UGR File L 77

Schlumberger

SIMULTANEOUS COMPENSATED NEUTRON-FORMATION DENSITY

FILE COPY

COMPANY	Reel Drilling Co.
WELL	Robinson Farm # 3
FIELD	Robinson District
COUNTY	Mason
STATE	West Virginia
LOCATION	Potter Quad: Pt. Pleasant
API SERIAL NO. / SEC. / TWP. / RANGE	
Other Services	DIL-SFLL, MLL, BHC-GR, Amp./VDL, FIL

COUNTY ____ FIELD ____ LOCATION ____ WELL ____ COMPANY ____

Permanent Datum: Ground Level ; Elev.: 665
Log Measured From G.L. , 0 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 675, D.F. —, G.L. 665

Date	1/11/78			
Run No.	ONE			
Depth—Driller	3409			
Depth—Logger	3422			
Btm. Log Interval	3420			
Top Log Interval	100			
Casing—Driller	8 5/8 @ 1888	@	@	@
Casing—Logger	1883			
Bit Size	7 7/8			
Type Fluid in Hole	Fresh water			
Dens. / Visc.				
pH / Fluid Loss	ml	ml	ml	ml
Source of Sample	TANK			
Rm @ Meas. Temp.	.11 @ 65 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	—			
Rm @ BHT	.076 @ 94 °F	@ °F	@ °F	@ °F
TIME: Circulation Stopped				
TIME: Logger on Bottom				
Max. Rec. Temp.	94 °F	°F	°F	°F
Equip. / Location	7702 / FAIRMONT			
Recorded By	M. Roosgiler			
Witnessed By Mr.	Myers			

SWS-1872-H

FOLD HERE — The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE			
Service Order No.	42100			
Fluid Level	1928			
Salinity, PPM CL.	N/A			
Speed - F.P.M.	30			
EQUIPMENT DATA				
Dens. Panel	596			
Dens. Cart.	469			
Dens. Skid.	112			
Dens. Sonde	187			
Dens. Source	5031			
Dens. Calibrator	Digical			
Neut. Panel	304			
Neut. Cart.	93			
Neut. Source				
Neut. Calibrator	298			
GR Cart.	1062			
Memorizer Panel	481			
Tape Recorder (TTR)	2776			
Depth Encoder (DRE)	1926			
Pressure Wheel (CPW)	2750			
Centralizers: Enter Spring, Standoffs, In-line, or None — Type	BOW SPRING ECCENTRALIZER			
No.	1			
S. O. — Inches	—			
CALIBRATION DATA				
GR — BKG. CPS	160			
GR — Source CPS	650			
GR — Sens. - Cal	—			
GR — T. C. - Cal	6			
CNL — Short Spacing - Before Log		Raw	Ratio ≥2.21	
CNL — Long Spacing - Before Log				
CNL — Short Spacing - After Log				
CNL — Long Spacing - After Log				
FDC — P1 — Before Log	206 X 4			
FDC — P2 — Before Log	268.4 X 4			
FDC — P1 — After Log	206 X 4			
FDC — P2 — After Log	268.4 X 4			

Type Log	Depth		

REMARKS:

ΦCNL SCALE CHANGE at 2740:

45/-15 — surface ↑ — 2740 — 30/-10 ↓ TD

LOGGING DATA

DEPTH Top	DEPTH Bottom	CNP Porosity Scale	CNP Matrix	CNP Auto Corr. or Hole Size Setting	FDC Porosity Scale	FDC Grain Density	FDC Liquid Density	FDC Hole Fluid	GR Sens. Logged	GR T. C.	GR Zero. Div. Left	GR Scale Per 100 Div.
3420	1883	30/-10	LS	Auto	—	—	1.00	Liq	NA	2	yes	0/200

