

COMPENSATED DENSITY / NEUTRON LOG



Company: MAI OIL OPERATIONS, INC.

Well: URBANEK TRUST #1

Field: PROGRESS

County: ELLSWORTH

State: KANSAS

Location: 1890 FEL & 1390 FEL NW - SW - NE - SE

AP # : 15-05321355-0000

Other Services: DLMEL

SEC 15 TWP 16S RGE 10N

Permanent Dam: GROUND LEVEL

Log Measured From: KELLY BUSHING

Elevation: 1870

K.B. 1878

D.F. 1876

G.L. 1870

Run Number: 20618

One: CME

Depth Driver: 2450

Depth Logger: 2450

Bottom Logged Interval: 2450

Casino Driller: 856506427

Casino Logger: 421

Bit Size: 7 7/8"

Type Fluid in Hole: CHEMICAL LIQUID

CHLORIDES 5.500 PPM

Density / Viscosity: 9.454

pH / Fluid Loss: 10.506

Source of Sample: FLOWLINE

Run @ Mass Tare: 6590645

Run @ Mass Tare: 4580645

Run @ Mass Tare: 2540645

Run @ But: 2540645

Run @ But: 2540645

Time Circulation Stopped: 2 HOURS

Time Logger on Bottom: 1115 AM

Maximum Recorded Temperature: 111F

Equipment Number: 9223299

Recorded By: JEFF LIEBERS

Witnessed By: JIM MUSCHOWE

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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 interpretation, 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 our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
HOLYROOD, KS., 1/2E. ON HWY 156 TO "RD. 5", 4 1/4 N., W. INTO

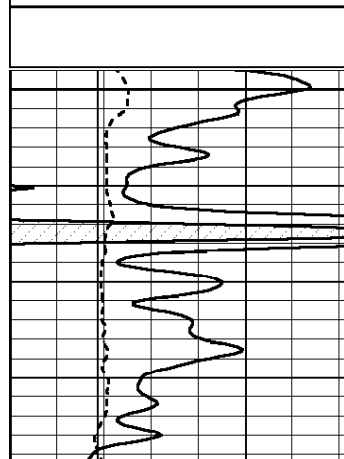
Database File: 2337ddn.db

Dataset Pathname: pass3.6

Presentation Format: den_neu

Dataset Creation: Tue Feb 06 02:25:15 2018

Charted by: Depth in Feet scaled 1:240



MAIN SECTION

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV				
			0 (ft3)	10			

2.71 LIMESTONE MATRIX

LTD 3450

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV				
			0 (ft3)	10			

5.5" ABHV

TBHV

FR GR

FR DCAL

MINMK

FR CNPOR

FR DPOR

CORRECTION

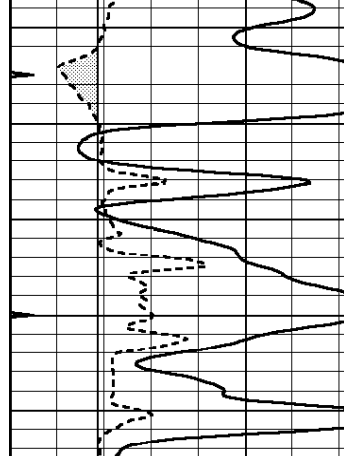
Database File: 2337ddn.db

Dataset Pathname: pass2.4D

Presentation Format: den_neu

Dataset Creation: Tue Feb 06 01:40:22 2018

Charted by: Depth in Feet scaled 1:240



REPEAT SECTION

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV				
			0 (ft3)	10			

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV				
			0 (ft3)	10			

2.81 ARBUCKLE DOLOMITE MATRIX

Database File: 1598ddn.db

Dataset Pathname: pass4

Dataset Creation: Wed Aug 30 02:13:00 2017 by Log SOC 120430

Calibration Report

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG

Surface Cal Performed: Wed Aug 30 00:06:33 2017

Downhole Cal Performed: Mon Jul 28 12:02:56 2008

After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration				References				Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	620.000	0.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-44.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.001	0.610	V	0.000	400.000	mmho/m	667.135	-7.256	
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102	

Downhole Calibration				References				Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000	
LL3		7.500	V		1400.000	Ohm-m			
		0.000	V		20.000	Ohm-m			
		-7.200	V		4000.000	mmho-m			

After Survey Verification				Targets				Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
LL3		0.000	Ohm-m		0.000	Ohm-m			
		1.000	mmho-m		1.000	mmho-m			

Litho Density Calibration Report

Serial: 002

Model: PRB

Performed Mon Aug 21 11:27:42 2017

Background		Magnesium	Aluminum	Sandstone	
Window 1	837.1	10632.5	2945.1	12110.1	cps
Window 2	772.0	9117.4	2570.1	10197.3	cps
Window 3	631.7	4639.0	1481.9	5042.9	cps
Window 4	187.0	167.5	135.9	188.9	cps
Long Space	0.0	8345.4	1738.1	9425.3	cps
Short Space	1.1	1927.9	1285.9	2050.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.558
Spine Angle	: 75.2	Spine Slope	: 3.790	Density/Spine Intercept	: -19.6

Before Survey Verification				Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000		0.0000		

After Survey Verification				Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000		0.0000		

Compensated Neutron Calibration Report

Serial Number: 070808

Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps	pu	pu
Long Space	cps		

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps	pu	pu
Long Space	cps		

Gamma Ray Calibration Report

Serial Number: 070558

Tool Model: OPEN_GR

Performed: Wed May 31 00:09:32 2017

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps