PIONEER
Pioneer Energy Services

HIGH RESOLUTION INDUCTION COMPENSATED DENSITY COMPENSATED NEUTRON

Company	Augustus Energy Resources, LLC
Well	McCall 42-09 1N46W
Field	Wildcat
County	Yuma
State	Colorado

Company Augustus Energy Resources, LLC
Well McCall 42-09 1N46W
Field Wildcat
County Yuma State Colorado
Location: API #: 05 125 12103
2208' FNL & 350' FEL SENE
SEC 9 TWP 1N RGE 46W
Permanent Datum GL Elevation 3957
Log Measured From KB
Drilling Measured From KB
Other Services: None
Elevation: K.B. 3963, D.F. 3962, G.L. 3957

Date	Aug 12, 2014
Run Number	1
Depth Driller	2698
Depth Logger	2699
Bottom Logged Interval	2699
Top Log Interval	Casing
Casing Driller	414
Casing Logger	414
Bit Size	6.25"
Type Fluid in Hole	WBM
Density / Viscosity	8.6 / 28
pH / Fluid Loss	8.0 / 12.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.33 @ 63 F
Rmf @ Meas. Temp	0.25 @ 63 F
Rmc @ Meas. Temp	0.41 @ 63 F
Source of Rmf / Rmc	Calc / Calc
Rm @ BHT	0.20 @ 104 F
Time Circulation Stopped	0315
Time Logger on Bottom	0645
Maximum Recorded Temperature	104 F
Equipment Number	48
Location	Ft. Morgan, CO
Recorded By	Clint Christensen
Witnessed By	Justin Stone

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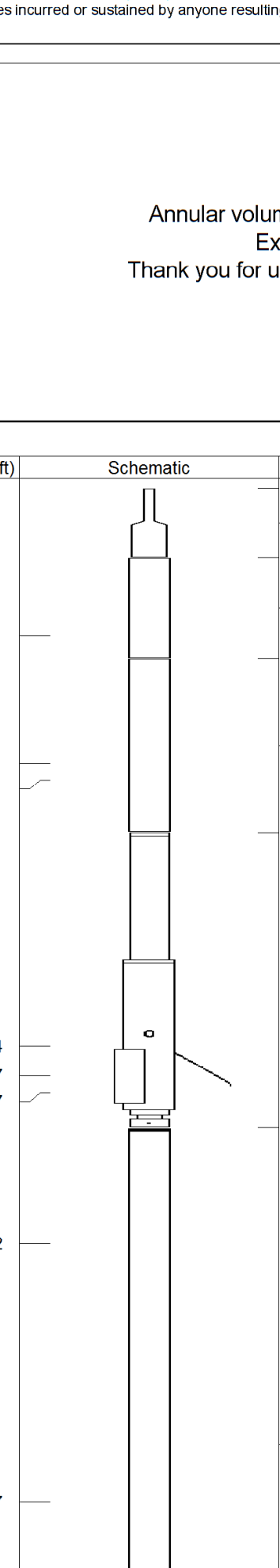
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

Annular volume calculated for 4.5" casing
Excell Drilling Rig 2
Thank you for using Pioneer Energy Services.

