

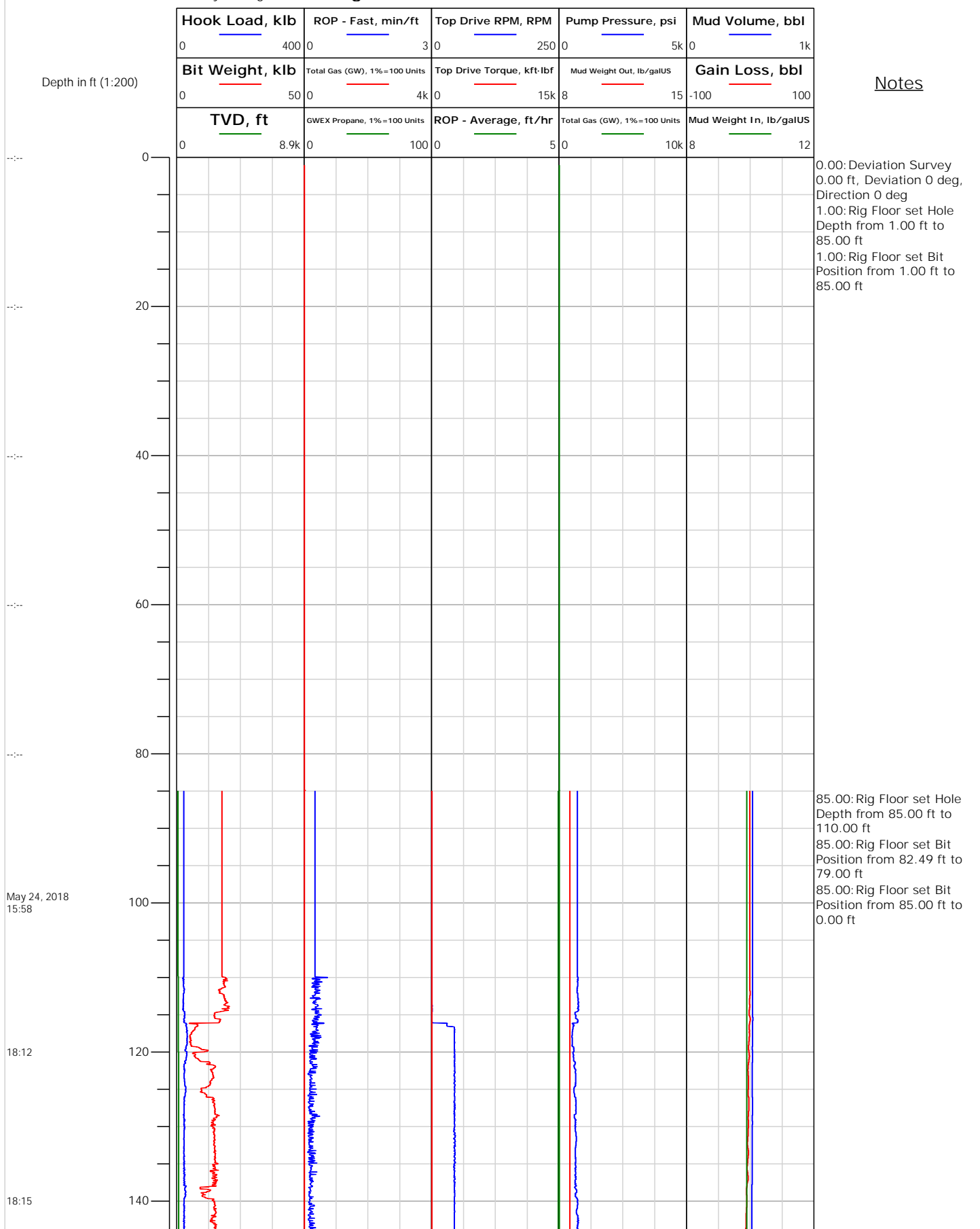


# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24





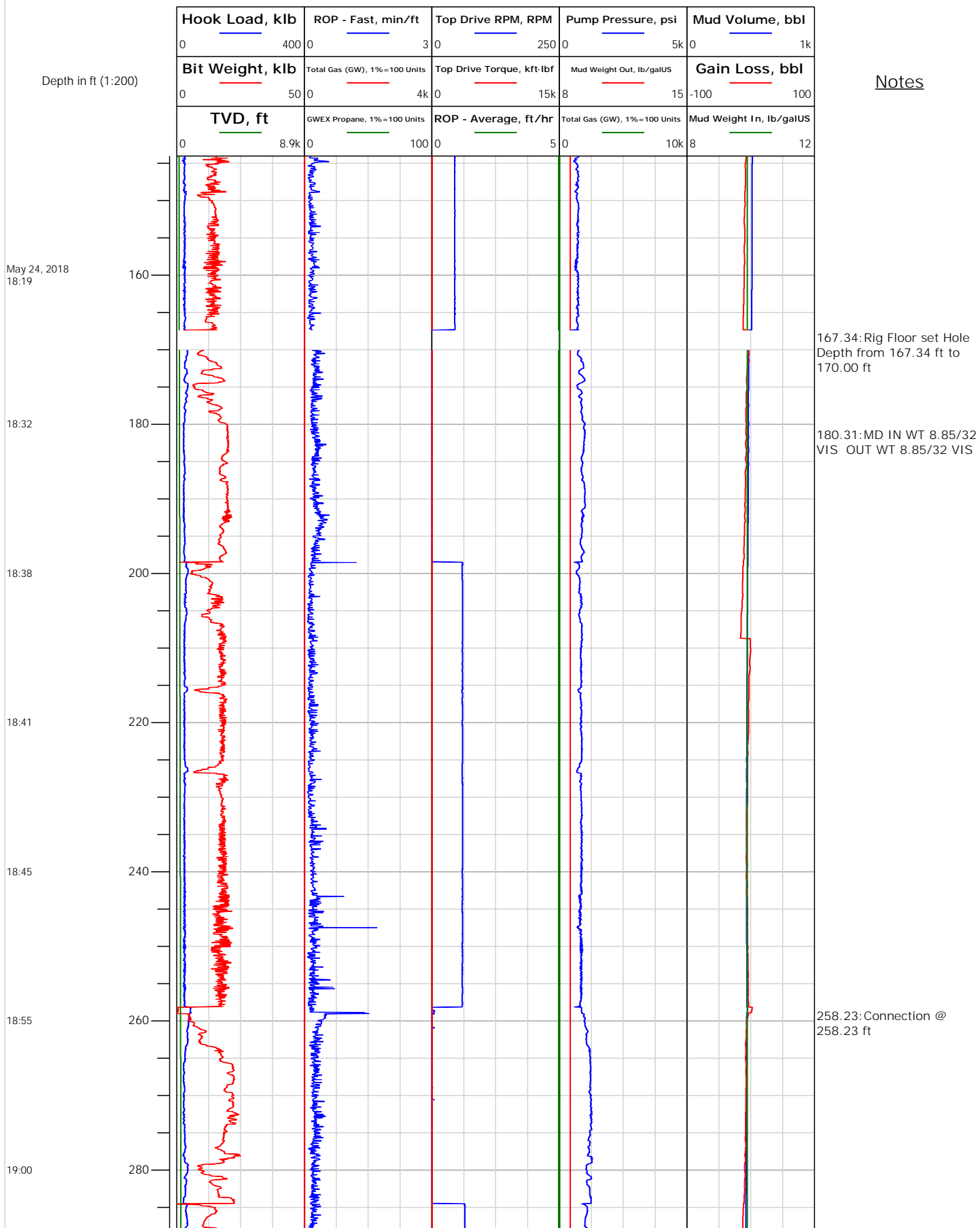
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes







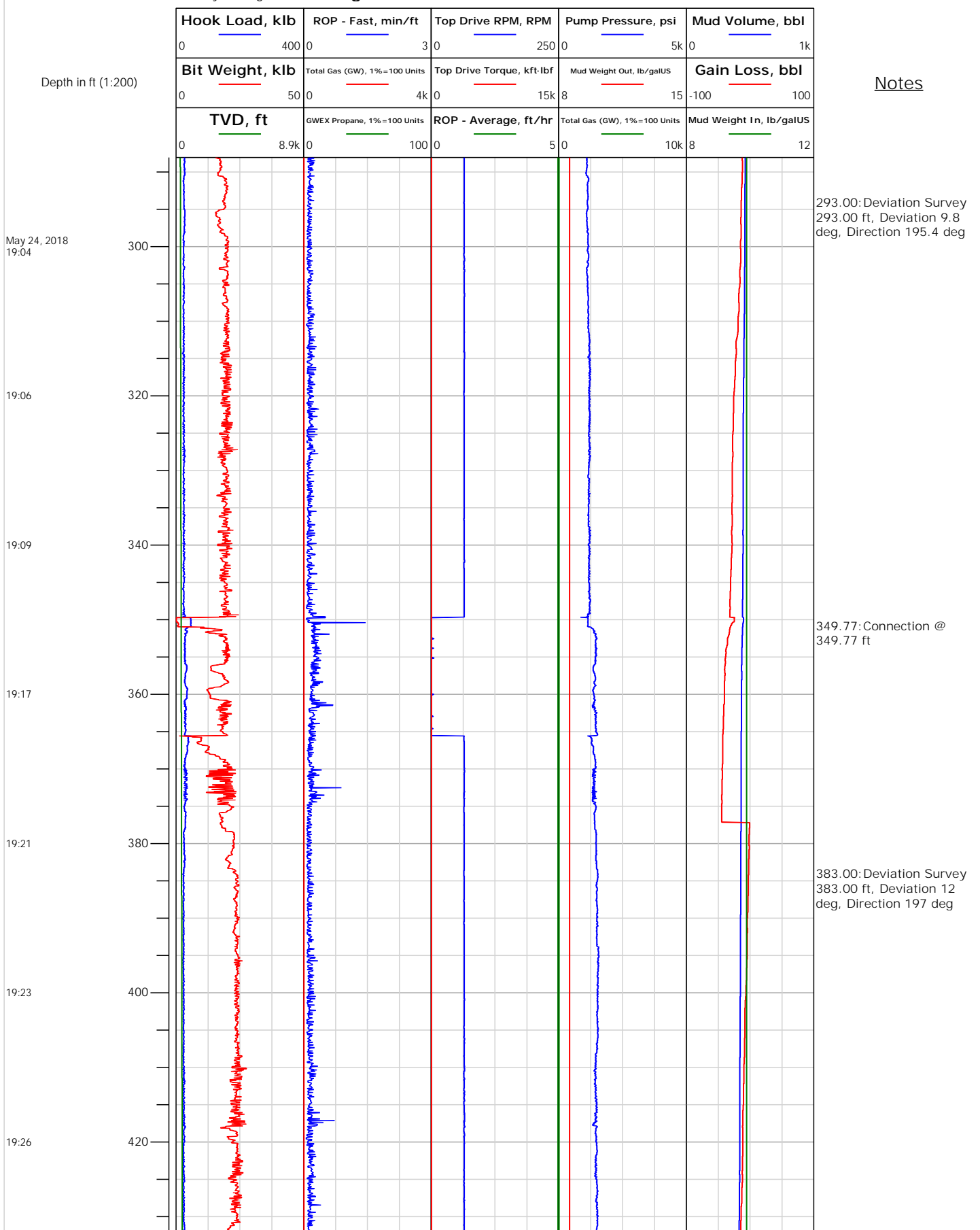
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





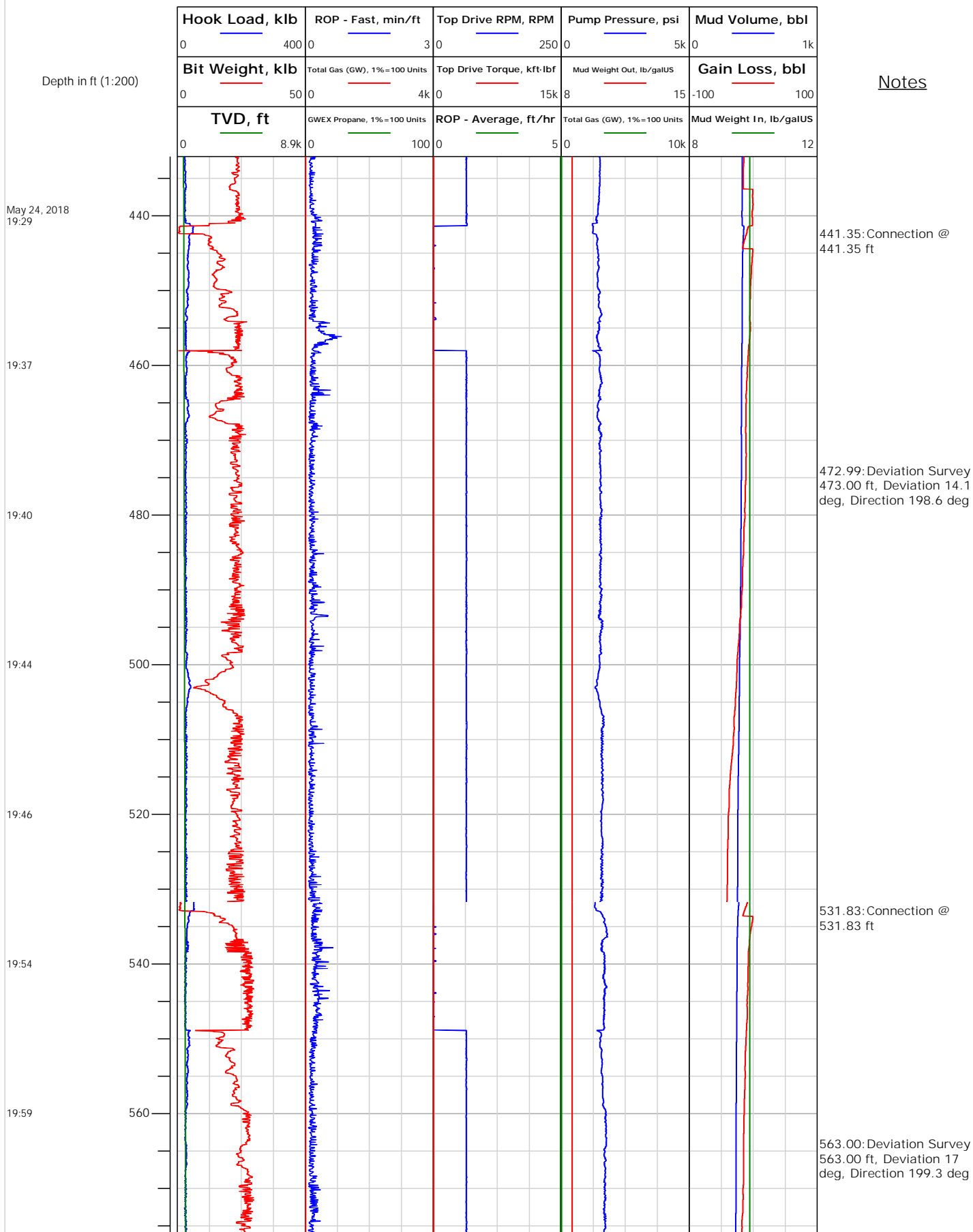
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





