HALLIBURTON

RESERVOIR MONITOR TOOL i GR-CCL

Company	URSA OPERATING COMPANY
Well	Monument Ridge B 43C-08-07-95
Field	Parachute
County	Garfield State CO

Company URSA OPERATING COMPANY
Well Monument Ridge B 43C-08-07-95
Field Parachute
County Garfield State CO

API No.: 05-045-229140000 Serv #: 903068326
Location: SHL: 995' FSL & 166' FEL

Other Services
JB/CBL

Sec: 8 Twp: 7S Rge: 95 W

Permanent Datum	Ground Level	Elevation	5701.8'	Elevation
Log Measured From	KB , 17 Ft. above perm. datum			K.B. 5718.8'
Drilling Measured From	KB			D.F. 5718.8'
				G.L. 5701.8'

Date @ Time Logged	21-Jan-2016	Type Fluid in Hole	Water
Run No.	One	Density of Fluid	8.4 PPG
Depth - Driller	7203'	Fluid Level	Full
Depth - Logger	7004'	Cement Top Est. Logged	n/a
Bottom - Logged Interval	6988'	Equipment / Location	RS / 11808537
Top - Log Interval	3250'	Recorded by	Pedro Gonzalez Baqueiro
Max. Recorded Temp.	n/a	Witnessed by	Oscar Molinar

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	24	surface	60'	16"	75#	surface	60'
Two	12.25"	surface	1700'	8.625"	32#	surface	1700'
Three	7.875"	surface	7080.8'	4.5"	11.6#	surface	7080.8'

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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 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

HES Reservoir Monitor Log First Run in to the hole
Log correlated by KB 17'
Log Interval Percustomer Request
Log Ran in combo with CBL-M tool

THANK YOU FOR CHOOSING HALLIBURTON ENERGY ROCKSPRING WY

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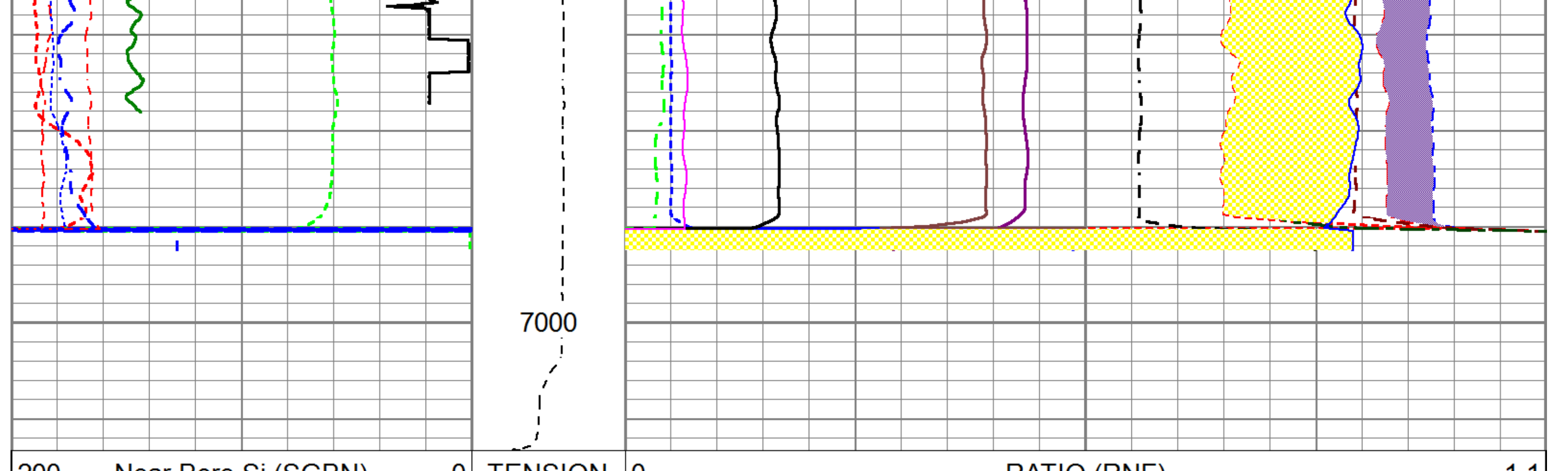
MAIN PASS

5"=100'

Database File	c:\users\hb64775\desktop\monument ridge 43c-08-07-95\monument ridge 43c-08-07-95.db
Dataset Pathname	MAIN
Presentation Format	RMTE_M~1
Dataset Creation	Thu Jan 21 00:01:27 2016
Charted by	Depth in Feet scaled 1:240

