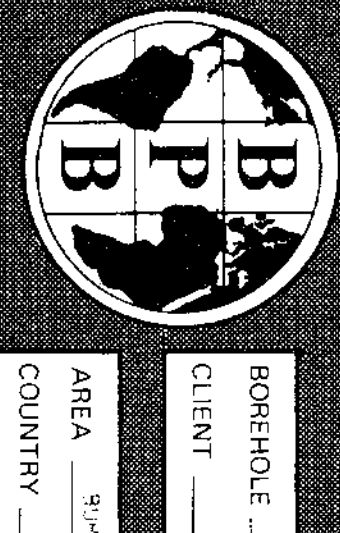




72-2 West River Rd 30A 8/2-3-2



BOREHOLE \_\_\_\_\_  
 CLIENT \_\_\_\_\_

AREA \_\_\_\_\_  
 COUNTRY \_\_\_\_\_

DATE LOGGED 30/07/95

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SOURCE

LOG TANKING \_\_\_\_\_  
 CALIBERS \_\_\_\_\_

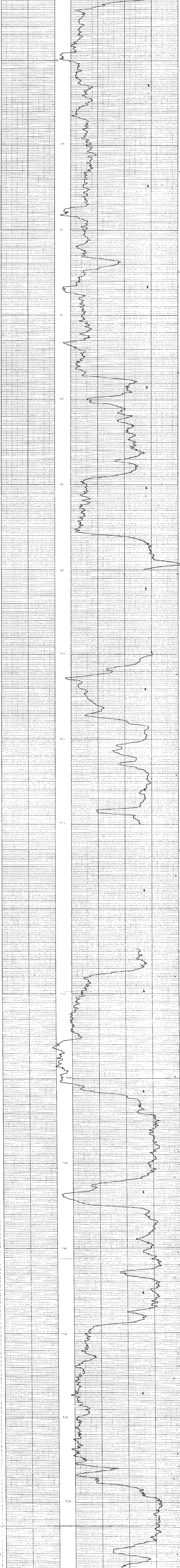
SONDE TYPE \_\_\_\_\_

COAL COMBINATION \_\_\_\_\_

LOG SUITE \_\_\_\_\_

REMARKS \_\_\_\_\_

**B P B SEAM THICKNESS LOG**



CALIPER INCHES DEPTH BED RESOLUTION DENSITY

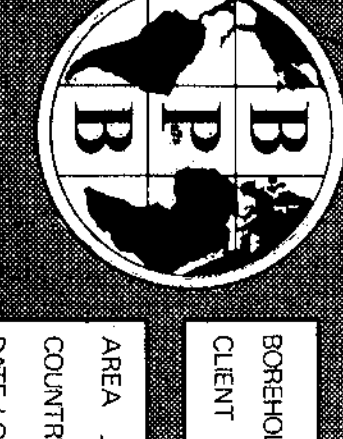


BOREHOLE Br 32  
 CLIENT TCH-1086

AREA QUINT-LUCH  
 COUNTRY CANADA

**SEAM THICKNESS LOG**

489



PRE-BURNT RIVER BR-33 82-33

BORERHOLE BR-33  
CLIENT Tack Corp

AREA Burnt River  
COUNTRY Canada

DATE LOGGED 1/10/80

# COAL LITHOLOGY LOG

MEASUREMENTS: 5' around level  
ELEVATION OF P.O. 5' around level  
DRIFFER  
DEPTH REACHED 132m  
LOG NO. 110

SONDE TYPE: Gamma Ray  
COAL COMBINATION: 110  
SONDE: 5845

LOG SUIITE: GAMMA RAY  
L.S. DENSITY  
CALIBER

OPERATION DATA  
FIRST READING: 132m  
LAST READING: 132m  
INTERVAL LOGGED: 132m  
ENGINEER: PML/AG  
WITNESS: 489

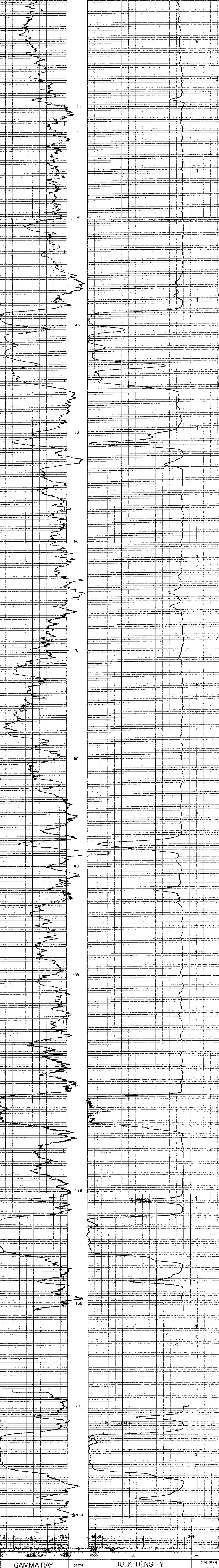
EQUIPMENT AND RECORDING DATA													
COAL COMBINATION SONDE		EQUIPMENT		TAPING		PANEL		CAL. COEFF.		DEPTHS		SEAM LOG RUN	
LOG	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	110	5845	610001	Y	9m/m	D	9m/m	1		1.5	132	0m	132m
DENSITY			53090U	Y	9m/m	D	9m/m	1/3	6.2		133m	1m	132m
CALIBER				Y	9m/m	D	9m/m	1/3			133m	1m	132m

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)				INTERVAL TOTAL
FROM	54m	91m	131m	
TO	36m	85m	109m	
INTERVAL	18m	6m	22m	

ADDITIONAL SONDES RUN			REMARKS
SONDE	LOG	GENERAL SCALE LOG	
	N-W	1001	
	F-E	1001	

## BPB COAL LITHOLOGY LOG CALIBRATION DATA

JIG No. 367	VALUE 10 @ 2" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530	SDU @ 6/cm <sup>3</sup>	7 ms 892 cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No. 0338	SPAN 6000	NORM 5000	2 ms 480 cps



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



BORERHOLE BR-33  
CLIENT Tack Corp  
AREA Burnt River  
COUNTRY Canada

## COAL LITHOLOGY LOG



BR-Burnt River 80 (33A) 3233

BOREHOLE BR-33  
CLIENT TECK CORP.

AREA Burnt River  
COUNTRY CANADA  
DATE LOGGED 25-07-88

DEPTH SCALE  
2100 ft  
2.0" for LOGS

COAL

LITHOLOGY LOG

BOREHOLE DATA

PERMANENT DILUTION	8 ft to litho log - 90 100 ft
ELEVATION OF 0 0	978
MEASUREMENTS FROM	DRILLER
DEPTH REACHED	
CASING SHAPE	
BIT SIZES	1 TO 2 TO 3 TO 4 TO
CASING SIZES	1 TO 2 TO

FLUID DATA

NATURE	
SS	
VISCOSITY	
PH. AT PRESS. TEMP.	
BIT	

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY  
L.S. DENSITY  
CALIPER

OPERATION DATA

FIRST READING 1.32m  
LAST READING 9.72m  
INTERVAL LOGGED 47.7m  
UNIT-TRUCK NO. 217/2  
ENGINEER JH/JS  
WITNESS

489

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE													
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS		SEAM LOG RUN	
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM		TO
CC	11.1	5645											
GAMMA RAY			51011	Y	9m/m	4	9m/m	1	1.5	132m	1m	132m	
L.S. DENSITY			51011	Y	9m/m	4	9m/m	1/3	6.7	132m	1m	132m	
CALIPER				Y	9m/m	4	9m/m	1/3	-	133m	1m	132m	

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM		INTERVAL
TO		TOTAL
INTERVAL		

ADDITIONAL SONDES RUN				REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	
				Log replayed at 100,1

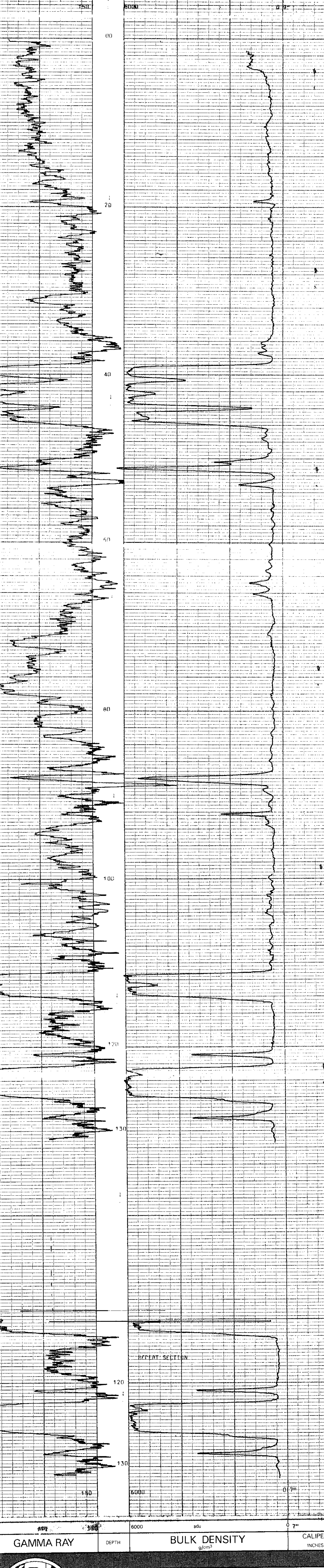
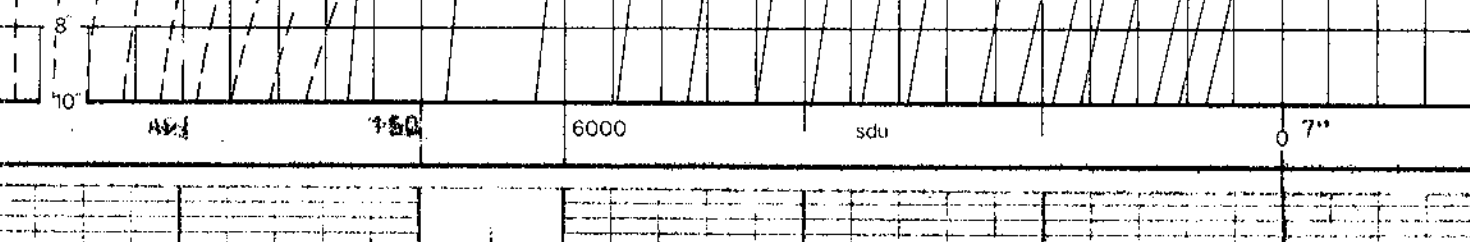
BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. 367	VALUE 51.40	2" DIAM	JIG CAL DATE 17/06/80	JIG VALUES 530	SDU @	g/cm <sup>3</sup>	7"	ins	892	cps
JIG MARK SHOWN AT ABOVE VALUE -			JIG No. 0338	SPAN 6000	NORM	6.7	2"	ins	480	cps

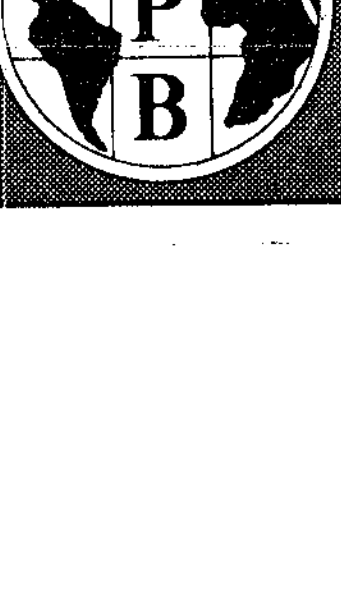
GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------

HOLE SIZE CORRECTION DATA



REPEAT SECTION

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE BR-33 AREA Burnt River  
CLIENT TECK CORP. COUNTRY CANADA

COAL LITHOLOGY LOG





BOREHOLE 182-33  
 CLIENT TECK CORP.  
 AREA BEAVER CREEK DEPTH SCALE 100:1  
 COUNTRY CANADA  
 DATE LOGGED 2/7/74 5 OF 5 LOGS

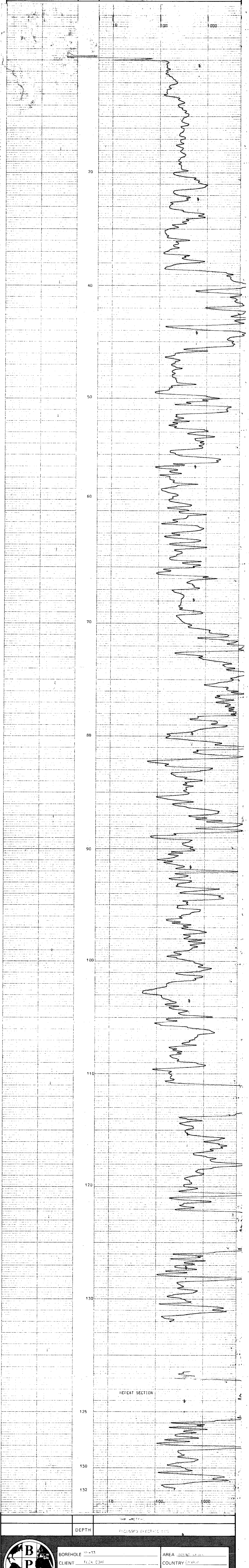
BOREHOLE DATA REFER TO ITHM 111  
 OPERATION DATA REFER TO ITHM 111

EQUIPMENT AND RECORDING DATA

LOG TAPPING PANEL CAT  
 LOG RECORDING SPEED SECS. NORM.  
 TAPED SPEED FEEDBACK 3 30/4 1/4

REMARKS  
 This log is for identification purposes only.

**489**



DEPTH 132

BOREHOLE 182-33 AREA BEAVER CREEK  
 CLIENT TECK CORP. COUNTRY CANADA

MY A58452R



NEUTRON-NEUTRON

BOREHOLE BR-33  
CLIENT TECK CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 26/2/90

DEPTH SCALE  
2000'

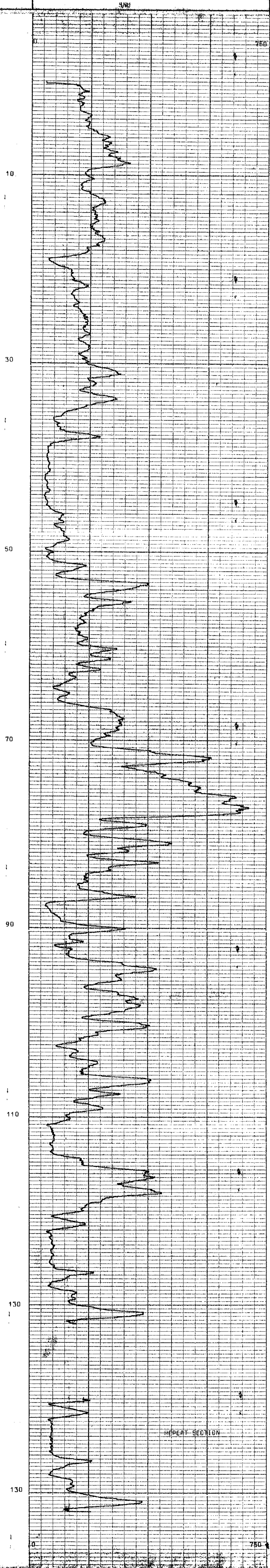
5 OF 6 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

LOG	TAPING	RECORDING	PANEL	COIL
	TAPE	SPEED	NO.	NO.
Y	9m/m	D	9m/m	1
				A2

REMARKS  
**489**

NEUTRON - NEUTRON LOG



NEUTRON - NEUTRON LOG

BOREHOLE BR-33  
CLIENT TECK CORP  
AREA BURNT RIVER  
COUNTRY CANADA







B.R. Burnt River 82131A BR 34



**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE  
LOG SUITE:  
CALIPER  
BR. DENSITY

BOREHOLE BR-34  
CLIENT Tech-Corp

AREA Burnt River  
COUNTRY Canada

DATE LOGGED 22/06/86  
Z OF LOGS 4.1005

DEPTH SCALE  
70:1

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

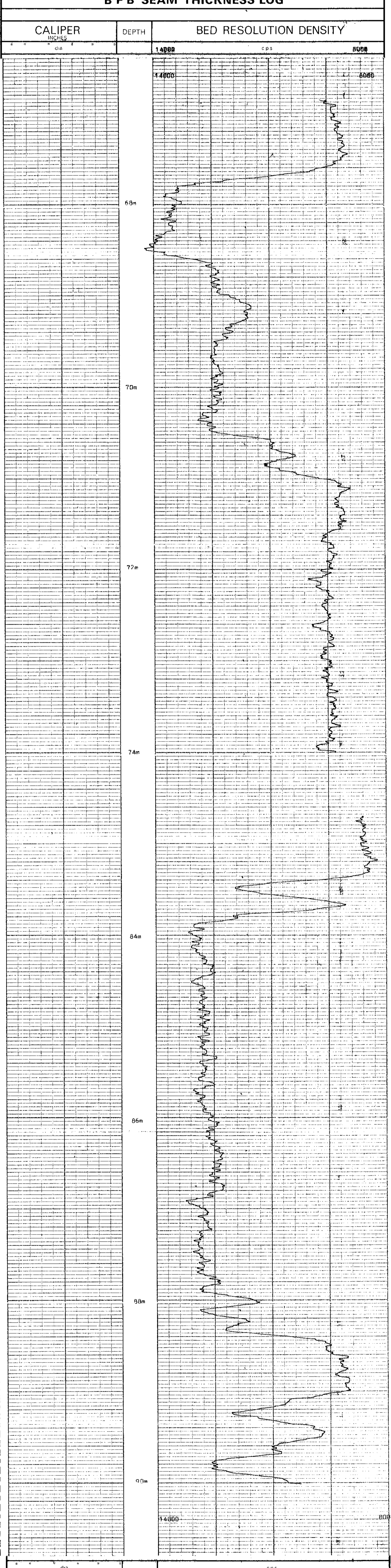
LOG TAPPING PANEL COAL  
LOG RECORD DIRECT SPEED SECS NORM  
CALIPER V 3m/d 3m/d 1/3 7.25  
BR DENSITY V 3m/d 3m/d 1/3 7.25  
SOURCE SONDE AND CALIBRATION  
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS  
FROM 9.0m 7.4m  
TO 8.4m 5.3m  
INTERVAL 0.5m 0.5m  
FROM  
TO  
INTERNAL TOTAL  
REMARKS

LOG SUITE:  
CALIPER  
BR. DENSITY

489

**B P B SEAM THICKNESS LOG**



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia	14000	cps
8000		

**SEAM THICKNESS LOG**

BOREHOLE <u>BR-34</u>	AREA <u>Burnt River</u>
CLIENT <u>Tech-Corp</u>	COUNTRY <u>Canada</u>





BOREHOLE BM-34  
 CLIENT TECK CORP

AREA Burnt River  
 COUNTRY Canada

DATE LOGGED 5/31/80

DEPTH SCALE  
20:1

2 OF 4 LOGS

BOREHOLE DATA  
 REFER TO LITHOLOGY LOG

OPERATION DATA  
 REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG

**SEAM THICKNESS LOG**

SONDE TYPE:  
 COAL COMBINATION SONDE

LOG SUITE:  
 CALIPER  
 BR. DENSITY

LOG TAPPING PANEL COAL  
 LOG RECORDED SPEED LOG INCHES  
 CALIPER Y 3m/m D 3m/m 1  
 BR DENSITY V 3m/m 2 3m/m 1

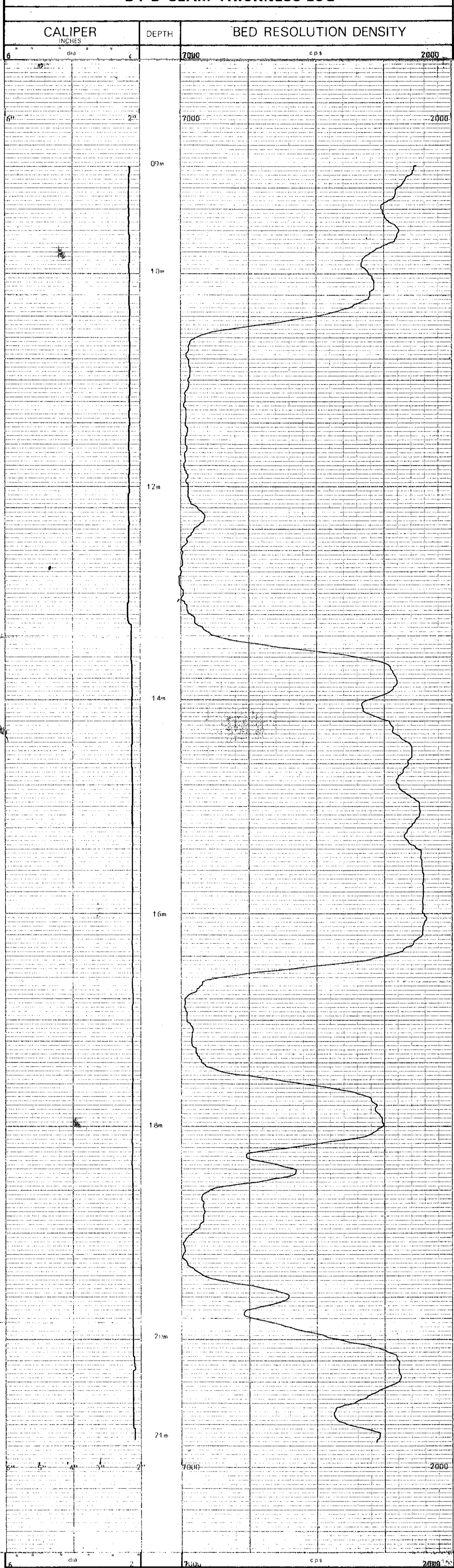
SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM 21m  
 TO 9m  
 INTERVAL 11m  
 FROM  
 TO  
 INTERVAL  
 TOTAL  
 REMARKS  
21 METER TOTAL 11 METER SUITABLE

**489**

**B P B SEAM THICKNESS LOG**



CALIPER INCHES

DEPTH

BED RESOLUTION DENSITY



BOREHOLE BM-38  
 CLIENT TECK CORP

AREA Burnt River  
 COUNTRY Canada

**SEAM THICKNESS LOG**



BOREHOLE BR-34  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 23/06/80

DEPTH SCALE  
1 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

**COAL QUALITY LOG**

LOG TAPPING PANEL COAL CODE  
LOG SPEED (REV/S) NORM  
GAMMA RAY 1m/m 1 3m/m 2 5m/m 3  
SOURCE SONDE AND CALIBRATION

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

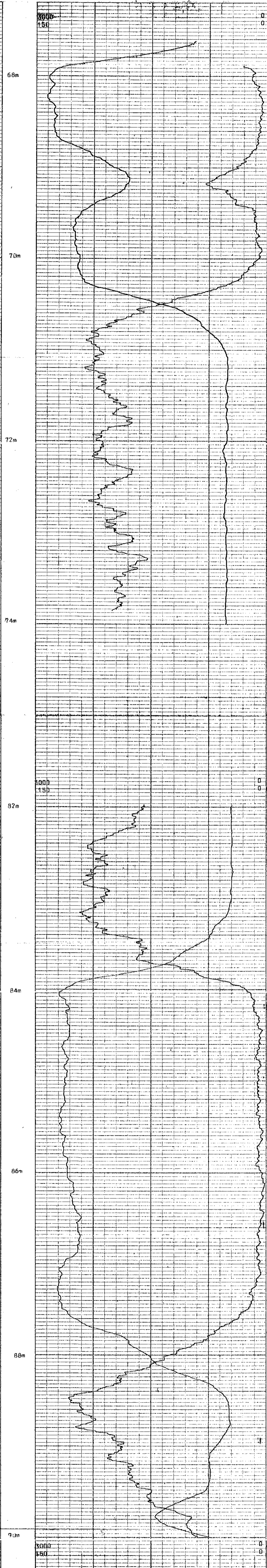
**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>

HOLE SIZE CORRECTION DATA

2'	1.2	1.25	1.3	1.35	1.4	1.45	1.5	1.55	1.6	1.7	1.8	1.9	2.0	2.2	2.4	3.0
----	-----	------	-----	------	-----	------	-----	------	-----	-----	-----	-----	-----	-----	-----	-----

150	API	0
6.000	s d u	0



DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>

BOREHOLE BR-34  
CLIENT Tech Corp  
AREA Burnt River  
COUNTRY Canada

**COAL QUALITY LOG**



489



per Burnt River BR-34 132-34

Neutron-Neutron

BOREHOLE BR-34

CLIENT Tech Corp

AREA Burnt River

COUNTRY Canada

DATE LOGGED 28/06/80

DEPTH SCALE  
200 FT

4 OF 4 LOGS

BOREHOLE DATA

REFER TO Lithology LOG

OPERATION DATA

REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAL
LOG TAPED	RECORD DIRECTOR	T.C. NORM	COEFF
Y	9m/m	U	9m/m
		1	8.2
	SPD	NO	NO
	214		

REMARKS

9.3m  
0.0m  
3.3m

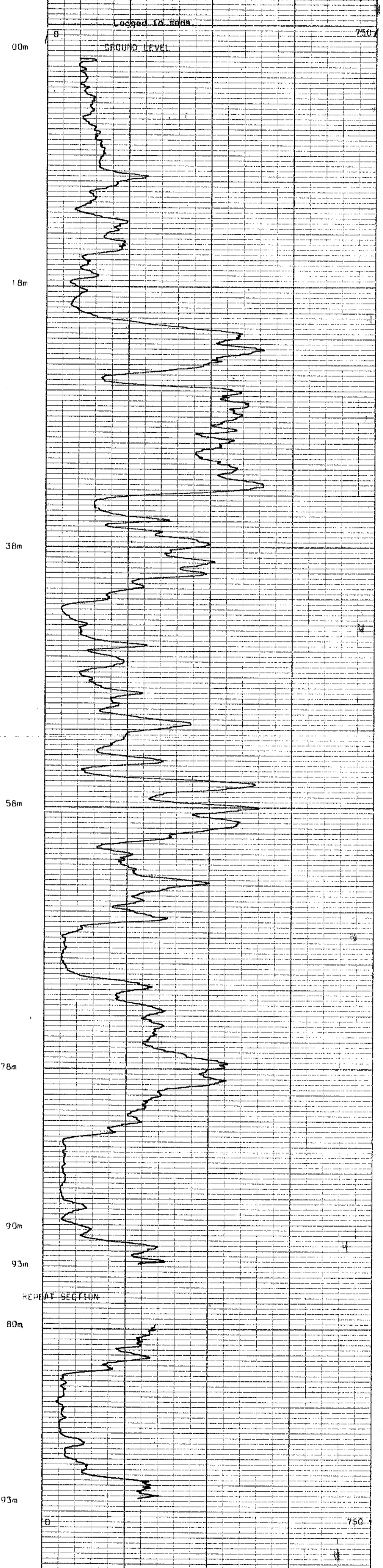
489

DEPTH

NEUTRON-NEUTRON LOG

SNU

750



DEPTH

NEUTRON-NEUTRON LOG

SNU

750

BOREHOLE BR-34

CLIENT Tech Corp

AREA Burnt River

COUNTRY Canada







Burnt River 8013M 82-35

**COAL QUALITY LOG**

COAL QUALITY LOG

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SONDE TYPE: \_\_\_\_\_

COAL COMBINATION SONDE

LOG SUITE: \_\_\_\_\_

GAMMA RAY

L S DENSITY

BOREHOLE \_\_\_\_\_

CLIENT \_\_\_\_\_

AREA Burnt River

COUNTRY Canada

DATE LOGGED 26/06/80

DEPTH SCALE

3 OF 5 LOGS

LOG TAPPING PANEL DATE

GAMMA RAY LOG RECORDING SPEED SECS NORM 1.5

LS DENSITY

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM 3.3m 4.0m

TO 3.6m 4.1m

INTERVAL 0.3m 0.1m

FROM 4.1m 4.7m

TO 4.4m 5.1m

INTERVAL 0.3m 0.4m

FROM 5.1m 5.7m

TO 5.4m 6.1m

INTERVAL 0.3m 0.4m

FROM 6.1m 6.7m

TO 6.4m 7.1m

INTERVAL 0.3m 0.4m

FROM 7.1m 7.7m

TO 7.4m 8.1m

INTERVAL 0.3m 0.4m

FROM 8.1m 8.7m

TO 8.4m 9.1m

INTERVAL 0.3m 0.4m

FROM 9.1m 9.7m

TO 9.4m 10.1m

INTERVAL 0.3m 0.4m

FROM 10.1m 10.7m

TO 10.4m 11.1m

INTERVAL 0.3m 0.4m

FROM 11.1m 11.7m

TO 11.4m 12.1m

INTERVAL 0.3m 0.4m

FROM 12.1m 12.7m

TO 12.4m 13.1m

INTERVAL 0.3m 0.4m

FROM 13.1m 13.7m

TO 13.4m 14.1m

INTERVAL 0.3m 0.4m

FROM 14.1m 14.7m

TO 14.4m 15.1m

INTERVAL 0.3m 0.4m

FROM 15.1m 15.7m

TO 15.4m 16.1m

INTERVAL 0.3m 0.4m

FROM 16.1m 16.7m

TO 16.4m 17.1m

INTERVAL 0.3m 0.4m

FROM 17.1m 17.7m

TO 17.4m 18.1m

INTERVAL 0.3m 0.4m

FROM 18.1m 18.7m

TO 18.4m 19.1m

INTERVAL 0.3m 0.4m

FROM 19.1m 19.7m

TO 19.4m 20.1m

INTERVAL 0.3m 0.4m

FROM 20.1m 20.7m

TO 20.4m 21.1m

INTERVAL 0.3m 0.4m

FROM 21.1m 21.7m

TO 21.4m 22.1m

INTERVAL 0.3m 0.4m

FROM 22.1m 22.7m

TO 22.4m 23.1m

INTERVAL 0.3m 0.4m

FROM 23.1m 23.7m

TO 23.4m 24.1m

INTERVAL 0.3m 0.4m

FROM 24.1m 24.7m

TO 24.4m 25.1m

INTERVAL 0.3m 0.4m

FROM 25.1m 25.7m

TO 25.4m 26.1m

INTERVAL 0.3m 0.4m

FROM 26.1m 26.7m

TO 26.4m 27.1m

INTERVAL 0.3m 0.4m

FROM 27.1m 27.7m

TO 27.4m 28.1m

INTERVAL 0.3m 0.4m

FROM 28.1m 28.7m

TO 28.4m 29.1m

INTERVAL 0.3m 0.4m

FROM 29.1m 29.7m

TO 29.4m 30.1m

INTERVAL 0.3m 0.4m

FROM 30.1m 30.7m

TO 30.4m 31.1m

INTERVAL 0.3m 0.4m

FROM 31.1m 31.7m

TO 31.4m 32.1m

INTERVAL 0.3m 0.4m

FROM 32.1m 32.7m

TO 32.4m 33.1m

INTERVAL 0.3m 0.4m

FROM 33.1m 33.7m

TO 33.4m 34.1m

INTERVAL 0.3m 0.4m

FROM 34.1m 34.7m

TO 34.4m 35.1m

INTERVAL 0.3m 0.4m

FROM 35.1m 35.7m

TO 35.4m 36.1m

INTERVAL 0.3m 0.4m

FROM 36.1m 36.7m

TO 36.4m 37.1m

INTERVAL 0.3m 0.4m

FROM 37.1m 37.7m

TO 37.4m 38.1m

INTERVAL 0.3m 0.4m

FROM 38.1m 38.7m

TO 38.4m 39.1m

INTERVAL 0.3m 0.4m

FROM 39.1m 39.7m

TO 39.4m 40.1m

INTERVAL 0.3m 0.4m

FROM 40.1m 40.7m

TO 40.4m 41.1m

INTERVAL 0.3m 0.4m

FROM 41.1m 41.7m

TO 41.4m 42.1m

INTERVAL 0.3m 0.4m

FROM 42.1m 42.7m

TO 42.4m 43.1m

INTERVAL 0.3m 0.4m

FROM 43.1m 43.7m

TO 43.4m 44.1m

INTERVAL 0.3m 0.4m

FROM 44.1m 44.7m

TO 44.4m 45.1m

INTERVAL 0.3m 0.4m

FROM 45.1m 45.7m

TO 45.4m 46.1m

INTERVAL 0.3m 0.4m

FROM 46.1m 46.7m

TO 46.4m 47.1m

INTERVAL 0.3m 0.4m

FROM 47.1m 47.7m

TO 47.4m 48.1m

INTERVAL 0.3m 0.4m

FROM 48.1m 48.7m

TO 48.4m 49.1m

INTERVAL 0.3m 0.4m

FROM 49.1m 49.7m

TO 49.4m 50.1m

INTERVAL 0.3m 0.4m

FROM 50.1m 50.7m

TO 50.4m 51.1m

INTERVAL 0.3m 0.4m

FROM 51.1m 51.7m

TO 51.4m 52.1m

INTERVAL 0.3m 0.4m

FROM 52.1m 52.7m

TO 52.4m 53.1m

INTERVAL 0.3m 0.4m

FROM 53.1m 53.7m

TO 53.4m 54.1m

INTERVAL 0.3m 0.4m

FROM 54.1m 54.7m

TO 54.4m 55.1m

INTERVAL 0.3m 0.4m

FROM 55.1m 55.7m

TO 55.4m 56.1m

INTERVAL 0.3m 0.4m

FROM 56.1m 56.7m

TO 56.4m 57.1m

INTERVAL 0.3m 0.4m

FROM 57.1m 57.7m

TO 57.4m 58.1m

INTERVAL 0.3m 0.4m

FROM 58.1m 58.7m

TO 58.4m 59.1m

INTERVAL 0.3m 0.4m

FROM 59.1m 59.7m

TO 59.4m 60.1m

INTERVAL 0.3m 0.4m

FROM 60.1m 60.7m

TO 60.4m 61.1m

INTERVAL 0.3m 0.4m

FROM 61.1m 61.7m

TO 61.4m 62.1m

INTERVAL 0.3m 0.4m

FROM 62.1m 62.7m

TO 62.4m 63.1m

INTERVAL 0.3m 0.4m

FROM 63.1m 63.7m

TO 63.4m 64.1m

INTERVAL 0.3m 0.4m

FROM 64.1m 64.7m

TO 64.4m 65.1m

INTERVAL 0.3m 0.4m

FROM 65.1m 65.7m

TO 65.4m 66.1m

INTERVAL 0.3m 0.4m

FROM 66.1m 66.7m

TO 66.4m 67.1m

INTERVAL 0.3m 0.4m

FROM 67.1m 67.7m

TO 67.4m 68.1m

INTERVAL 0.3m 0.4m

FROM 68.1m 68.7m

TO 68.4m 69.1m

INTERVAL 0.3m 0.4m

FROM 69.1m 69.7m

TO 69.4m 70.1m

INTERVAL 0.3m 0.4m

FROM 70.1m 70.7m

TO 70.4m 71.1m

INTERVAL 0.3m 0.4m

FROM 71.1m 71.7m

TO 71.4m 72.1m

INTERVAL 0.3m 0.4m

FROM 72.1m 72.7m

TO 72.4m 73.1m

INTERVAL 0.3m 0.4m

FROM 73.1m 73.7m

TO 73.4m 74.1m

INTERVAL 0.3m 0.4m

FROM 74.1m 74.7m

TO 74.4m 75.1m

INTERVAL 0.3m 0.4m

FROM 75.1m 75.7m

TO 75.4m 76.1m

INTERVAL 0.3m 0.4m

FROM 76.1m 76.7m

TO 76.4m 77.1m

INTERVAL 0.3m 0.4m

FROM 77.1m 77.7m

TO 77.4m 78.1m

INTERVAL 0.3m 0.4m

FROM 78.1m 78.7m

TO 78.4m 79.1m

INTERVAL 0.3m 0.4m

FROM 79.1m 79.7m

TO 79.4m 80.1m

INTERVAL 0.3m 0.4m

FROM 80.1m 80.7m

TO 80.4m 81.1m

INTERVAL 0.3m 0.4m

FROM 81.1m 81.7m

TO 81.4m 82.1m

INTERVAL 0.3m 0.4m

FROM 82.1m 82.7m

TO 82.4m 83.1m

INTERVAL 0.3m 0.4m

FROM 83.1m 83.7m

TO 83.4m 84.1m

INTERVAL 0.3m 0.4m

FROM 84.1m 84.7m

TO 84.4m 85.1m

INTERVAL 0.3m 0.4m

FROM 85.1m 85.7m

TO 85.4m 86.1m

INTERVAL 0.3m 0.4m

FROM 86.1m 86.7m

TO 86.4m 87.1m

INTERVAL 0.3m 0.4m

FROM 87.1m 87.7m

TO 87.4m 88.1m

INTERVAL 0.3m 0.4m

FROM 88.1m 88.7m

TO 88.4m 89.1m

INTERVAL 0.3m 0.4m

FROM 89.1m 89.7m

TO 89.4m 90.1m

INTERVAL 0.3m 0.4m

FROM 90.1m 90.7m

TO 90.4m 91.1m

INTERVAL 0.3m 0.4m

FROM 91.1m 91.7m

TO 91.4m 92.1m

INTERVAL 0.3m 0.4m

FROM 92.1m 92.7m

TO 92.4m 93.1m

INTERVAL 0.3m 0.4m

FROM 93.1m 93.7m

TO 93.4m 94.1m

INTERVAL 0.3m 0.4m

FROM 94.1m 94.7m

TO 94.4m 95.1m

INTERVAL 0.3m 0.4m

FROM 95.1m 95.7m

TO 95.4m 96.1m

INTERVAL 0.3m 0.4m

FROM 96.1m 96.7m

TO 96.4m 97.1m

INTERVAL 0.3m 0.4m

FROM 97.1m 97.7m

TO 97.4m 98.1m

INTERVAL 0.3m 0.4m

FROM 98.1m 98.7m

TO 98.4m 99.1m

INTERVAL 0.3m 0.4m

FROM 99.1m 99.7m

TO 99.4m 100.1m

INTERVAL 0.3m 0.4m

FROM 100.1m 100.7m

TO 100.4m 101.1m

INTERVAL 0.3m 0.4m

FROM 101.1m 101.7m

TO 101.4m 102.1m

INTERVAL 0.3m 0.4m

FROM 102.1m 102.7m

TO 102.4m 103.1m

INTERVAL 0.3m 0.4m

FROM 103.1m 103.7m

TO 103.4m 104.1m

INTERVAL 0.3m 0.4m

FROM 104.1m 104.7m

TO 104.4m 105.1m

INTERVAL 0.3m 0.4m

FROM 105.1m 105.7m

TO 105.4m 106.1m

INTERVAL 0.3m 0.4m

FROM 106.1m 106.7m

TO 106.4m 107.1m

INTERVAL 0.3m 0.4m

FROM 107.1m 107.7m

TO 107.4m 108.1m

INTERVAL 0.3m 0.4m

FROM 108.1m 108.7m

TO 108.4m 109.1m

INTERVAL 0.3m 0.4m

FROM 109.1m 109.7m

TO 109.4m 110.1m

INTERVAL 0.3m 0.4m

FROM 110.1m 110.7m

TO 110.4m 111.1m

INTERVAL 0.3m 0.4m

FROM 111.1m 111.7m

TO 111.4m 112.1m

INTERVAL 0.3m 0.4m

FROM 112.1m 112.7m

TO 112.4m 113.1m

INTERVAL 0.3m 0.4m

FROM 113.1m 113.7m

TO 113.4m 114.1m

INTERVAL 0.3m 0.4m

FROM 114.1m 114.7m

TO 114.4m 115.1m

INTERVAL 0.3m 0.4m

FROM 115.1m 115.7m

TO 115.4m 116.1m

INTERVAL 0.3m 0.4m

FROM 116.1m 116.7m

TO 116.4m 117.1m

INTERVAL 0.3m 0.4m

FROM 117.1m 117.7m

TO 117.4m 118.1m

INTERVAL 0.3m 0.4m

FROM 118.1m 118.7m

TO 118.4m 119.1m

INTERVAL 0.3m 0.4m

FROM 119.1m 119.7m

TO 119.4m 120.1m

INTERVAL 0.3m 0.4m

FROM 120.1m 120.7m

TO 120.4m 121.1m

INTERVAL 0.3m 0.4m

FROM 121.1m 121.7m

TO 121.4m 122.1m

INTERVAL 0.3m 0.4m

FROM 122.1m 122.7m

TO 122.4m 123.1m

INTERVAL 0.3m 0.4m

FROM 123.1m 123.7m

TO 123.4m 124.1m

INTERVAL 0.3m 0.4m

FROM 124.1m 124.7m

TO 124.4m 125.1m

INTERVAL 0.3m 0.4m

FROM 125.1m 125.7m

TO 125.4m 126.1m

INTERVAL 0.3m 0.4m

FROM 126.1m 126.7m

TO 126.4m 127.1m

INTERVAL 0.3m 0.4m

FROM 127.1m 127.7m

TO 127.4m 128.1m

INTERVAL 0.3m 0.4m

FROM 128.1m 128.7m

TO 128.4m 129.1m

INTERVAL 0.3m 0.4m

FROM 129.1m 129.7m

TO 129.4m 130.1m

INTERVAL 0.3m 0.4m

FROM 130.1m 130.7m

TO 130.4m 131.1m

INTERVAL 0.3m 0.4m

FROM 131.1m 131.7m

TO 131.4m 132.1m

INTERVAL 0.3m 0.4m

FROM 132.1m 132.7m

TO 132.4m 133.1m

INTERVAL 0.3m 0.4m

FROM 133.1m 133.7m

TO 133.4m 134.1m

INTERVAL 0.3m 0.4m

FROM 134.1m 134.7m

TO 134.4m 135.1m

INTERVAL 0.3m 0.4m

FROM 135.1m 135.7m

TO 135.4m 136.1m

INTERVAL 0.3m 0.4m

FROM 136.1m 136.7m

TO 136.4m 137.1m

INTERVAL 0.3m 0.4m

FROM 137.1m 137.7m

TO 137.4m 138.1m

INTERVAL 0.3m 0.4m

FROM 138.1m 138.7m

TO 138.4m 139.1m

INTERVAL 0.3m 0.4m

FROM 139.1m 139.7m

TO 139.4m 140.1m

INTERVAL 0.3m 0.4m

FROM 140.1m 140.7m

TO 140.4m 141.1m

INTERVAL 0.3m 0.4m

FROM 141.1m 141.7m

TO 141.4m 142.1m

INTERVAL 0.3m 0.4m

FROM 142.1m 142.7m

TO 142.4m 143.1m

INTERVAL 0.3m 0.4m

FROM 143.1m 143.7m

TO 143.4m 144.1m

INTERVAL 0.3m 0.4m

FROM 144.1m 144.7m

TO 144.4m 145.1m

INTERVAL 0.3m 0.4m

FROM 145.1m 145.7m

TO 145.4m 146.1m

INTERVAL 0.3m 0.4m

FROM 146.1m 146.7m

TO 146.4m 147.1m

INTERVAL 0.3m 0.4m

FROM 147.1m 147.7m

TO 147.4m 148.1m

INTERVAL 0.3m 0.4m

FROM 148.1m 148.7m

TO 148.4m 149.1m

INTERVAL 0.3m 0.4m

FROM 149.1m 149.7m

TO 149.4m 150.1m

INTERVAL 0.3m 0.4m

FROM 150.1m 150.7m

TO 150.4m 151.1m

INTERVAL 0.3m 0.4m

FROM 151.1m 151.7m

TO 151.4m 152.1m

INTERVAL 0.3m 0.4m

FROM 152.1m 152.7m

TO 152.4m 153.1m

INTERVAL 0.3m 0.4m

FROM 153.1m 153.7m

TO 153.4m 154.1m

INTERVAL 0.3m 0.4m

FROM 154.1m 154.7m

TO 154.4m 155.1m

INTERVAL 0.3m 0.4m

FROM 155.1m 155.7m

TO 155.4m 156.1m

INTERVAL 0.3m 0.4m

FROM 156.1m 156.7m

TO 156.4m 157.1m

INTERVAL 0.3m 0.4m

FROM 157.1m 157.7m

TO 157.4m 158.1m

INTERVAL 0.3m 0.4m

FROM 158.1m 158.7m

TO 158.4m 159.1m

INTERVAL 0.3m 0.4m

FROM 159.1m 159.7m

TO 159.4m 160.1m

INTERVAL 0.3m 0.4m

FROM 160.1m 160.7m

TO 160.4m 161.1m

INTERVAL 0.3m 0.4m

FROM 161.1m 161.7m

TO 161.4m 162.1m

INTERVAL 0.3m 0.4m

FROM 162.1m 162.7m

TO 162.4m 163.1m

INTERVAL 0.3m 0.4m

FROM 163.1m 163.7m

TO 163.4m 164.1m

INTERVAL 0.3m 0.4m

FROM 164.1m 164.7m

TO 164.4m 165.1m

INTERVAL 0.3m 0.4m

FROM 165.1m 165.7m

TO 165.4m 166.1m

INTERVAL 0.3m 0.4m

FROM 166.1m 166.7m

TO 166.4m 167.1m

INTERVAL 0.3m 0.4m

FROM 167.1m 167.7m

TO 167.4m 168.1m

INTERVAL 0.3m 0.4m

FROM 168.1m 168.7m

TO 168.4m 169.1m

INTERVAL 0.3m 0.4m

FROM 169.1m 169.7m

TO 169.4m 170.1m

INTERVAL 0.3m 0.4m

FROM 170.1m 170.7m

TO 170.4m 171.1m

INTERVAL 0.3m 0.4m

FROM 171.1m 171.7m

TO 171.4m 172.1m

INTERVAL 0.3m 0.4m

FROM 172.1m 172.7m

TO 172.4m 173.1m

INTERVAL 0.3m 0.4m

FROM 173.1m 173.7m

TO 173.4m 174.1m

INTERVAL 0.3m 0.4m

FROM 174.1m 174.7m

TO 174.4m 175.1m

INTERVAL 0.3m 0.4m

FROM 175.1m 175.7m

TO 175.4m 176.1m

INTERVAL 0.3m 0.4m

FROM 176.1m 176.7m

TO 176.4m 177.1m

INTERVAL 0.3m 0.4m

FROM 177.1m 177.7m

TO 177.4m 178.1m

INTERVAL 0.3m 0.4m

FROM 178.1m 178.7m

TO 178.4m 179.1m

INTERVAL 0.3m 0.4m

FROM 179.1m 179.7m

TO 179.4m 180.1m

INTERVAL 0.3m 0.4m

FROM 180.1m 180.7m

TO 180.4m 181.1m

INTERVAL 0.3m 0.4m

FROM 181.1m 181.7m

TO 181.4m 182.1m

INTERVAL 0.3m 0.4m

FROM 182.1m 182.7m

TO 182.4m 183.1m

INTERVAL 0.3m 0.4m

FROM 183.1m 183.7m

TO 183.4m 184.1m

INTERVAL 0.3m 0.4m

FROM 184.1m 184.7m

TO 184.4m 185.1m

INTERVAL 0.3m 0.4m

FROM 185.1m 185.7m

TO 185.4m 186.1m

INTERVAL 0.3m 0.4m

FROM 186.1m 186.7m

TO 186.4m 187.1m

INTERVAL 0.3m 0.4m

FROM 187.1m 187.7m

TO 187.4m 188.1m

INTERVAL 0.3m 0.4m

FROM 188.1m 188.7m

TO 188.4m 189.1m

INTERVAL 0.3m 0.4m

FROM 189.1m 189.7m

TO 189.4m 190.1m

INTERVAL 0.3m 0.4m

FROM 190.1m 190.7m

TO 190.4m 191.1m

INTERVAL 0.3m 0.4m

FROM 191.1m 191.7m

TO 191.4m 192.1m

INTERVAL 0.3m 0.4m

FROM 192.1m 192.7m

TO 192.4m 193.1m

INTERVAL 0.3m 0.4m

FROM 193.1m 193.7m

TO 193.4m 194.1m

INTERVAL 0.3m 0.4m

FROM 194.1m 194.7m

TO 194.4m 195.1m

INTERVAL 0.3m 0.4m

FROM 195.1m 195.7m

TO 195.4m 196.1m

INTERVAL 0.3m 0.4m

FROM 196.1m 196.7m

TO 196.4m 197.1m

INTERVAL 0.3m 0.4m

FROM 197.1m 197.7m

TO 197.4m 198.1m

INTERVAL 0.3m 0.4m

FROM 198.1m 198.7m

TO 198.4m 199.1m

INTERVAL 0.3m 0.4m

FROM 199.1m 199.7m

TO 199.4m 200.1m

INTERVAL 0.3m 0.4m

FROM 200.1m 200.7m

TO 200.4m 201.1m

INTERVAL 0.3m 0.4m

FROM 201.1m 201.7m

TO 201.4m 202.1m

INTERVAL 0.3m 0.4m

FROM 202.1m 202.7m

TO 202.4m 203.1m

INTERVAL 0.3m 0.4m

FROM 203.1m 203.7m

TO 203.4m 204.1m

INTERVAL 0.3m 0.4m

FROM 204.1m 204.7m

TO 204.4m 205.1m

INTERVAL 0.3m 0.4m

FROM 205.1m 205.7m

TO 205.4m 206.1m

INTERVAL 0.3m 0.4m

FROM 206.1m 206.7m

TO 206.4m 207.1m

INTERVAL 0.3m 0.4m

FROM 207.1m 207.7m

TO 207.4m



72-Burnt River 80233A 8235

NEUTRON-NEUTRON LOG

BOREHOLE BR-35  
CLIENT Tack-Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 26/05/80

DEPTH SCALE  
200''1

4 OF 5 LOGS

BOREHOLE DATA REFER TO 1, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

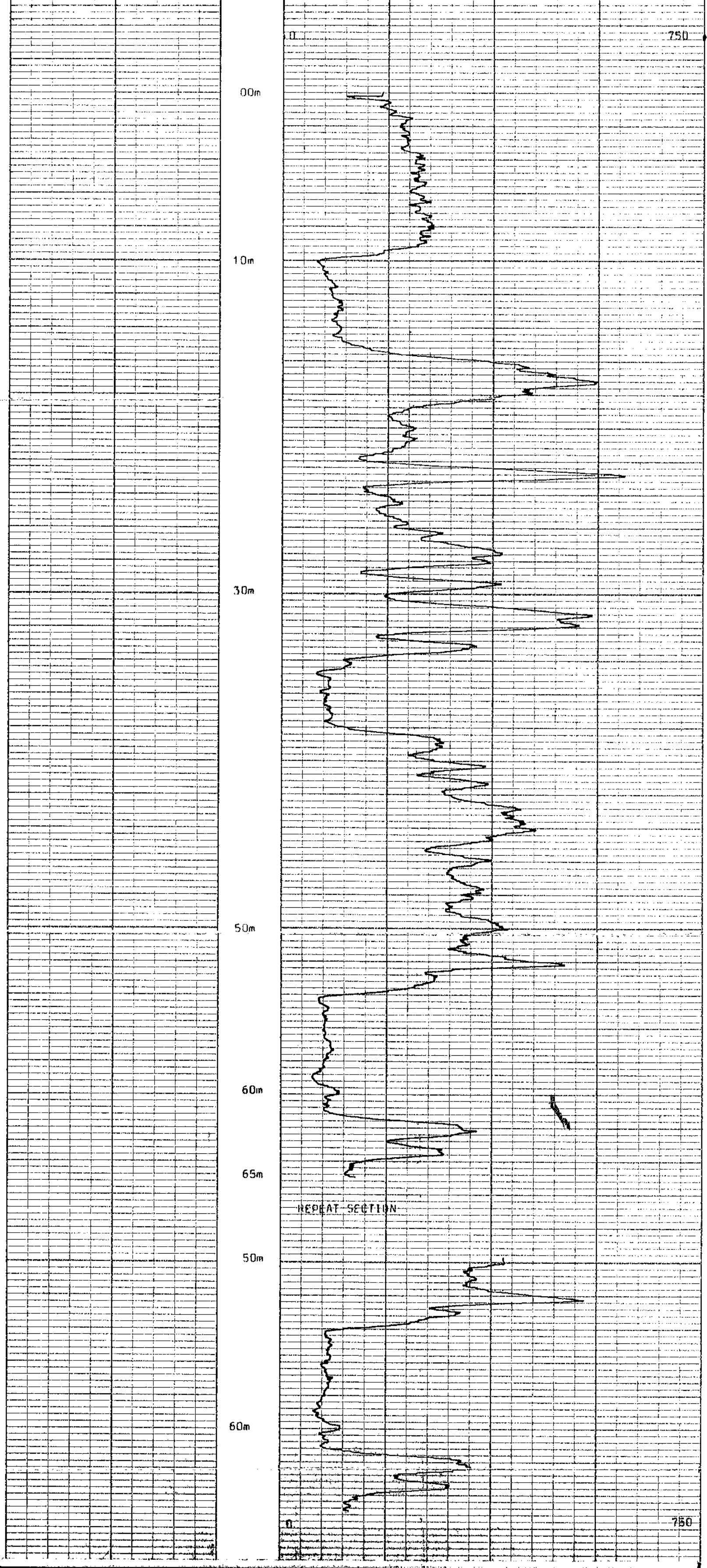
OPERATION DATA REFER TO .. LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAL
	LOG RECORD DIRECTOR SPEED SECS	TC	NORM
N-N	Y	9m/h	D
		9m/m	1
			.82
	SONDE NO	274	
	SONDE		

REMARKS  
489

DEPTH	NEUTRON-NEUTRON LOG	0	SNU	750
-------	---------------------	---	-----	-----



DEPTH	NEUTRON-NEUTRON LOG	0	SNU	750
-------	---------------------	---	-----	-----



BOREHOLE BR-35  
CLIENT Tack-Corp  
AREA Burnt River  
COUNTRY Canada



72-Burnt-River SD(S)H BR36

**COAL LITHOLOGY LOG**

**SONDE TYPE**  
COAL COMBINATION SONDE

**LOG SUITE**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

**BOREHOLE DATA**

PERMANENT DATUM: GROUND LEVEL  
ELEVATION OF P.D.: CHUNG LEVEL  
MEASUREMENT FROM: 11  
DEPTH REACHED: 55.90m  
CASING SHOE: 26m

BIT SIZES: 1 HQ TO 2 NO. TO FN  
CASING SIZES: 1 H TO 96ft 2 TO

FLUID DATA

NATURE: Quick-set  
SG: \_\_\_\_\_  
LEVEL: \_\_\_\_\_  
VISCOSITY: \_\_\_\_\_  
Pore at meas temp: \_\_\_\_\_  
BIT: \_\_\_\_\_

OPERATION DATA

FIRST READING: 54m  
LAST READING: 30m  
INTERVAL LOGGED: 54m  
UNIT-TRUCK No: 4677A  
ENGINEER: M.H./J.L.  
WITNESS: \_\_\_\_\_

BOREHOLE: BR-36  
CLIENT: TECK-CORP  
AREA: Burnt River  
COUNTRY: Canada  
DATE LOGGED: 25/06/80  
DEPTH SCALE: 200:1  
1 OF 5 LOGS

**EQUIPMENT AND RECORDING DATA**

COAL COMBINATION SONDE														
LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GCS	118	5845												
GAMMA RAY			510AP1	Y	9m/m	D	9m/m	1	-	1.5	54m	00m	54m	Y
L.S. DENSITY			530SDU	Y	9m/m	D	9m/m	1/2	6.8	-	55m	01m	54m	Y
CALIPER							CALIPER ON TAPE ONLY LOGGED IN RODS.							

