**RELIANCE**
OILFIELD SERVICES

# Pulsed Neutron
# Gamma Ray
# Casing Collar Log

Company TEP Rocky Mountain LLC
Well Youberg SR 422-12
Field Rulison
County Garfield
State Colorado

| | | | |
|---|---|---|---|
| Company | TEP Rocky Mountain LLC | | |
| Well | Youberg SR 422-12 | | |
| Field | Rulison | | |
| County | Garfield | State | Colorado |

Location: API # : 05-045-23430

1941' FNL & 2112' FEL SWNE

SEC 12 TWP 7S RGE 94W

Other Services
RBL

| | | | |
|---|---|---|---|
| Permanent Datum | Ground Level | Elevation | 7254' |
| Log Measured From | Kelly Bushing | 24 FT | |
| Drilling Measured From | Kelly Bushing | | |

Elevation
K.B. 7278'
D.F. 7277'
G.L. 7254'

| | | | |
|---|---|---|---|
| Date | 13-NOV-2017 | | |
| Run Number | One | | |
| Depth Driller | 9470 FT | | |
| Depth Logger | 9405 FT | | |
| Bottom Logged Interval | 9398 FT | | |
| Top Log Interval | 5225 FT | | |
| Open Hole Size | 8.750" | | |
| Type Fluid | Fresh Water | | |
| Density / Viscosity | 8.34 lb/gal | | |
| Max. Recorded Temp. | --- | | |
| Estimated Cement Top | --- | | |
| Time Well Ready | --- | | |
| Time Logger on Bottom | --- | | |
| Equipment Number | --- | | |
| 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 | 1115 FT |
| Intermediate #1 | 4 1/2 | 11.6 | P-110 | Surface | 9455 FT |
| Intermediate #2 | | | | | |
| Liner | | | | | |

<<< Fold Here >>>

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-NOV-2017
Log ran from 9398 FT to 5225 FT
PDN data logged with Anteres Pulsed Neutron Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

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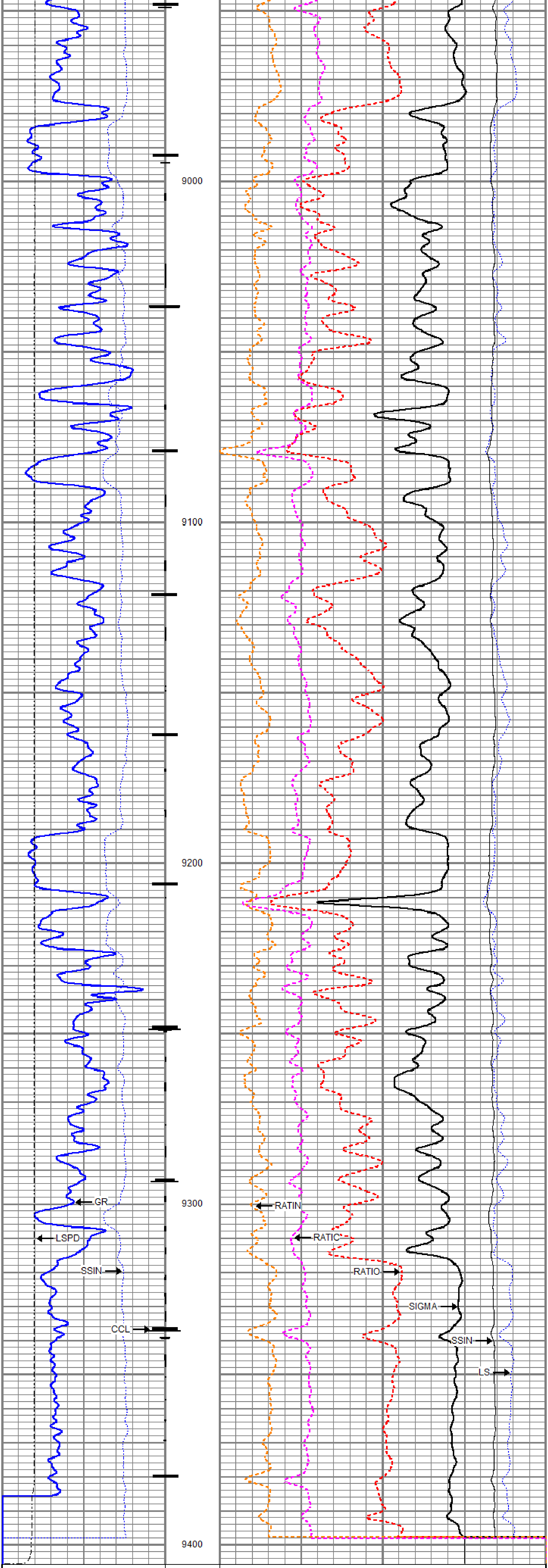
# Main Pass

Database File tep\sr 422-12\pdn\tep_youberg sr 422-12_pdn_11-13-17.db
Dataset Pathname youberg_sr_422-12_main_pass_las_shift
Presentation Format ros_pdn
Dataset Creation Fri Nov 17 23:03:19 2017
Charted by Depth in Feet scaled 1:240



