

77-#445-#6555

Assessment Report
on a short
Two (2) Diamond Drill Hole
Program

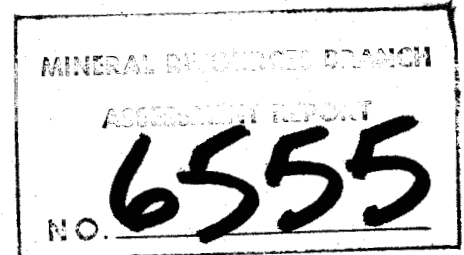
MERRITT, B. C.

DEC 19 1977

MINING RECORDER

on the

Halo Group of Mineral Claims
(Halo #100,200,300,400,500,600 and 700)
covering the



Big Kidd Breccia

Aspen Grove Area

Nicola Mining Division

Latitude $49^{\circ}47'N$; Longitude $120^{\circ}35'W$

N.T.S. 92H/15E

Field Work Between November 1 and 17, 1977

December 7, 1977

Delta, B. C.

Report by

D. R. Cochrane, P. Eng.,



Cochrane Consultants Limited
4882 Delta St., Delta, B.C. V4K 2T8 946-9221
Geotechnical Consulting / Exploration Services

geology
geophysics
geochemistry

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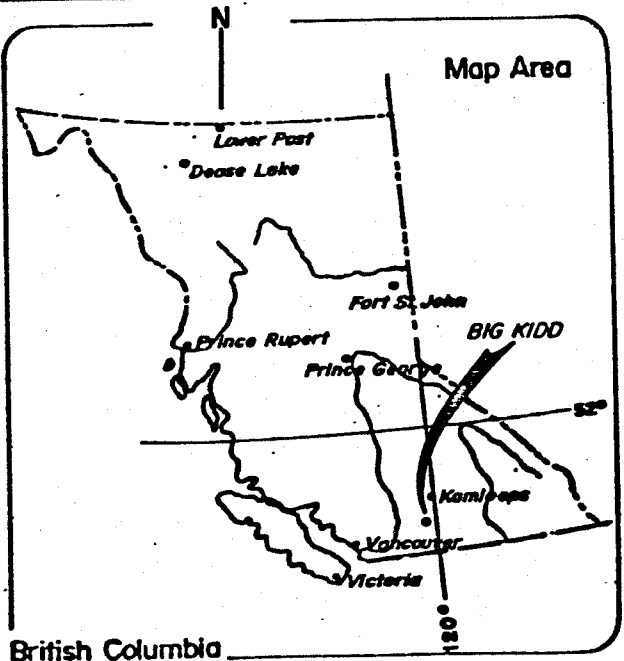
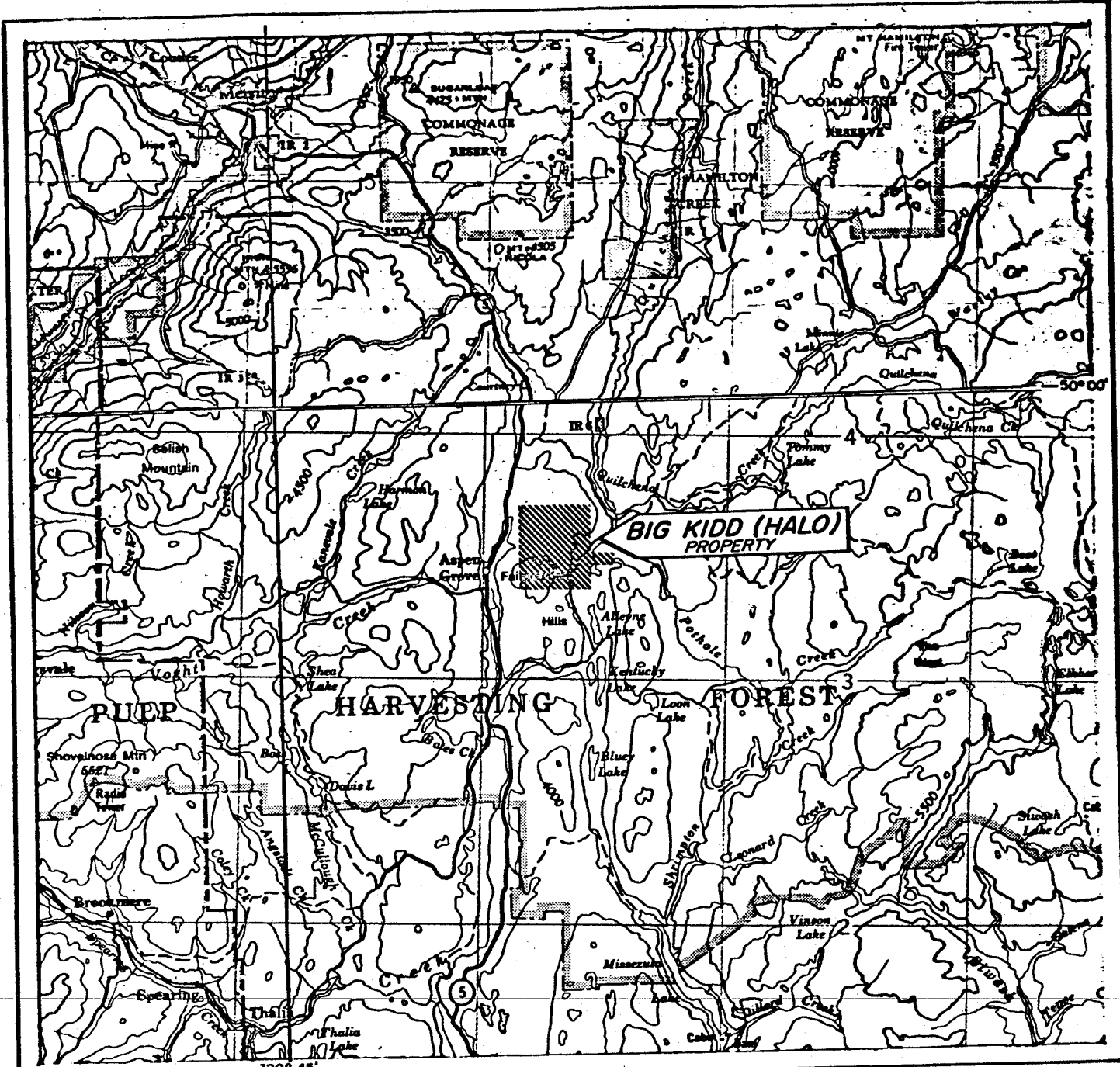
INTRODUCTION

