

00386

pt. 6 of 6

no cover available

L-SHELL-COALBIN 78/12 CC-DH-5



COAL LITHOLOGY LOG

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

BOREHOLE	C.C. D.I.L. # 5	DEPTH SCALE	100:1
CLIENT	SHELL (CANADA) LTD.	DATE LOGGED	78/09/06
AREA	CORBIN, B.C.	COUNTRY	CANADA
PERMANENT DATUM	GRAND PAVILION	DRILLER	B.P.B.
ELEVATION OF P.D.		MEASUREMENTS FROM	JACKSON A.V.
DEPTH REACHED	37.13m	CASING SHOE	N/A
CASING SIZES	1 TO 2	BIT SIZES	1 1/8" TO 2"
NATURE	DRY HOLE	FLUID DATA	
SG		VISCOSITY	
LEVEL		For at meas temp	
LOG		OPERATION DATA	
SONDE		FIRST READING	46
SOURCE		LAST READING	0
CALIBRATOR	300AFC	INTERVAL LOGGED	46
LOG TAPED	y	UNIT - TRUCK No	V25/42
RECORD SPEED	2	ENGINEER	D. COLEMAN
DIRECT REPLAY	d	WITNESS	
SPEED	2		
T.C SECS	3		
NORM	1.43		
CAL COEFF			
FROM			
TO			
INTERVAL			

386

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT	TAPING	PANEL	CAL COEFF	DEPTHS	SEAM LOG RUN					
SONDE	SOURCE	LOG TAPED	RECORD SPEED	DIRECT REPLAY	SPEED	T.C SECS	NORM	FROM	TO	INTERVAL	
GAMMA RAY	129	300AFC	y	2	d	2	3	1.43			
L.S. DENSITY	100RRC	3710	y	2	d	2	1	7.42			
CALIPER	SIDEWALL POSITION		y	2	r	2	1/3	-			

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

FROM		INTERVAL TOTAL
TO		
INTERVAL		

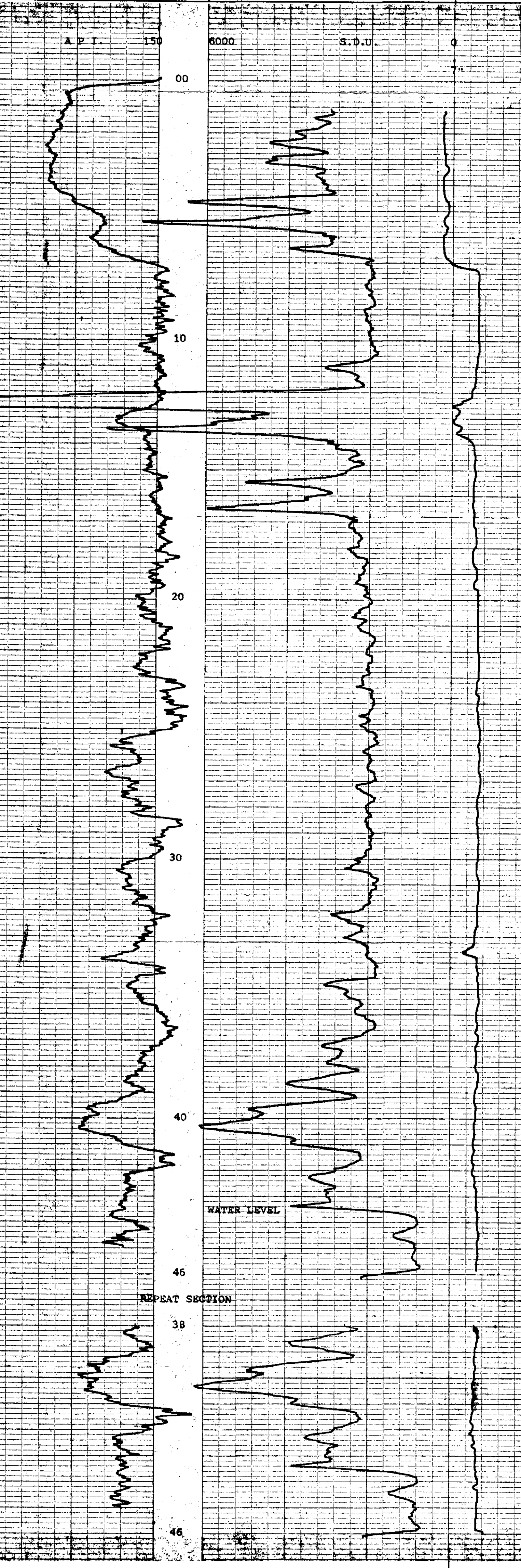
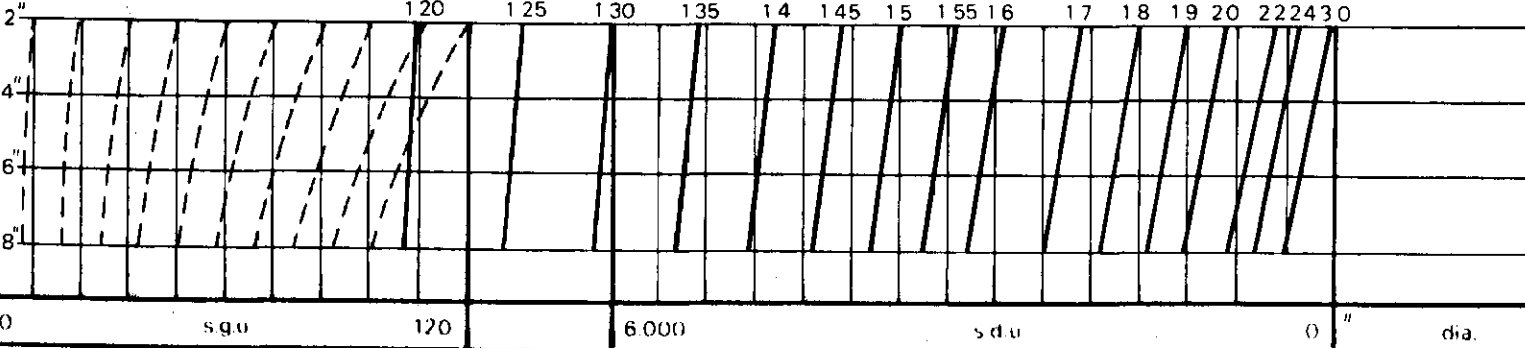
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS	REMARKS
09	N-N	100.1			GAMMA RAY LOGGED ON SEPARATE RUN DUE TO LOW WATER LEVEL.
					RUN FOR COMPARISON WITH ROKE LOGS OF SAME DRILL HOLE

B P B COAL LITHOLOGY LOG CALIBRATION DATA

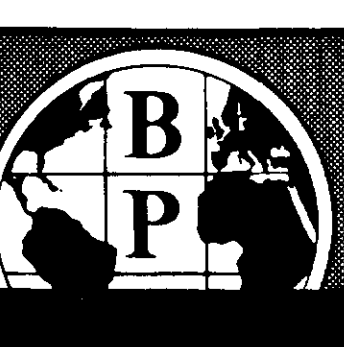
JIG No 01	VALUE 300 @ 2" DIAM.	JIG CAL DATE 78/08/23	VALUE 3710 SDU @	g/cm ³	2 ins 590 cps
JIG MARK SHOWN AT ABOVE VALUE +		JIG No 118	SPAN 0.013	NORM $\frac{SDU}{CPS} = 7.42$	7 ins 950 cps

GAMMA RAY	DEPTH 100:1	COAL BULK DENSITY g/cm ³	CALIPER INCHES
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HOLE SIZE CORRECTION DATA



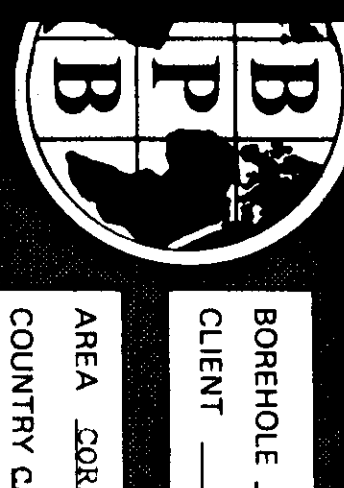
GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm ³	CALIPER INCHES
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BOREHOLE	C.C. D.I.L. # 5	AREA	CORBIN B.C.
CLIENT	SHELL (CANADA) LTD.	COUNTRY	CANADA

COAL LITHOLOGY LOG

1 SHEET - COBEN 7(3)B EC 24-54



BOREHOLE: C.C. D.J. # 5-A
 CLIENT: SUELT (CANADA) LTD
 AREA: COBEN, B.C.
 COUNTY: CANADA
 DATE LOGGED: 28/09/12

LITHOLOGY LOG

FORMER DATA: (SUN)D, LAY, VRT
 DISTENSION OF P.D.: 8.8
 MAGNETISM: 1.30
 DEPTH REACHED: 192
 CASING SIZE: 7M
 BIT SIZES: 1 4... TO 7 2 4... TO 10
 CASING SIZES: 1 4... TO 7 2 4... TO 10

SONDE TYPE: FLUID DATA
 NAME: JICR, SEAL
 COAL COMBINATION: 23H
 SONDE: 386
 LOG SUITE: OPERATION DATA
 GAMMA RAY: 190
 LAST READING: 190
 INTERVAL LOGGED: 190
 UNIT - TRUCK No: 125/42
 CALIPER: 2
 ENGINEER: D. COBEN
 WITNESSES: (3)

EQUIPMENT AND RECORDING DATA													
COAL COMBINATION SONDE				TAPING		PANEL		CAL COEFF		DEPTHS		SEAM LOG RUN	
LOG	SONDE	EQUIPMENT	CALIBRATOR	LOG TAPED	RECORD DIRECT REPLAY	SPEED	T.C SECS	NORM	FROM	TO	INTERVAL		
GAMMA RAY	129	300A	P1	Y	2	d	2	3	1.43	189	0	189	y
DENSITY		100MC	3710	Y	2	d	2	1	7.42	190	0	190	y
CALIPER		SIDEWALL POSITION		Y	2	r	2	1/3	-	190	0	190	y

COAL QUALITY / SEAM THICKNESS LOG INTERVALS (Refer to relevant log)							
FROM	TO	165	158	150	119	110	74
20	5	5	23	6	25	49	138

ADDITIONAL SONDES RUN				REMARKS			
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER	TO	ADDITIONAL	HEADINGS
09	N-N	100:1					
P1	VERT						

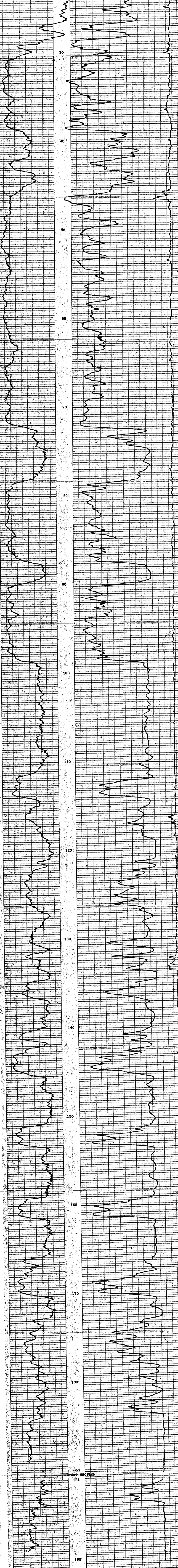
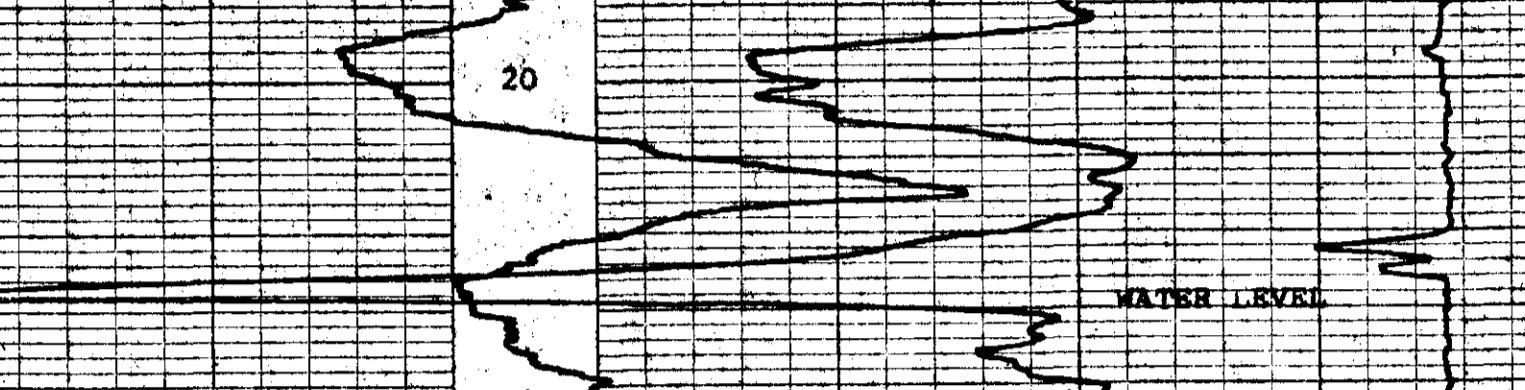
B.P.B. COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. 01 VALUE 300 2" DIAM JIG MARK SHOWN AT ABOVE VALUE - 3
 JIG CAL DATE 78/08/20 VALUE 3710 (60UC) g/cm³ 2 ins 580 cps
 JIG No. 118 SPAN 0.013 NORM. SEMI CPS = 7.42 7 ins 950 cps

GAMMA RAY	DEPTH	COAL BULK DENSITY	CALIPER
		g/cm ³	INCHES

HOLE SIZE CORRECTION DATA



190 REPEAT SECTION 181 190

K-51161 - CORBIN 7/13/8. 02-24-28



FOCUSED ELECTRIC LOG

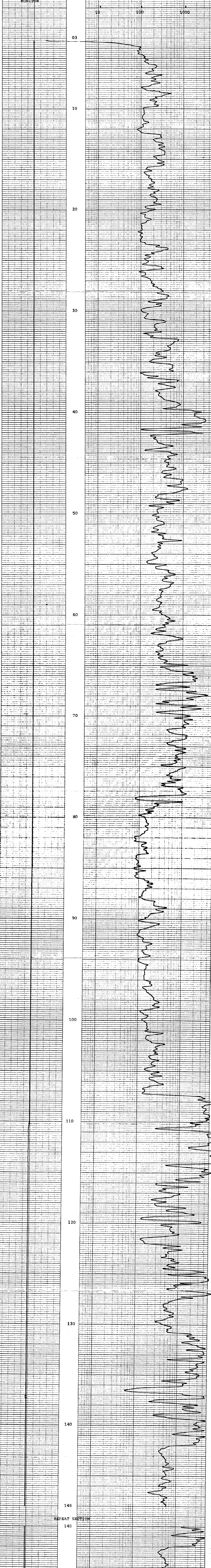
COMPANY SHELL (CANADA) LTD.
 HOLE C.C. D.J. # 23
 LOCATION ARTIST. COLUBIA COUNTRY CANADA
 ELEMENT DATUM GROUND LEVEL Elev. _____ m.
 LOG MEASURED FROM DRILL FLOOR 0.4 m above P.D.
 LOG MEASURED FROM _____ .. " .. 0.4 m above P.D.
 N
 Run No. [REDACTED] Date 1/6/77
 First Reading 143
 Last Reading 145
 Interval Measured 3.4
 Casing Bore 3.4
 Logging Driver 143.4
 Bottom Driller 149.0
 Mud Name WATER
 Viscosity 1.1 cP/CC
 Bit Size 4 3/8 to 3 1/2
 Casing Size 1 to 3 1/4
 Rm @ Meas Temp @ 52
 Rmt @ Meas Temp @ 52
 Rmc @ Meas Temp @ 52
 Source Rmf Rmc
 Rm @ BHT @ 52
 Rmt @ BHT @ 52
 Rmc @ BHT @ 52
 Logging Time 5 hr
 Trawl No. V25/42
 Recorder By D. COURAN
 Witness (6)

fold here

REMARKS

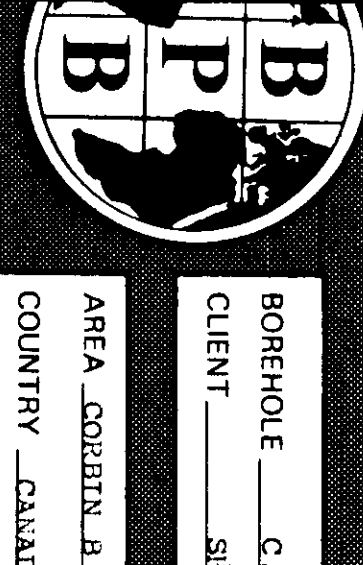
Changes in Mud Type or Additional Samples		Type Log	Depth	Scale Up Hole	Scale Down
Date	Sample No				
Depth-Driller					
Type Fluid in Hole					
Dens	Visc				
ph	Fluid Loss	ml			
Equipment Data					
Rm @ Meas Temp	@	52	Run No	Tool Type	Tool Position
Rmt @ Meas Temp	@	52			Other
Rmc @ Meas Temp	@	52			
Logging Data					
Log	From	To	Speed	T.C.	Norm
F.E.	143	5	2		

DEPTHS 100-1



DEPTHS 100-1

FOCUSSED ELECTRIC



BORHOLE C. C. D.H.L. # 23
 CLIENT SIBEL (CANADA) LTD.
 AREA COASTIN. B. C.
 COUNTRY CANADA
 DATE LOGGED 26/07/29

DEPTH SCALE
 20 1
 2 OF 2 LOGS

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

LOG
 LOG NO. 106
 TANKING
 SERIAL POSITION 2011
 COAL QUALITY LOG INTERVALS

SONDE TYPE: COAL QUALITY LOG INTERVALS
 COMBINATION SONDE
 FROM 144 118 61
 TO 123 115 63
 FROM 21 13 18
 TO 1 1 1
 REMARKS

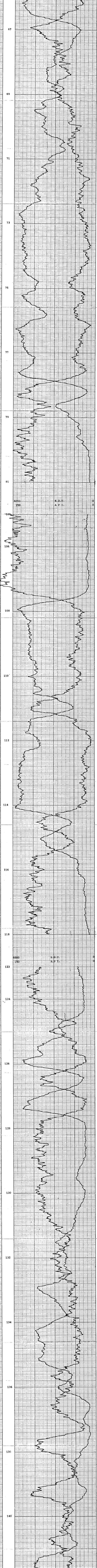
LOG SUITE
 GAMMA RAY
 L.S. DENSITY
 386 6/6

B P B COAL QUALITY LOG

GAMMA RAY
 COAL BULK DENSITY
 g/cm³

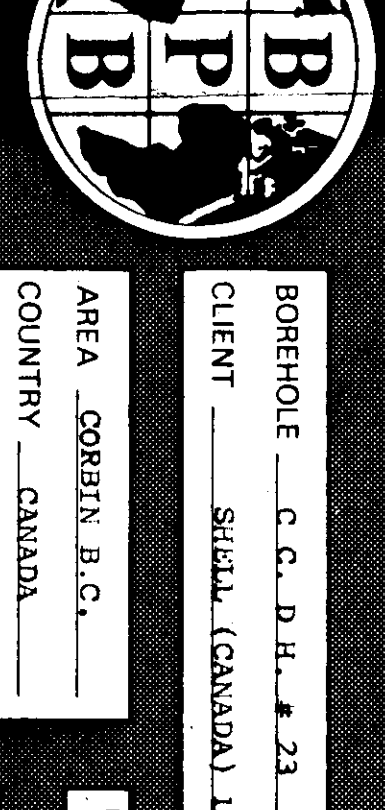
DEPTH	COAL QUALITY	LOG INTERVALS
144	118	61
123	115	63
21	13	18
1	1	1

HOLE SIZE CORRECTION DATA	
2"	1.2
4"	1.3
6"	1.35
8"	1.4
10"	1.45
12"	1.5
14"	1.55
16"	1.6
18"	1.7
20"	1.8
22"	1.9
24"	2.0
26"	2.1
28"	2.2
30"	2.3
32"	2.4
34"	2.5
36"	2.6
38"	2.7
40"	2.8
42"	2.9
44"	3.0



REMARKS

K-SHEIL - COAL # 711318 02-24-23



BOREHOLE C. C. D. H. # 23
 CLIENT SHEL, (CANADA) LTD.

AREA COBURN, B.C.
 COUNTRY CANADA
 DATE LOGGED 78/07/29

DEPTH SCALE
 20
 2. OF 2. LOGS

LOGS
 LOGS
 CALIBER Y Z I E Z I J

OPERATION DATA
 REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA
 REFER TO LITHOLOGY LOG

COAL COMBINATION SCORE
 SERIAL POSITION

SEAM THICKNESS LOG INTERVALS
 FROM 144 118 61
 TO 123 105 63
 INTERVAL 21 13 18

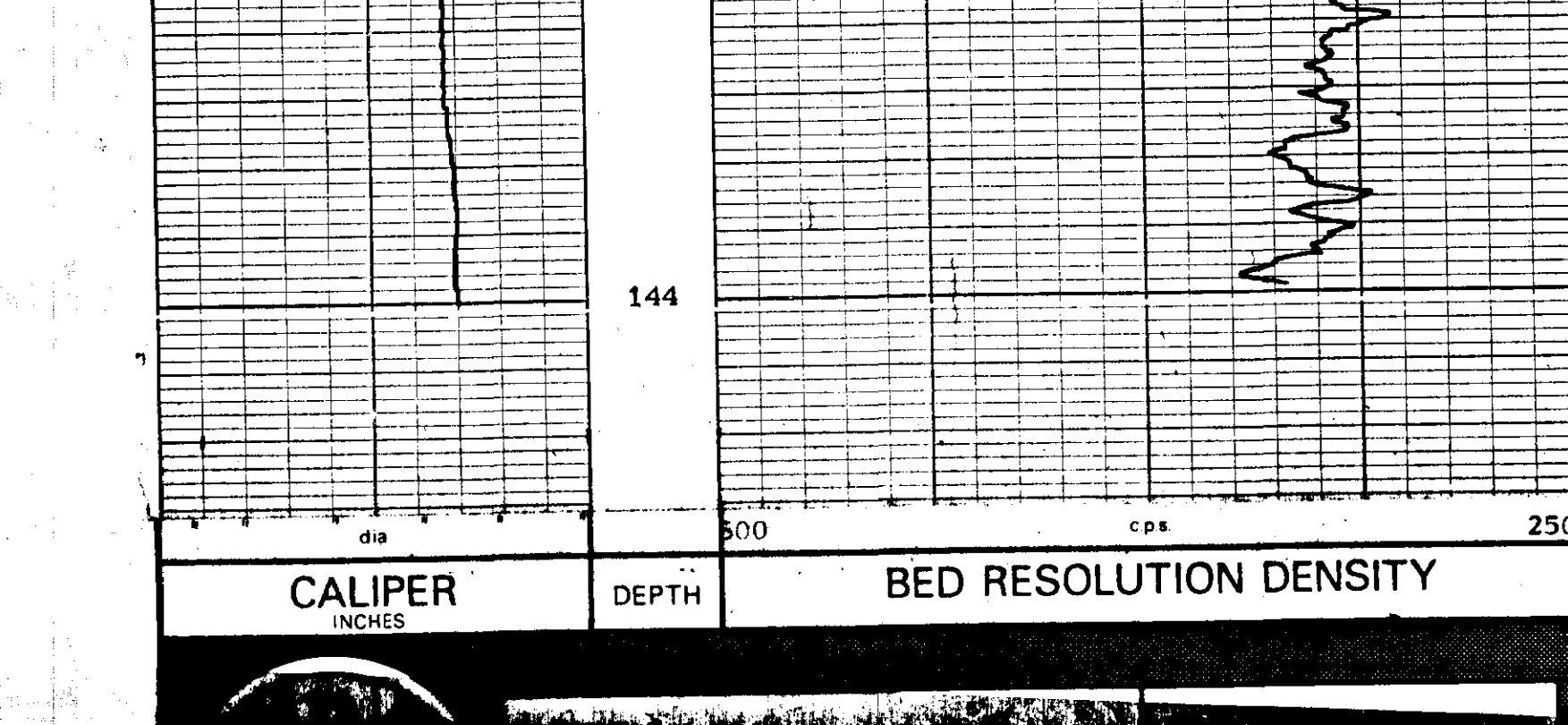
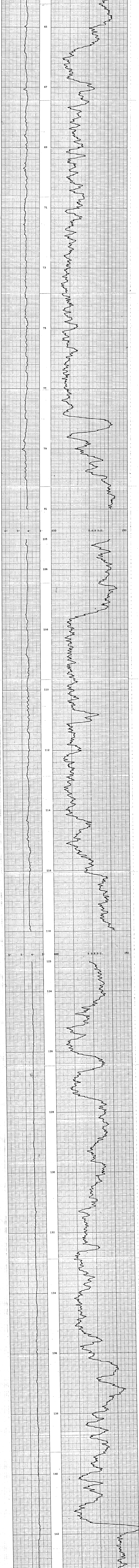
LOG SUITE
 CALIPER
 BR DENSITY

SONDE TYPE
 COAL COMBINATION
 SONDE

LOG SUITE
 CALIPER
 BR DENSITY

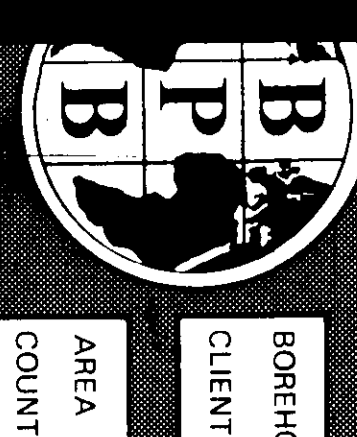
386 6/6

B PB SEAM THICKNESS LOG



L-SHELL CORBIN 21(3)B

22-DH-23



BOREHOLE C.C.D.H. # 23
CLIENT SHELL (CANADA) LTD.

AREA CORBIN, B.C.
COUNTRY CANADA

DATE LOGGED 28/07/79

DEPTH SCALE 20.1

SEAM THICKNESS LOG

LOG NO. 386
LOG DATE 28/07/79

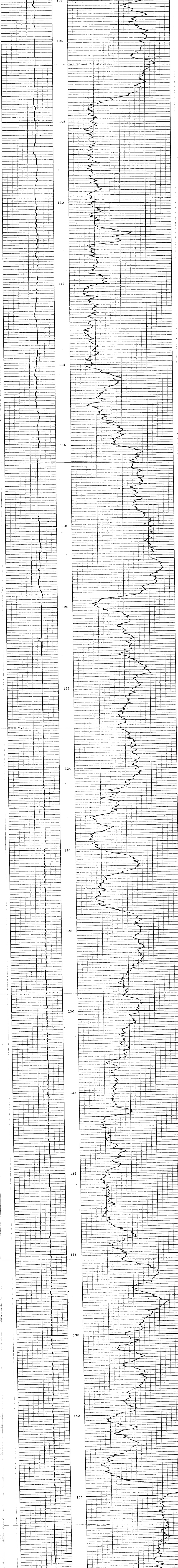
SONDE TYPE
COAL COMBINATION
SONDE

LOG SUITE
CALIPER
88 DENSITY

SEAM THICKNESS LOG INTERVALS
FROM 1.44 TO 1.05
INITIAL 3.9
FINAL 3.9
TOTAL 3.9

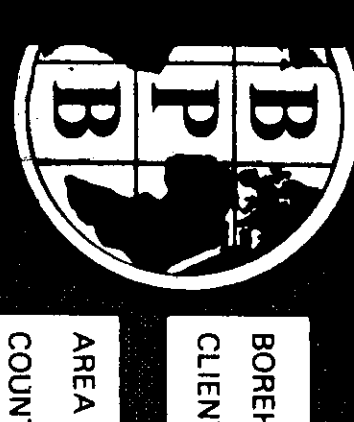
REMARKS
10 386 1/6

B P B SEAM THICKNESS LOG



CALIPER INCHES DEPTH BED RESOLUTION DENSITY

15-Hall - COALIN 78(3)B Q2-R1-23



COAL LITHOLOGY LOG

SONDE TYPE: _____
 COAL COMBINATION SONDE: _____
 LOG SUITE: _____
 GAMMA RAY: _____
 CALIPER: _____

BOREHOLE: C.C. D.H. # 23
 CLIENT: SIBEL (CANADA) LTD.
 AREA: COBALT, B.C.
 COUNTRY: CANADA
 DATE LOGGED: 28/07/29

BOREHOLE DATA
 ESTIMATION OF: _____
 DEPTH REACHED: 149.4
 CASING SHOE: 3.4m
 BIT SIZES: 1 1/4" TO 3/4" TO 1/2" TO 1/4" TO 1/8" TO

OPERATION DATA
 LOG READING: 148
 INTERNAL LOGGED: 148
 UNIT-TICK MARK: V25.42
 ENGINEER: J. SOBRAN
 WITNESSES: (11) 1/6

LOG	EQUIPMENT	SOURCE	CALIBRATOR	LOG TAPED	TAPING RECORD SPEED	DIRECT REPLAY	PANEL SPEED	T.C. SECS	NORM	CAL COEFF	DEPTHS FROM	TO	SEAM LOG RUN	
GAMMA RAY	118		300A PT	y	2	d	2	3	1.43		147	0	147	y
DENSITY			3710CPS	y	2	d	2	1	8.5		148	0	148	y
CALIPER			SIDEWALL POSITION	y	2	r	2	1/3	-		148	0	148	y

