

**ANNUAL REPORT**

**YEAR 4**

**T14P**

**CUE MINERALS N.L.**

**TPR  
OR-0143**

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# CUE MINERALS N.L.

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TELEPHONE 690 5390 TELEX AA33427

192 Macquarie Street,  
HOBART .. TAS .. 7000.  
PH: 310122 Tlx: 57229.

7th February, 1984.

The Director,  
Department of Mines,  
P.O. Box 56,  
ROSNY PARK .. TAS .. 7018.

U of M	AD	AG	EO	D.S.M.E.
Received	10 FEB 1984			
Answered	1458/84			
	DEPT: OF MINES			
REF: NO:				

②

① PB

③ RGR file report

Dear Sir,

RE: YEAR 4 ANNUAL REPORT, T14P.

This report relates to work carried out by Cue Minerals N.L. as Operator for the Consortium which holds title to T14P for the period January 9, 1983 to January 8, 1984.

## PERMIT STATUS

In response to our letter of December 21, 1983 we understand that the permit tenure is secure until April 30 subject to a successful farmout, as a result of which, Yolla -1 will be drilled in order to satisfy the Year 5 permit committment.

## GEOLOGICAL

Geological work during the year was aimed primarily at undertaking the regional geological history of the basin. To this end, stratigraphic and geochemical data have been reviewed in detail and have resulted in the firming of the Yolla Prospect to drillable status. Further, in conjunction with the T18P Consortium, a paper has been prepared for presentation at the 1984 APEA Conference in Hobart; the paper is entitled, "Bass and Gippsland Basins : A Comparison," by Petrecon Australia Pty. Ltd.

## GEOPHYSICAL

In the Third Quarter Report for the Fourth Permit Year a permit prospect map was included as well as a copy of seismic lines BCS81-05 over the Yolla Prospect. Mapping of the Yolla Prospect was completed and copies are enclosed.

Dwg. 83/55 is a time structure map at the Top of the Eastern View Group. Seismic data indicate that a large thickness of Miocene volcanics is present immediately to the north of the prospect (see BCS81-05) and these rocks clearly affect the conversion of a time map to depth. A depth map to the Top Eastern View was made without taking the effect of volcanics into account (Dwg. 83/56). The volcanics were then conservatively isopached in time (Dwg. 83/57) and then isopached in depth (Dwg. 83/58). By adding 83/58 to 83/56 a true depth map to the Top Eastern View was made (Dwg. 83/59). This map has a conservative closure of 60m due to the conservative thickness of Miocene volcanics used in the mapping.

(2)

In the Third Quarter report we indicated that due to anomalous events on the BMR's line 11 which crosses the "backslope" of Yolla, we instructed GSI to make a G-log presentation of BCS81-05. The line was reprocessed and migrated (Fig. 1) the most striking results in comparison with the earlier version of the line (see Third Quarter Report) being:-

- (a) enhanced event definition
  - (b) better definition and location of faults
  - (c) clear identification of anomalous flat lying events which our interpreted result from gas accumulations near 2.00 secs.
  - (d) the enhancement of a reflector from a beach-shore-face unit in the basal part of the Demons Bluff immediately overlying the Top Eastern View.
- and (e) possible phase changes at 1.55 and 1.65 secs.

The anomalous "gas" zones at 2.00 and 1.86 secs are not very obvious on the interval velocity plot (Fig. 2) due to the coarse 175m/sec scale. However, on the 100m/sec scale (Fig. 3) the horizontal event at S.P. 460 and 2.0 secs quite clearly cuts the gentle left dip of the rocks. This brown event represents a drop of some 600m/sec compared with the "pink" beds surrounding it. The event at 2.00 secs is not apparent on the instantaneous frequency plot (Fig. 4) but the events at 1.65 and 1.55 exhibit twice to three times the frequencies of the surrounding rocks. One wonders if this expression, and the absence of a velocity anomaly, is indicative of a fluid different from gas or gas saturated oil, possible from a lower G.O.R. oil? There is support for this hypothesis especially for the 1.55 sec anomaly, in that there is a marked increase in instantaneous amplitude in the basal Demons Bluff on the crest of the structure. The instantaneous phase plot (Fig. 6) shows an anomaly at S.P. 460 at 2.00 secs. Relating these observations to Dwg. 83/55 and 59 suggests that if the above events are indicative of hydrocarbons, the Yolla Prospect is full to spill point at the basal Demons Bluff/Top Eastern View; anomalies at 1.86 and 2.00 secs might be related to a structure similar in geometry to the Top Eastern View map, but the culmination of which is a little SW of the Top E.V. crest on line 73A - 169.

#### RIG TENDER

We have received tenders from the owners of the following rigs regarding the drilling of Yolla -1 (and Turrah -1 T18P).

- (a) Diamond M. Epoch, presently working for Ultramar in the Otway Basin.
  - (b) Nymphaea - Shell, Gippsland.
  - (c) Southern Cross - Esso, Gippsland
- and (d) Ocean Digger - stacked Darwin.

We plan to have more detailed discussions with the best tender, with the intention of negotiating a contract which the farminee will takeover and sign on farming-in. We will shortly be looking at the purchase of consumables (casing etc) in order that drilling can proceed as quickly as possible after the completion of a farmout.

FARMOUT STATUS

The present list of companies that are evaluating the farmout package and that have been supplied with considerable quantities of detailed data includes:-

Ultramar  
South Australian Oil & Gas  
Santos  
Bridge  
Moonie  
Offshore  
Amoco

As stated in our letter of Decemeber 21, 1982, Ultramar and SAOG are considering the T14 and 18P farmout at the same time as the Pelican area and, in the event either of these companies is interested in T14P or T18P, negotiations should be advanced by March 23 when the Pelican gazetal closes.

YEAR 4 EXPENDITURE

The expenditure during the Fourth Permit Year is as follows:-

	\$
Lease Fees Rental	210.
Office Overheads	15,000
Office Studies	38,653
Field Work	
Geophysical	1,600
(tape storage)	
Drilling	8,712
(rig tendering etc)	
	<hr/>
	\$64,176
	<hr/>

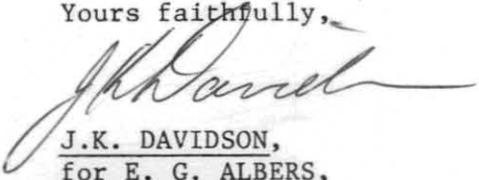
Permit Expenditure to Date is:-

Year 1	76,621
Year 2	413,478
Year 3	178,039
Year 4	64,176
	<hr/>
	\$732,314
	<hr/>

