RMWS
ROCKY MOUNTAIN WIRELINE SERVICE

CEMENT BOND LOG
GAMMA RAY \ CCL
TEMPERATURE

Company	BILL BARRETT CORPORATION		
Well	CB - TG - LAND 21A - 20 - 692		
Field	MAMM CREEK		
County	GARFIELD	State	COLORADO
Location:	API #: 05-045-19774		Other Services 3.75" GAUGE RING
	SHL: 0735' FNL & 2551' FEL BHL: 1197' FNL & 1972' FWL		
	SEC 31 TWP 6S RGE 92W		
Permanent Datum	G.L.	Elevation 5530'	Elevation
Log Measured From	K.B.	Ft Above PD 23'	K.B. 5553' D.F. 5552' G.L. 5530'
Drilling Measured From	K.B.		

Date	07 - 08 - 2011		
Run Number	ONE		
Depth Driller	7641'		
Present Depth Driller	7540'		
Depth Logger	7540'		
Bottom Logged Interval	7539'		
Top Log Interval	3850'		
Fluid Level	SURFACE		
Type Fluid	WATER		
Max. Recorded Temp.	216.7° F		
Estimated Cement Top	4600'		
Equipment Number	208		
Location	GRAND JCT.		
Recorded By	HARRIS		
Witnessed By	MR. LAFFERTY		

Borehole Record				Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8.750"	816'	5084'	9.625"	36 #	SURFACE	816'
TWO	7.875"	5084'	7641'	4.5"	11.6#	SURFACE	7641'

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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.

WARRIOR 7.0 SOFTWARE - Comments

NOTE: LOG WAS DEPTH CORRELATED USING WEATHERFORD OPENHOLE DATED 5-15-2011
SHORT JOINTS: 4714' - 4742' AND 6251' - 6282'
MAIN PASS 5" = 100'
TEMP. PASS 2' = 100'
CSG PSI = STATIC

Calibration Report

Database File: C:\Warrior\Data\BBC\21-A\070811_bbc_LAND_21A.db
Dataset Pathname: TEMP/pass1
Dataset Creation: Fri Jul 08 15:59:59 2011

Temperature Calibration Report

Serial Number: 217894
Tool Model: 016
Performed: Fri Oct 24 13:23:59 2008

Point #	Reading		Reference	
1	13298.00	cps	75.97	degF
2	17844.00	cps	104.32	degF
3	29434.00	cps	175.71	degF
4	41028.00	cps	246.70	degF
5	52674.00	cps	317.75	degF
6	58555.00	cps	353.61	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Gamma Ray Calibration Report

Type / Serial: 020 / 217692

SHOP CALIBRATION Wed Apr 06 13:50:00 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		1.1000			GAPI/cps
PRIMARY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	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

Segmented Cement Bond Log Calibration Report

Serial Number: 1123
Tool Model: 004

Calibration Casing Diameter: 4.500 in
Calibration Depth: 208.408 ft

Master Calibration, performed Fri Jul 08 12:24:51 2011:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.004	0.994	1.000	81.196	80.957	0.703
5FT	-0.001	0.995	1.000	81.196	80.500	1.060
S1	0.004	1.013	0.000	100.000	99.111	-0.420
S2	0.004	1.010	0.000	100.000	99.335	-0.358
S3	0.007	0.976	0.000	100.000	103.200	-0.745
S4	0.005	0.988	0.000	100.000	101.729	-0.497
S5	0.006	0.985	0.000	100.000	102.237	-0.656
S6	0.006	0.980	0.000	100.000	102.696	-0.624
S7	0.007	0.965	0.000	100.000	104.470	-0.764
S8	0.007	0.972	0.000	100.000	103.700	-0.753

Calibration Report

Serial Number: 1123
Tool Model: 004
Performed:

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

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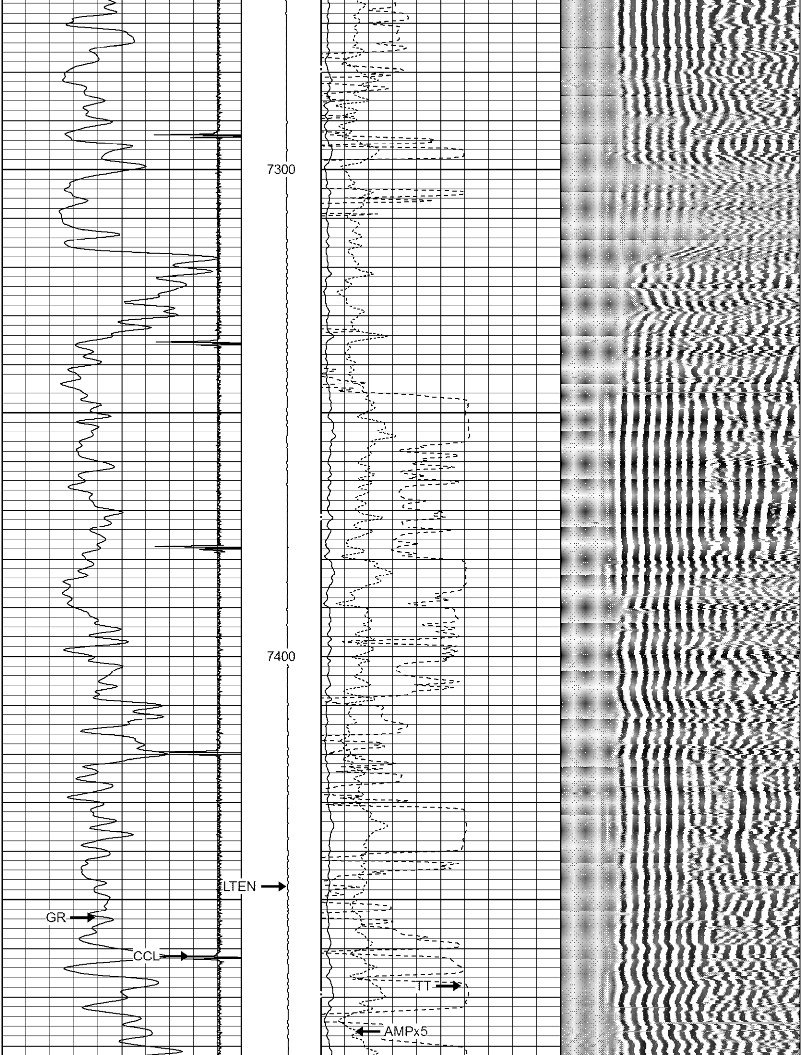
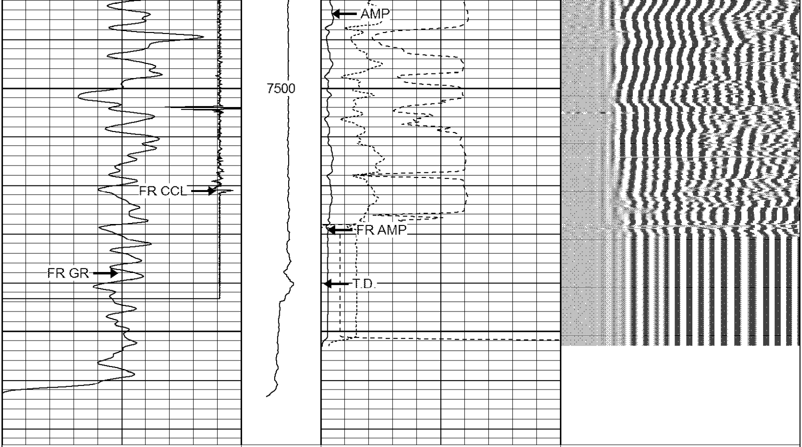
MAIN PASS

Database File: c:\warrior\data\bbc\21-a\070811_bbc_land_21a.db
Dataset Pathname: MAIN/pass1
Presentation Format: rmws_dsc
Dataset Creation: Fri Jul 08 15:56:48 2011
Charted by: Depth in Feet scaled 1:240

14000	Collar Locator	19600		LTEN		0	AMP AMPLITUDE (mV)	20	200	VDL	1200
0	Gamma Ray (GAPI)	150	0	(lb)	3000	0	AMPLITUDE (mV)	100			
						380	TRAVEL TIME (usec)	180			





14000 Collar Locator 19600	LTEN	0 AMP AMPLITUDE (mV) 20	200 VDL 1200
0 Gamma Ray (GAPI) 150	0 (lb)3000	0 AMPLITUDE (mV) 100	
		380 TRAVEL TIME (usec) 180	

