92H/15E

GEOCHEMICAL REPORT ON THE DOTE MINERAL

CLAIMS # 19 - 33 incl.

Nicola Mining Div. Aspen Grove area

49°50'N, 120°37'W

By: P.E. Fox PhD.,P.Eng.

Owner: DAWOOD MINES LTD (NPL)

Work Done: May 16 - May 29 1972

#1

3687

3687

GEOCHEMICAL REPORT ON THE DOTE CLAIMS # 19-33 incl.

Aspen Grove area

by 49° 50'N, 120° 37' W

92 H /15 E

P.E. Fox, Ph.D., P.Eng.
FOX GEOLOGICAL CONSULTANTS LTD

For

DAWOOD MINES LTD (NPL)
Merritt, B.C.

June 19, 1972

TABLE OF CONTENTS

ILLUSTRATIONS

APPENDECES

INTRODUCTION

This report is an evaluation of geochemical work done on the Dote mineral claims between May 6th and May 29th, 1972. The survey consists of 150 soil samples collected by Mr. J.R. Dawson of Dawood Mines Ltd (NPL), owners of the claims. The survey areas covers the northeast corner of the claim block.

Mr. Dawson requested me to evaluate survey results and perpare a report. Maps were drawn by Mr. Dawson, some were later modified for purposes of this report.

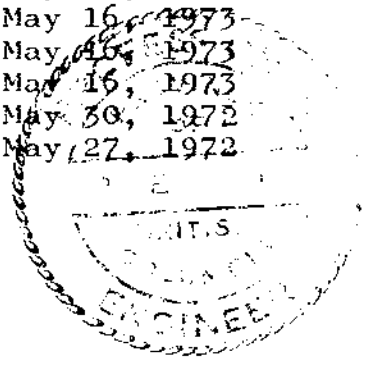
LOCATION AND ACCESS (49°56'N, 120°37'W)

The Dote claims are situated 16 miles south of Merritt, B.C. (Figure 1). Highway 5 from Merritt passes through the central part of the claim block, and numerous logging and mining roads leave the main highway to provide access to most points on the property.

OWNERSHIP

The Dote claims form a contiguous block of 36 claims situated in the Nicola Mining division. They are owned by Dawood Mines Ltd (NPL) of Merritt, B.C. Figure 2 is a preliminary claim map of the property. The following list notes expiry dates and record numbers of the Dote claims; assessment work described in this report and other physical work filed separately by Mr. Dawson will extend due dates of claims 19 - 37 for one year.

Claim	Record Numbers	Due Date
1 - 8	30213 - 30220	May 13, 1973
9	30223	May 16, 1973
11, 12	30225 - 30226	May 16, 1973
13 - 18	30227 - 30232	May 16, 1973
19 - 33	30579 - 30593	May 30, 1972
34 - 37	36904 - 36907	May 27, 1972