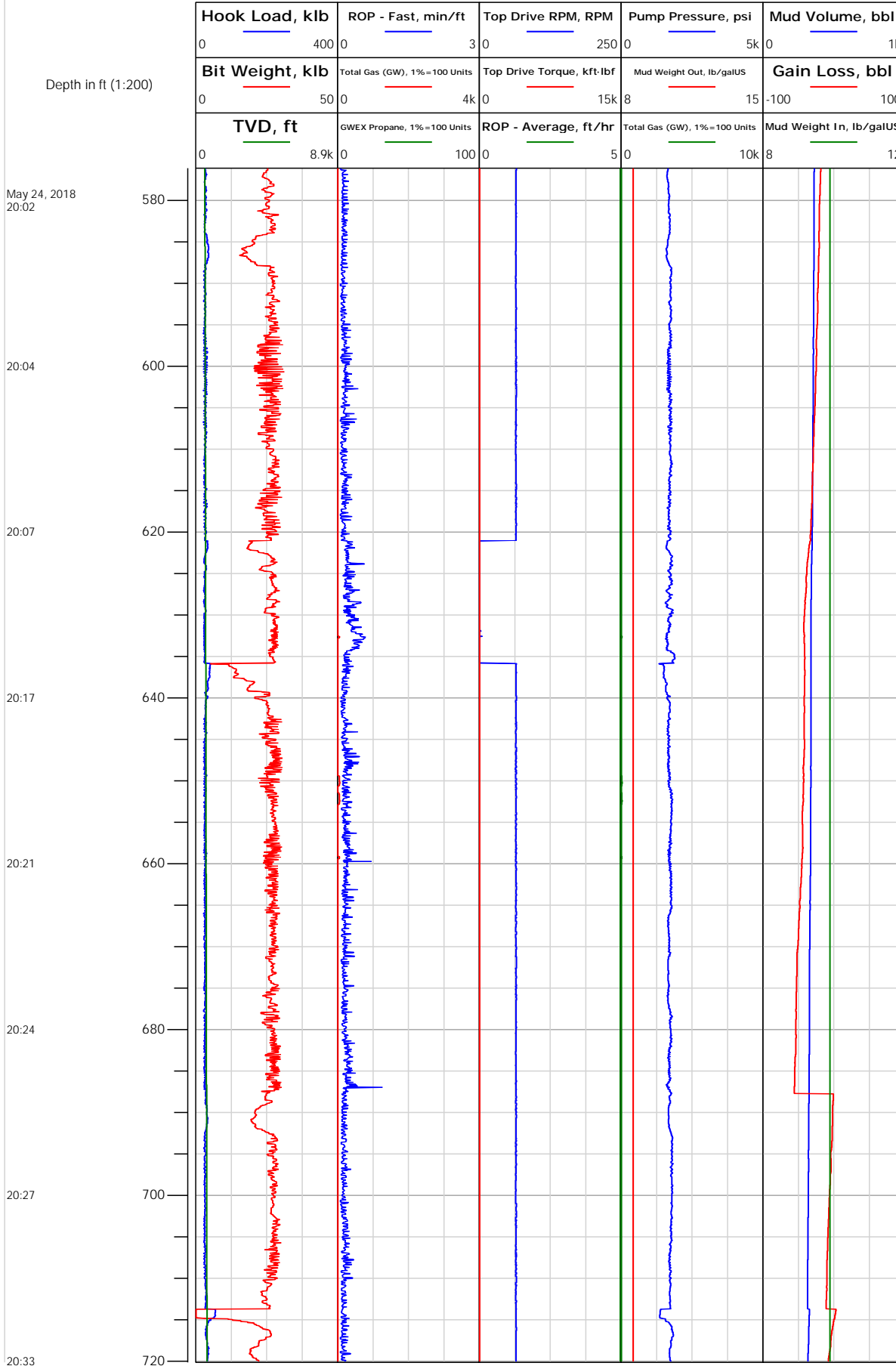
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes





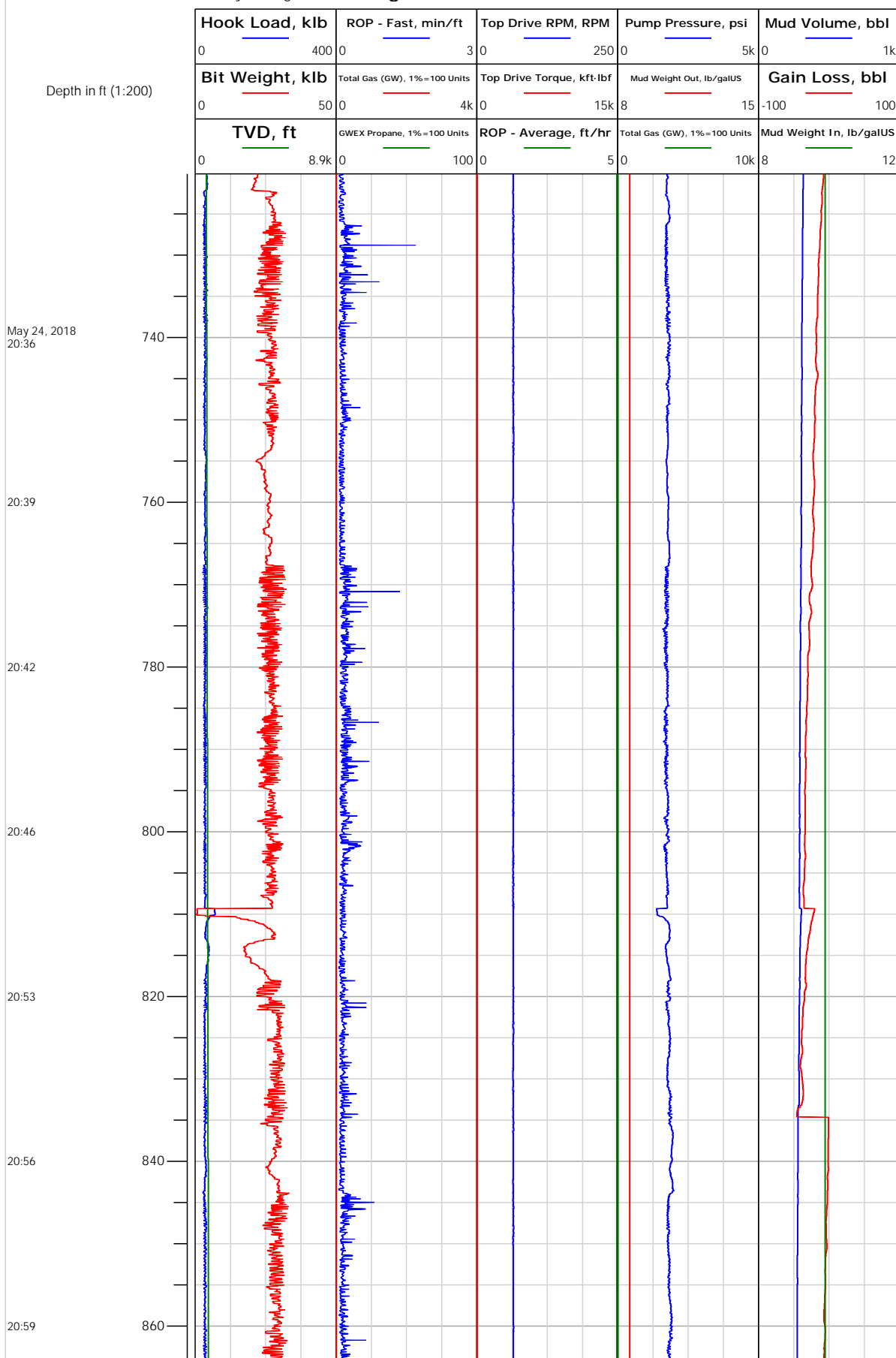
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes

Depth in ft (1:200)

May 24, 2018  
21:02

21:06

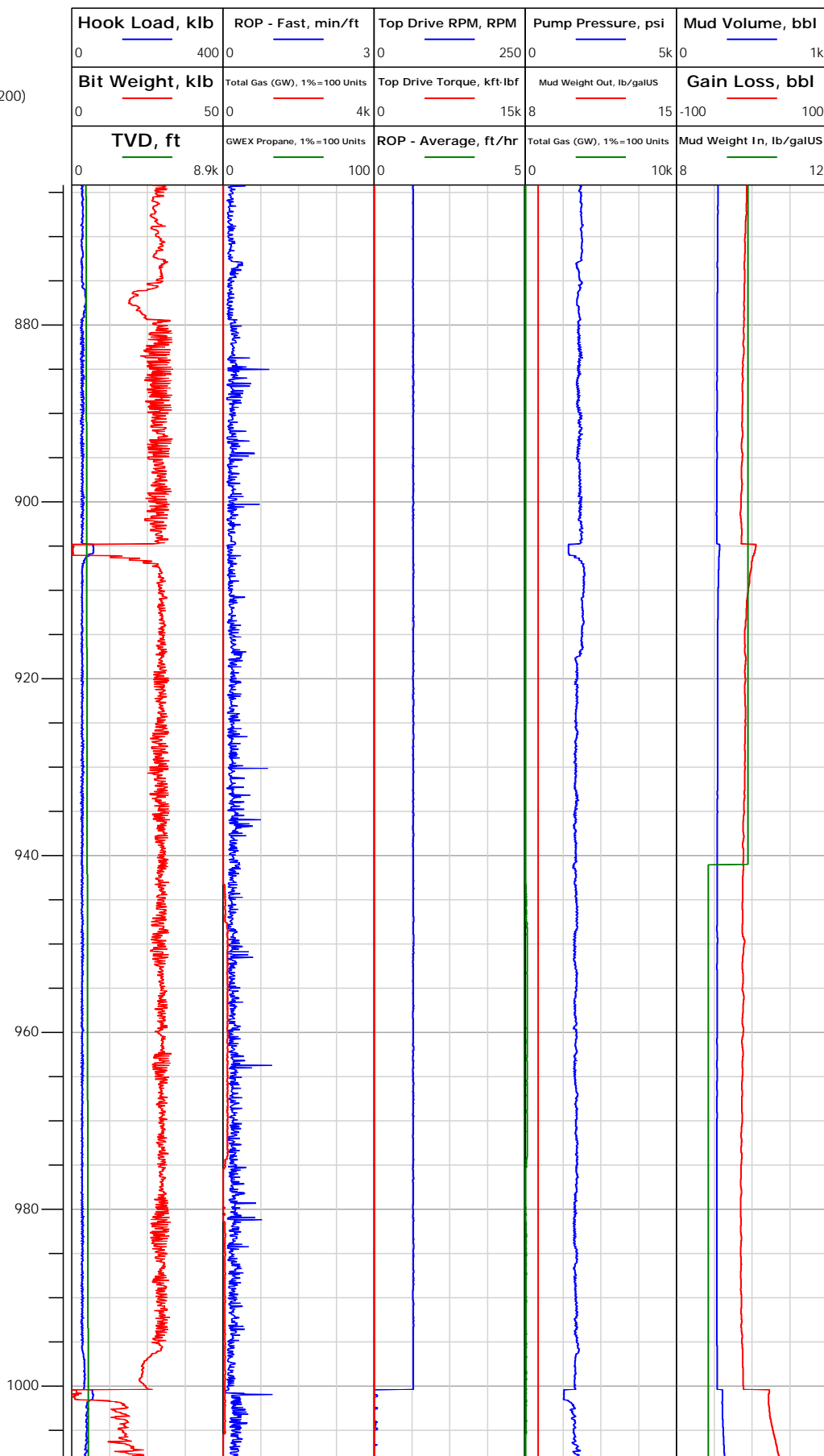
21:13

21:17

21:20

21:25

21:28





## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes

Depth in ft (1:200)

May 24, 2018  
21:38

21:41

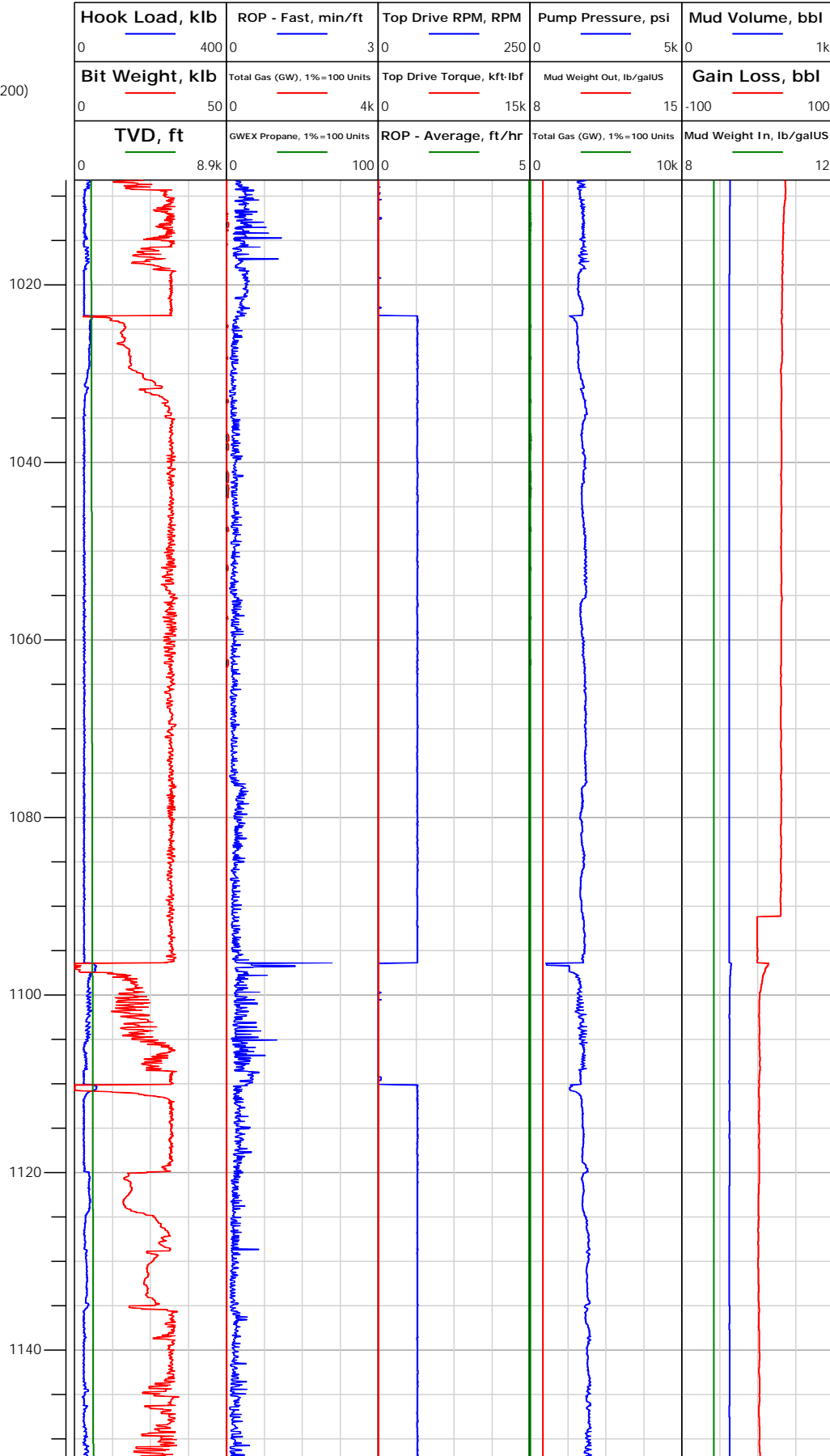
21:45

21:48

21:55

22:01

22:04





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes

Depth in ft (1:200)

May 24, 2018  
22:07

22:11

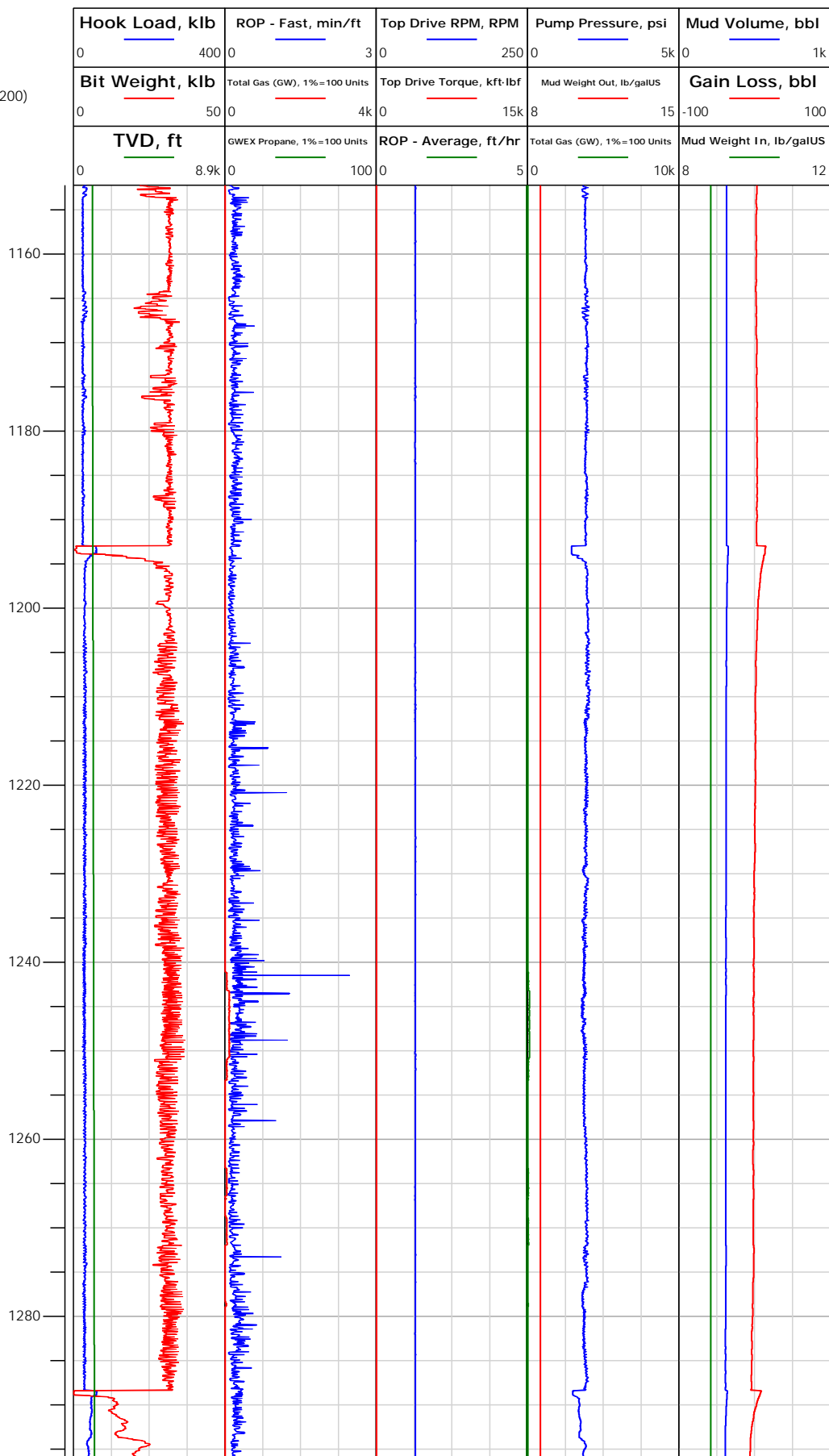
22:18

22:21

22:25

22:30

22:33



1226.00: Deviation Survey  
 1226.00 ft, Deviation  
 25.36 deg, Direction  
 202.09 deg



