RELIANCE
OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	5-Mile Ranch SG 423-26
Field	Grand Valley
County	Garfield
State	Colorado

Pulsed Neutron Gamma Ray Casing Collar Log

Company	TEP Rocky Mountain LLC		
Well	5-Mile Ranch SG 423-26		
Field	Grand Valley		
County	Garfield	State	Colorado
Location:	API # : 05-045-23947		Other Services RBL
	SEC 26 TWP 7S RGE 96W		
Permanent Datum	Ground Level	Elevation 5076.3'	Elevation K.B. 5100.3' D.F. 5099.3' G.L. 5076.3'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Date	28-NOV-2018	
Run Number	Two	
Depth Driller	5564 FT	
Depth Logger	5514 FT	
Bottom Logged Interval	5513 FT	
Top Log Interval	2042 FT	
Open Hole Size	8.750"	
Type Fluid	Water	
Density / Viscosity	8.34 lb/gal	
Max. Recorded Temp.	--	
Estimated Cement Top	--	
Time Well Ready	ROA	
Time Logger on Bottom	2:10	
Equipment Number	HD-0359	
Location	Grand Junction, CO	
Recorded By	Z. Fisher	
Witnessed By	D.Welsh	

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	1002 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	5524 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 Reliance Bond Log dated 27-NOV-2018
Log ran from 5513 FT to 2042 FT
Pulsed Neutron Data logged with the Hunter RAS Tool

Thank you for choosing Reliance Oilfield Services, LLC!

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Main Pass

Database File	f:\data\tep\5-mile ranch sg 423-26\pn\tep_5-mile ranch sg 423-26_pn_11-28-18.db
Dataset Pathname	SHIFTED/merge1
Presentation Format	ros_pdn_hunter
Dataset Creation	Tue Dec 04 12:27:05 2018
Charted by	Depth in Feet scaled 1:240

0 GR (GAPI) 150
Casing Collar Locator
-100 Line Speed (ft/min) 100
0 NIRS (cps) 400000
0 BKGN (cps) 4000
0 BKGF (cps) 2000

4 RNF2 0
60 SIGMA (cu) 0
4.5 RNFI 0
FIS2
0 (cps) 45000
NIS2
0 (cps 100000

0 GR (GAPI) 150
Casing Collar Locator
-100 Line Speed (ft/min) 100
0 NIRS (cps) 400000
0 BKGN (cps) 4000
0 BKGF (cps) 2000

