HALLIBURTON

CEMENT BOND LOG

SCALE: 5"=100'

Company	CARRIZO OIL & GAS INC
Well	BRINGELSON 10-20-9-58
Field	WILDCAT
County	WELD
State	CO

Company CARRIZO OIL & GAS INC
Well BRINGELSON 10-20-9-58
Field WILDCAT
County WELD State CO

API No.: 05-123-38613-00 Serv #: 901270638
Location: LAT:40.734720 LONG:-103.895620
SHL :1992' FSL & 558' FWL
BHL: 2100' FSL 600' FEL

Other Services
NONE

Sec: 20 Twp:9N Rge: 58W

Permanent Datum	GL	Elevation	4928
Log Measured From	KB , 17 Ft. above perm. datum		
Drilling Measured From	KB		

Elevation
K.B. 4945
D.F. 4944
G.L. 4928

Date @ Time Logged	17-APR-2014 @ 13:00	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.33
Depth - Driller	10280	Fluid Level	SURFACE
Depth - Logger	5888	Cement Top Est. Logged	450
Bottom - Logged Interval	5875	Equipment / Location	11703208 / BRIGHTON
Top - Log Interval	52	Recorded by	M. WOODALL
Max. Recorded Temp.	200	Witnessed by	MR. JEFF SCHNEIDER

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	N/A			
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record			Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8.75	0	6059	7	23.0	0	6059
LINER	6.125	5305	10280	4.5	11.60	5308	10280

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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

PRIMARY DEPTH REFERENCE (CORRELATED TO LINER TOP)

BLANKET VALUE : 241 GAPI
ESTIMATED TOP OF CEMENT @ 450'
TOP OF LINER @ 5359'

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY: J. SAAD, M. THEIS, B. DUNKEL

HALLIBURTON

MAIN PASS UNDER 1000 PSI

SCALE 5"=100'

Database File:	carrizo_bringelson_ranch_10_20_9_58.db
Dataset Pathname:	pass4
Presentation Format:	2katcbl
Dataset Creation:	Thu Apr 17 13:12:29 2014 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

9	Collar Locator	-1
0	Gamma Ray (GAPI)	150
380	Travel Time (usec)	280
0	TEMP (degF)	250

0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100

200	MSG	1200

9	Collar Locator	-1
0	Gamma Ray (GAPI)	150
380	Travel Time (usec)	280
0	TEMP (degF)	250

0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100

200	MSG	1200

HALLIBURTON

MAIN PASS UNDER 1000 PSI

SCALE 5"=100'

HALLIBURTON

REPEAT PASS UNDER 1000 PSI

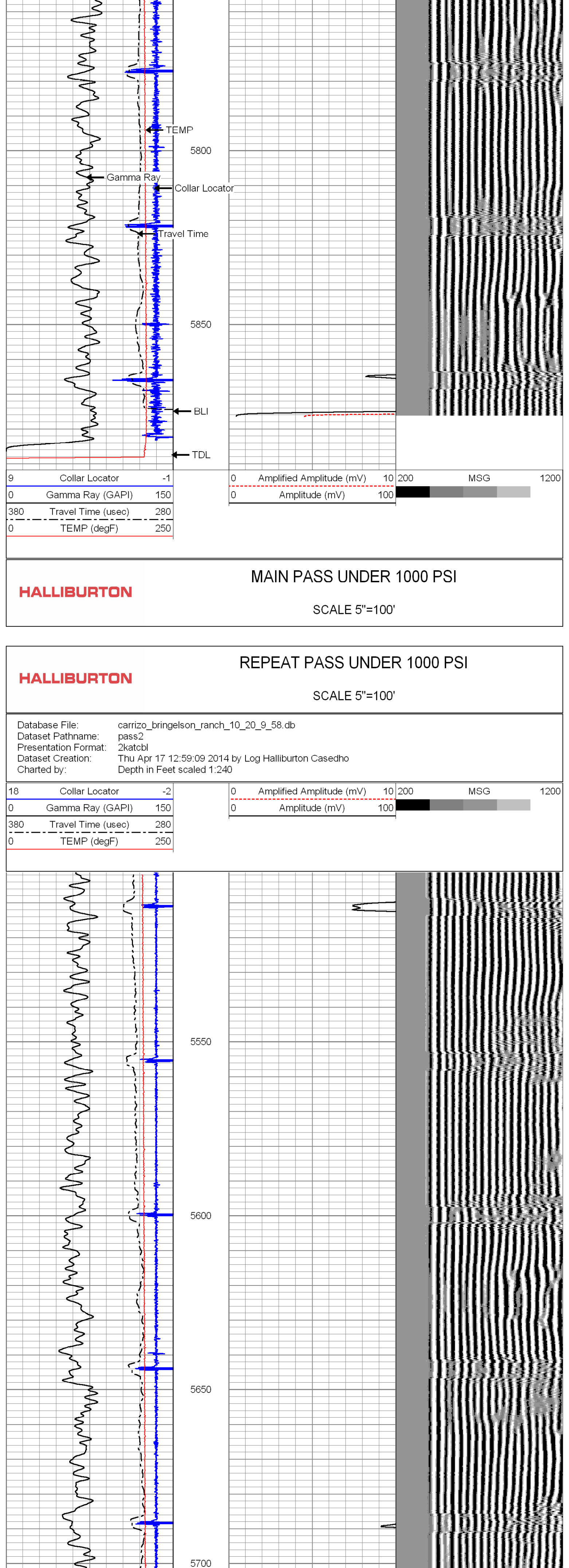
SCALE 5"=100'

Database File:	carrizo_bringelson_ranch_10_20_9_58.db
Dataset Pathname:	pass2
Presentation Format:	2katcbl
Dataset Creation:	Thu Apr 17 12:59:09 2014 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

18	Collar Locator	-2
0	Gamma Ray (GAPI)	150
380	Travel Time (usec)	280
0	TEMP (degF)	250

0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100

200	MSG	1200



18	Collar Locator	-2
0	Gamma Ray (GAPI)	150
380	Travel Time (usec)	280
0	TEMP (degF)	250

0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100

200	MSG	1200

HALLIBURTON

REPEAT PASS UNDER 1000 PSI

SCALE 5"=100'

Calibration Report

Database File:	carrizo_bringelson_ranch_8_20_9_58.db
Dataset Pathname:	pass10
Dataset Creation:	Thu Apr 17 10:21:39 2014 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number:	Tit1.3_02
Tool Model:	Titan
Performed:	Fri Jan 04 07:55:24 2002

	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps
High Reference:	1.00	degF	1.00	cps

Gain:	0.10
Offset:	0.00
Delta Spacing	2

Gamma Ray Calibration Report

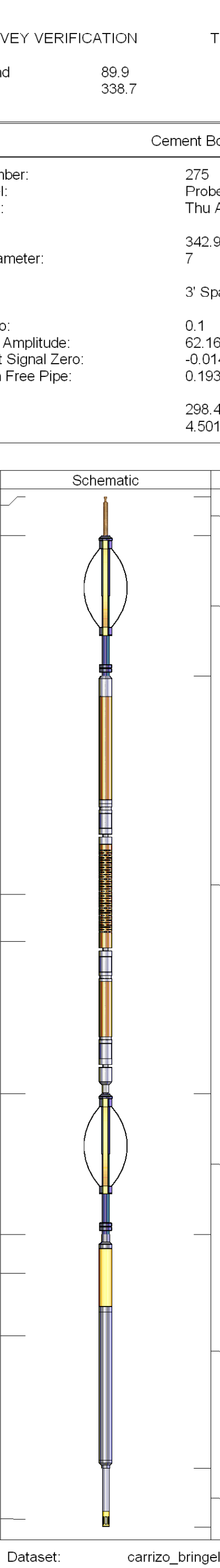
Type / Serial: Probe / 275

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Sun Apr 14 16:21:42 2013				
Background	119.3				cps
Calibrator	459.2				cps
		0.7090			GAPI/cps
PRIMARY VERIFICATION	Sun Apr 14 16:26:20 2013				
Background	81.6				cps
Calibrator	324.0				cps
Difference				242.5	GAPI
BEFORE SURVEY VERIFICATION	Thu Apr 17 07:31:29 2014				
Background	87.7				cps
Calibrator	333.4				cps
Difference				245.7	GAPI
AFTER SURVEY VERIFICATION	Thu Apr 17 10:21:32 2014				
Background	89.9				cps
Calibrator	338.7				cps
Difference				248.8	GAPI

Cement Bond Log Calibration Report

Serial Number:	275	
Tool Model:	Probe	
Performed:	Thu Apr 17 07:53:43 2014	
Depth:	342.982	ft
Casing Diameter:	7	in

	3' Spacing	5' Spacing	
Signal Zero:	0.1	0.1	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	-0.0147461	-0.0143555	V
Reading in Free Pipe:	0.193188	0.182837	V
Gain:	298.484	314.744	
Offset:	4.50147	4.6183	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
STNDCH	22.00		1_CABLEHEAD 1"OD CABLE HEAD	0.83	1.00	3.00
CENT	21.17		CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	3.00	2.75	35.00
WVF3	13.50		CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
WVF5	12.50					
CENT	9.25		CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	3.00	2.75	35.00
GR	6.25					
CCL	5.42					
GR	4.08		GR-Probe (275) Probe 2.75" 4 Channel Pulse	5.00	2.75	30.00
TEMP	0.17		TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	1.25	1.39	10.00

Dataset:	carrizo_bringelson_ranch_10_20_9_58.db: field/well/run1/pass4
Total Length:	22.00 ft
Total Weight:	173.00 lb
O.D.	2.75 in

Company	CARRIZO OIL & GAS INC		
Well	BRINGELSON 10-20-9-58		
Field	WILDCAT		
County	WELD	State	CO

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CEMENT BOND LOG

SCALE: 5"=100'