SIMULTANEOUS COMPENSATED NEUTRON-FORMATION DENSITY

Schlumberger

COMPANY	THE ANSCHUTZ CORPORATION - NCRA - DOW CHEMICAL COMPANY
WELL	#1 G.R. SWARTZ
FIELD	WILDCAT
COUNTY	HARRISON
STATE	MISSOURI
LOCATION	NE-SE 660'EL
SEC.	34
TWP.	64N
RGE.	29W
Other Services:	DIL
Permanent Datum	GROUND LEVEL
Elev.	1040
Log Measured From	KB, 8 Ft. Above Perm. Datum
Elev.: K.B.	1048
G.L.	1040

RELEASED

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

RUN NO.	ONE
Service Order No.	17625
Fluid Level	FULL
Salinity, PPM CL	1100
Speed - F.P.M.	30

EQUIPMENT DATA

Dens. Panel	EA-281
Dens. Cart.	EA-297
Dens. Skid	D-691
Dens. Sonde	E-227
Dens. Source	B-2605
Dens. Calibrator	272
Neut. Panel	A-249
Neut. Cart.	A-248
Neut. Source	F-A289
Neut. Calibrator	A-225
GR Cart.	JAA-259
Memorizer Panel	B-118

CALIBRATION DATA

GR	BKG. CPS	80
	Source CPS	580
	T.C. - Cal	6
CNL	Short Spacing - Before Log	3740
	Long Spacing - Before Log	1540
	Short Spacing - After Log	3740
	Long Spacing - After Log	1540
FDC	P - Before Log	408
	P - Before Log	648
	P - After Log	408
	P - After Log	648

LOGGING DATA

Depth Top	Depth Bottom	CNP Porosity Scale	CNP Matrix	Auto Corr. or Hole Size Setting	FDC Porosity Scale	Grain Density	Liquid Density	Hole Fluid	Sens. Logged	GR T.C.	Zero Div. Left	Scale Per 100 Div.
299	2295	30/-10	LIME	AUTO CORR	30/-10	2.71	1.0	LIQ.	--	2	0	150

SCALE CHANGES

REMARKS:

COMPENSATED NEUTRON CALIBRATION CODING

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

	RATIO	LS	SS	DOL	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	31.3	36.0	25.2	29.1	24.1
6.	4	50.6	61.4	53.0	52.2	45.2

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

RATIO (NORMALIZED) = 2.17 / RATIO (NCT-B) RATIO LOG

FORMATION DENSITY COMPENSATED CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDER SENSITIVITY

	POS	FDC LIQUID ρ	Δρ
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 Δρ = .00
13. LOG POSITION ρ = 2.59, Δρ = .015

GAMMA RAY CALIBRATION CODING

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

CALIBRATION RECORD

COMPANY ANSCHUTZ - NCRA - DOW CHEMICAL CO.
WELL #1 G.R. SWARTZ
FIELD WILDCAT
COUNTY HARRISON STATE MISSOURI

SCHL. FR 2285
SCHL. TD 2286
DRLR TD 2285
Elev: KB 1048
DF ----
GL 1040