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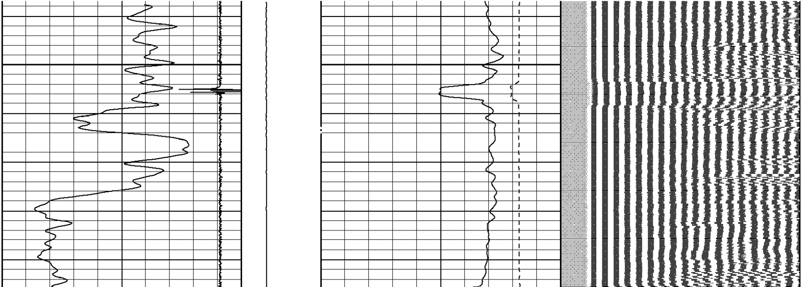
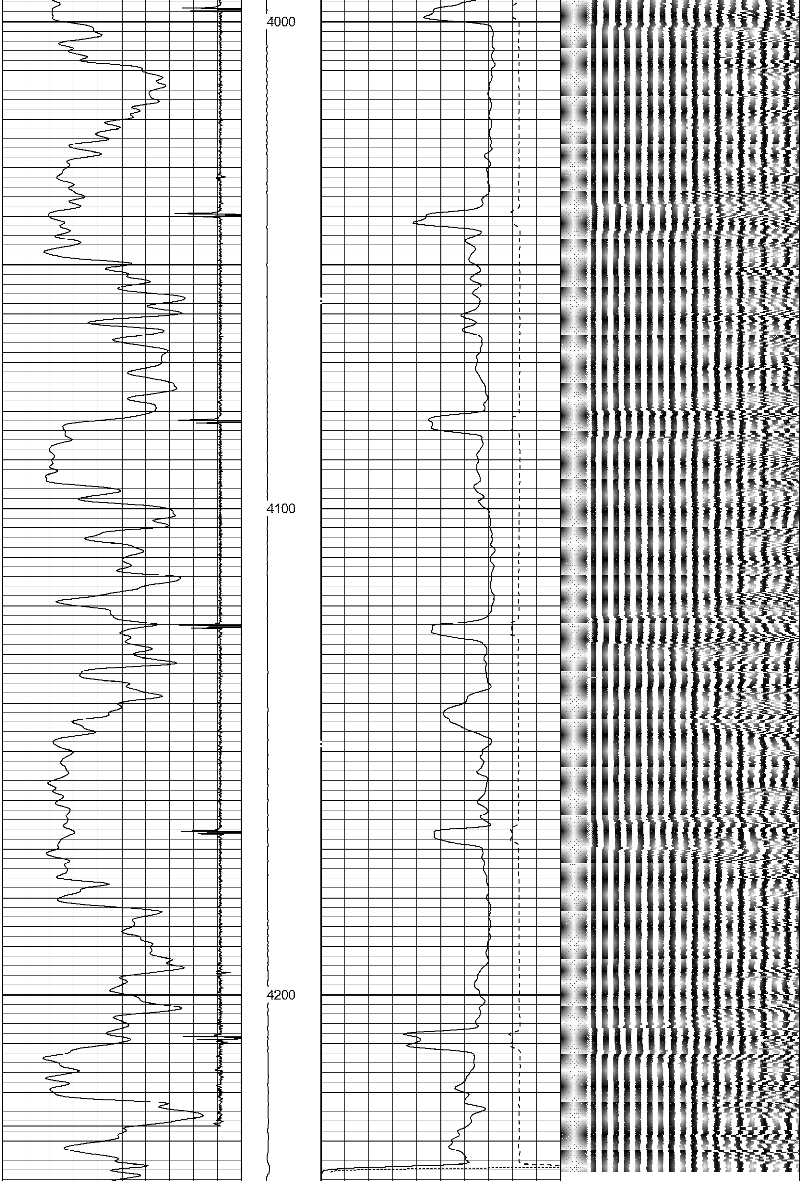
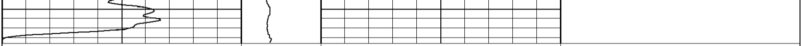
REPEAT PASS

Database File:	c:\warrior\data\bbc\21-a\070811_bbc_land_21a.db
Dataset Pathname:	FREE/pass5
Presentation Format:	rmws_dsc
Dataset Creation:	Fri Jul 08 13:33:36 2011 by Log Std Casedhole 10121
Charted by:	Depth in Feet scaled 1:240

12500 CCL 19700	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR (GAPI) 150	0 (lb)3000	0 AMP (mV) 100	
		380 TT (usec) 180	







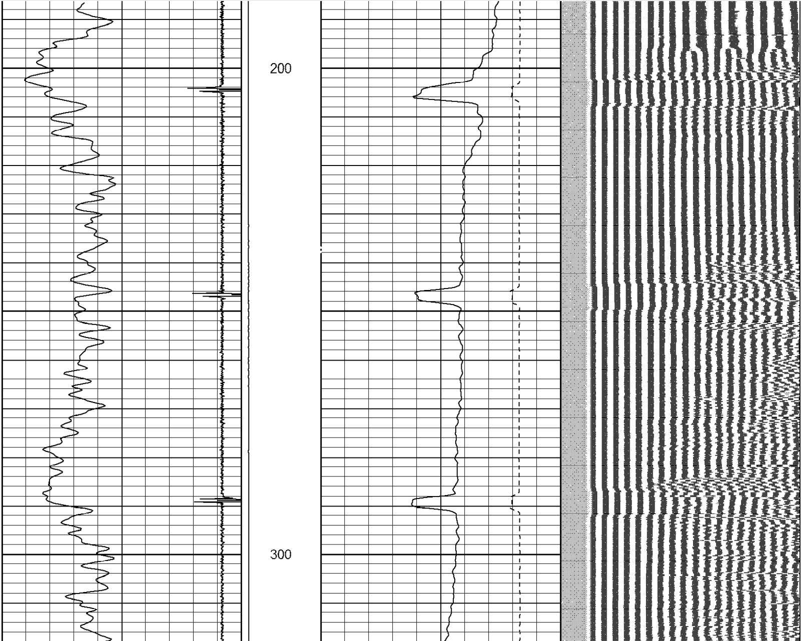
12500 CCL 19700	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR (GAPI) 150	0 (lb)3000	0 AMP (mV) 100	
		380 TT (usec) 180	