YEAR 5 WORK PROGRAMME

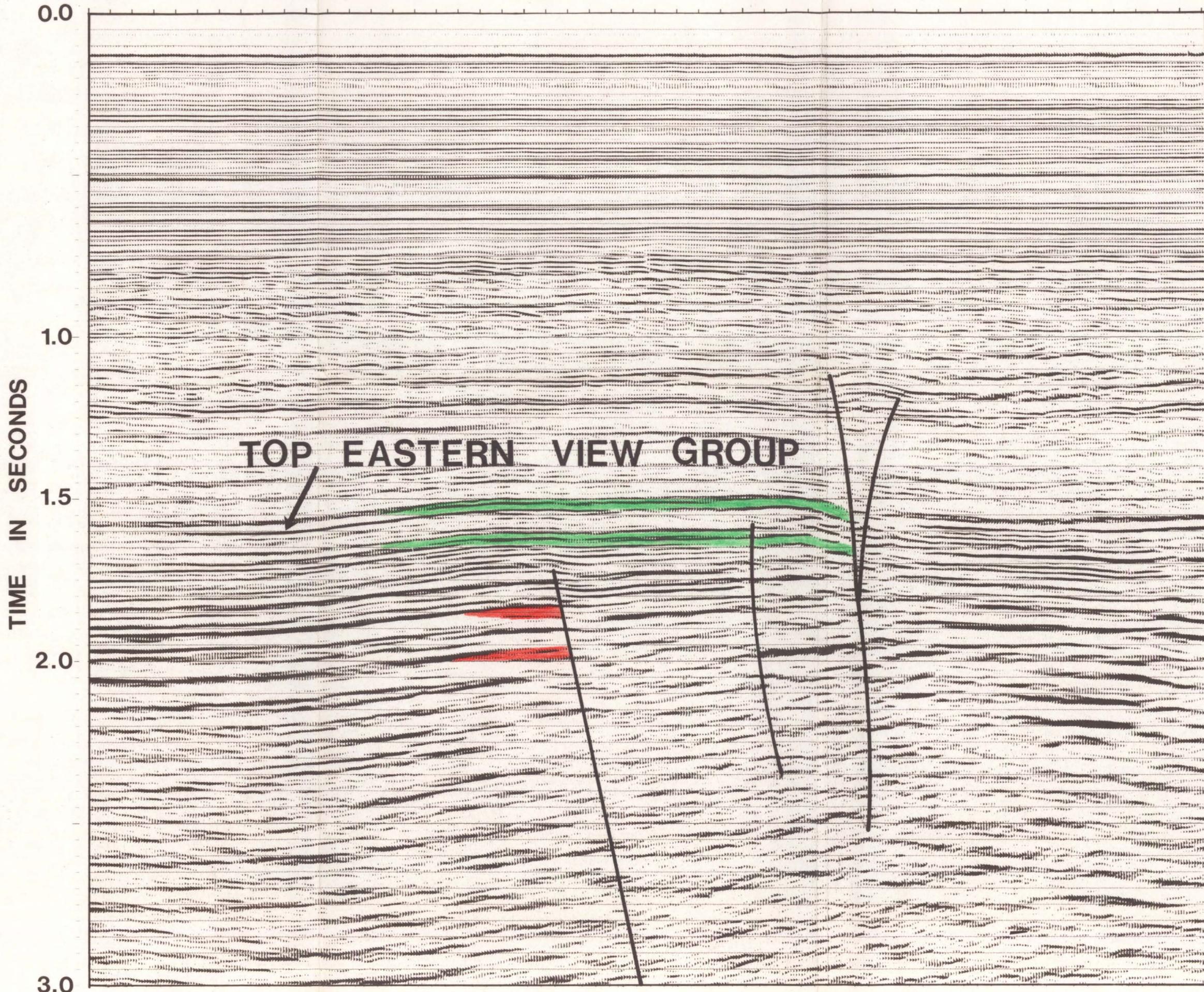
The Year 5 Work Programme will focus on the preparation for, and drilling of, Yolla -1, after a farmout of part of the equities of the present permit holders. It is anticipated that any encouragement at Yolla will necessitate the shooting of an extensive seismic programme over Tilana and the Bass -2 area and possible leads to the north and south.

Yours faithfully,

  
J.K. DAVIDSON,  
for E. G. ALBERS,  
CHAIRMAN.



