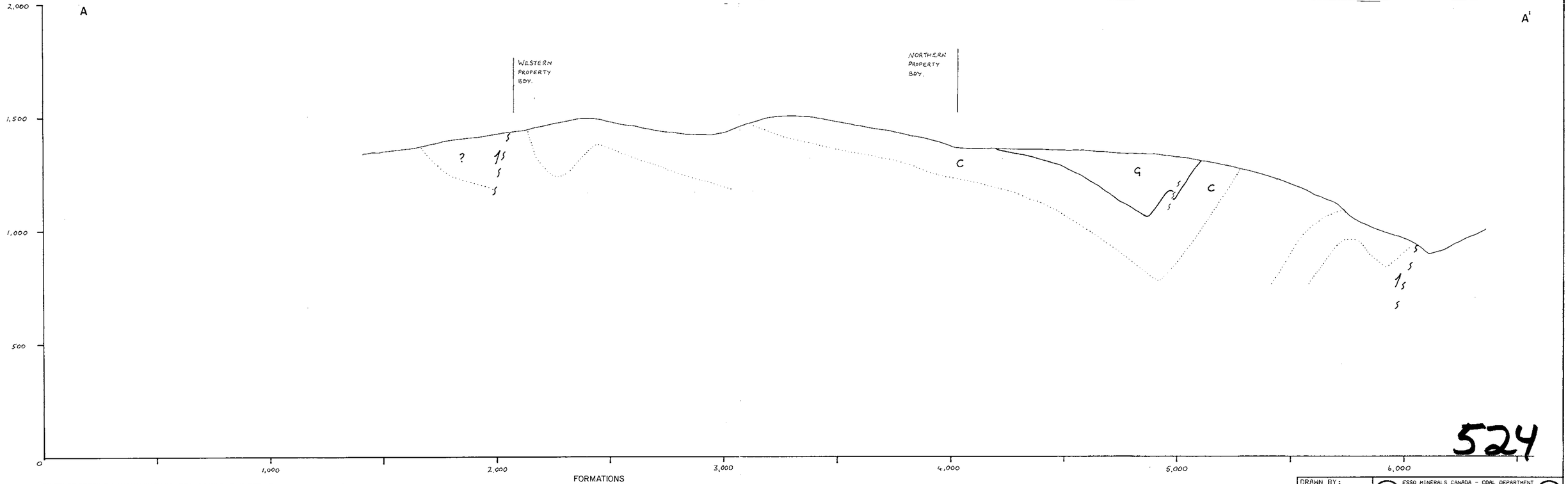
PR - FALLING CREEK 82G(*)A (*3)



524

ORIGIN OF PROFILE HAS MAP COORDINATES 83 000mE 13 000mN
PROFILE LOOKING IN DIRECTION 315°

FAULT WITH DIRECTION OF THROW
FORMATION CONTACT
FORM LINE

FORMATIONS
G GETHING
C CADOMIN AND OLDER

SCALE
0 100 200 300 400 500 metres

DRAWN BY:	ESSO MINERALS CANADA - COAL DEPARTMENT FALLING CREEK
CHECKED BY:	CHAMBERLAIN CREEK SECTION A-A'
DATE: APR. 1983	
FILE NO.: 93-O-8 DRAWING NO.: 90	Figure 52

Re-Falling Creek 82(3)A

BPB

BOREHOLE 82-11-B1
CLIENT [illegible]
AREA [illegible]
COUNTRY CANADA
DATE LOGGED 15/9/82
DEPTH SCALE 10:1
OF LOGS

SEAM THICKNESS LOG

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

LOG	TAPING			PANEL		CAL COEFF
	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	TC SECS	NORM
CALIPER	X	2	[illegible]	2	1	
BR DENSITY	X	2	X	2	[illegible]	

SIDEWALL POSITION

SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
BR DENSITY

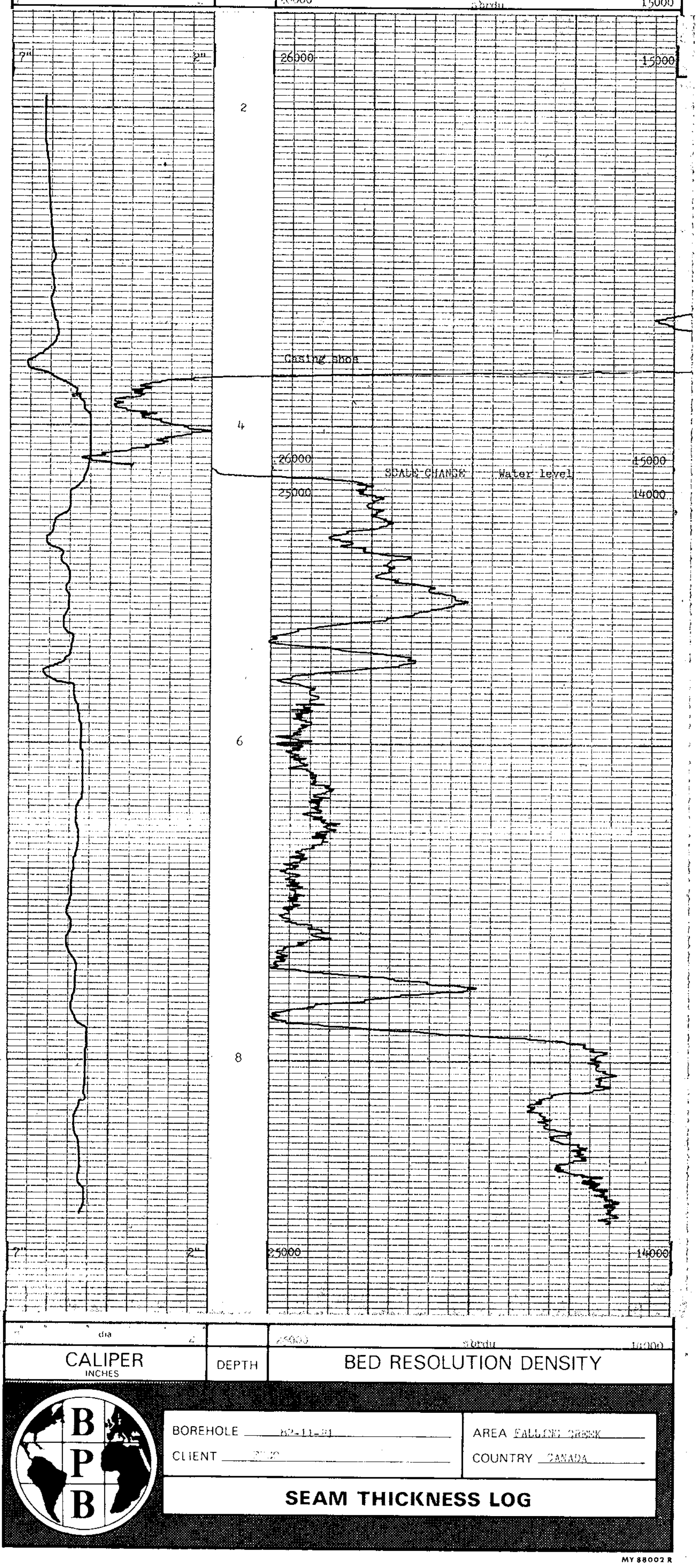
SEAM THICKNESS LOG INTERVALS

FROM	[illegible]		
TO	[illegible]		
INTERVAL	[illegible]		
FROM		INTERVAL TOTAL	
TO			
INTERVAL			# 7

524

REMARKS
Please note BRD scale change at water level [illegible]
Above water 26000-15000 SBRDU
Below water 25000-14000 SBRDU

B P B SEAM THICKNESS LOG

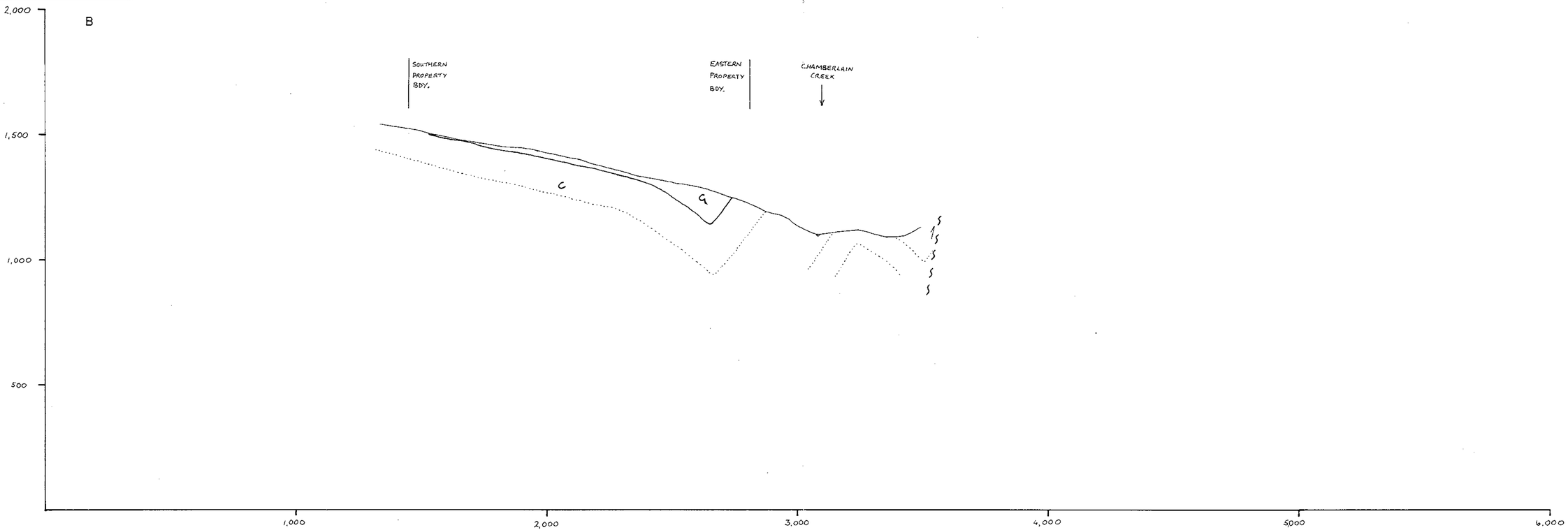


BOREHOLE 82-11-B1
CLIENT [illegible]
AREA FALLING CREEK
COUNTRY CANADA

SEAM THICKNESS LOG

MY 88002 R

PR - FALLING CREEK 82(2*)A (3)



524

ORIGIN OF PROFILE HAS MAP COORDINATES 86 000 mE 13000 mN
PROFILE LOOKING IN DIRECTION 315°

FAULT WITH DIRECTION OF THROW
FORMATION CONTACT
FORM LINE

FORMATIONS
G GETHING
C CADOMIN AND OLDER

SCALE
0 100 200 300 400 500 metres

DRAWN BY:	ESSO MINERALS CANADA - COAL DEPARTMENT FALLING CREEK
CHECKED BY:	CHAMBERLAIN CREEK SECTION: B-B'
DATE: APR. 1983	
FILE NO.: 93-0-8 DRAWING NO.: 91	Figure 53

BPB

COAL QUALITY LOG

CONTRACTOR: SCL
AREA: SAN LUIS, COSTA RICA
DATE: 05/02/91 TO 05/02/91
COMPANY: BPB
CLIENT: ICE

BORE HOLE: 524
COORDINATES: N 1,000 E 1,000
ELEVATION: 1,000
DATUM: 1,000
TOTAL DEPTH: 1,000
DATE: 1,000
DRILLING CONTRACTOR: 1,000
DRILLING METHOD: 1,000
DRILLER: 1,000
CASING: 1,000
CORE DIAMETER: 1,000
CORE RECOVERY: 1,000
GEOLOGIST: 1,000
LOGGING ENGINEER: 1,000
GAMMA RAY: 1,000
COAL BULK DENSITY: 1,000
COAL QUALITY: 1,000
OTHER: 1,000

CORRECTIONS DATA
DENSITY: 1,000
MOISTURE: 1,000
ASH: 1,000
VOLATILE MATTER: 1,000
SULPHUR: 1,000
CALORIFIC VALUE: 1,000
REMARKS: 1,000

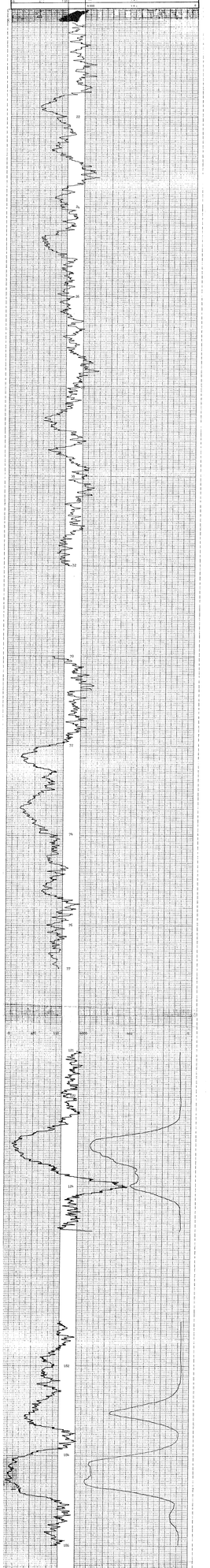
DIAMETER: 1,000
DEPTH: 1,000
REMARKS: 1,000

524

BPB COAL QUALITY LOG

GAMMA RAY	DEPTH	GAMMA RAY / COAL BULK DENSITY

HOLE SIZE CORRECTION DATA



GAMMA RAY	DEPTH	GAMMA RAY / COAL BULK DENSITY

BPB

BORE HOLE: 1,000 — AREA: SAN LUIS, COSTA RICA
CLIENT: ICE — COUNTRY: COSTA RICA

COAL QUALITY LOG

Re. Falling Creek 82-7A

524

DIPMETER ANALYSIS

CLIENT ESSO MINERALS CANADA
BOREHOLE 82-7
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....09-AUG-82
DATE PROCESSED..23-AUG-82

COMMENTS.....