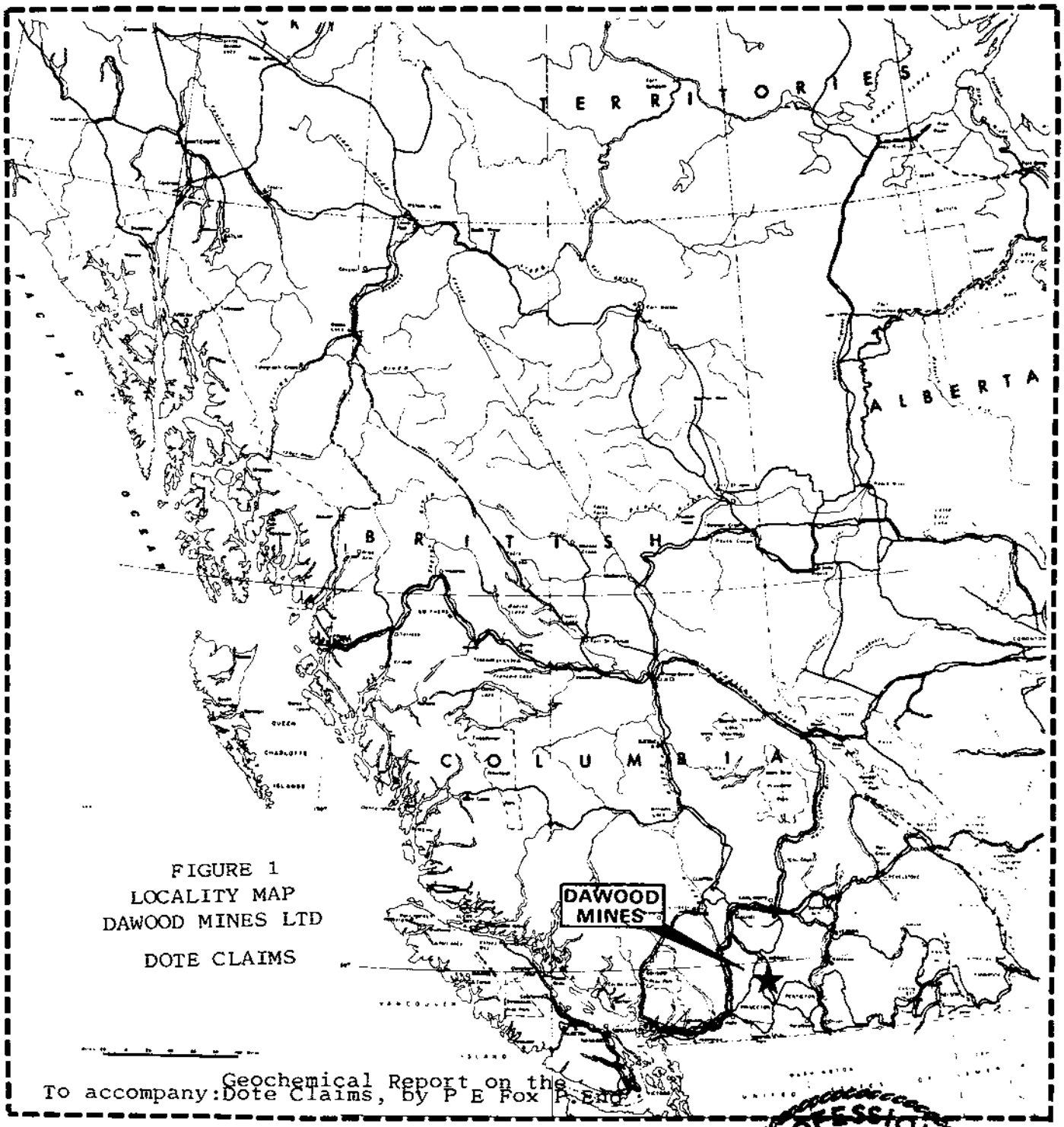


FIGURE 1
LOCALITY MAP
DAWOOD MINES LTD

DOTE CLAIMS

To accompany: Geochemical Report on the Dote Claims, by P E Fox P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

GEOLOGICAL SETTING

Rocks underlying the claim group belong to the Nicola volcanics, a series of andesitic and basaltic flows, volcanic breccias, pyroclastic and epiclastic rocks, dykes and stocks of syenodiorite, monzonite, syenite and associated subaerially erupted agglomerates, tuffs and flows frequently altered and mineralized with sulphides and various oxides. The Big Kidd and Big Sioux showings immediately east of the Dote claims are part of a complex volcanic centre covering several square miles in the Aspen Grove district.

A large regional lineament - partly coincident with the Summers Creek-Boundary fault system farther south - occurs just east of the prospect in the Quilchena Creek - Kentucky Lake valley.

LOCAL GEOLOGY

Geological features of the Dote claims were mapped recently by R.S. Stevenson. Most of the claims are underlain by basalt, andesite and dacite flow rocks. Flow breccias and tuffs are reported to occur locally. These rocks are variably altered to epidote, pyrite, and carbonate. Chalcopyrite and pyrite, and more rarely chalcocite and bornite, are widely disseminated in the volcanic rocks. Several small pits on Dote claim 2 were excavated by early workers in the area. Four samples selected by Mr. Dawson assayed 0.87%, 0.57%, 3.5% and 0.83% copper. Silver assays range from 0.59 to 1.5 oz./ton.

GEOCHEMICAL SURVEY

Method

Soil samples were collected along grid control lines previously established by Dawood Mines personnel.