380 420 460 500 540 584



TOP EASTERN VIEW GROUP

5 cm

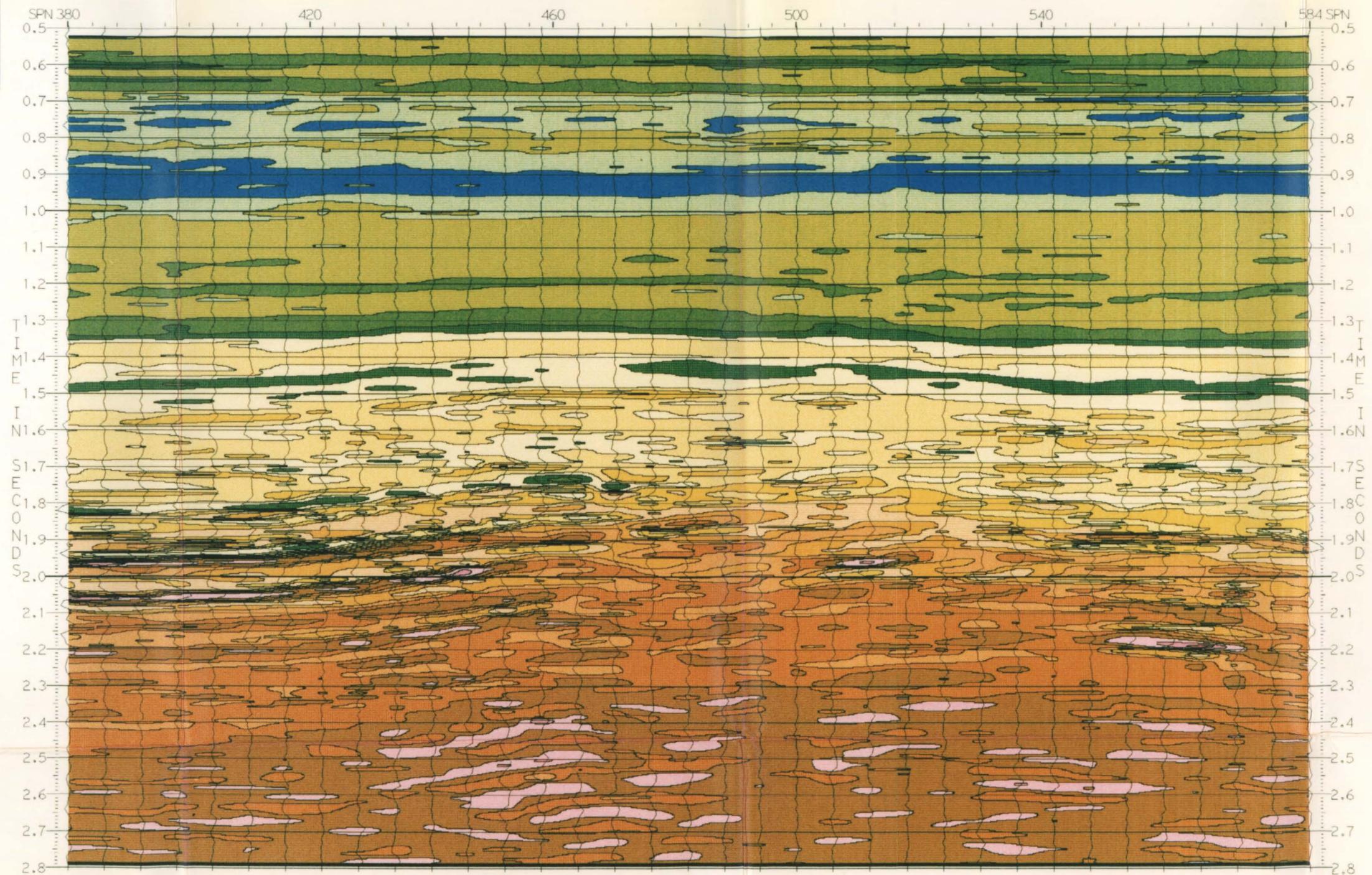
OR-0143

Fig. 1

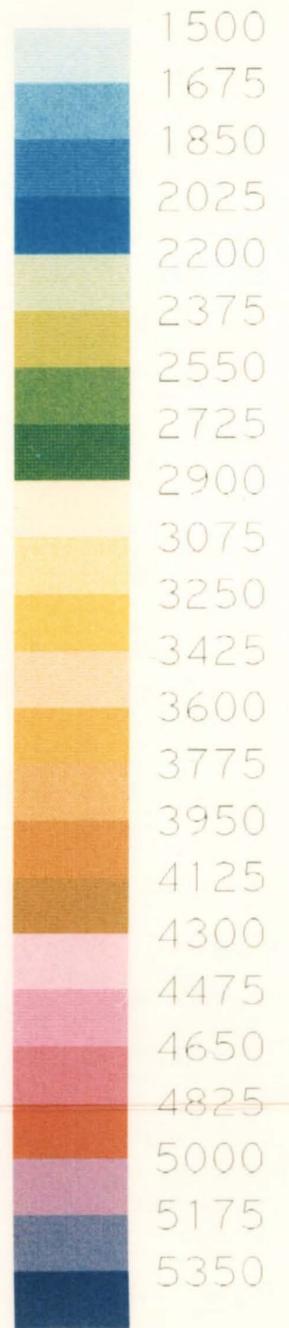
CUE MINERALS N.L.  
 BASS BASIN TAS T14P  
 LINE BCS81-05  
 S.P. 380 TO 584  
 QLOG (RECURSIVE) SECTION

CS1  
 16 DEC 1983

5 cm



INTERVAL  
 VELOCITY  
 METRES/SEC



T  
I  
M  
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N  
S  
I  
D  
E  
S

0.5  
0.6  
0.7  
0.8  
0.9  
1.0  
1.1  
1.2  
1.3  
1.4  
1.5  
1.6  
1.7  
1.8  
1.9  
2.0  
2.1  
2.2  
2.3  
2.4  
2.5  
2.6  
2.7  
2.8

