



Precision Directional Services, Inc.

27610 Commerce Oaks Drive
Oak Ridge North, Texas 77385

DL1770

2":100' - TVD

6/26/2013 8:58:30 PM

Oper. Company: Carrizo Oil & Gas, Inc.

Country: USA

State / Province: Colorado

County / Parish: Weld

Started: 06/20/2013 06:00 AM

API/UWI: 05-123-37245

Field: Niobrara CONZ'83

Well: Shull 2-25-9-60

Rig: Xtreme 19

Ended: 06/26/2013 08:54 PM

Personnel

Day Hand: Paul Brown

Night Hand: Neil LaRubbio

Comp. Emp: Gabe Vela

Location

Latitude: 40.7279777777778

Longitude: -104.035016666666

Elev. GL: 4943'

Elev. DF: 4960'

Elev. KB: 17'

Hole Data

Size	From	To
12 1/4	0	1448
8 3/4	1448	6251
6 1/8	6251	10580

Casing Data

Size	From	To
9 5/8	0	1418
7	0	6231
4.5	6231	10580

Bit Sizes

Size	From	To
12 3/4	0	1448
8 3/4	1448	6251
6 1/8	6251	10580

Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
WBM	8.4	8.4	28	N/A	N/A	N/A	0	1448
WBM	8.4	8.4	28-30	N/A	N/A	N/A	1448	3500
WBM	9.0-9.6	9.0-9.6	30-40	N/A	N/A	N/A	3500	6251
WBM	9.4-9.6	9.4-9.6	44-47	N/A	N/A	N/A	6251	10580

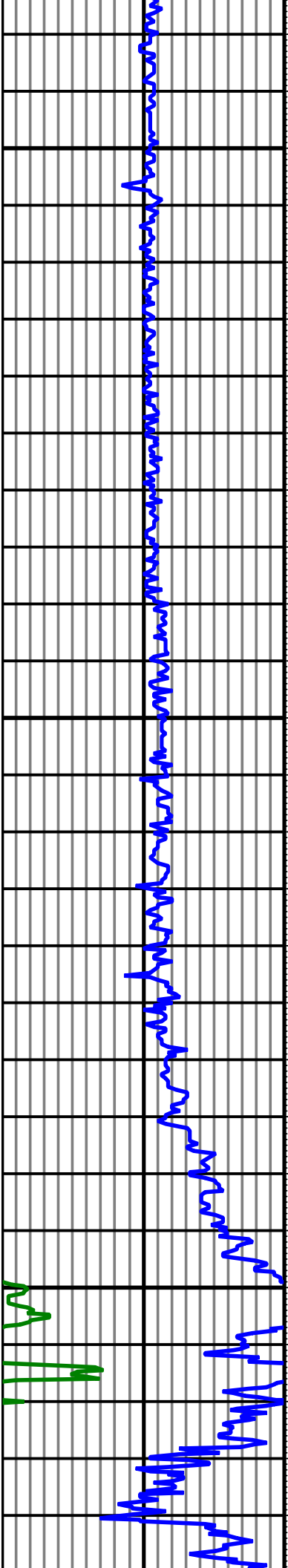
Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
G2591	42	0	6/20/2013 6:00:17 AM	5558	6/20/2013 10:00:17 PM	5887
G2591	42	0	6/20/2013 11:30:46 PM	5887	6/21/2013 11:00:46 PM	6251
G2591	42	0	6/22/2013 5:00:33 PM	6251	6/26/2013 8:54:33 PM	10580

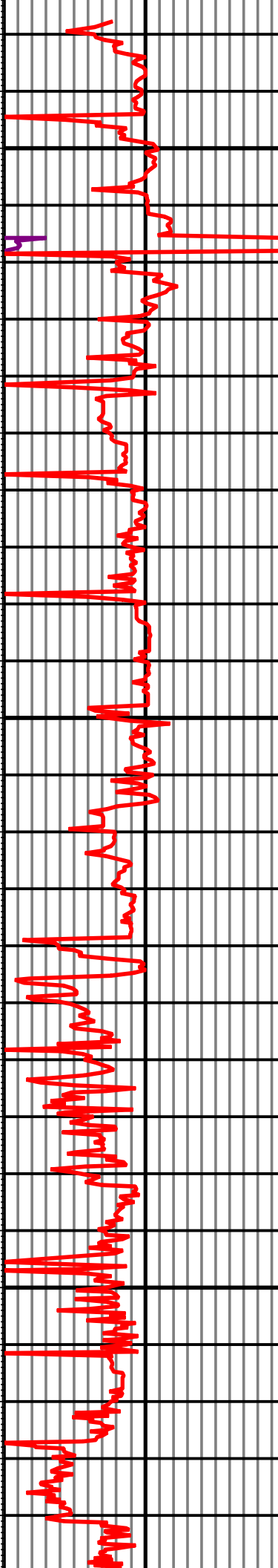
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 GR(API) 150.00 TVD 0.00 ROP(FT/HR) 150.00 Surveys (TVD/INC/AZ)
150.00 2 300.00 FT 150.00 2 300.00