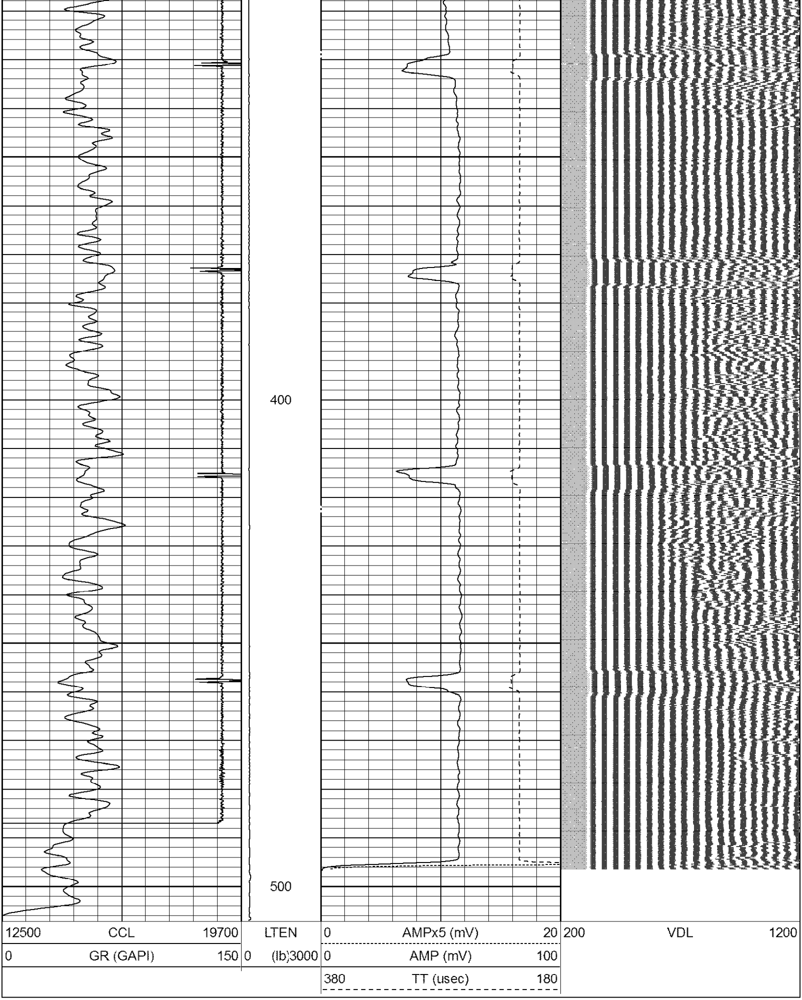
ROCKY MOUNTAIN WIRELINE SERVICE

FREE PIPE PASS

Database File: c:\warrior\data\bbc\21-a\070811_bbc_land_21a.db
Dataset Pathname: FREE/pass1
Presentation Format: rmws_dsc
Dataset Creation: Fri Jul 08 12:27:05 2011 by Log Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

12500 CCL 19700	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR (GAPI) 150	0 (lb)3000	0 AMP (mV) 100	
		380 TT (usec) 180	