4 RNF2 0
60 SIGMA (cu) 0
4.5 RNFI 0
FIS2
0 (cps) 45000
NIS2
0 (cps 100000

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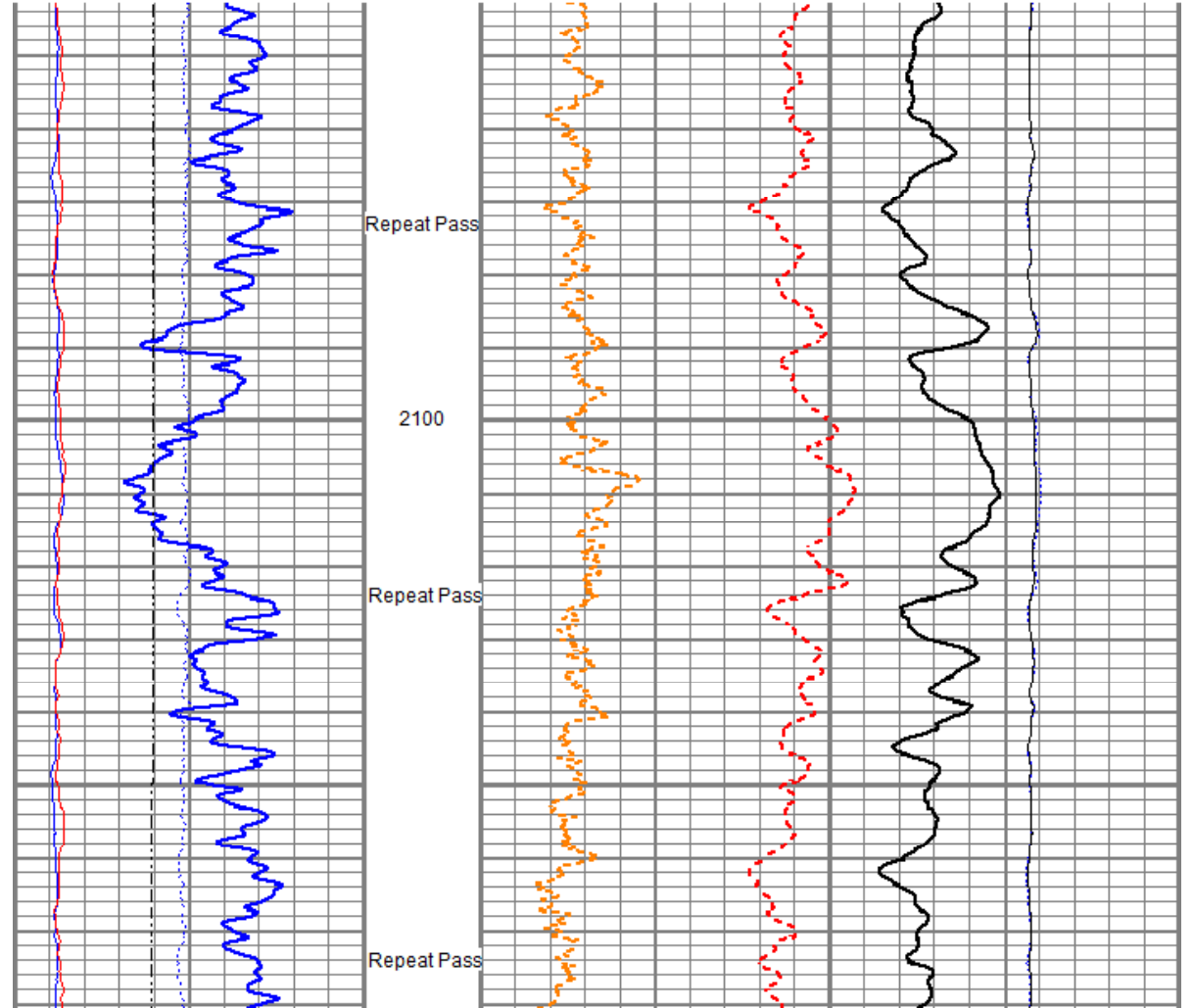
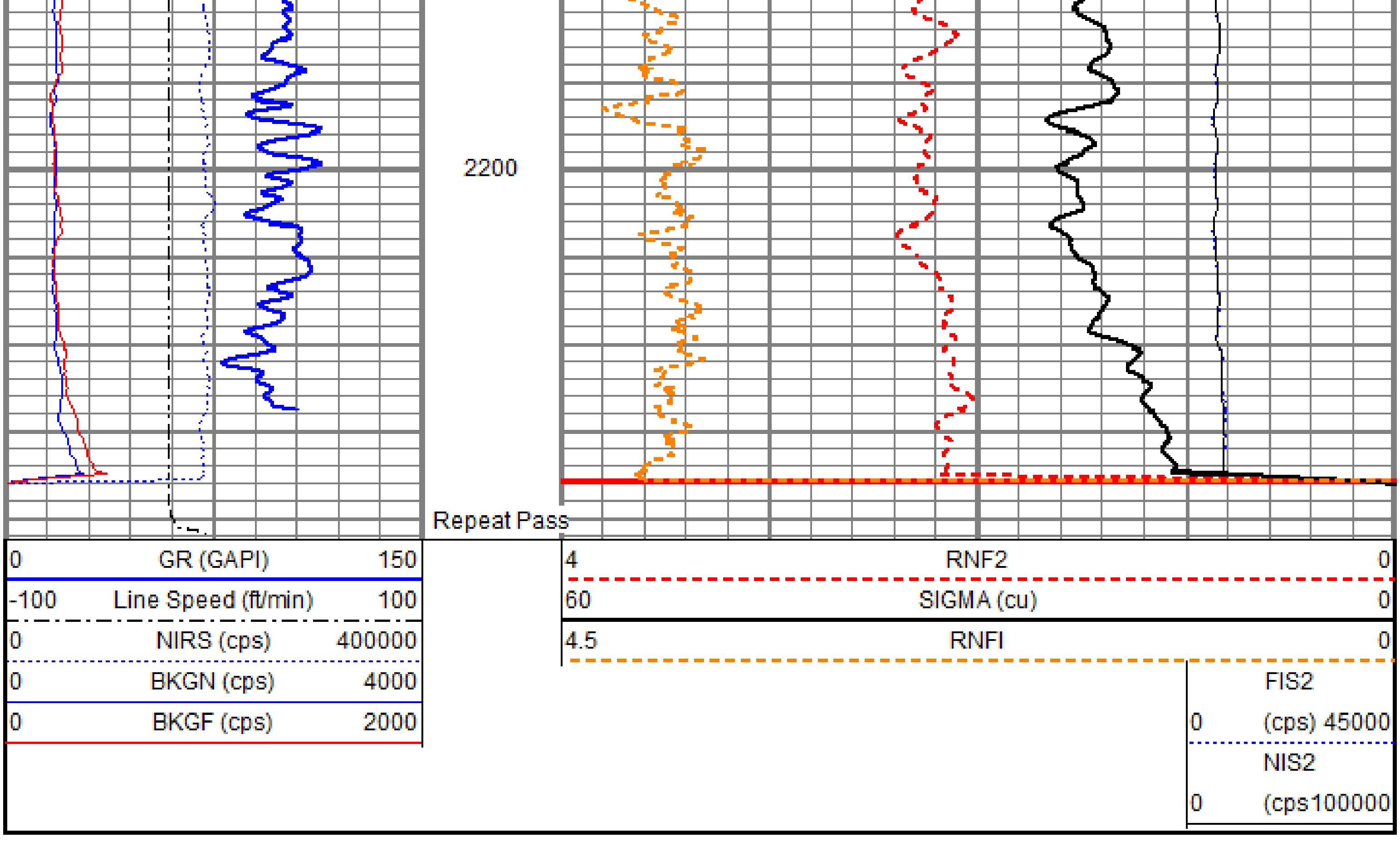
Repeat Pass

