HALLIBURTON

RADIAL CEMENT BOND LOG TEMPERATURE

Company	LARAMIE ENERGY
Well	HAWXHURST 24-10B
Field	WILD CAT
County	MESA
State	CO

Company LARAMIE ENERGY
Well HAWXHURST 24-10B
Field WILD CAT
County MESA State CO

API No.: 05077101060000 Serv #: 8127222
Location: LATITUDE: NORTH 39 DEG-15 MIN-33.865 SEC
LONGITUDE: WEST 107 DEG-56 MIN-8.23 SEC
Other Services: NONE

Sec: 24 Twp: 9S Rge: 95W

Permanent Datum	GROUND LEVEL	Elevation 6354	Elevation
Log Measured From	KB , 21 Ft. above perm. datum		K.B. 6375
Drilling Measured From	KB		D.F. 6376
			G.L. 6354
Date @ Time Logged	25 APR 2001 @ 0415	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.34 PPG
Depth - Driller	10708	Fluid Level	SURFACE
Depth - Logger	5926	Cement Top Est. Logged	RECORDED
Bottom - Logged Interval	5925	Equipment / Location	10678538 / GJ
Top - Log Interval	SURFACE	Recorded by	J. GILBERT
Max. Recorded Temp.	178	Witnessed by	NA

CEMENTING DATA	Surface	Protection	Production	Liner
	String	String	String	
Date / Time Cemented	NA	N/A	N/A	N/A
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	12.25	0	1526	9.625	36	0	1526
NA							

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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 WHCIH 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

H.E.S. RADIAL CEMENT BOND LOG TEMPERATURE DATED 25 APR 2011 CORRELATED TO H.E.S. RADIAL CEMENT BOND LOG TEMPERATURE LOG DATED 20 APR 2011

INTERMEDIATE CASING REPORT NOT AVALIABLE AT TIME OF LOG

MAX RECORDED TEPERATURE: 178 DEG F

***THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES GRAND JUNCTION COLOR

Service Ticket No. 8127222 API No. 05077101060000 PGM Ver 101102_B1

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

EQUIPMENT DATA

TELEMETRY		RCBL		TEMP		NA	
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	217676	Serial No.	2218	Serial No.	10001291	Serial No.	
Model No.	TTTC-U	Model No.	RBT-004	Model No.	CTF-004	Model No.	
Diameter	1.69"	Diameter	3.125"	Diameter	1.69"	Diameter	

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
ONE	5926'	100'	0	60	MAIN LOG SECTION
NA					

Pass	GAMMA RAY Scale		CCL Scale		AMP Scale		TEMP Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	150	-900	100	0	100	50	175

DIRECTIONAL INFORMATION

Maximum Deviation	N/A	deg. @	N/A	KOP	N/A

HALLIBURTON

MAIN LOG SECTION

SCALE 5" = 100'

Database File:	hawxhurst.db
Dataset Pathname:	MAIN1
Presentation Format:	radial
Dataset Creation:	Mon Apr 25 04:11:07 2011 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

410 TT (usec) 210
-900 CCL 100
0 GR (GAPI) 150
TENSION
0 (lb) 1750
0 AMP (mV) 100
0 AMPx5 (mV) 10
50 TEMP (degF) 175
TEMP X 10
0 (degF) 10
0 AMPAVG 100
0 AMPMAX 100
0 AMPMIN 100
200 MSG 1200
1 SECTORS 8
1 60

410 TT (usec) 210	TENSION	0 AMP (mV) 100	0 AMPAVG 100	200 MSG 1200	1 SECTORS 8
-900 CCL 100	0 (lb) 1750	0 AMPx5 (mV) 10	0 AMPMAX 100		1 60
0 GR (GAPI) 150		50 TEMP (degF) 175	0 AMPMIN 100		
		TEMP X 10			
		0 (degF) 10			

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MAIN LOG SECTION

SCALE 5" = 100'

