HALLIBURTON

RADIAL CEMENT BOND LOG

SCALE 1:240

Company OOLITE ENERGY CORP.
Well FOX 2-19
Field SINGLEY
County MEADE State KANSAS

Company	OOLITE ENERGY CORP.
Well	FOX 2-19
Field	SINGLEY
County	MEADE State KANSAS

API No.: 15-119-21338 Serv #: 12

Location:

2055' FNL & 2300' FWL

Sec: 19 Twp: 33S Rge: 29W

Other Services

N/A

Permanent Datum	GROUND LEVEL	Elevation 2683'	Elevation	
Log Measured From	K.B. , 15 Ft. above perm. datum		K.B.	2698'
Drilling Measured From	K.B.		D.F.	N/A
			G.L.	2683'

Date @ Time Logged	21 MAY 2013 @ 16:00	Type Fluid in Hole	H2O
Run No.	ONE	Density of Fluid	8.3
Depth - Driller	6600'	Fluid Level	40'
Depth - Logger	6507'	Cement Top Est. Logged	4188'
Bottom - Logged Interval	6504.5'	Equipment / Location	10971670 / LIBERAL
Top - Log Interval	3988'	Recorded by	P.NICHOLS
Max. Recorded Temp.	154 F	Witnessed by	N/A

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	N/A	SURFACE	1600'	8.625"	24#	SURFACE	1600'
TWO	7.875"	1600'	6411'	4.5"	10.5#	SURFACE	6600'

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

CORRELATED TO HALLIBURTON DENSITY LOG DATED 08 MAY 2013.

DEPTH CORRECTED -2'

YOUR HALLIBURTON CREW: HUMISTON, PAGE.
THANK YOU FOR USING HALLIBURTON ENERGY SERVICES
QUESTIONS AND/OR COMMENTS PLEASE CALL 620-624-8123

Service Ticket No.	900452830	API No.	15-119-21338	PGM Ver	WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

RCBL		GAMMA RAY					
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	080640	Serial No.	070725	Serial No.		Serial No.	
Model No.	CBL_PROBE	Model No.	GR_PROBE	Model No.		Model No.	
Diameter	2.75"	Diameter	2.75"	Diameter		Diameter	

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
ONE	6507'	3988'	0	45	MAIN PASS SECTION

Pass No.	GAMMA RAY Scale L	GAMMA RAY Scale R	AMPLITUDE Scale L	AMPLITUDE Scale R	TRAVEL TIME Scale L	TRAVEL TIME Scale R	MSG Scale L	MSG Scale L
ONE	0	120	0	100	148	248	100	1100
	120	240	0	20				