In October 1977, Kema Diamond Drilling Inc. of Princeton B. C. was retained by David Minerals Ltd. of Vancouver, to complete a short two hole A.Q. wire line drill test on the Big Kidd Breccia Property now covered by the Halo group of mineral claims. The property is located immediately east of the settlement of Aspen Grove, Nicola Mining Division, in Southern British Columbia.

Work commenced on the first of November and continued to the 17th of November. The drill crew foreman was Mr. M. Mathieu of Merritt B. C. and work was supervised by the author.

This report describes the work done and results obtained and has been prepared for assessment work submission. Assessment work details and costs incurred are set out in Appendix I at the end of the report.



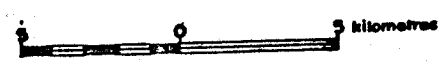
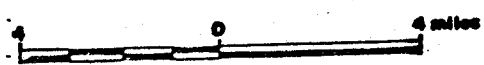


Rio Plata Silver Mines Ltd.

Big Kidd Property (Halo Claims). 92H/75
Aspen Grove, B.C. Nicola M.D.

Figure 1
Location Map

Scale: 1 to 250 000 or 1 inch equals approx. 4 miles



LOCATION AND ACCESS

The Big Kidd Property lies immediately east of the Aspen Grove store on highway #5 and some 61 kilometres north of the town of Princeton and 29 kilometres south of Merritt in the southern interior of British Columbia. Access by car or truck to the center of the claims area may be made via a dirt road which proceeds south-easterly, then east, from the highway at a point 3 kilometres north of the store in Aspen Grove. The National Topographic System code for the area is 92H/15E; the latitude $49^{\circ}47'$ North and longitude $120^{\circ}35'$ West.





