



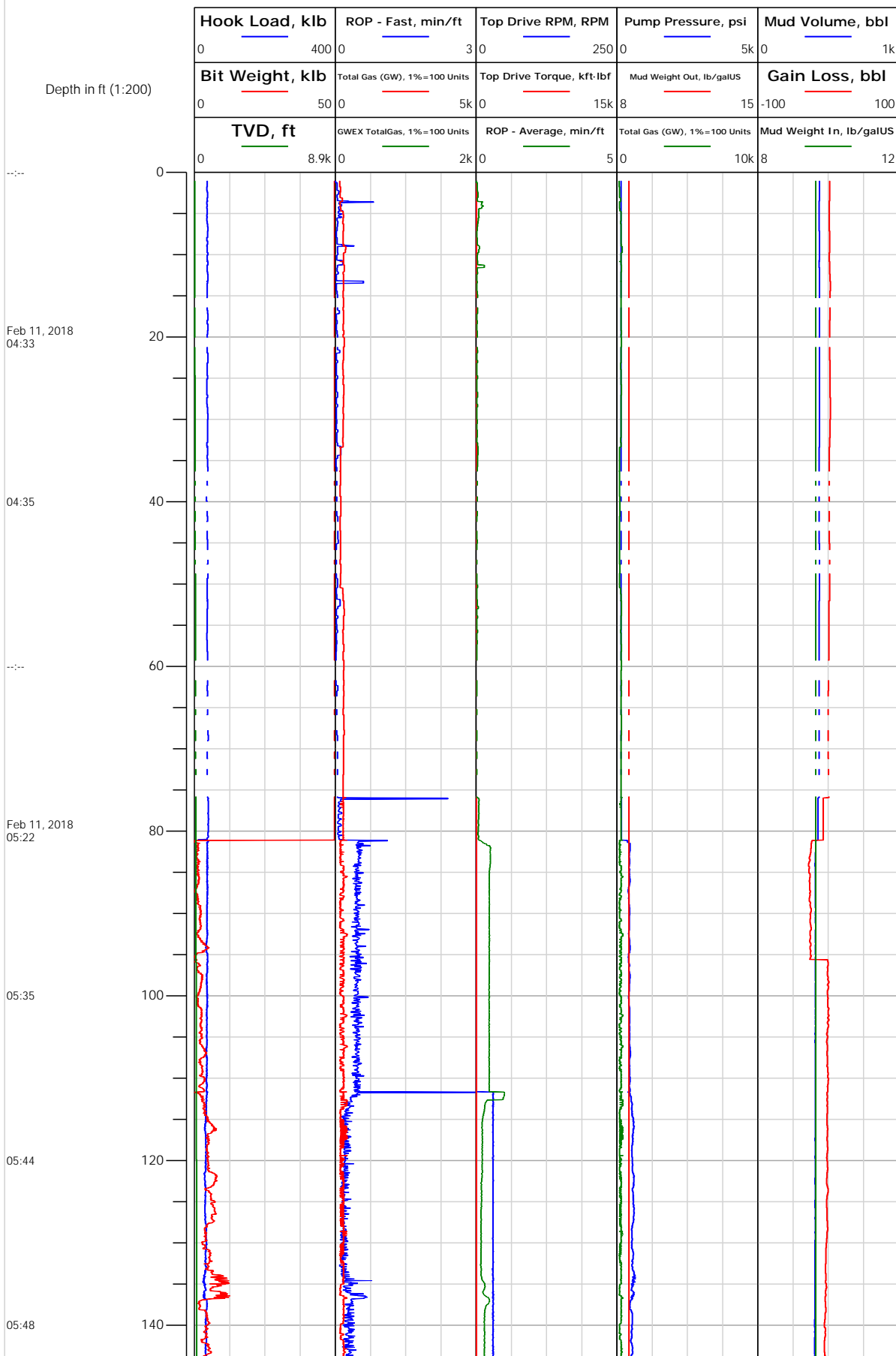
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





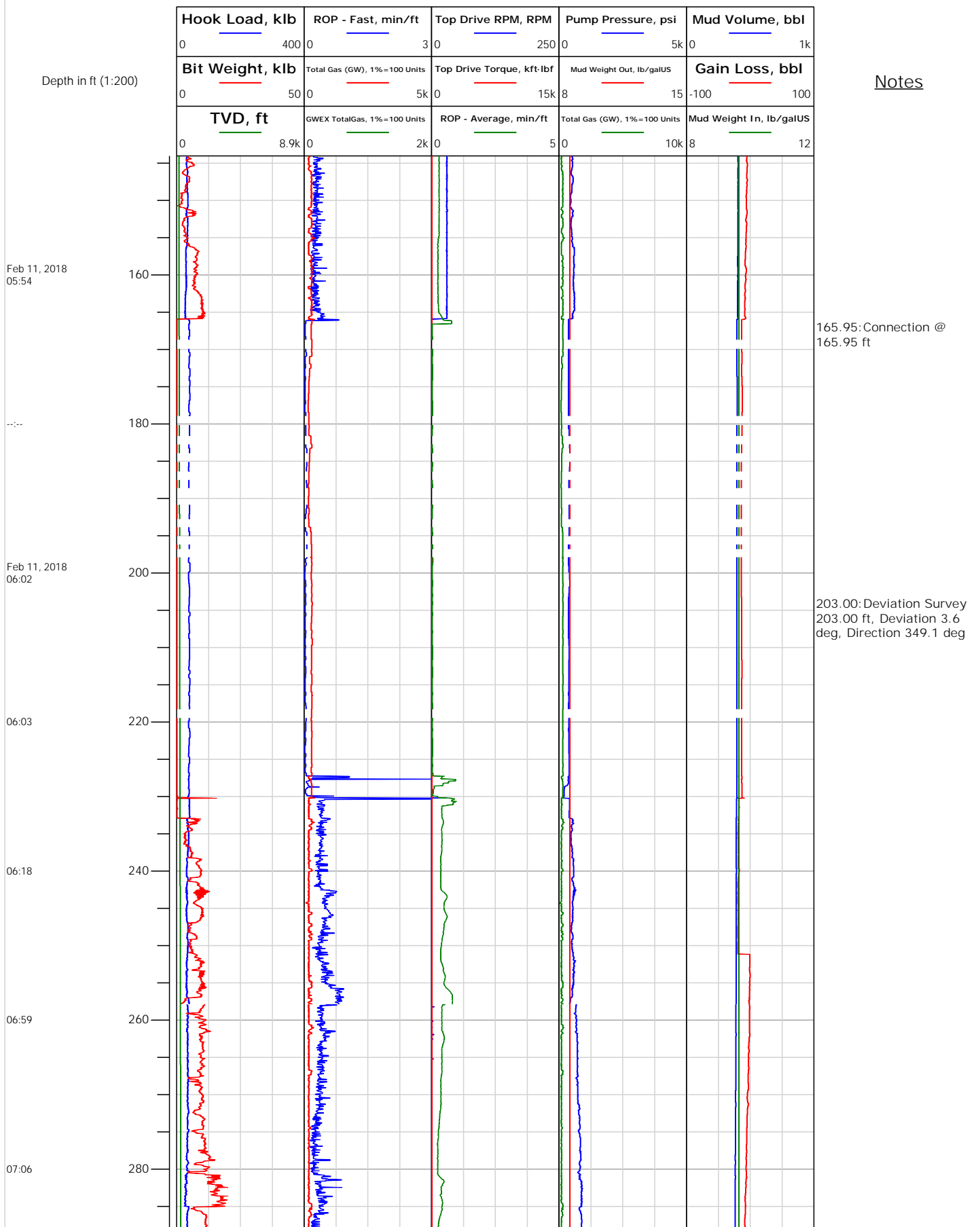
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes







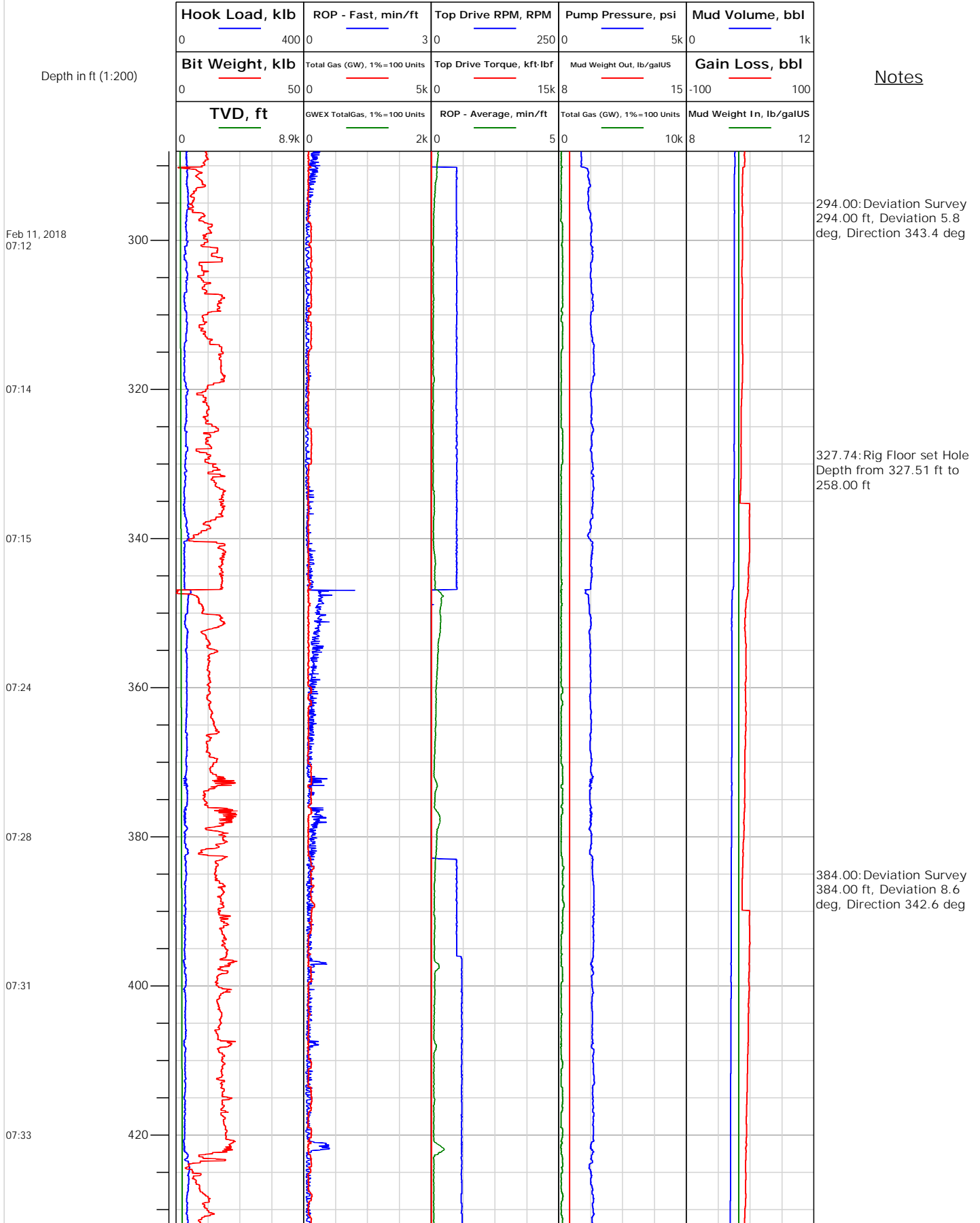
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





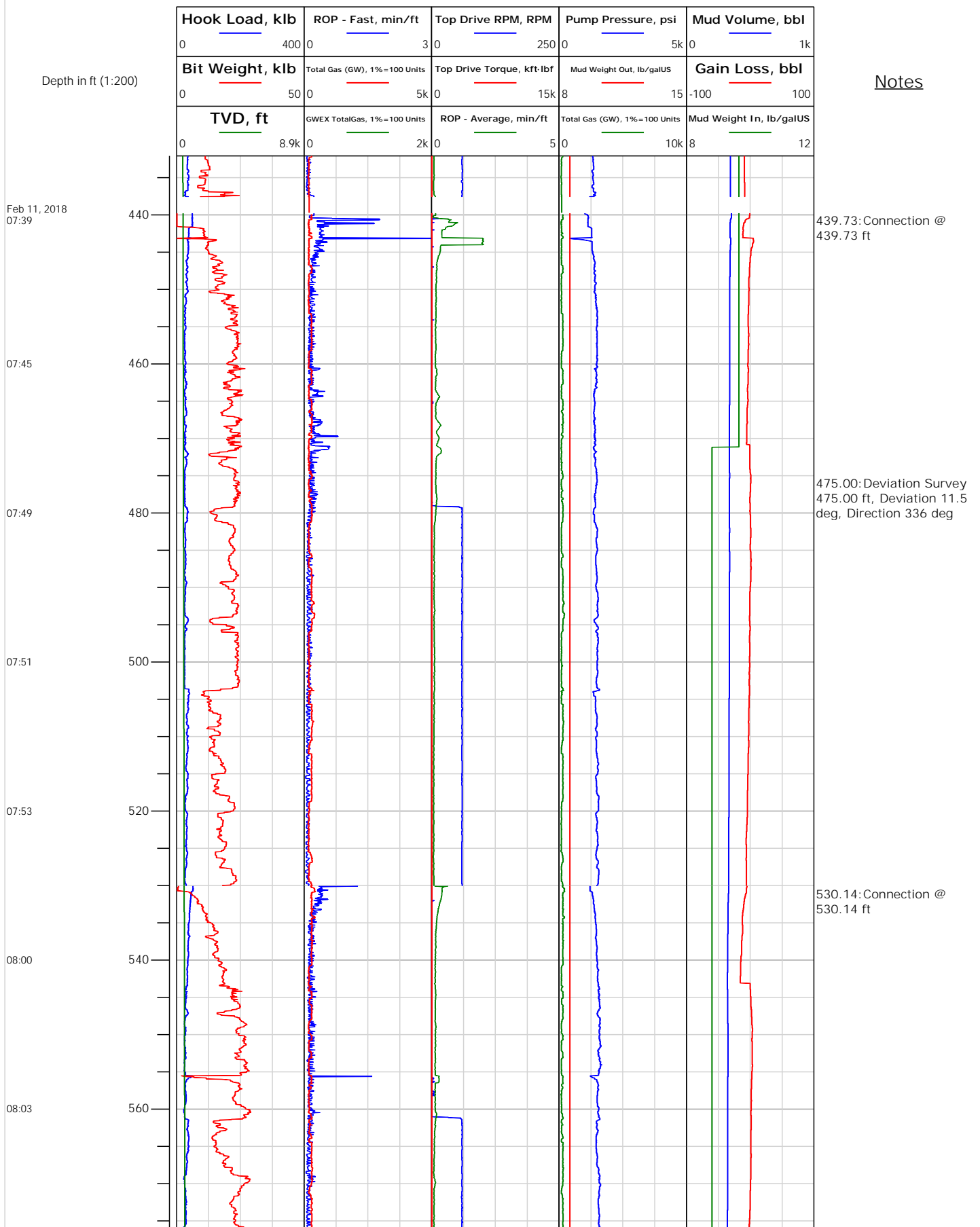
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





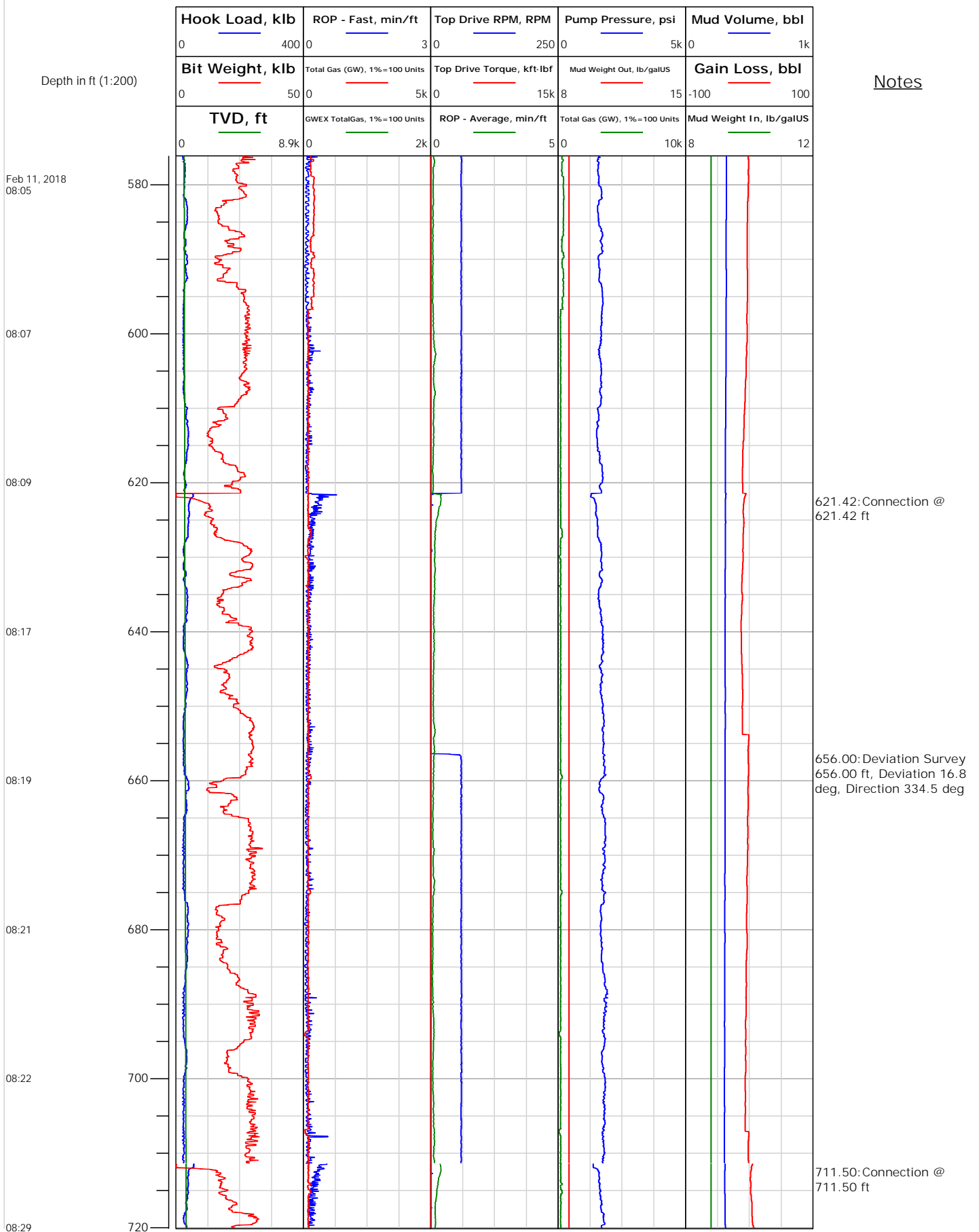
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 11, 2018  
08:33

08:34

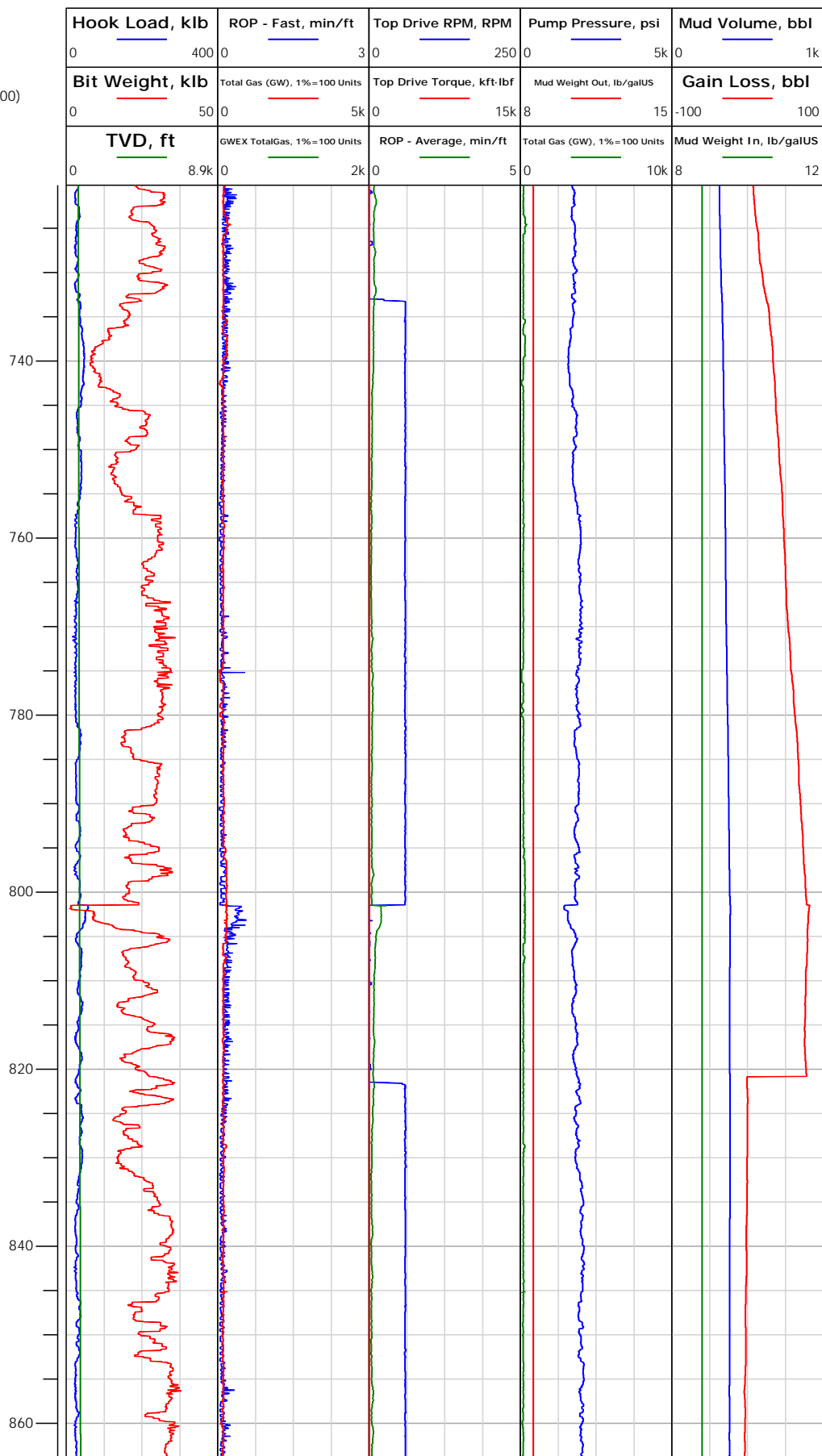
08:36

08:38

08:47

08:49

08:51



746.00: Deviation Survey  
746.00 ft, Deviation 19.3  
deg, Direction 336.5 deg

771.18: Connection @  
2530.14 ft

801.52: Connection @  
801.52 ft

837.00: Deviation Survey  
837.00 ft, Deviation 21.1  
deg, Direction 333.7 deg



# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes

Depth in ft (1:200)

Feb 11, 2018  
08:53

09:00

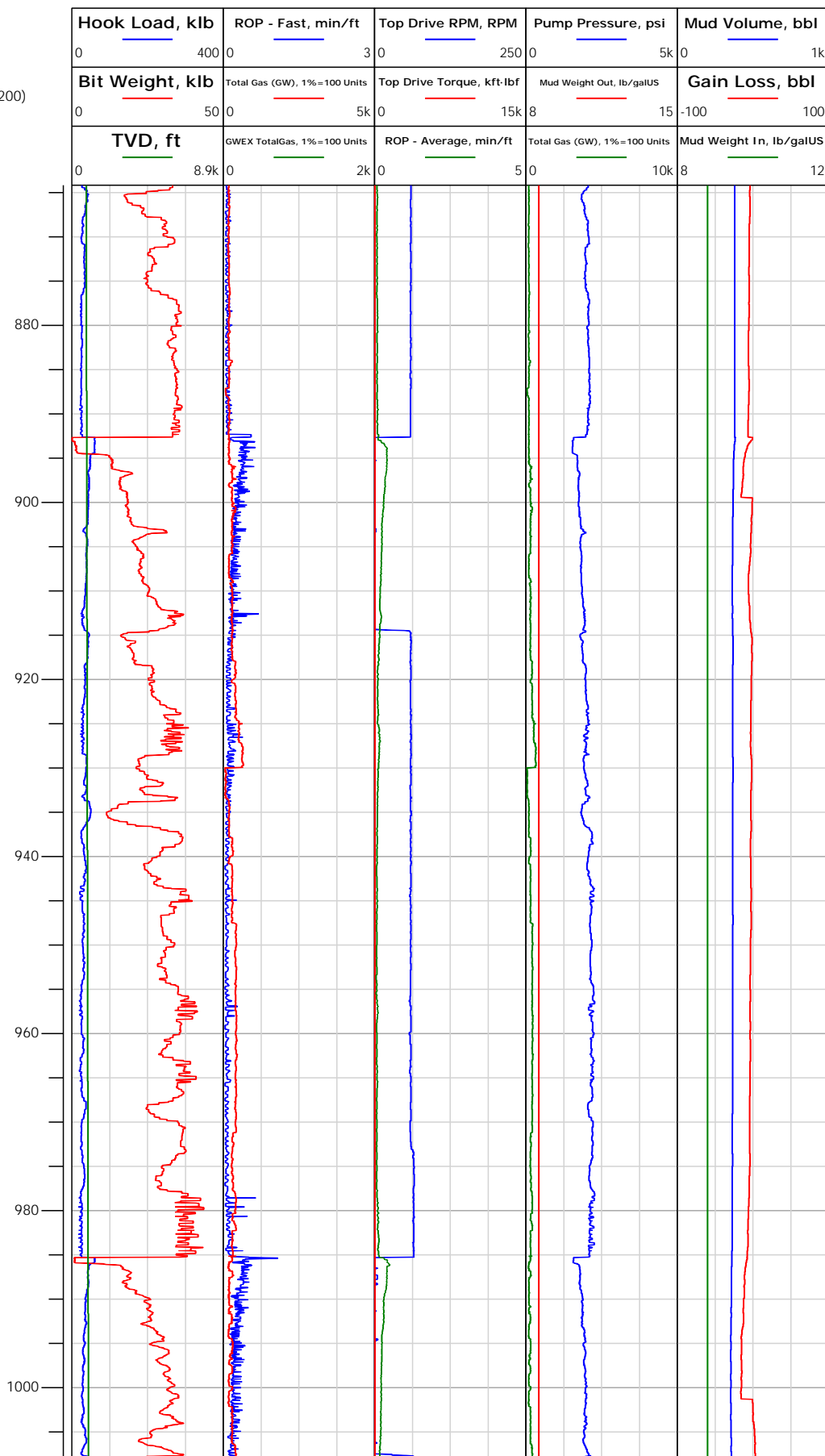
09:04

09:06

09:08

09:09

09:19



892.63: Connection @  
892.63 ft

929.00: Deviation Survey  
929.00 ft, Deviation 23.2  
deg, Direction 334.2 deg



# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes

Depth in ft (1:200)