COAL QUALITY	SEAM THICKNESS	LOG INTERVALS	REFER TO	INTERVAL TOTAL
FROM	144	118	81	
TO	123	105	63	
INTERVAL	21	13	18	52

SONDE	LOG	GENERAL SCALE	DETAIL SCALE	REFER TO ADDITIONAL HEADINGS
9	N-N	100:1		
F1	VERT.			
	F.S.	100:1		

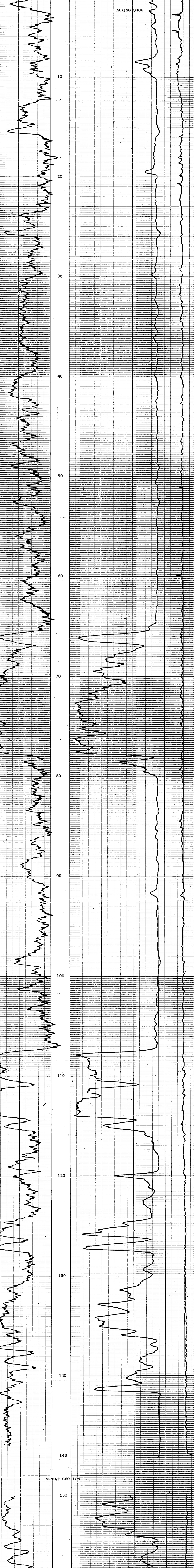
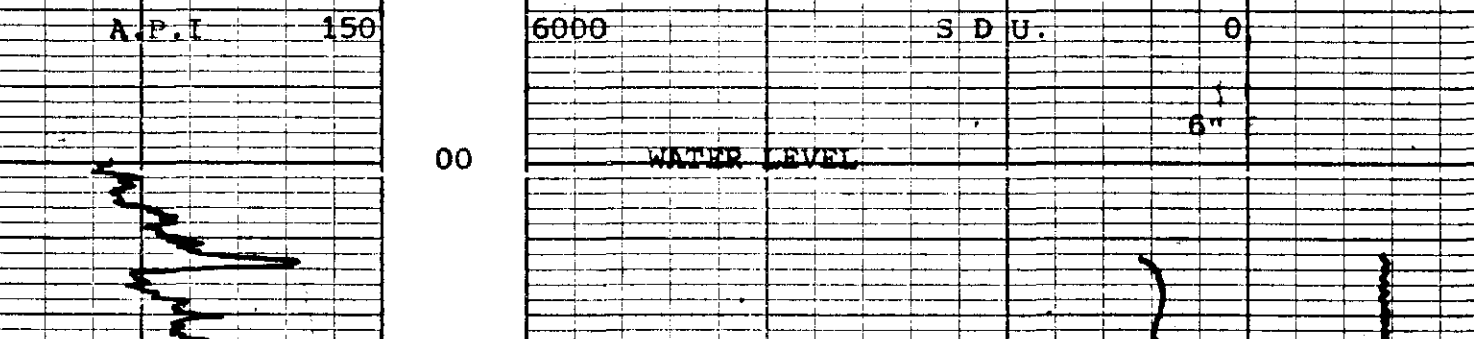
B P B COAL LITHOLOGY LOG

CALIBRATION DATA

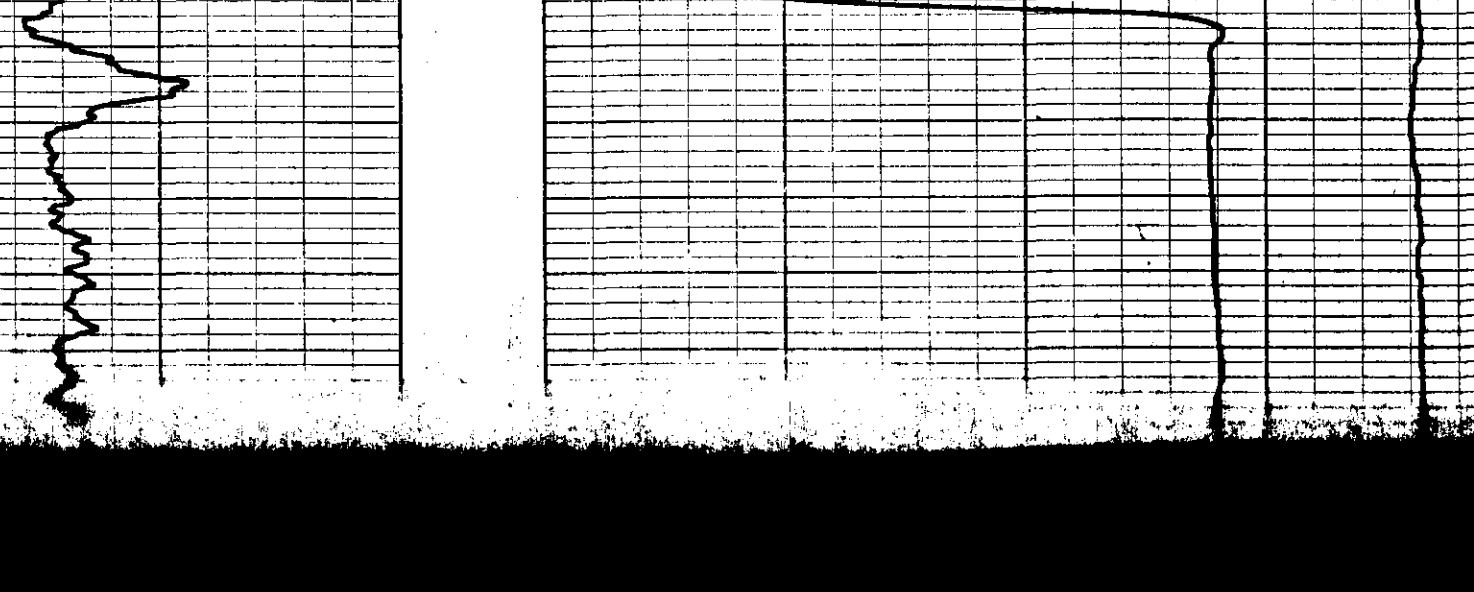
JIG No 01	VALU 800 @ 2" DIAM	JIG CAL DATE 78/06/18	VALUE 3710 CPS @ 100:1	g/cm ³	3 ins	535 cps
JIG MARK SHOWN AT ABOVE VALUE - 3		JIG No 118	SPAN 0.013	NORM	6 ins	795 cps

GAMMA RAY	DEPTH	COAL BULK DENSITY (g/cm ³)	CALIPER (INCHES)
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HOLE SIZE CORRECTION DATA



REPEAT SECTION



L-SHELL - COLEMAN 78(3)2 CC-DH-22



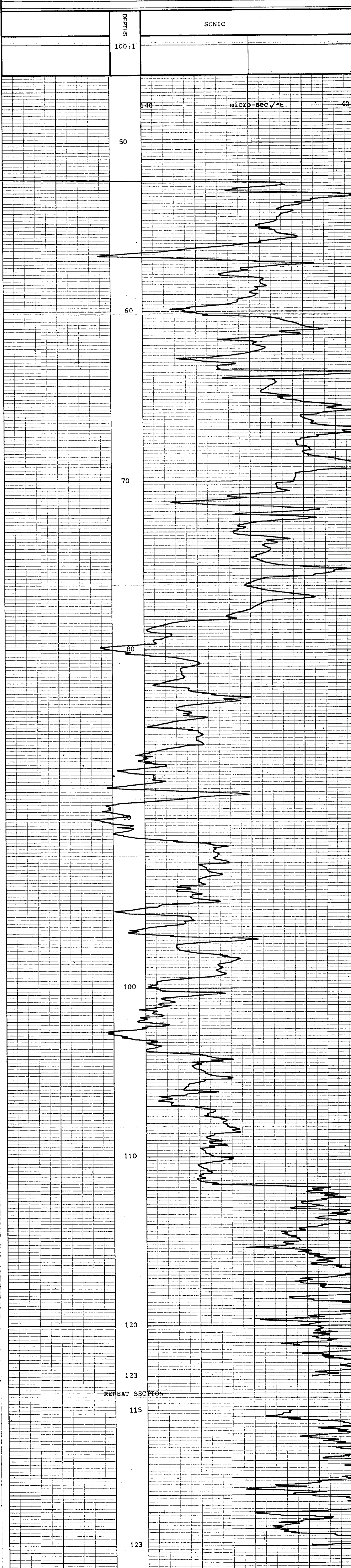
SONIC LOG

PANY SHELL (CANADA) LTD.
 C.O. D.H. # 22
 BRITISH COLUMBIA COUNTRY CANADA
 SECOND LEVEL Elev. m.
 Datum DRILL FLOOR 0.4m above P.D.
 measured from " " 0.4m above P.D.
 ing measured from " " "

Run No.	1	100	1
Date	78/07/23		
First Reading	123		
Last Reading	52		
Interval Measured	71		
Casing BHD	27		
Casing Driller	27		
Depth Reached	123.7		
Bottom Driller	123.0		
Mud Nature	WICK GBL		
SG Viscosity	1.1 gm/cc		
Bit Size	4" to TD		
1	to		
2	to		
3	to		
Casing Size 1	4 1/2 to 27		
Casing Size 2	to		
Fm @ Meas Temp	60.0hm @ 18°C		
Rmf @ Meas Temp	@		
Rmc @ Meas Temp	@		
BHT			
Operating Time	4 3/4 hr.		
Tuck No.	Y25/12		
Recorded By	D. GORMAN		
Witness			

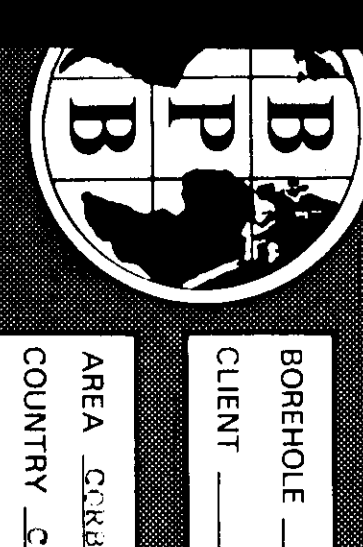
REMARKS

Changes in Mud Type or Additional Samples		Scale Changes			
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down
Depth-Driller					
Type Fluid in Hole					
Dens.	Visc.				
ph	Fluid Loss				
Source of Sample		Equipment Data			
Rm @ Meas Temp	@	Run No.	Tool Type	Tool Position	Other
Rmf @ Meas Temp	@				
Rmc @ Meas Temp	@				
Source: Rmf		Logging Data			
Rm @ BHT	@	Log	Depths	Speed	T.C.
Rmf @ BHT	@		From To		
Rmc @ BHT	@	SONIC	123 52	6	2



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 6/

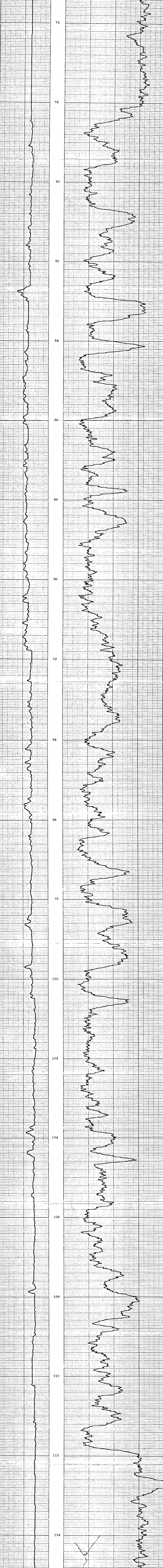
1-SHEET - COALN 71318 02-21-22



B.P.B. SEAM THICKNESS LOG	
BOREHOLE C.C.D.H. # 22 CLIENT SIBEL (CANADA) LTD. AREA COALN B.C. COUNTRY CANADA DATE LOGGED 7/9/72	DEPTH SCALE 20' I LOGS
BOREHOLE DATA REFER TO LITHOLOGY LOG OPERATION DATA REFER TO LITHOLOGY LOG EQUIPMENT AND RECORDING DATA REFER TO LITHOLOGY LOG	COAL COMBINATION SONDE LOG TAPPING PANEL LOG NO. 100 LOG SPEED 100 CALIPER Y 2 X 1/3 ARRANGEMENT Z 2 I 1 0 79
SONDE TYPE: _____ REFER TO LITHOLOGY LOG COAL: _____ SEAM THICKNESS LOG INTERVALS	FROM 113 TO 75 INTERVAL 40 FROM 75 TO 40 INTERVAL 40 FROM 40 TO 113 INTERVAL 40 REMARKS

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia	6'0	cps 250



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia	6'0	cps 250

BOREHOLE C.C.D.H. # 22 CLIENT SIBEL (CANADA) LTD.	AREA COALN B.C. COUNTRY CANADA	SEAM THICKNESS LOG
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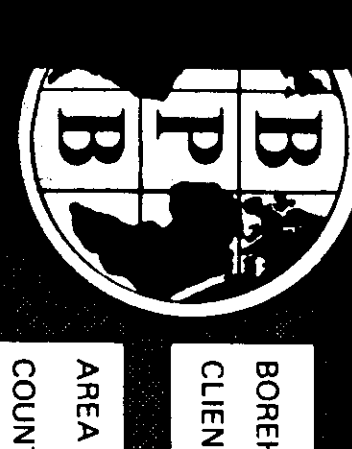


SEAM THICKNESS LOG

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L-SHELL CO. B.N. 7(3)8 20-24-22



BOREHOLE C.C.D.H. # 22
 CLIENT SABLE (CANADA) LTD
 AREA CORAUX, A.C.
 COUNTRY CANADA
 DATE LOGGED 18/07/23

BOREHOLE DATA
 PERMANENT DRAIN SECTIONED LEVEL
 ELEVATION OF PD 8.8
 DRILLER
 MASSIFMENTS FROM DRILL FLOOR DRILL FLOOR
 DEPTH REACHED 123.7
 BIT SIZES 1 4 TO TD 2 27
 CASING SIZES 1 4 1/8 27 2 TO TO
 FLUID DATA

SONDE TYPE: JIG CAL 38L
COAL COMBINATION SONDE: 1.1 SHU CC
LOG SUITE: GAMMA RAY
 L.S DENSITY
 CALIPER
OPERATION DATA
 FIRST READING 123
 LAST READING 0
 INTERVAL LOGGED 123
 UNIT - TRACK NO 225/42
 ENGINEER D. GORAN
 WITNESSES (16) 6/

EQUIPMENT AND RECORDING DATA												
COAL COMBINATION SONDE:												
LOG	EQUIPMENT			TAPING			PANEL		CAL COEFF		SEAM LOG RUN	
SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	IC SECS	NORM	FROM	TO	INTERVAL	
GAMMA RAY	118	300API	y	9	d	9	1	1.43	122	0	122	y
L.S DENSITY		100mC	y	9	d	9	1/3	8.65	123	0	123	y
CALIPER		SIDEWALL POSITION	y	9	d	9	1/3		123	0	123	y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)			INTERVAL TOTAL
FROM	115		40
TO	75		
INTERVAL	40		

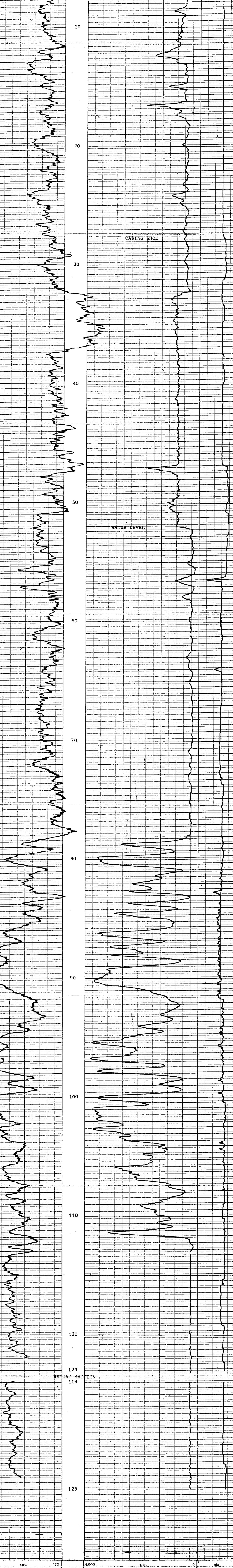
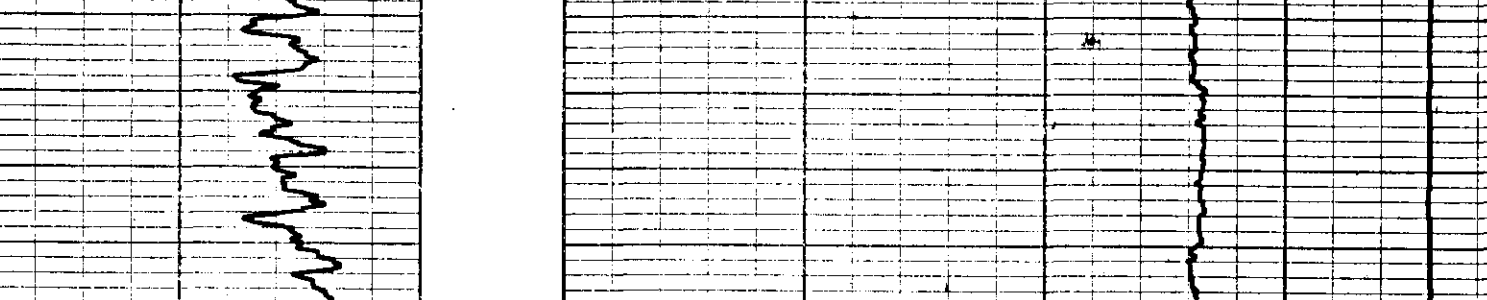
ADDITIONAL SONDES RUN				REMARKS
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	
09	N-N	100:1		
	SONIC	100:1		

B P B COAL LITHOLOGY LOG
CALIBRATION DATA

JIG No. 01 VALU800 @ 2" DIAM. JIG CAL DATE 78/06/18 VALUE 3710 SDU @ g/cm³ 2 ms 415 cps
 JIG MARK SHOWN AT ABOVE VALUE = 3 JIG No 118 SPAN 0.013 NORM 8.65 7 ms 810 cps

GAMMA RAY DEPTH **COAL BULK DENSITY** CALIPER INCHES

HOLE SIZE CORRECTION DATA



GAMMA RAY DEPTH **COAL BULK DENSITY** CALIPER

L-SHELL-02828M 281818 Q2-DH-21-1



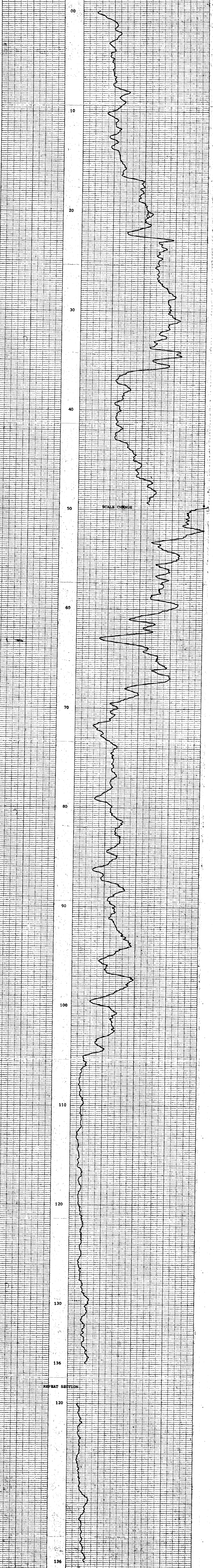
NEUTRON-NEUTRON LOG

COMPANY SHELL (CANADA) LTD.
 BOREHOLE C.C.D.I. # 21
 STATE BRITISH COLUMBIA COUNTRY CANADA
 NEUTRON-NEUTRON LOG
 Instrument JRC-100 JLEVEL Elev. m.
 measured from DRILL FLOOR 0.5 m above P.D.
 Log measured from " " 0.5 m above P.D.

Run No.	1	100.1		
Date	7/8/79	05		
Log No.	136			
Log Name	136			
Log Depth	17			
Log Interval	136.6			
Log Start	156.0			
Log End	173.6			
Log Type	NEUTRON-NEUTRON			

REMARKS		Scale Changes	
Changes in Mud Type or Additional Samples	Type Log	Depth	Scale Up Hole
Date Sample No.			Scale Down
Depth-Driller			
Type Fluid in Hole			
Dens	Visc		
ph	Fluid Loss	mi	
Source of Sample			
Rm @ Meas Temp	%	@	%
Rmf @ Meas Temp	%	@	%
Rmc @ Meas Temp	%	@	%
Source: Rmf	Rmc		
Rm @ BHT	%	@	%
Rmf @ BHT	%	@	%
Rmc @ BHT	%	@	%

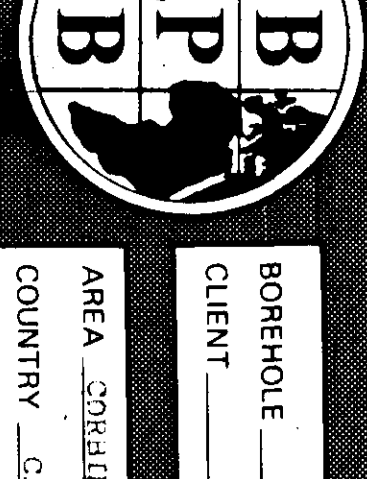
VERTICALITY RUN		Logging Data	
Log	Depth	Speed	T.C.
136m	4.0	N119°E	
120m	2.6		
105m	2.6		
90m	2.6		
75m	2.6		
60m	3.3		
45m	2.4		
30m	3.1		
15m	3.1		
5m	2.4		



DEPTH	100.1		
NEUTRON-NEUTRON			

COMPANY SHELL (CANADA) LTD
 BOREHOLE C.C.D.I. # 21
 STATE BRITISH COLUMBIA
 COUNTRY CANADA

386/6



BOREHOLE: S.C. 04, # 21
 CLIENT: SHEL (CANADIAN LTD.)
 AREA: SONGBIN B.C.
 COUNTRY: CANADA
 DEPTH SCALE: 20.1
 DATE LOGGED: 7/27/05

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

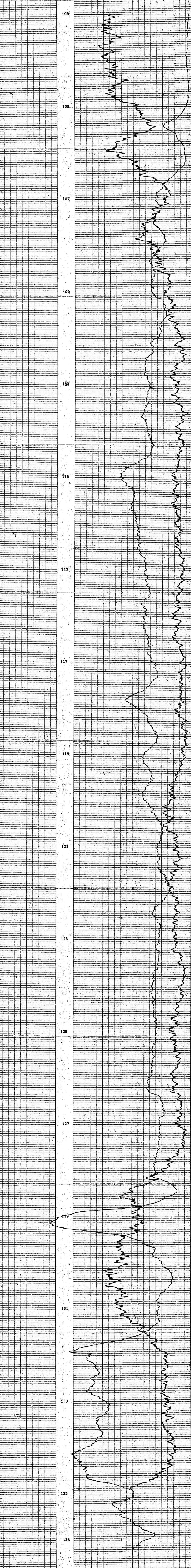
SONDE TYPE: COAL COMBINATION SONDE
 LOG SUITE: GAMMA RAY
 L.S. DENSITY

BPB COAL QUALITY LOG

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

HOLE SIZE CORRECTION DATA

DEPTH (m)	125	13	35	14	145	15	55	16	17	18	19	20	22	24	30
2'															
4'															
6'															
8'															

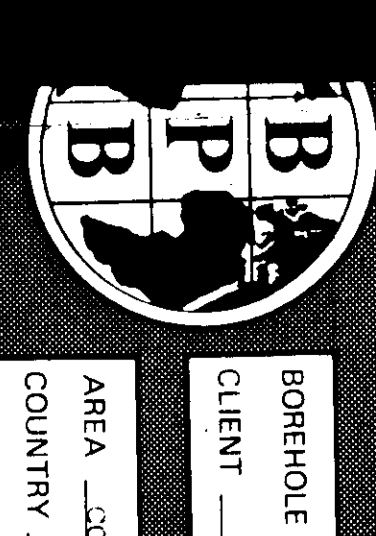


COAL QUALITY LOG INTERVALS

FROM	TO	INTERVAL	VAL	UNIT
103	107	4		
107	113	6		
113	117	4		
117	121	4		
121	125	4		
125	127	2		
127	129	2		
129	131	2		
131	133	2		
133	135	2		
135	136	1		

REMARKS: (8)

F-5142-002811 71318 GC-2H-21



BOREHOLE C.C. D. # 21
 CLIENT Shell (Canada) Ltd.

AREA Colombia, S.C.
 COUNTRY Colombia
 DATE LOGGED 7/20/2005

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

EQUIPMENT AND RECORDING DATA
 LOG COMBINATION SOURCE SIDEWALL POSITION

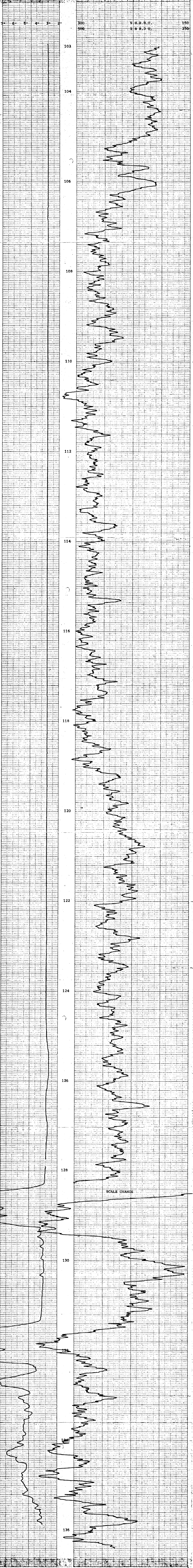
LOG TAPING RECORD SPEED 2
 CALIPER 1.00 1.75 2.00 2.25 2.50 2.75 3.00 3.25 3.50 3.75 4.00 4.25 4.50 4.75 5.00 5.25 5.50 5.75 6.00 6.25 6.50 6.75 7.00 7.25 7.50 7.75 8.00 8.25 8.50 8.75 9.00 9.25 9.50 9.75 10.00

SONDE TYPE
 LOGAL COMBINATION SONDE
 SEAM THICKNESS LOG INTERVALS

LOG SUITE
 CALIPER 3.86
 BR DENSITY 1.3

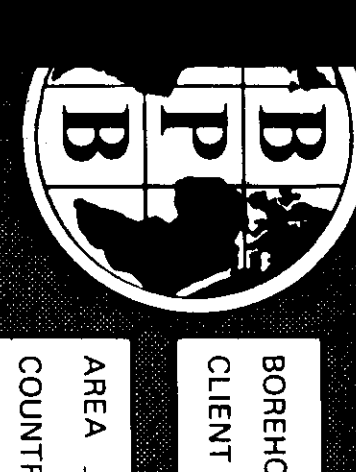
REMARKS
 FULL LOGGED PARTIALLY OPEN AND
 EXHAUSTIVE THERMAL DRILL AIDS.

B P B SEAM THICKNESS LOG



CALIPER INCHES BED RESOLUTION DENSITY cps

L-5866 - COBEN 7(5)B - CC-24 21



BOREHOLE C.C. 24-21
 CLIENT STEEL (CANADA) LTD

AREA CLARKEVILLE
 COUNTRY CANADA
 DATE LOGGED 28/09/05

BOREHOLE DATA
 PERMANENT DATA
 ELEVATION OF HD
 CASING REACHED
 CASING SIZE

LITHOLOGY LOG

SONDE TYPE
 COAL COMBINATION
 SONDE

LOG SUITE
 GAMMA RAY
 L.S. DENSITY
 CALIPER

OPERATION DATA
 20

LOG	EQUIPMENT	TAPING	RECORD	DIRECT	PANEL	CAL	DEPTH	SEAM
SONDE	SOURCE	LOG TAPE	SPEED	REPLAY	T.C. SECS	COEFF	FROM	LOG RUN
GAMMA RAY	129	300A P1	y	9	d	9	1 1.43	135 0 135 y
L.S. DENSITY		3710	y	9	d	9	1/3 7.42	136 0 136 y
CALIPER	SIDEWALL POSITION		y	9	r	9	1/3	136 0 136 y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)	INTERVAL TOTAL
FROM 136	
TO 103	
INTERVAL 33	33

SONDE	LOG	GENERAL SCALE	DETAIL SCALE	REFER TO ADDITIONAL HEADINGS	REMARKS
09	N-N	100:1			TOP 125m LOGGED THROUGH DRILL RODS.
P1	VcRT				TOOL SLOWED TO 2m/min. FROM 136m to 100m. GAMMA T.C. = 3sec. L.S.D. T.C. = 1sec.