0 Gamma Ray (GAPI) 150
*Casing Collar Locator*
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0

0 LS (cps) 0000
SS
0 (cps4e+006

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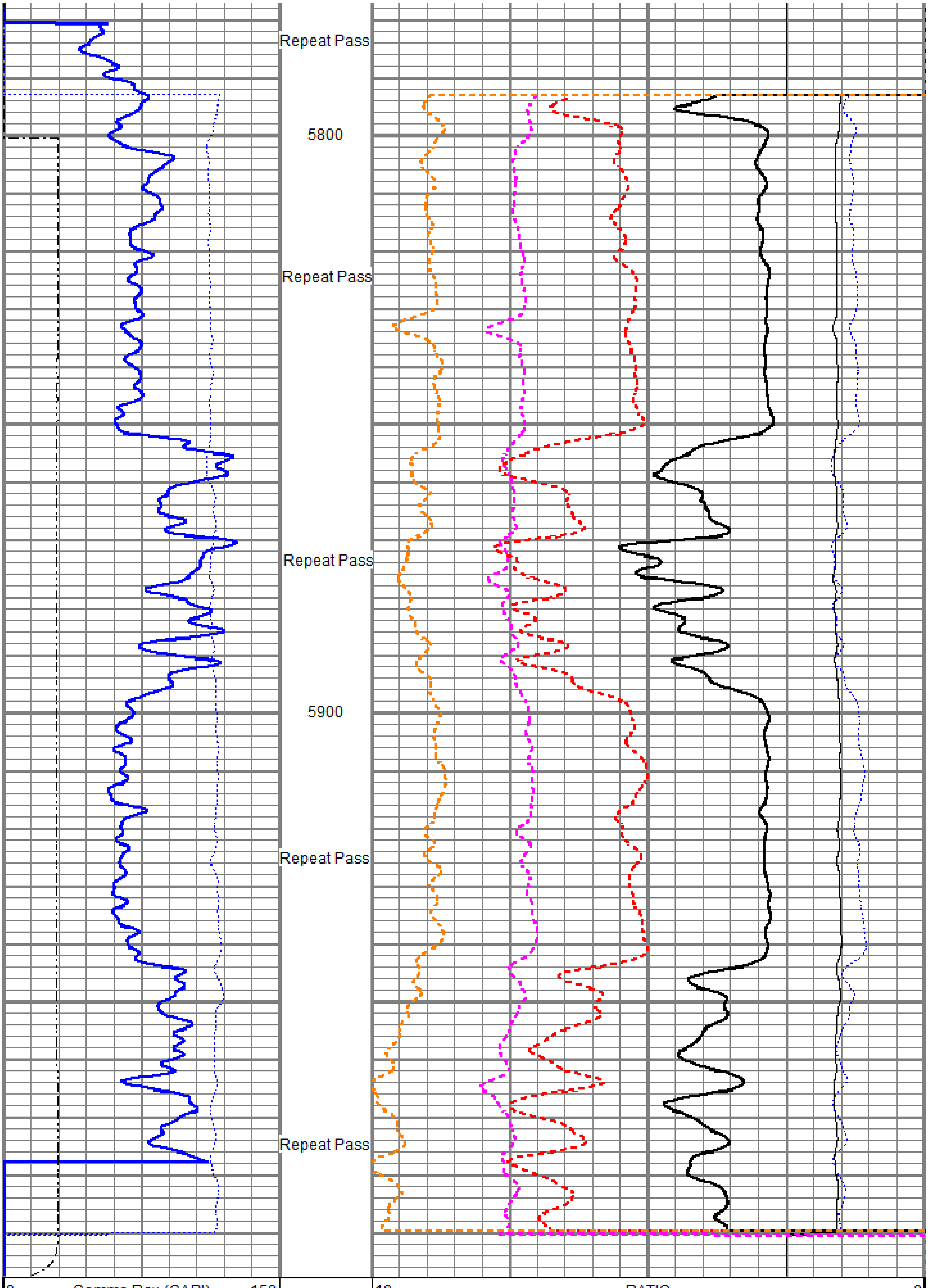
# Repeat Pass

| | |
|---|---|
| Database File | tep\sr 422-12\pdn\tep_youberg sr 422-12_pdn_11-13-17.db |
| Dataset Pathname | repeat/youberg_sr_422-12_repeat_pass_las_shift |
| Presentation Format | ros_pdn |
| Dataset Creation | Sat Nov 18 01:16:33 2017 |
| Charted by | Depth in Feet scaled 1:240 |

0 Gamma Ray (GAPI) 150
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0

0 LS (cps) 0000
SS
0 (cps4e+006



0 Gamma Ray (GAPI) 150
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0

0 LS (cps) 0000
SS
0 (cps4e+006

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|---|---|---|---|---|---|---|
| | | | Titan_Electric_Cable_Heads-Titan_1-11/1<br>Electric Cable Head with 1" Fishing Neck | 1.03 | 1.69 | 5.40 |
| | | | Telemetry-Antares<br>Antares Telemetry / Gamma / CCL | 4.07 | 1.70 | 17.60 |
| | | | Generator-Antares<br>Antares Neutron Generator | 19.03 | 1.70 | 85.80 |

| | |
|---|---|
| Dataset: | pdn tool.db: field/well/run1/PDN_Tool_Diagram |
| Total length: | 24.13 ft |
| Total weight: | 108.80 lb |
| O.D.: | 1.70 in |

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