RELIANCE
OILFIELD SERVICES

Radial Cement Bond Gamma Ray Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Chevron GM 532-19
Field	Grand Valley
County	Garfield
State	Colorado

Company TEP Rocky Mountain LLC
Well Chevron GM 532-19
Field Grand Valley
County Garfield State Colorado
Location: API # : 05-045-24358
SEC 20 TWP 6S RGE 96W
Other Services: --

		Elevation	Elevation
Permanent Datum	Ground Level	5752.1'	K.B. 5776.1'
Log Measured From	Kelly Bushing 24 FT		D.F. ---
Drilling Measured From	Kelly Bushing		G.L. 5752.1'

Date	01-FEB-2021
Run Number	One
Depth Driller	7745 FT
Depth Logger	7685 FT
Bottom Logged Interval	7673 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	229°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	11:30
Equipment Number	HD-0331
Location	Grand Junction, CO
Recorded By	Z. Fisher
Witnessed By	--

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36	J-55	Surface	1029 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	7704 FT
Intermediate #2					
Liner					

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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.

Comments

Log ran as per customer request
Depth referenced to Kelly Bushing at 24 FT
Marker Joint logged from 4693 - 4714 FT
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!

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Main Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep\tep_chevron gm 532-19_rbl_02-01-21\tep_chevron gm 532-19_rbl_02-01-21.db
Dataset Pathname	main.2
Presentation Format	ros_radii_tep
Dataset Creation	Fri Feb 05 10:12:56 2021
Charted by	Depth in Feet scaled 1:240

Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 (usec) 1200		0 150
Casing Collar Locator		3' Amplitude x 5			Mimimum Amplitude
Line Speed		0 (mV) 20			0 150
-150 (ft/min) 150		3' Travel Time			Maximum Amplitude
Line Tension		300 (usec) 200			0 150
0 (lb) 2000					
Differential Temperature					
-2 (degF) 2					
Temperature					
0 (degF) 20					

141.9
3800
143.8
3900
145.9
4000
147.9
4100
150.1
4200
152.1
4300
154.0
4400
156.3
4500
158.7
4600
160.6
4700
Marker Joint
162.4
4800
164.0
4900
165.7
5000
167.6
5100
169.5
5200
171.6
5300
173.5
5400
175.4
5500
177.3
5600
179.3
5700
181.5
5800
183.4
5900
185.3
6000
187.0
6100
188.9
6200
190.8
6300
192.8
6400
194.8
6500
196.9
6600
198.9
6700
201.2
6800
203.2
6900
205.5
7000
207.9
7100
210.3
7200
214.2
7300
217.2
7400
223.1
7500
t (°F)
227.4
7600
dt(°F)
CCL
LTEN
GR
LSPD
t (°F)
3' TT
3' Amp
3' Ampx5
Sectors
Gamma Ray
0 (GAPI) 200
Casing Collar Locator
Line Speed
3' Amplitude
0 (mV) 100
3' Amplitude x 5
0 (mV) 20
5' Variable Density Log
200 (usec) 1200
Sector Map
Average Amplitude
0 150
MimimumAmplitude
0 150

-150 (ft/min) 150	3' Travel Time 300 (usec) 200		Maximum Amplitude 0 150
Line Tension 0 (lb) 2000			
Differential Temperature -2 (degF) 2			
Temperature 0 (degF) 20			

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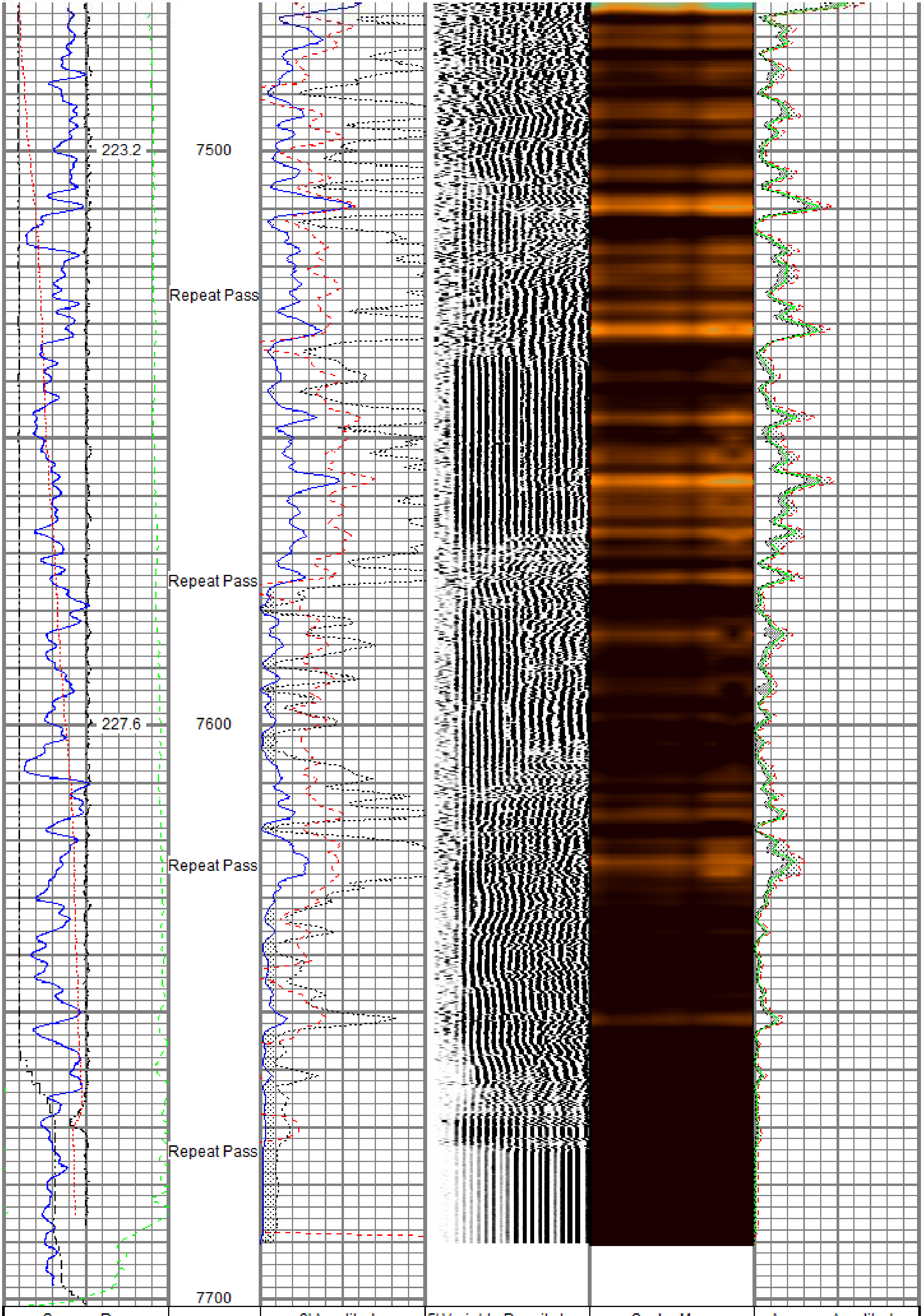
Repeat Pass