Feb 11, 2018  
09:21

09:23

09:24

09:30

09:35

09:37

09:39

1020

1040

1060

1080

1100

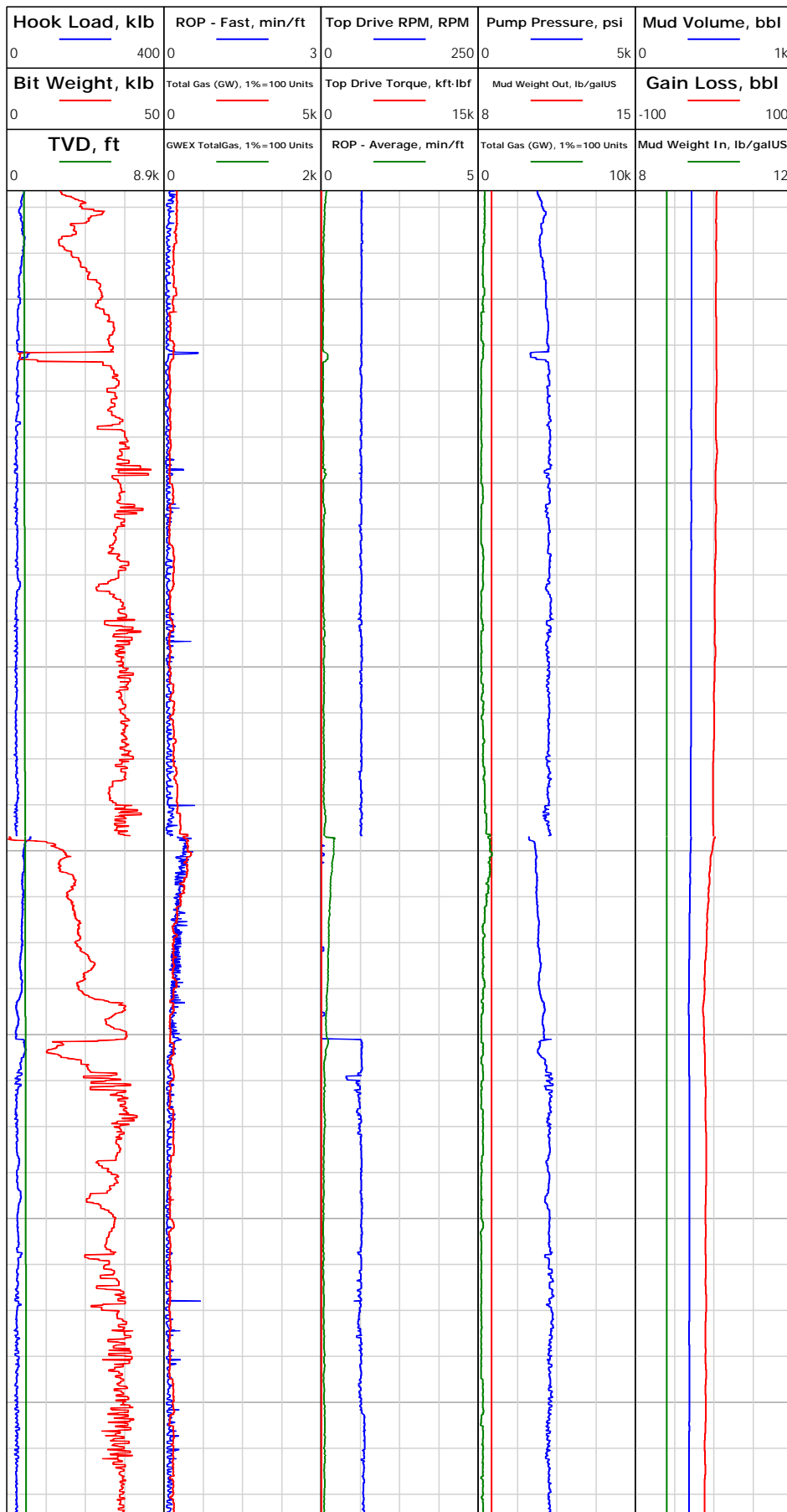
1120

1140

1023.00: Deviation Survey  
1023.00 ft, Deviation 25  
deg, Direction 334.9 deg

1078.49: Connection @  
1078.49 ft

1117.00: Deviation Survey  
1117.00 ft, Deviation 27.2  
deg, Direction 335.1 deg





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

### Notes

Depth in ft (1:200)

Feb 11, 2018  
09:41

09:49

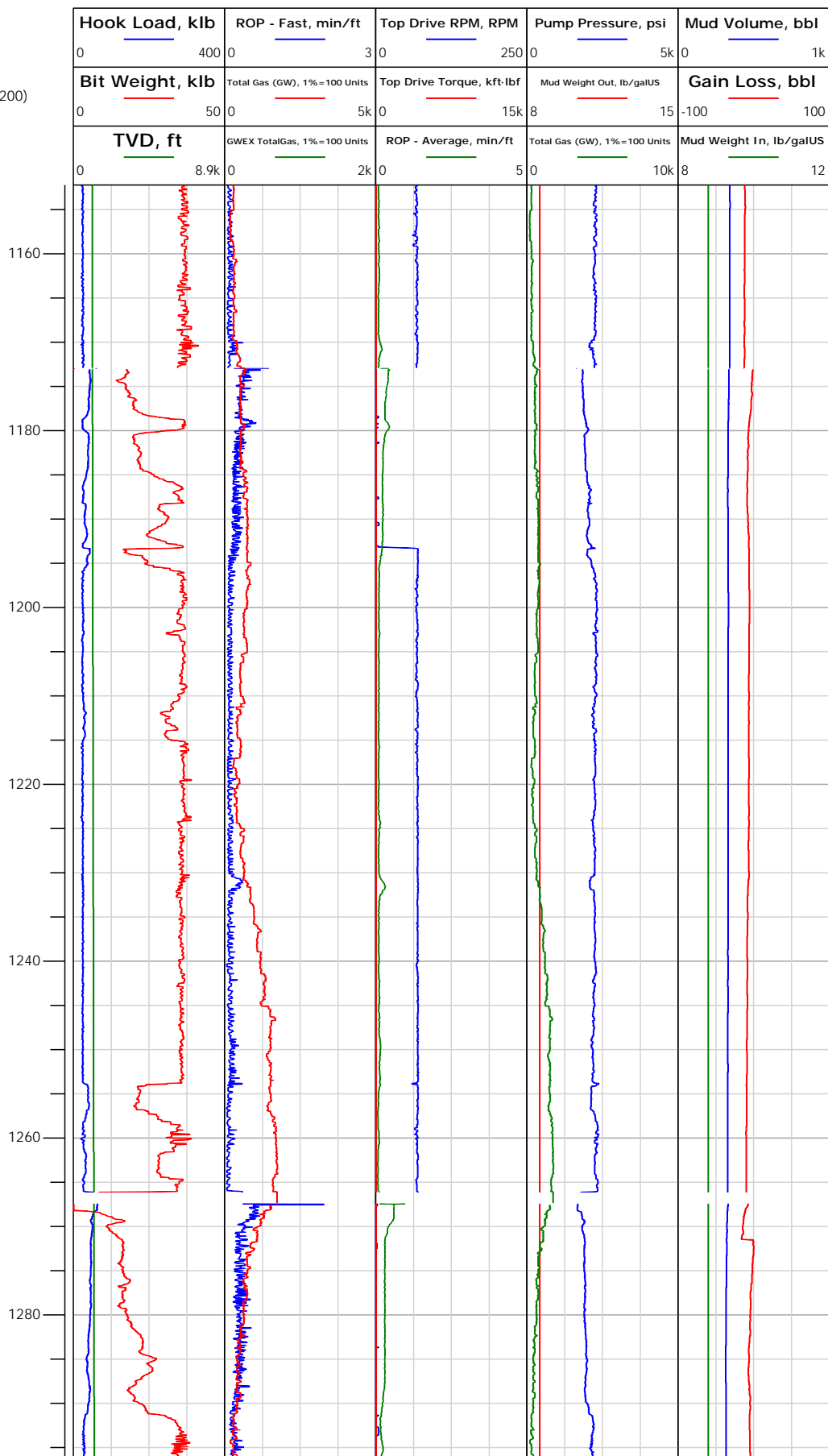
09:53

09:55

09:57

10:00

10:08



1172.90: Connection @  
1172.90 ft  
1174.85: Rig Floor set Hole  
Depth from 1174.74 ft to  
1173.00 ft

1212.00: Deviation Survey  
1212.00 ft, Deviation 28.7  
deg, Direction 334 deg

1267.53: Connection @  
1267.53 ft



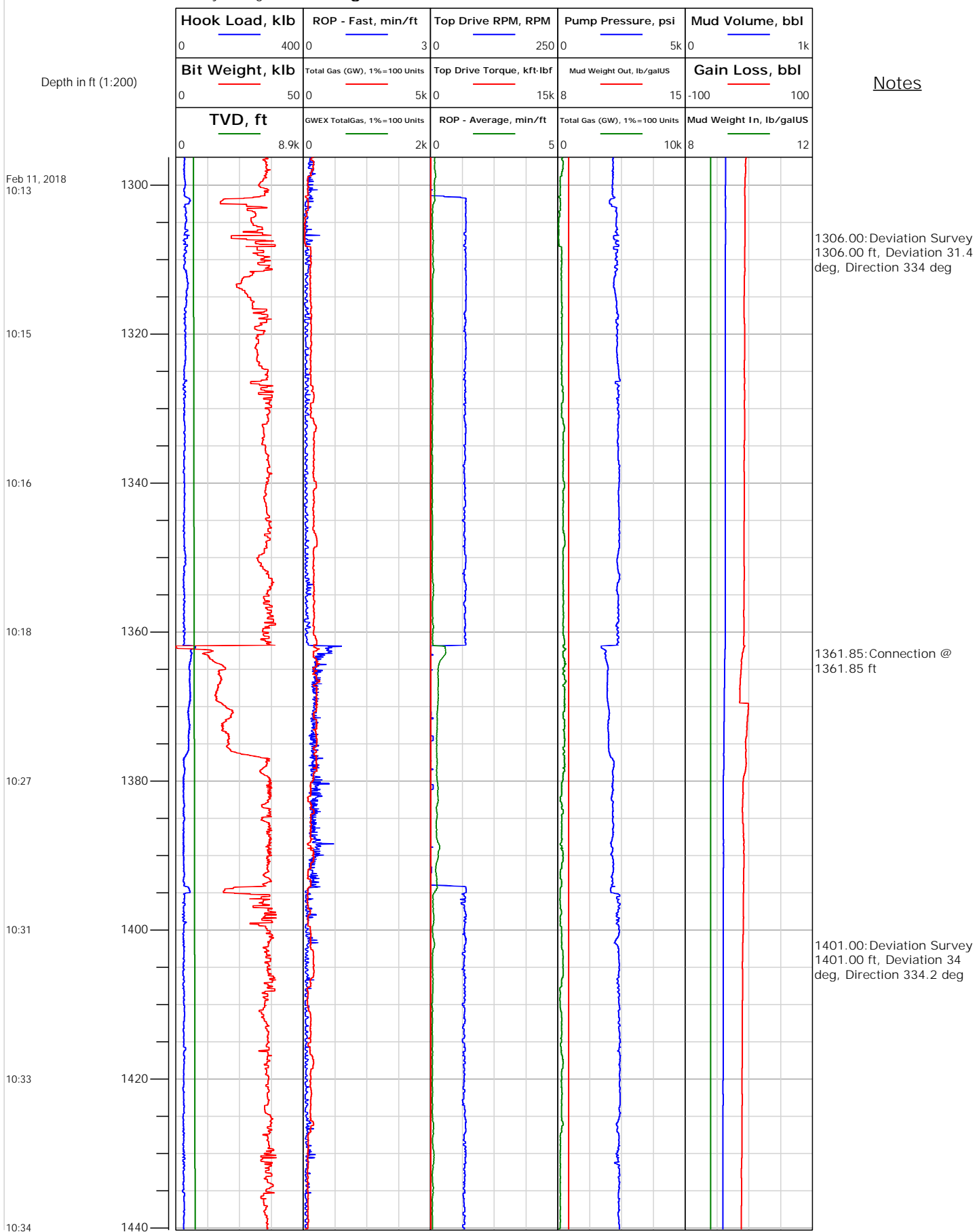
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes







## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 11, 2018  
10:41

10:47

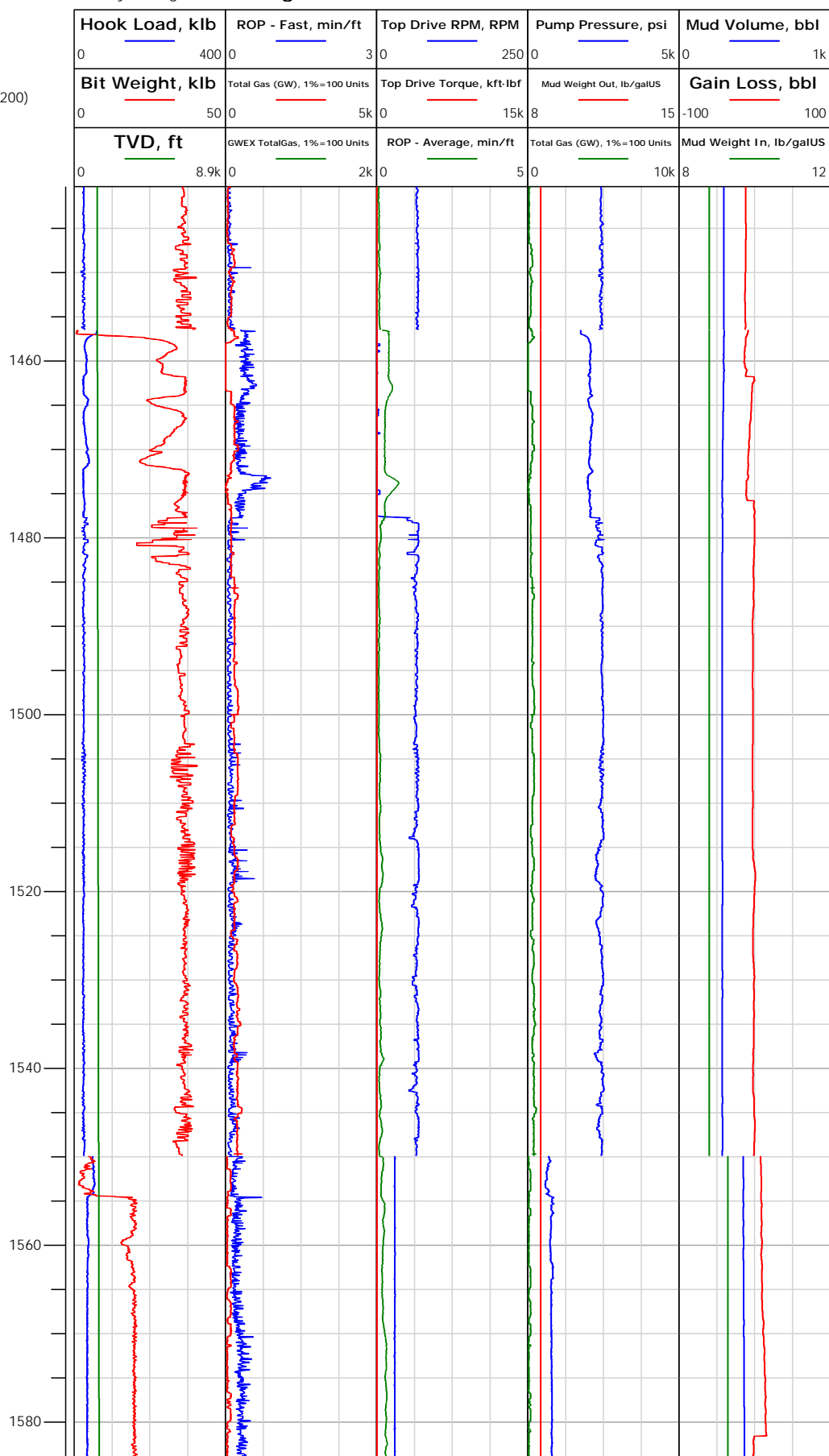
10:49

10:51

10:54

Feb 12, 2018  
01:37

01:42



1456.46: Connection @  
1456.46 ft

1495.00: Deviation Survey  
1495.00 ft, Deviation 34.5  
deg, Direction 334.6 deg

1550.00: Rig Floor set Bit  
Position from 1407.23 ft to  
1540.00 ft  
1550.00: Rig Floor set Bit  
Position from 1545.50 ft to  
168.00 ft  
1550.00: Connection @  
1550.00 ft  
1550.00: Rig Floor set Bit  
Position from 601.34 ft to  
974.00 ft  
1550.00: Rig Floor set Bit  
Position from 933.76 ft to  
1396.00 ft  
1550.72: Connection @  
1550.72 ft  
1552.81: Rig Floor set Hole  
Depth from 1552.82 ft to  
1550.00 ft  
1562.19: Rig Floor set Bit  
Position from 1454.86 ft to  
1442.67 ft



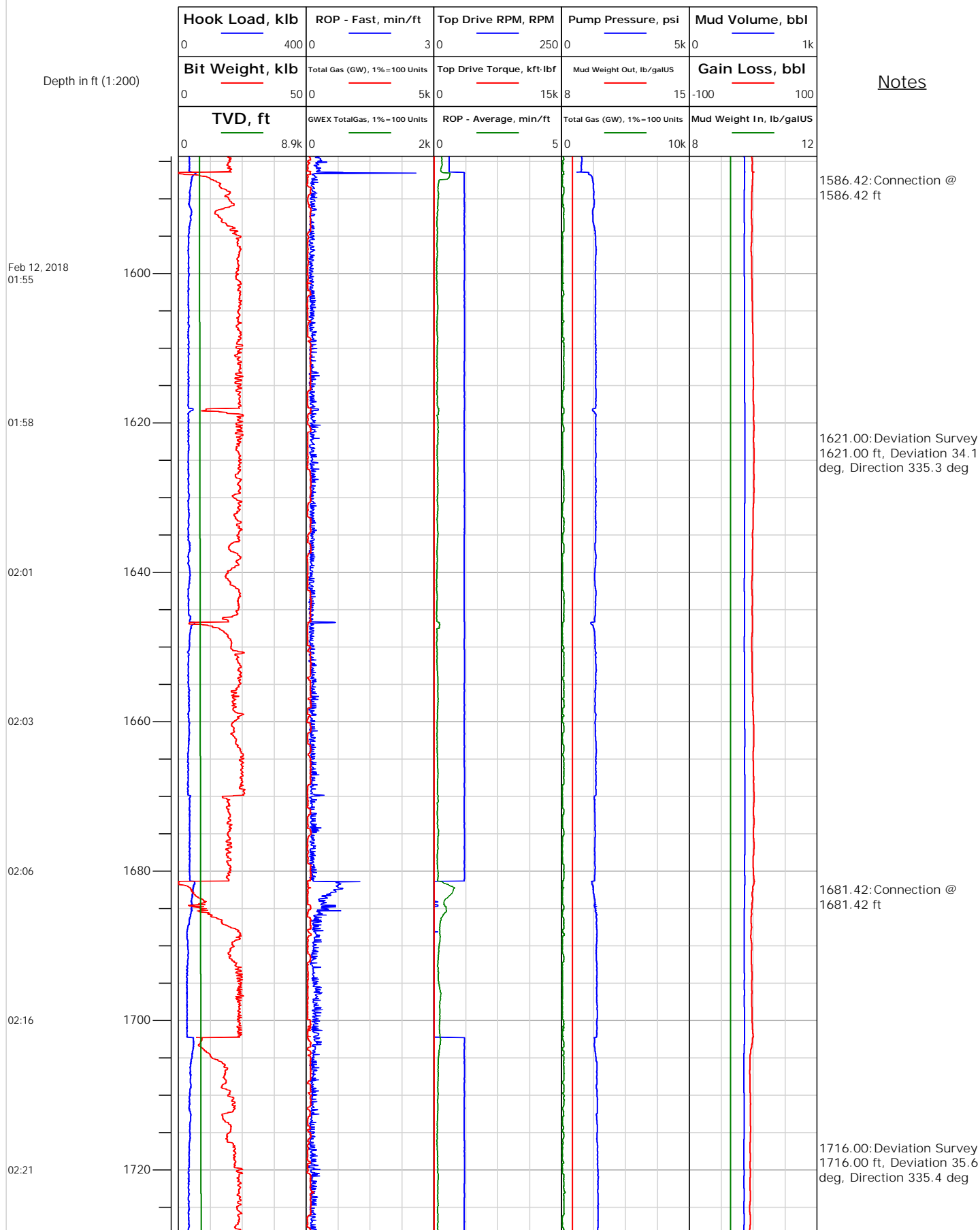
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

## Notes





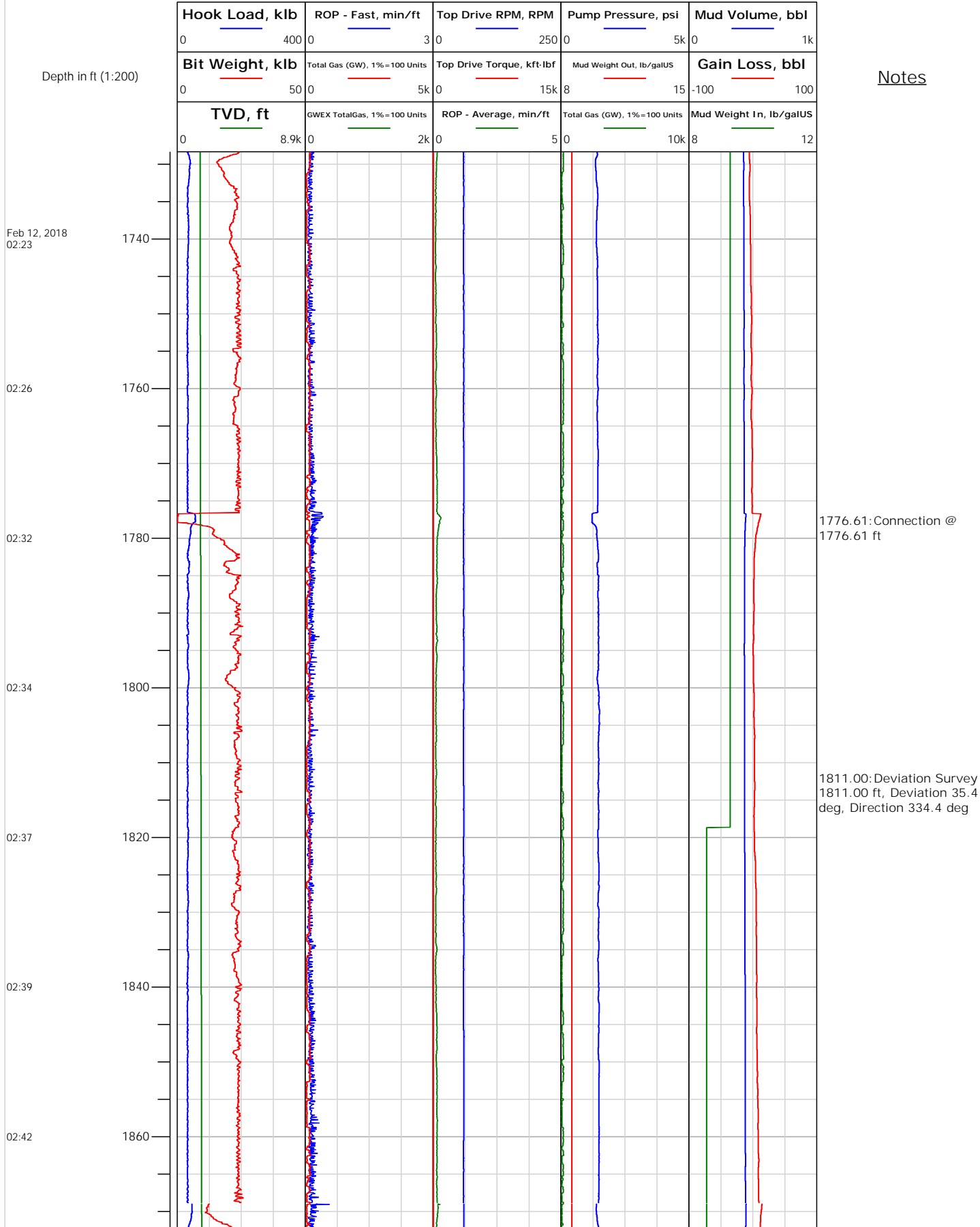
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes





# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes

Depth in ft (1:200)

Feb 12, 2018  
02:49

02:51

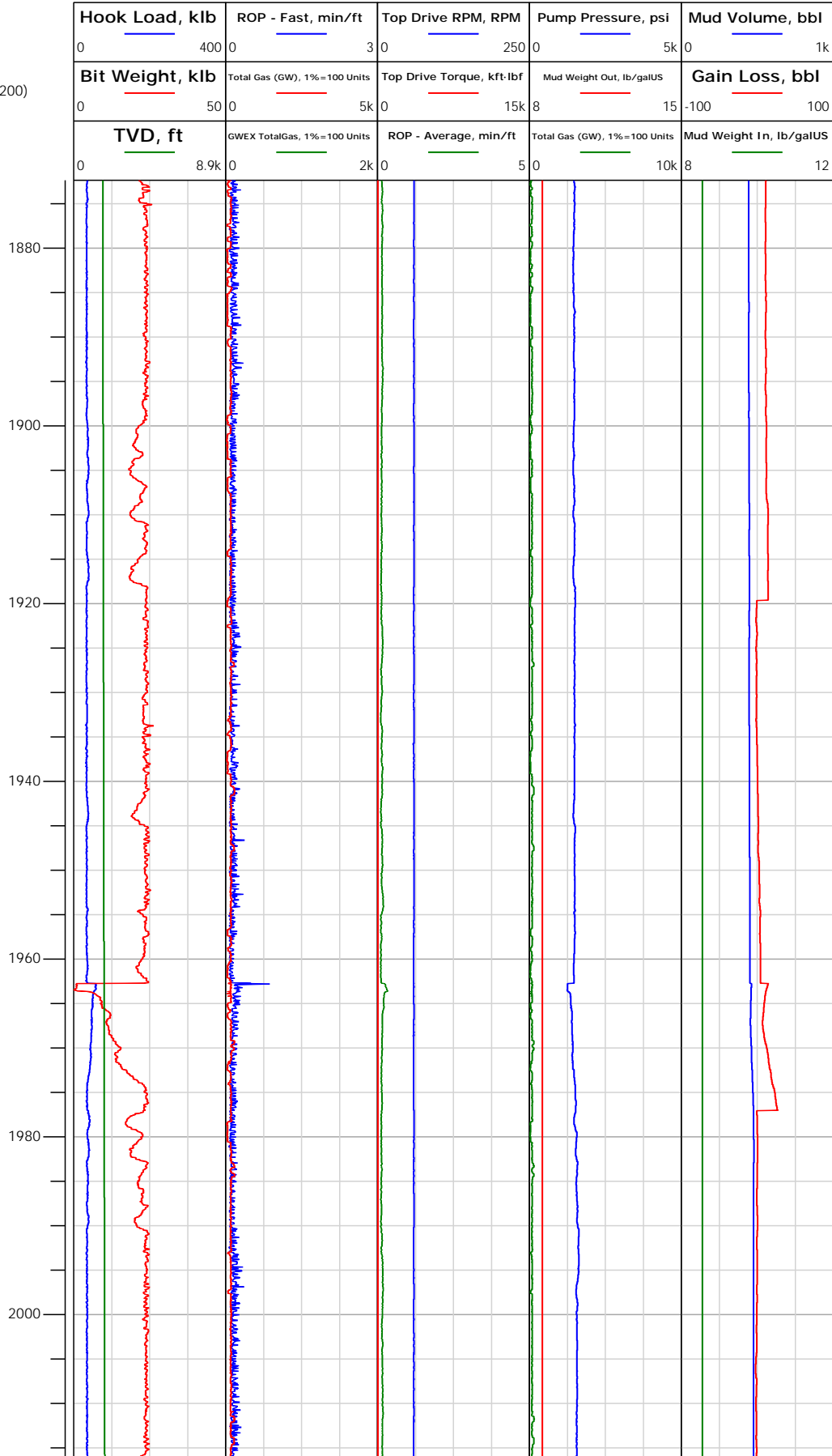
02:54

02:57

02:59

03:05

03:08



1872.61: Connection @  
1872.61 ft  
1874.71: Rig Floor set Hole  
Depth from 1873.19 ft to  
1869.00 ft