DIRECTIONAL INFORMATION

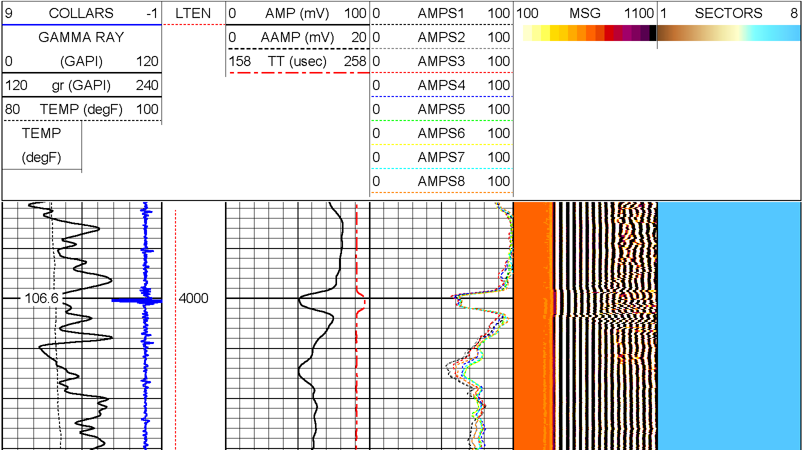
Maximum Deviation		deg. @		KOP		

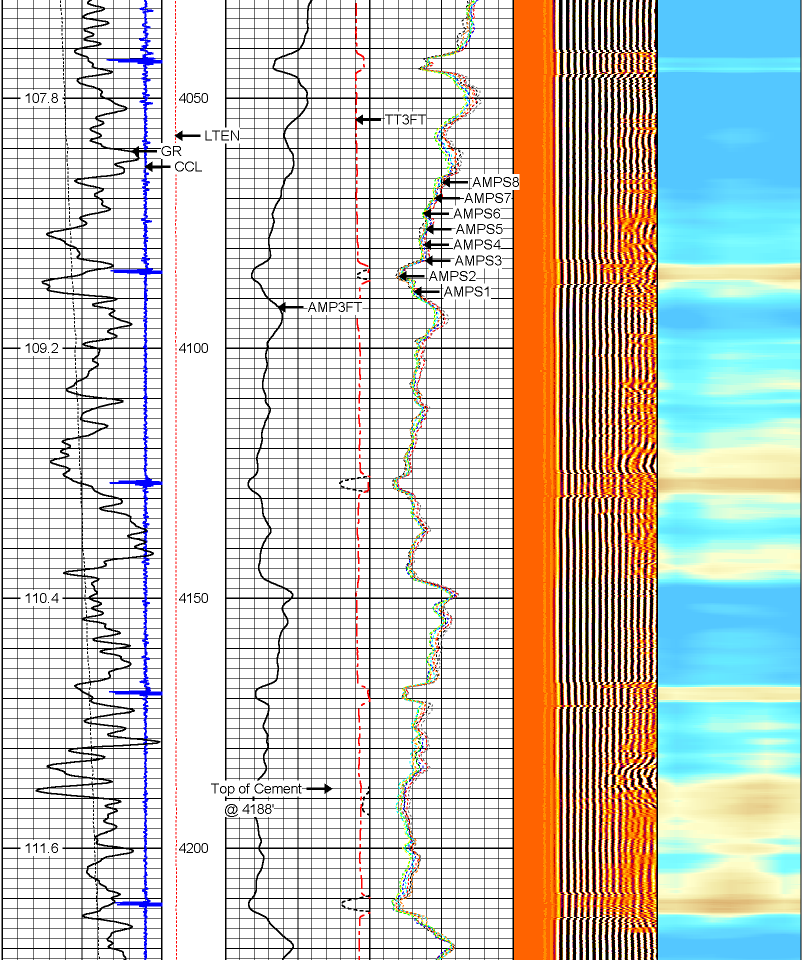
HALLIBURTON

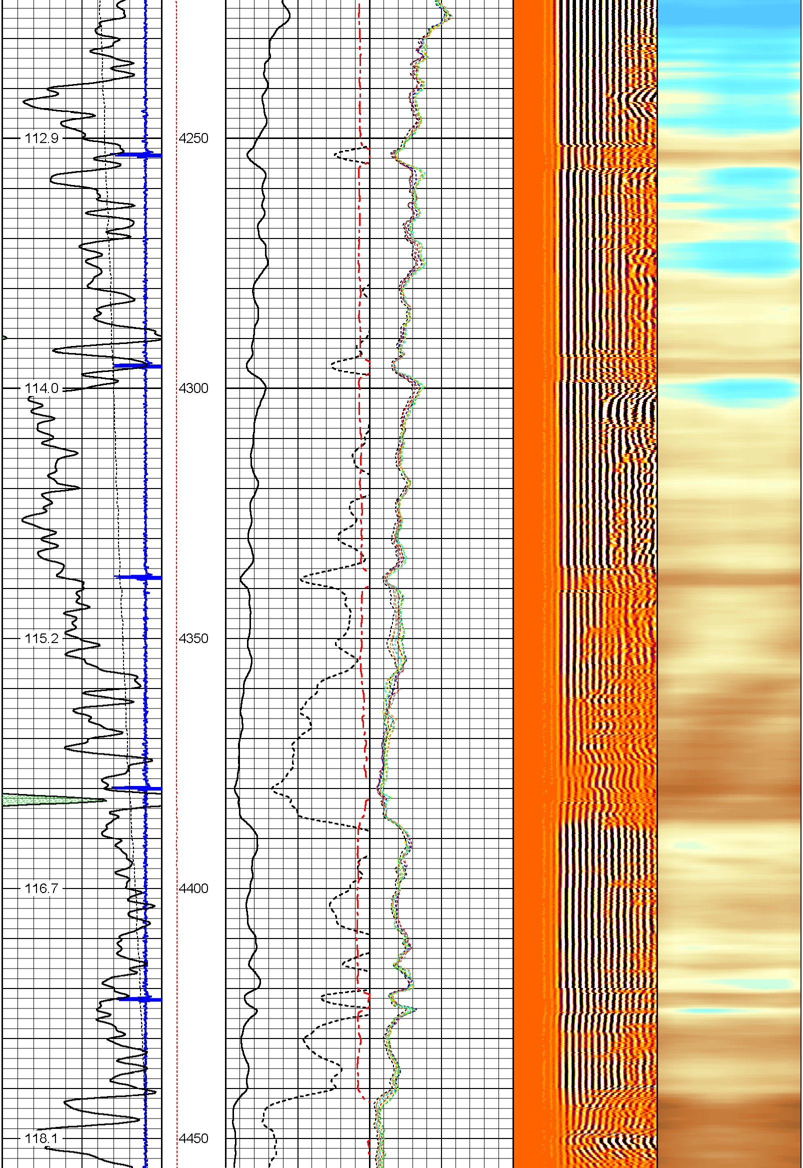
MAIN LOG SECTION

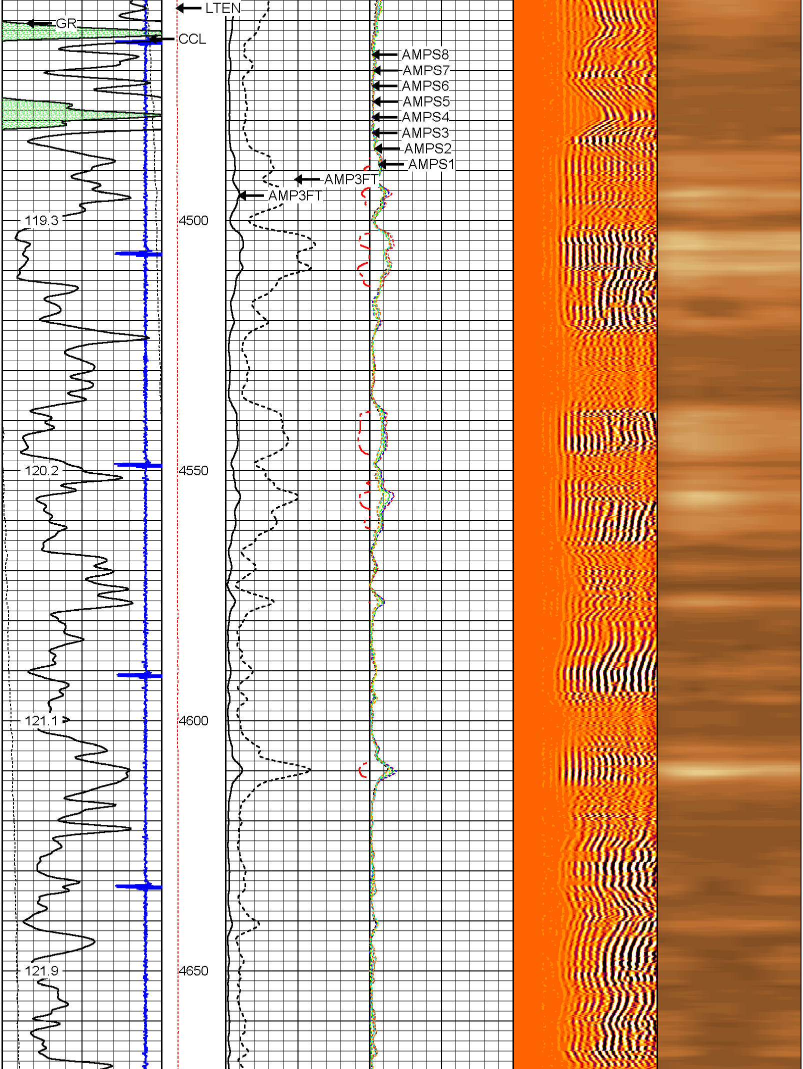