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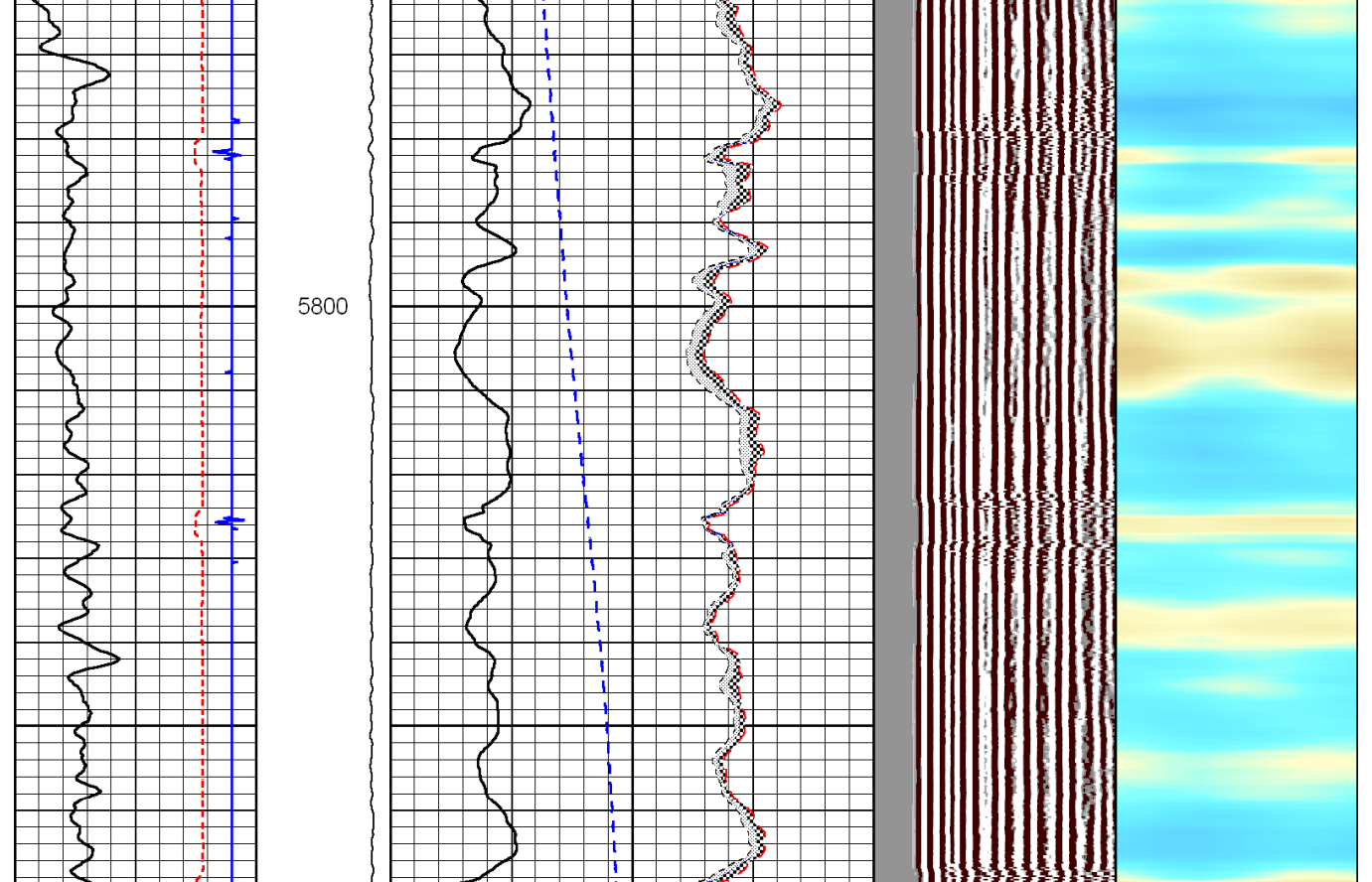
REPEAT LOG SECTION

SCALE 5" = 100'

Database File: hawxhurst.db
Dataset Pathname: RPT1
Presentation Format: radial
Dataset Creation: Mon Apr 25 04:02:44 2011 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

410 TT (usec) 210	TENSION	0 AMP (mV) 100	0 AMPAVG 100	200 MSG 1200	1 SECTORS 8
-900 CCL 100	0 (lb) 1750	0 AMPx5 (mV) 10	0 AMPMAX 100		1 60
0 GR (GAPI) 150		50 TEMP (degF) 175	0 AMPMIN 100		
		TEMP X 10			
		0 (degF) 10			



410 TT (usec) 210	TENSION	0 AMP (mV) 100	0 AMPAVG 100	200 MSG 1200	1 SECTORS 8
-900 CCL 100	0 (lb) 1750	0 AMPx5 (mV) 10	0 AMPMAX 100		1 60
0 GR (GAPI) 150		50 TEMP (degF) 175	0 AMPMIN 100		
		TEMP X 10			
		0 (degF) 10			

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REPEAT LOG SECTION

SCALE 5" = 100'

