

PROGRESS REPORTS EL 25/70

MICROFILMED

41-830

PH 161

Reports of [redacted] 1970-71.



799002

MINEX ANALYTICAL LABORATORIES PTY. LTD.
ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

5th March, 1970.

70/123

F.W. Davies Esq.,
139 Newtown Road,
NEPTUNE, S.A.
TASMANIA. 7003

*Deliver 15 DDH
Copper of.*

<u>Sample No.</u>	<u>%Cu</u>	<u>%Ni</u>
No. 1	.01	0.07
2	<.01	0.06
3	<.01	0.07
4	<.01	0.07
5	<.01	0.08
6	<.01	0.02
7	<.01	0.04
8	.05	0.08
9	<.01	0.02
10	<.01	0.02
11	<.01	0.03
No.12	<.01	0.09

Method : Atomic Absorption ± 7% relative accuracy.

J. Hopper
(Mrs.) I. Hopper
Manager.

799003


MINEX ANALYTICAL LABORATORIES PTY. LTD.

ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

10 Bill DeLancey

18th March, 1970.

70/158

 T.W. Davies Esq.,
 139 Newtown Road,
 Newtown,
HOBART. TASMANIA. 7008

<u>Sample No.</u>	<u>%Ni</u>	<u>%Cu</u>
No. 1/13	0.03	0.01
No. 1/14	0.02	0.02
No. 1/15	0.02	0.01
No. 1/16	0.02	<0.01
No. 1/17	0.01	<0.01

 Method : Atomic Absorption approx. \pm 7% relative accuracy.

J. Hopper
 (Mrs.) I. Hopper
Manager.

CO2

799004



MINEX ANALYTICAL LABORATORIES PTY. LTD.

ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

J. Hopper

70/123

17th March, 1970.

T.W. Davies Esq.,
139 Newtown Road,
Newtown. Hobart.
TASMANIA. 7008

<u>Sample No.</u>	<u>Au</u>	<u>Ag</u>	<u>Pt</u>
1	<0.05 dwt/ton	0.2 dwt/ton	<0.05 dwt/ton
2	"	0.3 "	"
3	"	0.3 "	"
4	"	0.4 "	"
5	"	0.4 "	"
6	"	0.3 "	"
7	"	0.4 "	"
8	"	0.4 "	"
9	"	0.4 "	"
10	"	0.4 "	"
11	"	0.4 "	"
12	"	0.4 "	"

Method : Fire Assay

J. Hopper
(Mrs.) I. Hopper
Manager

799005

MINEX ANALYTICAL LABORATORIES PTY. LTD.

ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

31st March, 1970.

70/213

T.W. Davies Esq.,
 139 Newtown Road,
 Newtown. Hobart.,
TASMANIA. 7008

<u>Sample No.</u>	<u>Zn</u>	<u>Co</u>	<u>Cu</u>
1/2	.07	<0.01	<0.01
2/2	.08	<0.01	"
3/2	.07	"	"
4/2	.05	"	"
5/2	.09	"	"
6/2	.07	"	"
7/2	.06	"	"
8/2	.07	"	"
9/2	.07	"	"
10/2	.09	"	"
11/2	.05	"	"
12/2	.06	"	"
13/2	.04	"	0.01
14/2	.06	"	<0.01
15/2	.07	"	"
16/2	.07	"	"

004

799006



MINEX ANALYTICAL LABORATORIES PTY. LTD.
 ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

2.

70/213

<u>Sample No.</u>	<u>%Ni</u>	<u>%Co</u>	<u>%Cu</u>
17/2	.07	<0.01	<0.01
18/2	.06	"	"
19/2	.06	"	"
20/2	.07	"	0.02
21/2	.07	"	0.04
22/2	.07	"	<0.01
23/2	.08	"	"

Method : Atomic Absorption + 7% relative accuracy.

J. M. Roper
 (Mrs.) I. Roper
Manager.

005



799007

MINEX ANALYTICAL LABORATORIES PTY. LTD.

ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

18th May, 1970.

70/315

P.W. Davies Esq.,
139 Newtown Road,
NEWTON. HOE T.
TASMANIA. 7008

*Delivered
5/18/70 Box 3*

<u>Sample No.</u>	<u>Au dwt/ton</u>	<u>Pt dwt/ton</u>
1	0.1 N/A	
3	1.4 N/A	
1/3	<0.1	<0.1
2/3	"	"
3/3	"	"
1	"	" N/A

	<u>Ag dwt/ton</u>
1/3	<0.2
2/3	"
3/3	"

Method : Fine assay

J. Hopper
(Mrs.) I. Hopper
Manager

006

799008



MINEX ANALYTICAL LABORATORIES PTY. LTD.
ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

12th May, 1970.

Account
to the same 3

70/315

P.O. Davies & Co.,
159 Newtown Road,
Newtown, N.S.W.
Telephone 7808

<u>Sample No.</u>	<u>%Cu</u>	<u>%Ni</u>	<u>%Co</u>	
BOR 3 : 1/3	0.01	0.01	<0.01	
BOR 3 : 2/3	0.02	0.01	0.01	
BOR 3 : 3/3	0.01	0.01	<0.01	
BM - 2	<0.01	<0.01	<0.01	N/A
BM - 1	0.01	0.01	<0.01	N/A
BM - 2	<0.01	0.80	0.01	N/A
SG - 2	<0.01	0.01	<0.01	N/A

Method : Atomic Absorption \pm 7% relative accuracy.

J. Hopper
(Mrs.) I. Hopper
Manager.

007



Copy of ... 19/11/70

799009

MINEX ANALYTICAL LABORATORIES PTY. LTD.
 ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

12th June, 1970.

70/376

T.W. Davies Esq.,
 139 Newtown Road,
 NEWTOWN. HOBART.
TASMANIA. 7008

<u>Sample No.</u>	<u>Au dwt/ton</u>	<u>Ag dwt/ton</u>	<u>Pt dwt/ton</u>
24B/4	∠0.05	0.4	∠0.05
25/4	"	0.2	"
26/4	"	∠0.2	"
27/4	"	0.2	"
28/4	"	∠0.2	"
29/4	"	"	"
30/4	"	"	"
31/4	"	0.2	"
32/4	"	0.2	"
33/4	"	0.4	"
34/4	"	∠0.2	"
35/4	"	"	"
12/5	"	"	"
13/5	"	0.4	"
14/5	"	0.2	"

MINEX ANALYTICAL LABORATORIES PTY. LTD.
 ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

2.

70/376

<u>Sample No :</u>	<u>Au dwt/ton</u>	<u>Ag dwt/ton</u>	<u>Pt dwt/ton</u>
15/5	< 0.05	0.2	< 0.05
16/5	"	0.2	"
17/5	"	0.2	"
18/5	"	0.2	"
19/5	"	0.2	"

Method : Fire Assay.