200 Near Bore Si (SGBN) 0	TENSION	0 RATIO (RNF) 1.1					
0 OAI 100	0 (lb 2300	60 SGIN 0					
10 FAR FIT ERR (SGFF) 40		0 RIN 9	60000 Near Counts (NCAP) 0				
0 GR (GAPI) 150		0 RICF 6	60000 Far Counts (FCAP) 0				
0 NEAR FIT ERR (SGFN) 100		0 H YIELD (YH2) 1	100000 FAR INTEL CT (FSIN) 0				
-4500 CCL 450		0 H YIELD (YH1) 1	100000 NEAR INTEL CT (NSIN) 0				
0 IN FIT ERR (CFTR1) NEAR 1		0.9 PHIT ( ) -0.1	ET INL NEAR (NNI				
0 IN FIT ERR (CFTR2) FAR 1		INOX2 -1500 1500	50000 -1000				



200	Near Bore Si (SGBN)	0	TENSION	0	RATIO (RNF)				1.1
0	OAI	100	0 (lb2300	60	SGIN				0
10	FAR FIT ERR (SGFF)	40		0	RIN	9	60000	Near Counts (NCAP)	0
0	GR (GAPI)	150		0	RICF	6	60000	Far Counts (FCAP)	0
0	NEAR FIT ERR (SGFN)	100		0	H YIELD (YH2)	1	100000	FAR INTEL CT (FSIN)	0
-4500	CCL	450		0	H YIELD (YH1)	1	10000(	NEAR INTEL CT (NSIN)	0
0	IN FIT ERR (CFTR1) NEAR	1		0.9	PHIT ( )	-0.1	ET INL NEAR (NNI		
0	IN FIT ERR CFTR2) FAR	1			INOX2		50000		-1000
				-1500		1500			

HALLIBURTON

MAIN PASS

5"=100'