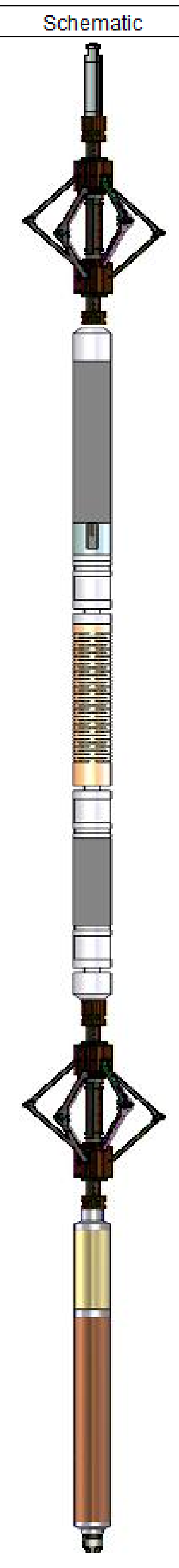
Recorded With 0 PSI Surface Induced Pressure

Database File	tep\tep_chevron gm 532-19_rbl_02-01-21\tep_chevron gm 532-19_rbl_02-01-21.db
Dataset Pathname	repeat.2
Presentation Format	ros_radii_tep
Dataset Creation	Fri Feb 05 10:17:11 2021
Charted by	Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 (usec) 1200	Sector Map	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Differential Temperature -2 (degF) 2				
Temperature 0 (degF) 20				



Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 (usec) 1200	Sector Map	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Differential Temperature -2 (degF) 2				
Temperature 0 (degF) 20				

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
TEMP	14.19					
			Probe Radii-2750 RBT (ROFS-RBT-0002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS8	11.96					
WVFS7	11.96					
WVFS6	11.96					
WVFS5	11.96					
WVFS4	11.96					
WVFS3	11.96					
WVFS2	11.96					
WVFS1	11.96					
WVFCAL	11.96					
WVF3FT	11.96					
WVF5FT	10.96					
			BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
CCL	3.88					
			Probe GR-CCL ANL-2750 A (FW1305-083) Probe 2.75" Analog 4 Channel Pulse Gamma Ray/CCL Combined	4.54	2.75	55.00
GR	1.14					
			GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Dataset:	tep_chevron gm 532-19_rbl_02-01-21.db: field/well/run1/main.2
Total length:	21.05 ft
Total weight:	214.60 lb
O.D.:	2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep\tep_chevron gm 532-19_rbl_02-01-21\tep_chevron gm 532-19_rbl_02-01-2
Dataset Pathname	main.2
Dataset Creation	Fri Feb 05 10:12:56 2021

Gamma Ray Calibration Report

Serial Number:	FW1305-083	
Tool Model:	2750 A	
Performed:	Sun Nov 12 05:37:57 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	95.7	cps
Calibrator Reading:	982.0	cps
Sensitivity:	0.7188	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	ROFS-RBT-0002	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	31.479	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.642	0.800	81.196	125.994	0.341
CAL	0.003	0.764				
5'	0.007	0.674	0.800	81.196	120.488	0.005
SUM						
S1	0.003	0.581	0.000	100.000	173.049	-0.525
S2	0.010	0.618	0.000	100.000	164.350	-1.601
S3	0.008	0.656	0.000	100.000	154.266	-1.266
S4	0.006	0.692	0.000	100.000	145.735	-0.905
S5	0.006	0.683	0.000	100.000	147.612	-0.892
S6	0.005	0.654	0.000	100.000	154.020	-0.737
S7	0.004	0.612	0.000	100.000	164.629	-0.740
S8	0.007	0.606	0.000	100.000	166.820	-1.170

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.764	1.000	0.000

Air Zero Calibration, performed Mon Feb 1 11:12:18 2021:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number:	ROFS-RBT-0002	
Tool Model:	2750 RBT	
Performed:	Wed Oct 14 10:20:48 2020	
	Reference	Reading
Low Reference:	100.00 degF	109.31 degF
High Reference:	235.00 degF	267.00 degF
Gain:	0.86	
Offset:	6.43	
Delta Spacing	1	

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