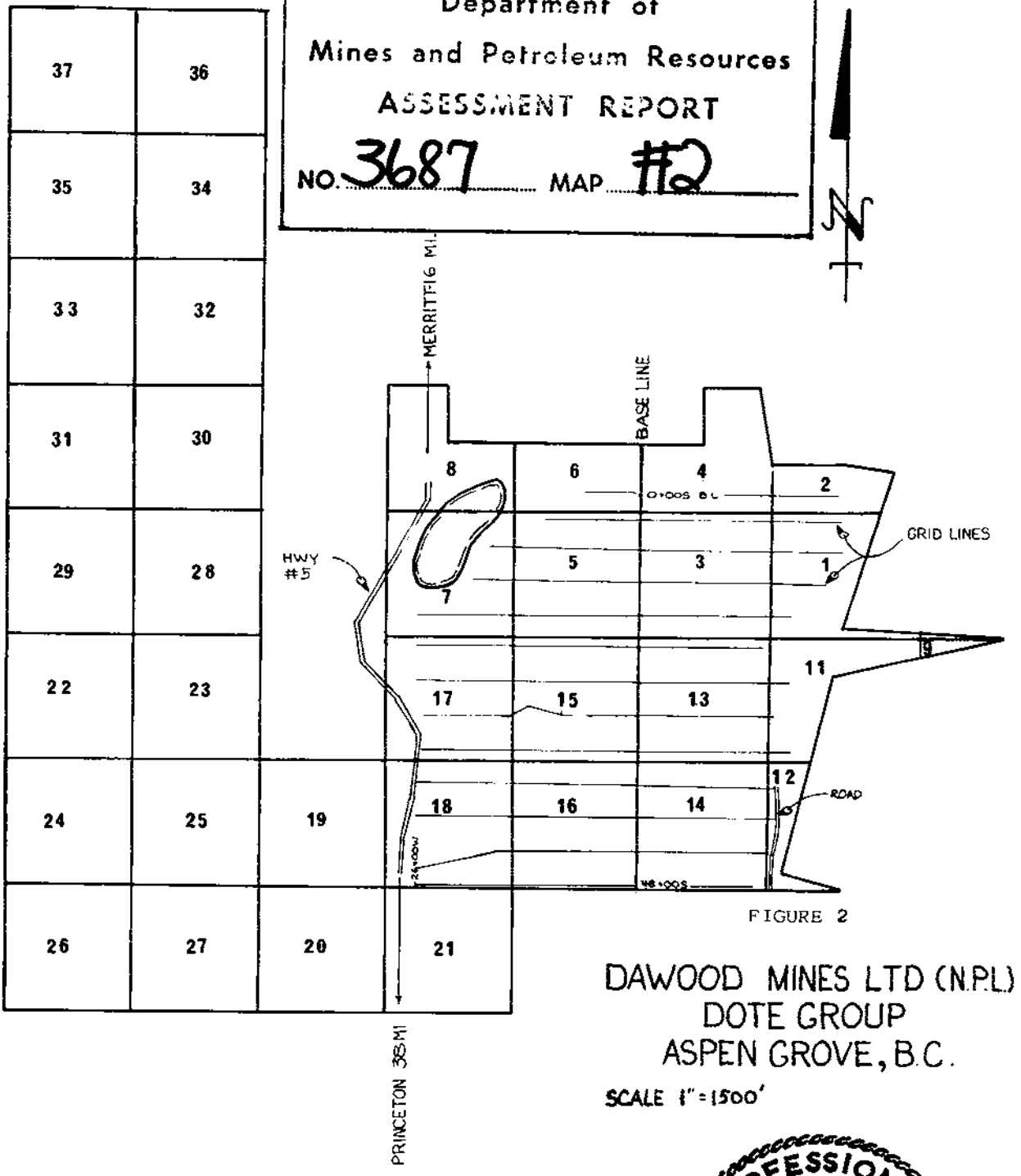


FIGURE 2

DAWOOD MINES LTD (N.P.L.)
DOTE GROUP
ASPEN GROVE, B.C.

SCALE 1" = 1500'

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

Samples were collected by Mr. Dawson, who has acquired considerable experience in field techniques. Samples were taken below a thin layer of forest litter and organic matter, generally two to three feet below surface.

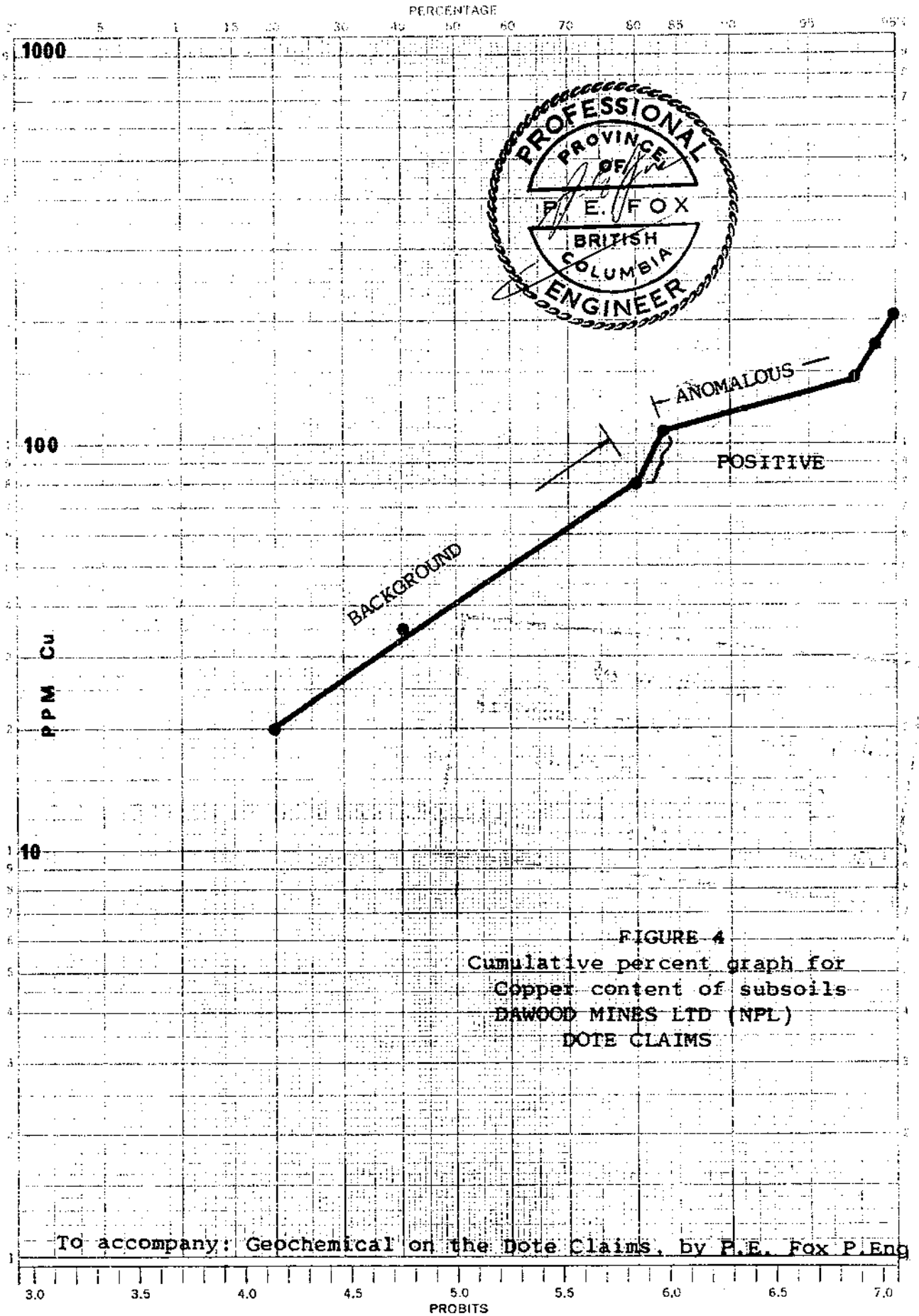
Soils in the Aspen Grove region are poorly developed and are generally wooded brown earths. Soils are notably gleyed in swampy depressions near the main highway, and consist of stoney glacial till overlain by a thin organic-rich layer a few inches thick. Only rarely are "B" horizons evident in the soils. A wooden spoon was used to collect sample material. Samples were stored in paper sample bags and shipped to Amerada Laboratories in Kamloops for analysis. Samples were analyzed for Cu, Pb, and Ag.

