RELIANCE OILFIELD SERVICES

Pulsed Neutron
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Federal RU 414-17
Field Rulison
County Garfield
State Colorado

Company	TEP Rocky Mountain LLC		
Well	Federal RU 414-17		
Field	Rulison		
County	Garfield	State	Colorado
Location:	API # : 05-045-23747 SEC 17 TWP 7S RGE 93W	Other Services	RCBL
Permanent Datum	Ground Level	Elevation	8365.6'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 8389.6'
D.F. 8388.6
G.L. 8365.6'

Date	07-JUN-2018		
Run Number	One		
Depth Driller	10787 FT		
Depth Logger	10751 FT		
Bottom Logged Interval	10745 FT		
Top Log Interval	6596 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	15:15		
Equipment Number	HD-0359		
Location	Grand Junction, CO		
Recorded By	J.Donnelly		
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	1131 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	10746 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 06-June-2018
Log ran from 10745 FT to 6596 FT
Pulsed Neutron Data logged with the Hunter RAS Tool

Thank you for choosing Reliance Oilfield Services, LLC!

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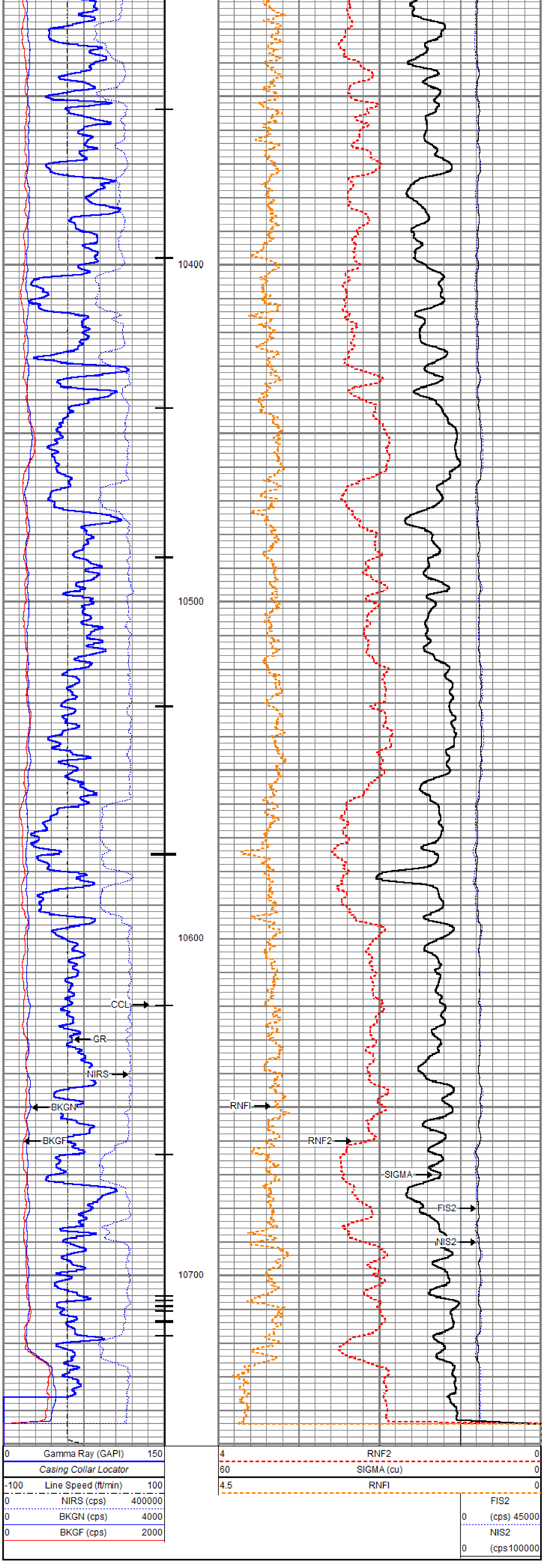
Main Pass

Database File	tep_federal ru 414-17\tep_federal ru 414-17_pn_06-07-18.db
Dataset Pathname	main/tep_federal_ru_414-17_pn_06-07-18_shift
Presentation Format	ros_pdn_hunter
Dataset Creation	Sun Jun 10 22:24:39 2018
Charted by	Depth in Feet scaled 1:240