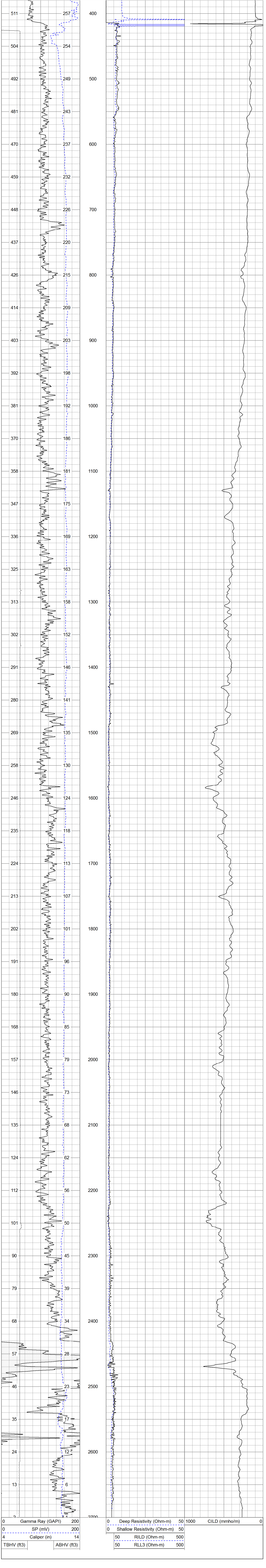


Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CHD (~0)	2.00	3.50	30.00
GR	0.00	GR-PSI (923)	2.92	3.50	40.00
CNLSC CNSSC	-3.67 -4.17	CNT-PSI (826)	5.00	3.50	70.00
DCAL LSD SSD	-11.84 -12.67 -13.17	CDL-PSI (934)	8.50	5.00	285.00
RLL3 CILD CILM SP	-17.52 -24.97 -28.42 -32.42	DIL-PSI (1039)	18.25	3.75	175.00

Dataset: 13655.db: field/well/run1/pass1
Total Length: 36.67 ft
Total Weight: 600.00 lb
O.D. 5.00 in

Database File: 13655.db
Dataset Pathname: Final
Presentation Format: dilin60
Dataset Creation: Tue Aug 12 08:27:01 2014
Charted by: Depth in Feet scaled 1:600

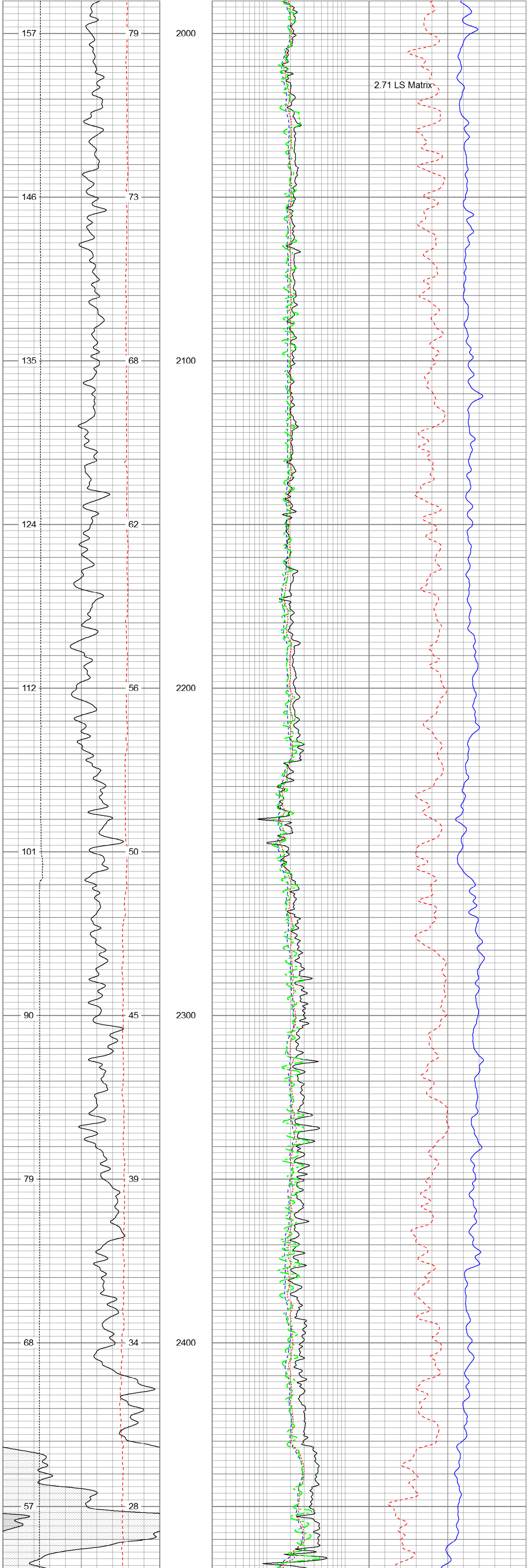
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (ft3) ABHV (ft3)
0 Deep Resistivity (Ohm-m) 50
0 Shallow Resistivity (Ohm-m) 50
50 RILD (Ohm-m) 500
50 RLL3 (Ohm-m) 500
1000 CILD (mmho/m) 0