Results

Analyses performed by Amerada Laboratories are listed in Appendix I, and plotted on three separate maps (Figure 3) for copper, lead and silver. Maps show sample sites, concentration in parts per million, claim boundaries, and grid lines along which samples were collected. Analytical methods used at the Amerada Lab are included as Appendix II.

Figure 4 is a cumulative per cent graph of copper contents. Background appears to be 80 ppm copper, with a threshold range of 80 to 110 ppm, and anomalous concentrations above 110 ppm copper. These determinations are in accord with background estimates made in nearby localities, hence are probably reliable. About 15% of the samples are in the positive or anomalous range. Symbols on the copper concentration map (Figure 3) denote background, positive and anomalous samples.

Silver analyses done by Amerada are unusually high for soils of the Aspen Grove district, which are



PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

FIGURE 4
Cumulative percent graph for
Copper content of subsoils
DAWOOD MINES LTD (NPL)
DOTE CLAIMS

To accompany: Geochemical on the Dote Claims, by P.E. Fox P.Eng

normally less than one ppm.

The following is a comparison of silver and copper analyses received from the Amerada lab and check analyses performed by Acme Analytical Laboratories Ltd. in Burnaby utilizing the same sample pulp.

	Copper		Silver	
Sample No.	Acme	Amerada	Acme	Amerada
0+00S,600E	114	71	0.2	120
12+00S,200E	58	36	0.2	80
12+00S,300E	68	36	0.2	40
12+00S,1400E	192	142	0.3	20

DISCUSSION

Acme's results for silver are in accord with previous work in the Aspen Grove area with which the writer has been concerned. Amerada's analyses are much too high and unexceptable; they should be viewed as having no significance in the survey conducted over the Dote claims.

Copper analyses for the two labs are not within acceptable accuracy or precision limits. The Amerada analyses are low compared to Acme data, perhaps due to incomplete digestion of the sample during analysis. However, Amerada's data give relative measurements and hence can be used. No analytical checks were done for lead.

The soil survey conducted by Dawood Mines has outlined a large, low contrast soil anomaly on Dote claims 1,2,3, and 4. Samples range from 71 to 213 ppm copper within the area of relatively copper-rich soil. The anomaly, however, is one of low contrast, being less than twice background. Old workings

have revealed mineralized rock grading up to 3.5% copper along the east edge of the anomaly, which trends beyond the northernmost grid line on Dote 2 claim. There are also a few anomalous samples west of the large anomaly and near the end of grid line 400 S.

Further prospecting should be done on Dote claims 1 and 2 near the old showings. The soil anomaly noted above may reflect a larger area of low grade material north and west of the showings.

Prepared by

P.E. Fox, Ph.D., P.Eng.
June 19, 1972

STATEMENT OF WORK PERFORMED

The following personnel were employed by Dawood Mines Ltd (NPL) on the geochemical survey described in this report.

J.R. Dawson ..... May 16 to May 29, 1972

Fourteen days collecting soil samples, drafting of pertinent maps.

P.E. Fox, P.Eng. ....June 18,19, 1972

Preparation of report under contract.

P.E. Fox, Ph.D., P.Eng.

June 19, 1972
Kamloops, B.C.

EXPENDITURES

Personnel:

J.R. Dawson, May 16 - 29, 1972 14 days at $50/day	$700.00	
P.E. Fox, P.Eng. Contract price for report	250.00	
		$ 950.00

Vehicles, Analyses:

Jeep rental, 14 days at $18/day	252.00	
Geochemical analyses, Amerada Laboratories Ltd.....	314.00	
		566.00
TOTAL EXPENDITURES		$1516.00

I hereby certify that the above is a true statement of expenditures incurred for the geochemcial survey on part of the Dote claims conducted from May 16 to May 29, 1972.

June 19/72
Date

J.R. Dawson
J.R. Dawson
Dawood Mines Ltd (NPL)

CERTIFICATE

I, Peter Edward Fox, certify to the following:

1. I am a consulting geologist residing at 827 Sicamore Drive, Kamloops, B.C. with offices at 204-635 Victoria St., Kamloops, B.C.
2. I am a Professional Engineer registered with the Association of Professional Engineers of British Columbia.
3. My academic qualifications are: B.Sc., M.Sc. Queens University, Kingston, Ontario, Ph.D. Carleton University, Ottawa, Ontario.
4. I have been engaged in geological, geochemical and mining work for seven years since graduation.
5. I have no interest, direct or indirect, in the properties or shares of Dawood Mines Ltd (NPL)
6. I give my permission to publish this report in a prospectus or other literature dealing with the claims herein reviewed.

Kamloops, British Columbia
June 19, 1972

.....

P.E. Fox, Ph.D., P.Eng.

APPENDIX I

Analyses for Cu, Pb, Ag, by

Amerada Laboratories

Amerada Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

June 10, 1972.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

Report to:

Dawood Mines Ltd.,
Box 1499
MERRITT B.C.