SCALE 1:240

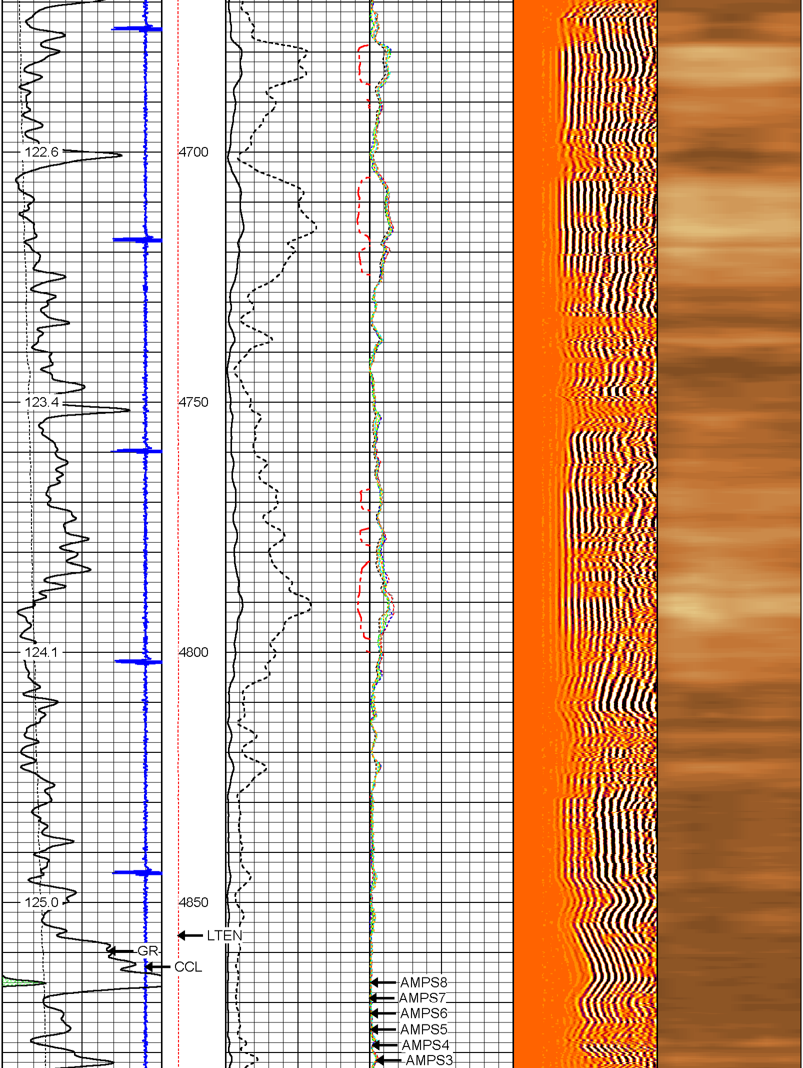
Database File: oo_fox_rcbl.db
Dataset Pathname: pass4
Presentation Format: rcbl_tem
Dataset Creation: Tue May 21 15:06:56 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