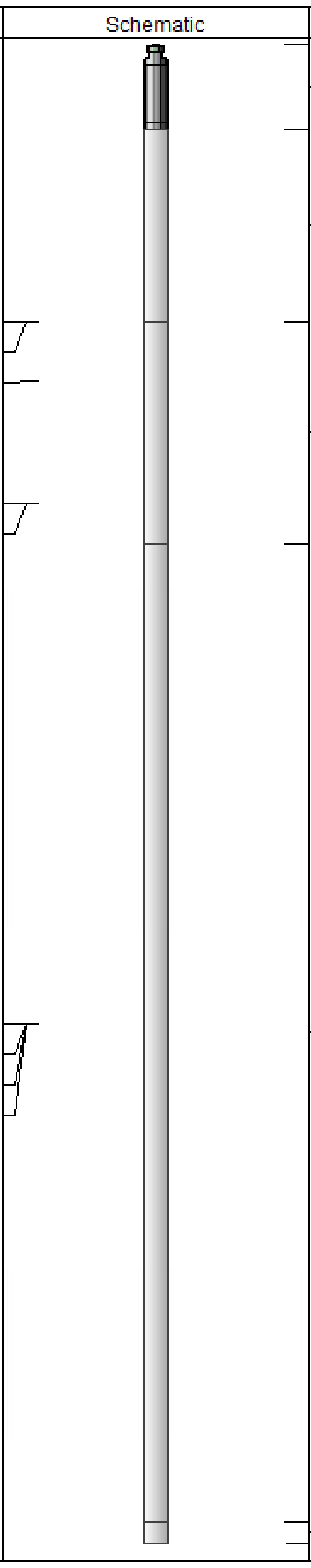
Database File	f:\data\tep\5-mile ranch sg 423-26\pn\tep_5-mile ranch sg 423-26_pn_11-28-18.db
Dataset Pathname	repeat.2
Presentation Format	ros_pdn_hunter
Dataset Creation	Wed Nov 28 06:16:24 2018
Charted by	Depth in Feet scaled 1:240

0 GR (GAPI) 150
-100 Line Speed (ft/min) 100
0 NIRS (cps) 400000
0 BKGN (cps) 4000
0 BKGF (cps) 2000

4 RNF2 0
60 SIGMA (cu) 0
4.5 RNFI 0
FIS2
0 (cps) 45000
NIS2
0 (cps 100000





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-16875 GO Titan 1-11/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.69	5.40
			HWS_TCU-002 (001705) HWS Telemetry Control Unit (TCU002)	2.30	1.69	10.87
TCUTEMP TCUVOLT GCL_CCL	14.69 14.69 13.97					
			HWS_GCL-001 (001475) HWS Gamma Ray Collar Locator (1.6875")	2.69	1.69	13.40
GCL_GR GCL_GR	12.50 12.50					
Long Far Near Anci	6.25 6.25 6.25 6.25		HWS_RAS-RAS002 (003040) Hunter Well Science Pulsed Neutron Tool	11.75	1.69	55.82
			HWS_TBN-001 (001724) HWS Terminator Bull Nose (1.6875")	0.25	1.69	0.99

Dataset:	tep_5-mile ranch sg 423-26_pn_11-28-18.db: field/well/run1/main.2
Total length:	18.02 ft
Total weight:	86.48 lb
O.D.:	1.69 in

Calibration Report

Database File	f:\data\tep\5-mile ranch sg 423-26\pn\tep_5-mile ranch sg 423-26_pn_11-28-18.db
Dataset Pathname	main.2
Dataset Creation	Wed Nov 28 06:15:33 2018

Gamma Ray Calibration Report

Serial Number:	001475	
Tool Model:	001	
Performed:	Fri Oct 19 14:55:00 2018	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	
Calibrator Reading:	1.0	
Sensitivity:	1.0000	GAPI/

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