J. Hopper
 (Mrs.) I. Hopper
Manager.

009

T.W. DAVIES SYNDICATE

799011 Coy. & Corp. 1/16/70

Summary D. Drill Core Log

Prospect Golden Valley

Hole No. 2 100 west of border line on the west side of 744 PM

Depth 143' R.L. 1132±

Footage			Logs	Assay Results					
From	To	Length		Cu	Ni	Co	Pb	Ag	Pt
1	0'	9'	9'	0.01	0.01	0.01	0.05	0.20	0.05
2	9'	12'	3'	0.01	0.08	0.01	0.05	0.50	0.05
3	12'	15'	3'	0.01	0.07	0.01	0.05	0.40	0.05
4	15'	18'6"	3'6"	0.01	0.05	0.01	0.05	0.50	0.05
5	18'6"	21'6"	3'	0.01	0.04	0.01	0.05	1.00	0.05
6	21'6"	27'	5'6"	0.01	0.07	0.01	0.05	0.60	0.05
7	27'	31'	4'	0.01	0.06	0.01	0.05	0.40	0.05
8	31'	35'	4'	0.01	0.07	0.01	0.05	0.50	0.05
9	35'	39'	4'	0.01	0.01	0.01	0.05	0.30	0.05
10	39'	43'	4'	0.01	0.09	0.01	0.05	0.20	0.05
11	43'	47'6"	4'6"	0.01	0.05	0.01	0.05	0.40	0.05
12	47'6"	54'2"	6'8"	0.01	0.06	0.01	0.05	0.40	0.05
13	54'2"	58'	3'10"	0.01	0.04	0.01	0.05	0.40	0.05
14	58'	63'	5'	0.01	0.06	0.01	0.05	0.40	0.05
15	63'	69'	6'	0.01	0.04	0.01	0.05	0.20	0.05
16	69'	74'	5'	0.01	0.07	0.01	0.05	0.20	0.05
17	74'	79'	5'	0.01	0.07	0.01	0.05	0.40	0.05
18	79'	84'	5'	0.01	0.06	0.01	0.05	0.20	0.05
19	84'	89'	5'	0.01	0.06	0.01	0.05	0.20	0.05
20	89'	93'	4'	0.01	0.07	0.01	0.05	0.20	0.05
21	93'	97'	4'	0.01	0.07	0.01	0.05	0.20	0.05
22	97'	103'	6'	0.01	0.07	0.01	0.05	0.20	0.05
23	103'	107'1"	4'9"	0.01	0.08	0.01	0.05	0.20	0.05
24	107'1"	113'	5'5"	0.01	0.07	0.01	0.05	0.20	0.05
25	113'	117'	4'	0.01	0.07	0.01	0.05	0.20	0.05
26	117'	121'	4'	0.01	0.07	0.01	0.05	0.20	0.05
27	121'	125'	4'	0.01	0.07	0.01	0.05	0.20	0.05
28	125'	130'	5'	0.01	0.07	0.01	0.05	0.20	0.05
29	130'	135'	5'	0.01	0.06	0.01	0.05	0.20	0.05
30	135'	140'	5'	0.02	0.06	0.01	0.05	0.20	0.05
31	140'	143'	3'	0.01	0.07	0.01	0.05	0.20	0.05

Trachitic to
ryolitic vulca-
nics with lava
flow

full core
recovered

Started 3/3/1970
Completed 29/3/1970
Drill: James

Location of drill hole
on a map scale 300' = 1 inch
1 June 1970

110

T.W. DAVIES SYNDICATE

copy to log 4

799012

Summary D. Drill Core Log

Prospect

Golden Valley

Hole No. 3 Min. Lease
735 1/2 M

Depth 124

B.L. 9545

Footage			Logs	Assay Results						
From	To	Length		Cu	Ni	Co	Pb	Ag	Zn	
1	4'	14'	10'	overburden of oxidized talus, gravel and clay	0.01	0.01	0.01	0.1	0.2	0.1
2	14'	20'	6'	" "	0.02	0.01	0.01	0.1	0.2	0.1
3	20'	29'	9'	blue sand (conglomerate)	0.01	0.01	0.01	0.1	0.2	0.1
4	29'	34'	5'	Interstratified conglom. status	Tr	-	-	-	Tr	-
5	34'	38'	4'	"	Tr	-	-	-	Tr	-
6	38'	43'	5'	"	Tr	-	-	-	Tr	-
7	43'	48'	5'	"	Tr	-	-	-	Tr	-
8	48'	53'	5'	"	Tr	-	-	-	Tr	-
9	53'	58'	5'	"	Tr	-	-	-	Tr	-
10	58'	63'	5'	"	-	-	-	-	-	-
11	63'	68'	5'	"	-	-	-	-	Tr	-
12	68'	73'	5'	"	-	-	-	-	Tr	-
13	73'	77'	4'	"	-	-	-	-	-	-
14	77'	82'	5'	"	-	-	-	-	Tr	-
15	82'	87'	5'	"	-	-	-	-	-	-
16	87'	89'	2'	"	Tr	-	-	-	Tr	-
17	89'	94'	5'	"	-	-	-	-	Tr	-
18	94'	99'	5'	"	-	-	-	-	Tr	-
19	99'	105'	6'	"	Tr	Tr	-	-	Tr	-
20	105'	111'	6'	Harder grey green siliceous	Tr	-	-	-	Tr	-
21	111'	117'	6'	"	Tr	Tr	-	-	Tr	-
22	117'	124'	7'	"	Tr	Tr	-	-	Tr	-

Started 24/3 1910
Completed 9/4 1910

Drill GEMCO

Location of drill on only scale 300' = 1 inch map

[Signature]

511

T.W. DAVIES SYNDICATE

799013

Summary D. Drill Core Log

Prospect

Hole No. 4 N S side

Depth 201'

Golden Valley

of 735 PM 80' wet mineral base

R.L. 954

	Footage			Logs	Assay Results					
	From	To	Length		% Cu	% Co	% Ni	% Zn	Dwt Ag	Dwt Au
1	0	4'	4'	Ignorant rock (same base)	-	-	Tr	-	-	-
2	4'	9'	5'		-	-	Tr	-	-	-
3	9'	15'	6'		Tr	-	-	-	Tr	-
4	15'	18'	3'		-	-	-	-	Tr	-
5	18'	23'	5'		-	-	-	-	Tr	-
6	23'	26'	3'		Tr	-	-	-	Tr	-
7	26'	24'	3'		Tr	-	-	-	Tr	-
8	29'	32'	3'		Tr	-	-	-	Tr	-
9	32'	34'	2'		Tr	-	-	-	Tr	-
10	34'	36'	2'		Tr	-	-	-	Tr	-
11	36'	38' 5"	2 5"		Tr	-	Tr	-	-	-
12	38' 5"	43' 5"	5'	"	0.135	0.035	0.015	0.08	0.02	0.1
13	43' 6"	48'	4' 6"	"	0.125	0.02	0.025	0.06	0.2	0.1
14	48'	54'	6'	"	0.15	0.02	0.03	0.07	0.2	0.1
15	54'	57'	3'	"	0.135	0.02	0.015	0.015	0.2	0.1
16	57'	60'	3'	"	0.14	0.02	0.015	0.025	0.2	0.1
17	60'	65'	5'	"	0.175	0.02	0.015	0.065	0.2	0.1
18	65'	75'	10'	"	0.155	0.02	0.015	0.05	0.2	0.1
19	75'	80'	5'	"	0.25	0.02	0.015	0.075	0.2	0.1
20	80'	85'	5'	"	0.125	0.02	0.015	0.15	0.2	0.1
21	85'	89'	4'	"	0.09	0.02	0.1	0.11	0.2	0.1
22	89'	92'	3'	"	0.105	0.02	0.015	0.055	0.2	0.1
23	92'	92'	8'	"	0.09	0.02	0.1	0.065	0.2	0.1
24	100'	106'	6'	"	0.2	0.02	0.1	0.08	0.2	0.1
25	106'	112'	6'	"	0.105	0.035	0.0125			
26	112'	120'	8'	"	0.145	0.035	0.0125			
27	120'	130'	10'	"	0.220	0.025	0.0125			
28	130'	136'	6'	"	0.105	0.02	0.015			
29	136'	146'	10'	"	0.045	0.02	0.015			
30	146'	156'	10'	"	0.055	0.025	0.065			
31	156'	166'	10'	"	0.125	0.04	0.035			
32	166'	176'	10'	"	0.365	0.04	0.24			
33	176'	186'	10'	"	0.170	0.04	0.075			
34	186'	194'	8'	"	0.08	0.01	0.075			
35	194'	201'	7'	"	0.005	0.01	0.075			