1905.00: Deviation Survey  
1905.00 ft, Deviation 34.8  
deg, Direction 334.3 deg

1962.83: Connection @  
1962.83 ft

1999.99: Deviation Survey  
2000.00 ft, Deviation 33.9  
deg, Direction 334 deg



## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 12, 2018  
03:11

03:13

03:20

03:25

03:30

03:32

03:35

03:42

2020

2040

2060

2080

2100

2120

2140

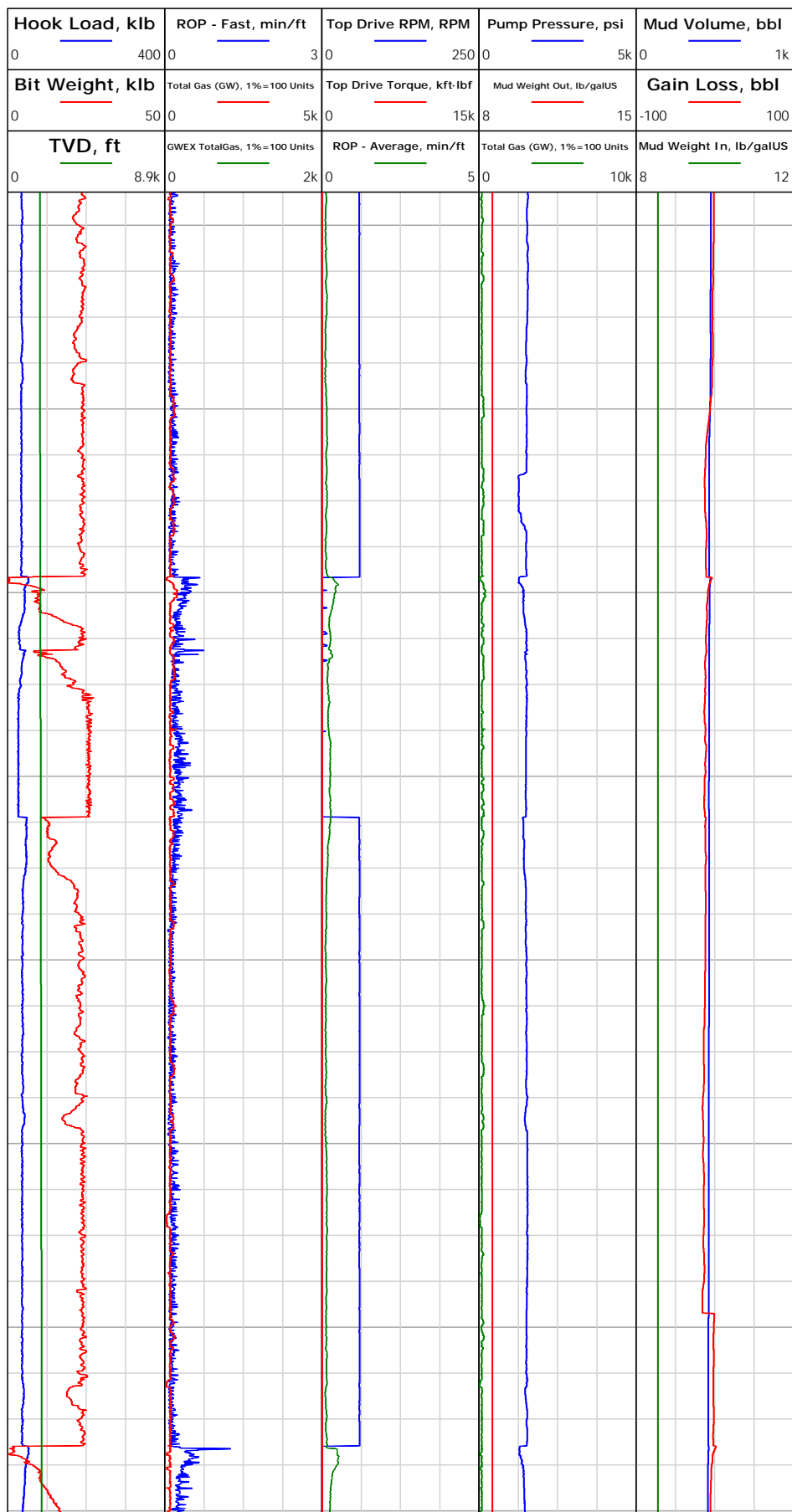
2160

2026.26: MD IN WT  
8.65/27 VIS OUT WT  
8.75/27 VIS

2058.34: Connection @  
2058.34 ft

2095.00: Deviation Survey  
2095.00 ft, Deviation 34.1  
deg, Direction 335.7 deg

2153.08: Connection @  
2153.08 ft





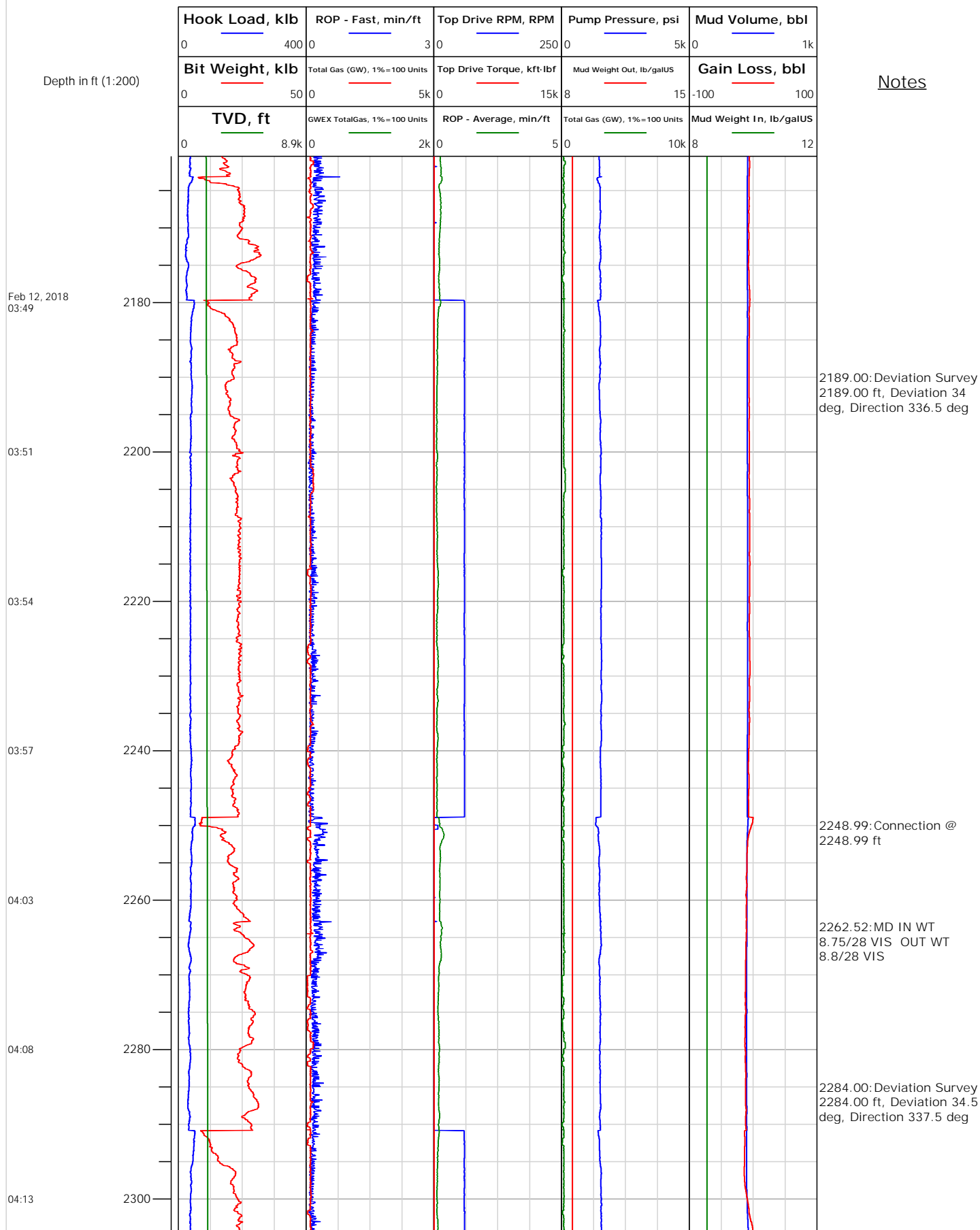
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

## Notes





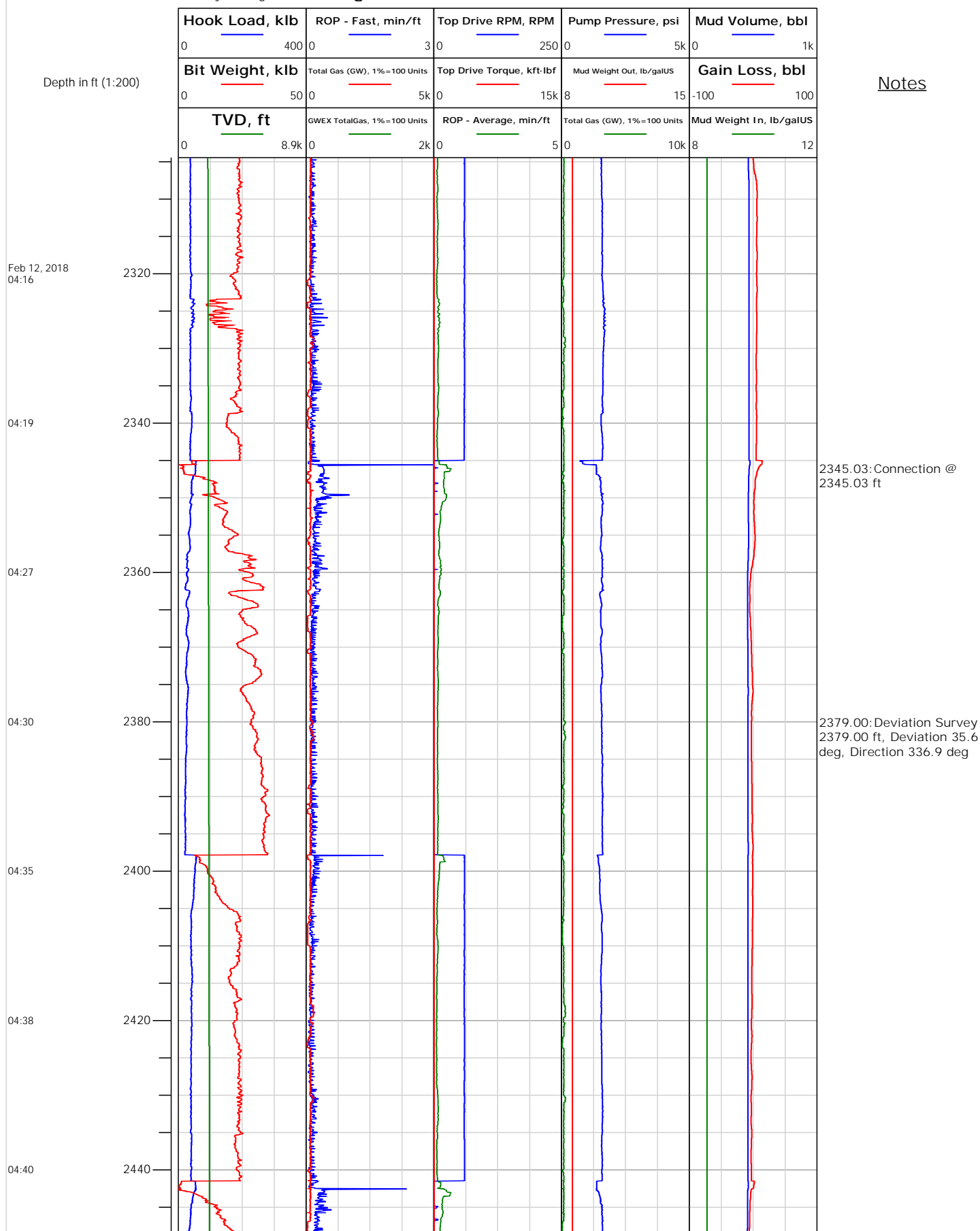
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





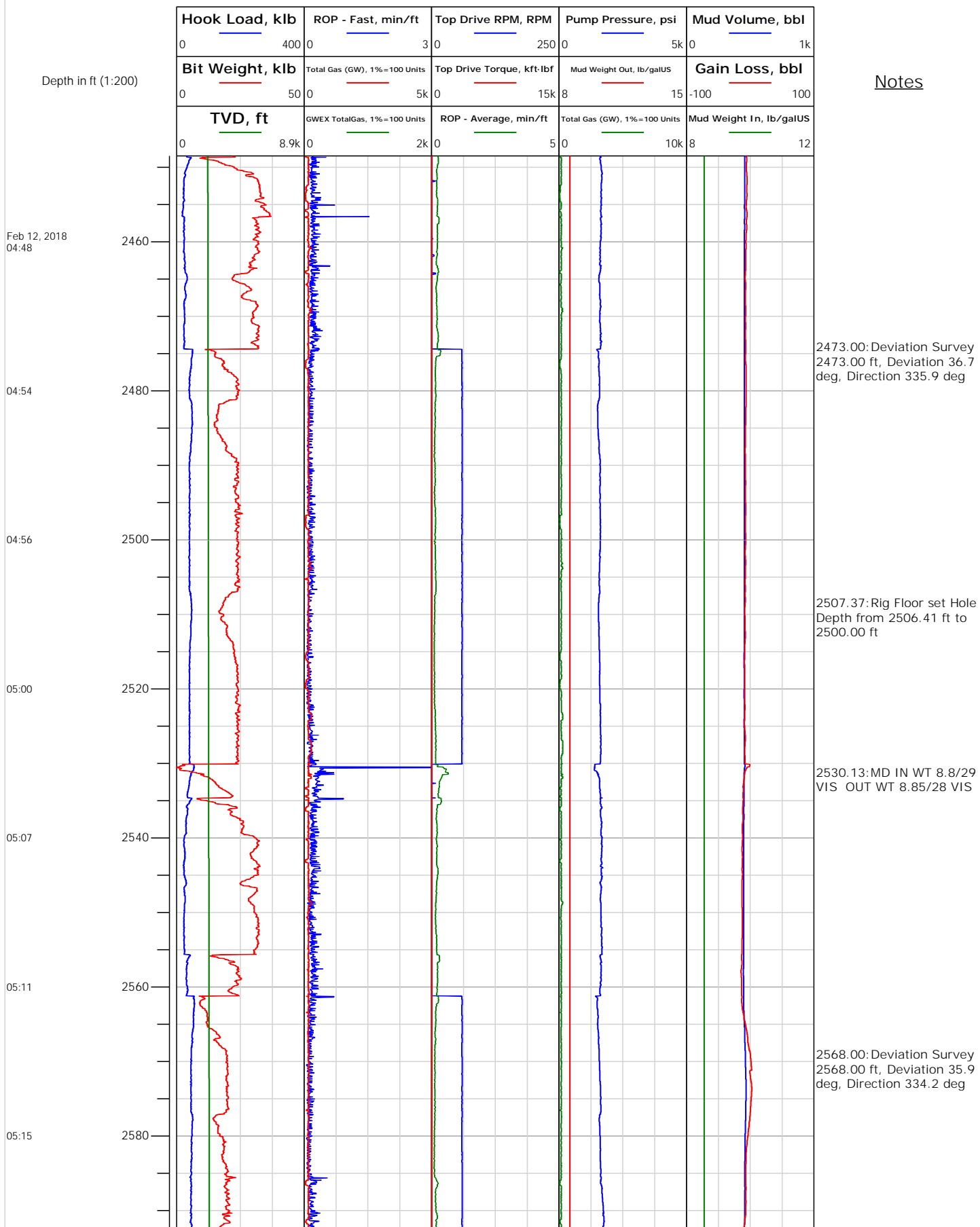
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes







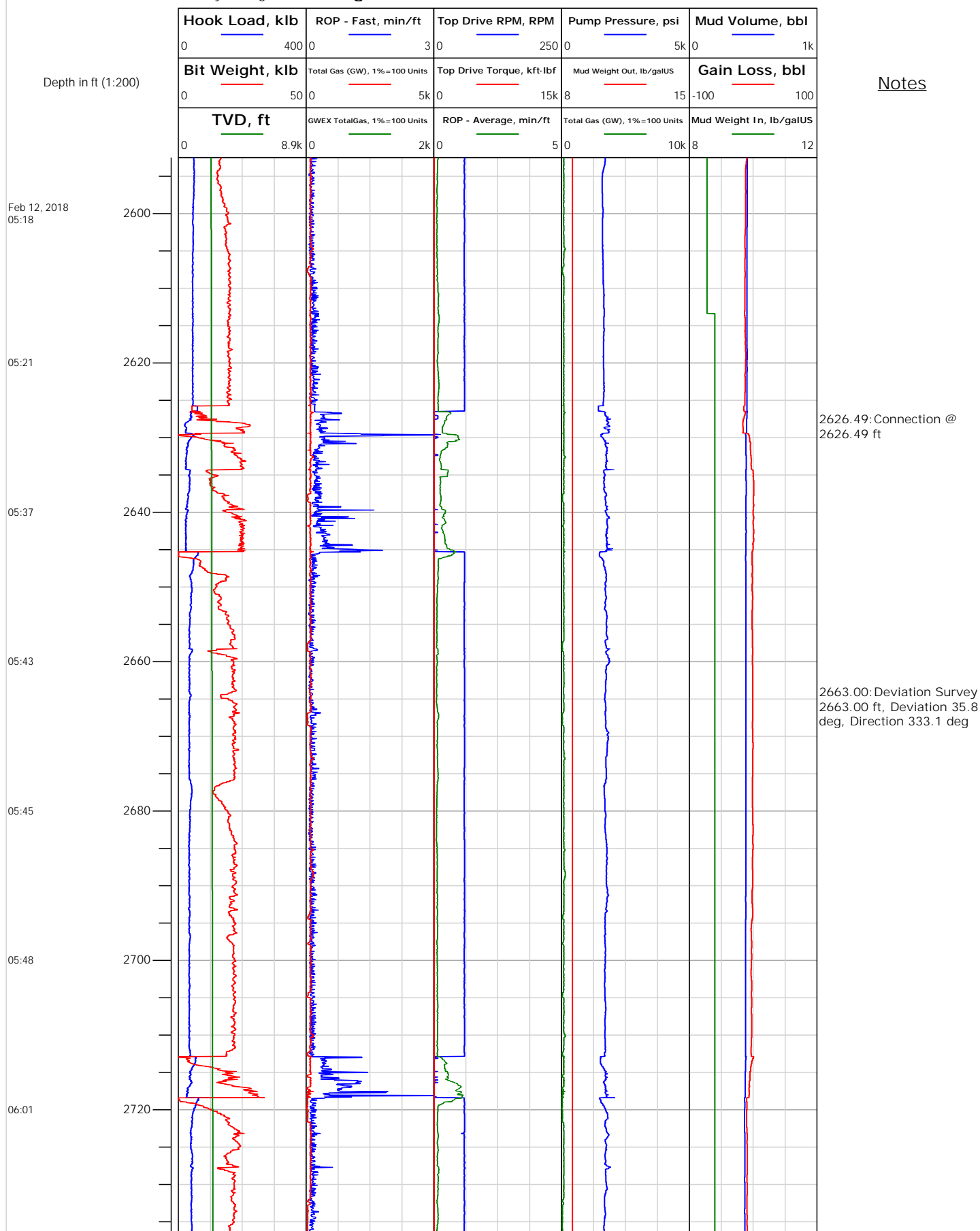
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





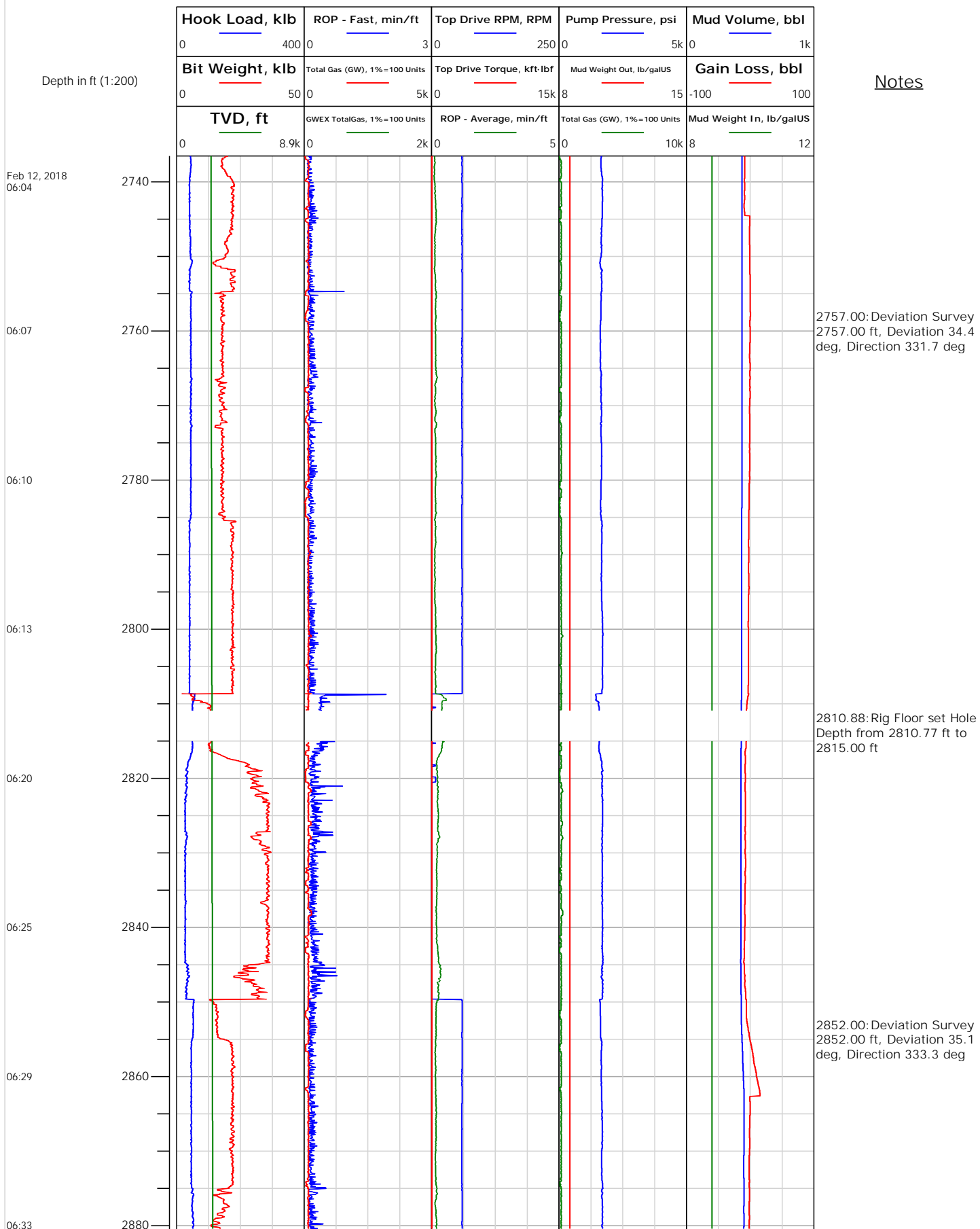
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





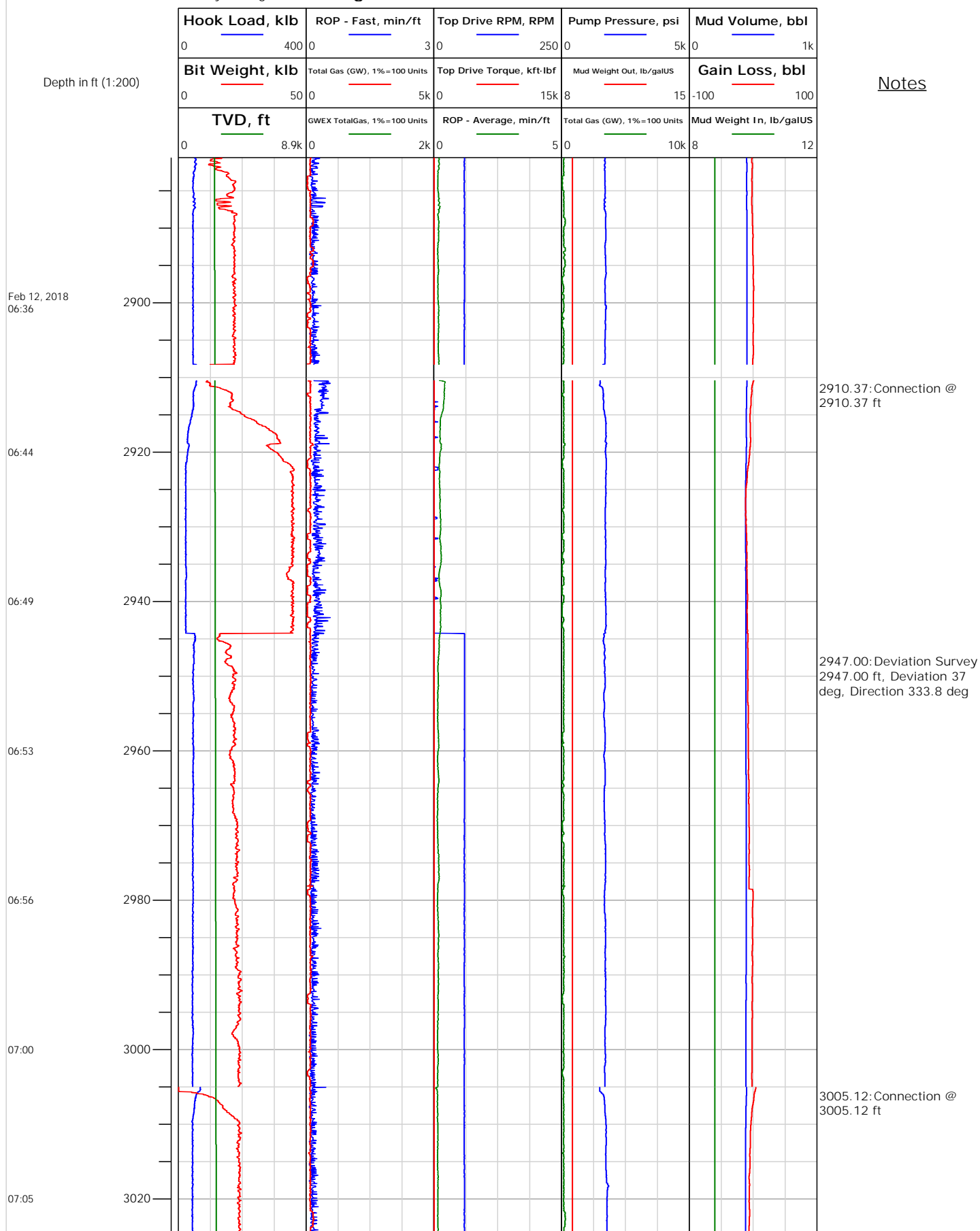
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 12, 2018  
07:08

