

MICROFILMED

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REPORTS ON OPERATIONS ON
EXPLORATION LICENCE 20/76
TO FEBRUARY, 1977
MINERAL HOLDINGS AUST. PTY LTD.

8611-LL

AMG REFERENCE POINTS ADDED

REPORT ON OPERATIONS ON EXPLORATION LICENCE

NO. 20/76 FROM DECEMBER, 1976 TO FEBRUARY, 1977 (INCL.)

INTRODUCTION

Exploration for silica prospects was continued and additional surveys and investigations were conducted on some of the prospects already discovered.

The explorations and investigations will be described separately for each prospect.

Some of the main mining companies in Australia are interested in obtaining silica deposits, and two of them visited and examined the prospects on E.L.20/76.

DIP RANGE PROSPECT NO. 1

- a) A map of this prospect was prepared, the topography being enlarged from Forestry Sheet 21-D, and the positions of the outcrops and the prospect being obtained from the results of the explorations and prospecting by the prospectors. The main outcrops are shown on it and a zone marked to include them. The positions of samples Nos. 1 to 6 are also shown. The zone occupies a ridge extending north-easterly from Hogarth's Creek for about a mile. It is reported that the quartzites at the north-eastern end dip to the north-west at 45° .
- ... A copy of the map is attached as Attachment 1.
- b) Further prospecting was conducted and a line was surveyed across the ridge at the north-eastern end of the zone. Beyond the outcrop shown at the north-eastern end (see Attachment 1), the prospectors found that the quartzites outcrop across a width of at least 400 feet.
- ... The provisional plan on Attachment 2 shows the above information and also the position of the surveyed line.
- c) Attachment 3 shows a cross section along the surveyed line. Scattered outcrops along the line suggest that the quartzites are at least 600 feet thick. The quartzites are assumed to be dipping to the north-west.

Page Two

DIP RANGE PROSPECT NO. 2

a) A map was compiled to show this prospect. The topography was enlarged from Forestry Sheet 21-D, and the outcrops and sample positions are based on the explorations of the prospectors. A zone is marked to include the outcrops and has a length of about 4,000 feet and a width of up to 75 feet. The strike is 30° and the dip is reported as being vertical or steeply to the east. The prospect occupies a narrow and high ridge between east-flowing and west-flowing streams.

... A copy is attached as Attachment 4.

INSPECTIONS BY COMPANIES

The prospects were inspected by C.R.A. and B.H.P., but their final decisions are not yet known.