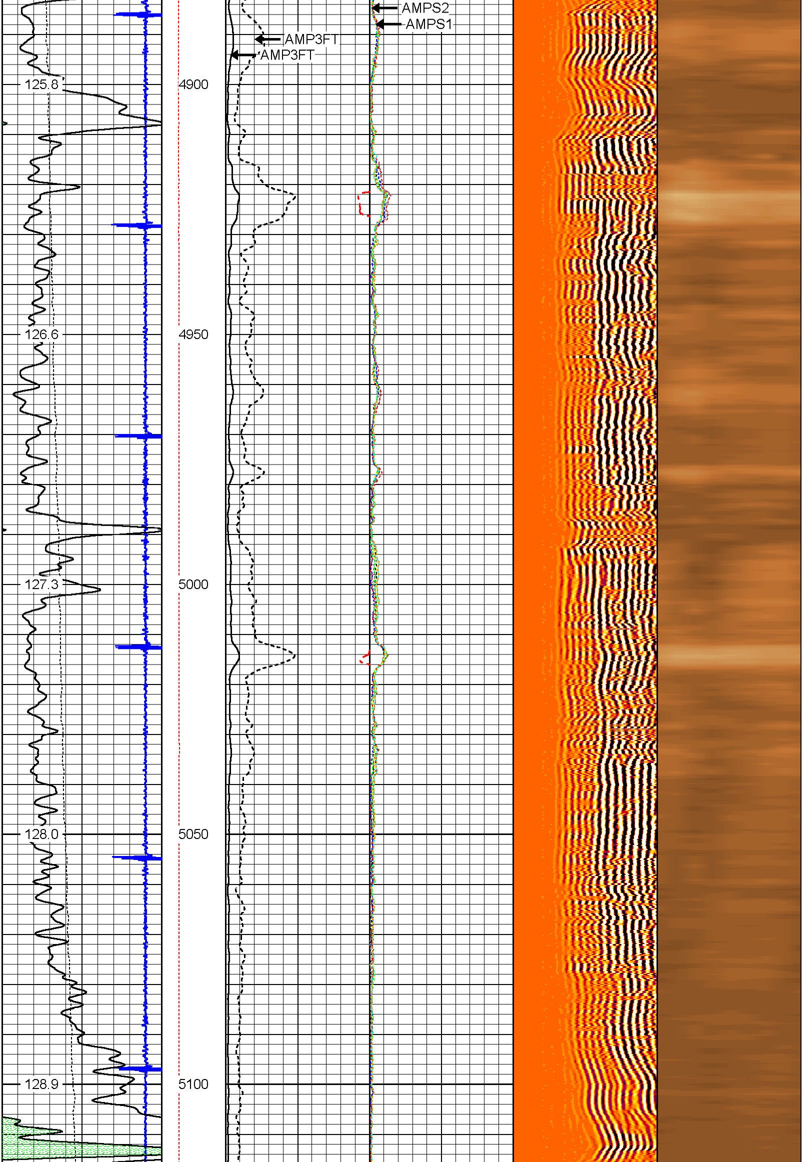


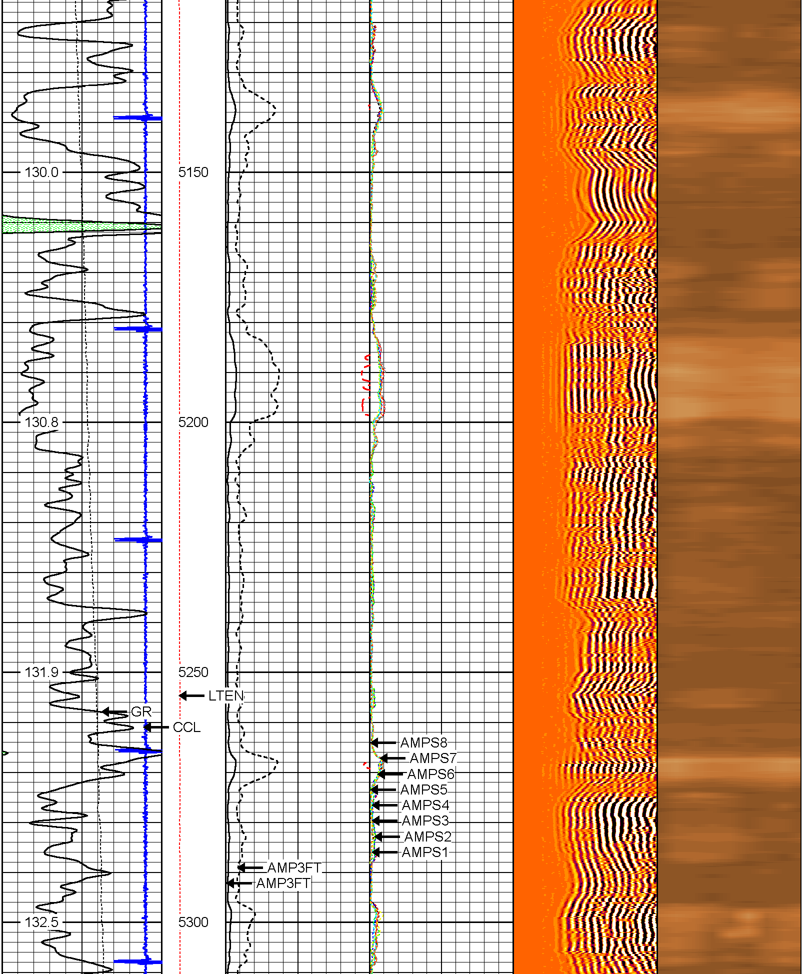


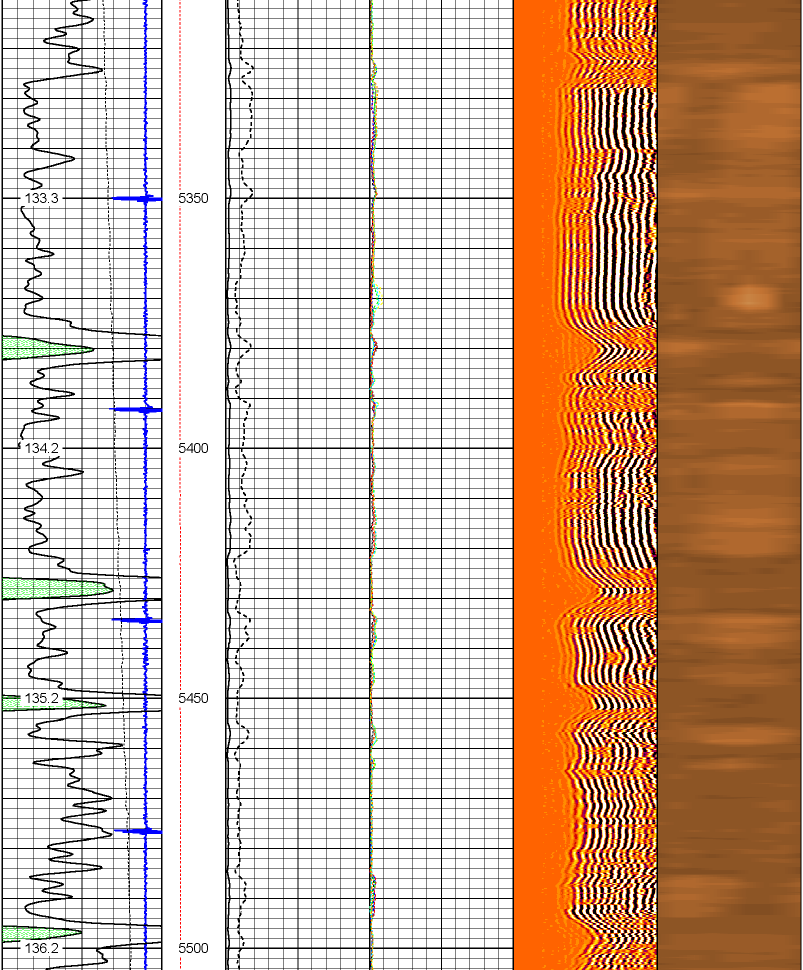