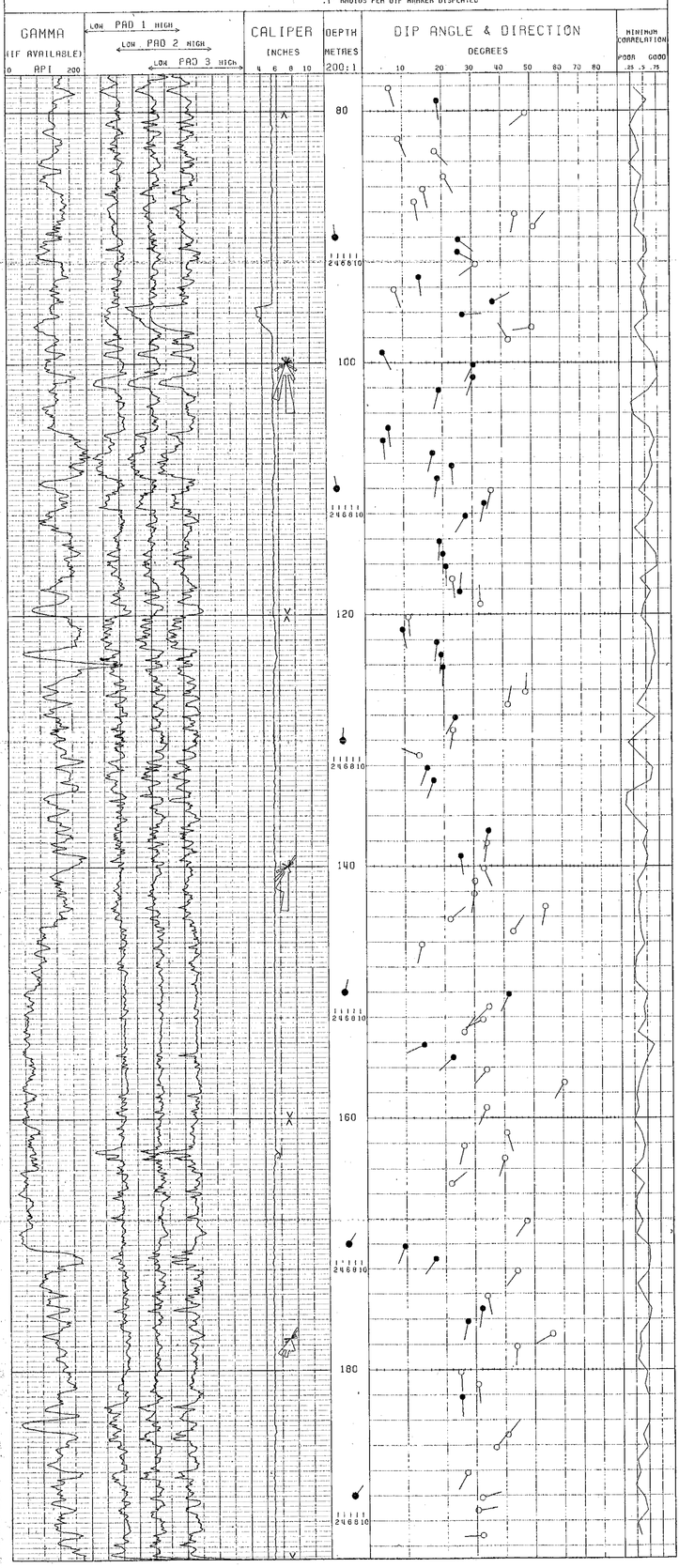
INTERPRETATION PARAMETERS

STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 60.
DECLINATION 25.5 EAST
DEPTH RANGE 77.00 - 195.00M.
DATE PROCESSED 23-AUG-82

AVERAGE BOREHOLE DEVIATION & DIRECTION.
ANNOTATED EVERY 20.0M.

ROSE DIAGRAMS SEGMENTED EVERY TEN DEGREES.
.1" RADIUS PER DIP MARKER DISPLAYED

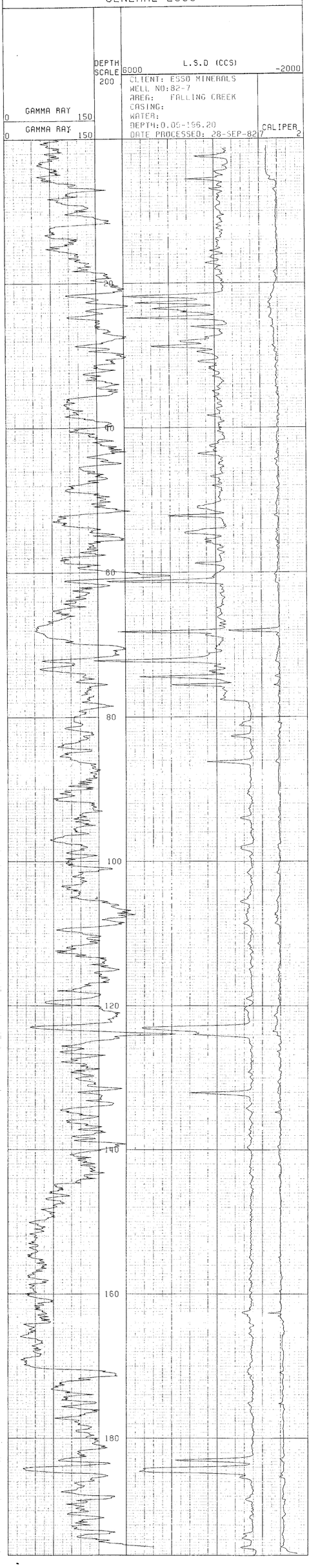
LEGEND:
GOOD (>0.50)
FAIR (>0.30)



Pre-Fracinda Creek 82(7)

524

GENERAL LOGS



Pr2 - Falling Creek 82-7a

524

GENERAL LOGS

GAMMA RAY 0 150

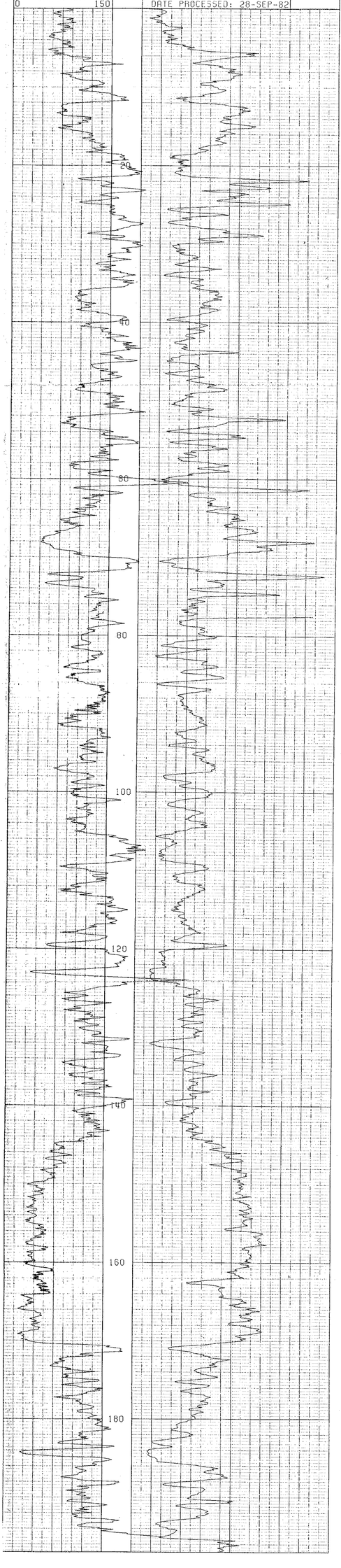
GAMMA RAY 0 150

DEPTH SCALE 200

NEUTRON-NEUTRON 500 1500

NEUTRON-NEUTRON 0 800

CLIENT: ESSO MINERALS
WELL NO:82-7
AREA: FALLING CREEK
CASING: NEUTRON SCALE CHANGE
WATER: AT 77.5 METRES .....
DEPTH:0.00-197.00
DATE PROCESSED: 28-SEP-82



Pre-Falling Creek 82-2A

BPB

BOREHOLE 82-2

CLIENT BSSO

AREA FALLING CREEK

COUNTRY CANADA

DATE LOGGED 9/3/82

DEPTH SCALE 20:1

___ OF ___ LOGS

SEAM THICKNESS LOG

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

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SIDEWALL POSITION

LOG	TAPING				PANEL			CAL COEFF
	LOG TAPED	RECORDING SPEED	DIRECTION REPLAY		SPEED	TC SECS	NORM	
CALIPER	Y	2	R		2	1		
BR DENSITY	Y	2	R		2	3	2.65	

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	186m	124m
TO	181m	121m
INTERVAL	5m	4m

FROM		INTERVAL TOTAL
TO		
INTERVAL		# 9m

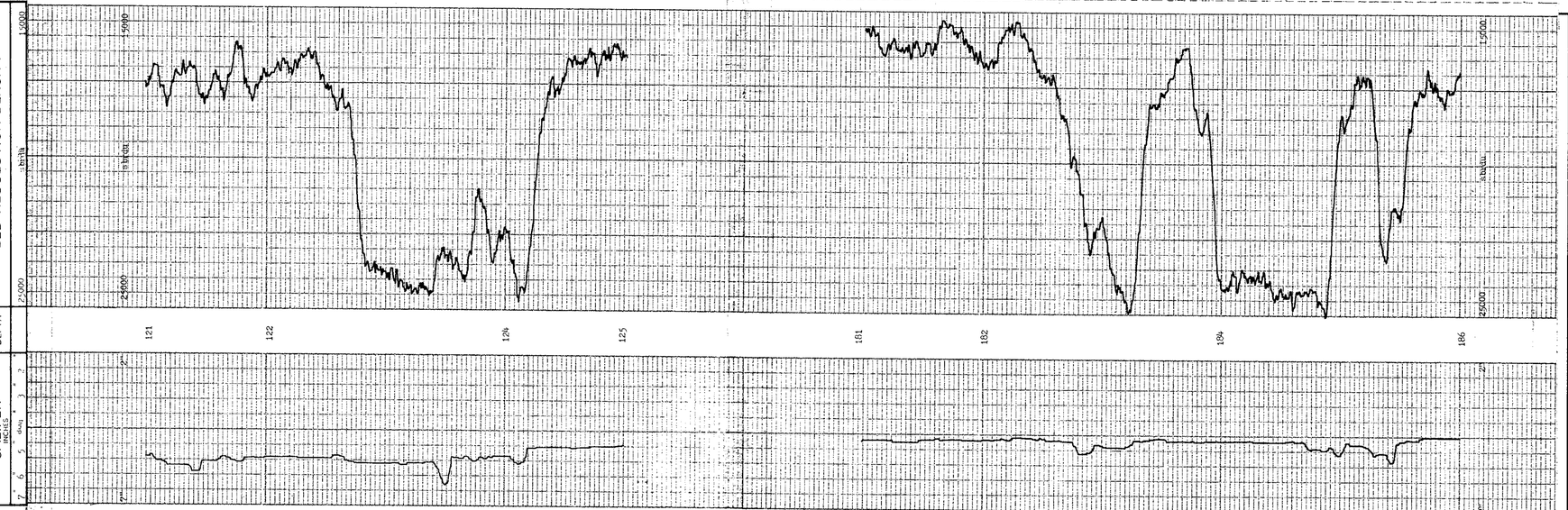
REMARKS

524

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
B.R. DENSITY

B P B SEAM THICKNESS LOG



BED RESOLUTION DENSITY

DEPTH

CALIPER INCHES

AREA

BOREHOLE

BPB

COAL QUALITY LOG

BOREHOLE: 1 (BC)

AREA: PALLIC TOOR

COUNTY: LOUISA

CLIENT: CCRI

DATE: 1-1-1

RUN NO: 1

DEPTH: 0 FT

DEPTH: 0 FT

Re- Falling Creek 82-8

DIPMETER ANALYSIS

524

CLIENT ESSO MINERALS
BOREHOLE 82-8
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....11-AUG-82
DATE PROCESSED..31-AUG-82

COMMENTS.....

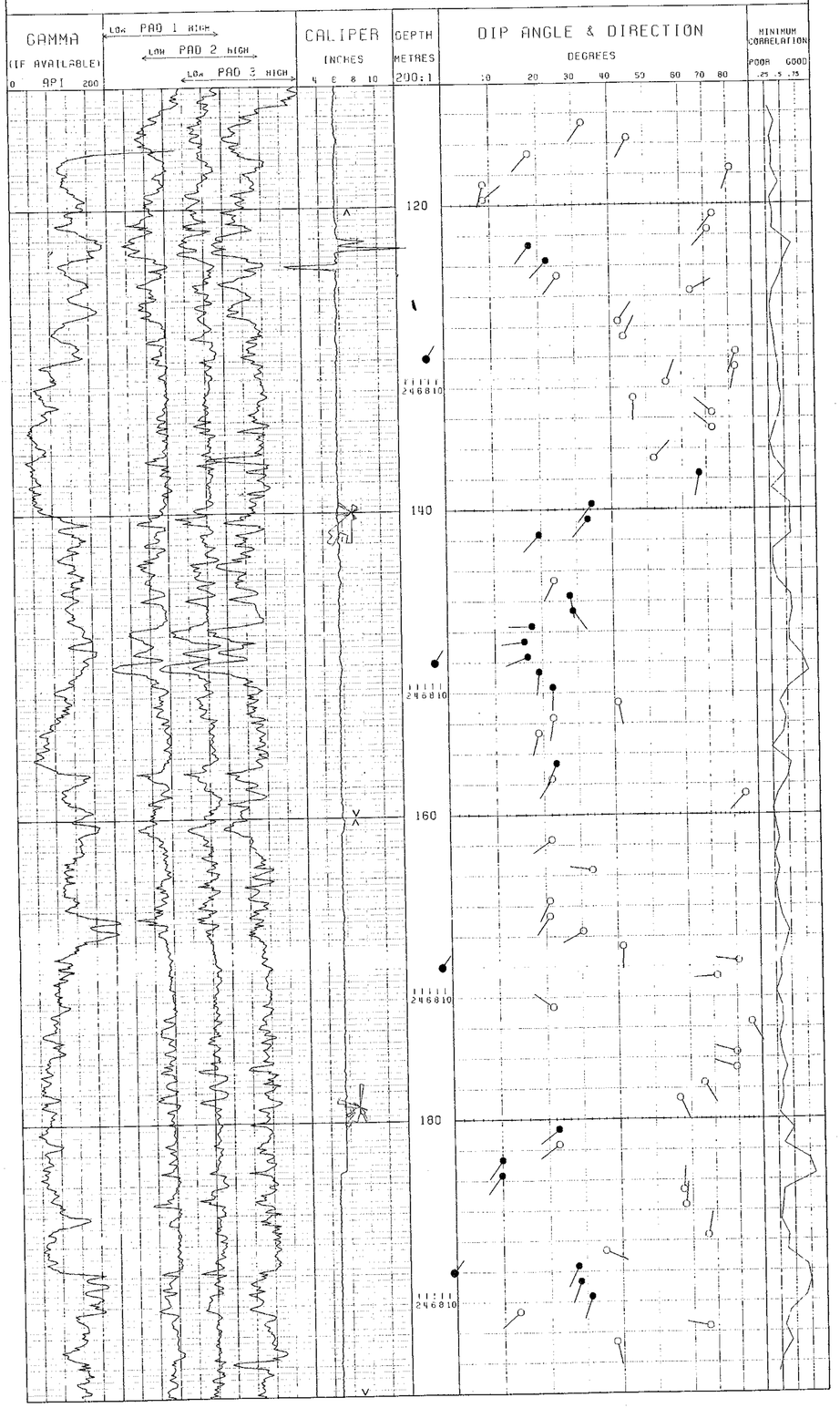
INTERPRETATION PARAMETERS

STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 80.
DECLINATION 25.0 EAST
DEPTH RANGE 112.00 - 198.00M.
DATE PROCESSED 31-AUG-82

AVERAGE BOREHOLE DEVIATION & DIRECTION ANNOTATED EVERY 20.0M.