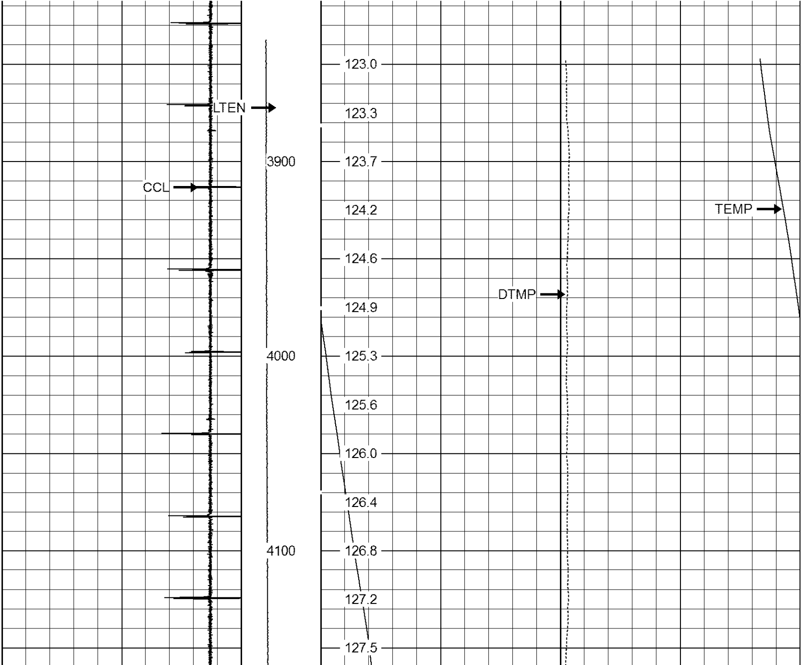


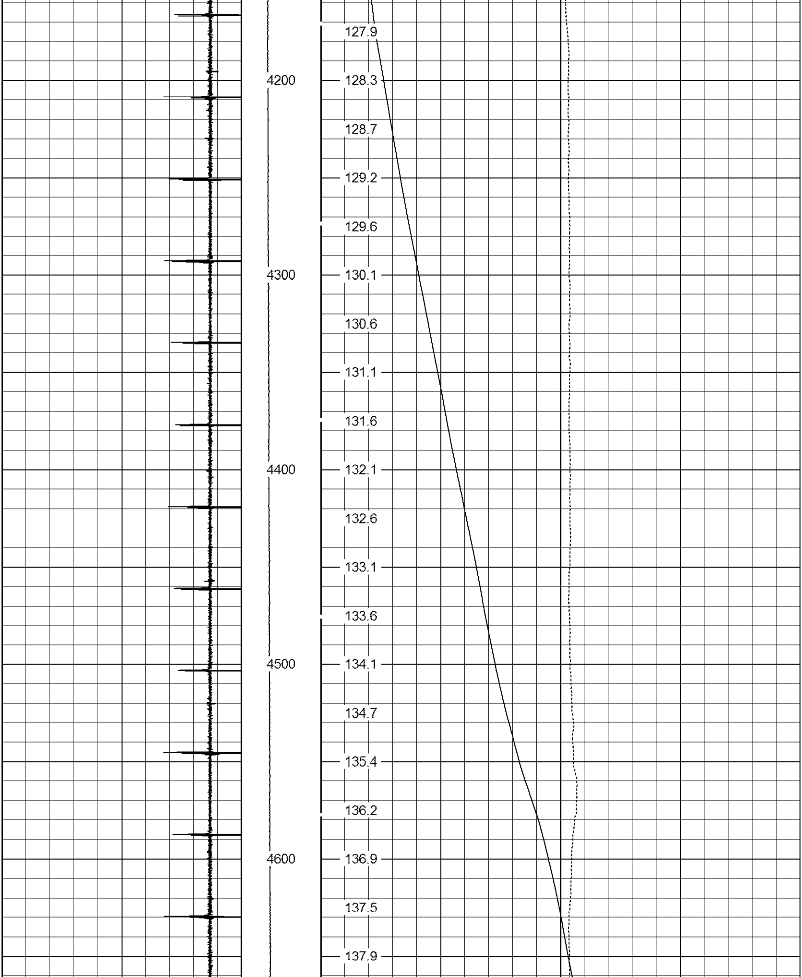
ROCKY MOUNTAIN WIRELINE SERVICE

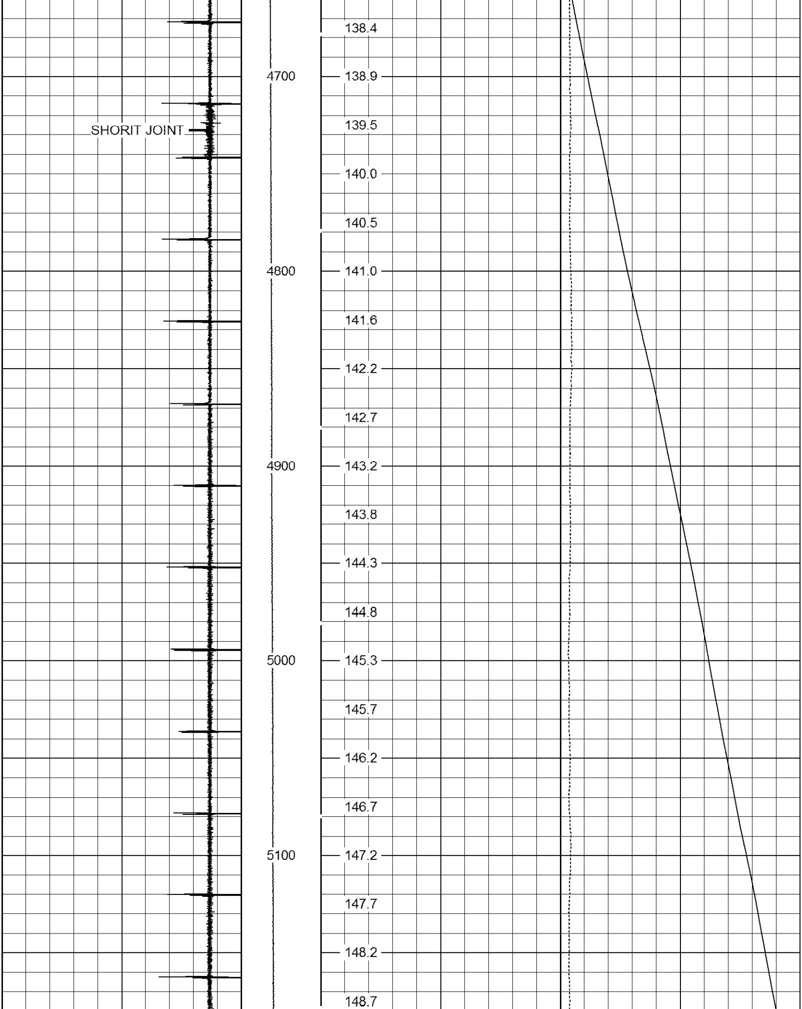
TEMP PASS

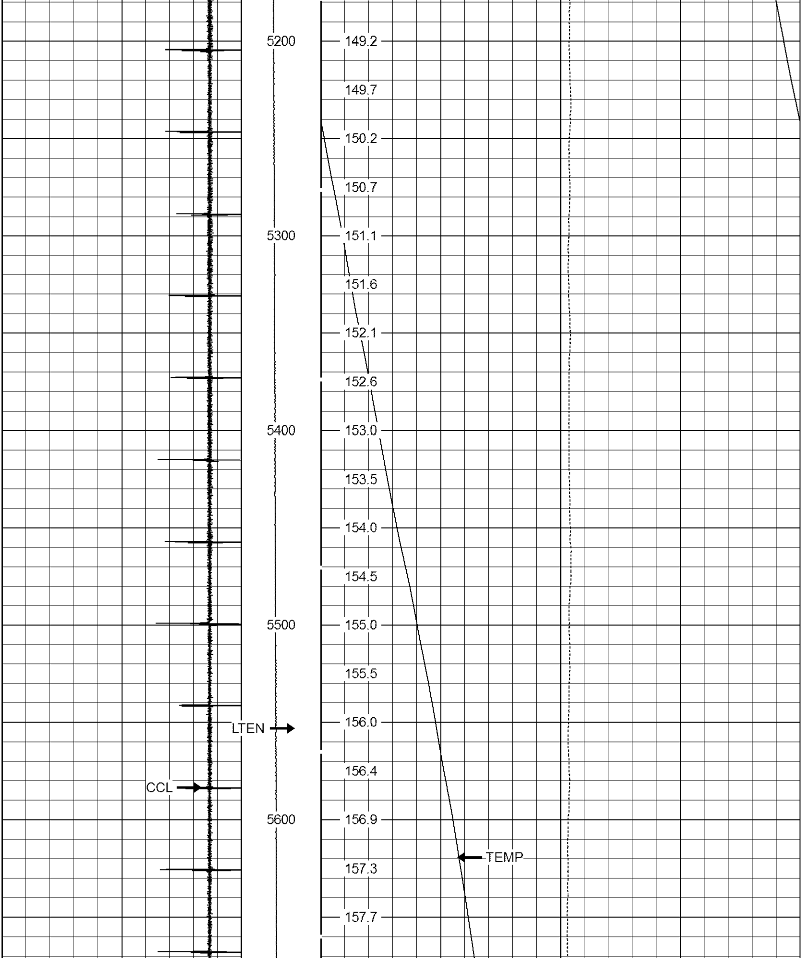
Database File:	c:\warrior\data\bbc\21-a\070811_bbc_land_21a.db