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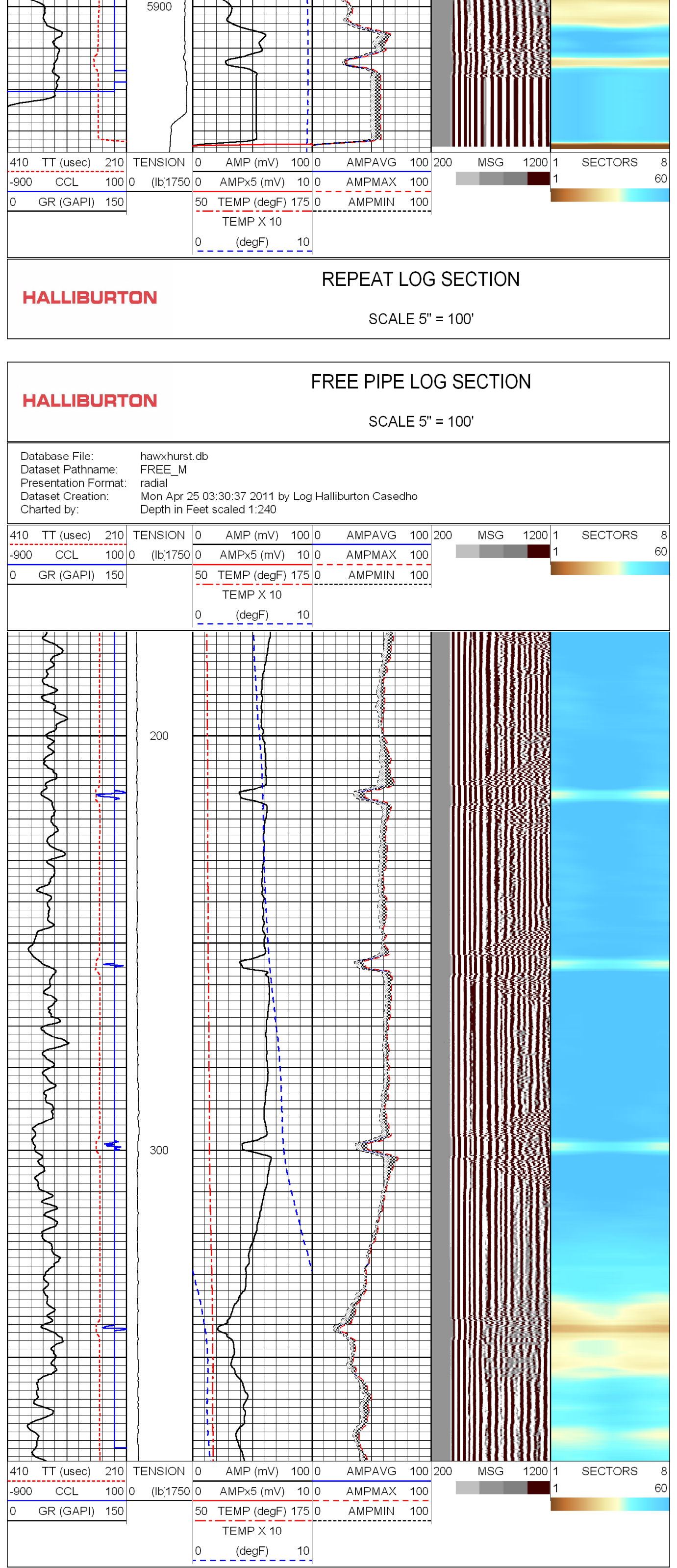
FREE PIPE LOG SECTION

SCALE 5" = 100'

Database File: hawxhurst.db
Dataset Pathname: FREE_M
Presentation Format: radial
Dataset Creation: Mon Apr 25 03:30:37 2011 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

410 TT (usec) 210	TENSION	0 AMP (mV) 100	0 AMPAVG 100	200 MSG 1200	1 SECTORS 8
-900 CCL 100	0 (lb) 1750	0 AMPx5 (mV) 10	0 AMPMAX 100		1 60
0 GR (GAPI) 150		50 TEMP (degF) 175	0 AMPMIN 100		
		TEMP X 10			
		0 (degF) 10			



410 TT (usec) 210	TENSION	0 AMP (mV) 100	0 AMPAVG 100	200 MSG 1200	1 SECTORS 8
-900 CCL 100	0 (lb) 1750	0 AMPx5 (mV) 10	0 AMPMAX 100		1 60
0 GR (GAPI) 150		50 TEMP (degF) 175	0 AMPMIN 100		
		TEMP X 10			
		0 (degF) 10			

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FREE PIPE LOG SECTION

SCALE 5" = 100'

Calibration Report

Database File: hawxhurst.db
Dataset Pathname: MAIN1
Dataset Creation: Mon Apr 25 04:11:07 2011 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: 10001291
Tool Model: 004
Performed: Sun Apr 24 23:06:31 2011