Attn: Mr. JACK DAWSON

Sample No	Cu-ppm	Pb-ppm	Ag-ppm
L C+00 S 100 E	71	25	80
" 200 E	71	13	4
" 300 E	107	25	80
" 400 E	36	25	40
" 600 E	71	25	120
" 700 E	142	25	40
" 800 E	71	3	40
" 900 E	213	13	20
" 1000 E	71	3	40
" 1100 E	107	3	40
" 1200 E	71	13	20
" 1300 E	142	25	20
" 1400 E	142	13	80
" 1500 E	107	25	40
" 1600 E	178	3	40
" 1700 E	107	3	40
" 1800 E	36	3	20
" 1900 E	142	25	120
" 2000 E	213	25	40
" 2100 E	107	25	40

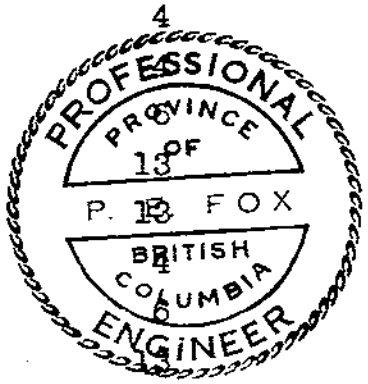
Amerada Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

Sample No		Cu-ppm	Pb-ppm	Ag-ppm
L 0+00 S	2200 E	142	13	60
"	2300 E	36	13	80
"	2400 E	71	3	40
"	2500 E	426	3	40
"	100 W	7	3	4
"	200 W	36	3	40
"	300 W	21	50	40
"	400 W	71	3	4
"	500 W	7	25	20
"	600 W	36	25	4
L 4+00 S	100 E	7	4	20
"	200 E	213	4	4
"	300 E	71	4	4
"	400 E	7	6	40
"	500 E	7	13	4
"	600 E	107	13	4
"	700 E	7	4	20
"	800 E	7	6	20
"	900 E	71	4	20
"	1000 E	36	25	4
"	1100 E	71	13	4
"	1200 E	71	50	4
"	1300 E	142	25	4
"	1400 E	71	25	4
"	1500 E	142	6	40
"	1600 E	142	4	4
"	1700 E	142	6	80
"	1800 E	107	25	80
"	1900 E	71	4	20



Amerada Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

Sample No		Cu-ppm	Pb-ppm	Ag-ppm
L 4+00 S	2000 E	107	4	20
"	2100 E	71	13	40
"	2200 E	71	25	40
"	2300 E	71	50	40
"	2400 E	36	25	4
"	2500 E	7	25	4
"	100 W	7	13	4
"	200 W	107	25	4
"	300 W	71	13	4
"	400 W	71	4	4
"	500 W	71	13	4
"	600 W	142	4	4
"	700 W	142	4	6
"	800 W	142	4	20
"	900 W	142	8	20
L 8+00 S	100 E	7	6	4
"	200 E	7	4	4
"	300 E	7	13	40
"	400 E	7	4	40
"	500 E	36	25	20
"	600 E	36	13	40
"	700 E	71	6	40
"	800 E	142	4	20
"	900 E	213	4	4
"	1000 E	71	25	4
"	1100 E	142	4	40
"	1200 E	71	6	20
"	1300 E	107	13	40

Amerada Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

Sample No	Cu-ppm	Pb-ppm	Ag-ppm
L 8+00 S 1400 E	142	13	4
" 1500 E	71	13	4
" 1600 E	71	13	40
" 1700 E	107	13	40
" 1800 E	142	25	20
" 1900 E	71	25	20
" 2000 E	71	50	20
" 2100 E	71	6	4
" 2200 E	71	8	6
" 100 W	36	4	4
" 200 W	71	13	4
" 300 W	71	4	4
" 400 W	71	13	4
" 500 W	71	13	20
" 600 W	71	25	4
" 700 W	36	4	4
" 800 W	71	4	4
" 900 W	71	4	4
" 1000 W	71	13	20
" 1100 W	71	25	160
" 1200 W	71	25	20
L 12+00 S 100 E	36	13	40
" 200 E	36	13	80
" 300 E	36	4	40
" 400 E	7	13	20
" 500 E	7	13	4
" 600 E	71	25	20

Amerada Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

Sample No	Cu-ppm	Pb-ppm	Ag-ppm
L 12+00 S 700 E	36	4	4
" 800 E	36	4	4
" 900 E (?) B horizon	71	25	20
" W- 900 X (?) B horizon	71 w	13 w	20 w
" 1000 E	71	13	20
" 1100 E	71	4	4
" 1200 E	71	13	4
" 1300 E	71	13	4
" 1400 E	142	13	20
" 1500 E	107	13	20
" 1600 E	107	13	20
" 1700 E	36	13	20
" 1800 E	107	13	4
" 1900 E	36	13	40
" 2000 E	71	6	20
" 2100 E	36	4	20
" 100 W	7	6	4
" 200 W	7	13	20
" 300 W	7	13	20
" 400 W	7	25	4
" 500 W	71	13	20
" 600 W	71	25	4
" 700 W	71	13	4
" 800 W	36	25	4
" 1000 W	36	13	4
" 1100 W	36	13	4
" 1200 W	71	25	4
L 16+00 S 100 E	71	25	40
" 200 E	142	6	4

Ameracia Laboratories

GEOLOGISTS & ANALYTICAL CHEMISTS

MOUNT PAUL INDUSTRIAL ESTATES,
BOX 183 - KAMLOOPS, B.C.