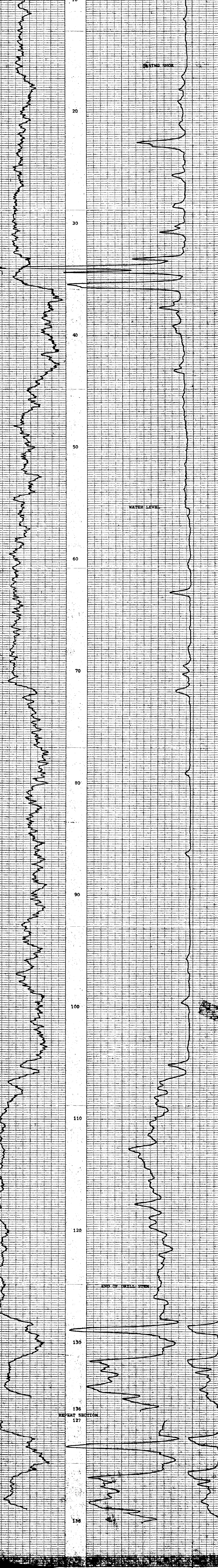
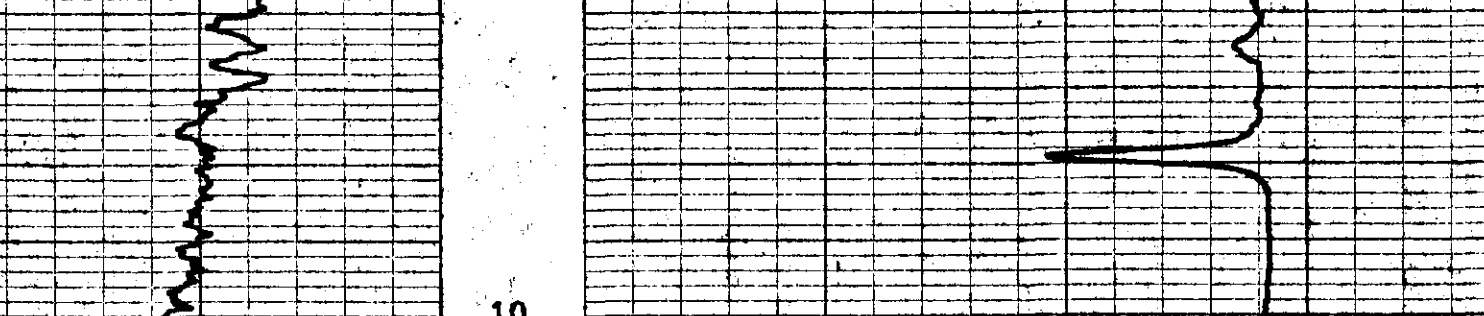
B PB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. 01	VALUE 300 2" DIAM	JIG CAL DATE 7/10/08	VALUE 3710	SDU @ g/cm ³	2 ins 580 cps
JIG MARK SHOWN AT ABOVE VALUE		JIG No. 119	SPAN 0.013	NORM $\frac{SEU}{CPS} = 7.42$	7 ins 950 cps

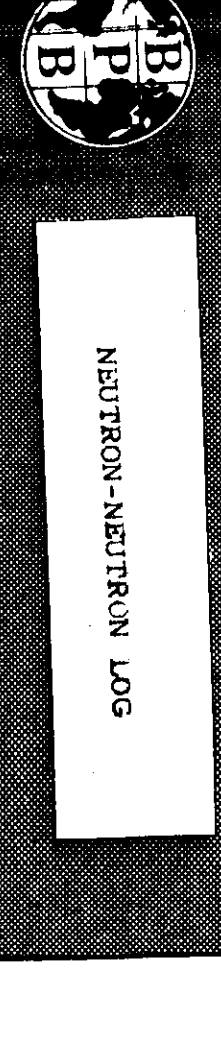
GAMMA RAY	DEPTH	COAL BULK DENSITY	CALIPER INCHES
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HOLE SIZE CORRECTION DATA



REPEAT SECTION 127 136

L-SHELL-COORAN-78(3)B-02-DH-20A



NEUTRON-NEUTRON LOG

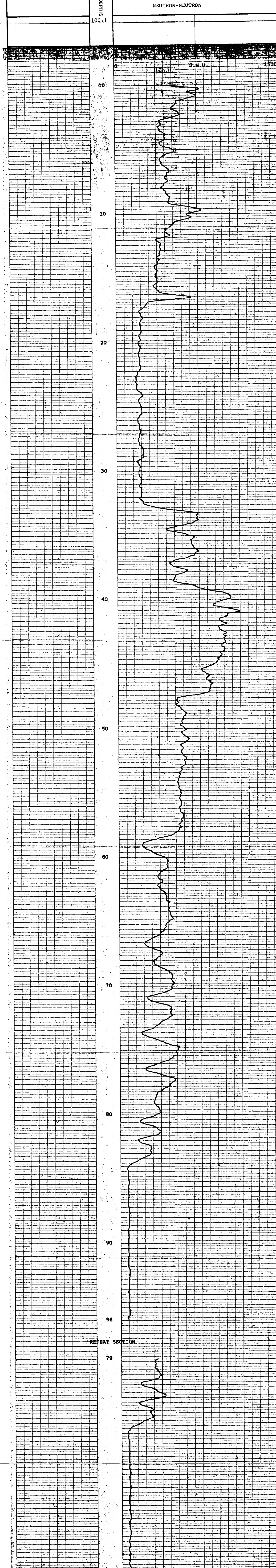
COMPANY SHELL (CANADA) LTD.
 BOREHOLE C.C.D.H. # 20A
 STATE BRITISH COLUMBIA COUNTRY CANADA
 MEASUREMENT DATE 78/08/14 ELEV. 0.4 m. above P.D.
 MEASURED FROM DRILL FLOOR 0.4 m. above P.D.
 LOG MEASURED FROM "

GROUP REF. 1	100:1	N	100:1
Scale	1	100:1	
Date	78/08/14		
First Reading	96		
Last Reading	0		
Inherent Measured	96		
Counting Error	40		
Counting Rate	96.5		
Source Count Rate	103.0		
Mud Matrix	WATER: GEL		
SG	1.03		
BI Size 1	4.5" to 40"		
BI Size 2	4.5" to TD		
BI Size 3	4.5" to TD		
BI Size 4	4.5" to TD		
BI Size 5	4.5" to TD		
BI Size 6	4.5" to TD		
BI Size 7	4.5" to TD		
BI Size 8	4.5" to TD		
BI Size 9	4.5" to TD		
BI Size 10	4.5" to TD		
BI Size 11	4.5" to TD		
BI Size 12	4.5" to TD		
BI Size 13	4.5" to TD		
BI Size 14	4.5" to TD		
BI Size 15	4.5" to TD		
BI Size 16	4.5" to TD		
BI Size 17	4.5" to TD		
BI Size 18	4.5" to TD		
BI Size 19	4.5" to TD		
BI Size 20	4.5" to TD		
BI Size 21	4.5" to TD		
BI Size 22	4.5" to TD		
BI Size 23	4.5" to TD		
BI Size 24	4.5" to TD		
BI Size 25	4.5" to TD		
BI Size 26	4.5" to TD		
BI Size 27	4.5" to TD		
BI Size 28	4.5" to TD		
BI Size 29	4.5" to TD		
BI Size 30	4.5" to TD		
BI Size 31	4.5" to TD		
BI Size 32	4.5" to TD		
BI Size 33	4.5" to TD		
BI Size 34	4.5" to TD		
BI Size 35	4.5" to TD		
BI Size 36	4.5" to TD		
BI Size 37	4.5" to TD		
BI Size 38	4.5" to TD		
BI Size 39	4.5" to TD		
BI Size 40	4.5" to TD		
BI Size 41	4.5" to TD		
BI Size 42	4.5" to TD		
BI Size 43	4.5" to TD		
BI Size 44	4.5" to TD		
BI Size 45	4.5" to TD		
BI Size 46	4.5" to TD		
BI Size 47	4.5" to TD		
BI Size 48	4.5" to TD		
BI Size 49	4.5" to TD		
BI Size 50	4.5" to TD		
BI Size 51	4.5" to TD		
BI Size 52	4.5" to TD		
BI Size 53	4.5" to TD		
BI Size 54	4.5" to TD		
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BI Size 56	4.5" to TD		
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BI Size 58	4.5" to TD		
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BI Size 60	4.5" to TD		
BI Size 61	4.5" to TD		
BI Size 62	4.5" to TD		
BI Size 63	4.5" to TD		
BI Size 64	4.5" to TD		
BI Size 65	4.5" to TD		
BI Size 66	4.5" to TD		
BI Size 67	4.5" to TD		
BI Size 68	4.5" to TD		
BI Size 69	4.5" to TD		
BI Size 70	4.5" to TD		
BI Size 71	4.5" to TD		
BI Size 72	4.5" to TD		
BI Size 73	4.5" to TD		
BI Size 74	4.5" to TD		
BI Size 75	4.5" to TD		
BI Size 76	4.5" to TD		
BI Size 77	4.5" to TD		
BI Size 78	4.5" to TD		
BI Size 79	4.5" to TD		
BI Size 80	4.5" to TD		
BI Size 81	4.5" to TD		
BI Size 82	4.5" to TD		
BI Size 83	4.5" to TD		
BI Size 84	4.5" to TD		
BI Size 85	4.5" to TD		
BI Size 86	4.5" to TD		
BI Size 87	4.5" to TD		
BI Size 88	4.5" to TD		
BI Size 89	4.5" to TD		
BI Size 90	4.5" to TD		
BI Size 91	4.5" to TD		
BI Size 92	4.5" to TD		
BI Size 93	4.5" to TD		
BI Size 94	4.5" to TD		
BI Size 95	4.5" to TD		
BI Size 96	4.5" to TD		
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BI Size 99	4.5" to TD		
BI Size 100	4.5" to TD		
BI Size 101	4.5" to TD		
BI Size 102	4.5" to TD		
BI Size 103	4.5" to TD		
BI Size 104	4.5" to TD		
BI Size 105	4.5" to TD		
BI Size 106	4.5" to TD		
BI Size 107	4.5" to TD		
BI Size 108	4.5" to TD		
BI Size 109	4.5" to TD		
BI Size 110	4.5" to TD		
BI Size 111	4.5" to TD		
BI Size 112	4.5" to TD		
BI Size 113	4.5" to TD		
BI Size 114	4.5" to TD		
BI Size 115	4.5" to TD		
BI Size 116	4.5" to TD		
BI Size 117	4.5" to TD		
BI Size 118	4.5" to TD		
BI Size 119	4.5" to TD		
BI Size 120	4.5" to TD		
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BI Size 129	4.5" to TD		
BI Size 130	4.5" to TD		
BI Size 131	4.5" to TD		
BI Size 132	4.5" to TD		
BI Size 133	4.5" to TD		
BI Size 134	4.5" to TD		
BI Size 135	4.5" to TD		
BI Size 136	4.5" to TD		
BI Size 137	4.5" to TD		
BI Size 138	4.5" to TD		
BI Size 139	4.5" to TD		
BI Size 140	4.5" to TD		
BI Size 141	4.5" to TD		
BI Size 142	4.5" to TD		
BI Size 143	4.5" to TD		
BI Size 144	4.5" to TD		
BI Size 145	4.5" to TD		
BI Size 146	4.5" to TD		
BI Size 147	4.5" to TD		
BI Size 148	4.5" to TD		
BI Size 149	4.5" to TD		
BI Size 150	4.5" to TD		
BI Size 151	4.5" to TD		
BI Size 152	4.5" to TD		
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BI Size 157	4.5" to TD		
BI Size 158	4.5" to TD		
BI Size 159	4.5" to TD		
BI Size 160	4.5" to TD		
BI Size 161	4.5" to TD		
BI Size 162	4.5" to TD		
BI Size 163	4.5" to TD		
BI Size 164	4.5" to TD		
BI Size 165	4.5" to TD		
BI Size 166	4.5" to TD		
BI Size 167	4.5" to TD		
BI Size 168	4.5" to TD		
BI Size 169	4.5" to TD		
BI Size 170	4.5" to TD		
BI Size 171	4.5" to TD		
BI Size 172	4.5" to TD		
BI Size 173	4.5" to TD		
BI Size 174	4.5" to TD		
BI Size 175	4.5" to TD		
BI Size 176	4.5" to TD		
BI Size 177	4.5" to TD		
BI Size 178	4.5" to TD		
BI Size 179	4.5" to TD		
BI Size 180	4.5" to TD		
BI Size 181	4.5" to TD		
BI Size 182	4.5" to TD		
BI Size 183	4.5" to TD		
BI Size 184	4.5" to TD		
BI Size 185	4.5" to TD		
BI Size 186	4.5" to TD		
BI Size 187	4.5" to TD		
BI Size 188	4.5" to TD		
BI Size 189	4.5" to TD		
BI Size 190	4.5" to TD		
BI Size 191	4.5" to TD		
BI Size 192	4.5" to TD		
BI Size 193	4.5" to TD		
BI Size 194	4.5" to TD		
BI Size 195	4.5" to TD		
BI Size 196	4.5" to TD		
BI Size 197	4.5" to TD		
BI Size 198	4.5" to TD		
BI Size 199	4.5" to TD		
BI Size 200	4.5" to TD		

REMARKS

Changes in Mud Type or Additional Samples		Scale Changes	
Date	Sample No.	Type Log	Scale Up Hole
Depth - Driller		Depth	Scale Down
Type Fluid in Hole			
Dens	Visc		
ph	Fluid Loss		
Source of Sample			
Rm @ Meas Temp		Run No.	Tool Type
Rmf @ Meas Temp		Tool Position	Other
Rmc @ Meas Temp			
Source: Rmf	Rmc		
Rm @ BHT			
Rmf @ BHT			
Rmc @ BHT			

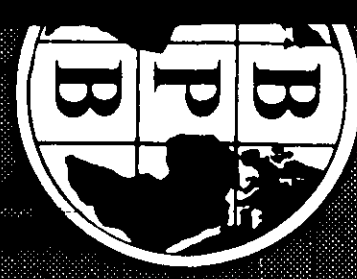
TEST HOLE LOGGED THROUGH THE DRILL RODS.



COMPANY SHELL (CANADA) LTD.
 BOREHOLE C.C.D.H. # 20-A
 STATE BRITISH COLUMBIA
 COUNTRY CANADA

386

K-SHELF COAL BIN 28(3)2 00-01-20A



BOREHOLE C.C. P.H. # 20-A
 CLIENT SHELL (CANADA) LTD.

AREA CORAIRM, H.C.
 DEPTH SCALE 20.1

COUNTRY CANADA
 DATE LOGGED 28/08/15

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 OFF
 LABEL SPEED INDEX 1.43
 GAMMA 1 2 1 1.43
 RAY 2 1 1.43
 L.DENSITY 2 1.43
 SOURCE SONDE AND CALIBRATION
 REFER TO LITHOLOGY LOG

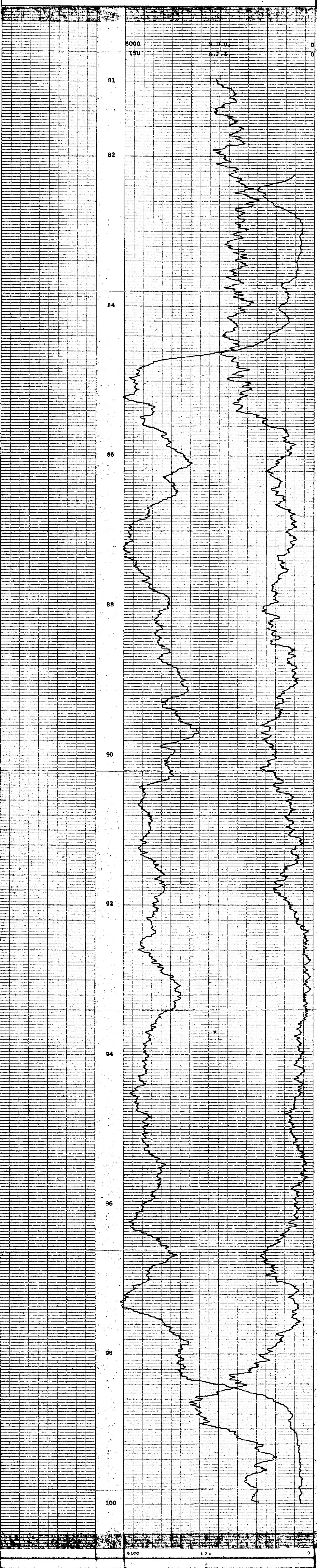
SONDE TYPE:
 COAL COMBINATION SONDE

LOG SUITE:
 GAMMA RAY
 L.S. DENSITY

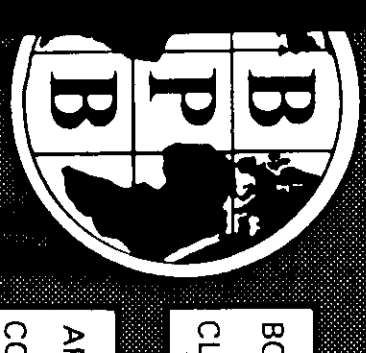
COAL QUALITY LOG INTERVALS
 FROM 100
 TO 81
 INTERVAL 19
 FROM
 TO
 INTERVAL TOTAL 19
 REMARKS
 386 6/16

B P B COAL QUALITY LOG

DEPTH	GAMMA RAY	
	COAL BULK DENSITY g/cm ³	
HOLE SIZE CORRECTION DATA		
2"	1.25	1.30
4"	1.35	1.40
6"	1.45	1.50
8"	1.55	1.60
	1.7	1.8
	1.9	2.0
	2.2	2.4
	2.3	3.0
	120	0
	6,000	0



K-SHELL COALIN 7(3)E OE-DH-204



BOREHOLE C.C.D.I. # 20-A
 CLIENT SHELL (CANADA) LTD.

DEPTH SCALE
 20:1

AREA COBAIN, B.C.
 COUNTRY CANADA
 DATE LOGGED 28/08/15

BOREHOLE DATA REFER TO LITHOLOGY LOG

OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

SEAM THICKNESS LOG

SONDE TYPE: COAL COMBINATION SONDE
 SEAM THICKNESS LOG INTERVALS

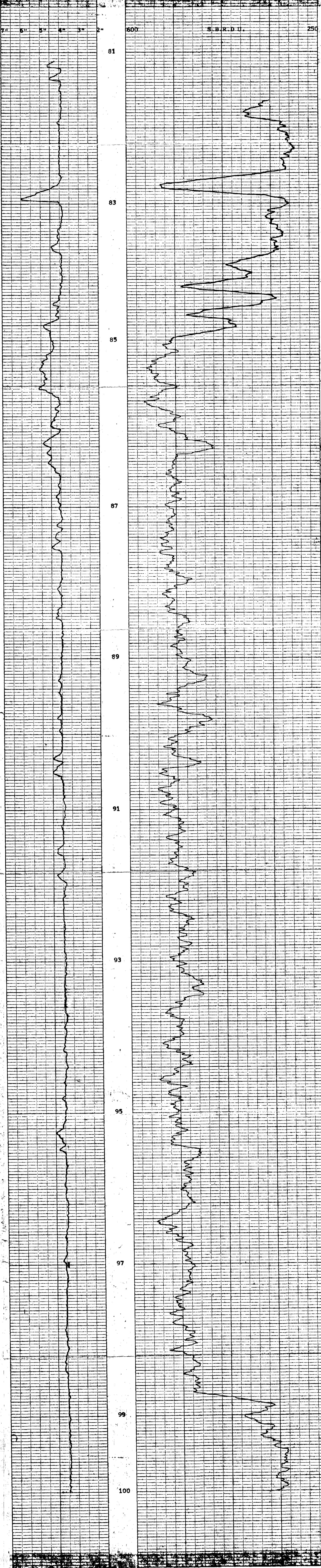
LOG SUITE:
 CALIPER
 BR DENSITY

FROM	100	INTERNAL	
TO	81	INTERNAL	
INTERVAL	19	INTERNAL	
FROM		INTERNAL	
TO		INTERNAL	
INTERNAL		TOTAL	± 1.9

REMARKS
 (23) 386 6/6

B P B SEAM THICKNESS LOG

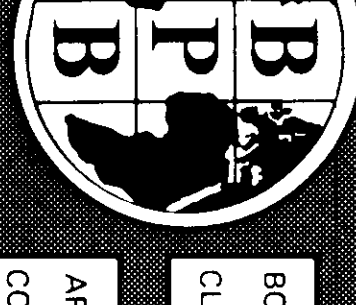
CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY cps
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CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY cps
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L-SHELL - CORBIN 72 (3) B CD-DH-19



BOREHOLE C.C.D. 1.44
 CLIENT SHELL (CANADA) LTD.

AREA BRITAIN P.C.
 DEPTH SCALE 20.1
 COUNTRY CANADA
 DATE LOGGED 78/08/21

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

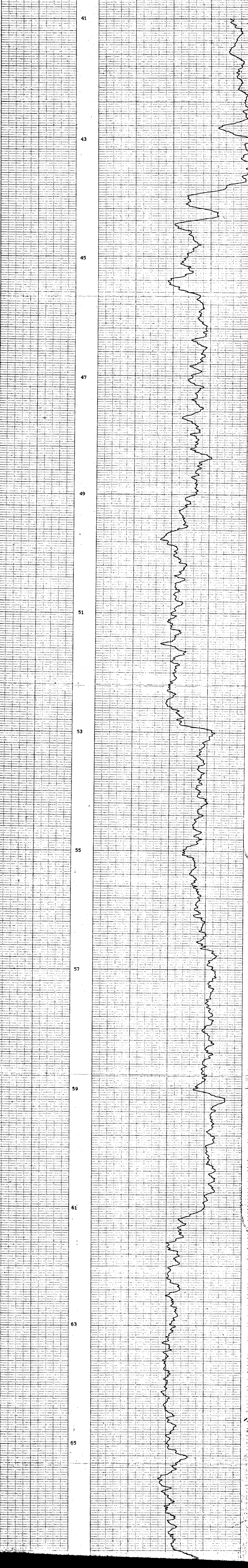
COAL COMBINATION SONDE
 LOG TAPPING PANEL OFF
 LOG RECORDING SPEED 3000
 CALIPER 1/2 2 1
 STRIKES 1 2 1

SONDE TYPE: LOG INTERVALS
 COAL COMBINATION SONDE

LOG SUITE: 386
 CALIPER 6
 BR DENSITY 29

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		cps



REMARKS: TIA LOGGING INC. - J.A.C.
 WITH THE DRILLING LOGS

L-SHELL - OCEAN 7 (3) B C-24-19



BOREHOLE C. C. D. H. #19
CLIENT SHELL (CANADA) LTD.

AREA CORBIN #C
COUNTRY CANADA
DATE LOGGED 78/09/21

LITHOLOGY LOG

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

FIRST READING 104
LAST READING 0
INTERVAL LOGGED 104
UNIT - TRUCK NO. V33/42
ENGINEER D. JORRAN
WITNESS

EQUIPMENT AND RECORDING DATA													
COAL COMBINATION SONDE:													
LOG	EQUIPMENT	TAPING	PANEL	CAL	DEPTH	SEAM LOG RUN							
SONDE	SOURCE	CALIBRATOR	LOG TAPE	RECORD SPEED	DIRECT OF REPLAY	SPEED	T.C. SECS	NORM	FROM	TO	INTERVAL		
GAMMA RAY		300AP	Y	9	d	9	1	1.43	103	0	103	Y	
DENSITY		3710C2-B	Y	9	d	9	1/3	7.54	"	"	"	Y	
CALIPER	109	SIDEWALL POSITION											

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

FROM	70	INTERVAL TOTAL	
TO	41		
INTERVAL	29		29

ADDITIONAL SONDES RUN				REMARKS	
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	REFER TO ADDITIONAL HEADINGS	
9	N-N	100:1			TOOL SLOWED TO 2m/min. OVER COAL SEAMS. GAMMA T.C. = 3sec., L.S.D.
					T.C. = 1sec., THE LOGGING TOOL PLACE WITHIN THE DRILL RODS.

B PB COAL LITHOLOGY LOG

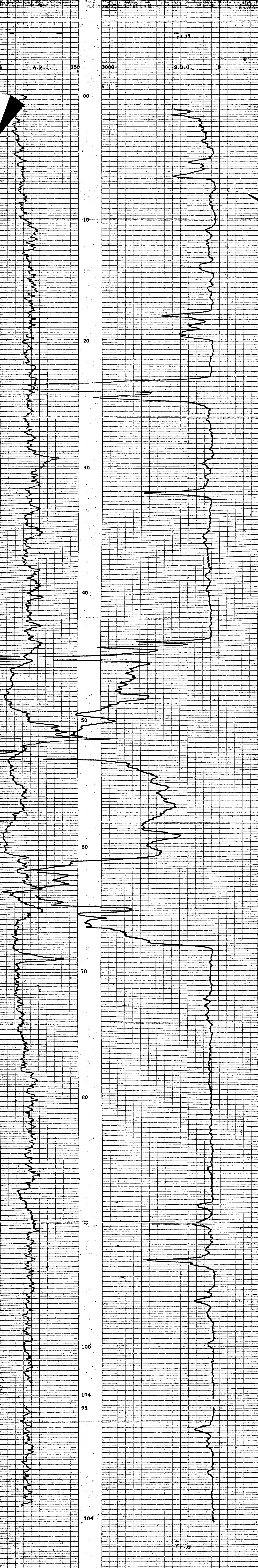
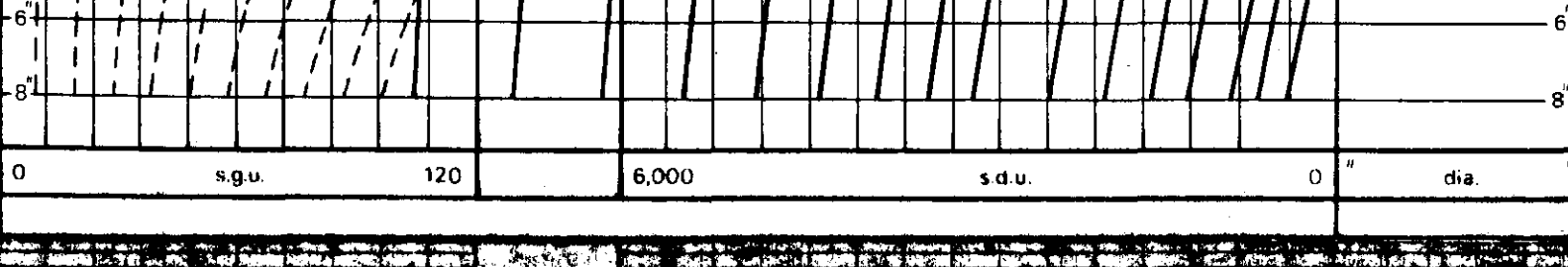
CALIBRATION DATA

JIG No 01 VALUE 30@ 2" DIAM. JIG CAL DATE 78/06/18 VALUE 3710 DU @ g/cm³ ins cps

JIG MARK SHOWN AT ABOVE VALUE + 3 JIG No 118 SPAN 0.013 NORM 8.4 ins cps

GAMMA RAY DEPTH COAL BULK DENSITY CALIPER

HOLE SIZE CORRECTION DATA



L-SHEET - CORBIN N(3)2 - CC-2H 5A



BOREHOLE C.C. D.H. # 5-A
 CLIENT SHELL (CANADA) LTD

AREA CORBIN B.C.
 COUNTRY CANADA

DATE LOGGED 28/09/12

DEPTH SCALE 20:1
 2.0" = 3.005'

THICKNESS LOG

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

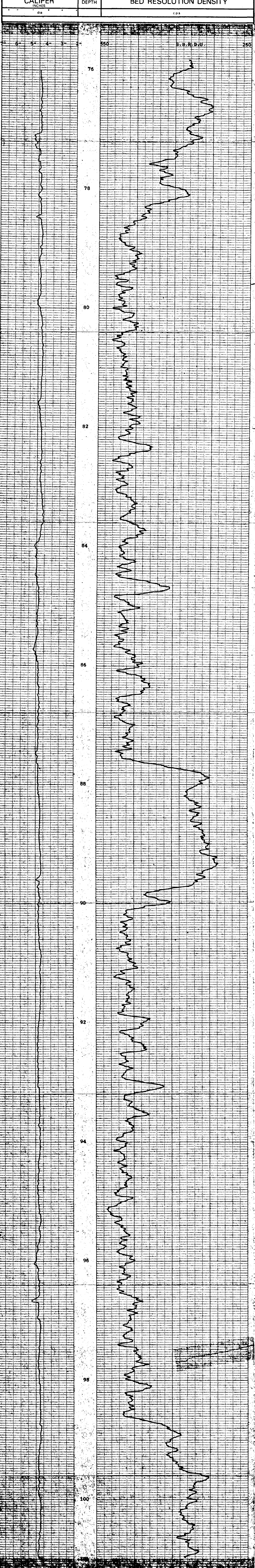
BOREHOLE DATA REFER TO LITHOLOGY LOG
 OPERATION DATA REFER TO LITHOLOGY LOG
 EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE
 LOG TAPPING SIDE WALL POSITION
 LOG TAPPING PANEL COEFF
 CALIPER Y 2 X 2 1/3
 BR. DENSITY Y 2 X 1 0.714

SEAM THICKNESS LOG INTERVALS
 FROM 101
 TO 76
 INTERVAL 25

REMARKS
 386 1/6

B P B SEAM THICKNESS LOG

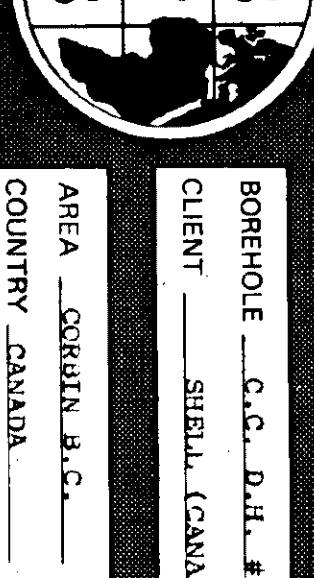


CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		cps



BOREHOLE C.C. D.H. # 5-A
 CLIENT SHELL (CANADA) LTD
 AREA CORBIN B.C.
 COUNTRY CANADA

L-SHELL CORP. 71318 CO 24-54



BOREHOLE C.C. D.H. # 3-A
 CLIENT SIBEL (CANADA) LTD.

AREA CORRIAN, B.C.
 COUNTRY CANADA
 DATE LOGGED 78/09/12

BOREHOLE DATA REFER TO LITHO LOG 106
 OPERATION DATA REFER TO LITHO LOG 106

AM
 THICKNESS LOG

EQUIPMENT AND RECORDING DATA
 COAL COMBINATION SOURCE

LOG
 LOG NO. 386
 LOG DATE 78/09/12
 LOG TIME 11:31

SEAM THICKNESS LOG INTERVALS
 FROM 72 TO 75
 FROM 75 TO 78
 FROM 78 TO 81
 FROM 81 TO 84
 FROM 84 TO 87
 FROM 87 TO 90
 FROM 90 TO 93
 FROM 93 TO 96
 FROM 96 TO 99
 FROM 99 TO 102
 FROM 102 TO 105
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 FROM 108 TO 111
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 FROM 2406 TO 2409
 FROM 2409 TO 2412
 FROM 2412 TO 2415
 FROM 2415 TO 2418
 FROM 2418 TO 24

L-SHELL-CORBIN 78 (S)B. 02-DH-24



COAL QUALITY LOG

SONDE TYPE: _____
 COAL COMINATION: _____
 SONDE: _____

LOG SUITE: _____
 GAMMA RAY: _____
 L.S. DENSITY: _____

BOREHOLE: C.C. D.J. # 24
 CLIENT: SHELL (CANADA) LTD.