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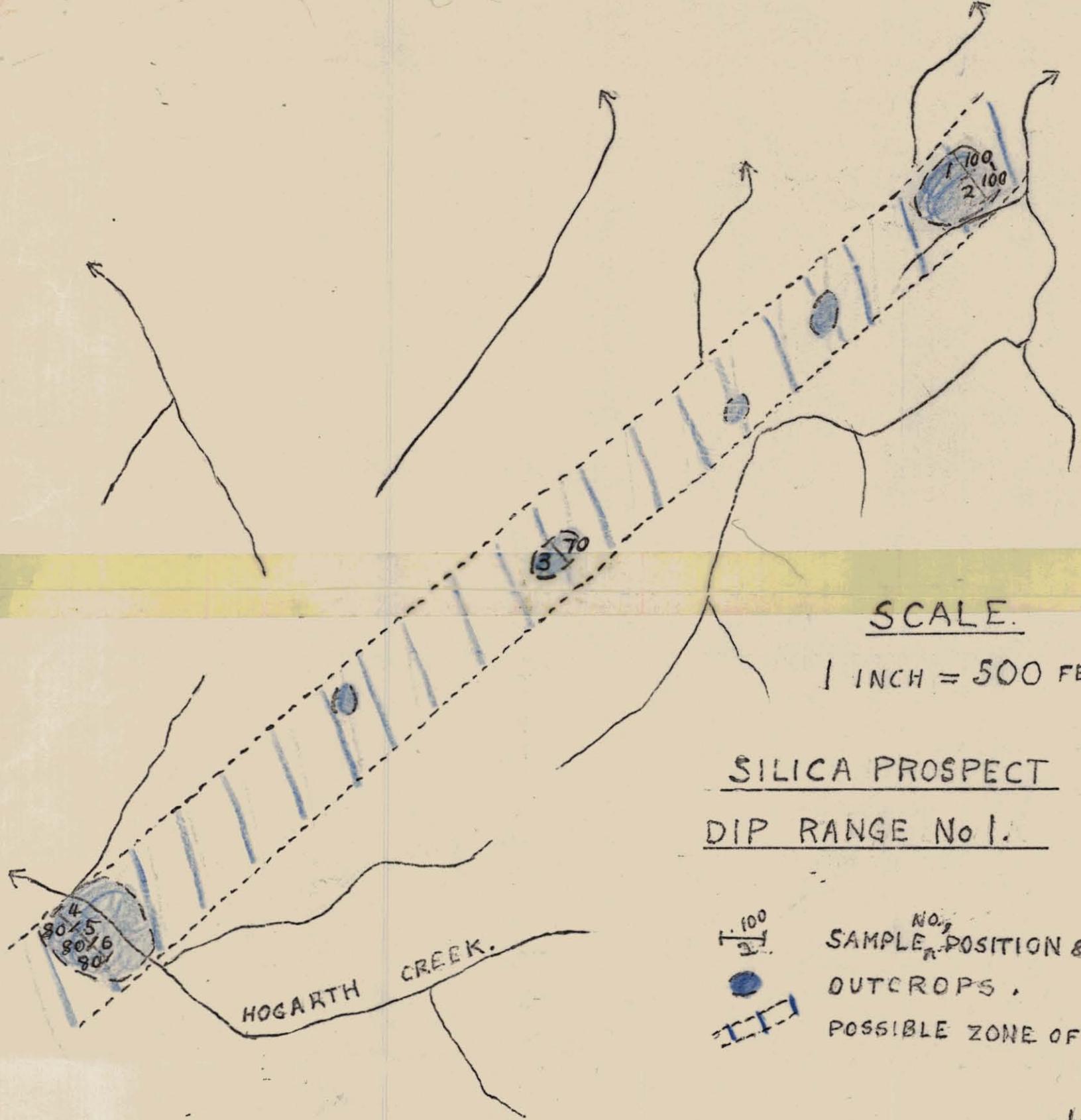
B.H.P. has not yet advised whether it is interested in the silica prospects on the Licence.

P. B. Nye
P. B. NYE
MELBOURNE
31ST MARCH

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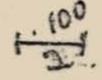
ATTACHMENT 1

326004



SCALE.
1 INCH = 500 FEET.

SILICA PROSPECT
DIP RANGE No 1.

-  ^{NO.} SAMPLE POSITION & WIDTH (FEET).
-  OUTCROPS.
-  POSSIBLE ZONE OF SILICA.

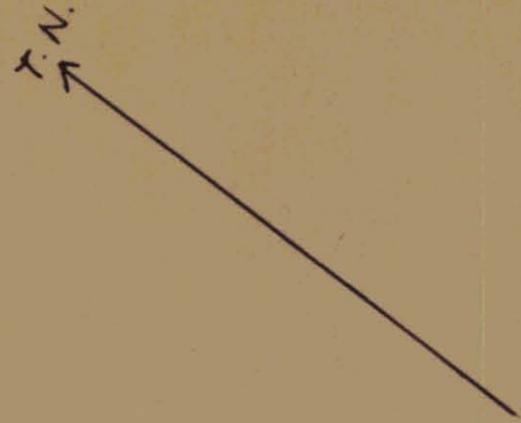
5 cm

*Topography enlarged from
Forestry Sheet 21-D.
Outcrops, etc by K. Pinner
pph/je
29/11/76.*

003

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PINNER STATES THAT QUARTZITE IS AT LEAST 400 FEET WIDE ALONG THIS LINE

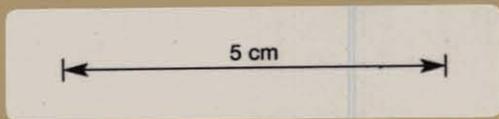


PROVISIONAL PLAN

DIP RANGE NO. 1
(NORTHERN OUTCROP)