Completed April 1910
 Completed July 1910
 Drill: James

J. P. ...

012

T.W. DAVIES SYNDICATE

799014

Summary D. Drill Core Log

177 Prospect

Hole No. 5 ^{Loc} 600' SE from D.H. 4

Depth ~~177~~ Golden Valley

	Footage			Logs	Assay Results					
	From	To	Length		Swt per ton					
					N.	Ca	Co	Au	Ag	Pt
1	0'	15'	15'	<i>Dioron porphyry amphibolite volcanics</i>	110	75	45			
2	15'	22'	7'		130	120	45			
3	22'	28'	6'		135	290	40			
4	28'	35'	7'		125	155	40			
5	35'	42'	7'		95		35			
6	42'	48'	6'		145	170	45			
7	48'	54'	6'		70	175	50			
8	54'	60'	6'		130	85	50			
9	60'	65'	5'		155	310	45			
10	65'	76'	11'		145	130	45			
11	76'	80'	4'	150	100	35	0.05	0.2	0.05	
12	80'	85'	5'	130	35	40	0.05	0.4	0.05	
13	85'	90'	5'	95	25	25	0.05	0.2	0.05	
14	90'	100'	10'	95	40	50	0.05	0.2	0.05	
15	100'	120'	20'	65	65	55	0.05	0.2	0.05	
16	120'	145'	25'	95	15	50	0.05	0.2	0.05	
17	145'	149'	4'	4	5	25	0.05	0.2	0.05	
18	149'			<i>Last core = storage samples</i> total						
19										
20										
21										
22										
23	164'	170'	6'	115	105	45				
24	170'	173'	3'	105	55	40				
25	173'	177'	4'	105	30	40				

*Drilling started 5/3/1970
completed 2/5/1970
Drill James*

*4/7/1970
J. Stanley*

013

799015

E 2670

Quamby Brook

KEWANEE AUSTRALIA PTY. LTD.

T. W. DAVIES

GEOPHYSICAL APPRAISAL OF DELORAINE PROSPECT,

TASMANIA

by

P. E. COGAR

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01A

799016

Geophysical Appraisal of Deloraine Prospect, Tasmania.

Introduction

The Deloraine Prospect consists of three mineral leases numbers 749, 735 and 734 located close to Quamby Brook approximately 15 miles to the south-south-east of the township of Deloraine in northern Tasmania. The leases are themselves surrounded by exploration license number 25/70.

All mining and prospecting titles are held by the Tom Davies Syndicate which consists of Mr. & Mrs. T.W. Davies, Mr. W. Pituley, and Mr. D. Lovibond.

The leases aggregate 240 acres and the exploration license comprises 28 square miles.

Transport and Power

The Deloraine Prospect is some 34 miles from Launceston, a large sea-port on the northern coast of Tasmania. It is approximately an equal distance from Devonport to the west. Access to the site is mostly by bitumen road, of good standard with the last half mile being gravel road across Quamby Brook.

The closest airport for interstate commercial flights is Launceston. There are at least six flights per day in and out of Launceston linking to all Australian capital cities.

Power is readily available from the S.E.C. regional grid.

The average rainfall is in excess of 40 inches per annum, and all water courses are permanently flowing.

Topography

This region lies to the east of a large fault block and itself forms part of an inland table-land. Some of the surrounding countryside is very rugged and includes peaks higher than 4000 feet.

The area under review is mainly pastoral land and has been cleared to some degree. It consists of gently rolling to moderately steep slopes which are covered by medium to heavy timber growth.

Good rock outcrop is mainly restricted to stream beds, cuttings, and the tops of ridges.

contd

General Geology

Referring only to the Deloraine Prospect area, the basement rocks are Cambrian slates and greywackes which have been intruded conformably by trachyte and rhyolite lavas in the form of a sill. These in turn are overlain to the west unconformably by Ordovician conglomerates, quartzites and grits.

A good deal of the area is covered by alluvium, with soil cover on the lavas being three to four feet.

No granitic intrusives are known in the immediate area.

Metamorphism appears to be limited to contact metamorphism along the margins of the slates and greywackes, abutting the sill.

The Cambrian series dips generally to the east at about 70°. The Ordovician series is relatively flat-lying.

Previous Mining Activity

There appears to have been no previous mining activity on this area. No records research was carried out, but Mr. Tom Davies has said that this is a virgin area. At the same time he told me that Quamby Brook was the scene of alluvial gold mining in the 19th century and the early 20th century.

Geophysical and Geological Survey

Accompanied by Mr. Johnie Ouzts on Tuesday, September 8, I was taken to the area by Mr. Tom Davies and Mr. W. Pituley. On this date, three EM-16 traverses were run across the prospect, generally east to west. The location of these traverses is shown on the attached plan. Data for this plan has been taken from information supplied by Mr. Pituley.

It was decided to run the traverses as close to the existing diamond drill holes as possible in order to see if there was a correlation between the information gained from these holes and the instrument readings.

Interpretation of EM-16 Readings

On the attached plan, the EM-16 readings are plotted from west to east on each of the three lines. This has been done so that they may be read in the normal convention, left to right.

If there were a major ore body on the area covered by the traverses, then this should show at approximately the same point on each of the traverses if the ore body lay

contd

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conformably with the sediments. Of course it is possible for an ore body to not follow the general "lay of the land", but under the circumstances existing here, the writer considers that this would be unlikely.

Interpretation of the results shows a strong anomaly on each of the three lines paralleling, and close to, the western contact. There is no other anomaly which may be held to persist on all three lines. Several anomalous situations exist on each of the lines, but none is strong and depths are uncertain.

It is suggested that the strong anomaly referred to above relates to the change in conductivity and in rock type at water-table level along the contact zone. Enrichment may also occur at this depth, but the anomaly does not have the characteristics of a large ore body.