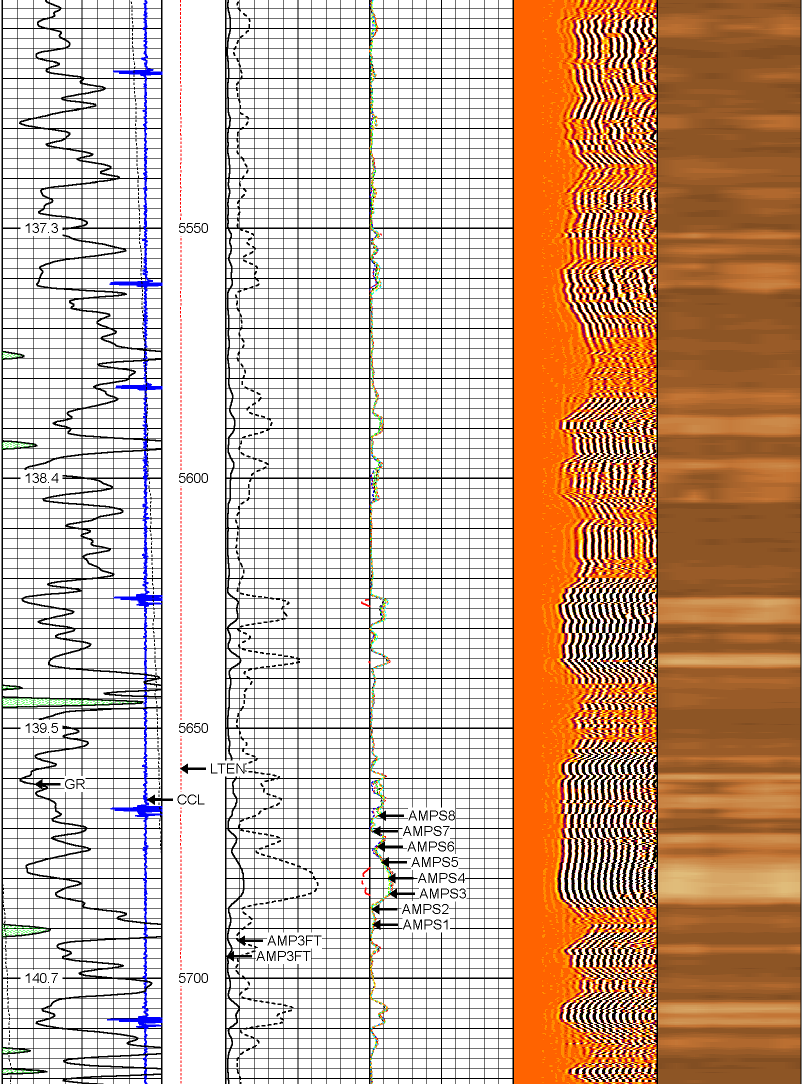


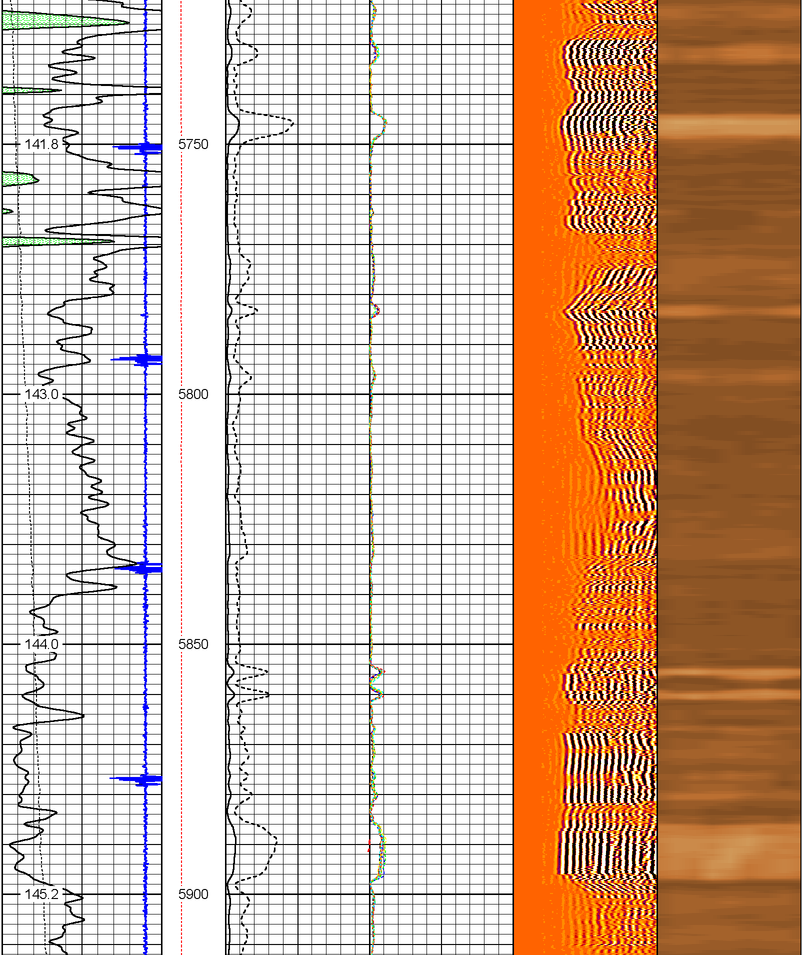


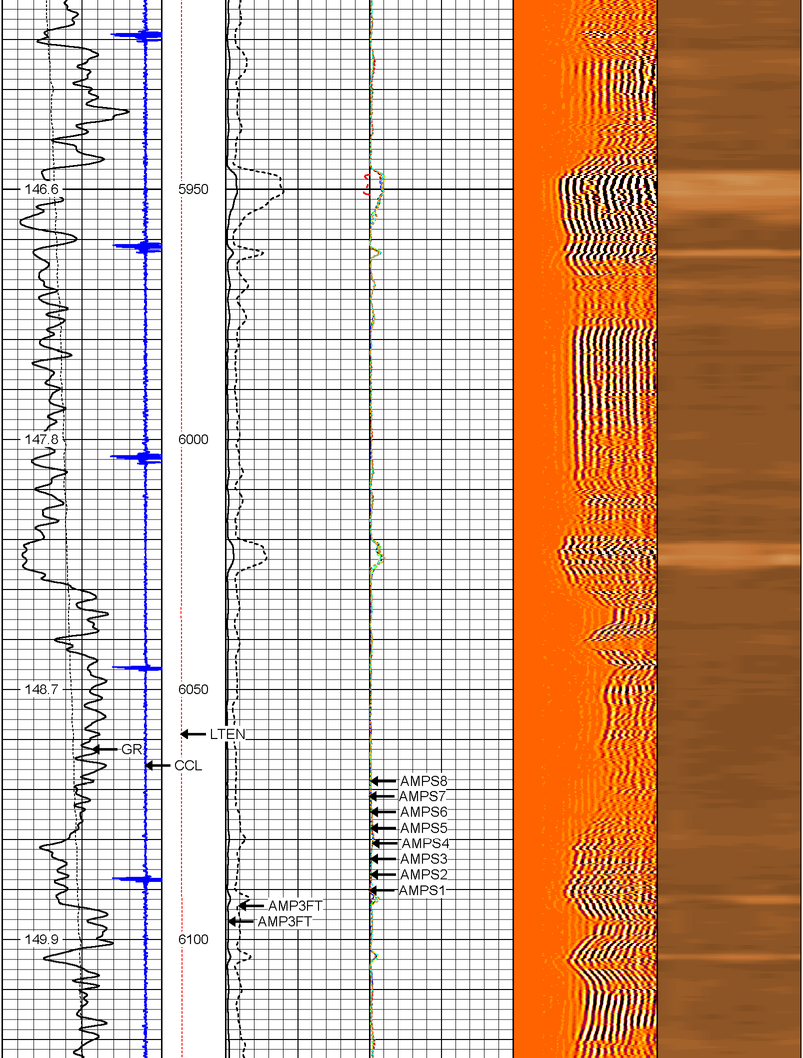


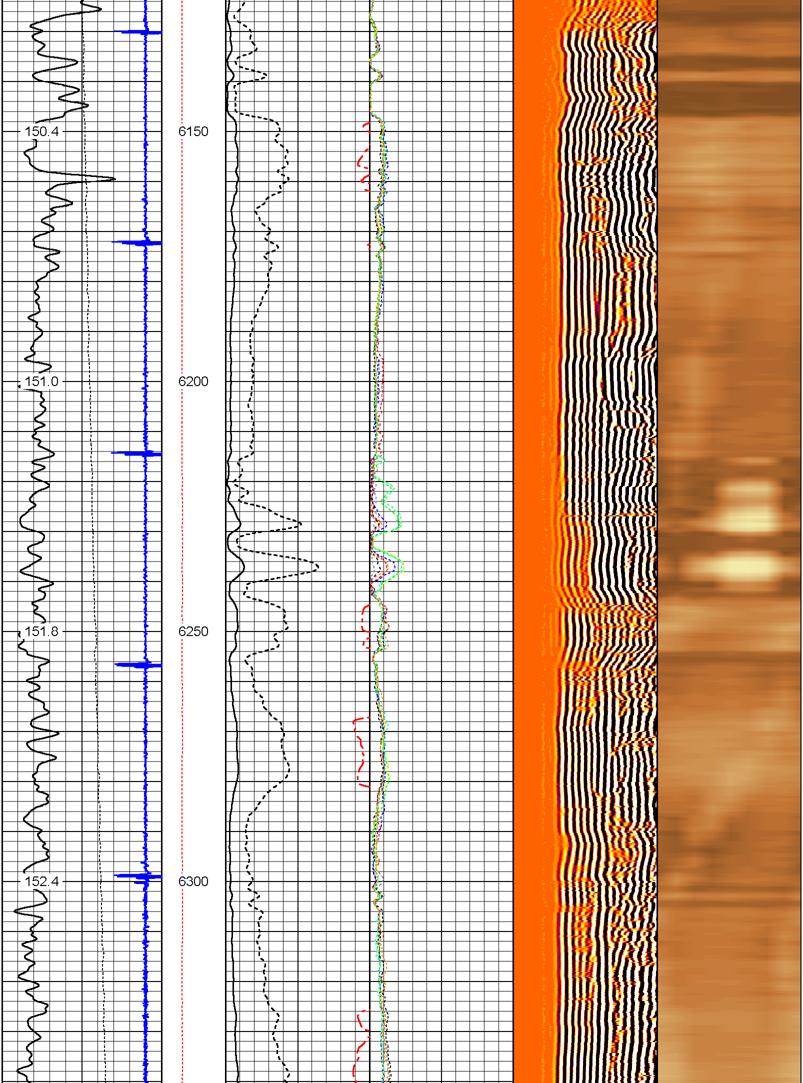