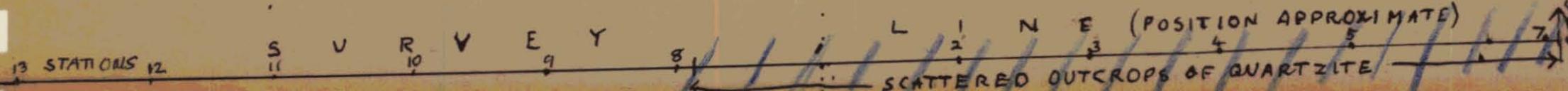
SCALE

1 INCH = 100 FEET

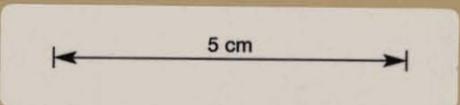


ASSUMED CREST OF RIDGE

Based on survey and other information supplied by K. Pinner
P. Belye.
13/1/77

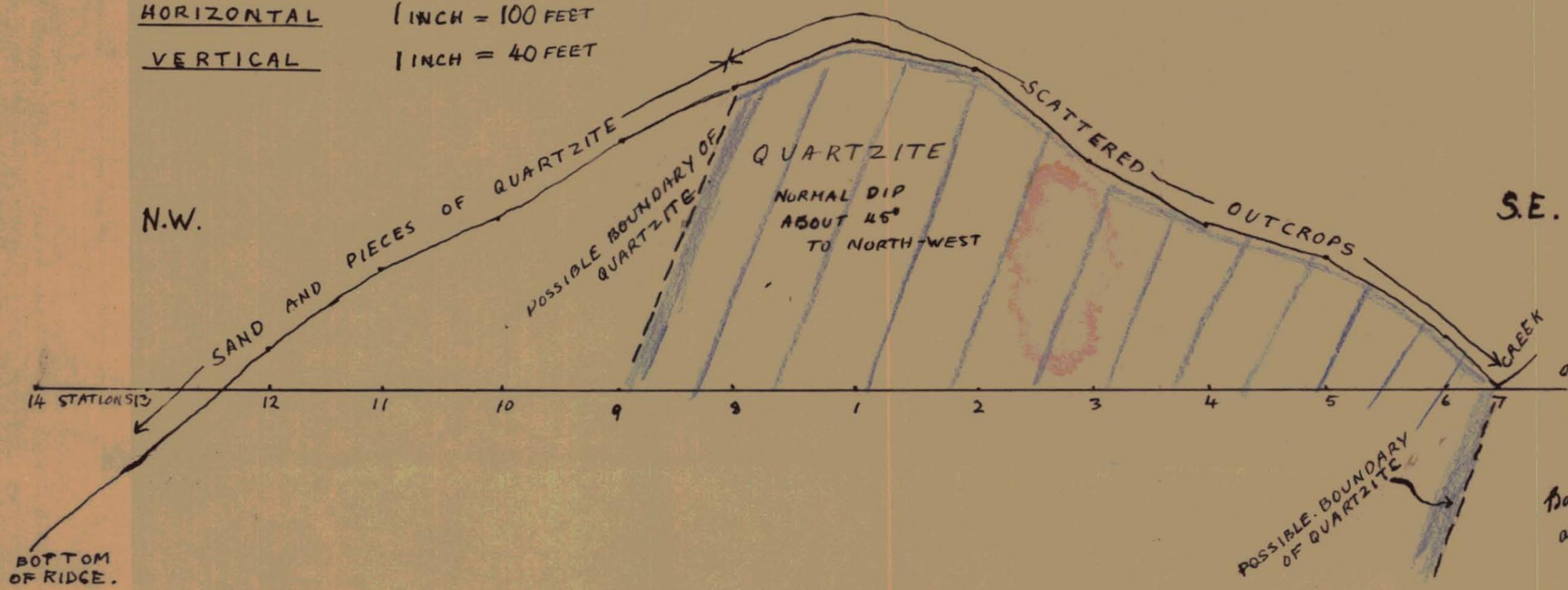


CROSS SECTION DIP RANGE No 1.