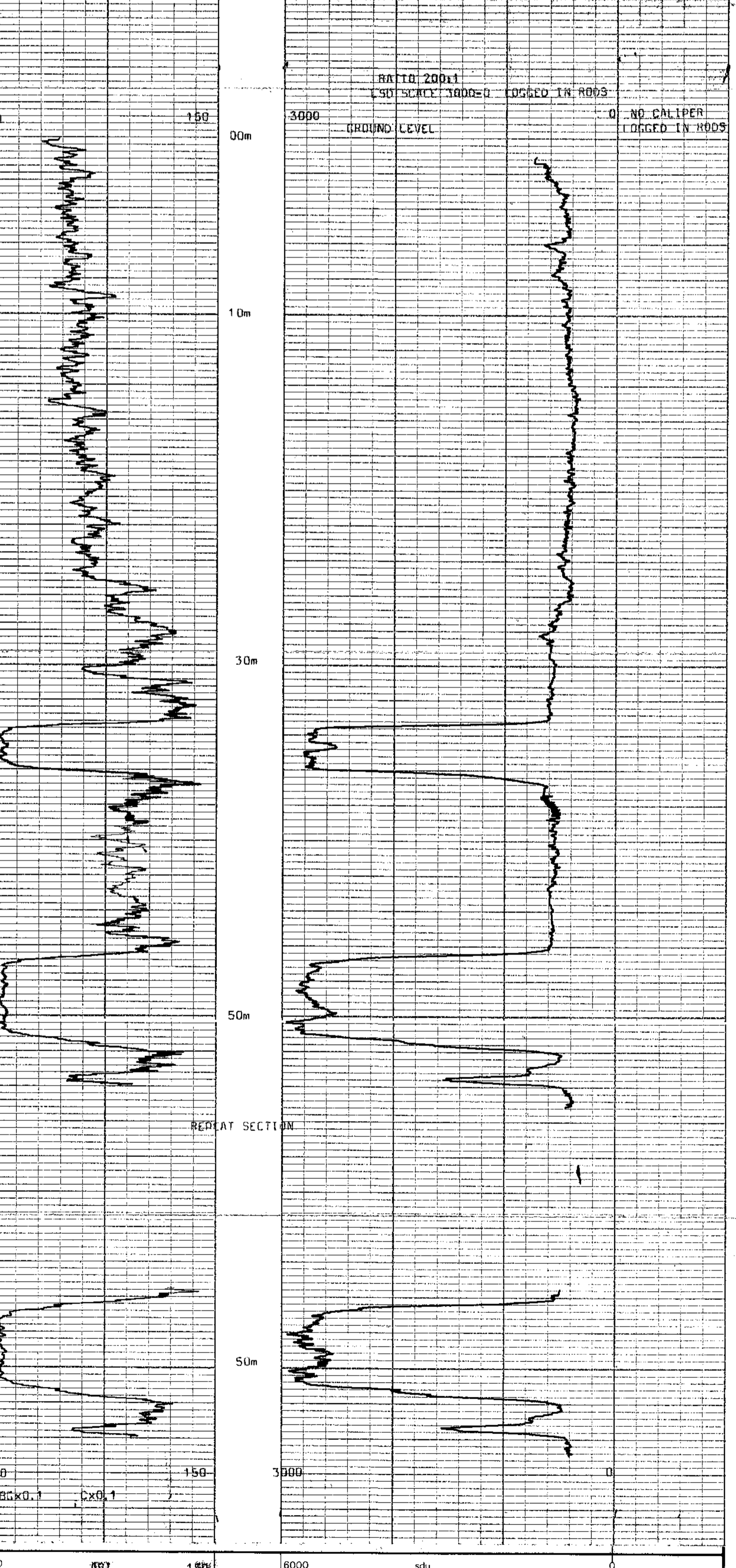
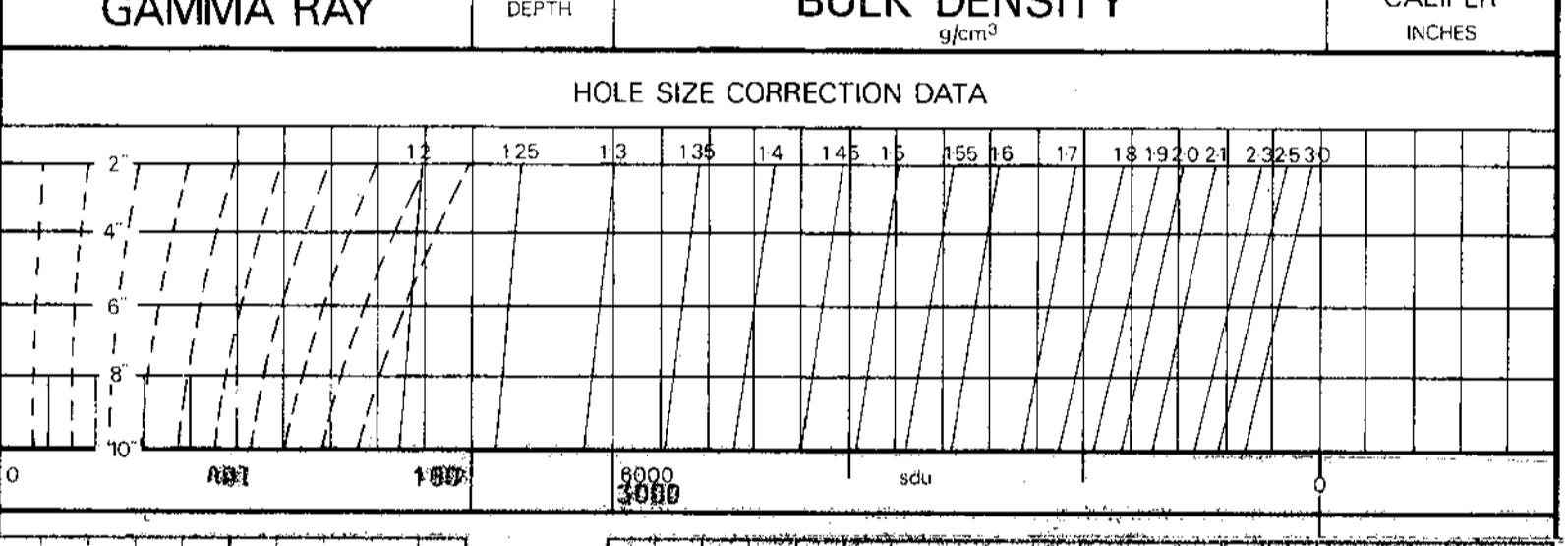
COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	53m	38m	INTERVAL TOTAL
TO	45m	32m	
INTERVAL	08m	06m	

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
204	N-N	200:1			LOGGED IN RODS LSD SCALE 3000-0SDU

**BPB COAL LITHOLOGY LOG CALIBRATION DATA**

JIG No 367	VALUE 51@ 2" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530	SDU@	g/cm <sup>3</sup>	7 ins	940 cps
JIG MARK SHOWN AT ABOVE VALUE	x0.1	JIG No 0336	SPAN 3000	NORM	SDU = 6.8	2 ins	472 cps



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

BOREHOLE: BR-36 AREA: Burnt River  
CLIENT: TECK-CORP COUNTRY: Canada

**COAL LITHOLOGY LOG**



489





**SEAM THICKNESS LOG**

SONDE TYPE: COAL COMBINATION SONDE  
 LOG SUITE: CALIPER BR DENSITY

BOREHOLE BR-36  
 CLIENT Teck-Corp  
 AREA Burnt River DEPTH SCALE 20.1  
 COUNTRY Canada  
 DATE LOGGED 25/06/80 2 OF 5 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING SIDEWALL POSITION  
 LOG RECORDING SPEED SECS NORM  
 CALIPER V 3m/ft 3m/ft 1/3 7.95  
 BR DENSITY Y 3m/ft 3m/ft  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

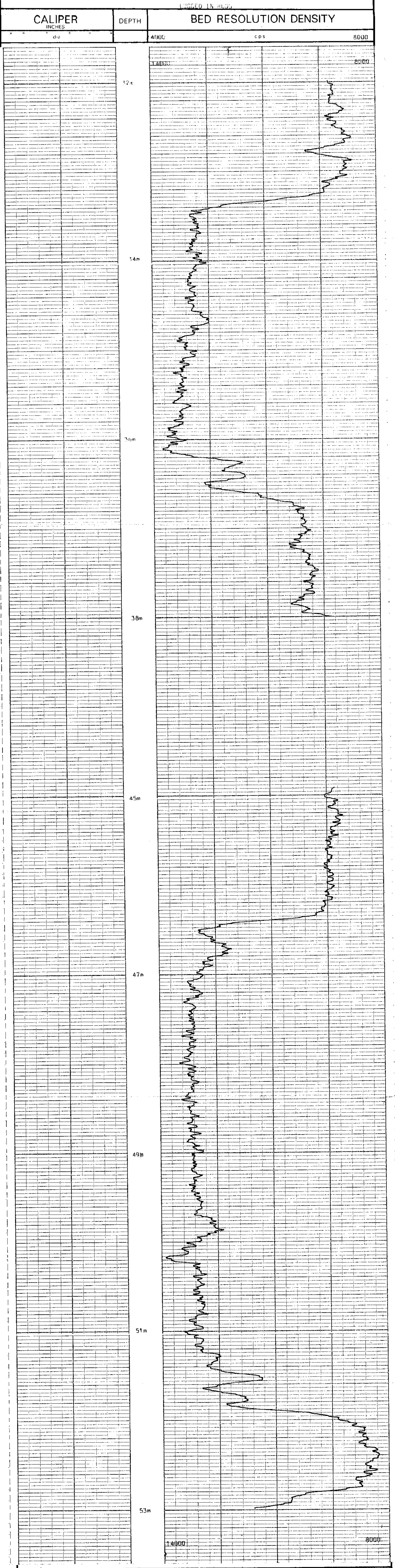
SEAM THICKNESS LOG INTERVALS

FROM	53m	38m
TO	45m	32m
INTERVAL	0.8m	0.5m
FROM		
TO		
INTERVAL		
TOTAL		
REMARKS		

FIELD IN CHARGE **489**

**B P B SEAM THICKNESS LOG**

LOGGED IN HUGS



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia	14000	cps 8000



BOREHOLE BR-36 AREA Burnt River  
 CLIENT Teck Corp COUNTRY Canada

**SEAM THICKNESS LOG**

80(3)A  
R-Burnt River 0236



**COAL QUALITY LOG**

**COAL QUALITY LOG**

SONDE TYPE: \_\_\_\_\_  
COAL COMBINATION SONDE \_\_\_\_\_

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

BOREHOLE \_\_\_\_\_  
CLIENT Teck Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 25/05/80

DEPTH SCALE  
1:1  
OF 5 LOSS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA  
COAL COMBINATION SONDE

LOG TAPPING PANEL CODE  
LOG RECORDING SPEED 15 NORMAL  
GAMMA RAY Y 3m/m 2 1.5  
L.S. DENSITY Y 3m/m 1 5.8

SOURCE SONDE AND CALIBRATION  
REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

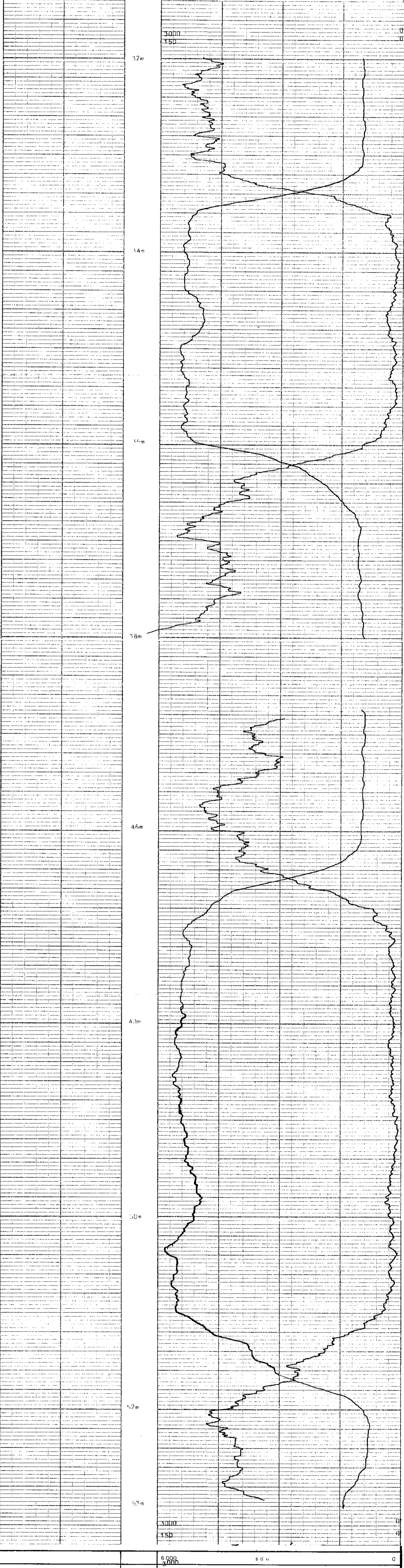
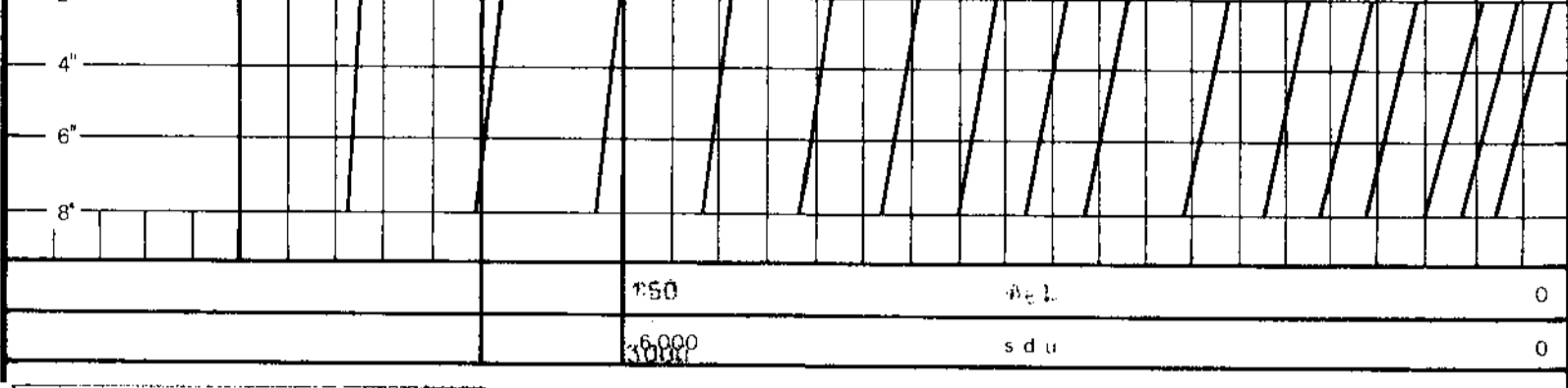
FROM	5.4m	12m
TO	4.8m	12m
INTERVAL	1.8m	12m
FROM		
TO		
INTERVAL		
TOTAL		1.4m

REMARKS  
489

**B P B COAL QUALITY LOG**

GAMMA RAY  
COAL BULK DENSITY  
g/cm<sup>3</sup>

HOLE SIZE CORRECTION DATA

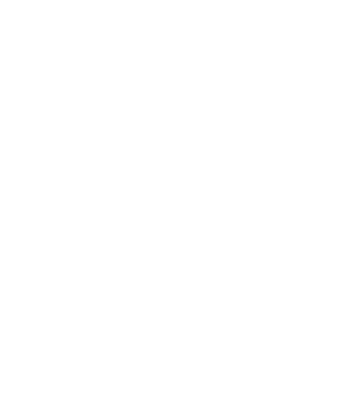


COAL BULK DENSITY  
g/cm<sup>3</sup>

GAMMA RAY

BOREHOLE 3h-36 AREA Burnt River  
CLIENT Teck Corp COUNTRY Canada

**COAL QUALITY LOG**



MT 88002 R

Re-Burnt River 80(3)7 3R-36



NEUTRON-NEUTRON LOG

BOREHOLE 3R-36  
 CLIENT Teck-Corin

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 25/06/80

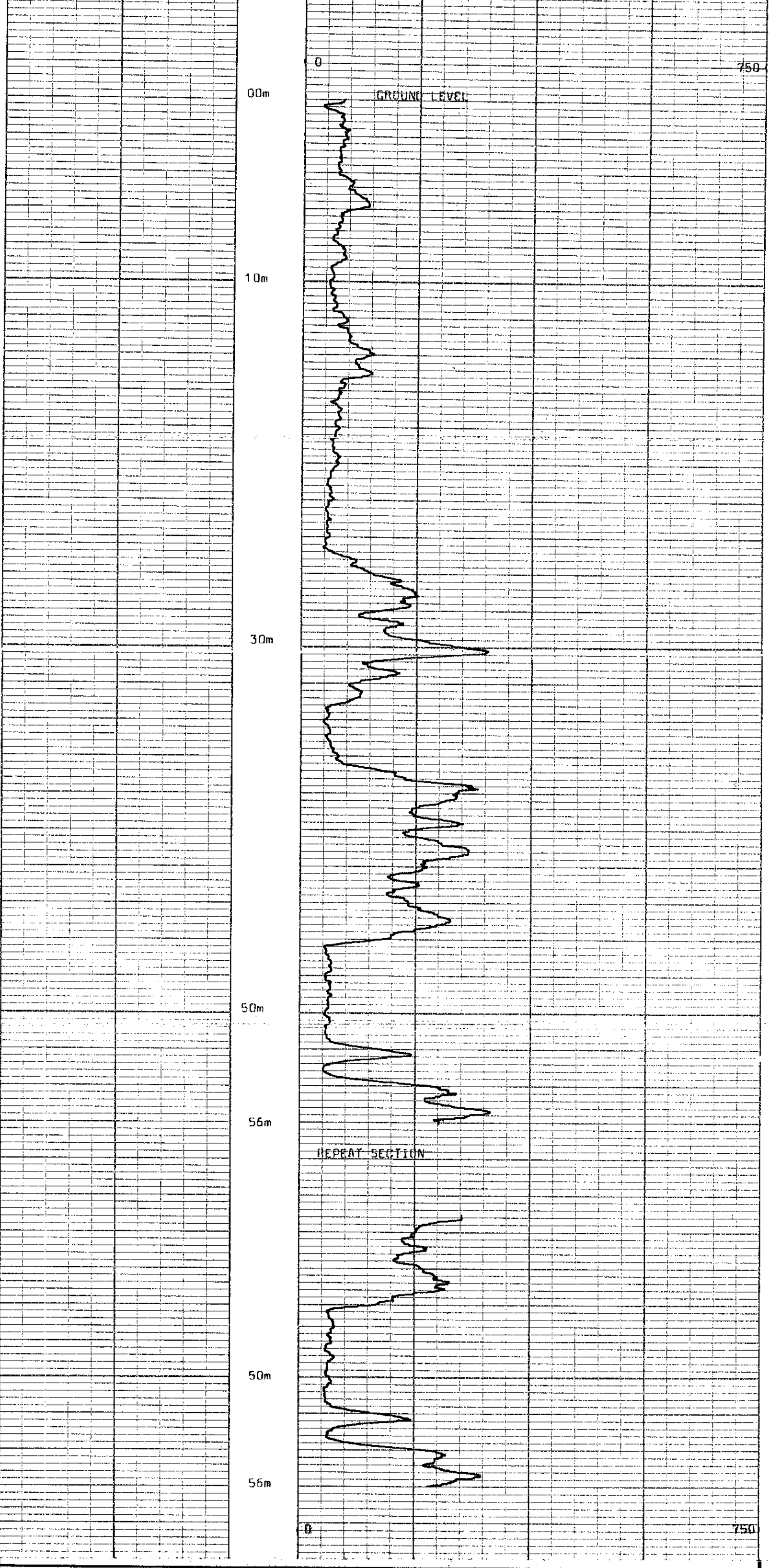
DEPTH SCALE  
 200:1

BOREHOLE DATA REFER TO 11-HU-912Y LOG  
 OPERATION DATA REFER TO " LOG  
 EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	SCALE
	LOG RECORDING	T.C	NORM
	TAPED SPEED	REPLAY	SECS
N.N.	9 m/m	9.4	1.82
	SONDE NO	204	SOURCE

REMARKS  
489

DEPTH	0	750
	NEUTRON-NEUTRON LOG	
	SNU	



DEPTH	0	750
	NEUTRON-NEUTRON LOG	
	SNU	



BOREHOLE 3R-36 AREA Burnt River  
 CLIENT Teck-Corin COUNTRY Canada





PR-Burnt River BR 37



LOG SUITE:  
GAMMA RAY  
L S DENSITY

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

COAL  
QUALITY  
LOG

BOREHOLE \_\_\_\_\_  
CLIENT \_\_\_\_\_

AREA \_\_\_\_\_ DEPTH SCALE \_\_\_\_\_  
COUNTRY \_\_\_\_\_ DATE LOGGED \_\_\_\_\_

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

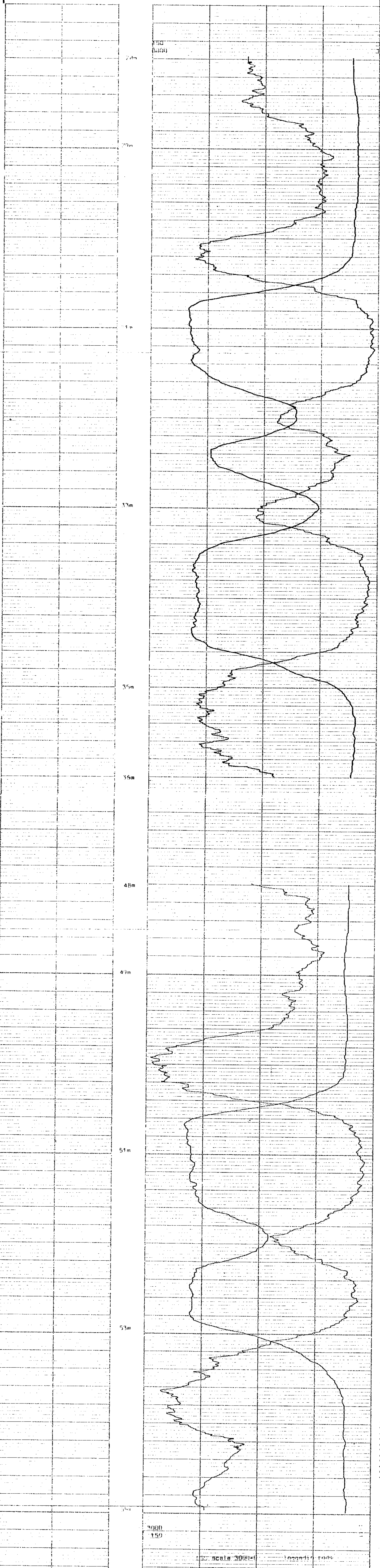
LOG TAPPING SIDEWALL POSITION  
LOG TAPPING PANEL COEF  
LOG TAPPING SPEED SECS NORM  
LOG TAPPING SPEED SECS NORM

COAL QUALITY LOG INTERVALS

FROM	TO	INTERVAL	INTERVAL TOTAL
0.00	0.30	0.30	0.30
0.30	0.60	0.30	0.60
0.60	0.90	0.30	0.90
0.90	1.20	0.30	1.20
1.20	1.50	0.30	1.50
1.50	1.80	0.30	1.80
1.80	2.10	0.30	2.10
2.10	2.40	0.30	2.40
2.40	2.70	0.30	2.70
2.70	3.00	0.30	3.00
3.00	3.30	0.30	3.30
3.30	3.60	0.30	3.60
3.60	3.90	0.30	3.90
3.90	4.20	0.30	4.20
4.20	4.50	0.30	4.50
4.50	4.80	0.30	4.80
4.80	5.10	0.30	5.10
5.10	5.40	0.30	5.40
5.40	5.70	0.30	5.70
5.70	6.00	0.30	6.00
6.00	6.30	0.30	6.30
6.30	6.60	0.30	6.60
6.60	6.90	0.30	6.90
6.90	7.20	0.30	7.20
7.20	7.50	0.30	7.50
7.50	7.80	0.30	7.80
7.80	8.10	0.30	8.10
8.10	8.40	0.30	8.40
8.40	8.70	0.30	8.70
8.70	9.00	0.30	9.00
9.00	9.30	0.30	9.30
9.30	9.60	0.30	9.60
9.60	9.90	0.30	9.90
9.90	10.20	0.30	10.20
10.20	10.50	0.30	10.50
10.50	10.80	0.30	10.80
10.80	11.10	0.30	11.10
11.10	11.40	0.30	11.40
11.40	11.70	0.30	11.70
11.70	12.00	0.30	12.00
12.00	12.30	0.30	12.30
12.30	12.60	0.30	12.60
12.60	12.90	0.30	12.90
12.90	13.20	0.30	13.20
13.20	13.50	0.30	13.50
13.50	13.80	0.30	13.80
13.80	14.10	0.30	14.10
14.10	14.40	0.30	14.40
14.40	14.70	0.30	14.70
14.70	15.00	0.30	15.00
15.00	15.30	0.30	15.30
15.30	15.60	0.30	15.60
15.60	15.90	0.30	15.90
15.90	16.20	0.30	16.20
16.20	16.50	0.30	16.50
16.50	16.80	0.30	16.80
16.80	17.10	0.30	17.10
17.10	17.40	0.30	17.40
17.40	17.70	0.30	17.70
17.70	18.00	0.30	18.00
18.00	18.30	0.30	18.30
18.30	18.60	0.30	18.60
18.60	18.90	0.30	18.90
18.90	19.20	0.30	19.20
19.20	19.50	0.30	19.50
19.50	19.80	0.30	19.80
19.80	20.10	0.30	20.10
20.10	20.40	0.30	20.40
20.40	20.70	0.30	20.70
20.70	21.00	0.30	21.00
21.00	21.30	0.30	21.30
21.30	21.60	0.30	21.60
21.60	21.90	0.30	21.90
21.90	22.20	0.30	22.20
22.20	22.50	0.30	22.50
22.50	22.80	0.30	22.80
22.80	23.10	0.30	23.10
23.10	23.40	0.30	23.40
23.40	23.70	0.30	23.70
23.70	24.00	0.30	24.00

B PB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>
HOLE SIZE CORRECTION DATA	
2"	1.25 1.3 1.35 1.4 1.45 1.5 1.55 1.6 1.7 1.8 1.9 2.0 2.2 2.4 3.0
4"	
6"	
8"	
	0
	0



DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>
	0
	0

BOREHOLE BR-27 37 AREA Burnt River  
CLIENT Peck Corp COUNTRY Canada

COAL QUALITY LOG



MY 88008 R



BOREHOLE \_\_\_\_\_  
 CLIENT \_\_\_\_\_

AREA \_\_\_\_\_  
 COUNTRY \_\_\_\_\_  
 DATE LOGGED \_\_\_\_\_

DEPTH SCALE  
 / ft. /

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

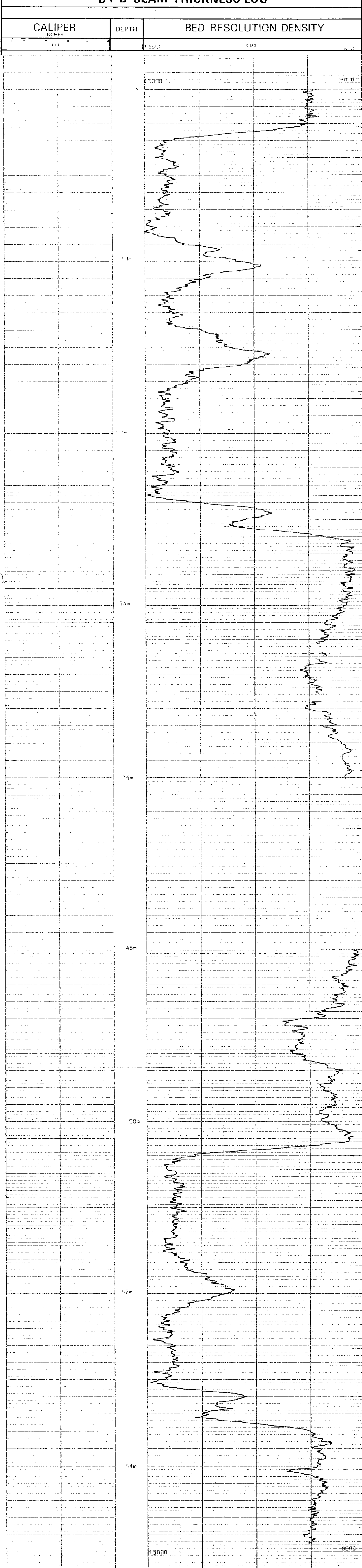
SEAM THICKNESS LOG

SONDE TYPE \_\_\_\_\_  
 COAL COMBINATION \_\_\_\_\_  
 SONDE \_\_\_\_\_

LOG SUITE \_\_\_\_\_  
 CALIPER \_\_\_\_\_  
 BR DENSITY \_\_\_\_\_

LOG	TAPPING	SIDEWALL POSITION	PANEL	CORRE	
LOG	TAPPING	SIDEWALL POSITION	PANEL	CORRE	
CALIPER	TYPE	NO. OF REPS	SPEED	SECS	NORM.
BR DENSITY	Y	3.3	7.7	1.1	1.1
SOURCE SONDE AND CALIBRATION REFER TO LITHOLOGY LOG					

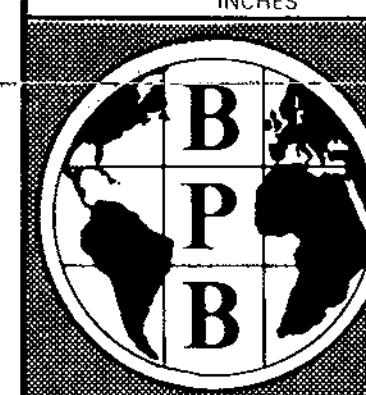
**B P B SEAM THICKNESS LOG**



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY cps
----------------	-------	----------------------------

BOREHOLE BR-31 AREA Burnt River  
 CLIENT Beck Corp COUNTRY Canada

**SEAM THICKNESS LOG**









PR-Burnt River 80(2)A 82.59

CON LITHOLOGY

BOREHOLE BR-59  
 CLIENT TECH-CORP  
 AREA BURNT RIVER DEPTH SCALE 200, 1  
 COUNTRY CANADA  
 DATE LOGGED 04/09/80 1 OF 5 LOGS

BOREHOLE DATA  
 PERMANENT DATUM GROUND LEVEL  
 ELEVATION OF P.D. GROUND LEVEL  
 MEASUREMENTS FROM CL DRILLER  
 DEPTH REACHED 87m 297ft.  
 CASING SHOE 187ft.  
 BIT SIZES 1 NQJ TO TD 2 TO  
 3 TO 4 TO  
 CASING SIZES 1 NW TO 187ft. 2 TO

FLUID DATA  
 NATURE WATER  
 SG  
 LEVEL  
 VISCOSITY  
 Rm at meas. temp  
 R.H.T.

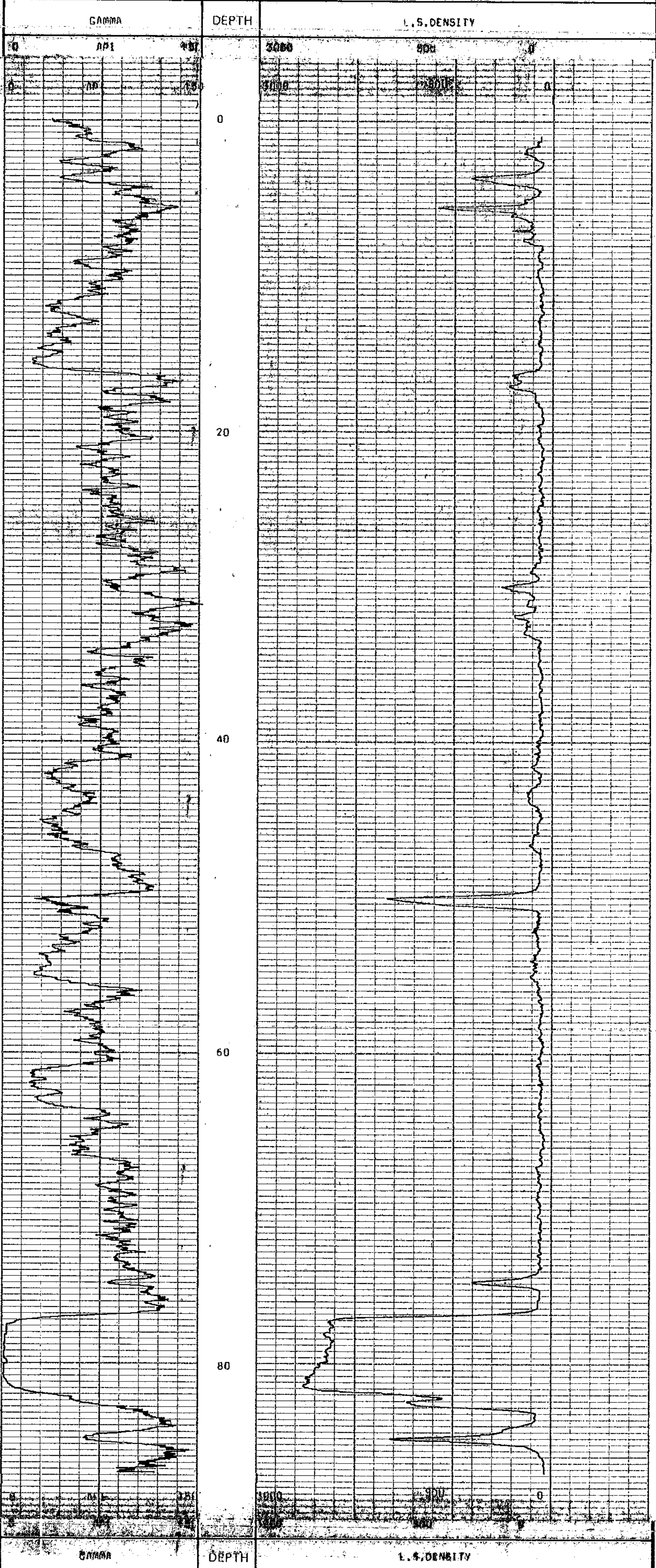
OPERATION DATA  
 FIRST READING 82m  
 LAST READING 0  
 INTERVAL LOGGED 87m  
 UNIT - TRUCK No 46/24  
 ENGINEER H. C. BARKER  
 WITNESS

489

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS		
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL
GAMMA	110	-	5100PI	Y	9m/m	H	9m/h	1	-	1.44	87	0	87
S.D.	110	5845	5308DU	Y	9m/m	R	9m/h	.3	6.8	-	87	0	87
CALIPER ON TAPE ONLY													

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
	NEUTRON				LOGGED IN LOGS CALIPER ON TAPE ONLY



GAMMA DEPTH L.S. DENSITY



BOREHOLE BR-59 AREA BURNT RIVER  
 CLIENT TECH-CORP COUNTRY CANADA



NEUTRON-NEUTRON 1.05

BOREHOLE BR-59  
CLIENT TECH-CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 04/09/80

DEPTH SCALE  
200.1

2 OF 5 LOGS

BOREHOLE DATA REFER TO ITHOLD JV LOG

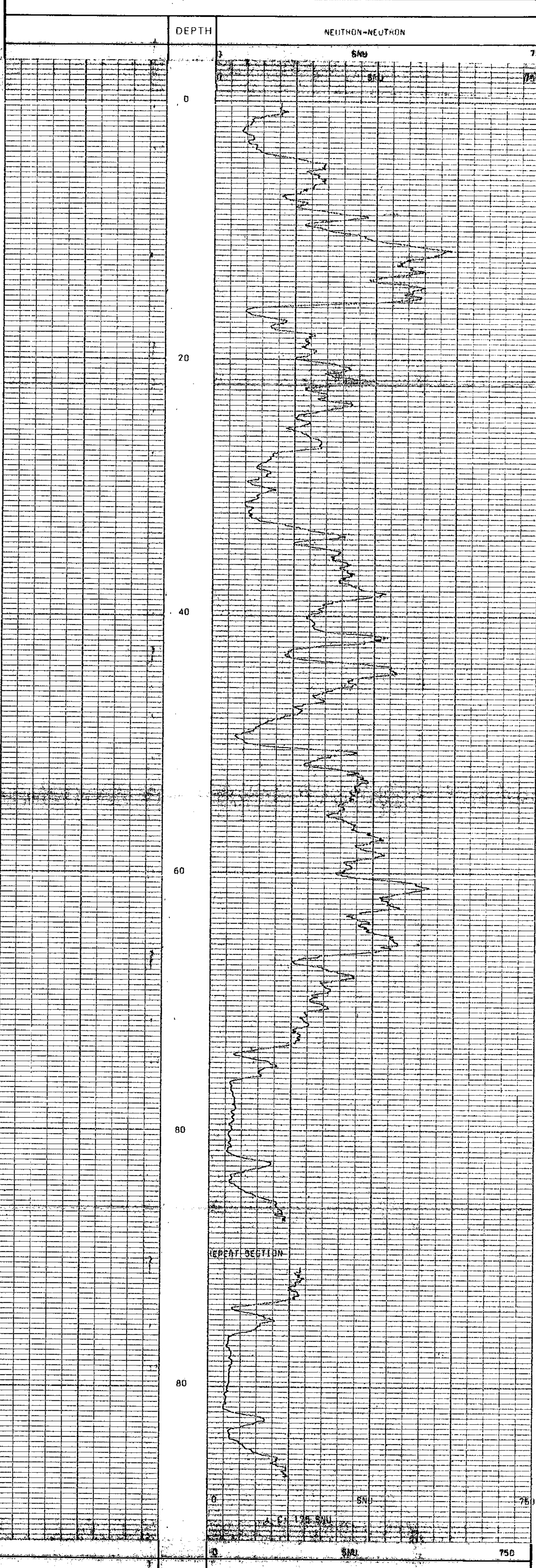
OPERATION DATA REFER TO ITHOLD JV LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAL
LOG	RECORDING	T.C.	NORM
TABED	SPEED	FEED	SECS
NEUTRON	U	U	.33
	SOURCE	ZU4	SOURCE
			STRT

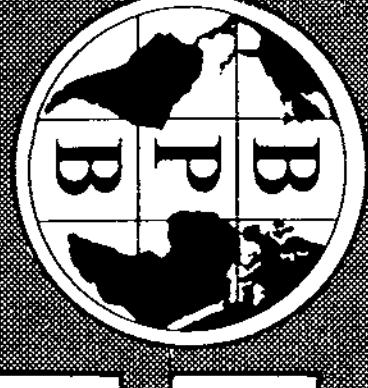
REMARKS

489



BOREHOLE BR-59  
CLIENT TECH-CORP  
AREA BURNT RIVER  
COUNTRY CANADA

TR-Burnt River 88253A BR-59

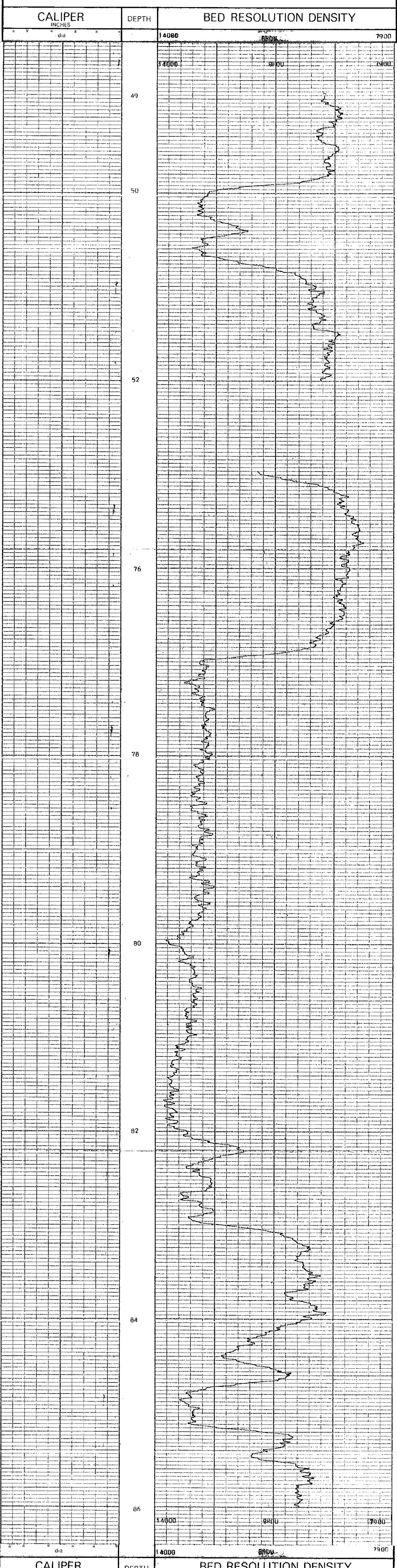


**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE  
LOG SUITE:  
CALIPER  
BR. DENSITY

BOREHOLE \_\_\_\_\_ CLIENT \_\_\_\_\_  
 AREA \_\_\_\_\_ DEPTH SCALE \_\_\_\_\_  
 COUNTRY \_\_\_\_\_ DATE LOGGED \_\_\_\_\_ 1 OF 5 LOGS  
 BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING PANEL COAL  
 LOG RECORDED SPEED TO INCHES  
 CALIPER 1.4000 1.4000 1.4000 1.4000  
 BR. DENSITY 1.4000 1.4000 1.4000 1.4000  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG  
 SEAM THICKNESS LOG INTERVALS  
 FROM 49.00 TO 50.00  
 INTERVAL 1.00  
 FROM 50.00 TO 52.00  
 INTERVAL 2.00  
 FROM 52.00 TO 56.00  
 INTERVAL 4.00  
 FROM 56.00 TO 76.00  
 INTERVAL 20.00  
 FROM 76.00 TO 78.00  
 INTERVAL 2.00  
 FROM 78.00 TO 80.00  
 INTERVAL 2.00  
 FROM 80.00 TO 82.00  
 INTERVAL 2.00  
 FROM 82.00 TO 84.00  
 INTERVAL 2.00  
 FROM 84.00 TO 86.00  
 INTERVAL 2.00  
 REMARKS

**B P B SEAM THICKNESS LOG**



CALIPER INCHES: 1.4000 DEPTH: 49 BED RESOLUTION DENSITY: 7900  
 BOREHOLE: BR-59 AREA: BURNT RIVER  
 CLIENT: TECH-CD: COUNTRY: CANADA  
**SEAM THICKNESS LOG**





AK-Burnt River 80031A BR-59

BOREHOLE 9-59  
 CLIENT TECH-CONP  
 AREA Burnt River  
 COUNTRY CANADA  
 DATE LOGGED 04/09/80  
 DEPTH SCALE 201  
 A OF S LOGS

**BOREHOLE DATA**  
 PERMANENT DATUM CH-DUNG 1 E 1/2  
 ELEVATION OF P.D. 274.00  
 MEASUREMENTS FROM 8 P 8  
 DRILLER  
 DEPTH REACHED 87m  
 CASING SHOE 15ft.  
 BIT SIZES 1 NO3 TO 10 TO  
 2 TO  
 3 TO  
 CASING SIZES 1 1/2" TO 1 1/4" TO

**FLUID DATA**  
 NATURE  
 SG  
 LEVEL  
 VISCOSITY  
 B.H.T.

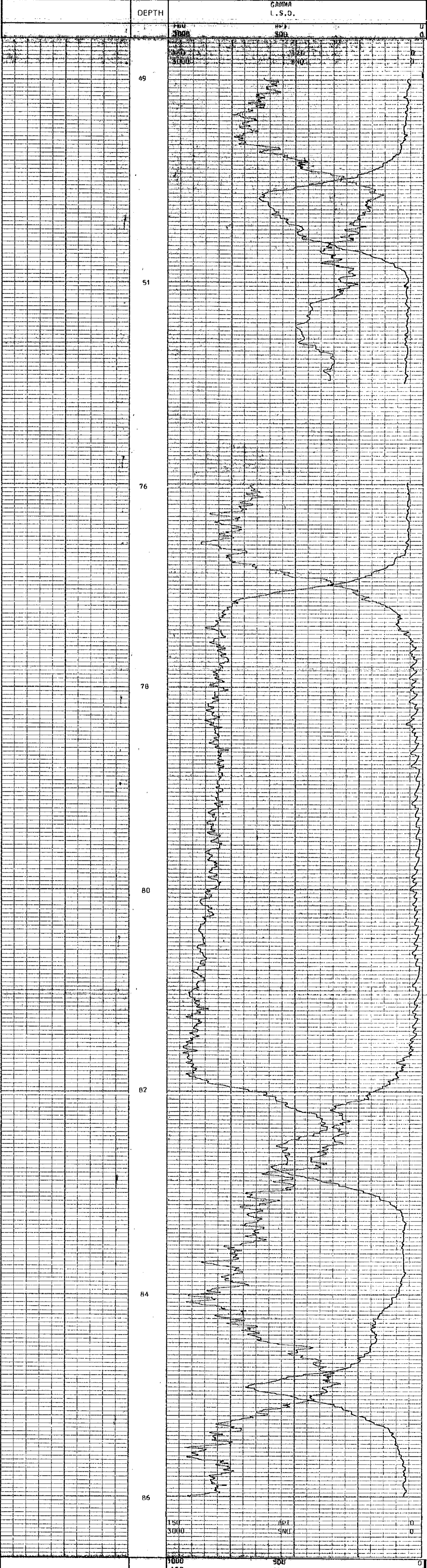
**OPERATION DATA**  
 FIRST READING 95m 52m  
 LAST READING 75m 49m  
 INTERVAL LOGGED 11m 3m  
 UNIT-TRUCK No 46/24  
 ENGINEER  
 WITNESS

489

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING		PANEL		CAL COEFF	DEPTHS				
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT/REPLAY	SPEED		TC SECS	NORM	FROM	TO	INTERVAL
JAMMA	110	5845	510API	Y	3m/m	R	3m/m	1	-	1.4	86	75	11
L.S.D.	110	5845	530SDH	Y	3m/m	R	3m/m	.3	6.8	-	86	49	3

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
	NEUTRON				LOGGED IN HQDS



DEPTH	GAMMA L.S.D.
0	0
150	0
3000	0
500	0
3000	0

BOREHOLE BR-59  
 CLIENT TECH-CONP  
 AREA Burnt River  
 COUNTRY CANADA







72-Burnt River 5063A BR 60

CBAL LITHOLOGY LOG

BOREHOLE BR-60  
 CLIENT TECH-CORP  
 AREA Burnt River DEPTH SCALE 200'-1  
 COUNTRY CANADA  
 DATE LOGGED 07/09/80 1 OF 2 LOGS

PERMANENT DATUM ELEVATION OF P.O.I. B.F.B. DRILLER  
 MEASUREMENTS FROM 01 296ft.  
 DEPTH REACHED 296  
 CASING SHOE 34ft.  
 BPT SIZES 1 1 1/2 TO 2 2 TO 3 3 TO 4 4 TO 5 5 TO 6  
 CASING SIZES 1 1 1/2 TO 3 3 1/2 TO 4 4 TO 5 5 TO 6

FLUID DATA  
 NATURE  
 S.G.  
 LEVEL  
 VISCOSITY  
 S.P.H. T.

OPERATION DATA  
 FIRST READING 89a  
 LAST READING 0  
 INTERVAL LOGGED 89a  
 UNIT - TRUCK NO 4674  
 ENGINEER K.E. BARNHART  
 WITNESS

489

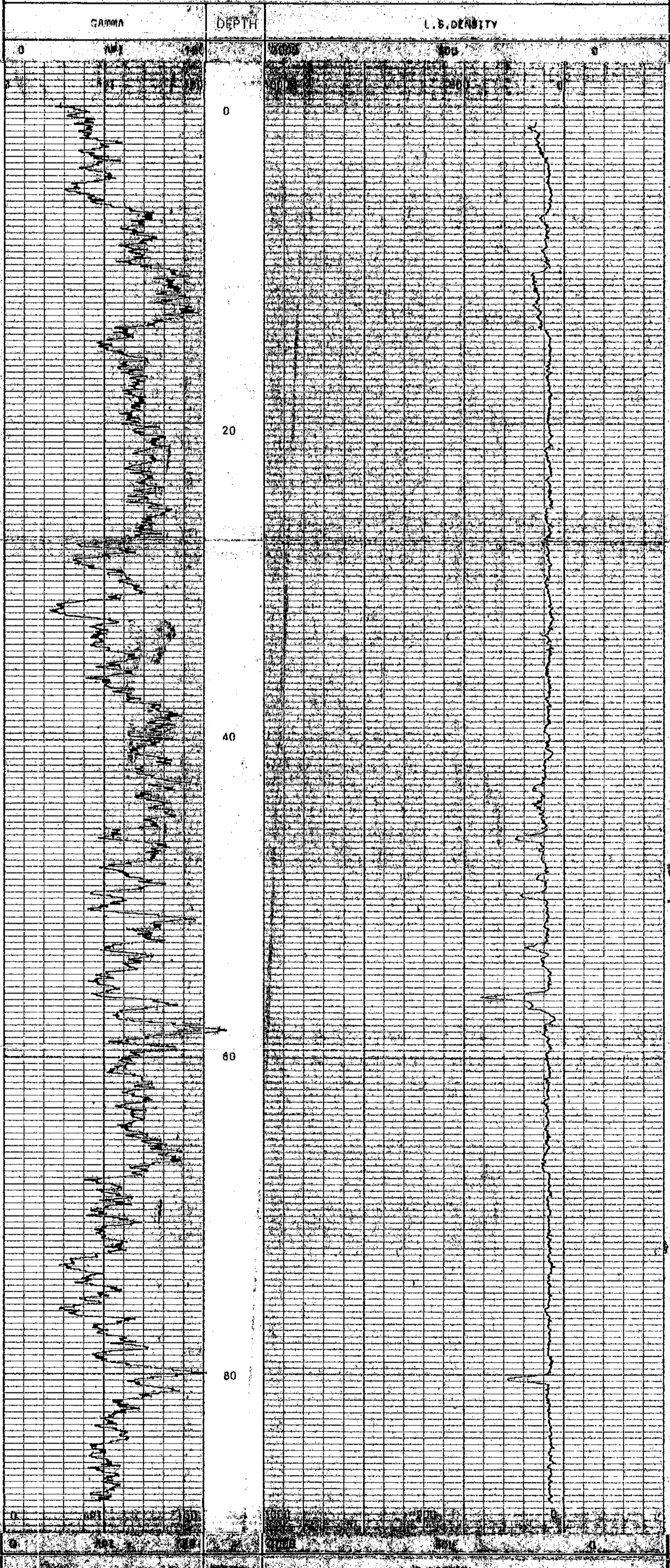
EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS		
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	T.C. SECS	NORM		FROM	TO	INTERVAL
GAMMA	110	5845	5100PI	Y	9m/m	R	9m/m	1	6.8	1.2	89	89	
L.S.D.	110	5845	530801	Y	9m/m	R	9m/m	.3	6.8	-	89	89	
CALIPER	ON TAPE ONLY												

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL READINGS
	NEUTRON			

REMARKS  
 LOGGED IN RODS CALIPER ON TAPE ONLY



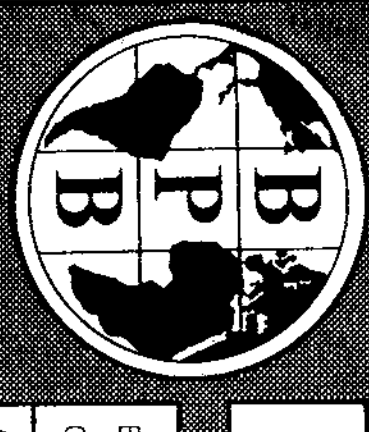
BOREHOLE BR-60 AREA Burnt River  
 CLIENT TECH-CORP COUNTRY CANADA











Be-Burnt River 80(3)A BR-61

BOREHOLE	BR-61
CLIENT	TECH-CLINE
AREA	BLUNT-CLINE
COUNTRY	CANADA
DATE LOGGED	10/19/70
BOREHOLE DATA	
PERMANENT DATUM	5.0000 - FIVE
ELEVATION OF P.D.	IN LIND TOWER
MEASUREMENTS FROM	6 P 8 DRILLER
DEPTH REACHED	93m
CASING SPACE	5.8m
BIT SIZES	1 1 1/2 TO 2 TO 3 TO 4 TO
CASING SIZES	1 1/2 TO 5.8m 2 TO
FLUID DATA	
NATURE	SILTY - SL
SG	
LEVEL	
VISCOSITY	
PH	
TEMP	
OPERATION DATA	
FIRST READING	9.1m
LAST READING	3
INTERNAL LOGGED	3
UNIT-TRUCK NO	4572
ENGINEER	A. C. BISHOP
WITNESS	

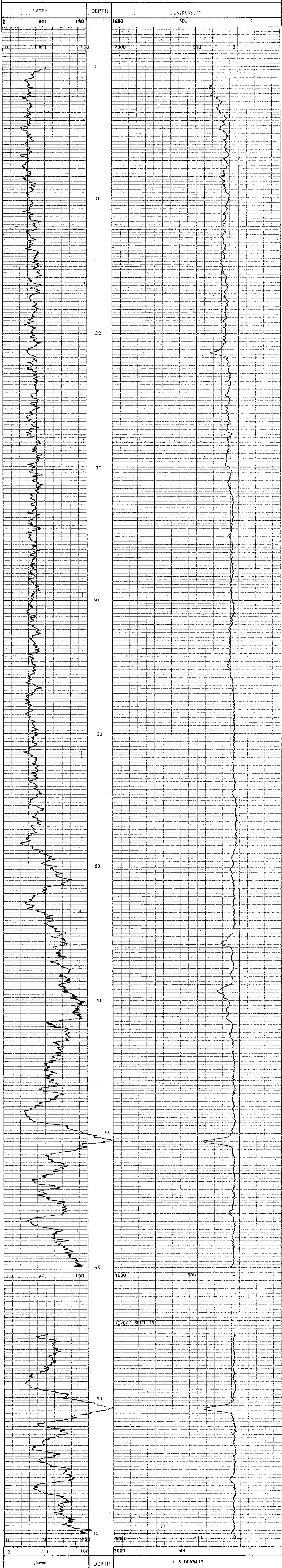
489

EQUIPMENT AND RECORDING DATA

LOG	SONDE	SOURCE	CALIBRATION	LOG TAPED	RECORD SPEED	DIRECTOR REPLAY	SPEED	TC SECS	NORM	CAL COEFF	DEPTHS FROM	TO	INTERVAL
Gamma	110	5845	510501	Y	1m/m	D	9m/a	1	-	1.44	90	0	90
S. DENSITY	110	5845	530501	Y	3m/m	D	9m/a	.3	6, 8	-	90	0	90

ADDITIONAL SONDES RUN				REMARKS	
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO	ADDITIONAL HEADINGS
NEUTRON					

LOGGED IN 4005 CALIPER NOT PLAYED OUT IN GENERAL



BOREHOLE	BR-61	AREA	BLUNT-CLINE
CLIENT	TECH-CLINE	COUNTRY	CANADA





PR-Burnt River 805314 B261

CON. LITHOLOGY LOG

BOREHOLE BR-61

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA

DATE LOGGED 10/09/80

DEPTH SCALE  
200.1

2 OF 2 LOGS

BOREHOLE DATA

PERMANENT DATUM GROUND LEVEL

ELEVATION OF P.D. GROUND LEVEL

MEASUREMENTS FROM CL

DEPTH REACHED 90m

CASING SIZE 5 1/2"

BIT SIZES 1 NC3 TO 1D

CASING SIZES 1 NW TO 2

NATURE QUICK-SET

S.G. QUICK-SET

LEAKS QUICK-SET

VISCOSITY QUICK-SET

R.H.T. QUICK-SET

OPERATION DATA

FIRST READING 90m

LAST READING 0

INTERVAL LOGGED 90m

UNIT - TRUCK NO 46/24

ENGINEER H.L. BARRAN

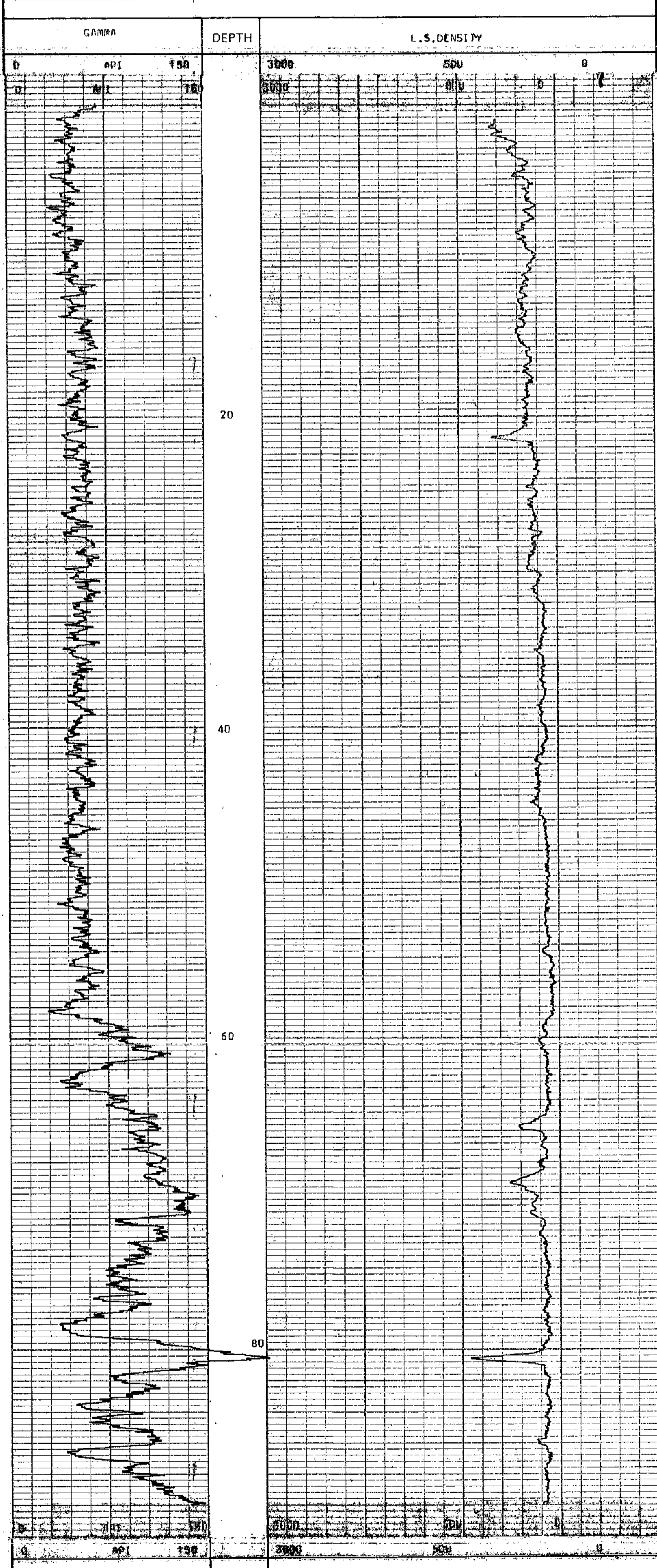
WITNESS

489

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS		
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C. SECS	NORM		FROM	TO	INTERVAL
GAMMA	110	-	510 API	Y	9m/m	R	9m/h	1	-	1.44	90	0	90
S.D.	110	5845	53050U	Y	9m/m	R	9m/h	.3	6.8	-	90	0	90

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
	NEUTRON				LOGGED IN HOOD CALIPER NOT PLAYED OUT IN GENERAL



BOREHOLE BR#61  
CLIENT TECH-CORP

AREA BURNT RIVER  
COUNTRY CANADA

PP-Burnt River 00314 BR 62



BOREHOLE 9-62  
 CLIENT TECH-UNIT

AREA 9-UNIT 115E  
 COUNTRY CANADA  
 DATE LOGGED 11/09/80

DEPTH SCALE  
 0' 1' 2' 3' 4' LOGS

**SEAM THICKNESS LOG**

**SEAM THICKNESS LOG**

SONDE TYPE:  
 COAL  
 COMBINATION  
 SONDE

LOG SUITE:  
 CALIPER  
 BR DENSITY

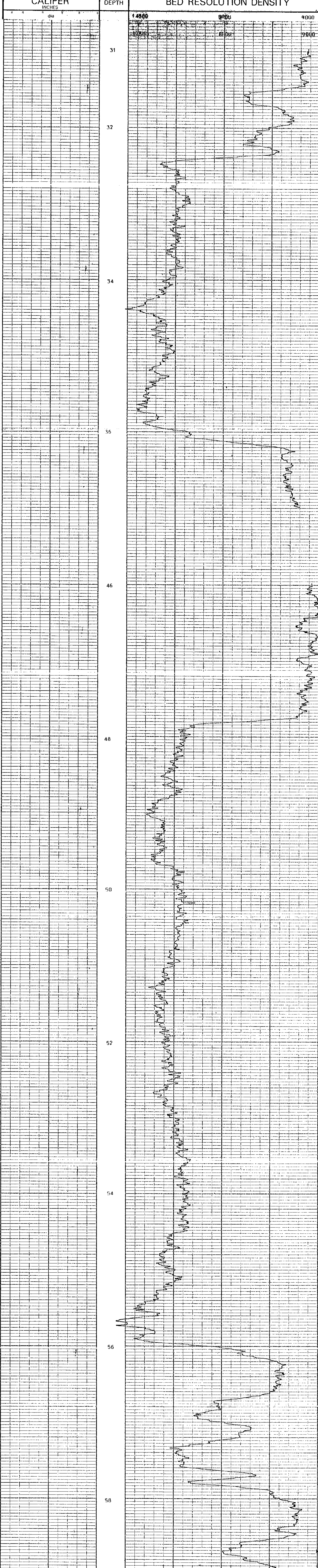
OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING PANEL COEF  
 LOG SPEED REV/S NORM  
 CALIPER V 3m/4 1.1V 3m/4 1.1V  
 BR DENSITY V 3m/4 1.1 3m/4 1.1

SEAM THICKNESS LOG INTERVALS

FROM 59m 37m  
 TO 43m 37m  
 INTERVAL 13m 5m

REMARKS  
 489

**B P B SEAM THICKNESS LOG**



CALIPER INCHES DEPTH BED RESOLUTION DENSITY



BOREHOLE 9-62 AREA 9-UNIT 115E  
 CLIENT TECH-UNIT COUNTRY CANADA

**SEAM THICKNESS LOG**



PR-Burnt River 82(3)A BR 62

CAL LITHOLOGY LOG

BOREHOLE BR-62 DEPTH SCALE 200:1  
 CLIENT TECH-CORP  
 AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 11/09/80 1 OF 1 LOGS

PERMANENT DATUM \_\_\_\_\_ GROUND LEVEL \_\_\_\_\_  
 ELEVATION OF P.O. \_\_\_\_\_ GROUND LEVEL \_\_\_\_\_  
 S P B \_\_\_\_\_ DRILLER \_\_\_\_\_  
 MEASUREMENTS FROM \_\_\_\_\_ G.L. \_\_\_\_\_  
 DEPTH REACHED 63m 206ft.  
 CASING SHADE \_\_\_\_\_  
 BIT SIZES 1 N03 TO TD 2 \_\_\_\_\_ TO \_\_\_\_\_  
 3 \_\_\_\_\_ TO \_\_\_\_\_ 4 \_\_\_\_\_ TO \_\_\_\_\_  
 CASING SIZES 1 NW TO 14ft. 2 \_\_\_\_\_ TO \_\_\_\_\_

FLUID DATA  
 NATURE \_\_\_\_\_ QUICK-CEL \_\_\_\_\_  
 S.G. \_\_\_\_\_  
 LEVEL \_\_\_\_\_  
 VISCOSITY \_\_\_\_\_  
 Firm at meas. temp \_\_\_\_\_  
 S.H.T. \_\_\_\_\_

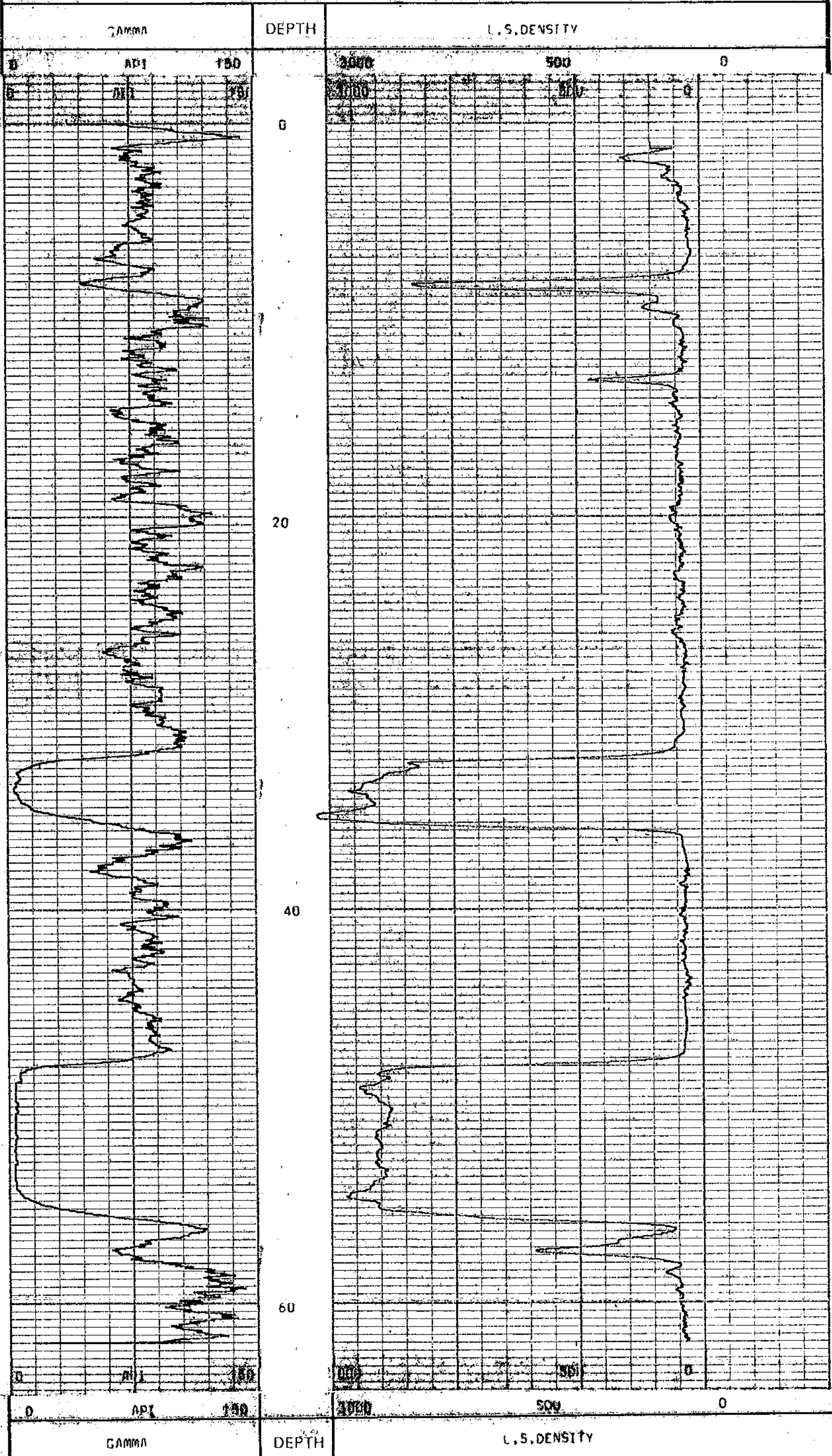
OPERATION DATA  
 FIRST READING 52m  
 LAST READING 0  
 INTERVAL LOGGED 62m  
 UNIT-TRUCK No 46/24  
 ENGINEER R.C. BARRAK  
 WITNESS \_\_\_\_\_