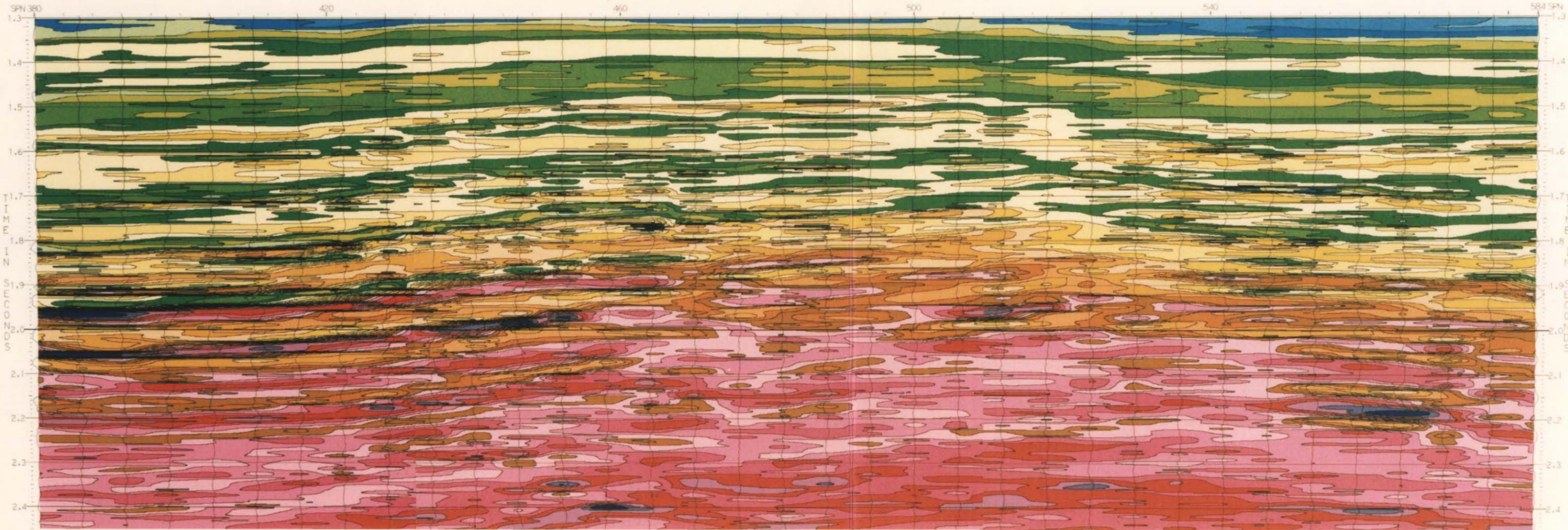
OR-0143

142007

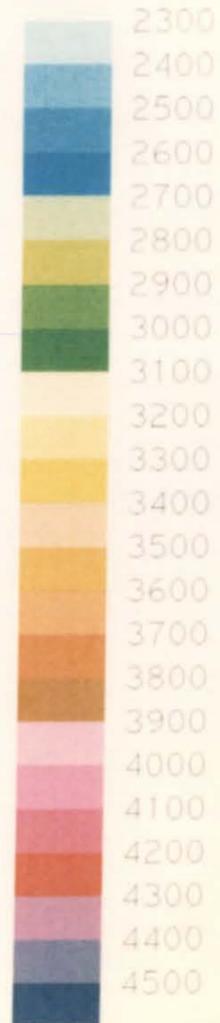
Fig. 2

CUE MINERALS N.L.  
BASS BASIN TAS T14P  
LINE BCS81-05  
S.P. 380 TO 584  
LOG (RECURSIVE) ZOOM

5 cm



INTERVAL  
VELOCITY  
METRES/SECOND



142008

OR-0143

FIG. 3

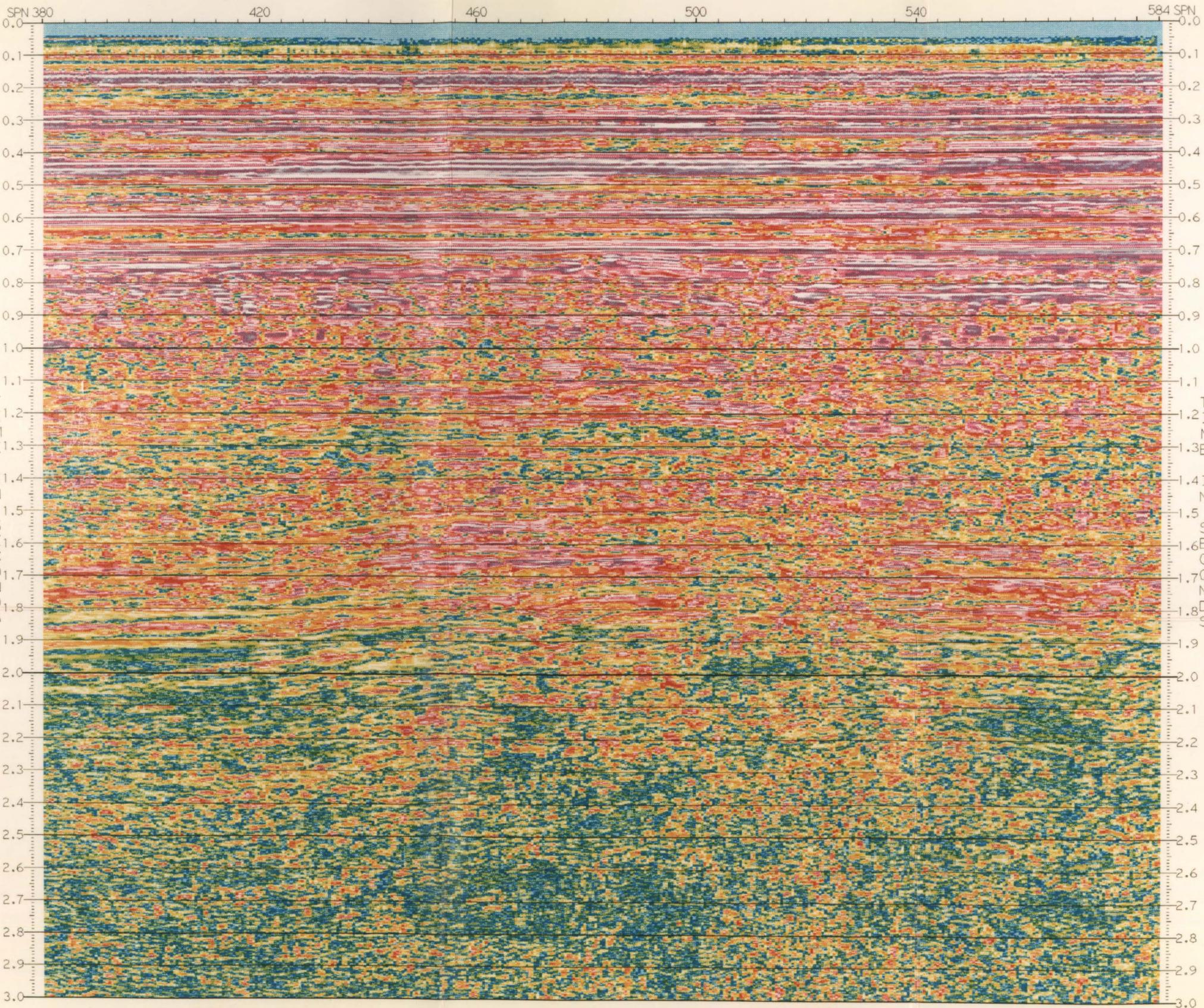
142009

02-0143

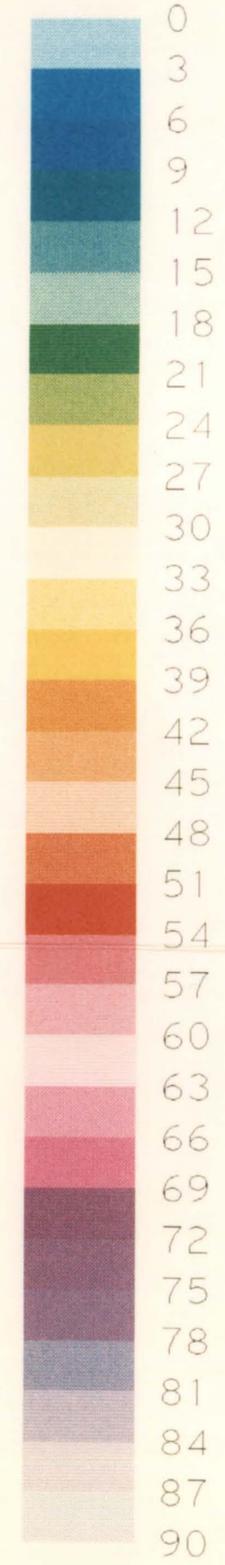
Fig. 4

CUE MINERALS N.L.  
 BASS BASIN TAS T14P  
 LINE BCS81-05  
 S.P. 380 TO 584  
 INST. FREQUENCY (GLOG INPUT)

CSI  
09 JAN 1984



INSTA  
FRE



T  
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S

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S

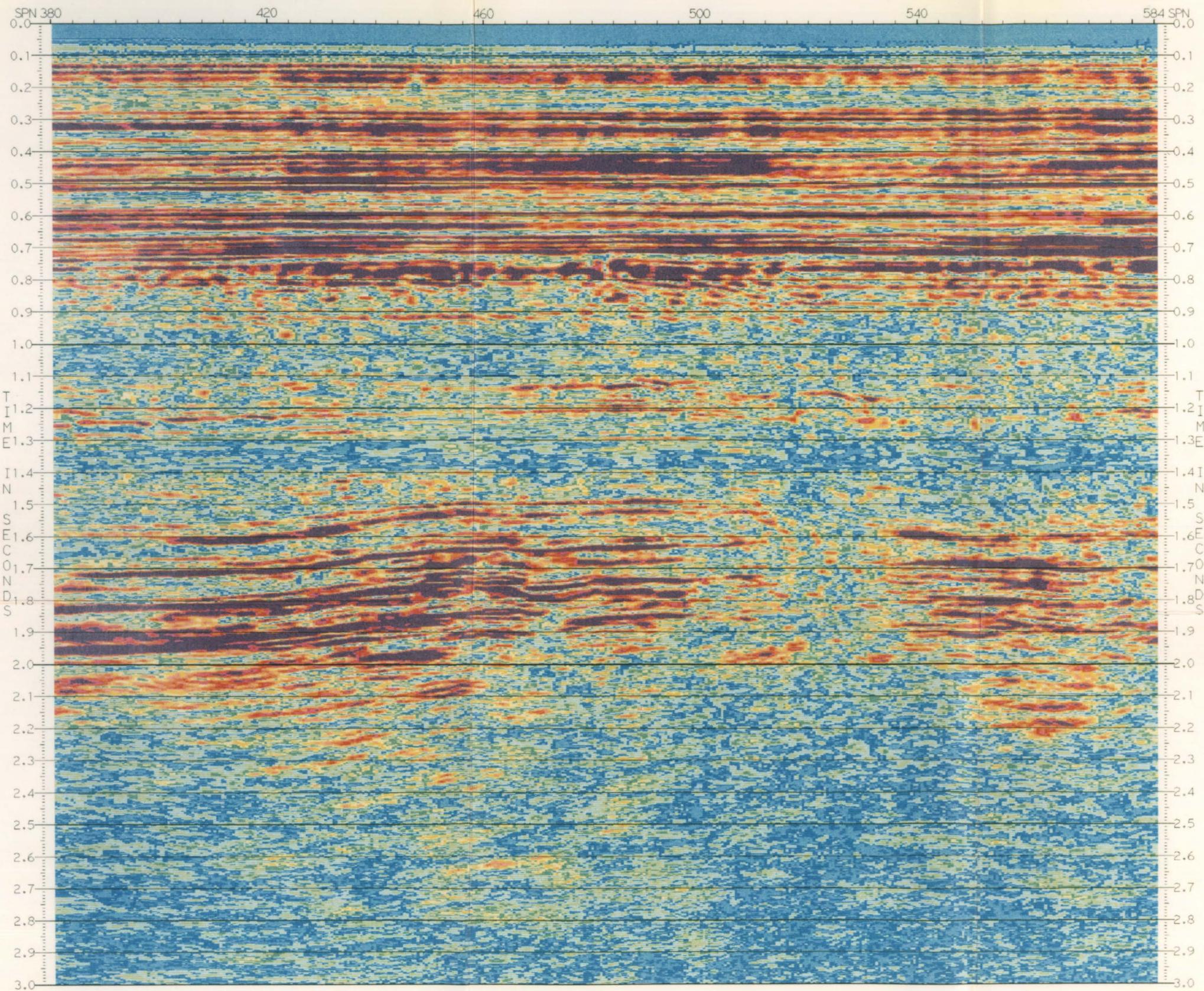
CR-0143

CUE MINERALS N.L.  
BASS BASIN TAS T14P  
LINE BCS81-05  
S.P. 380 TO 584  
INST. AMPLITUDE (GLOG INPUT)