SCALES

HORIZONTAL 1 INCH = 100 FEET
VERTICAL 1 INCH = 40 FEET



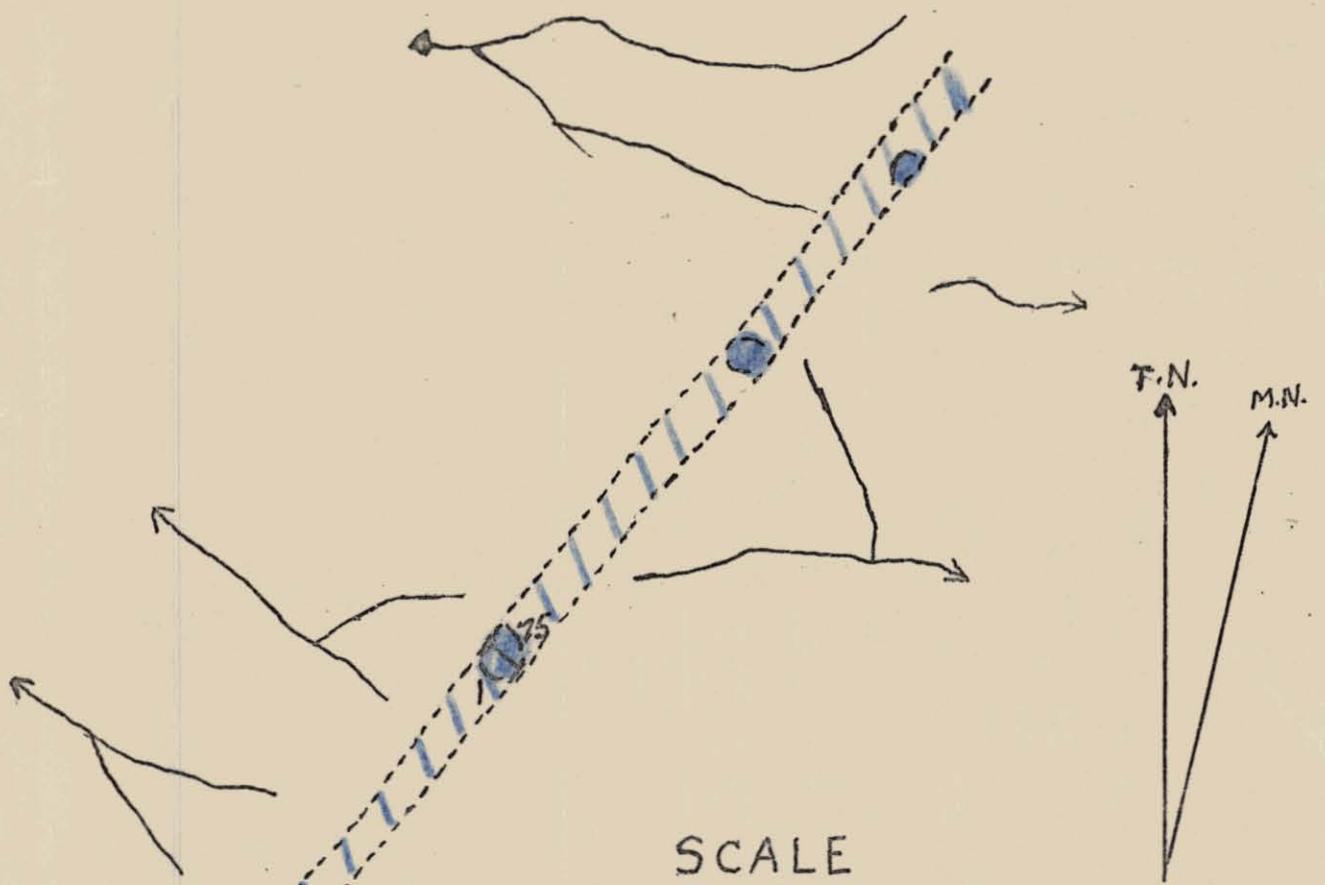
Based on survey notes
and other information
supplied by K. Penner
Photo
12/1/77

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SILICA PROSPECT

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DIP RANGE N° 2.