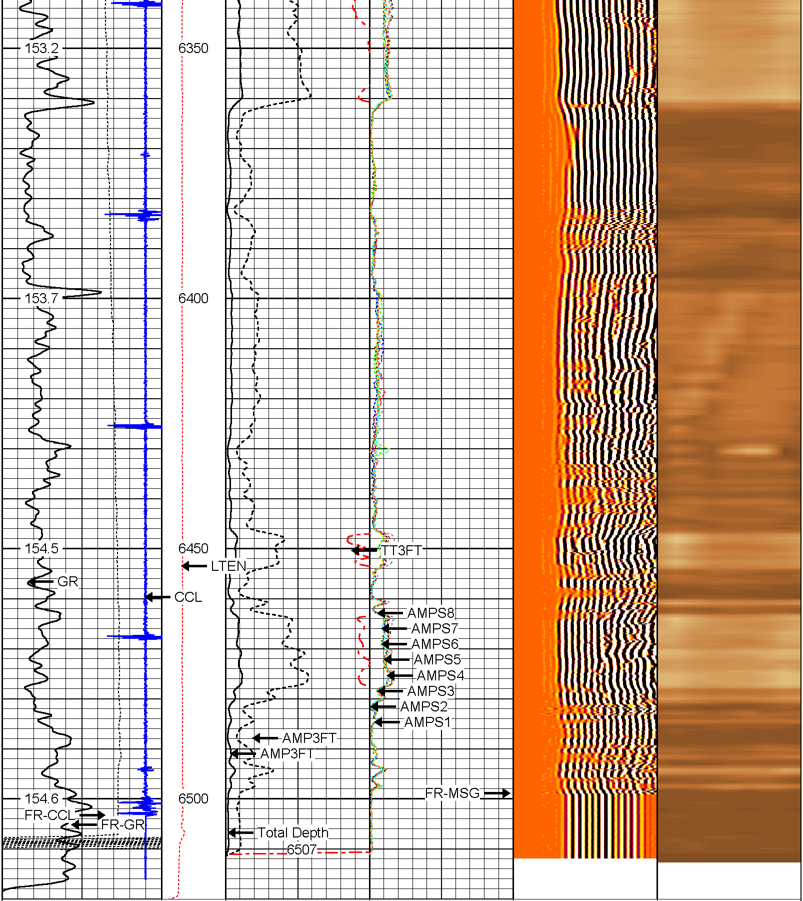












9 COLLARS -1

GAMMA RAY

0 (GAPI) 120

120 gr (GAPI) 240

80 TEMP (degF) 100

TEMP

(degF)