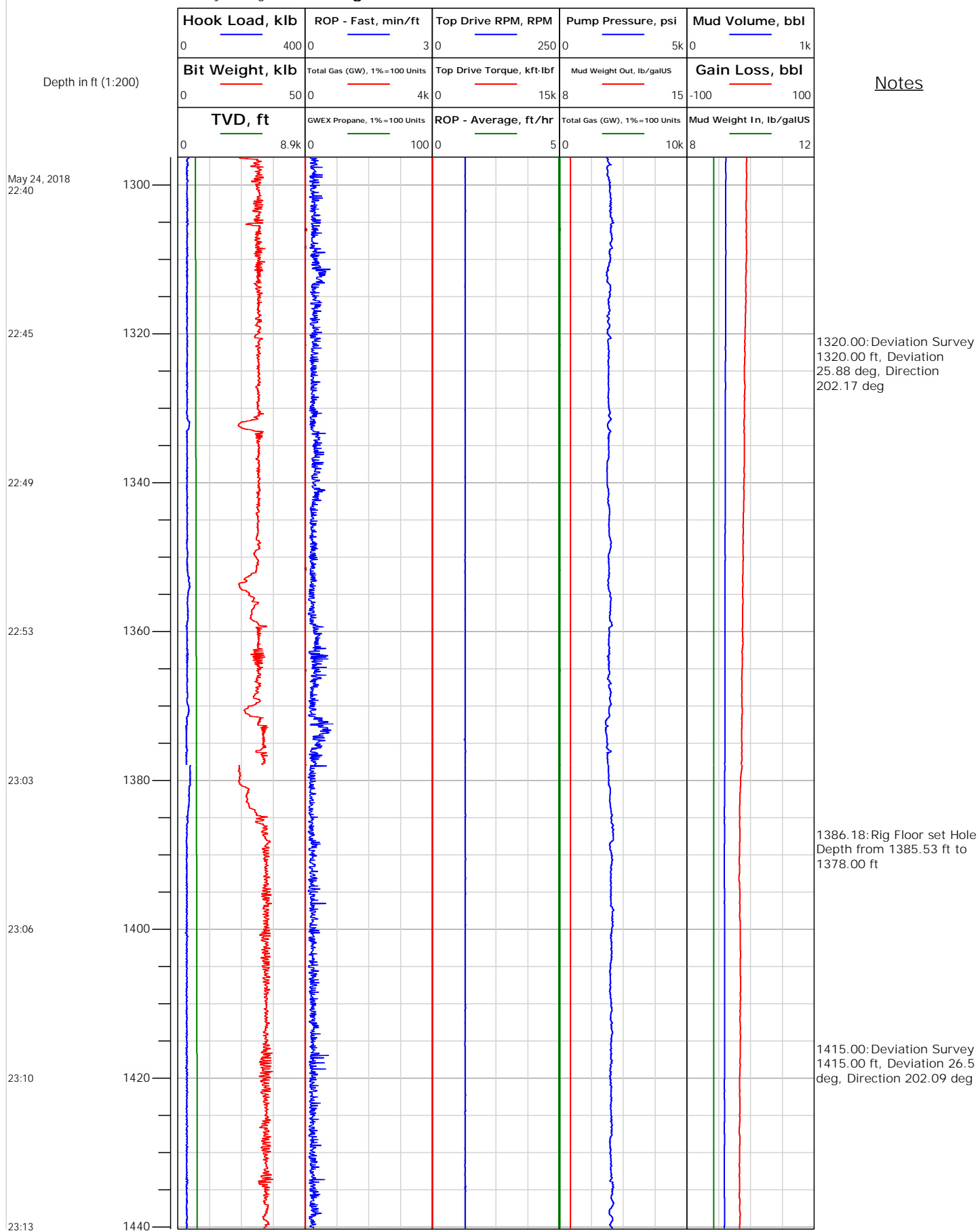
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes







# Electronic Drilling Recorder

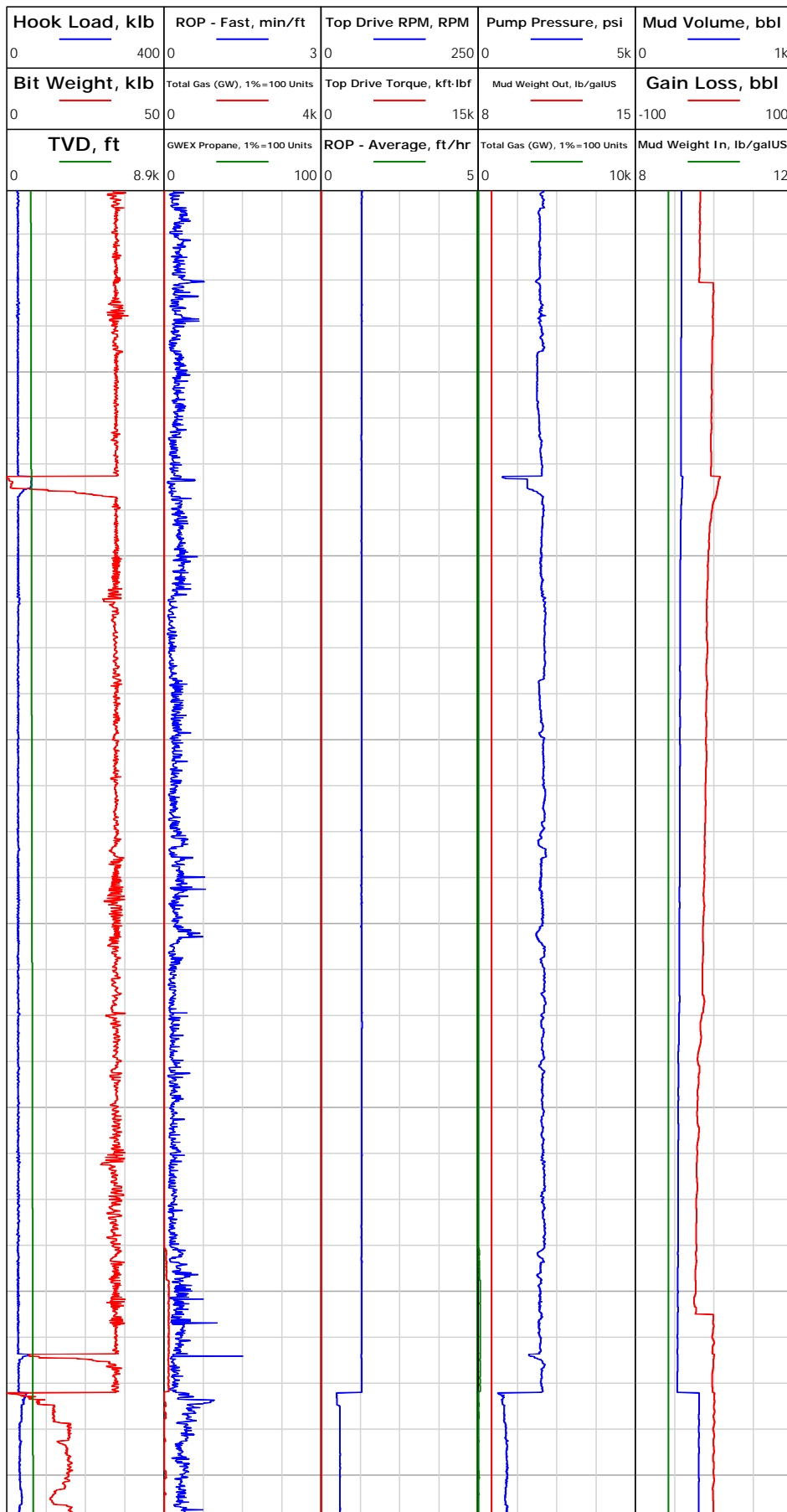
**Operator:** Laramie Energy  
**Contractor:** Helmerich & Payne Drlg Co

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)



May 24, 2018  
23:18

23:26

23:30

23:35

23:39

23:43

May 25, 2018  
19:41

1471.37: Connection @  
1471.37 ft

1513.00: Deviation Survey  
1513.00 ft, Deviation  
26.81 deg, Direction 202.7  
deg

1567.64: Connection @  
1567.64 ft  
1570.01: Rig Floor set Hole  
Depth from 1570.01 ft to  
1567.00 ft  
1571.18: Rig Floor set Bit  
Position from 28.68 ft to  
170.00 ft  
1571.18: Rig Floor set Bit  
Position from 1509.30 ft to  
1494.00 ft  
1571.18: Rig Floor set Bit  
Position from 1128.02 ft to  
0.00 ft  
1571.18: Rig Floor set Bit  
Position from 104.80 ft to  
470.00 ft  
1571.18: Rig Floor set Bit  
Position from 485.98 ft to  
1094.00 ft



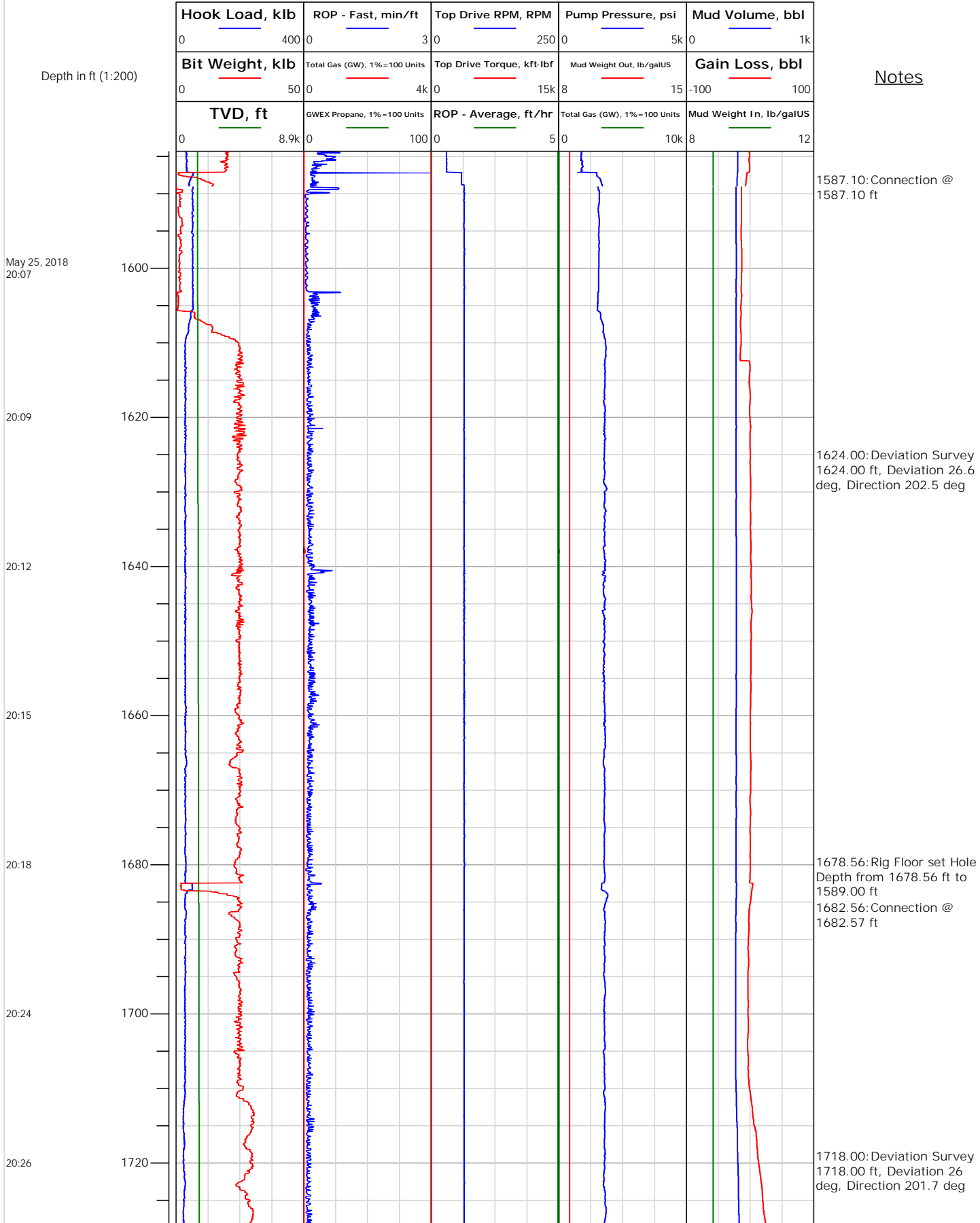
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes



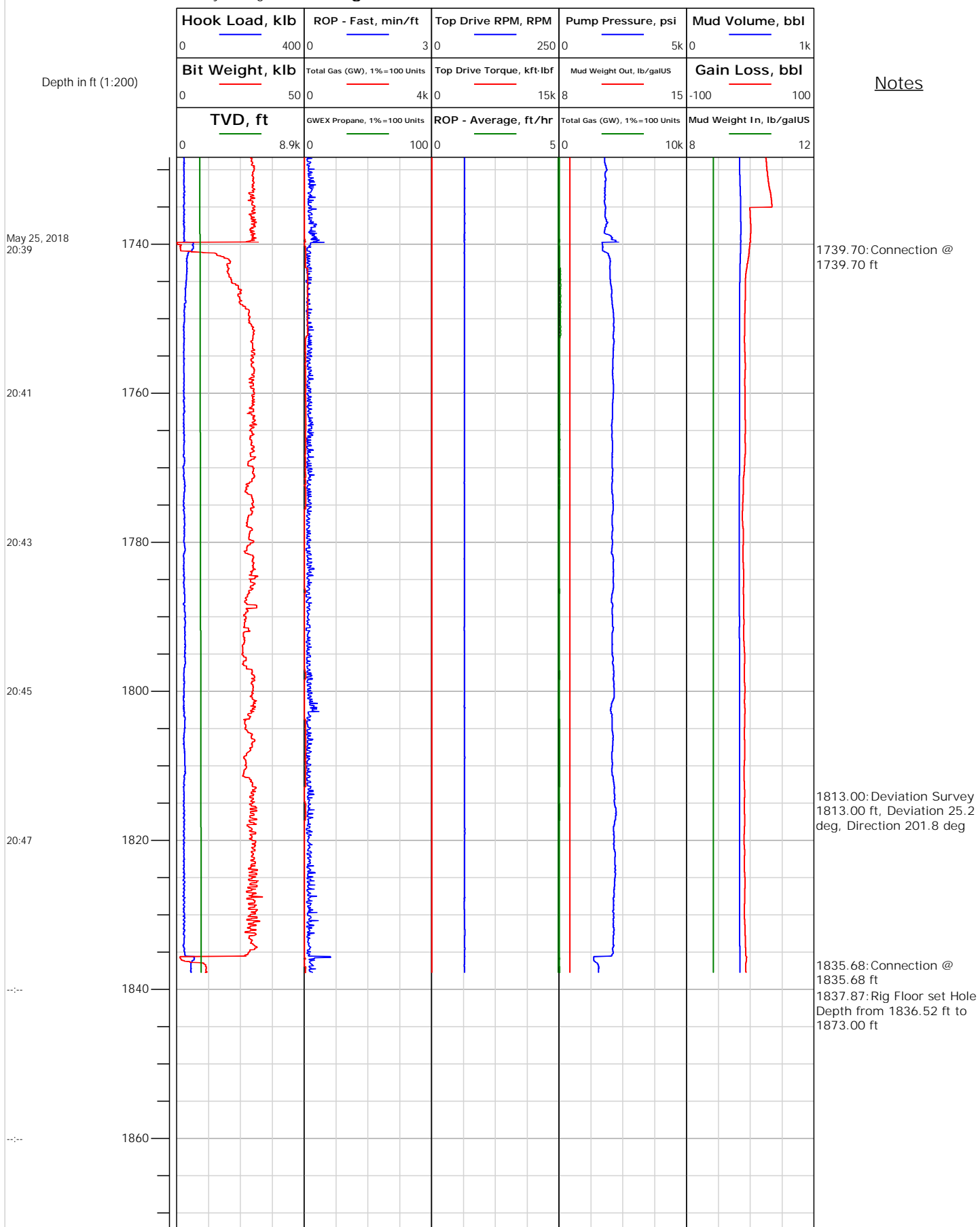


## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24





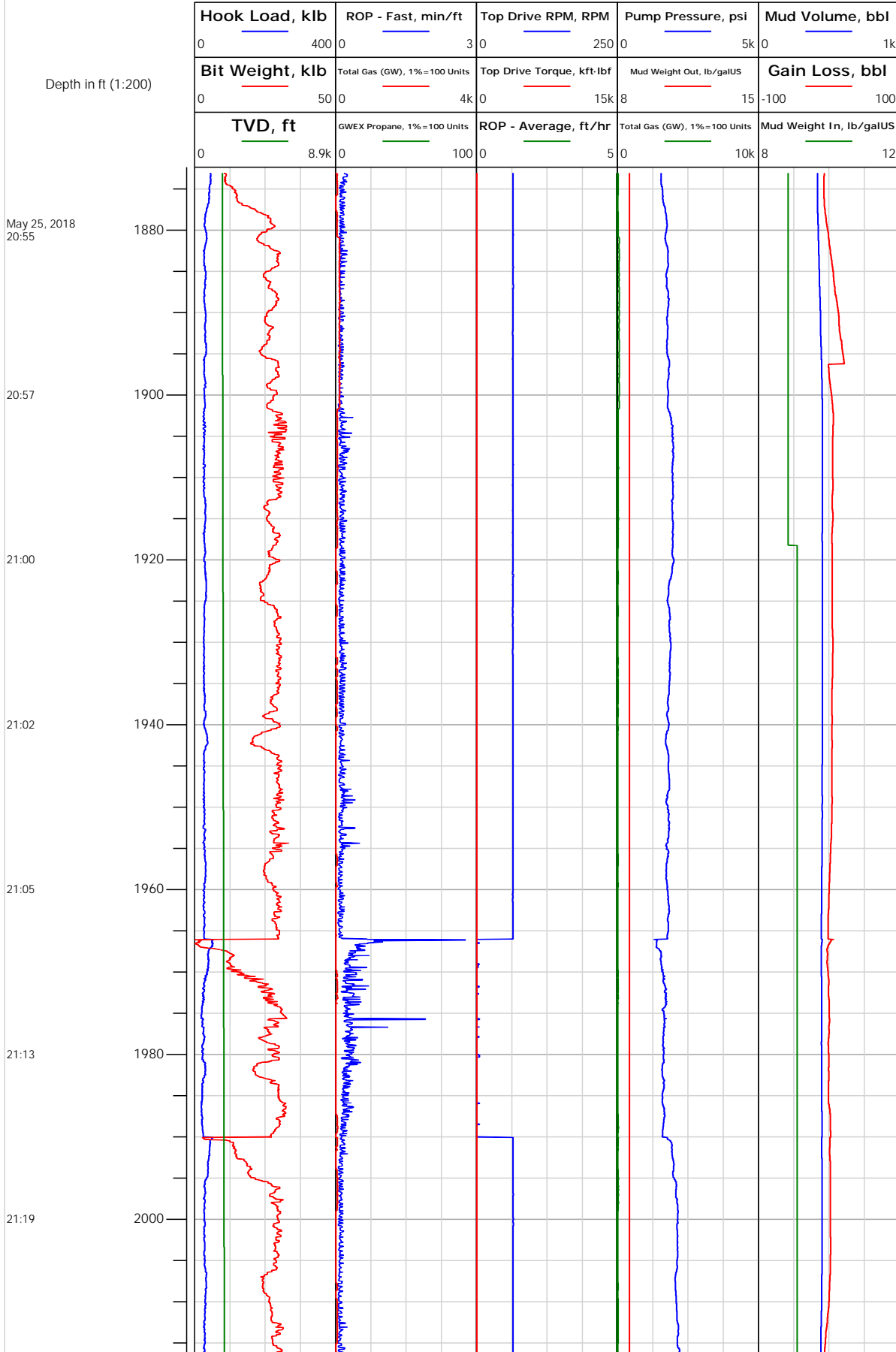
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





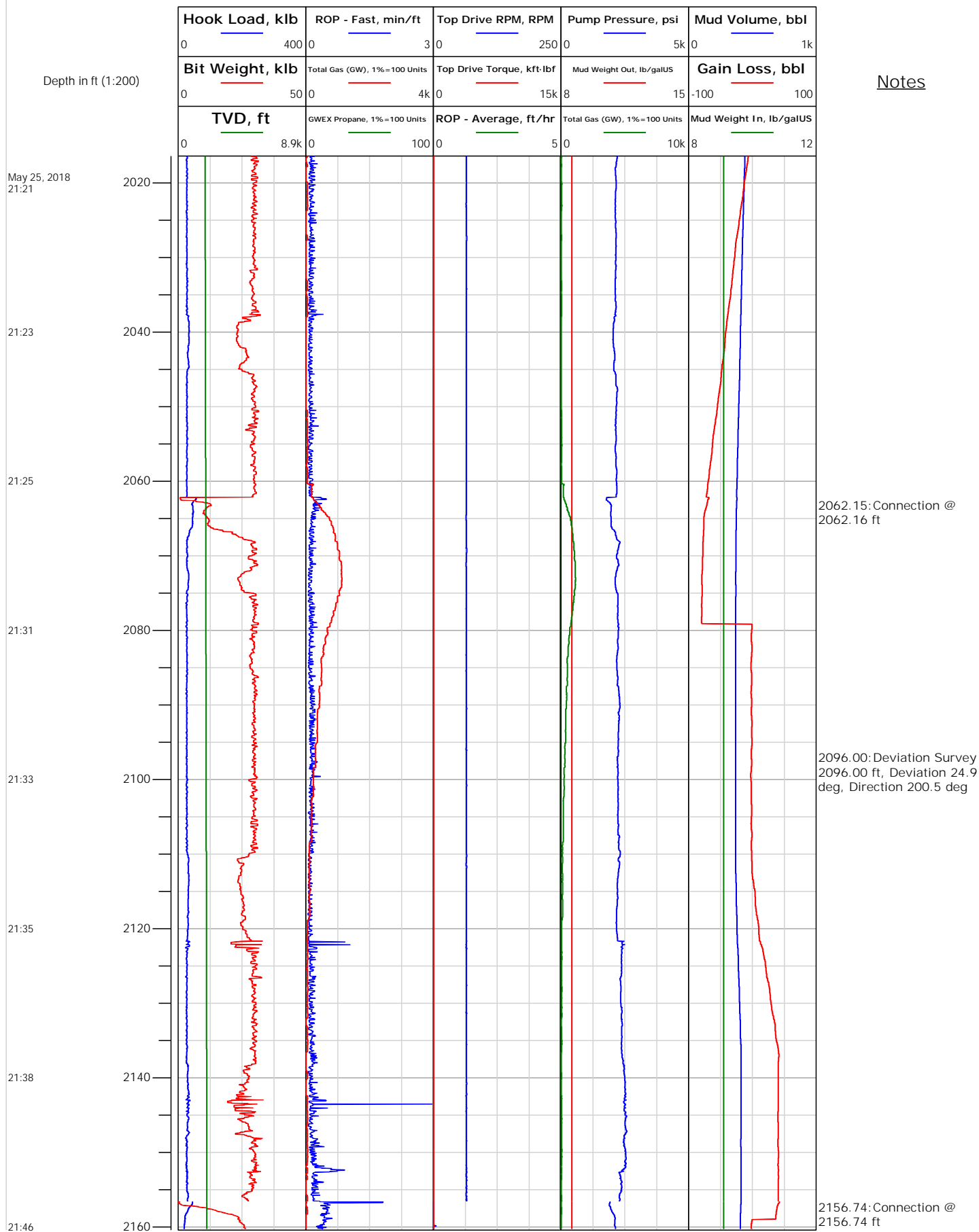
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

Notes





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)

May 25, 2018  
21:54

21:57

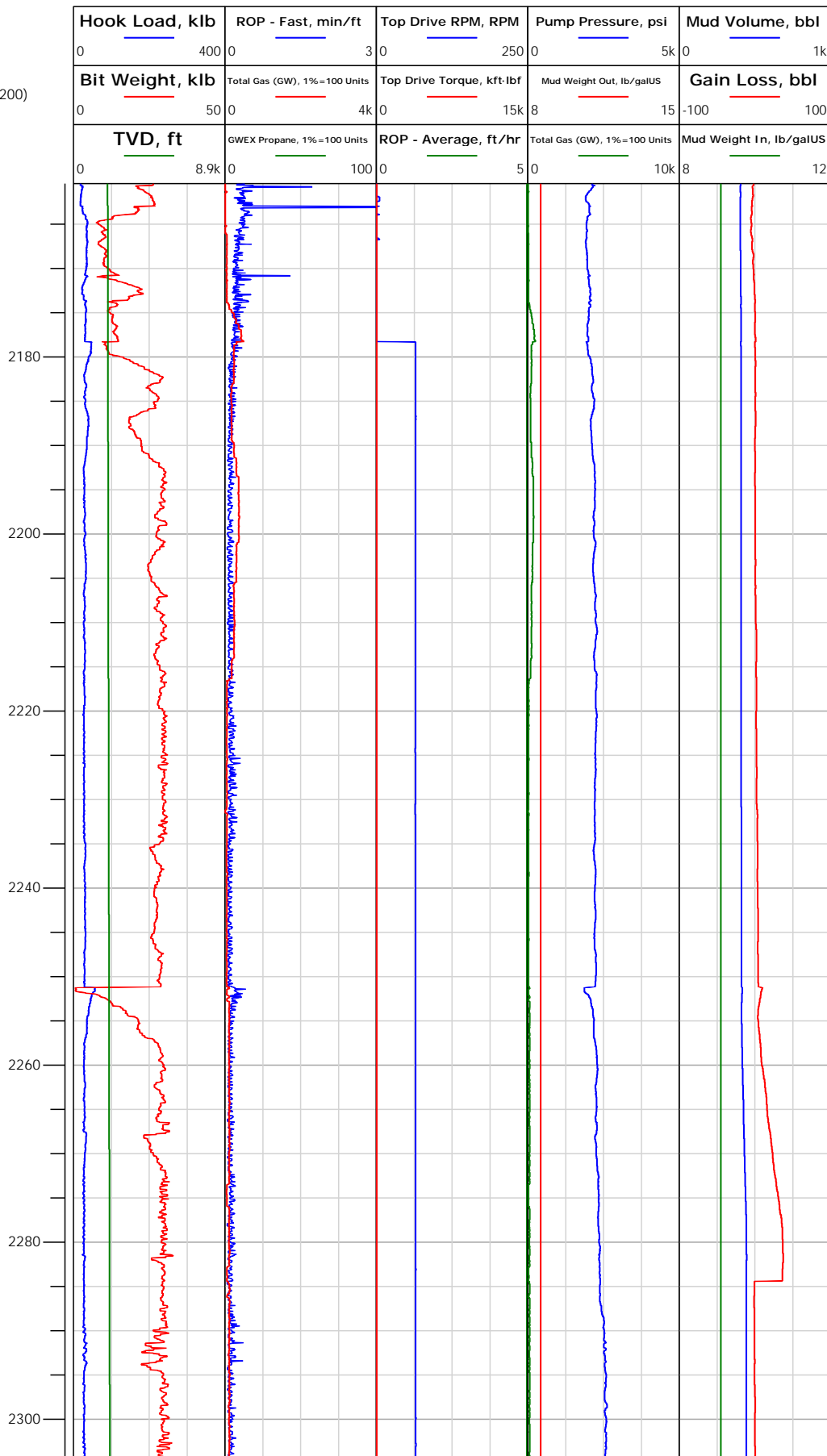
21:58

22:01

22:06

22:08

22:10





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes

Depth in ft (1:200)