07:11

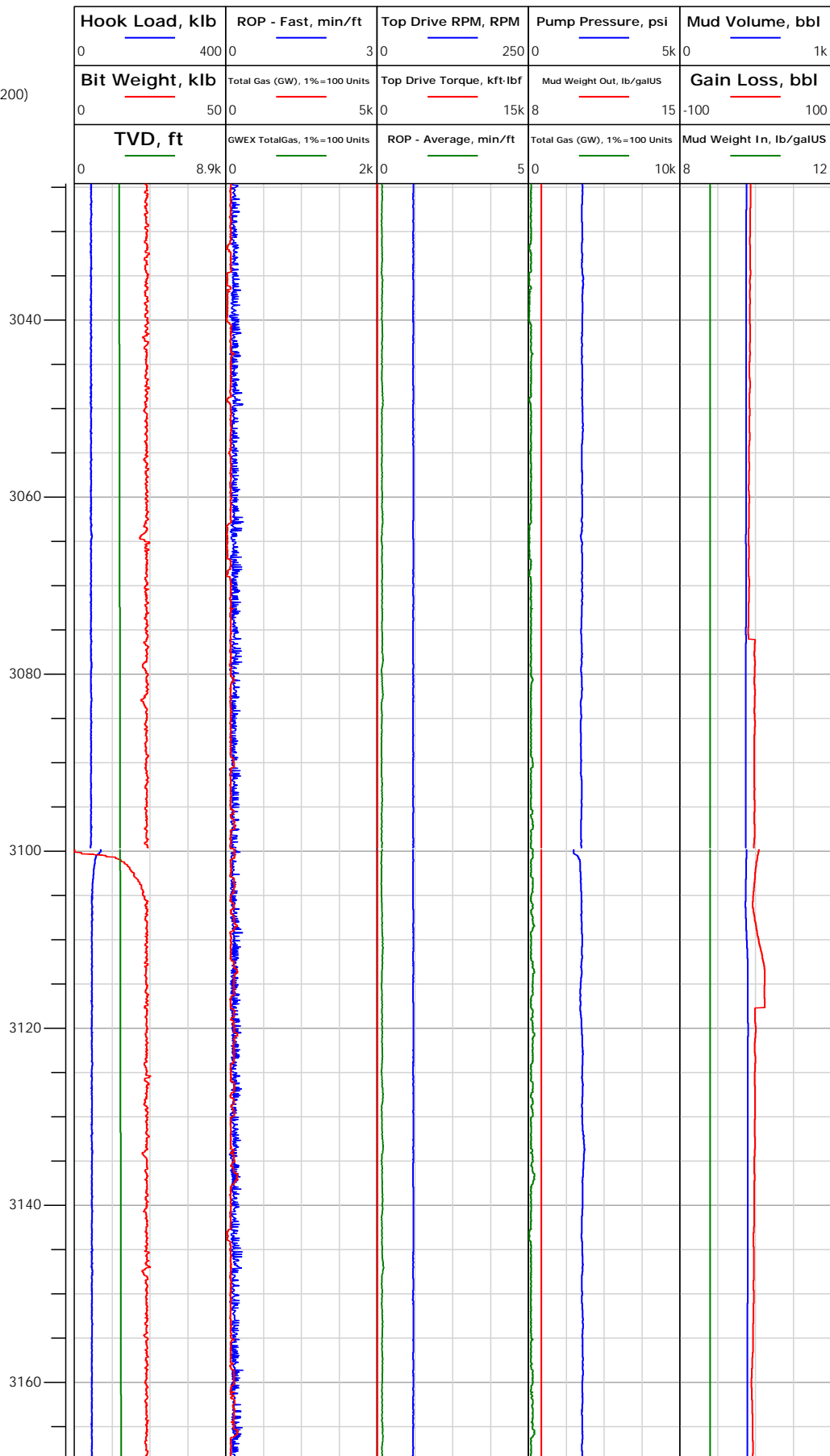
07:15

07:20

07:24

07:27

07:30



3041.00: Deviation Survey  
3041.00 ft, Deviation 36.4  
deg, Direction 333.6 deg

3099.76: Connection @  
3099.76 ft

3128.00: Deviation Survey  
3128.00 ft, Deviation 36.1  
deg, Direction 333.5 deg



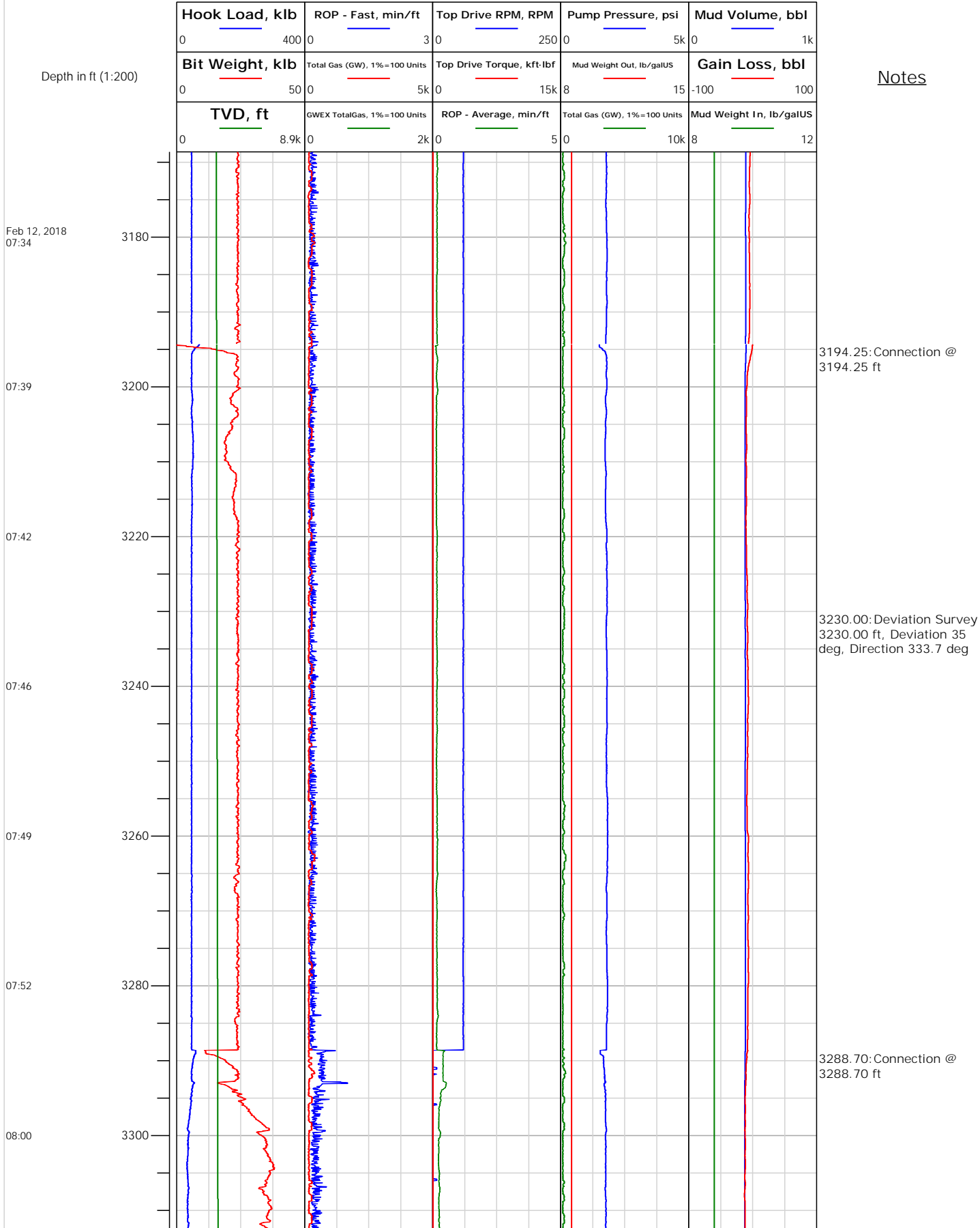
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes





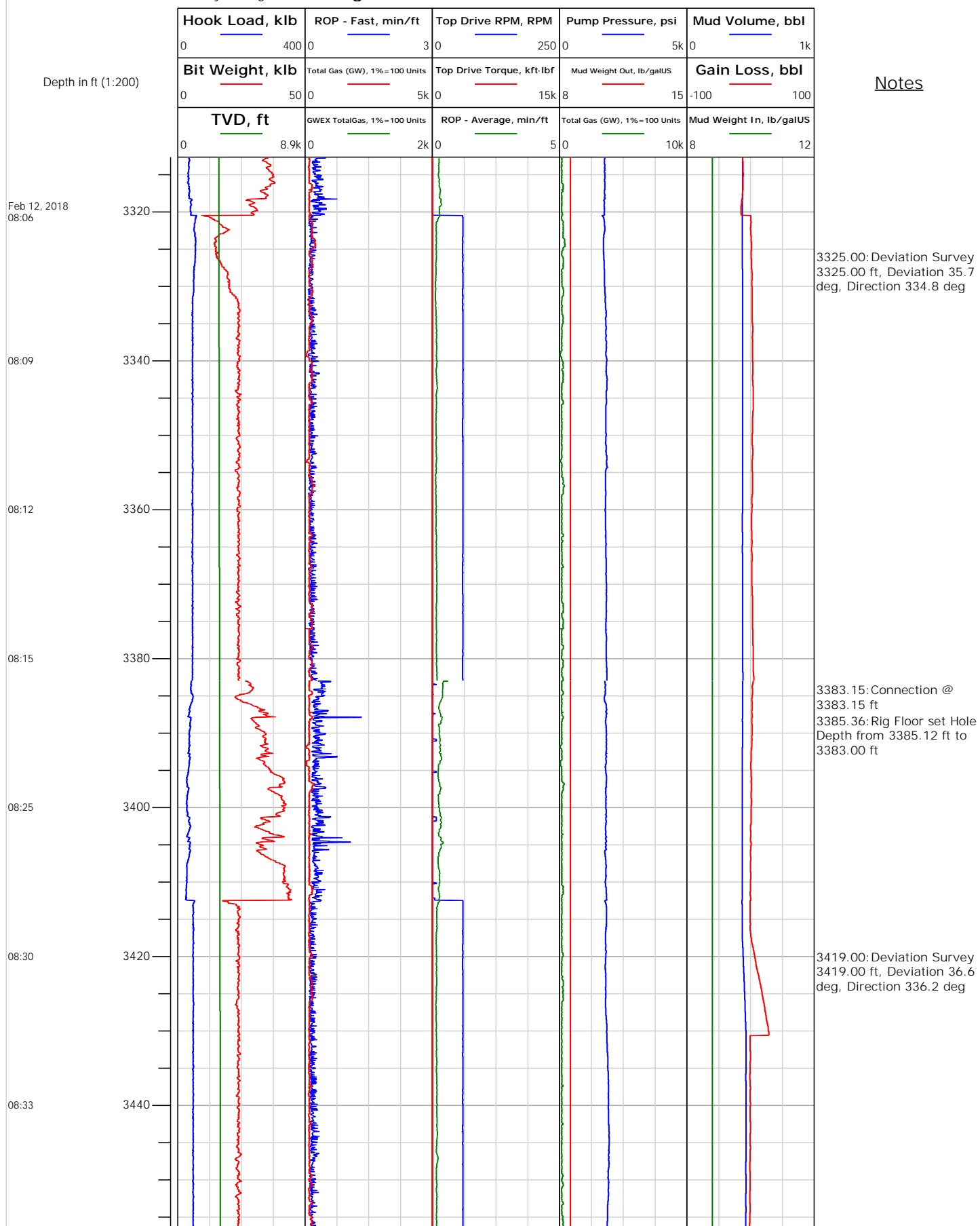
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

## Notes





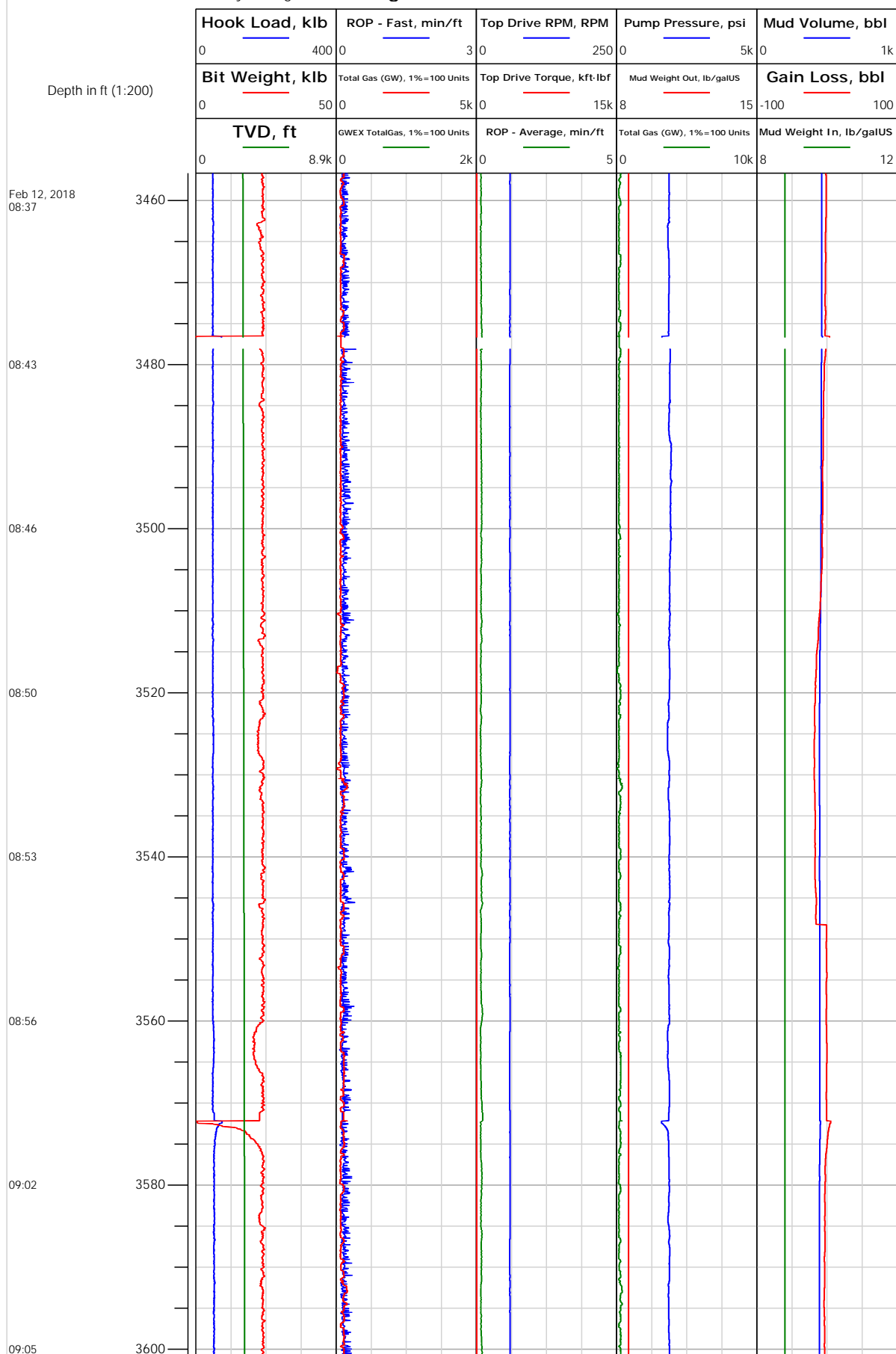
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

### Notes





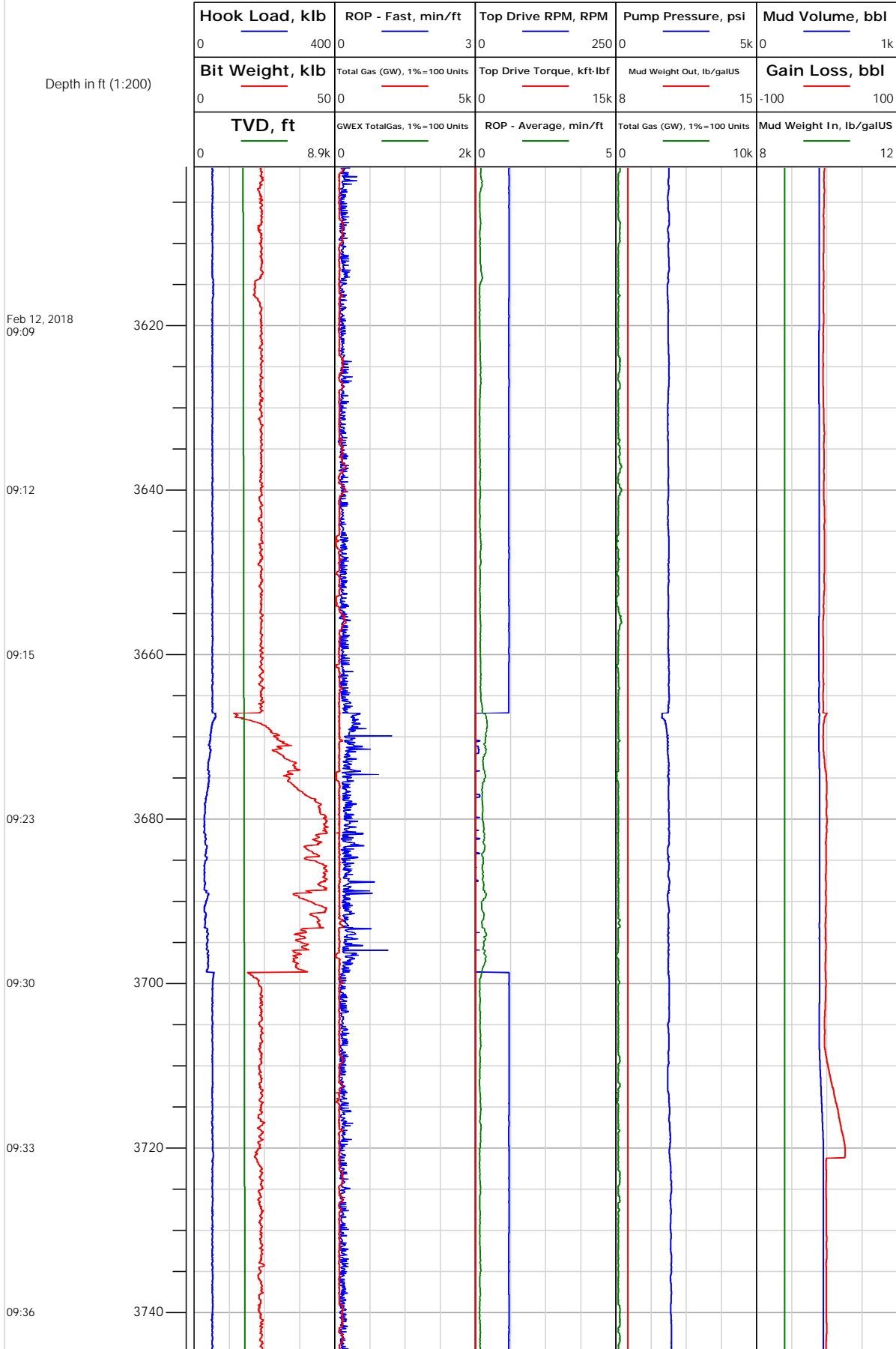
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes







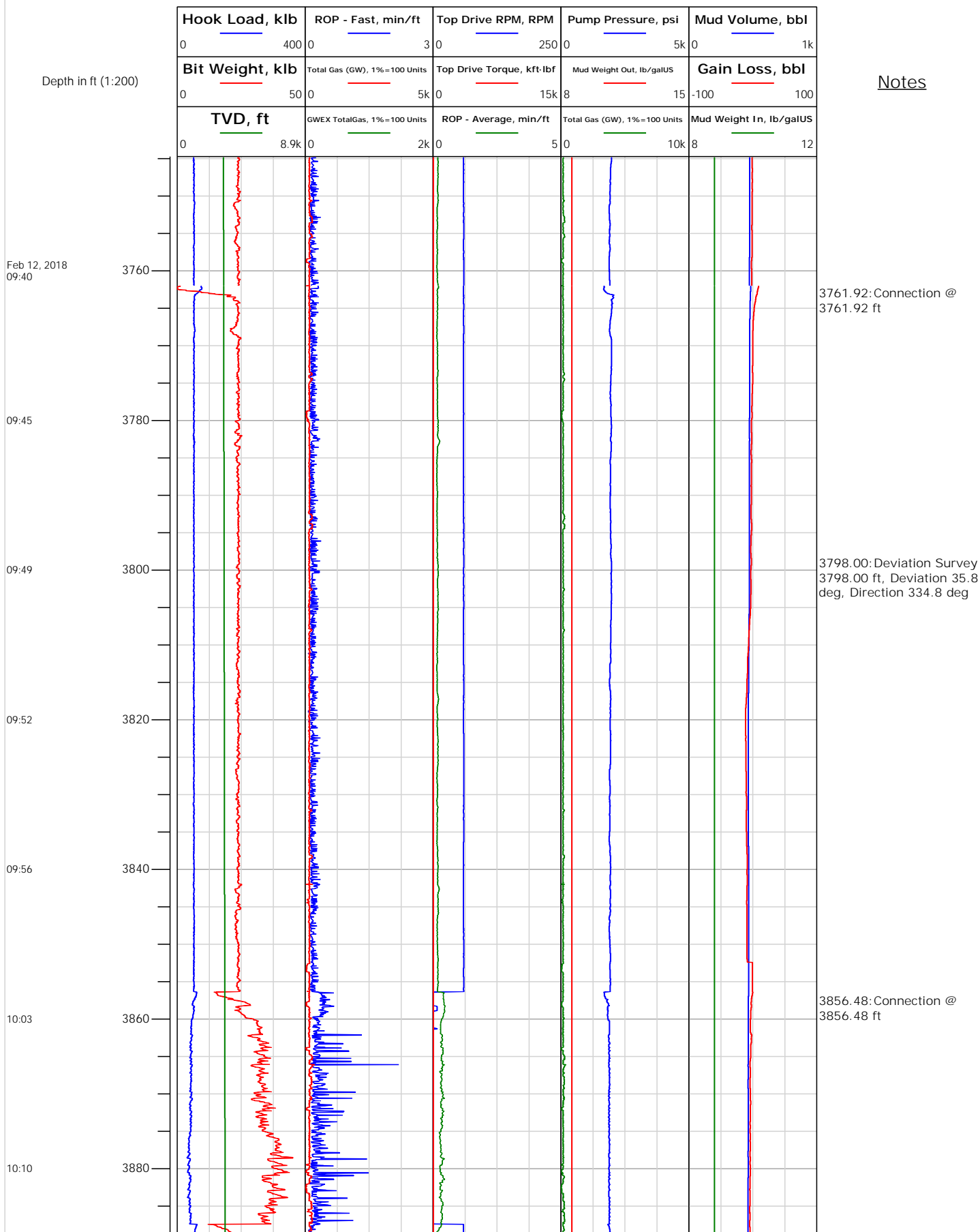
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





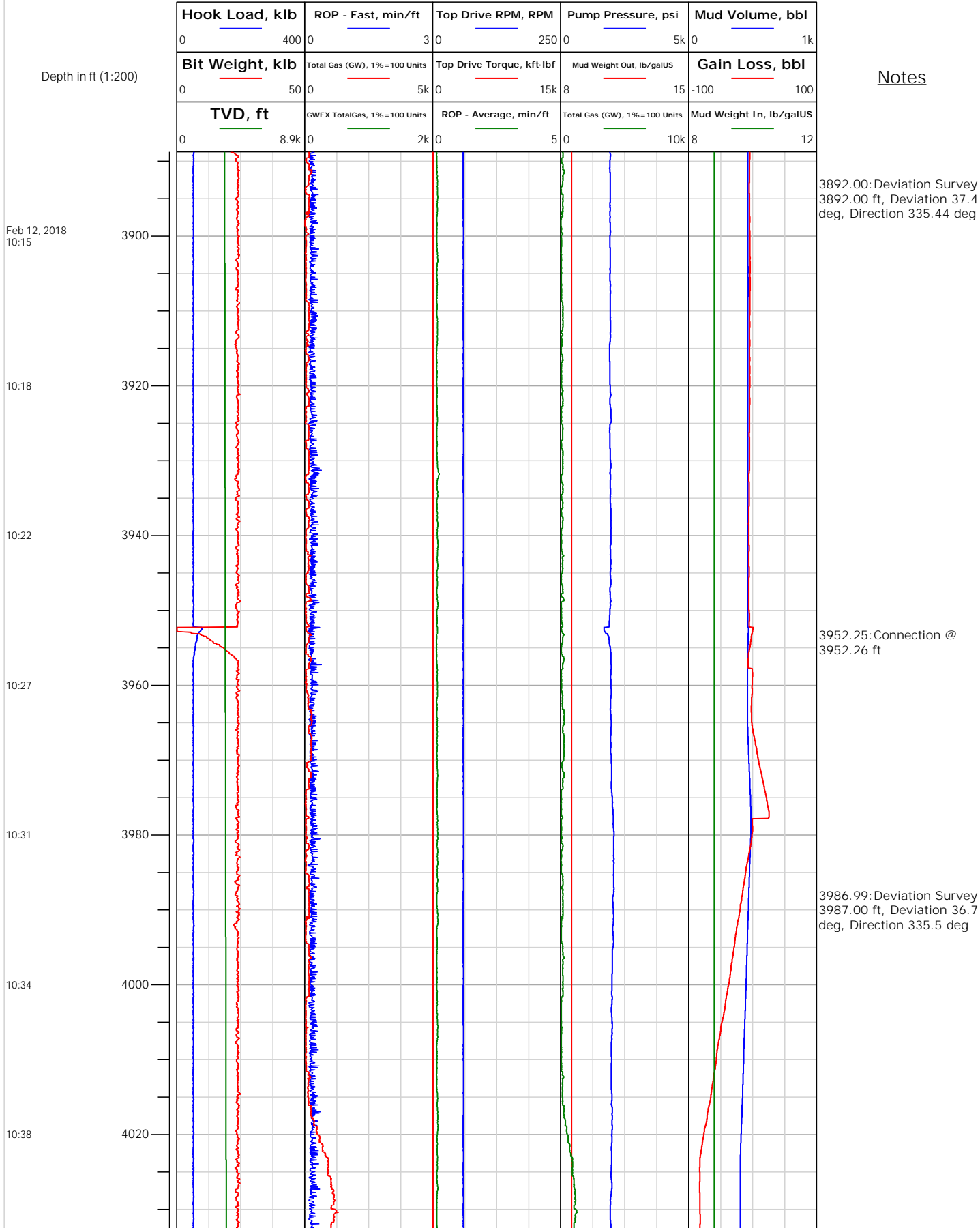
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