ROSE DIAGRAMS SEGMENTED EVERY TEN DEGREES.
.1" RADIUS PER DIP MARKER DISPLAYED

LEGEND:
GOOD (>0.50)
FAIR (>0.30)



524

GENERAL LOGS

DEPTH SCALE 200

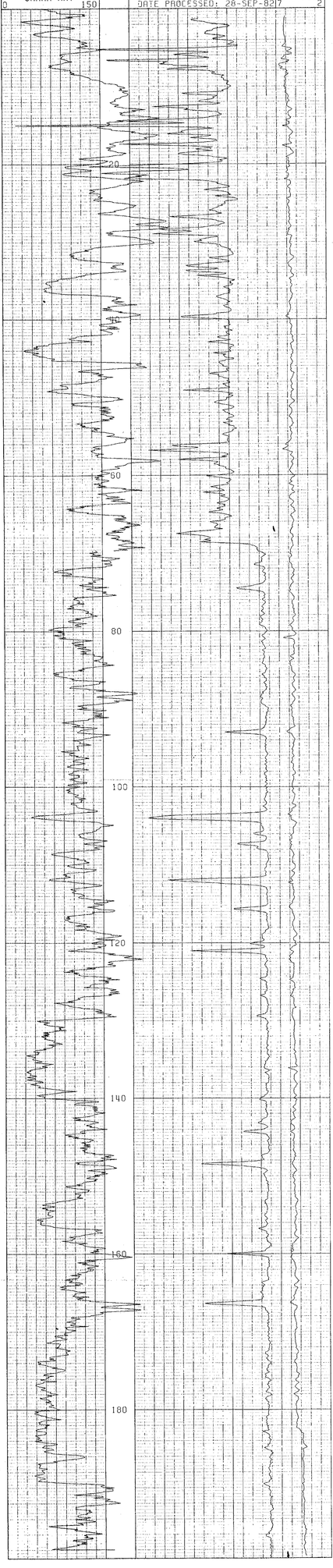
L.S.D (CCS) 6000 -2000

CLIENT: ESSO MINERALS
WELL NO:82-8
AREA: FALLING CREEK
CASING:
WATER:
DEPTH:0.00-199.10
DATE PROCESSED: 28-SEP-82

GAMMA RAY 0 150

GAMMA RAY 0 150

CALIPER 7 2



524

GENERAL LOGS

GAMMA RAY 0 150

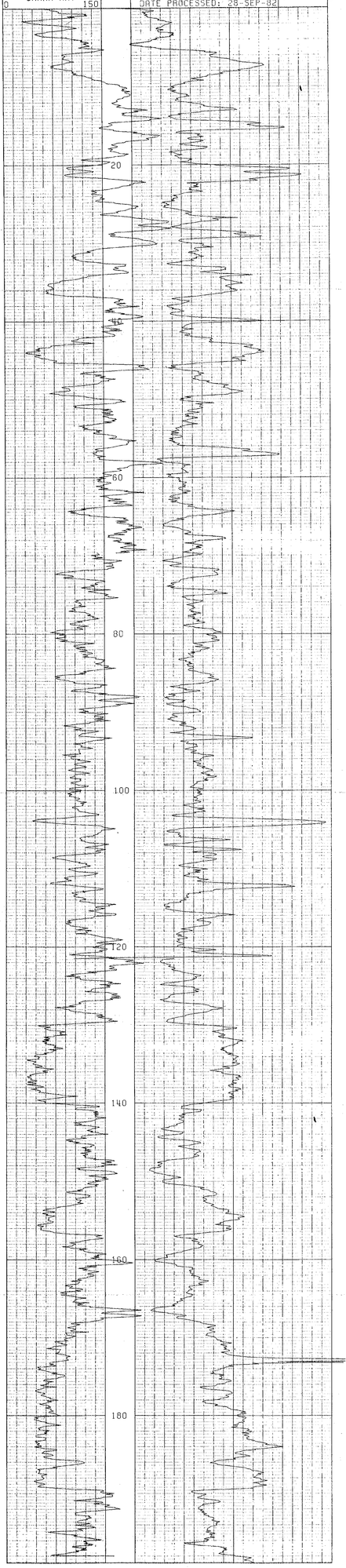
GAMMA RAY 0 150

DEPTH SCALE 200

NEUTRON-NEUTRON 500 1600

NEUTRON-NEUTRON 0 800

CLIENT: ESSO MINERALS
WELL NO:62-8
AREA: FALLING CREEK
CASING: NEUTRON SCALE CHANGE
WATER: AT 121.5 METRES.....
DEPTH:0.00-198.50
DATE PROCESSED: 28-SEP-82



BOROUGH OF
BOROUGH OF
COUNTY OF
STATE OF

BEAM THICKNESS LOG

DATE OF RUN
DATE OF PROCESSING
DATE OF PRINTING

BOROUGH OF
COUNTY OF
STATE OF

BEAM THICKNESS LOG

DATE OF RUN
DATE OF PROCESSING
DATE OF PRINTING

BOROUGH OF
COUNTY OF
STATE OF

BEAM THICKNESS LOG

DATE OF RUN
DATE OF PROCESSING
DATE OF PRINTING

BOROUGH OF
COUNTY OF
STATE OF

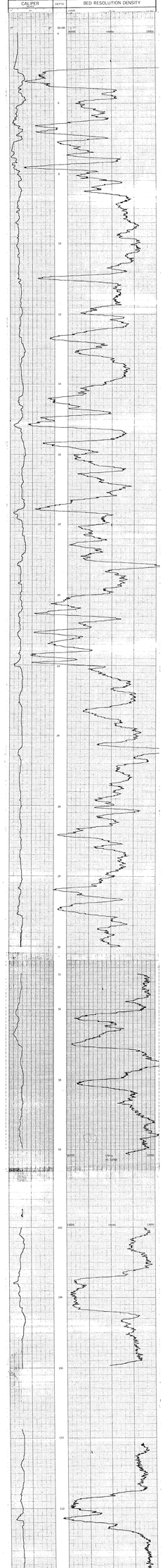
BEAM THICKNESS LOG

DATE OF RUN
DATE OF PROCESSING
DATE OF PRINTING

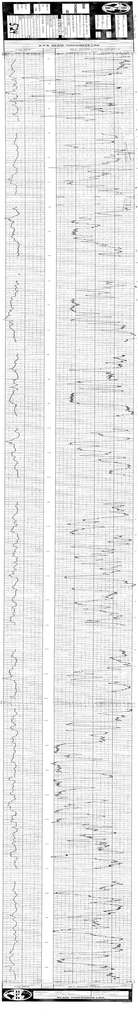
524

B P B SEAM THICKNESS LOG

CALIPER	DEPTH	BED RESOLUTION DENSITY



AFR HEAT MONITOR LOG
DATE
TIME
TEMP
TIME
TEMP
TIME
TEMP



COAL QUALITY LOG
COAL QUALITY LOG

Pre-Falling Creek 82C3A

524

DIPMETER ANALYSIS

CLIENT ESSO MINERALS CANADA
BOREHOLE 82-10
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....14-AUG-82
DATE PROCESSED..19-AUG-82

COMMENTS.....

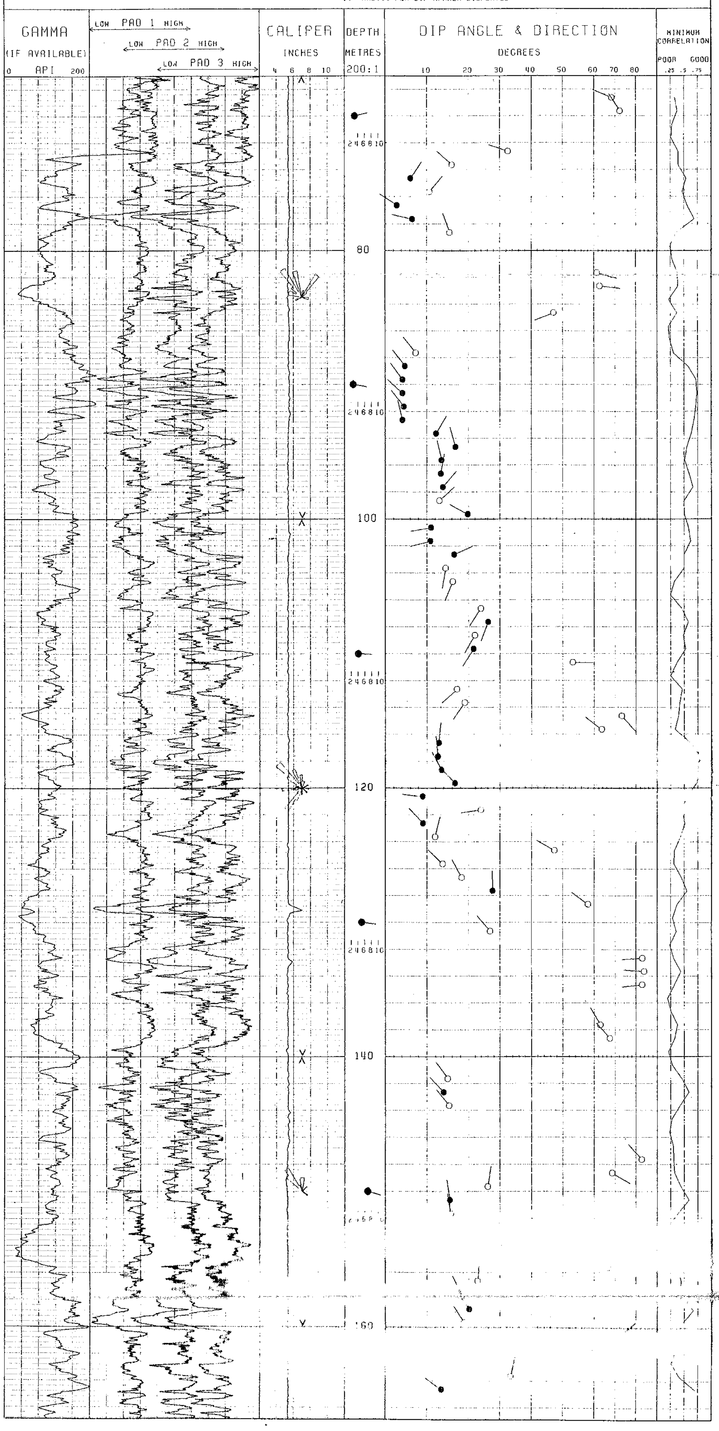
INTERPRETATION PARAMETERS

STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 80.
DECLINATION 25.5 EAST
DEPTH RANGE 67.00 - 166.90M.
DATE PROCESSED 19-AUG-82

AVERAGE BOREHOLE DEVIATION & DIRECTION ANNOTATED EVERY 20.0M.

ADSE DIAGRAMS SEGMENTED EVERY TEN DEGREES, .1" RADIUS PER DIP MARKER DISPLAYED

LEGEND:
GOOD (>0.50)
FAIR (>0.30)



R.F.D. BARK THICKNESS LOG
COLLIERY
DATE
DEPTH
BARK THICKNESS
DEPTH
BARK THICKNESS
DEPTH
BARK THICKNESS

COAL LITHOLOGY LOG

BPB

BOREHOLE 82-11-21
CLIENT BPB
AREA FALLING CREEK
COUNTRY CANADA
DATE LOGGED 21/6/82
DEPTH SCALE 1:200
___OF___LOGS

LOG SUITE
GAMMA RAY
L.S. DENSITY
CALIPER

SONDE TYPE
COAL COMBINATION SONDE

524

BOREHOLE DATA

PERMANENT DATUM	GROUND LEVEL	
ELEVATION OF P.D.	BPB	DRILLER
MEASUREMENTS FROM		
DEPTH REACHED	11m	
CASING SHOE		
BIT SIZES	1 TO 3	2 TO 4
CASING SIZES	1 TO 2	2 TO 4

FLUID DATA

NATURE	MUD
S.G.	
LEVEL	
VISCOSITY	
Rm at meas. temp	
BHT	

OPERATION DATA

FIRST READING	
LAST READING	
LAST TRUCK No.	
ENGINEER	
WITNESS	

524

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: TC SECS	PANEL: NORM	CAL COEFF	DEPTHS: FROM	DEPTHS: TO	DEPTHS: INTERVAL	SEAM LOG RUN
GAMMA RAY	140			y	9	5	9	1		1.0	11	0	11	y
L.S. DENSITY	5851			y	9	5	9	.1	6.0		11	0	11	y
CALIPER	SIDEWALL POSITION			y	9	5	9	.1			11	0	11	y