AREA: CORBIN B.C.
 COUNTRY: CANADA
 DATE LOGGED: 28/08/02

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

EQUIPMENT AND RECORDING DATA
 COAL COMBINATION SONDE: _____

LOG TAPING: _____
 LOG TAPING: _____
 LOG TAPING: _____

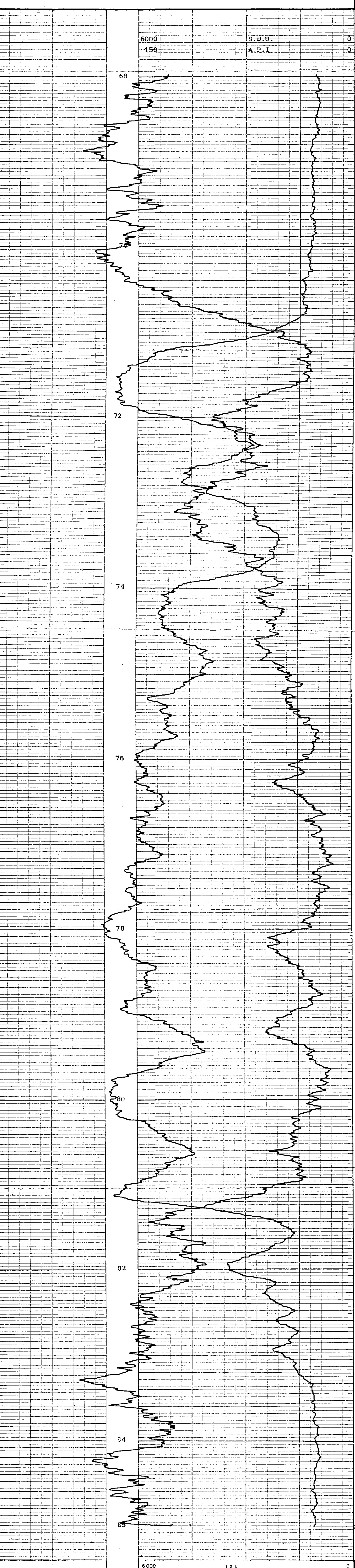
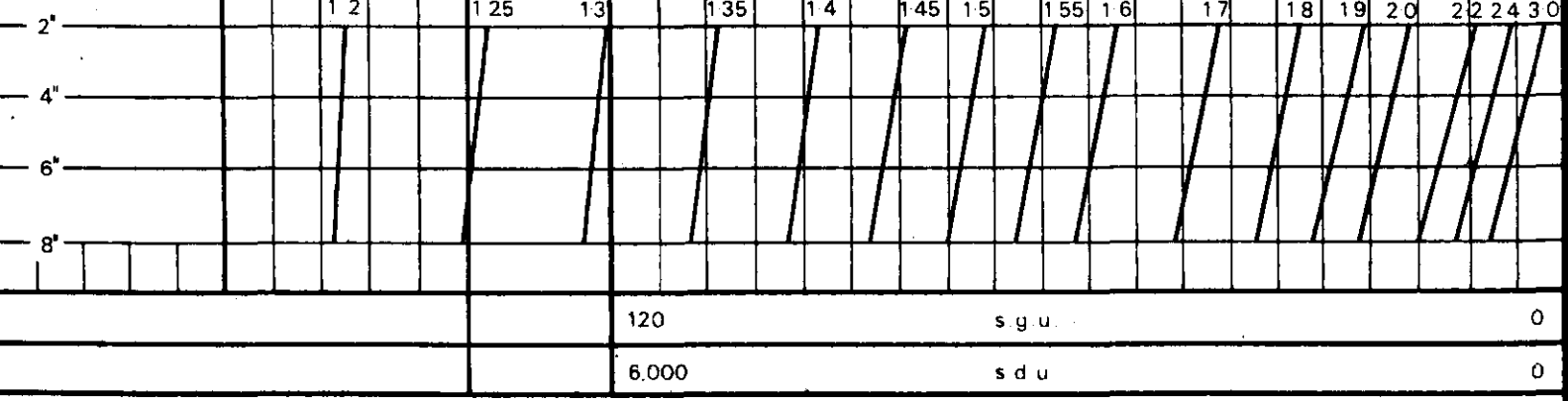
COAL QUALITY LOG INTERVALS
 FROM: 35
 TO: 68

REMARKS: _____
 GAMMA RAY LOGGED ON SEPARATE RUN
 DATE TO LOW WATER LEVEL: _____

B P B COAL QUALITY LOG

DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm ³

HOLE SIZE CORRECTION DATA



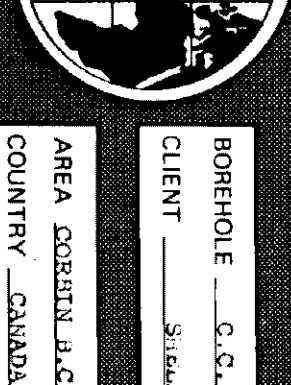
DEPTH	GAMMA RAY	COAL BULK DENSITY
		g/cm ³



BOREHOLE: C.C. D.J. # 24
 CLIENT: SHELL (CANADA) LTD.
 AREA: CORBIN B.C.
 COUNTRY: CANADA

COAL QUALITY LOG

1-SHEET - COALIN 31(B) (A-DH-24)



BORHOLE C.C. D.H. # 24
 CLIENT Sigbee, (CANADA) LTD.

AREA COLEMAN A.C.
 COUNTY CANADA

DATE LOGGED 28/09/02

BORHOLE DATA REFER TO LITHOLOG LOG
 OPERATION DATA REFER TO LITHOLOG LOG

AM THICKNESS LOG

EQUIPMENT X 2 F 2 I 1 O 7
 SOLE SMALL POSITION 001

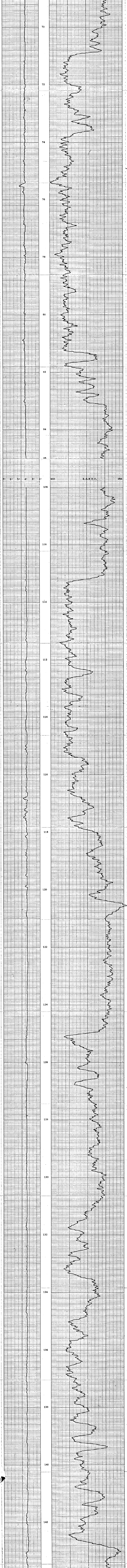
SEAM THICKNESS LOG INTERVALS

FROM	144	85
TO	105	68
FROM	21	17
TO		
TOTAL		153

LOG SUITE
 CALIPER
 B.D. DENSITY

REMARKS
 386

B P B SEAM THICKNESS LOG



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
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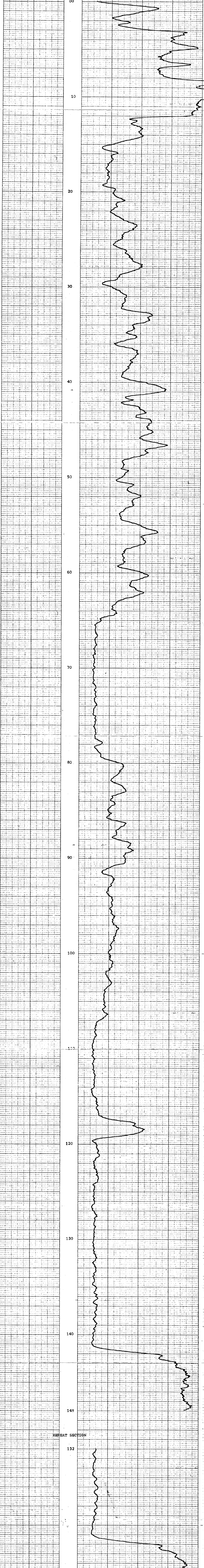
L-SHELL CORBIN 2(13)8 CD-24-23



NEUTRON-NEUTRON LOG

COMPANY: SIZAL (CANADA) LTD.
 WELLS: C.C. D-11, F. 23
 LOCATION: E. BRITISH COLUMBIA COUNTRY: CANADA
 GROUND LEVEL: _____ Elev. _____ m.
 MEASURED FROM: DRILL FLOOR 0.4 m. above P.D.
 LOGGING MEASURED FROM: _____ m. above P.D.
 DATE: 7/27/73
 DEPTH SCALE: 1:100.1
 LOGGING SCALE: 1:100.1
 LOGGING SPEED: 148 ft/min
 LOGGING T.C.: 0
 LOGGING NORM.: 0
 LOGGING SOURCE NO.: 148

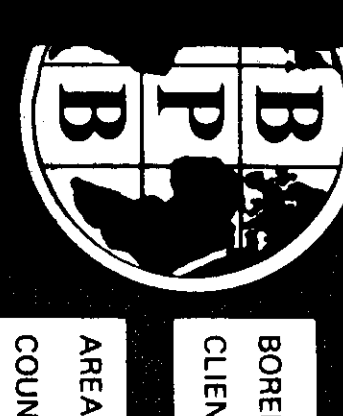
VERTICALITY RUN		Logging Data			
Log	Depths	Speed	T.C.	Norm.	Source No.
148m	33.1	148	0	0.79	9
145m	35.2				
132m	33.5				
115m	36.7				
100m	34.2				
85m	35.4				
70m	31.8				
55m	34.0				
40m	33.0				
25m	32.4				
10m	31.1				



REPEAT SECTION		Logging Data			
Log	Depths	Speed	T.C.	Norm.	Source No.
132m	33.5				
148m	32.4				

REMARKS: _____
 Changes in Mud Type or Additional Samples: _____
 Date: _____ Sample No.: _____
 Type Log: _____ Depth: _____ Scale Up Hole: _____ Scale Down: _____
 Type Fluid in Hole: _____
 Dens: _____ Visc: _____
 pH: _____ Fluid Loss: _____
 Source of Sample: _____
 Rm @ Meas Temp: _____
 Rmf @ Meas Temp: _____
 Rmc @ Meas Temp: _____
 Source Rmf: _____ Rmc: _____
 Rm @ BHT: _____
 Rmf @ BHT: _____
 Rmc @ BHT: _____
 Logging Time: 5:17
 Traced No: 73/42
 Processed By: D.J. GOSMAN
 Well No: 49
 386 6/16

SHELL CORBIN 78318 CO. 24-24



AL
LITHOLOGY LOG

BOREHOLE: C. C. D. I. # 24
 CLIENT: SHELL (CANADA) LTD.
 AREA: CORBIN B.C.
 DEPTH SCALE: 100.1'
 COUNTRY: CANADA
 DATE LOGGED: 78/08/02
 OF LOGS: _____

BOREHOLE DATA
 DEPARTMENT: GEOTECH. LAB.
 LOCATION: _____
 DISTANCE FROM: DISTILL. EDUCOR DISTILL. EDUCOR
 DEPTH REACHED: 143.6 148.0
 CASING SIZE: 3.0 4.0
 CASING SIZES: 3 4 TO TO
 CASING STATES: 1 2 3 4 TO TO

FLUID DATA
 NATURE: _____
 TEMPERATURE: _____
 VISCOSITY: _____
 DENSITY: _____
 PH: _____
 OPERATIONAL DATA: _____
 OPERATION VALUE: _____

SONDE TYPE
 COAL COMBINATION SONDE
 LOG SUITE: GAMMA RAY L.S. DENSITY CALIPER
 LAST READING: 145
 INTERVAL COVERED: 135/42
 UNIT - THICK: 1/2
 ENGINEER: D. JOHNSON

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING LOG TAPED	RECORD DIRECT REPLAY	SPEED	PANEL T.C. SECS	CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR						FROM	TO	INTERVAL	
GAMMA RAY	118		300AP1	y	9	d	9	1.43	144	0	144	y
DENSITY			3710CPS	y	9	d	9	1/3 8.4	145	0	145	y
CALIPER		SIDEWALL POSITION		y	9	r	9	1/3	145	0	145	y

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

FROM	TO	INTERVAL TOTAL
144	85	
106	68	
38	17	55

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
P1	VERT.		

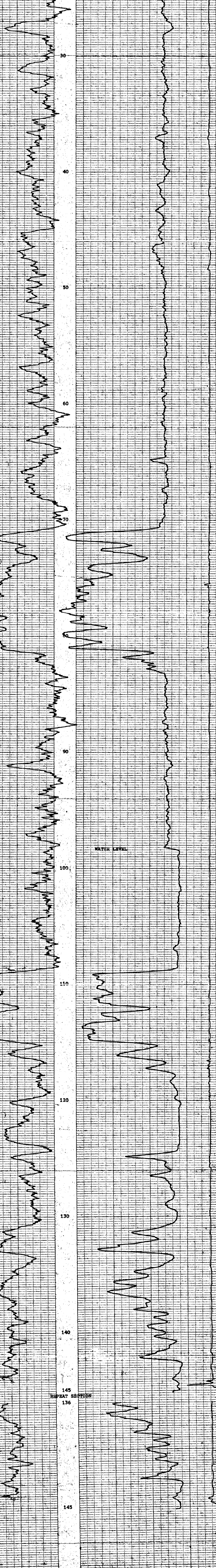
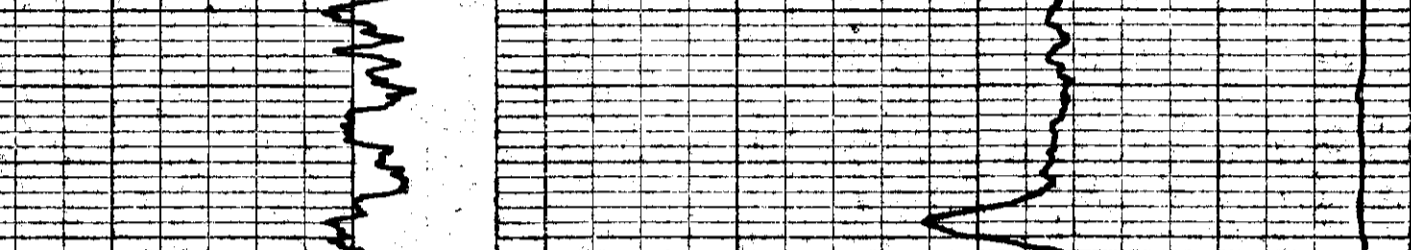
REMARKS: GAMMA LOGGED ON SEPARATE RUN FROM 110m to 00m. TOOL SLOWED TO 2m/min OVER COAL SEAMS. GAMMA T.C. = 3sec. L.S. DENSITY T.C. = 1sec.

B PB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No 01	VALUE 3000 2" DIAM	JIG CAL DATE 78/06/18	VALUE 3710 DU @	gl/cm ³	2 ins	470 cps
JIG MARK SHOWN AT ABOVE VALUE = 3		JIG No 118	SPAN 0.013	NORM	7 ins	895 cps

GAMMA RAY	DEPTH	COAL BULK DENSITY	CALIPER
		g/cm ³	INCHES



GAMMA RAY	DEPTH	COAL BULK DENSITY	CALIPER
		g/cm ³	INCHES

BOREHOLE: C. C. D. I. # 24
 CLIENT: SHELL (CANADA) LTD.
 AREA: CORBIN B.C.
 COUNTRY: CANADA

L-SHELL COBBIN 7813 B

DH-1

ROKE

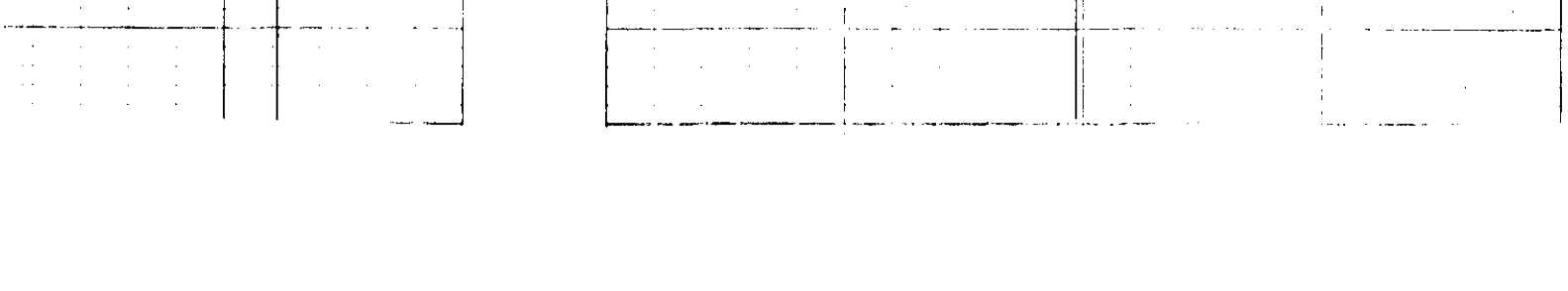
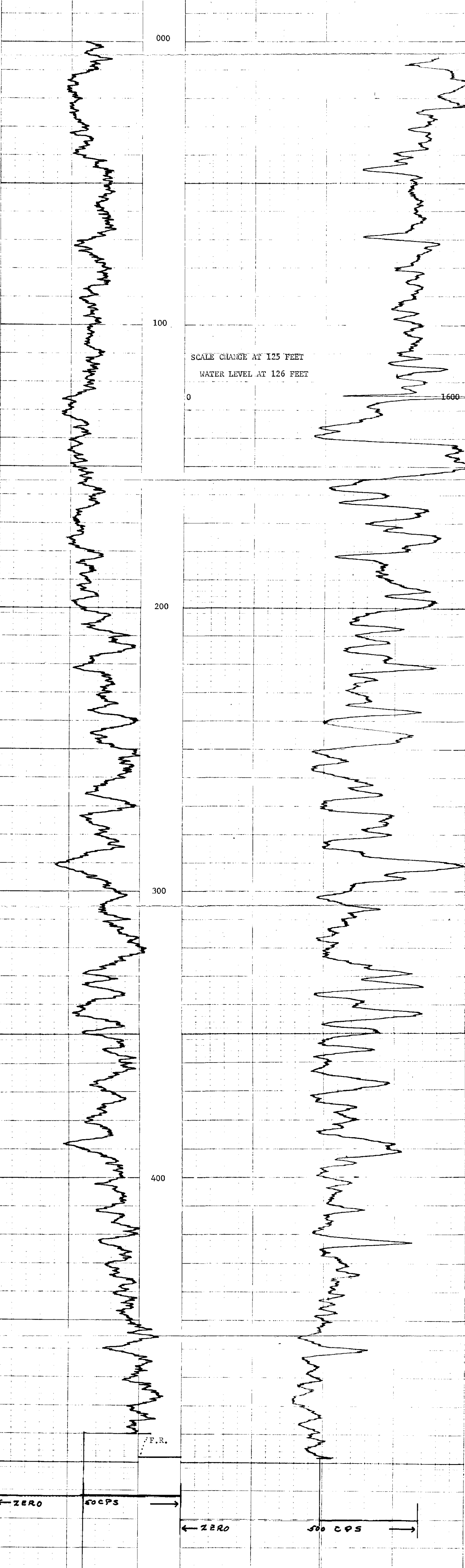
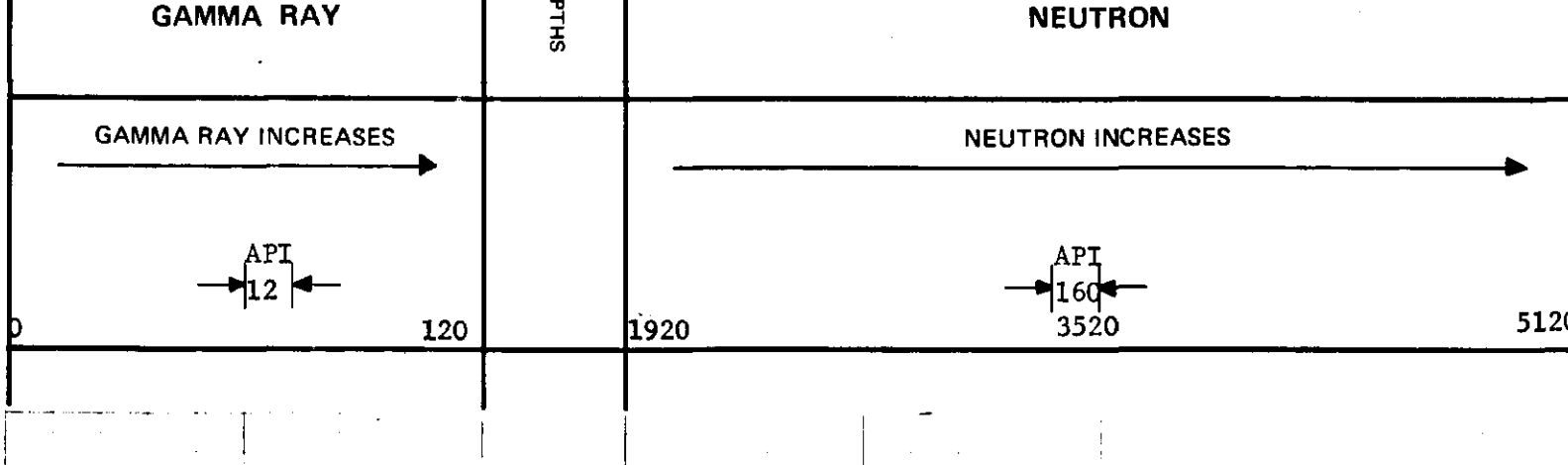
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROSS NEST INDUSTRIES LIMITED
LSD	WELL	DH-1
SEC	LOCATION	COBBIN
TWP	FIELD	COBBIN
RGE		
M		
PROVINCE BRITISH COLUMBIA		
Permanent Datum	GROUND LEVEL	Elev. _____
L. of Measured from	GROUND LEVEL	ft. Above Perm. Datum _____
Well Depth Measured from	GROUND LEVEL	G.L. _____
Run. No.	ONE	
Date	13 DECEMBER 1974	
First Reading	498	
Last Reading	0	
Footage Logged	498	
Depth Reached	499	
Depth Driller		
Casing Rocks		
Casing Drills	AIR/WATER	
Fluid Type	126	
Liquid Level	4-7/8	
Mfn. Diam.		
Fm. @ 9f		
Operating Time	1-1/2 HOURS	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRABB

3864

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		UTAMETER	11 1/8
TYPE	GEIGER	DETECTOR MODEL NO.	
LENGTH	18 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	8.55 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	598
HOIST TRUCK NO.	33	SPACING	19 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	65	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL			GAMMA RAY				NEUTRON				
RUN NO.	DEPTHS		SPEED FT/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T. C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
	FROM	TO									
1	0	125	12	5	100	OT.	12 APT	3	1000	12L	160 APT
	126	498	12	5	100	OT.	12 APT	3	500	OT.	80 APT



L-SHELL-CORBIN 2838

DH-2

ROKE

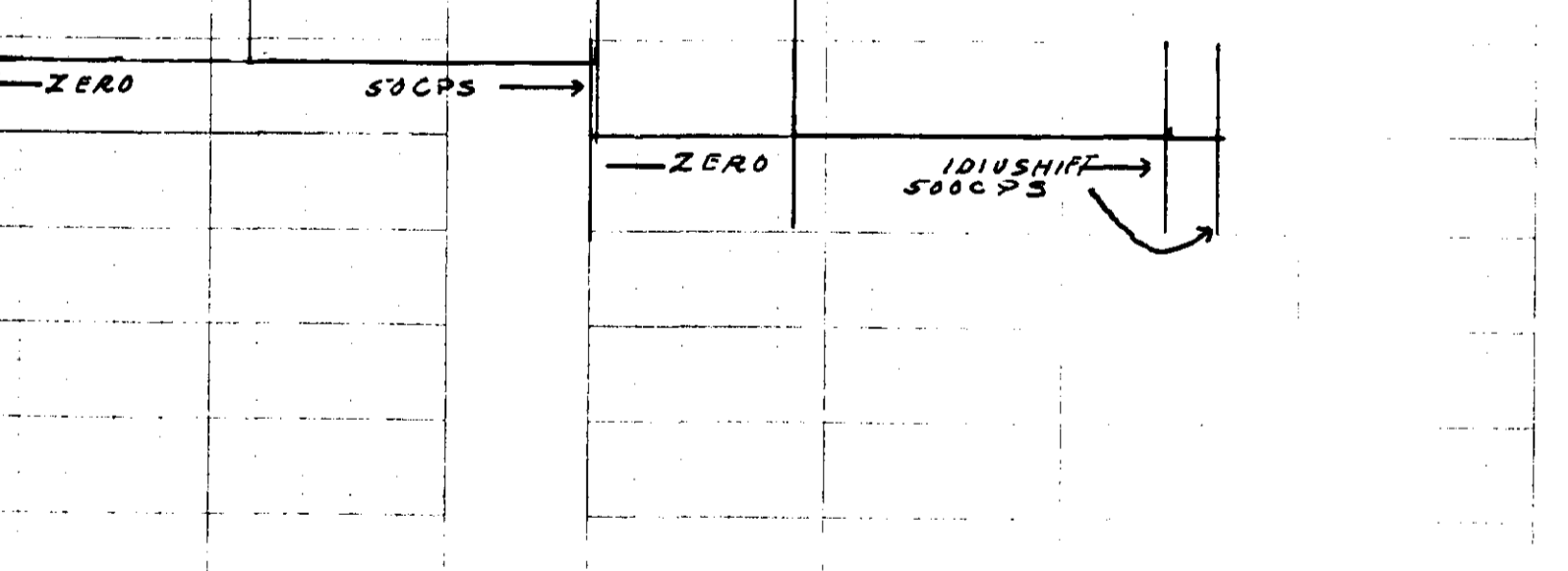
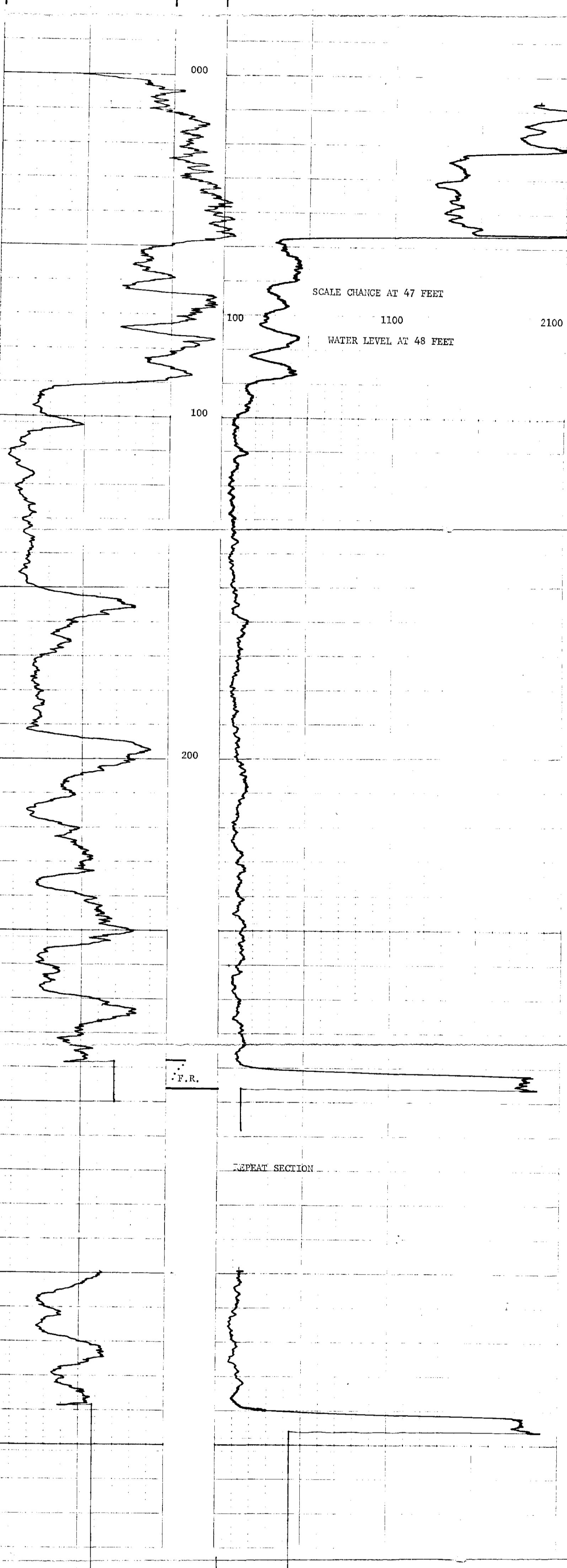
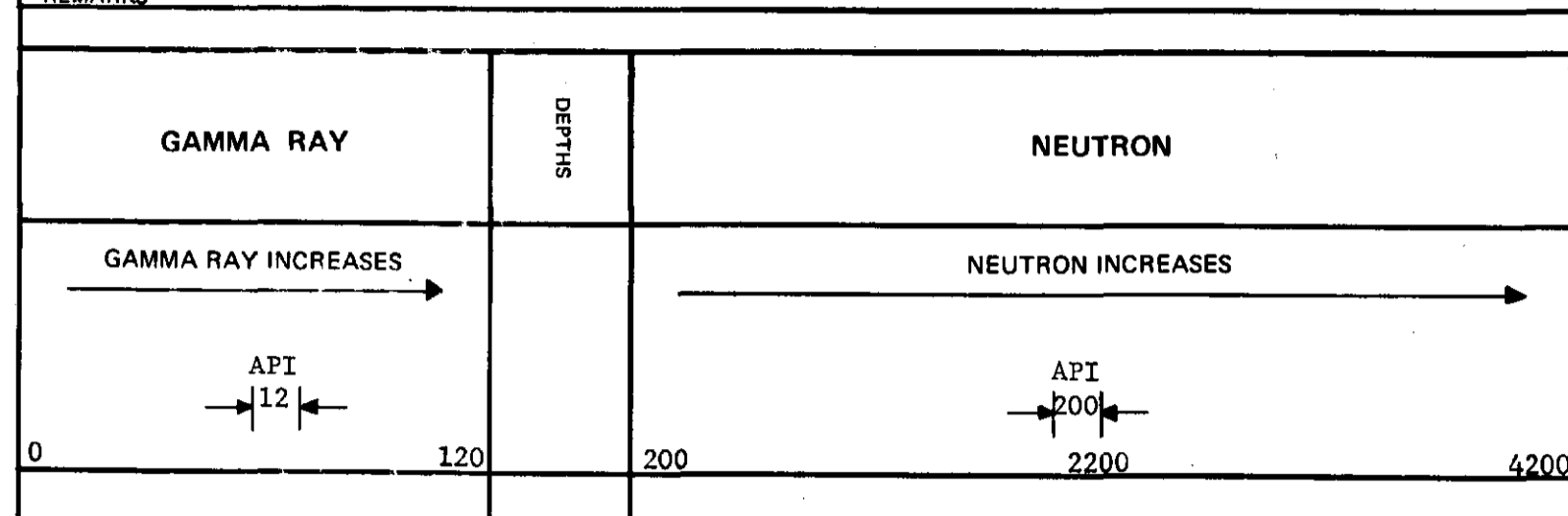
GAMMA RAY NEUTRON LOG

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	CROMS NEPT INDUSTRIES LIMIT ED
WELL	WELL	DH-2
LOCATION	LOCATION	CORBIN
FIELD	FIELD	CORBIN
PROVINCE	PROVINCE	BRITISH COLUMBIA
Log Measured from	GROUND LEVEL	Eq. Above Perm. Datum
Well Depths Measured from	GROUND LEVEL	GROUND LEVEL
Run No.	ONE	
Date	13 DECEMBER 1974	
First Reading	296	
Last Reading	0	
Footage Logged	296	
Depth Reached	297	
Casing Hole		
Casing Drill		
Fluid Type	AIR/WATER	
Liquid Level	48	
Min. Diam.	4-7/8	
Rm @ OF		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRABB

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	GEIGER	DETECTOR MODEL NO.	
LENGTH	18 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	8.55 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
		SERIAL NO.	598
		SPACING	19 INCH
		TYPE	AmBe
		STRENGTH	3 CURTES

GENERAL		GAMMA RAY				NEUTRON					
RUN NO.	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS	
	FROM	TO	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	
1	0	47	12	5	100	OL	12 API	3	1000	1L	200 API
	48	296	12	5	100	OL	12 API	3	500	1L	100 API



L-SHELL-CORBAIN 78(3)B

DH-2

ROKE

SIDEWALL DENSILOG

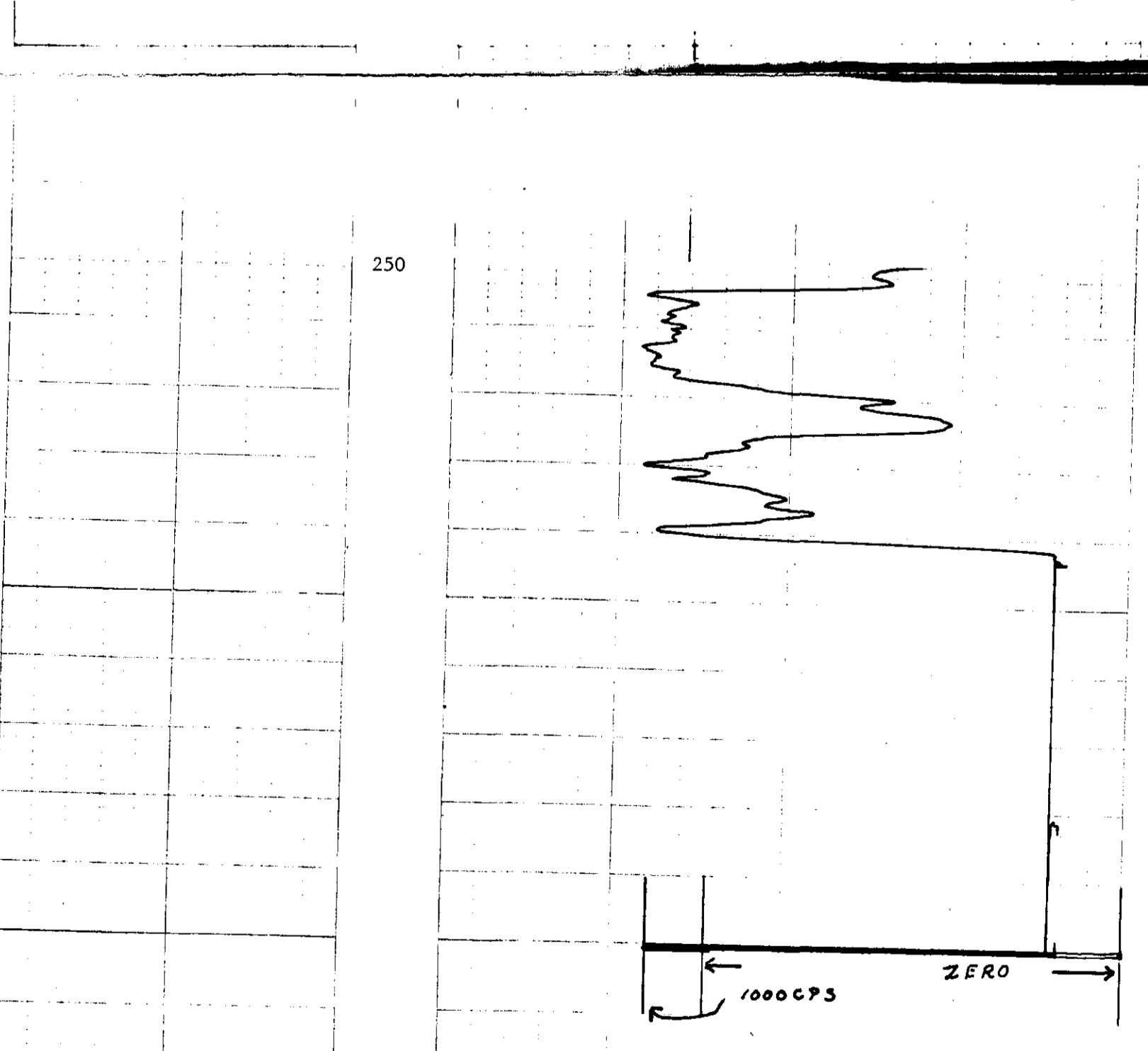
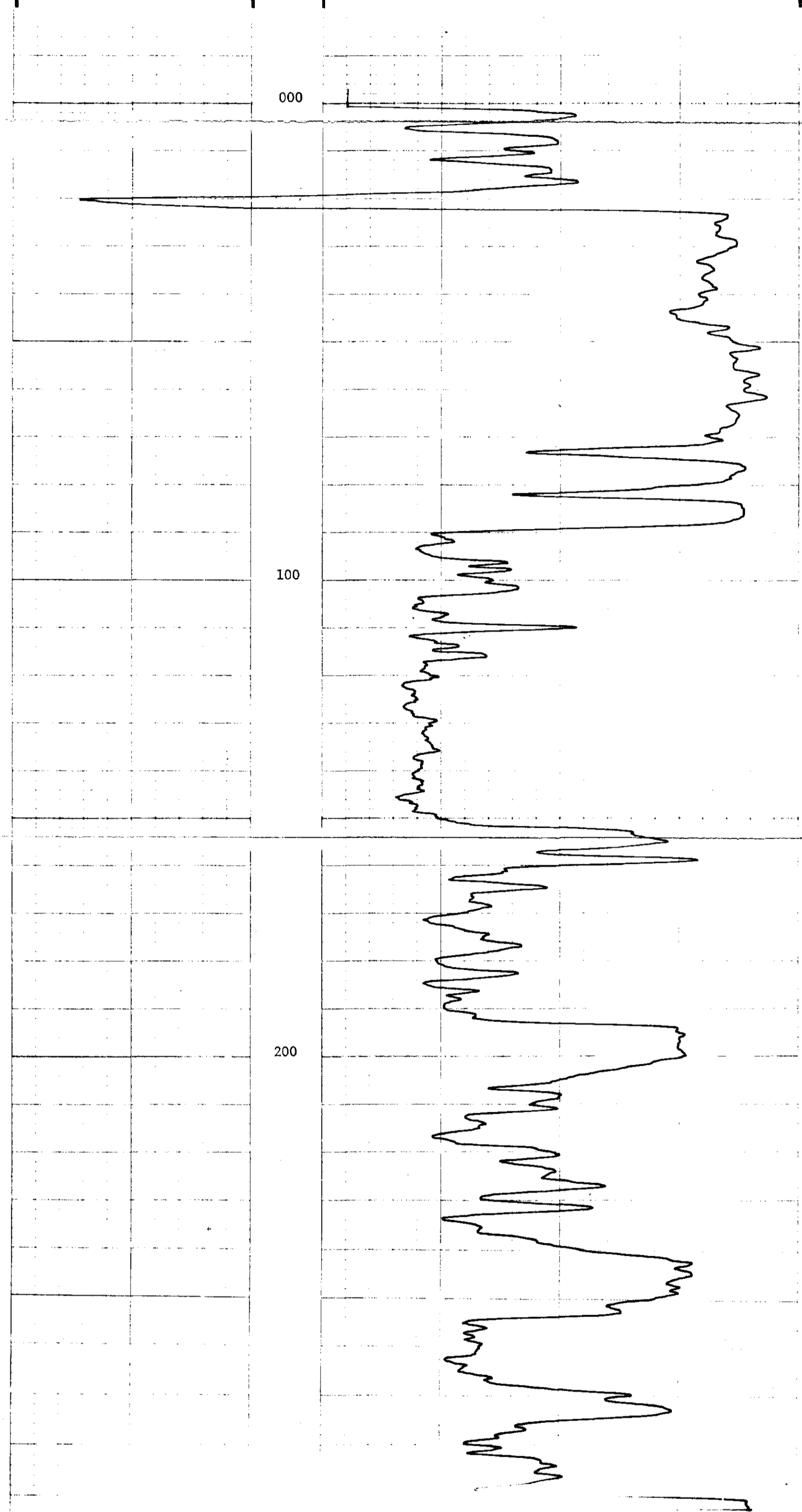
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROMS NEST INDUSTRIES LIMITED	
LSD SEC	WELL	DH-2	
TWP	RGE	LOCATION CORBAIN	
W	M	FIELD CORBAIN	
PROVINCE		BRITISH COLUMBIA	
Permanent Datum		GROUND LEVEL	
Elev.		K.B.	
Ft. Above Perm. Datum		CSG	
Well Depths Measured from		GROUND LEVEL	
G.L.		GRN	
Other Services:			
Run. No.	ONE	Date	13 DECEMBER 1974
First Reading	0	Last Reading	293
Footage Logged	293	Depth Reached	293
Depth Driller		Casing Driller	
Fluid Type	AIR/WATER	Min. Diam.	4-7/8
Operating Time	1-1/2 HOURS	Truck No.	33
Recorded By	JOHNSON	Witnessed By	CRABB

RUN NO.	DEPTHS		SPEED FT/MIN	GAMMA RAY			SIDEWALL DENSILOG				
	FROM	TO		T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	CPS/DIV
1	0	293	10					3	1000	1.496R	71.629

REMARKS

TOOL SERIAL NO A-457	
DEPTHS	CALIPER (DIAMETER - INCHES)
	GAMMA RAY API
	BULK DENSITY (GRAMS/CC)



L-SHEIL-CORBIN 71(3)B

CH-4

ROKE

GAMMA RAY NEUTRON LOG

OIL ENTERPRISES LTD. CALGARY, ALBERTA

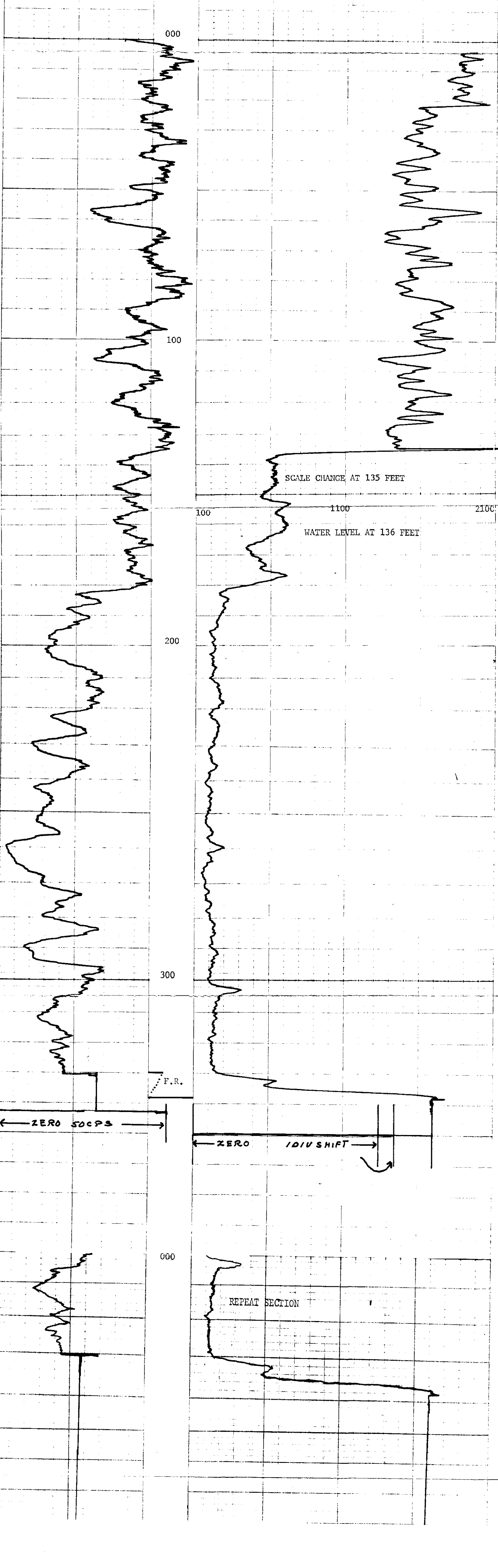
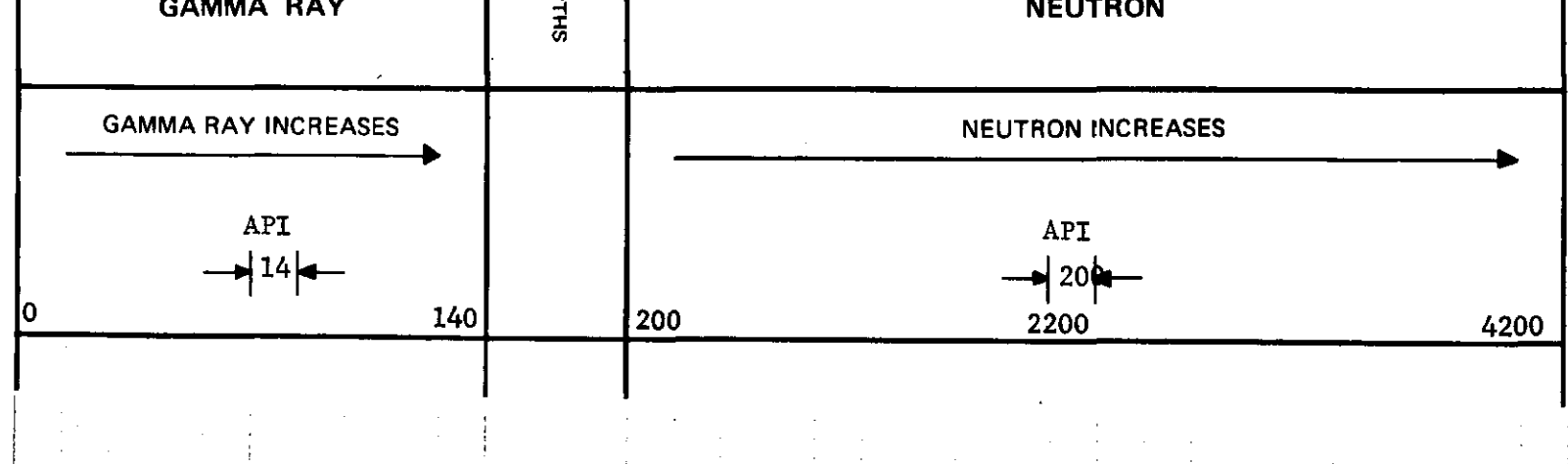
FILE NO.	COMPANY	CROSS NEST INDUSTRIES LIMITED
LSD SEC TYPE	WELL	DH-4
RGE	LOCATION	CORBIN
W	FIELD	CORBIN
	PROVINCE	BRITISH COLUMBIA
Permanent Datum	GROUND LEVEL	Env.
Log Measured from	GROUND LEVEL	Ft. Above Perm. Datum
Well Depths Measured from	GROUND LEVEL	G.L.
Other Services:		DENS
Run No.	ONE	
Date	13 DECEMBER 1974	
Fact. Reading	338	
Last Reading	0	
Footage Logged	338	
Depth Reached	339	
Depth Driller		
Casing Bore		
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	136	
Min. Diam.	4-7/8	
Rm @ 0'		
Operating Time	1 HOUR	
Truck No.	33	

45

586

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	GEIGER	DETECTOR MODEL NO.	
LENGTH	18 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	8.55 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	598
HOIST TRUCK NO.	33	SPACING	19 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	65	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL				GAMMA RAY				NEUTRON			
RUN NO.	DEPTHS		SPEED FT/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R		T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	
	FROM	TO				API G. R. UNITS PER LOG DIV.	API N. UNITS PER LOG DIV.				
1	0	135	12	5	100	OL	OL	3	1000	IL	200
	136	338	12	5	100	OL	OL	3	500	IL	100



L-SHELL - COORBIN 28 (3) B.

DH-4

ROKE

SIDEWALL DENSILOG

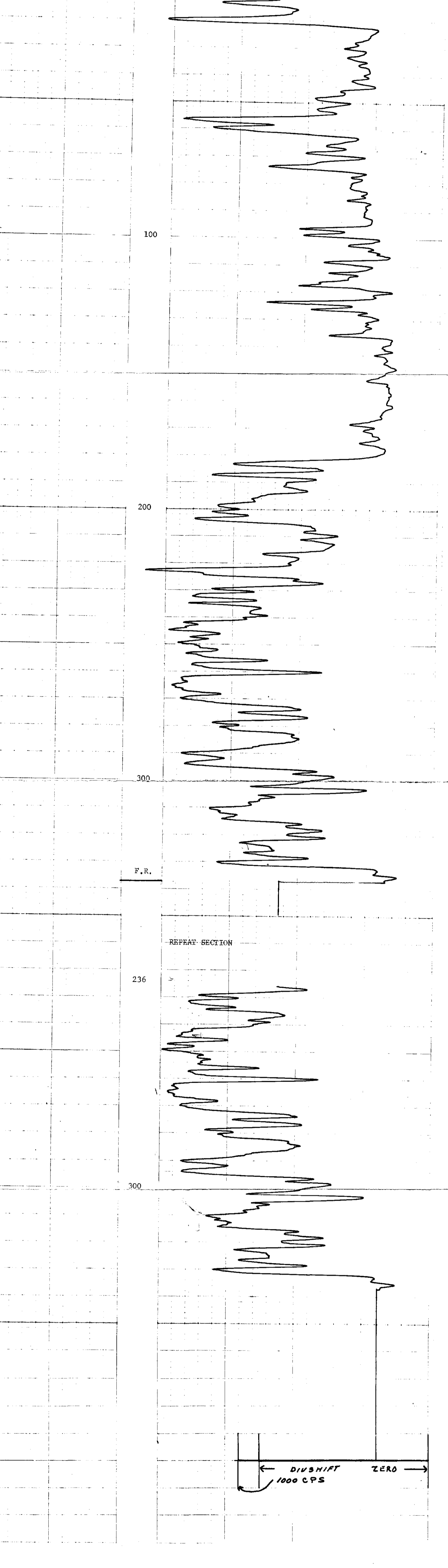
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	CRONK NEST INDUSTRIES LIMITED
LSD SEC	WELL	DH-4
TWP	LOCATION	COORBIN
RGE	FIELD	COORBIN
W. _____ M.	PROVINCE	BRITISH COLUMBIA
	Other Services:	GRN
Permanent Datum	GROUND LEVEL	Elev. _____
Log Measured from	GROUND LEVEL	Ft. Above Perm. Datum
Well Depths Measured from	GROUND LEVEL	G.L. _____
Run No.	ONE	
Date	13 DECEMBER 1974	
First Reading	337	
Last Reading	0	
Footage Logged	337	
Depth Reached	337	
Depth Driller		
Casing Driller		
Casing Roke		
Fluid Type	AIR/WATER	
Liquid Level	136	
Min. Diam.	4-7/8	
Operating Time	1-1/2 HOURS	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRABR

RUN NO.	GENERAL		GAMMA RAY			SIDEWALL DENSILOG				
	DEPTHS FROM	TO	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	CPS/DIV
1	0	337	10				3	1000	1.496R	71.629

REMARKS

TOOL SERIAL NO A-457



L-SHELL - COBBIN 71318

DH-5

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

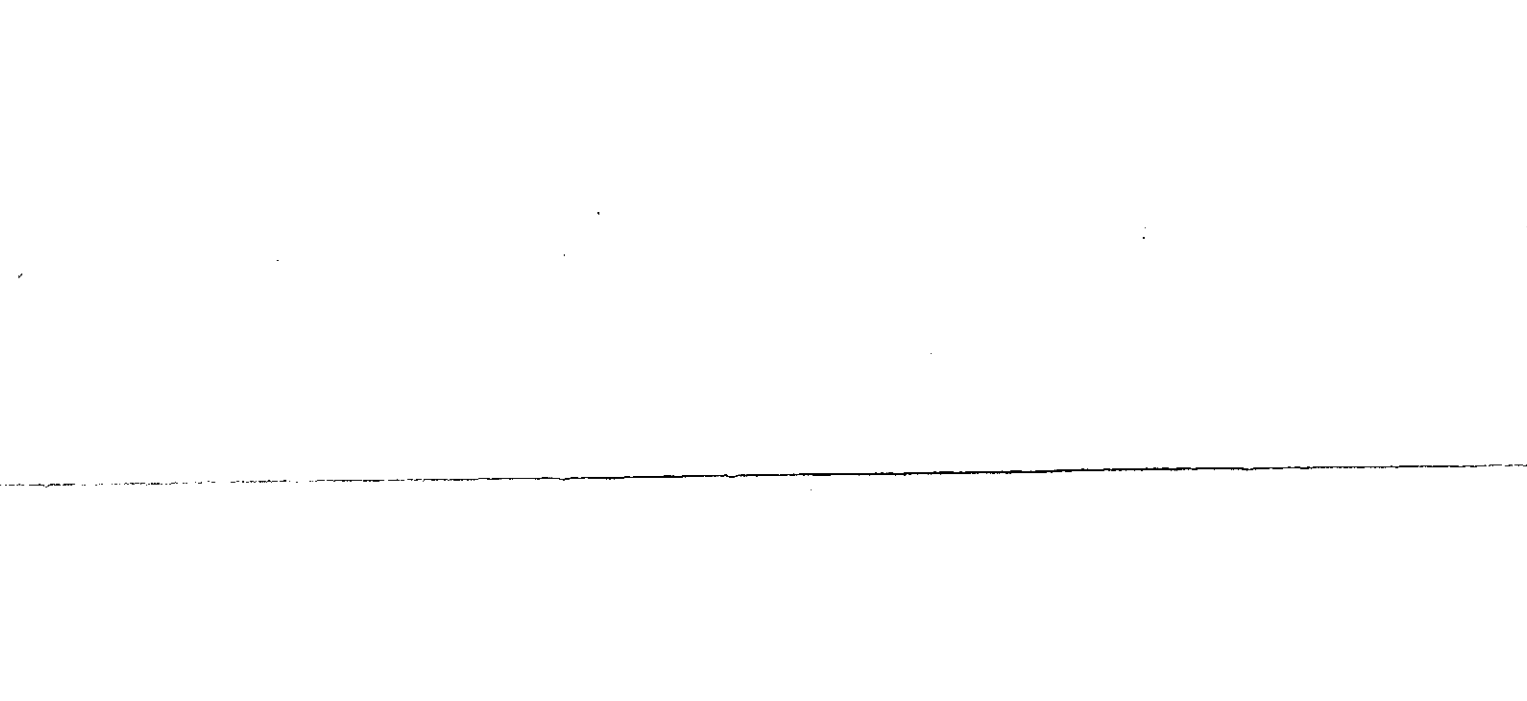
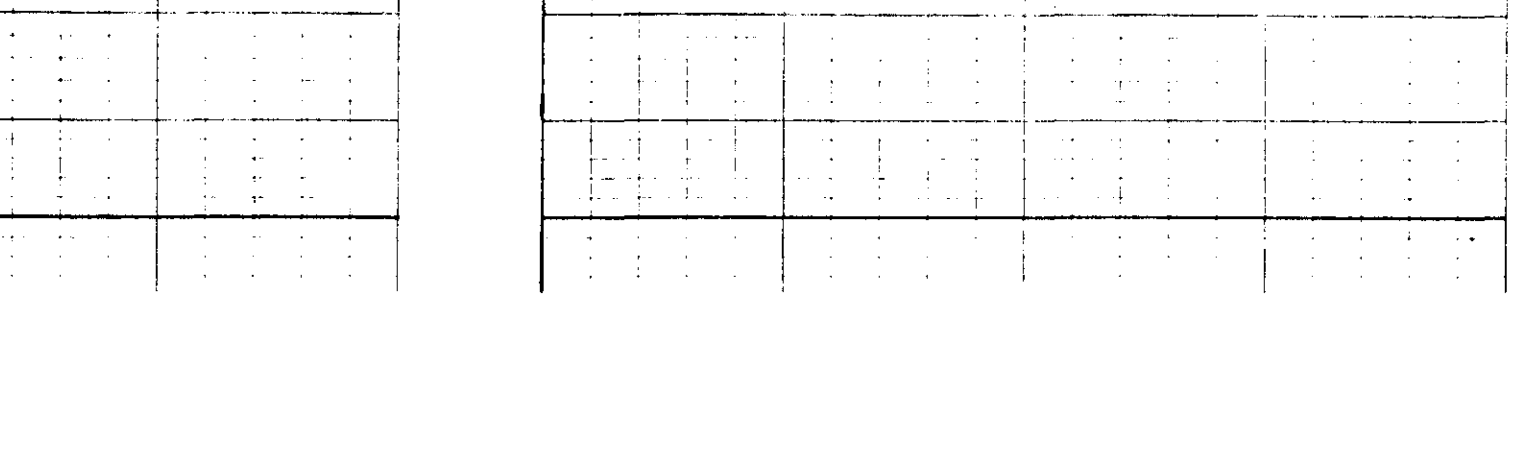
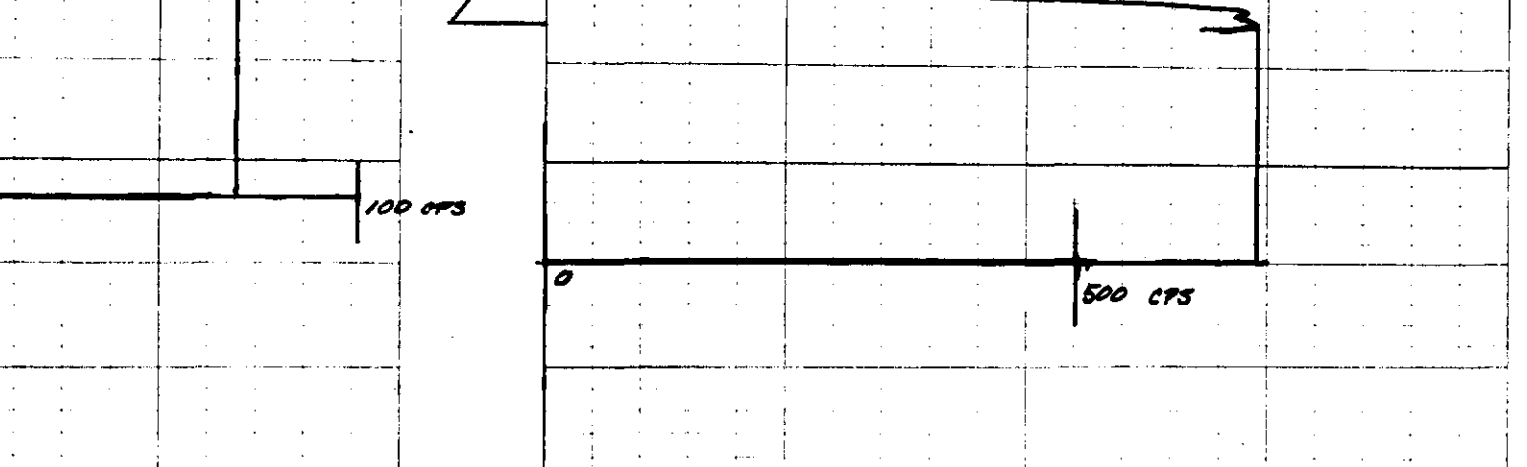
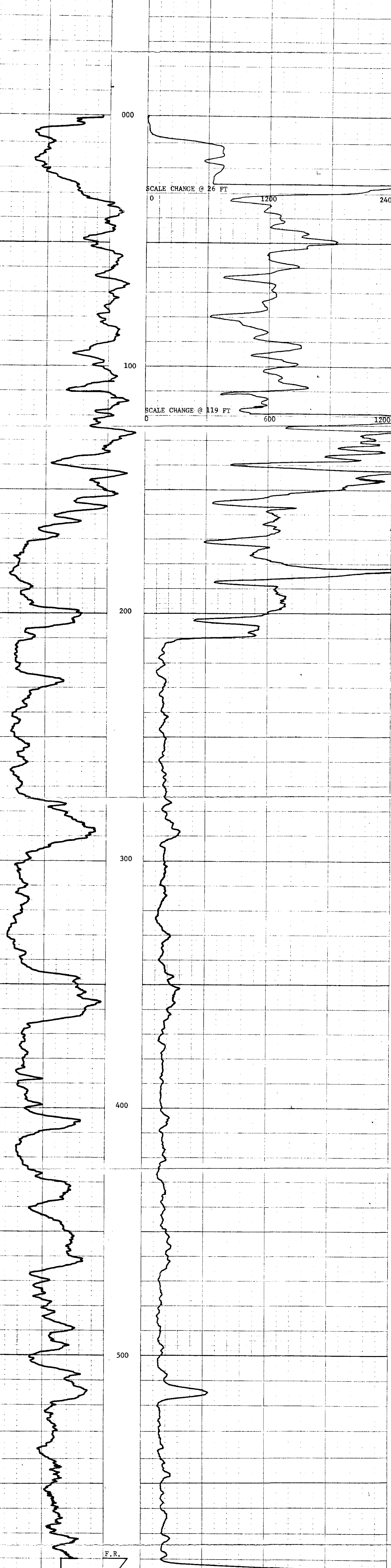
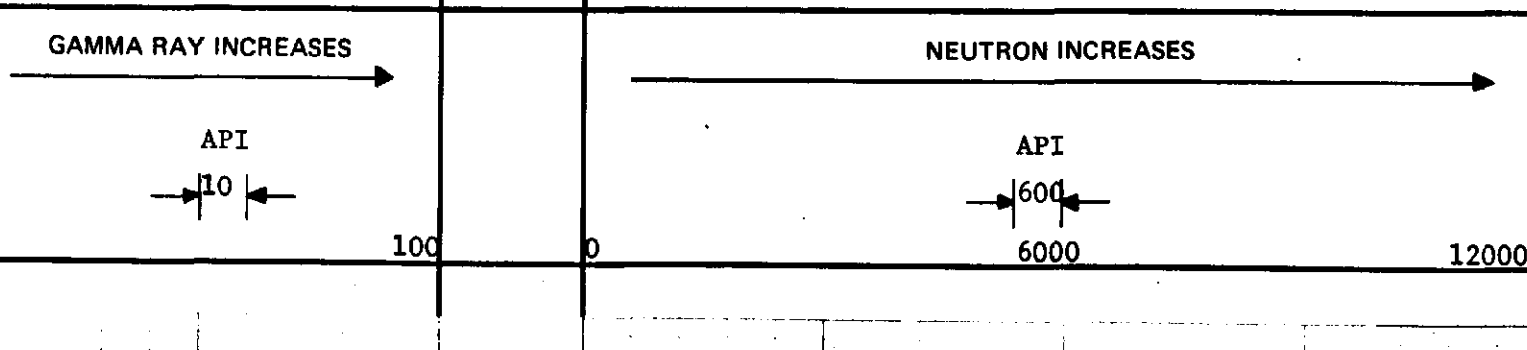
GAMMA RAY NEUTRON LOG

FILE NO.	COMPANY	CRENS REST INDUSTRIES LIMITED
LSD	WELL	DH - 5
SEC	LOCATION	COBBIN
TWP	RGE	M
FIELD	COBBIN	
PROVINCE	BRITISH COLUMBIA	
Permanent Datum	GROUND LEVEL	7.0 Ft. Above Perm Datum
Log Measured from	ROTARY TABLE	
Well Depth Measured from	ROTARY TABLE	
Run No.	ONE	
Date	23 SEPTEMBER 1974	
First Reading	586	
Last Reading	00	
Footage Logged	586	
Depth Reached	587	
Depth Driller	590	
Casing Driller		
Fluid Type	WATER	
Liquid Level		
Min. Diam.		
Rm @ 9F		
Operating Time	1-1/2 HOURS	
Truck No.	36	
Recorded By	ETNK	Witnessed By
		GRAB

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
		SERIAL NO.	187
HOIST TRUCK NO.	36	SPACING	
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-002	STRENGTH	3 CURIES

GENERAL		GAMMA RAY				NEUTRON					
RUN NO.	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS	
NO.	FROM	TO	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	
1	00	26	12	5	100	-	10 API	3	5000	-	600 API
	26	119	12	5	100	-	10 API	3	1000	-	120 API
	119	586	12	5	100	-	10 API	3	500	-	60 API

REMARKS



L-SHELL-CORBIN 78(3)B

DH-5

ROKE

SIDEWALL DENSILOG

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO. COMPANY CROMS NEST INDUSTRIES LIMITED