489

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS		
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECTOR REPLAY	SPEED	T.C SECS	NORM		FROM	TO	INTERVAL
GAMMA	110	-	510API	Y	9m/m	R	9m/m	1	-	1.44	62	0	62
L.S.D.	110	5B45	930SDH	Y	9m/m	R	9m/m	3	6.9	-	62	0	62
CALIPER ON TAPE ONLY													

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
	NEUTRON				LOGGED IN ROSS CALIPER ON TAPE ONLY



BOREHOLE BR-62 AREA BURNT RIVER  
 CLIENT TECH-CORP COUNTRY CANADA





R-Burnt River 80/71A BR 62

NEUTRON-NEUTRON LOG

BOREHOLE BH-62

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA

DATE LOGGED 11/09/80

DEPTH SCALE  
200'

2 OF 4 LOGS

BOREHOLE DATA

REFER TO LITHOLOGY LOG

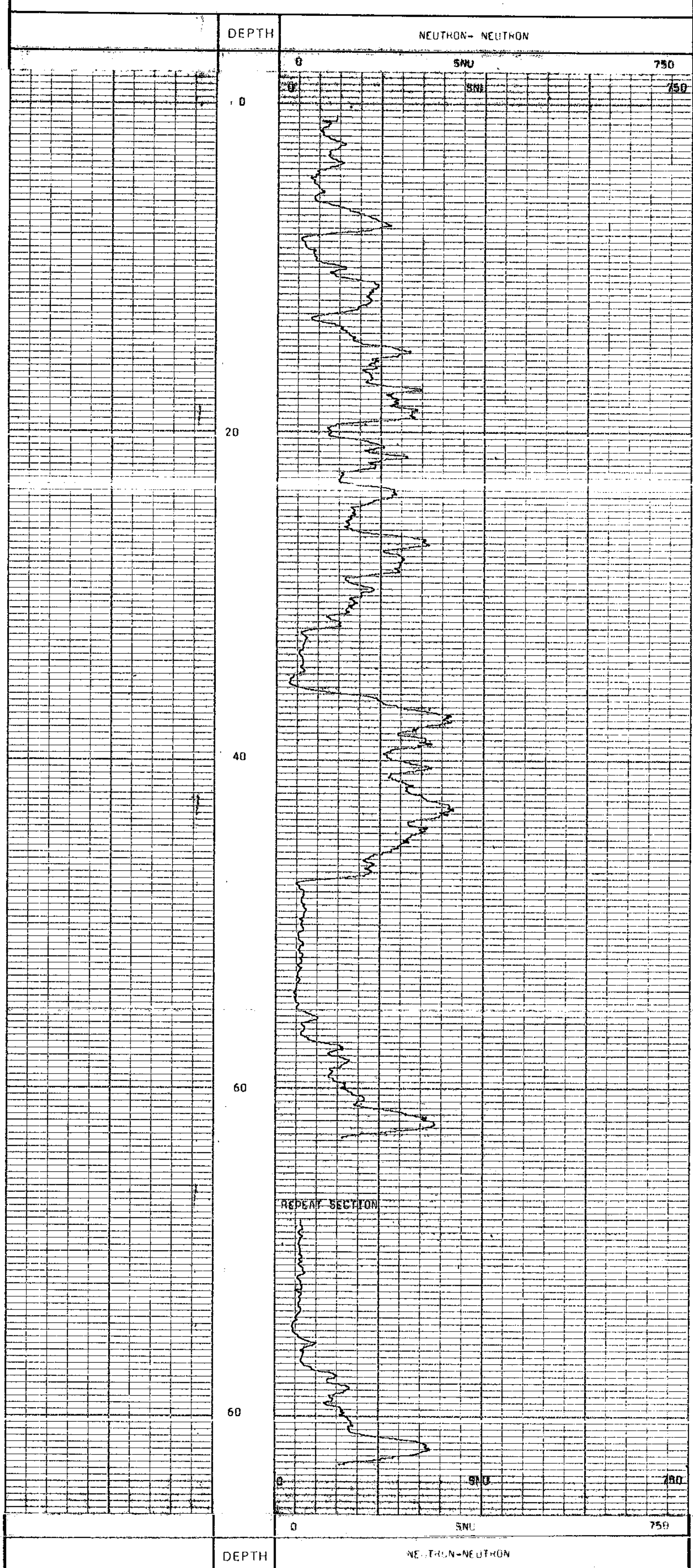
OPERATION DATA

REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPPING	PANEL	GAUGE
LOG TAPER	RECORDING SPEED	RECORDING SPEED	RECORDING SPEED
NEUTRON#	9m/m	9m/m	5.9
SONDE	224	SOURCE	6787
REMARKS			
LOGGED IN HDS			

489



BOREHOLE BH-62

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA



SINGLE FUNCTION  
SARMA-APP, L.S. DENSITY LOGS

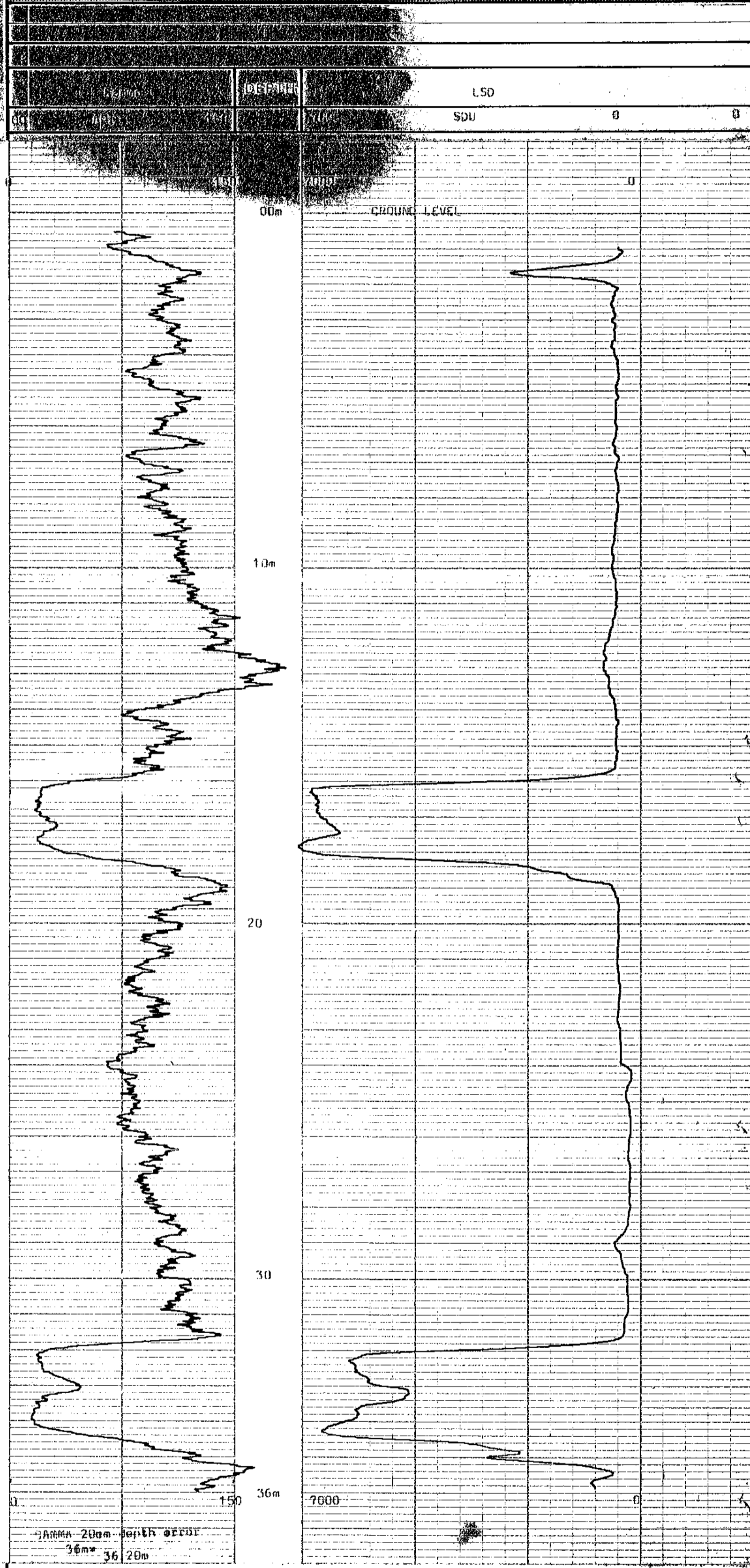
BOREHOLE BW 37  
CLIENT TECK-CORP

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 06/30/80

BOREHOLE DATA REFER TO LOG  
OPERATION DATA REFER TO LOG  
EQUIPMENT AND RECORDING DATA

LOG	TAPING	RECORDING	PANEL	COAL		
	TAPED	DIRECT	T.C.	COVER		
	SPEED	RELAY	SECS	NORM		
SARMA	Y	3m/m	D	3m/m	2	-
LSD	Y	3m/m	D	3m/m	1	-

REMARKS Ocellers T.D. 123'  
BPB 1.D. 36.8m  
Bit Size 4x



0	API	150	7000	SOU	0
	Gamma	DEPTH		LSD	



BOREHOLE BW 37 AREA Burnt River  
CLIENT TECK CORP COUNTRY Canada

489

Burnt River - SARMA - BW 37



PC-Burnt River 82/318 BW 3-7

SONDE TYPE:  
COAL COMBINATION  
SONDE

COAL  
QUALITY  
LOG

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

BOREHOLE BW-37  
CLIENT TECK-CORP  
AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 06/30/80

DEPTH SCALE  
2041

Z OF 3 LOGS

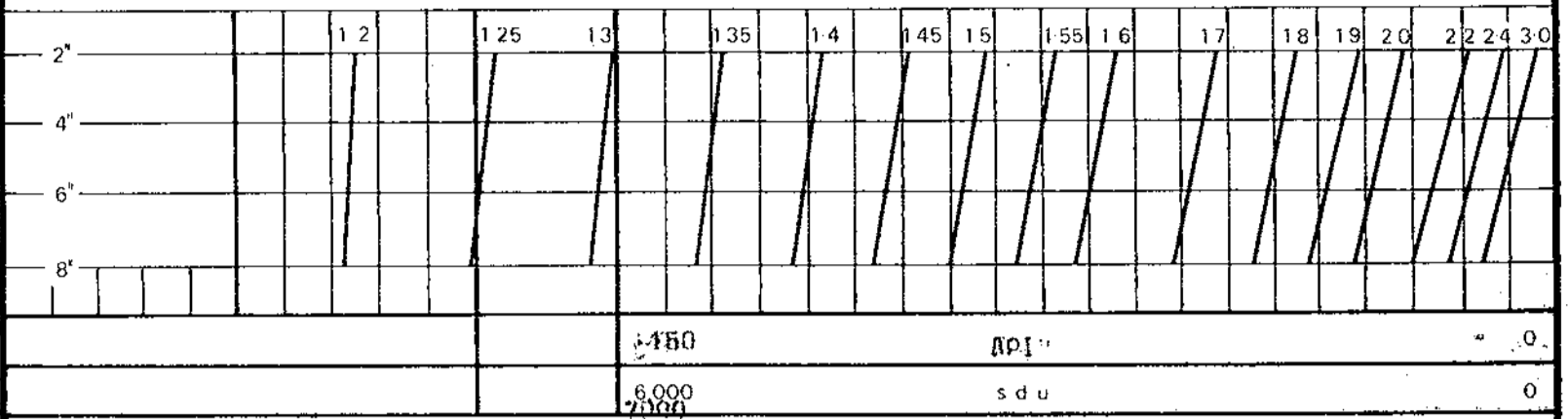
BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE  
LOG TAPPING SIDEWALL POSITION  
LOG RECORDING SPEED SECS NORM  
GAMMA RAY Y 3m/m D 5m/m 2  
DENSITY Y 3m/m 1 5m/m 1

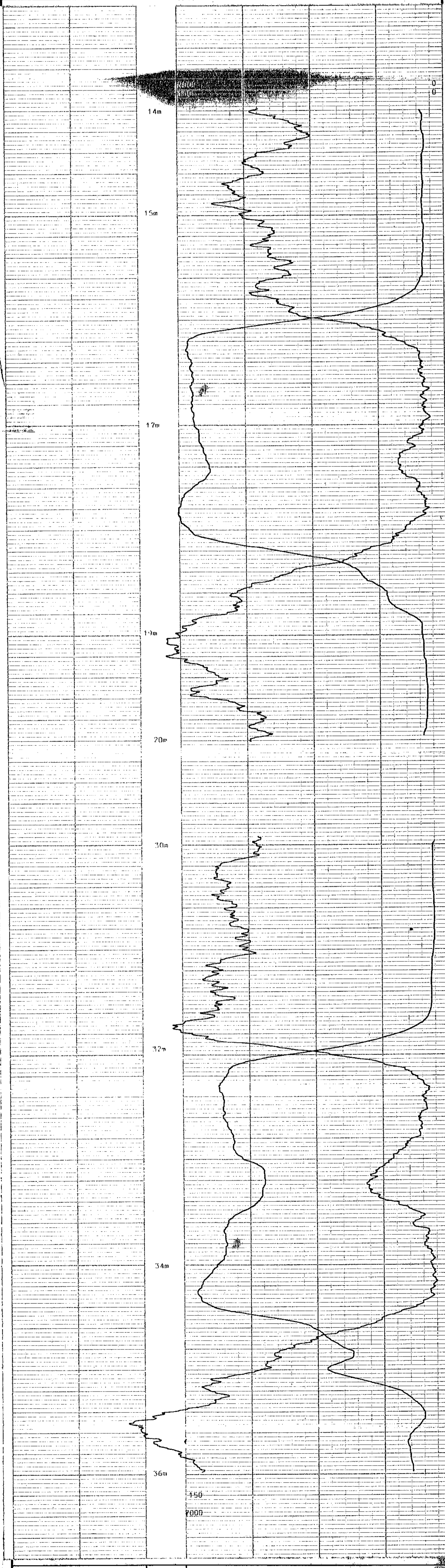
### BPB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>

#### HOLE SIZE CORRECTION DATA



API 0  
SDU 0



API 0  
SDU 0

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>



BOREHOLE BW-37  
CLIENT TECK-CORP

AREA Burnt River  
COUNTRY Canada

### COAL QUALITY LOG

NY 88022





72-Burnt River 80(5)A - 8w-37

**SEAM THICKNESS LOG**

BOREHOLE 8w-37  
 CLIENT TECK-CORP  
 AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 05/30/80  
 DEPTH SCALE 281  
 3 OF 3 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING PANEL COEFF  
 LOGS RECORD SPEED SECS NORM  
 CALIPER TABD SPEED REPLAY SECS  
 BR DENSITY Y 3m/m R 3m/d 1  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

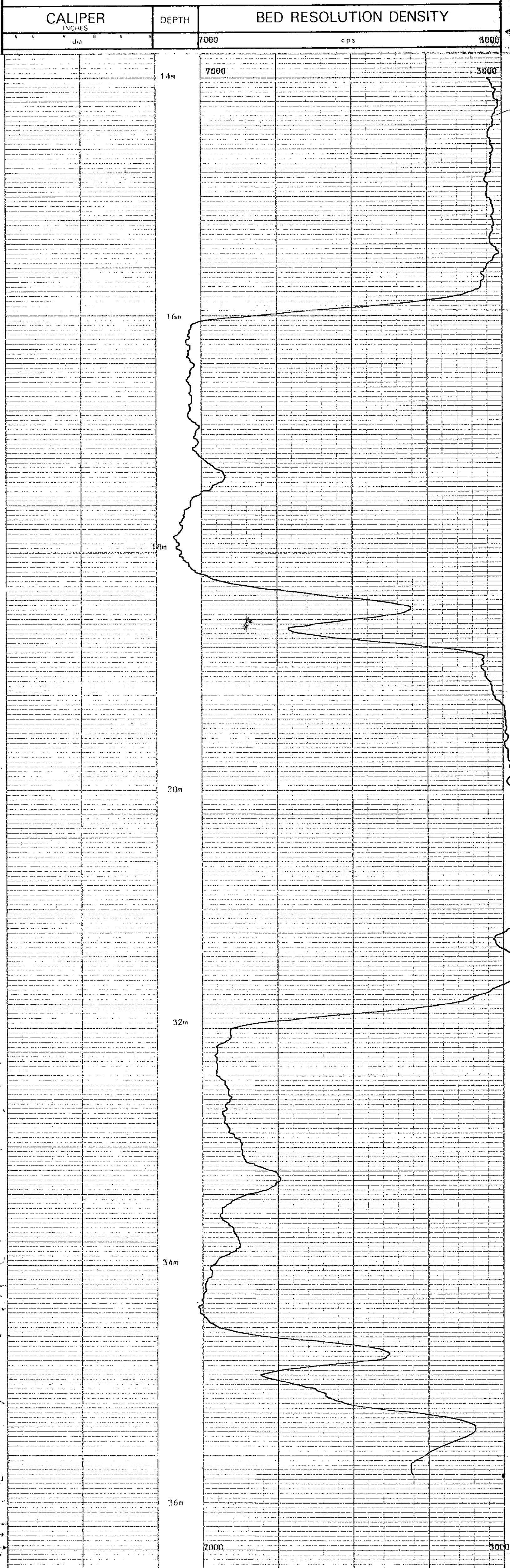
SEAM THICKNESS LOG INTERVALS

FROM	36m	20m
TO	30m	14m
INTERVAL	6m	6m
FROM		
TO		
INTERVAL		
TOTAL		

LOG SUITE:  
 CALIPER  
 BR DENSITY

REMARKS  
 Drillers I.C. 1271  
 998 T.O. 36.80m  
 Bit Size AX

**B P B SEAM THICKNESS LOG**

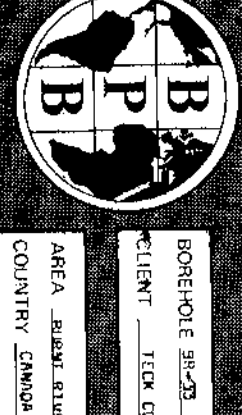


CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
0.000	7.000	3000

**SEAM THICKNESS LOG**

BOREHOLE 8w-37 AREA Burnt River  
 CLIENT TECK-CORP COUNTRY Canada





Pr-Burnt Burnt 803A 1323

BOREHOLE 8H-33  
 CLIENT TCK LHRP  
 AREA BURNT HIVER  
 COUNTRY CANADA  
 DATE LOGGED 26/07/80  
 BOREHOLE 281  
 4-6-8-100

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA

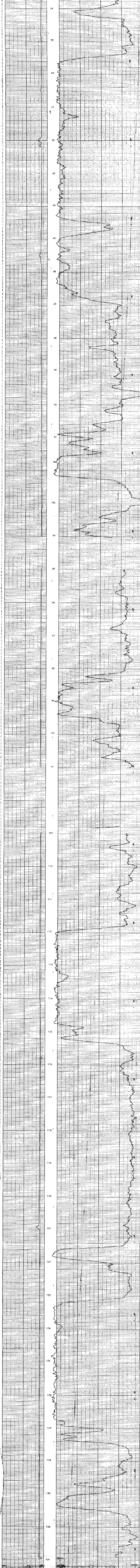
SEAM THICKNESS LOG  
 LOG

SONDE TYPE  
 SONDÉ COMBINATION  
 SONDÉ

LOG SLIT  
 CALIPER  
 BR DENSITY

SEAM THICKNESS LOG INTERVALS  
 FROM 36m TO 131m  
 TO 37m FROM 170m  
 FROM 184m TO 224m  
 TOTAL  
 489

### B P B SEAM THICKNESS LOG



CALIPER DEPTH 24500 BED RESOLUTION DENSITY 14000

BOREHOLE 8H-33 AREA BURNT HIVER  
 CLIENT TCK LHRP COUNTRY CANADA

**SEAM THICKNESS LOG**









PR-Summit River 801331 Bw 39

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY  
CALIPER

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

COAL  
LITHOLOGY  
LOG

BOREHOLE <u>Bw-39</u>		AREA <u>Summit River</u>	
CLIENT <u>Teck-Corc</u>		DEPTH SCALE <u>200'</u>	
COUNTRY <u>Canada</u>		DATE LOGGED <u>13/07/80</u>	
PERMANENT DATUM <u>Ground level</u>		DRILLER <u>SI</u>	
ELEVATION OF P.D. <u>898</u>		MEASUREMENTS FROM <u>CI</u>	
DEPTH REACHED <u>15.38m</u>		DEPTH REACHED <u>52.01ft</u>	
CASING SIZES <u>1 1/2" TO 1 1/2" TO 2" TO 2" TO 3" TO 3" TO 4" TO 4" TO 5" TO 5" TO 6" TO 6" TO 8" TO 8" TO 10" TO 10"</u>		NATURE <u>WATER</u>	
FLUID DATA		SG	
LEVEL		LEVEL	
VISCOSITY		VISCOSITY	
Rm at meas. temp.		Rm at meas. temp.	
BHT		BHT	
OPERATION DATA			
FIRST READING <u>1.5m</u>		LAST READING <u>0.1m</u>	
INTERVAL LOGGED <u>1.4m</u>		UNIT-TRUCK No. <u>24/46</u>	
ENGINEER <u>PC/MH</u>		DATE <u>13/07/80</u>	
WITNESS		WITNESS	

EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE														
LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY				Y	3m/m	R	3m/	2	-	1.5	15m	01m	14m	Y
L.S. DENSITY				Y	3m/m	R	3m/	1	-	-	15m	01m	14m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	R	3m/	1	-	-	15m	01m	14m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)			
FROM	15m	INTERVAL	
TO	01m	TOTAL	
INTERVAL	14m		14m

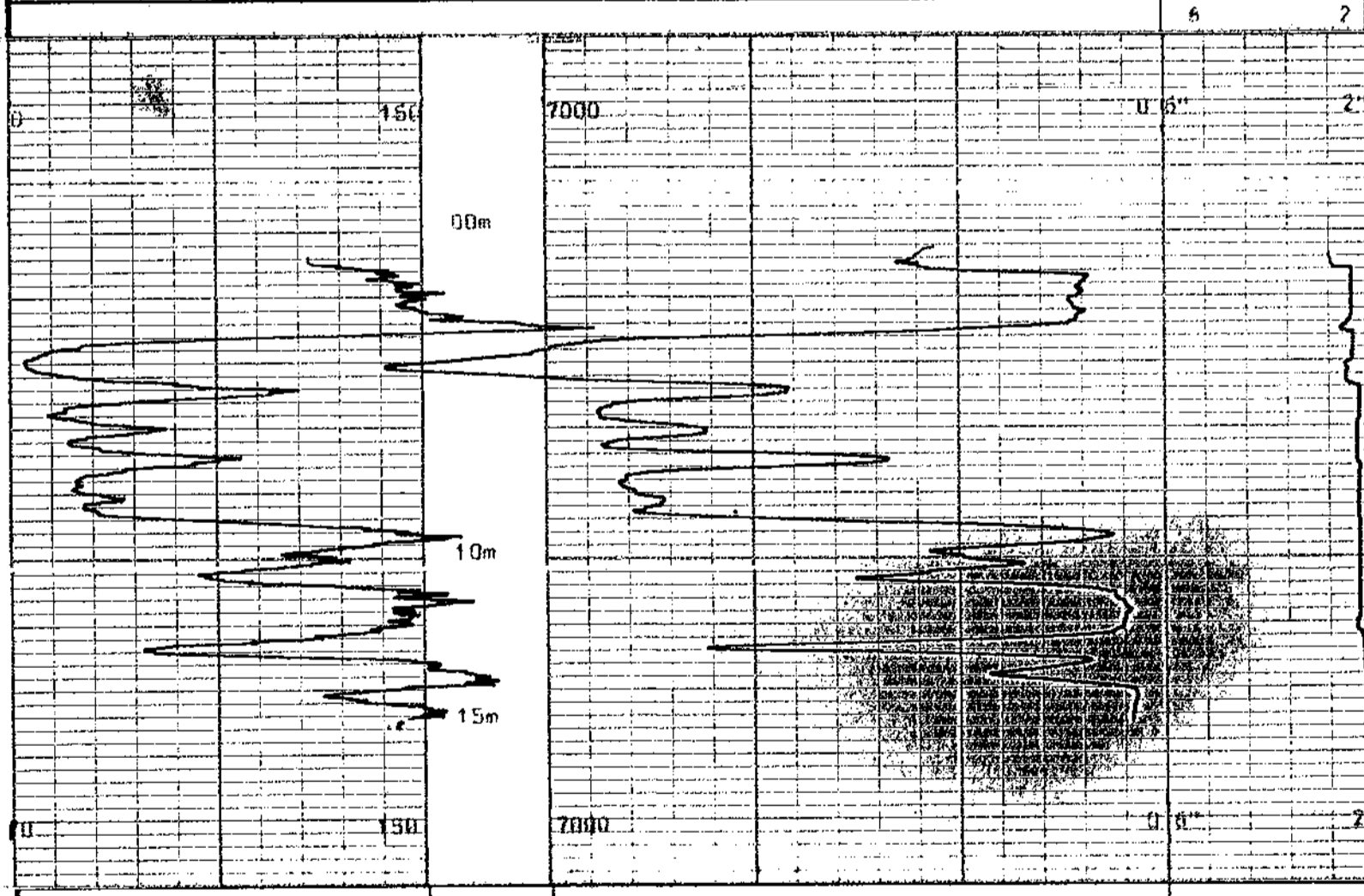
ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
					SINGLE FUNCTION SONDES USED IN WIDE HOLE

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No.	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins	cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN	NORM	SOU = CPS	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES
HOLE SIZE CORRECTION DATA			

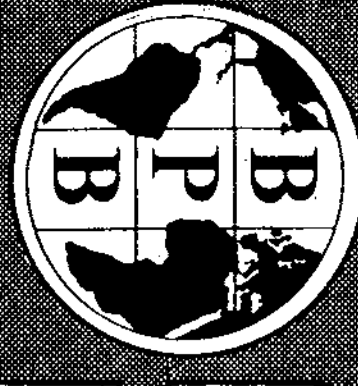


GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



BOREHOLE Bw-39 AREA Summit River  
 CLIENT Teck-Corc COUNTRY Canada

**COAL LITHOLOGY LOG**



72-Burnt River (013)A BU 34

# SEAM THICKNESS LOG

BOREHOLE BW-39  
 CLIENT Teck-CORP  
 AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 13/07/88  
 DEPTH SCALE 20:1  
 LOG OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 SIDEWALL POSITION  
 LOG TAPPING PANEL COEFF  
 LOG RECORDING SPEED OF SPEED SEC NORM  
 CALIPER 30/25 30/25 30/25  
 BR DENSITY Y 3m/1 3m/1  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

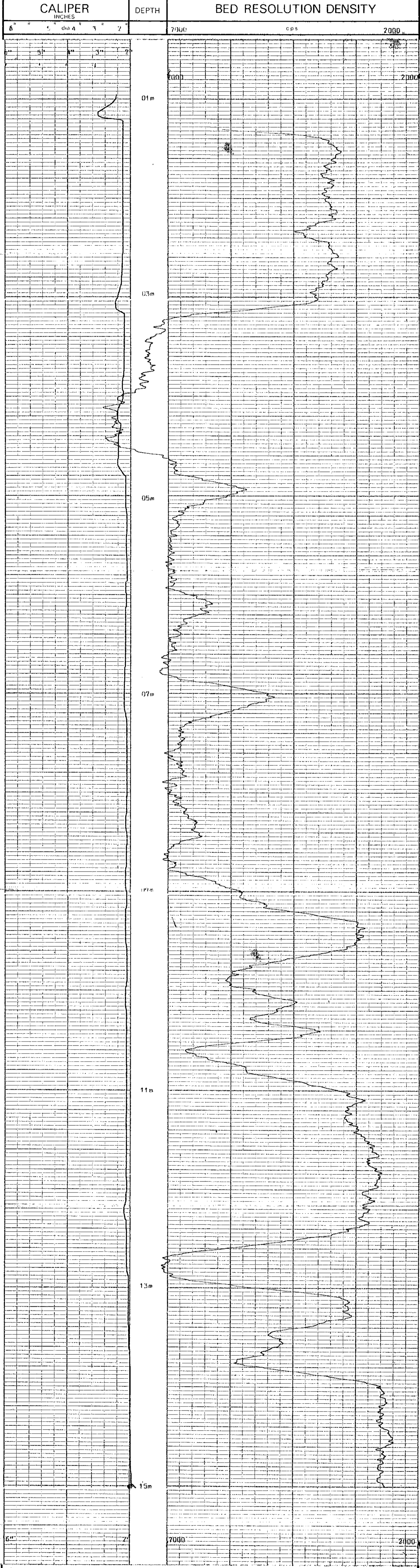
SEAM THICKNESS LOG INTERVALS

FROM	1.5m
TO	0.1m
INTERVAL	1.4m
FROM	
TO	
INTERVAL	
TOTAL	1.4m

REMARKS **489**

Small function spaces (m) (m) (m) (m)

## B P B SEAM THICKNESS LOG



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
6 5 4 3 2	7000	2000
BOREHOLE <u>BW-39</u>		AREA <u>Burnt River</u>
CLIENT <u>Teck-CORP</u>		COUNTRY <u>Canada</u>

### SEAM THICKNESS LOG







Pt-Burnt River 261310 Bw 39

SONDE TYPE:  
COAL COMBINATION  
SONDE

COAL  
LITHOLOGY  
LOG

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY  
CALIPER

BOREHOLE BW-39  
CLIENT TECK-CORP  
AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 13/07/80  
DEPTH SCALE 100:1  
4 OF 4 LOGS

BOREHOLE DATA

PERMANENT DATUM	GROUND LEVEL
ELEVATION OF P.D.	GROUND LEVEL
MEASUREMENTS FROM	GL
DEPTH REACHED	45.38m
CASING SHOE	57.07m
BIT SIZES	1 A <sub>v</sub> TO T <sub>n</sub> 2 TO
CASING SIZES	1 TO 2 TO 3 TO 4 TO

FLUID DATA

NATURE	Water
SG	
LEVEL	
VISCOSITY	
PH at meas. temp	
BHT	

OPERATION DATA

FIRST READING	1.5m
LAST READING	14m
INTERVAL LOGGED	1.4m
UNIT-TRUCK No.	24/45
ENGINEER	BP/RR
WITNESS	

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY				Y	3m/m	D	3m/m	2	-	1.5	15m	01m	1.4m	Y
L.S. DENSITY				Y	3m/m	C	3m/m	1	-	-	15m	01m	1.4m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	D	3m/m	1	-	-	15m	01m	1.4m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	15m	INTERVAL TOTAL
TO	01m	1.4m
INTERVAL	1.4m	

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS

REMARKS

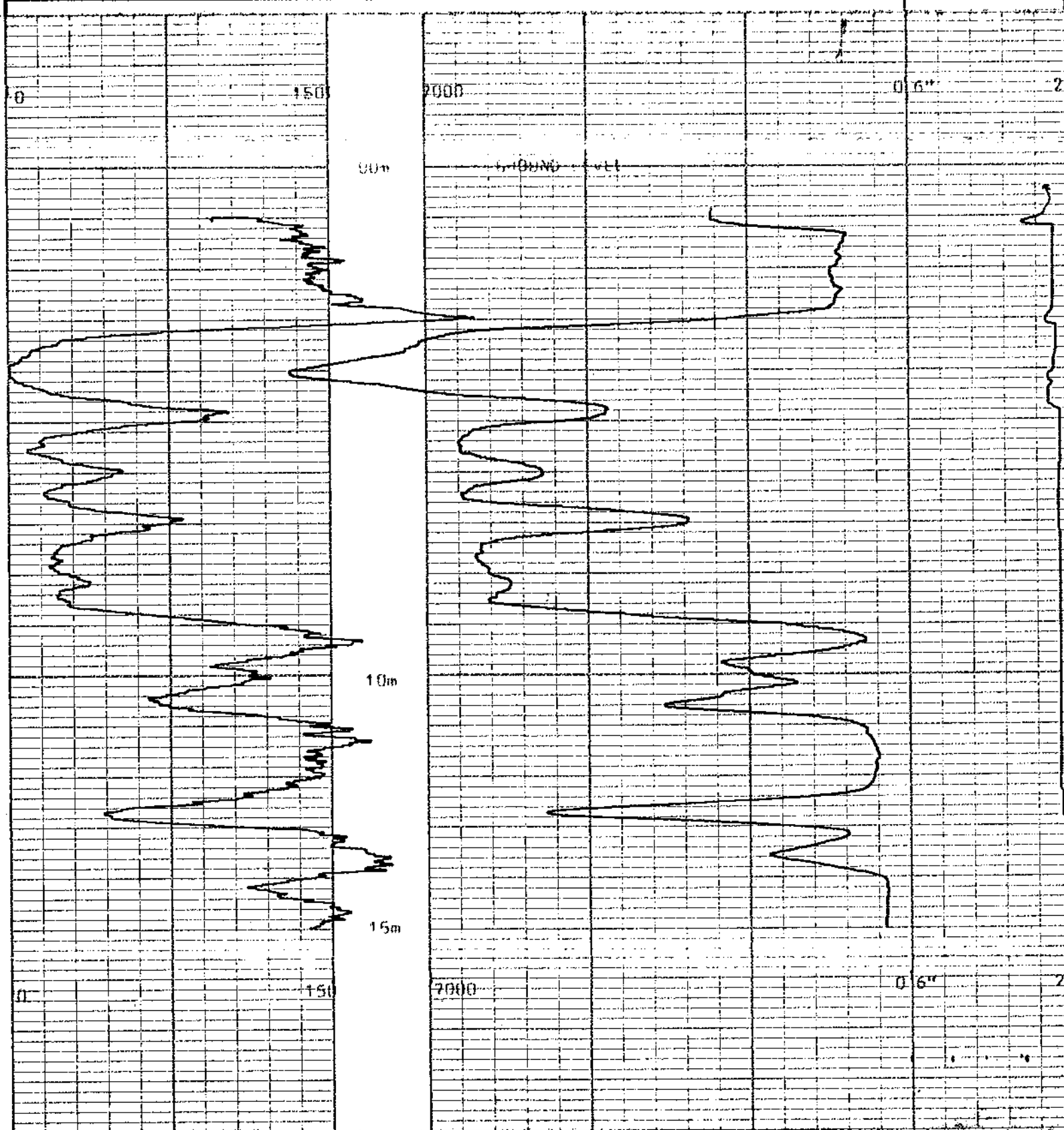
SINGLE FUNCTION SONDES/WINKLE HOLE

### BPB COAL LITHOLOGY LOG

#### CALIBRATION DATA

JIG No.	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins	cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No.	SPAN	NORM	SDU = CPS	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
HOLE SIZE CORRECTION DATA			



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES



BOREHOLE BW-39 AREA Burnt River  
CLIENT Teck-Corp COUNTRY Canada

### COAL LITHOLOGY LOG





P2-Burnt River 80330 RM39

**SONDE TYPE:**  
COAL COMBINATION SONDE

**LOG SUITE:**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

**COAL LITHOLOGY LOG**

**BOREHOLE DATA**

BOREHOLE: 8W 39  
CLIENT: TECH-CORP

AREA: BURNT RIVER  
COUNTRY: CANADA  
DATE LOGGED: 05/08/80

DEPTH SCALE: 100'  
↓ OF 4 LOGS

BOREHOLE DATA	
PERMANENT DATUM	5' FOUND LEVEL
ELEVATION OF P.D.	GROUND LEVEL
MEASUREMENTS FROM	J.C. B.P.B.
DEPTH REACHED	3.4m
CASING SHOE	3.4m
BIT SIZES	1" TO 1 1/2" TO 2" TO 3" TO 4" TO
CASING SIZES	1" TO 2"
FLUID DATA	
NATURE	WATER
S.G.	
LEVEL	
VISCOSITY	
PH at meas. temp	
B.H.T.	
OPERATION DATA	
FIRST READING	3.4m
LAST READING	U
INTERVAL LOGGED	3.4m
UNIT-TRUCK No.	45
ENGINEER	H.R./JM
WITNESS	

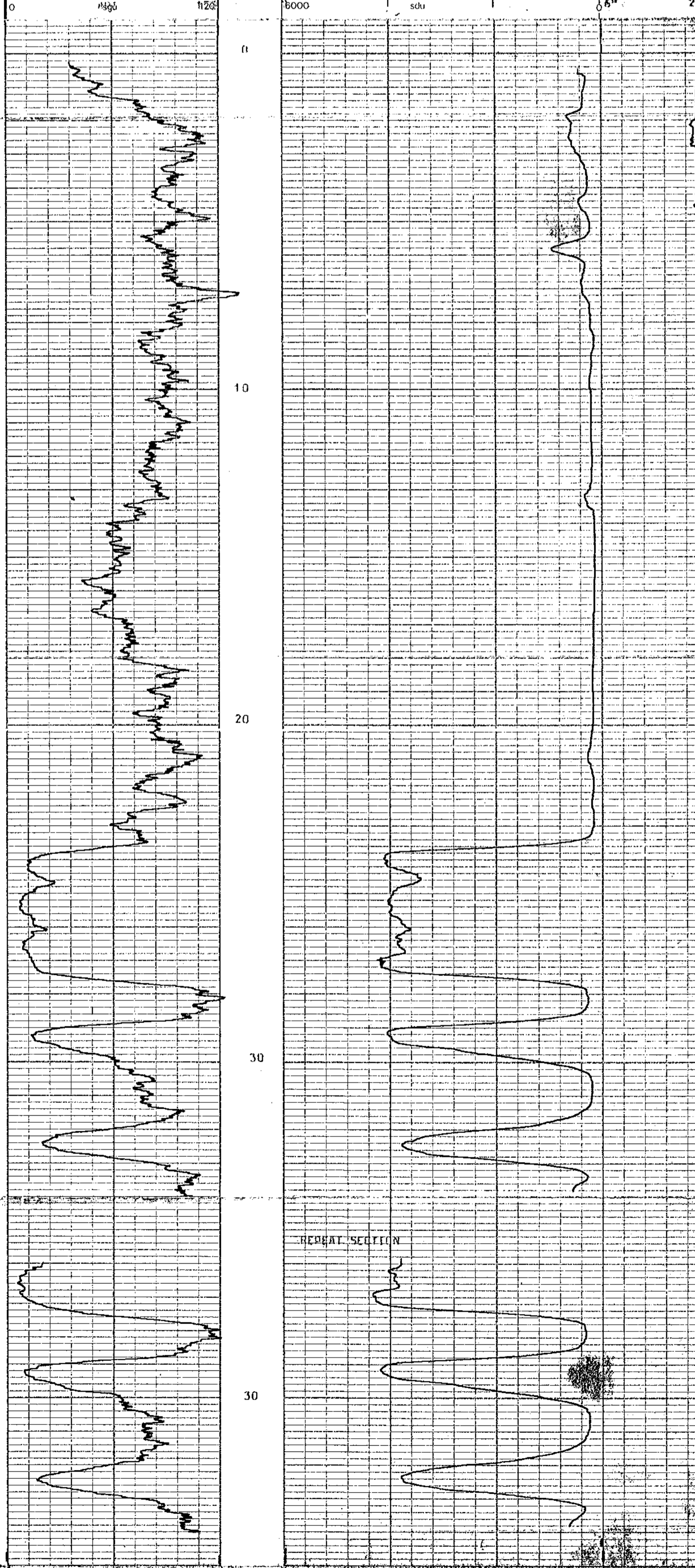
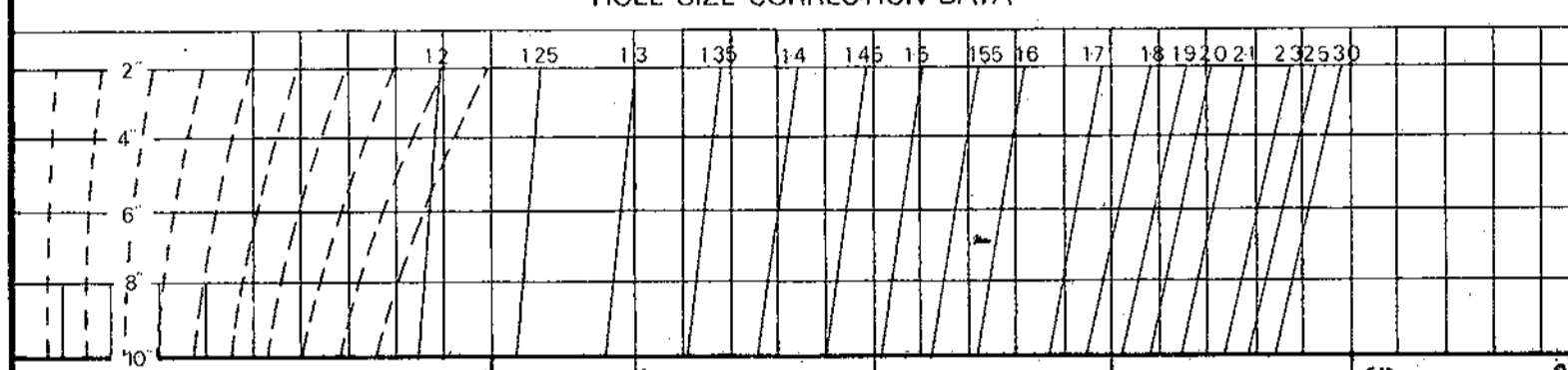
489

EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE														
LOG	EQUIPMENT		TAPING			PANEL			CAL COEFF	DEPTHS		SEAM LOG RUN		
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL		
SINGLE FUNCTION SONDES														
GAMMA RAY				Y	3m/m	D	3m/m	2	-	1.5	34m	0	34m	Y
L.S. DENSITY				Y	3m/m	D	3m/m	1	-	-	34m	0	34m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	D	3m/m	1	-	-	34m	0	34m	Y
WINKIE HOLE SINGLE FUNCTION SONDES														
COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)														
FROM	34m													
TO	22m													
INTERVAL	12m													
	INTERVAL TOTAL													
	12m													
ADDITIONAL SONDES RUN						REMARKS								
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS		WINKIE HOLE SINGLE FUNCTION SONDES								
NEUTRON	NEUTRON													

**BPB COAL LITHOLOGY LOG**  
**CALIBRATION DATA**

JIG No.	VALUE @ 2" DIAM SINGLE FUNCTION SONDES	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	2 ins	460 cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No.	SPAN	NORM	SDU CPS	6 ins	720 cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



BOREHOLE: 8W 39 AREA: BURNT RIVER  
CLIENT: TECH-CORP COUNTRY: CANADA





LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

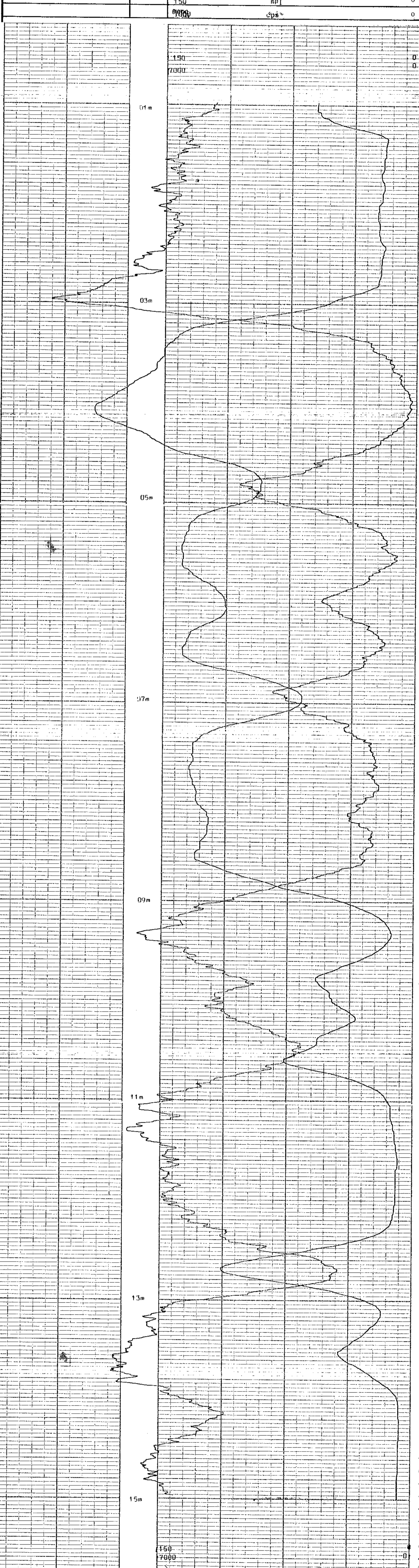
COAL  
QUALITY  
LOG

BOREHOLE B.M. 39  
CLIENT Tack-Corp  
AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 13/07/80  
DEPTH SCALE 20:1  
3 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA  
COAL COMBINATION SONDE  
LOG TAPPING SIDEWALL POSITION  
LOG RECORD SPEED T.C. IN/MIN  
GAMMA RAY SPEED REPEAT 3m/7 2 - -  
L.S. DENSITY 3m/7 1 3m/7 1 - 1.5  
SONDE SONDE AND CALIBRATION  
REFER TO LITHOLOGY LOG

**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm <sup>3</sup>



DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm <sup>3</sup>



BOREHOLE B.M. 39 AREA Burnt River  
CLIENT Tack-Corp COUNTRY Canada

**COAL QUALITY LOG**

PR-33ant River (03)A BW 39



**COAL QUALITY LOG**

BOREHOLE BW 39  
 CLIENT TECH CORP  
 AREA 33ANT RIVER DEPTH SCALE 20:1  
 COUNTRY CANADA  
 DATE LOGGED 05/08/90 4 OF 4 LOGS

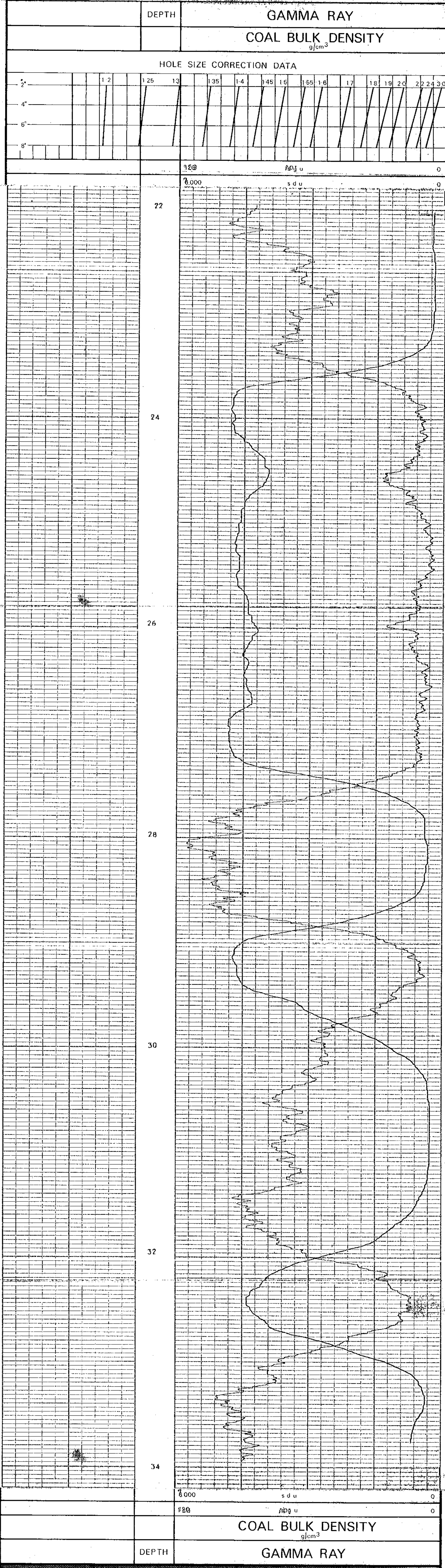
BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

LOG TAPPING SIDEWALL POSITION  
 LOG RECORDING SPEED SECS NORM  
 GAMMA RAY 3m/m R 5m/m Z  
 LS DENSITY Y 3m/m R 3m/m I

SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE  
 LOG SUITE: GAMMA RAY L.S. DENSITY

**B P B COAL QUALITY LOG**





RD-Burnt River 80(3)A BW4D

SONDE TYPE:  
COAL COMBINATION  
SONDE

**COAL LITHOLOGY LOG**

**BOREHOLE DATA**

PERMANENT DATUM: 7700 FT. SURF  
ELEVATION OF P.D.: 888  
MEASUREMENTS FROM: 0  
DEPTH REACHED: 13.34m  
CASING SHOE: 0  
BIT SIZES: 1 1/4 TO 1 1/2 TO 4 TO 6 TO 8 TO 10  
CASING SIZES: 1 TO 2 TO

**FLUID DATA**

NATURE: A.F.T.  
SG: \_\_\_\_\_  
LEVEL: \_\_\_\_\_  
VISCOSITY: \_\_\_\_\_  
Pen at meas temp: \_\_\_\_\_  
BHT: \_\_\_\_\_

**OPERATION DATA**

FIRST READING: 1.5m  
LAST READING: 01m  
INTERVAL LOGGED: 1.4m  
UNIT-TRUCK No: 24/46  
ENGINEER: J. J. J.  
WITNESS: \_\_\_\_\_

BOREHOLE: BW-39  
CLIENT: Teck-Coro

AREA: Burnt River  
COUNTRY: Canada  
DATE LOGGED: 13/37/80

DEPTH SCALE: 20:1  
1 OF 4 LOGS

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CAURATOR	LOG TAPEO	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY				✓	3m/m	✓	3m/	2	-	1.5	15m	01m	1.4m	✓
L.S. DENSITY				✓	3m/m	✓	3m/	1	-	-	15m	01m	1.4m	✓
CALIPER	SIDEWALL POSITION			✓	3m/m	✓	3m/	1	-	-	15m	01m	1.4m	✓

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	15m	INTERVAL TOTAL
TO	01m	
INTERVAL	1.4m	1.4m

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		

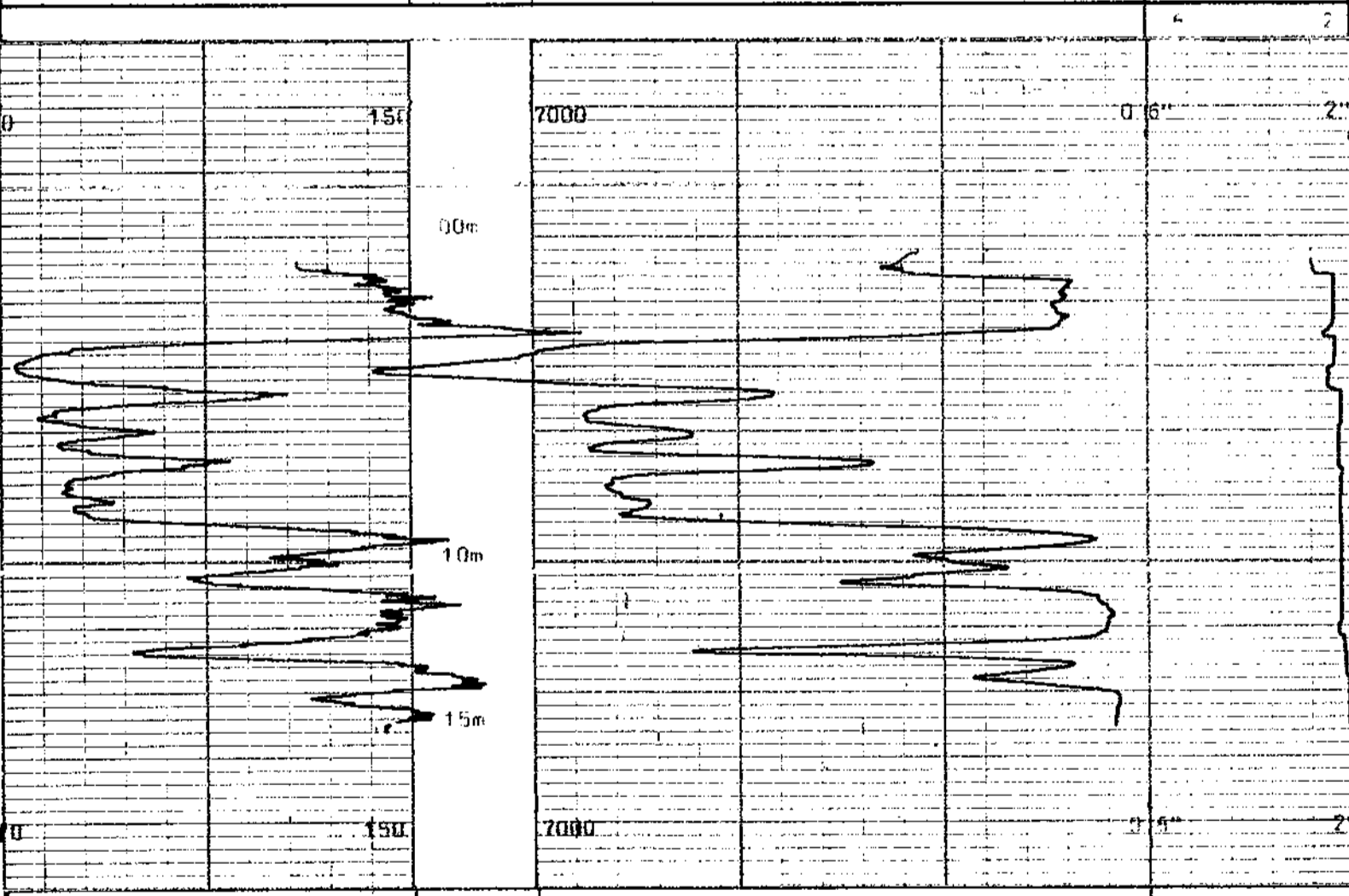
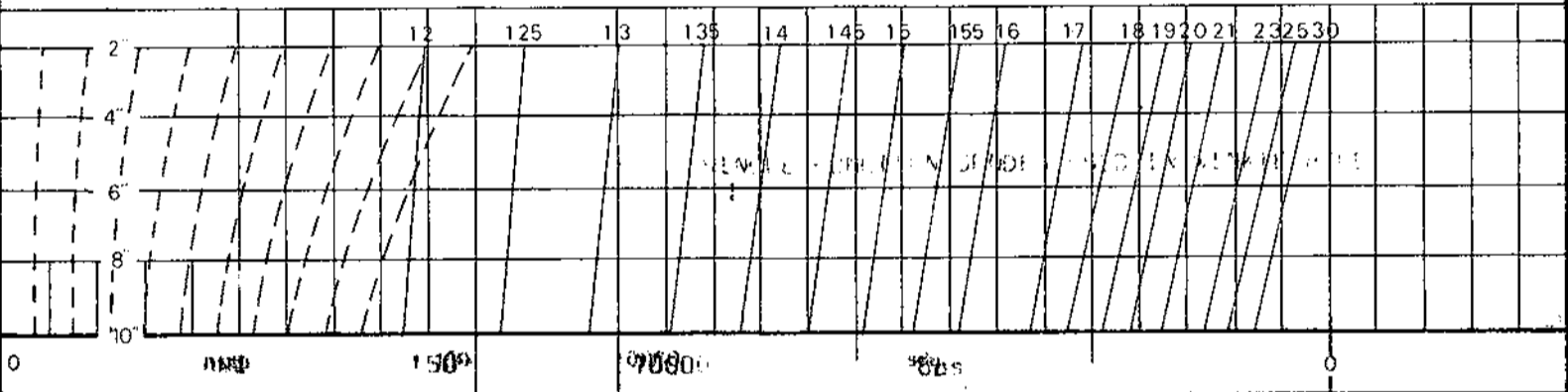
**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No	VALUE @ 2 DIAM	JIG CAL DATE	JIG VALUE	SOU @	g/cm <sup>3</sup>	ins	cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN	NORM	SOU - CPS	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------

**HOLE SIZE CORRECTION DATA**



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE: BW-39 AREA: Burnt River  
CLIENT: Teck-Coro COUNTRY: Canada

**COAL LITHOLOGY LOG**



92-81011 River SQ(3)19 RW 56

**LOG SUITE:**  
 GAMMA RAY  
 L.S. DENSITY  
 CALIPER

**SONDE TYPE:**  
 COAL  
 COMBINATION  
 SONDE

**COAL**  
**LITHOLOGY**  
**LOG**

**BOREHOLE** BW-56  
**CLIENT** PECK CORP.  
**AREA** BURN RIVER  
**COUNTRY** CANADA  
**DATE LOGGED** 200830  
**DEPTH SCALE** 1:10  
**1 OF 3 LOGS**

**BOREHOLE DATA**  
 PERMANENT DATUM: GRINDING LEVEL  
 ELEVATION OF P.D.: 898.0  
 MEASUREMENT FROM: 25.41m  
 DEPTH REACHED: 82FC  
 CASING SIZES: 1 AX TO TD, 2 TO TO, 3 TO TO, 4 TO TO

**FLUID DATA**  
 NATURE: water  
 SG: \_\_\_\_\_  
 LEVEL: \_\_\_\_\_  
 VISCOSITY: \_\_\_\_\_  
 Rim at meas. temp: \_\_\_\_\_  
 BHT: \_\_\_\_\_

**OPERATION DATA**  
 FIRST READING: 2.5m  
 LAST READING: 0.1m  
 INTERVAL LOGGED: 2.5m  
 UNIT-TRUCK No: 46/26  
 ENGINEER: MT/OC  
 WITNESS: \_\_\_\_\_

**EQUIPMENT AND RECORDING DATA**

COAL COMBINATION SONDE													
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS		SEAM LOG RUN	
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM		TO
GAMMA RAY	B2				9m/10	D	3				25m	25m	
L.S. DENSITY					9m/10	D	3				24m	24m	
CALIPER	SIDEWALL POSITION												

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	2.2m	INTERVAL TOTAL
TO	17m	
INTERVAL	14.8m	14.8m

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
B2	B2		70		Single Function Sonde

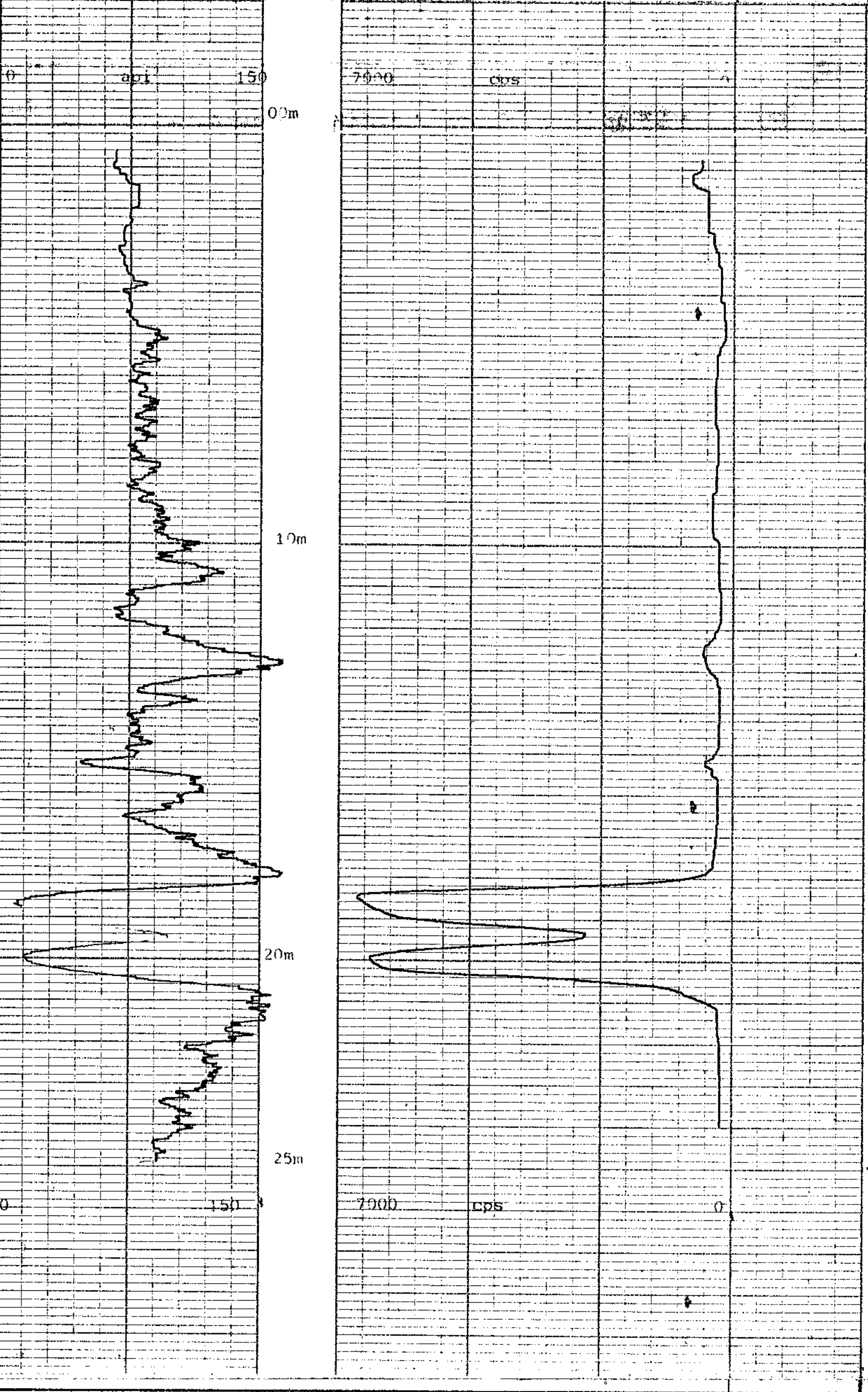
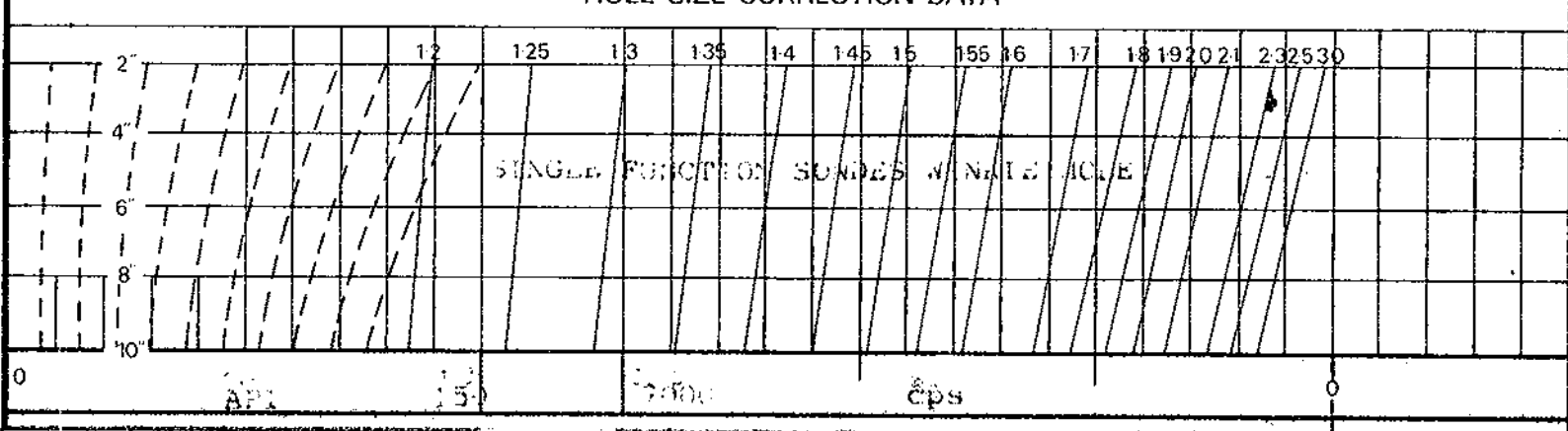
**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No	VALUE @ 2" DIAM.	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins.	cps
JIG MARK SHOWN AT ABOVE VALUE		JIG No	SPAN	NORM	SDU @	ins.	cps