SCALE

1 INCH = 500 FEET

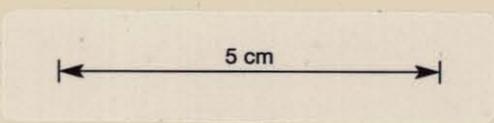
No. SAMPLE POSITION & WIDTH (FEET)

OUTCROPS

POSSIBLE ZONE OF SILICA



*Topography enlarged from
 Horseshoe Chart 21-D
 Outcrops etc by K. Pinner
 P. Bell
 29/11/76.*



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REPORT ON OPERATIONS ON EXPLORATION LICENCE
NO. 20/76 UNTIL THE END OF NOVEMBER, 1976.

INTRODUCTION

Application was made for this Licence on 15th June after it was pegged on 5th June and an advertisement inserted in the "Advocate" of 11th June. The Licence was approved on 29th September and was received on 5th October.

The exploration has been conducted mainly to discover silica deposits (quartzites). The exploration was started close to the northern boundary of E.L.43/70 and continued to the north in the Sisters Hills area. It was then continued south-west from the Sisters Hills area towards the Dip Range.

A copy of a map is attached showing where samples were taken in the Milabena and Sisters Hills area, and showing where large outcrops of quartzites were found in the Dip Range area. Information about each of the above areas and the sampling conducted will be given separately below.

MILABENA AREA

The quartzites sampled in this area are outcrops of parts of the Detention Sub-Group. Information about the outcrops and the samples and the results of analyses of the sample is given in the following table.

Sample No.	Site	Width of sample (feet)	Height of Outcrop (feet)	Analyses (H.F. Loss) %
1	1.5 miles north of Milabena	40	20 to 30	96.6
2)	2.1 miles north-east of Milabena	50	20	98.2
3)		30	15 to 20	94.9

SISTERS HILLS AREA

Seven samples were taken in this area. Samples Nos. 1 and 2 were taken from outcrops in the probable northern continuation of the Detention Sub-Group from the Milabena area. Samples Nos. 3, 4, 5, 6 and 7 were taken from outcrops in the same Detention Sub-Group but where it formed the nose of a large anticline near Sisters Hills and the information about the outcrops and sample results of the analyses of the samples are given in the following table.

Sample No.	Site	Width of Sample (feet)	Height of Outcrop (feet)	Analyses (H.F. Loss) %	Remarks
1	Railway cutting south of Sisters Hills	60	8 to 10	90.6	
2	Outcrop south of Sisters Hills	35	3 to 4	98.8	
3) 4)	North-eastern end of Sisters Hills	50 50	{ 30	99.1 98.4	Probably off the Lic. Probably on boundary of Licence or off the Licence
5)	On Sisters Hills	45	low	98.9	
6)	On Sisters Hills	100	low	97.5	
7)	On Sisters Hills	-	-	97.6	

DIP RANGE AREA

Two prospects were found in this area namely the Dip Range No. 1 and the Dip Range No. 2 prospects. The prospects are two parallel quartzite ridges situated on the south-westerly extension of the Detention Sub-Group from the anticline on Sisters Hills. The ridges strike north-easterly.

DIP RANGE PROSPECT NO. 1

This prospect occupies a ridge that extends north-easterly from Hogarth's Creek for about one mile. The prospect crops out on the southern side of Hogarth's Creek, but details of any south-westerly extension have not yet been obtained. Several other outcrops of quartzite are present along the ridge. At the north-eastern

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Page Three

end, the quartzite has been reported to dip at 45° to the north-west.

Information about the outcrop that have been sampled, and results of analyses of the samples are given in the following table.

Sample No.	Site	Width of Outcrop (feet)	Width of Sample (feet)	Height of Outcrop (feet)	Analyses (H.F. Loss) %
1	{ North end of ridge	200	100	80	99.5
2			100	80	99.2
3	Midway along ridge		70	-	99.0
4	{ Cliffs at Hogarths Creek (southern end of ridge)	250	80	-	99.3
5			80	-	99.4
6			80	-	99.5

DIP RANGE PROSPECT NO. 2

This prospect is situated about 1.5 miles south from the No. 1 prospect, and is a high and narrow quartzite ridge forming the divide between easterly and westerly flowing creeks. It is not on the line of continuation of Prospect No. 1, but is a parallel line. Quartzites crop out at intervals along the ridge for about 30 chains. The strike is reported to be 210° and the dip vertical or very steep to the east. Information about the outcrops, samples and results of analyses of the samples are given in the following table.