0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (ft3) ABHV (ft3)
0 Deep Resistivity (Ohm-m) 50
0 Shallow Resistivity (Ohm-m) 50
50 RILD (Ohm-m) 500
50 RLL3 (Ohm-m) 500
1000 CILD (mmho/m) 0

Database File: 13655.db
Dataset Pathname: Final
Presentation Format: pdce
Dataset Creation: Tue Aug 12 08:27:01 2014
Charted by: Depth in Feet scaled 1:240

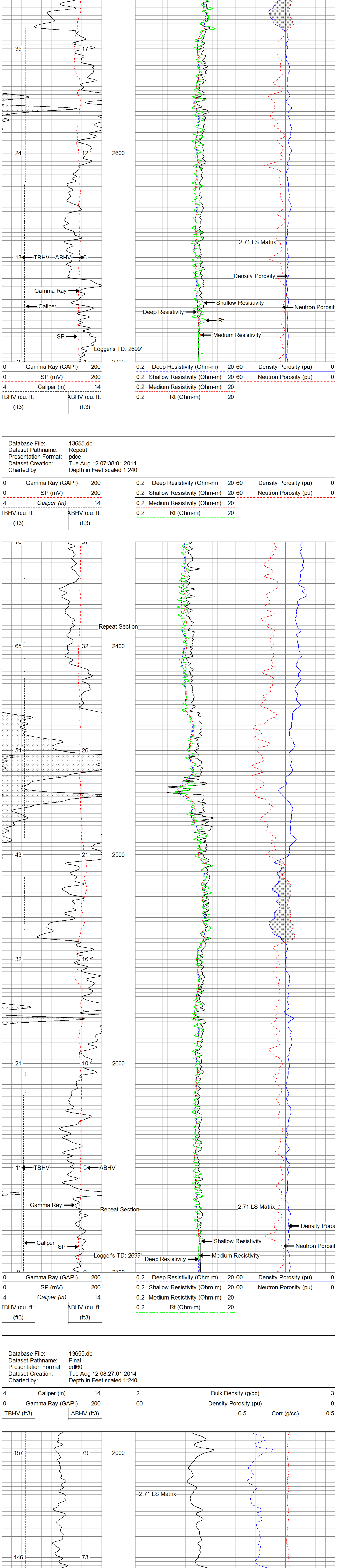
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3) ABHV (cu. ft. (ft3)
0.2 Deep Resistivity (Ohm-m) 20
0.2 Shallow Resistivity (Ohm-m) 20
0.2 Medium Resistivity (Ohm-m) 20
0.2 Rt (Ohm-m) 20
60 Density Porosity (pu) 0
60 Neutron Porosity (pu) 0



0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3) ABHV (cu. ft. (ft3)
0.2 Deep Resistivity (Ohm-m) 20
0.2 Shallow Resistivity (Ohm-m) 20
0.2 Medium Resistivity (Ohm-m) 20
0.2 Rt (Ohm-m) 20
60 Density Porosity (pu) 0
60 Neutron Porosity (pu) 0

Database File: 13655.db
Dataset Pathname: Repeat
Presentation Format: pdce
Dataset Creation: Tue Aug 12 07:38:01 2014
Charted by: Depth in Feet scaled 1:240