SINGLE FUNCTION SONDES ATINKE WOLE

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

**BOREHOLE** BW-56 **AREA** BURN RIVER  
**CLIENT** PECK CORP. **COUNTRY** CANADA

**COAL LITHOLOGY LOG**



22-Summit River 80/31A BW 400



**COAL QUALITY LOG**

BOREHOLE: 22-Summit River 80/31A  
 CLIENT: BW 400  
 AREA: Summit River  
 COUNTRY: Canada  
 DATE LOGGED: 11/27/80  
 DEPTH SCALE: 70'  
 OF 4 LOGS

BOREHOLE DATA: REFER TO LITHOLOGY LOG  
 OPERATION DATA: REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA: REFER TO LITHOLOGY LOG

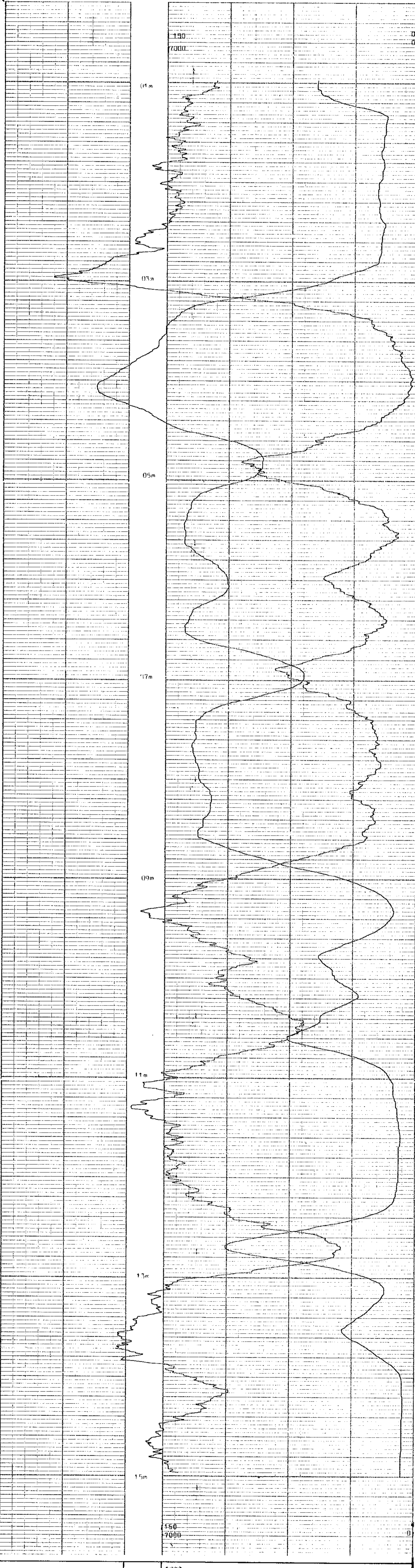
LOG: TAPING  
 RECORDING SPEED: SECS. NORM  
 CALIBRATION: 1.25, 1.3, 1.35, 1.4, 1.45, 1.5, 1.55, 1.6, 1.7, 1.8, 1.9, 2.0, 2.2, 2.4, 3.0  
 SOURCE: SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

SONDE TYPE: COAL QUALITY LOG INTERVALS  
 COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY  
 U.S. DENSITY

**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm <sup>3</sup>



DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm <sup>3</sup>

BOREHOLE: 22-Summit River  
 CLIENT: BW 400  
 AREA: Summit River  
 COUNTRY: Canada

**COAL QUALITY LOG**



MT 88027 R

489

P2-35wnt River 80131A RUSC



**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR DENSITY

BOREHOLE \_\_\_\_\_ CLIENT \_\_\_\_\_

AREA \_\_\_\_\_ DEPTH SCALE \_\_\_\_\_

COUNTRY \_\_\_\_\_ DATE LOGGED \_\_\_\_\_

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE \_\_\_\_\_

LOG TAPPING PANEL COAL CORE

CALIPER LOG RECORD DIRECT SPEED SECS NORM

BR DENSITY SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

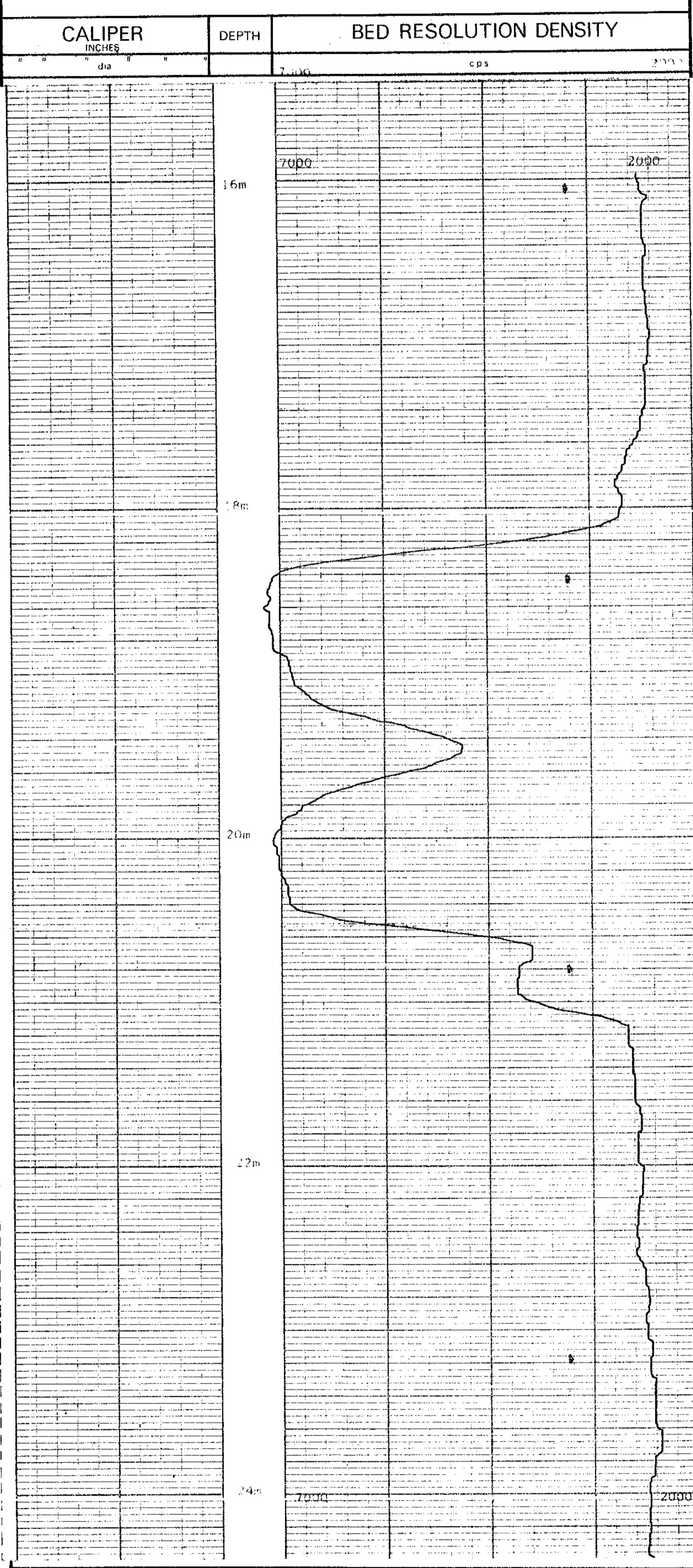
FROM TO INTERNAL FROM TO INTERNAL TOTAL

REMARKS

WINKLE HOLES

**489**

**B P B SEAM THICKNESS LOG**



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		cps



BOREHOLE \_\_\_\_\_ AREA \_\_\_\_\_

CLIENT \_\_\_\_\_ COUNTRY \_\_\_\_\_

**SEAM THICKNESS LOG**





P2 Burnt River 80139A BM 56

BOREHOLE BM 56  
 CLIENT BECK CORP

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 02oct70  
 DEPTH SCALE 20:1  
3 OF 3 LOGS

**COAL QUALITY LOG**

SONDE TYPE:  
 COAL COMBINATION  
 SONDE

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 COAL QUALITY LOG INTERVALS

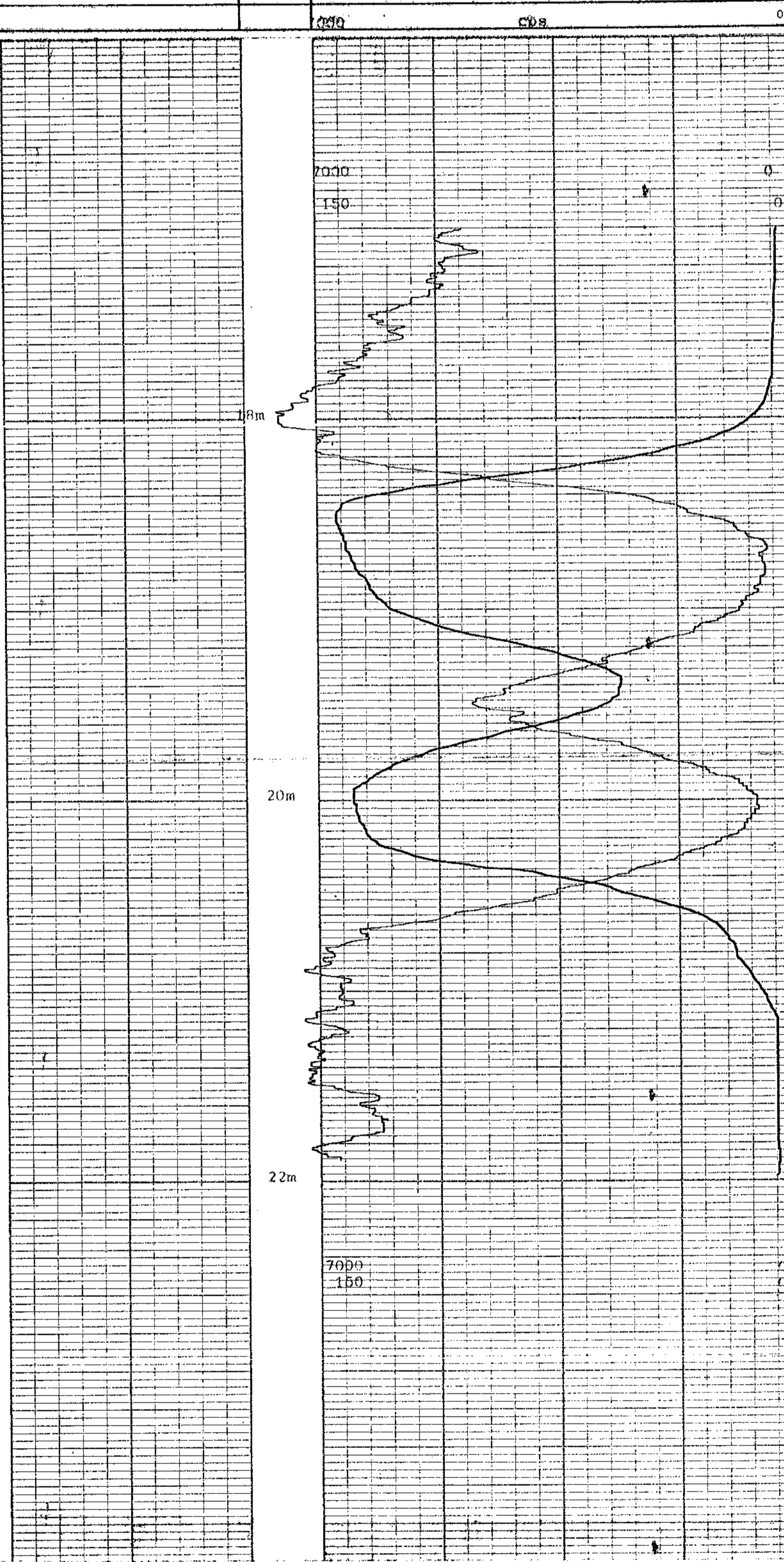
**B P B COAL QUALITY LOG**

DEPTH GAMMA RAY  
 COAL BULK DENSITY  $g/cm^3$

HOLE SIZE CORRECTION DATA

DEPTH	12	125	13	135	14	145	15	155	16	17	18	19	20	22	24	30
2'																
4'																
6'																
8'																

single function sondes



7000	cps	0
150	cps	0
DEPTH	GAMMA RAY	COAL BULK DENSITY $g/cm^3$



BOREHOLE BM 56 AREA BURNT RIVER  
 CLIENT BECK CORP COUNTRY CANADA

**COAL QUALITY LOG**

MT 88002 R

LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

single function sondes  
 Winkie hole

**489**



92-8101 River SQ(3)19 RW 56

BOREHOLE <u>3W-56</u>	DEPTH SCALE <u>1:10</u>
CLIENT <u>TECK CORP</u>	1 OF 3 LOGS
AREA <u>BURNT RIVER</u>	
COUNTRY <u>CANADA</u>	
DATE LOGGED <u>200830</u>	

BOREHOLE DATA	
PERMANENT DATUM <u>GROUND LEVEL</u>	
ELEVATION OF P.D. <u>898.0</u>	DRILLER <u>3W</u>
MEASUREMENT FROM <u>25.41m</u>	DEPTH REACHED <u>82FC</u>
CASING SHOE	
BIT SIZES	1 AX TO TD 2 TO TO
	3 TO TO 4 TO TO
	5 TO TO
CASING SIZES	1 TO TO 2 TO TO
FLUID DATA	
NATURE	<u>water</u>
SG	
LEVEL	
VISCOSITY	
Rm at meas temp	
BHT	

LOG SUITE	
GAMMA RAY	
L.S. DENSITY	
CALIPER	

OPERATION DATA	
FIRST READING	<u>2.5m</u>
LAST READING	<u>0.0m</u>
INTERVAL LOGGED	<u>2.5m</u>
UNIT-TRUCK No	<u>46/26</u>
ENGINEER	<u>MT/OC</u>
WITNESS	

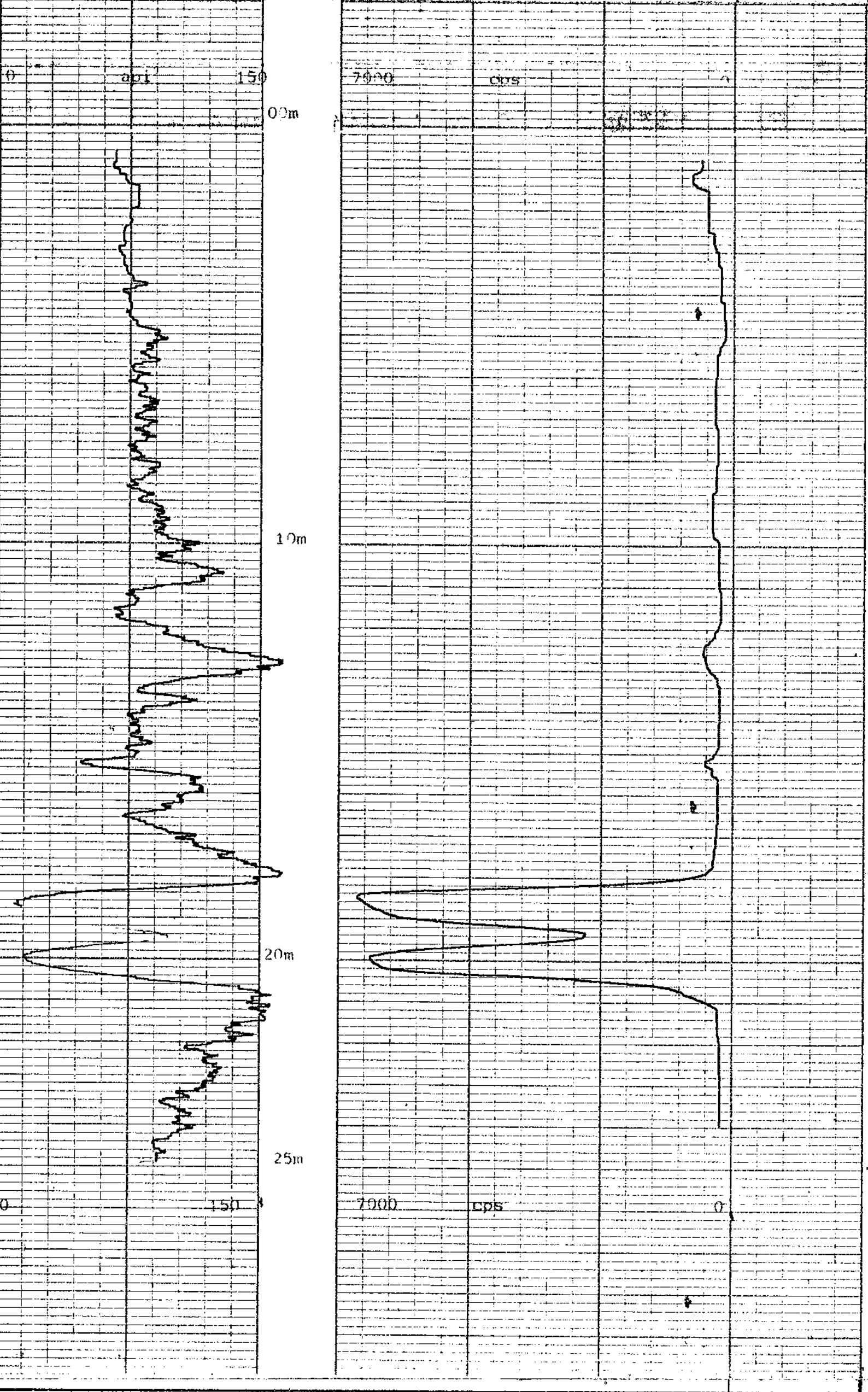
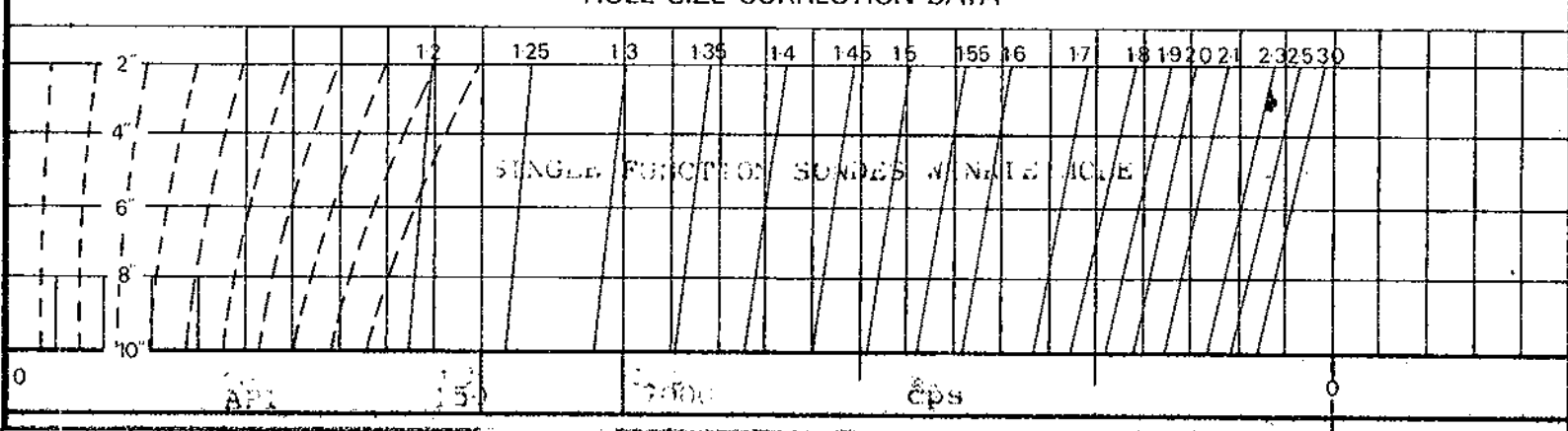
EQUIPMENT AND RECORDING DATA												
COAL COMBINATION SONDE												
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS		SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM	
GAMMA RAY	82				910/11	0	9	0.3		25m	25m	25m
L.S. DENSITY					910/11	0	9	0.3		24m	24m	24m
CALIPER	SIDEWALL POSITION											
COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)												
FROM	<u>2.2m</u>										INTERVAL TOTAL	
TO	<u>1.7m</u>											
INTERVAL	<u>0.5m</u>										<u>0.5m</u>	
ADDITIONAL SONDES RUN						REMARKS						
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS		<u>Single Function Sonde</u> <u>in hole</u>						
82	82		70									

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No	VALUE @ 2" DIAM.	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins	cps
JIG MARK SHOWN AT ABOVE VALUE		JIG No	SPAN	NORM	SDU @	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

BOREHOLE <u>3W-56</u>	AREA <u>BURNT RIVER</u>
CLIENT <u>TECK CORP</u>	COUNTRY <u>CANADA</u>

**COAL LITHOLOGY LOG**





P2: Aurot River 2035A BW 56

BOREHOLE BW-56  
CLIENT PACOR CORP

AREA ALBERTA, CANADA  
COUNTRY CANADA  
DATE LOGGED 2000 01 23

DEPTH SCALE  
2 OF 2 LOGS

SEAM THICKNESS LOG

SEAM THICKNESS LOG

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR. DENSITY

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SIDEWALL POSITION

LOG	TAPING	PANEL	COAL
CALIPER	LOG RECORDING SPEED	LOG RECORDING SPEED	LOG RECORDING SPEED
BR DENSITY	LOG RECORDING SPEED	LOG RECORDING SPEED	LOG RECORDING SPEED

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	TO	INTERVAL
2.1m	1.7m	0.5m
INTERNAL	TOTAL	
INTERNAL	TOTAL	

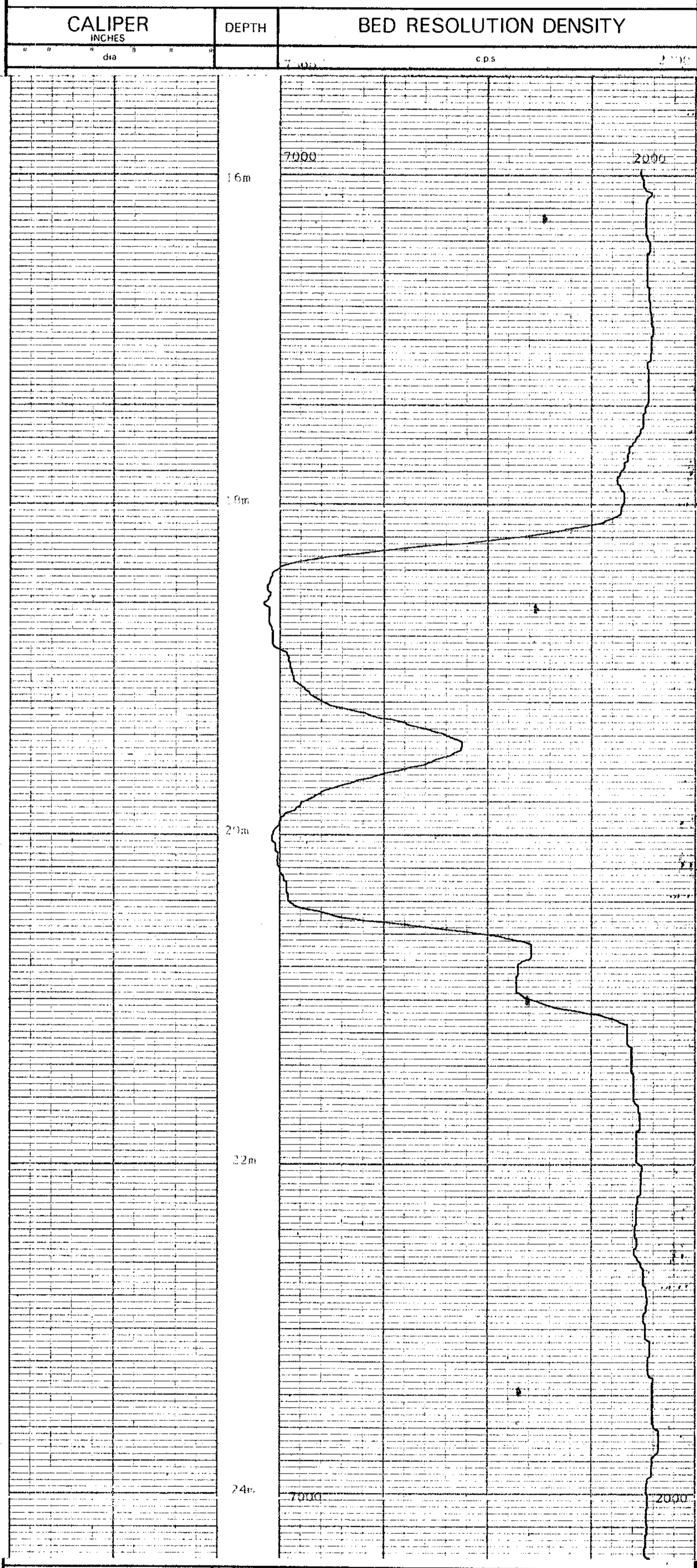
REMARKS

Single 4m x 4m sondes

Middle holes

489

### B P B SEAM THICKNESS LOG



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		cps



BOREHOLE BW 56 AREA ALBERTA RIVER

CLIENT PACOR CORP COUNTRY CANADA

### SEAM THICKNESS LOG



P2-Burnt River SOL3A BLS 56

BOREHOLE BM 56  
 CLIENT BECK CORP

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 02 Oct 10

DEPTH SCALE  
 20:1

3 OF 3 LOGS

**COAL QUALITY LOG**

SONDE TYPE:  
 COAL COMBINATION SONDE

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

LOG	TAPING	RECORD DIRECT SPEED	PANEL	SIDEWALL POSITION	CAL
GAMMA RAY	Y	3m/h	I	3	2
IS DENSITY	Y	3m/m	X	3	1/3

SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM	TO	INTERVAL	INTERVAL TOTAL
2.2m	1.7m	0.5m	1.5m

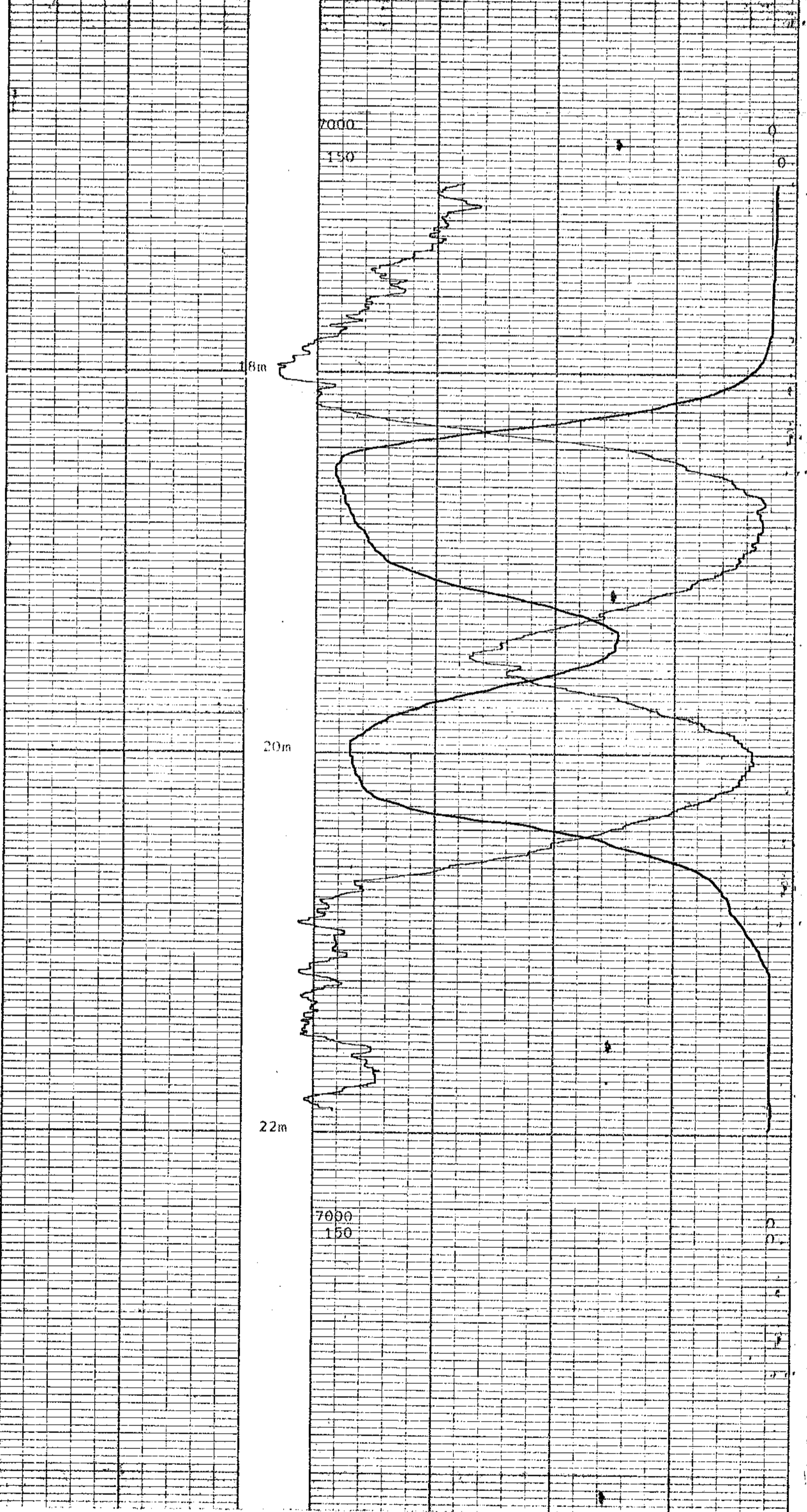
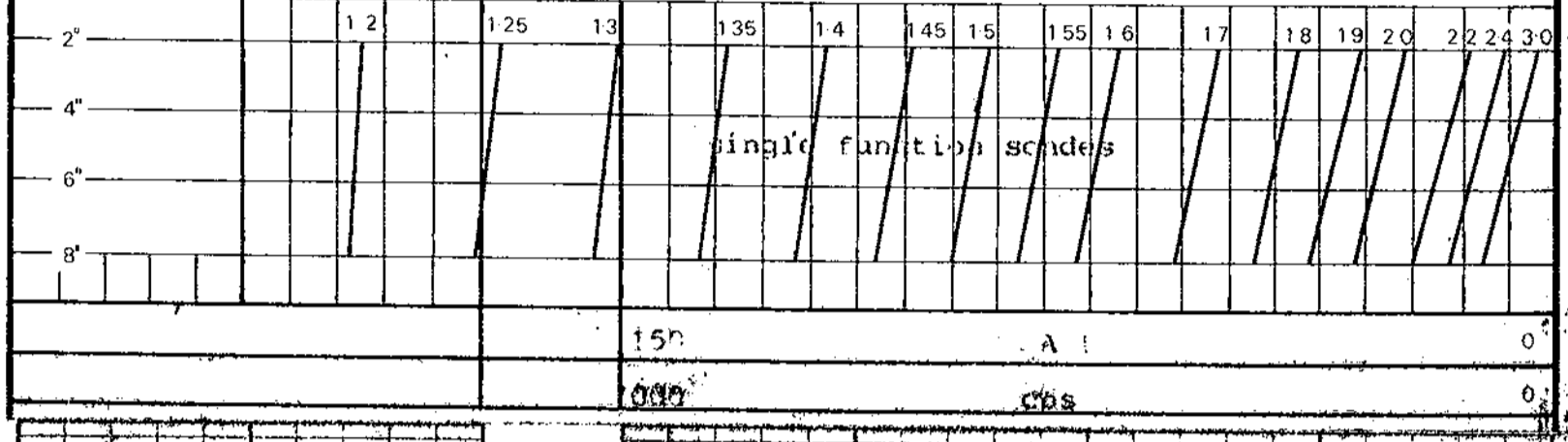
LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

Single function sondes  
 Winkie hole  
**489**

**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm <sup>3</sup>

HOLE SIZE CORRECTION DATA

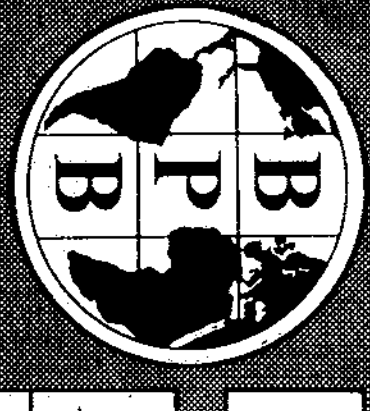


	7000	cps	0
	150	g/cm <sup>3</sup>	0
DEPTH	GAMMA RAY		
	COAL BULK DENSITY		



BOREHOLE BM 56 AREA BURNT RIVER  
 CLIENT BECK CORP COUNTRY CANADA

**COAL QUALITY LOG**



72-Burnt River 88 (3) 489 27

FORM 1174 (REV. 1-67)

BOREHOLE 88-37 DEEP ENEID, THROUGH H.C.S.

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA

DEPTH SCALE 1:00:1

DATE LOGGED 05/09/80

LOSS 1 OF 5 LOSS

BOREHOLE DATA

PERMANENT DATUM GROUND LEVEL

ELEVATION OF P.D. GROUND LEVEL

MEASUREMENTS FROM 51 78m

DEPTH REACHED 78m

CASING SHOE 1 78m TO 2 34ft. TO

BIT SIZES 3 1 IN. TO 4 1/2 IN. TO

CASING SIZES 1 1 IN. TO 2 1/2 IN. TO

FLUID DATA

NATURE QUICK-GEL

LEVEL

VISCOSITY

PH OF BRINE TEM. 7.8

B.H.T.

OPERATION DATA

FIRST READING 7.8

LAST READING 0

INTERVAL LOGGED 78m

UNIT - TRUCK NO 45/74

ENGINEER H. C. BARBARA

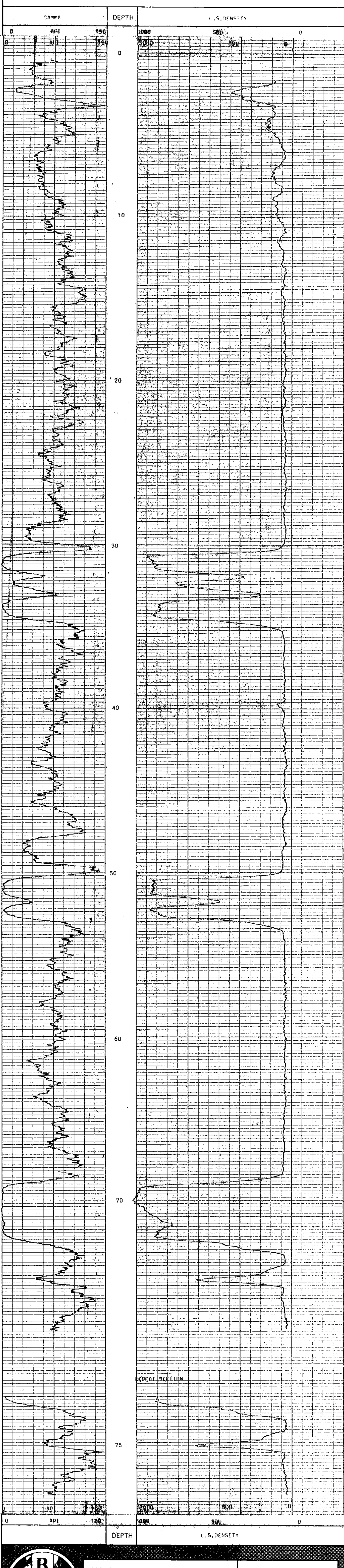
WITNESS

489

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING		PANEL		CAL COEFF		DEPTHS			
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT REPLAY	SPEED	T.C. SECS	NORM	FROM	TO	INTERVAL	
GAMMA	110	-	510 API	Y	9m/m	0	9m/m	1	-	1.44	78	0	78
S.D.	110	5845	530 SDU	Y	9m/m	0	9m/m	.3	6.8	-	78	0	78
CALIPER	ON TAPE ONLY			LOGGED	IN HOLES								

ADDITIONAL SONDES RUN				REMARKS	
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO	ADDITIONAL HEADINGS
NEUTRON					LOGGED IN RODS CALIPER ON TAPE ONLY



BOREHOLE 88-37

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA







PR-Burnt River 8833A BR-37

489

FOCUSSED ELECTRIC LOG

BOREHOLE BR-37 (OPEN HOLE)

CLIENT TECH-CORP

AREA BURNT RIVER

DEPTH SCALE 700' 1

COUNTRY CANADA

DATE LOGGED 05/09/80

3 OF 5 LOGS

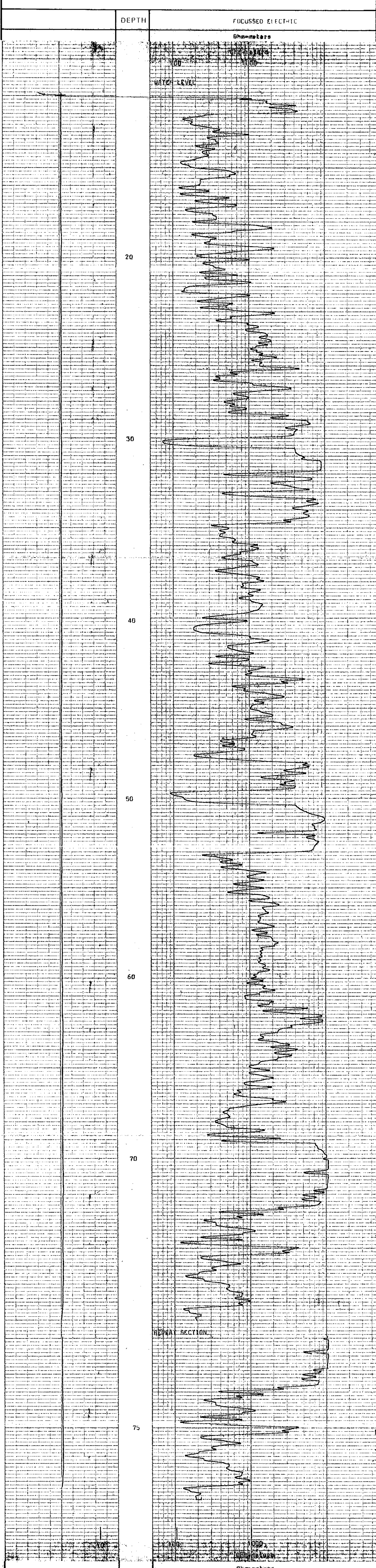
BOREHOLE DATA REFER TO LITHOL DSY LOG

OPERATION DATA REFER TO LITHOL DSY LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	SCALE
F. E.	LOG RECORDING SPEED 5m/m	T.C. NORM	3
	SONDE	SURF	
REMARKS			
MONITOR PEN QUERIES WITH OVERLUND			
OVERLUND QUERIES AT SHARP SOUNDINGS AND VERY HIGH RESISTIVITIES			

489



BOREHOLE BR-37  
CLIENT TECH-CORP

AREA BURNT RIVER  
COUNTRY CANADA



**COAL QUALITY LOG**

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING SIDEWALL POSITION  
 LOG TAPPING SPEED SCS NORMAL  
 GAS PRESSURE H 30/4 1 1.4  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

BOREHOLE 91-17 (OPEN HOLE)  
 CLIENT TECH CONG  
 AREA BURNT RIVER  
 COUNTRY CANADA  
 DEPTH SCALE 201.1  
 DATE LOGGED 05/09/80  
 4 OF 5 LOGS

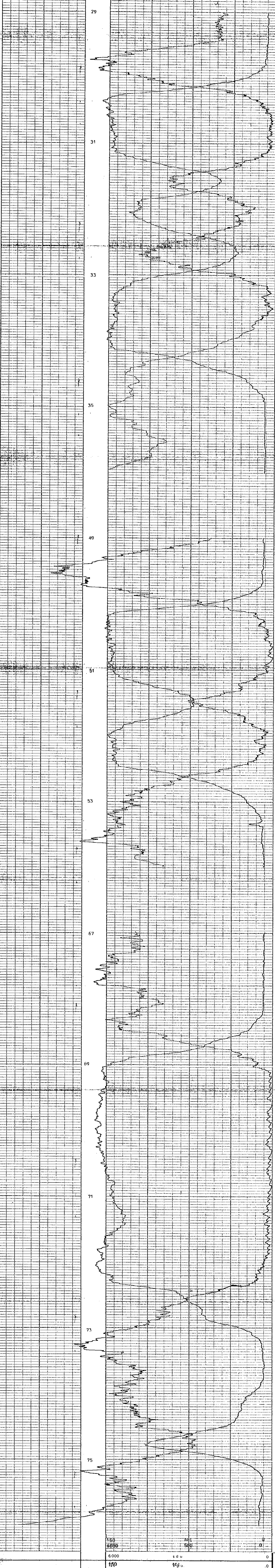
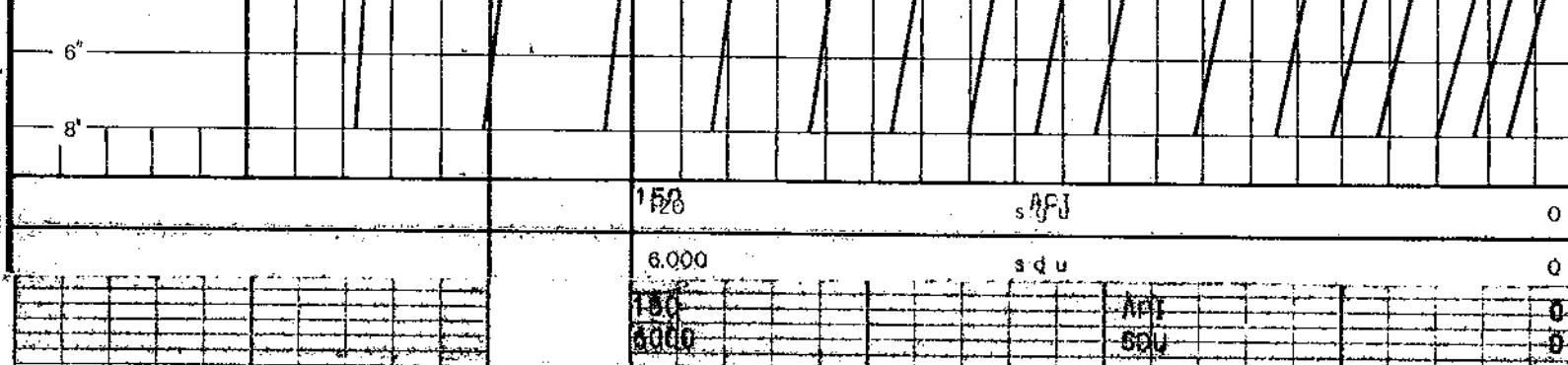
SONDE TYPE:  
 COAL COMBINATION SONDE  
 LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

489

**B P B COAL QUALITY LOG**

DEPTH GAMMA RAY  
 COAL BULK DENSITY  
 g/cm<sup>3</sup>

HOLE SIZE CORRECTION DATA



DEPTH GAMMA RAY  
 COAL BULK DENSITY  
 g/cm<sup>3</sup>

BOREHOLE BH-37  
 CLIENT TECH CONG  
 AREA BURNT RIVER  
 COUNTRY CANADA







BOREHOLE NO. 91-37  
 CLIENT: FUGRO  
 AREA: HINDI  
 COUNTRY: INDIA  
 DATE LOGGED: 01/29/86  
 DEPTH SCALE: 20'  
 A. O. L. LOSS

PERMANENT DATUM: 10' UNDER 11' FEET  
 ELEVATION OF P.D.: 11' UNDER 11' FEET  
 MEASUREMENTS FROM: 7m  
 DEPTH REACHED: 74.7m  
 CASINGS SHOE: 34.7m  
 BIT SIZES: 1 1/2" TO 2" TO 3 1/2" TO 4" TO 5" TO 6" TO 7" TO 8" TO 9" TO 10" TO 11" TO 12" TO 14" TO 16" TO 18" TO 20" TO 22" TO 24" TO 26" TO 28" TO 30" TO 32" TO 34" TO 36" TO 38" TO 40" TO 42" TO 44" TO 46" TO 48" TO 50" TO 52" TO 54" TO 56" TO 58" TO 60" TO 62" TO 64" TO 66" TO 68" TO 70" TO 72" TO 74" TO 76" TO 78" TO 80" TO 82" TO 84" TO 86" TO 88" TO 90" TO 92" TO 94" TO 96" TO 98" TO 100"

FLUID DATA  
 TEMPERATURE: 21.5°C-RT  
 LEVEL: 110  
 VISCOSITY: 51000 L  
 Rm at Press Temp: 53050 DU  
 PH: 7.2

OPERATION DATA  
 FIRST READING: 74m  
 LAST READING: 110  
 INTERVAL LOGGED: 1m  
 UNIT - TRUCK NO: 41/21  
 ENGINEER: [blank]  
 WITNESS: [blank]

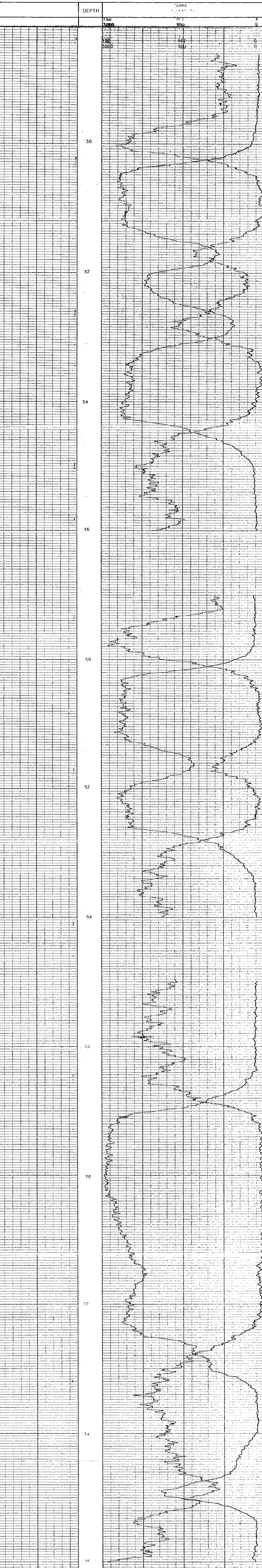
EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING		PANEL		CAL COEFF	DEPTHS				
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED		T.C SECS	NORM	FROM DE	TO DE	INTERVAL
AMMA	110	-	51000 L	Y	3m/m	R	3m/m	1	-	1.0	76	67	9
1.5.5.	110	5845	53050 DU	Y	3m/m	R	3m/m	.3	6.8	-	54	49	5
											36	29	7m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
	NEUTRON		

REMARKS  
 LOGGED IN HUDS CALLIPER ON TAPE ONLY



BOREHOLE: 91-37  
 CLIENT: FUGRO  
 AREA: HINDI  
 COUNTRY: INDIA



489



P2-Burnt River 80(3)A BW 38

**COAL LITHOLOGY LOG**

<b>BOREHOLE</b> 2-38	<b>DEPTH SCALE</b> 200:1
<b>CLIENT</b> TECK CORP	<b>AREA</b> Burnt River
<b>COUNTRY</b> Canada	<b>DATE LOGGED</b> 5/27/89
<b>LOG SUITE:</b> GAMMA RAY L.S. DENSITY CALIPER	<b>OPERATION DATA</b> FIRST READING 7.2m LAST READING 0m INTERVAL LOGGED 7.2m UNIT-TRUCK No. 46/24 ENGINEER M/31 WITNESS

EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE				SINGLE FUNCTION SONDE										
LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
	89													
GAMMA RAY				Y	3m/m	0	3m/m	2	-		22m	0m	22m	Y
L.S. DENSITY				Y	3m/m	0	3m/m	1			22m	0m	22m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	0	3m/m	1			22m	0m	22m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)		INTERVAL TOTAL
FROM	20m	
TO	7m	
INTERVAL	11m	11m

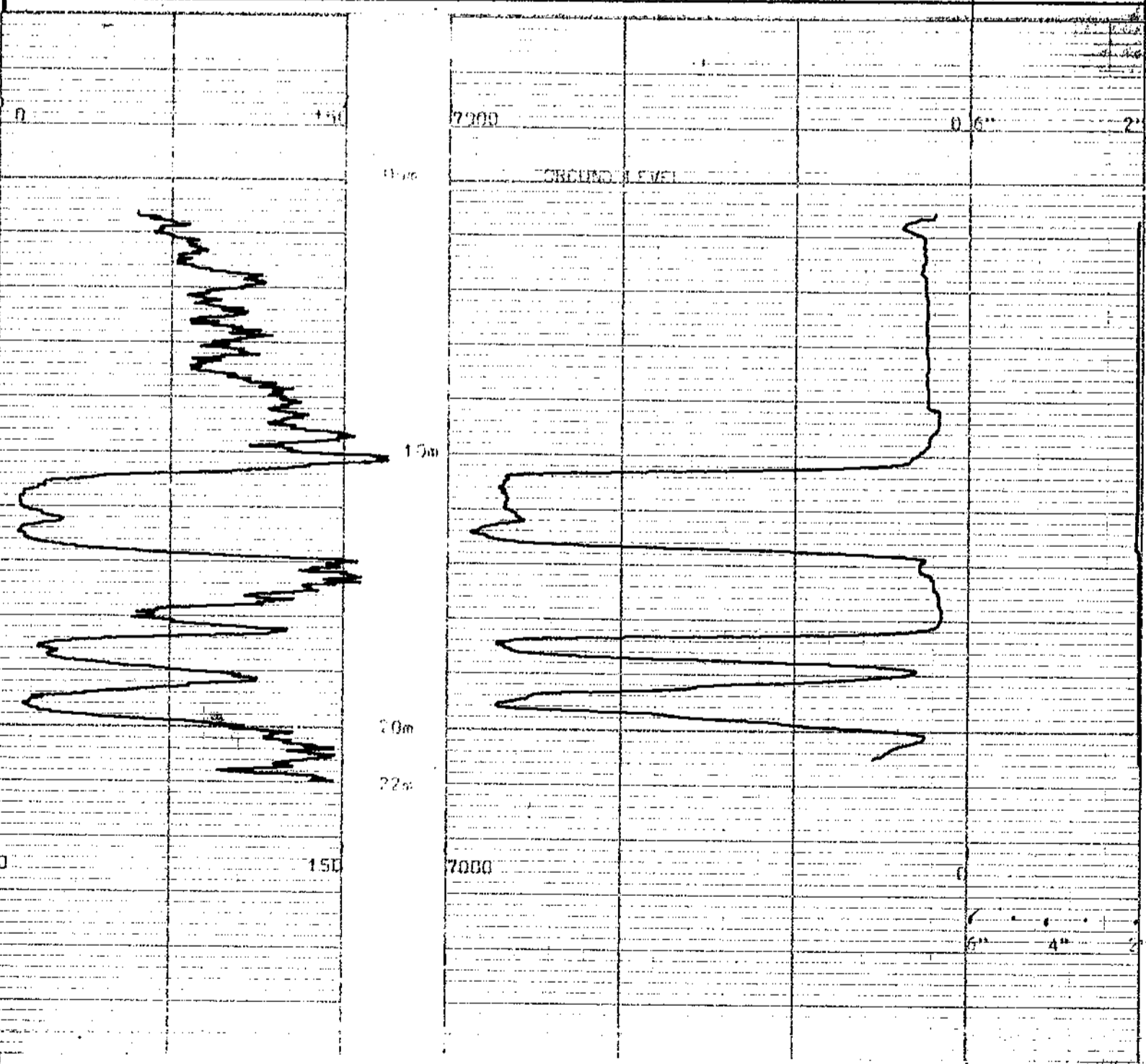
ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
					SINGLE FUNCTION SONDES

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	6 ins	720 cps
JIG MARK SHOWN AT ABOVE VALUE +		JIG No	SPAN	NORM	SDU CPS	2 ins	460 cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

<b>BOREHOLE</b> 2-38	<b>AREA</b> Burnt River
<b>CLIENT</b> TECK CORP	<b>COUNTRY</b> Canada



**COAL LITHOLOGY LOG**

489

Fr-Bunt River 826319 BK 38



**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
B.R. DENSITY

BOREHOLE: 8  
CLIENT: \_\_\_\_\_

AREA: \_\_\_\_\_ DEPTHSCALE: \_\_\_\_\_  
COUNTRY: \_\_\_\_\_ DATE LOGGED: 7/75

BOREHOLE DATA: REFER TO LITHOLOGY LOG  
OPERATION DATA: REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA  
COAL COMBINATION SONDE: \_\_\_\_\_

LOG: \_\_\_\_\_ SIDEWALL POSITION: \_\_\_\_\_  
TAPING: \_\_\_\_\_ PANEL: \_\_\_\_\_  
LOG RECORD SPEED: \_\_\_\_\_ INCHES  
TAPE SPEED: \_\_\_\_\_ INCHES

CALIPER: \_\_\_\_\_ B.R. DENSITY: \_\_\_\_\_

SOURCE SONDE AND CALIBRATION: \_\_\_\_\_  
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM: 1.1 m	TO: 1.1 m	INTERVAL: 0.0 m	INTERVAL TOTAL: 0.0 m
FROM: _____	TO: _____	INTERVAL: _____	INTERVAL TOTAL: _____
FROM: _____	TO: _____	INTERVAL: _____	INTERVAL TOTAL: _____
FROM: _____	TO: _____	INTERVAL: _____	INTERVAL TOTAL: _____
FROM: _____	TO: _____	INTERVAL: _____	INTERVAL TOTAL: _____

REMARKS: **489**

**B P B SEAM THICKNESS LOG**



CALIPER INCHES      DEPTH      BED RESOLUTION DENSITY

BOREHOLE: \_\_\_\_\_ AREA: \_\_\_\_\_  
CLIENT: \_\_\_\_\_ COUNTRY: \_\_\_\_\_

**SEAM THICKNESS LOG**





PR-Burnt River 50(3)14 BR37

NEUTRON-NEUTRON LOG  
BR37 (DECEASED, THROUGH RDS)

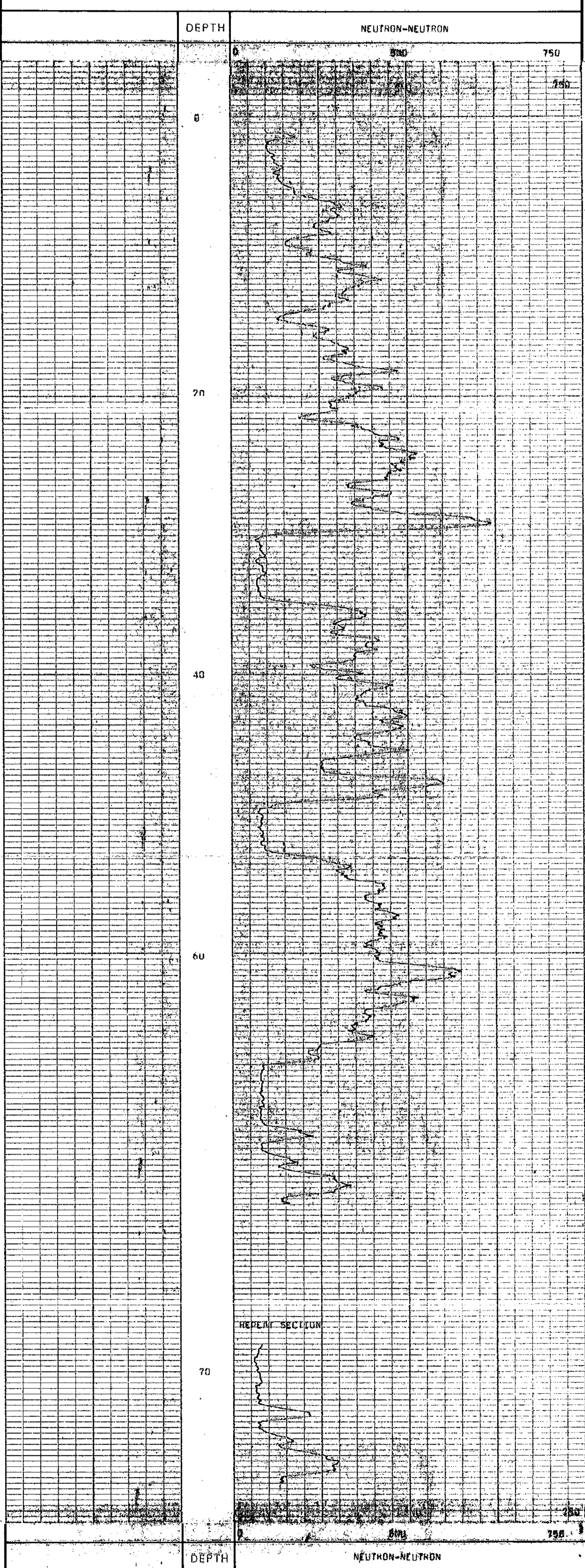
BOREHOLE BR-37  
CLIENT TECH-CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 05/09/80

