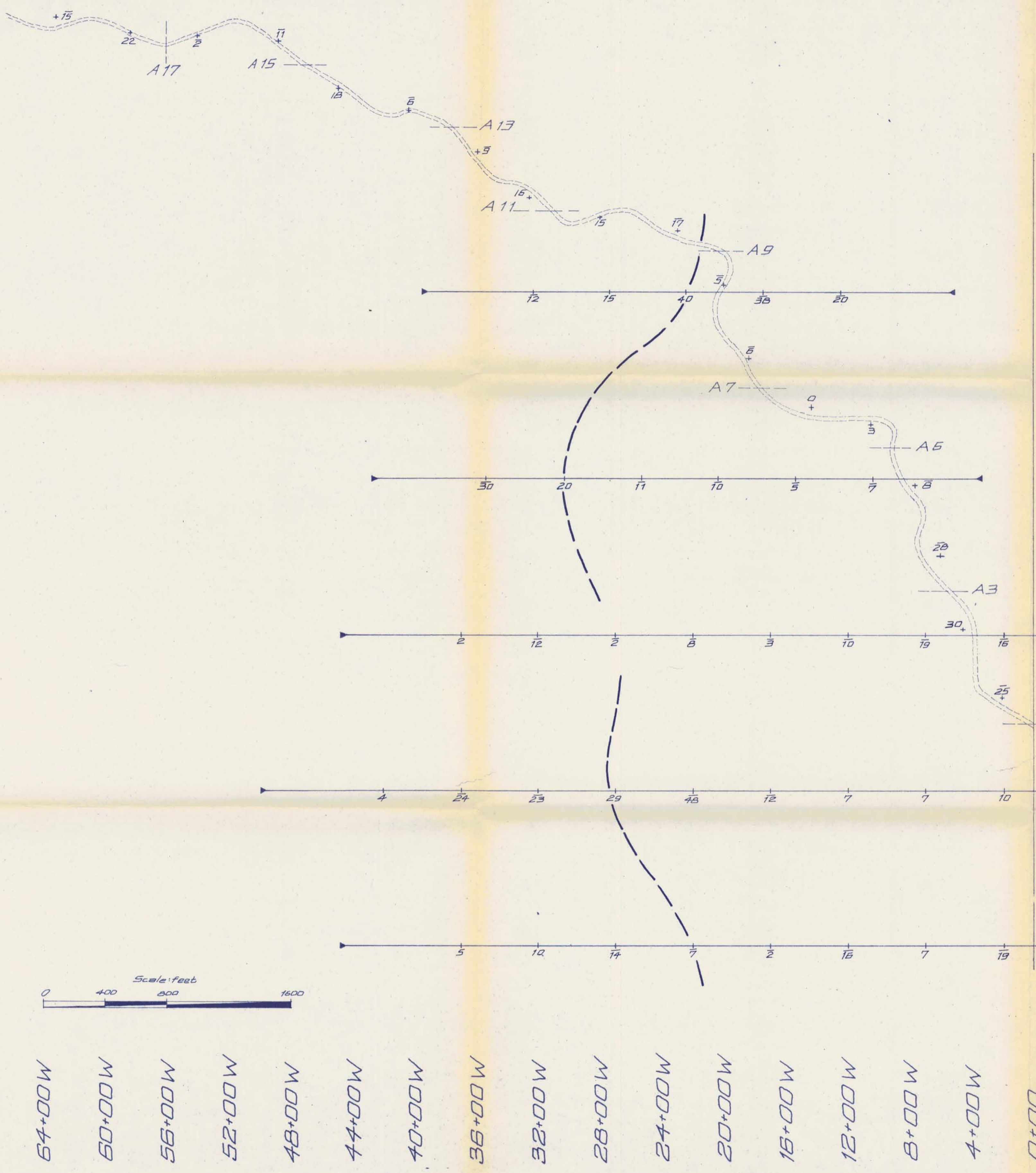and dated November 25, 1971.