Sample No.	Site	Width of Sample (feet)	Height of Outcrop (feet)	Analyses (H.F. Loss) %
1	At southern end	75		98.7
2	15 chains from No. 1	50		99.1

ANALYSES

In the above descriptions, the only results given are for the silica content as determined by the H.F. Loss. Many of the samples had high silica contents and in accordance with the advice of the Chief Chemist and Metallurgist of the Department of Mines Laboratory (Mr. H. K. Wellington), it was considered advisable to have complete analyses made so as to determine the

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Page Four

silica content more satisfactorily. The complete analyses were useful also in giving the contents of impurities in the silica. A table is attached showing the analyses of all samples discussed above and includes the complete analyses made.

COMALCO LTD. The two Dip Range prospects were brought to the notice of the above company. A visit was made to the area by a Comalco geologist, and the company has reported that it has enough silica in its Cape Sorell deposit and is not interested in the Dip Range prospects.

P. B. Nye

P. B. NYE
MELBOURNE
3RD DECEMBER, 1976.

Area of Prospect	Sample No.	Reg. No.	H.F. Loss %	K ₂ O %	Na ₂ O %	MgO %	CaO %	Fe ₂ O ₃ %	Al ₂ O ₃ %	TiO ₂ %	Loss on Ignition %	Silica (see footnote)
Sisters Hills Area	1	761259	90.6	0.23	0.07	0.12	0.04	2.4	6.4	<0.01	1.08	*99.66
Sisters Hills Area	2	761260	98.8	0.15	0.02	0.03	0.01	0.06	0.07	"	0.20	*99.66
Sisters Hills Area	3	761261	99.1	0.10	0.02	0.03	0.02	0.04	1.1	"	0.10	*98.59
Sisters Hills Area	4	761262	98.4	0.19	0.03	0.03	0.01	0.07	1.2	"	0.05	*98.42
Sisters Hills Area	5	761286	98.9	0.07	0.03	0.05	0.04	0.18	0.2	"	0.10	*99.33
Sisters Hills Area	6	761287	97.5	0.33	0.05	0.09	0.02	0.36	1.9	"	0.21	*97.04
Sisters Hills Area	7	761344	97.6	0.34	0.02	0.02	0.01	0.08	1.4	"	0.19	*97.94
Dip Range Prospect No. 1	1	761504	99.5	0.07	0.02	0.01	0.01	0.08	0.53	"	0.20	99.1
Dip Range Prospect No. 1	2	761505	99.2	0.13	0.02	0.02	0.01	0.07	0.52	"	0.20	99.0
Dip Range Prospect No. 1	3	762258	99.0									
Dip Range Prospect No. 1	4	762259	99.3									
Dip Range Prospect No. 1	5	762260	99.4									
Dip Range Prospect No. 1	6	762261	99.5									
Dip Range Prospect No. 2	1	761640	98.7	0.12	0.02	0.02	0.04	0.09	0.83	"	0.14	98.7
Dip Range Prospect No. 2	2	762262	99.1									
Milabena Area	1	761200	98.9	0.16	0.05	0.07	0.04	0.07	<0.01	"	0.29	*99.32
Milabena Area	2	761201	98.5	0.18	0.04	0.03	0.02	0.07	"	"	0.24	*99.42
Milabena Area	3	761202	99.1	0.07	0.04	0.02	0.02	0.07	"	"	0.28	*99.50

The figures in this column without an asterisk were supplied by Mr. H.K. Wellington, Mines Department, Launceston. The figures with an asterisk are the differences between the sum of the impurities and 100 as worked out by M.H.A.