BOREHOLE DATA REFERS TO LITHOLOGY LOG  
OPERATION DATA REFERS TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

LOG	TAPPING	PANEL	COAL
LOG TAPED	LOG RECORDING SPEED	T & NORM	COEFF
Y	9m/m	1	
	9m/m	1	
	SONDE	SONDE	
	KUM	DIGIT	

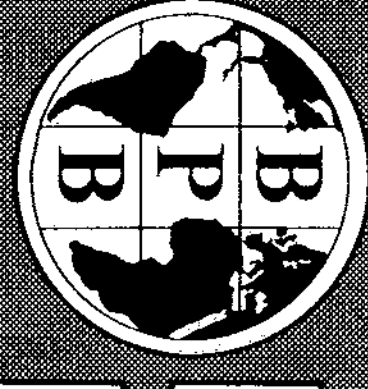
REMARKS  
LOGGED IN RDS  
**489**



BOREHOLE BR37  
CLIENT TECH-CORP

AREA BURNT RIVER  
COUNTRY CANADA

PR-Burnt River 80(3)19 82-37



BOREHOLE 8R-37 (2400) 2001  
 CLIENT TECH-CORP (OPEX) INC

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 05/09/90

24.0" x 4.00S

SEAM THICKNESS LOG

SEAM THICKNESS LOG

SONDE TYPE:  
 COAL COMBINATION SONDE

LOG SUITE:  
 CALIPER  
 BR. DENSITY

SEAM THICKNESS LOG INTERVALS

FROM 76m 54m 36m  
 TO 57m 49m 29m  
 INTERVAL 9m 5m 7m

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE  
 REFER TO LITHOLOGY LOG

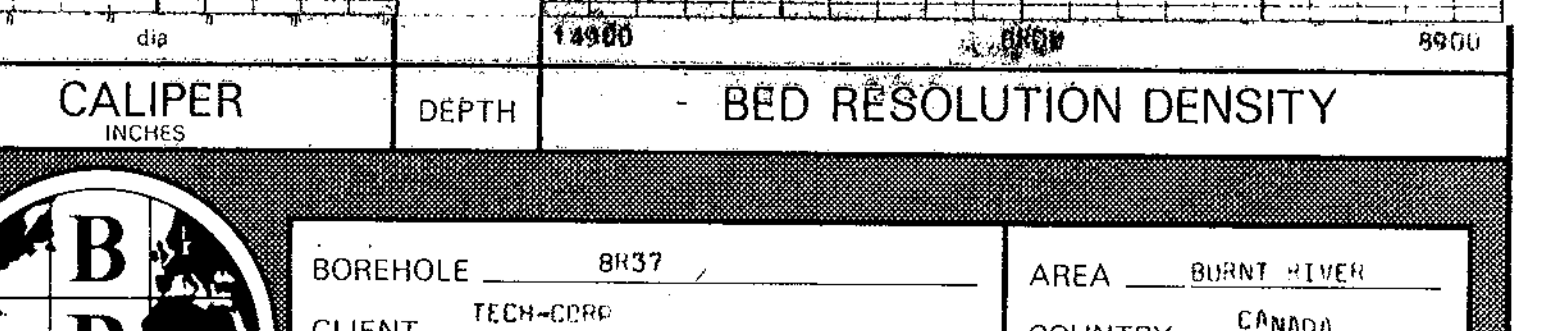
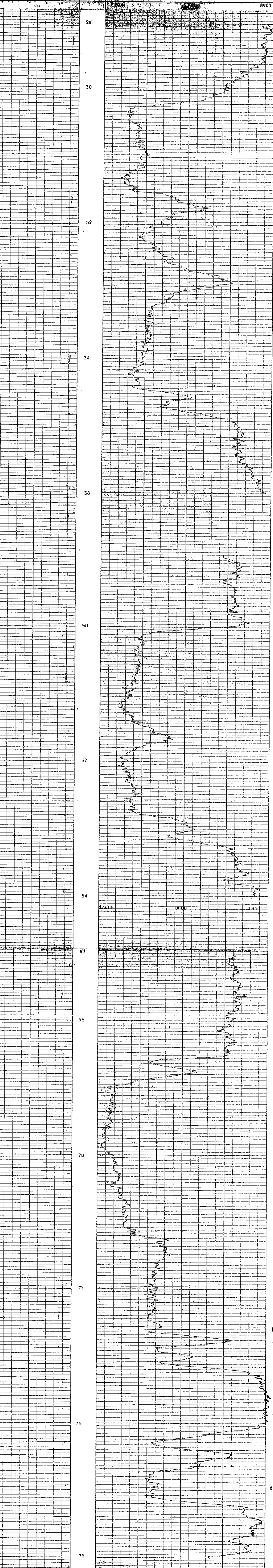
LOG TAPPING PANEL CODE  
 LOG RESOLUTION (SPEED) CM NORM  
 CALIPER V 3.0m ON TRACE (INCH) 1  
 BR. DENSITY Y 30/01 X 30/01 0.9 -

SEAM THICKNESS LOG INTERVALS

REMARKS

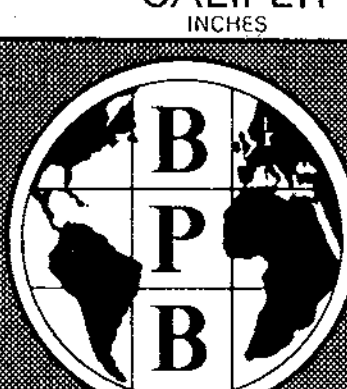
489

B P B SEAM THICKNESS LOG



SEAM THICKNESS LOG

BOREHOLE 8R37  
 CLIENT TECH-CORP  
 AREA BURNT RIVER  
 COUNTRY CANADA





P2-Burnt River (8023) A BR 38

<b>BOREHOLE DATA</b> PERMANENT DATUM: <u>GROUND LEVEL</u> ELEVATION OF P.D.: <u>GROUND LEVEL</u> MEASUREMENTS FROM: <u>CL</u> DRILLER: <u>CL</u> DEPTH REACHED: <u>53.45m</u> 17793 CASING SHOE: _____ BIT SIZES: 1 H <sub>0</sub> TO 50#2 NG TO TD 2 TO 3 TO 4 TO CASING SIZES: 1 H TO 50#2 2 TO		BOREHOLE: <u>BR-38</u> CLIENT: <u>Teck Corp / Teck-011</u> AREA: <u>Burnt River</u> COUNTRY: <u>Canada</u> DATE LOGGED: <u>09/07/90</u> DEPTH SCALE: <u>200:1</u> LOGS: <u>10</u> - <u>5</u> LOGS
<b>COAL LITHOLOGY LOG</b> SONDE TYPE: <u>Quick-Set</u> COAL COMBINATION: _____ SONDE: _____ LOG SLIT: _____ GAMMA RAY: _____ L.S. DENSITY: _____ CALIPER: _____	<b>OPERATION DATA</b> FIRST READING: <u>5.2m</u> LAST READING: <u>00m</u> INTERVAL LOGGED: <u>5.2m</u> UNIT-TRUCK No: <u>24/46</u> ENGINEER: <u>RE/nm</u> WITNESS: _____	

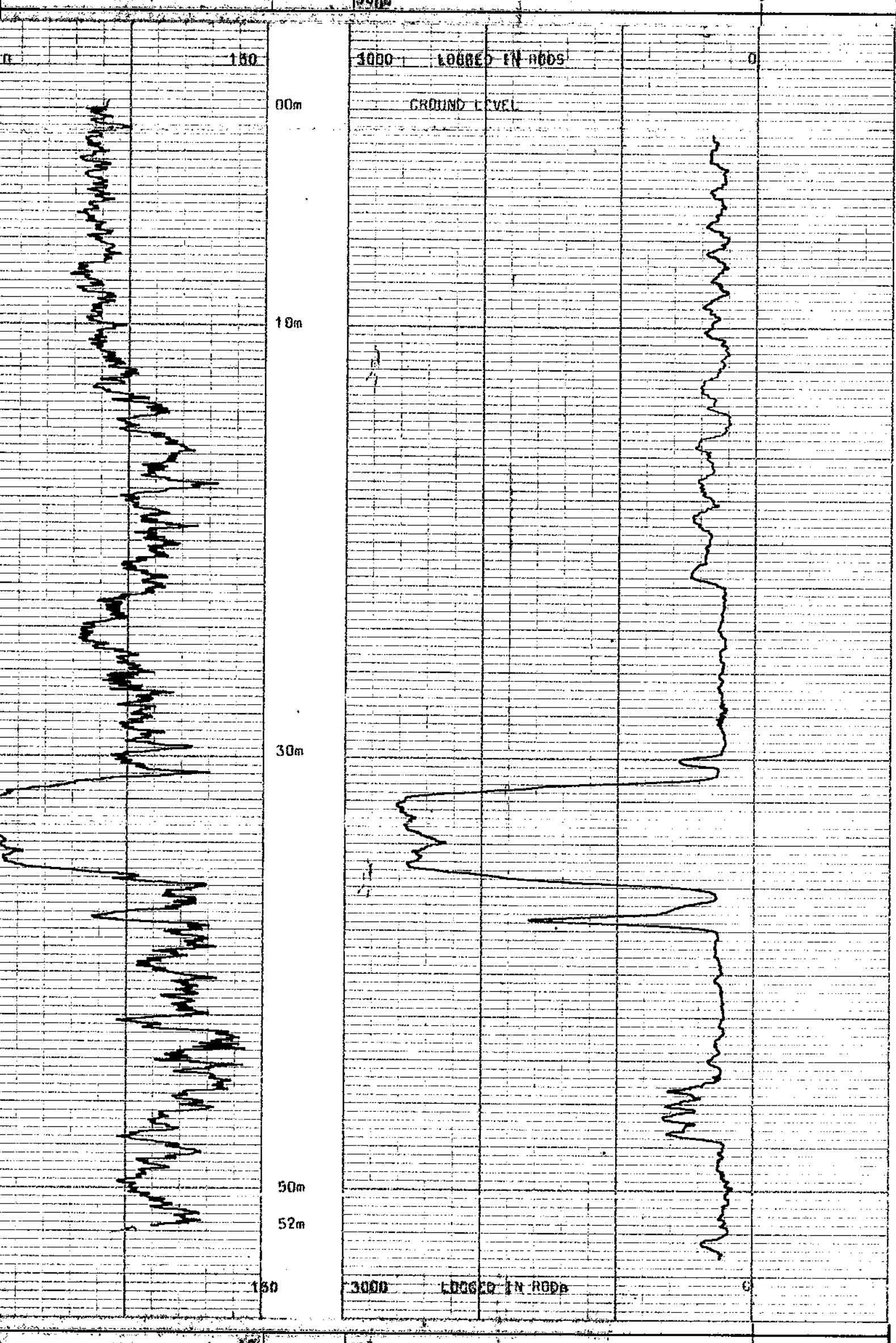
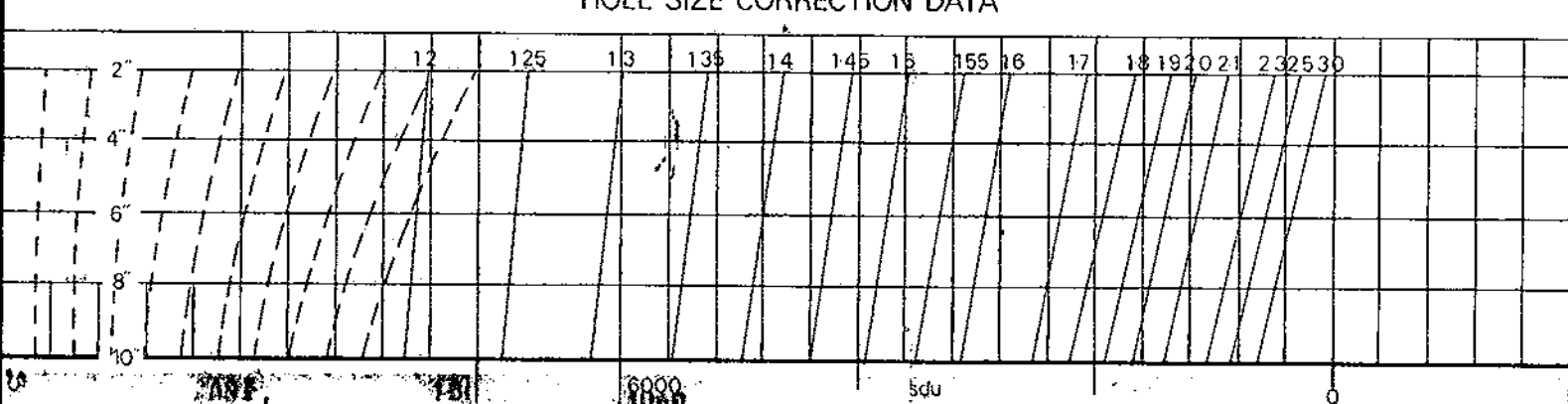
EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE														
LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
CCS	118	5045												
GAMMA RAY			510AP1	Y	9m/m	R	9m/m	1	-	1.5	52m	00m	52m	Y
L.S. DENSITY			530SDU	Y	9m/m	R	9m/m	1/3	6.8	-	53m	01m	52m	Y
CALIPER				Y	9m/m	R	9m/m	1/2	-	-	53m	01m	52m	
CALIPER ON TYPE ONLY LOGGED IN RUDS														
COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)														
FROM	39m										INTERVAL TOTAL			
TO	29m													
INTERVAL	10m										10m			
ADDITIONAL SONDES RUN							REMARKS							
SONDE	LOG	GENERAL SCALE LOG	DETAL SCALE LOG	REFER TO ADDITIONAL HEADINGS			LOGGED IN RUDS LSD SCALE 3000=0							
204	N-N	200:1												

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No 367	VALUE 51 @ 2" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530	SDU @	g/cm <sup>3</sup>	7 ms 14.2 cps
JIG MARK SHOWN AT ABOVE VALUE = x0.1		JIG No 0338	SPAN 3000	NORM	SDU = 6.8	7 ms 47.2 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE: BR-38 AREA: Burnt River  
 CLIENT: Teck Corp COUNTRY: Canada

**COAL LITHOLOGY LOG**



**COAL QUALITY LOG**

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

BOREHOLE: BR-38  
 CLIENT: Tack-Corp  
 AREA: Burnt River  
 COUNTRY: Canada  
 DATE LOGGED: 09/07/90  
 DEPTH SCALE: 20:1  
 2 OF 5 LOGS

BOREHOLE DATA: REFER TO LITHOLOGY LOG  
 OPERATION DATA: REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

LOG: TAPPING SIDEWALL POSITION  
 LOG RECORDING SPEED: 1.5  
 GAMMA RAY: 3m/m 2 5.8  
 L.S. DENSITY: 3m/m 1 1.5

COAL QUALITY LOG INTERVALS

FROM: 39m  
 TO: 29m  
 INTERNAL: 1.0m  
 FROM: TO: INTERNAL: INTERVAL TOTAL

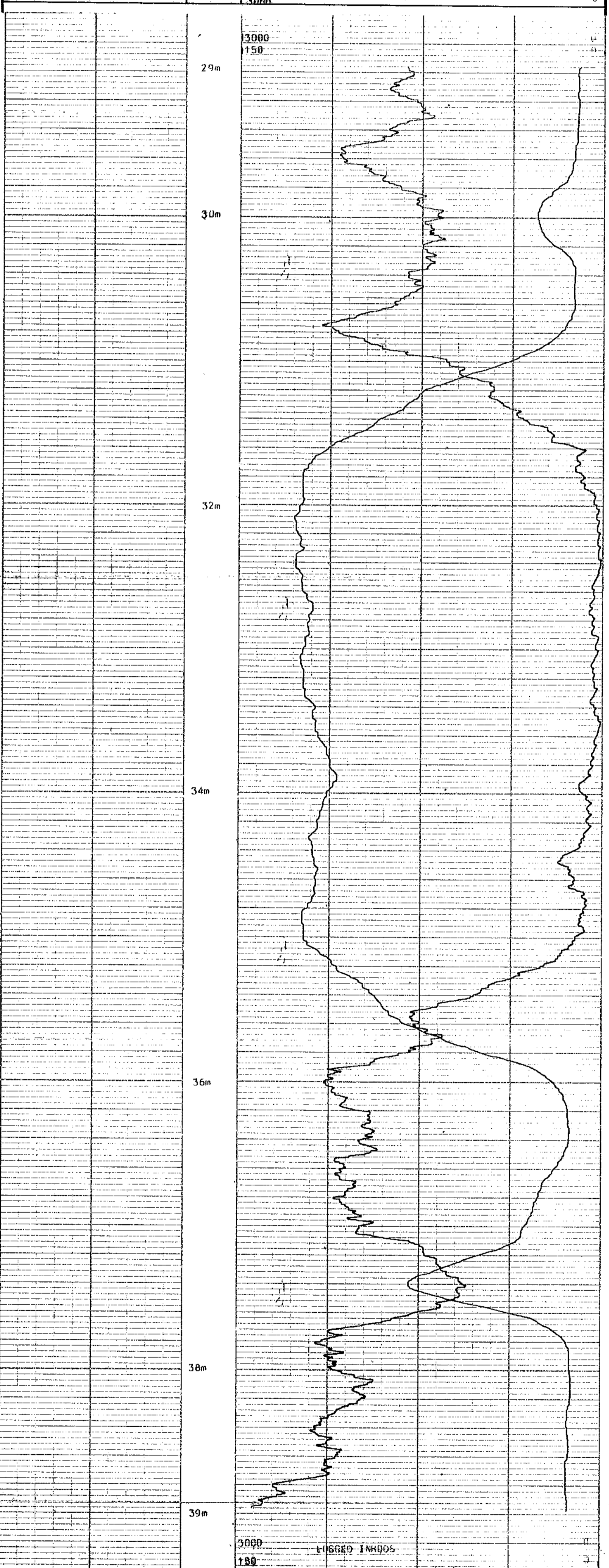
REMARKS: CCGC 1 & 403  
 489

**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY
	COAL BULK DENSITY $g/cm^3$

HOLE SIZE CORRECTION DATA

2"	125	13	135	14	145	15	155	16	17	18	19	20	22	24	30
4"															
6"															
8"															
	150														0
	8000														0



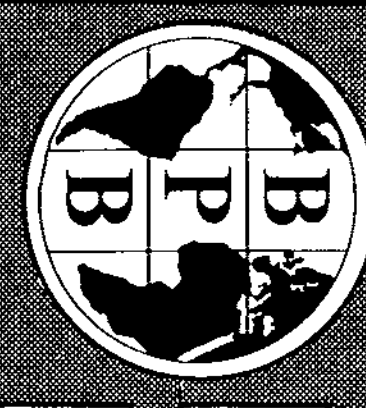
DEPTH	GAMMA RAY
	COAL BULK DENSITY $g/cm^3$



BOREHOLE: BR-38  
 CLIENT: Tack-Corp  
 AREA: Burnt River  
 COUNTRY: Canada

**COAL QUALITY LOG**

PR-Burnt River 501314 BR 38



**SEAM THICKNESS LOG**

SONDE TYPE: \_\_\_\_\_  
 COAL COMBINATION SONDE \_\_\_\_\_

LOG SUITE:  
 CALIPER \_\_\_\_\_  
 B.R. DENSITY \_\_\_\_\_

BOREHOLE \_\_\_\_\_  
 CLIENT \_\_\_\_\_

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 09/07/80

DEPTH SCALE  
 1.0 OF 5.000S

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE  
 LOG TAPPING PANEL COEFF  
 LOG RECORD SPEED STCS NORM  
 CALIPER TAPE SPEED IN/FT 3m/m 1/3 7.95  
 B.R. DENSITY Y 3m/m 3m/ft 1/3 7.95

SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

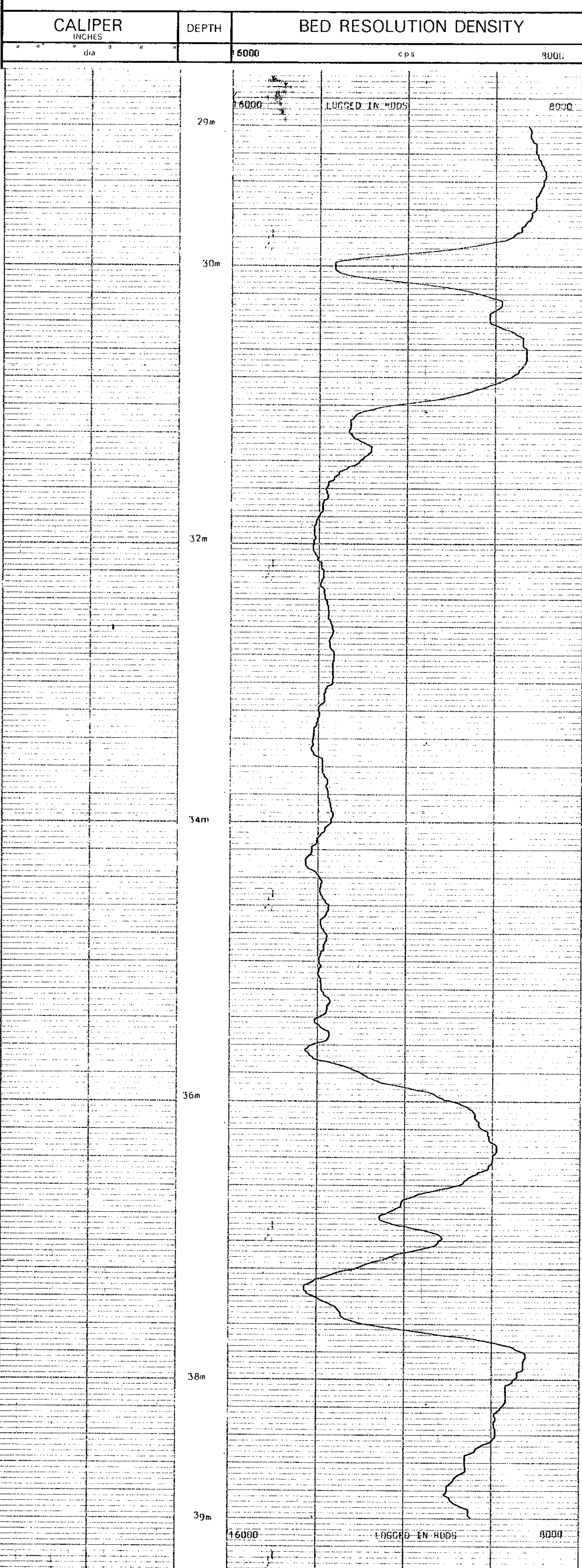
SEAM THICKNESS LOG INTERVALS

FROM 39m  
 TO 29m  
 INTERVAL 10m

FROM \_\_\_\_\_  
 TO \_\_\_\_\_  
 INTERVAL TOTAL \_\_\_\_\_

REMARKS  
489

**B P B SEAM THICKNESS LOG**



CALIPER INCHES DEPTH BED RESOLUTION DENSITY



BOREHOLE BR-38 AREA Burnt River  
 CLIENT Teck-Corp COUNTRY Canada

**SEAM THICKNESS LOG**





PP-Burnt River 80(5)h BR 38

NEUTRON-NEUTRON LOG

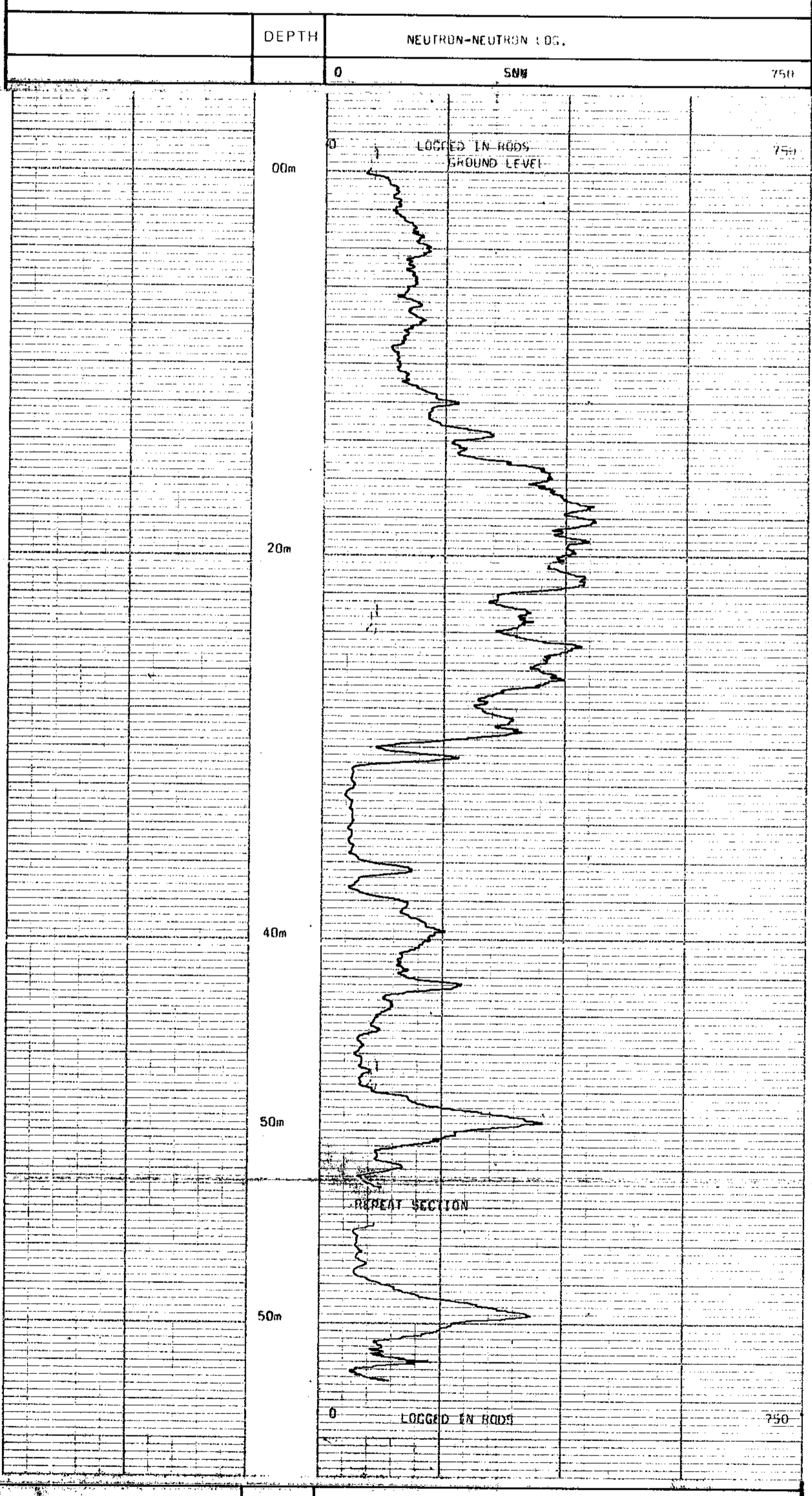
BOREHOLE BR-38  
CLIENT Tack-Corp

AREA Burnt River DEPTH SCALE 200'  
COUNTRY Canada  
DATE LOGGED 09/07/80 405 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO " LOG  
EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAT
LOG TAPED	RECORD DIRECTOR	T.C.	NORM
N-N	Y	9m/m	0
		9m/m	1
			.82
	SONDE	204	SONDE

REMARKS  
53m  
00m  
53m LOGGED IN RODS  
**489**



DEPTH	NEUTRON-NEUTRON LOG
0	SNM
75m	

BOREHOLE <u>BR-38</u>	AREA <u>Burnt River</u>
CLIENT <u>Tack-Corp</u>	COUNTRY <u>Canada</u>



P12-Burnt River 80(3)A  
 81239



**COAL LITHOLOGY LOG**

**COAL**  
**LITHOLOGY LOG**

**SONDE TYPE:** Quick Set  
**COAL COMBINATION:**  
**SONDE:**

**LOG SUITE:**  
 GAMMA RAY  
 L.S. DENSITY  
 CALIPER

**BOREHOLE DATA:**  
 PERMANENT DATUM: GROUND LEVEL  
 ELEVATION OF P.O. GROUND LEVEL  
 MEASUREMENTS FROM: 5.1  
 DEPTH REACHED: 82.60m  
 CASING SHOE: 50ft  
 BIT SIZES: 1 1/4 TO 5/8", 2 1/2 TO 1 1/2", 3 TO 1 1/4", 4 TO 3/4", 2 TO 1/2"  
 CASING SIZES: 1 H TO 5 1/2", 2 TO

**FLUID DATA:**  
 NATURE: Quick Set  
 SG: LEVEL  
 VISCOSITY: Rim or mass temp  
 BHT

**OPERATION DATA:**  
 FIRST READING: 5:17  
 LAST READING: 3:00  
 INTERVAL LOGGED: 81m  
 UNIT-TRUCK No: 46/24  
 ENGINEER: MR/BP  
 WITNESS: **489**

**AREA:** Burnt River  
**COUNTRY:** Canada  
**DATE LOGGED:** 1 JUL 1980  
**DEPTH SCALE:** 1 OF 5 LOGS

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS		SEAM LOG RUN
	SONDE	SOURCE	CAURATOR	LOG TAPED	RECORD SPEED	DIRECT or REFLAY	SPEED	T.C SECS		FROM	TO	
GAMMA RAY	11B	5845			9m/m	R	9m/h	1	-	1.5		
L.S. DENSITY			510001	y	9m/m	-	9m/m	1/3	6, 8	-		
CALIPER	SIDEWALL POSITION		53050L	y	9m/m	R	9m/h	1/3	-	-		

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

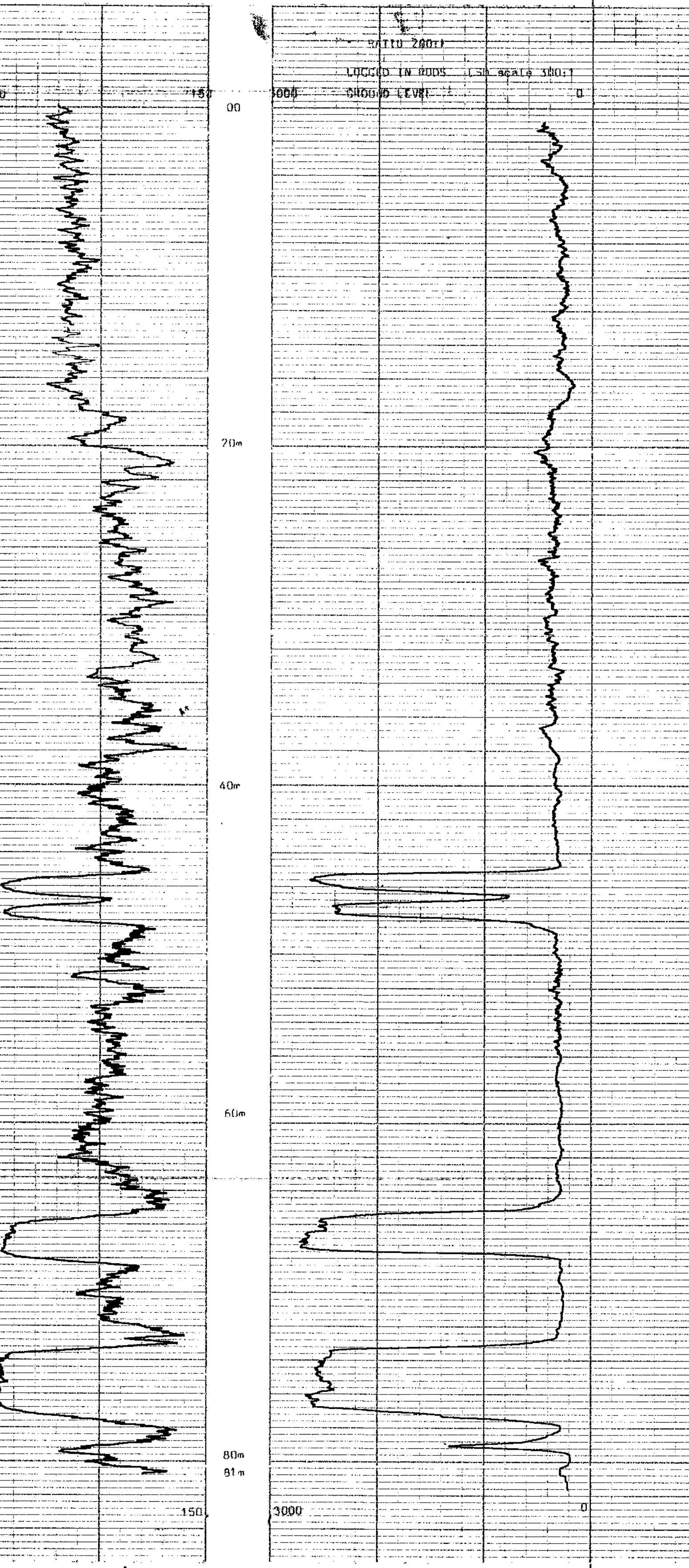
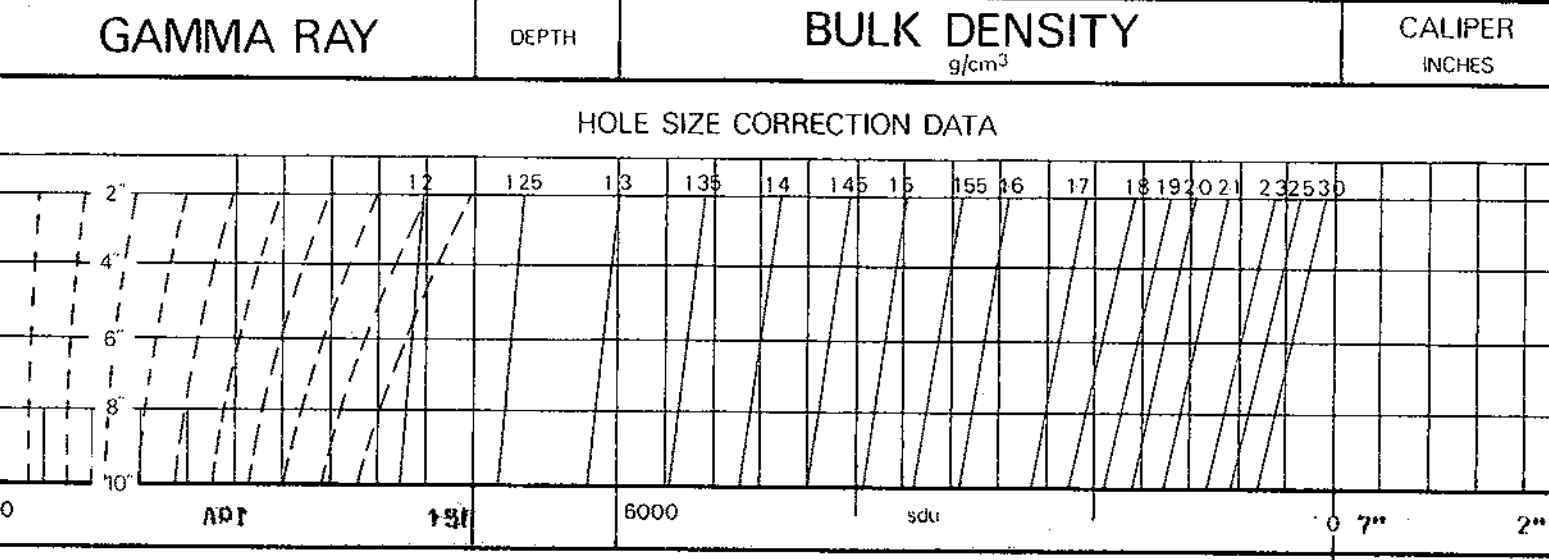
FROM	81m	67m	50m	INTERVAL
TO	72m	63m	43m	TOTAL
INTERVAL	09m	06m	07m	22m

**ADDITIONAL SONDES RUN**

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS	REMARKS
204	N-4	2001	1		LOGGED IN 4000 L.S.D SCALE 3000-0

**BPB COAL LITHOLOGY LOG**  
**CALIBRATION DATA**

JIG No 367	VALUE 510 @ 2" DIAM	JIG CAL DATE 367	JIG VALUE 530	SDU @	g/cm <sup>3</sup>	7 ins 940 cps
JIG MARK SHOWN AT ABOVE VALUE $\pm 0.1$		JIG No 0338	SPAN	NORM	SDU CPS = 6.8	2 ins 472 cps

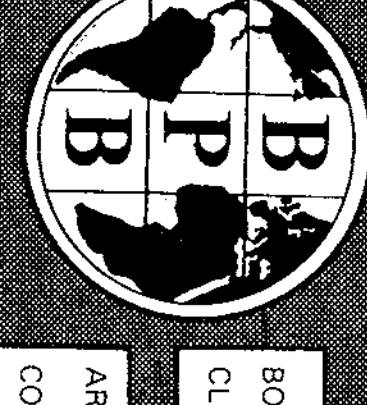


GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



**BOREHOLE:** BR-39  
**AREA:** Burnt River  
**CLIENT:** Teck-Corp  
**COUNTRY:** Canada

**COAL LITHOLOGY LOG**



BOREHOLE BR-39  
 CLIENT Tack-Corp

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED JK/07/80

DEPTH SCALE 20:1  
 OF S. LOGS 2

**COAL QUALITY LOG**

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA REFER TO LITHOLOGY LOG

LOG  
 LOG NO. 150 SIDEWALL POSITION 021  
 LOG DATE 07/07/80 PANEL 021  
 LOG SPEED 1 SPEED SICKS NORM  
 LOG DENSITY V LOG SCALE 3m/ft 2 LOG UNIT 1.5  
 LOG SOURCE V LOG UNIT 3m/ft 1 LOG UNIT 5.0  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

SONDE TYPE COAL QUALITY  
 COAL COMBINATION LOG INTERVALS  
 SONDE FROM 81m TO 81m  
 INTERVAL 0.3m TO 37m

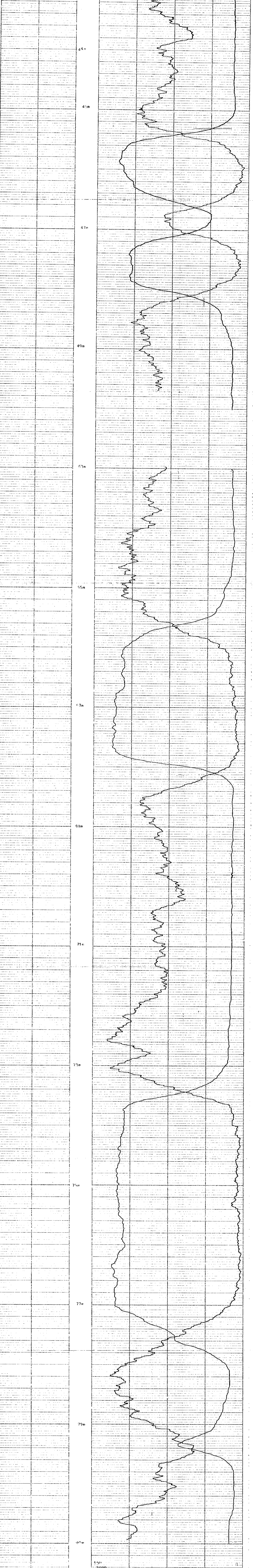
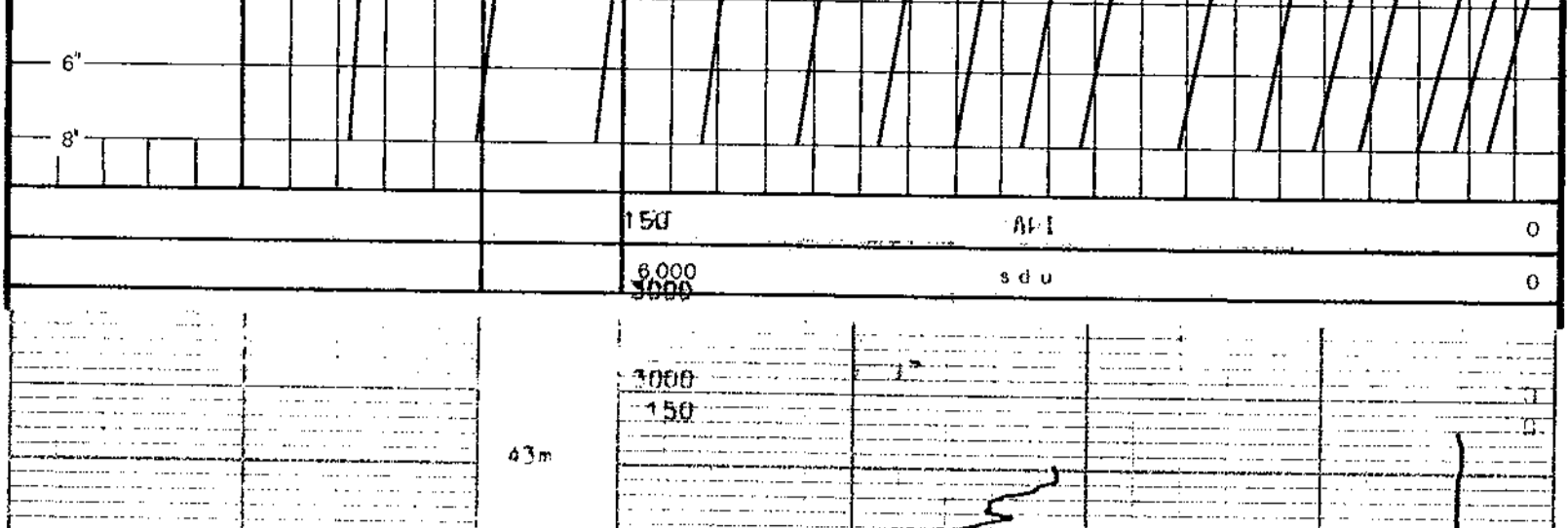
LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

**489**

**B P B COAL QUALITY LOG**

DEPTH GAMMA RAY  
 COAL BULK DENSITY  
 g/cm<sup>3</sup>

HOLE SIZE CORRECTION DATA



COAL BULK DENSITY  
 g/cm<sup>3</sup>

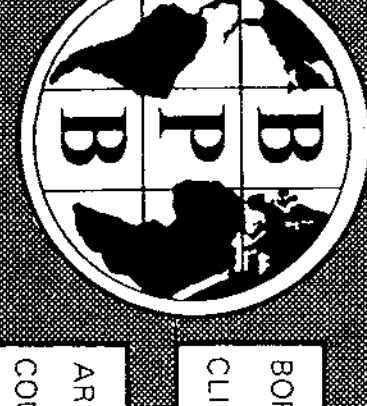
DEPTH GAMMA RAY



BOREHOLE BR-39 AREA Burnt River  
 CLIENT Tack-Corp COUNTRY Canada  
**COAL QUALITY LOG**

Burnt River 82319

82-39



BOREHOLE BH-39  
CLIENT Teck-Canada

AREA Burnt River  
COUNTRY Canada

DATE LOGGED 04/17/80

SEAM THICKNESS LOG

THICKNESS LOG

SONDE TYPE:  
COAL COMBINATION SONDE

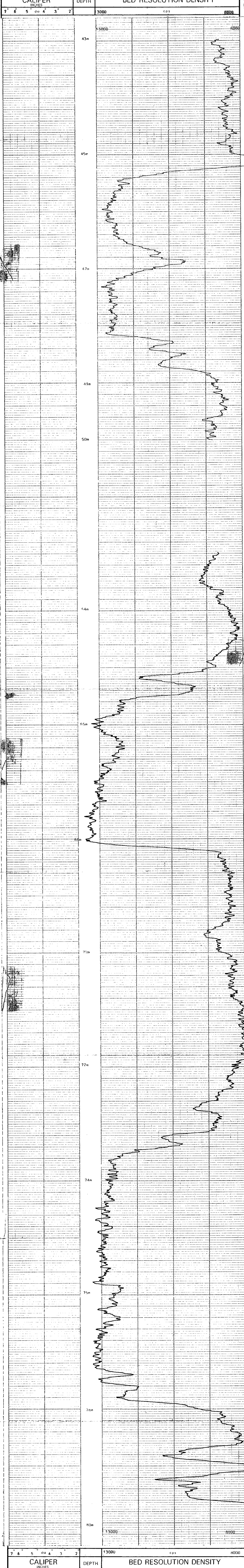
LOG SUITE:  
CALIPER  
BR DENSITY

SEAM THICKNESS LOG INTERVALS

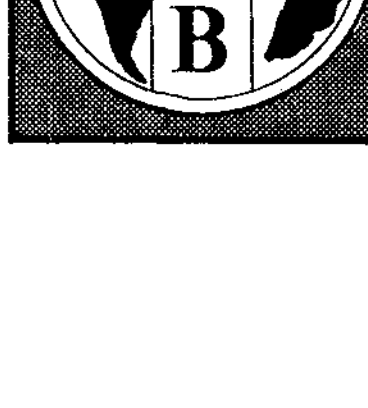
FROM	41m	49m	50m
TO	42m	53m	43m
INTERVAL	30m	05m	07m
FROM			
TO			
INTERVAL			
TOTAL			
REMARKS			

489

B P B SEAM THICKNESS LOG



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7 6 5 4 3 2		13000 cps



BOREHOLE BH-39  
CLIENT Teck-Corp

AREA Burnt River  
COUNTRY Canada

SEAM THICKNESS LOG



Burnt River BR-39

BR 39

NEUTRON - NEUTRON LOG

BOREHOLE BR-39

CLIENT Burnt River

AREA Burnt River

COUNTRY Canada

DATE LOGGED 1/07/89

DEPTH SCALE 4001

LOGS

BOREHOLE DATA REFER TO LOG

OPERATION DATA REFER TO LOG

EQUIPMENT AND RECORDING DATA

LOG TAPING PANEL CODE

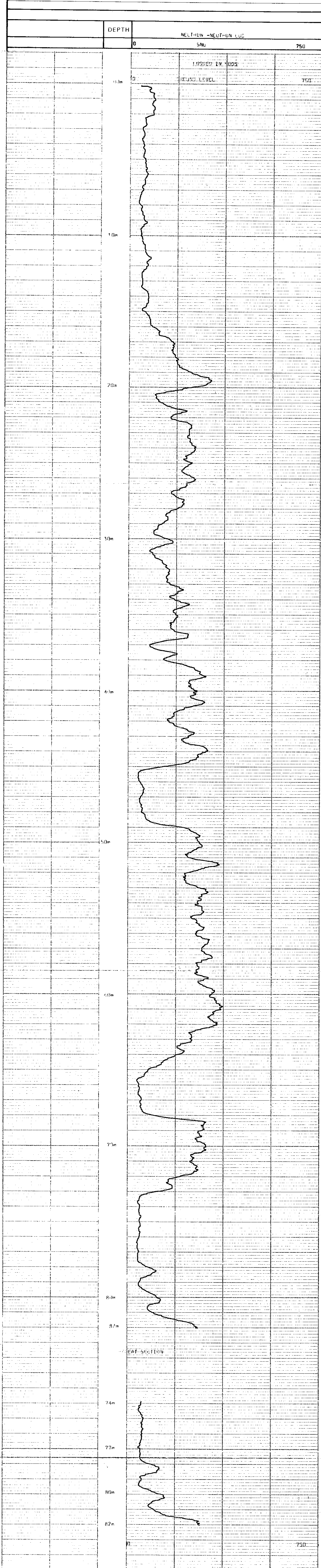
LOG RECORDING SPEED SECS

LOG REEL SPEED SECS

SONDE 204

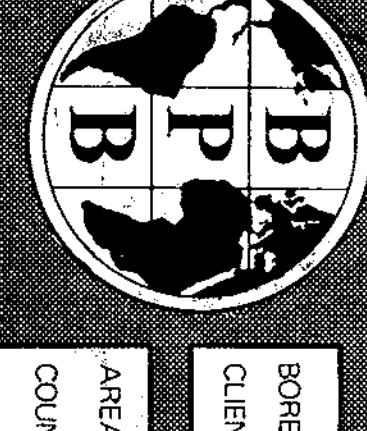
REMARKS

489



DEPTH	0	500	750
NEUTRON - NEUTRON			
BOREHOLE	BR-39	AREA	Burnt River
CLIENT	Burnt River	COUNTRY	Canada





**COAL LITHOLOGY LOG**

**COAL**

**LITHOLOGY LOG**

SONDE TYPE: COAL  
 COAL COMBINATION SONDE  
 LOG SUITE: GAMMA RAY  
 L.S. DENSITY  
 CALIPER

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 1 Jul '80

DEPTH SCALE: 100-1  
 5 OF 5 LOGS

BOREHOLE: BR-39  
 CLIENT: Teck Corp

PERMANENT DATA: REFERENCE TO LITHOLOGY LOG  
 ELEVATION OF P.D.: 985  
 TAPING: 985  
 CASING REACHED: 985  
 DEPTH REACHED: 985  
 CASING SHOE: 985  
 CASING SIZES: 1 TO 2

FLUID DATA

NATURE: \_\_\_\_\_  
 SG: \_\_\_\_\_  
 LEVEL: \_\_\_\_\_  
 VISCOSITY: \_\_\_\_\_  
 PH at 100m: \_\_\_\_\_  
 PH at 200m: \_\_\_\_\_

OPERATION DATA  
 FIRST READING: 51m  
 LAST READING: 51m  
 INTERVAL LOGGED: 51m  
 DATE-TRUCK No: 4874  
 ENGINEER: W.J.S.  
 WITNESS: \_\_\_\_\_

**489**

**EQUIPMENT AND RECORDING DATA**

COAL COMBINATION SONDE													
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS	SEAM LOG RUN		
	SONDE	SOURCE	CAUBRATOR	LOG TAPED	RECORD SPEED	DIRECTOR/REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL	
CC	11B	5845											
GAMMA RAY			510011	Y	9m/m	0	9m/m	1	-	1.5	81m	01m	81m
L.S. DENSITY			53050U	Y	9m/m	0	9m/m	1/3	-	-	82m	01m	81m
CALIPER	SIDEWALL POSITION			Y	9m/m	0	9m/m	1/3	-	-	82m	01m	81m

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	TO	INTERVAL	INTERVAL TOTAL
81m	69m	50m	
77m	43m	43m	
07m	26m	07m	22m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS
20A	N-N	10011		

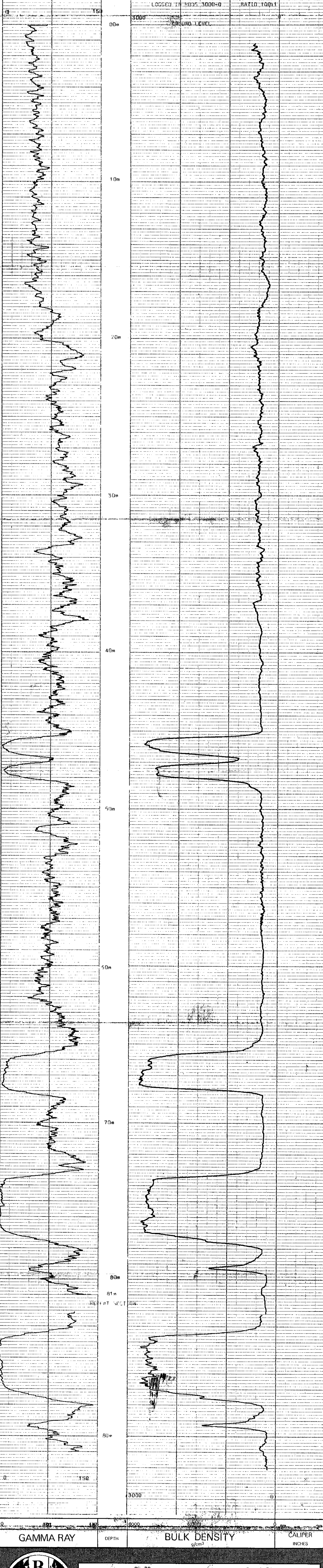
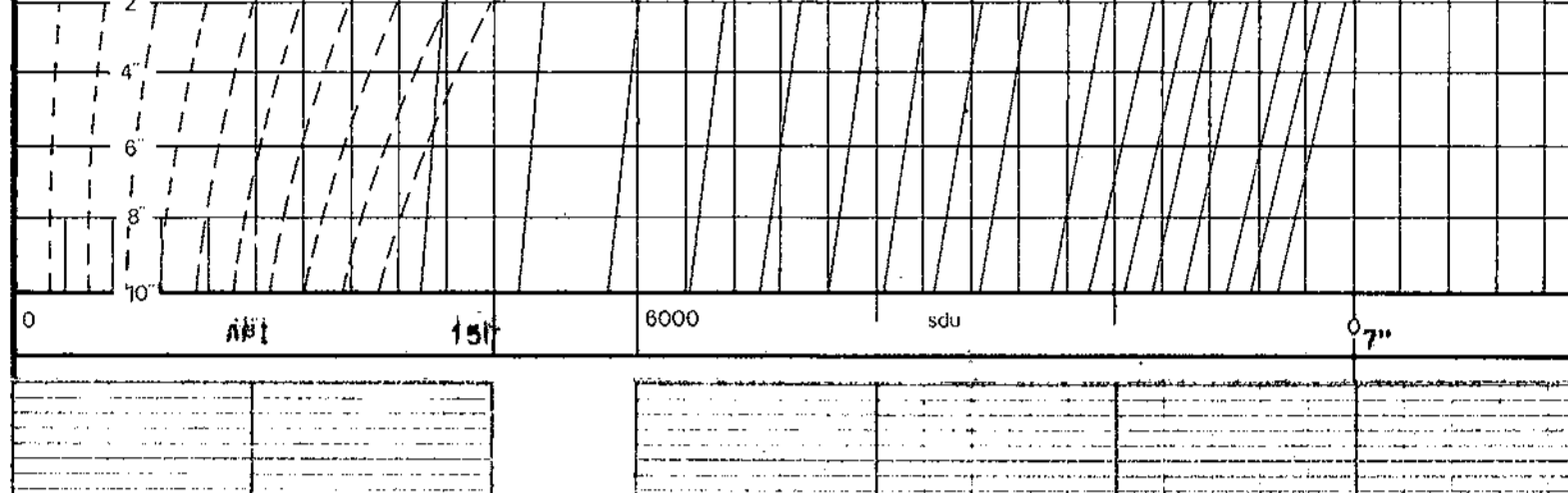
REMARKS: LOGGED IN HOLE 3000-0

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No 367	VALUE 500 2" DIAM	JIG CAL DATE 17/06/80	LOG VALUE 530	SDU @ g/cm <sup>3</sup>	7 ins	940 cps
JIG MARK SHOWN AT ABOVE VALUE - x0.1		JIG No 0338	SPAN	NORM 6.8	2 ins	472 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------

**COAL LITHOLOGY LOG**

BOREHOLE: BR-39  
 CLIENT: Teck Corp  
 AREA: Burnt River  
 COUNTRY: Canada

MY A50261 R



PR-Burnt River 80(3)A BR 40

**SONDE TYPE:**  
COAL COMBINATION SONDE

**LOG SUITE:**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

**COAL LITHOLOGY LOG**

**BOREHOLE DATA**

PERMANENT DATUM: J.M.C. LEVEL  
ELEVATION OF P.D.: 340.00  
DEPTH REACHED: 68.50m  
CASING SIZES: 1" TO 3" TO 3 1/2" TO 4" TO 4 1/2" TO 5" TO 6" TO 6 1/2" TO 7" TO 8" TO 8 1/2" TO 9" TO 9 1/2" TO 10" TO 11" TO 12" TO 14" TO 16" TO 18" TO 20" TO 22" TO 24" TO 26" TO 28" TO 30" TO 32" TO 34" TO 36" TO 38" TO 40" TO 42" TO 44" TO 46" TO 48" TO 50" TO 52" TO 54" TO 56" TO 58" TO 60" TO 62" TO 64" TO 66" TO 68" TO 70" TO 72" TO 74" TO 76" TO 78" TO 80" TO 82" TO 84" TO 86" TO 88" TO 90" TO 92" TO 94" TO 96" TO 98" TO 100"

**CLIENT:** Teck-Com  
**AREA:** Burnt River  
**COUNTRY:** Canada  
**DATE LOGGED:** 27/07/80  
**DEPTH SCALE:** 200-1  
**LOGS:** 1 OF 5 LOGS

**OPERATION DATA**

FIRST READING: 5.77  
LAST READING: 5.77  
INTERNAL LOGGED: 5.77  
UNIT-TRUCK NO: 2714  
ENGINEER: [Signature]  
WITNESS: [Signature]

**489**

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY	113	5545	5104 I	Y	9m/m	H	9m/m	1	-	1.5	67m	00m	57m	v
L.S. DENSITY			5305 DU	Y	9m/m	H	9m/m	1 1/2	6.8	-	68m	01m	67m	v
CALIPER				Y	9m/m	H	9m/m	1 1/2	-	-	68m	01m	67m	

**COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)**

FROM	5.0m	INTERVAL TOTAL
TO	4.0m	
INTERVAL	1.0m	10m

**ADDITIONAL SONDES RUN**

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS
214	1-N	2100		REFER TO ADDITIONAL HEADINGS

**REMARKS:** LOGGED IN RODS 150 SCALE 3000:1000

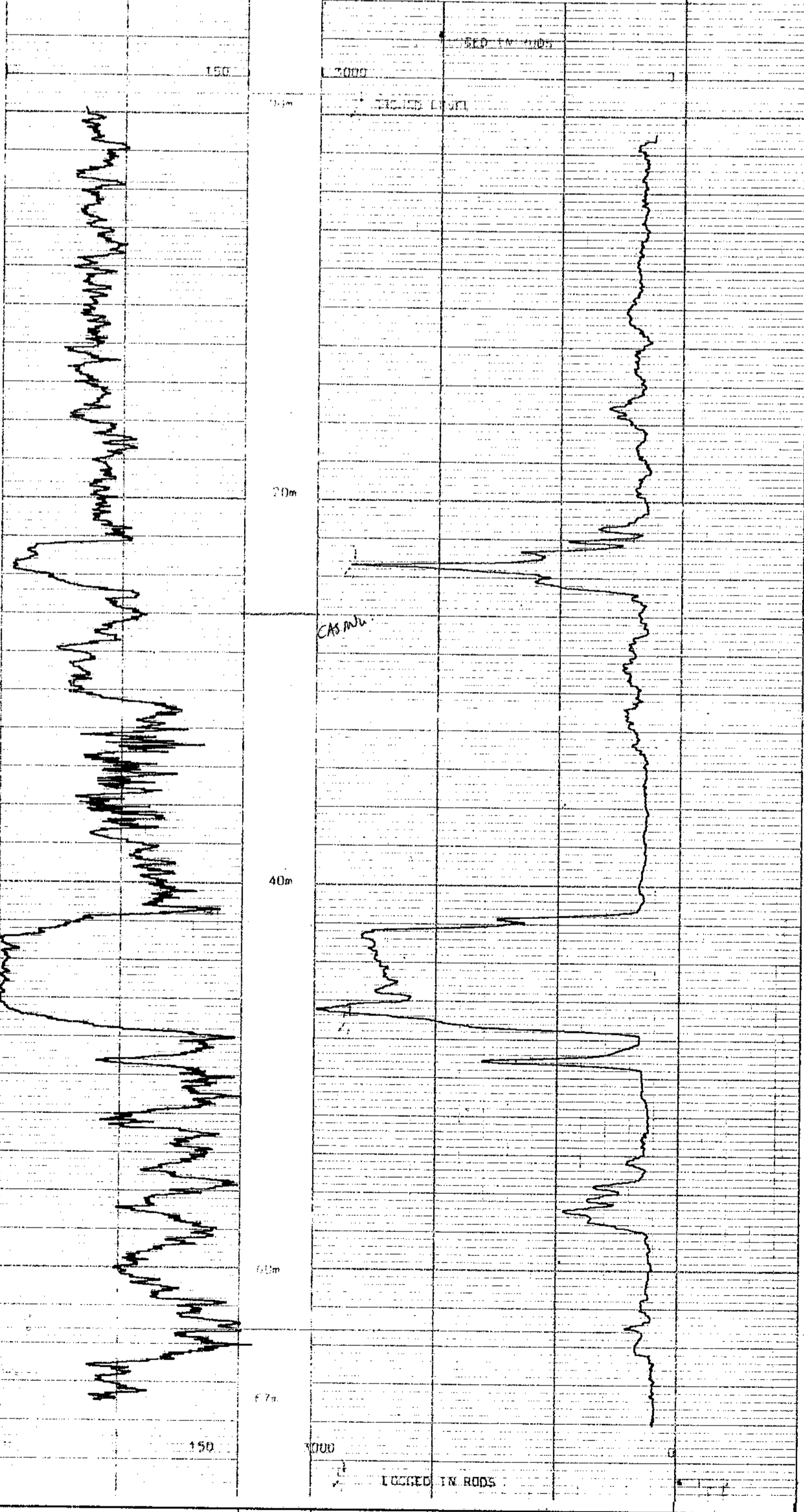
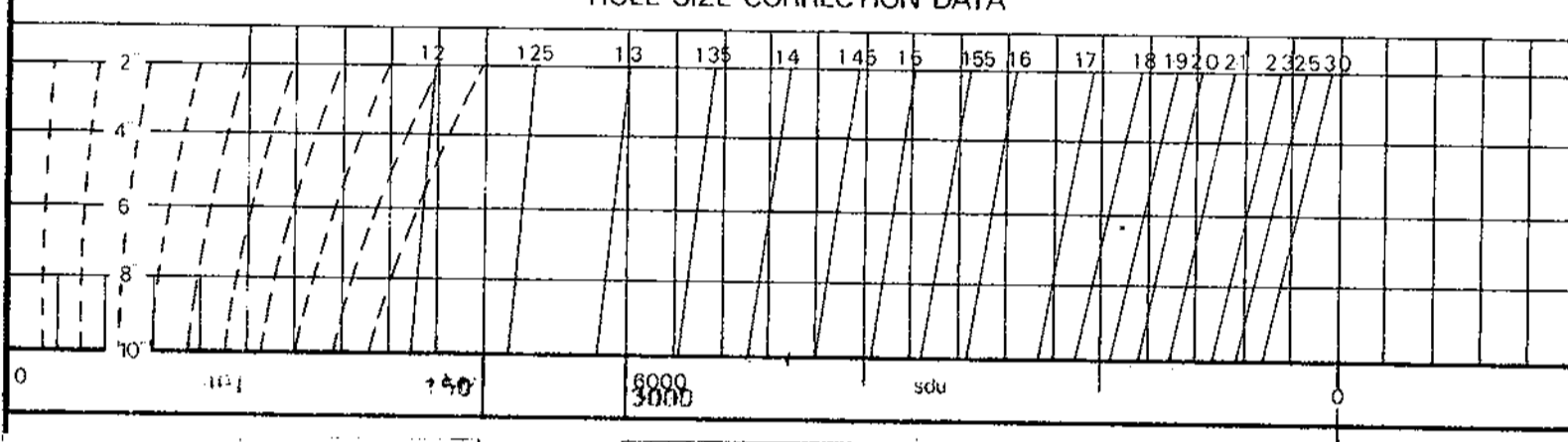
**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No 3-7	VALUES 1 U@ 2" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530	SDU @	g/cm <sup>3</sup>	7 ms	940 cps
JIG MARK SHOWN AT ABOVE VALUE - 11.1		JIG No 0338	SPAN 3000	NORM	SDU = 6.8	7 ms	477 cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