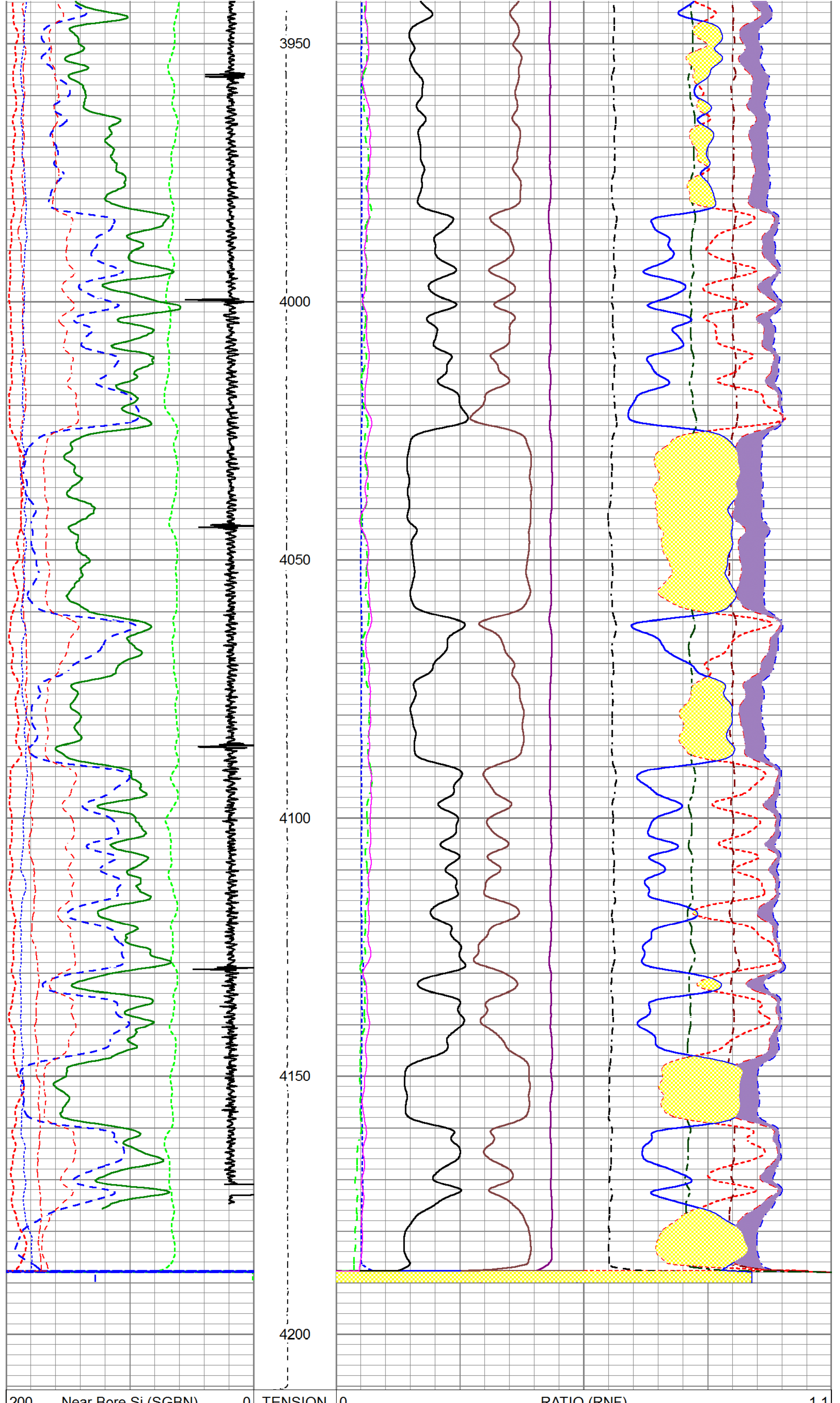
HALLIBURTON

REPEAT PASS

5"=100'

Database File c:\users\hb64775\desktop\monument ridge 43c-08-07-95\monument ridge 43c-08-07-95.db
Dataset Pathname REPEAT
Presentation Format RMTE_M~1
Dataset Creation Wed Jan 20 23:31:49 2016
Charted by Depth in Feet scaled 1:240

200	Near Bore Si (SGBN)	0	TENSION	0	RATIO (RNF)				1.1
0	OAI	100	0 (lb2300	60	SGIN				0
10	FAR FIT ERR (SGFF)	40		0	RIN	9	60000	Near Counts (NCAP)	0
0	GR (GAPI)	150		0	RICF	6	60000	Far Counts (FCAP)	0
0	NEAR FIT ERR (SGFN)	100		0	H YIELD (YH2)	1	100000	FAR INTEL CT (FSIN)	0
-4500	CCL	450		0	H YIELD (YH1)	1	10000(	NEAR INTEL CT (NSIN)	0
0	IN FIT ERR (CFTR1) NEAR	1		0.9	PHIT ( )	-0.1	ET INL NEAR (NNI		
0	IN FIT ERR CFTR2) FAR	1			INOX2		50000		-1000
				-1500		1500			



200	Near Bore Si (SGBN)	0	TENSION	0	RATIO (RNF)				1.1
0	OAI	100	0 (lb2300	60	SGIN				0
10	FAR FIT ERR (SGFF)	40		0	RIN	9	60000	Near Counts (NCAP)	0
0	GR (GAPI)	150		0	RICF	6	60000	Far Counts (FCAP)	0
0	NEAR FIT ERR (SGFN)	100		0	H YIELD (YH2)	1	100000	FAR INTEL CT (FSIN)	0
-4500	CCL	450		0	H YIELD (YH1)	1	10000(	NEAR INTEL CT (NSIN)	0
0	IN FIT ERR (CFTR1) NEAR	1		0.9	PHIT ( )	-0.1	ET INL NEAR (NNI		
0	IN FIT ERR CFTR2) FAR	1			INOX2		50000		-1000
				-1500		1500			

HALLIBURTON

REPEAT PASS

5"=100'

Calibration Report

Database File C:\Users\hb64775\Desktop\monument ridge 43c-08-07-95\monument ridge 43c-08-07-95.db
Dataset Pathname MAIN
Dataset Creation Thu Jan 21 00:01:27 2016

Cement Bond Log Shop Calibration Report

Serial-Model: 11836468-A
Calibration Performed: Wed Jan 20 23:21:11 2016

Free Pipe Calibration

	Measured	Units
TT	245.3	usec
Amplitude	593.7	mV
Log Base Line	20.1	mV

Calibration References and Gain

Name	Value	Units
Pipe O.D.	4.500	in
Pipe Weight	11.6	lb/ft
Pipe Ref. Amp.	81.2	mV
Amp. Gain	0.138	

Reservoir Monitor Tool I Calibration Report

Serial-Model: 12270693-A
Shop Calibration Performed: Sun Jan 10 18:03:51 2016

Carbon/Oxygen Mode

Stabilization

Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	92.00	80.00	12.00	+/-15.00	V
ITCR2	3435	3250	185	+/-250	cps