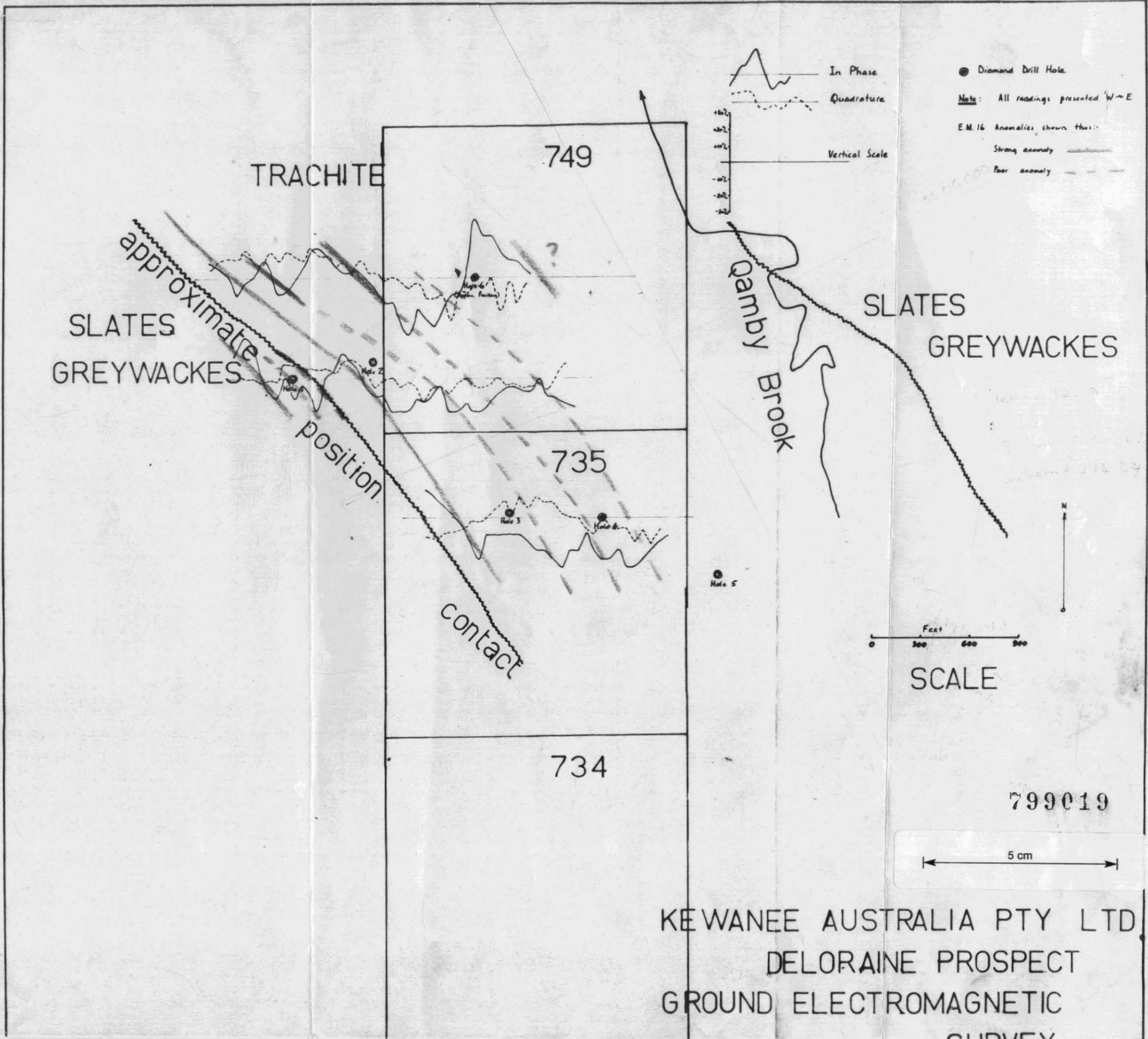
Conclusion

The investigation undertaken was neither extensive nor detailed. However, it was put across the zone of major interest as presented by the Davies Syndicate members. No promising targets were located within this zone, though there appear to be some minor subsurface conductors lying conformably with the bedding at random depths.

Recommendations

It is recommended that this project be dropped. From the information to hand, further expense is not warranted.

017



KEWANEE AUSTRALIA PTY LTD
 DELORAIN PROSPECT
 GROUND ELECTROMAGNETIC
 SURVEY

EXPLORATION LICENCE NO. 25/70 - DELORAINÉT. W. DAVIES SYNDICATEPROSPECTING REPORT FOR 6 MONTHS
TO 16TH OCTOBER, 1971INTRODUCTION

During the past six months the T. W. Davies Syndicate has been active in the field exploration of the 28 square mile area covered by this licence.

The area can be divided into two parts. The first section in the south west consists of two prominent rugged ridges. Dominant rocks in this area are slates and grey wackes of Cambrian age and Pre-Cambrian schistose quartzites and deep seated, strongly metamorphosed schists with bands of hematite. The area is mostly bushland and is sparsely populated.

The second section to the north east consists of gently undulating farmland and is populated. Prominent rocks in this area are dolerite to the south with Triassic sandstone and Permian mudstone and basalt to the north. This area is considered to be of less interest from a mining point of view and work has been concentrated in the area to the south west. The main area of interest here lies in a zone approximately $5\frac{1}{2}$ miles long and $1\frac{1}{2}$ miles wide from the south east corner of the E. L. to the north west corner. For convenience of reporting this area has been broken up into four sections, D1 to D4.

by whom?
Recent work has defined a line of contact between Cambrian and Pre-Cambrian rocks and has established evidence of faulting along this contact associated with Plutonic intrusion and strong metamorphism in the deeper seated schistose part of Pre-Cambrian rock close to the fault line. The contact fault line shows evidence of down throw in Cambrian and uplift in Pre-Cambrian rocks. This is so prominent that in several places, horizons of the middle section of Cambrian rocks are on the same level as the deep seated Pre-Cambrian coarse grained metamorphose schists.

GEOLOGYArea D1 - Grubb's Property

This area is situated in the south east corner of the E. L. Here, recent geological exploration by Mr Pitulej has revealed that the Cambrian slates and grey wackes have been intruded by a mass of mineralised rhyolite/trachyte lavas. These lavas were penetrated by six diamond drill holes as previously reported.

019

Examination of an old adit and the surrounding area revealed the old dump containing Pre-Cambrian schists with quartz veins rich in iron and with traces of zinc and lead in the black decomposed schist. However, no trace of copper was found in the testing of the dump material. Mineral Lease No. 1 is located on the fault line which crosses the lease diagonally, whereas Mineral Lease No. 2 is located in the rhyolite concentrated Cambrian area on the south east side of the fault line. In this lease area a shaft was sunk to some 50ft. some 50 years ago and a Mines Department report (1923) indicates the presence of copper as secondary superficial malachite.

Recent work associated with interpretation of the previous drill hole results, indicates that the secondary copper is confined to shear planes within the sheared rock fractures so that the source of the copper mineralisation is not local but probably emanates from the north west fault zone by means of hydrothermal action.

Area D2 - Maroney & Kabalza Property

Recent work in this area has outlined the fault and metamorphosed zone by means of surface geochemical analyses and observation of chemical and structural changes. This work linked with a second magnetometer test established a line some 1½ miles long which can be followed on the surface from Kabalza's property through Moroney's property from its south east boundary to the north west corner. The rocks in this area are predominantly hard grey wackes, green in colour. Intensive sampling and examination has established that the grey wacke is some 300ft. wide at this point on the fault line and has been uplifted and affected by weathering to produce an earthy, soft, yellow-brown coloured material. Geochemical testing of this altered grey wacke suggested the presence of wolfram and samples have been forwarded to Griffith-Inteco for chemical analysis. Detailed structural examination of the uplifted, mineralised grey wacke has shown a multitude of slickensides on the north west side, indicating fault movements away from the Pre-Cambrian schistose quartzites upon which the grey wacke rests.

Area D3 - Palmer's Property

The examination and observation of the contact fault line in the higher ranges of the southern section of this area was practically impossible due to the huge mass of Ordovician rock overlapping and obscuring the Pre-Cambrian. In addition a multitude of landslides and rock screes obscured the Cambrian/Pre-Cambrian contact on the lower water eroded valleys running parallel to the elevated ranges. Every break in these ranges was examined structurally and topographically to seek evidence of the contact in an area where geophysical work could be carried out without incurring extremely high costs. A deeply eroded valley some 300 ft. stratigraphically below D1 and D2 looked promising and the area was trenched by bulldozer to a depth of 16ft. by 600ft. in length. This work revealed strongly metamorphosed schistose

020
strata of Pre-Cambrian age with pyrosomatic mineralisation giving rise to the formation of hematite, ranging up to 72% in places, with 15% tin as well as traces of wolfram and zinc. Traces of zinc, copper, lead and antimony were present in all samples of the quartz felspar schists.

Area D4

On the continuation of the same contact and metamorphosed zone, approximately 1 mile to the north west and 100ft. stratigraphically below area D3, five trenches were opened up by bulldozing. The trenches range from 100ft. to 300ft. in length and three of these were located to cross the strike of the rocks. These trenches intersected a strongly mineralised zone of black schist carrying oxysalts of antimony, zinc and lead and also large masses of hard carbonate rock containing traces of zinc. The two remaining trenches were cut along the strike and on either side of the mineralised strata which has an apparent width of 900 ft. in this particular area. All the mineralised rock here appears to be confined to the Pre-Cambrian schistose strata while the bordering Cambrian rocks show only intensive shearing with traces of wolfram in the shear zones.

RECOMMENDATIONS

It is recommended that further work in each of the four areas be directed to determining the locality in detail, of the mineralised areas, in relation to the local petrology and structural environment.

Thus, detailed geological mapping should be carried out in each of the four areas and geological plans drawn up.

A careful study of this information should then be made to enable the most suitable method for further geophysical exploration to be selected.

Only after definite drill targets have been determined, by means of properly established geophysical anomalies, should further diamond drilling be undertaken.



R. L. Wildy
Geologist.

16th October, 1971.

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799023

ELDSHO

QUAMBY BROOK
WORK PROGRAMME

T. W. DAVIES

CC & M	CC & M	
RECEIVED	10 MAY 1971	E & IL
ANSWERED	DEPT. OF MINES	
REF. NO.		