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

FROM	11	INTERVAL TOTAL
TO	1	
INTERVAL	10m	

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

1 SPIKES DUE TO TOOL MALFUNCTION

BPB COAL LITHOLOGY LOG

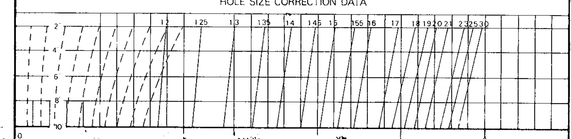
CALIBRATION DATA

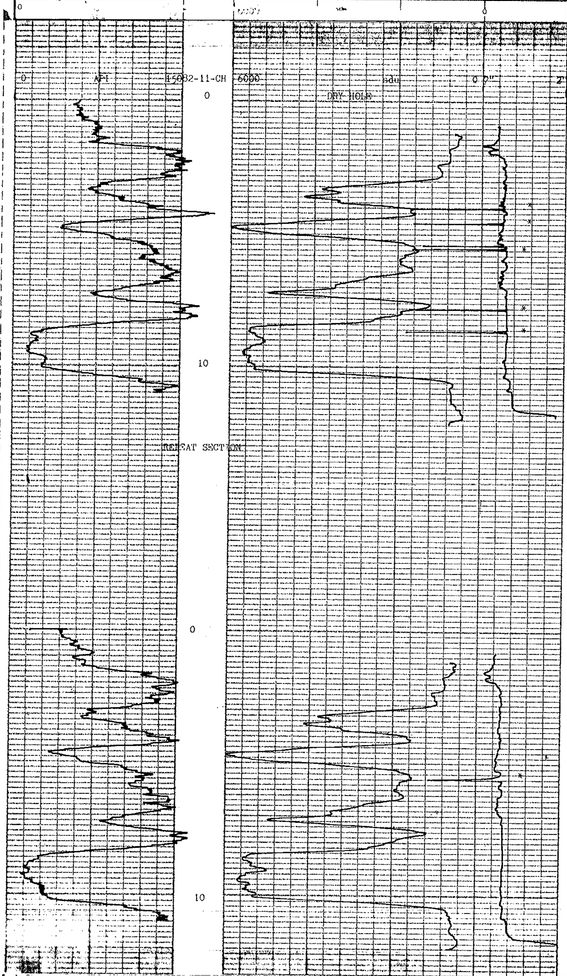
JIG No	VALUE @ 2' DIAM	JIG CAL DATE	JIG VALUE SDU @ g/cm³
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN NORM SDU - CPS

	ins	cps
	ins	cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA





GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

BOREHOLE 82-11-21 AREA FALLING CREEK
CLIENT BPB COUNTRY CANADA

COAL LITHOLOGY LOG

MY A50261 R

Fr. Falling Creek 82-11-01

BPB

BOREHOLE 82-11-01
CLIENT BBSO

AREA FALLING CREEK
COUNTRY CANADA
DATE LOGGED 16/8/82

DEPTH SCALE 20:1

__ OF __ LOGS

COAL QUALITY LOG

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

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

	LOG TAPED	TAPING SPEED	TAPING DIRECTION	TAPING DEPTH REPLAY	PANEL SPEED	PANEL DEPTH	PANEL NORM	CO. CODE
GAMMA RAY	Y	2	D	D	2	2	1.5/1	
L.S. DENSITY	Y	2	D	D	2	1/3	1.5	

SIDEWALL POSITION

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE

COAL QUALITY LOG INTERVALS

FROM	;;
TO	0
INTERVAL	;;
FROM	
TO	
INTERVAL	

INTER VAL TOTAL ;; ;;

REMARKS

524

LOG SUITE: GAMMA RAY L.S. DENSITY

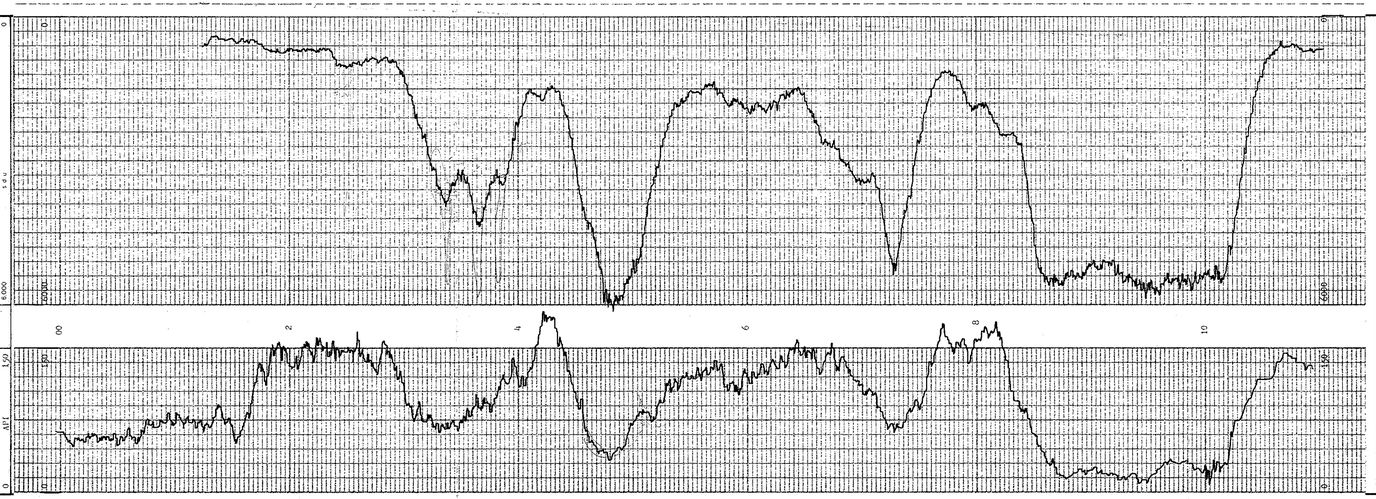
B P B COAL QUALITY LOG

DEPTH

COAL BULK DENSITY g/cm³

GAMMA RAY

HOLE SIZE CORRECTION DATA



COAL BULK DENSITY g/cm³

DEPTH

GAMMA RAY

BOREHOLE 82-11-01
CLIENT BBSO

AREA FALLING CREEK
COUNTRY CANADA

COAL QUALITY LOG

BPB

524

GENERAL LOGS

DEPTH SCALE 200

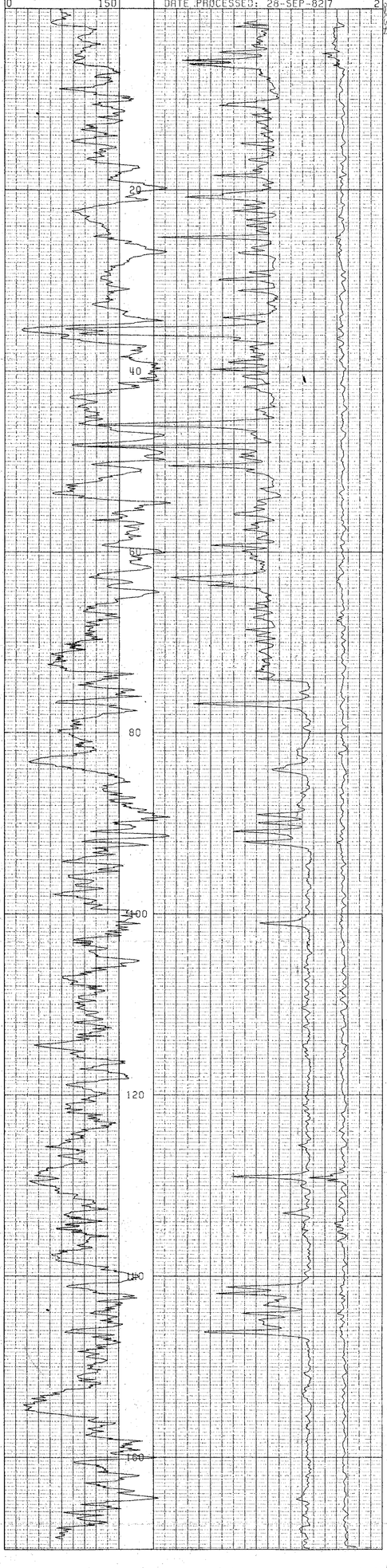
L.S.D (CCS) 6000 -2000

CLIENT: ESSO MINERALS
WELL NO:82-10
AREA: FALLING CREEK
CASING:
WATER:
DEPTH:0.00-170.20
DATE PROCESSED: 28-SEP-82

GAMMA RAY 0 150

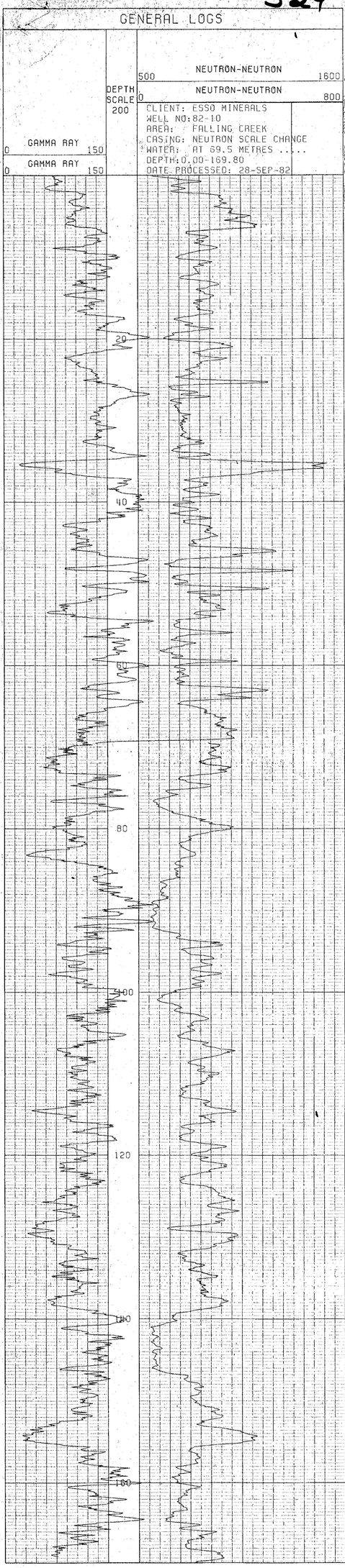
GAMMA RAY 0 150

CALIPER 7 2



524

GENERAL LOGS



Re: Falling Creek 82-11

BPB

BOREHOLE 82-11 CH

CLIENT BCOG

AREA FALLING CREEK

COUNTRY CANADA

DATE LOGGED 16/12/82

DEPTH SCALE 20:1

___ OF ___ LOGS

SEAM THICKNESS LOG

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

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SIDEWALL POSITION

LOG	TAPING			PANEL			LOG COPIES
	LOG TAPED	RECORD SPEED	DIRECT OF REPLAY	SPEED	SEPS	NORM	
CALIPER	Y	2	R	2	1		
B P DENSITY	Y	2	Y	2	1.3	7.51	

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	11
TO	1
INTERVAL	10
FROM	
TO	
INTERVAL	
INTERVAL TOTAL	± 10

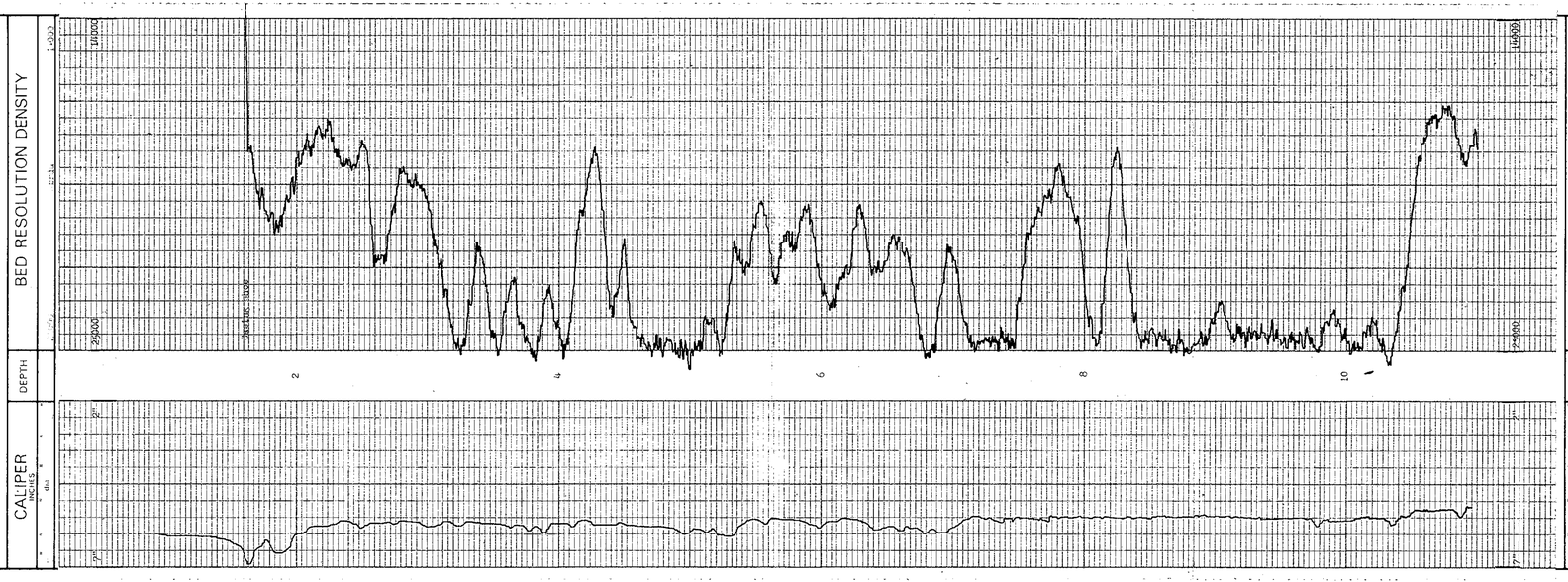
REMARKS

524

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: CALIPER, B P DENSITY

B P B SEAM THICKNESS LOG



BED RESOLUTION DENSITY

DEPTH

CALIPER INCHES

AREA FALLING CREEK

COUNTRY CANADA

BOREHOLE 82-11 CH

CLIENT BCOG

SEAM THICKNESS LOG

BPB

MT 88003 R

COAL LITHOLOGY LOG

BPB

BOREHOLE: 82-11-P1
CLIENT: NRG
AREA: FALLING CROW
COUNTRY: ANALA
DATE LOGGED: 1/7/82
DEPTH SCALE: 1:50
PAGE ___ OF ___ LOGS

BOREHOLE DATA

PERMANENT DATUM	[illegible]
ELEVATION OF P.D.	GPB
MEASUREMENTS FROM	DRILLER
DEPTH REACHED	[illegible]
CASING SHOE	[illegible]
BIT SIZES	1 TO 2
CASING SIZES	1 TO 2 / 3 TO 4

FLUID DATA

WATER LEVEL	[illegible]
VISCOSITY	[illegible]
Pm at meas. temp.	5.24
B+T	

OPERATION DATA

FIRST READING	[illegible]
LAST READING	[illegible]
INTERVAL LOGGED	[illegible]
CAL CHECK No.	[illegible]
ENGINEER	[illegible]
WITNESS	[illegible]