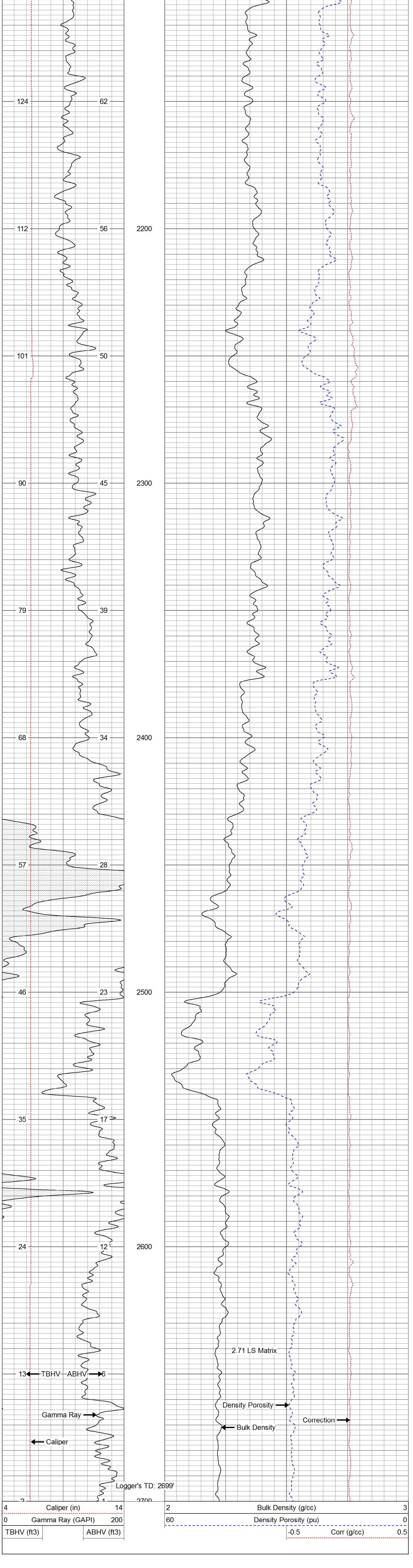
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3) ABHV (cu. ft. (ft3)
0.2 Deep Resistivity (Ohm-m) 20
0.2 Shallow Resistivity (Ohm-m) 20
0.2 Medium Resistivity (Ohm-m) 20
0.2 Rt (Ohm-m) 20
60 Density Porosity (pu) 0
60 Neutron Porosity (pu) 0



0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3) ABHV (cu. ft. (ft3)
0.2 Deep Resistivity (Ohm-m) 20
0.2 Shallow Resistivity (Ohm-m) 20
0.2 Medium Resistivity (Ohm-m) 20
0.2 Rt (Ohm-m) 20
60 Density Porosity (pu) 0
60 Neutron Porosity (pu) 0

Database File: 13655.db
Dataset Pathname: Final
Presentation Format: cdl60
Dataset Creation: Tue Aug 12 08:27:01 2014
Charted by: Depth in Feet scaled 1:240

4 Caliper (in) 14
0 Gamma Ray (GAPI) 200
TBHV (ft3) ABHV (ft3)
2 Bulk Density (g/cc) 3
60 Density Porosity (pu) 0
-0.5 Corr (g/cc) 0.5



4 Caliper (in) 14
0 Gamma Ray (GAPI) 200
TBHV (ft3) ABHV (ft3)
2 Bulk Density (g/cc) 3
60 Density Porosity (pu) 0
-0.5 Corr (g/cc) 0.5

Calibration Report

Database File: 13655.db
Dataset Pathname: pass1
Dataset Creation: Tue Aug 12 06:27:06 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1039-PSI
Surface Cal Performed:

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.595	-45.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.475	-40.000

Compensated Density Calibration Report

Serial-Model: 934-PSI
Source / Verifier: 4400 / PSI
Master Calibration Performed: Wed Jun 04 12:14:34 2014
Before Survey Verification Performed:
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	4883.27	3645.80	cps
Aluminum	2.690	g/cc	915.83	2377.06	cps

Spine Angle = 75.67
Density/Spine Ratio = 0.544

	Size		Reading
Small Ring	4.50	in	1.80
Large Ring	13.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 826
Tool Model: PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.9000
Long Space	1.00	cps	1.00	cps	2.0900

Gamma Ray Calibration Report

Serial Number:	923	
Tool Model:	PSI	
Performed:	Wed Jul 02 08:13:54 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7200	GAPI/cps