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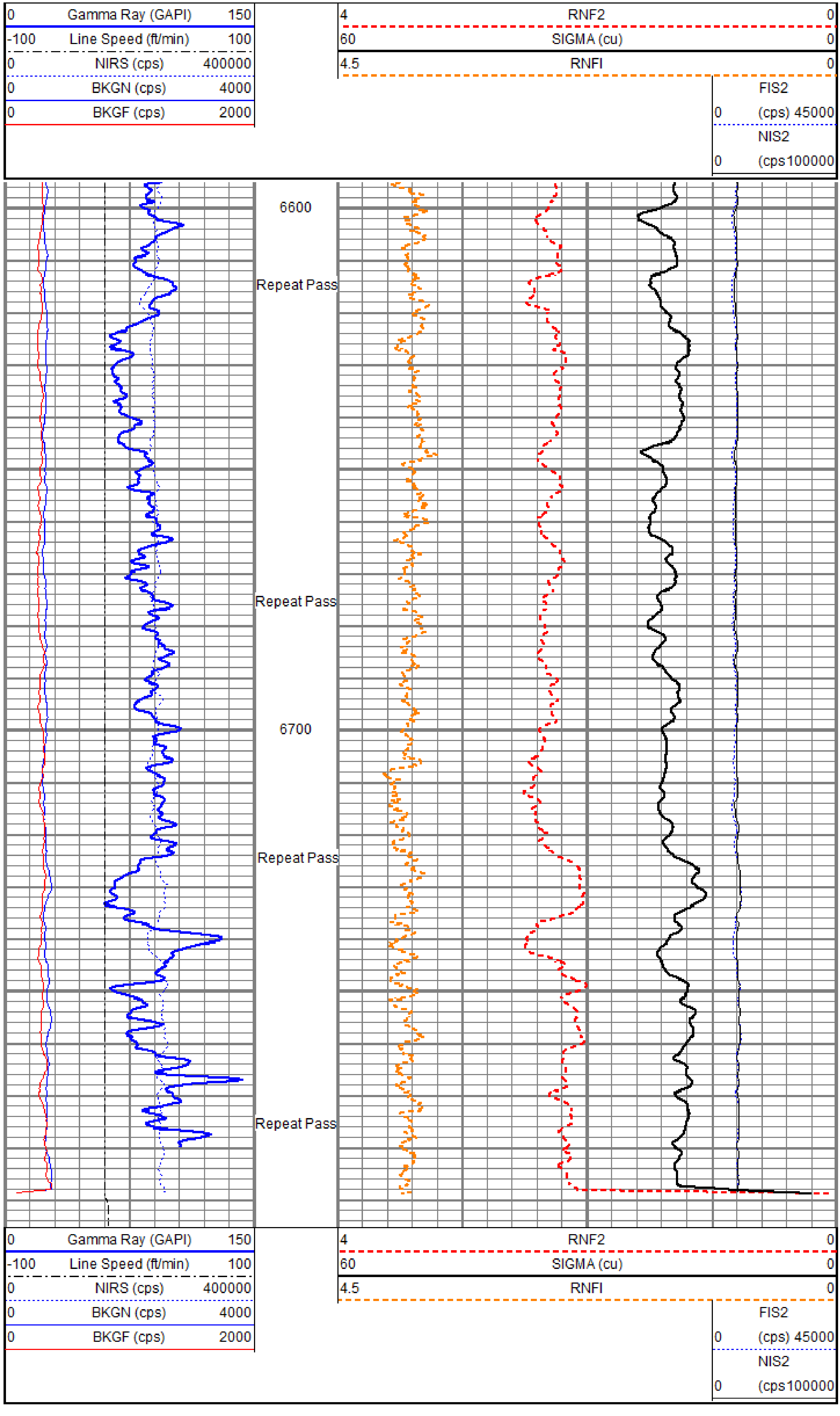
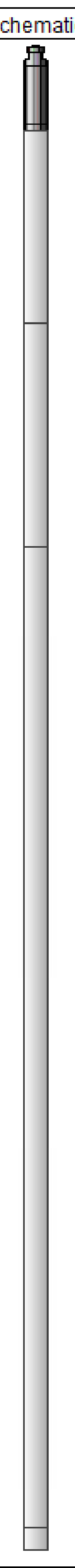
Repeat Pass

Database File	tep_federal ru 414-17\tep_federal ru 414-17_pn_06-07-18.db
Dataset Pathname	repeat.2
Presentation Format	ros_pdn_hunter
Dataset Creation	Fri Jun 08 01:37:12 2018
Charted by	Depth in Feet scaled 1:240





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 (001681) 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 (003041) Hunter Well Science Pulsed Neutron Tool	11.75	1.69	55.82
			HWS_TBN-001 (001725) HWS Terminator Bull Nose (1.6875")	0.25	1.69	0.99

Dataset:	tep_federal ru 414-17_pn_06-07-18.db: field/well/run1/main1.2
Total length:	18.02 ft
Total weight:	86.48 lb
O.D.:	1.69 in

Calibration Report

Database File	c:\programdata\warrior\data\tep_federal ru 414-17\tep_federal ru 414-17_pn_06-07-18.db
Dataset Pathname	main1.2
Dataset Creation	Fri Jun 08 01:49:47 2018

Gamma Ray Calibration Report

Serial Number:	001681	
Tool Model:	001	
Performed:	(Not Performed)	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	
Calibrator Reading:	1.0	
Sensitivity:	1.0000	GAPI/

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