Merritt
21 km

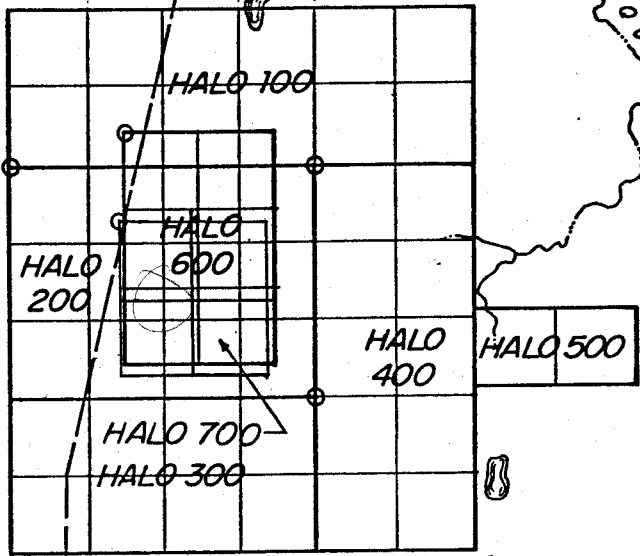
POWER
LINE

Thule
Lake

Quilchena
Creek

Pothole
Lake

Aspen
Grove



Kidd
Lake

Alleyne
Lake

Miner
Lake

Rio Plata Silver Mines Ltd.

Big Kidd Property (Halo Claims) 92H/15
Aspen Grove, B. C. Nicola M. D.

Figure 2
Claims Map

Scale 1:50,000 (1.25" = 1 mile approx.)



Cochrane Consultants Limited
4622 Delta St., Delta, B.C. V4K 5T8 946-9221

B.A.C. Sept '77

CLAIMS INFORMATION

The present group of (new) claim units represents abandonment and restaking of an original "old" set, named the Halo, Broach, Lou, Ram, Touch, Magnus etc. The present claims also cover an abandoned group of crown granted claims located in the early 1900's and which included the Golden Sovereign; Canada; Yankee; Big Dutchmen; Big Sioux; Copper King; Copper Age; Copper Queen; Hit or Miss; Big Kidd; Black Prince; Copper Standard; Amelia; and Vernon.

Due to the complexities sometimes involved in abandonment and re-location, the new claims "overstake" each other a considerable amount. The following list summarizes pertinent claims information.



Table A
Claims Information

Claim Name	No. Units	Record No.	Expiry Date
Halo 100	12	192	November 22, 1977
Halo 200	12	193	" "
Halo 300	8	194	" "
Halo 400	10	195	" "
Halo 500	2	200	December 2, 1977
Halo 600	6	206	December 30, 1977
Halo 700	4	219	March 23, 1977
Total	54		

The claims are shown on B. C. Department of Mines Mineral
Claim Map # 92H/15E. Title to the Halo 100 to Halo 600
claims are held by David Minerals Ltd., c/o 315-850 West
Hastings St., Vancouver B. C. Title to the Halo 700 claim
is held by D. R. Cochrane.





GENERAL SETTING

The Halo group is situated in the Thompson plateau sub-division of the British Columbian interior plateau physiographic system. This is, in general, a gently rolling upland of low to moderate relief. The local Aspen Grove area, lies within the Fairweather Hills, with elevations normally between 1,000 and 1,400 metres above sea level. It is rather impressive area of British Columbia, with a moderately dry climate, open fields, bushy draws and the landscape dotted with lakes.

The general region is underlain predominantly by the Upper Triassic Nicola group of intermediate volcanics with minor sediments. It is intruded by stocks, plugs and dikes of Jurassic (?) age. A series of north striking faults trend across the claims area. One of the focal points of economic interest is the Big Kidd Breccia, consisting of altered, brecciated diorite, with silicification, carbonatization and sections mineralized with magnetite, pyrite, chalcopyrite, bornite and chalcocite. A number of pits, adits, trenches and drill holes have partially explored the north portion of the breccia and the area around the Breccia Pipe.