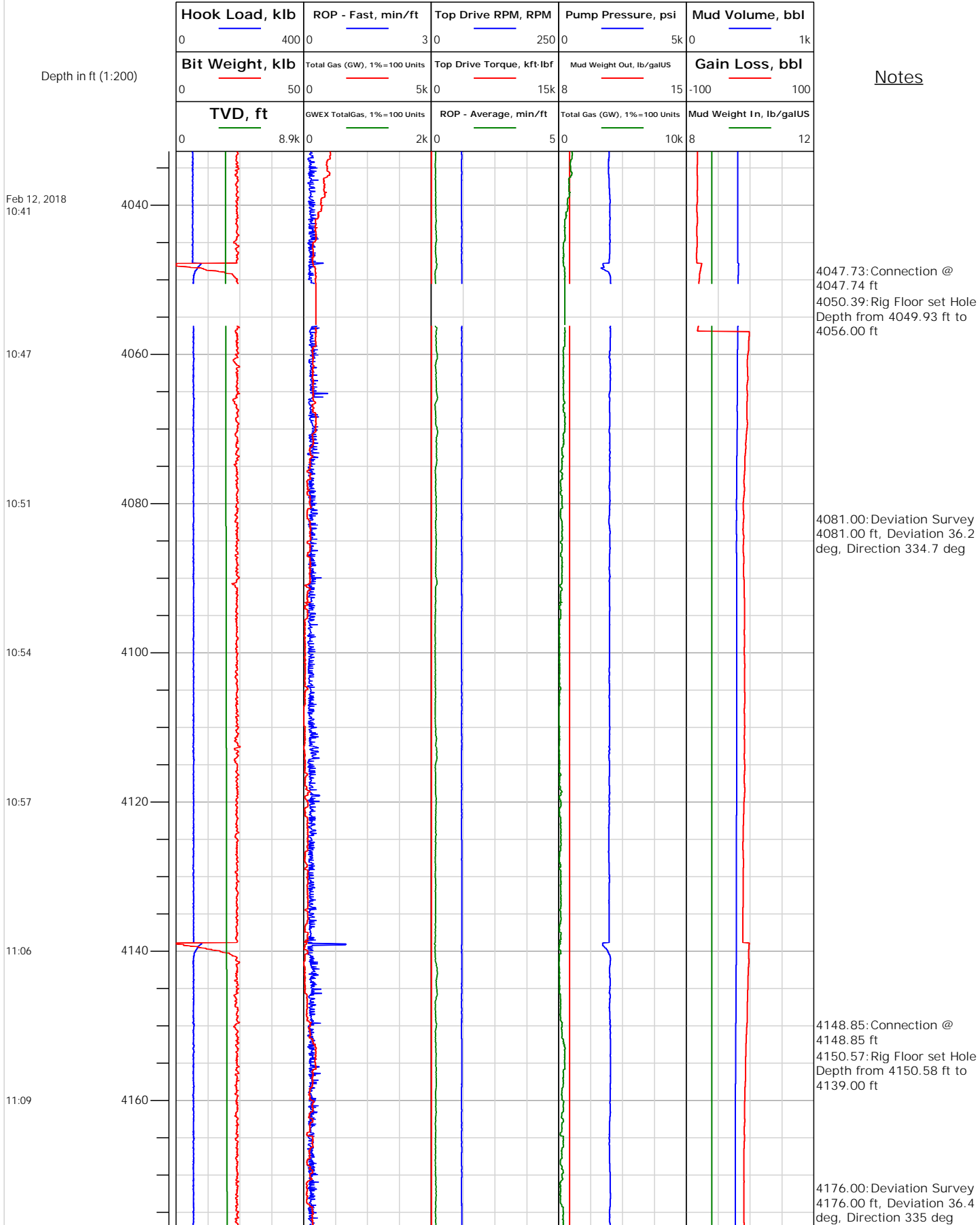
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





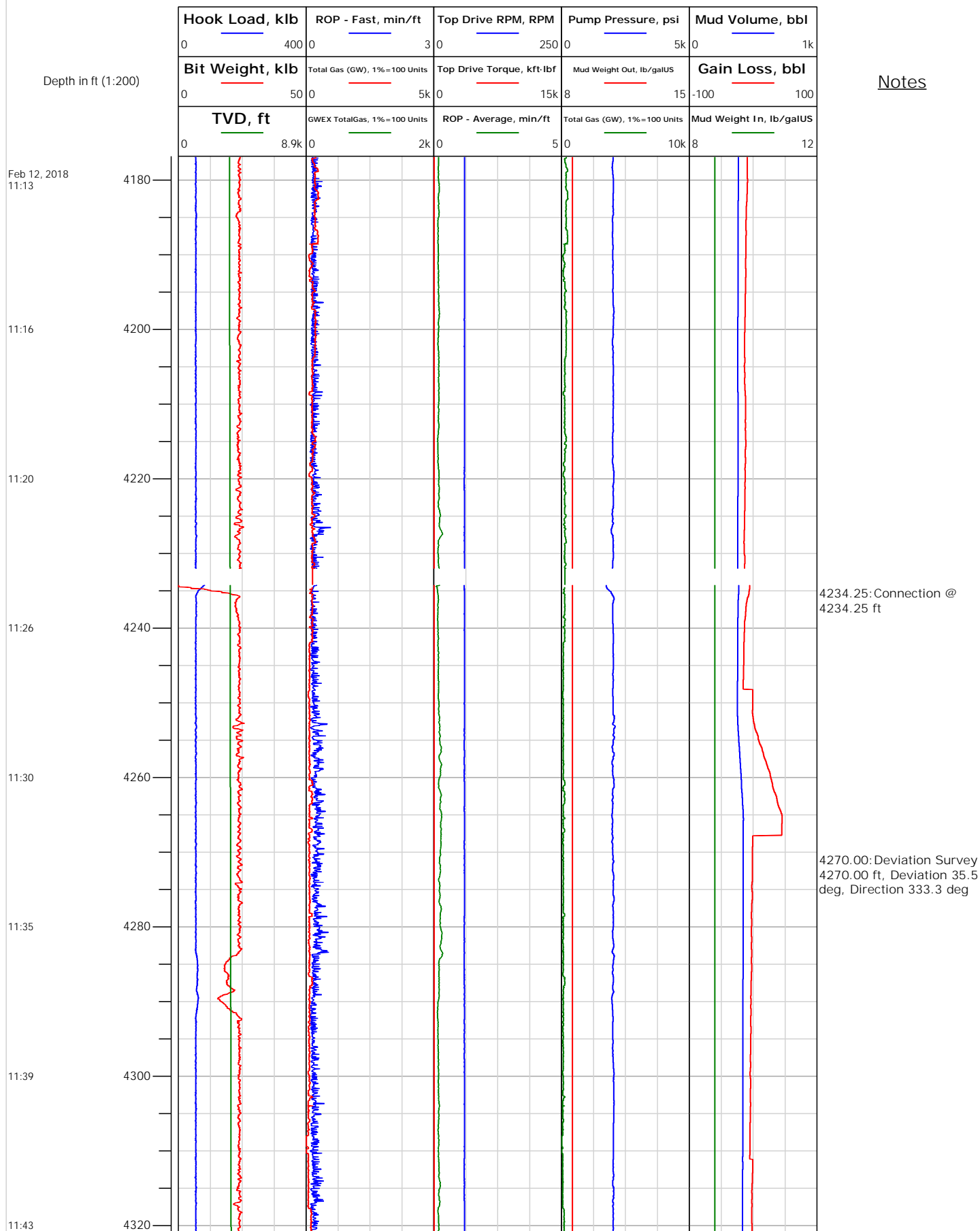
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 12, 2018  
11:50

11:57

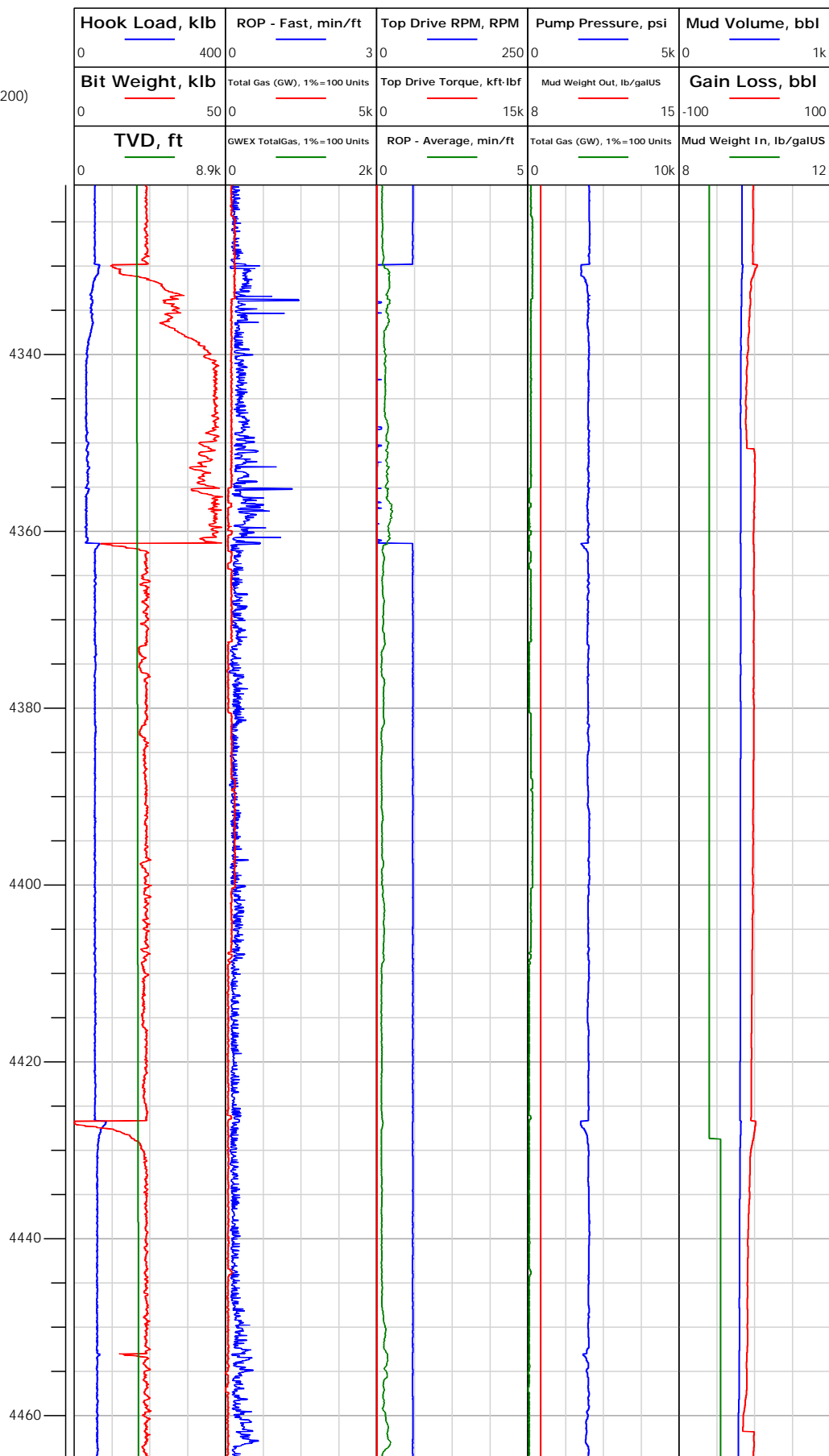
12:02

12:06

12:10

12:15

12:20



4329.81: Connection @  
4329.82 ft

4365.00: Deviation Survey  
4365.00 ft, Deviation 36.1  
deg, Direction 335.1 deg

4459.00: Deviation Survey  
4459.00 ft, Deviation 33.9  
deg, Direction 334.1 deg



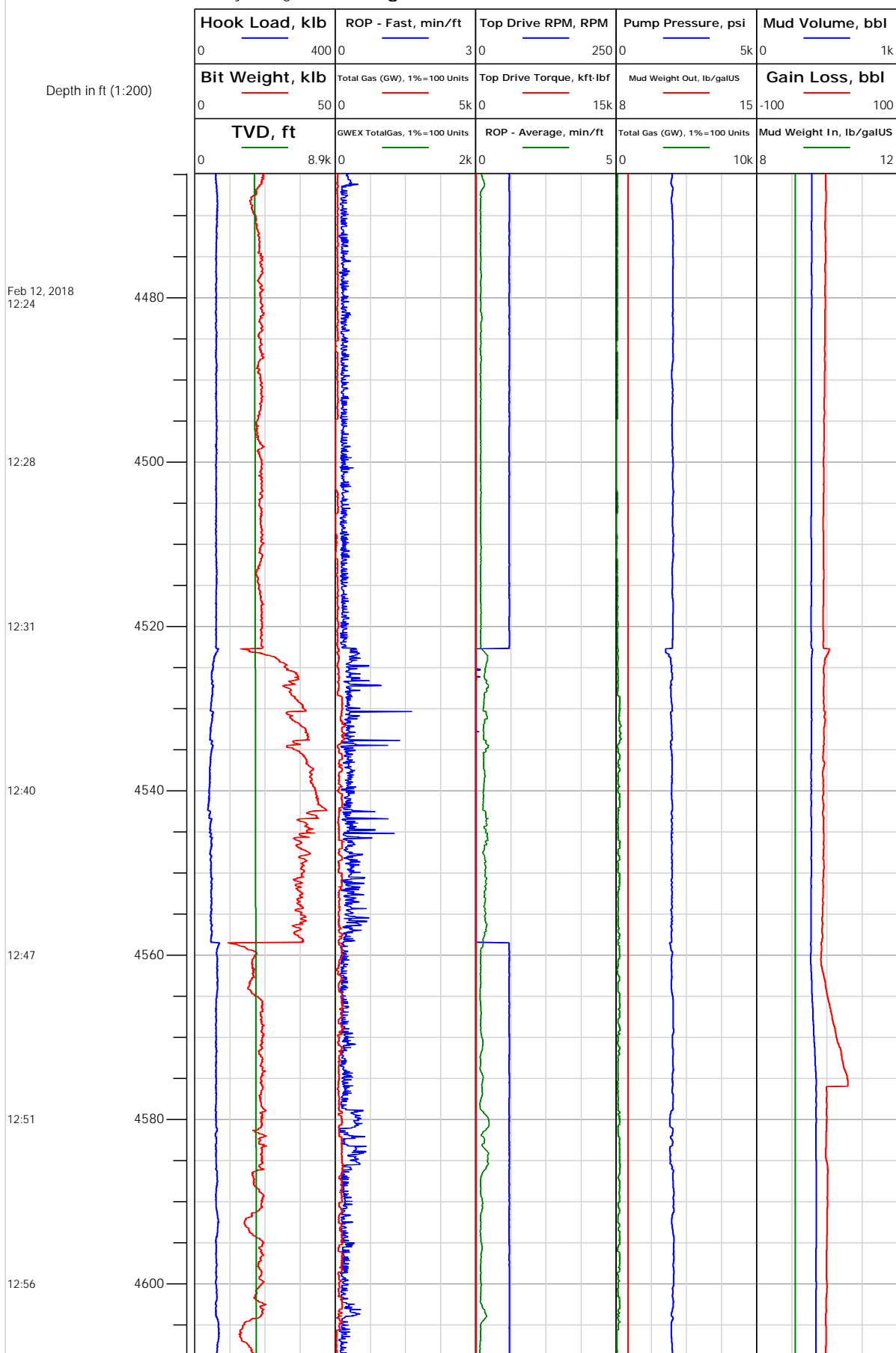
# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





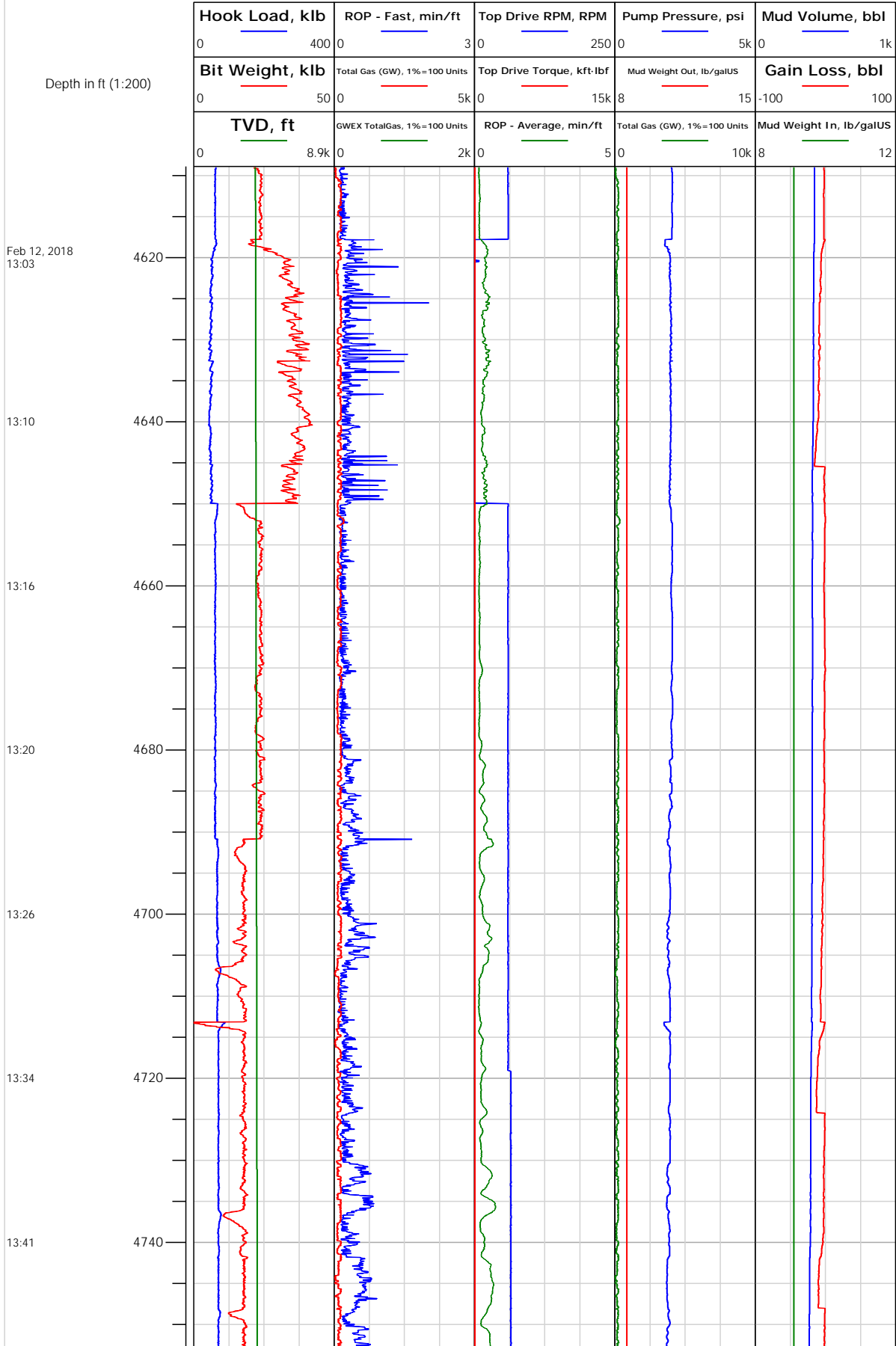
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes





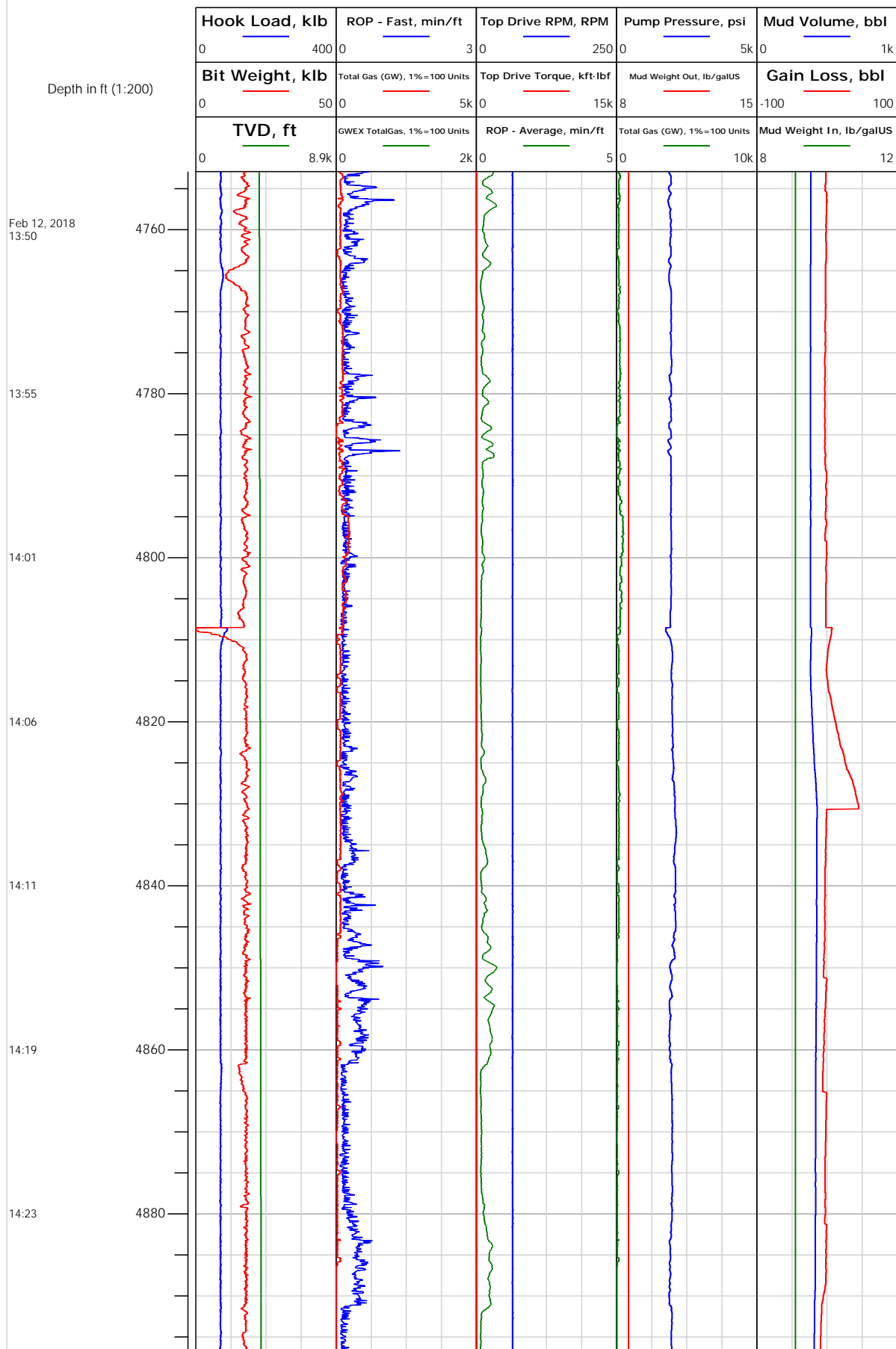
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes







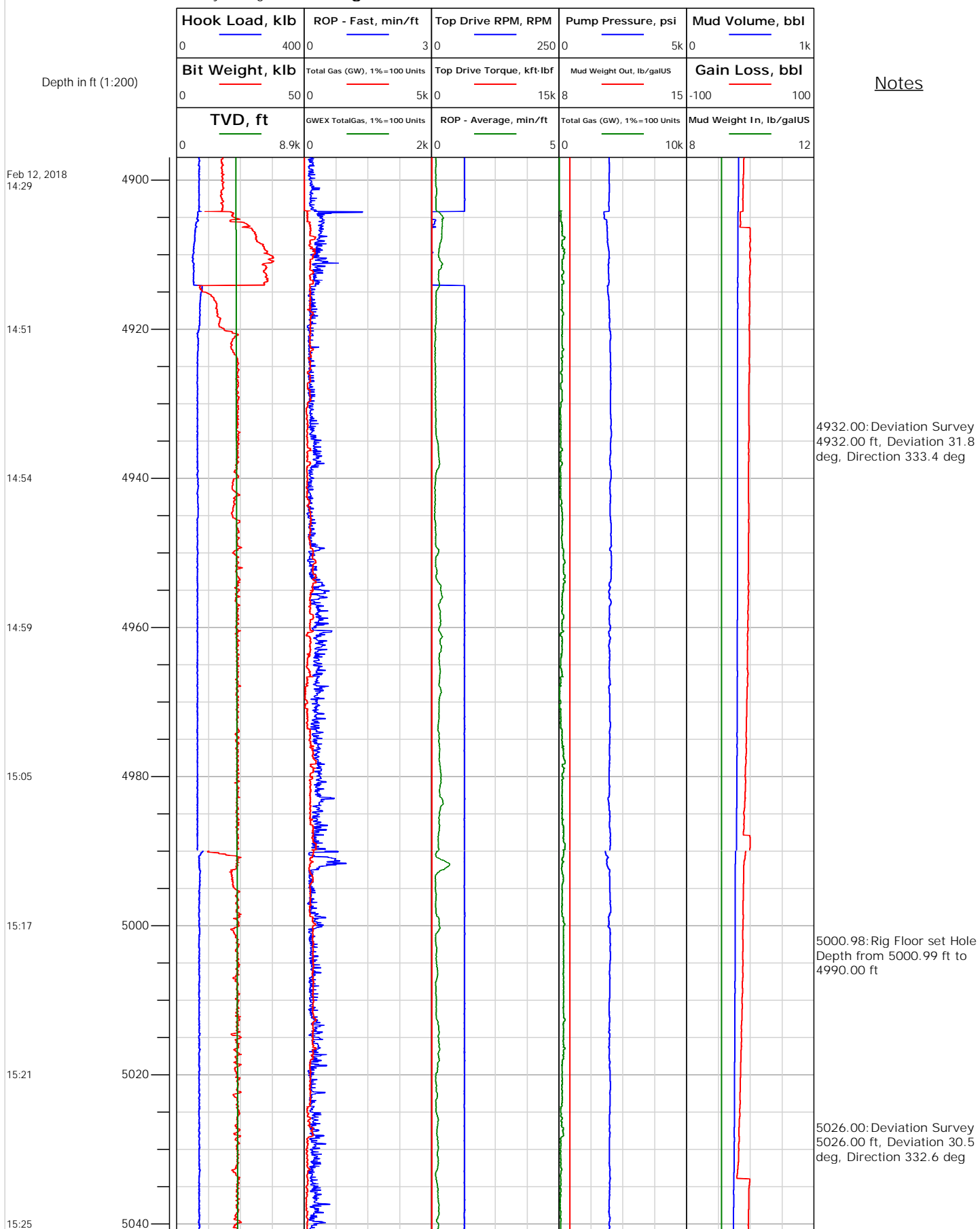
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





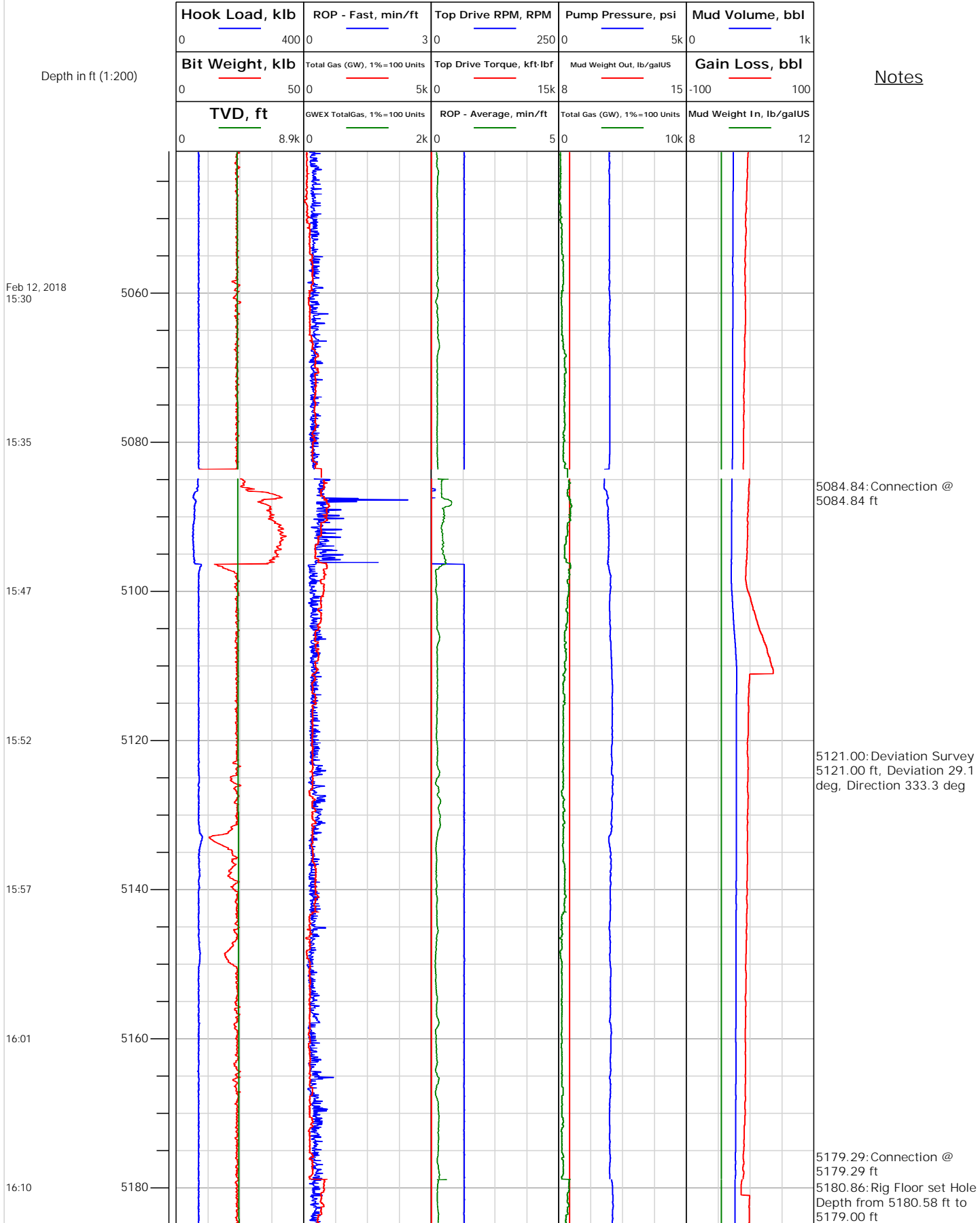
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes





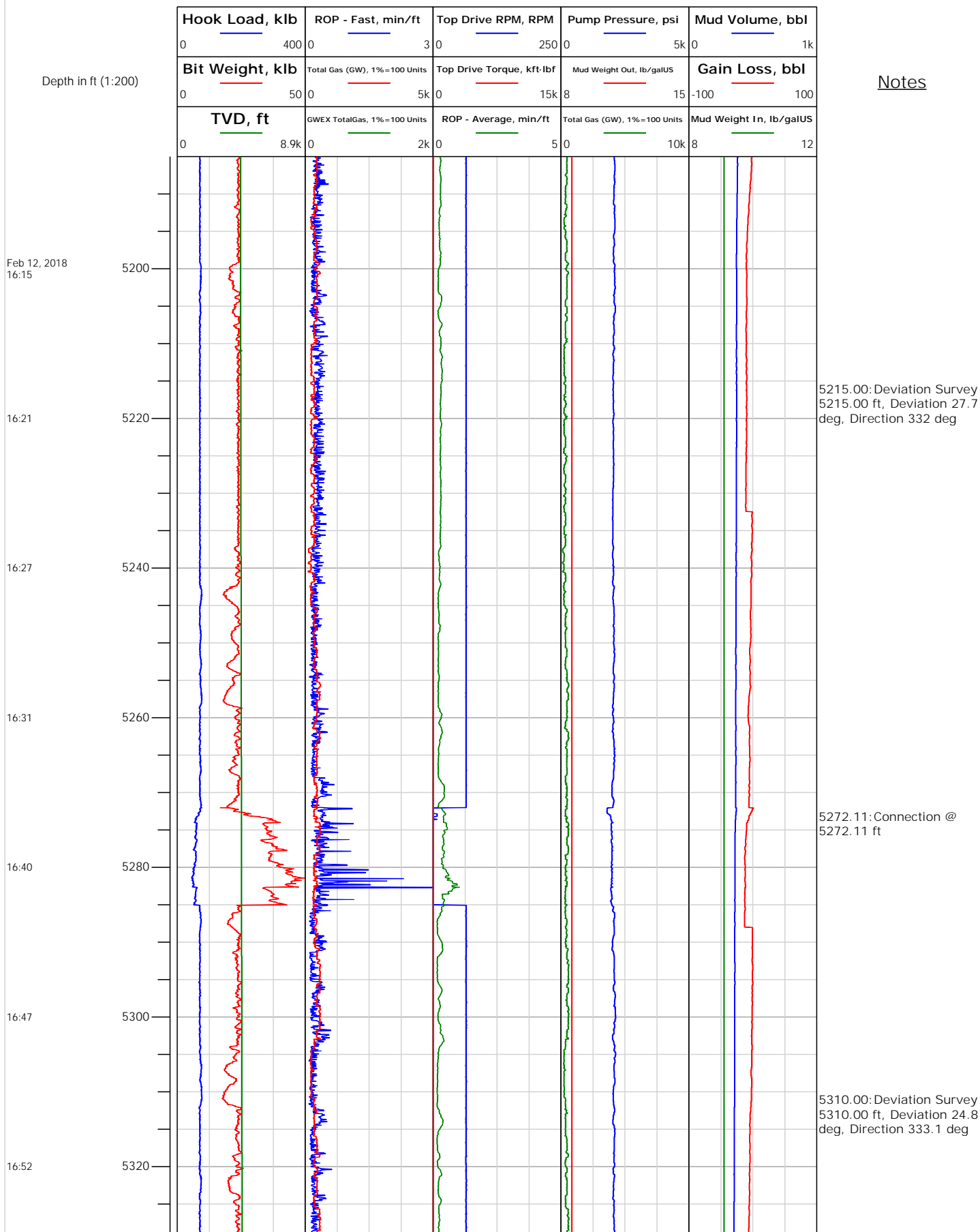
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





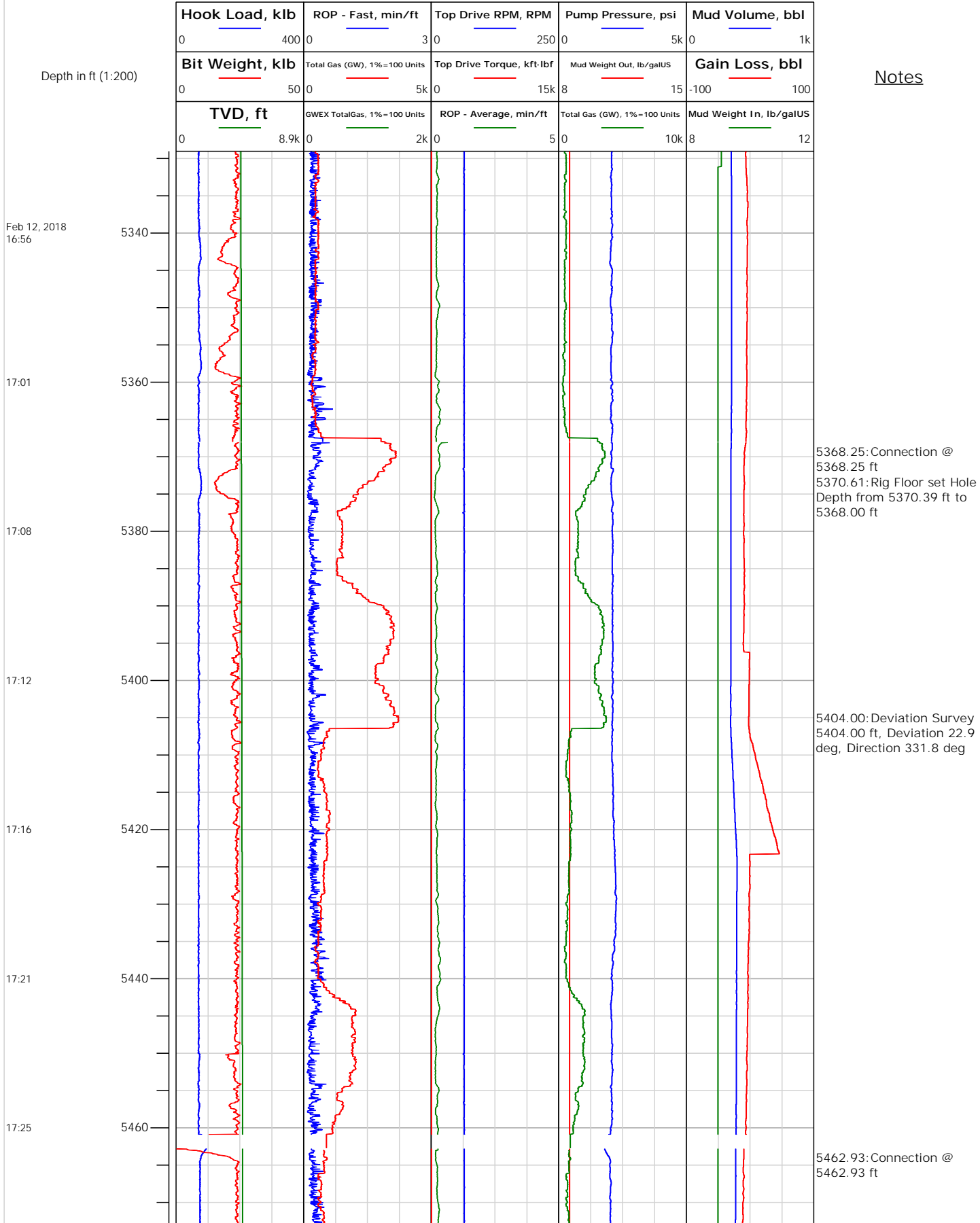
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

Notes





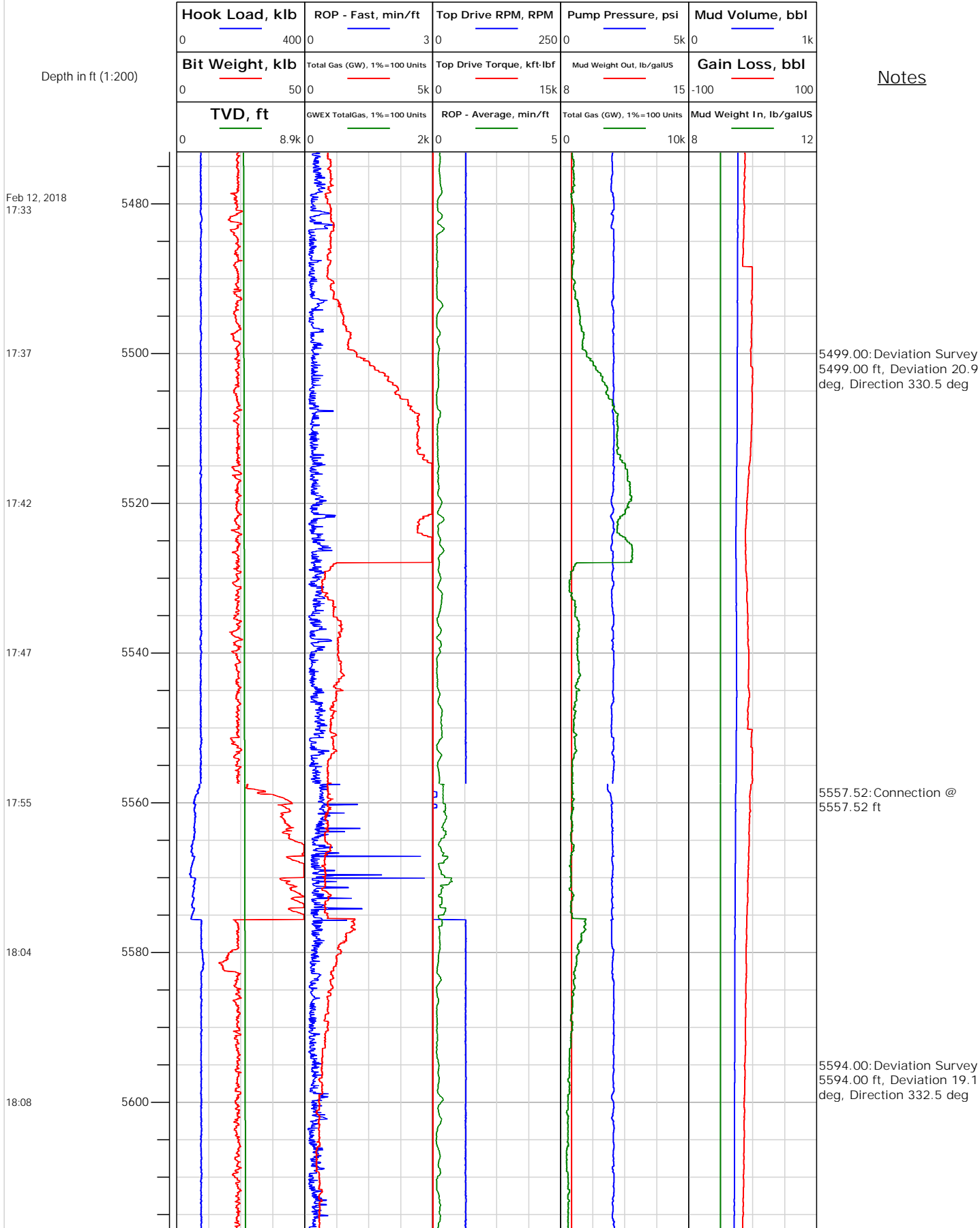
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





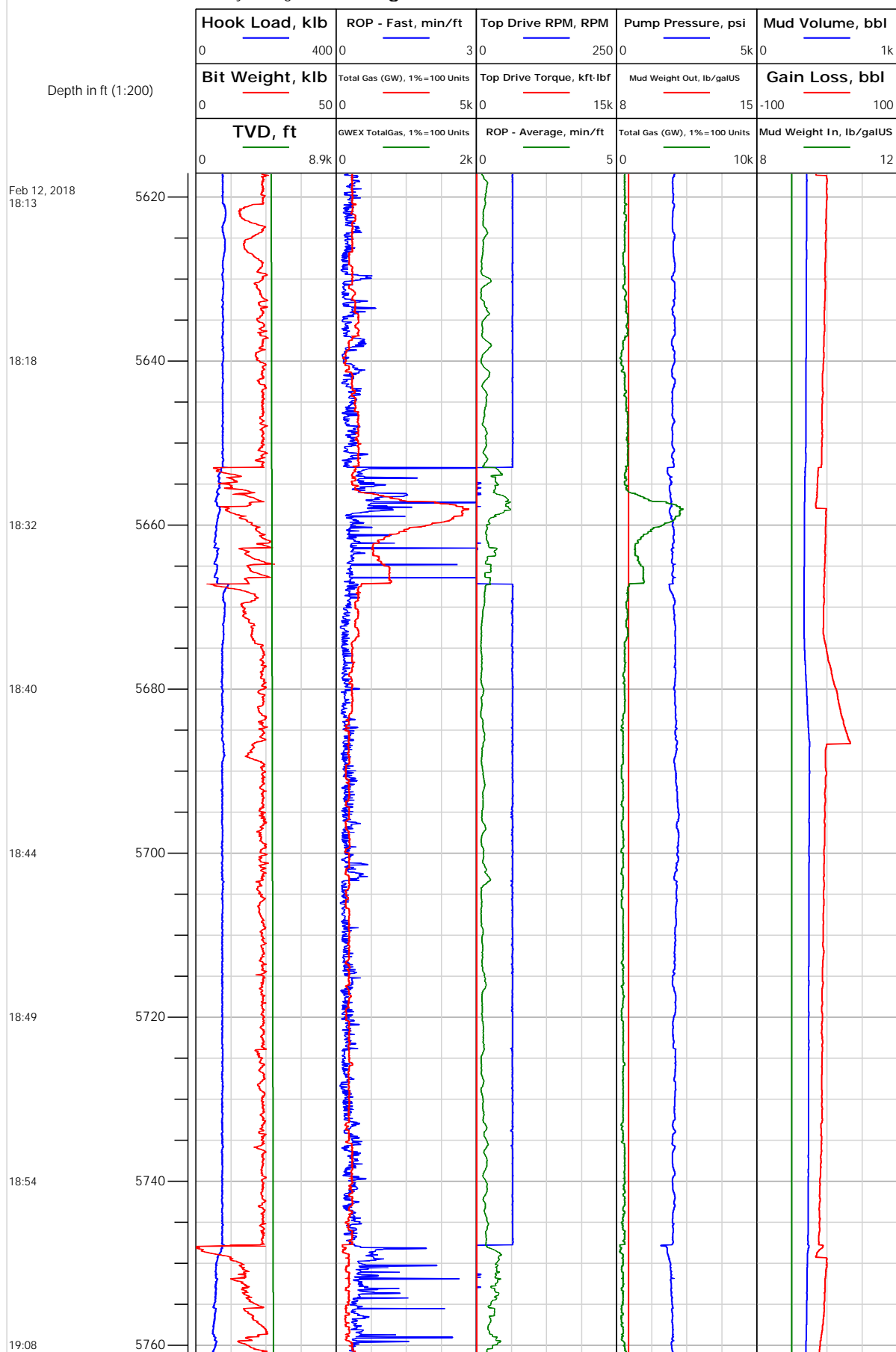
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

## Notes

Depth in ft (1:200)

Feb 12, 2018  
19:17

19:22

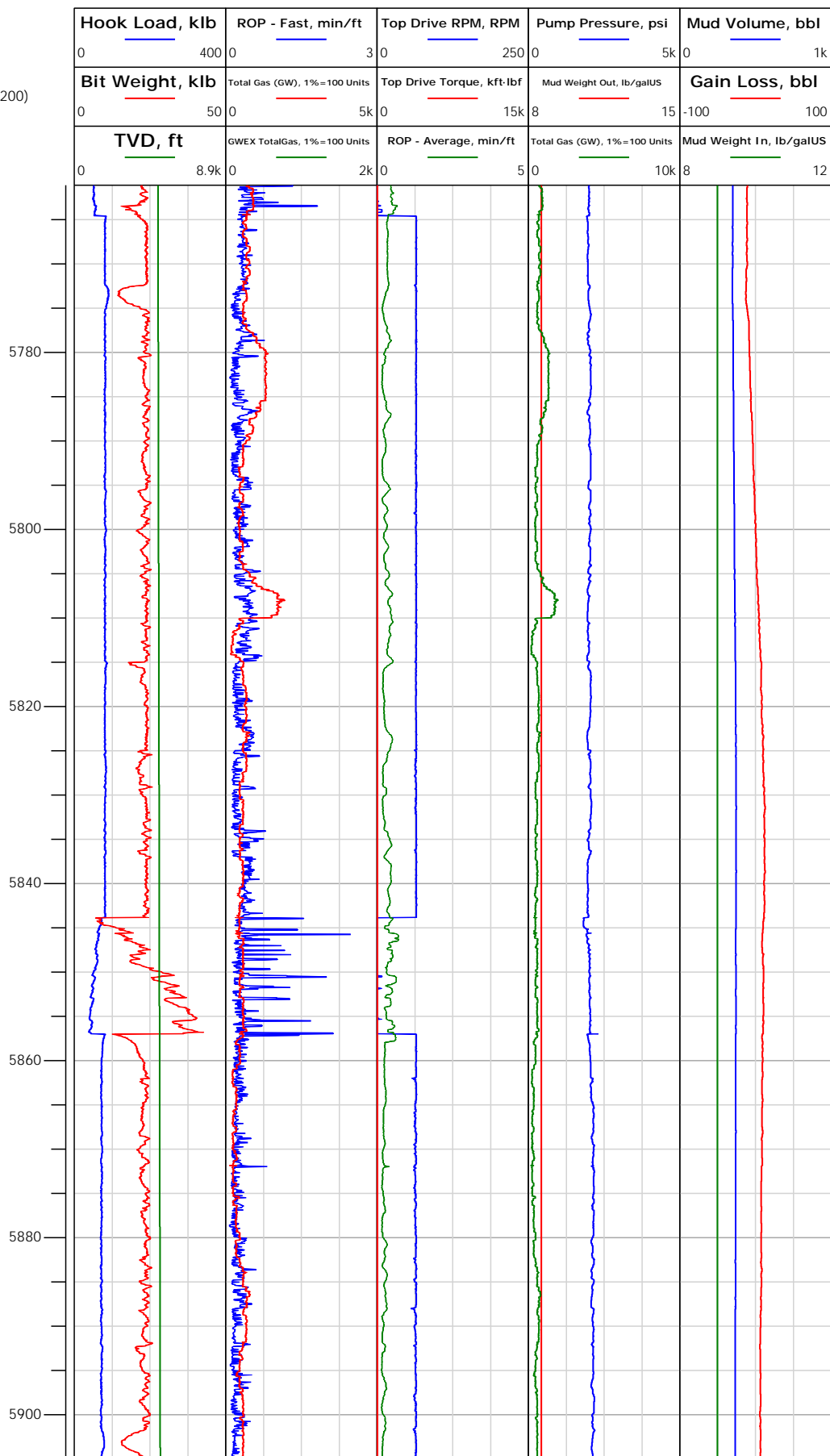
19:29

19:35

19:49

19:55

19:59



5783.00: Deviation Survey  
5783.00 ft, Deviation 16.8  
deg, Direction 333.7 deg

5877.00: Deviation Survey  
5877.00 ft, Deviation 16.3  
deg, Direction 332.8 deg  
5877.13: Rig Floor set Hole  
Depth from 5876.76 ft to  
5872.00 ft  
5879.90: MD IN WT  
8.95/27 VIS OUT WT  
9.0/27 VIS



# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 12, 2018  
20:03

20:13

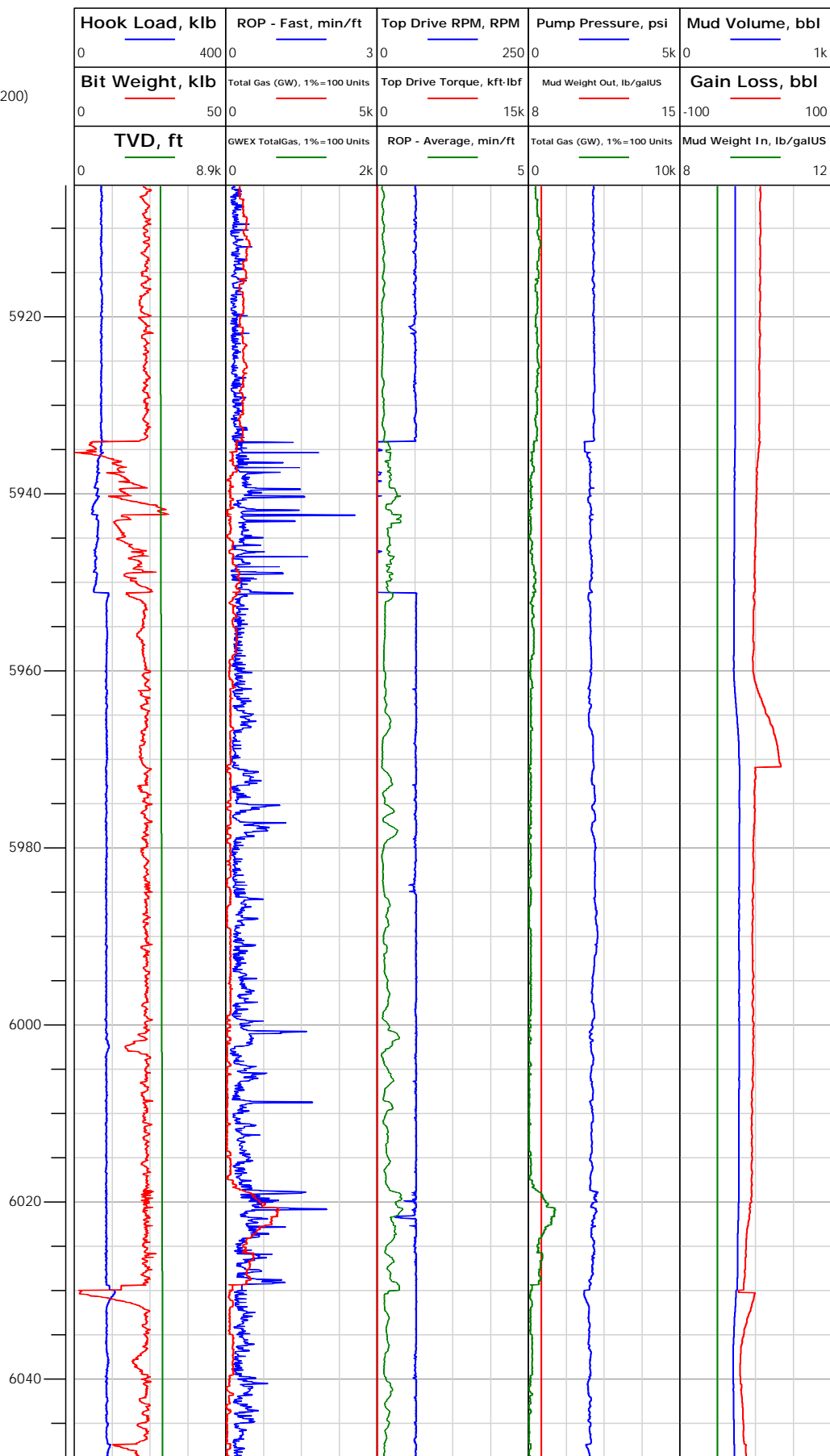
20:22

20:29

20:34

20:42

20:57







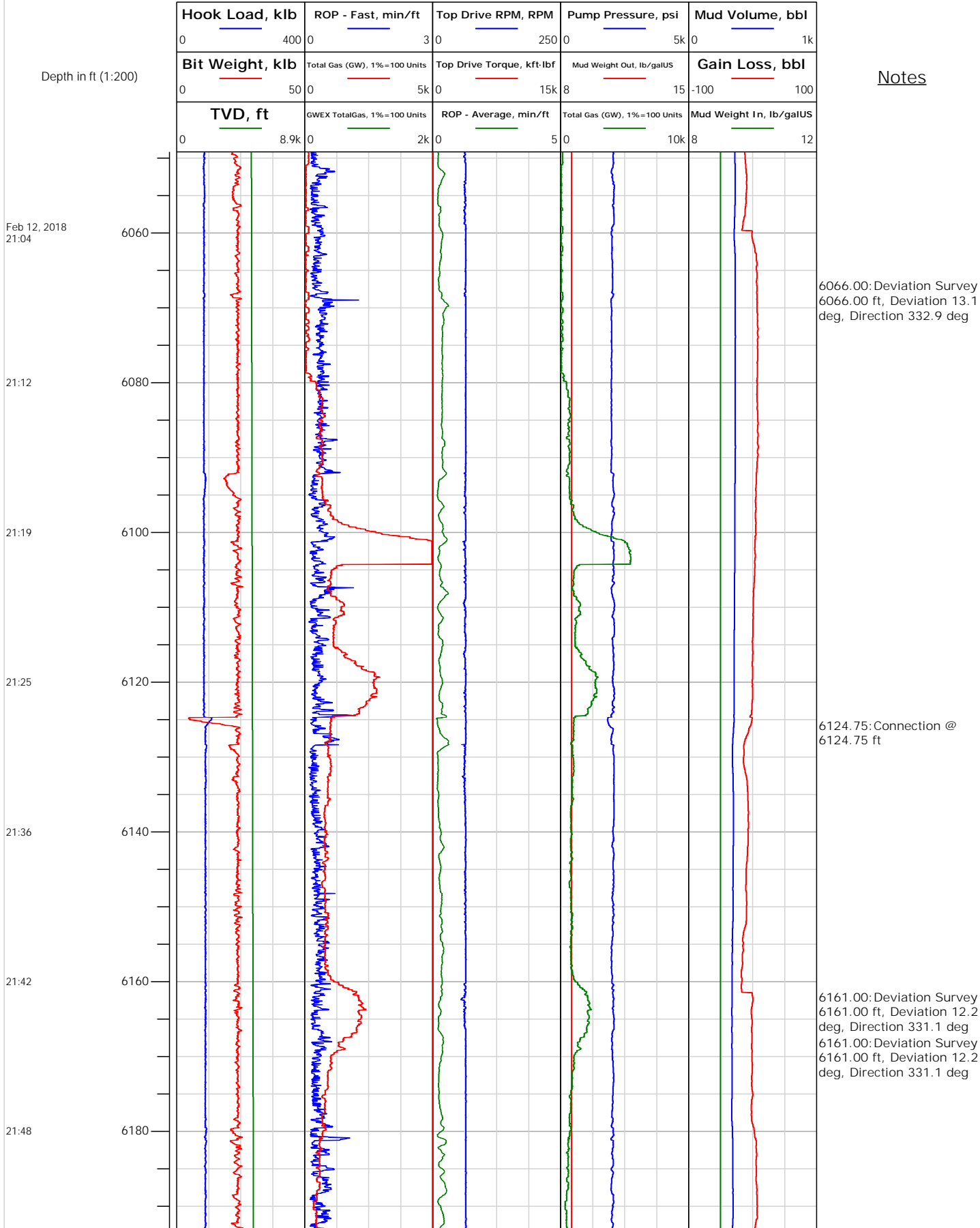
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