Figure 2

64+00 W   60+00 W   56+00 W   52+00 W   48+00 W   44+00 W   40+00 W   36+00 W   32+00 W   28+00 W   24+00 W   20+00 W   16+00 W   12+00 W   8+00 W   4+00 W   0+00 (Baseline)

+15

22   +   +   +   11
      A 17   A 15   2

              +
              18   +
                        8
                    — A 13
                    +
                    9

              16 +
A 11   +   17
              15   +

                            — A 9

                        5
    12   15   40   38   20   175 N

                        +
                        8

              A 7 — —
                        0
                        +
                        +
                        3
                            — A 5

    30   20   11   10   5   7   +8   163 N

                                28
                                +

                            — A 3
                        30 +
    2   12   2   8   3   10   19   16   153 N

                            25
                            +
                                — A 1

    4   24   23   29   48   12   7   7   10   143 N

    5   10   14   7   2   16   7   19   133 N

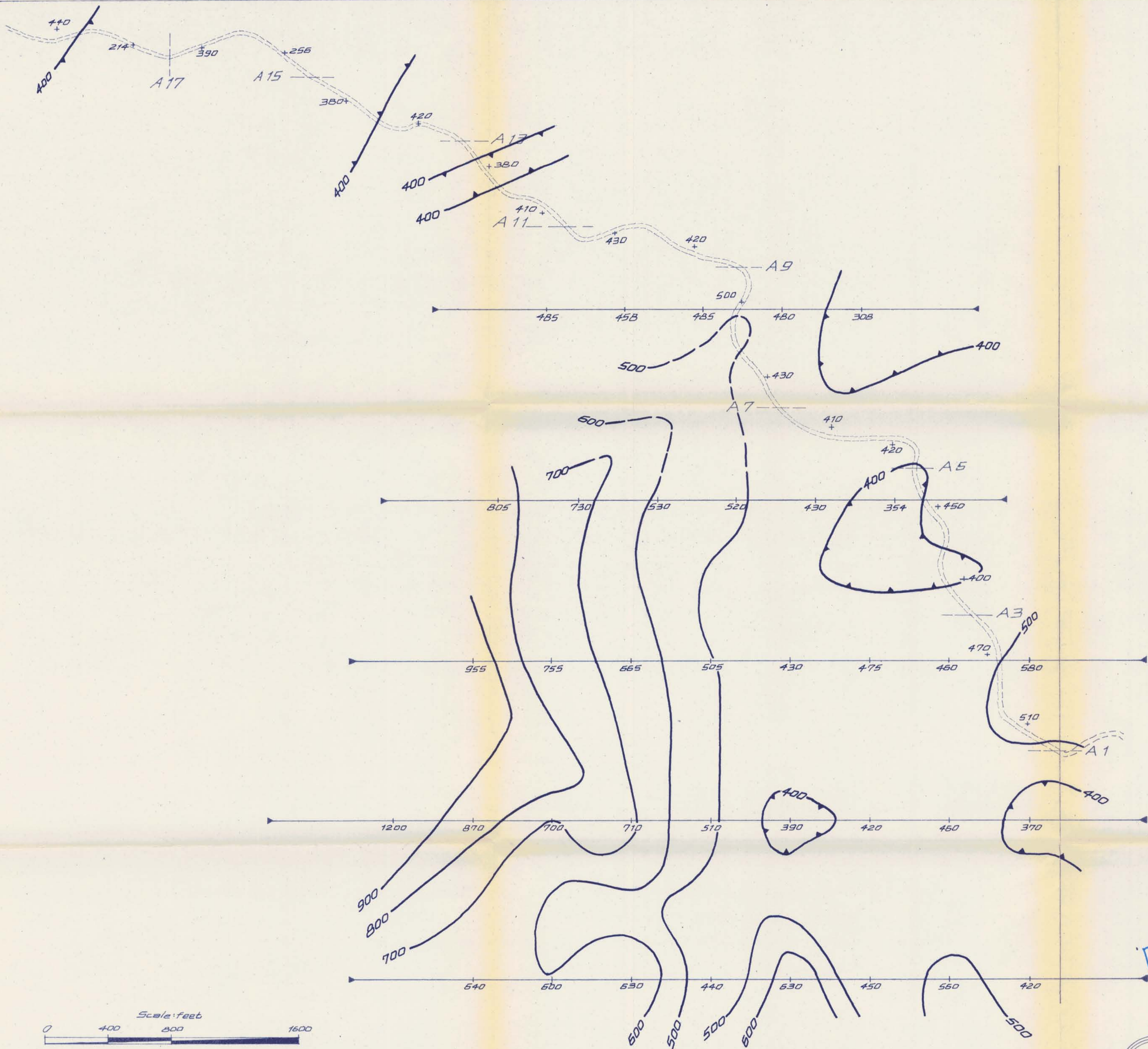ASTRO

Scale: feet
0   400   800   1600

Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Self Potential Gradient Plan (millivolts)

To accompany Geophysical Report
by D.R.Cochrane, P.Eng. and A. Scott,
B.Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca M.D.
and dated November 25, 1971.

Figure 4

64+00 W   60+00 W   56+00 W   52+00 W   48+00 W   44+00 W   40+00 W   36+00 W   32+00 W   28+00 W   24+00 W   20+00 W   16+00 W   12+00 W   8+00 W   4+00 W   0+00

175 N

163 N

153 N

143 N

Scale: feet

0   400   800   1600

64+00 W
60+00 W
56+00 W
52+00 W
48+00 W
44+00 W
40+00 W
36+00 W
32+00 W
28+00 W
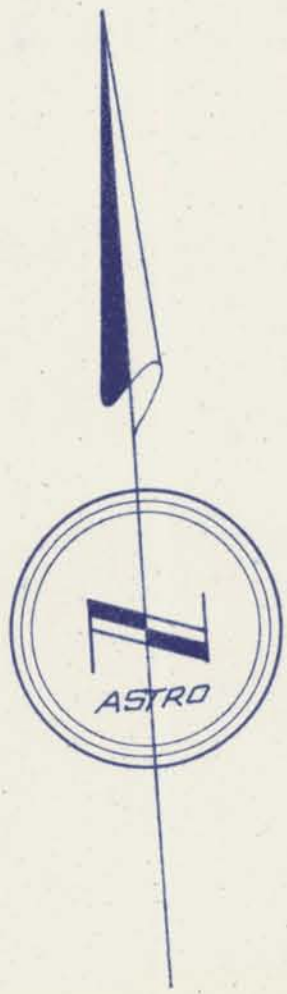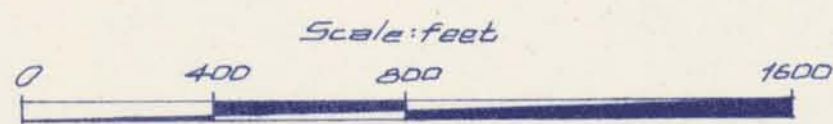24+00 W
20+00 W
16+00 W
12+00 W
8+00 W
4+00 W
0+00

Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Apparent Resistivity Plan — [ohm-feet]

To accompany Geophysical Report
by D. R. Cochrane, P. Eng. and A. Scott,
B. Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca M.D.,
and dated· November 25, 1971.