File

More information is required, this will be undertaken by bulldozing trenches in across the contact fault line in place indicated in red area D-1B Ritter's property and Grubb's D 1A.

D 2A Malony's property

D2B The access road from existing track to facilitate the future geophysical work in very difficult and almost inaccessible country.

Complete road in areas D3-4.

Suvey work not already complete to be brought up to date to coincide with new progress of new programme. To determine sites for new drilling programme.

022

799024

25/70 DELORAINÉ AREA

GEOLOGICAL INTERPRETATION OF EXPLORATION

The Exploration Licence covers an area of 28 square miles.

The area can clearly be divided into 2 parts.

The first section diagonally south west of the Exploration Licence consisting of two prominent rugged ridges.

Dominant rocks in this area are slates and greywacke of cambrian age, and precambrian shistose quartzites, and deep seated strongly metamorphosed shists with bands of hematite. The area is mostly bush land, sparsely populated.

The second section north east diagonally on the Exploration Licence consists of gently undulating farmland and populated.

Dominant rocks in this area, are dolomite to the south, with triassic sandstones and permian mudstone and basalt to the north. This area is worthless from a mining point of view and can be rejected.

The area of interest is diagonally south west of the Exploration Licence area.

This area again could probably be restricted to an area approximately 5½ miles long and 1½ miles wide, from the south east corner of the Exploration Licence to the North west corner of the Exploration Licence.

For convenience of reporting this area has been broken up into exploration areas D.1 to D.4, on the selected area we have been able to define the line of contact between cambrian and precambrian age rock, and following this line of contact establish evidence of fault with plutonic intrusion and strong metamorphism in the deeper seated shistose part of precambrian rock close to the fault line.

The contact fault line shows evidence of downthrow in cambrian and uplift in precambrian.

023

This is so prominent that in several places the horizons of the middle section of cambrian are on the same level as the deep seated precambrian coarse grained metamorphosed shists.

AREA D.1 Grubb's Property

This area is situated in the south east corner of the Exploration Licence.

The cambrian slates and greywackes have been intruded by a mass of mineralised rhyolite-trachite lavas.

These lavas were penetrated by vertical diamond drilling to a depth of up to 200 ft. by six D.D. holes.

The cores from these six holes carried with even distribution copper, nickel, zinc, gold, silver and platinum.

Values of these minerals tending to increase on the fault side rising to 800 PPM copper and nickel close to fault line.

3 mineral leases 80 acres each are located in this area.

Mineral Lease No. 1 is located on the fault line and this line crosses the lease diagonally.

Also on this mineral lease is an old "Addit" not registered in the Department of Mines.

Examination of the "Addit" and the surrounding area revealed the dump-site, proved precambrian shists with quartz veins, rich in iron, with traces of zinc and lead in the black decomposed shist.

No trace of copper was found in the testing of dump material.

Mineral lease No. 2 is located in the rhyolite intruded cambrian area on the south east side of the fault line.

In this lease area some 50 years ago a shaft was sunk to approximately 50 ft. depth. The Department of Mines report 1923 shows the presence of copper as secondary superficial malachite. The report is old and faded and difficult to decipher.

Rock scattered around the vicinity of this old shaft (since filled in and ploughed over) assayed from 0.9% to 1.9% copper as

carbonate (malachite) of secondary origin in sheared rock only in shear planes.

D-D-H Nos. 3-4-5 are located close to the old shaft giving the thought that the local restricted increase in copper values is due to radiating rock fractures of solid trachite rock

Intersected by D-D-H No. 3 has shown that this fracturing is caused by local subsidence due to underwash. 3 separate spring like seepages are evident on the surface, and filled with rock rubble, particularly in the larger channel along the area of D.D.H.3.

This core has explained the local change in rock structure and post shearing and crusing water has deposited its copper carbonate contents in the rock shears.

As all the water courses in this area run N.W.-S.E. it is evident that the source of this particoular place of enrichment is not local, but comes from the north west fault zone and is caused by pneumatolic hydrothermal action.

Mineral lease No. 3 is also in the ryolite intruded cambrian area. No. 6 D.D.H. was located on this lease to the north of D.D.H.3 to prove whether the rock fracture continued at a lower level. This was not so.

D.D.H.No. 1. This site is close to but outside mineral lease No. 2 The core intersected sediments bordering the lavas and shows percentage of metallic minerals above the lavas, as this drill only penetrated to 120 ft. depth. It did not cross the contact zone and at this depth 120 ft. is still in cambrian slates.

A magnetometer test was later carried out on area D.1 which again directed investigations to the contact and fault line.

Survey plans, drill core log sheets, assays etc.have been compiled to complete drilling investigations

Area D.2. Maroney and Kabalza Prop. owners

Activity in this Area was to follow the fault and metamorphosed

025

line by surface geochemical study and observation of chemical and structural changes.

This linked with a second (prior to above work) magnetometer test established a line some 1½ miles long which can be followed on the surface from Kabalza's property through Maroney property from its south east boundary to the north west corner (see topographical map)

The rock in this area is predominantly hard greywacke, green in colour.

Intensive sampling and examination has established that the greywacke some 300 ft. wide at this point on the fault line have been uplifted to the vertical position and the structure changes from hard to soft, colour changing from olive green to bright green if fresh and if weathered, earthy soft yellow brown coloured. The greywacke in other areas is resistant to weathering in the oxidized zones.

Samples of this "changed" greywacke geochemically tested in field laboratory. Given aqua-regia test considerable yellow separation was evident to suppose the presence of wolframite.

Confirmation of these tests will be forthcoming similar samples having been sent to Griffith-Inteco for chemical analysis.

Detailed structural examination of these uplifted vertical mineralised greywackes have been shown a multitude of "slickensides" on the north west side and is resting on precambrian shistose quartzites.

The quartzites are obscured on the east side, but rise from the greywacke farther to the west.

They are strongly baked and highly porous with pellets of resmelted iron in the porous cavities, evidence of this joint contact between cambrian and precambrian rock, and fault with cambrian downthrow and precambrian uplift is evident over the 1½ mile app. and can be added to the 2½ mile app. of area D.1.



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AREA D.3 Palmers property

The examination and observation of the contact-fault line in the higher ranges of the southern section of this area was practically impossible due to the huge masses of ordivician rock overlapping and obscuring the precambrian and a multitude of landslides and rock scree over the cambrian precambrian contact on the lower water eroded valleys running parallel to the rocky elevated ranges.

Every break in these ranges was examined structurally and topographically to find evidence of contact line in an area where geophysical work could be carried out to prove the continuation of the 4 miles app. contact -fault already established through areas D.1. D2.

Without astronomical cost

Eventually a deeply carved back eroded valley some 300 ft. stratagraphically below D1 - D2. showed some indications and the area was trenched by bulldozer 600 ft. long app. to 15-16 ft. deep. This trenching disclosed shistose strata, strongly metamorphosed, precambrian with pyrosamatic mineralisation, the prosamatic and hydrothermal minerals found in this excavation were banded and segregated in quartz-felspar-shist. 72% hematite with 0.15% tin, and traces of wolfram and zinc.

Zinc copper lead antimony were present in all samples of shist rich in fine grained quartz and felspar. This trench is cut across the strike of precambrian rock and some 300 ft. south west of cambrian slates.

AREA D-4

On the same contact and metamorphosed line a mile or ^{so} north west of area D.3 and app. 100ft. stratagraphically below in a gently descending saddle 5 trenches were opened by bulldozing.

Trenches range from 100 ft. to 300 ft. in length, 3 of these trenches were located to cross the rock strike and intersected a strong mineralised zone of black shist carrying oxy-salts of antimony zinc and lead, also large masses of hard carbonate rock

027

with zinc contents.

The 2 remaining trenches were cut along the strike and on either side of the mineralised strata indicated limit. This is app. 900 ft. across at this particular spot.