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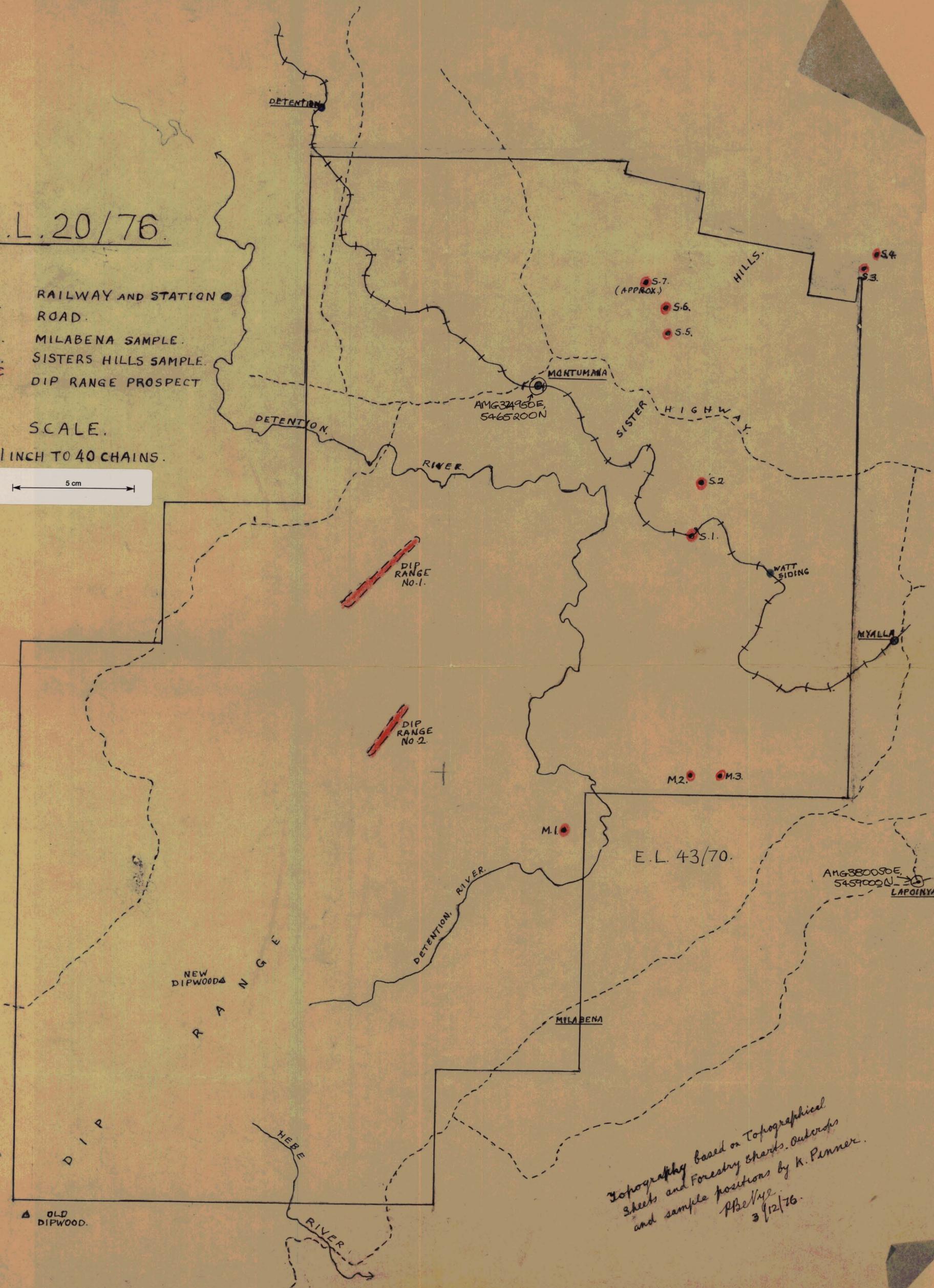
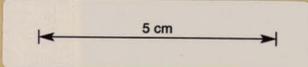
P. B. Nye
P. B. NYE
MELBOURNE
31ST MARCH

E.L. 20/76

-  RAILWAY AND STATION
-  ROAD
-  M.I. MILABENA SAMPLE
-  S.I. SISTERS HILLS SAMPLE
-  DIP RANGE PROSPECT

SCALE.

1 INCH TO 40 CHAINS.



*Topography based on Topographical
 sheets and Forestry charts. Outcrops
 and sample positions by K. Penner.
 PBe/ye
 3/12/76.*

AMG REFERENCE POINTS ADDED