Company	Cadre Resources Inc.
Well	Co #1
Field	Geneseo-Edwards
County	Rice
State	Kansas
Location	

GEMINI Geophysics

COMPENSATED DENSITY NEUTRON LOG

Company	Cadre Resources Inc.
Well	Co #1
County	Rice
State	Kansas
Date	10/18/2013
Time	9:41 - 10:52
Run	1
Depth Driller	3400
Depth Logger	3400
Bottom Logged Interval	3400
Top Log Interval	150
Drill Fluid	Chemical
Salinity	5.5
Density	9.2
Viscosity	50
Source	CS
Rm @ Meas. Temp.	0.7 @ 70
Rmf @ Meas. Temp.	0.9 @ 70
Rmc @ Meas. Temp.	1.8 @ 70
Source Rmf / Rmc	Calc / Calc
Rm @ BHT	0.4 @ 100
Max Rec. Temp.	100
Equipment	10-14
Location	Geneseo
Recorded By	Jim Hamm
Witnessed By	Mr. Co

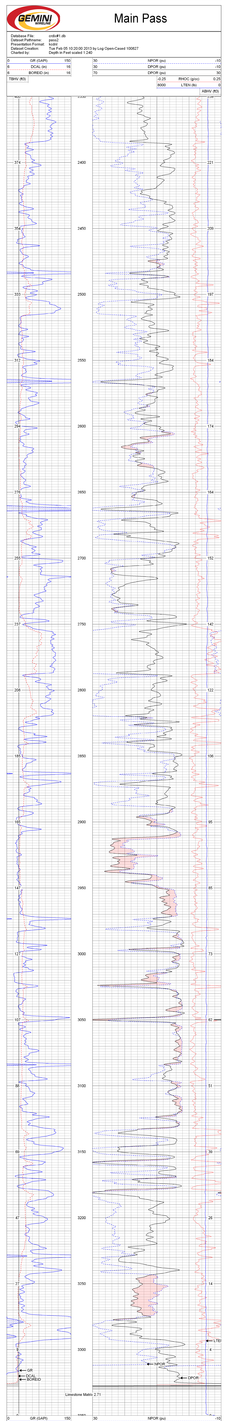
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not accept or be liable for any loss, costs, damages or expenses incurred or sustained by anyone resulting from 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

Main Pass

Database File: co3c4f1.db
Dataset Pathname: pass1
Presentation Format: bo02
Dataset Creation: Tue Feb 05 10:20:00 2013 by Log Cam-Cased 100627
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10
0	DCAL (in)	16	30	DPOR (pu)	30
0	BORED (in)	16	70	CPOR (pu)	10
Tilt=(.0%)			-0.25	RHOC (g/cc)	0.25
			3000	LTN=(ft)	0
				ABHV (ft3)	



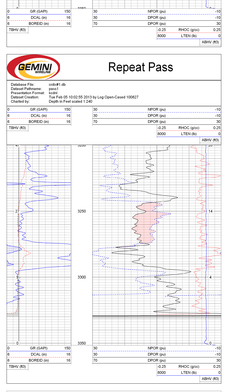
Lowestone Marlo 2.71

0	GR (GAPI)	150	30	NPOR (pu)	-10
0	DCAL (in)	16	30	DPOR (pu)	30
0	BORED (in)	16	70	CPOR (pu)	10
Tilt=(.0%)			-0.25	RHOC (g/cc)	0.25
			3000	LTN=(ft)	0
				ABHV (ft3)	

Repeat Pass

Database File: co3c4f1.db
Dataset Pathname: pass2
Presentation Format: bo02
Dataset Creation: Tue Feb 05 10:02:00 2013 by Log Cam-Cased 100627
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10
0	DCAL (in)	16	30	DPOR (pu)	30
0	BORED (in)	16	70	CPOR (pu)	10
Tilt=(.0%)			-0.25	RHOC (g/cc)	0.25
			3000	LTN=(ft)	0
				ABHV (ft3)	