WELL DH - 5

LOCATION CORBIN

FIELD CORBIN

PROVINCE BRITISH COLUMBIA

Permanant Datum GROUND LEVEL

Log Measured from ROTARY TABLE 7 Ft. Above Perm. Datum

Well Depth Measured from ROTARY TABLE

Run. No. ONE

Date 25 SEPTEMBER 1975

First Reading 175

Last Reading 00

Footage Logged 175

Depth Reached 178

Depth Driller 590

Casing Driller

Fluid Type AIR

Mfn. Diam. 4-7/8

Operating Time 1 HOUR

Truck No. 36

Recorded By FUNK

Witnessed By CRABB

48
386
6/16

RUN NO.	GENERAL		SPEED FT/MIN	T.C. SEC.	GAMMA RAY		SIDEWALL DENSILOG		CPS/DIV	
	DEPTHS FROM	TO			SENS SETTINGS	ZERO DIV. L OR R	T.C. SEC.	SENS SETTINGS		ZERO DIV. L OR R
1	00	175	12				3	1000	1.6R	44.16

REMARKS HOLE WAS TWO DAYS OLD

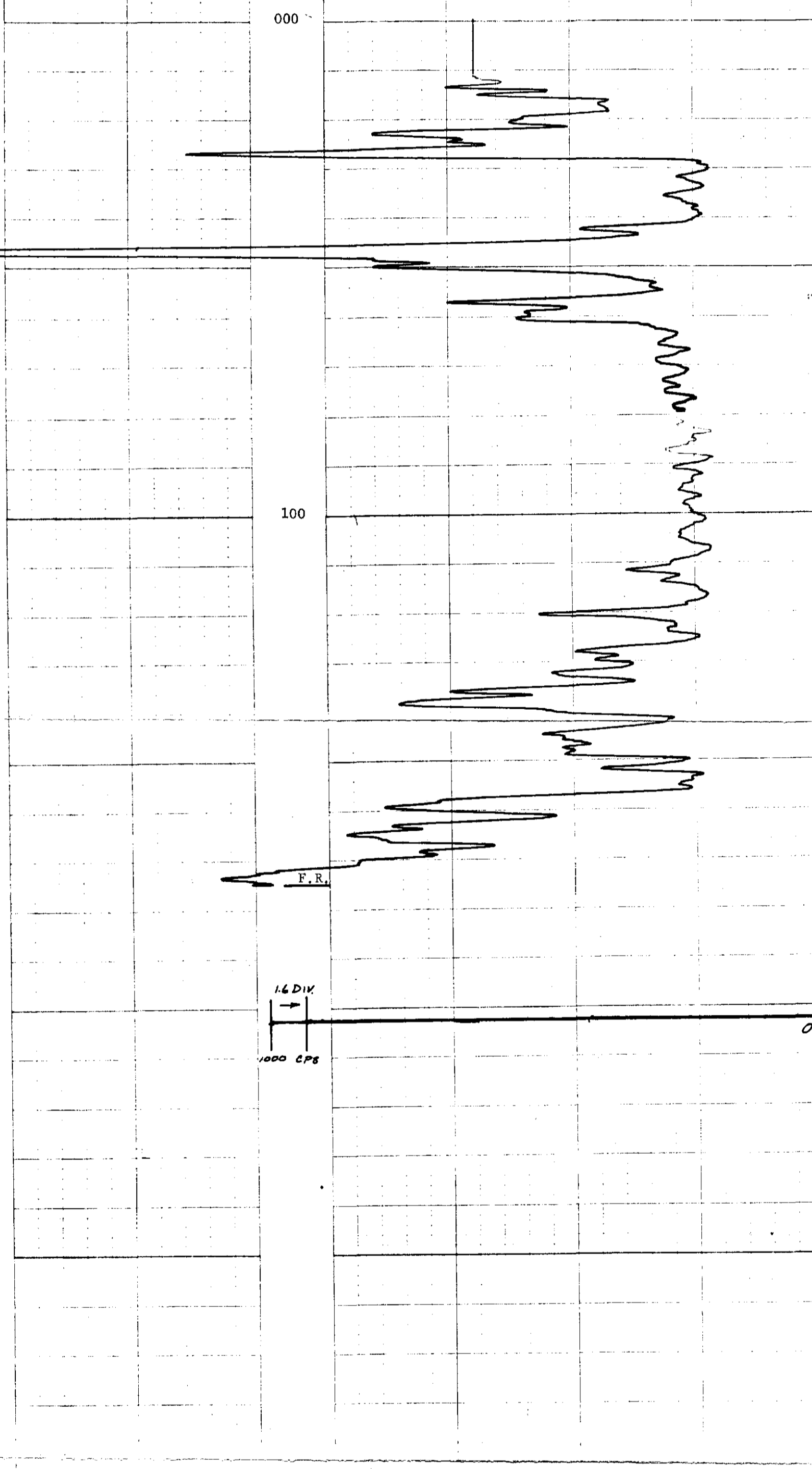
DENSITY TOOL SERIAL NO 829

CALIPER (DIAMETER - INCHES)

DEPTHS

GAMMA RAY API

BULK DENSITY (GRAMS/CC)



K-SHELL - CORBIN 78 (3) 8

DH-6

ROKE

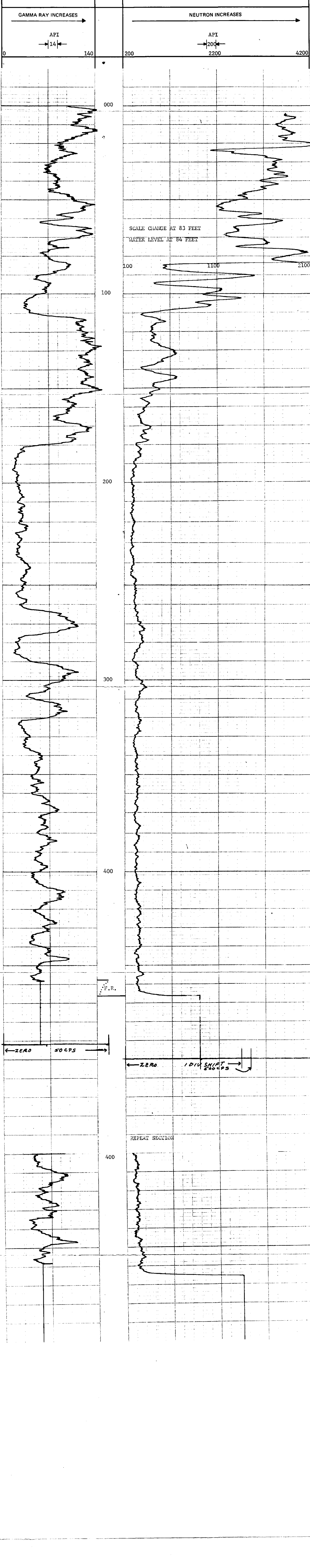
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROSS WEST INDUSTRIES LIMITED
LSD SEC	WELL	DH-6
TWP	LOCATION	CORBIN
RGE	FIELD	CORBIN
PROV.	PROV.	BRITISH COLUMBIA
Other Services	DENS-CAL	
Permanent Datum	GROUND LEVEL	
Log Measured from	GROUND LEVEL	Fl. Above Perm. Datum
Well Depth Measured from	GROUND LEVEL	G.L.
Run No.	ONE	
Date	14 DECEMBER 1974	
Exit Reading	466	
Exit Reading	0	
Footage Logged	466	
Depth Reached	467	
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	84	
Min. Diam.	4-7/8	
Run @ 9F		
Operating Time	1-1/2 HOURS	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRABB

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	GEIGER	DETECTOR MODEL NO.	
LENGTH	18 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	8.55 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	598
HOIST TRUCK NO.	33	SPACING	19 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	65	STRENGTH	3 CURIES

GENERAL		GAMMA RAY				NEUTRON					
RUN NO.	DEPTHS	SPEED	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T. C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.	
1	0	83	12	5	100	OL	14 APT	3	1000	IL	200 APT
	84	466	12	5	100	OL	14 APT	3	500	IL	100 APT

REMARKS



L-SHELL - CORBIN 71 (3) B

DH-6

ROKE

SIDEWALL DENSILOG
CALIPER

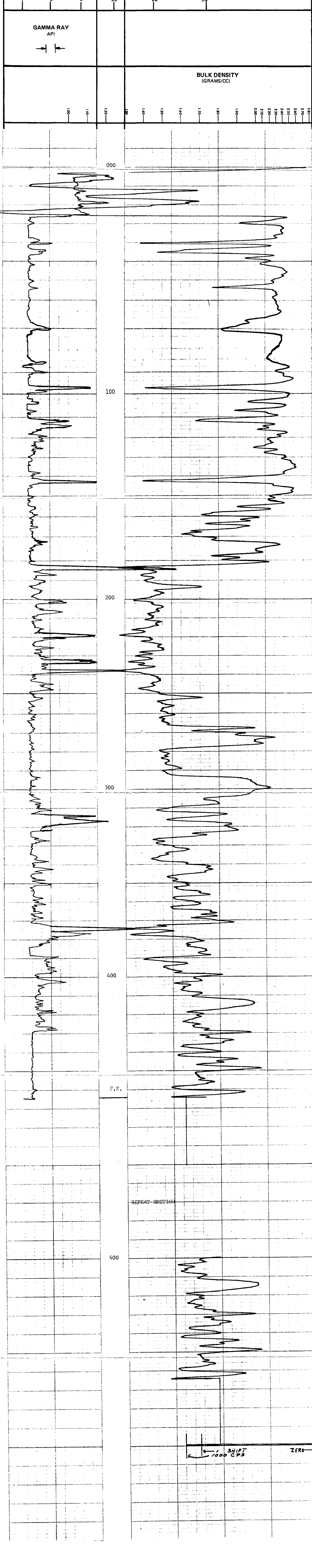
OIL ENTERPRISES LTD. - CALGARY, ALBERTA

FILE NO.	COMPANY	LOGS. NEST INDUSTRIES LIMITED
LSD SEC.	WELL	DH-6
TRIP RGE	LOCATION	CORBIN
W	FIELD	CORBIN
	PROVINCE	BRITISH COLUMBIA
	GROUND LEVEL	GRN
	Other Services:	
Permanent Datum	GROUND LEVEL	From
Log Measured from	GROUND LEVEL	Ft. Above Perm. Datum
Well Depth Measured from	GROUND LEVEL	GL
Run No.	ONE	
Date	14 DECEMBER 1974	
First Reading	464	
Last Reading	0	
Footage Logged	464	
Depth Reached	464	
Depth Driller		
Casing Rate		
Casing Driller	ATK/MATER	
Fluid Type	84	
Liquid Level	4-7/8	
Min. Diam.		
Operating Time	2 HOURS	
Truck No.	33	
Recorded By	JOURNISON	Witnessed By
		GRAB

RUN NO.	GENERAL DEPTHS		SPEED FT/MIN	T.C. SEC.	GAMMA RAY		SIDEWALL DENSILOG		CPS/DIV	
	FROM	TO			SENS SETTINGS	ZERO DIV. L OR R	T.C. SEC.	SENS SETTINGS		ZERO DIV. L OR R
1	0	464	10				3	1000	1.496R	71.629

REMARKS: DENSITY RECORDED AT 2-1/2 FEET LOW.

TOOL SERIAL NO A-457



Recorded By: JOURNISON
Witnessed By: GRAB

L-SHELL - CORBIN 74 (3) B. 04-74

ROKE

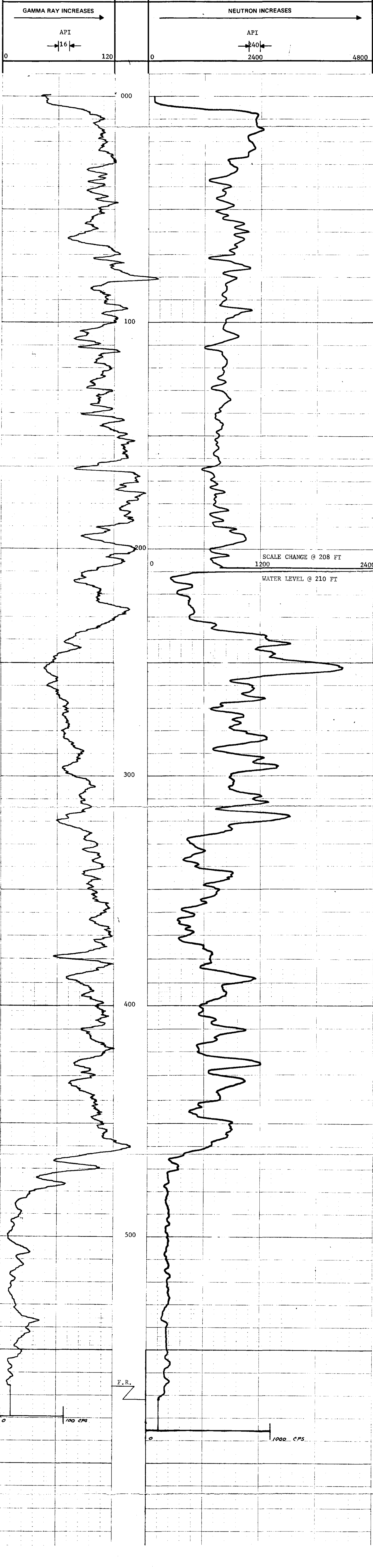
OIL ENTERPRISES LTD. CALGARY, ALBERTA
 GAMMA RAY NEUTRON LOG

FILE NO.	COMPANY	GROSS WEST INDUSTRIES LIMITED
LSD SEC	WELL	DH - 7A
RIG	LOCATION	CORBIN
W	FIELD	CORBIN
	PROVINCE	BRITISH COLUMBIA
	GROUND LEVEL	
Permanent Datum	Log Measured from	ROTARY TABLE
	Well Depths Measured from	ROTARY TABLE
		Other Services:
		DENS
		K.S.
		CSG
		G.L.
Run No.	ONE	
Date	25 SEPTEMBER 1975	
Fixture Reading	572	
Last Reading	00	
Footage Logged	572	
Depth Reached	573	
Casing Rods	737	
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	210	
Min. Diam.	4-7/8	
Rm @ 9F		
Operating Time	1-1/2 HOURS	
Truck No.	36	
Recorded By	FINCK	Witnessed By
		CRABER

EQUIPMENT DATA		GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE		NEUTRON/NEUTRON	
DIAMETER	1 11/16	TOOL MODEL NO.		DIAMETER	1 11/16
DETECTOR MODEL NO.		DETECTOR MODEL NO.		TYPE	PROPORTIONAL
TYPE	SCINTILLATION	LENGTH	4 INCH	SOURCE MODEL NO.	MRC-N-SS-W
DISTANCE TO N. SOURCE	6.7 FT.	SERIAL NO.		SPACING	
GENERAL		HOIST TRUCK NO.	36	TYPE	AmBe
INSTRUMENT TRUCK NO.		TOOL SERIAL NO.	R GRN 169-002	STRENGTH	3 CURIES

LOGGING DATA		GAMMA RAY				NEUTRON				
RUN NO.	GENERAL		T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
	FROM	TO								
1	00	208	12	5	100	-	3	5000	-	240 APT
	208	572	12	5	100	-	3	1000	-	120 APT

REMARKS HOLE BRIDGED AT 574 FEET



51 386 6/16

L-SHELL - CORBIN R (S)A. 2H-7A

ROKE

SIDEWALL DENSILOG

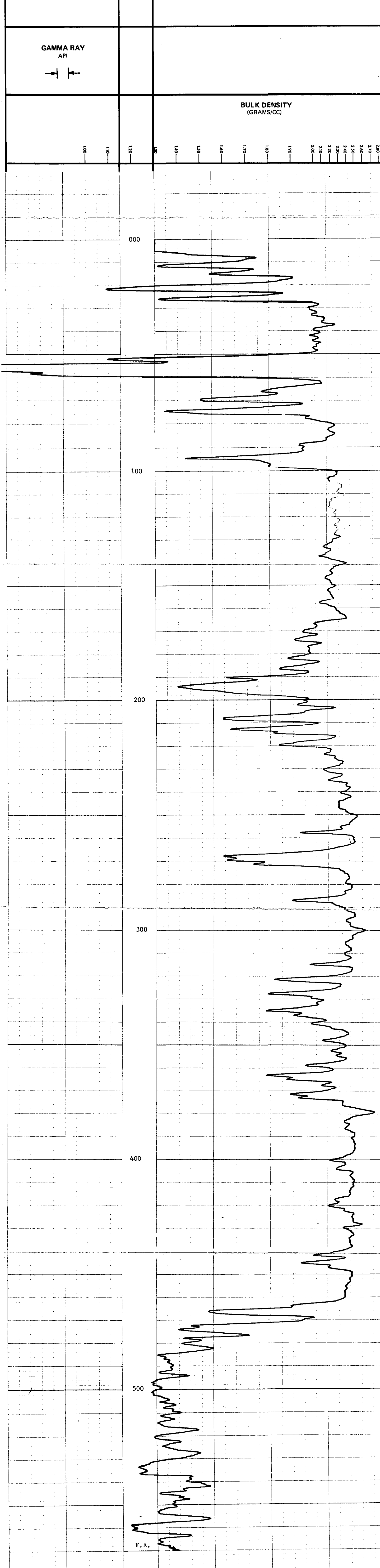
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	CROSS NEST INDUSTRIES LIMITED
LSD SEC	WELL	DR - 7A
TWP	LOCATION	CORBIN
RGE	FIELD	CORBIN
W	PROVINCE	BRITISH COLUMBIA
	Other Services:	GRN
	Permanent Datum	GROUND LEVEL
	Log Measured from	ROTARY TABLE
	Well Depth Measured from	ROTARY TABLE
	API Error	K.A.
	7 Ft. Above Perm. Datum	CSG
		GL
Run No.	ONE	
Date	25 SEPTEMBER 1975	
Last Reading	570	
Footage Logged	570	
Depth Reached	573	
Casting Rate	737	
Casting Driller		
Fluid Type	AIR/WATER	
Liquid Level	210	
Min. Diam.	4-7/8	
Operating Time	1-1/2 HOURS	
Truck No.	36	
Recorded By	FRNK	Witnessed By
		CRABS

RUN NO.	GENERAL		SPEED FT/MIN	T.C. SEC.	GAMMA RAY		API G.R. UNITS PER LOG DIV.	SIDEWALL DENSILOG		CPS/DIV
	FROM	TO			SENS SETTINGS	ZERO DIV. L OR R		T.C. SEC.	SENS SETTINGS	
1	00	570	12				3	1000	1.6R	44.16

REMARKS: HOLE WAS BRIDGED AT 574 FEET

DENSITY TOOL SERIAL NO 829



F.R. 1.6 DIV 1000

DEPTH	CALIPER (DIAMETER - INCHES)	GAMMA RAY API	BULK DENSITY (GRAMS/CC)
0	2.40	1.6	1.80
10	2.40	1.6	1.80
20	2.40	1.6	1.80
30	2.40	1.6	1.80
40	2.40	1.6	1.80
50	2.40	1.6	1.80
60	2.40	1.6	1.80
70	2.40	1.6	1.80
80	2.40	1.6	1.80
90	2.40	1.6	1.80
100	2.40	1.6	1.80
110	2.40	1.6	1.80
120	2.40	1.6	1.80
130	2.40	1.6	1.80
140	2.40	1.6	1.80
150	2.40	1.6	1.80
160	2.40	1.6	1.80
170	2.40	1.6	1.80
180	2.40	1.6	1.80
190	2.40	1.6	1.80
200	2.40	1.6	1.80
210	2.40	1.6	1.80
220	2.40	1.6	1.80
230	2.40	1.6	1.80
240	2.40	1.6	1.80
250	2.40	1.6	1.80
260	2.40	1.6	1.80
270	2.40	1.6	1.80
280	2.40	1.6	1.80
290	2.40	1.6	1.80
300	2.40	1.6	1.80
310	2.40	1.6	1.80
320	2.40	1.6	1.80
330	2.40	1.6	1.80
340	2.40	1.6	1.80
350	2.40	1.6	1.80
360	2.40	1.6	1.80
370	2.40	1.6	1.80
380	2.40	1.6	1.80
390	2.40	1.6	1.80
400	2.40	1.6	1.80
410	2.40	1.6	1.80
420	2.40	1.6	1.80
430	2.40	1.6	1.80
440	2.40	1.6	1.80
450	2.40	1.6	1.80
460	2.40	1.6	1.80
470	2.40	1.6	1.80
480	2.40	1.6	1.80
490	2.40	1.6	1.80
500	2.40	1.6	1.80
510	2.40	1.6	1.80
520	2.40	1.6	1.80
530	2.40	1.6	1.80
540	2.40	1.6	1.80
550	2.40	1.6	1.80
560	2.40	1.6	1.80
570	2.40	1.6	1.80
574	2.40	1.6	1.80

386 6/16

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY NEUTRON LOG

L-35611 - CORBIN - 78(3)A

DH-8

FILE NO.	COMPANY	GROWS NEST INDUSTRIES LTD
LSD	WELL	DH - 8
SEC	LOCATION	CORBIN
TWP	RGE	
RGE	FIELD	CORBIN
W	PROVINCE	BRITISH COLUMBIA
	Permanent Datum	GROUND LEVEL
	Log Measured from	GROUND LEVEL
	Well Depths Measured from	GROUND LEVEL
	Elev.	
	Ft. Above Perm. Datum	
	K.B.	
	CSG	
	G.L.	
	Other Services:	NULL
Run No.	ONE	
Date	8 SEPTEMBER 1975	
First Reading	187	
Last Reading	00	
Footage Logged	187	
Depth Reached	188	
Depth Driller		
Casing Rate		
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level		
Min. Diam.	4-7/8	
Rm @ OF		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRAB

53
386
6/16

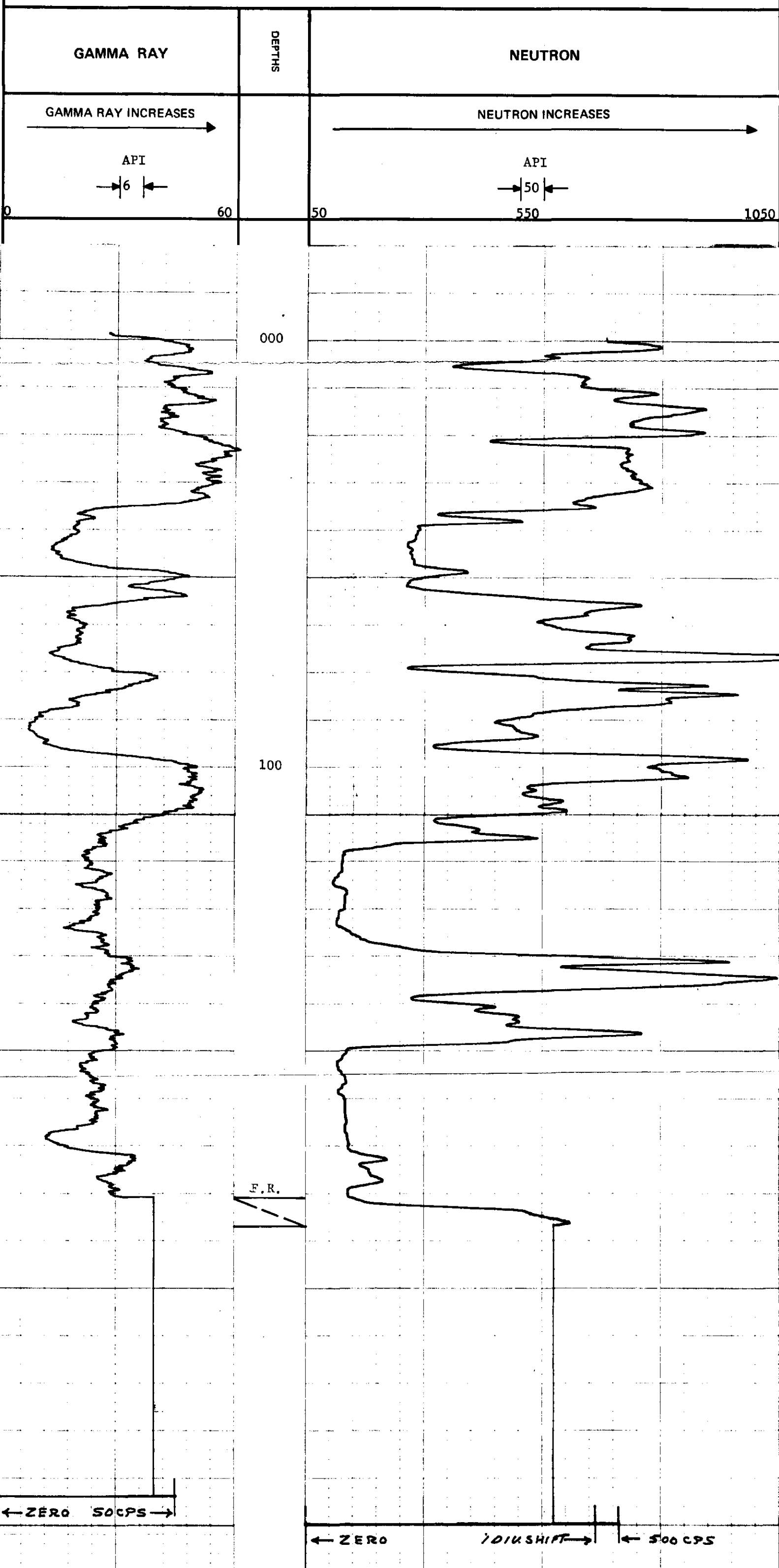
EQUIPMENT DATA

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
		SERIAL NO.	188
HOIST TRUCK NO.	33	SPACING	
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-001	STRENGTH	3 CURIES

LOGGING DATA

RUN NO.	GENERAL		GAMMA RAY				NEUTRON				
	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS	
	FROM	TO	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	
1	00	187	12	5	100	OL	6 API	3	500	IL	50 API