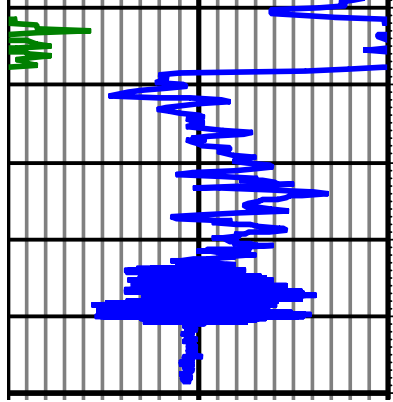




5,560 5,580 5,600 5,620 5,640 5,660 5,680 5,700 5,720 5,740 5,760 5,780 5,800 5,820 5,840 5,860 5,880 5,900 5,920 5,940 5,960 5,980 6,000 6,020 6,040 6,060 6,080

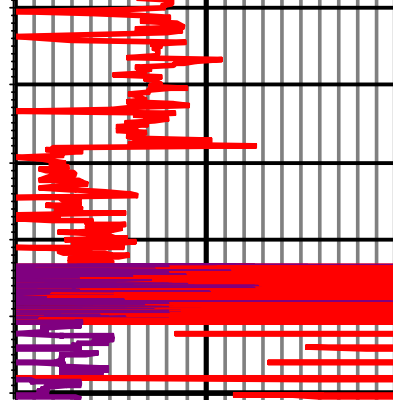


TVD: 5572.25 INC: 0.40 AZ: 29.80	5,572.25
TVD: 5615.22 INC: 3.40 AZ: 359.00	5,615.22
TVD: 5658.07 INC: 6.10 AZ: 3.80	5,658.07
TVD: 5699.70 INC: 8.90 AZ: 4.60	5,699.70
TVD: 5742.01 INC: 11.70 AZ: 5.90	5,742.01
TVD: 5782.92 INC: 14.40 AZ: 5.70	5,782.92
TVD: 5824.31 INC: 17.00 AZ: 5.50	5,824.31
TVD: 5865.08 INC: 20.00 AZ: 4.60	5,865.08
TVD: 5903.89 INC: 24.90 AZ: 3.60	5,903.89
TVD: 5942.09 INC: 29.70 AZ: 5.20	5,942.09
TVD: 5977.64 INC: 34.60 AZ: 5.70	5,977.64
TVD: 6011.90 INC: 39.70 AZ: 6.00	6,011.90
TVD: 6043.85 INC: 44.30 AZ: 4.30	6,043.85
TVD: 6072.43 INC: 49.90 AZ: 2.90	6,072.43
TVD: 6098.48 INC: 55.50 AZ: 0.80	6,098.48



0.00 GR(API) 150.00
150.00 2 300.00

TVD
FT



0.00 ROP(FT/HR) 150.00
150.00 2 300.00

TVD: 6098.48 INC: 55.50 AZ: 0.80	6,098.48
TVD: 6109.40 INC: 58.30 AZ: 0.20	6,109.40
TVD: 6144.53 INC: 68.10 AZ: 358.00	6,144.52
TVD: 6158.77 INC: 73.20 AZ: 355.70	6,158.77
TVD: 6167.00 INC: 80.00 AZ: 356.00	6,167.00
TVD: 6180.30 INC: 82.10 AZ: 356.00	6,180.30
TVD: 6190.04 INC: 84.30 AZ: 357.00	6,190.04
TVD: 6195.67 INC: 84.00 AZ: 356.60	6,195.67
TVD: 6201.73 INC: 84.00 AZ: 356.60	6,201.73

Surveys (TVD/INC/AZ)