**HOLE SIZE CORRECTION DATA**



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



**BOREHOLE:** BR-40 **AREA:** Burnt River  
**CLIENT:** Teck-Corp **COUNTRY:** Canada

**COAL LITHOLOGY LOG**

80(3)A  
 PP-Burnt River  
 BR 470



LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

SONDE TYPE:  
 COAL  
 COMBINATION  
 SONDE

COAL  
 QUALITY  
 LOG

BOREHOLE \_\_\_\_\_ SW 130  
 CLIENT \_\_\_\_\_  
 AREA \_\_\_\_\_ DEPTH SCALE \_\_\_\_\_  
 COUNTRY \_\_\_\_\_  
 DATE LOGGED \_\_\_\_\_ 1 OF 2 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

LOG TAPPING PANEL COAL  
 LOG RECORDING SPEED L.S. NORM  
 GAMMA RAY SPEED FEEDBACK  
 L.S. DENSITY  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG  
 COAL QUALITY LOG INTERVALS  
 FROM TO  
 INTERVAL FROM TO  
 TO  
 REMARKS

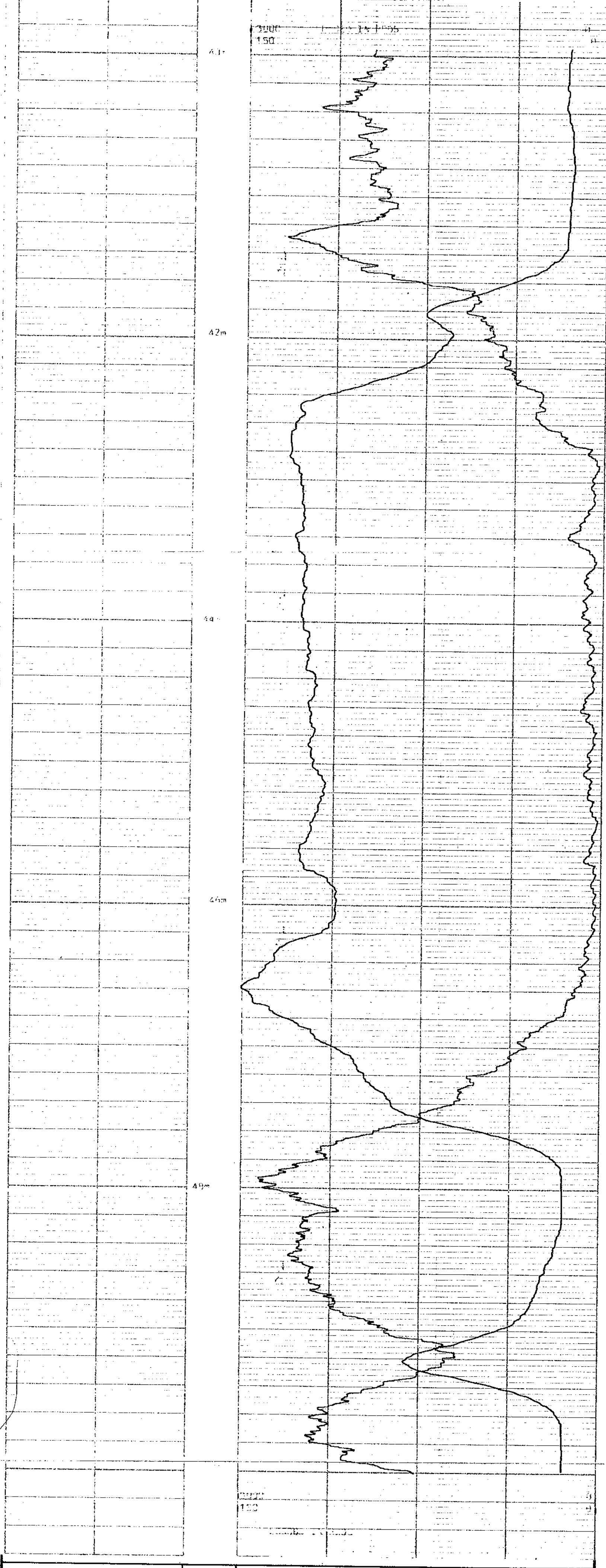
489

**B P B COAL QUALITY LOG**

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>

HOLE SIZE CORRECTION DATA

2'	125	13	135	14	145	15	155	16	17	18	19	20	22	24	30
4'															
6'															
8'															
			150												0
			6000												0



DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>



BOREHOLE 3-40  
 CLIENT Beckwith  
 AREA Burnt River  
 COUNTRY Canada

**COAL QUALITY LOG**



TR-Burnt River 80(3)R RR 40



**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR. DENSITY

BOREHOLE 91-41  
CLIENT Teck-Corp  
AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 31 JULY 80

DEPTH SCALE  
20:1  
2 OF 5 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

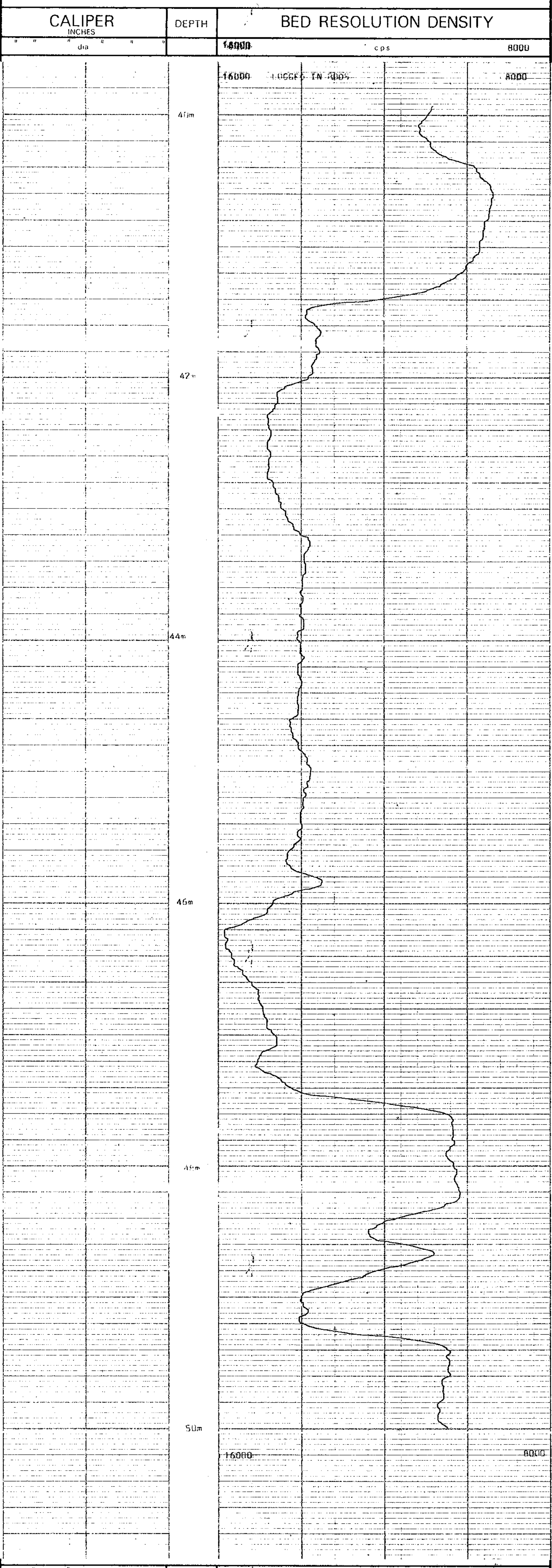
COAL COMBINATION SONDE  
LOG TAPPING PANEL CAL  
TAPED SPEED REELS SPEED SCS NORM

BR DENSITY 3m/h 3m/h 1/3 2.34  
SOURCE SONDE AND CALIBRATION  
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS  
FROM 5.5m  
TO 41m

INTERNAL 1.3m  
FROM  
TO  
INTERNAL TOTAL  
REMARKS  
489

**B P B SEAM THICKNESS LOG**



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		cps
		16000
		8000



BOREHOLE 91-41  
CLIENT Teck-Corp  
AREA Burnt River  
COUNTRY Canada

**SEAM THICKNESS LOG**



**COAL LITHOLOGY LOG**

**SONDE TYPE:**  
COAL COMBINATION SONDE

**LOG SUITE:**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

BOREHOLE BR-29  
CLIENT TECH CORP

AREA Burnt River  
COUNTRY Canada

DATE LOGGED 20/05/80

DEPTH SCALE 200:1  
1 OF 4 LOGS

**BOREHOLE DATA**

PERMANENT DATUM GROUND LEVEL  
ELEVATION OF P.D. GROUND LEVEL

MEASUREMENTS FROM CL DRILLER C  
DEPTH REACHED 57.50m 58.51m

CASING SHOE 10.5ft

BIT SIZES  
1 HQ TO 12.5ft ND TO TD  
2 HQ TO 4 TO  
3 HQ TO 2 TO

**FLUID DATA**

NATURE Druck Gel  
SG   
LEVEL   
VISCOSITY   
Pm at meas. temp   
BHT

**OPERATION DATA**

FIRST READING 56m  
LAST READING 07m  
INTERVAL LOGGED 55m  
UNIT-TRUCK No 4674  
ENGINEER PHR/R  
WITNESS

**489**

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING			PANEL		CAL. COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM	TO	
CCS	118	5845											
GAMMA RAY			51 ADI	Y	9m/m	D	9m/m	1	1.5	50m	01m	50m	
L.S. DENSITY				Y	9m/m	D	9m/m	1/2	6.0	57m	01m	55m	
CALIPER				Y	9m/m	D	9m/m	1/2		57m	02m	59m	

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

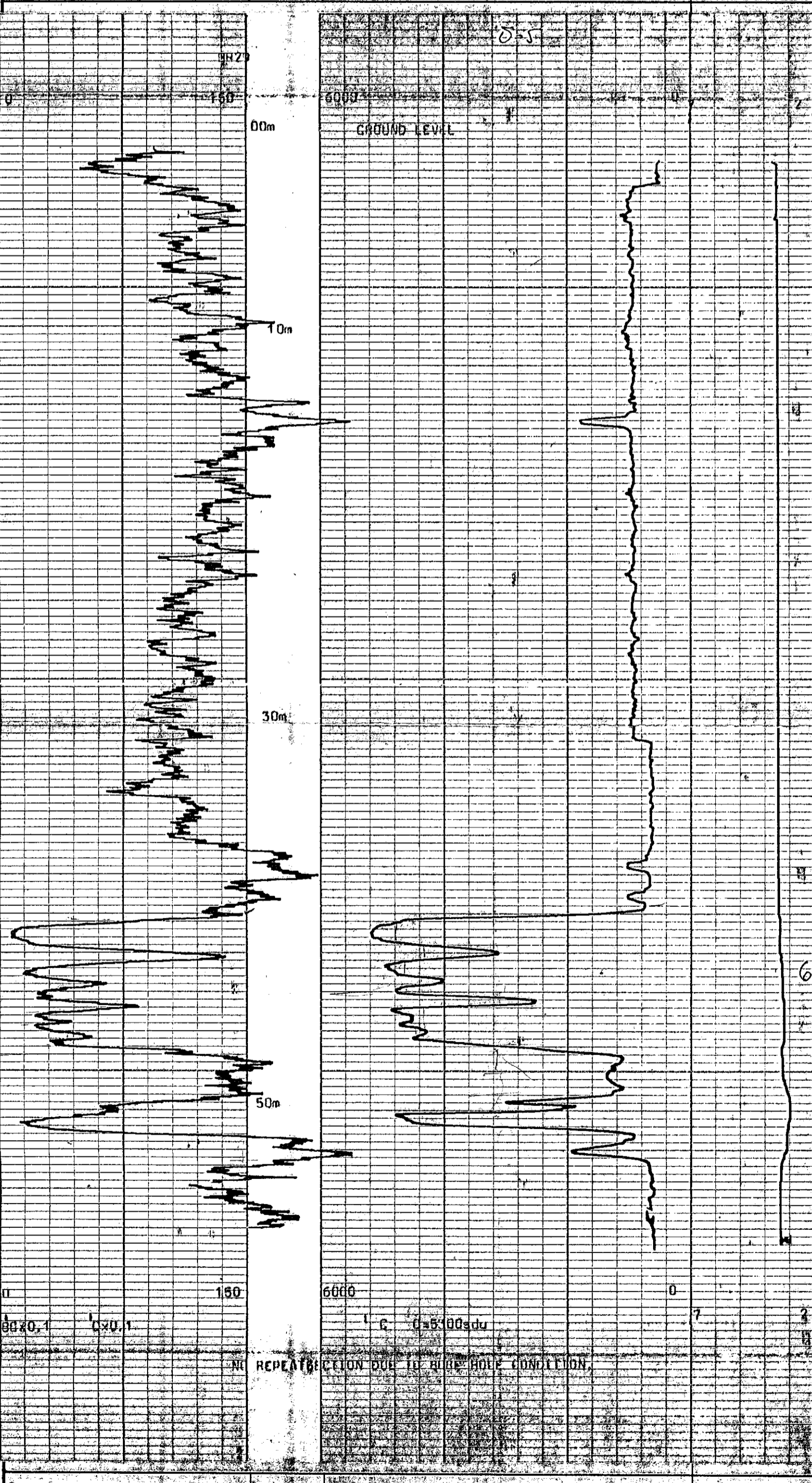
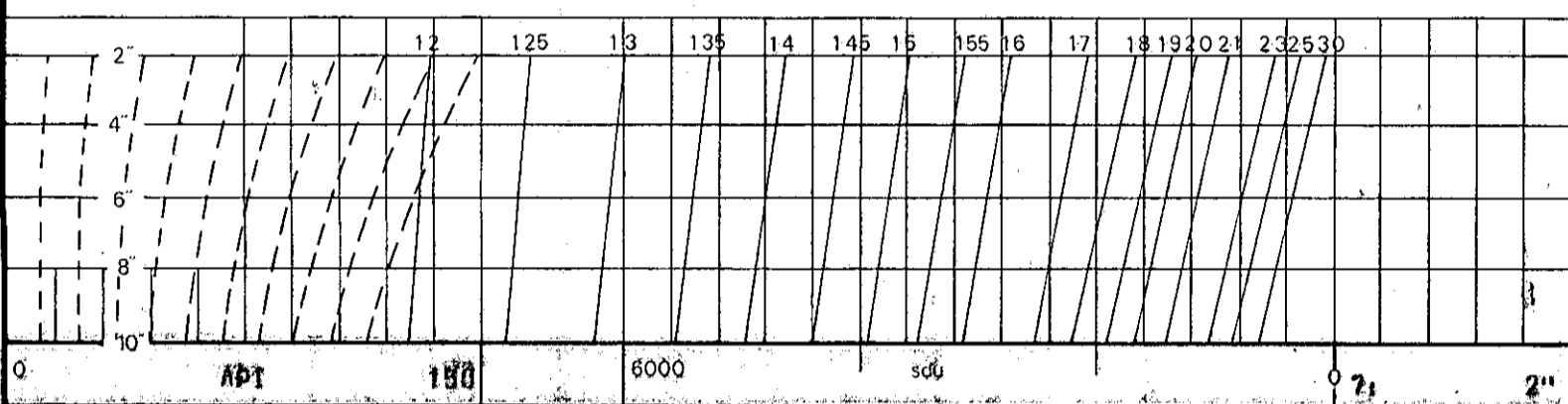
FROM	<u>53m</u>	INTERVAL TOTAL
TO	<u>39m</u>	
INTERVAL	<u>14m</u>	<u>14m</u>

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
204	N-N	200:1			

**BPB COAL LITHOLOGY LOG CALIBRATION DATA**

JIG No. <u>367</u>	VALUE <u>51@ 2" DIAM</u>	JIG CAL DATE <u>17/06/80</u>	JIG VALUE <u>530</u>	SDU @ <u>g/cm<sup>3</sup></u>	<u>7</u> ins. <u>940</u> cps
JIG MARK SHOWN AT ABOVE VALUE $\times 0.1$		JIG No. <u>0330</u>	SPAN <u>6000</u>	NORM <u>SDU CPS = 6.0</u>	<u>2</u> ins. <u>472</u> cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



BOREHOLE BR-RR-29 AREA Burnt River  
CLIENT Tech Corp COUNTRY Canada

**COAL LITHOLOGY LOG**



**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR. DENSITY

BOREHOLE BR-29  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 20/06/80

DEPTH SCALE  
20:1  
2 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	TAPING	SIDEWALL POSITION	PANEL	COEF
	LOG RECORDING SPEED (FT/SEC)			
CALIPER	Y	R	3m/h	1
BR DENSITY	Y	R	3m/h	1.74
				82

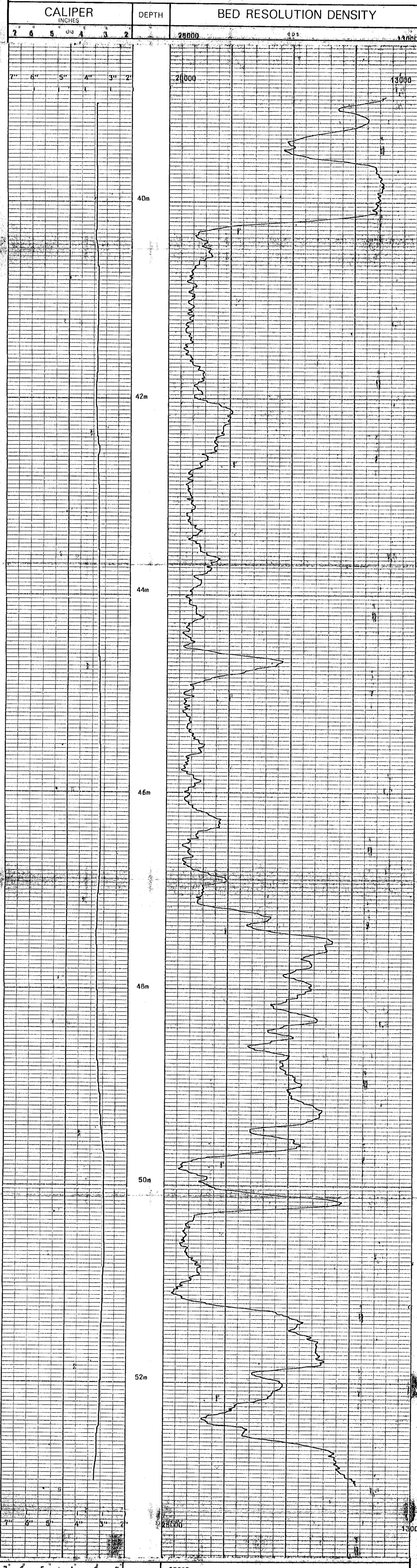
SOURCE SONDE AND CALIBRATION  
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	53m
TO	59m
INTERVAL	1.4m
FROM	
TO	
INTERVAL	
REMARKS	

489

**B P B SEAM THICKNESS LOG**

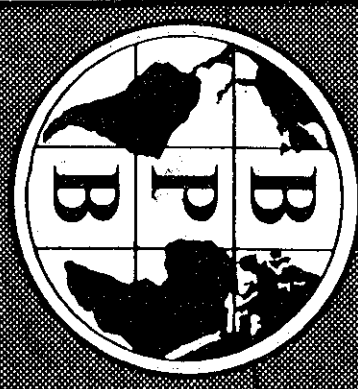


CALIPER INCHES      DEPTH      BED RESOLUTION DENSITY

BOREHOLE BR-29      AREA Burnt River  
CLIENT Tech Corp      COUNTRY Canada

**SEAM THICKNESS LOG**





RR-Burnt River 80(3)A BR-29

BOREHOLE BR-29  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada

DATE LOGGED 20/06/20  
3 OF 4 LOGS

**COAL QUALITY LOG**

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE  
LOG TAPPING RECORDING PANEL SIDEWALL POSITION  
GAMMA RAY TAPED SPEED REPEATY SPEED SECS NORM  
L.S. DENSITY v 3m/m 2 3m/m 1 5.8 -

SONDE TYPE :  
COAL COMBINATION SONDE

LOG SUITE :  
GAMMA RAY  
L.S. DENSITY

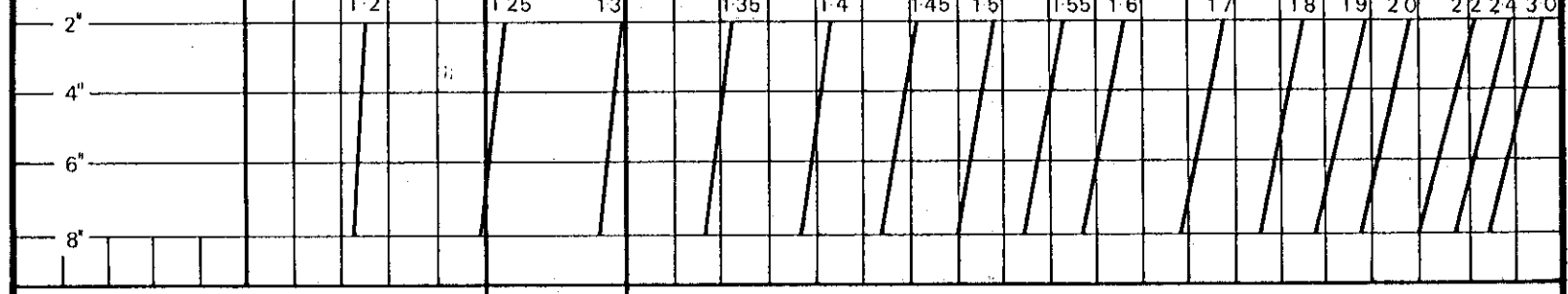
COAL QUALITY LOG INTERVALS  
FROM 53m  
TO 39m  
INTERVAL 14m  
FROM  
TO  
INTERVAL  
TOTAL = 14m  
REMARKS

489

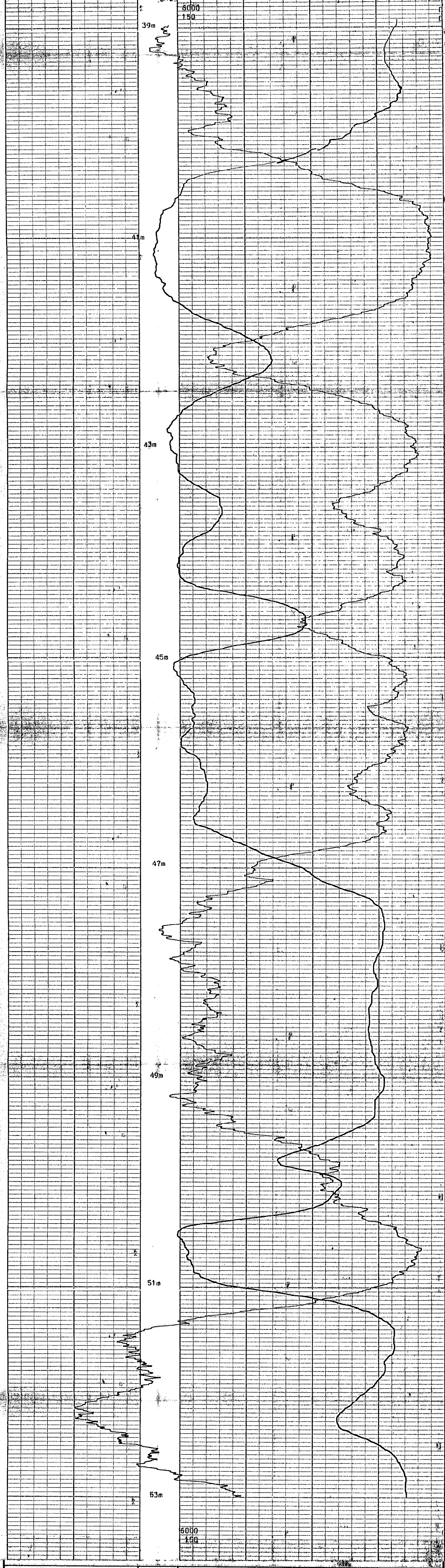
**BPB COAL QUALITY LOG**

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm <sup>3</sup>

HOLE SIZE CORRECTION DATA



150	API	0
6.000	sdu	0



6.000	sdu	0
150	API	0
DEPTH	GAMMA RAY	
	COAL BULK DENSITY g/cm <sup>3</sup>	



BOREHOLE BR-29  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada

**COAL QUALITY LOG**

BR-Burnt River 80153A BR-29



NEUTRON-NEUTRON

BOREHOLE BR-29  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 20/05/86

DEPTH SCALE  
2000:1

4 OF 4 LOGS

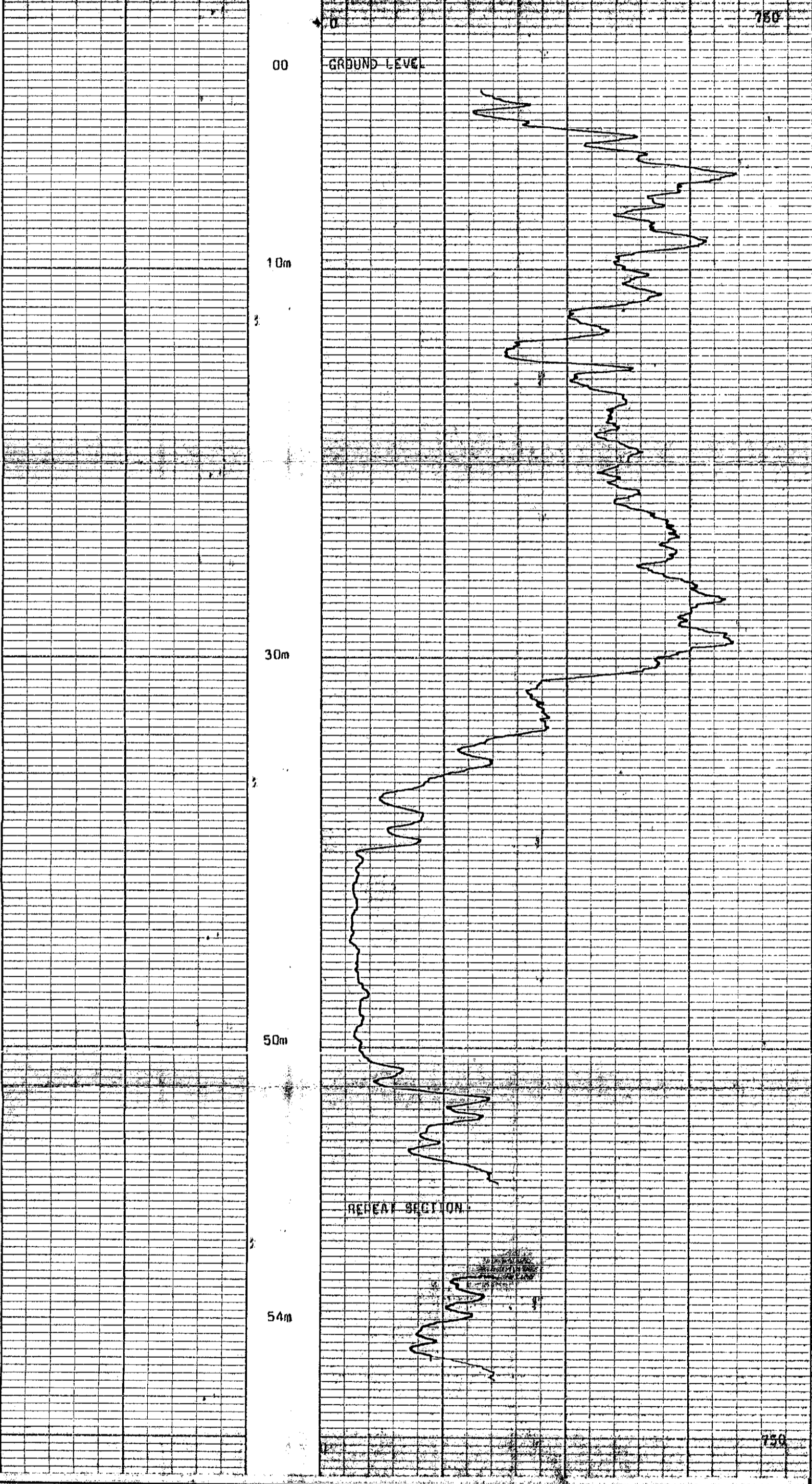
BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO " LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	RECORD DIRECT	RECORD SPEED	PANEL	CAL
N-N	Y	9m/m	D	9m/m	2
					82

REMARKS  
57m  
01m  
56m  
**489**

DEPTH	0	NEUTRON-NEUTRON	750
-------	---	-----------------	-----



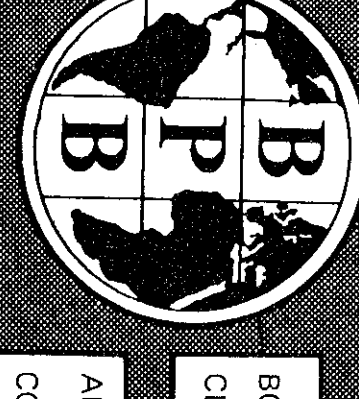
DEPTH	0	NEUTRON-NEUTRON	750
-------	---	-----------------	-----



BOREHOLE BR-29  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada

72 - Burnt River 80(2)9  
 42 29



BOREHOLE BL-29  
 CLIENT TECH CORP

AREA BURNT RIVER  
 COUNTRY CANADA

DATE LOGGED 31/07/89

DEPTH SCALE  
20:1

1 OF 5 LOGS

**COAL QUALITY LOG**

**COAL QUALITY LOG**

**LOG**

SONDE TYPE:  
 COAL COMBINATION  
 SONDE

LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

BOREHOLE DATA

OPERATION DATA

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

LOG RECORDING SPEED

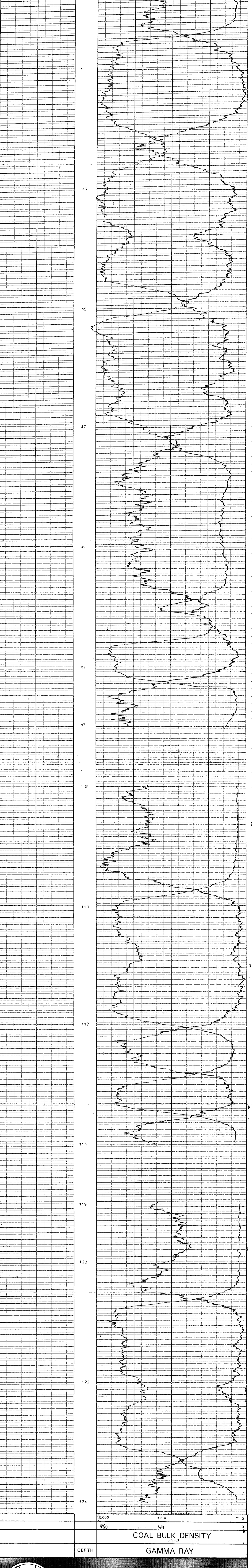
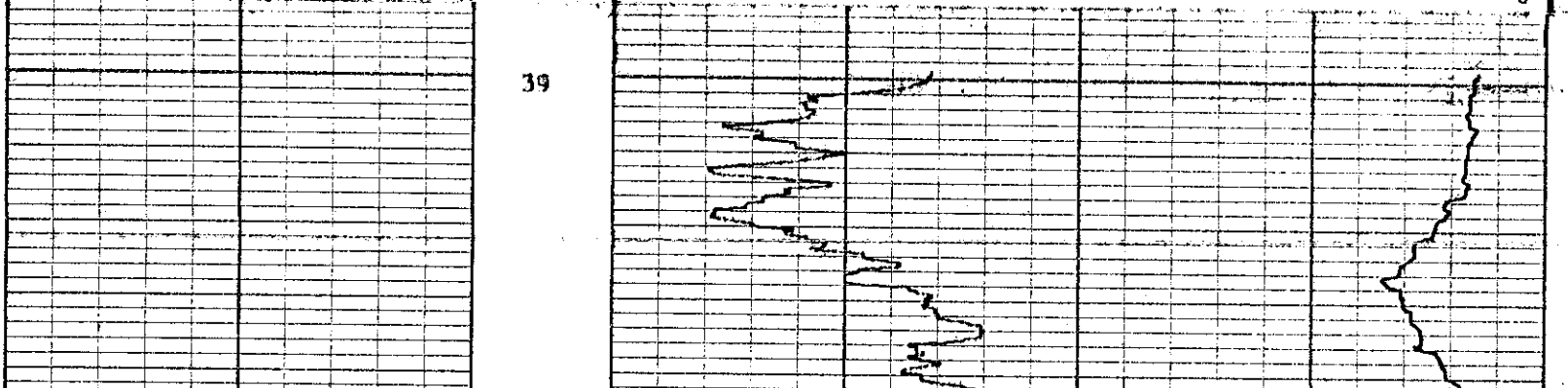
**B P B COAL QUALITY LOG**

DEPTH

GAMMA RAY

COAL BULK DENSITY

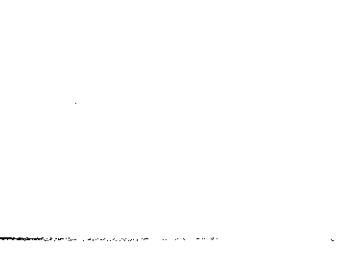
HOLE SIZE CORRECTION DATA



DEPTH

GAMMA RAY

COAL BULK DENSITY



BOREHOLE BL-29

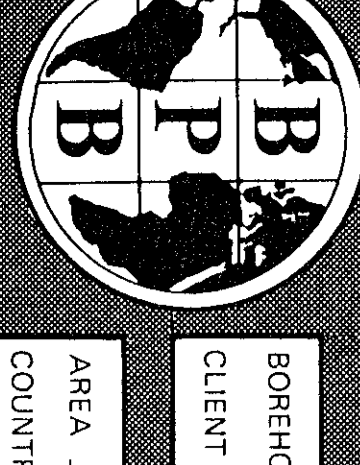
CLIENT TECH CORP

AREA BURNT RIVER

COUNTRY CANADA

**COAL QUALITY LOG**

489



BOREHOLE BR-29  
CLIENT TECK CORP

AREA BURNT RIVER  
COUNTRY CANADA

DATE LOGGED 31/07/89

DEPTH SCALE  
20:1  
AOF - 5 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG

EQUIPMENT AND RECORDING DATA  
COAL COMBINATION SONDE  
LOG TAPPING SIDEWALL POSITION  
LOG RECORDING SPEED PANEL COEFF  
CALIBER Y 3 H 3 .3 -  
BR DENST V 3 .1 1 6.9

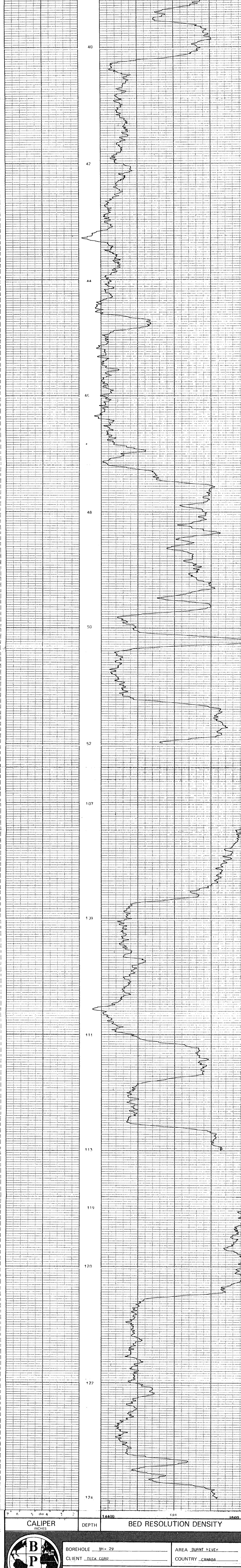
SONDE TYPE:  
COMBINATION SONDE  
SEAM THICKNESS LOG INTERVALS

LOG SUITE:  
CALIPER  
BR DENSITY

REMARKS  
LOGGED IN RDDS  
CALIBER NOT REVED OUT

489

B P B SEAM THICKNESS LOG



	BOREHOLE BR-29	AREA BURNT RIVER
	CLIENT TECK CORP	COUNTRY CANADA
<b>SEAM THICKNESS LOG</b>		







**SEAM THICKNESS LOG**

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR DENSITY

BOREHOLE BW-41  
CLIENT Teck-Corp

DEPTH SCALE  
20.1

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 15/07/80

2 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG: TAPING PANEL COAL  
LOG RECORD DIRECT SPEED TCS NORM  
TAPED REPLAY SPEED SECS  
CALIPER Y 3m/m R 3m/m I  
BR DENSITY Y 3m/m H 3m/m I

SEAM THICKNESS LOG INTERVALS

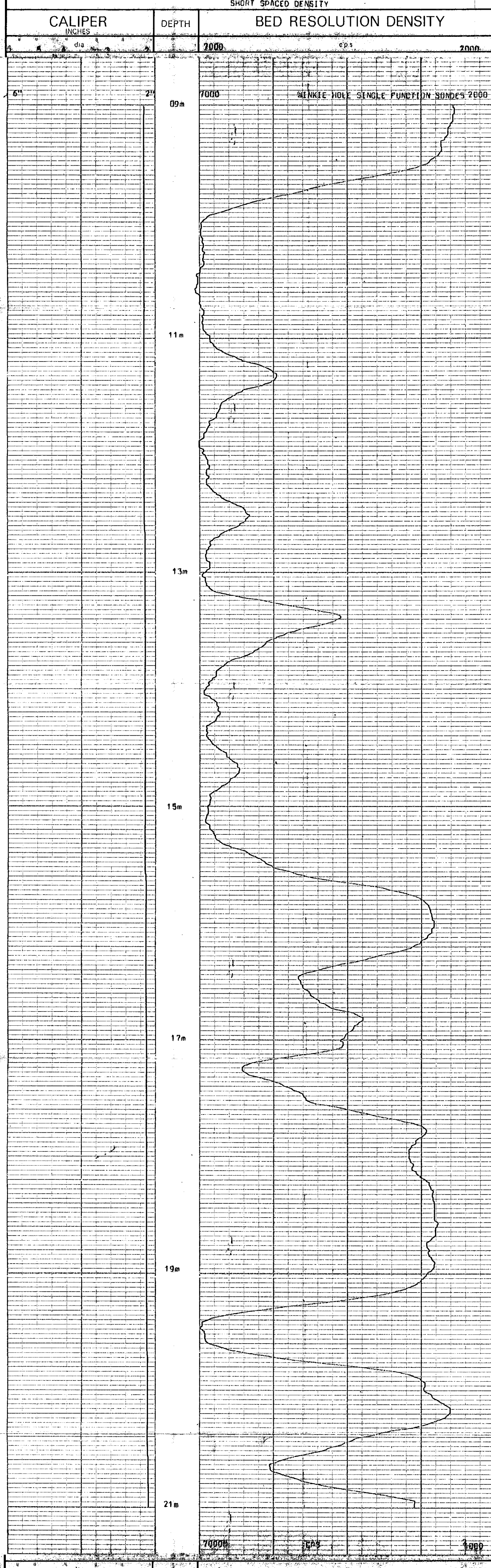
FROM 21m  
TO 09m

INTERNAL FROM TO INTERVAL TOTAL  
INTERNAL FROM TO INTERVAL TOTAL  
INTERNAL FROM TO INTERVAL TOTAL  
INTERNAL FROM TO INTERVAL TOTAL

**489**

**B P B SEAM THICKNESS LOG**

SHORT SPACED DENSITY



CALIPER INCHES      DEPTH      BED RESOLUTION DENSITY



BOREHOLE BW-41      AREA Burnt River  
CLIENT Teck-Corp      COUNTRY Canada

**SEAM THICKNESS LOG**



Burnt River SCL 1A BW 41

**COAL**  
**LITHOLOGY**  
**LOG**

BOREHOLE	SW-41	AREA	Burnt River	DEPTH SCALE	200' 1
CLIENT	TECK-CORP	COUNTRY	Canada	DATE LOGGED	15/07/80
BOREHOLE DATA		OPERATION DATA			
PERMANENT DATUM	GROUND LEVEL	FIRST READING	22m	ENGINEER	90/HR
ELEVATION OF P.D.	GROUND LEVEL	LAST READING	41m	WITNESS	
MEASUREMENTS FROM	01	INTERNAL LOGGED	21m		
DEPTH REACHED	22.53m	UNIT-TRUCK No.	46/24		
CASING SHOE	10ft				
B.T. SIZES	1 AX TO 1D				
	3 TO 4				
	2 TO				
CASING SIZES	1 TO 2				
FLUID DATA					
NATURE	WATER				
SG					
LEVEL					
VISCOSITY					
Rm at meas temp					
S.H.T.					

489

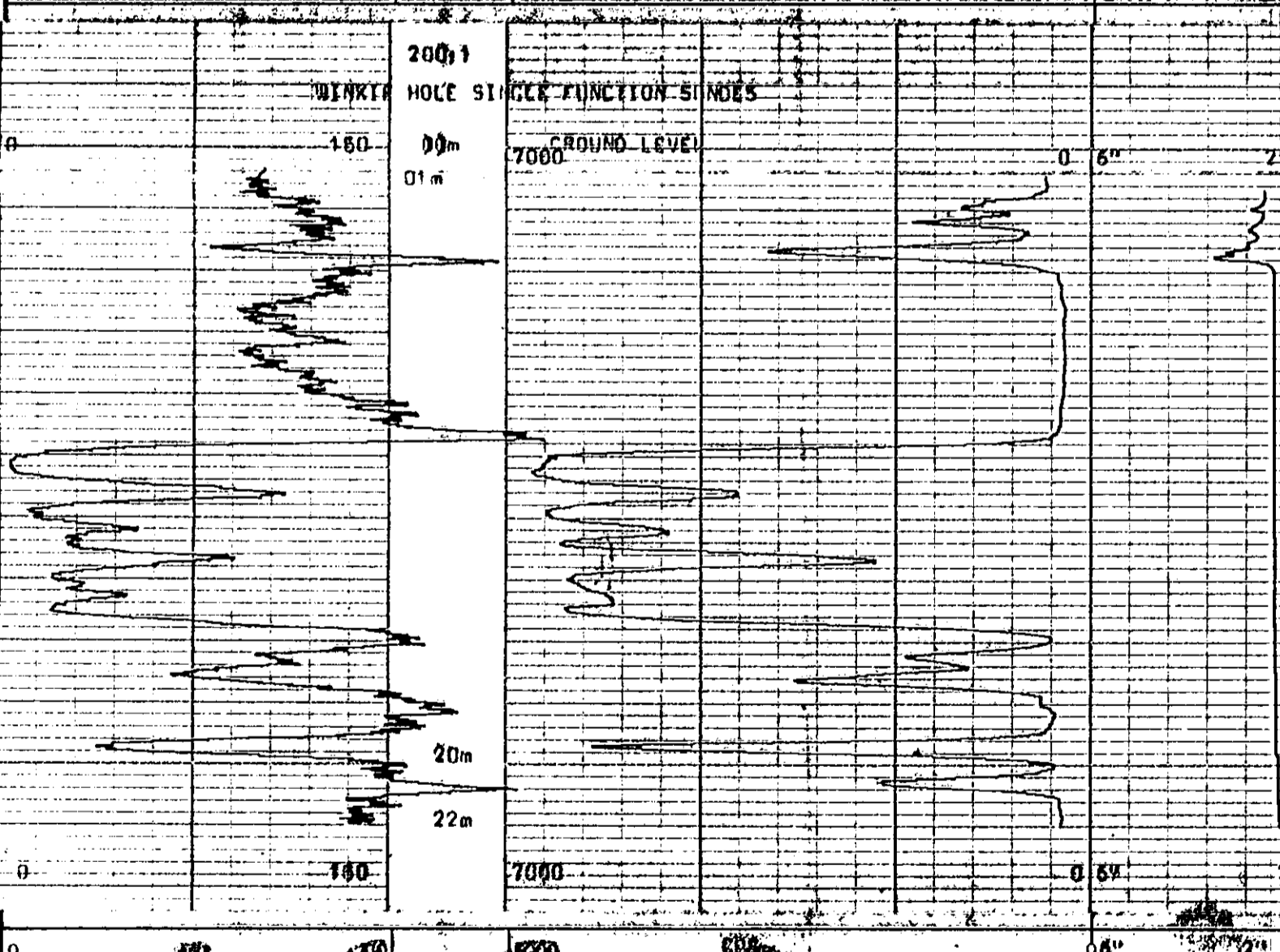
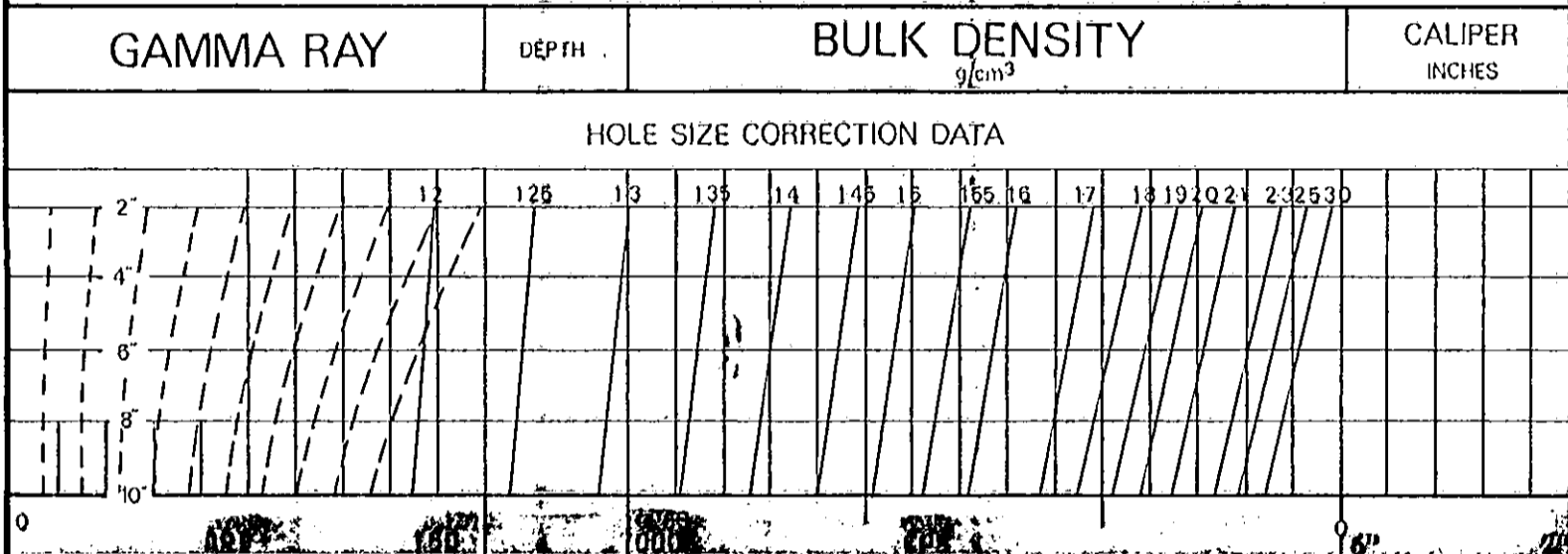
EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE														
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS			SEAM LOG RUN	
	SONDE	SOURCE	CAUBRATOR	LOG TAPED	RECORD SPEED	DIRECT OF REPLAY	SPEED	IC SECS	NORM		FROM	TO	INTERVAL	
<b>SINGLE FUNCTION SONDES</b>														
GAMMA RAY				Y	3m/m	R	3m/m	2	-	1.5	22m	01m	21m	Y
L.S. DENSITY				Y	3m/m	R	3m/m	1	-	-	22m	01m	21m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	R	3m/r	1	-	-	22m	01m	21m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)												
FROM	21m											INTERVAL TOTAL
TO	09m											
INTERVAL	12m											

ADDITIONAL SONDES RUN					REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG			
						WINKIE HOLE SINGLE FUNCTION SONDES

**BPB COAL LITHOLOGY LOG**  
**CALIBRATION DATA**

JIG No	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins.	cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN	NORM	SDU =	ins.	cps



BOREHOLE	SW-41	AREA	Burnt River
CLIENT	Teck-Corp	COUNTRY	Canada
<b>COAL LITHOLOGY LOG</b>			





with BP Burnt River 8/13/79

BOREHOLE BW-41  
 CLIENT Teck-Corp  
 AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 15/07/80

DEPTH SCALE  
 20:1  
 3 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

**COAL QUALITY LOG**

SONDE TYPE:  
 COAL COMBINATION SONDE

LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

LOG-1	TAPING	SIDEWALL POSITION	CASE
GAMA	LOG RECORDING SPEED	SECS	NORM
TAPE	RECORDING SPEED	SECS	NORM
REPLAY	RECORDING SPEED	SECS	NORM
1	2	3	4
1.5			
SOURCE SONDE AND CALIBRATION			
REFER TO LITHOLOGY LOG			
COAL QUALITY LOG INTERVALS			
FROM	TO	INTERVAL	INTERVAL TOTAL
21m	21m	12m	17m
REMARKS			
WINKIE HOLE SINGLE FUNCTION SONDES			

489

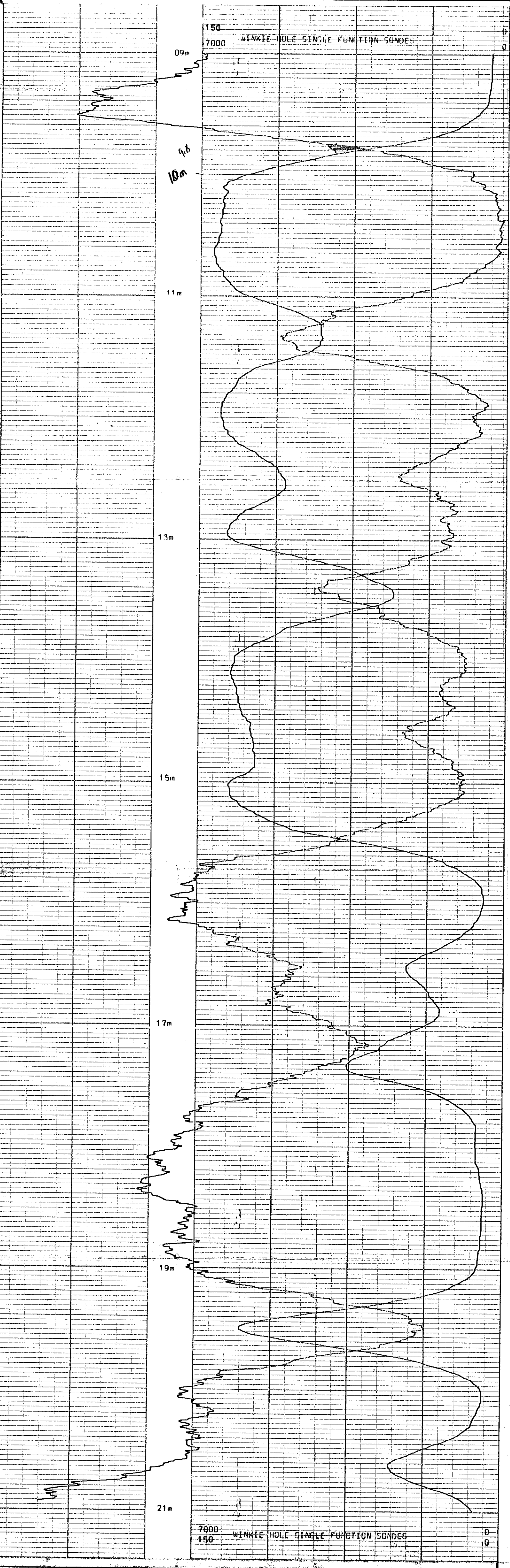
**B P B COAL QUALITY LOG**

DEPTH  
 GAMMA RAY  
 COAL BULK DENSITY  
 $g/cm^3$

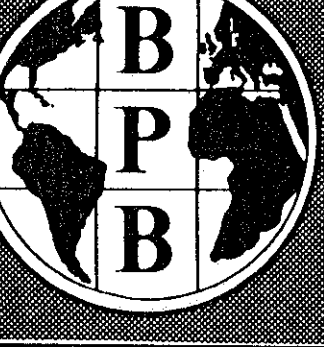
HOLE SIZE CORRECTION DATA

2'	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	30'

150 7000 WINKIE HOLE SINGLE FUNCTION SONDES

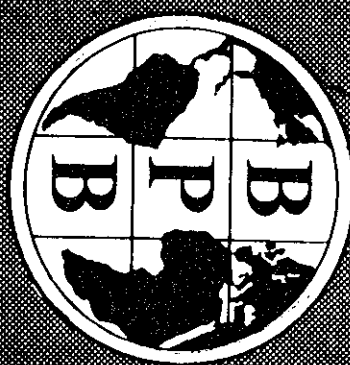


COAL BULK DENSITY  
 $g/cm^3$   
 GAMMA RAY



BOREHOLE BW-41  
 CLIENT Teck-Corp  
 AREA Burnt River  
 COUNTRY Canada

**COAL QUALITY LOG**



PA-Burnt River 80(3)A BM/41

**SONDE TYPE:**  
COAL  
COMBINATION  
SONDE

**LOG SUITE:**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

**COAL**  
**LITHOLOGY**  
**LOG**

**BOREHOLE** BW-41  
**CLIENT** TACK-CORP

**AREA** Burnt River  
**COUNTRY** Canada

**DATE LOGGED** 15/07/80

**DEPTH SCALE** 100:1  
**4 OF 4 LOGS**

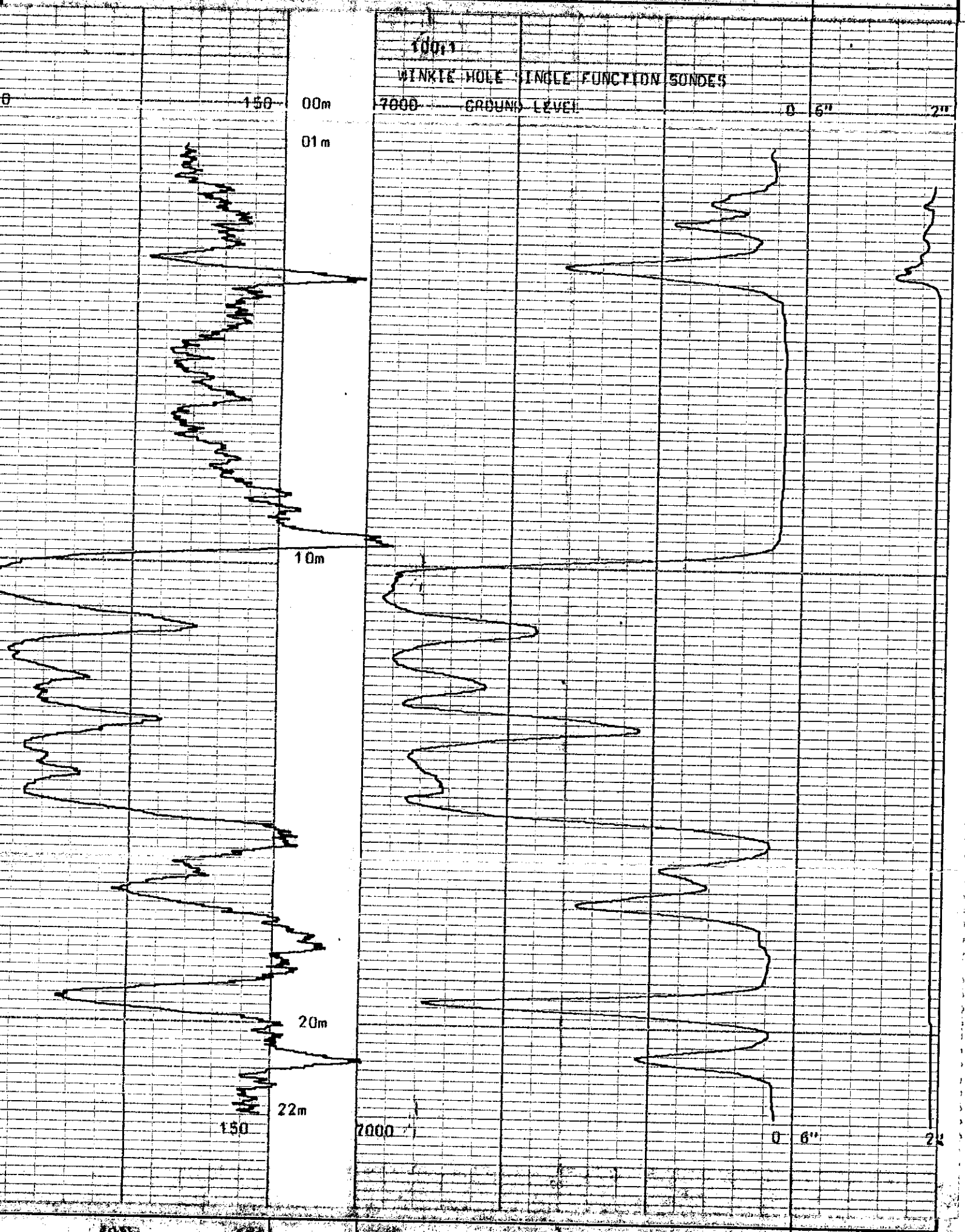
BOREHOLE DATA	
PERMANENT DATUM	GROUND LEVEL
ELEVATION OF P.D.	GROUND LEVEL
MEASUREMENTS FROM	BPB G.L. G.L.
DEPTH REACHED	22.53m 74ft
CASING SHOE	10ft
BIT SIZES	1 1/2" TO 10" 2" TO 10"
CASING SIZES	1" TO 2" 2" TO 4" 4" TO 6" 6" TO 8" 8" TO 10"
FLUID DATA	
NATURE	WATER
SG	
LEVEL	
VISCOSITY	
Rm at meas. temp	
BHT	
OPERATION DATA	
FIRST READING	22m
LAST READING	21m
INTERVAL LOGGED	21m
UNIT-TRUCK No	46/24
ENGINEER	BC/MK
WITNESS	

EQUIPMENT AND RECORDING DATA														
COAL COMBINATION SONDE														
LOG	EQUIPMENT			TAPING			PANEL			CAL. COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
SINGLE FUNCTION SONDES			WINKIE HOLE	Y	3m/m	D	3m/m	2	-	1.5	22m	01m	21m	Y
GAMMA RAY				Y	3m/m	D	3m/m	1	-	-	22m	01m	21m	Y
L.S. DENSITY				Y	3m/m	D	3m/m	1	-	-	22m	01m	21m	Y
CALIPER														
WINKIE HOLE SINGLE FUNCTION SONDES														
COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)														
FROM	21m											INTERVAL TOTAL		
TO	09m													
INTERVAL	12m													
ADDITIONAL SONDES RUN							REMARKS							
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS				SINGLE FUNCTION SONDES / WINKIE HOLE						

**BPB COAL LITHOLOGY LOG**  
**CALIBRATION DATA**

JIG No.	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	ins.	cps.
JIG MARK SHOWN AT ABOVE VALUE	SINGLE FUNCTION SONDES	JIG No	SPAN	NORM	SDU =	ins.	cps.