0	GR (GAPI)	150	30	NPOR (pu)	-10
0	DCAL (in)	16	30	DPOR (pu)	30
0	BORED (in)	16	70	CPOR (pu)	10
Tilt=(.0%)			-0.25	RHOC (g/cc)	0.25
			3000	LTN=(ft)	0
				ABHV (ft3)	

Calibration Report

Database File: co3c4f1.db
Dataset Pathname: pass1
Dataset Creation: Tue Feb 05 10:02:00 2013 by Log Cam-Cased 100627

Dual Induction Calibration Report

Serial-Model	0930CD Probe
Surface Cal Performed	Sun Dec 02 13:55:56 2012
Downhole Cal Performed	Sun Dec 02 13:58:56 2012
After Survey Verification Performed	Sun Dec 02 13:56:56 2012

Surface Calibration

	Readings			References		Results		
Loop	Air	Loop		Air	Loop		m	b
Deep	0.001	0.938	V	0.000	460.000	mmho/m	828.146	-0.908
Medium	0.000	0.735	V	0.000	454.000	mmho/m	824.135	-0.908
Internal	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.938	V	0.000	460.000	mmho/m	828.770	-0.907
Medium	0.000	0.735	V	0.000	454.000	mmho/m	824.759	-0.907

Downhole Calibration

	Readings			References		Results		
	Zero	Cal		Zero	Cal		m	b
Deep	-0.001	400.153	mmho/m	0.019	400.281	mmho/m	0.999	0.805
Medium	-0.088	403.926	mmho/m	0.012	404.041	mmho/m	0.996	0.808
LL3		0.000	V		12.000	Ohm-m		
		0.000	V		12.000	Ohm-m		
		0.000	V		1740.000	Ohm-m		

Compensated Density Calibration Report

Serial-Model	CNSDH1 2HT
Source / Verifier	
Master Calibration Performed	Mon Jan 07 17:00:17 2013

Master Calibration

	Density		Far Detector	Near Detector
Magnesium	1.750	g/cc	717.11	305.57 cps
Aluminum	2.620	g/cc	146.63	205.85 cps

Spine Angle = 76.38 Density/Spine Ratio = 0.519

	Size		Reading	
Small Ring	8.25	in	5771.32	
Large Ring	14.00	in	10148.00	

Neutron Calibration Report

Serial Number	9108
Master Cal Performed	9108
	Wed Jan 07 17:00:44 2013
Calibration Value	1 SAPI
Background Reading	1 cps
Calibration Reading	1 cps
Sensitivity	1 NAPI/cps

Gamma Ray Calibration Report

Serial Number	2000
Master Cal Performed	2000
	Wed Jan 23 07:42:55 2013
Calibration Value	1.0 GAPI
Background Reading	0.0 cps
Calibration Reading	1.0 cps
Sensitivity	0.2400 GAPI/cps

Neutron Calibration Report

Serial Number	9108
Master Cal Performed	9108
	Wed Jan 07 17:00:44 2013
Calibration Value	1 SAPI
Calibration Reading	1 cps
Sensitivity	1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Nose	0.75	1.50	0.00
NEU	37.98		NEU-PROBE (0108) Probe	4.92	3.63	65.00
GR	32.57		GR-PROBE (0300)	3.67	3.25	40.00
	23.76					
DCAL	23.48					
SXO	23.24		COL-CNT (CNSDH1) Digital High Temp CDL Tool	9.58	4.00	201.00
HEADVOLT	21.47					
CALD	10.60		DIL-Probe (0930CD) Probe Case Assembly	21.47	4.00	345.00
CALM	10.60					
	8.89					
RLL3	1.70					

Dataset: co3c4f1.db: field=default1/pass1
Total Length: 45.48 ft
Total Weight: 676.00 lb
O.D.: 4.00 in