Company TEP Rocky Mountain LLC
Well Strait Bottom Ranch SG 412-22
Field Grand Valley
County Garfield
State Colorado

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Strait Bottom Ranch SG 412-22
Field	Grand Valley
County	Garfield State Colorado

Location: API # : 05-045-24006

SEC 22 TWP 7S RGE 96W

Other Services

Permanent Datum	Ground Level	Elevation 5665'	Elevation
Log Measured From	Kelly Bushing	24 FT	K.B. 5689' D.F. 5688' G.L. 5665'
Drilling Measured From	Kelly Bushing		

Date	07-APR-2020		
Run Number	One		
Depth Driller	6274 FT		
Depth Logger	6155 FT		
Bottom Logged Interval	6143 FT		
Top Log Interval	Surface		
Open Hole Size	8.750"		
Type Fluid	Fresh Water		
Density / Viscosity	8.34 lb/gal		
Max. Recorded Temp.	189°F		
Estimated Cement Top	See Log		
Time Well Ready	ROA		
Time Logger on Bottom	09:45		
Equipment Number	HD-0359		
Location	Grand Junction, CO		
Recorded By	A. Ellsworth		
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	32.3	H-40	Surface	1003 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	6231 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 wilful 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 3673 - 3695 FT
Log ran with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

Main Pass

Recorded With 0 PSI Surface Induced Pressure

Database File tep\tep_strait bottom ranch sg 412-22_rbl_04-07-20\processed_tep_strait bottom ranch sg 412-22_rbl_04-0
Dataset Pathname Main.3
Presentation Format rcs_radii_tep
Dataset Creation Wed Apr 08 12:00:36 2020
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 20			Minimum 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) 200				
Casing Collar Locator				

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

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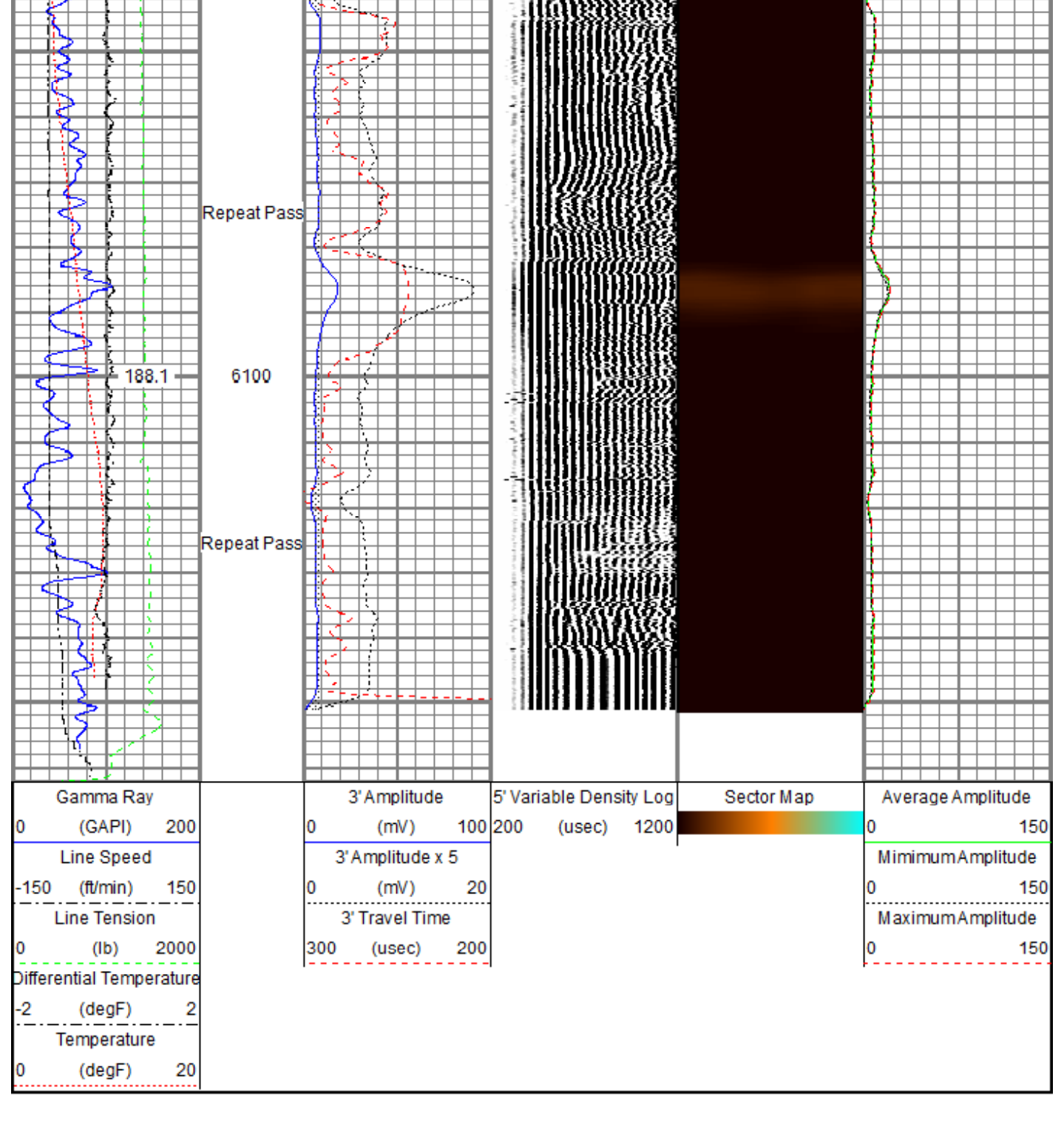
Repeat Pass