DIAMOND DRILL HOLE INFORMATION

The two A.Q. wire line diamond drill holes recovered 27.0mm diameter core and recovery was fair to good. Drill hole # 77-1 was spotted within the Big Kidd breccia pipe and was drilled at -45° and at an azimuth of 315° (true.). The hole was completed to 75.6m. The purpose of the hole was to test the south portion of the pipe, in a area not previously investigated.

Drill hole #77-2 was spotted some 630m south south-east of the first hole and was inclined at -45° at an azimuth of 180° (true). The purpose of this hole was to test the westerly extension of a mineralized shear zone that had been previously worked on and contains significant amounts of secondary copper.

RESULTS OBTAINED

The drill core was transported to the authors office in Ladner B. C. where it was examined megascopically and also under the binocular microscope. The formal drill hole logs are presented as Appendix III.

Diamond drill hole 77-1 which collared in, and stayed in Big Kidd diorite breccia was by far the most interesting hole although no economically significant (visual estimation only) intersection was obtained. The hole, however, did serve to point out a few noteworthy features, including:

1. Copper is predominantly in the form of chalcopyrite with small amounts of bornite and these minerals are often associated with fine grained magnetite, either in veinlets or in disseminated blebs. Therefore ground magnetometer work as a guide to copper mineralization may be more important than previously recognized.
2. The blebs and microveinlets of magnetite-chalcopyrite-(bornite) often display a prominent epidote halo and the degree of epidotization is a rough guide to

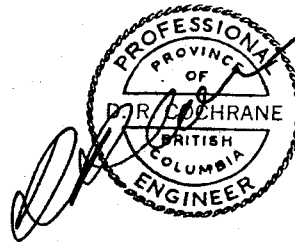


the degree of copper mineralization.

3. The Big Kidd breccia in the drill hole # 77-1 area appears to be crudely layered, that is: higher magnetite - chalcopyrite zones are flanked by less well mineralized (and sometimes less brecciated) bands or by bands in which the predominant sulphide is not chalcopyrite but pyrite.

Diamond drill hole # 77-2 was collared in and remained in augite porphyry. The porphyry was slightly altered (epidote, chlorite, calcite) but contained no significant (visual estimate) copper mineralization.

Respectfully submitted



D. R. Cochrane, P. Eng.
December 7, 1977,
Delta, B. C.



APPENDIX I

Assessment Work Details.

PROJECT: Big Kidd Breccia

LOCATION: Aspen Grove B. C. N.T.S. 92H/15E

MINING DIVISION: Nicola

ACCESS: dirt road

WORK DONE: Two A.Q. diamond drill holes:

Drill hole 77-1 to 75.6 metres

Drill hole 77-2 to 31.1 metres

Total 106.7 metres

SPONSORED BY: David Minerals Ltd.

c/o Cochrane Consultants

4882 Delta Street,

Delta B. C.

DRILLING BY: Kema Drilling Inc.

Princeton, B. C.

CONSULTING: D. R. Cochrane, P. Eng.

FIELD WORK DATES:

Kema Drilling, November 1 to 17, incl. 1977.

D. R. Cochrane, P. Eng. November 3,4, 1977.

OFFICE WORK: D. R. Cochrane, P. Eng. December 6, log core

December 7, log core and prepare report.

Drafting: Libuse Masek, December 8 & 9, 1977

Typing: G. Packer, December 9, 1977



APPENDIX II .

COST BREAKDOWN:

By Contract with Kema Drilling

106.7 metres@ \$43.11/metre.....\$ 4,600.00

D. R. Cochrane

November 3 & 4 - 2 field days
@ \$200/day\$ 400.00

December 6 & 7 - 2 office days
@ \$200/day\$ 400.00

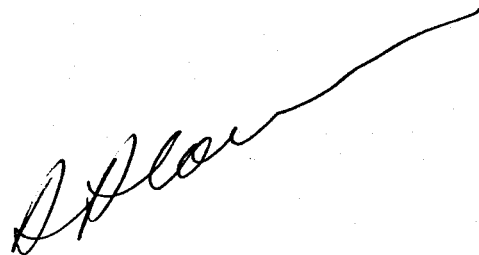
Field Expenses:

Motel - November 3; D. R. Cochrane	\$16.00	
Meals - D. R. Cochrane	12.80	
4 x 4 rental, 2 days @ \$20/day	40.00	
	<u>68.80</u>	
	\$68.80.....\$	68.80