Point #	Reading		Reference	
1	9913.00	cps	54.99	degF
2	17668.00	cps	103.66	degF
3	29139.00	cps	174.69	degF
4	41231.00	cps	249.24	degF
5	52512.00	cps	318.13	degF
6	58527.00	cps	355.17	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Calibration Report

Serial Number: 10001291
Tool Model: 004
Performed: Sun Jun 13 13:33:21 1993

Point #	Reading		Reference
1	-1000000.000	cps	-1000000.000
2	1000000.000	cps	1000000.000
3		cps	
4		cps	
5		cps	
6		cps	
7		cps	
8		cps	
9		cps	
10		cps	

Segmented Cement Bond Log Calibration Report

Serial Number: 2218
Tool Model: 004

Calibration Casing Diameter: 7.000 in
Calibration Depth: 280.135 ft

Master Calibration, performed Mon Apr 25 03:29:31 2011:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.032	0.565	2.000	62.000	112.595	-1.576
5FT	0.013	0.818	2.000	62.000	74.537	1.006
S1	0.028	0.551	0.000	62.000	118.608	-3.298
S2	0.027	0.545	0.000	62.000	119.623	-3.186
S3	0.023	0.518	0.000	62.000	125.189	-2.849
S4	0.030	0.540	0.000	62.000	121.581	-3.598
S5	0.022	0.563	0.000	62.000	114.708	-2.551
S6	0.021	0.584	0.000	62.000	110.067	-2.328
S7	0.023	0.594	0.000	62.000	108.673	-2.520
S8	0.024	0.580	0.000	62.000	111.483	-2.704

Calibration Report

Serial Number: 2218
Tool Model: 004
Performed:

	Reference (degF)	Reading ()
Low:	0.000	0.000
High:	1.000	1.000
	Gain = 1.000	Offset = 0.000

Gamma Ray Calibration Report

Type / Serial: 001 / 217676

SHOP CALIBRATION Sun Apr 24 23:11:13 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	35.6				cps
Calibrator	190.7				cps
		1.6576			GAPI/cps

PRIMARY VERIFICATION Sun Apr 24 23:13:49 2011

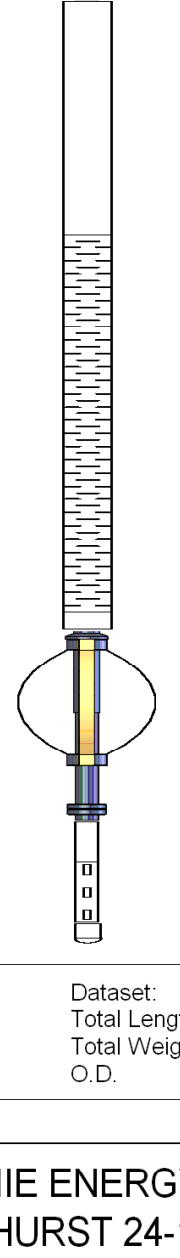
Background	58.1				cps
Calibrator	313.0				cps
Difference				254.9	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			11/16"_Cable_Head 11/16" Cable Head	1.00	0.69	1.00
CCL	21.87					
			TTTCU-001 (217676) Through Tubing Telemetry Cartridge - Ultrawire	6.55	1.69	33.00
GR	19.61					
			AUH-001 (000001) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
			CENT-Probe (PTS_MONO) Probe 2 3/4 Centralizer	2.85	2.75	35.00
WVF3FT	9.83					
WVFS1	9.83					
WVFS2	9.83					
WVFS3	9.83		RBT-004 (2218) Radial Bond Tool (UW 3 1/8)	9.47	3.13	140.00
WVFS4	9.83					
WVFS5	9.83					
WVFS6	9.83					
WVFS7	9.83					
WVFS8	9.83					
CBLTEMP	9.83					
CBLROT	9.83					
WVF5FT	8.83					
TEMP	0.90					
CWH	0.74					
LLMTEN	0.00					
XHUTEMP	0.00		CENT-Probe (PTS_MONO) Probe 2 3/4 Centralizer	2.85	2.75	35.00
XHUCURR	0.00					
XHUVOLT	0.00					
XHUSTAT	0.00		CTF-004 (10001291) Capacitance Temperature Flow	1.54	1.69	5.40
TSTAMP	0.00					
ITEMPX	0.00		BUL-001 (000001) Bullnose	0.30	1.69	1.50
HVOLTX	0.00					

Dataset: hawxhurst.db: field/well/run1/MAIN1
Total Length: 24.96 ft
Total Weight: 253.90 lb
O.D. 3.13 in

Company	LARAMIE ENERGY
Well	HAWXHURST 24-10B
Field	WILD CAT
County	MESA
State	CO

HALLIBURTON

RADIAL CEMENT
BOND LOG
TEMPERATURE