Dataset Pathname:	TEMP/pass1
Presentation Format:	rmws_tem
Dataset Creation:	Fri Jul 08 15:59:59 2011
Charted by:	Depth in Feet scaled 1:600

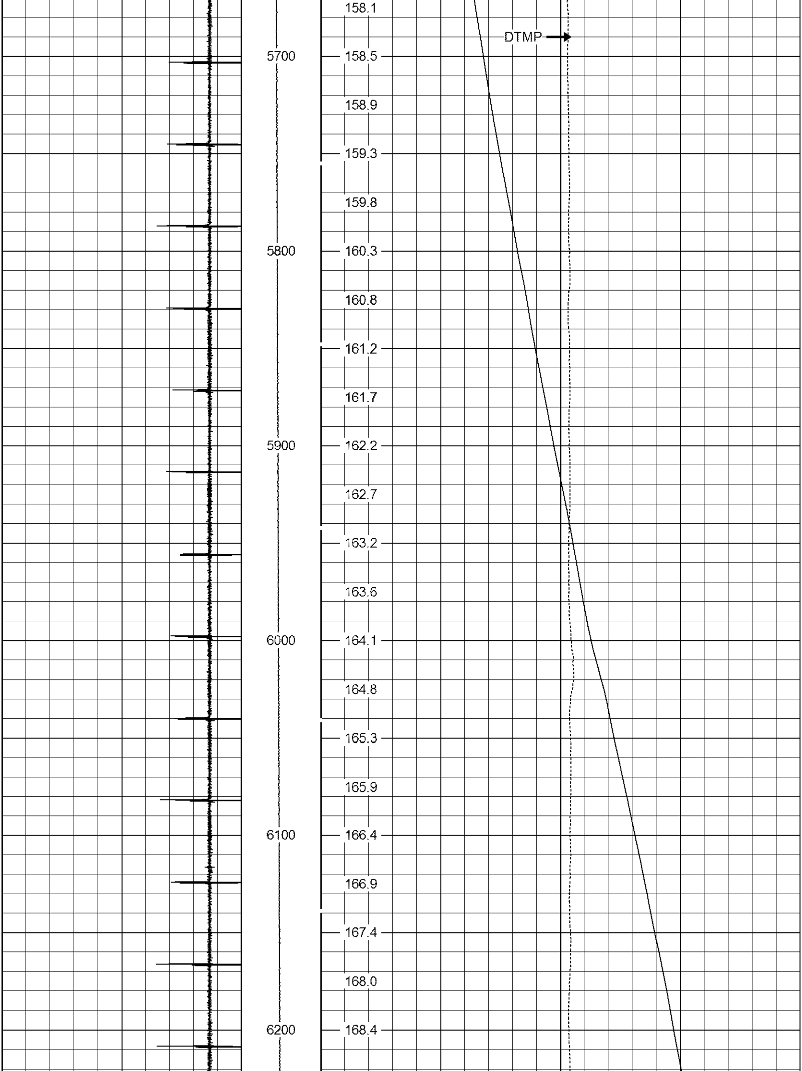
13000	CCL	19950	LTEN	50		TEMP (degF)	75
			0 (lb) 3000	-0.5		DTMP (degF)	0.5
				TEMP (degF)			