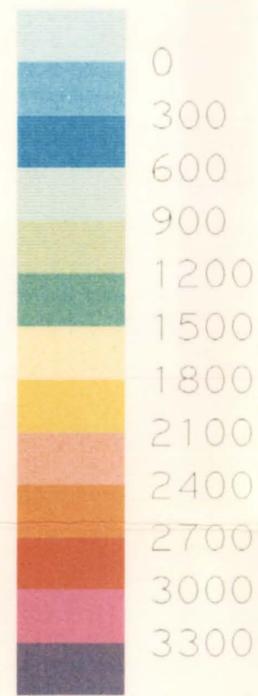
Fig. 5

142010

5 cm



INSTANTANEOUS  
AMPLITUDE



OR-0143

142011

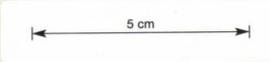
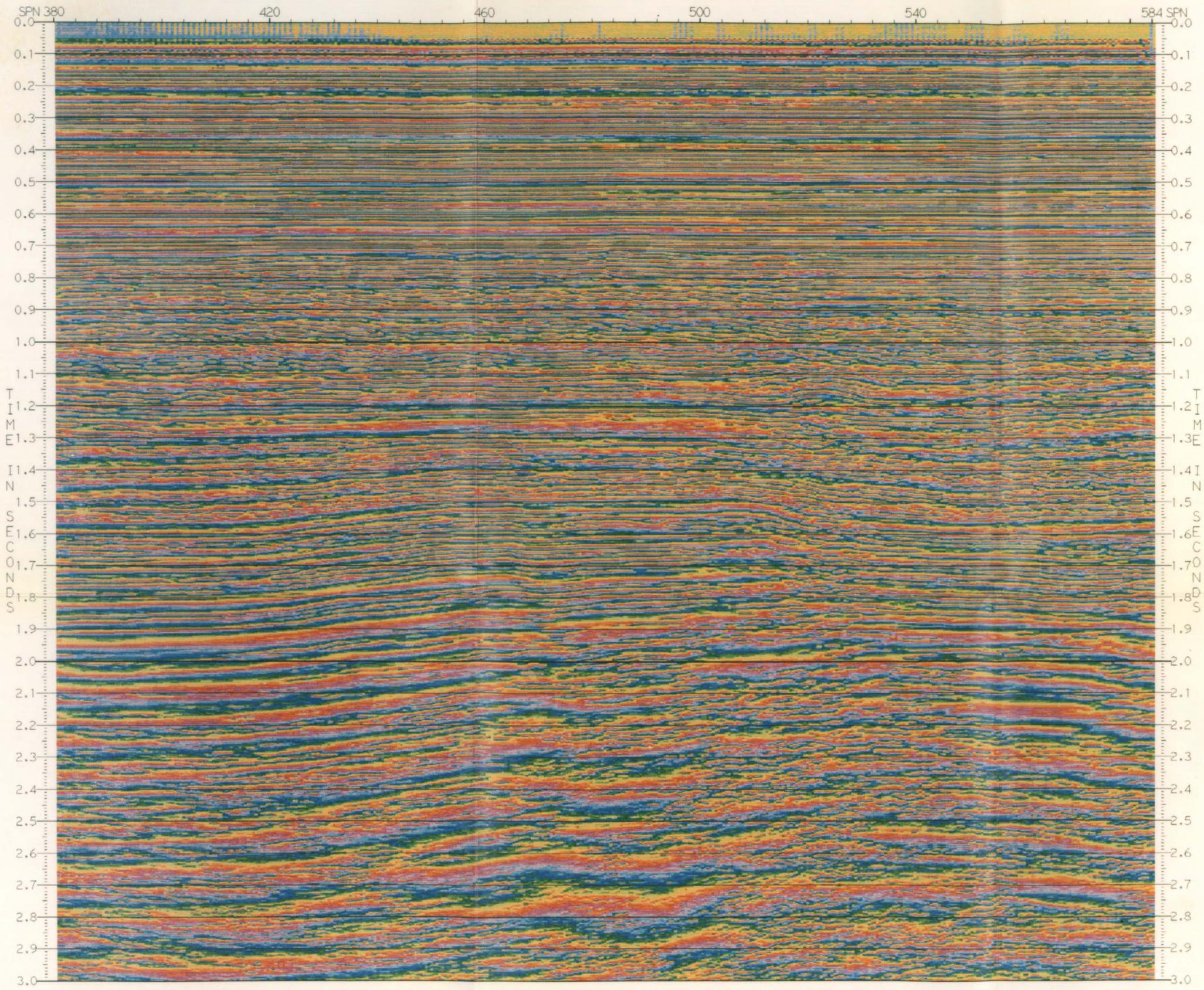


Fig. 6

CUE MINERALS N.L.  
 BASS BASIN TAS T14P  
 LINE BCS81-05  
 S.P. 380 TO 584  
 INST. PHASE (GLOG INPUT)