May 25, 2018  
22:12

22:15

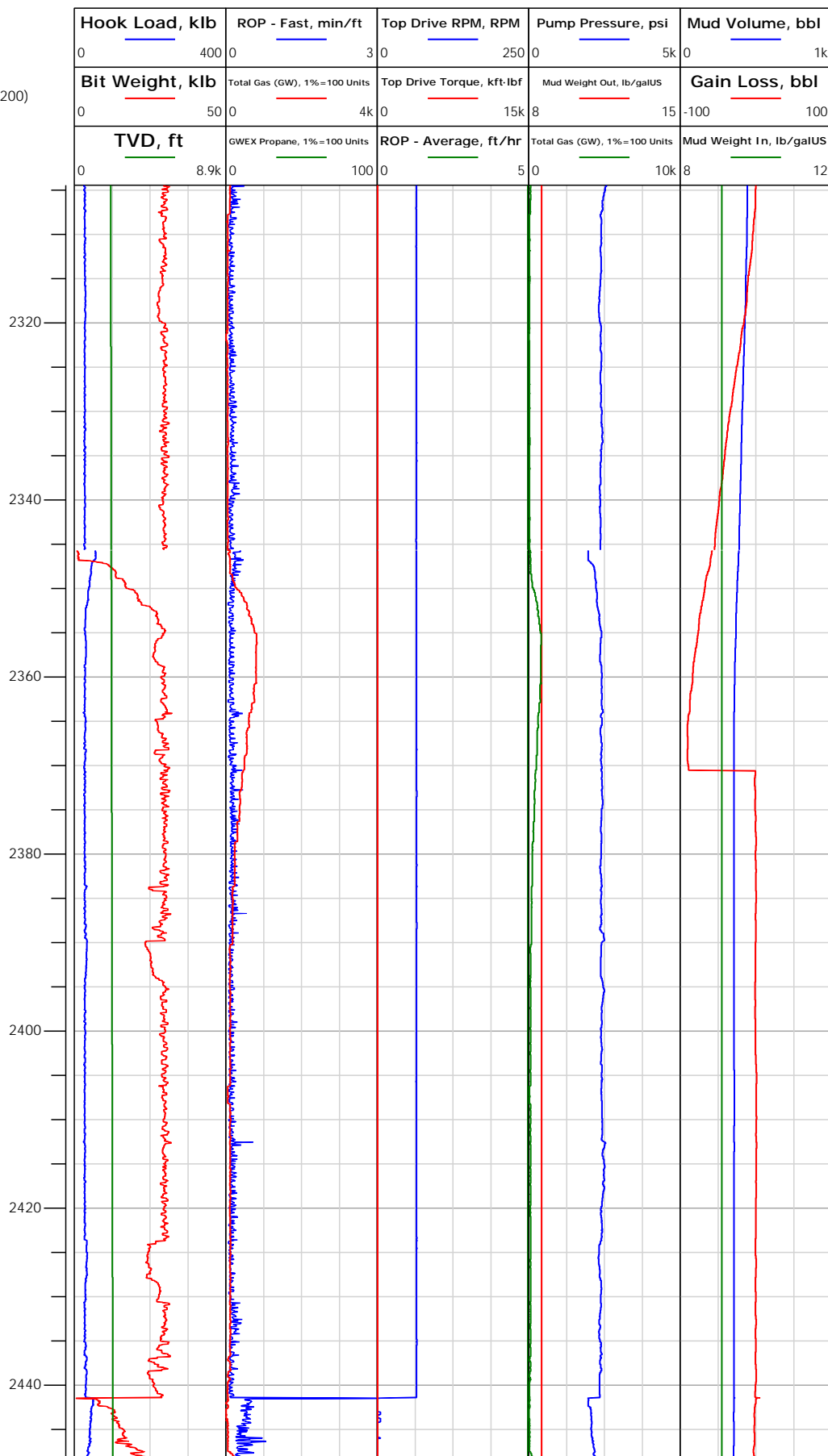
22:20

22:22

22:25

22:27

22:29





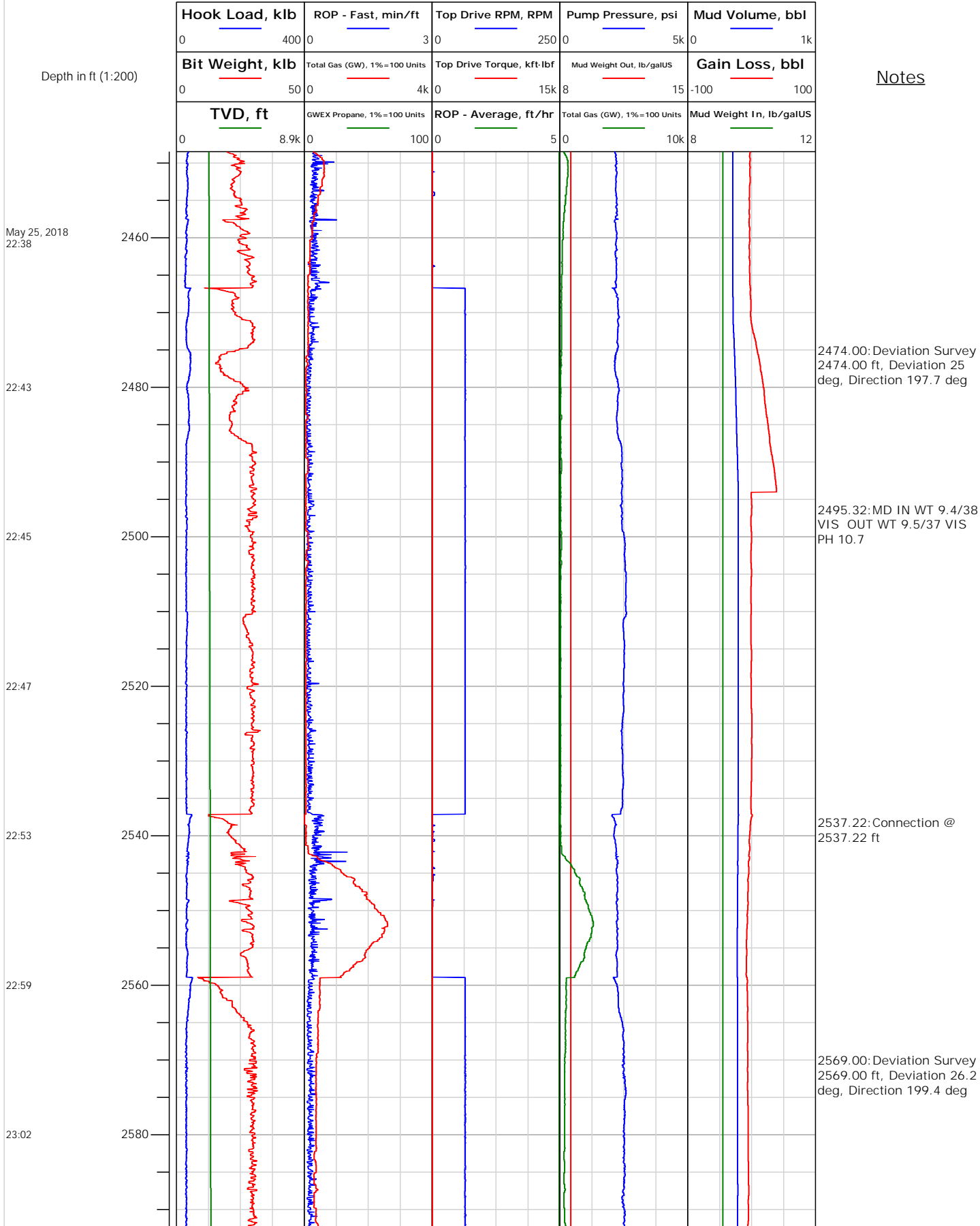
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes







# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)

May 25, 2018  
23:04

23:07

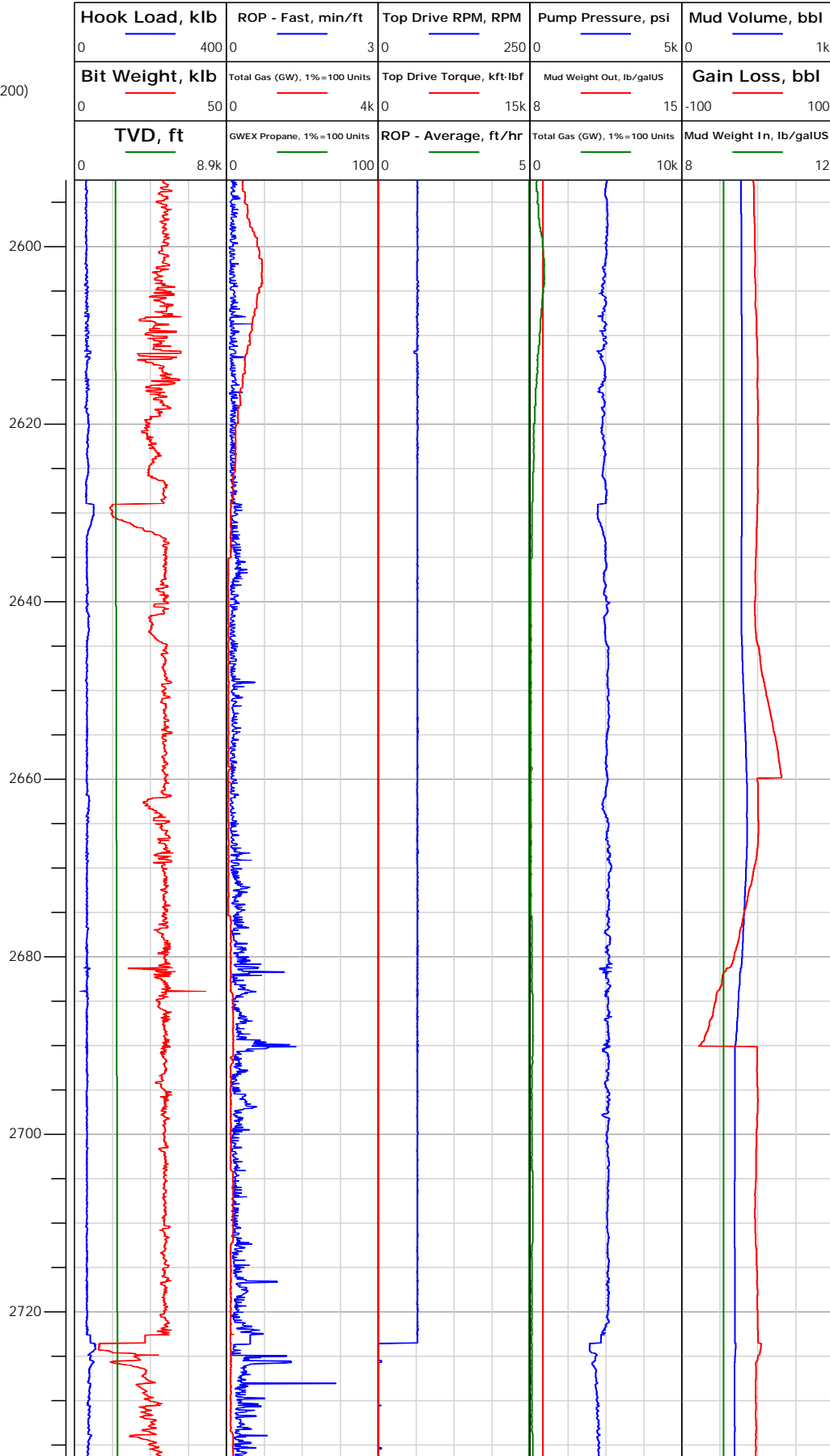
23:14

23:17

23:21

23:27

23:31





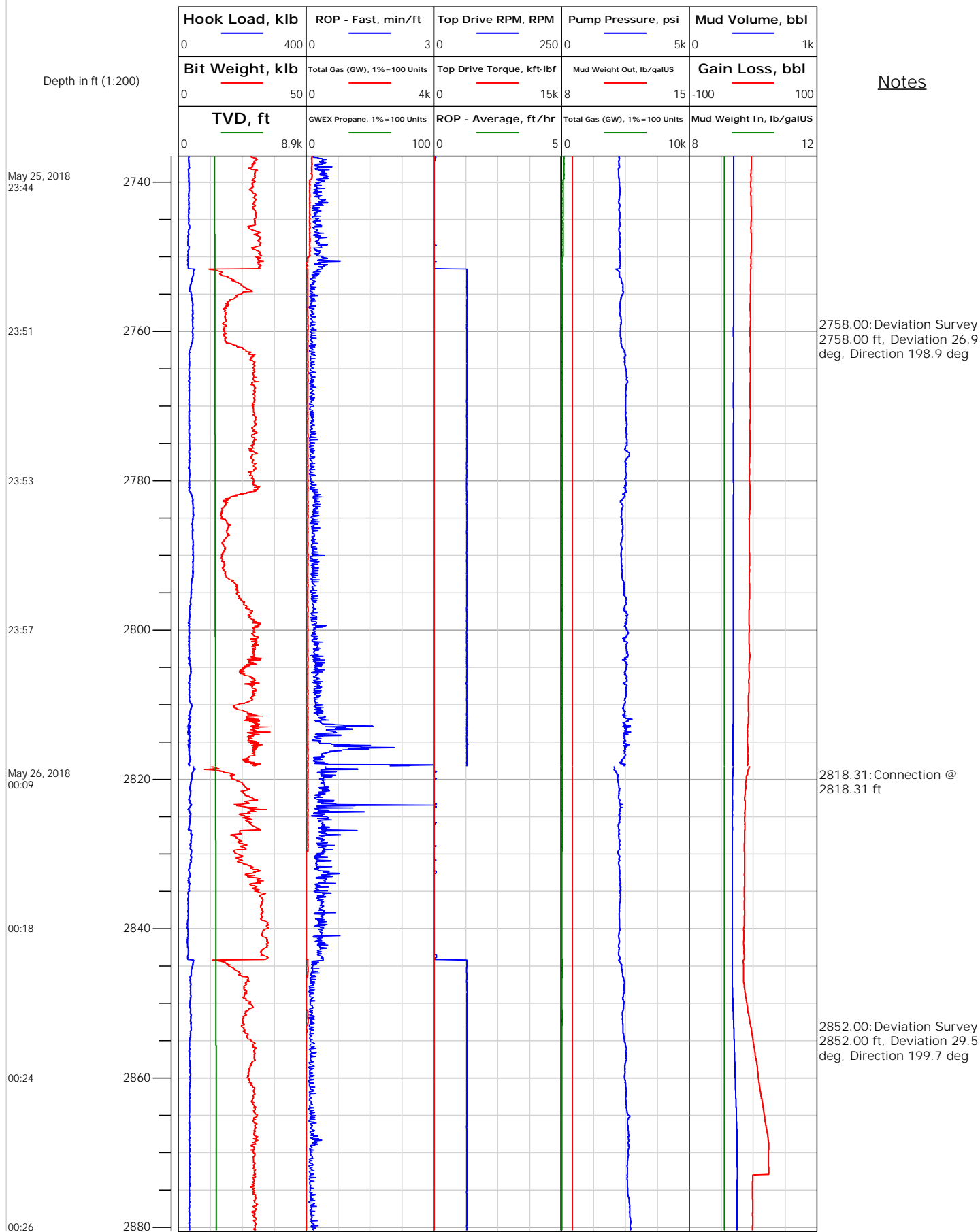
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





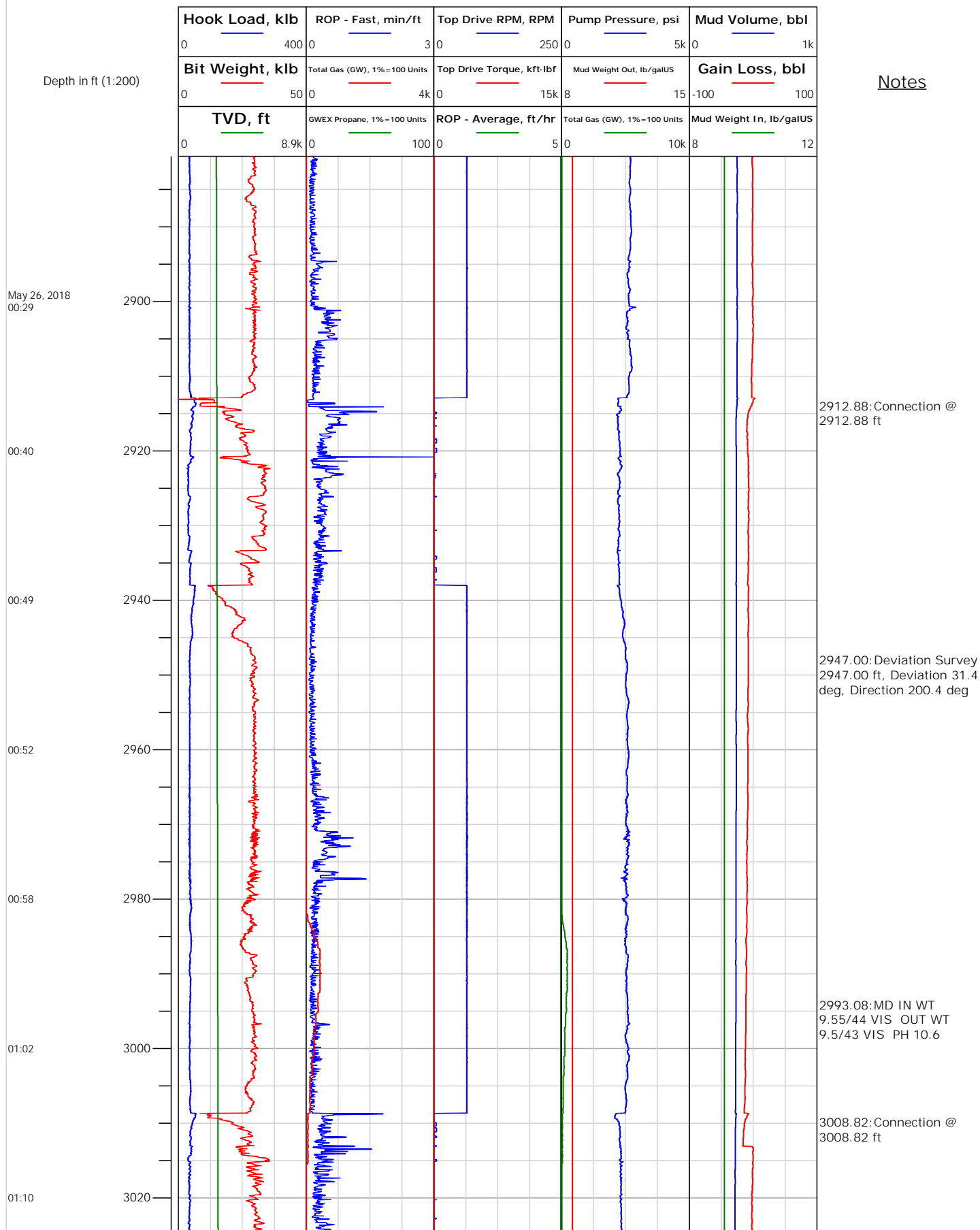
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





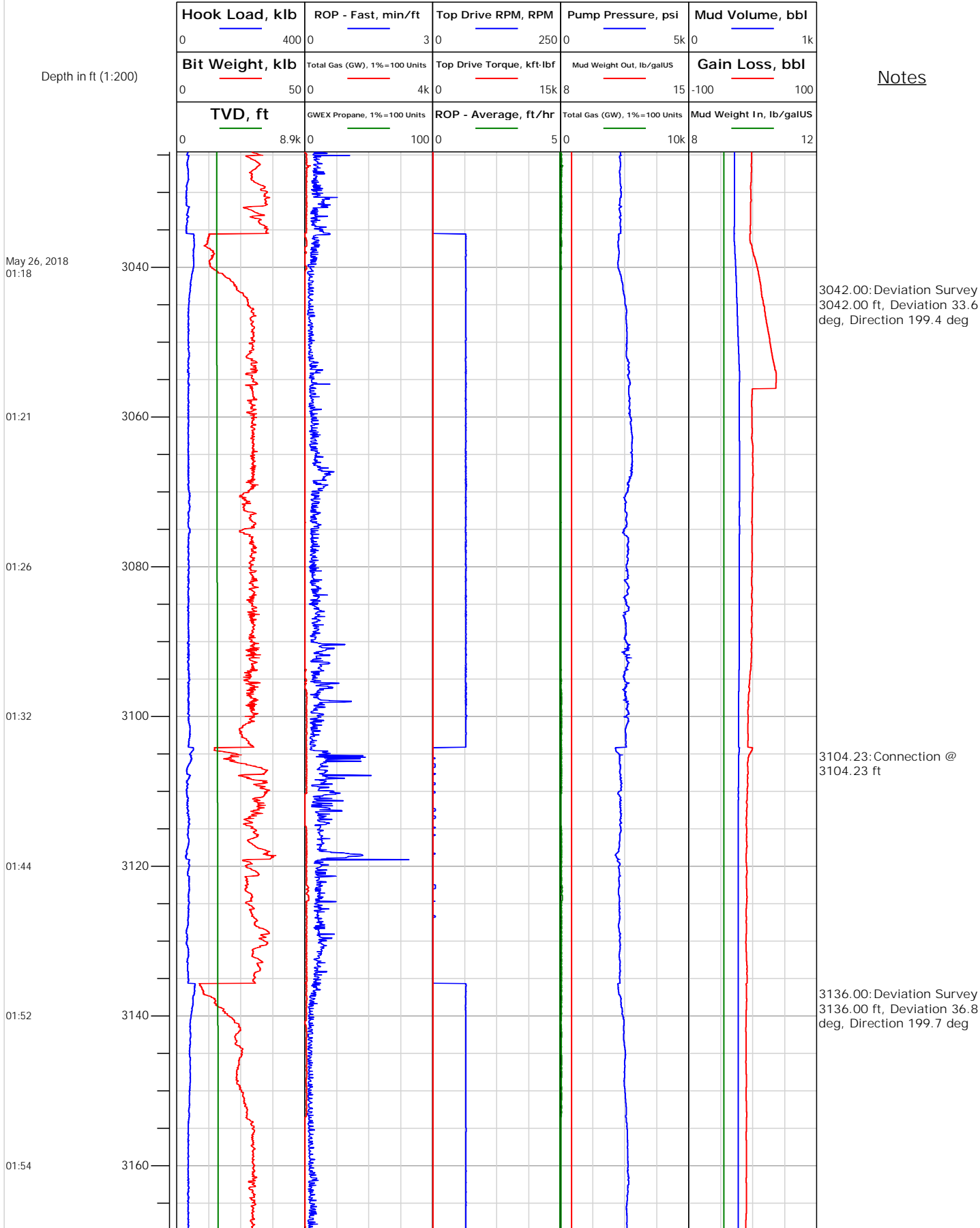
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