All the mineralised rock is in precambrian shistose strata, and the bordering cambrian rock shows only intensive shearing with traces of wolframite in the sheared zone.

W. BITULET?

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Ad 5.

Trench sampling log

Golden Valley

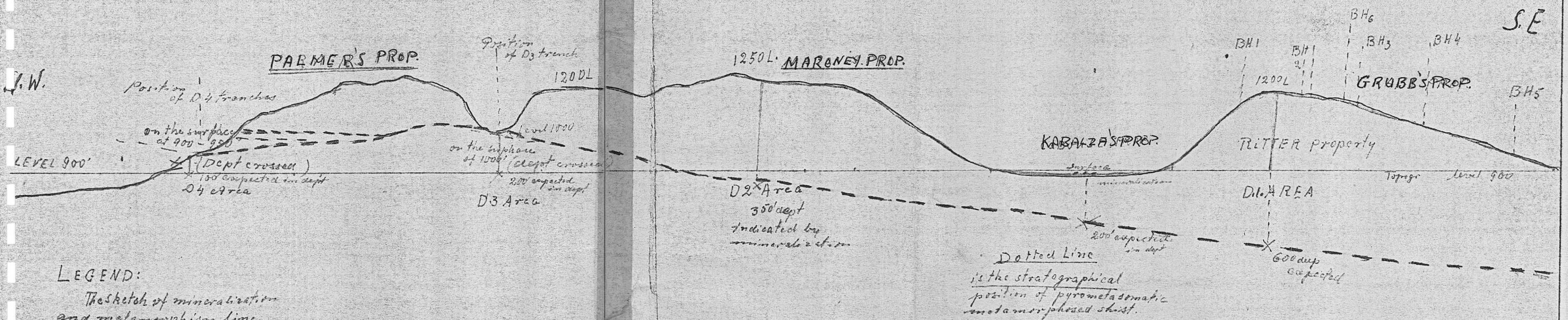
Sample Area	Nr	Sample (rock) description	Fe	Sn	Sb	Pb	Zn	Cu	Ni	Wd	Mo	As	Ag
D.2	1	Greywacke ^{soft bright green}											
"	2	Decomposed to brown slate greywacke											
D.3	WT.1	7' thick in vertical Pink Hematite ore	72%	0.15%	-	-	-	-	-	155pm	-	-	-
"	1	Chloritic schist 3' thick	not tested										
"	2	(gneissic structure) Quartz felspar schist 1' thick	"	not tested			230pm		25pm				
"	3	in vertical position 2' thick Quartz mica felspar schist	"	0.01%	85pm				detected 5pm				
"	4	" " " 12' thick pinkish red	"	0.01%	75pm		35pm	415pm	35pm				
"	5/6	Fine grained green schist large vertical mass up to 60' thick	"	0.01%	45pm		35/80pm			3pm			
D.4	1	on border of schist Soft fine grained rock (early)	"	0.02%			45pm						
"	2	rock in 2 vertical 7' thick bands White zinc lead carbonate	"										in test by Griffitt-Inteco Pty Ltd 150% test Results will be reported
"	3	slitose soft rock 3' each way from carbonates Velvety black vertical	"	0.01	15pm	95pm	405pm	70pm					0.30% not tested
"	4	Gossanous black rock											Detected Zinc, Lead, Nickel, Iron but test by Griffitt-Inteco Pty Ltd not completed
"	5	3-4' thick between carbonates Earthy pug in large bands	"	not tested	20pm	0.01%	70pm	65pm					0.11%
D.	6	material Blue gossanous											Griffitt-Inteco not completed
D.	7	oxidized ore in test											

The assay is not completed and will be reported at later date after receiving from Griffitt-Inteco Pty Ltd.

J. Pitmanley

27 April 1971.

GRAPHICAL RELATION of STRATIGRAPHY TO TOPOGRAPHY



W

SE

PARMER'S PROP.

1250 L. MARGNEY PROP.

GRUBB'S PROP.

KABALZA'S PROP.

TRITTER property

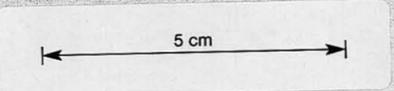
LEVEL 900'

Topogr Level 900

LEGEND:

The sketch of mineralization and metamorphism line from W to SE
 NE of the line — Cambrian
 SW " " " " — Precambrian + Ordovician

Dotted Line is the stratigraphical position of pyrometamorphic metamorphosed shist.



V. J. Jankovij
 21 April 1911.
 Scale: 2000' to 1 inch

030



Johnston 26/4

LOCATION OF D. D. HOLES

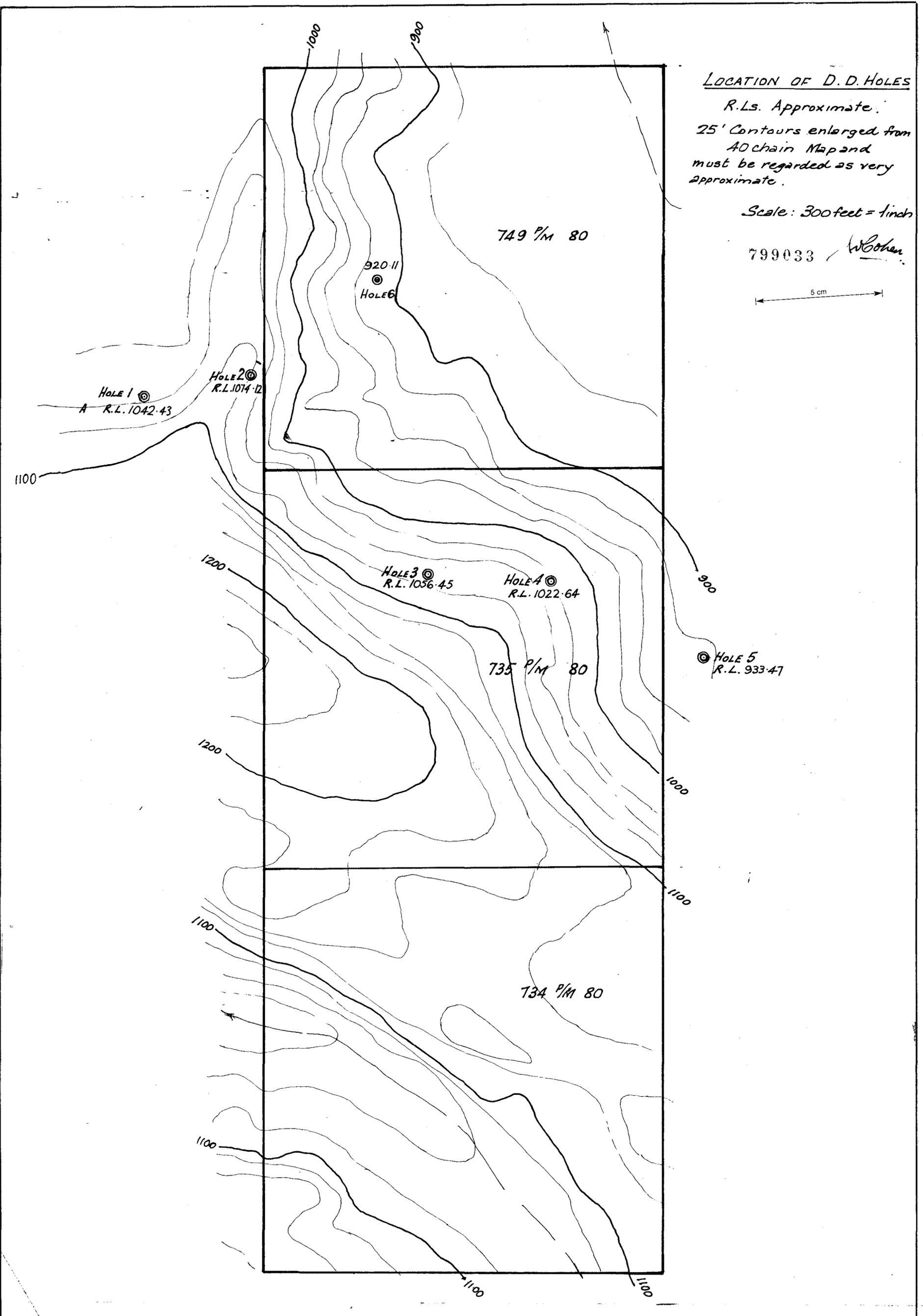
R.Ls. Approximate.