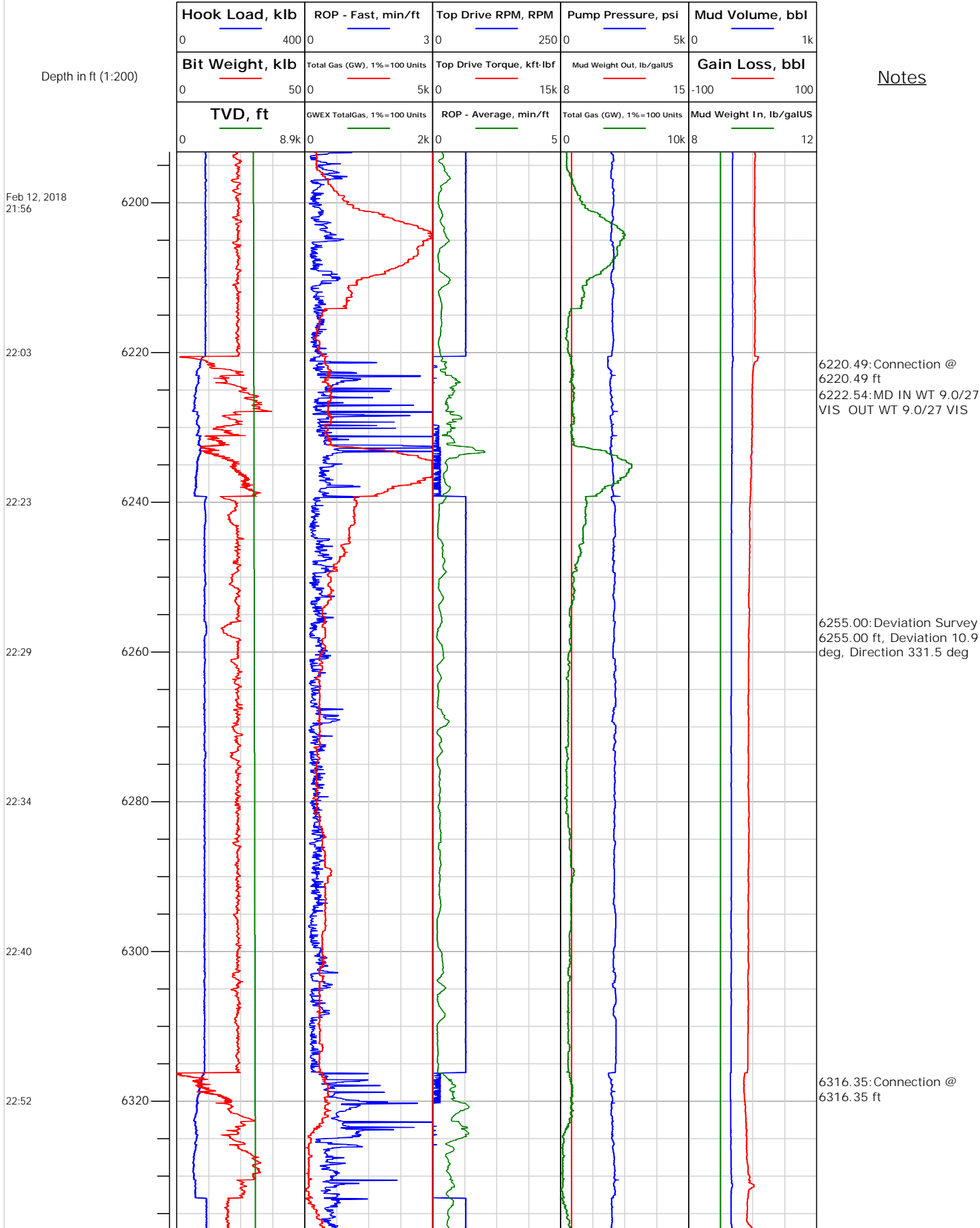
# Electronic Drilling Recorder

**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 13-18W  
**Rig:** 290

**Location:**

## Notes





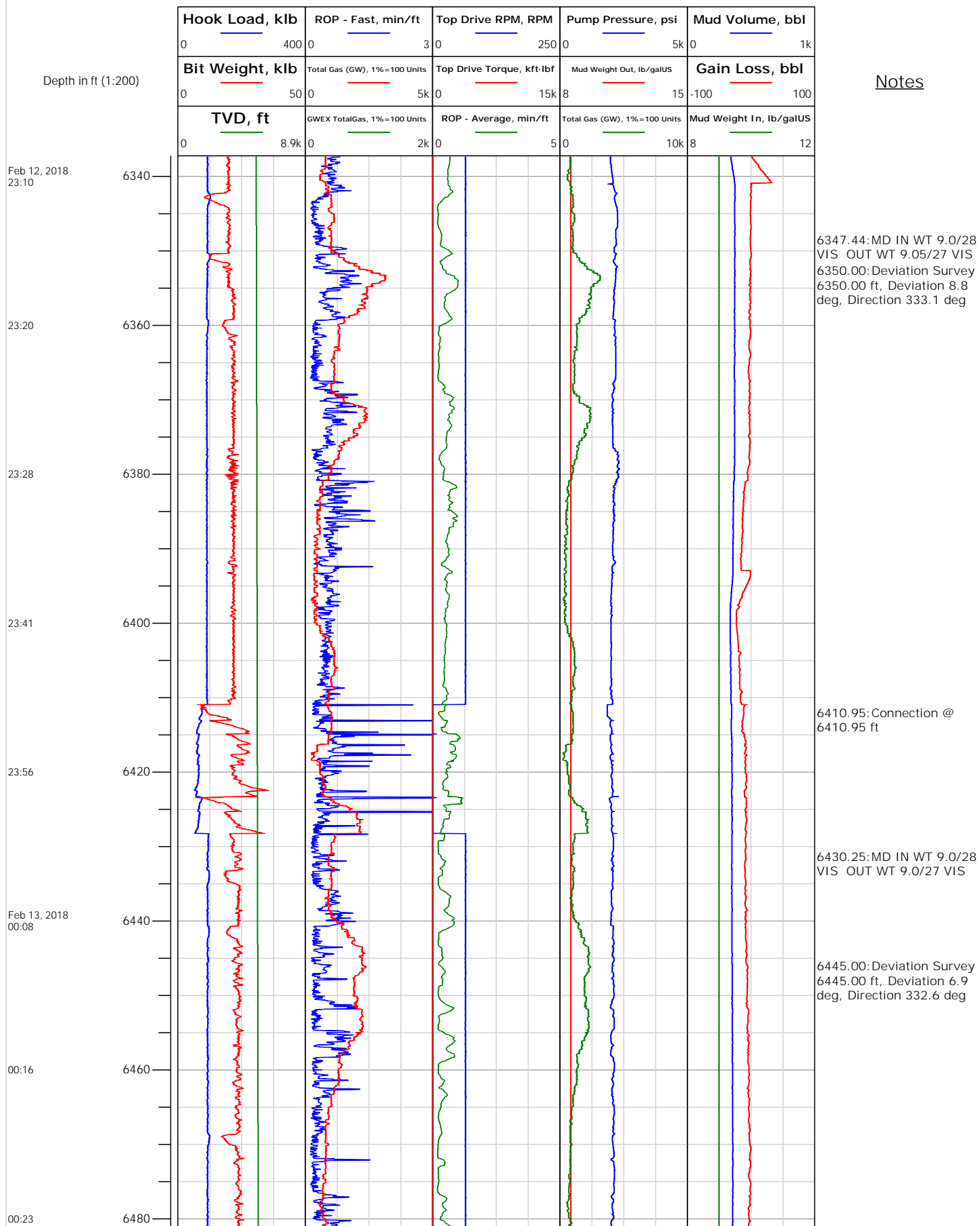
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

### Notes





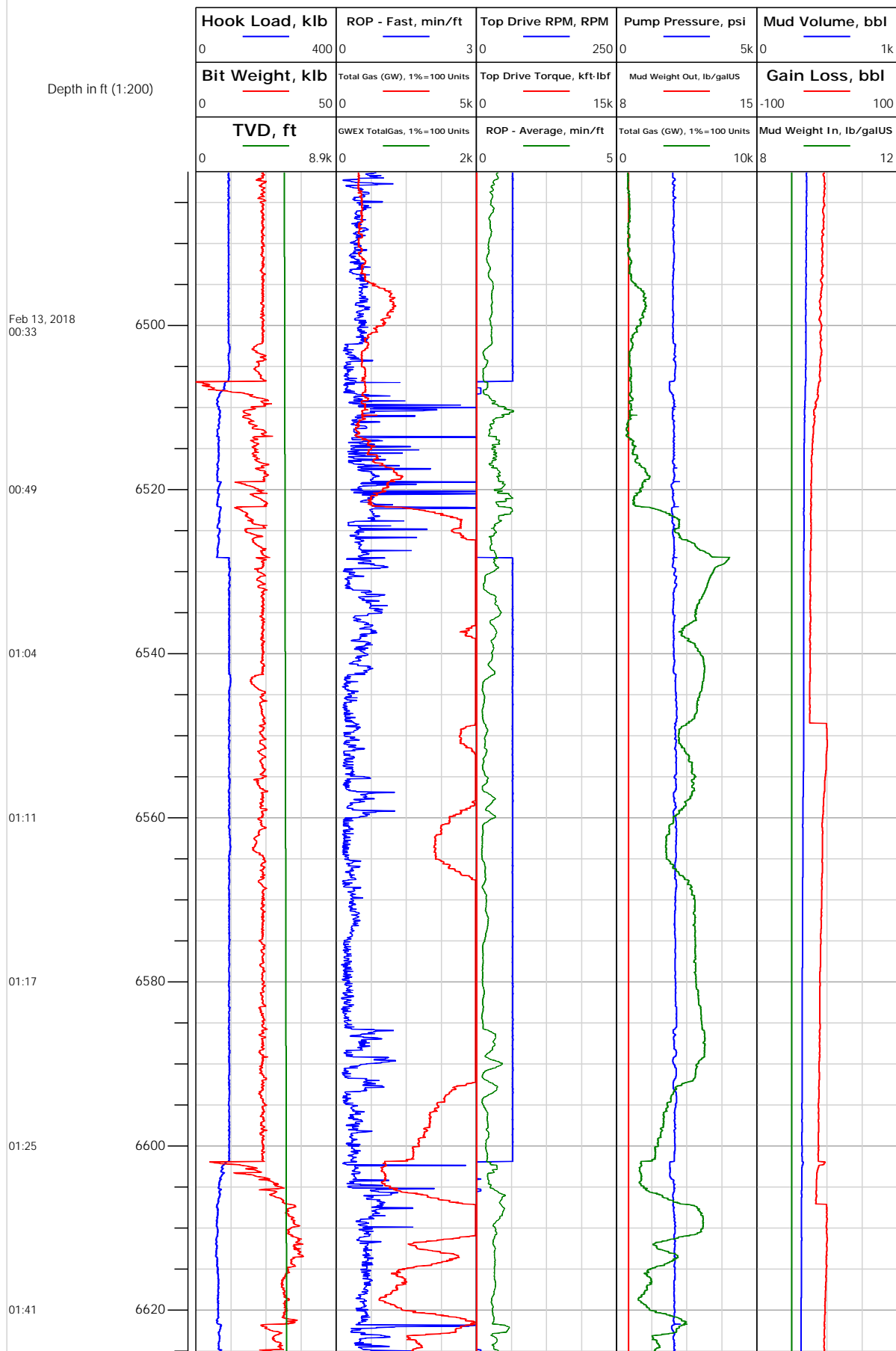
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

Notes





# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 13-18W  
Rig: 290

Location:

## Notes

Depth in ft (1:200)

Feb 13, 2018  
01:54

02:04

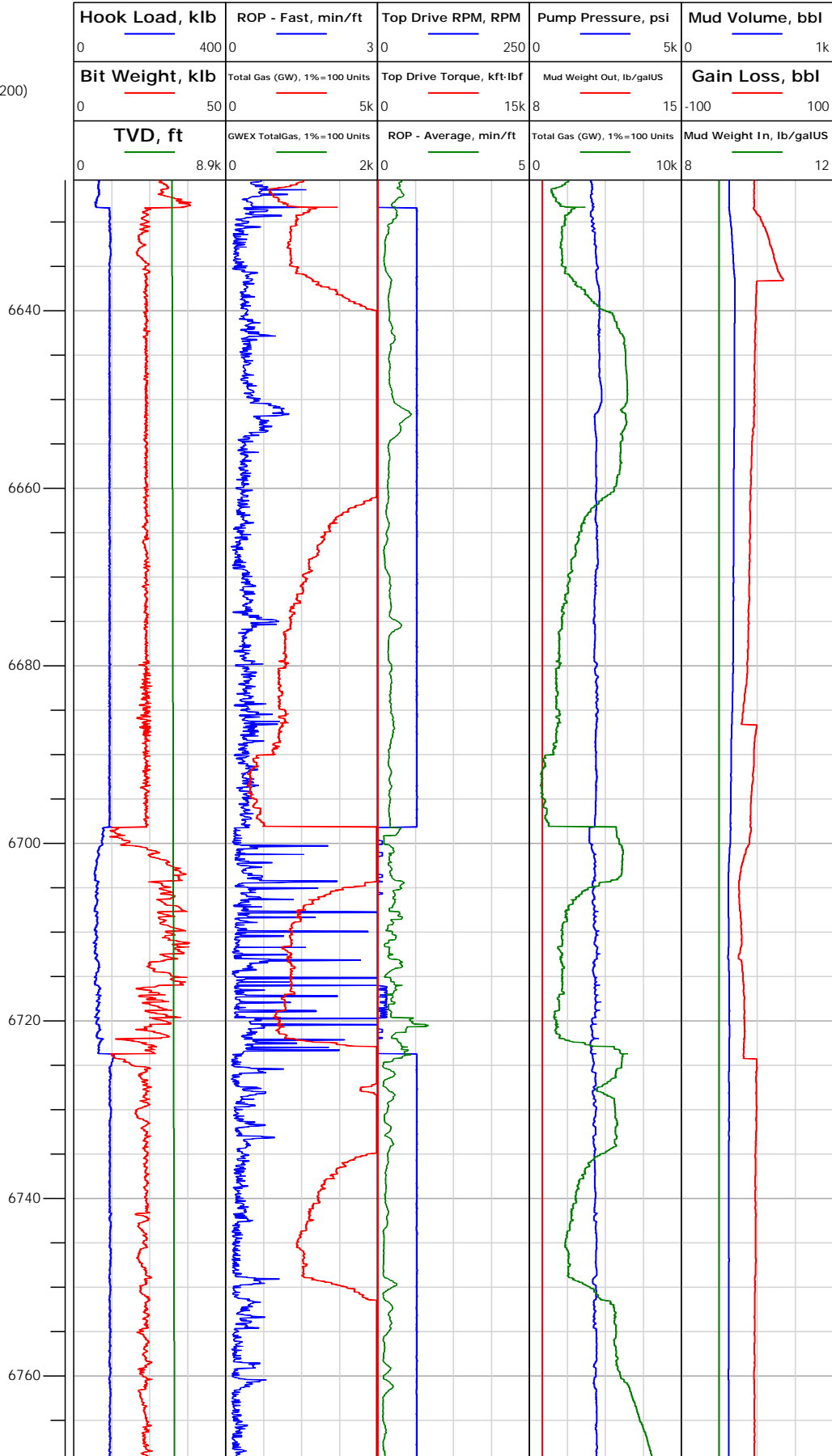
02:11

02:24

02:34

02:45

02:51



6634.00: Deviation Survey  
6634.00 ft, Deviation 4.2 deg, Direction 345.6 deg

6664.14: MD IN WT  
9.05/28 VIS OUT WT  
9.05/27 VIS

6729.00: Deviation Survey  
6729.00 ft, Deviation 2.9 deg, Direction 352.8 deg



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Depth in ft (1:200)

Feb 13, 2018  
02:57

03:07

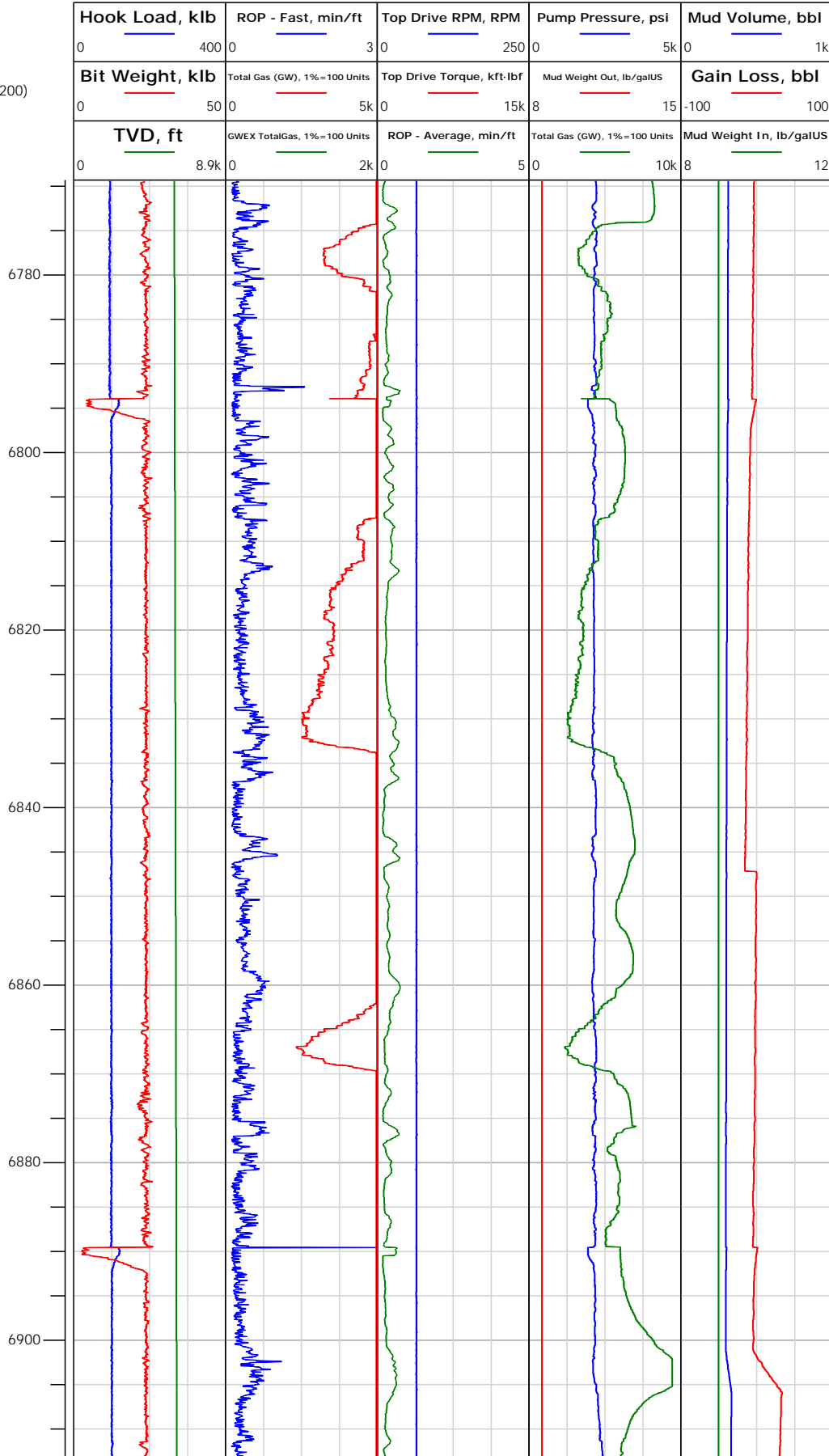
03:15

03:23

03:31

03:38

03:48



6785.73:MD IN WT  
9.05/29 VIS OUT WT  
9.1/28 VIS

6823.99: Deviation Survey  
6824.00 ft, Deviation 2.37  
deg, Direction 355.58 deg



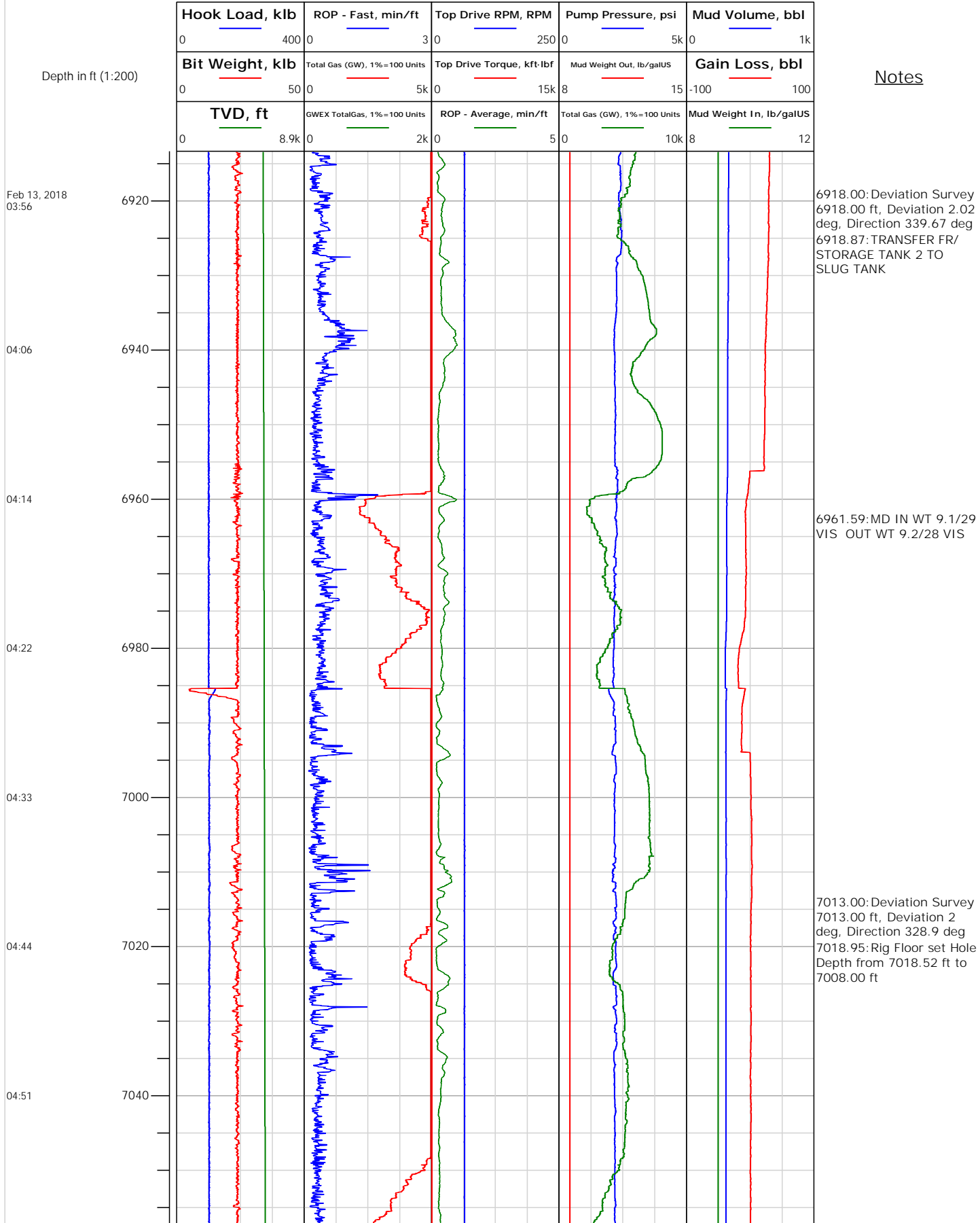
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**Rig:** 290

**Location:**

## Notes





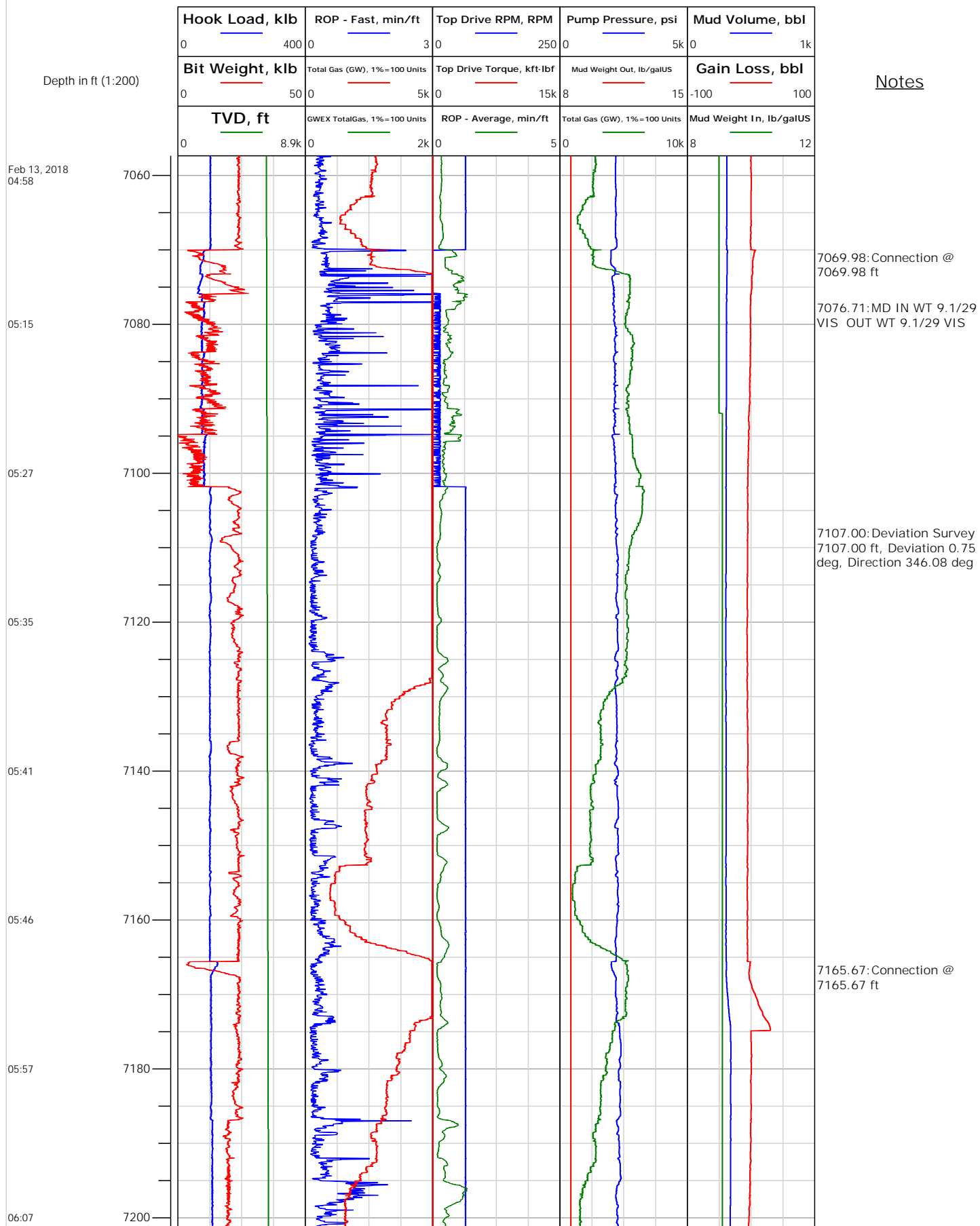
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### Notes