Report Preparation

1. Typing - 5 hrs @ \$6.50/hr	\$ 32.50	
2. Drafting - 13 hrs @ \$10/hr	130.00	
3. Collation and reproduction	20.00	
	<u>\$182.50</u>	
	\$182.50.....\$	182.50

Total\$ 5,651.30



D. R. Cochrane, P. Eng.



APPENDIX III

DRILL HOLE LOGS



PROPERTY KIDD BRECCIA

Diamond Drill Record



Cochrane Consultants Limited

DIP TEST		
	Angle	
Footage	Reading	Corrected
Casing	-45°	

HOLE No. 77-1 Sheet No. 1 Lat. 47N
 Section Dep. 6E
 Date Begun Nov. 1, 1977 Bearing 315° (true)
 Date Finished Nov. 11, 1977 Elev. Collar 1220m

Total Depth 75.6 metres
 Logged By D.R.C.
 Claim
 Core Size AQ

DEPTH	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH of SAMPLE	Recovery
0-3.6m	CASING					0
3.6 - 8.2m	Rusty to very slightly rusty fine grained dioritic breccia (Big Kidd Breccia)				4.6m	87%
	Black to Brownish Black with slight green (epidotitic) sections. Mottled appearance to core. - fragments slightly coarser grained, greenish tinge (serricite, epidote?) - Narrow laths of plagioclase up to 0.3mm long in groundmass					
	Considerable amount of finely disseminated magnetite with traces of pyrite (often limonitic) and chalcopyrite. Core massive - prominent parting joint set @ 40° to core axis.					
8.2-14.6m	Medium grained grey to greenish grey diorite. Only slight indication of brecciation. Altered feldspar laths up to 2mm long. Very massive				6.4m	95%
	Considerable fine disseminated magnetite.					
14.6-20.4m	Fine grained, grey to greenish grey diorite. Very slight brecciation				5.8m	95%



Cochrane Consultants Limited

PROPERTY KIDD BRECCIA

Diamond Drill Record

DIP TEST		
Footage	Angle	
	Reading	Corrected

HOLE No. 77-1 Sheet No. 2 Lat. Total Depth.....
 Section..... Dep..... Logged By.....
 Date Begun..... Bearing..... Claim.....
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH of SAMPLE	Recovery
14.6-20.4m (cont.)	Prominent joint set, also coinciding with epidotization and mineralization at 45° to core axis. - Magnetite/chalcopyrite and (traces) bornite veinlet at 15.2 metres - only a few m.m. wide but epidotization outwards to 1cm. Increasing chalcopyrite - pyrite intergrowths on fractures and in blebs with epidote halo at depth in this section					
20.4-25.9m	Broken, blocky, altered, fractured diorite breccia. Fine to medium grained. Several epitotized sections with disseminated magnetite and blebs of chalcopyrite/(traces) bornite up to 1mm diameter.				5.5m	85%
25.9-33.5m	Fine grained grey to green (epidotized) diorite breccia. 33.5 metre lower limit for this section is somewhat arbitrary since contact gradational. Severe to massive epidotization				7.6m	95%

PROPERTY KIDD BRECCIA

Diamond Drill Record



Cochrane Consultants Limited

DIP TEST		
Footage	Angle	
	Reading	Corrected

HOLE No. 77-1 Sheet No. 3 Lat.
 Section Dep.
 Date Begun Bearing
 Date Finished Elev. Collar
 Total Depth
 Logged By
 Claim
 Core Size

DEPTH	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH of SAMPLE	Recovery
25.9-33.5m (cont.)	between 27.4 and 30.5m section. Scattered blebs at magnetite, chalcopyrite - pyrite intergrowths most often with epidote halo. Very fine grained.					
33.5-55.8m	Medium grained, grey to grey green to pinkish grey diorite and diorite breccia. Various degrees of epidotization, carbonatization, pink (K spar?) alteration and chloritization. Very finely disseminated magnetite, traces of scattered pyrite and chalcopyrite. Pyrite most noticeable in narrow zones of Kspar(?) and carbonate alteration.				22.3m	95%
55.8-57.3m	Pinkish/brown/grey fine grained altered diorite. Becoming increasingly epidotitic towards 57.3m mark. No significant sulphide mineralization.				1.5m	95%
57.3-58.1m	Broken, blocky, fine grained epidote-carbonate breccia. No significant mineralization.				0.8m	90%