LOG SUITE

GAMMA RAY	[illegible]
L.S. DENSITY	[illegible]
CALIPER	[illegible]

SONDE TYPE

COAL COMBINATION SONDE	[illegible]

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: TC SECS	PANEL: NORM	CAL COEFF	DEPTHS: FROM	DEPTHS: TO	DEPTHS: INTERVAL	SEAM LOG RUN
GAMMA RAY	160			Y	9	9	9	1		1.00	24	0	24	Y
L.S. DENSITY		5151		Y	9	0	9	.5	[illegible]		24	0	24	Y
CALIPER	SIDEWALL POSITION			Y	9	0	9	.5			24	0	24	Y

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

FROM	9	INTERVAL TOTAL	2m
TO	2		
INTERVAL	7m		

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
10	7-N		

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

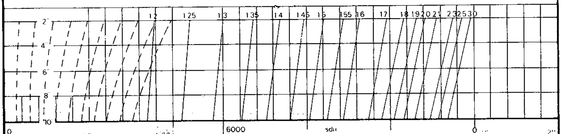
CALIBRATION DATA

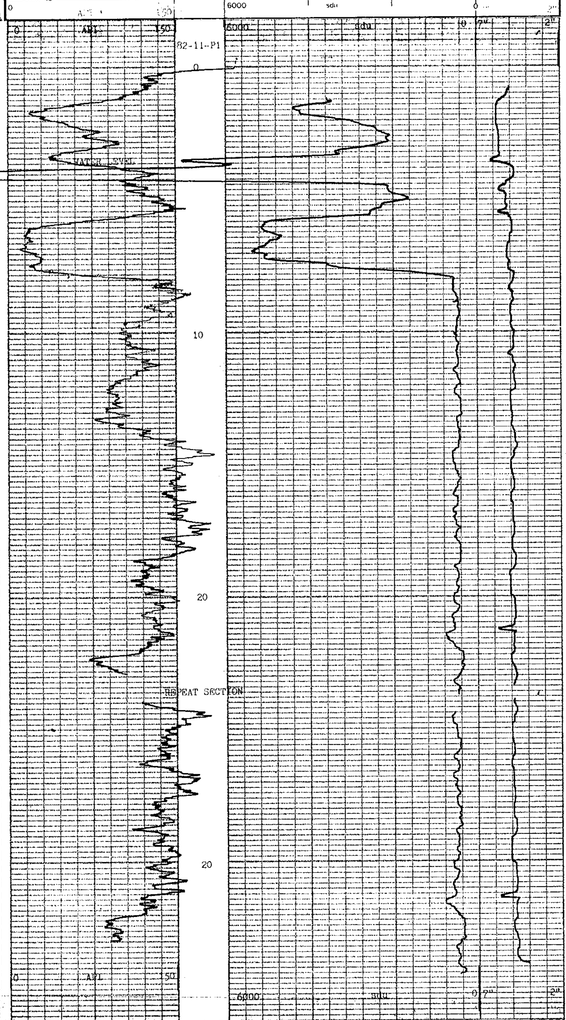
JIG No	VALUE @ 2 DIAM	JIG CAL DATE	JIG VALUE SDU @ g/cm³
JIG MARK SHOWN AT ABOVE VALUE -		JIG No	SPAN NORM SDU/CPS =

	kns cps
	kns cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA





GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES
0 API 150		6000 sdu	0" 2"

BPB

BOREHOLE: 82-11-P1
CLIENT: NRG
AREA: FALLING CROW
COUNTRY: ANALA

COAL LITHOLOGY LOG

MT A50261 R

Re-Falling Creek 80(3)a

BPB

BOREHOLE 92-11-21
CLIENT 8330

AREA FALLING CREEK
COUNTRY CANADA
DATE LOGGED 21/8/92

DEPTH SCALE 1:1

___ OF ___ LOGS

COAL QUALITY LOG

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

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	TAPING			PANEL			SIDEWALL POSITION	
	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	SECS	NORM	CAL CHECK	
GAMMA RAY	Y	2	3	2	2			
LS DENSITY	Y	2	3	2	1/2			

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM	2	
TO	2	
INTERVAL	2	INTERVAL TOTAL
FROM		
TO		
INTERVAL		

524

REMARKS

Please note hole change at water level.

Above water 10000 BPM

Below water 20000 BPM

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
GAMMA RAY
LS DENSITY

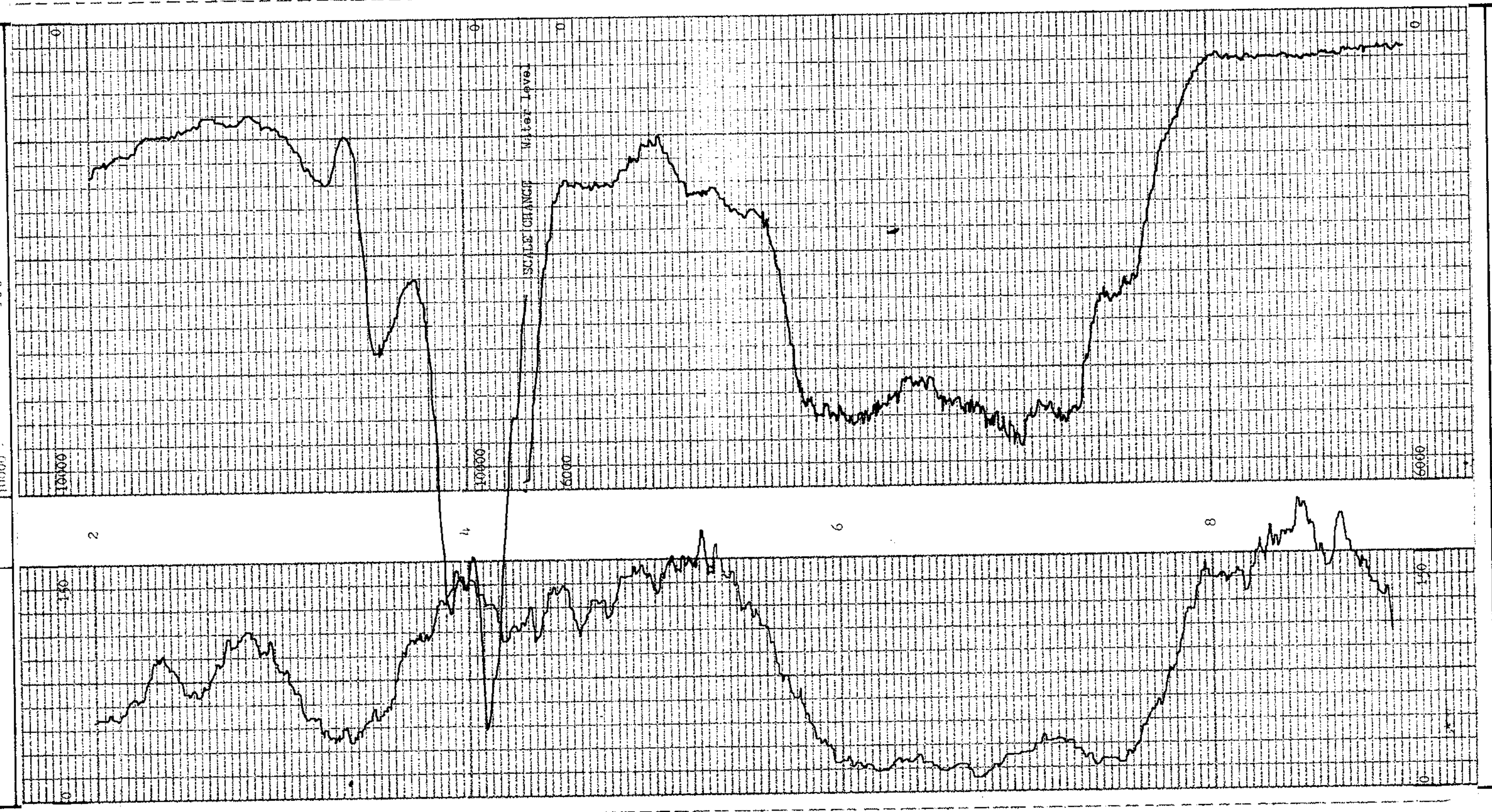
BPB COAL QUALITY LOG

DEPTH

GAMMA RAY

COAL BULK DENSITY g/cm3

HOLE SIZE CORRECTION DATA



BOREHOLE 92-11-21
CLIENT 8330

AREA FALLING CREEK
COUNTRY CANADA

COAL QUALITY LOG

Pr - Falling Creek 82-11-A

GAMMA RAY & NEUTRON-NEUTRON LOG

BOREHOLE 82-11-P1
CLIENT BPBO

AREA FALLING CREEK
COUNTRY CANADA
DATE LOGGED 19/V/82

DEPTH SCALE 1:500

___ OF ___ LOGS

BOREHOLE DATA	REFER TO LITHOLOGY LOG		
OPERATION DATA	REFER TO " LOG		
EQUIPMENT AND RECORDING DATA			
LOG	TAPING	PANEL	CAL COEFF

LOG	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T C SECS	NORM	CAL COEFF
GAMMA	Y	2	8	9	1		1.07
N-N	Y	9	.	9	1	.52	

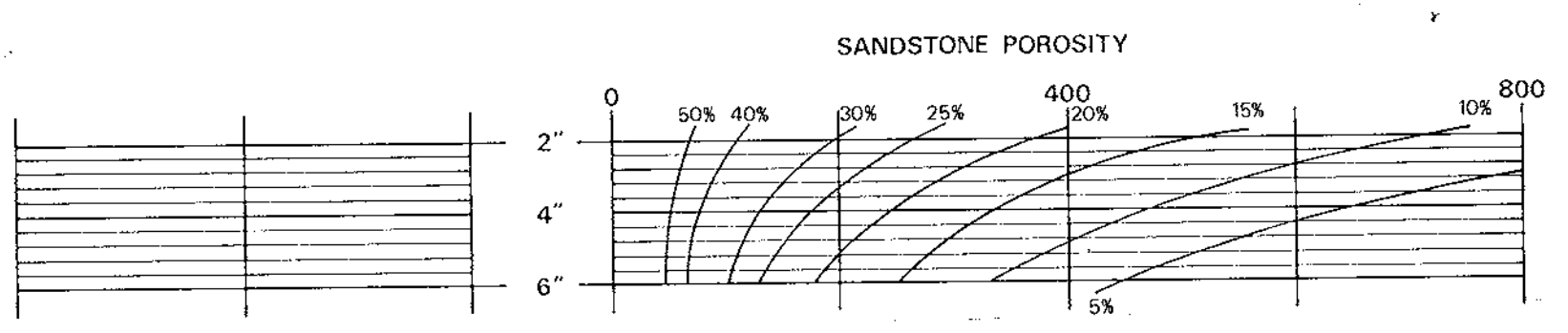
SONDE NO	SOURCE NO
10	47887

REMARKS

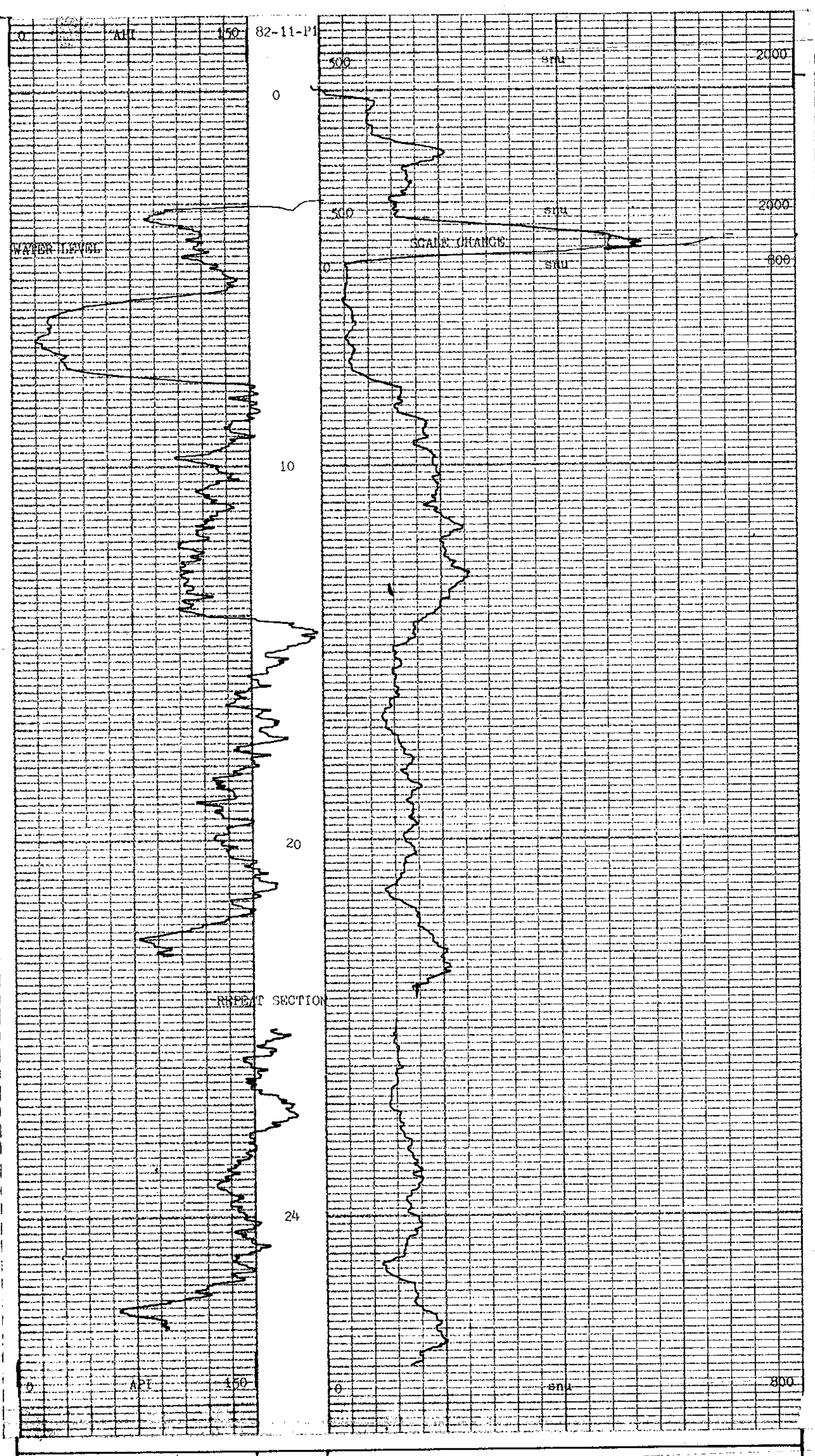
524

GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		500 SNU 2000

SANDSTONE POROSITY



MY (1) A58451 R



GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		0 SNU 800

BOREHOLE 82-11-P1
CLIENT BPBO

AREA FALLING CREEK
COUNTRY CANADA

MY A58452R

COAL LITHOLOGY LOG

BPB

BOREHOLE: N2-11-P2
CLIENT: SECAL
AREA: FALLING CREEK
COUNTRY: CANADA
DATE LOGGED: 26/6/89

LOG SUITE: GAMMA RAY, L.S. DENSITY, CALIPER
SONDE TYPE: COAL COMBINATION SONDE
LOGGING UNIT: 524
OPERATOR: [illegible]
WITNESS: [illegible]