Near Detector

	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0268	5.37	<6.00
Fe	207	206 +/-2	0.0948	-----	-----
NGAIN = 0.996	NZOFF = 0.3				

Far Detector

	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0341	6.02	<6.50
Fe	209	208 +/-2	0.0916	-----	-----
FGAIN = 0.991	FZOFF = 0.6				

Flask Temperature 55.3 degF

Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.45	0.45	-0.00	+/-0.02	
LIRI2	1.37	1.36	0.01	+/-0.05	
TCCR2	5506	5000	506	+/-1000	cps
ITCR2	3432	3200	232	+/-250	cps

Sigma Mode

Stabilization

Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	91.00	80.00	11.00	+/-15.00	V
FCAP	10099	10000	99	+/-500	cps

Horizontal Water Tank

Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	1.01	0.95	0.06		
N/F Inel Norm	0.65	0.61	0.04		
RNF	0.99	1.07	-0.08	+/-0.12	
RINC	1.54	1.64	-0.10	+/-0.18	
SGFN	24.11	24.00	0.11	+/-0.50	cu
SGFF	22.94	22.85	0.09	+/-0.50	cu
FSIN	23744	24000	-256	+/-2000	cps
FCAP	10025	10000	25	+/-1000	cps
NFTR	0.81			<5.00	
FFTR	0.89			<5.00	
NBKG	214			<500	cps
FBKG	108			<500	cps
RTN	0.40	0.40	-0.00	+/-0.10	usec
RTF	0.41	0.40	0.01	+/-0.10	usec

Calibration Software Modules

HRMTI Module	2015.5.4.0
RMTI Module	2015.5.15.1

Log Data Acquisition Software Modules

HRMTI Module	2015.5.4.0
RMTI Module	2015.5.15.1

Gamma Ray Calibration Report

Type / Serial: 002 / 11159411

SHOP CALIBRATION Tue Dec 15 21:01:01 2015

	Counts/Sec.	Gain	Offset	Jig	Units
Background	28.7				cps
Calibrator	323.0				cps
		1.3864			GAPI/cps

PRIMARY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	40.3				cps
Calibrator	454.6				cps
Difference				414.4	GAPI

BEFORE SURVEY VERIFICATION

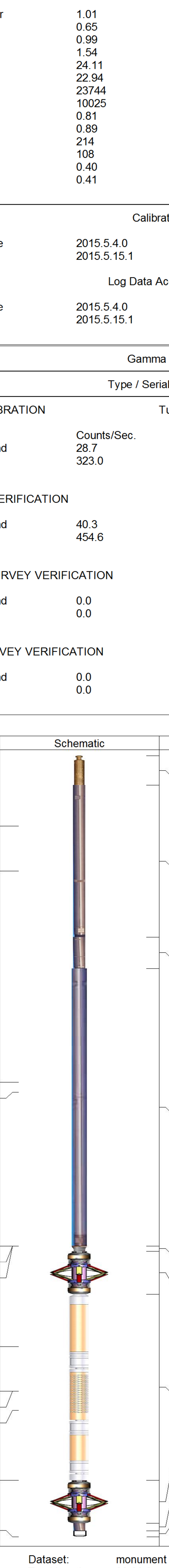
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)
CCL	35.82
GR	33.56
RmtTFGT	22.91
RmtTNGT	22.41
RmtFP5V	14.66
RmtNFwvMcsPl	14.66
RmtCommFWa	14.66
Temp	9.57
TT3FT	7.32
AMP3FT	7.32
WVF5FT	6.36
WVF3FT	2.84
LLMTEN	0.00

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb)
STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
TTTCU-002 (11159411) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	30.00
XHU-003 (11983708) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RMTI-A (12270693) Halliburton RMTI Tool	14.00	2.13	77.00
X-OVER-GoxSondex Go Box x Sondex Pin CrossOver	0.27	1.69	1.00
CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
HCBLM-A (11836468) Halliburton HCBLM Tool	9.38	2.75	116.00
CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
AUH-001 (11072111) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
BUL-001 (000001) Bullnose	0.30	1.69	1.50

Dataset: monument ridge 43c-08-07-95.db: field/well/run1/MAIN
Total length: 39.39 ft
Total weight: 286.50 lb
O.D.: 3.13 in

Company	URSA OPERATING COMPANY
Well	Monument Ridge B 43C-08-07-95
Field	Parachute
County	Garfield
State	CO

HALLIBURTON

RESERVOIR MONITOR LOG
GR-CCL