PROPERTY KIDD BRECCIA

Diamond Drill Record



Cochrane Consultants Limited

DIP TEST		
Footage	Angle	
	Reading	Corrected

HOLE No. 77-1 Sheet No. 4 Lat. Total Depth.....
 Section Dep..... Logged By.....
 Date Begun Bearing Claim
 Date Finished Elev. Collar..... Core Size

DEPTH	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH of SAMPLE	Recovery
58.1-75.6m	Grey to greenish grey, slightly altered diorite and minor diorite breccia. Some very narrow epidotized and/or carbonatized fractures mainly at 45° to core axis. Very finely disseminated magnetite and some fine pyrite, pyrite prevalent on fractures in and around 70.1m mark. Only traces of chalcopyrite				17.5	+90%
	75.6 metres end hole					

PROPERTY BIG KIDD

Diamond Drill Record



Cochrane Consultants Limited

DIP TEST		
		Angle
Footage	Reading	Corrected
Casing	-45	

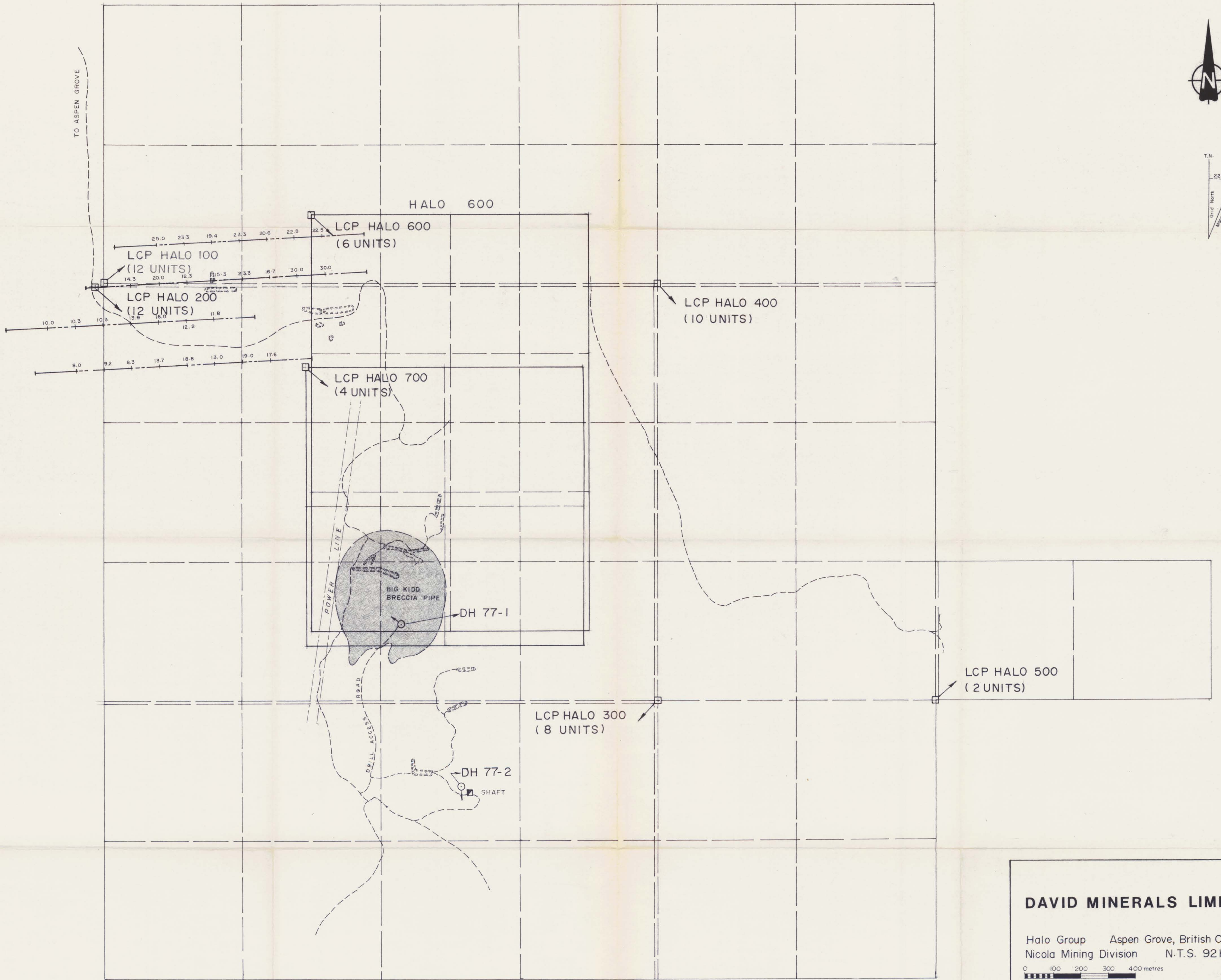
HOLE No. 77-2 Sheet No. 1 Lot. 26N Total Depth 31.1m
 Section 0 (base line) Dep. 0 (base line) Logged By D.R.C
 Date Begun Nov. 12, 1977 Bearing 180° Claim Halo 300
 Date Finished Nov. 17, 1977 Elev. Collar 1260m Core Size AQ