25' Contours enlarged from
40 chain Map and
must be regarded as very
approximate.

Scale: 300 feet = 1 inch

799033 / *W. Cohen*

5 cm

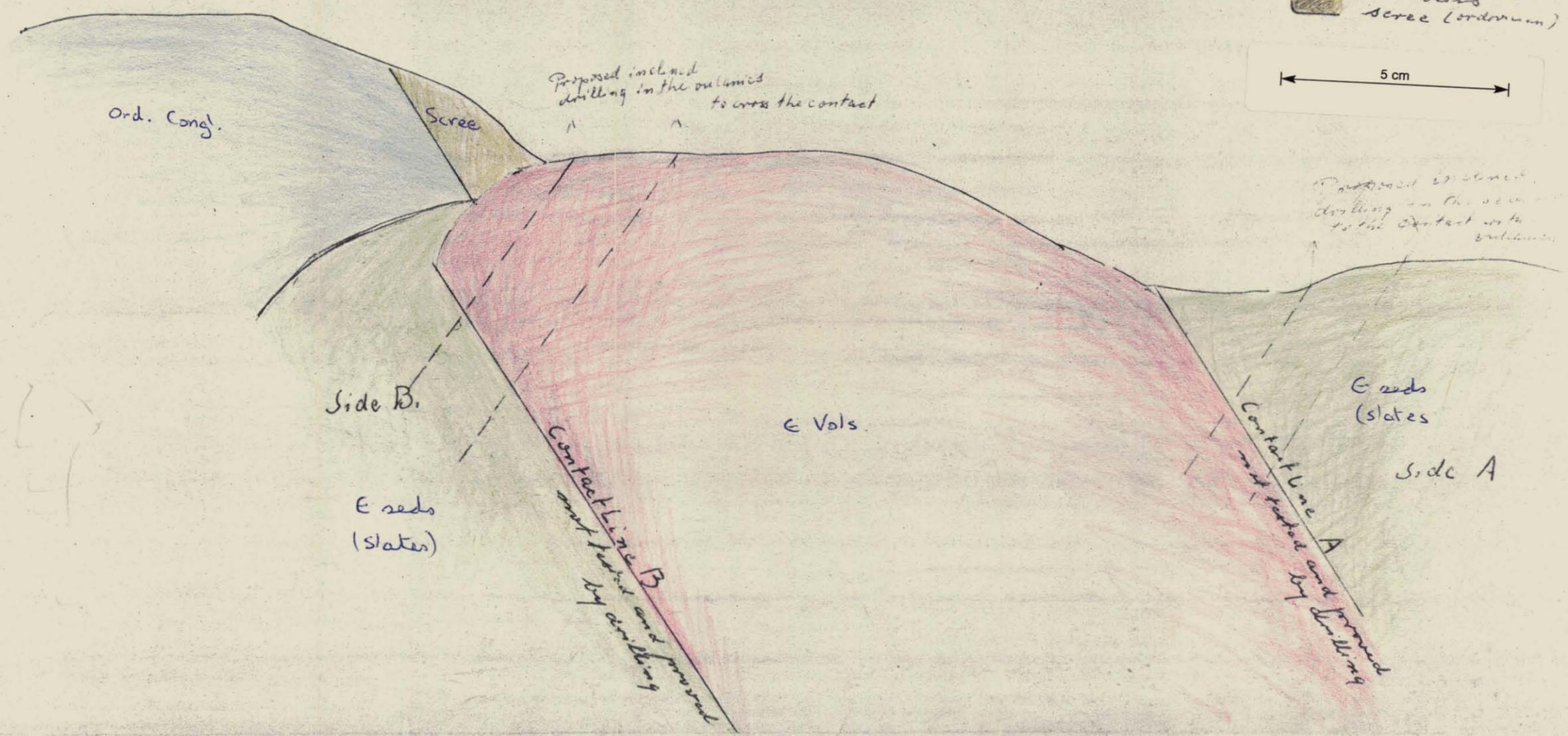
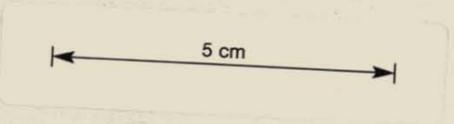


Theoretical Crosssection not to scale
East - West

Plan N 1
Golden Valley
prospect

indicating position of volcanics
to the bordering sediments

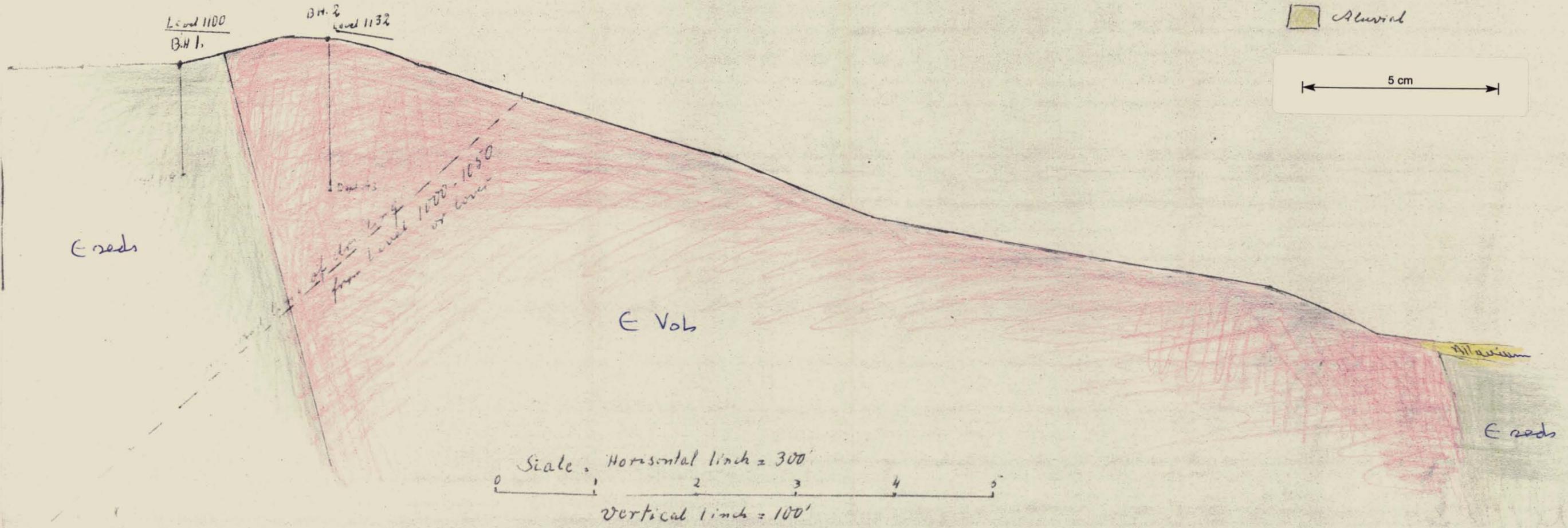
-  Ordovician conglomerate quartz and grit.
-  Volcanics
-  Cambrian slates rich intersected by quartz veins
-  Scree (Ordovician)