Figure 5

ASTRO

175 N

163 N

153 N

143 N

133 N

Scale: feet
0   400   800   1600

Payette River Mines Ltd. (n.p.l.)
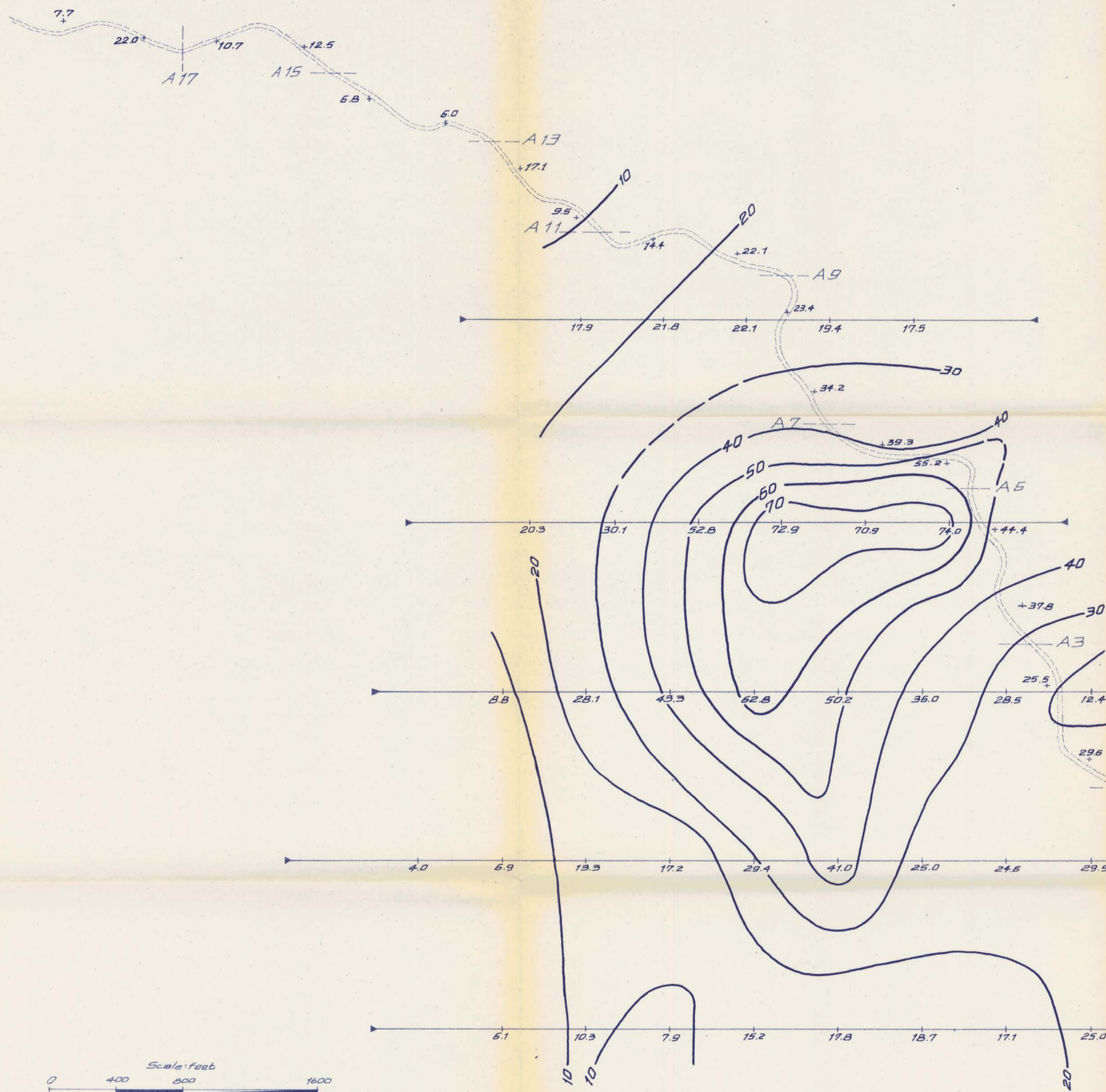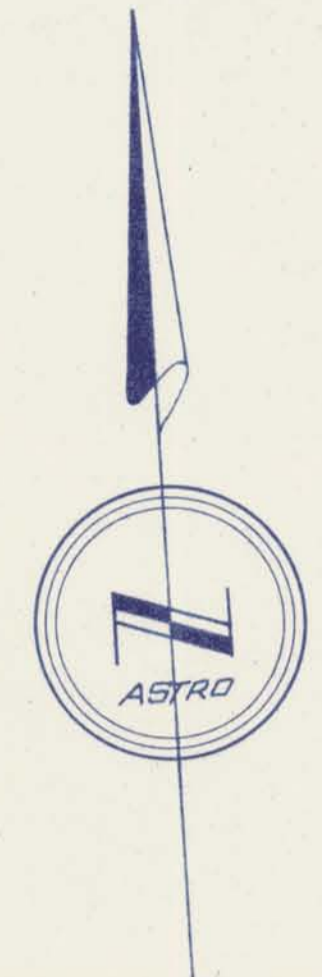
Goosly Lake Project