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

CALIPER DIAM. IN INCHES 6 — 16

GAMMA RAY API UNITS 0 — 200; 200 — 400

DEPTH

POROSITY INDEX % LS MATRIX

COMPENSATED NEUTRON POROSITY 45 — 15 — -15

FIELD PRINT SECTION

CORRECTION GRAMS/CC 0 — +.25

BULK DENSITY GRAMS/CC 2.0 — 2.5 — 3.0; 1.0 — 1.5 — 2.0

COMPENSATED NEUTRON CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDED SENSITIVITY (THRU MEMORIZER IF USED

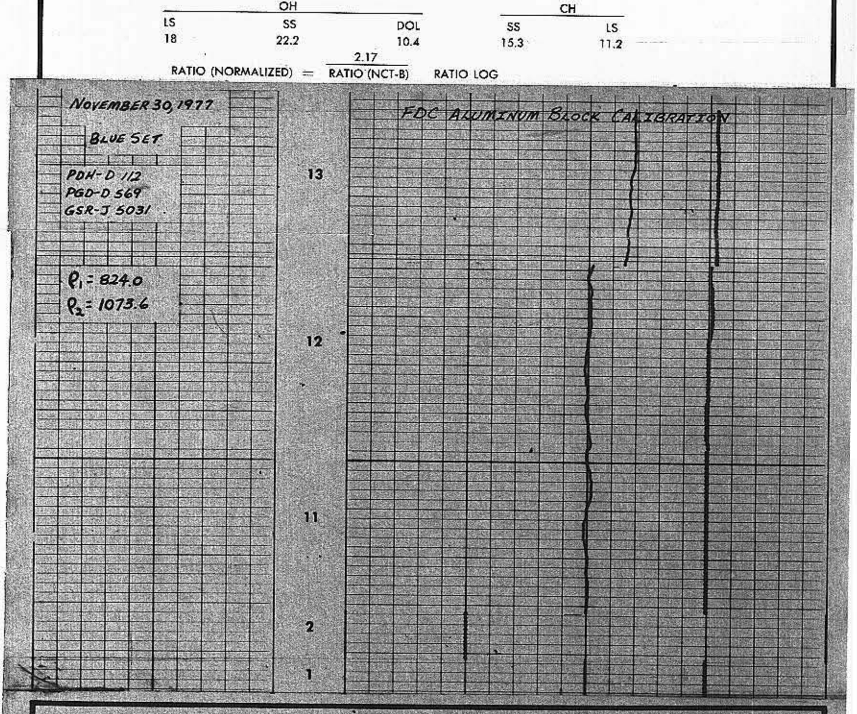
PANEL TEST

	RATIO	OH POROSITY LS ☒	SS ☐	DOL ☐	CH POROSITY SS ☐	LS ☐
3.	1	1.6	4.9	−0.2	2.4	0.1
4.	2	15.6	19.7	8.1	13.0	9.0
5.	3	30.5	36.0	25.2	29.1	24.1
6.	4	45.4	53.1	47.5	47.4	43.2

7. POROSITY NORMALIZED WITH CNB-A IN PLACE
7A. TOOL IN NCT-B
8. LOG POSITION WITH CNB-A IN PLACE
8A. LOG POSITION WITH TOOL IN NCT-B

OH LS	SS	DOL	CH SS	LS
18	22.2	10.4	15.3	11.2

RATIO (NORMALIZED) = $\frac{2.17}{\text{RATIO (NCT-B)}}$ RATIO LOG



FORMATION DENSITY COMPENSATED CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDER SENSITIVITY

PANEL TEST

FDC LIQUID

	POS	ρ	$\Delta\rho$
3.	# 1	2.92	.00
4.	# 2	2.78	+.14
5.	# 3	2.42	−.10
6.	# 4	2.35	.00
7.	# 5	2.08	.01

8. MECHANICAL ZERO CALIPER
9. 8″ RING
10. 12″ RING
11. TOOL CALIBRATE # 1 SET ρ = 2.50
12. TOOL CALIBRATE # 2 SET $\Delta\rho$ = .00
13. LOG POSITION ρ = 2.59, $\Delta\rho$ = .015

GAMMA RAY CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. RECORDER SENSITIVITY
4. MEMORIZER ADJUSTMENT
5. BACKGROUND
6. CALIBRATE - SOURCE IN PLACE