TELEPHONE 374-4848

Sample No	Cu-ppm	Pb-ppm	Ag-ppm
L 16+00 S 300 E	71	4	6
" 400 E	71	13	4
" 500 E	71	25	4
" 600 E	36	13	8
" 700 E	7	13	6
" 800 E	7	13	40
" 900 E	36	4	40
" 1000 E	7	13	40
" 1100 E	7	13	40
" 1200 E	7	4	20
" 1300 E	7	13	20
" 1400 E	71	25	20
" 1500 E	71	13	80
" 1600 E	7	4	160
B.L. # 1 0+00 S	7	4	100
B.L. # 2 4+00 S	107	6	40
B.L. 800 S # 3	7	13	40
B.L. 12+00 S #4	71	13	40
B.L. 16+00 S #5	36	25	20

Analytical Chemist

APPENDIX II

Procedures used for Cu, Pb, Ag Analyses

DIGESTION METHOD FOR Cu, Pb, Zn, Mo, Co, Ni, As, etc.

1) Weigh 1 gm sample into test tube or 100 ml beaker.

2) Add approx. 2 ml HNO_3 and 3 to 5 ml $HClO_4$ (3 ml if test tubes, 5 ml if beakers).

3) Cover, if beakers are used, test tubes need not be covered, and digest for 2 to 4 hrs. until all samples are white, pale yellow or cream colored. There should be approx. 2 to 3 ml volume left (if may have gone dry add about 2 ml $HClO_4$ and put back on to heat good.

4) Allow to cool and add about 2 ml HCl (will frizz) and rinse the sides with a bit of distilled water.

5) Return to sand and heat for about 5 minutes to heat thoroughly. They will spit if they get too hot at this point.

6) Dilute to volume desired (25 or 50 ml depending on concentration of samples if known).

7) Read on A.A. Dilute further if required to get into proper range.

$$F = \text{factor} = \frac{\text{ppm}}{\text{absorbance}} = f$$

$$\text{ppm of unknown sample} = F \times \text{absorbance of unknown} \times \frac{\text{dilution}}{\text{weight}} .$$

$$\% = \frac{\text{ppm}}{10{,}000}$$

$$\text{oz. per ton} = \frac{\text{ppm}}{34}$$

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

DIGESTION METHOD PARTICULARLY FOR Ag (may also be used for Cu, Pb, Zn, Mo, etc.)

1) Weigh 1 gm of sample into 125 ml erlenmeyer flask or 100 ml beaker (or 250 ml beaker).

2) Add approx. 3 ml HNO_3 and 10 ml HCl.

3) Cover, if necessary, in order to digest samples for approximately 2 hrs. in sand on hot plate.

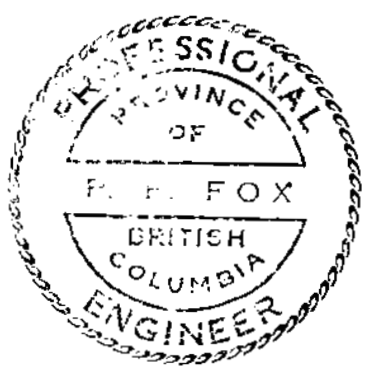
4) Evaporate to moist dryness. * Take off and cool.

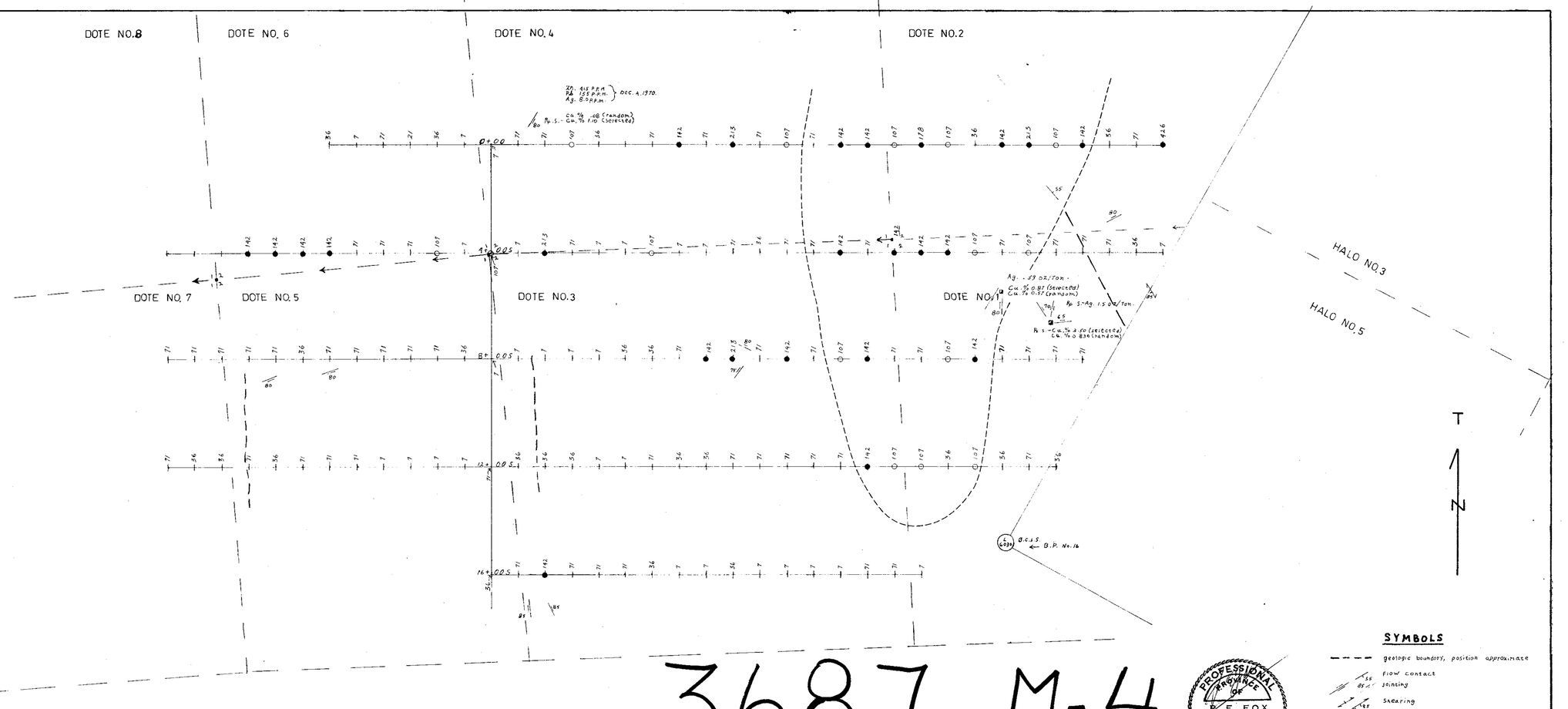
5) Add HCl, keeping acid content at 20 to 25% of volume you plan to dilute sample to at least 5 ml HCl if you dilute to 25, at least 10 ml if you dilute to 50, etc. Rinse sides down with a bit of distilled H_2O.