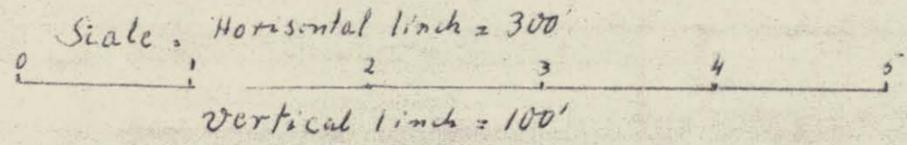
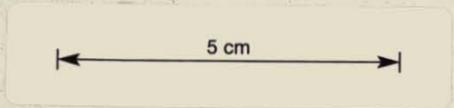
Plan No. 2

Golden Valley
Prospect

East-West cross-section on line B.H.1
and B.H.2



- Trachite volcanics
- Cambrian slates
- Alluvial

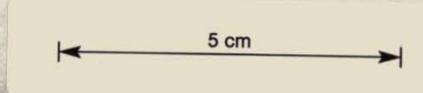
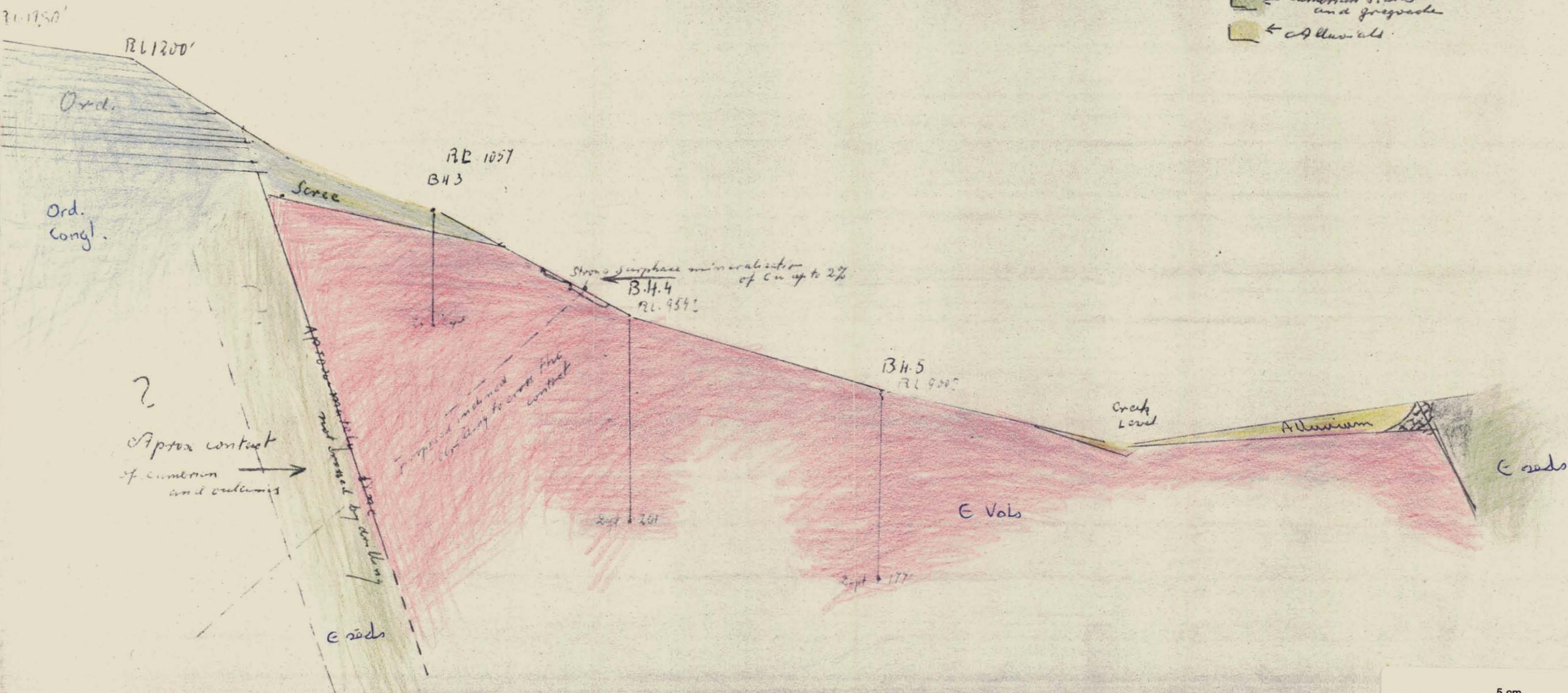


Plan No. 3

Golden Valley
Prospect

East-West Cross-section on line B.H.3, B.H.4, B.H.5

-  Ordovician
← congl. quartzite
and gneiss
-  ← volcanic
-  ← Cambrian slates
and gneiss
-  ← Alluvial



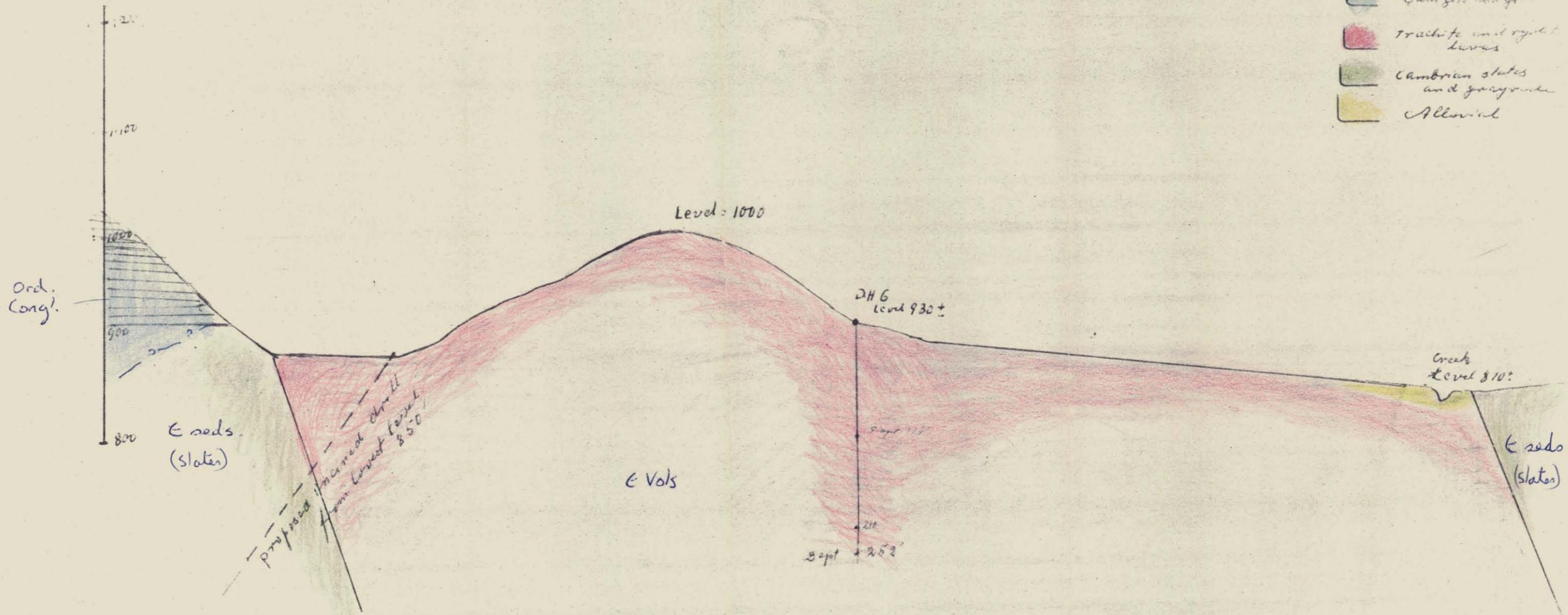
East-West cross-section

of Bore hole 6 line

Plan Nr 4

Golden Valley
Prospect

-  Ord conglomerate
quartzite and gneiss
-  Trachyte and rhyolite
lavas
-  Cambrian slates
and gneisses
-  Alluvial



Scale: Horizontal inch = 300'

Vertical inch = 100'

0 300 600 900 1200 1500

100 200 300 400 500