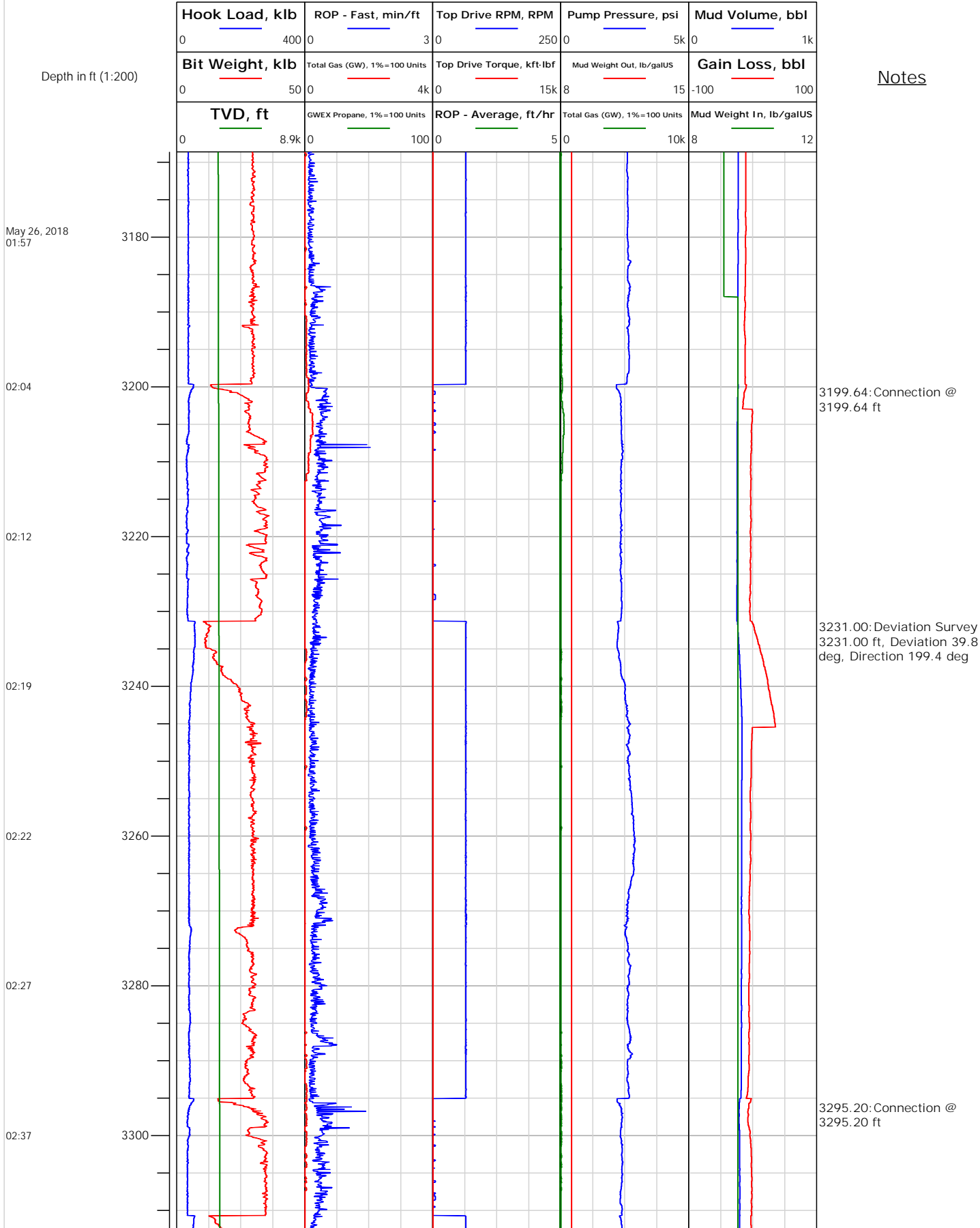
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





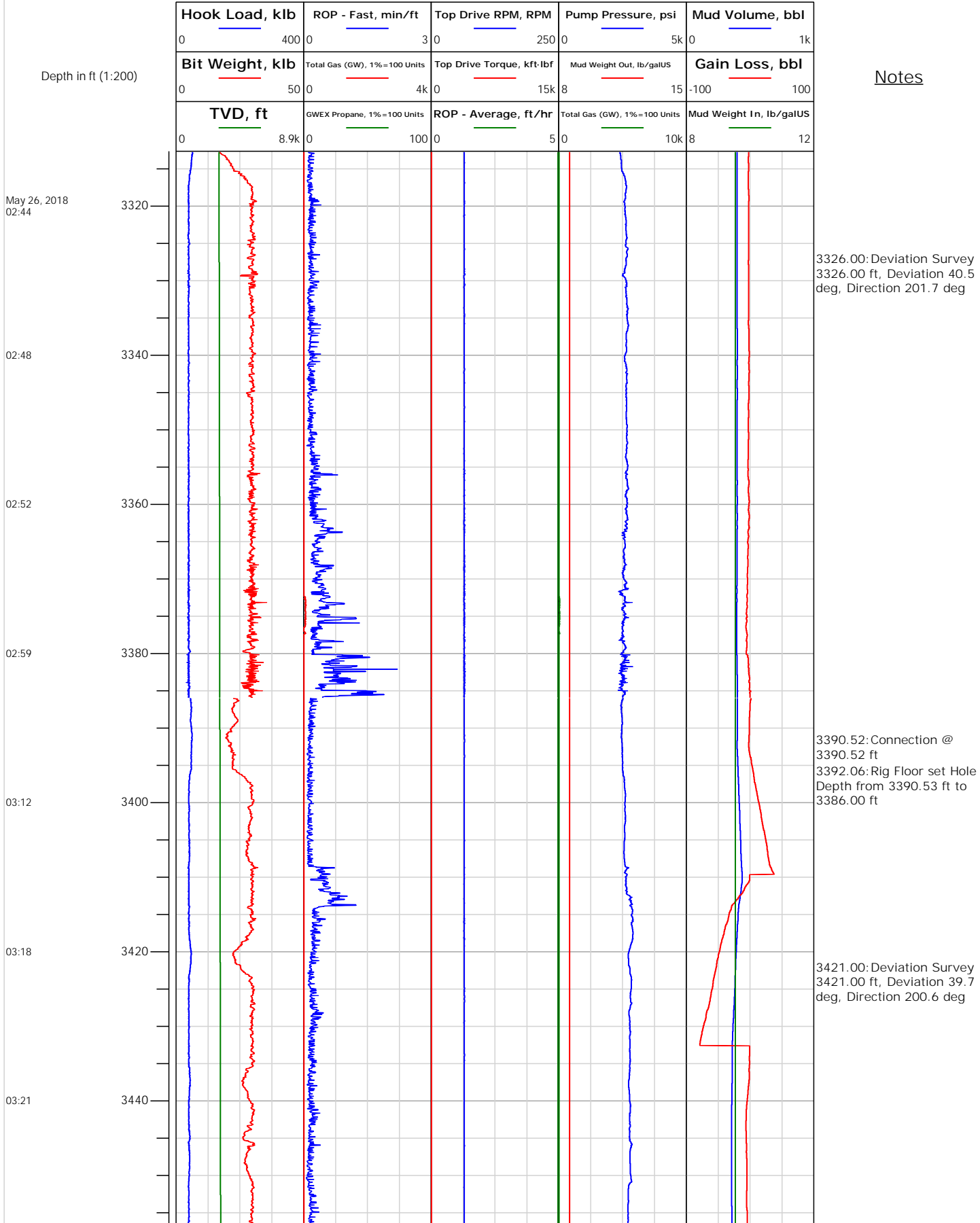
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





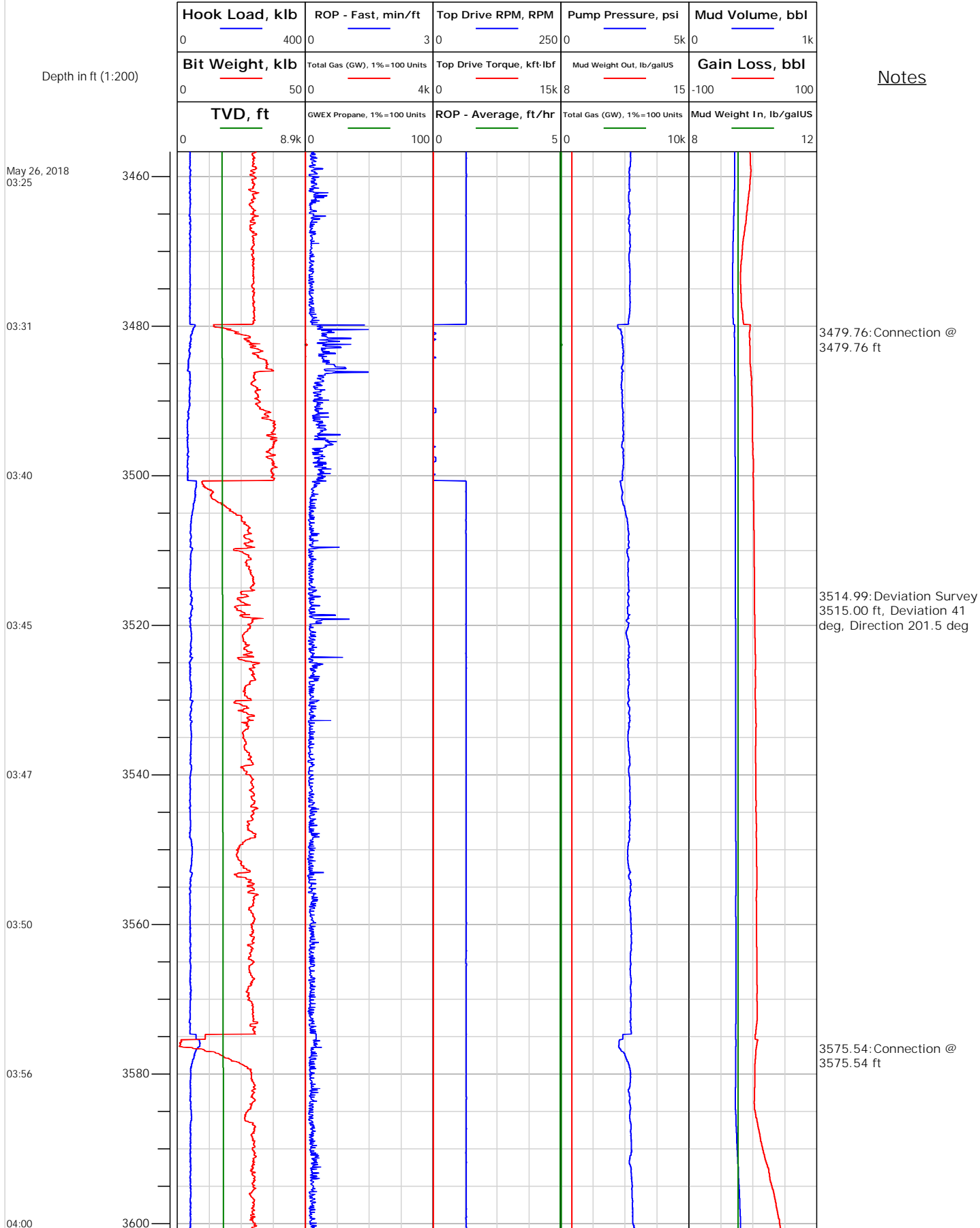
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





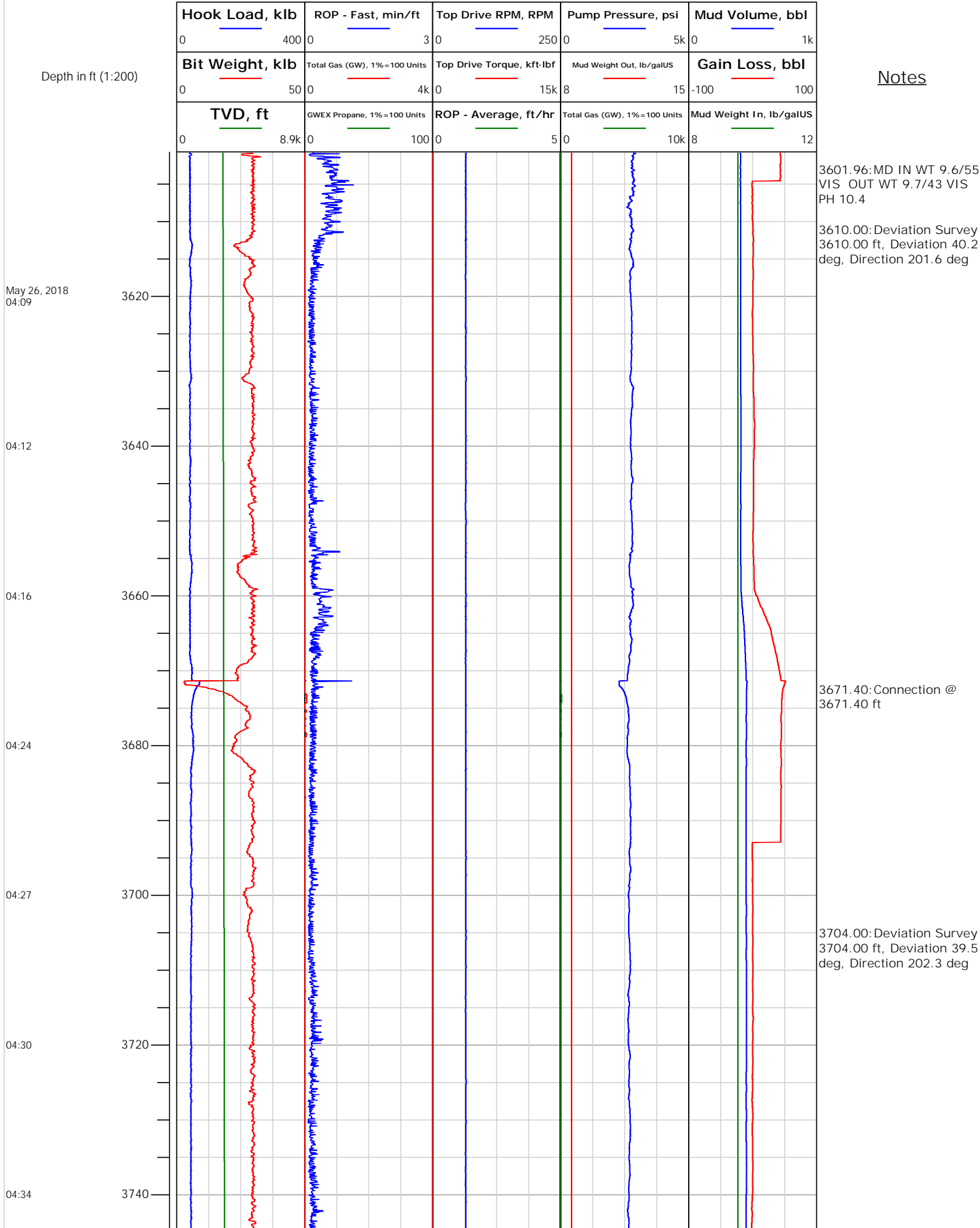
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes







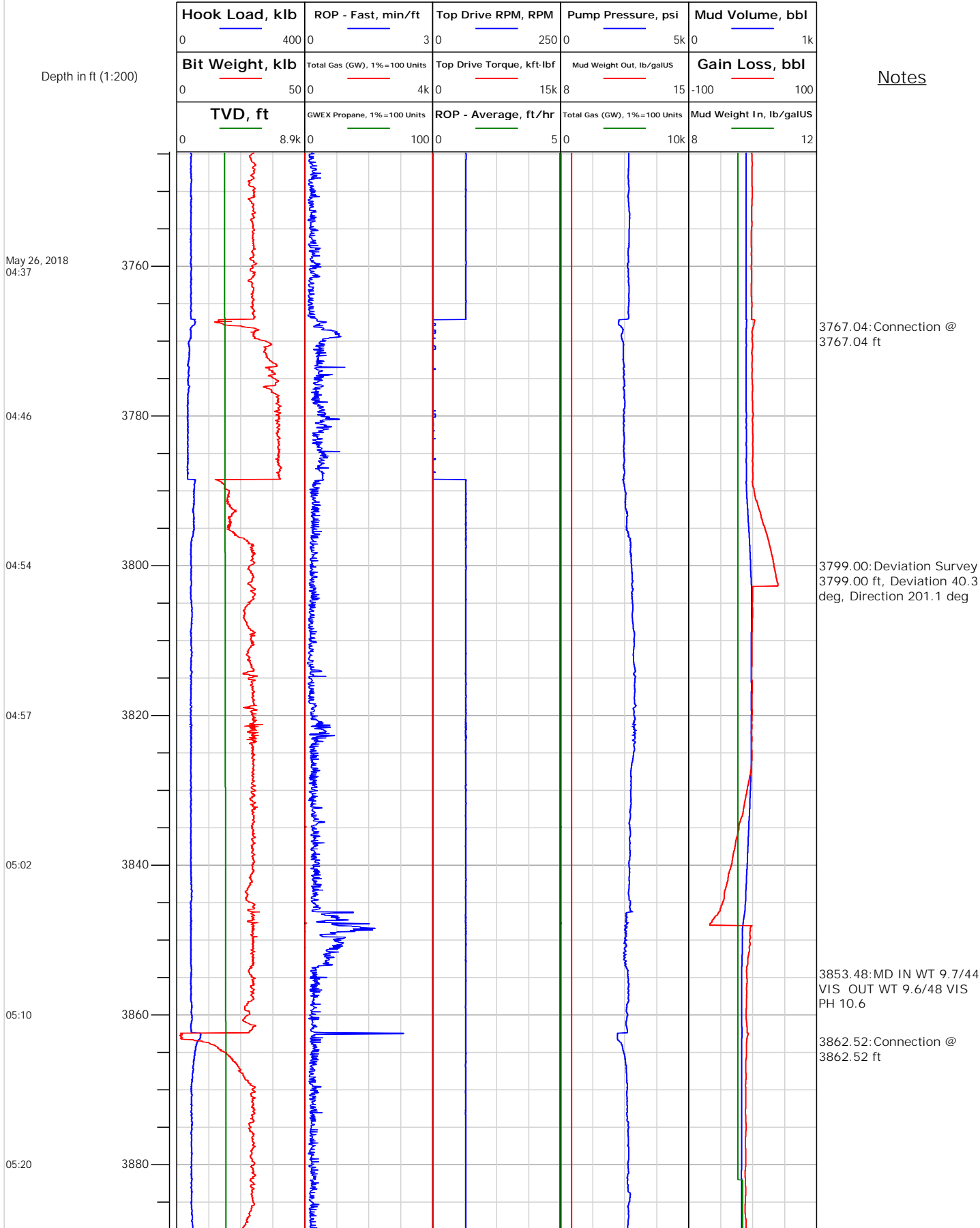
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





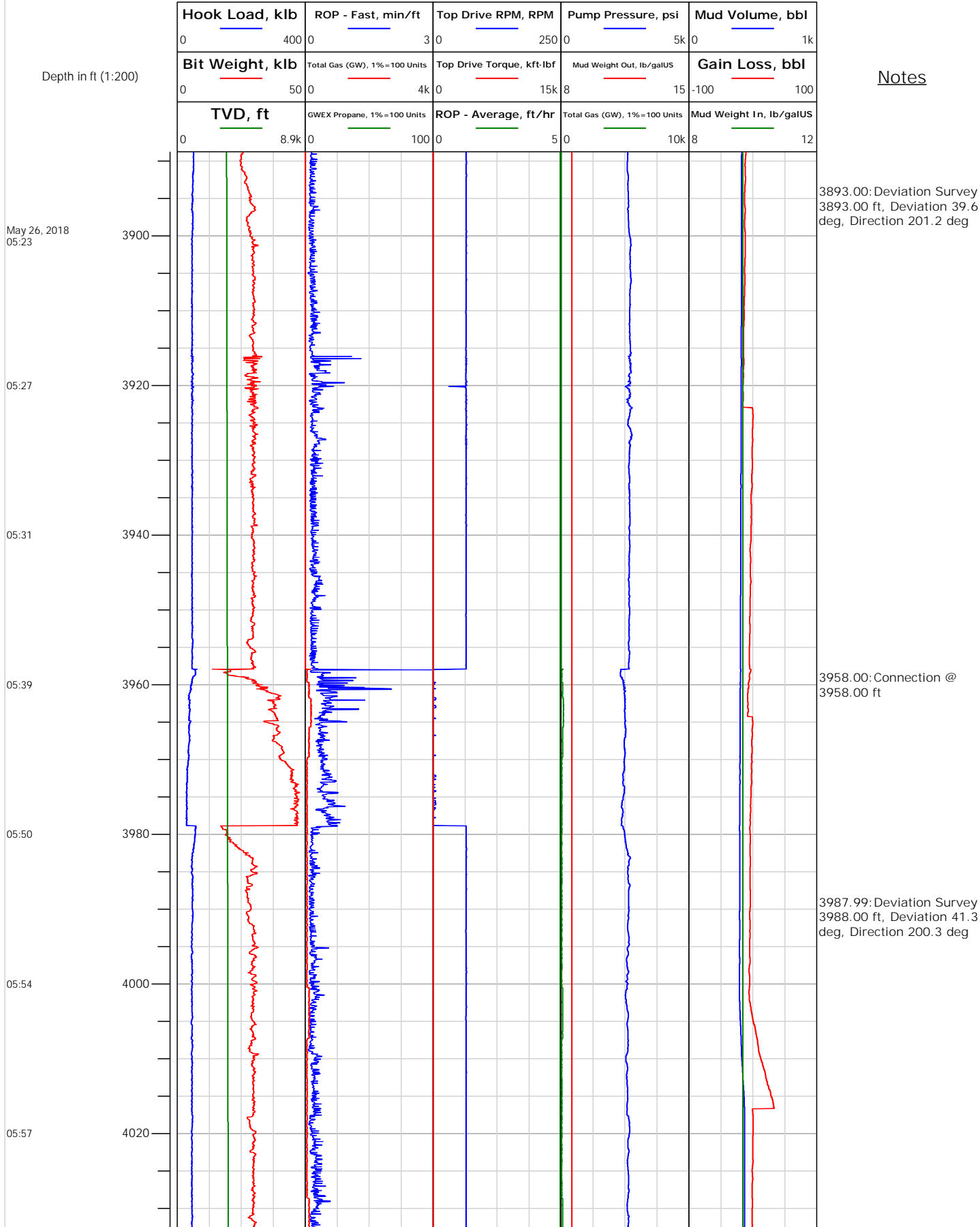
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





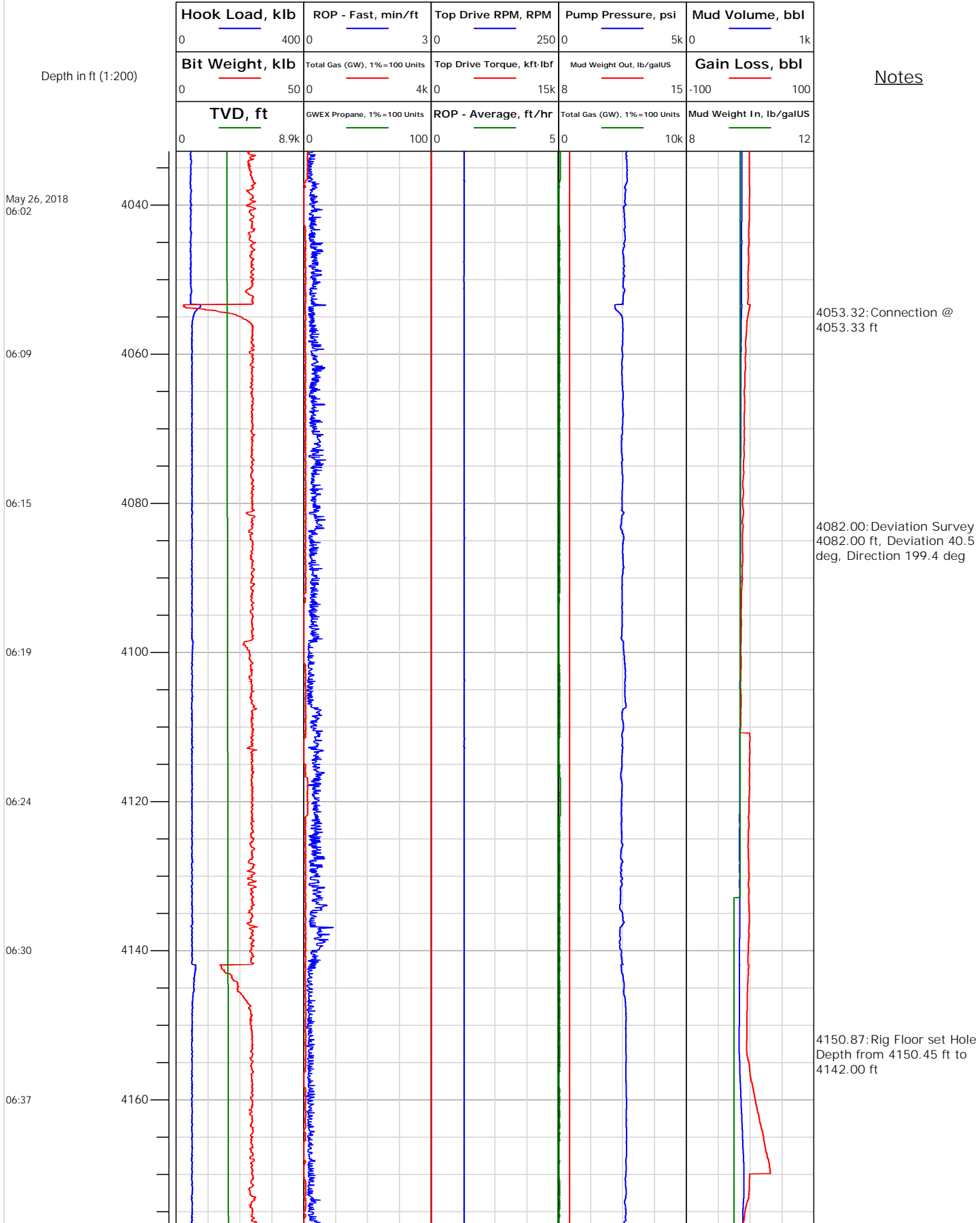
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





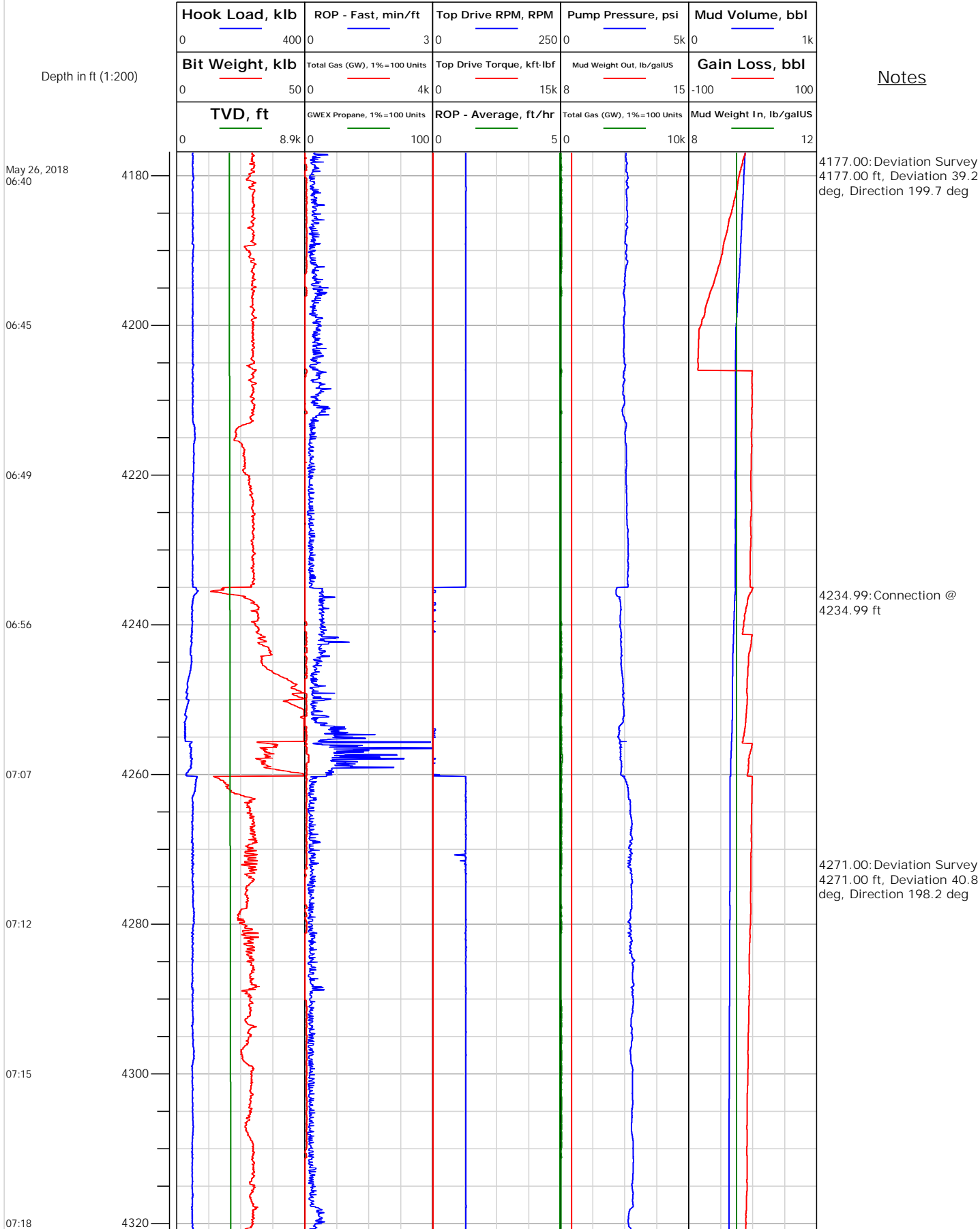
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





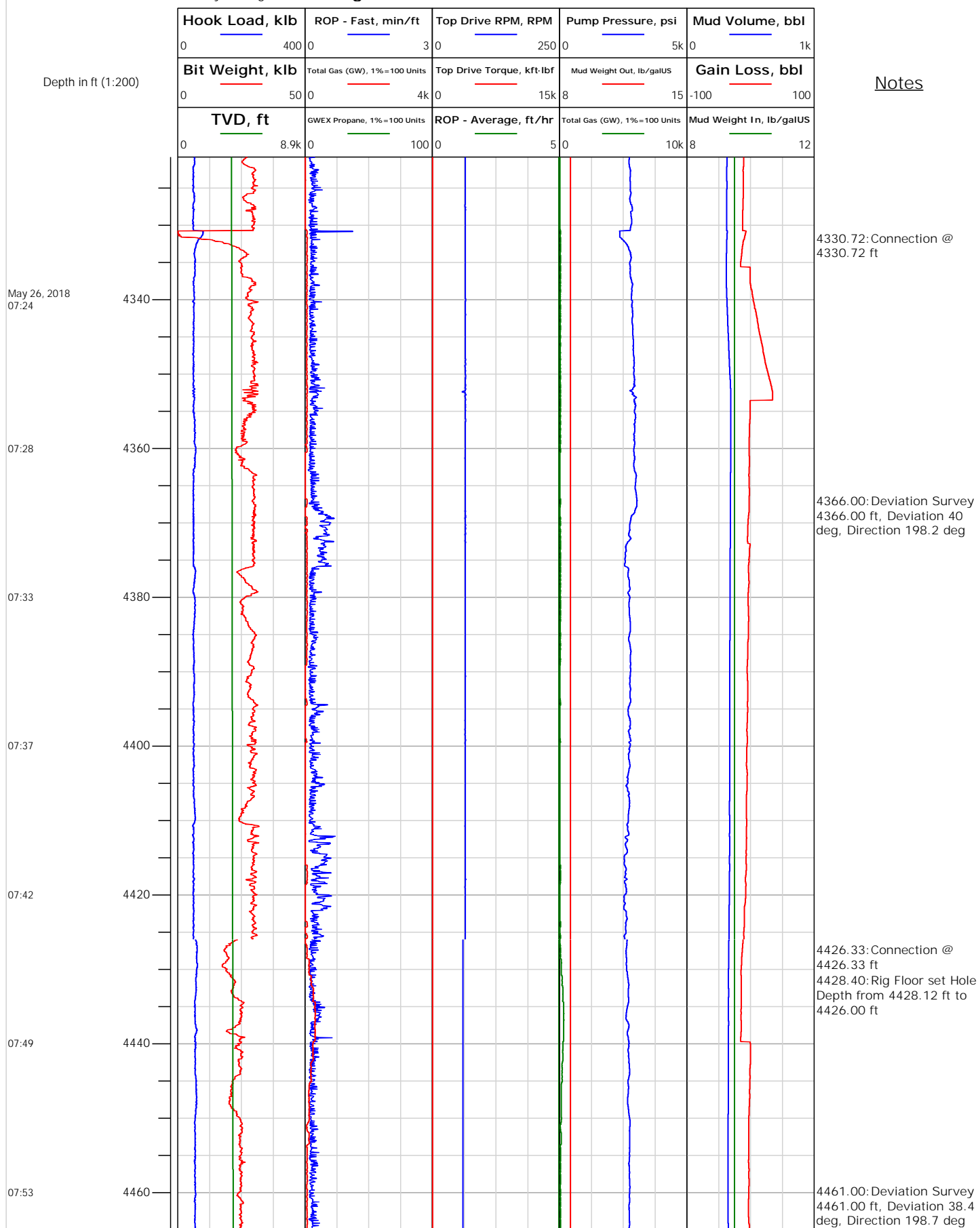
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