6) Put back on sand to heat thoroughly.

7) Dilute to volume with distilled H_2O and allow solution to settle. Read on A.A. after allowing to settle about 1 to 2 hours.

* If samples are of very black material that do not digest fairly light colored at this point add about 3 ml $HClO_4$ and evaporate again to heavy white $HClO_4$ fumes to get rid of all the $HClO_4$ that was added. This may be done again if the sample is still black.





3687 M-4

Copper background = parts per million
Contour interval = ppm. beginning at PPM..

36 BACKGROUND < 79 P.P.M.
107 POSITIVE 80 - 110 P.P.M.
142 ANOMALOUS > 110 P.P.M.

Copper in by hot HNO_3 acid extraction metals determined by atomic absorption.

(Copper (in parts per million)
65 100 70

Field data by J.R. Dawson
Field work May 17-29, 1972
All data located in relation to base line and cross lines.

PROFESSIONAL ENGINEER
B. E. FOX
BRITISH COLUMBIA ENGINEER

SYMBOLS

- geologic boundary, position approximate
- flow contact
- jointing
- shearing
- Shaft
- R.S. Rock sample

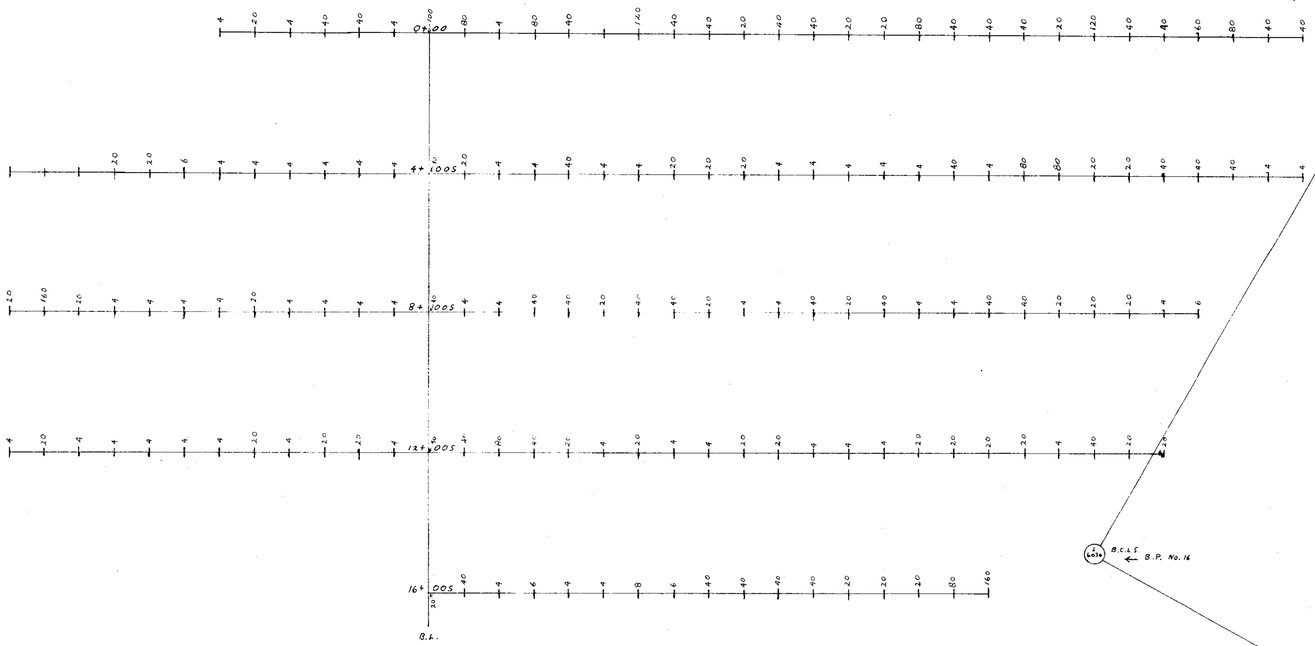
DAWOOD MINES LIMITED
(n.p.l.)