LTEN

0 AMP (mV) 100

0 AAMP (mV) 20

158 TT (usec) 258

0 AMPS1 100

0 AMPS2 100

0 AMPS3 100

0 AMPS4 100

0 AMPS5 100

0 AMPS6 100

0 AMPS7 100

0 AMPS8 100

100 MSG 1100

1 SECTORS 8

HALLIBURTON

REPEAT SECTION

Database File: oo_fox_rcbl.db
Dataset Pathname: pass3
Presentation Format: rcbl_tem
Dataset Creation: Tue May 21 15:00:49 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

9 COLLARS -1
GAMMA RAY
0 (GAPI) 120
120 gr (GAPI) 240
80 TEMP (degF) 100
TEMP
(degF)

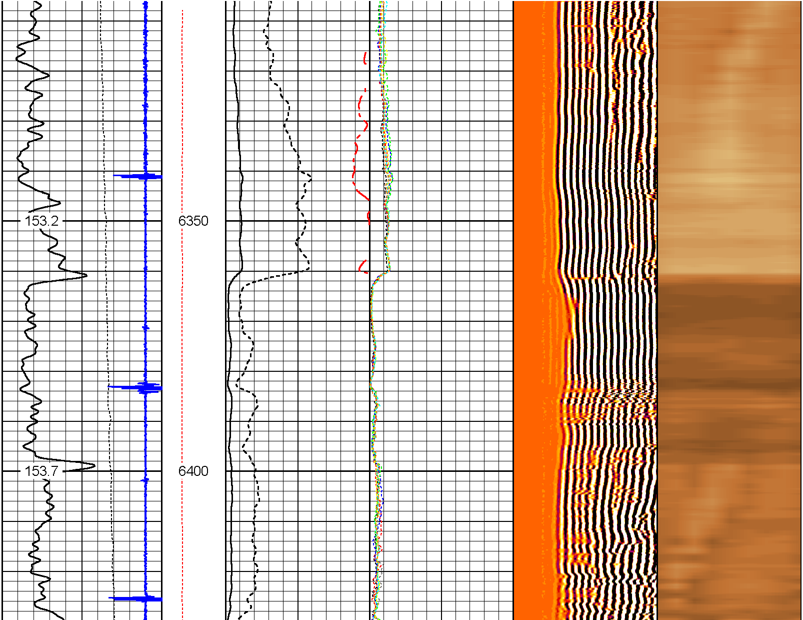
LTEN

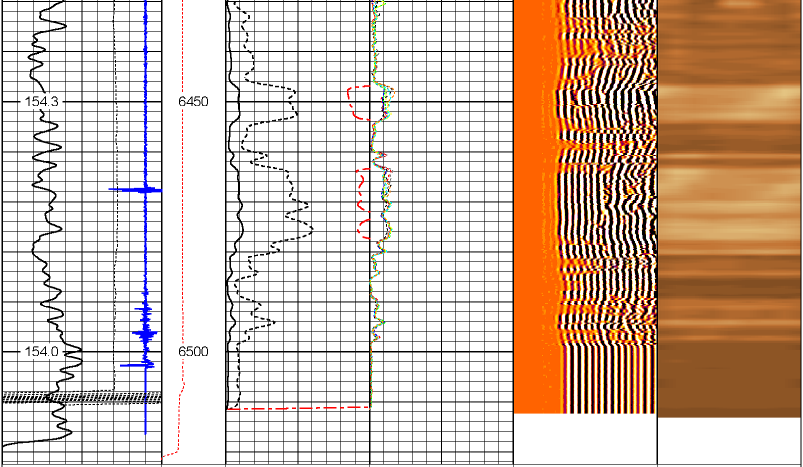
0 AMP (mV) 100
0 AAMP (mV) 20
158 TT (usec) 258

0 AMPS1 100
0 AMPS2 100
0 AMPS3 100
0 AMPS4 100
0 AMPS5 100
0 AMPS6 100
0 AMPS7 100
0 AMPS8 100

100 MSG 1100

1 SECTORS 8





9 COLLARS -1
GAMMA RAY
0 (GAPI) 120
120 gr (GAPI) 240
80 TEMP (degF) 100
TEMP
(degF)

LTEN

0 AMP (mV) 100
0 AAMP (mV) 20
158 TT (usec) 258

0 AMPS1 100
0 AMPS2 100
0 AMPS3 100
0 AMPS4 100
0 AMPS5 100
0 AMPS6 100
0 AMPS7 100
0 AMPS8 100

100 MSG 1100

1 SECTORS 8

HALLIBURTON

FREE PIPE SECTION

Database File: oo_fox_rcbl.db
Dataset Pathname: pass2
Presentation Format: rcbl_tem
Dataset Creation: Tue May 21 14:41:10 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