DEPTH	DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH of SAMPLE	Recovery
0-2.5m	Casing				2.5m	0
2.5-11.9m	Grey, fine to medium grained augite porphyry Epidotized fractures mainly at very small angles to core axis. - Altered augite (?) phenocrysts up to 3mm diameter. Very blocky - broken Finely disseminated magnetite. No significant sulphide mineralization.					
11.9-19.7m	Fine grained fairly massive grey to greenstone. A few chloritic/epidotitic fractures mainly at 30° to core axis. Blocky - fine disseminated magnetite- No significant sulphide mineralization.				7.8m	85%
19.7-22.0m	Med. to coarse grained augite porphyry - Grey salt and pepper texture. Some slight brecciation, cemented with carbonate. Finely disseminated magnetite				2.3	90%
22.0m-31.1m	Blocky augite porphyry, grey coloured, - fractures chloritic - epidotitic - Some sections appear dioritized and slightly brecciated - no significant sulphide mineralization.				9.1	85%

[Handwritten signature]

HALO 100

HALO 600



CONTOUR INTERVAL:

- 4 milliseconds
- 17 "
- 30 "

LEGEND

- 1976 I.P. SURVEY LINE (CUT & FLAGGED)
- TRENCH
- 4x4 ROAD
- DAVID MINERALS (HALO) CLAIMS
- BIG KIDD BRECCIA PIPE
- SHAFT

DAVID MINERALS LIMITED

Halo Group Aspen Grove, British Columbia
Nicola Mining Division N.T.S. 92H/15 E

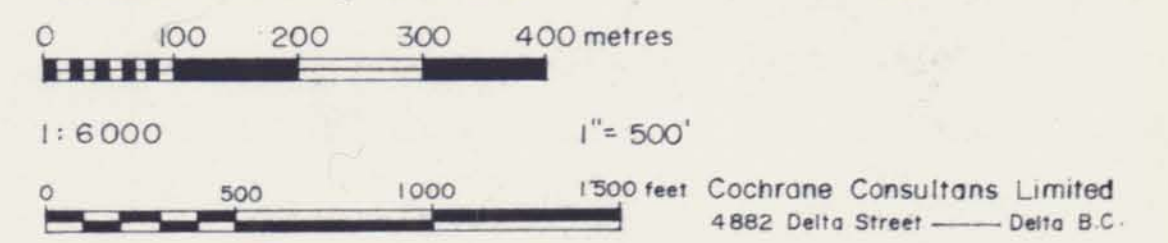


FIGURE 3
1977 DRILL HOLE LOCATIONS



MINERAL RESOURCES BRANCH
ANNUAL REPORT
No. 6555

To accompany a report by DR. COCHRANE, P. ENG. 1977, B.C. 4882 Delta Street, Delta, B.C., dated Dec. 7/77 at Delta, B.C.