REMARKS LOGGED THROUGH DOUBLE WALL DRILL ROD



L-SHELL - 008 SIN 28(3)A

24-9

ROKE

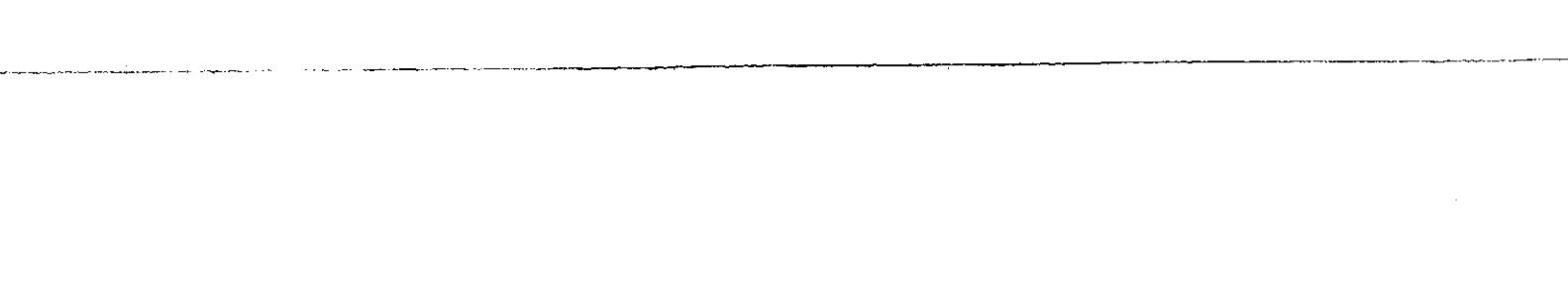
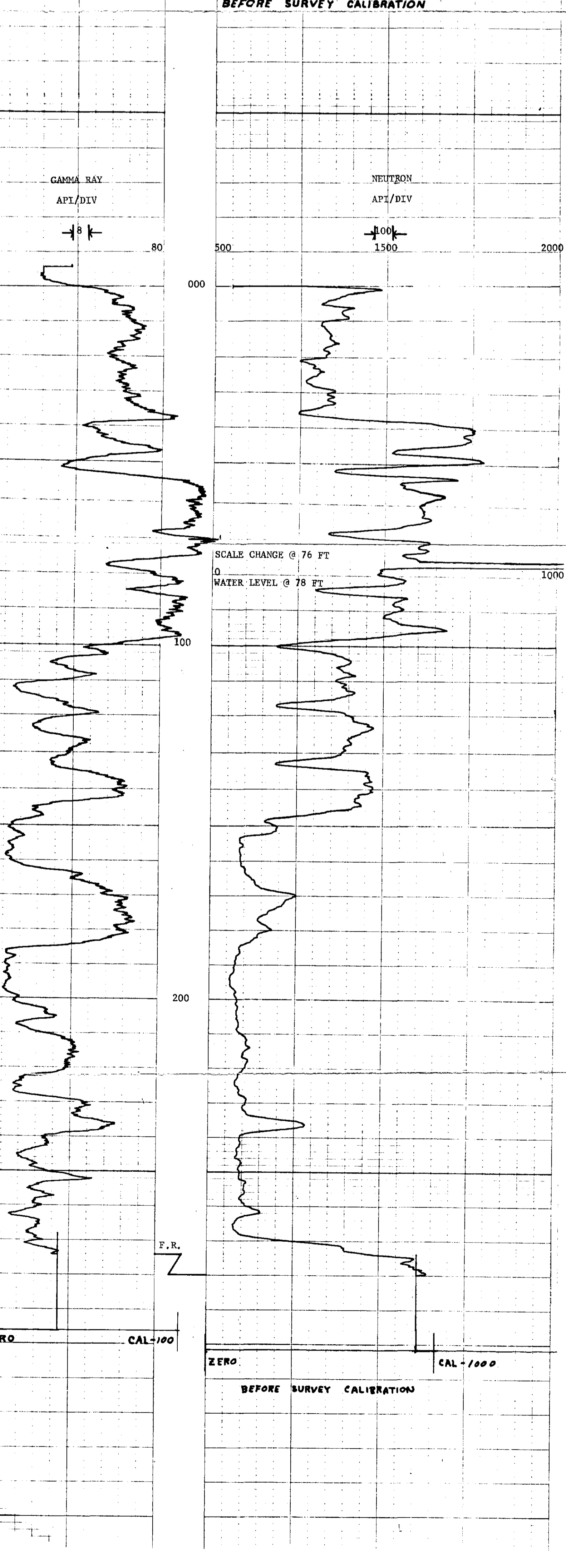
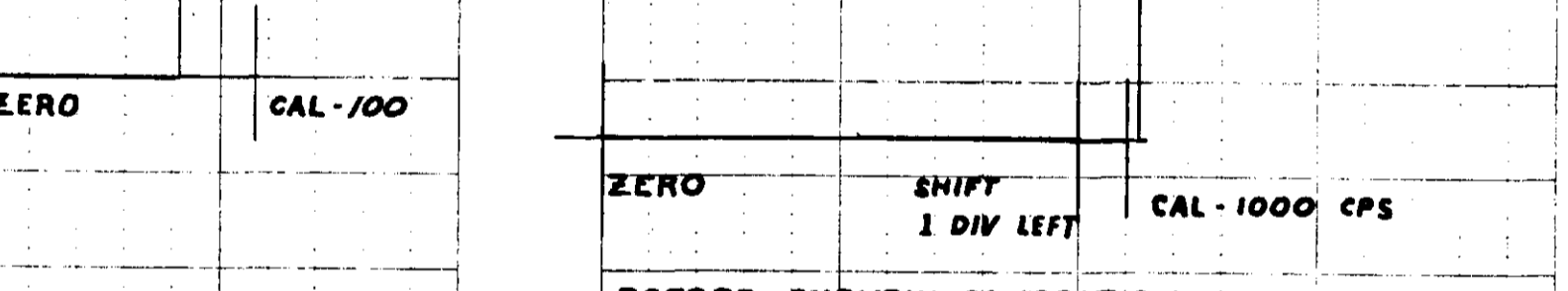
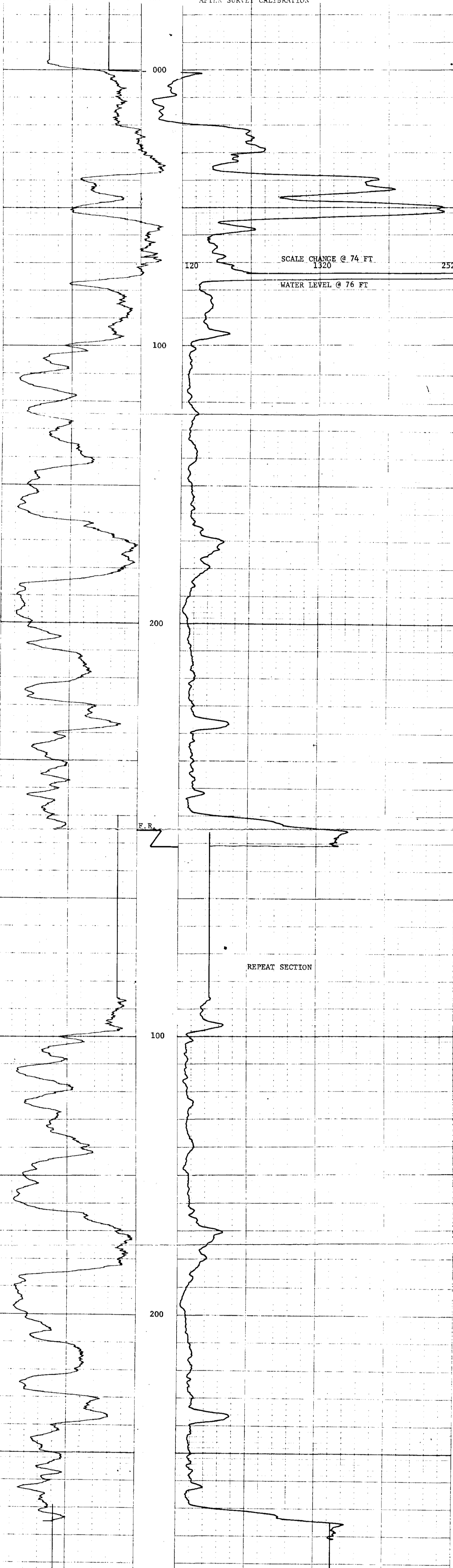
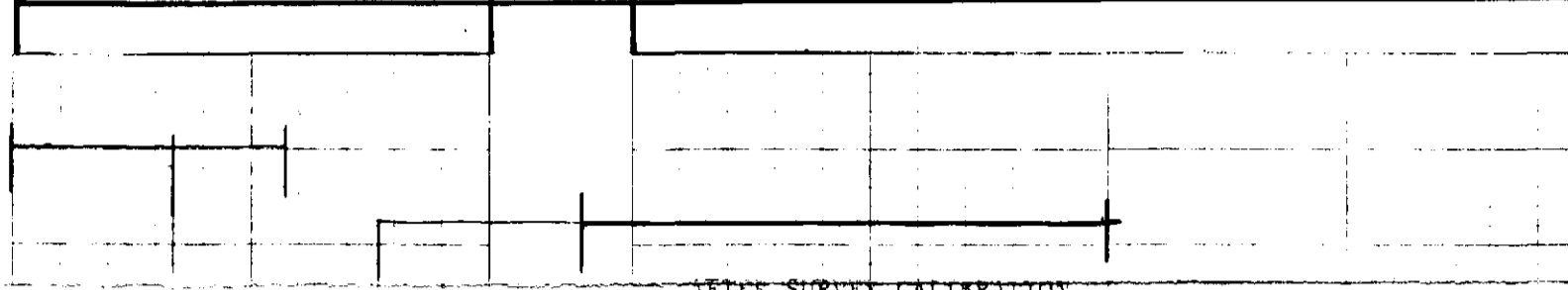
GAMMA RAY NEUTRON LOG
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GEONS NEST INDUSTRIES LTD
LSD	WELL	DIR - 9
SEC	LOCATION	CORBIN
TWP	RGE	
M	FIELD	CORBIN
PROVINCE	BRITISH COLUMBIA	
PERMIT	ISSUED BY	DATE
LOG MEASURED FROM	STATION	LEVEL
WELL DEPTH MEASURED FROM	STATION	LEVEL
Other Stations:	JENS-CAL	
	K-8	
	CSG	
	G.L.	
Run No.	ONE	
Date	13 SEPTEMBER 1975	
East Reading	281	
Last Reading	281	
Footage Logged	282	
Depth Reached	282	
Depth Driller	20	
Casing Driller	AIR/MAKER	
Fluid Type	76	
Liquid Level	6-1/4 - 5-1/8	
Min. Diam		
Rm @ 9'		
Operating Time	3-1/2 HOURS	
Truck No.	36	
Recorded By	BANKS	
Witnessed By	CRABD	

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	187
HOIST TRUCK NO.	36	SPACING	17 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-002	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL			GAMMA RAY				NEUTRON				
RUN NO.	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS	
	FROM	TO	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	
1	00	74	12	5	100	-	3	1000	14L	240	API
	74	281	12	5	100	-	3	500	1L	120	API

REMARKS WATER SAMPLES (1) 68.49 OHM-METERS @ 25° C LOG RUN THROUGH DOUBLE WALL DRILL
(2) 67.57 OHM-METERS @ 25° C PIPE - ATTACHED BELOW



E-SHELL - CORBIN 28(3)A

24-9

ROKE

SIDEWALL DENSILOG
CALIPER

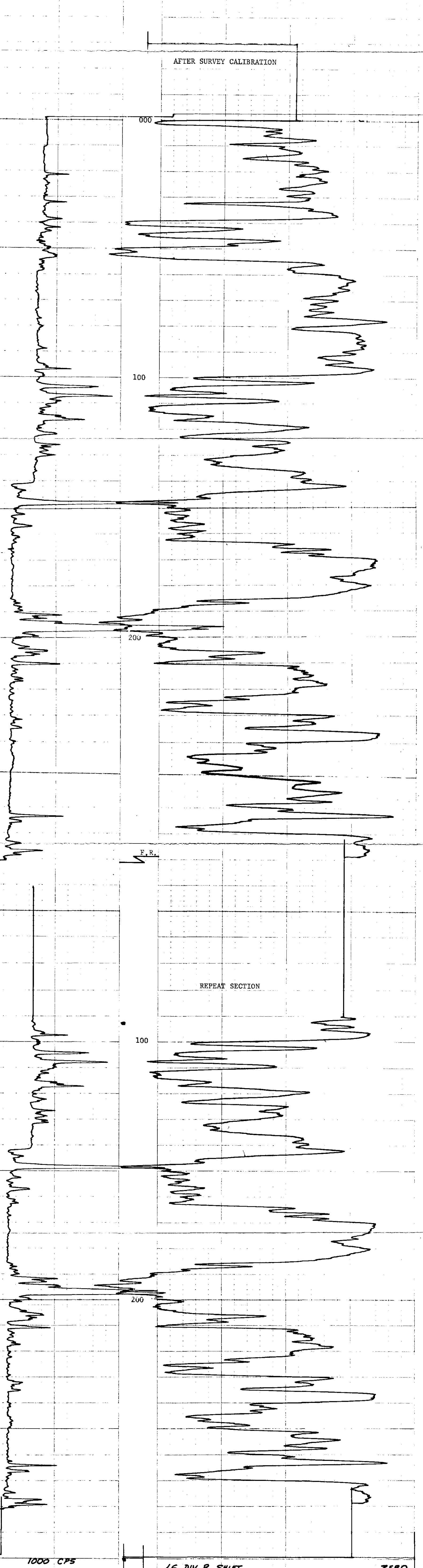
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	CROSS SECT INDUSTRIES LTD.
WELL	DIH - 9	
LOCATION	CORBIN	
FIELD	CORBIN	
PROVINCE	BRITISH COLUMBIA	
PERMANENT DATUM	GROUND LEVEL	
LOG MEASURED FROM	GROUND LEVEL	
WELL DEPTHS MEASURED FROM	GROUND LEVEL	
DATE	13 SEPTEMBER 1975	
FIRST READING	281	
LAST READING	00	
FOOTAGE LOGGED	281	
DEPTH REACHED	282	
DEPTH DRILLER	282	
CASING ROKE	20	
FLUID TYPE	AIR/WATER	
LIQUID LEVEL	76	
MIN. DIAM.	6-1/4 - 5-1/8	
OPERATING TIME	2-1/2 HOURS	
TRUCK NO.	36	
RECORDED BY	BANKS	
WITNESSED BY	CRABR	

RUN NO.	GENERAL		GAMMA RAY			SIDEWALL DENSILOG		
	FROM	TO	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R
1	00	281	8			3	1000	1.6R

REMARKS WATER SAMPLES (1) 68.49 OHM-METERS @ 25° C
(2) 67.57 OHM-METERS @ 25° C

DENSITY TOOL SERIAL NO 829	
CALIPER TOOL SERIAL NO 879	
DEPTHS	CALIPER (DIAMETER - INCHES)
5	
6	
7	
8	
	BULK DENSITY (GRAMS/CC)
	3.00
	2.80
	2.60
	2.40
	2.20
	2.00
	1.80
	1.60
	1.40
	1.20
	1.00



1000 CPS CALIBRATE 1/6 DIV R SHIFT BEFORE SURVEY CALIBRATION ZERO

RUN NO.	GENERAL		GAMMA RAY			SIDEWALL DENSILOG		
	FROM	TO	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R
1	00	281	8			3	1000	1.6R

RECORDED BY BANKS WITNESSED BY CRABR

K-SHEIL - CORBIN 28 (3) B DH-10

ROKE

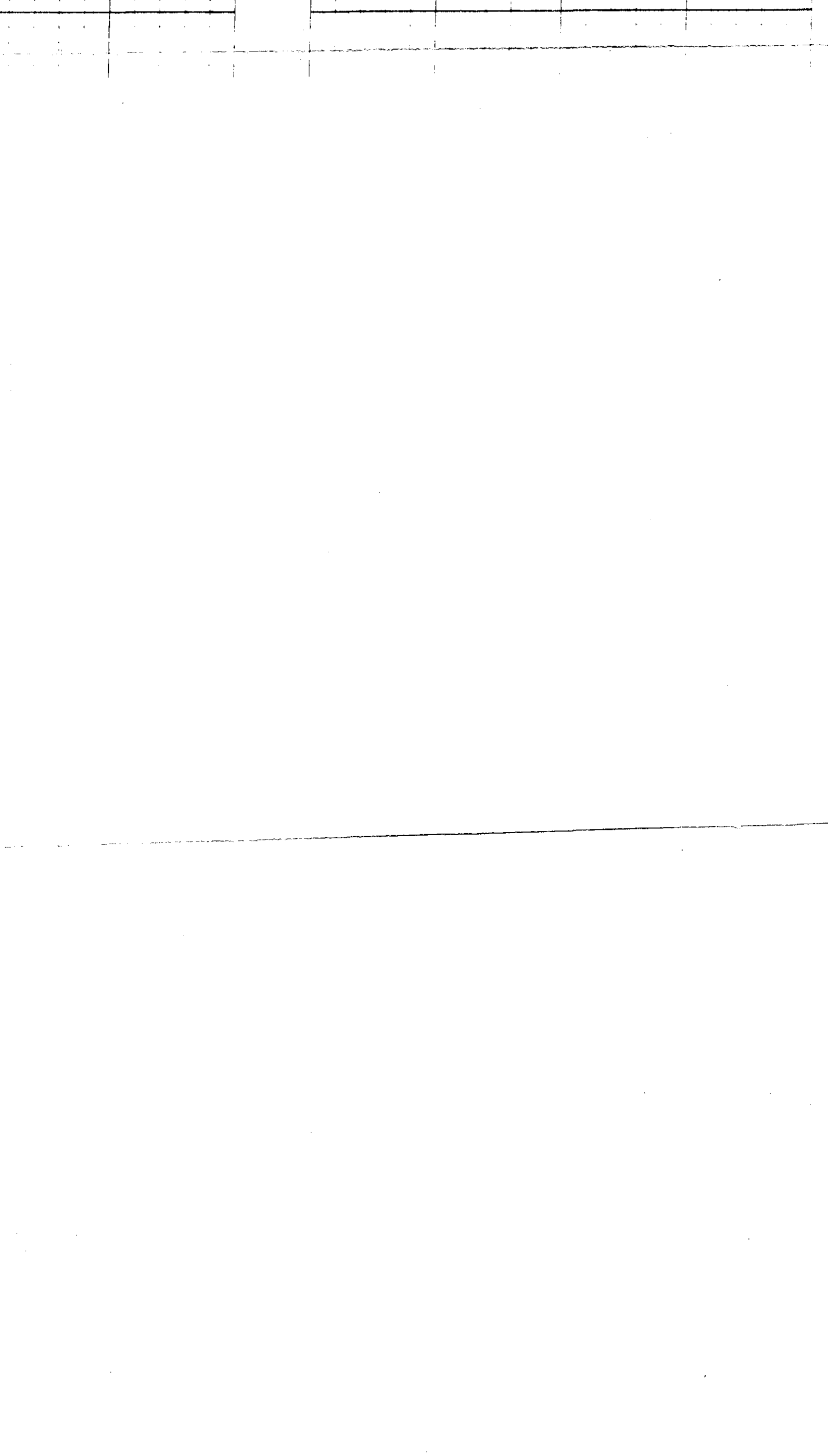
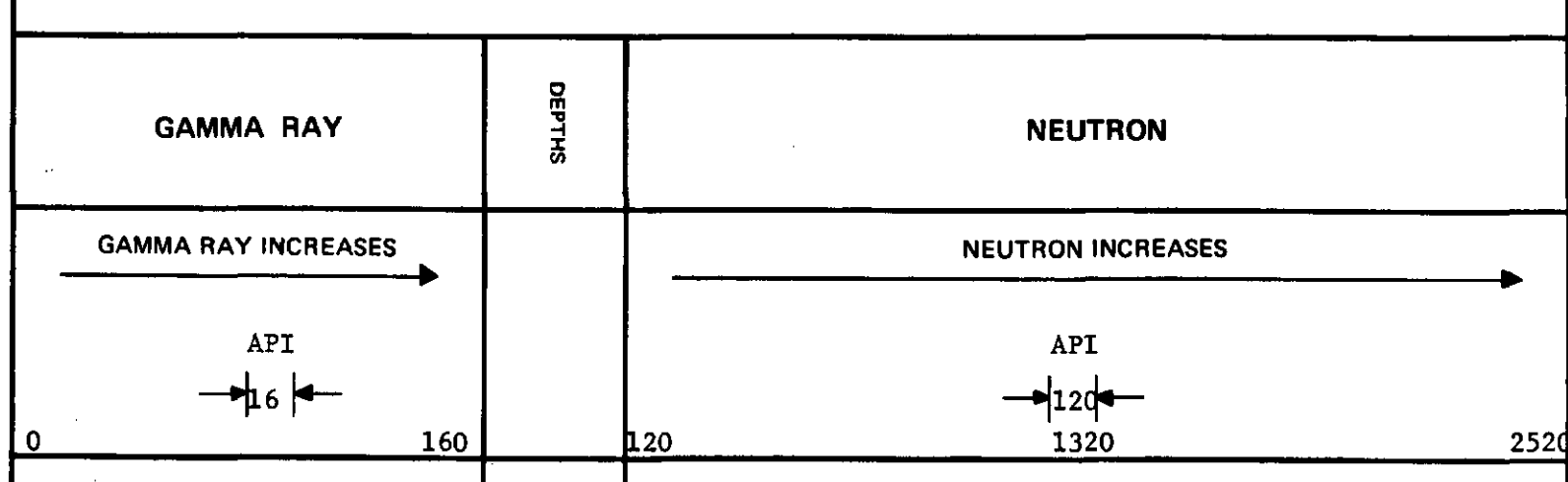
OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY NEUTRON LOG

FILE NO.	COMPANY	CROWS NEST INDUSTRIES LIMITED	
SEC	WELL	DH - 10	
TWP	RGE		
M	LOCATION	CORBIN	
	FIELD	CORBIN	
	PROVINCE	BRITISH COLUMBIA	
Permit No.	Log Measured from	GROUND LEVEL	Elev. _____
Well Depths Measured from	GROUND LEVEL	F. Above Perm. Datum	_____
		G.L.	_____
Run No.	DATE	ONE	23 SEPTEMBER 1975
First Reading		528	
Last Reading		00	
Footage Logged		528	
Depth Reached		529	
Depth Driller		533	
Casing Hole		20	
Fluid Type	AIR/WATER		
Liquid Level	102		
Min. Diam.	4-7/8		
Run @	9'		
Operating Time	3 HOURS		
Truck No.	36		
Recorded By	FUNK	Witnessed By	CRABB

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 1/8	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 1/8
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	187
HOIST TRUCK NO.	36	SPACING	
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-002	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL				GAMMA RAY				NEUTRON			
RUN NO.	FROM	TO	SPEED FT/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T. C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
1	00	100	12	5	100	-	16 API	3	1000	1L	120 API
	100	528	12	5	100	-	16 API	3	500	1L	60 API



K-SHELL COBBIN 78(3)B

24-10

ROKE

SIDEWALL DENSILOG
CALIPER

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO. _____ COMPANY GROSS NEST INDUSTRIES LIMITED
 WELL DR - 10
 TWP _____ LOCATION COBBIN
 RGE _____ FIELD COBBIN
 W _____ M
 PROVINCE BRITISH COLUMBIA
 Permanent Datum GROUND LEVEL Elev. _____ G.N.
 Log Measured from GROUND LEVEL Ft. Above Perm Datum K.B. _____
 Well Depth Measured from GROUND LEVEL. CSG _____ G.L. _____

Run No. ONE
 Date 22 SEPTEMBER 1975
 First Reading 528
 Last Reading 00
 Footage Logged 528
 Depth Reached 531
 Depth Driller 533
 Casing Roke _____
 Casing Driller 20
 Fluid Type AIR/WATER
 Liquid Level 98
 Min. Diam. 4-7/8

Operating Time 3 HOURS
 Truck No. 36

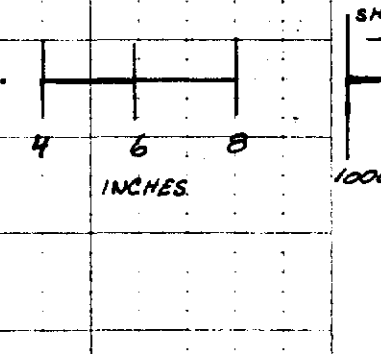
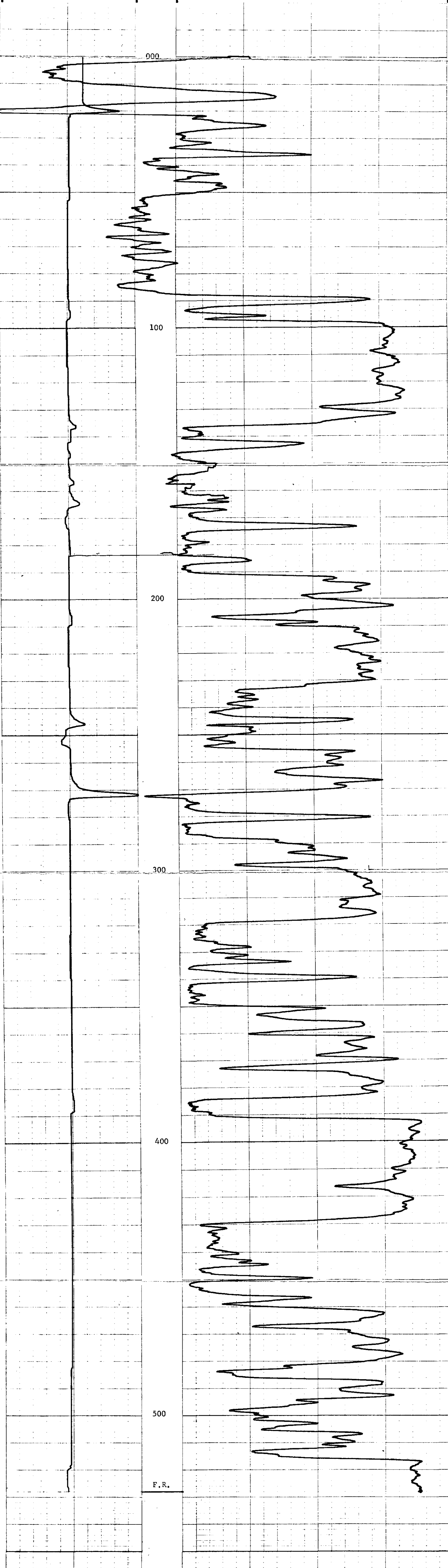
Recorded By F. UNK Witnessed By CRAAB

GENERAL			GAMMA RAY			SIDEWALL DENSILOG				
RUN NO.	DEPTHS FROM	TO	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	CPS/DIV
1	00	528					3	1000	1.6R	44.16

REMARKS

DENSITY TOOL SERIAL NO 829
 CALIPER TOOL SERIAL NO 879

DEPTHS	CALIPER (DIAMETER - INCHES)		BULK DENSITY (GRAMS/CC)	
	0	10	1.00	2.00
0				
5				
10				
100				
200				
300				
400				
500				
F. R.				



L-SHELL - CORBIN - 28(3)B

OH-11

ROKE

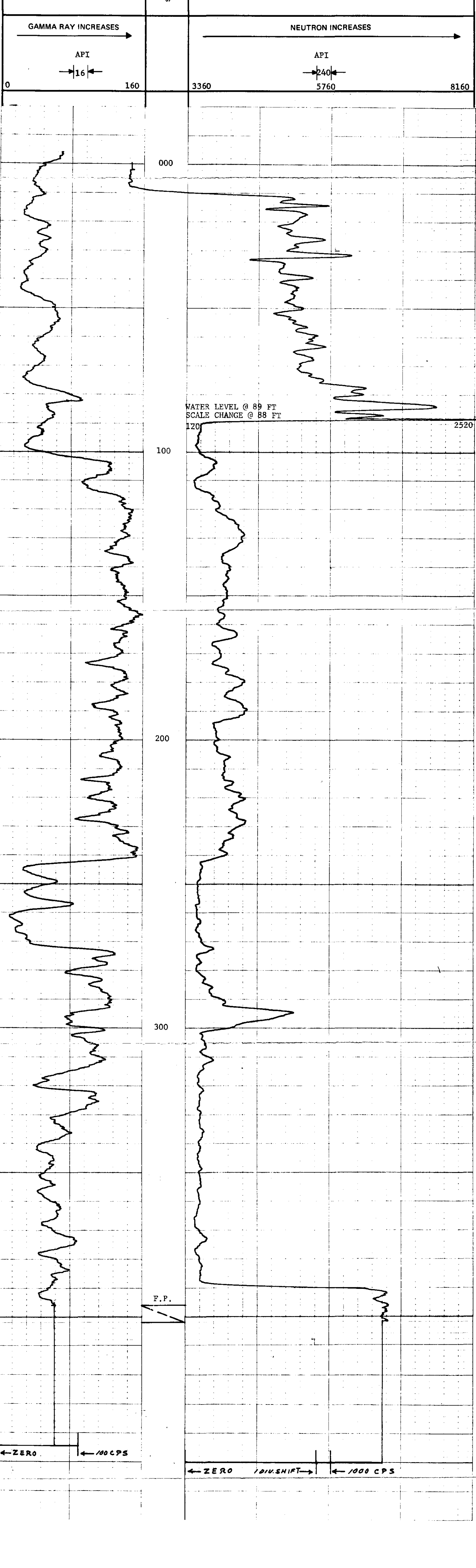
OIL ENTERPRISES LTD. CALGARY, ALBERTA
GAMMA RAY NEUTRON LOG

FILE NO.	COMPANY	CROWS NEST INDUSTRIES LTD.
LSD	WELL	DH - 11
SEC	LOCATION	CORBIN
RGE	FIELD	CORBIN
W	PROVINCE	BRITISH COLUMBIA
	Log Measured from	GROUND LEVEL
	Well Depths Measured from	GROUND LEVEL
	Other Services:	
	PERMITS-CAL	
	Log Measured from	GROUND LEVEL
	Well Depths Measured from	GROUND LEVEL
	Other Services:	
	PERMITS-CAL	
Run. No.	ONE	
Date	14 SEPTEMBER 1975	
First Reading	402	
Last Reading	00	
Footage Logged	402	
Depth Reached	403	
Depth Driller		
Casing Hole		
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	89	
Min. Diam.	5-1/8	
Rm @ OF		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
	CRABB	

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 1/2	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 1/2
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
		SERIAL NO.	188
HOIST TRUCK NO.	33	SPACING	17 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-001	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL			GAMMA RAY				NEUTRON				
RUN NO.	DEPTHS		SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS
	FROM	TO	FT/MIN	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.
1	00	88	12	5	100	OL	16 API	3	1000	14L	240 API
	88	402	12	5	100	OL	16 API	3	500	1L	120 API

REMARKS



586/6

L-SHEIL-CORBIN 78 (3)B. 24-11

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO. _____ COMPANY GROSS NEST INDUSTRIES LTD
 WELL DH - 11
 LOCATION CORBIN
 FIELD CORBIN
 PROVINCE BRITISH COLUMBIA
 Permanent Datum GROUND LEVEL Elev. _____
 Log Measured from GROUND LEVEL F. Above Perm. Datum _____
 Well Depths Measured from GROUND LEVEL G.L. _____

Run No. ONE
 Date 14 SEPTEMBER 1974
 First Reading 400
 Last Reading 00
 Footage Logged 400
 Depth Reached 403
 Casting Rate _____
 Casting Driller _____
 Fluid Type AIR/WATER
 Liquid Level 89
 Min. Diam. 5-1/8

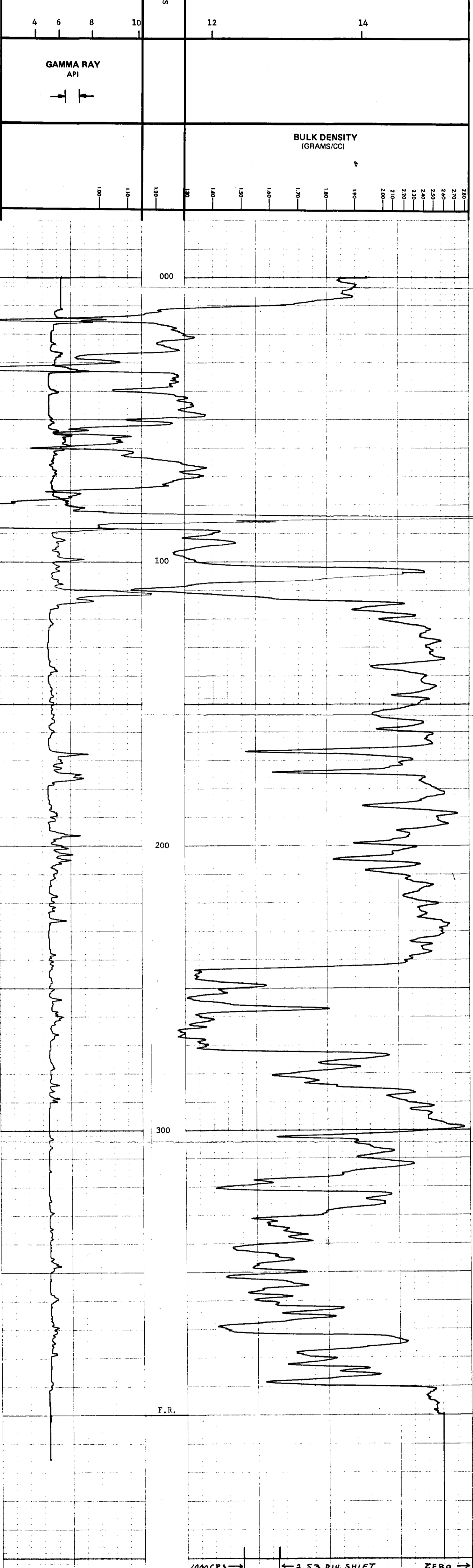
Operating Time 1-1/2 HOURS
 Truck No. 33

Recorded By JOHNSON Witnessed By CRABB

RUN NO.	DEPTHS		SPEED FT/MIN	T.C. SEC.	GAMMA RAY		SIDEWALL DENSLOG		CPS/DIV	
	FROM	TO			SENS SETTINGS	ZERO DIV. L OR R	T.C. SEC.	SENS SETTINGS		ZERO DIV. L OR R
1	00	400	10				3	1000	2,53R	61,952

REMARKS

DENSITY TOOL SERIAL NO 249
 CALIPER TOOL SERIAL NO 587



F.R.