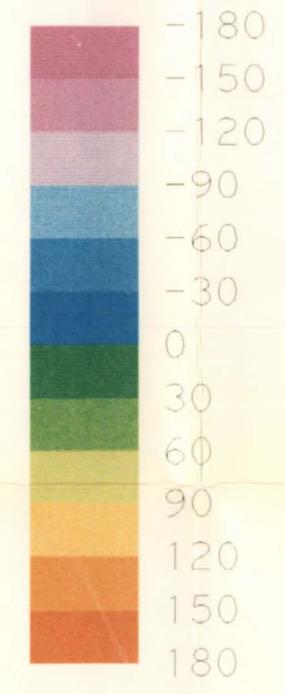
GS1  
 09 JAN 1984

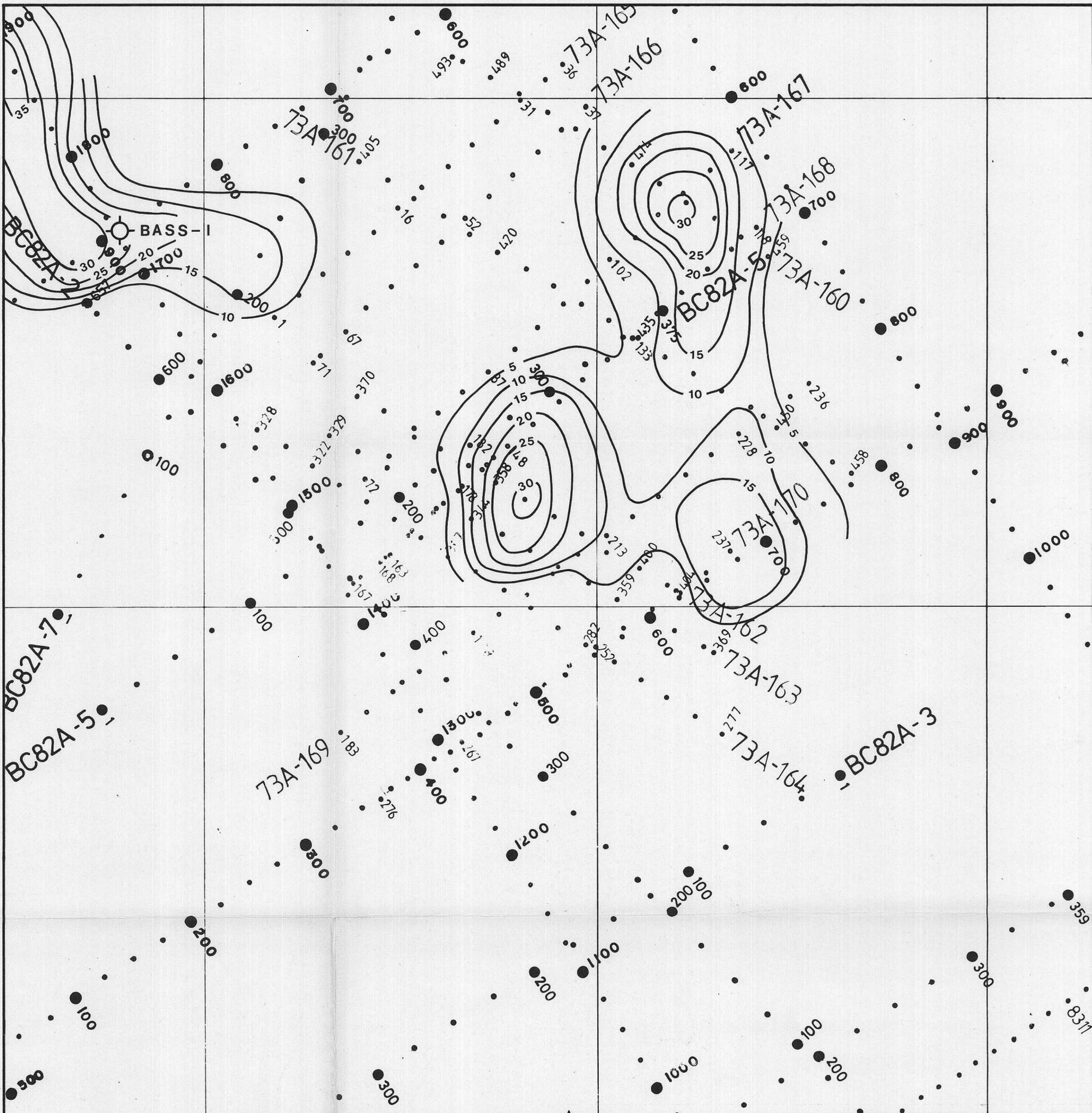


SPN 380  
 0.0  
 0.1  
 0.2  
 0.3  
 0.4  
 0.5  
 0.6  
 0.7  
 0.8  
 0.9  
 1.0  
 1.1  
 T I 1.2  
 M E 1.3  
 I 1.4  
 N S 1.5  
 E 1.6  
 C O 1.7  
 N D 1.8  
 S 1.9  
 2.0  
 2.1  
 2.2  
 2.3  
 2.4  
 2.5  
 2.6  
 2.7  
 2.8  
 2.9  
 3.0

584 SPN  
 0.0  
 0.1  
 0.2  
 0.3  
 0.4  
 0.5  
 0.6  
 0.7  
 0.8  
 0.9  
 1.0  
 T I 1.1  
 M E 1.3  
 I 1.4  
 N S 1.5  
 E 1.6  
 C O 1.7  
 N D 1.8  
 S 1.9  
 2.0  
 2.1  
 2.2  
 2.3  
 2.4  
 2.5  
 2.6  
 2.7  
 2.8  
 2.9  
 3.0

INSTANTANEOUS  
 PHASE  
 ( DEGREES )





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142012

CUE MINERALS N.L.

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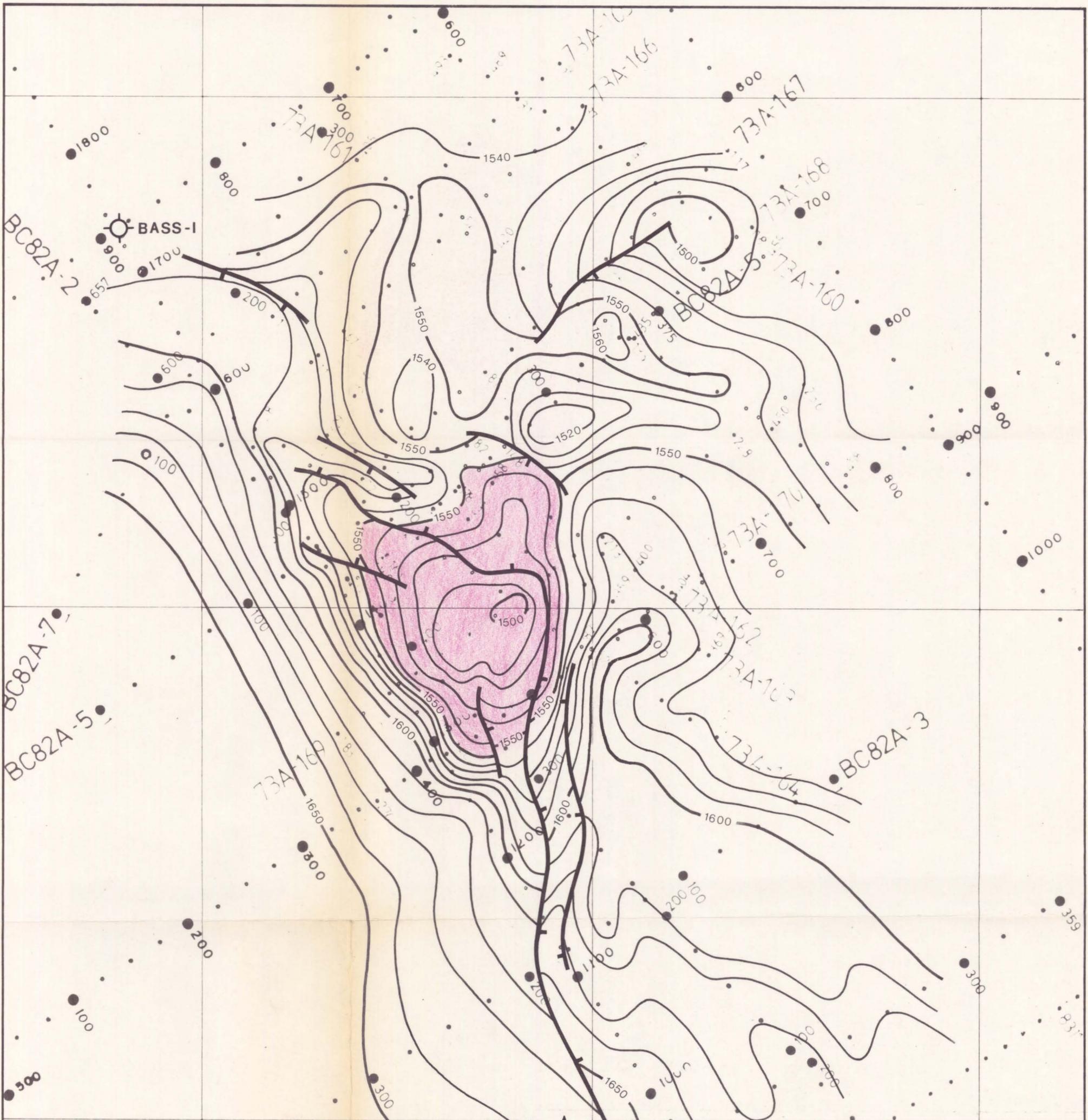
T14P - YOLLA PROSPECT.  
 DEPTH CORRECTION DUE TO  
 PULLUP BY THE MIOCENE  
 VOLCANICS