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
HOLE SIZE CORRECTION DATA			

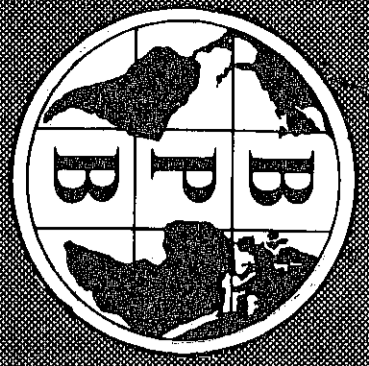


GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



**BOREHOLE** BW-41 **AREA** Burnt River  
**CLIENT** Tack Corp **COUNTRY** Canada

**COAL LITHOLOGY LOG**



PR-Burnt River (3)A BW 44

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY  
CALIPER

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

COAL  
LITHOLOGY  
LOG

BOREHOLE \_\_\_\_\_  
CLIENT TECK-CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 24/07/80

DEPTH SCALE  
200:1

1 OF 4 LOGS

BOREHOLE DATA

PERMANENT DATUM GROUND LEVEL  
ELEVATION OF P.D. BPB  
MEASUREMENTS FROM SL  
DEPTH REACHED 23.20m  
CASING SHOE 4ft  
BIT SIZES 1 AX TO TD 2 TO  
3 TO 4 TO  
CASING SIZES 1 TO 2 TO

FLUID DATA

NATURE WATER  
SG \_\_\_\_\_  
LEVEL \_\_\_\_\_  
VISCOSITY \_\_\_\_\_  
Rtn at meas. temp. \_\_\_\_\_  
BHT \_\_\_\_\_

OPERATION DATA

FIRST READING 23m  
LAST READING 01m  
INTERVAL LOGGED 22m  
UNIT-TRUCK No. 46/24  
ENGINEER MR/BD  
WITNESS \_\_\_\_\_

489

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL. COEFF.	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY				Y	3m/m	D	3m/r	2	-	1.5	23m	01m	22m	Y
L.S. DENSITY				Y	3m/m	D	3m/r	1	-	-	23m	01m	22m	Y
CALIPER	SIDEWALL POSITION			Y	3m/m	D	3m/r	1	-	-	23m	01m	22m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	23m	INTERVAL TOTAL
TO	00m	
INTERVAL	15m	= 15m

ADDITIONAL SONDES RUN					REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG			
						SINGLE FUNCTION SONDES/WINKIE HOLE LSD SCALE 7000-cps-0

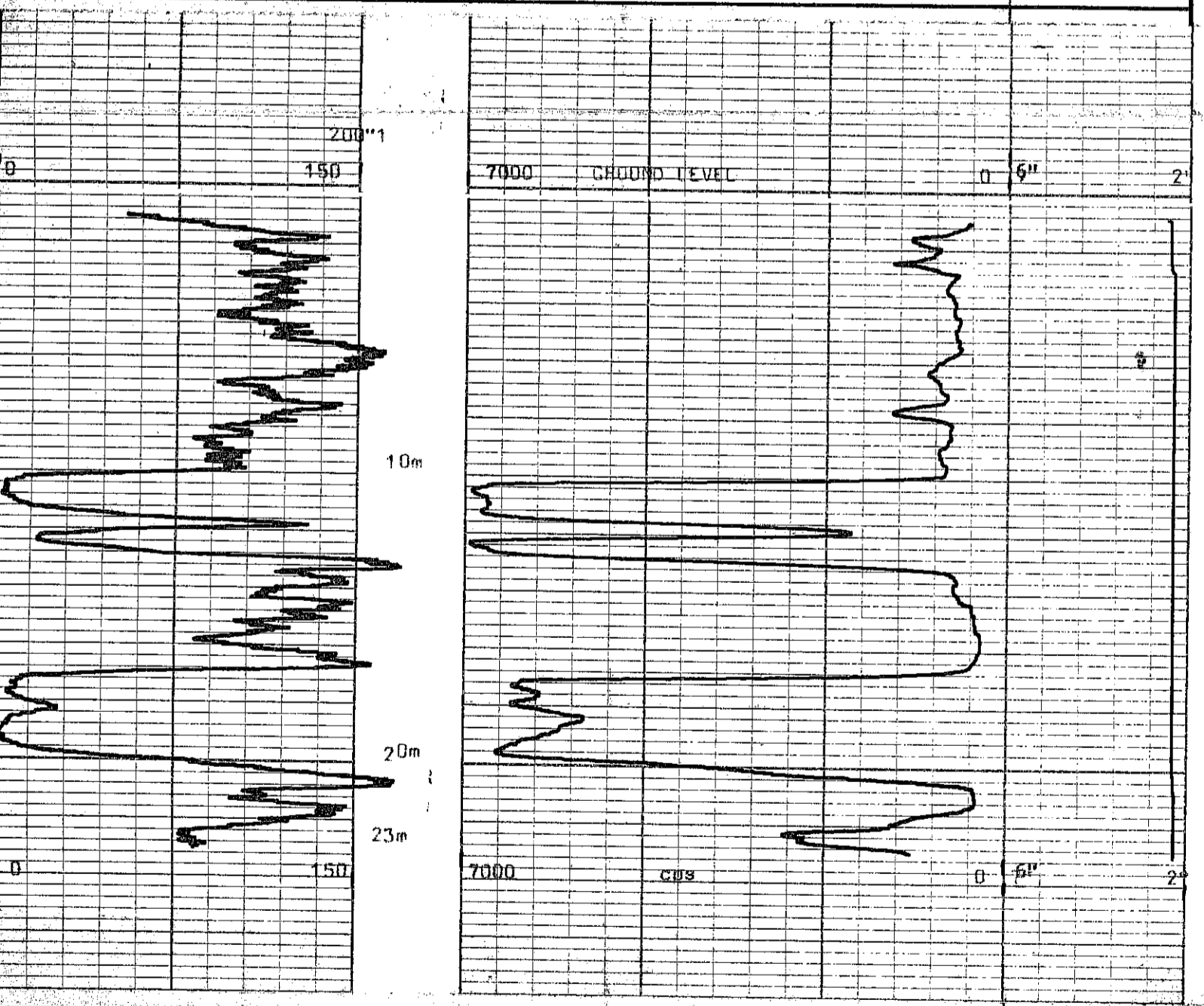
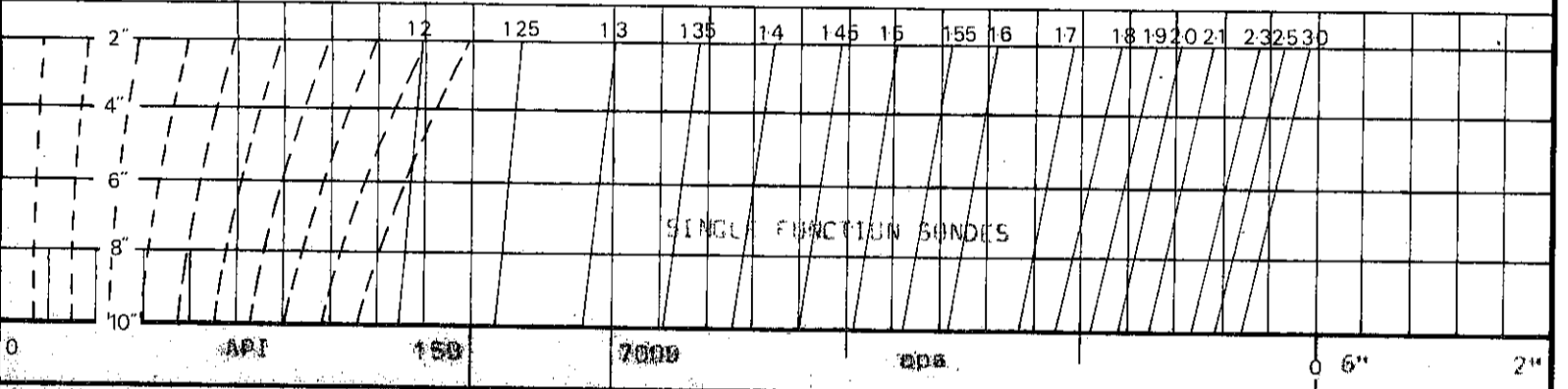
BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	6 ins. 720 cps.
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN	NORM	SDU =	2 ins. 460 cps.

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------

HOLE SIZE CORRECTION DATA

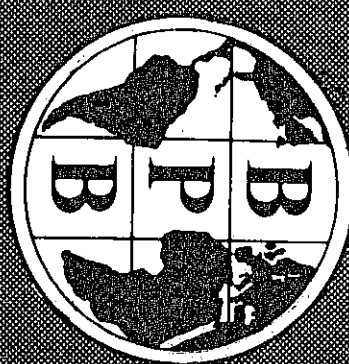


GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE BW-44 AREA BURNT RIVER  
CLIENT TECK-CORP COUNTRY CANADA

COAL LITHOLOGY LOG



P2-Burnt River 83(3)A 84/44

**SONDE TYPE:**  
COAL COMBINATION SONDE

**LOG SUITE:**  
GAMMA RAY  
L.S. DENSITY  
CALIPER

**COAL LITHOLOGY LOG**

**BOREHOLE** BW-44/WINKIE HOLE  
**CLIENT** TECK-CORP  
**AREA** BURNT RIVER  
**COUNTRY** CANADA  
**DATE LOGGED** 24/07/80  
**DEPTH SCALE** 1001  
**2 OF 4 LOGS**

**BOREHOLE DATA**

PERMANENT DATUM: GROUND LEVEL  
ELEVATION OF P.D.: 898  
MEASUREMENTS FROM: 01  
DEPTH REACHED: 23.20m  
CASING SHOE: 75ft  
BIT SIZES: 1 1 1/2 TO 2 TO 3 TO 4 TO  
CASING SIZES: 1 TO 2 TO

**FLUID DATA**  
NATURE: WATER  
SG: \_\_\_\_\_  
LEVEL: \_\_\_\_\_  
VISCOSITY: \_\_\_\_\_  
BHT: \_\_\_\_\_

**OPERATION DATA**  
FIRST READING: 23m  
LAST READING: 01m  
INTERVAL LOGGED: 22m  
UNIT-TRUCK No: 46/24  
ENGINEER: MJC/SJC  
WITNESS: \_\_\_\_\_

489

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT		TAPING			PANEL		CAL. COEFF	DEPTHS			SEAM LOG RUN	
	SONDE	SOURCE	LOG TAPE	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM	TO		INTERVAL
GAMMA RAY			Y	3m/m	R	3m/m	2	-	1.5	23m	01m	22m	Y
L.S. DENSITY			Y	3m/m	R	3m/m	1	-	-	23m	01m	22m	Y
CALIPER	SIDEWALL POSITION		Y	3m/m	R	3m/m	1	-	-	23m	01m	22m	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	23m	INTERVAL TOTAL
TO	08m	
INTERVAL	15m	15m

**ADDITIONAL SONDES RUN**

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

**REMARKS**

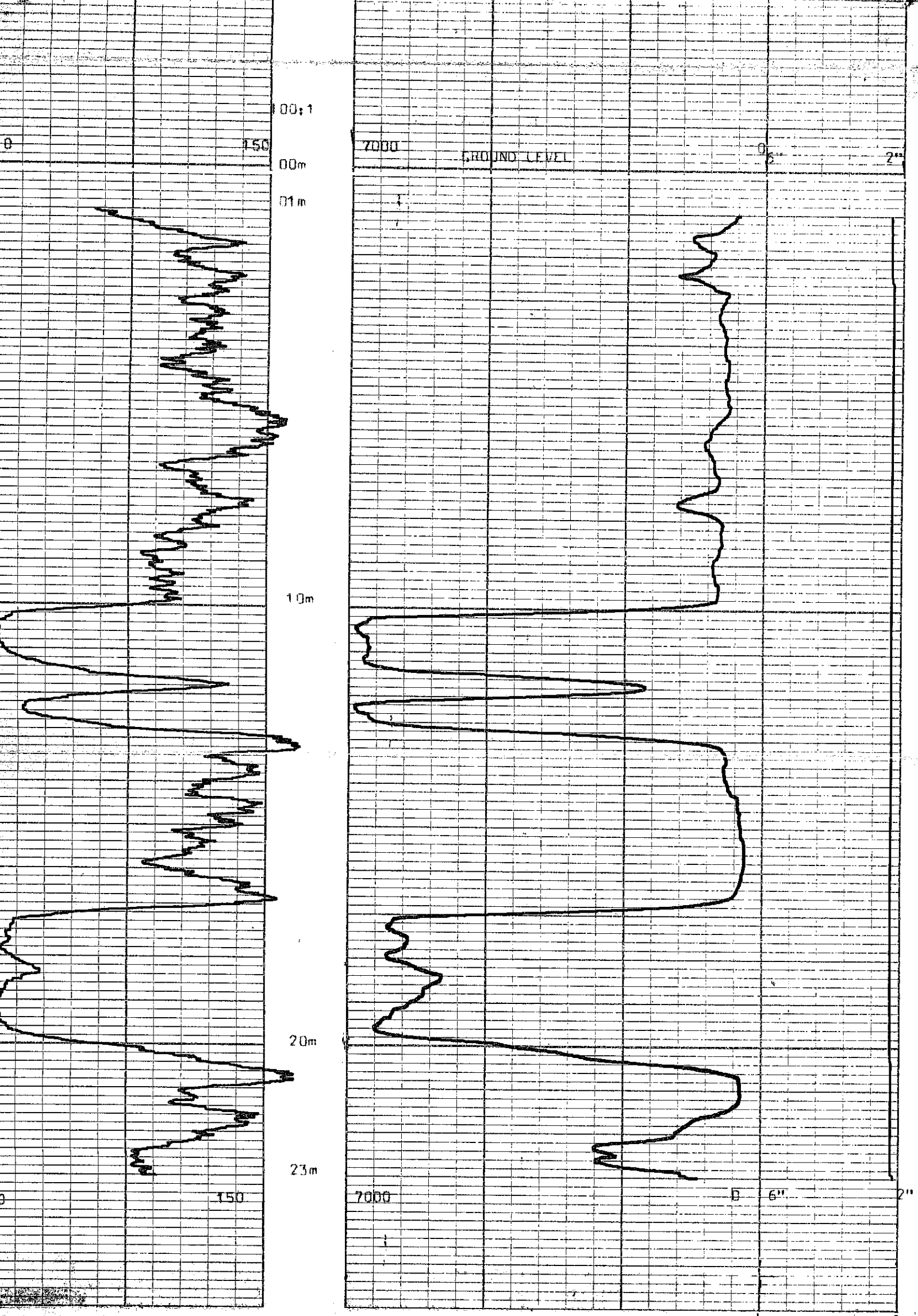
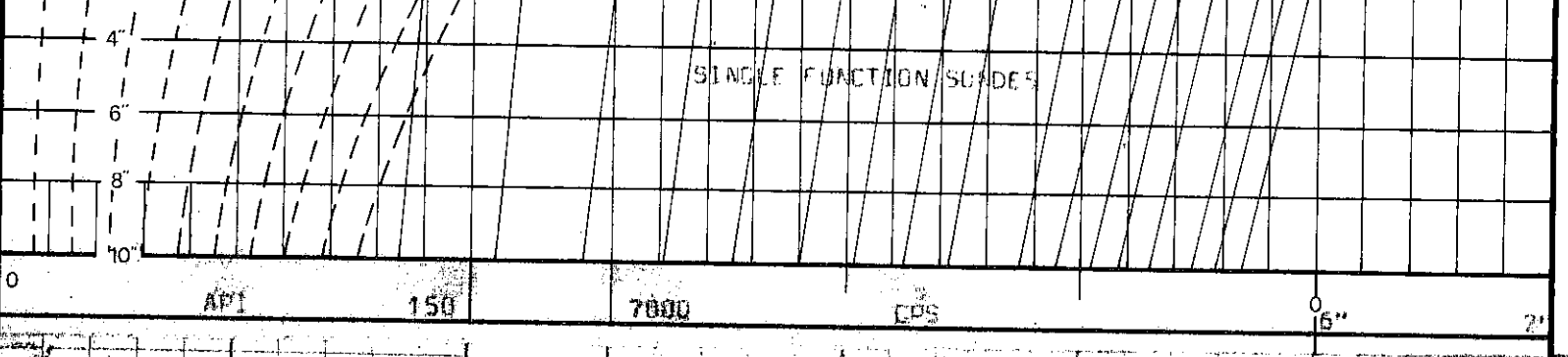
SINGLE FUNCTION SONDES WINKIE HOLE  
LSD SCALE 7000-0 cps

**BPB COAL LITHOLOGY LOG CALIBRATION DATA**

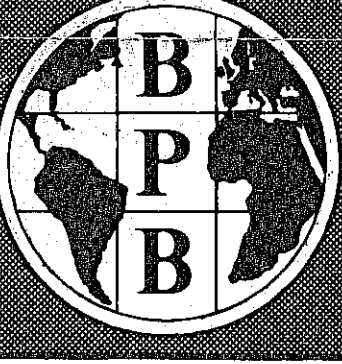
JIG No.	VALUE @ 2" DIAM	JIG CAL DATE	JIG VALUE	SDU @	g/cm <sup>3</sup>	6 ins	720 cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN	NORM	SDU =	2 ins	260 cps

<b>GAMMA RAY</b>	DEPTH	<b>BULK DENSITY</b> g/cm <sup>3</sup>	<b>CALIPER</b> INCHES
------------------	-------	--	--------------------------

**HOLE SIZE CORRECTION DATA**



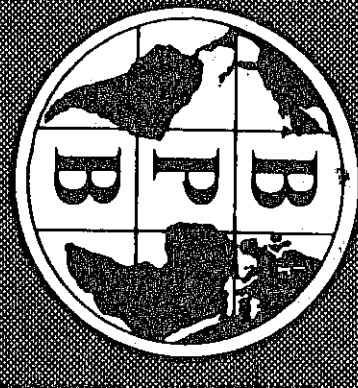
<b>GAMMA RAY</b>	DEPTH	<b>BULK DENSITY</b> g/cm <sup>3</sup>	<b>CALIPER</b> INCHES
------------------	-------	--	--------------------------



**BOREHOLE** BW-44/WINKIE HOLE **AREA** BURNT RIVER  
**CLIENT** TECK CORP **COUNTRY** CANADA

**COAL LITHOLOGY LOG**

Pe-Burnt River 8207219 0494



BOREHOLE BW-44/WINKIE HOLE  
 CLIENT TECK-CORP  
 AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 24/07/80

DEPTH SCALE  
 20:1

3 OF 4 LOGS

**COAL QUALITY LOG**

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

LOG TAPPING PANEL COAL  
 LOG SPEED REVERSE SPEED SECS NORM  
 GAMMA Y 3m/m H 3m/m/42 - 4.5  
 S DENSITY Y 3m/m R 3m/m/1 - -  
 SOURCE SONDE AND CALIBRATION  
 REFER TO LITHOLOGY LOG

SONDE 489  
 COAL 489  
 COMBINATION 489  
 LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

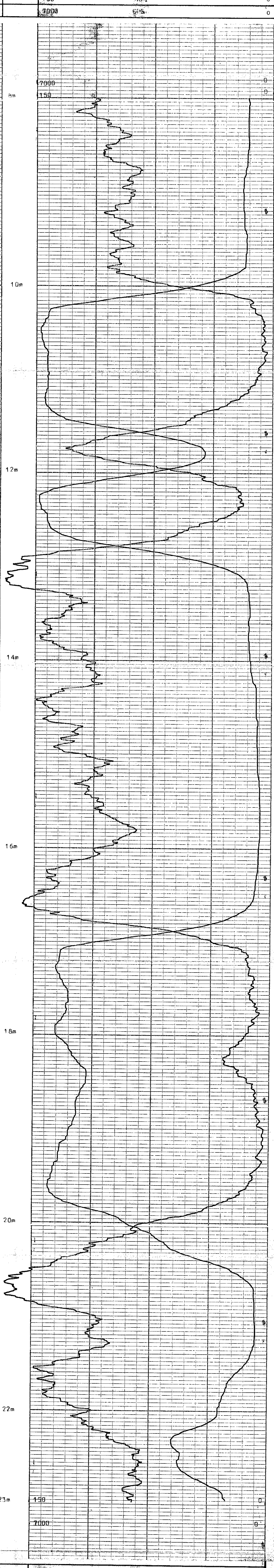
**489**

**B P B COAL QUALITY LOG**

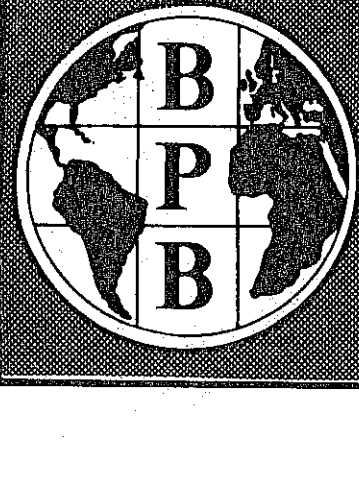
DEPTH GAMMA RAY  
 COAL BULK DENSITY  
 $g/cm^3$

HOLE SIZE CORRECTION DATA

2'	1.2	1.25	1.3	1.35	1.4	1.45	1.5	1.55	1.6	1.7	1.8	1.9	2.0	2.2	2.4	3.0
4'																
6'																
8'																



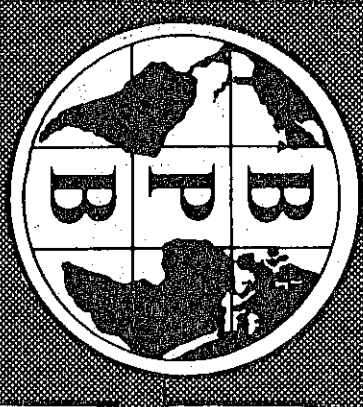
DEPTH GAMMA RAY  
 COAL BULK DENSITY  
 $g/cm^3$



BOREHOLE BW-44/WINKIE HOLE  
 CLIENT TECK-CORP  
 AREA BURNT RIVER  
 COUNTRY CANADA

**COAL QUALITY LOG**

AT 8902 R



P2-Burnt River 81314 BM 44

BOREHOLE BW-44/WINKIE HOLE  
 CLIENT TECK-CORP

DEPTH SCALE  
 2011

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 24/07/10

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE  
 LOG TAPING SIDEWALL POSITION  
 LOG RECORD SPEED 15 INCHES PER MIN  
 TAPE SPEED 3000 RPM  
 CALIPER V 3m/m H 3m/m 1  
 BR DENSITY V 3m/m R 3m/m 1

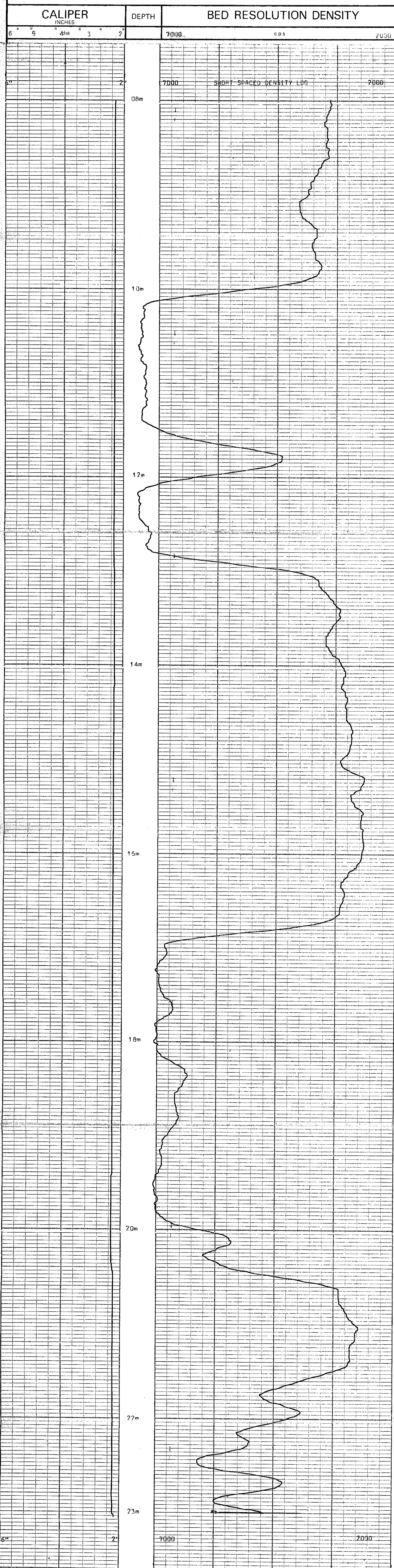
SONDE TYPE  
 COAL COMBINATION  
 CONDENSATION  
 SONDE

SEAM THICKNESS LOG INTERVALS

LOG SUITE:  
 CALIPER  
 BR DENSITY

489

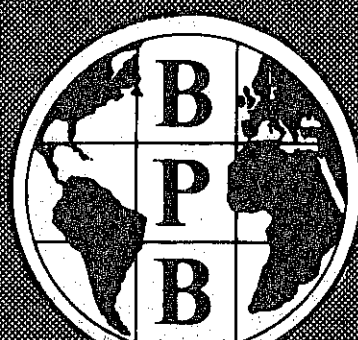
B P B SEAM THICKNESS LOG



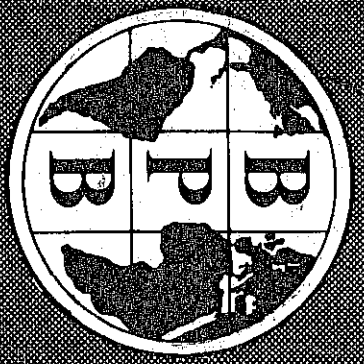
CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
6 5 4 3 2	7000	2000

BOREHOLE BW-44/WINKIE HOLE	AREA BURNT RIVER
CLIENT TECK-CORP	COUNTRY CANADA

**SEAM THICKNESS LOG**







P2-Burnt River 82(3)A BW47

SONDE TYPE: \_\_\_\_\_  
 COAL COMBINATION SONDE  
 LOG SUITE: \_\_\_\_\_  
 GAMMA RAY  
 L.S. DENSITY  
 CALIPER

**COAL LITHOLOGY LOG**

BOREHOLE BW-47  
 CLIENT TECK CORP  
 AREA BURNT RIVER  
 COUNTRY Canada  
 DATE LOGGED 31/07/80  
 DEPTH SCALE 100:1  
 1 OF 4 LOGS

**BOREHOLE DATA**  
 PERMANENT DATUM GROUND LEVEL  
 ELEVATION OF P.D. GROUND LEVEL  
 MEASUREMENTS FROM BPB DRILLER  
 DEPTH REACHED 20m  
 CASING SHOE 2ft  
 BI-SIZES 1 AX TO TD 2 TO  
 3 TO 4 TO  
 CASING SIZES 1 TO 2 TO

**FLUID DATA**  
 NATURE Water  
 S.G. \_\_\_\_\_  
 LEVEL \_\_\_\_\_  
 VISCOSITY \_\_\_\_\_  
 BHT \_\_\_\_\_  
 BHT at meas. temp. \_\_\_\_\_

**OPERATION DATA**  
 FIRST READINGS 20m  
 LAST READINGS 0m  
 INTERVAL LOGGED 20m  
 UNIT-TRUCK No. 46/24  
 ENGINEER RB/Dm  
 WITNESS \_\_\_\_\_

489

**EQUIPMENT AND RECORDING DATA**

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM		FROM	TO	INTERVAL	
SINGLE FUNCTION SONDES WINKIE HOLE														
GAMMA RAY				Y	3	D	3	2		1.5	20	0	20m	
L.S. DENSITY				Y	3	D	3	1	-	-	20	0	20m	
CALIPER	SIDEWALL POSITION			Y	3	D	3	1	-	-	20	0	20m	

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

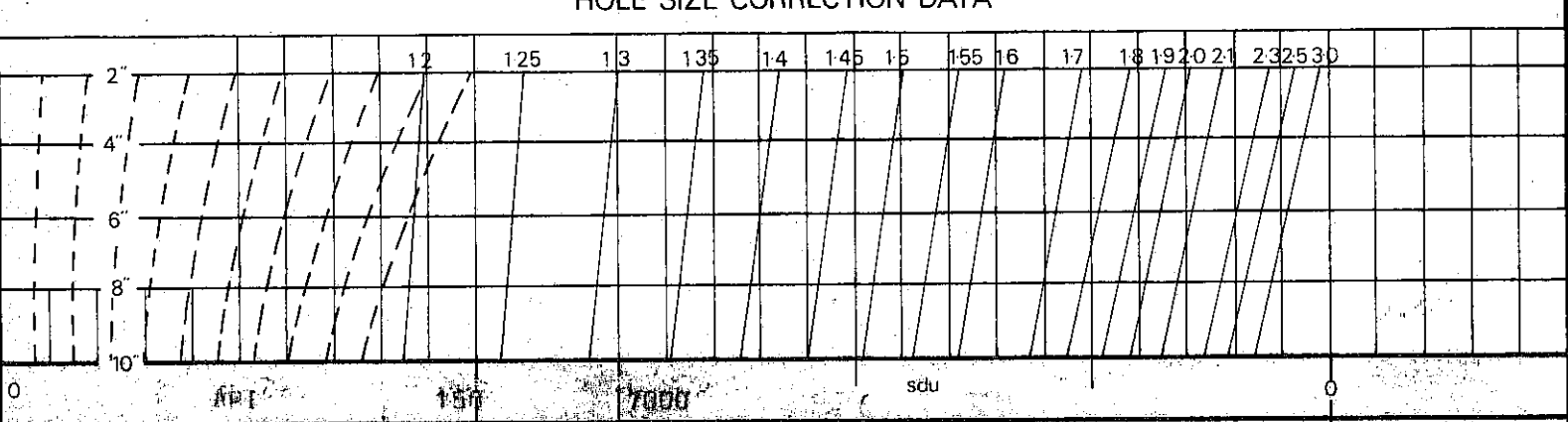
FROM	18m	INTERVAL TOTAL
TO	11m	
INTERVAL	7m	

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
					WINKIE HOLE, ALL SONDES UTILISED WERE SINGLE FUNCTION.

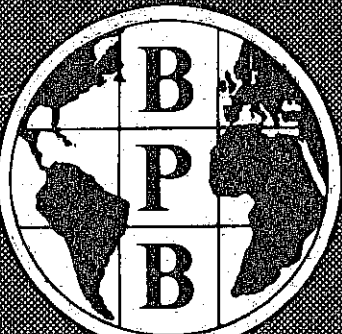
**BPB COAL LITHOLOGY LOG CALIBRATION DATA**

JIG No. _____	VALUE @ 2" DIAM _____	JIG CAL DATE _____	JIG VALUE _____	SDU @ _____	g/cm <sup>3</sup> _____	ins. _____	cps. _____
WINKIE HOLE JIG MARK SHOWN AT ABOVE VALUE -		SINGLE FUNCTION SONDES NO CALIBRATION DATA					
JIG No. _____	SPAN _____	NORM _____	CPS _____	ins. _____	cps. _____		

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE BW-47 AREA BURNT RIVER  
 CLIENT TECK CORP COUNTRY CANADA

**COAL LITHOLOGY LOG**



P2-Burnt River 8237A BW 47



BOREHOLE BW-47  
 CLIENT TECK CORP

DEPTH SCALE  
 20:1

AREA BURNT RIVER  
 COUNTRY Canada  
 DATE LOGGED 31/07/90

3 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

**SEAM THICKNESS LOG**

LOG	TAPING	RECORD DIRECT	PANEL	COEFF	
CALIPER	TABED	SPEED	REPLAY	SECS	NORM
BR DENSITY	Y	3	2	3	.3

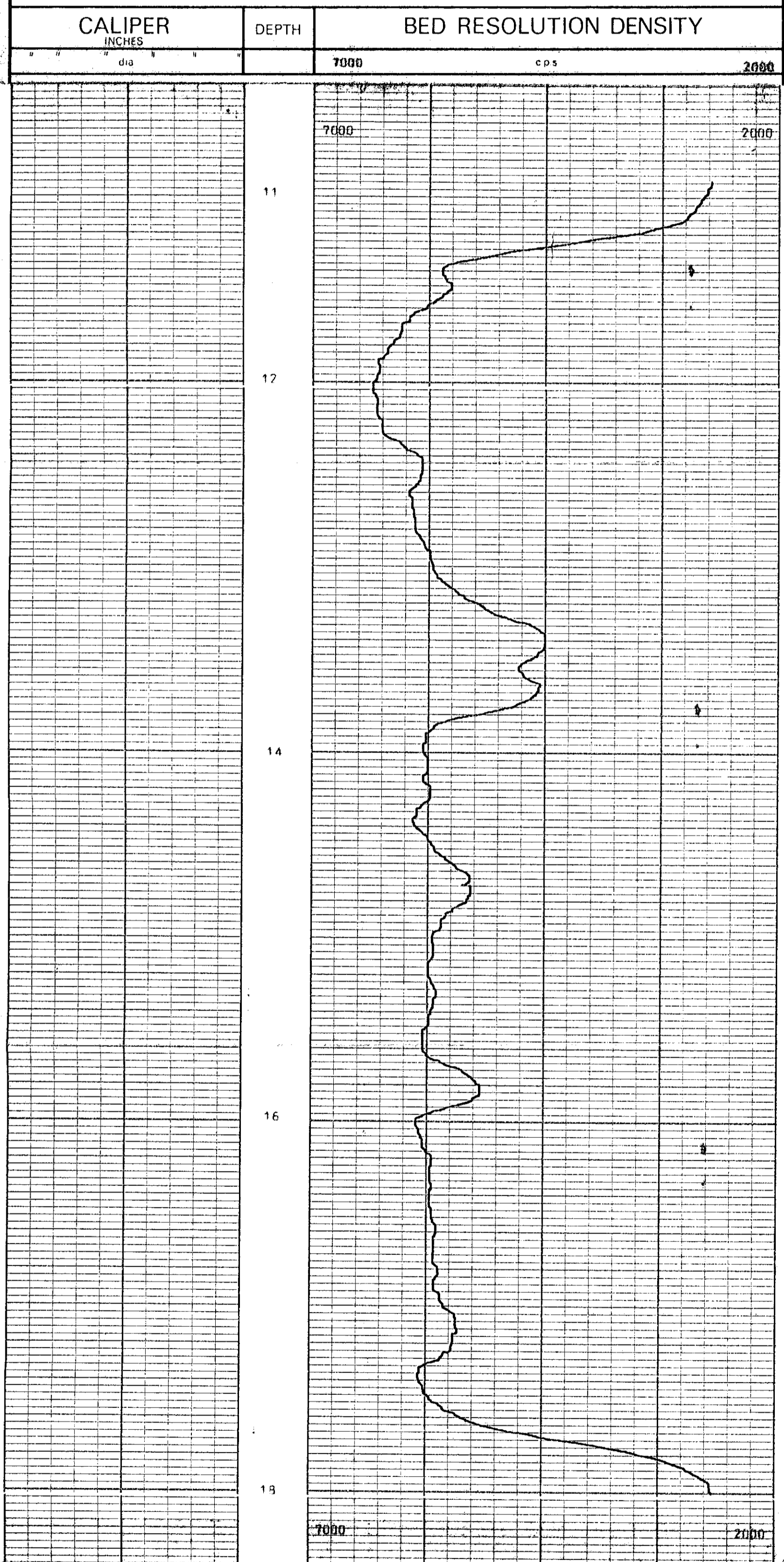
SONDE TYPE:  
 COAL COMBINATION SONDE

LOG SUITE:  
 CALIPER  
 BR DENSITY

SEAM THICKNESS	LOG INTERVALS
FROM <u>1.9m</u>	
TO <u>1.1m</u>	
INTERNAL FROM <u>7m</u>	
INTERNAL TO	
INTERNAL TOTAL	
REMARKS	

**489**

**B P B SEAM THICKNESS LOG**



CALIPER INCHES	DEPTH	BED RESOLUTION	DENSITY
" " " " dia		7000	cps



BOREHOLE BW-47  
 CLIENT TECK CORP

AREA BURNT RIVER  
 COUNTRY CANADA

**SEAM THICKNESS LOG**



RESISTIVITY LOG

BOREHOLE 9W-47

CLIENT TECK CORP

AREA BURNT RIVER

COUNTRY CANADA

DATE LOGGED 31/87/80

DEPTH SCALE  
100.1

4 OF 4 LOGS

BOREHOLE DATA

REFER TO LITHOLOG

LOG

OPERATION DATA

REFER TO LITHOLOG

LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAL
LOG	RECORD	DIRECT	T.C.
TAPED	SPEED	REPLAY	SECS
RES	N	9	NORM

SONDE

REMARKS

LOG NOT TAPED, FOR DEMONSTRATION PURPOSES ONLY

**489**

DEPTH RESISTIVITY

00

10

20

20

REPENT SECTION

DEPTH RESISTIVITY

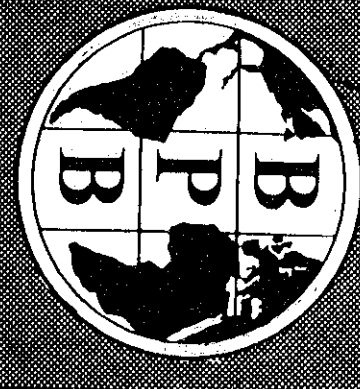
BOREHOLE 9W-47

CLIENT TECK CORP

AREA BURNT RIVER

COUNTRY CANADA





Re-Burnt River 80(3)A BR 46

**COAL**  
**LITHOLOGY LOG**

**SONDE TYPE:** COAL COMBINATION SONDE

**LOG SUITE:** GAMMA RAY, L.S. DENSITY, CALIPER

**BOREHOLE DATA:**  
 BOREHOLE: BR-46  
 CLIENT: TECK-CORP  
 AREA: BURNT RIVER  
 COUNTRY: Canada  
 DATE LOGGED: 19/07/80  
 DEPTH SCALE: 200-1  
 LOGS: 1 OF 5 LOGS

**PERMANENT DATA:**  
 PERMANENT DATE: 17/06/80  
 ELEVATION OF B.O.: 920.00  
 DEPTH REACHED: 91.34m  
 CASING SIZE: 1 H TO 344.6 TO 2 TO

**FLUID DATA:**  
 NATURE: QUICK-COAL  
 S.G. LEVEL: VISCOSITY:

**OPERATION DATA:**  
 FIRST READING: 90m  
 LAST READING: 00m  
 INTERVAL LOGGED: 90m  
 UNIT - TRUCK No: 46/24  
 ENGINEER: BC/MLH  
 WITNESS:

**EQUIPMENT AND RECORDING DATA**

COAL COMBINATION SONDE		EQUIPMENT		TAPING		PANEL		CAL COEFF		DEPTHS			SEAM LOG RUN	
LOG	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL		
CC5	118	5845												
GAMMA RAY			51 QAPI	Y	9m/m	R	9m/m	1	-	1.5	90m	00m	90m	Y
L.S. DENSITY			530SDU	Y	9m/m	R	9m/m	1/3	6.7	-	91m	01m	90m	Y
CALIPER				Y	9m/m	R	9m/m	1/3	-	-	91m	01m	90m	

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	TO	INTERVAL	INTERVAL TOTAL
72m	30m		
67m	24m		
05m	06m		11m

**ADDITIONAL SONDES RUN**

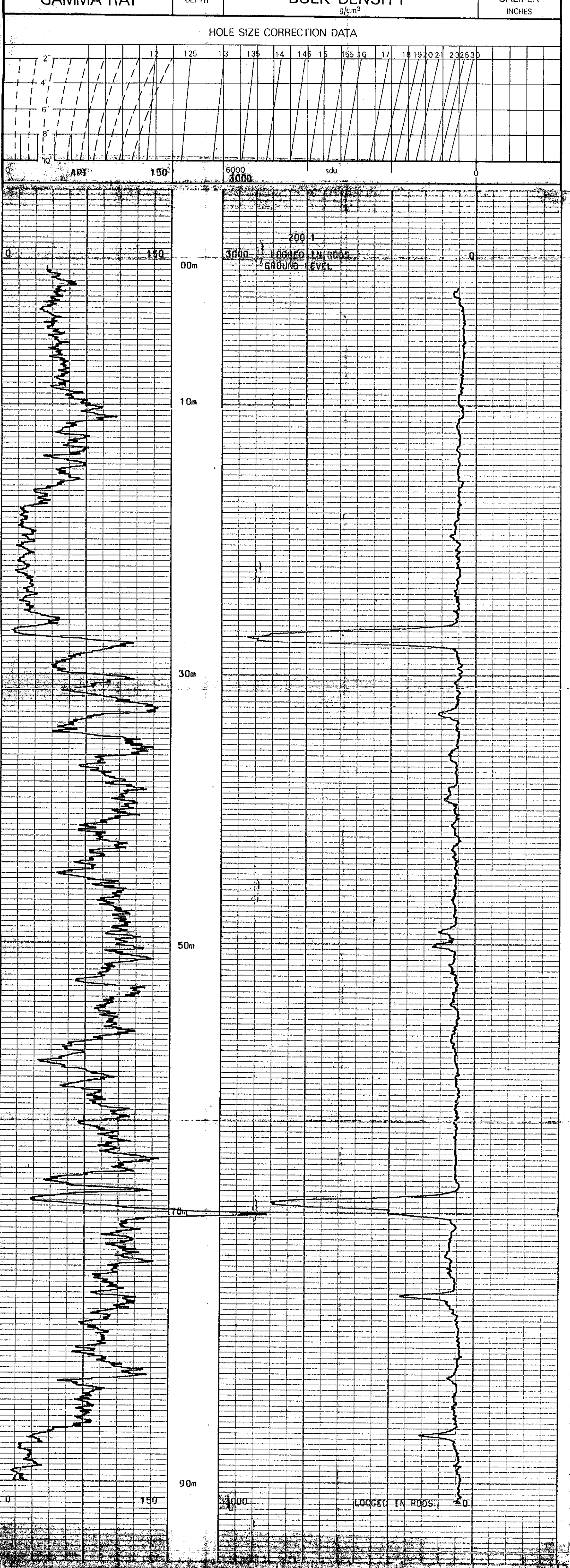
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS
204	N-N	20011		

**REMARKS:**  
LOGGED IN RODS LSD SCALE 3000-0500

**BPB COAL LITHOLOGY LOG**  
**CALIBRATION DATA**

JIG No. 162 VALUE 51 @ 2" DIAM  
 JIG MARK SHOWN AT ABOVE VALUE - x0.1

JIG CAL DATE 17/06/80 JIG VALUE 530 SDU @ g/cm<sup>3</sup> ins. cps  
 JIG No. 0338 SPAN 3000 NORM SDU CPS = 6.7 ins. cps



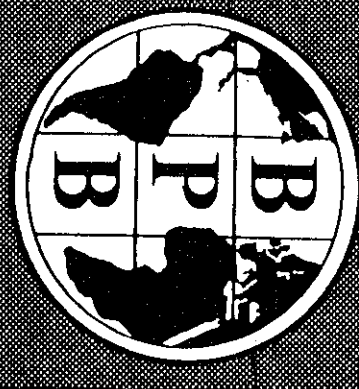
GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



BOREHOLE: BR-46 AREA: BURNT RIVER  
 CLIENT: TECK CORP COUNTRY: CANADA

**COAL LITHOLOGY LOG**

P2-Burnt River 80(3)A BR 46



SONDE TYPE:  
COAL  
COMBINATION  
SONDE

COAL  
QUALITY  
LOG

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

BOREHOLE BR-46  
CLIENT TECK-CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 19/07/90

DEPTH SCALE  
20:1

2 OF 5 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG TAPPING SIDEWALL POSITION  
LOG RECORD DIRECT SPEED PANEL SCALE  
GAMMA RAY v 9m/m R 3m/m 1 5.7 1.5  
L.S. DENSITY v 9m/m R 3m/m 1 5.7 -

COAL QUALITY LOG INTERVALS

FROM 72m 30m  
TO 67m 24m  
INTERVAL 05m 06m

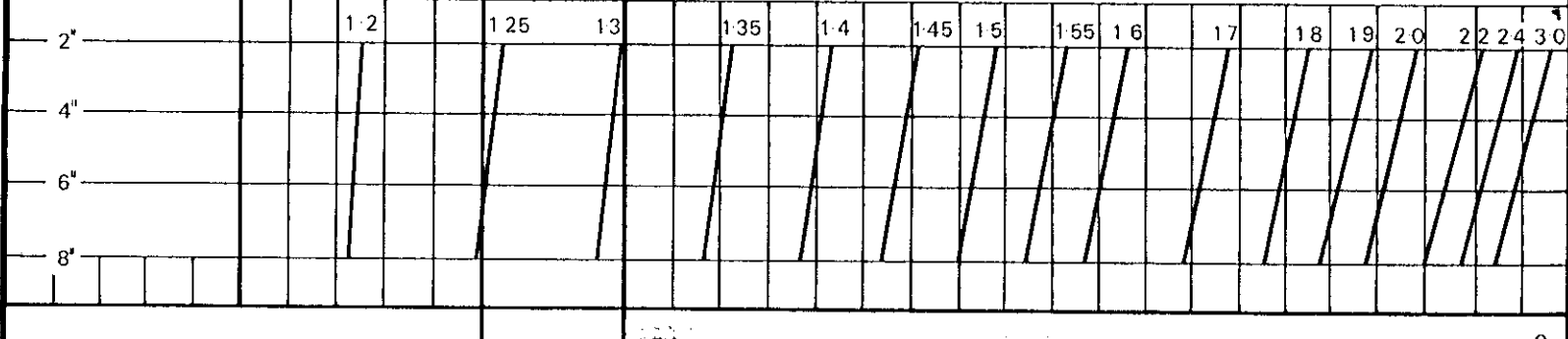
REMARKS  
LOGGED IN RODS

489

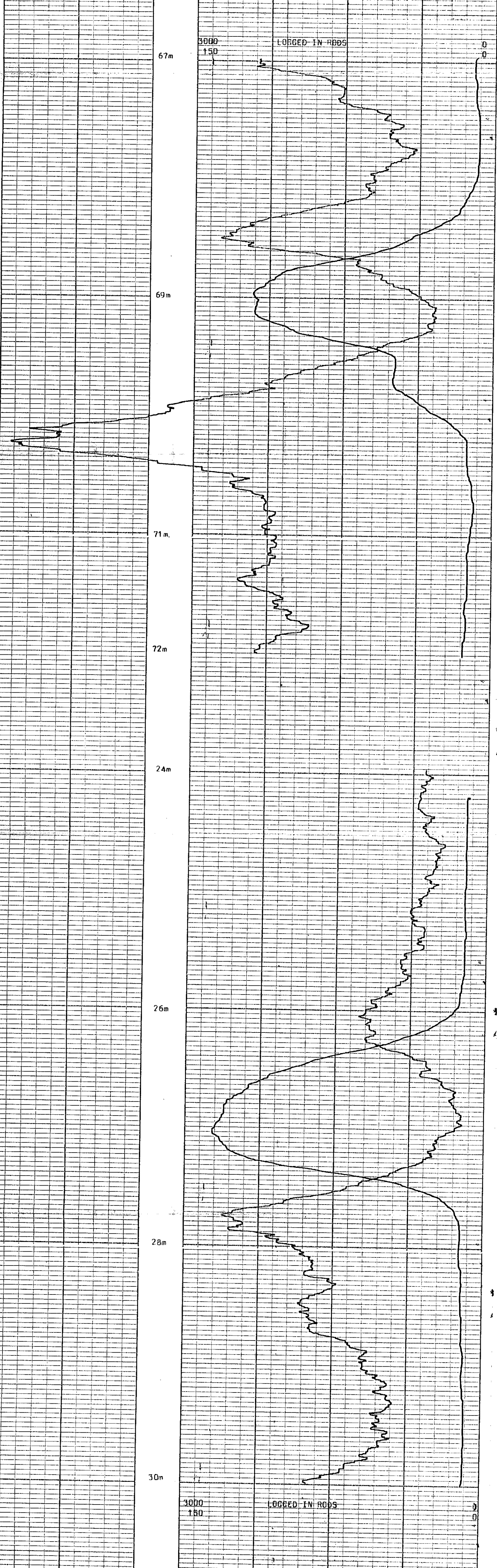
B P B COAL QUALITY LOG

DEPTH GAMMA RAY  
COAL BULK DENSITY  
g/cm<sup>3</sup>

HOLE SIZE CORRECTION DATA



150 API 0  
6,000 s d u 0



150 API 0  
6,000 s d u 0

DEPTH GAMMA RAY  
COAL BULK DENSITY  
g/cm<sup>3</sup>



BOREHOLE BR-46  
CLIENT TECK-CORP

AREA BURNT RIVER  
COUNTRY CANADA

COAL QUALITY LOG

MT 8802 R



P2-Burnt River 80(3)A BR 46

BOREHOLE BH-46  
CLIENT TECK-CORP

DEPTH SCALE  
20:1

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 19/07/80

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG TAPPING PANEL COEFF

CALIPER LOG RECORD DIRECT SPEED SECS NORM

BR DENSITY 3m/m 4 3m/m 1/4 7.85

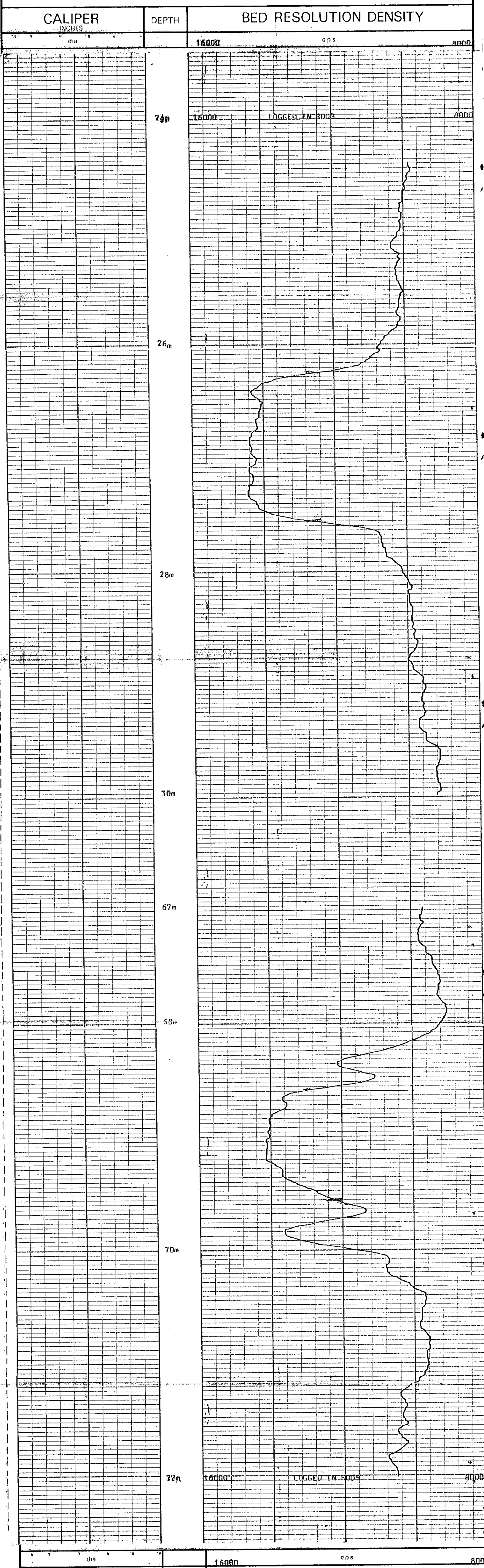
SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
B.R. DENSITY

SEAM THICKNESS	LOG INTERVALS
FROM 72m	30m
TO 67m	24m
INTERVAL 05m	06m
FROM	
TO	
INTERVAL TOTAL	
REMARKS	
LOGGED IN RODS	

489

### B P B. SEAM THICKNESS LOG



BOREHOLE BH-46  
CLIENT TECK-CORP

AREA Burnt River  
COUNTRY CANADA

### SEAM THICKNESS LOG



92-Burnt River 80(3)A BR 46

NEUTRON-NEUTRON LOG

BOREHOLE BR-46

CLIENT TECK-CORP

AREA BURNT RIVER

COUNTRY CANADA

DATE LOGGED 19/07/80

DEPTH SCALE 200:1

4 OF 5 LOGS

BOREHOLE DATA

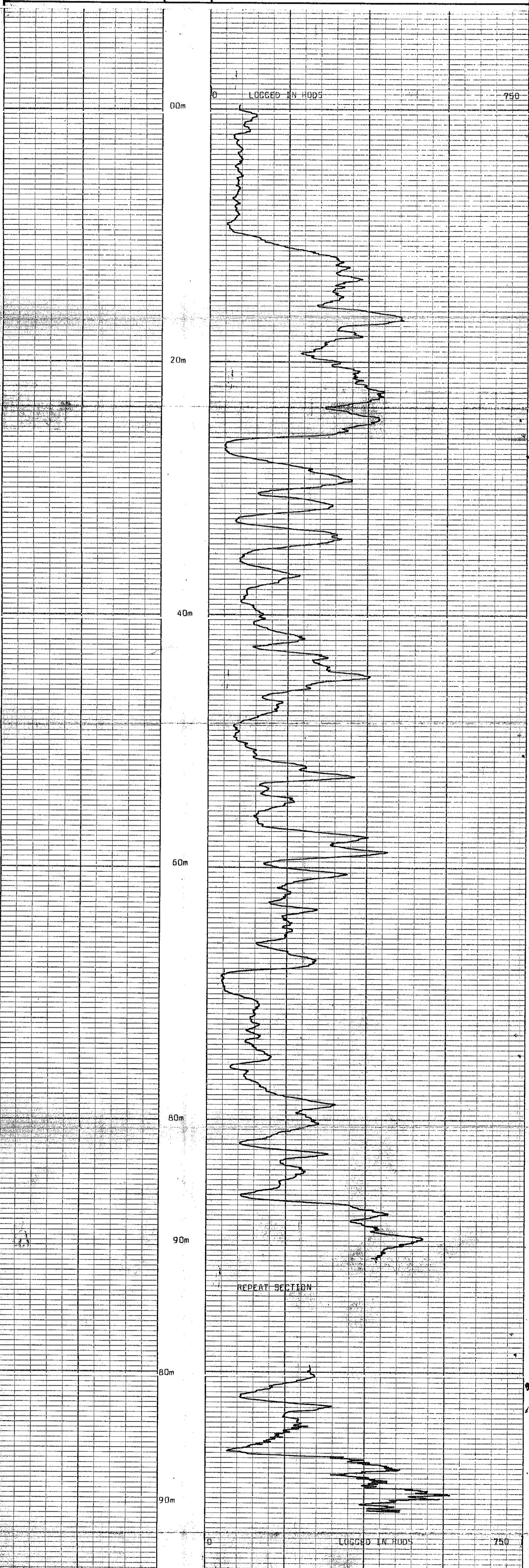
OPERATION DATA

EQUIPMENT AND RECORDING DATA

LOG	TAPPING	RECORD DIRECT	T.C.	PANEL	CAL
	TAPED	SPEED	REPLAY	SECS	COEFF
N-N	Y	9m/m	D	9m/m	1
					.82
		SONDE NO	202	SOURCE NO	
REMARKS					
91m					
00m					
91m					
LOGGED IN RODS.					

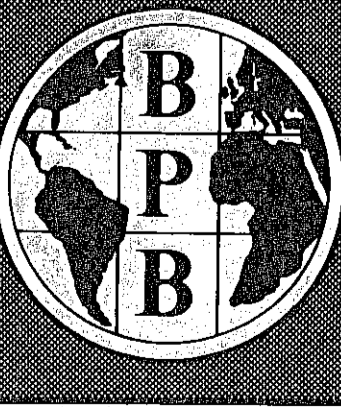
489

DEPTH	NEUTRON-NEUTRON LOG	0	500	750
-------	---------------------	---	-----	-----



DEPTH	NEUTRON-NEUTRON	0	500	750
-------	-----------------	---	-----	-----

BOREHOLE	BR-46	AREA	BURNT RIVER
CLIENT	TECK-CORP	COUNTRY	CANADA







72-Burnt River (663)A GN 48

BOREHOLE BH-48/LOG A rods / LOG A open  
CLIENT TECK-CORP

AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 24/07/80

DEPTH SCALE  
20:1  
3 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA  
COAL COMBINATION SONDE:

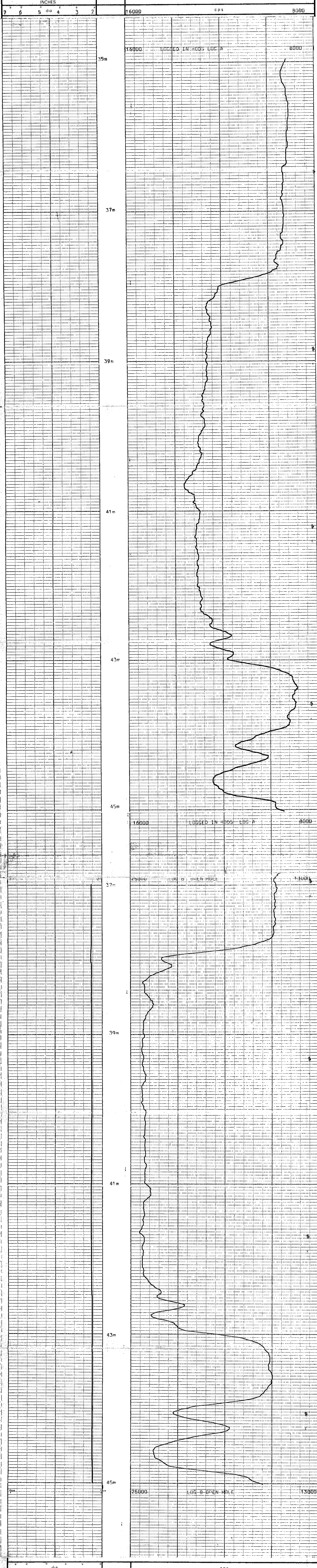
SEAM THICKNESS LOG

SONDE TYPE:  
COAL COMBINATION SONDE

LOG SUITE:  
CALIPER  
BR DENSITY

SEAM THICKNESS LOG INTERVALS  
FROM 45m TO 37m  
INTERVAL 0.9m  
MIRNA TOTAL  
INTERNAL  
REMARKS  
LOG A Logged in rods - LOG SCALE 3000-0  
LOG B Logged in open hole - LOG SCALE 13000-0

### B P B SEAM THICKNESS LOG

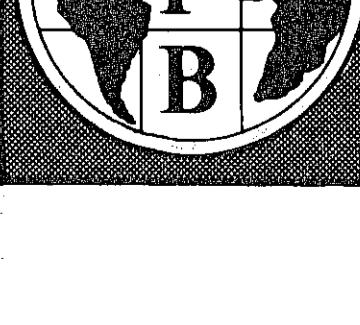


CALIPER INCHES      DEPTH      BED RESOLUTION DENSITY      cps

7 6 5 dia 4 3 2      25000      13000

BOREHOLE BH-48      AREA BURNT RIVER  
CLIENT TECK-CORP      COUNTRY CANADA

### SEAM THICKNESS LOG







BP-48

BOREHOLE BR-48  
CLIENT TECK CORP

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 24/07/80

DEPTH SCALE  
200:1  
2 OF 5 LOGS

COAL

LITHOLOGY LOG

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

LOG SUITE:  
GAMMA RAY  
L.S. DENSITY  
CALIPER

PERMANENT DATA  
ELEVATION OF P.D.  
MEASUREMENT FROM  
DEPTH REACHED  
CASING SHOE  
BIT SIZES  
CASING SIZES

REPERM DATA  
REF: TO LITHOLOGY LOG 100:1  
DRILLER  
TO TO TO TO TO TO

FLUID DATA  
NATURE  
SG  
LEVEL  
VISCOSITY  
BHT

OPERATION DATA  
FIRST READING  
LAST READING  
INTERNAL LOGGED  
UNIT-TRUCK No  
ENGINEER  
WITNESS

489

EQUIPMENT AND RECORDING DATA

Table with columns: LOG, EQUIPMENT, TAPING, PANEL, CAL COEFF, DEPTHS, SEAM LOG RUN. Includes data for Gamma Ray, L.S. Density, and Caliper logs.

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log). Includes FROM, TO, INTERVAL, and TOTAL columns.

ADDITIONAL SONDES RUN and REMARKS. Includes sonde logs (204, N-N) and remarks about LOG A and LOG B.

BPB COAL LITHOLOGY LOG

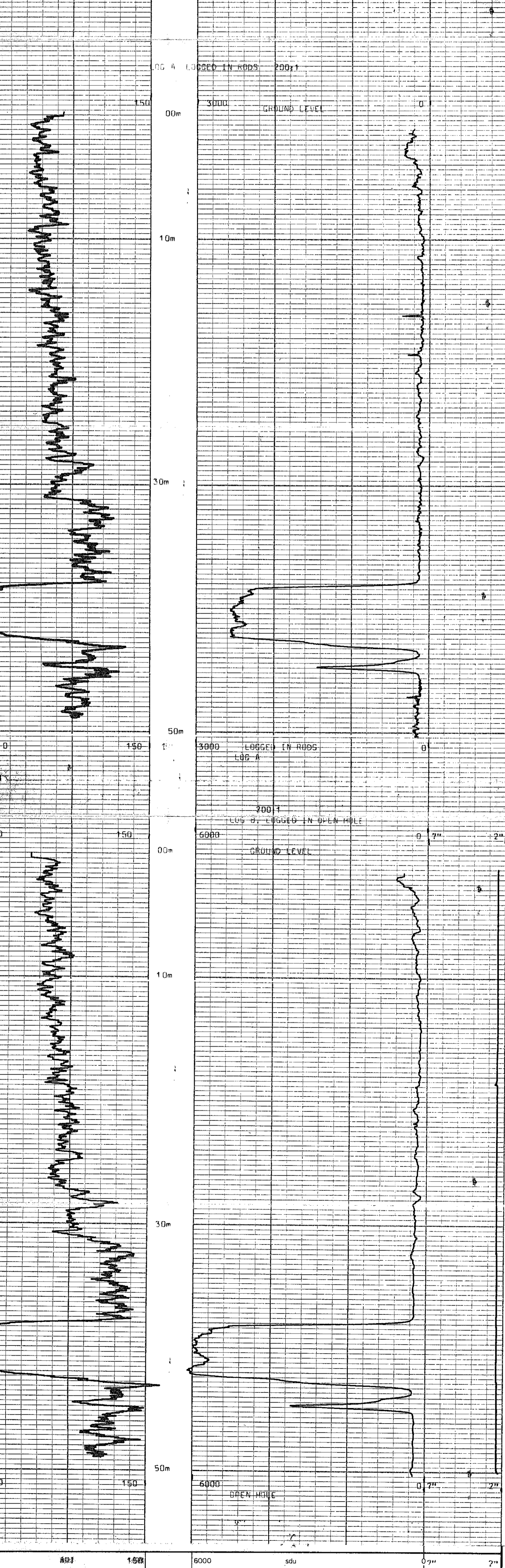
CALIBRATION DATA

JIG No 367 VALUE 510 @ 2" DIAM. JIG CAL DATE 17/06/80 JIG VALUES 530 SDU @ g/cm³ 7 ins 492 cps.

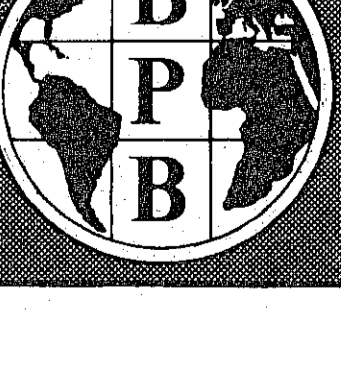
JIG MARK SHOWN AT ABOVE VALUE - JIG No 033B SPAN 6000 NORM SDU = 6.7 7 ins 480 cps.