1000 CPS → ← 2.53 DIV. SHIFT → ZERO →

386 1/2

L-SHELL - CORBIN - R(3)B. 24-12

ROKE

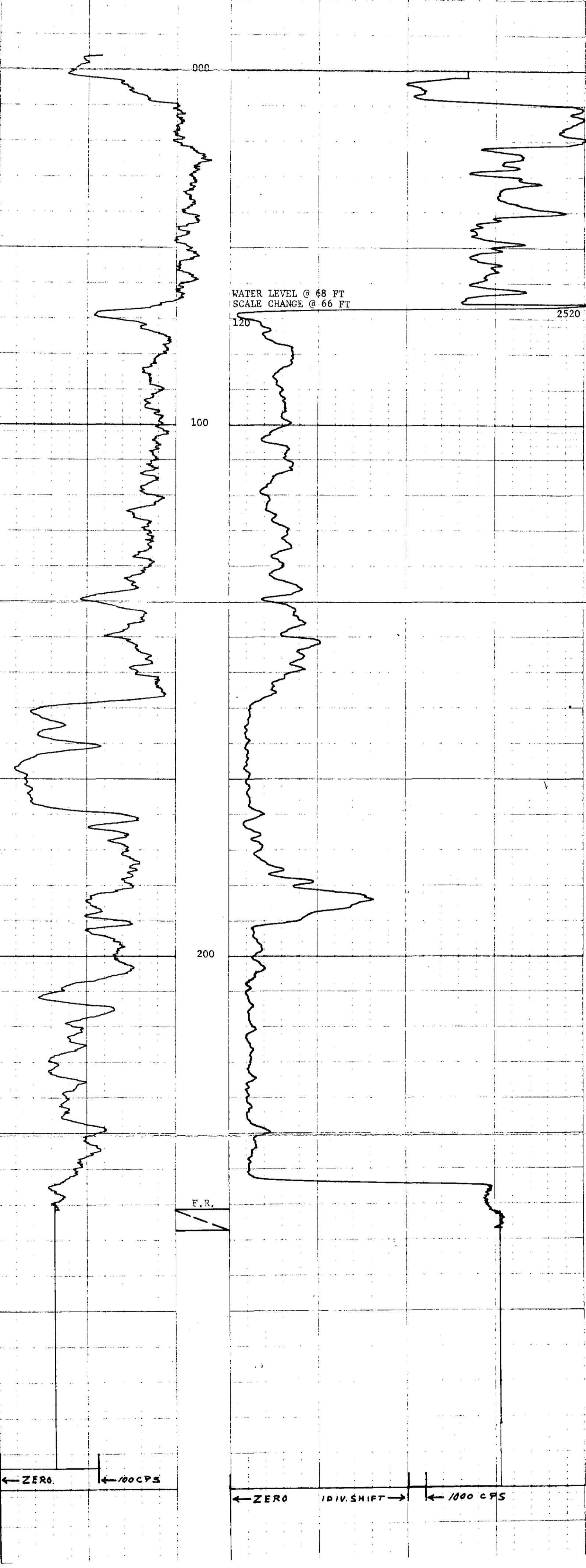
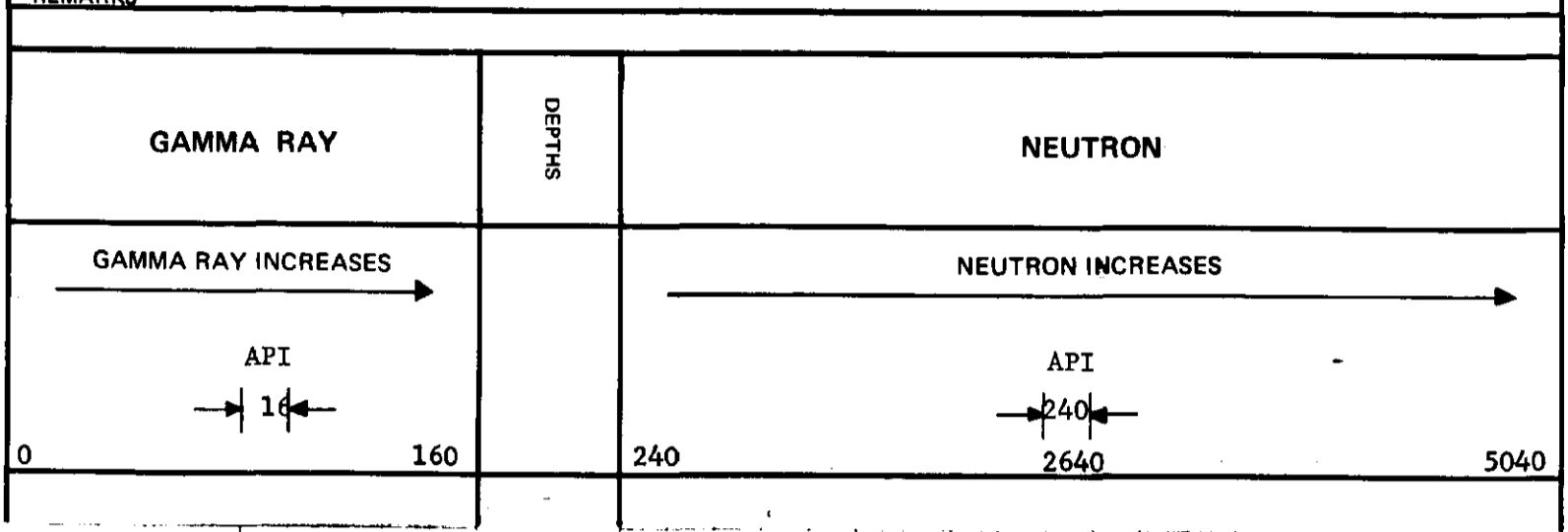
OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY NEUTRON LOG

FILE NO.	COMPANY	CROWS NEST INDUSTRIES LTD
LSD	WELL	DH - 12
SEC	TWP	
RGE	LOCATION	CORBIN
W	FIELD	CORBIN
M	PROVINCE	BRITISH COLUMBIA
Other Services:	DENS-CAL	
Permanent Datum	GROUND LEVEL	
Log Measured from	GROUND LEVEL	
Well Depth Measured from	GROUND LEVEL	
Run No.	ONE	
Date	15 SEPTEMBER 1973	
First Reading	327	
Last Reading	00	
Footage Logged	327	
Depth Reached	328	
Depth Driller		
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	68	
Min. Diam.	5-1/8	
Rm @ 0'		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRABB

EQUIPMENT DATA			
GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	188
HOIST TRUCK NO.	33	SPACING	17 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-001	STRENGTH	3 CURIES

LOGGING DATA											
GENERAL			GAMMA RAY					NEUTRON			
RUN NO.	DEPTHS		SPEED FT/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T. C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
	FROM	TO									
1	00	66	12	5	100	OL	16 API	3	1000	1L	240 API
	66	327	12	5	100	OL	16 API	3	500	1L	120 API



L-SHELL CORBIN 281318

24-12

ROKE

SIDEWALL DENSILOG
CALIPER

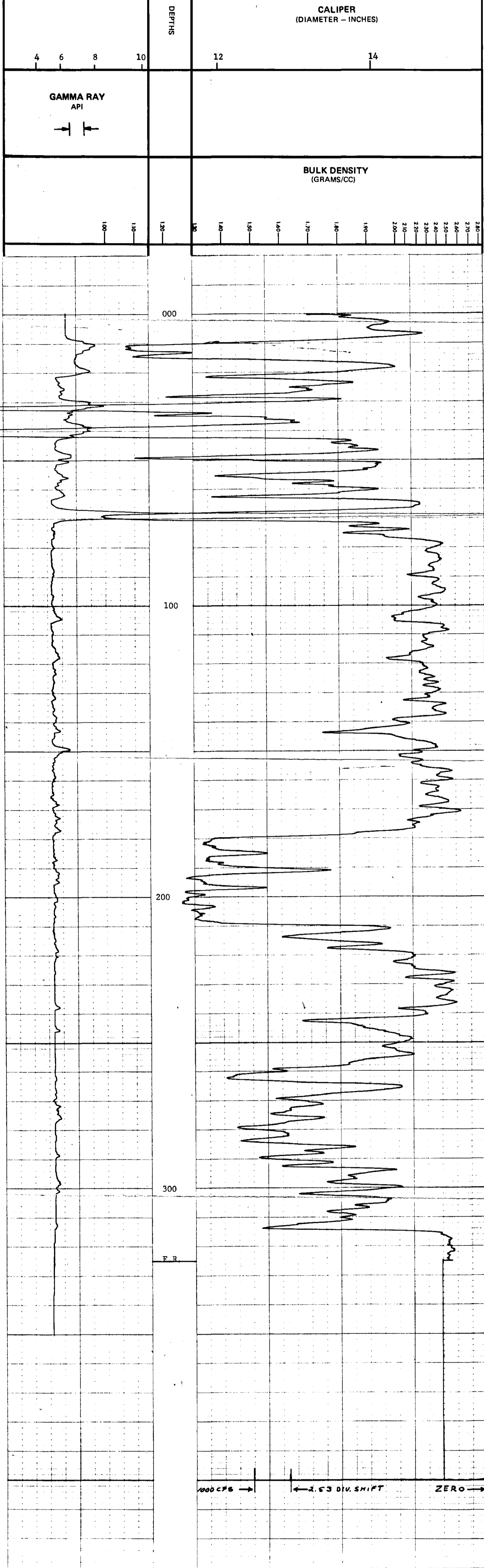
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROSS NEST INDUSTRIES LTD
LSD SEC	WELL	DH - 12
TMP	LOCATION	CORBIN
RGE	W	M
	FIELD	CORBIN
	PROVINCE	BRITISH COLUMBIA
	Other Services:	GRN
Permanent Datum	GROUND LEVEL	Elev. _____
Log Measured from	GROUND LEVEL	Ft. Above Perm. Datum _____
Well Depths Measured from	GROUND LEVEL	G.L. _____
Run No.	ONE	
Date	15 SEPTEMBER 1975	
First Reading	325	
Last Reading	00	
Footage Logged	325	
Depth Reached	328	
Depth Driller		
Casing Driller		
Fluid Type	AIR/WATER	
Liquid Level	68	
Min. Diam.	5-1/8	
Operating Time	1-1/2 HOURS	
Truck No.	33	

RUN NO.	GENERAL		GAMMA RAY			SIDEWALL DENSILOG			CPS/DIV
	DEPTHS	SPEED	T.C.	SENS	ZERO	T.C.	SENS	ZERO	
	FROM	TO	SEC.	SETTINGS	DIV. L OR R	SEC.	SETTINGS	DIV. L OR R	
1	00	325	10			3	1000	2.53R	61.952

REMARKS

DENSITY TOOL SERIAL NO 249
CALIPER TOOL SERIAL NO 587



Recorded By JOHNSON Witnessed By GRAB

386 6/6

L-SHELL - COBBIN 78(3)B. 24-13

ROKE

GAMMA RAY NEUTRON LOG

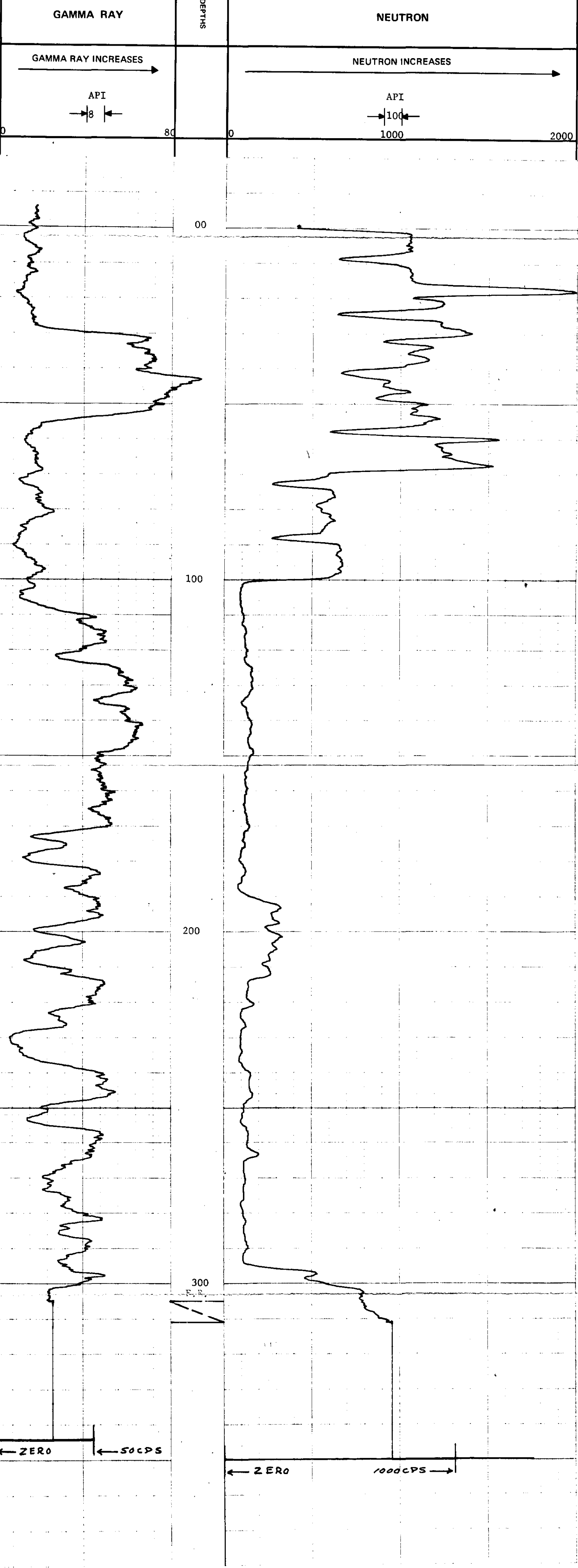
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROSS NEST INDUSTRIES LTD.
LSD SEC	WELL	DH - 13
TWP	LOCATION	COBBIN
RGE	FIELD	COBBIN
W. M.	PROVINCE	BRITISH COLUMBIA
	Other Services:	NTL
Permanent Datum	GROUND LEVEL	Elev. _____
Log Measured from	GROUND LEVEL	ft. Above Perm. Datum _____
Well Depths Measured from	GROUND LEVEL	G.L. _____
Run No.	ONE	
Date	16 SEPTEMBER 1973	
First Reading	311	
Last Reading	00	
Footage Logged	311	
Depth Reached	312	
Casing Role		
Casing Driller		
Fluid Type		
Liquid Level		
Min. Diam.	5-1/8	
Rm @ Of		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		GRABB

EQUIPMENT DATA	
GAMMA RAY	NEUTRON
RUN NO.	ONE
TOOL MODEL NO.	NEUTRON/NEUTRON
DIAMETER	1 1/2
DETECTOR MODEL NO.	DIAMETER 1 1/8
TYPE	SCINTILLATION
LENGTH	DETECTOR MODEL NO.
DISTANCE TO N. SOURCE	6.7 FT.
	TYPE
	LENGTH
	SOURCE MODEL NO.
	MRC-N-SS-W
	SERIAL NO.
	188
	SPACING
	17 INCH
	TYPE
	AmBe
	STRENGTH
	3 CURIES

LOGGING DATA										
GENERAL	GAMMA RAY	NEUTRON								
RUN NO.	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS
	FROM	TO	FT/MIN	SEC.	SETTINGS	DIV. L OR R	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV
1	00	311	12	5	100	OL	3	500	OL	100 API

REMARKS LOGGED THROUGH DOUBLE WALL DRILL ROD



L-SHELL - COBBIN 71(3)B. DH-154.

ROKE

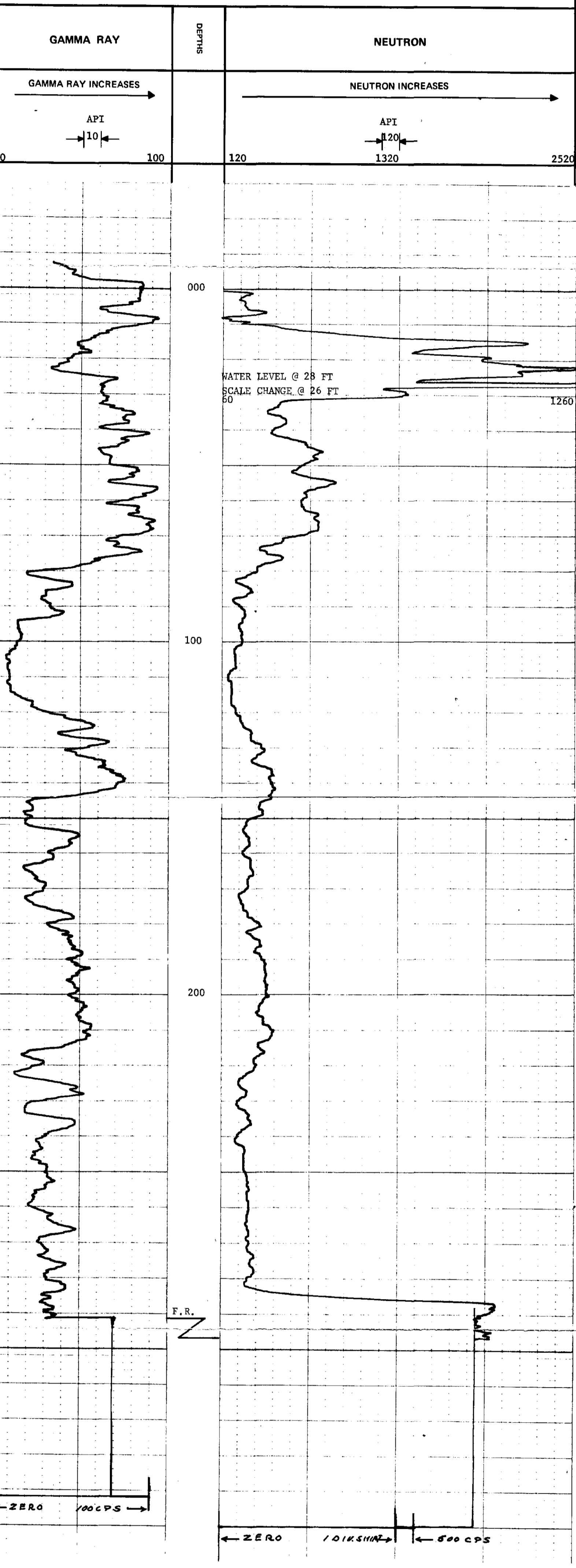
GAMMA RAY NEUTRON LOG
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROUPS	INDUSTRIES LIMITED
LSD SEC	WELL	DH - 15 A	
TWP	LOCATION	COBBIN	
RGE	FIELD	COBBIN	
W	PROVINCE	BRITISH COLUMBIA	
	Other Services:	NTL	
Permanent Datum	GROUND LEVEL	Env.	K.B.
Log Measured from	GROUND LEVEL	Ft. Above Perm. Datum	CSG
Well Depths Measured from	GROUND LEVEL		GL
Run No.	ONE		
Date	21 SEPTEMBER 1973		
First Reading	297		
Last Reading	00		
Footage Logged	297		
Depth Reached	298		
Depth Driller			
Casing Role			
Casing Driller			
Fluid Type	AIR/WATER		
Liquid Level	28		
Min. Diam.	5-1/8		
Rm @ 9f			
Operating Time	1 HOUR		
Truck No.	33		
Recorded By	JOHNSON	Witnessed	BGRABB

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	188
HOIST TRUCK NO.	33	SPACING	17 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-001	STRENGTH	3 CURIES

GENERAL		GAMMA RAY				NEUTRON				
RUN NO.	DEPTHS	SPEED	T.C.	SENS	ZERO	API G. R. UNITS	T. C.	SENS	ZERO	API N. UNITS
NO.	FROM	TO	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.	SEC.	SETTINGS	DIV. L OR R	PER LOG DIV.
1	00	26	12	5	100	OL	3	1000	1L	120 APT
	26	297	12	5	100	OL	3	500	1L	60 APT

REMARKS LOGGED THROUGH DOUBLE WALL DRILL ROD



L-SHE C.C. CORBIN 78(3)A

OH-16

ROKE

GAMMA RAY NEUTRON LOG

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROW'S NEST INDUSTRIES LIMITED
LSD	WELL	DH - 16
SEC	LOCATION	CORBIN
TMP	FIELD	CORBIN
RGE	PROVINCE	BRITISH COLUMBIA
W	Other Services:	DENS-CAT
	Permanent Datum	GROUND LEVEL
	Log Measured from	GROUND LEVEL
	Well Depths Measured from	GROUND LEVEL
	Elev.	
	Fl. Above Perm. Datum	
	K.B.	
	CSG	
	G.L.	
Run No.	ONE	
Date	22 SEPTEMBER 1975	
First Reading	231	
Last Reading	00	
Footage Logged	231	
Depth Reached	232	
Depth Driller		
Casing Roke		
Casing Driller		
Fluid Type	AIR/MATER	
Liquid Level	196	
Min. Diam.	5-1/8	
Rm @ 0p		
Operating Time	1 HOUR	
Truck No.	33	
Recorded By	JOHNSON	Witnessed By
		CRAB

65
386
16

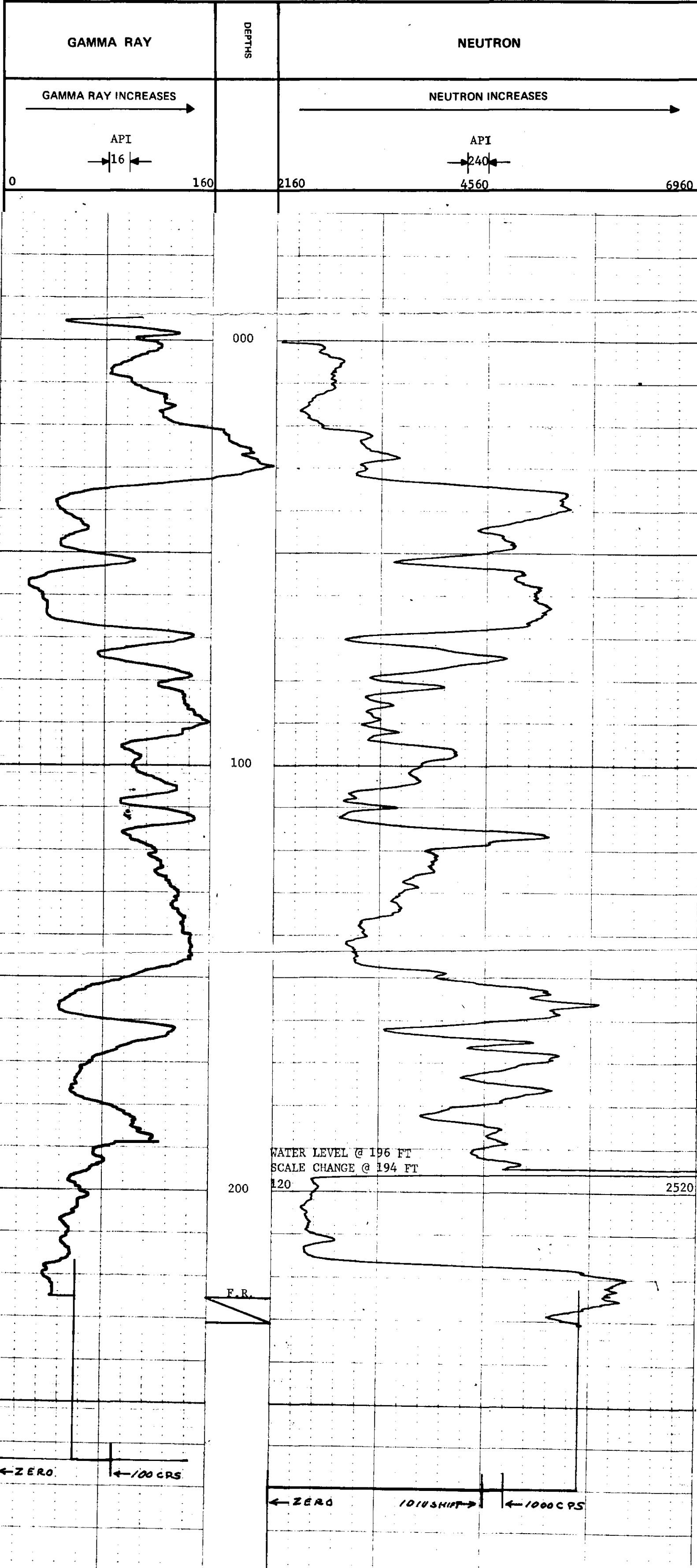
EQUIPMENT DATA

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 11/16	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 11/16
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	188
HOIST TRUCK NO.	33	SPACING	17 INCH
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-001	STRENGTH	3 CURIES

LOGGING DATA

RUN NO.	GENERAL			GAMMA RAY			NEUTRON				
	FROM	TO	SPEED FT/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G. R. UNITS PER LOG DIV.	T. C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
1	00	194	12	5	100	0L	16 APT	3	500	9L	240 APT
	194	231	12	5	100	0L	16 APT	3	1000	1L	120 APT

REMARKS



← ZERO ← 100 CRS

← ZERO ← 1000 CRS ← 1000 CRS

L-SHELL - CORBIN - 7/13/78 DH-16

ROKE

SIDEWALL DENSILOG CALIPER

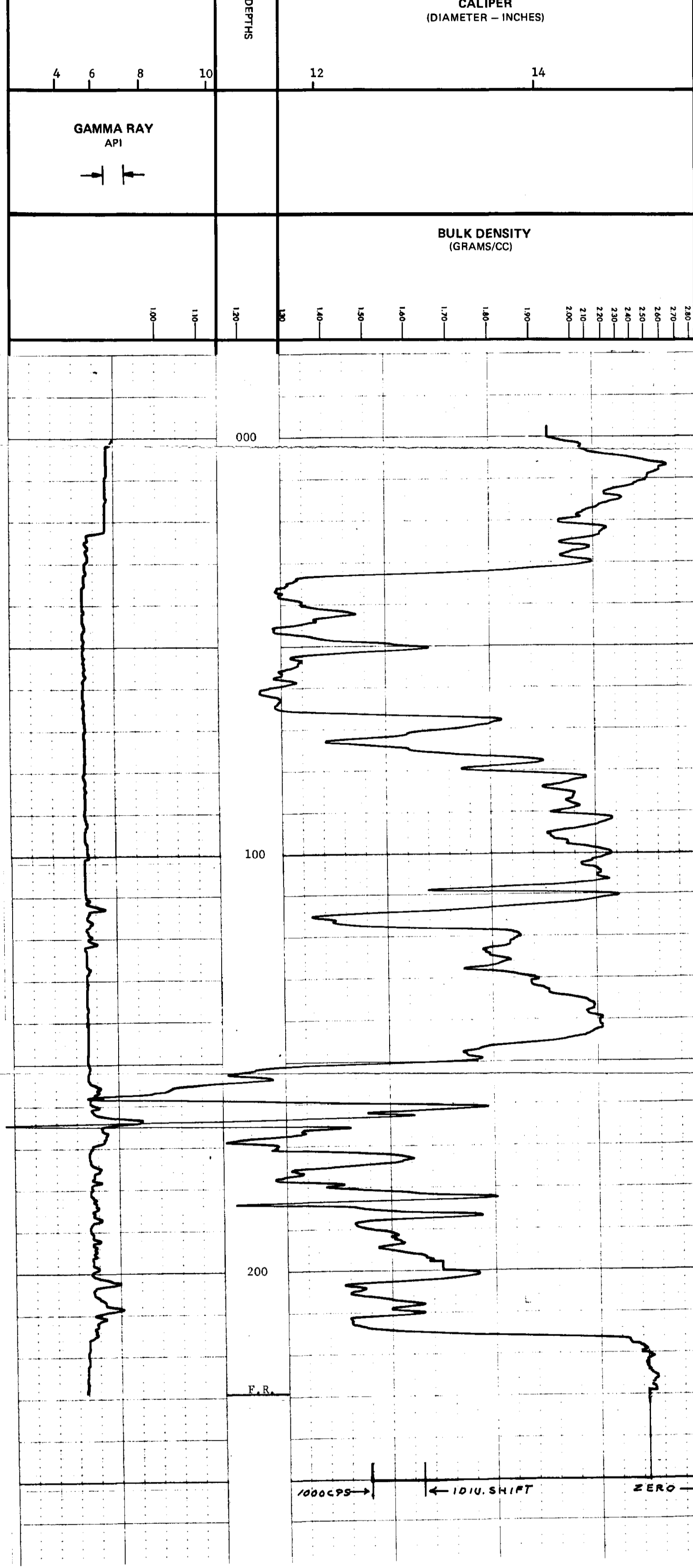
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	CROWS NEST INDUSTRIES LIMITED	
LSD	WELL	DH - 16	
SEC	LOCATION	CORBIN	
TWP	FIELD	CORBIN	
RGE	PROVINCE	BRITISH COLUMBIA	
M	Other Services:	GRN	
	Permanent Datum	GROUND LEVEL	Elev. _____
	Log Measured from	GROUND LEVEL	Fi. Above Perm. Datum _____
	Well Depths Measured from	GROUND LEVEL	G.L. _____
Run No.	ONE	Date	22 SEPTEMBER 1975
First Reading	229	Last Reading	00
Footage Logged	229	Depth Reached	232
Depth Driller		Casing Driller	
Casing Type	ATR/WATER	Liquid Level	196
Mfn. Diam.	5-1/8		
Operating Time	1 HOUR	Truck No.	33
Recorded By	JOHNSON	Witnessed By	CRABB

RUN NO.	GENERAL		SPEED FT/MIN	T.C. SEC.	GAMMA RAY			SIDEWALL DENSILOG		
	FROM	TO			ZERO DIV.L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	CPS/DIV
1	00	229	10				3	1000	2.53R	61.952

REMARKS DEPTHS READ 1.5 FEET TOO SHALLOW

DENSITY TOOL SERIAL NO 249
CALIPER TOOL SERIAL NO 587



L-SHELL-CANON-7(3)8
24-17

ROKE

GAMMA RAY NEUTRON LOG
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	COMPANY	GROSS WEST INDUSTRIES LIMITED
LSD	WELL	DL - 17
SEC	LOCATION	CORBIA
TYPE	RGE	M
FIELD	CORBIA	
PROVINCE	BRITISH COLUMBIA	Other Services:
Log Measured from	GROUND LEVEL	Fl. Above From Datum
Well Depth Measured from	GROUND LEVEL	K.B. _____
		C.S.G. _____
		G.L. _____
Run No.	ONE	
Date	28 SEPTEMBER 1975	
East Reading	942	
Last Reading	90	
Footage Logged	942	
Depth Banded	943	
Depth Driller	955	
Casing Hole	20	
Fluid Type	WATER	
Liquid Level	174	
Min. Diam.		
Rm @ 0'		
Operating Time	2 HOURS	
Truck No.	36	
Recorded By	ETIKK	Witnessed By
		CRABR

GAMMA RAY		NEUTRON	
RUN NO.	ONE	RUN NO.	ONE
TOOL MODEL NO.		LOG TYPE	NEUTRON/NEUTRON
DIAMETER	1 1/2	TOOL MODEL NO.	
DETECTOR MODEL NO.		DIAMETER	1 1/2
TYPE	SCINTILLATION	DETECTOR MODEL NO.	
LENGTH	4 INCH	TYPE	PROPORTIONAL
DISTANCE TO N. SOURCE	6.7 FT.	LENGTH	6 INCH
		SOURCE MODEL NO.	MRC-N-SS-W
GENERAL		SERIAL NO.	
HOIST TRUCK NO.	36	SPACING	
INSTRUMENT TRUCK NO.		TYPE	AmBe
TOOL SERIAL NO.	R GRN 169-002	STRENGTH	3 CURIES

GENERAL		GAMMA RAY			NEUTRON		
RUN NO.		T.C.	SENS	ZERO	T.C.	SENS	ZERO
DEPTHS	FROM TO	FT/MIN	SEC.	SETTINGS	API G. R. UNITS	PER LOG DIV.	SEC.
1	00 172	12	5	100	10 API	3	1000
	172 942	12	5	100	10 API	3	500

REMARKS LOGGED THROUGH DOUBLE WALL DRILL PIPE