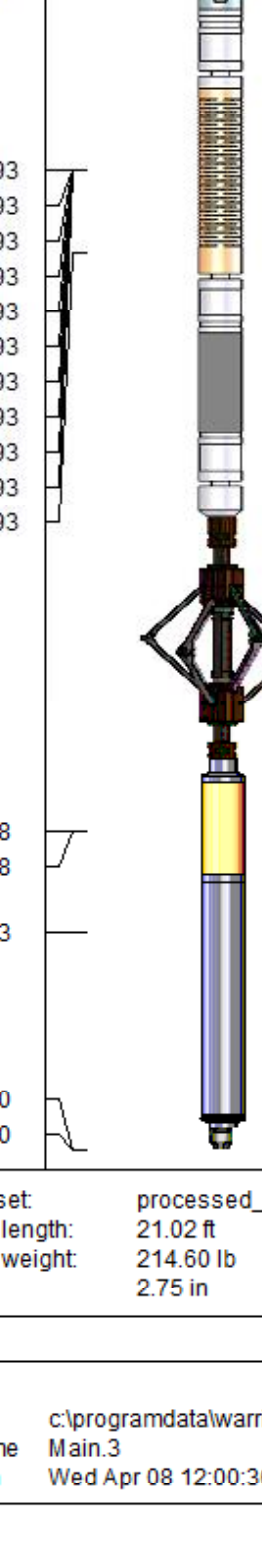
Recorded With 0 PSI Surface Induced Pressure

Database File	tep\tep_strait bottom ranch sg 412-22_rbl_04-07-20\processed_tep_strait bottom ranch sg 412-22_rbl_04-0
Dataset Pathname	Repeat.2
Presentation Format	ros_radii_tep
Dataset Creation	Wed Apr 08 13:10:09 2020
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
Line Speed	3' Amplitude x 5			Mimimum Amplitude
-150 (ft/min) 150	0 (mV) 20			0 150
Line Tension	3' Travel Time			Maximum Amplitude
0 (lb) 2000	300 (usec) 200			0 150
Differential Temperature				
-2 (degF) 2				
Temperature				
0 (degF) 20				



Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200	0 (mV) 100	200 (usec) 1200		0 150
Line Speed	3' Amplitude x 5			Mimimum Amplitude
-150 (ft/min) 150	0 (mV) 20			0 150
Line Tension	3' Travel Time			Maximum Amplitude
0 (lb) 2000	300 (usec) 200			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 WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	14.16 11.93 11.93 11.93 11.93 11.93 11.93 11.93 11.93 11.93 11.93 10.93		Probe Radii-2750 RBT (FW0712-020) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
			BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
CCL$2 CCL$1 GR	3.88 3.88 2.63		Probe GR-CCL-2750 GOB (FW1211-081) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined with GO Bottom	4.51	2.75	55.00
LOCTIM UTCTIM	0.00 0.00		GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Dataset:	processed_tep_strait bottom ranch sg 412-22_rbl_04-07-20.db: field/well/run1/Main.3
Total length:	21.02 ft
Total weight:	214.60 lb
O.D.:	2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep\tep_strait bottom ranch sg 412-22_rbl_04-07-20\processed_tep_strait bottom
Dataset Pathname	Main.3
Dataset Creation	Wed Apr 08 12:00:36 2020

Gamma Ray Calibration Report

Serial Number:	FW1211-081	
Tool Model:	2750 GOB	
Performed:	Mon Oct 01 11:32:39 2018	
Calibrator Value:	637.0	GAPI
Background Reading:	112.4	cps
Calibrator Reading:	1008.7	cps
Sensitivity:	0.7107	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW0712-020	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	152.583	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	0.923	0.800	81.196	86.889	0.986
CAL	-0.005	0.754				
5'	-0.001	0.731	0.800	81.196	109.842	0.901
SUM						
S1	0.001	0.859	0.000	100.000	116.644	-0.142
S2	0.001	0.915	0.000	100.000	109.450	-0.093
S3	0.001	0.976	0.000	100.000	102.484	-0.061
S4	0.002	1.008	0.000	100.000	99.422	-0.245
S5	0.005	1.035	0.000	100.000	97.073	-0.481
S6	0.005	0.976	0.000	100.000	102.981	-0.472
S7	0.002	0.878	0.000	100.000	114.053	-0.190
S8	0.000	0.856	0.000	100.000	116.824	-0.055

Air Zero Calibration, performed Tue Apr 07 09:05:10 2020:

	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:	FW0712-020	
Tool Model:	2750 RBT	
Performed:	Mon Oct 01 11:32:14 2018	
	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF
Gain:	0.84	
Offset:	7.72	
Delta Spacing	1	

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State	Colorado