Chargeability Plan [milliseconds]

To accompany Geophysical Report
by D.R.Cochrane, P.Eng, and A. Scott,
B. Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca M.D.,
and dated November 25, 1971.
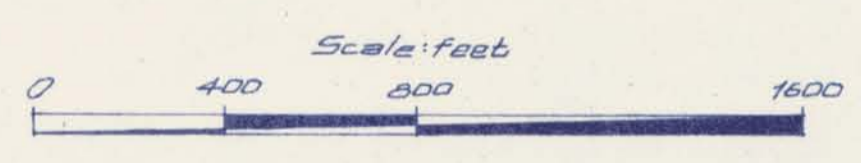
[1.34] 3/4 second
current pulse
ratio.

Figure. 6

64+00 W   60+00 W   56+00 W   52+00 W   48+00 W   44+00 W   40+00 W   36+00 W   32+00 W   28+00 W   24+00 W   20+00 W   16+00 W   12+00 W   8+00 W   4+00 W   0+00

ASTRO

175 N

163 N

153 N

143 N

133 N

Scale: feet
0   400   800   1600

64+00 W
60+00 W
56+00 W
52+00 W
48+00 W
44+00 W
40+00 W
36+00 W
32+00 W
28+00 W
24+00 W
20+00 W
16+00 W
12+00 W
8+00 W
4+00 W
0+00

Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Metal Factor Plan – MF = 1000 $\dfrac{\text{chargeability}}{\text{apparent resistivity}}$

To accompany Geophysical Report
by D.R. Cochrane, P.Eng, and A. Scott,
B. Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca M.D,
and dated November 25, 1971.

All values in
seconds / ohm-foot.

Figure 7

LINE 163 N

← P₂   P₁ →

25+50 W   23+00 W   20+50 W   18+00 W   15+50 W

'a' SPACING

200'
400'
600'
800'
1000'

500' 'a' TRAVERSE

Horizontal Scale: 1"=100'
Vertical Scale: 1"=100'

Face: North.

Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Apparent Resistivity Profile [ohm-feet]

To accompany Geophysical Report
by D.R. Cochrane, P.Eng, and A. Scott,
B.Sc., on the Goosly Lake Project,
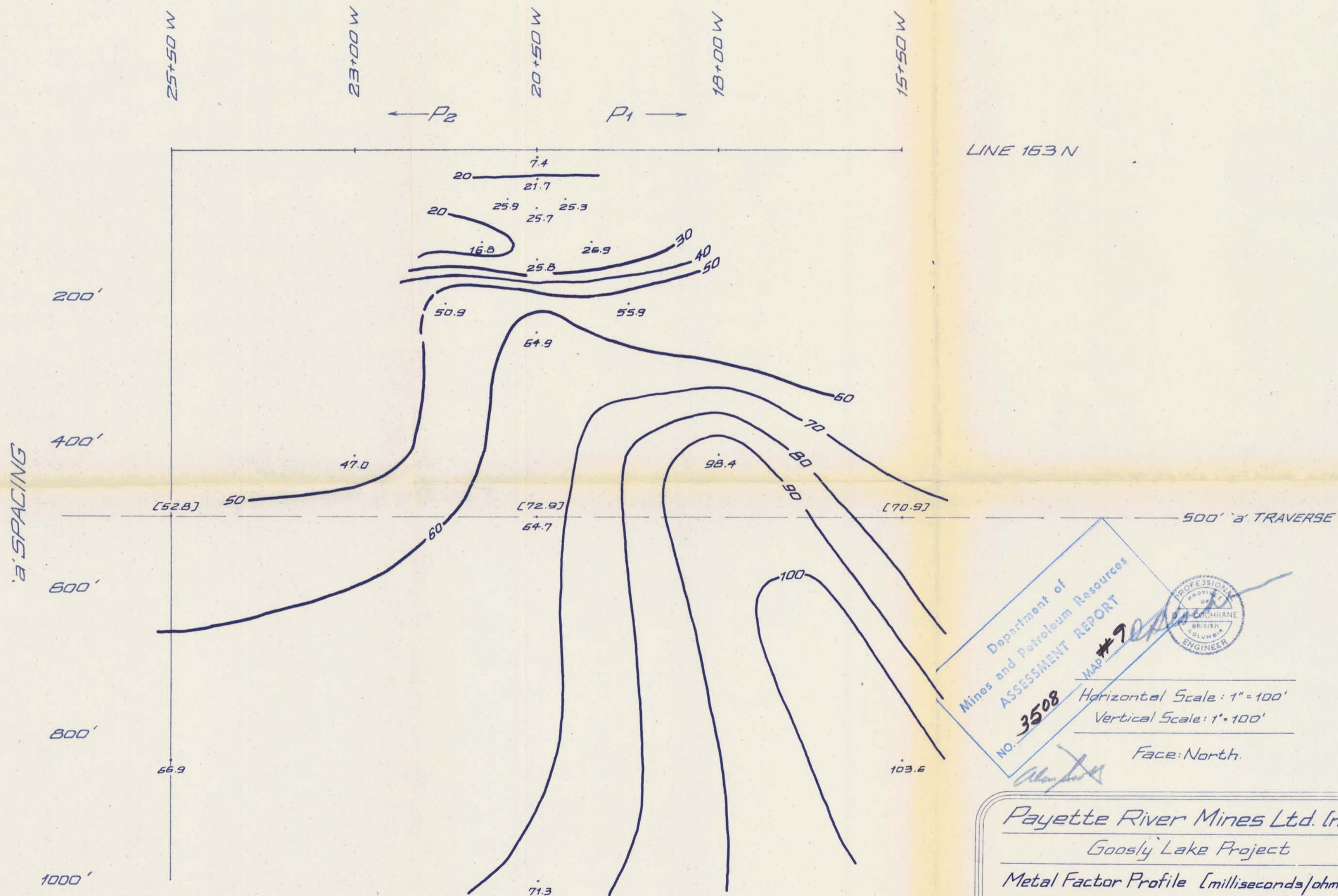Payette River Mines Ltd., Omineca
M.D., and dated November 25, 1971.

Depth
Probe

Figure 8

25+50 W

23+00 W

20+50 W

18+00 W

15+50 W

← P₂   P₁ →

LINE 163 N

7.4
20 — 21.7
25.9   25.3
20   25.7
16.8   25.8   26.9   30
40
50

200'

50.9   55.9

64.9

60

47.0   70

400'   98.4   80

90

50   [52.8]   [72.9]   [70.9]   500' 'a' TRAVERSE

60   64.7

100

600'

800'

66.9   103.6

66.9

1000'   71.3

'a' SPACING

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3508   MAP #7

Horizontal Scale : 1" = 100'
Vertical Scale : 1" = 100'

Face: North.

Payette River Mines Ltd. (n.p.l)

Goosly Lake Project

Metal Factor Profile [milliseconds/ohm-foot]

To accompany Geophysical Report
by D.R. Cochrane, P.Eng, and A. Scott,
B.Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca
M.D., and dated November 25, 1971.

Depth
Probe

Figure 10

25+50 W 23+00 W 20+50 W 18+00 W 15+50 W

← P₂ P₁ →

LINE 163 N

4.3
8.9 — 10
13.7 11.4
12.1
13.1 13.7
16.5 — 15
27.5 19.0
25.3 — 20
25
33.4 36.4 30
35
[28.0] [37.9] [30.5] 500' 'a' TRAVERSE
36.4

200'

400'

600'

'a' SPACING

800'

40 41.5 35.9

1000' 36.0

Figure 9

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3508 #8

MAP

Horizontal Scale : 1" = 100'

Vertical Scale : 1" = 100'

