RMWS
ROCKY MOUNTAIN WIRELINE SERVICE

CEMENT BOND LOG
GAMMA RAY / CCL

Company	BLACK HILLS PLATEAU PRODUCTION, LLC		
Well	HANCOCK GULCH # 1		
Field	WILDCAT		
County	MESA	State	COLORADO
Location:	API # :		Other Services
	853' FNL & 859' FEL		
SEC 13	TWP 8S	RGE 99W	

Permanent Datum	G.L.	Elevation 5790'	Elevation K.B. 5800' D.F. G.L. 5790'
Log Measured From	K.B.	Ft Above PD 10'	
Drilling Measured From	K.B.		

Date	10 - 01 - 2009
Run Number	ONE
Depth Driller	8320'
Present Depth Driller	8293'
Depth Logger	3442'
Bottom Logged Interval	3441'
Top Log Interval	SURFACE
Fluid Level	220'
Type Fluid	WATER
Max. Recorded Temp.	208 DegF
Estimated Cement Top	
Equipment Number	208
Location	GRAND JCT.
Recorded By	RAFF, INGRAM, ESCANERO
Witnessed By	MR. CLARK

Borehole Record			Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	10.75"	SURFACE	321'	7"	23# & 26#	SURFACE	3885'
TWO	8.75"	SURFACE	3900'	4.5"	11.6#	3885'	8320'
THREE	6.125"	SURFACE	3885'				

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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 : THIS LOG WAS CORRELATED USING RMWS CEMENT BOND LOG DATED09 - 18 - 2009

Calibration Report

Database File: 100109_blackhills_hancookgulch_#1_rcbl.db
Dataset Pathname: pass9.2
Dataset Creation: Thu Oct 01 15:44:29 2009 by Calc Std Casedhole 08121

Gamma Ray Calibration Report

Serial Number: 217693
Tool Model: 020
Performed: Sun Jun 13 13:33:21 1993

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 1123
Tool Model: 004

Calibration Casing Diameter: 7.000 in
Calibration Depth: 639.650 ft

Master Calibration, performed Thu Oct 01 08:48:51 2009:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.000	0.623	0.000	62.165	75.712	0.000
5FT	0.000	0.869	0.000	62.165	71.569	0.000
S1	0.000	0.645	0.000	100.000	155.125	0.000
S2	0.000	0.609	0.000	100.000	164.314	0.000
S3	0.000	0.552	0.000	100.000	181.231	0.000
S4	0.000	0.564	0.000	100.000	177.263	0.000
S5	0.000	0.611	0.000	100.000	163.765	0.000
S6	0.000	0.660	0.000	100.000	151.583	0.000
S7	0.000	0.680	0.000	100.000	147.100	0.000
S8	0.000	0.675	0.000	100.000	148.226	0.000

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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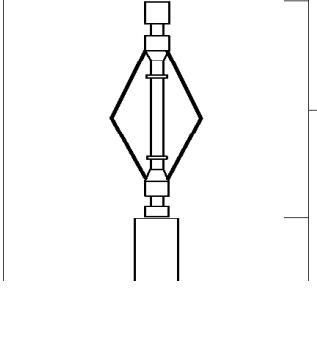
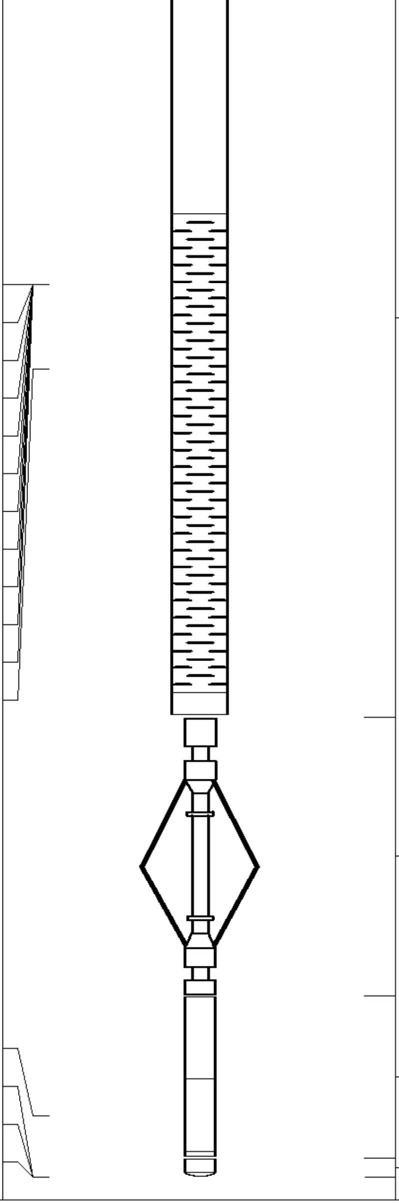
RADAIL BOND TOOL

Database File: 100109_blackhills_hancookgulch_#1_rcbl.db
Dataset Pathname: pass9.2
Presentation Format: rmwsrbt
Dataset Creation: Thu Oct 01 15:44:29 2009 by Calc Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-002 (217219) Crossover Ultrawire Toolbus To Ultralink	1.58	1.69	6.50
CCL	18.79		CCL-015 (216529) Casing Collar Locator	1.54	1.69	9.00
			PRC 4 Arm PRC 062 Sondexw/Go adaptors	3.32	2.75	34.50

WVF3FT	10.60
WVFS1	10.60
WVFS2	10.60
WVFS3	10.60
WVFS4	10.60
WVFS5	10.60
WVFS6	10.60
WVFS7	10.60
WVFS8	10.60
CBLTEMP	10.60
CBLROT	10.60
WVF5FT	9.60
GR	0.72
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
PRC 4 Arm PRC 062 Sondexw/Go adaptors	3.32	2.75	34.50
PGR-020 (217693) Production Gamma Ray	1.93	1.69	9.50
BUL-006 (212965) Bullnose Terminator	0.22	1.69	1.20

Dataset: 100109_blackhills_hancookgulch_#1_rcbl.db: field/well/run1/pass9.2
Total Length: 22.41 ft
Total Weight: 237.20 lb
O.D. 3.13 in