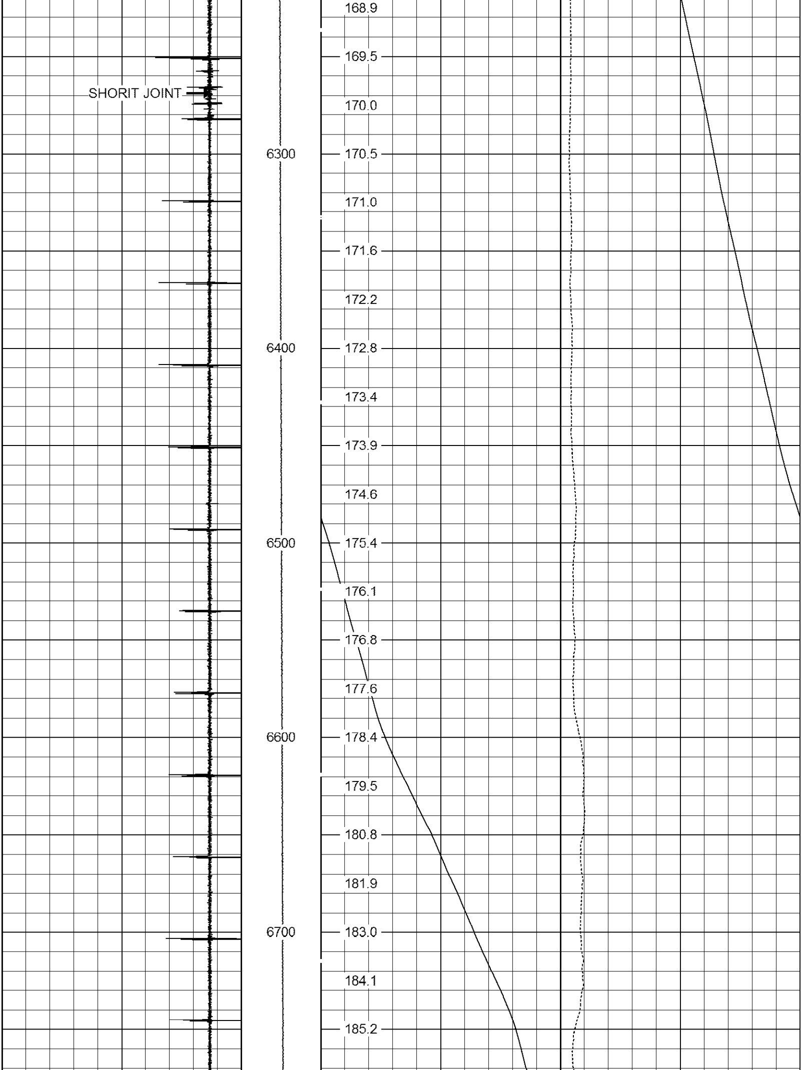


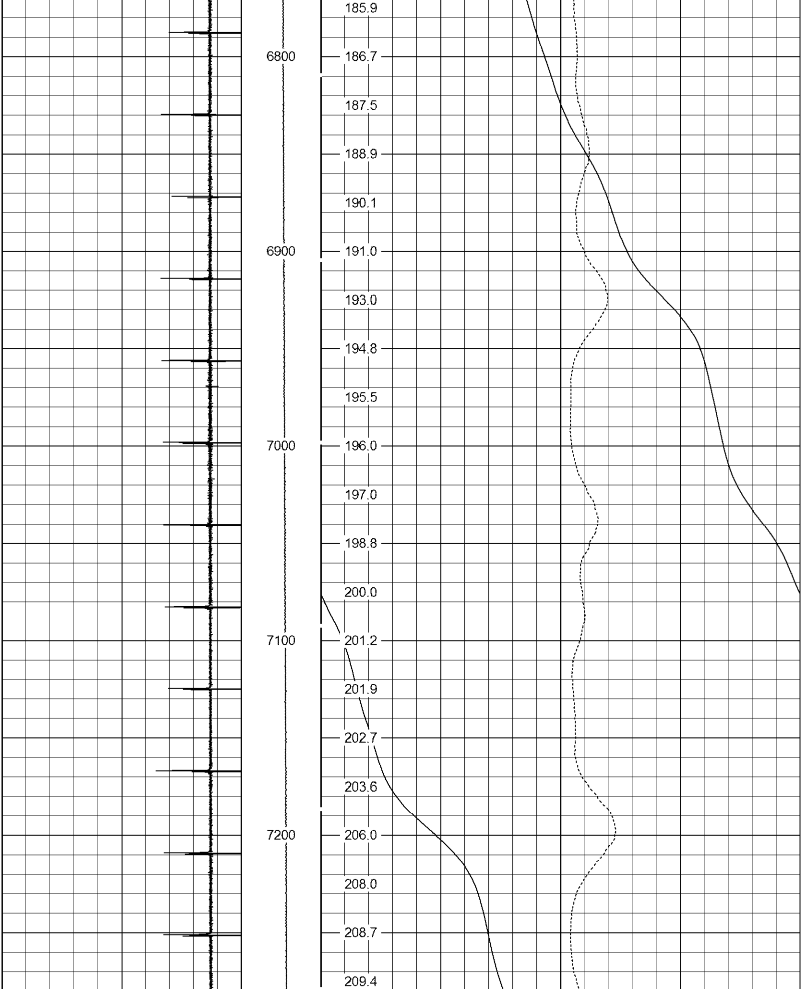


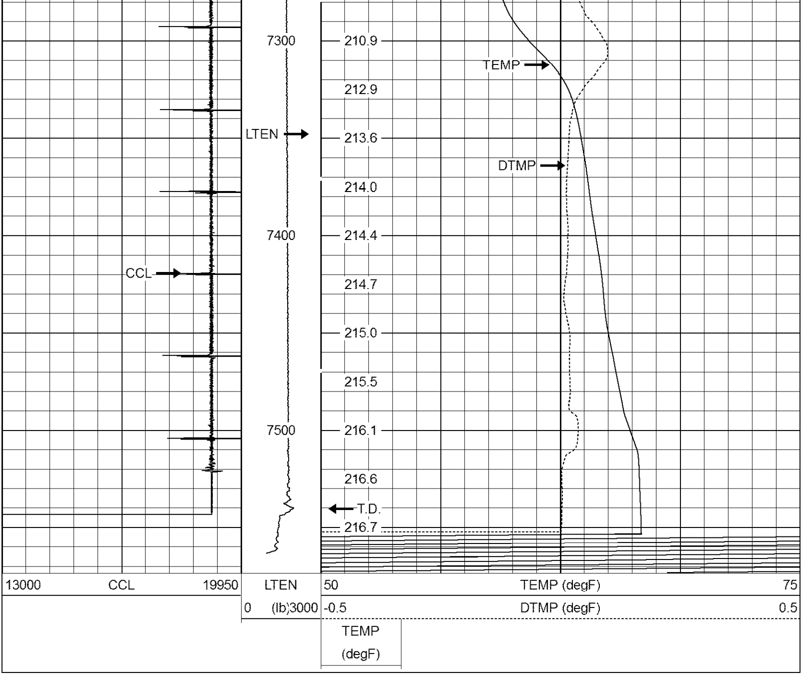


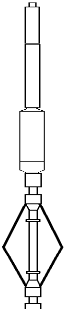




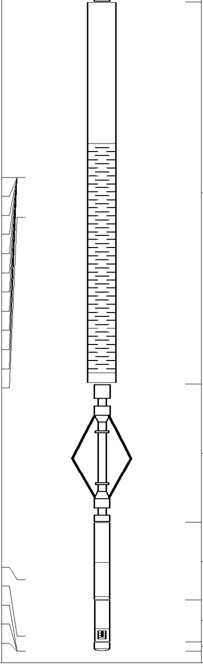






Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-002 (216415) Crossover Ultrawire Toolbus To Ultralink	1.58	1.69	6.50
CCL	20.01		CCL-028 (1037) CCL UW 3 1/8" SONDEX	1.61	3.13	36.00
			SNDX 6 Arm PRC 022 W/ GO ADAPTORS	3.42	2.38	22.00

WVF3FT	11.74
WVFS1	11.74
WVFS2	11.74
WVFS3	11.74
WVFS4	11.74
WVFS5	11.74
WVFS6	11.74
WVFS7	11.74
WVFS8	11.74
CBLTEMP	11.74
CBLROT	11.74
WVF5FT	10.74
GR	1.76
TEMP	0.37
TSTAMP	0.00
ITEMPX	0.00
HVOLTX	0.00



RBT-004 (1123) Radial Bond Tool (UW 3 1/8)	9.47	3.13	140.00
SNDX 6 Arm PRC 022 W/ GO ADAPTORS	3.42	2.38	22.00
PGR-020 (217692) Production Gamma Ray	1.93	1.69	9.50
PRT-016 (217894) Platinum Resistance Thermometer	1.04	1.69	6.00
BUL-006 (212965) Bullnose Terminator	0.22	1.69	1.20

Dataset:	070811_bbc_LAND_21A.db: field/well/TEMP/pass1
Total Length:	23.73 ft
Total Weight:	245.20 lb
O.D.	3.13 in

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Company	BILL BARRETT CORPORATION
Well	CB - TG - LAND 21A - 20 - 692
Field	MAMM CREEK
County	GARFIELD
State	COLORADO