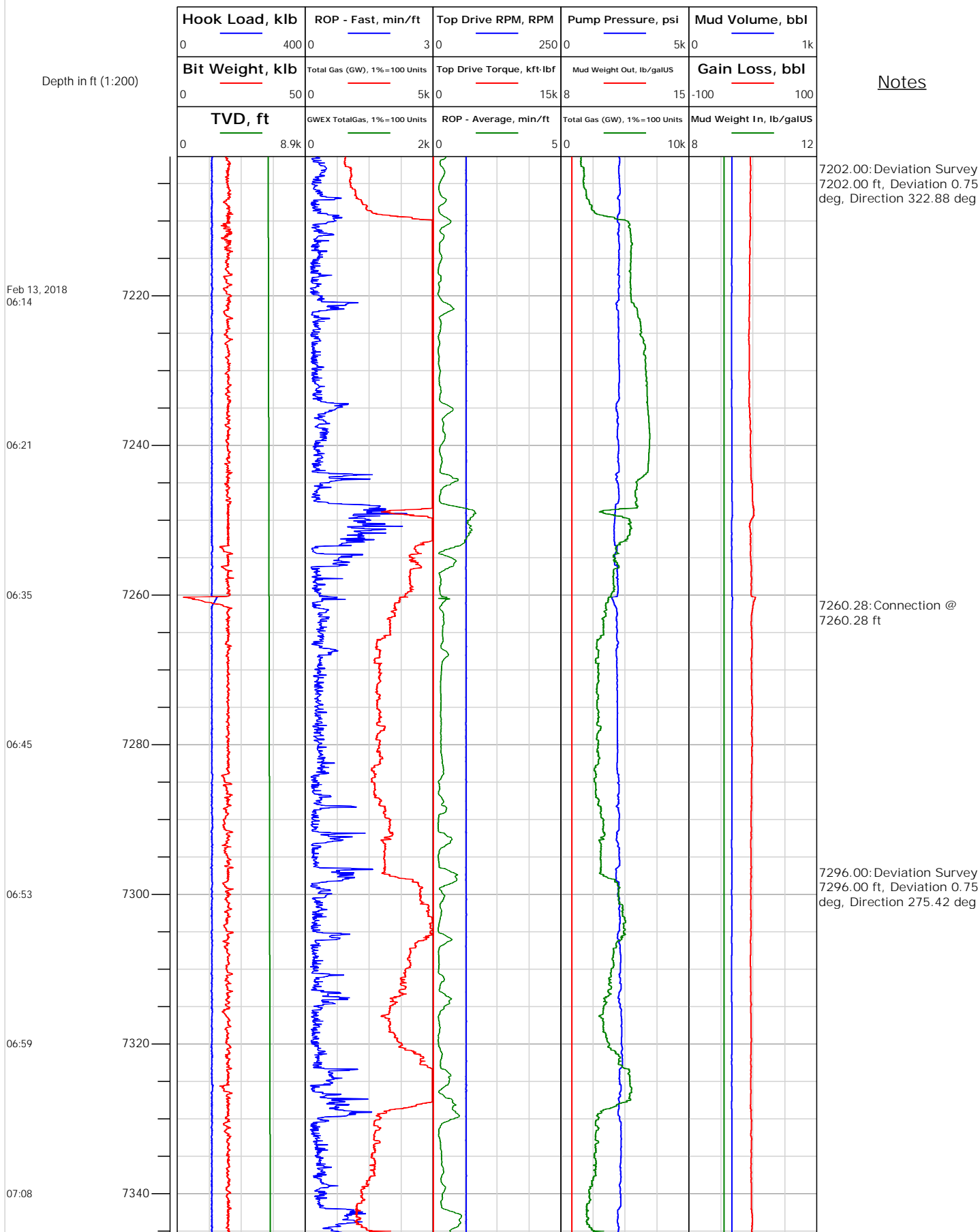
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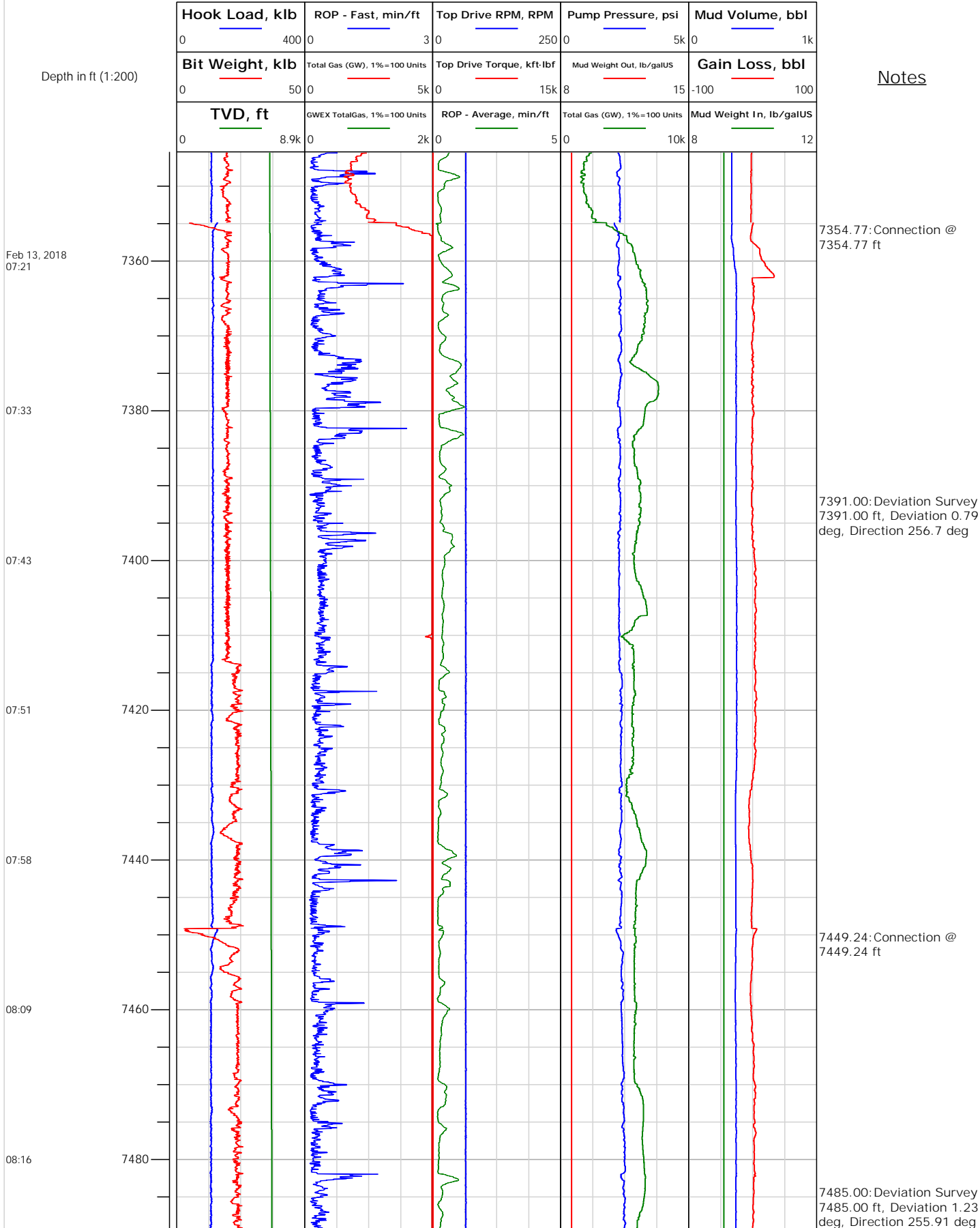
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**Rig:** 290

**Location:**

## Notes





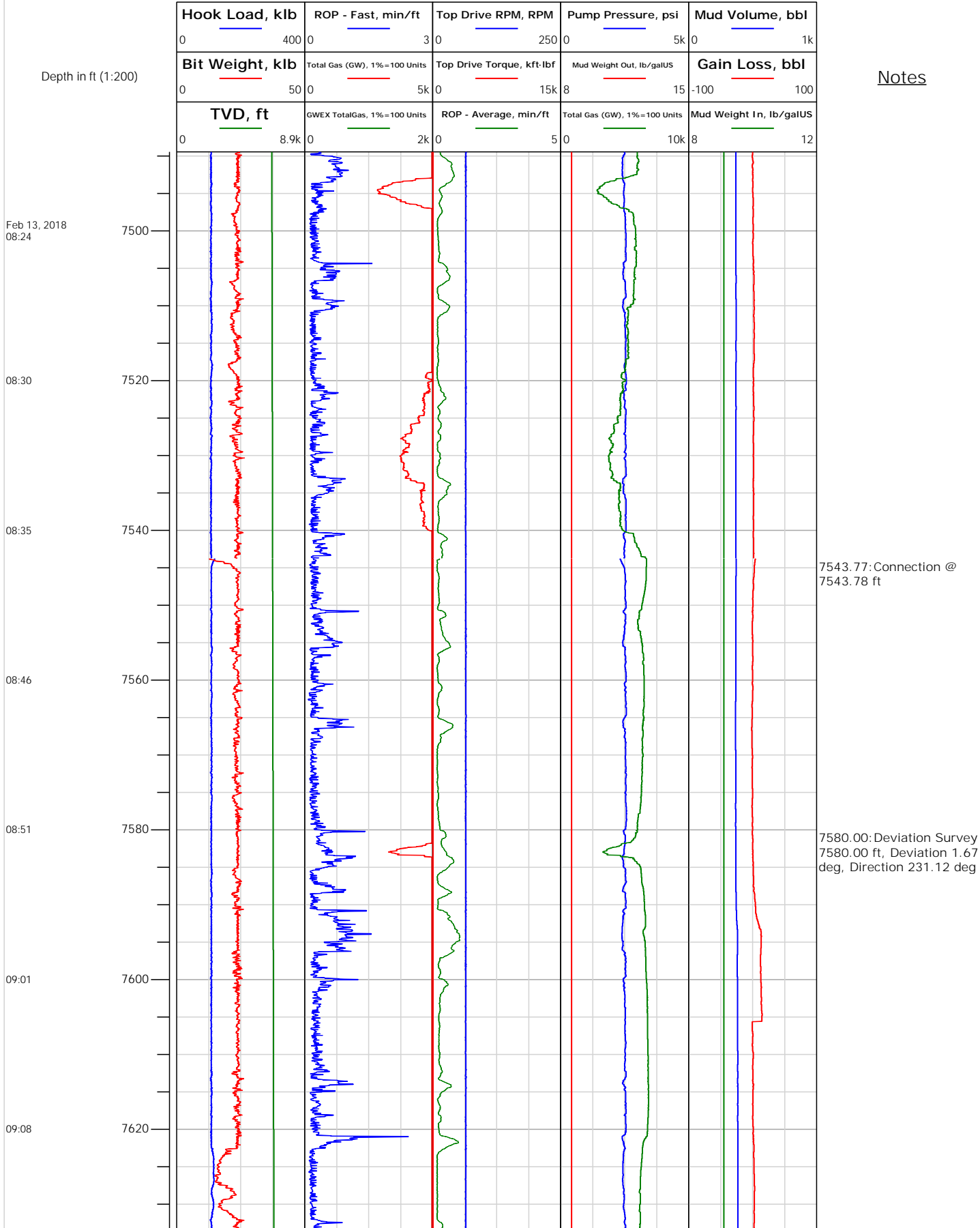
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**Rig:** 290

**Location:**

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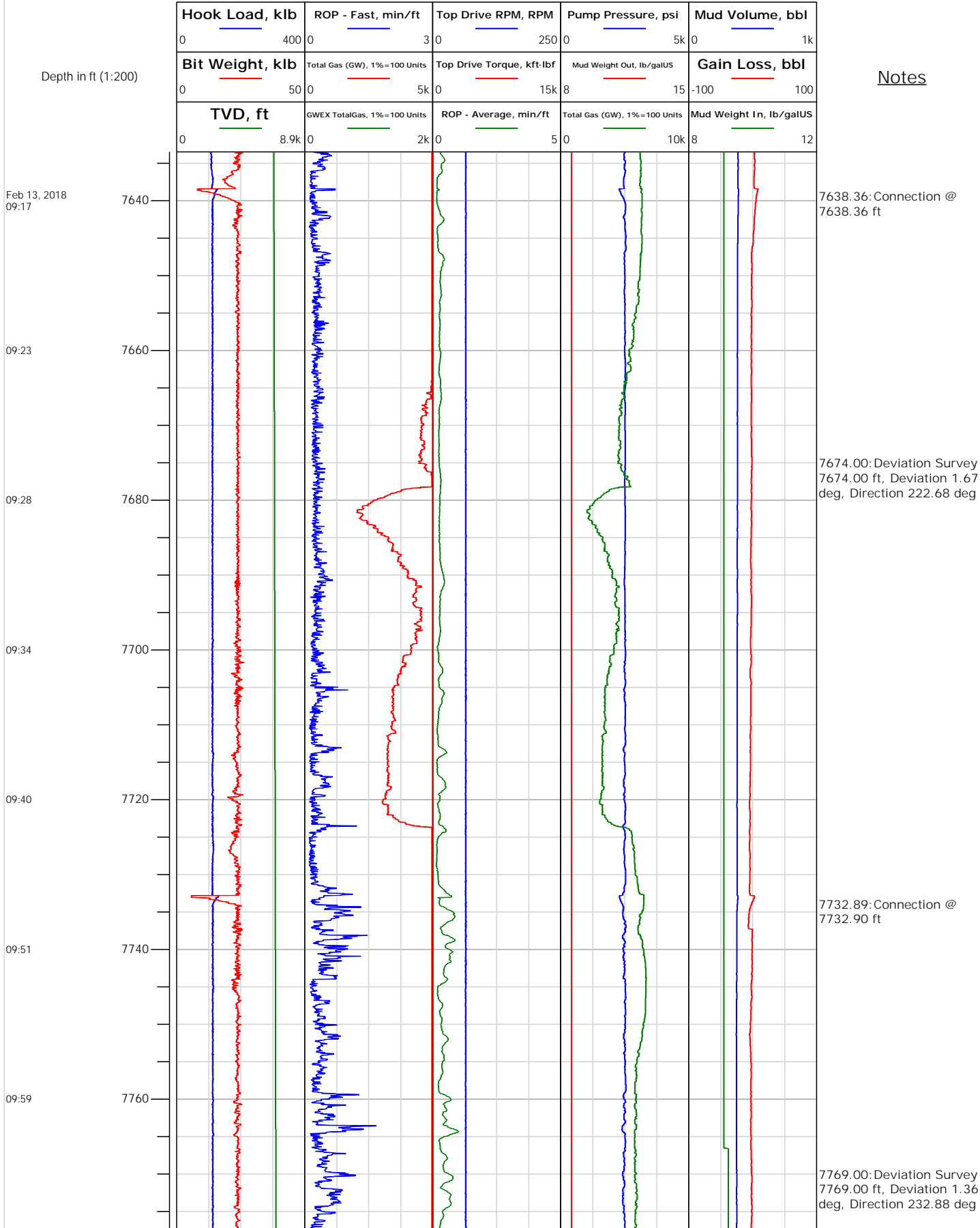
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**Rig:** 290

**Location:**

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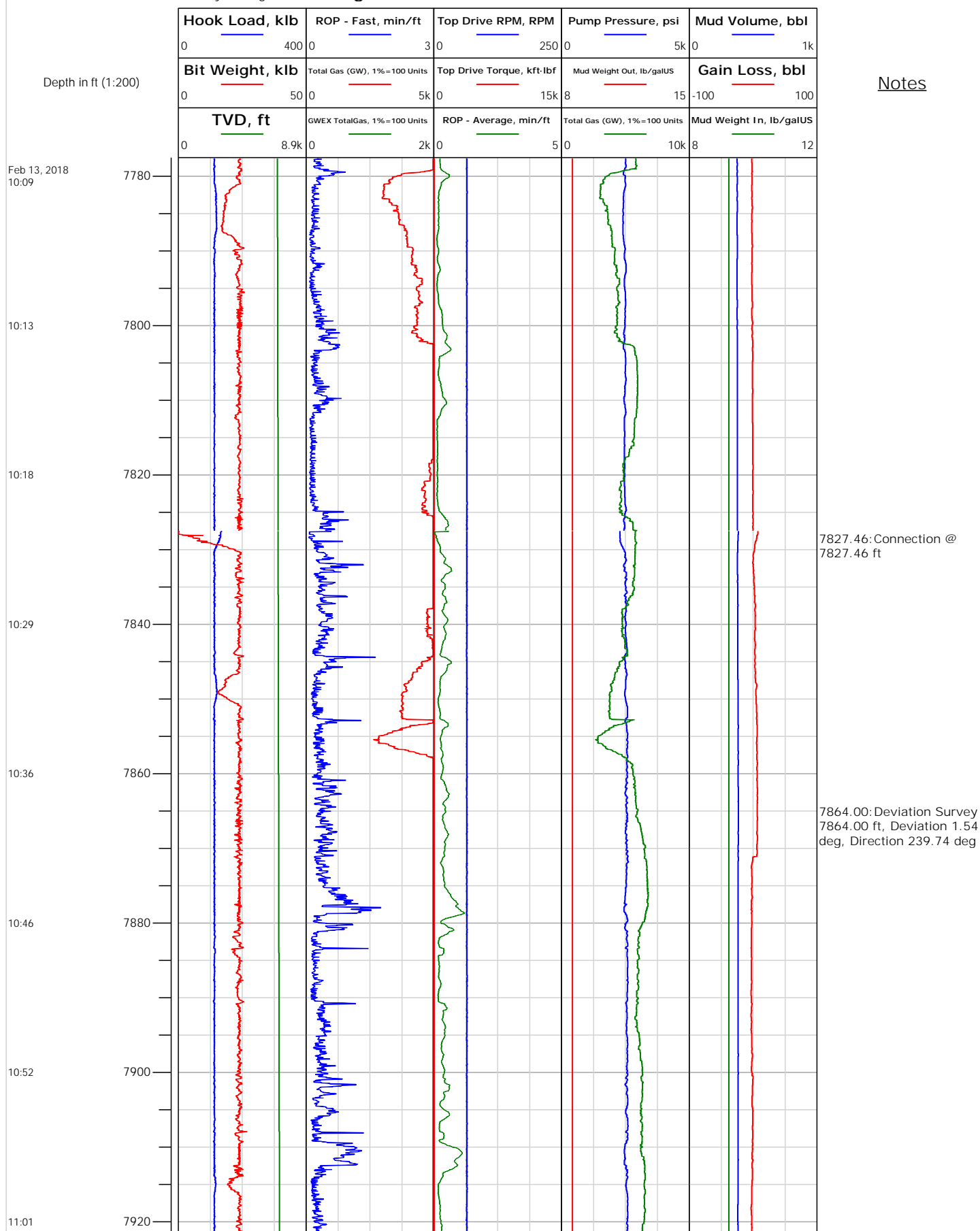
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Well Name: Nichols 13-18W  
Rig: 290

Location:

Depth in ft (1:200)

Notes

Feb 13, 2018  
11:08

11:10

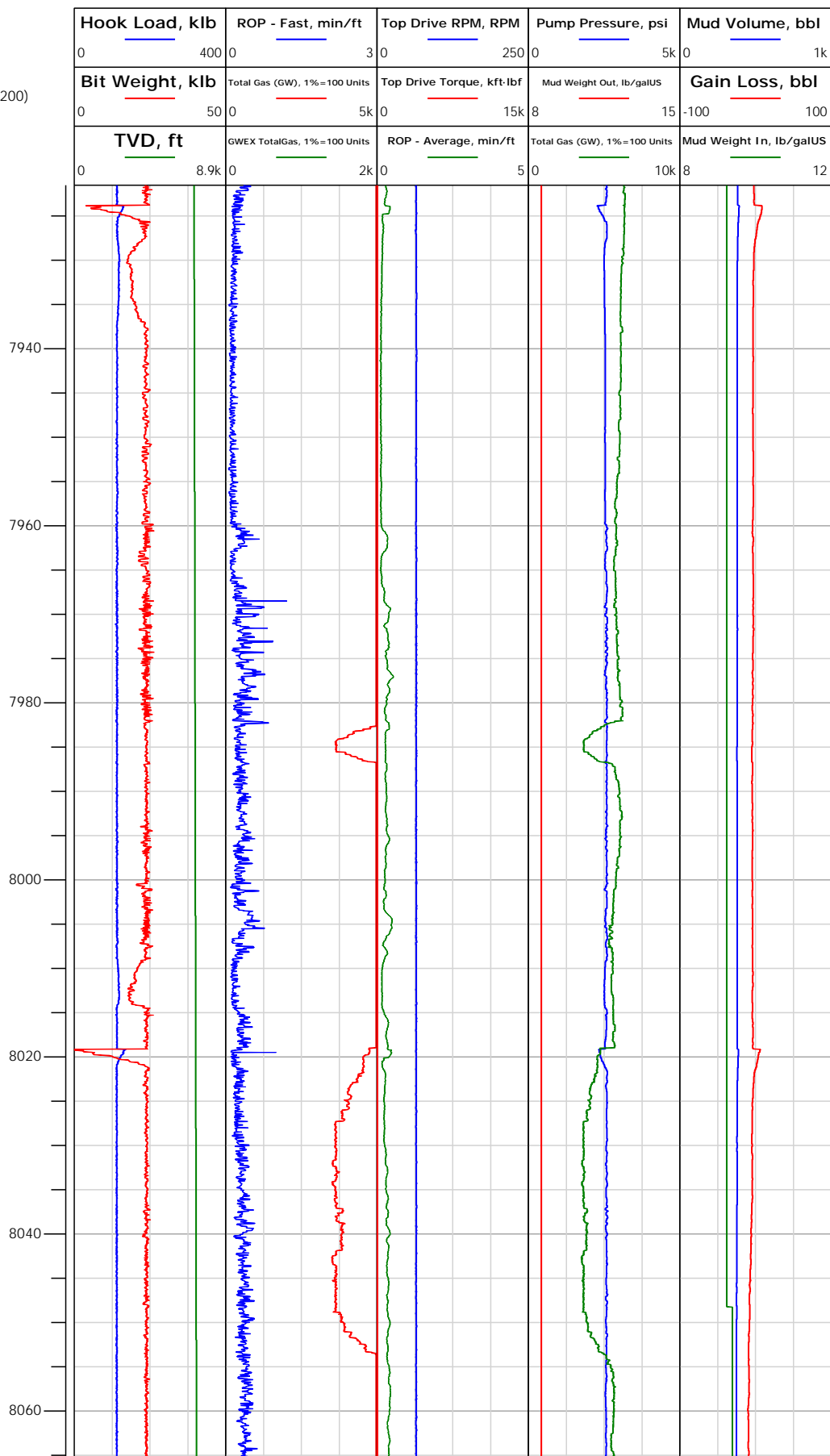
11:16

11:22

11:31

11:37

11:44



7923.77: Connection @  
7923.77 ft

7958.00: Deviation Survey  
7958.00 ft, Deviation 2.24  
deg, Direction 232.26 deg

8019.23: Connection @  
8019.23 ft

8053.00: Deviation Survey  
8053.00 ft, Deviation 2.2  
deg, Direction 238.77 deg



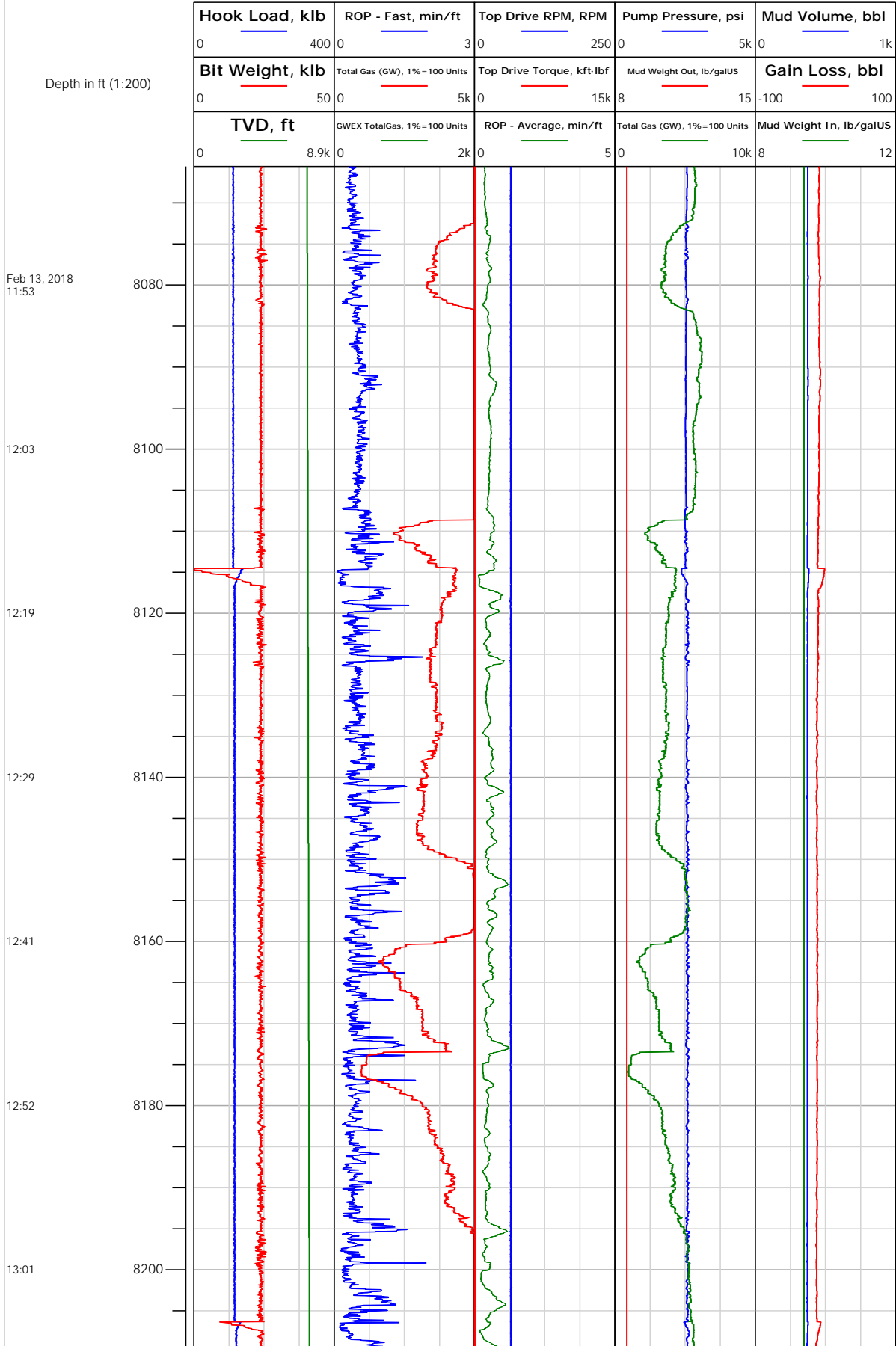
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