Face : North.
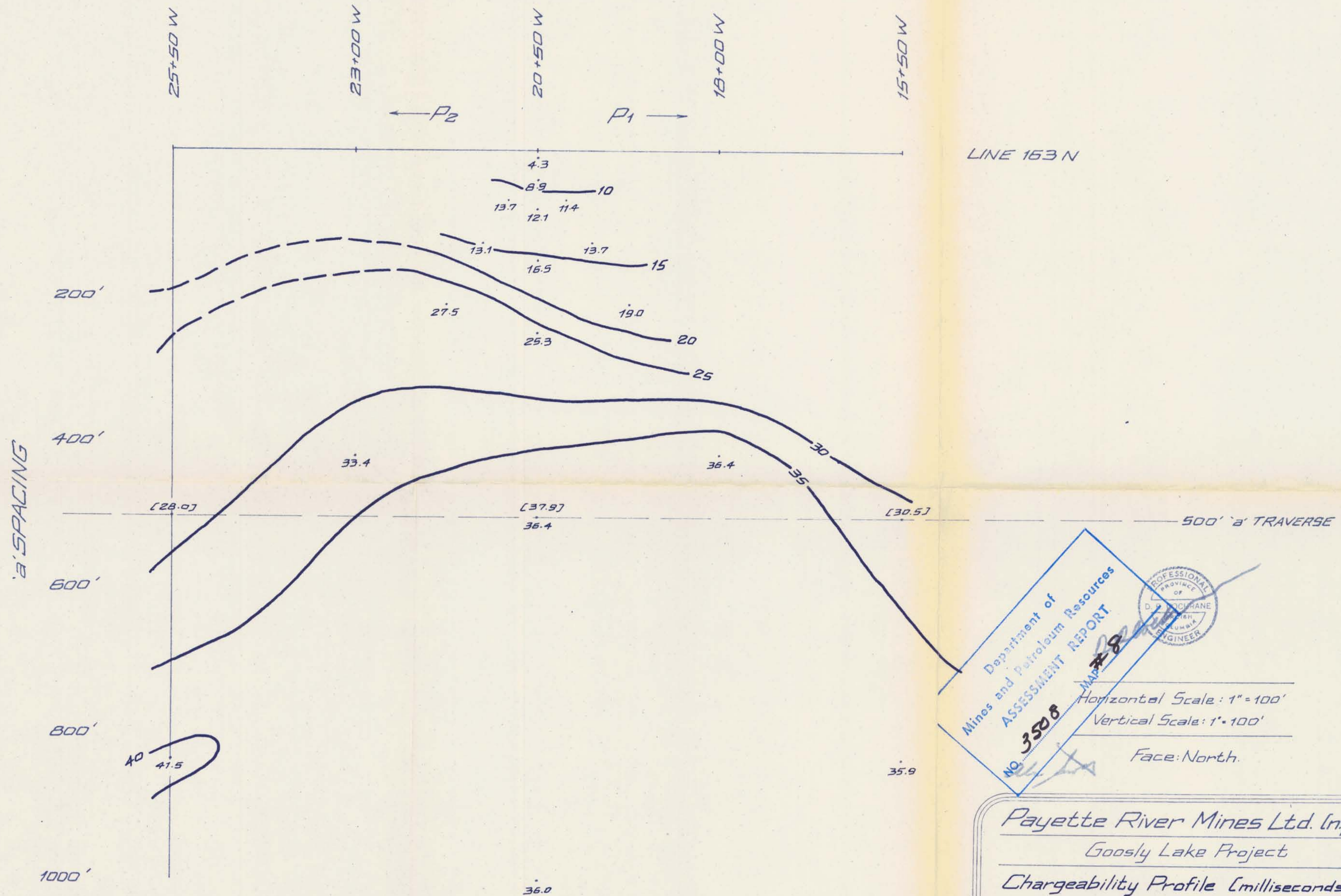
Payette River Mines Ltd. (n.p.l.)

Goosly Lake Project

Chargeability Profile (milliseconds)

To accompany Geophysical Report
by O.R. Cochrane, P.Eng, and A. Scott,
B.Sc., on the Goosly Lake Project,
Payette River Mines Ltd., Omineca
M.D., and dated November 25, 1971.

Depth
Probe