The Perforators LLC

DUAL INDUCTION LOG

Company	John O Farmer Inc.		
Well	States A #2		
Field	Hansen West		
County	Phillips	State	Kansas
Location:	API # - 15-147-20902		
SEC 15 TWP 5S RGE 20W	110 FNL & 1170 FEL		
Permanent Datum	Elevation	Other Services	
Log Measured From	KB 21'AT	MIL	
Drilling Measured From	KB 5' AGL	CDNL	
Ground Level Elevation	2099		

Date	9-24-12
Run Number	One
Depth Driller	3557
Depth Logger	3557
Bottom Logged Interval	3554
Top Logged Interval	3000
Casing Driller	220'
Casing Logger	220'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical Mud
Density / Viscosity	10 / 63
pH / Fluid Loss	pH
Source of Sample	1.750 @ 75deg F
Rm @ Meas. Temp	1.140 @ 75deg F
Rmf @ Meas. Temp	2.380 @ 75deg F
Rmc @ Meas. Temp	Calculated
Source of Rmf / Rmc	14.00 / 10.00
Rm @ Bhct	1:30 p.m.
Time Circulation Stopped	12:30 a.m.
Time Logger on Bottom	3:15 a.m.
Equipment Number	11 / Hays, KS
Location	T45
Recorded By	Jason Hood
Witnessed By	Mr. Austin Hoars

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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 The Perforators LLC
Hays, KS (785) 621-4604

Main Pass

Database File: jofstatesa#2oh.db
Dataset Pathname: pass2
Presentation Format: kdiln2
Dataset Creation: Mon Sep 24 02:34:12 2012 by Log Open-Cased 100827
Charted by: Depth in Feet scaled 1:600

Main Pass

Database File: jofstatesa#2oh.db
Dataset Pathname: pass2
Presentation Format: kdil
Dataset Creation: Mon Sep 24 02:34:12 2012 by Log Open-Cased 100827
Charted by: Depth in Feet scaled 1:240

Repeat Pass

Database File: jofstatesa#2oh.db
Dataset Pathname: pass1
Presentation Format: kdil
Dataset Creation: Mon Sep 24 02:24:41 2012 by Log Open-Cased 100827
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: jofstatesa#2oh.db
Dataset Pathname: pass1
Dataset Creation: Mon Sep 24 02:24:41 2012 by Log Open-Cased 100827

Dual Induction Calibration Report

Serial-Model: 5375-G
Surface Cal Performed: Thu Sep 13 16:02:51 2012
Downhole Cal Performed: Thu Sep 13 16:03:26 2012

Surface Calibration

Loop:	Readings Air	Readings Loop		References Air	References Loop		Results m	Results b
Deep	0.002	0.640	V	0.000	350.000	mmho/m	548.531	-1.045
Medium	0.005	0.742	V	0.000	400.000	mmho/m	542.602	-2.696

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.640	V	0.000	350.000	mmho/m	547.641	-0.739
Medium	0.005	0.742	V	0.000	550.000	mmho/m	745.701	-3.500

Downhole Calibration

Internal:	Readings Zero	Readings Cal		References Zero	References Cal		Results m	Results b
Deep	0.094	350.007	mmho/m	-0.305	350.264	mmho/m	1.002	-0.399
Medium	0.252	399.957	mmho/m	-0.149	400.053	mmho/m	1.001	-0.401
Shallow	2.471	0.009	V	500.000	2.000	Ohm-m	202.280	0.097

Compensated Density Calibration Report

Serial-Model: 2388DHT-DHT
Source / Verifier: /
Master Calibration Performed: Thu Sep 13 16:04:57 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	717.11	305.57	cps
Aluminum	2.620	g/cc	140.63	205.93	cps

Spine Angle = 76.38 Density/Spine Ratio = 0.519

	Size		Reading
Small Ring	8.25	in	5771.32
Large Ring	14.00	in	10165.20

Gamma Ray Calibration Report

Serial Number:	2001	
Tool Model:	OH	
Performed:	Sat Sep 22 13:47:45 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2300	GAPI/cps

Neutron Calibration Report

Serial Number:	5108	
Tool Model:	PROBE	
Performed:	Mon Sep 03 08:08:04 2012	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			None	0.75	1.50	5.00
NEU	37.85		NEU-PROBE (5108) Probe	4.92	3.63	85.00
GR	32.32		GR-OH (2001) 2001	3.56	3.25	40.00
LSD	23.78		CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
DCAL	23.49					
SSD	23.24					
HEADVOLT	21.47					
CILD	10.60		DIL-G (5375) Gearhart	21.47	4.00	345.00
SP	10.60					
CILM	6.89					
RLL3	1.70					

Dataset: jofstatesa#2oh.db: field/well/run1/pass1
Total Length: 40.39 ft
Total Weight: 676.00 lb
O.D. 4.00 in