DOTE CLAIMS GROUP (49°56'N. 120°37'W.)
ASPEN GROVE, B.C.
GEOCHEMICAL SURVEY

SCALE IN FEET
0' 100' 200' 400' 800'

Drawn by J.R.D.
Date June 6, 1972
Contoured -

FIG 3



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3687 MAP #5

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. E. FOX

Silver :- by hot HNO_3 acid extraction
metals determined by
atomic absorption.
(Silver in Parts per Million)

6.0 8.0 10.0

Field data by J.R. Dawson
Field Work May 17-29, 1972
All data located in relation to baseline and cross lines.

DAWOOD MINES LIMITED
(N.P.L.)

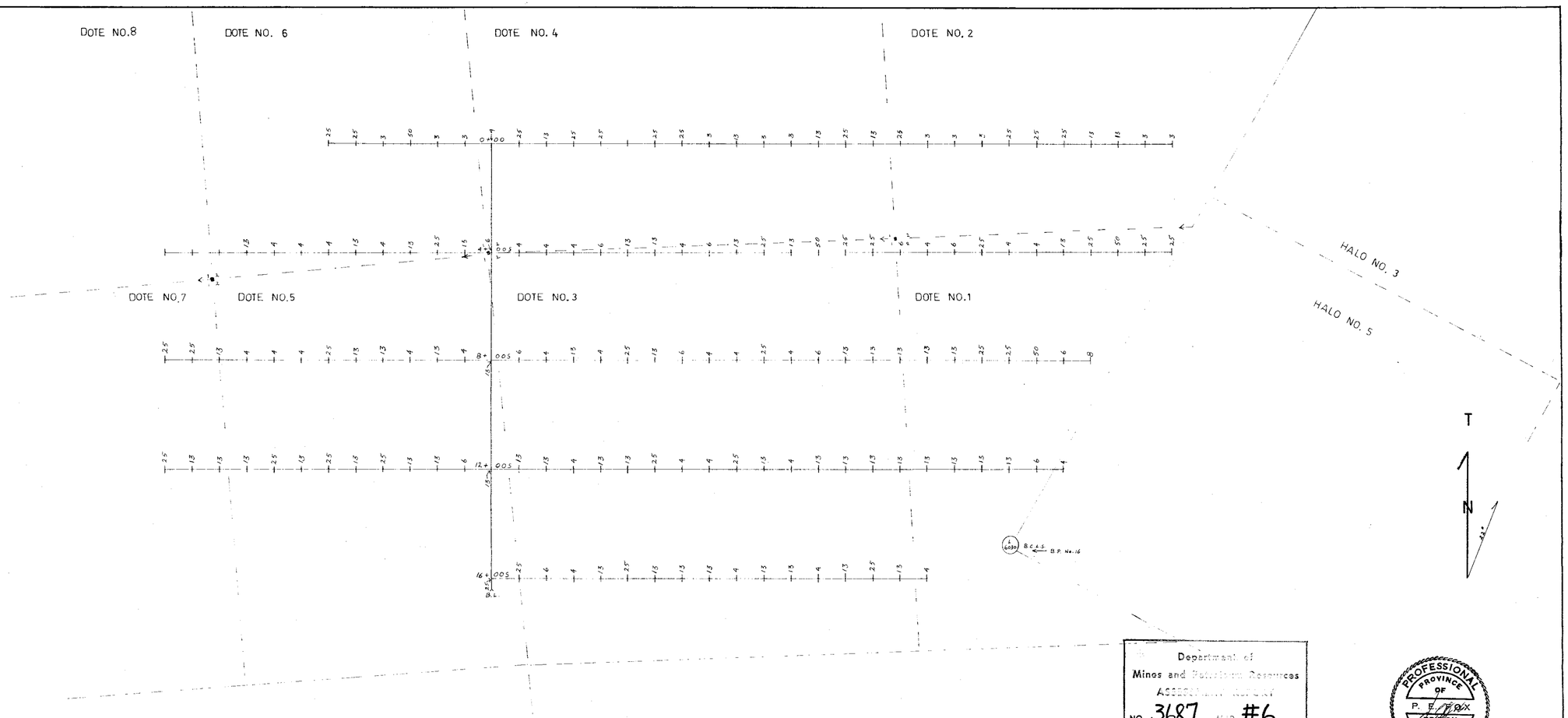
DOTE CLAIMS GROUP (49°56'N. 120°37'W)
ASPEN GROVE, B.C.
GEOCHEMICAL SURVEY

SCALE IN FEET
0' 100' 200' 400' 800'

Drawn by, J.R.D.
Date June 6, 1972
Contoured -

FIG 3

2



Lead background = Parts per million
Contour interval = PPm. beginning at PPm.

Lead ÷ by hot HNO_3 acid extraction
metals determined by
atomic absorption.

(Lead, in parts per million)
85 60 120

Field data by J.R. Dawson
Field work May 17 - 29, 1972

All data located in relation to base line and cross lines.

DAWOOD MINES LIMITED
(n.p.l.)

DOTE CLAIMS GROUP (49°56'N. 120°37'W.)
ASPEN GROVE, B.C.
GEOCHEMICAL SURVEY

Scale in feet
0' 100' 200' 400' 800'

Drawn by J.R.D.
Date June 6, 1972 Contoured -

FIG 3

3