COMPILED	GJB
DRAWN	JP
DATE	9.12.83
SCALE	1:50 000
C.I.	5 m

5 cm

OR-143

FIG. 7



PETRECON AUSTRALIA PTY. LTD.

142013

CUE MINERALS N.L.

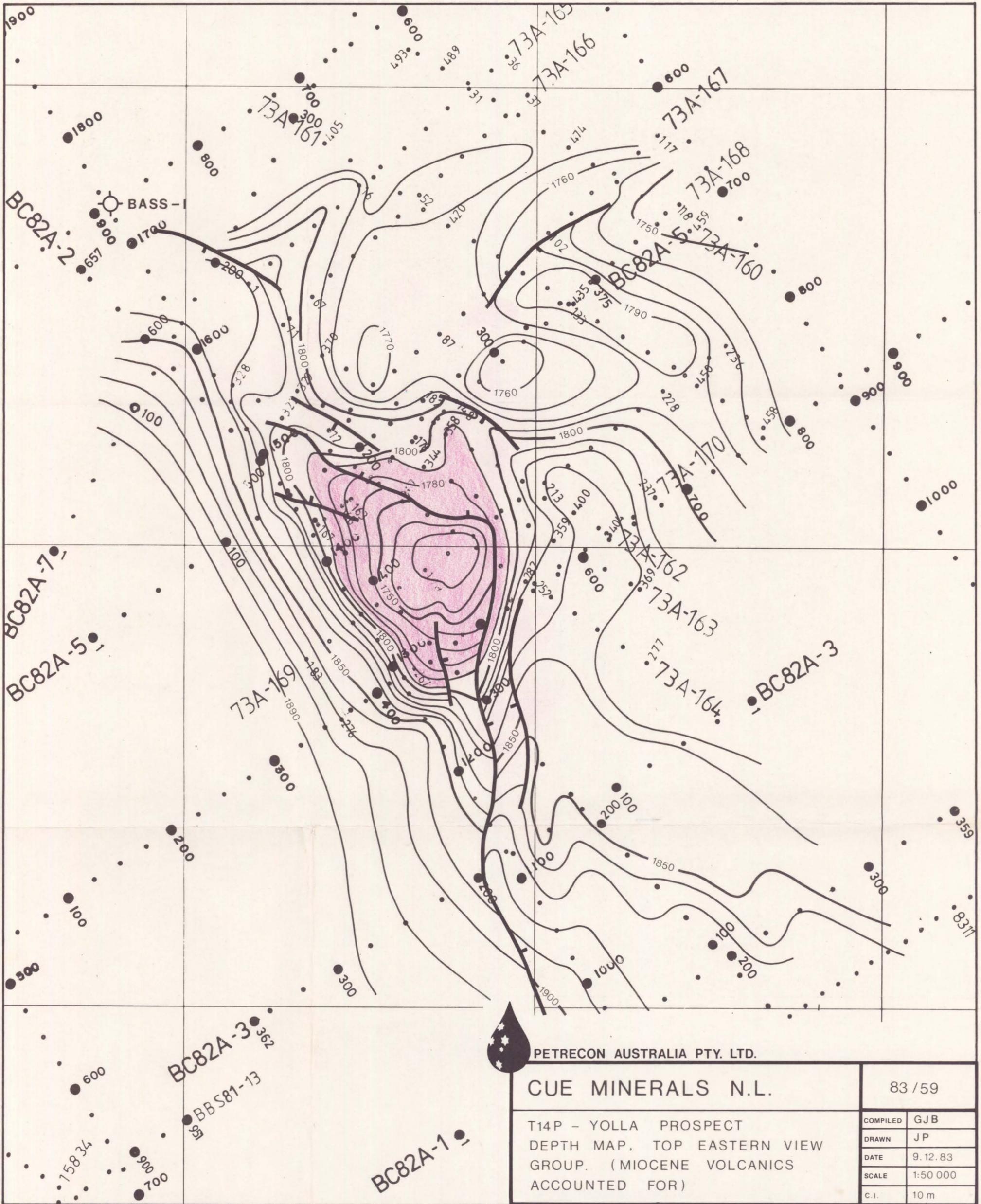
83/55

T14P - YOLLA PROSPECT  
 TIME STRUCTURE MAP  
 TOP EASTERN VIEW GROUP

COMPILED	GJB
DRAWN	JP
DATE	9.12.83
SCALE	1:50 000
C.I.	10 ms



CR-0143 FIG.8



PETRECON AUSTRALIA PTY. LTD.

CUE MINERALS N.L.