BOREHOLE DATA: PERMANENT DATUM: GROUND LEVEL; DATUM ELEV. ASL: [illegible]; MEASUREMENTS FROM: BPB; CASING SIZE: [illegible]; CASING SHOE: [illegible]; DRILLER'S TD: [illegible]; MAX. DEVIATION: [illegible]

FILLER DATA: MAX. TEMP: [illegible]; BH STATE: [illegible]; CASING SIZE: [illegible]; FROM: [illegible]; TO: [illegible]; FLUID LEVEL: [illegible]; FLUID TYPE: [illegible]; FLUID DENSITY: [illegible]; PH: [illegible]; RM: [illegible]; RMF: [illegible]; RMC: [illegible]; RM @ MEAS. TEMP: [illegible]; RMF @ MEAS. TEMP: [illegible]; RMC @ MEAS. TEMP: [illegible]; MAX. RECORDED TEMP: [illegible]; EST. TRACK No: [illegible]; RIGS: [illegible]; PRIOR RIGUP: [illegible]; MATERIAL LOGGED: [illegible]; EQUIPMENT: [illegible]

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: T.C. SECS	PANEL: NORM	CAL. COEFF.	DEPTHS: FROM	DEPTHS: TO	DEPTHS: INTERVAL	SEAM LOG RUN
GAMMA RAY	160	[redacted]		Y	9	D	9	1		1.42	0.5	0	0.5	y
T.S. DENSITY		[redacted]		Y	9	D	9	.1	6.0		0.5	0	0.5	y
CALIPER	SIDEWALL POSITION	[redacted]		Y	9	D	9	.1			0.5	0	0.5	y

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

FROM	62 13		INTERVAL TOTAL 20m
TO	33 2		
INTERVAL	9 11		

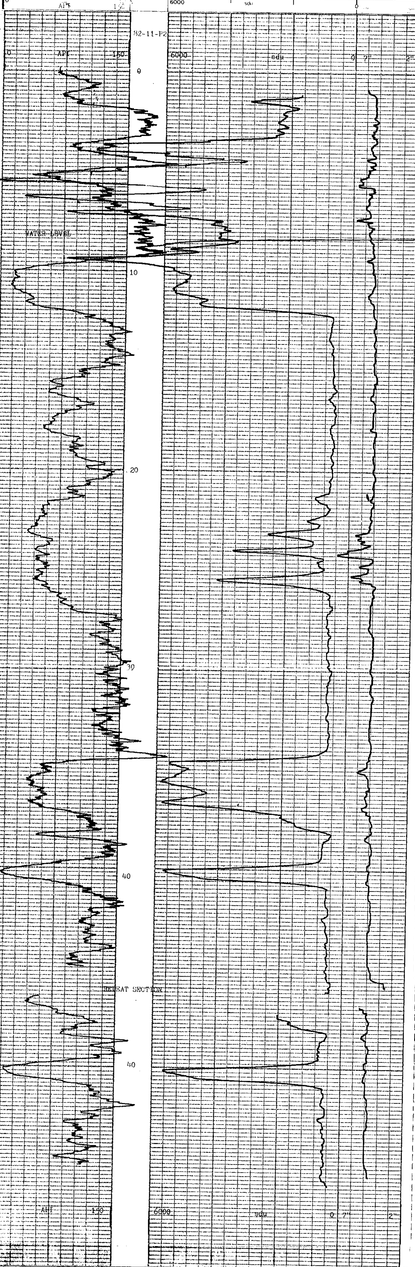
ADDITIONAL SONDES RUN				
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS
LD	N-X			
60/120	DIP			

REMARKS

CALIBRATION DATA

JIG No	VALUE @ 2 DAM	JIG CAL DATE	JIG VALUE	SDU@	g/cm³	ms	rps
JIG MARK SHOWN AT ABOVE VALUE =		JIG No	SPAN	NORM	SDU-CPS	ms	rps

HOLE SIZE CORRECTION DATA



GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

BPB

BOREHOLE: N2-11-P2 AREA: FALLING CREEK
CLIENT: SECAL COUNTRY: CANADA

COAL LITHOLOGY LOG

MY A39261 R

COAL QUALITY LOG

SONDE TYPE COMBINATION SONDE

LOG SUITE COMBINATION S. DENSITY

BOREHOLE DATA
BORE TD (DRILLER) 000
OPERATION DATA
BORE TD (LOGGER) 000
EQUIPMENT AND RECORDING DATA
COAL COMBINATION SONDE
SERIAL NO/TYPE
COUNTS PER SECOND CP
COAL QUALITY LOG INTERVALS
FROM TO
TOP 000
BOTTOM 000
REMARKS
SONDE SERIAL NO. 000
SONDE SERIAL NO. 000
SONDE SERIAL NO. 000

PR- FALLING CREEK 82(3)A

524

DIPMETER ANALYSIS

CLIENT ESSO MINERALS CANADA
BOREHOLE 82-11 PILOT 2
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....16-AUG-82
DATE PROCESSED..31-AUG-82

COMMENTS.....

TILT CELL FAILURE;
BOREHOLE ASSUMED
VERTICAL.

INTERPRETATION PARAMETERS

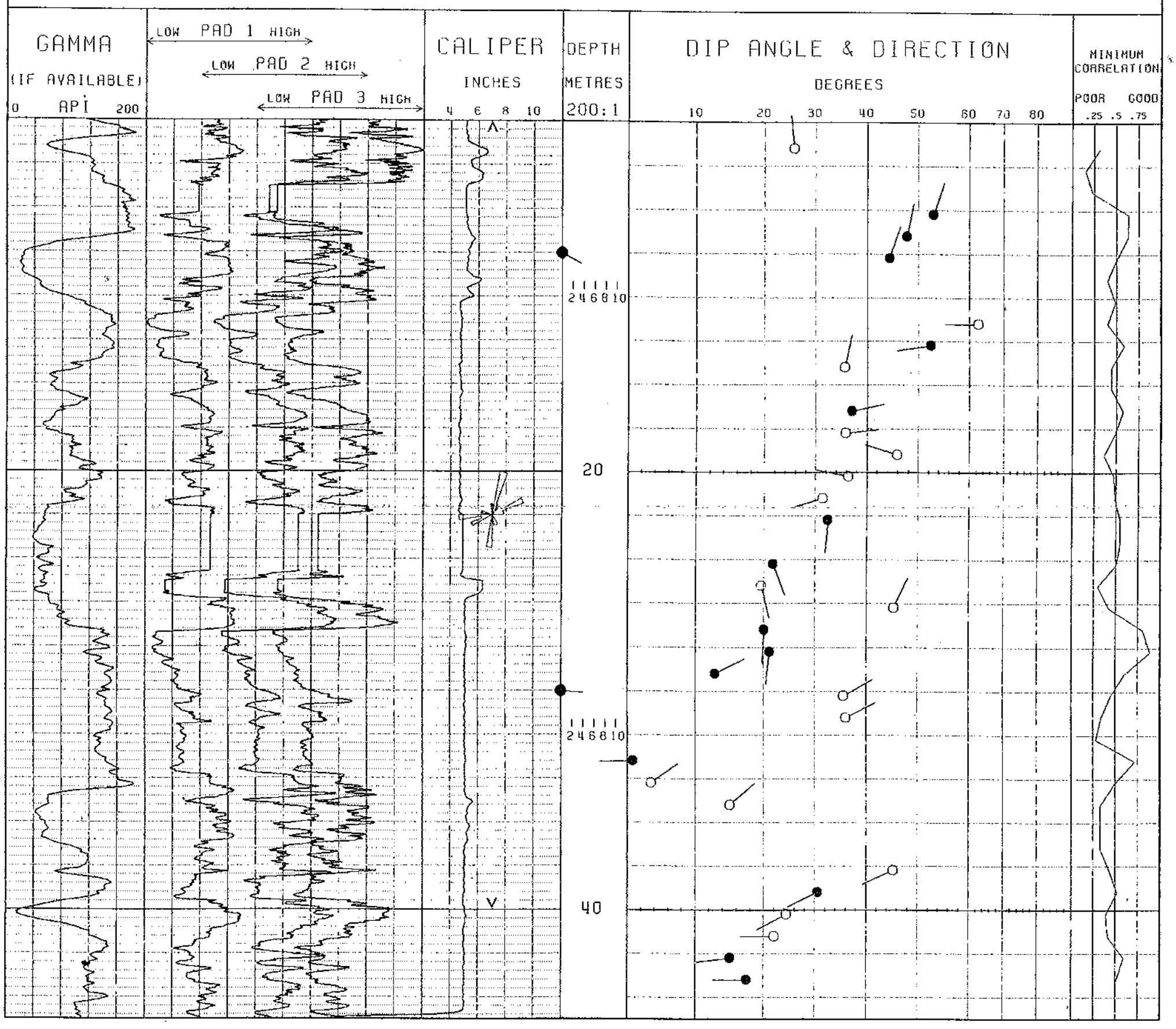
STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 60.

DECLINATION 25.5 EAST
DEPTH RANGE 4.00 - 45.00M.
DATE PROCESSED 31-AUG-82

AVERAGE BOREHOLE DEVIATION & DIRECTION
ANNOTATED EVERY 20.0M.

ROSE DIAGRAMS SEGMENTED EVERY TEN DEGREES.
.1" RADIUS PER DIP MARKER DISPLAYED

LEGEND:
GOOD (>0.50)
FAIR (>0.30)



GAMMA RAY & NEUTRON-NEUTRON LOGS

BOREHOLE 82-11-22
CLIENT SEAR

AREA FALLING CREEK
COUNTRY CANADA
DATE LOGGED 24/9/82

DEPTH SCALE 1:500

____ OF ____ LOGS

BOREHOLE DATA
REFER TO LITHOLOGY LOG

OPERATION DATA
REFER TO LOG

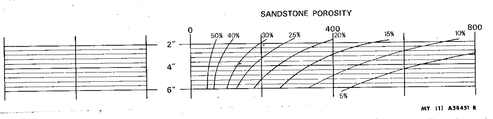
EQUIPMENT AND RECORDING DATA

LOG	TRACKING	PANEL	SCALE
GAMMA RAY			
NEUTRON-NEUTRON			

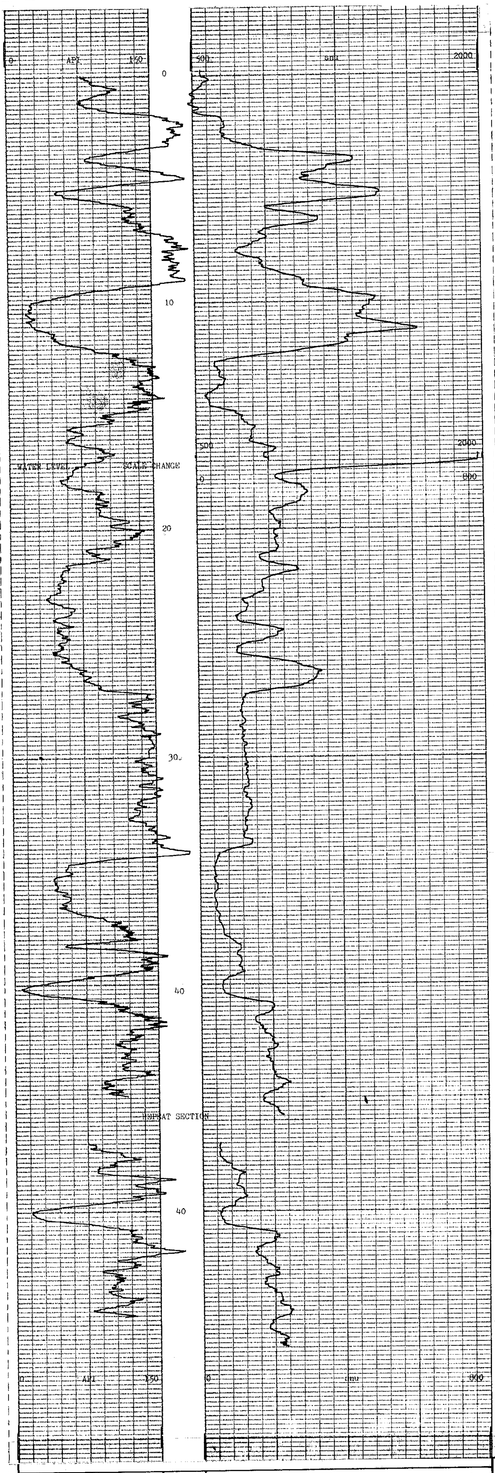
REMARKS

GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		500 CPS 2000

SANDSTONE POROSITY



MY (1) A56451 R



GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		0 CPS 500

BOREHOLE 82-11-22
CLIENT SEAR

AREA FALLING CREEK
COUNTRY CANADA

MY A56453 R

SEAM THICKNESS LOG

BOREHOLE 52-11-V
CLIENT —
AREA Yorkshire Basin
COUNTRY India
DATE LOGGED 27/7/84
SERIAL NO. 1
RUN NO. 1

BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
CALIBRATION DATA
SOURCE TYPE COAL COMBINATION SONDE
LOG SUITE CALIPER B.R. DENSITY
SEAM THICKNESS LOG INTERVALS
FROM 1 TO 42
MAXIMUM 1 TO 42
MINIMUM 1 TO 42
MEAN 1 TO 42
STANDARD DEVIATION 1 TO 42
SEAM THICKNESS 1 TO 42
CLOCK CONSTANT/CALIBRATION
CALIBRATION CHECKS
CALIBRATION CHECKS
CALIBRATION CHECKS