9 COLLARS -1
GAMMA RAY
0 (GAPI) 120
120 gr (GAPI) 240
80 TEMP (degF) 100
TEMP
(degF)

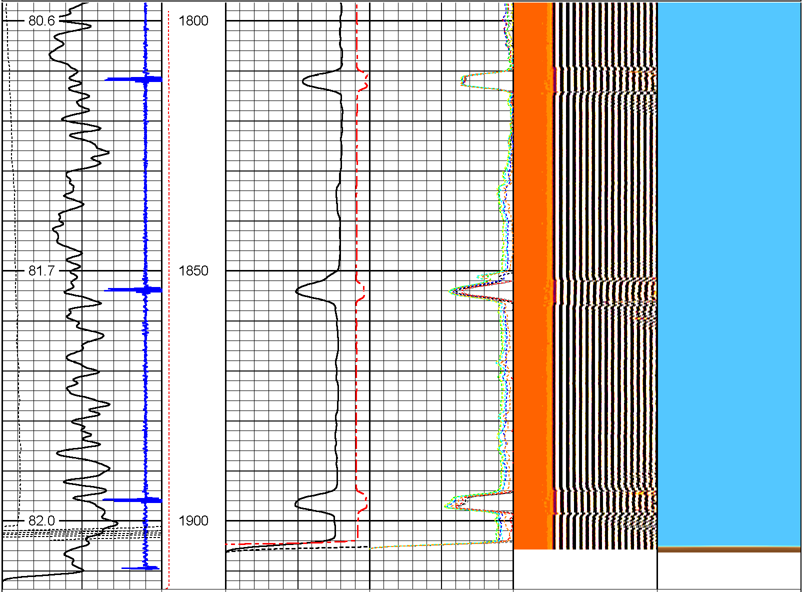
LTEN

0 AMP (mV) 100
0 AAMP (mV) 20
158 TT (usec) 258

0 AMPS1 100
0 AMPS2 100
0 AMPS3 100
0 AMPS4 100
0 AMPS5 100
0 AMPS6 100
0 AMPS7 100
0 AMPS8 100

100 MSG 1100

1 SECTORS 8



9 COLLARS -1	LTEN	0 AMP (mV) 100	0 AMPS1 100	100 MSG 1100	1 SECTORS 8
GAMMA RAY		0 AAMP (mV) 20	0 AMPS2 100		
0 (GAPI) 120		158 TT (usec) 258	0 AMPS3 100		
120 gr (GAPI) 240			0 AMPS4 100		
80 TEMP (degF) 100			0 AMPS5 100		
TEMP (degF)			0 AMPS6 100		
			0 AMPS7 100		
			0 AMPS8 100		

Calibration Report

Database File: oo_fox_rcbl.db
Dataset Pathname: pass4
Dataset Creation: Tue May 21 15:06:56 2013 by Log Halliburton Casedho

Gamma Ray Calibration Report

Type / Serial: probe275dig / 080725

SHOP CALIBRATION

Fri Feb 24 10:26:00 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	32.8				cps
Calibrator	333.2				cps
		1.2354			GAPI/cps

PRIMARY VERIFICATION

Thu Feb 07 09:42:28 2008

Background	28.4				cps
Calibrator	276.0				cps
Difference				247.5	GAPI

BEFORE SURVEY VERIFICATION

Thu Feb 07 09:45:26 2008

Background	26.5				cps
Calibrator	256.0				cps
Difference				229.5	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number: 080640
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 1645.182 ft

Master Calibration, performed Tue May 21 14:39:54 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.750	0.500	81.196	109.310	-0.760
CAL	0.013	0.935				
5'	0.011	0.660	0.500	81.196	124.384	-0.904
SUM						
S1	0.012	0.778	0.000	100.000	130.648	-1.606
S2	0.012	0.716	0.000	100.000	142.008	-1.718
S3	0.012	0.678	0.000	100.000	150.141	-1.765
S4	0.012	0.698	0.000	100.000	145.908	-1.804
S5	0.012	0.737	0.000	100.000	137.850	-1.642
S6	0.012	0.779	0.000	100.000	130.431	-1.611
S7	0.012	0.799	0.000	100.000	126.990	-1.502
S8	0.012	0.792	0.000	100.000	128.269	-1.530

Internal Reference Calibration, performed Wed Dec 31 18:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.013	0.935	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 18:00:00 1969:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number:	080640	
Tool Model:	Probe	
Performed:	Tue Nov 15 13:47:32 2011	
	Reference	Reading
Low Reference:	89.00 degF	101.15 degF
High Reference:	134.00 degF	144.83 degF
Gain:	1.03	
Offset:	-16.20	
Delta Spacing	1	

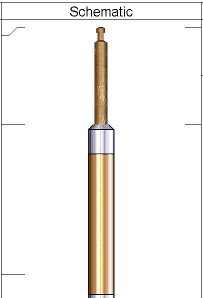
Log Variables

Database:C:\Warrior\Data\oo_fox_rcbl.db
Dataset: field/well/run1/pass4

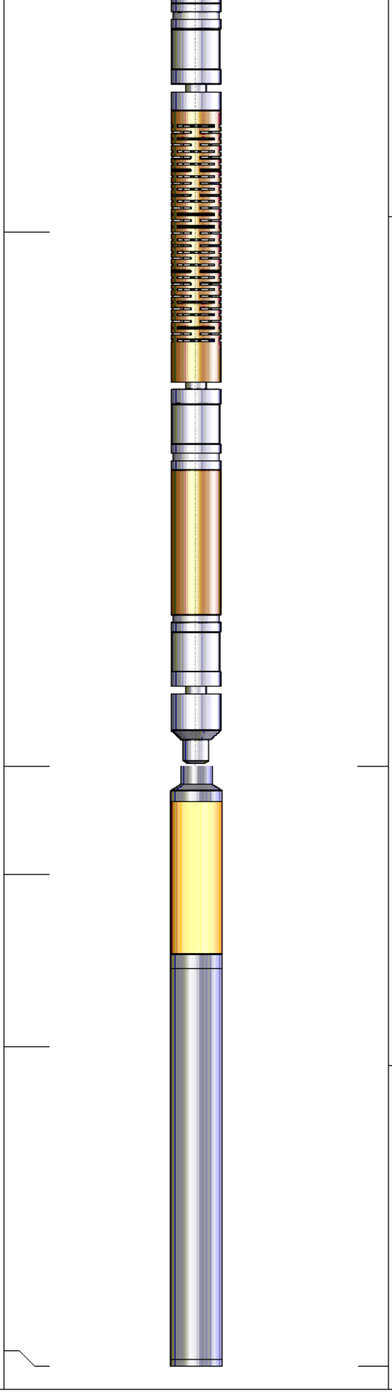
Top - Bottom

PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft
258	10.5	82	1	0.8	4.5	0	6507

BOTTEMP degF	BOREID in
154	7.875

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
STNDCH	15.03		STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
RBT_PRB275	13.53					
TEMP	11.24					

WVFCAL	9.03
GR_PRB275	4.78
CCL	3.92
GR	2.54
LLMTEN	0.00



RBT_PRB275-Probe (080640) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
GR_PRB275-probe275dig (080725) Probe Digital Gamma CCL	4.78	2.75	57.00

Dataset: oo_fox_rcbl.db: field/well/run1/pass4
Total Length: 15.03 ft
Total Weight: 148.00 lb
O.D. 2.75 in

Company	OOLITE ENERGY CORP.
Well	FOX 2-19
Field	SINGLEY
County	MEADE
State	KANSAS

HALLIBURTON

RADIAL CEMENT BOND
LOG

SCALE 1:240