GAMMA RAY DEPTH BULK DENSITY g/cm³ CALIPER INCHES

HOLE SIZE CORRECTION DATA. Grid with depth (0-10m) and hole size (2"-12").



GAMMA RAY DEPTH BULK DENSITY g/cm³ CALIPER INCHES

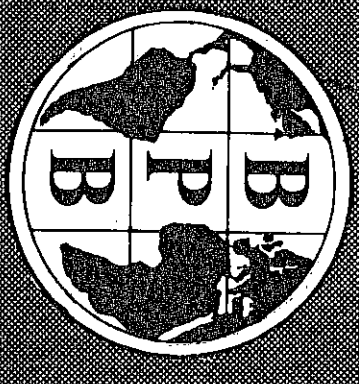


BOREHOLE BR-48 AREA Burnt River  
CLIENT TECK CORP COUNTRY Canada

COAL LITHOLOGY LOG



McBurnt River BR32A BR 49



BOREHOLE BR-49  
 CLIENT TECH-CDHP

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 11/08/80  
 DEPTH SCALE 1 OF 4 LOGS

COAL LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE  
 LOG SUITE: GAMMA RAY L.S. DENSITY CALIPER

BOREHOLE DATA  
 PERMANENT DATUM GROUND LEVEL  
 ELEVATION OF P.D. GROUND LEVEL  
 MEASUREMENTS FROM 31 DRILLER  
 DEPTH REACHED 82m 272ft.  
 CASING SHOE  
 BIT SIZES 1 1/4 TO 2 TO  
 3 TO 4 TO  
 CASING SIZES 1 TO 2 TO

FLUID DATA  
 NATURE  
 SG  
 LEVEL  
 VISCOSITY  
 From at meas. temp.  
 BHT  
 OPERATION DATA  
 FIRST READING 0  
 LAST READING 0  
 INTERVAL LOGGED 51m  
 JUNT-TRUCK No 4675  
 ENGINEER S. C. SHARAH  
 WITNESS  
 489

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE													
LOG	EQUIPMENT		TAPING			PANEL		CAL. COEFF	DEPTHS			SEAM LOG RUN	
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL	
	110	5845											
GAMMA RAY			510API	Y	9m/m	R	9m/n	1	-	1.42	81	0	81
L.S. DENSITY			5305DU	Y	9m/m	R	9m/n	.3	6.5	-	81	0	81
CALIPER	SIDEWALL POSITION		LOGGED IN RODS			CALIPER NOT PLAYED OUT			IN GENERAL				

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)			
FROM	68m		INTERVAL TOTAL
TO	56m		
INTERVAL	12m		12m

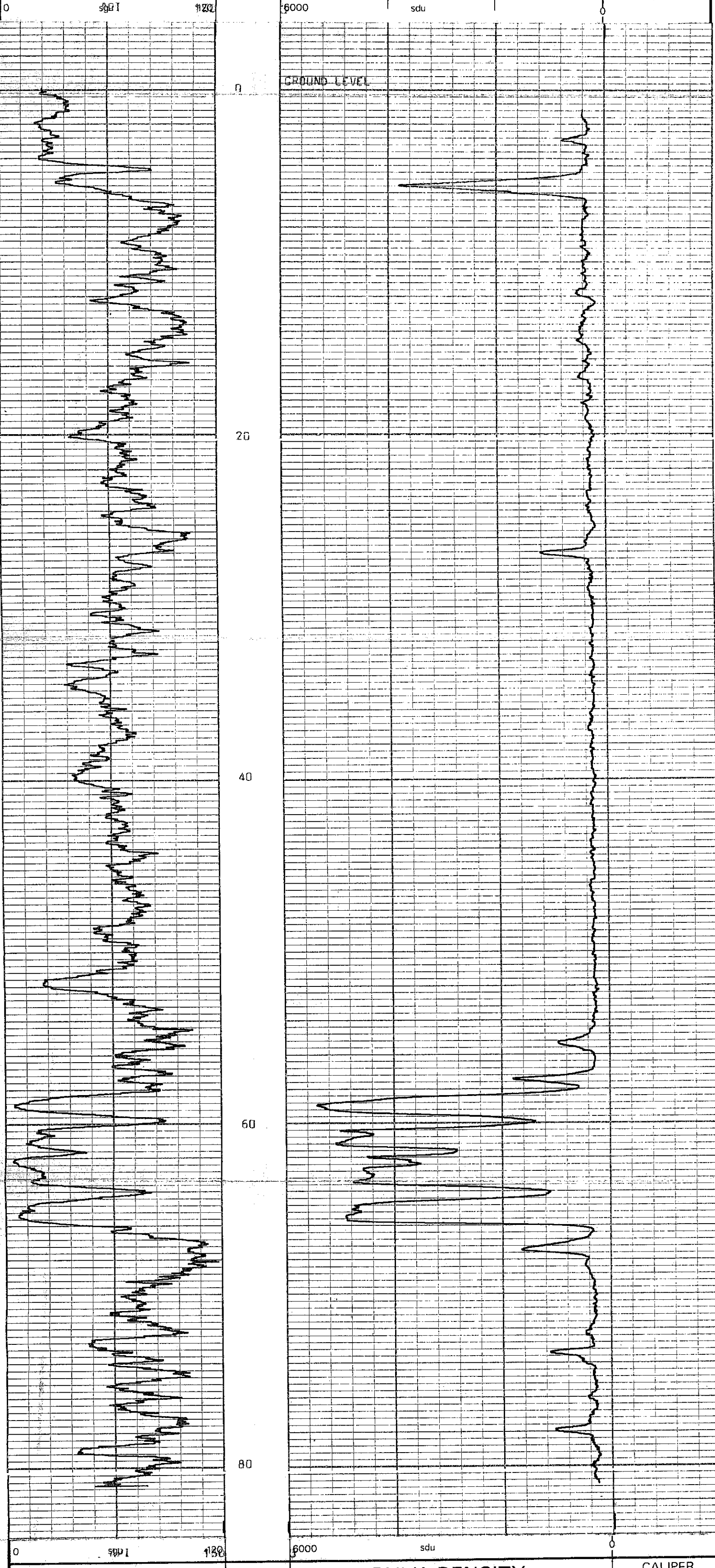
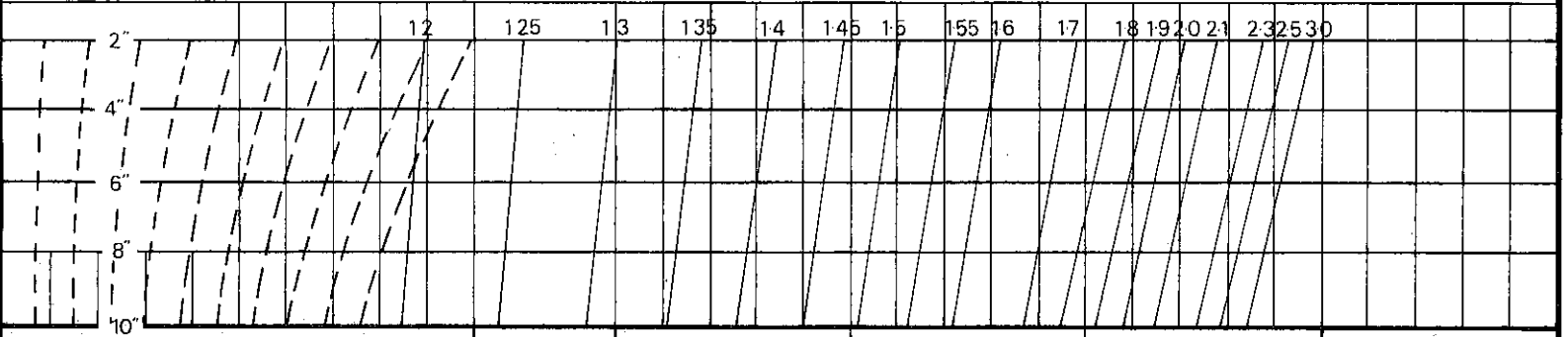
  

ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
NEUTRON	N-NEUTRON				LOGGED IN RODS CALIPER NOT PLAYED OUT IN GENERAL

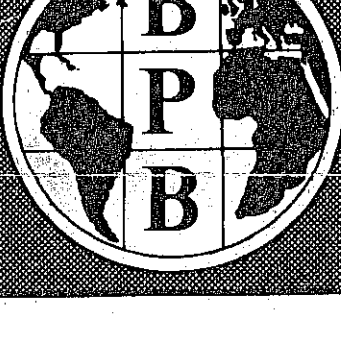
BPB COAL LITHOLOGY LOG CALIBRATION DATA

JIG No 367	VALUE 510 @ 12" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530508DU @	g/cm <sup>3</sup>	ins	cps
JIG MARK SHOWN AT ABOVE VALUE -		JIG No 033B	SPAN 3000	NORM SDU CPS = 6.5	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE BR-49 AREA BURNT RIVER  
 CLIENT TECH-CDHP COUNTRY CANADA

COAL LITHOLOGY LOG



PR-Burnt River 80133A BR 49

NEUTRON-NEUTRON LOG

BOREHOLE BR-49

CLIENT TECH-CORP

AREA BURNT RIVER

COUNTRY CANADA

DATE LOGGED 11/08/80

DEPTH SCALE 200'

2 OF 4 LOGS

BOREHOLE DATA

OPERATION DATA

EQUIPMENT AND RECORDING DATA

REFER TO LITHOLOGY LOG

REFER TO LITHOLOGY LOG

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

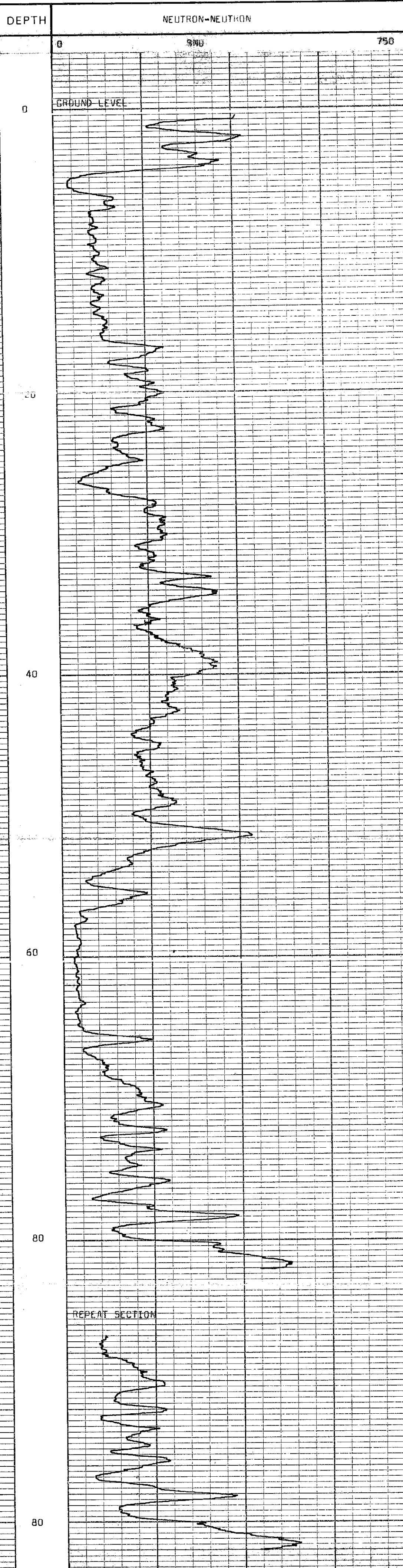
LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

LOG TAPPING RECORDING T.C. PANEL CAL

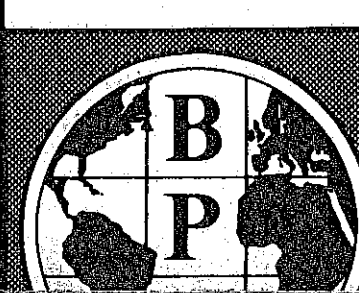
LOG TAPPING RECORDING T.C. PANEL CAL

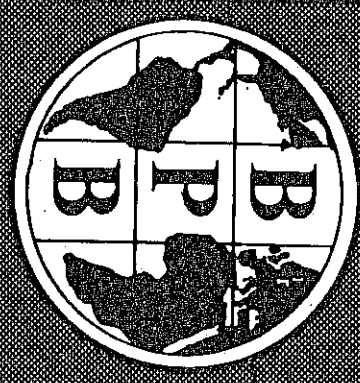
489



DEPTH 0 750

BOREHOLE	BR-49	AREA	BURNT RIVER
CLIENT	TECH-CORP	COUNTRY	CANADA





LOG SUITE:  
GAMMA RAY  
L.S. DENSITY

SONDE TYPE:  
COAL  
COMBINATION  
SONDE

COAL  
QUALITY  
LOG

BOREHOLE BH-49  
CLIENT TECH-CORP  
AREA BURNT RIVER  
COUNTRY CANADA  
DATE LOGGED 11/08/80  
DEPTH SCALE 20:1  
3 OF 4 LOGS

BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO LITHOLOGY LOG  
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE:  
LOG TAPPING SIDEWALL POSITION  
LOG RECORDING SPEED PANEL CAT  
GAMMA RAY 1 3m/m 1 1.42  
L.S. DENSITY 1.42

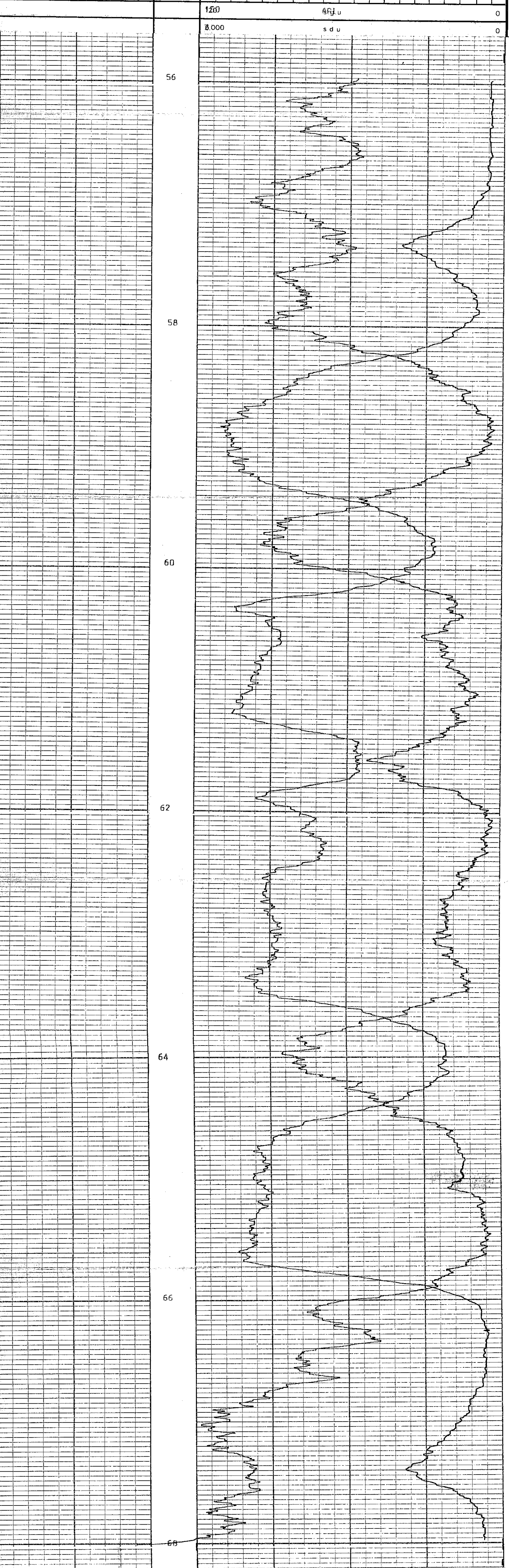
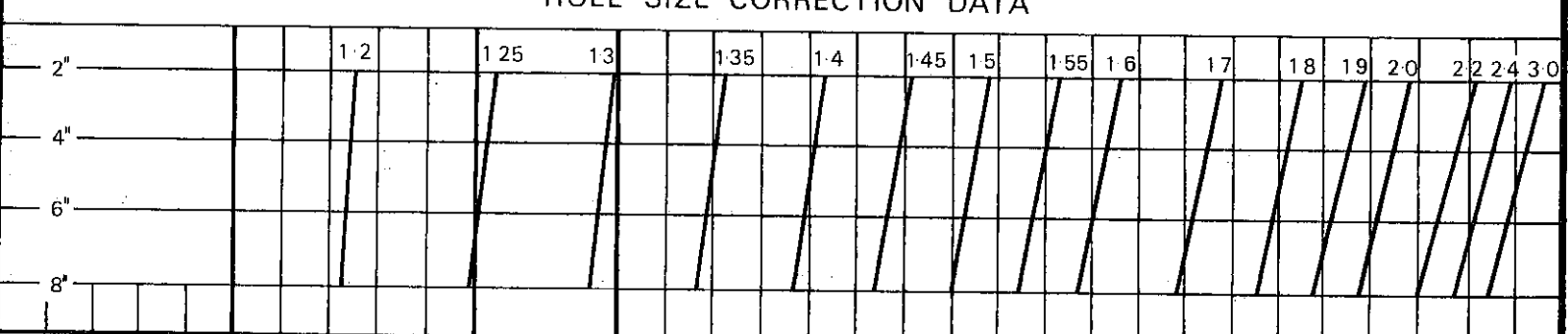
COAL QUALITY LOG INTERVALS  
FROM 5.8m  
TO 5.8m  
INTERVAL 1.2m  
FROM  
TO  
INTERNAL  
INTERNAL  
REMARKS  
SUCCEED IN RUDS

489

B P B COAL QUALITY LOG

DEPTH GAMMA RAY  
COAL BULK DENSITY  
g/cm<sup>3</sup>

HOLE SIZE CORRECTION DATA

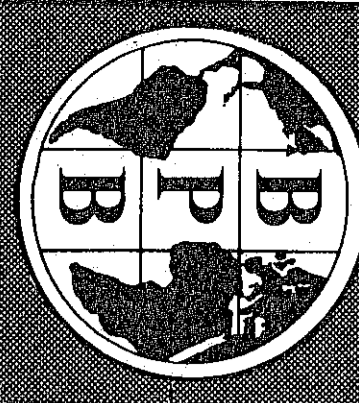


DEPTH GAMMA RAY  
COAL BULK DENSITY  
g/cm<sup>3</sup>



BOREHOLE BH-49  
CLIENT TECH-CORP  
AREA BURNT RIVER  
COUNTRY CANADA

COAL QUALITY LOG



BOREHOLE BR-49  
 CLIENT TECH-CORP

AREA BURNT RIVER  
 COUNTRY CANADA  
 DATE LOGGED 11/09/90

DEPTH SCALE  
 20m  
 4 OF 4 LOGS

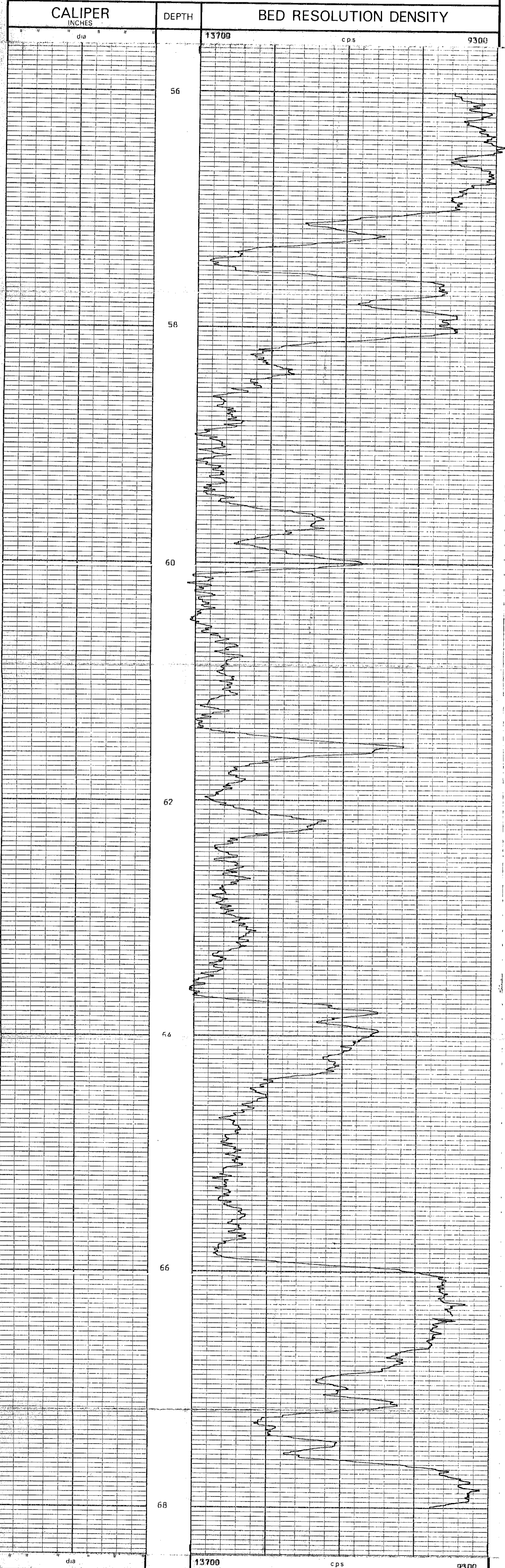
SEAM THICKNESS LOG  
 BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA  
 COAL COMBINATION SONDE

SONDE TYPE:  
 COAL COMBINATION SONDE  
 LOG SUITE:  
 CALIPER  
 BR DENSITY

SEAM THICKNESS LOG INTERVALS  
 FROM 68m  
 TO 56m  
 INTERVAL 12m  
 FROM  
 TO  
 INTERVAL TOTAL 2m  
 REMARKS  
 LOGGED IN RODS CALIPER NOT PLAVED  
 QUIT IN GENERAL

489

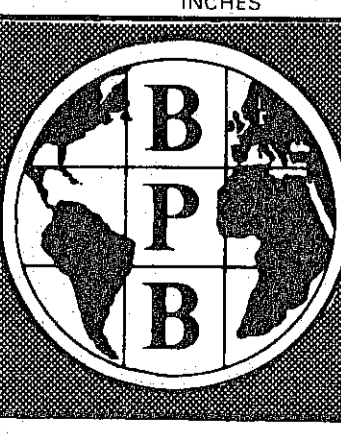
B P B SEAM THICKNESS LOG



CALIPER INCHES 13700 DEPTH 68m BED RESOLUTION DENSITY cps 9300

BOREHOLE BR-49 AREA BURNT RIVER  
 CLIENT TECH-CORP COUNTRY CANADA

SEAM THICKNESS LOG







P2-Burnt River 80(30) BR 2-7

<b>BOREHOLE</b> BR-27	<b>AREA</b> Burnt River	<b>DEPTH SCALE</b> 200' 1"
<b>CLIENT</b> Tech-Corp	<b>COUNTRY</b> Canada	<b>DATE LOGGED</b> 20/06/80
<b>BOREHOLE DATA</b>		
<b>PERMANENT DATUM</b> 1.11m	<b>DEPTH REACHED</b> 105.24m	<b>DRILLER</b> 1.06m
<b>ELEVATION OF P.D.</b> 540.0m	<b>MEASUREMENTS FROM</b> 1.11m	<b>CASING SIZE</b> 375
<b>MEASUREMENTS FROM</b> 1.11m	<b>DEPTH REACHED</b> 105.24m	<b>BIT SIZES</b> 1 10.125, 2 10.125, 3 10.125, 4 10.125, 5 10.125
<b>CASING SIZE</b> 375	<b>FLUID DATA</b>	
<b>NATURE</b> Quick Clay		
<b>LEVEL</b>		
<b>VISCOSITY</b>		
<b>Rem at meas temp</b>		
<b>BHT</b>		
<b>OPERATION DATA</b>		
<b>FIRST READINGS</b> 1.03m		
<b>LAST READINGS</b> 1.03m		
<b>INTERVAL LOGGED</b> 1.03m		
<b>UNIT-TRUCK No.</b> A517A		
<b>ENGINEER</b> M. B.		
<b>WITNESS</b>		

EQUIPMENT AND RECORDING DATA													
COAL COMBINATION SONDE													
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS		NORM	FROM	TO	
CCS	118	5845	10AP1	Y	9m/m	D	9m/m	1	-	1.5	103m	01m	102m
GAMMA RAY			530SDU	Y	9m/m	D	9m/m	1 1/3	6.1	-	104	02m	102m
LS DENSITY				Y	9m/m	D	9m/m	1 1/3	-	-	104m	02m	102m
CALIPER	SIDEWALL POSITION												

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)			
FROM	1.01m	2.8m	
TO	85m	1.4m	INTERVAL TOTAL
INTERVAL	1.6m	1.4m	30m

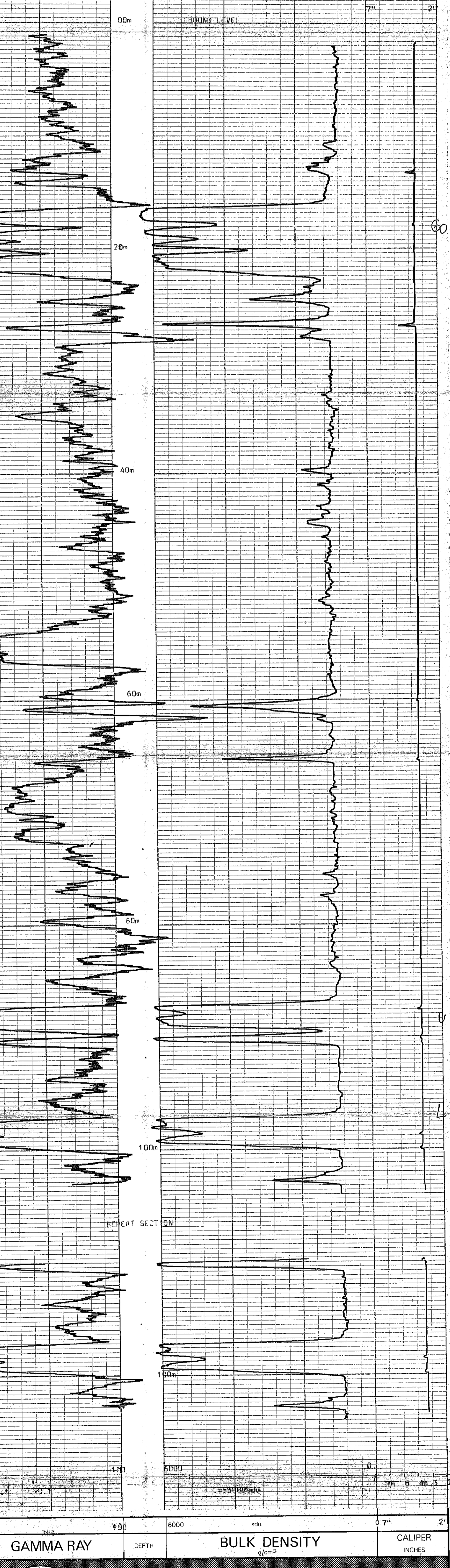
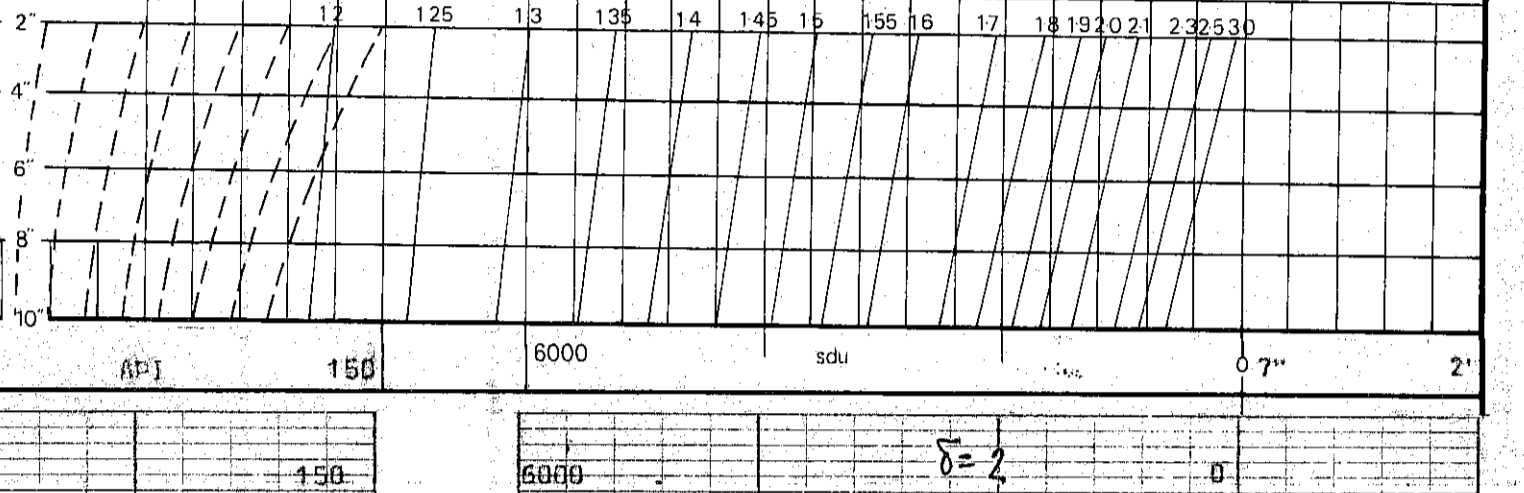
ADDITIONAL SONDES RUN				REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	
204	n_p	200.1		REFER TO ADDITIONAL HEADINGS

**BPB COAL LITHOLOGY LOG**

**CALIBRATION DATA**

JIG No 367	VALUE 510 @ 2" DIAM	JIG CAL DATE 17/06/80	JIG VALUE 530	SDU @	g/cm <sup>3</sup>	7 ins 940 cps
JIG MARK SHOWN AT ABOVE VALUE x0.1		JIG No 0338	SPAN 6000	NORM	SDU CPS 6.1	2 ins 472 cps

GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES



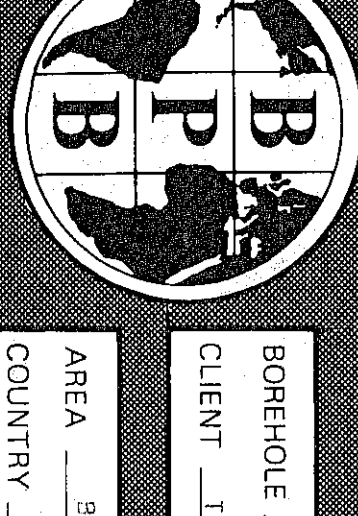
GAMMA RAY	DEPTH	BULK DENSITY	CALIPER
		g/cm <sup>3</sup>	INCHES

<b>BOREHOLE</b> BR-27	<b>AREA</b> Burnt River
<b>CLIENT</b> Tech Corp	<b>COUNTRY</b> Canada

**COAL LITHOLOGY LOG**



P2-Burnt River 8X3A 13R-27



**SEAM THICKNESS LOG**

SONDE TYPE: \_\_\_\_\_  
 COAL COMBINATION: \_\_\_\_\_  
 SONDE: \_\_\_\_\_

LOG SUITE:  
 CALIPER \_\_\_\_\_  
 BR. DENSITY \_\_\_\_\_

BOREHOLE: B-27  
 CLIENT: Tech Corp  
 AREA: Burnt River  
 COUNTRY: Canada  
 DATE LOGGED: 20/06/80  
 DEPTH SCALE: 20.1  
 LOGS: 2.0-4. LOGS

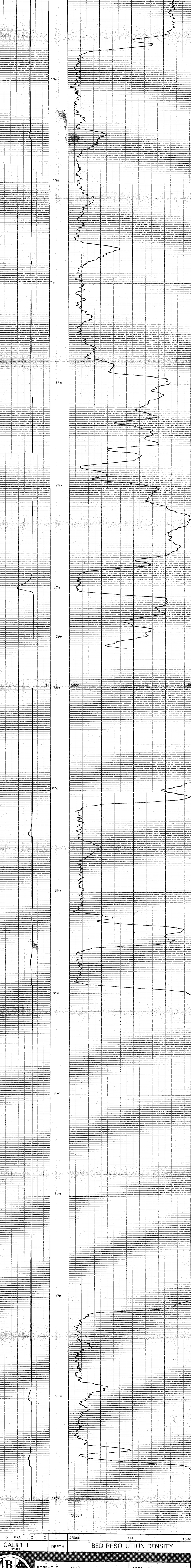
BOREHOLE DATA: REFER TO LITHOLOGY LOG  
 OPERATION DATA: REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA: \_\_\_\_\_

COAL COMBINATION SONDE: \_\_\_\_\_  
 LOG: \_\_\_\_\_  
 TAPPING SPEED: \_\_\_\_\_  
 LOG SPEED: \_\_\_\_\_  
 CALIPER: \_\_\_\_\_  
 BR. DENSITY: \_\_\_\_\_

SEAM THICKNESS LOG INTERVALS:  
 FROM: 1.07m TO: 2.9m  
 INTERNAL: 1.5m TO: 1.5m  
 TOTAL: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

**B P B SEAM THICKNESS LOG**

CALIPER INCHES DEPTH BED RESOLUTION DENSITY



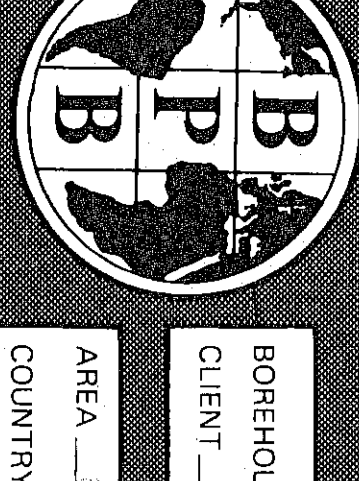
CALIPER INCHES DEPTH BED RESOLUTION DENSITY

BOREHOLE: B-27 AREA: Burnt River  
 CLIENT: Tech Corp COUNTRY: Canada

**SEAM THICKNESS LOG**

489





BOREHOLE: RL-27  
 CLIENT: Tech Corp

AREA: Burnt River  
 COUNTRY: Canada  
 DATE LOGGED: 10/06/80

**COAL QUALITY LOG**

BOREHOLE DATA: REFER TO LITHOLOGY LOG  
 OPERATION DATA: REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA: REFER TO LITHOLOGY LOG

**LOG**

LOG: TAPEING  
 LOG: TAPING  
 LOG: TAPING  
 LOG: TAPING

**SONDE TYPE:**

COAL COMBINATION  
 SONDE

**LOG SUITE:**

GAMMA RAY  
 L.S. DENSITY

**COMBINATION**

FROM: 1.21m 2.4m  
 TO: 1.5m 1.4m  
 INTERVAL: 1.5m 1.4m

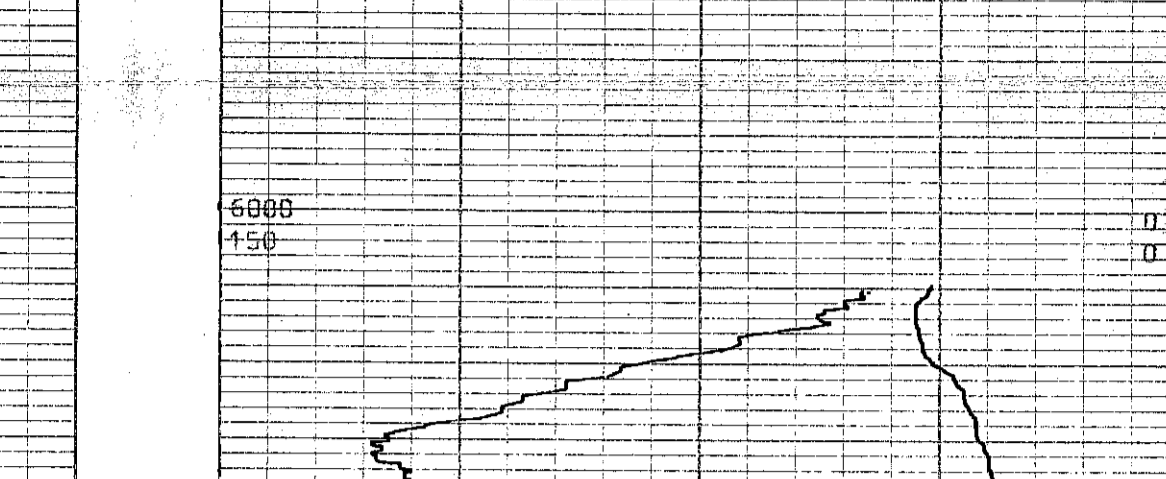
REMARKS

489

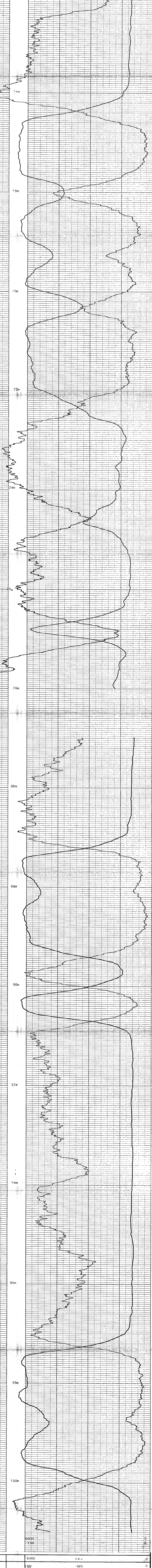
**B P B COAL QUALITY LOG**

DEPTH: \_\_\_\_\_ GAMMA RAY  
 COAL BULK DENSITY  $g/cm^3$

HOLE SIZE CORRECTION DATA



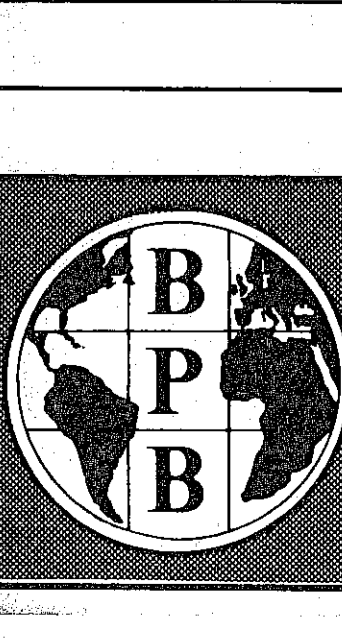
6000 s d u 0  
 150



6000 s d u 0  
 150

DEPTH: \_\_\_\_\_ COAL BULK DENSITY  $g/cm^3$

DEPTH: \_\_\_\_\_ GAMMA RAY



BOREHOLE: RL-27  
 CLIENT: Tech Corp  
 AREA: Burnt River  
 COUNTRY: Canada

**COAL QUALITY LOG**



P2-Burnt River 0130A DR 27

NEUTRON-NEUTRON

BOREHOLE Br-27  
CLIENT Tech Corp

AREA Burnt River  
COUNTRY Canada  
DATE LOGGED 20/06/80

DEPTH SCALE  
200.1  
4 OF 4 LOGS

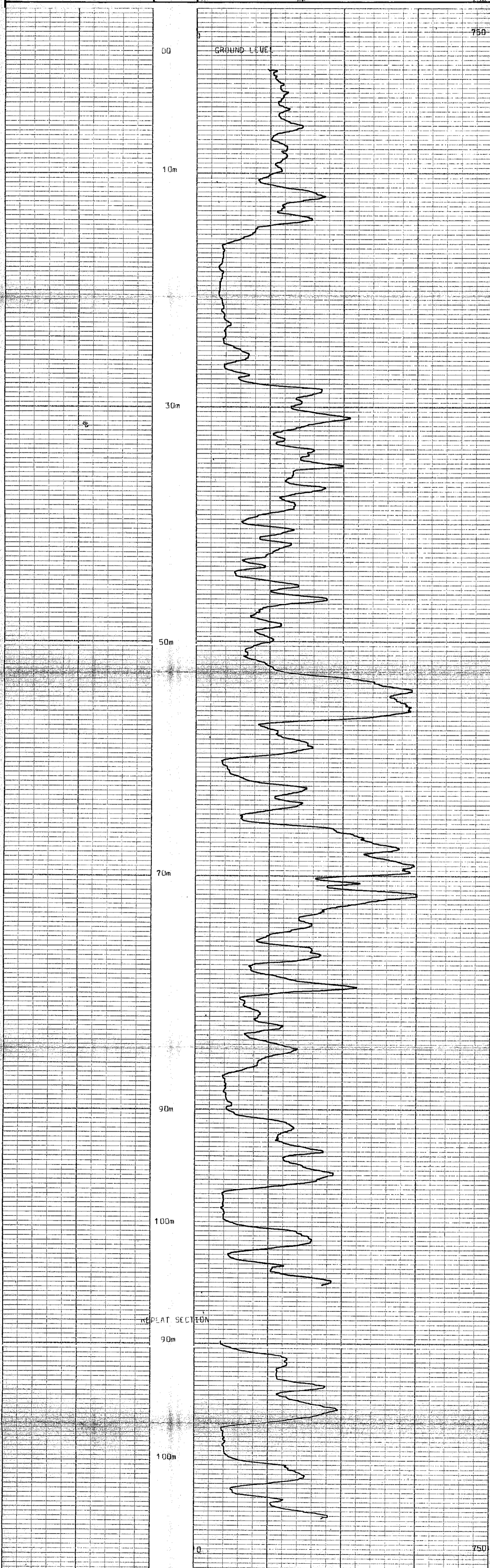
BOREHOLE DATA REFER TO LITHOLOGY LOG  
OPERATION DATA REFER TO " LOG

EQUIPMENT AND RECORDING DATA

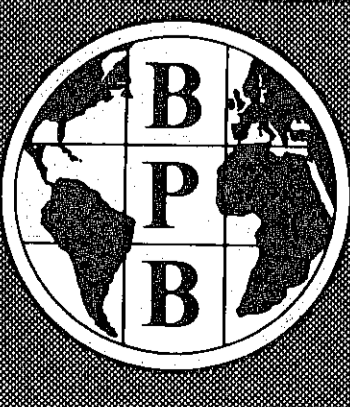
LOG	TAPING	PANEL	CAL
LOG	TAPED	RECORD DIRECT SPEED	T.C. NORM
N-N	Y	9m/m	D
		9m/m	2
			.92
	SONDE NO	274	SOURCE NO

REMARKS  
1.05m  
0.1m  
1.04m  
**489**

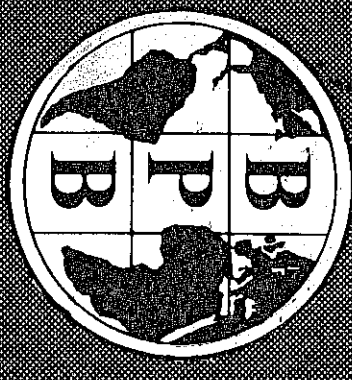
DEPTH NEUTRON-NEUTRON 750



DEPTH NEUTRON-NEUTRON 750



BOREHOLE	Br-27	AREA	Burnt River
CLIENT	Tech Corp	COUNTRY	Canada



Burnt River 80(3)A BR 28

# COAL LITHOLOGY LOG

SONDE TYPE: \_\_\_\_\_  
 COAL COMBINATION: \_\_\_\_\_  
 SONDE: \_\_\_\_\_

LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY  
 CALIPER

BOREHOLE: BR-28  
 CLIENT: Tech Corp  
 AREA: Burnt River  
 COUNTRY: Canada  
 DATE LOGGED: 20/06/80  
 DEPTH SCALE: 200:1  
 1 OF 4 LOGS

### BOREHOLE DATA

PERMANENT DTM: 5100ND LEVEL  
 ELEVATION OF P.D.: 5100ND  
 MEASUREMENTS FROM: 51  
 DEPTH REACHED: 65.05m  
 CASING SHOE: 52ft  
 BIT SIZES: 1 H<sub>2</sub> TO 52FT, 2 W<sub>2</sub> TO TD  
 CASING SIZES: 1 H<sub>2</sub> TO, 2 TO

### FLUID DATA

NATURE: \_\_\_\_\_  
 SG: \_\_\_\_\_  
 LEVEL: \_\_\_\_\_  
 VISCOSITY: \_\_\_\_\_  
 BHT: \_\_\_\_\_

### OPERATION DATA

FIRST READING: 65m  
 LAST READING: 01m  
 INTERVAL LOGGED: 65m  
 UNIT-TRUCK No: 46/224  
 ENGINEER: MK/B  
 WITNESS: \_\_\_\_\_

# 489

### EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE												
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF	DEPTHS		SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM	FROM	TO	INTERVAL
GAMMA RAY	11A	5845	5100ND	Y	9m/m	D	9m/m	1	-	83m	01m	82m
L.S. DENSITY			530sdu	Y	9m/m	D	9m/m	1/3	6.8	84m	02m	82m
CALIPER		SIDEWALL POSITION		Y	9m/m	D	9m/m	1/5	-	84m	02m	82m

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	82m	INTERVAL	
TO	65m	TOTAL	
INTERVAL	17m		17m

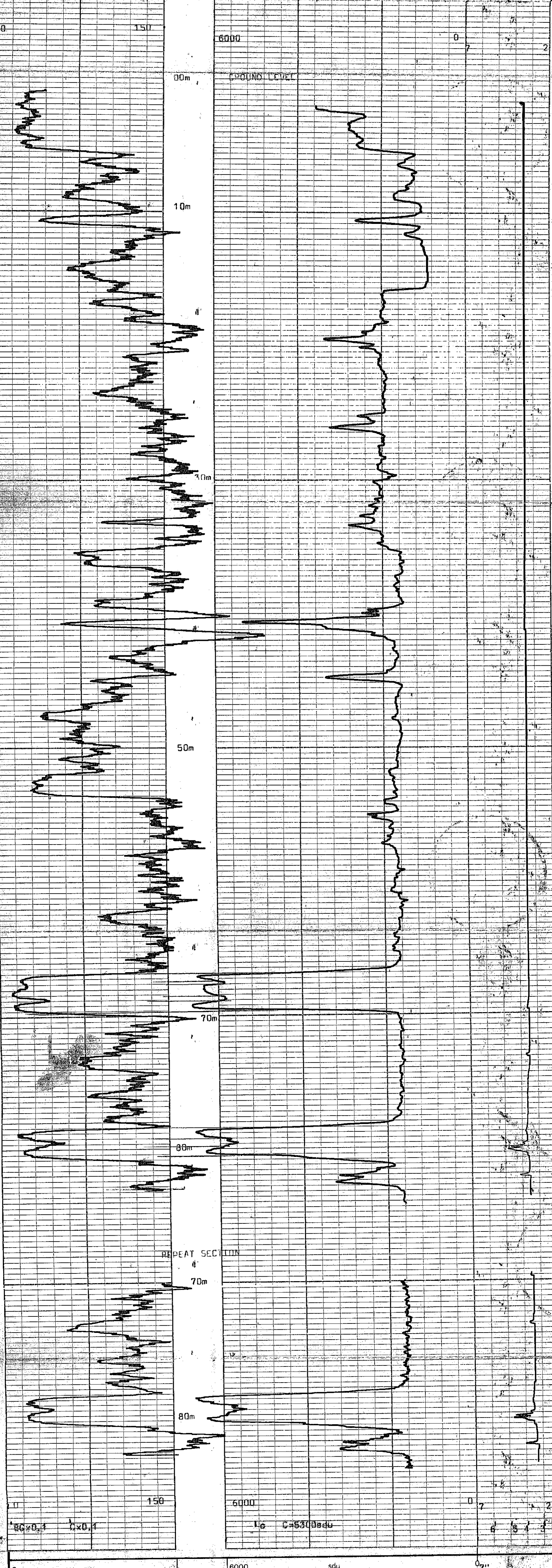
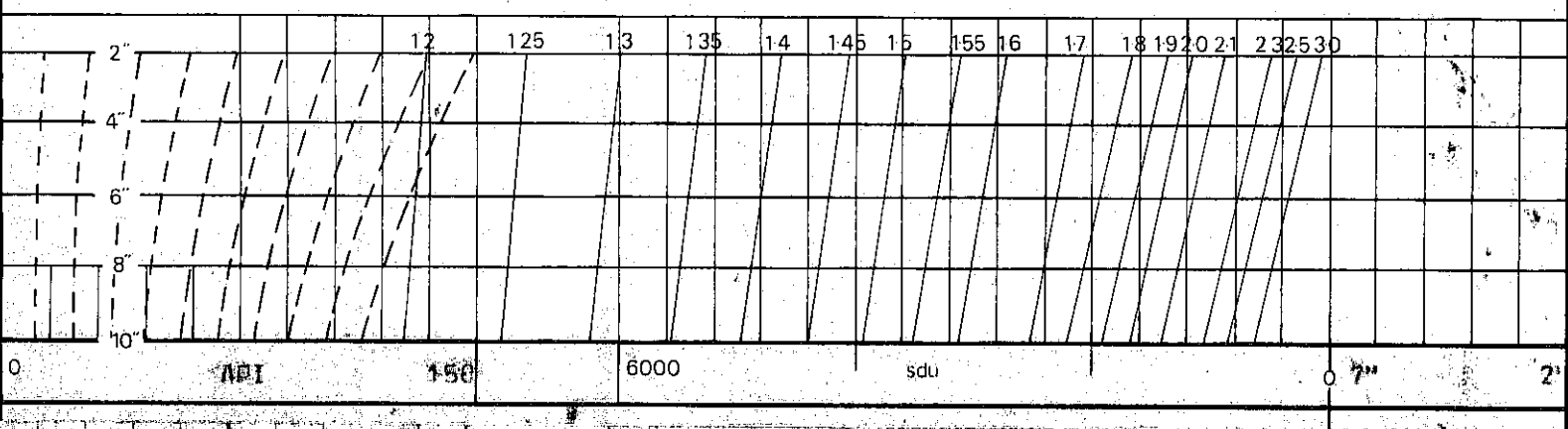
ADDITIONAL SONDES RUN				REFER TO ADDITIONAL HEADINGS	REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG		
204	N-N	200:1			

## BPB COAL LITHOLOGY LOG

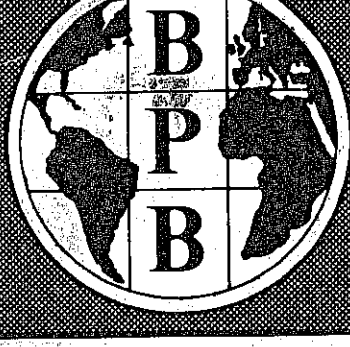
### CALIBRATION DATA

JIG No. 367 VALUE 5.1 @ 2" DIAM JIG CAL DATE 17/06/80 JIG VALUE 530 SDU @ g/cm<sup>3</sup> 7 ins 940 cps  
 JIG MARK SHOWN AT ABOVE VALUE x 0.1 JIG No. 0338 SPAN 6000 NORM SDU @ g/cm<sup>3</sup> 2 ins 472 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



GAMMA RAY	DEPTH	BULK DENSITY g/cm <sup>3</sup>	CALIPER INCHES
-----------	-------	--------------------------------	----------------



BOREHOLE: BR-28 AREA: Burnt River  
 CLIENT: Tech Corp COUNTRY: Canada

## COAL LITHOLOGY LOG



BOREHOLE BR-28  
 CLIENT Teach Corp

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 20/06/90

DEPTH SCALE  
 20:1  
 2 OF 4 LOGS

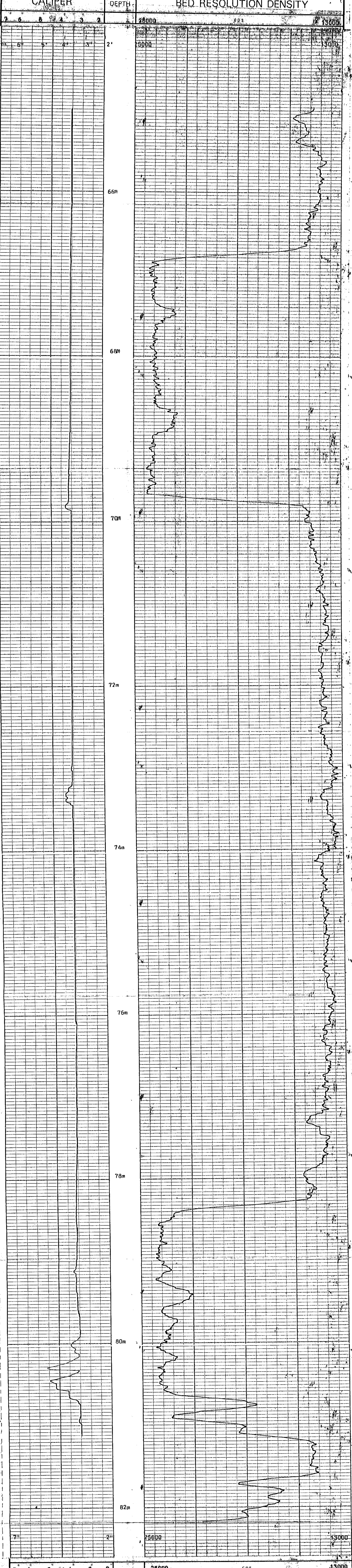
BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA

SEAM THICKNESS LOG

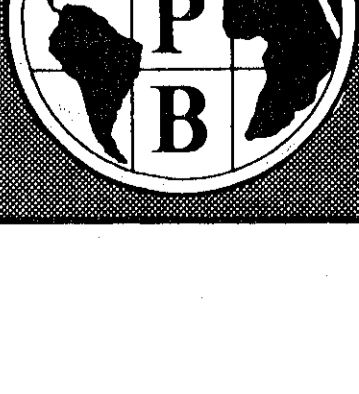
SONDE TYPE:  
 COAL COMBINATION  
 SONDE  
 LOG SUITE:  
 CALIPER  
 BR DENSITY

489

B P B SEAM THICKNESS LOG



CALIPER INCHES      DEPTH      BED RESOLUTION DENSITY cps



BOREHOLE BR-28  
 CLIENT Teach Corp

AREA Burnt River  
 COUNTRY Canada

SEAM THICKNESS LOG



BOREHOLE BR-28  
 CLIENT Tech Corp

AREA Burnt River  
 COUNTRY Canada  
 DATE LOGGED 20/05/80

DEPTH SCALE  
 20:1  
 3 OF 4 LOGS

**COAL**

**QUALITY**

**LOG**

BOREHOLE DATA REFER TO LITHOLOGY LOG  
 OPERATION DATA REFER TO LITHOLOGY LOG  
 EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	TAPPING	SIDEWALL POSITION	PANEL	COAL
GAMMA	Y	3m/m	R	1.5
S.DENSITY	Y	3m/m	2	5.8
SOURCE SONDE AND CALIBRATION				
REFER TO LITHOLOGY LOG				

**SONDE TYPE:**

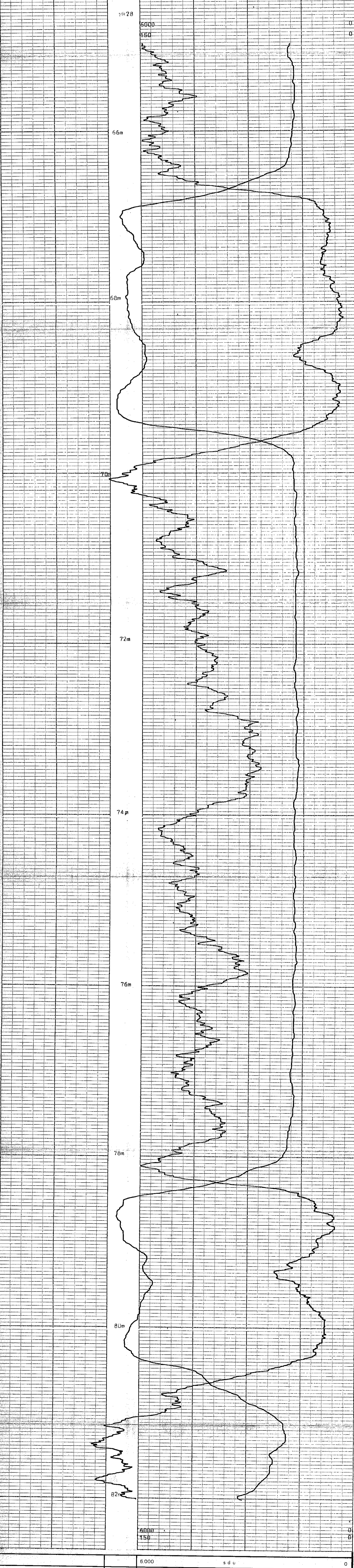
COAL COMBINATION SONDE  
 LOG SUITE:  
 GAMMA RAY  
 L.S. DENSITY

**B P B COAL QUALITY LOG**

**GAMMA RAY  
 COAL BULK DENSITY**  
g/cm<sup>3</sup>

**HOLE SIZE CORRECTION DATA**

DEPTH	1.2	1.25	1.3	1.35	1.4	1.45	1.5	1.55	1.6	1.7	1.8	1.9	2.0	2.2	2.4	3.0
2"																
4"																
6"																
8"																

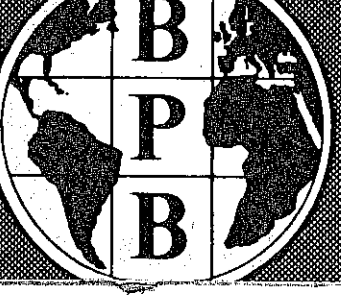


**COAL BULK DENSITY**  
g/cm<sup>3</sup>

**GAMMA RAY**

**HOLE SIZE CORRECTION DATA**

DEPTH	1.2	1.25	1.3	1.35	1.4	1.45	1.5	1.55	1.6	1.7	1.8	1.9	2.0	2.2	2.4	3.0
2"																
4"																
6"																
8"																

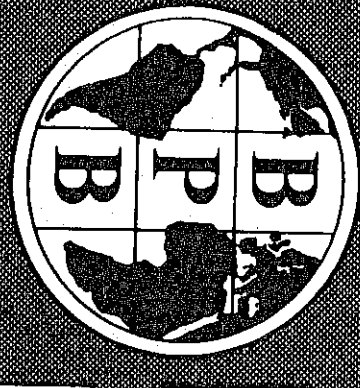


BOREHOLE BR-28 AREA Burnt River  
 CLIENT Tech Corp COUNTRY Canada  
**COAL QUALITY LOG**

489







FOCUSSED ELECTRIC LOG

BOREHOLE BR-28

CLIENT TECH-CORP

489

AREA BUHNT RIVER

COUNTRY CANADA

DATE LOGGED 29/08/80

OF LOGS

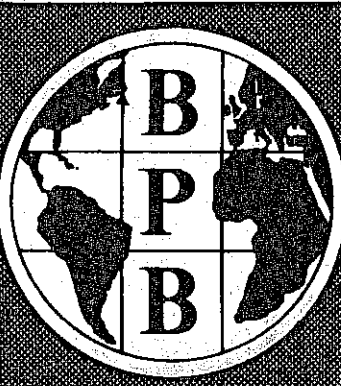
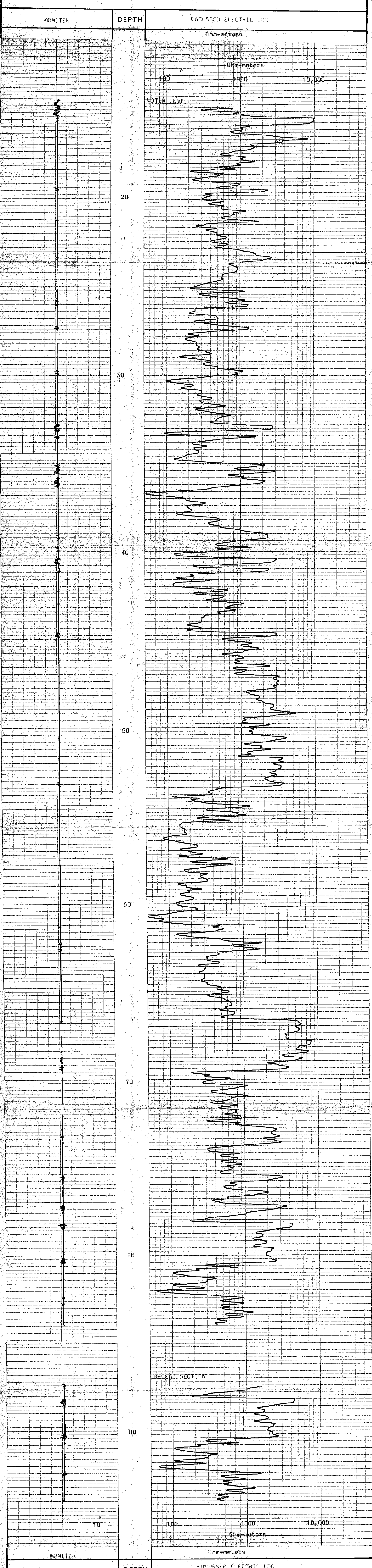
DEPTH SCALE 100ft

BOREHOLE DATA REFER TO LITHOLOGICAL LOG

OPERATION DATA REFER TO LITHOLOGICAL LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	RECORDING	PANEL	CAL
LOG TAPED	RECORDING SPEED	RECORDING SPEED	FTS	COEFF
Y	5m/m	D	3	
REMARKS				
MUTTER TEN OPERATES WITH QUARTZ				
OVERLOAD OCCURS AT SHARP BOUNDARIES				
AND VERY HIGH RESISTIVITIES				



BOREHOLE	BR-28	AREA	BUHNT RIVER
CLIENT	TECH CORP	COUNTRY	CANADA