KPP COAL QUALITY LOG
COAL BULK DENSITY
COAL BULK DENSITY
COAL QUALITY LOG

Fb Falling Creek 82-12

[redacted]

524

GENERAL LOGS

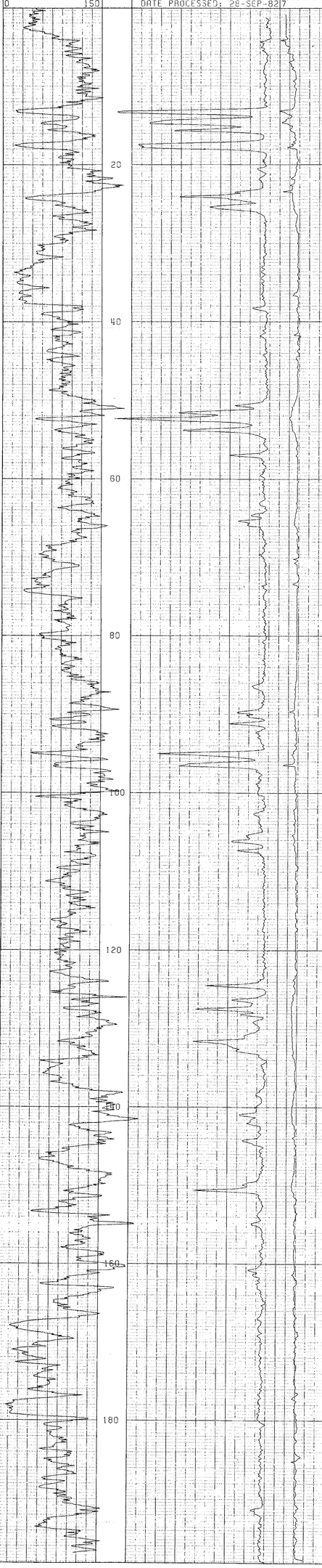
DEPTH SCALE 200

L.S.D (CCS) 6000 -2000

CLIENT: ESSO MINERALS
WELL NO:82-12
AREA: FALLING CREEK
CASING:
WATER:
DEPTH:0.10-198.20
DATE PROCESSED: 28-SEP-82

GAMMA RAY 0 150

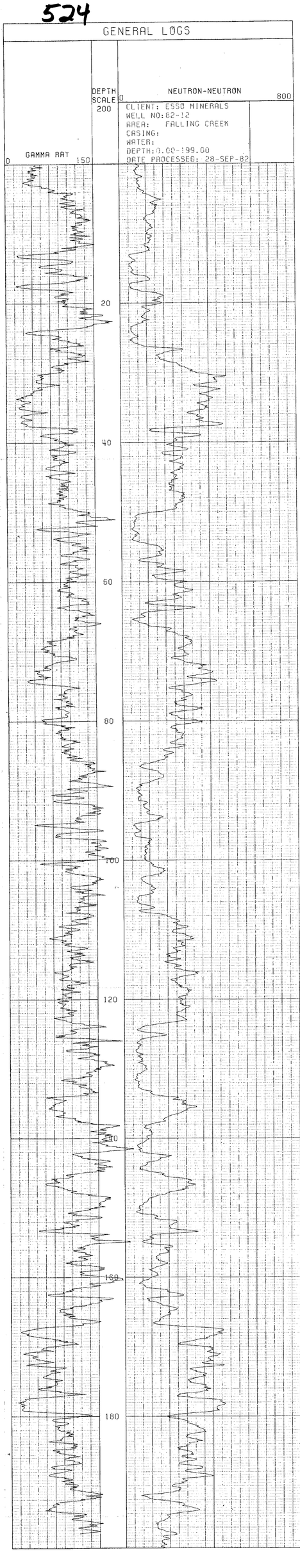
CALIPER 7 2



PR. FALLING CREEK COLO

524

GENERAL LOGS



Company	[illegible]
Well	[illegible]
Field	[illegible]
County	[illegible]
State	[illegible]
Other Services	[illegible]
Permanent Datum	[illegible]
Log Measured From	[illegible]
Drilling Measured From	[illegible]
Elevation	[illegible]
Date	[illegible]
Run No.	[illegible]
Depth Driller	[illegible]
Depth Logger	[illegible]
Bottom Log Interval	[illegible]
Top Log Interval	[illegible]
Casing Driller	[illegible]
Casing Logger	[illegible]
Bit Size	[illegible]
Type Fluid in Hole	[illegible]
Density	[illegible]
Viscosity	[illegible]
Fluid Loss	[illegible]
Source of Sample	[illegible]
Rm	[illegible]
Rmf	[illegible]
Rmc	[illegible]
Rm @ BHT	[illegible]
Max Rec. Temp.	[illegible]
Equipment Location	[illegible]
Recorded By	[illegible]
Witnessed By	[illegible]

ECC SLAB THICKNESS LOG

CALIPER | BED RESOLUTION DENSITY

BED RESOLUTION DENSITY

Company	[illegible]
Well	[illegible]
Field	[illegible]
County	[illegible]
State	[illegible]

SLAB THICKNESS LOG

COMPANY
NAME
AREA
COUNTY
STATE
DATE RECORDED

COAL QUALITY LOG

BORE HOLE DIAMETER
CASING
CASING WT
CASING DEPTH
FLUID LEVEL
FLUID TYPE
DENSITY
VISCOSITY
PH
FLUID LOSS
MAX. REC. TEMP.
RIG
RECORDED BY
WITNESSED BY

DATE
RUN NO.
TIME
TD
TL
BTM. LOG INTERVAL
TOP LOG INTERVAL
CASING - DRILLER
CASING - LOGGER
BTM. CASING INTERVAL
TOP CASING INTERVAL
CASING SIZE
TYPE FLUID IN HOLE
DENSITY
VISCOSITY
PH
FLUID LOSS
SOURCE OF SAMPLE
RM @ MEAS. TEMP.
RMF @ MEAS. TEMP.
RMC @ MEAS. TEMP.
SOURCE RMF
SOURCE RMC
RM @ BHT
TIME SINCE CIRC.
TIME SINCE STOP
MAX. REC. TEMP.
EQUIP. LOCATION
RECORDED BY
WITNESSED BY

OPERATING DATA
EQUIPMENT AND RECORDING DATA

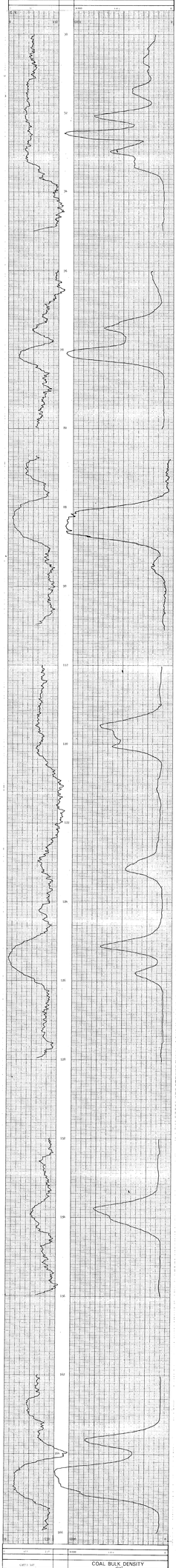
SCH

BPB COAL QUALITY LOG

DEPTH

COAL BULK DENSITY

HOLE SIZE CORRECTION DATA



COAL BULK DENSITY

DEPTH

BORE HOLE
CLIENT
AREA
COUNTY
STATE

COAL QUALITY LOG

Re: Falling Creek Alberta

524

DIPMETER ANALYSIS

CLIENT ESSO MINERALS
BOREHOLE 82-13
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....22-AUG-82
DATE PROCESSED..30-AUG-82

COMMENTS.....

INTERPRETATION PARAMETERS

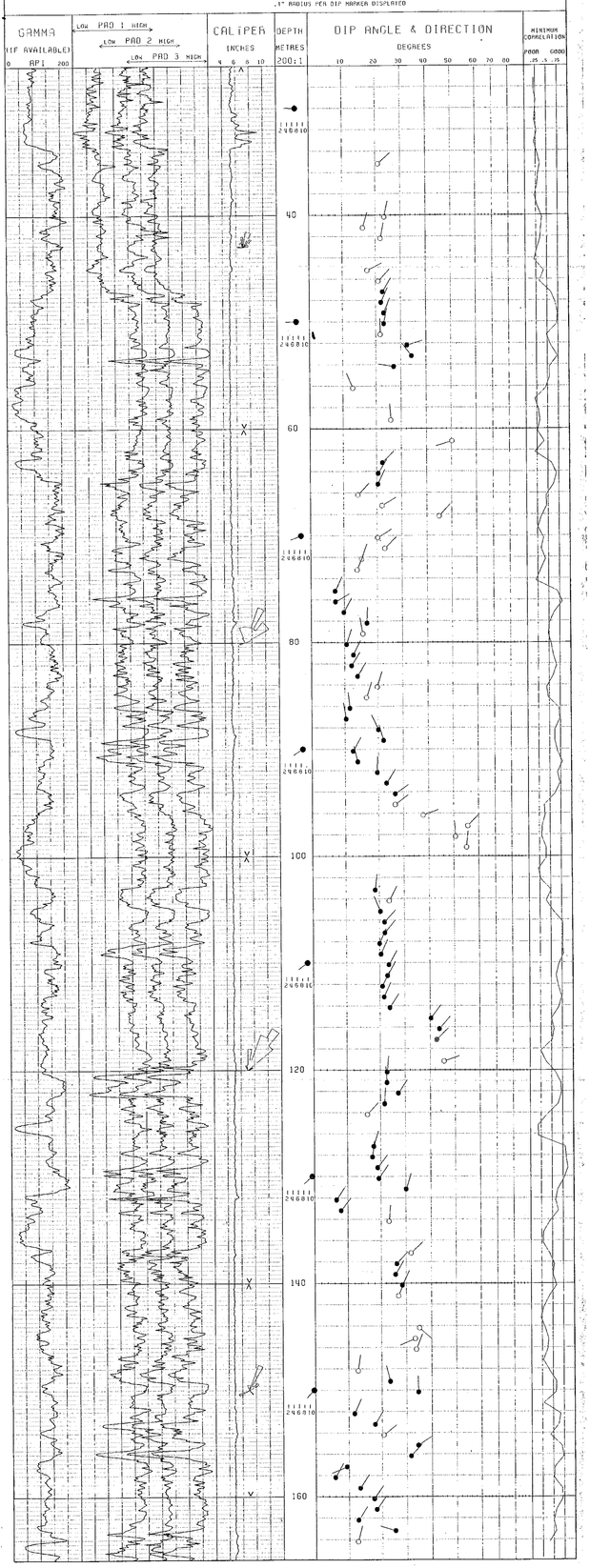
STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 60.

DECLINATION 25.0 EAST
DEPTH RANGE 26.00 - 165.90M.
DATE PROCESSED 30-AUG-82

AVERAGE BOREHOLE DEVIATION & DIRECTION ANNOTATED EVERY 20.0M.

ROSE DIAGRAMS SEGMENTED EVERY TEN DEGREES.
.1" RADIUS PEN DIP MARKER DISPLAYED

LEGEND:
GOOD (+0.50)
FAIR (+0.30)



Pa - Falling Creek 82-13A

GENERAL LOGS

524

DEPTH SCALE 200

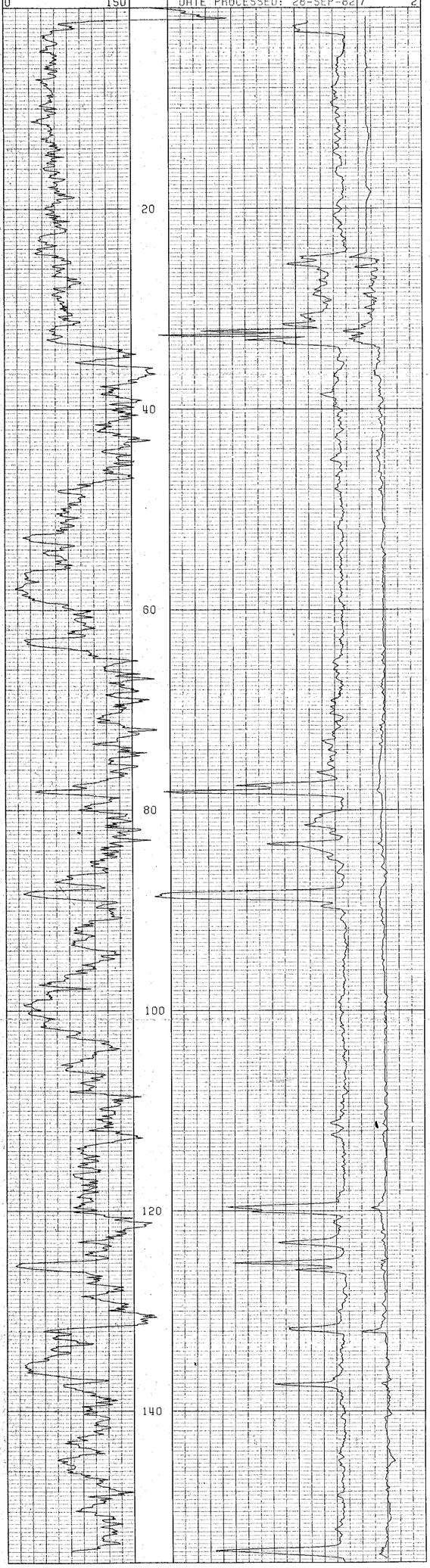
L.S.D (CCS)