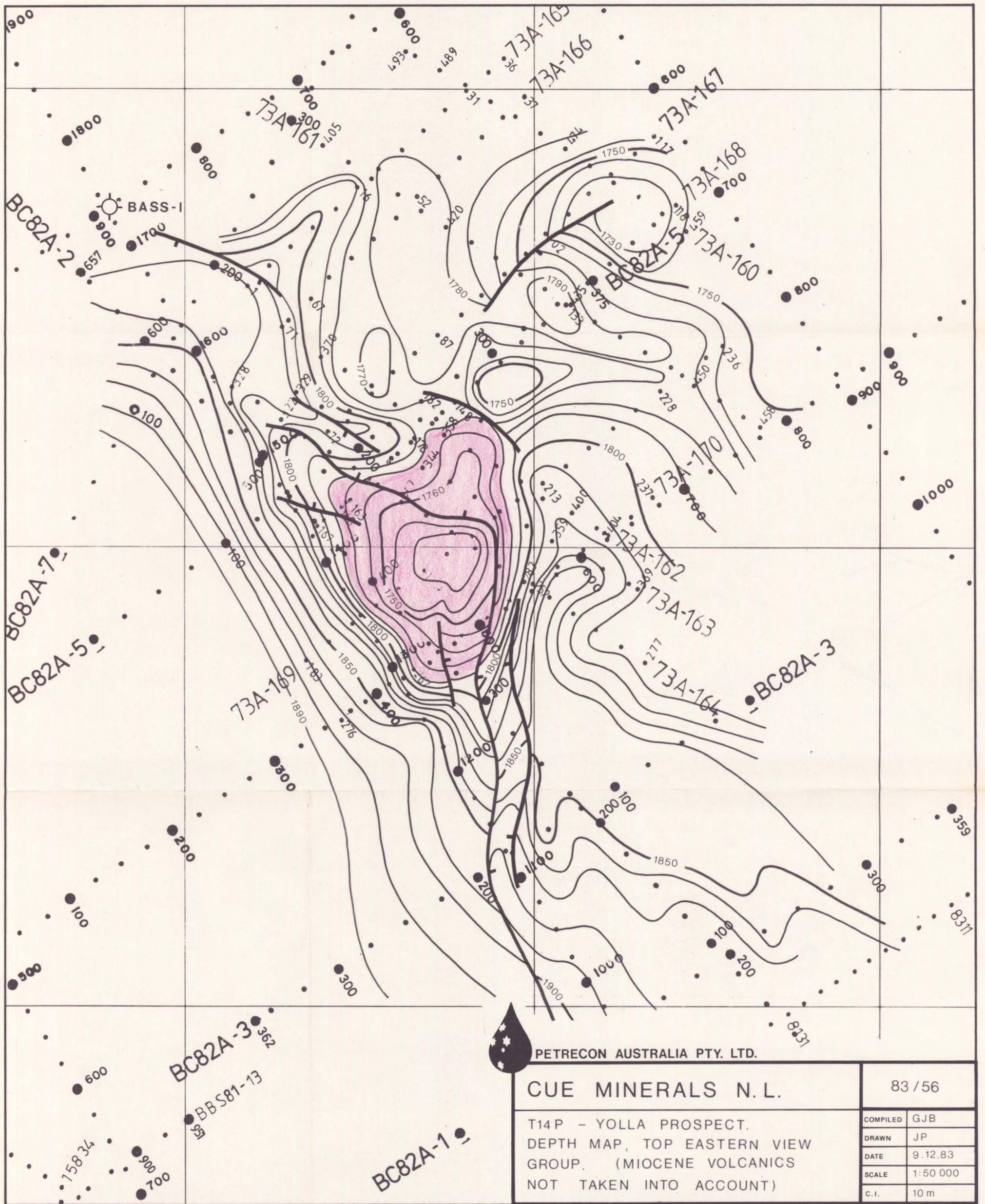
83 / 59

T14P - YOLLA PROSPECT  
 DEPTH MAP, TOP EASTERN VIEW  
 GROUP. (MIOCENE VOLCANICS  
 ACCOUNTED FOR)

COMPILED	GJB
DRAWN	JP
DATE	9.12.83
SCALE	1:50 000
C.I.	10 m

5 cm

OR-0143 FIG. 9  
 142014



PETRECON AUSTRALIA PTY. LTD.

CUE MINERALS N.L.

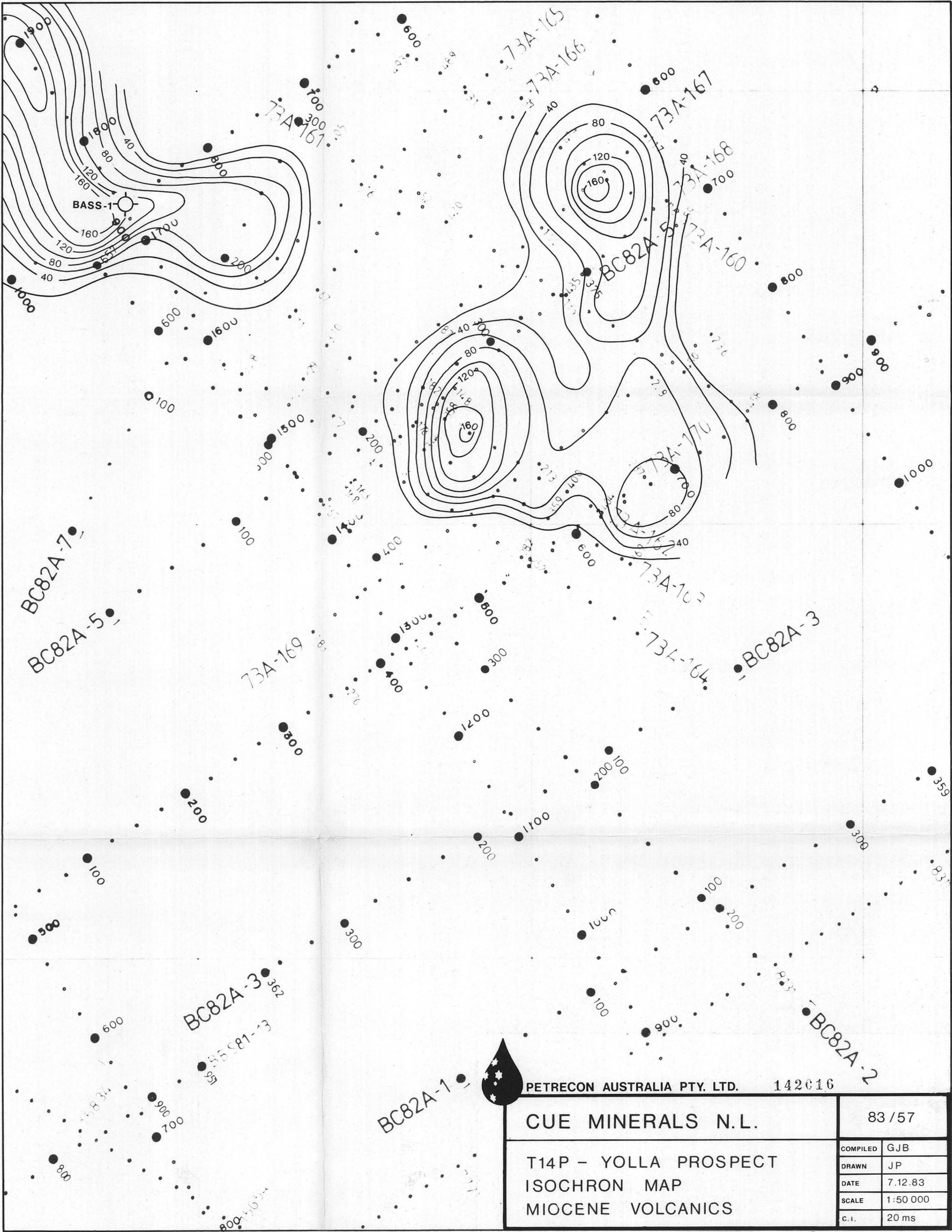
T14P - YOLLA PROSPECT.  
 DEPTH MAP, TOP EASTERN VIEW  
 GROUP. (MIOCENE VOLCANICS  
 NOT TAKEN INTO ACCOUNT)

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COMPILED	GJB
DRAWN	JP
DATE	9.12.83
SCALE	1:50 000
C.I.	10 m

5 cm

CR-0143 FIG. 10  
 142015



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CUE MINERALS N.L.

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T14P - YOLLA PROSPECT  
 ISOCHRON MAP  
 MIOCENE VOLCANICS

COMPILED	GJB
DRAWN	JP
DATE	7.12.83
SCALE	1:50 000
c.i.	20 ms



DR-0143 FIG. 11.