6000 -2000

CLIENT: ESSO MINERALS
WELL NO:82-13
AREA: FALLING CREEK
CASING:
WATER:
DEPTH:0.00-155.10
DATE PROCESSED: 28-SEP-82

GAMMA RAY 0 150

CALIPER 7 2



Pk. Falling Creek 82-13A

GENERAL LOGS

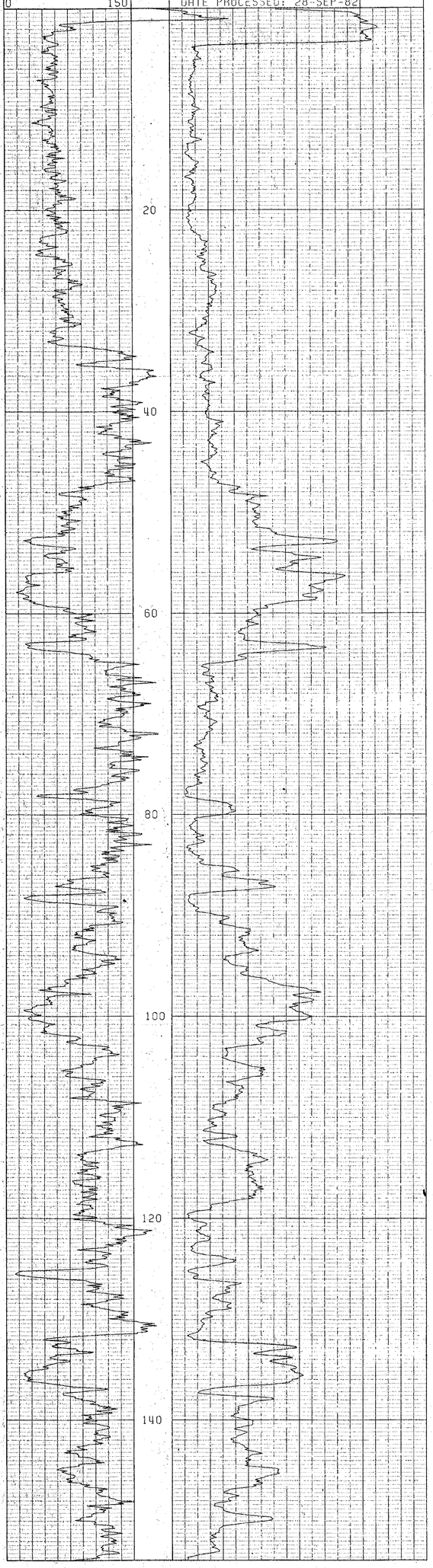
524

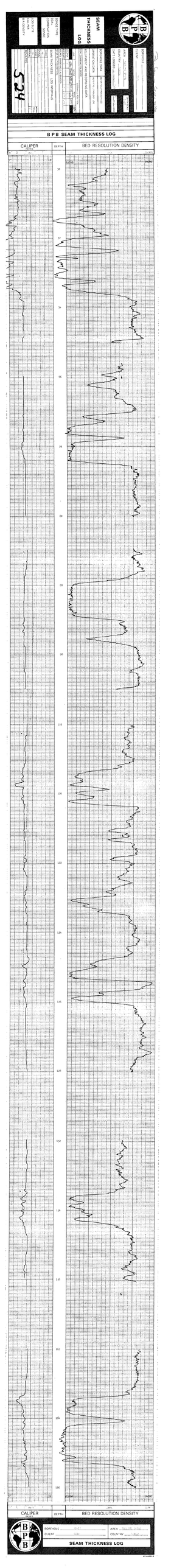
DEPTH SCALE 200

GAMMA RAY 0 150

NEUTRON-NEUTRON 0 800

CLIENT: ESSO MINERALS
WELL NO:82-13
AREA: FALLING CREEK
CASING:
WATER: ?
DEPTH:0.00-153.90
DATE PROCESSED: 28-SEP-82




BPB
SEAM THICKNESS LOG
S24
BPB SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
BORHOLE
CLIENT
AREA
COUNTRY
SEAM THICKNESS LOG

Pr. Falling Creek 82-9

524

DIPMETER ANALYSIS

CLIENT ESSO MINERALS CANADA
BOREHOLE 82-9
AREA FALLING CREEK
COUNTRY CANADA

DATE LOGGED.....13-AUG-82
DATE PROCESSED..19-AUG-82

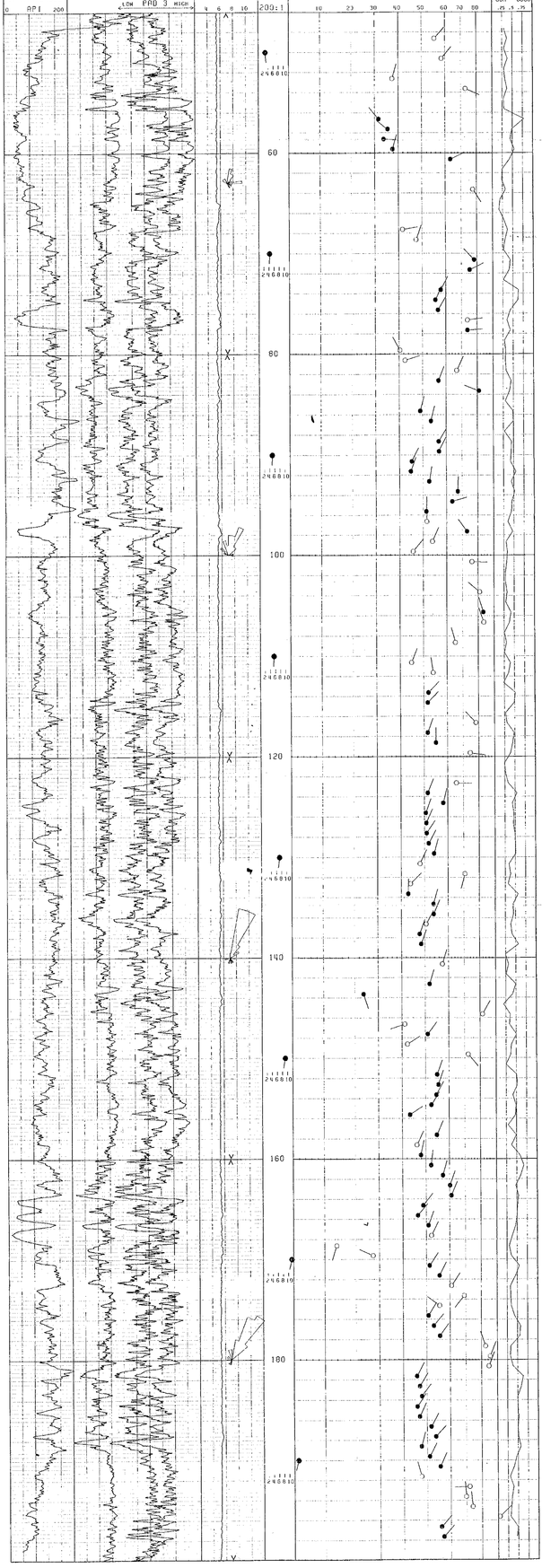
COMMENTS.....

INTERPRETATION PARAMETERS

STEP 1.00M.
INTERVAL 2.00M.
SEARCH ANGLE 80.
DECLINATION 25.5 EAST
DEPTH RANGE 96.00 - 199.90M.
DATE PROCESSED 19-AUG-82

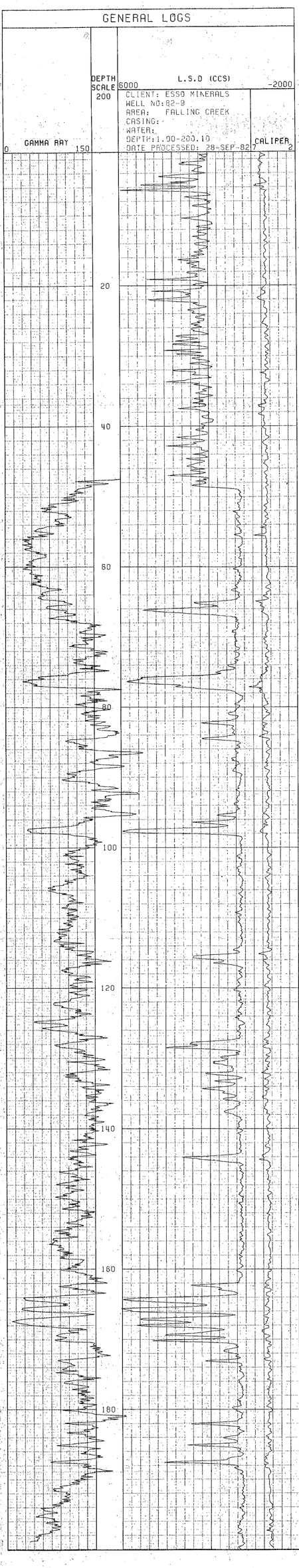
AVERAGE BOREHOLE DEVIATION & DIRECTION ANNOTATED EVERY 20.0M.
ROSE DIAGRAMS SEGMENTED EVERY TEN DEGREES.
.1" RADIUS PER DIP MARKER DISPLAYED

LEGEND:
GOOD (>0.40)
FAIR (>0.30)



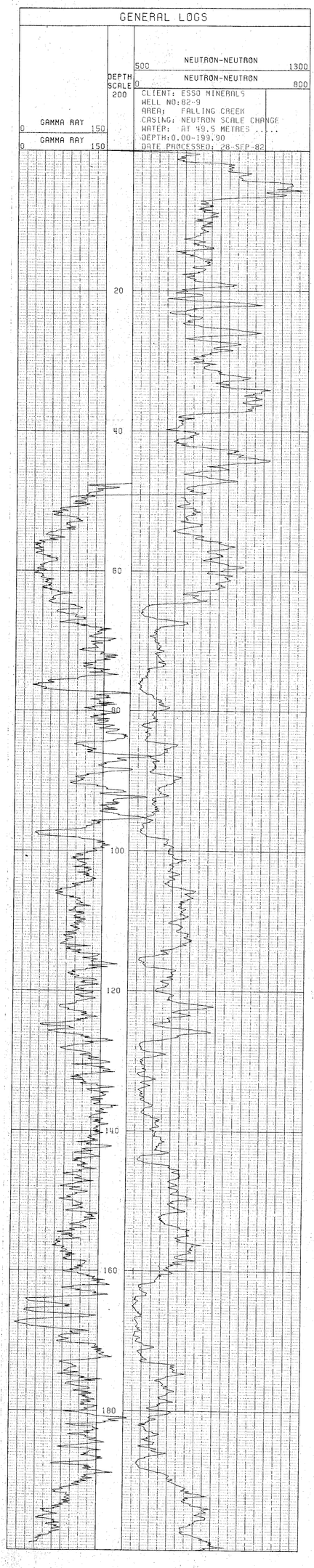
Pz - Falling Creek 82-9A

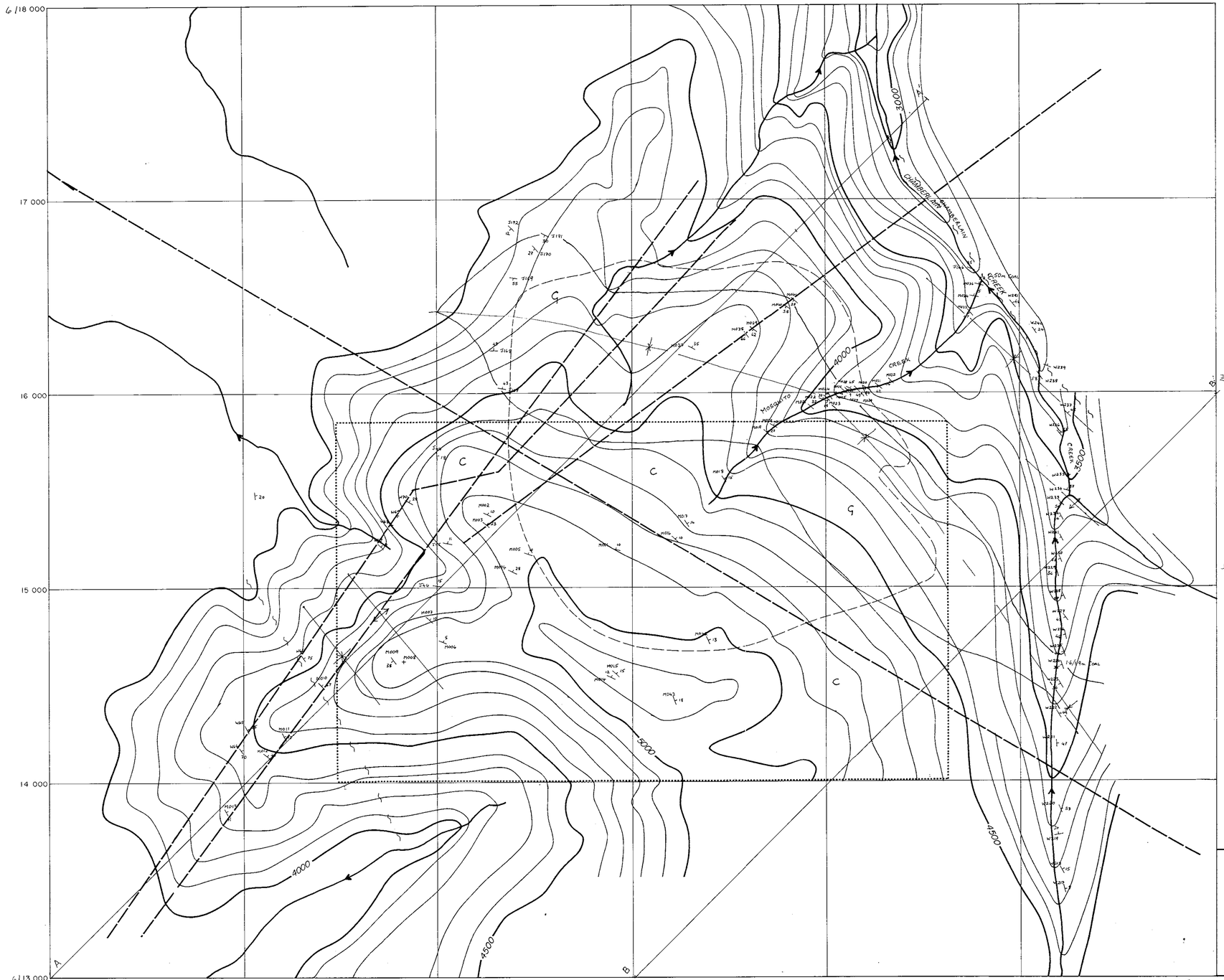
524



Pre-Volcanic Creek Basin

524





GETHING
CADOMIN & OLDER
DIP & DIRECTION
OUTCROP IDENTIFICATION
FORMATION CONTACT
FAULT
ANTICLINE
SYNCLINE
CREEK
TRAIL
SEISMIC LINE
PROPERTY BOUNDARY

1:10,870

0 0.5 1 MILE

0 0.5 1 km

Re-Falling Creek 93(2*)a (3*)

ESSO MINERALS CANADA
COAL DEPARTMENT

CHAMBERLAIN CREEK
GEOLOGY MAP

MAY 1983

Figure 51

93 P-4E

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CHAMBERLAIN CREEK 93-P-4E

CHAM. CK. #2