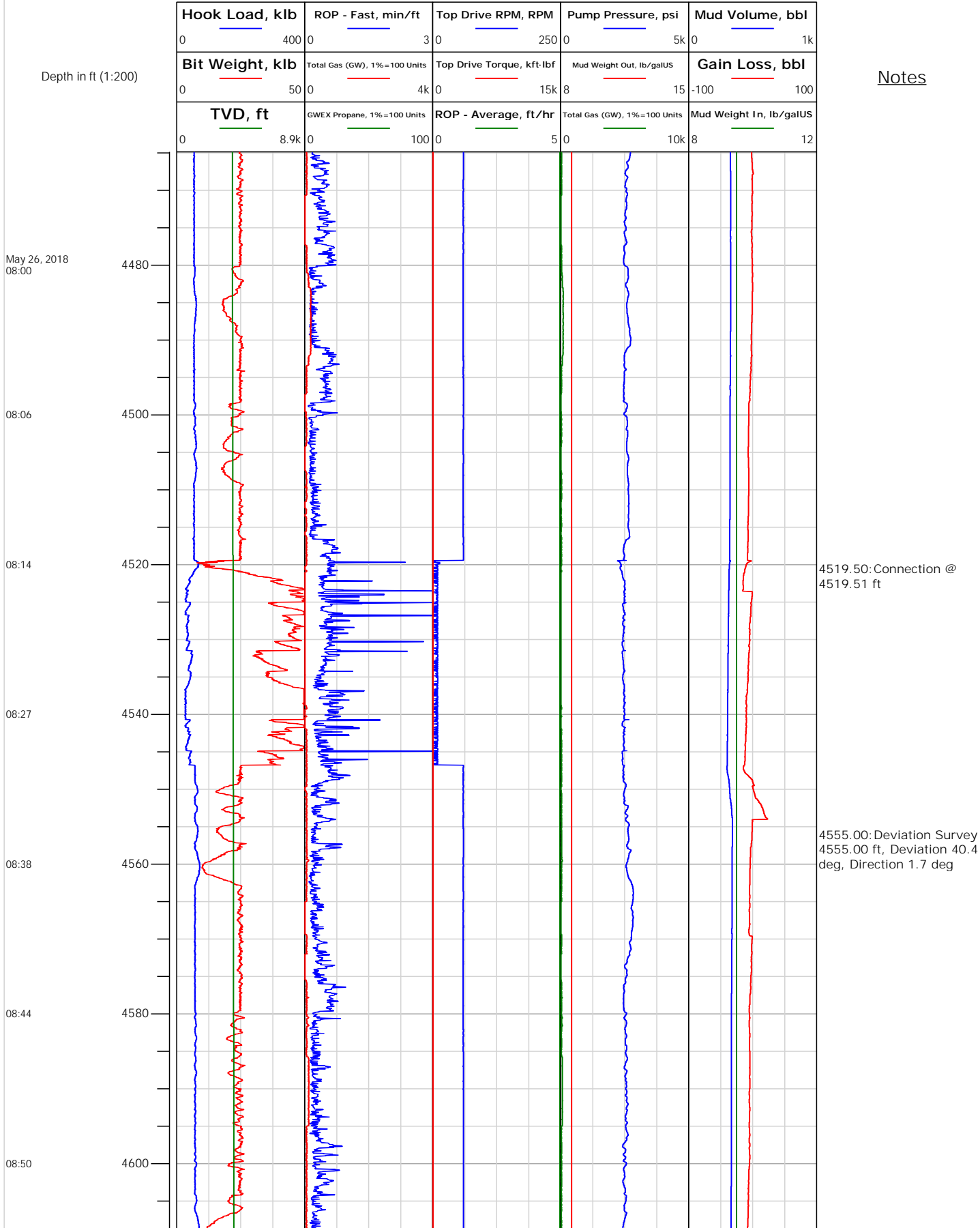
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)

May 26, 2018  
08:57

09:00

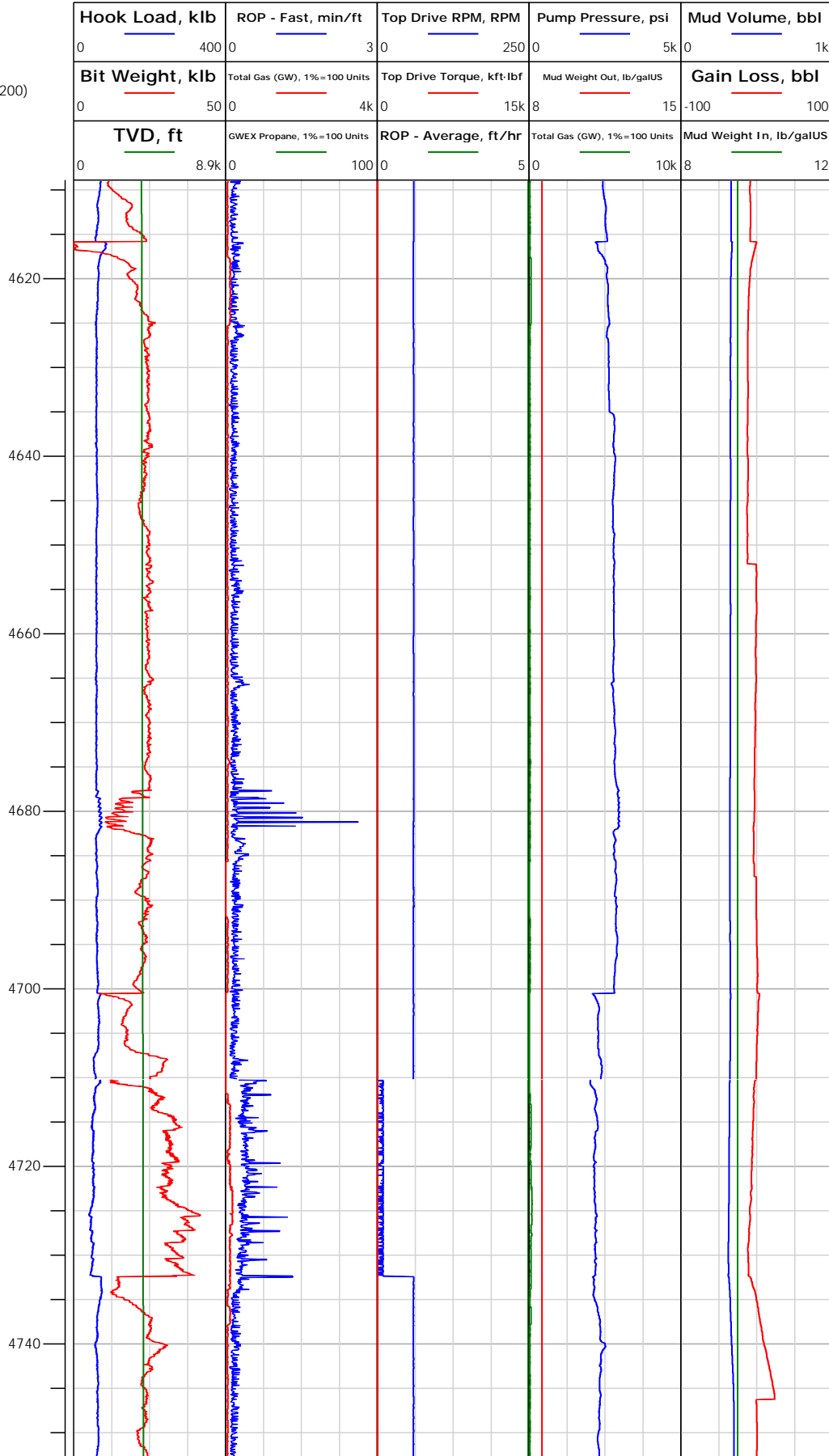
09:03

09:07

09:12

09:23

09:31





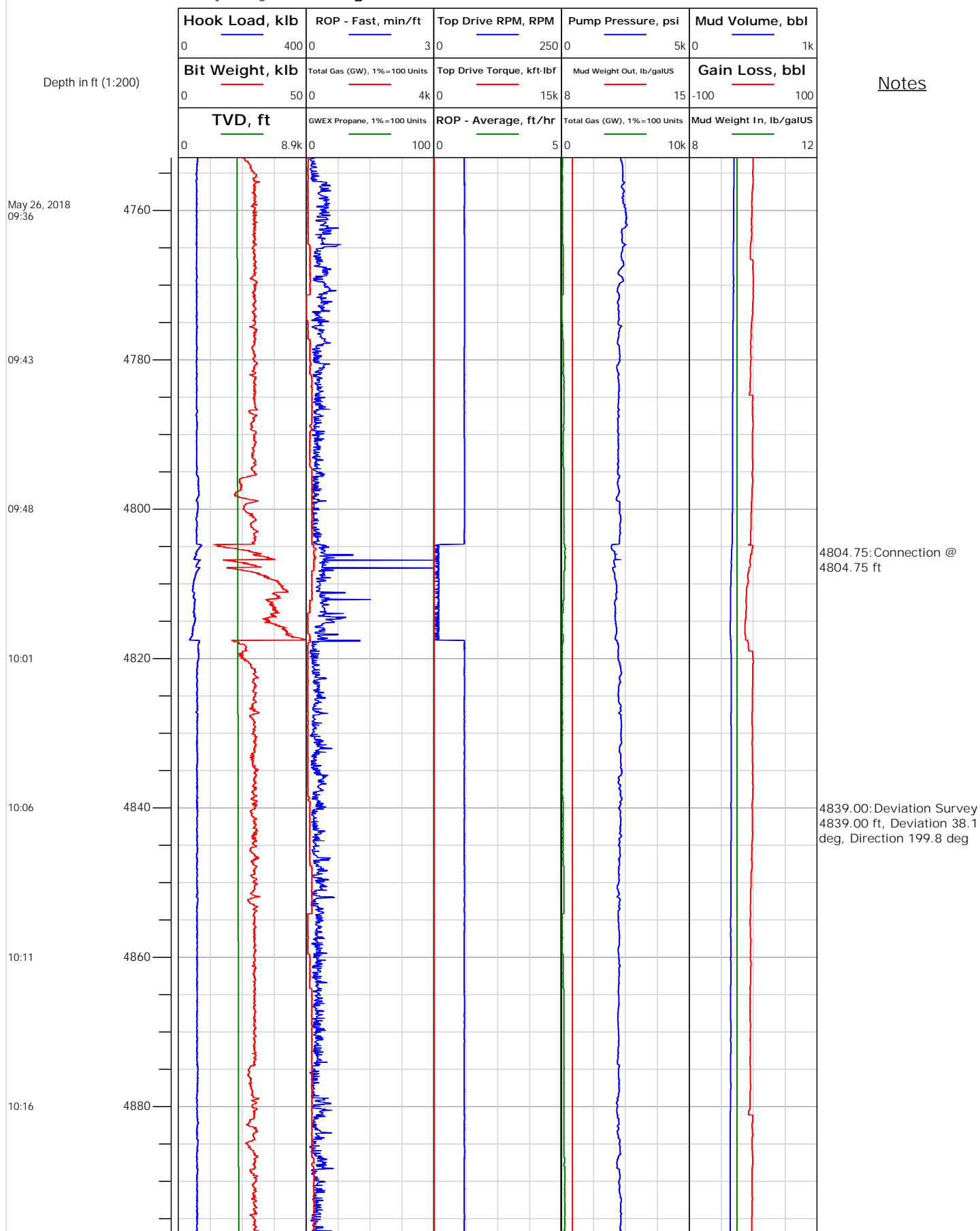
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





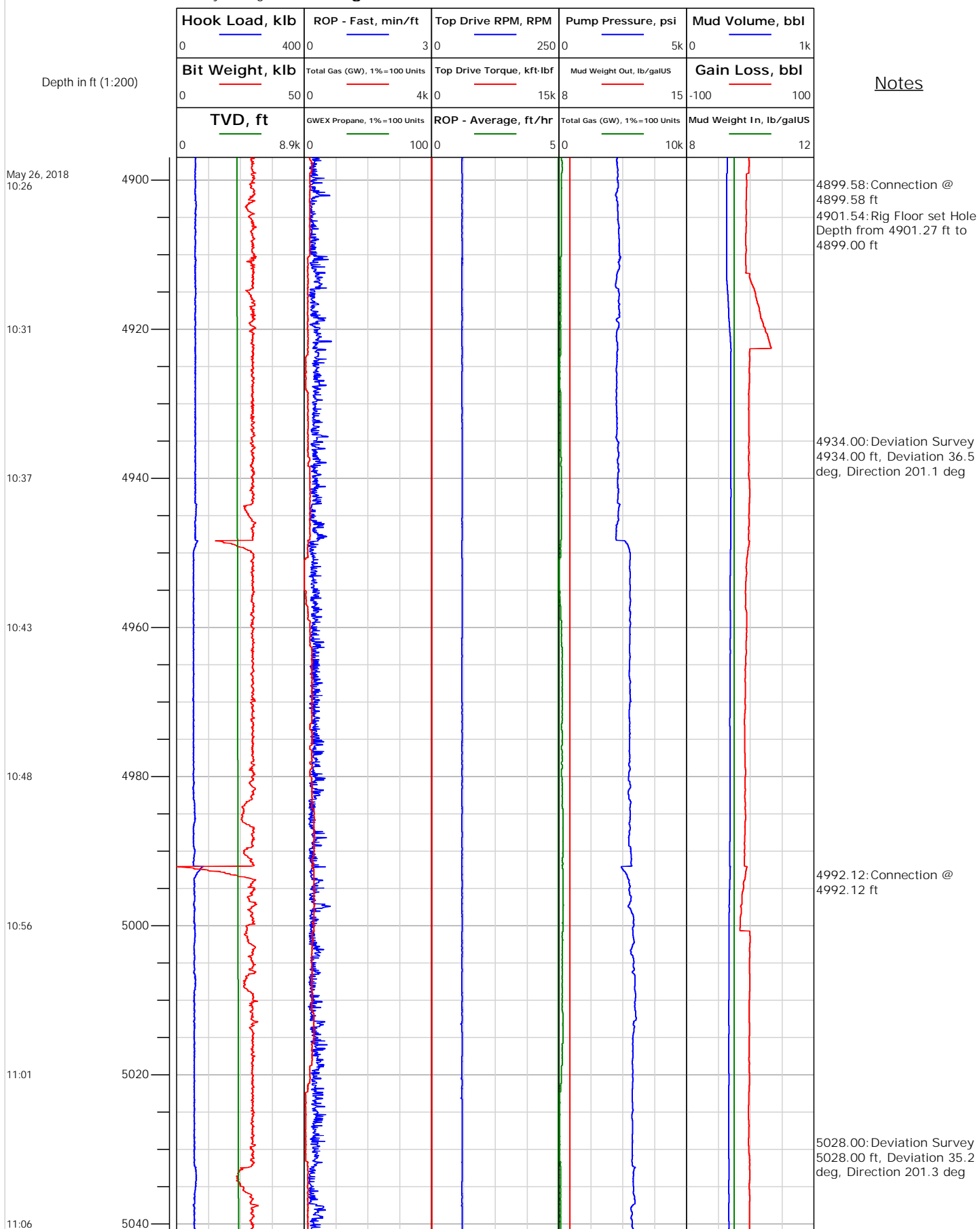


## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24





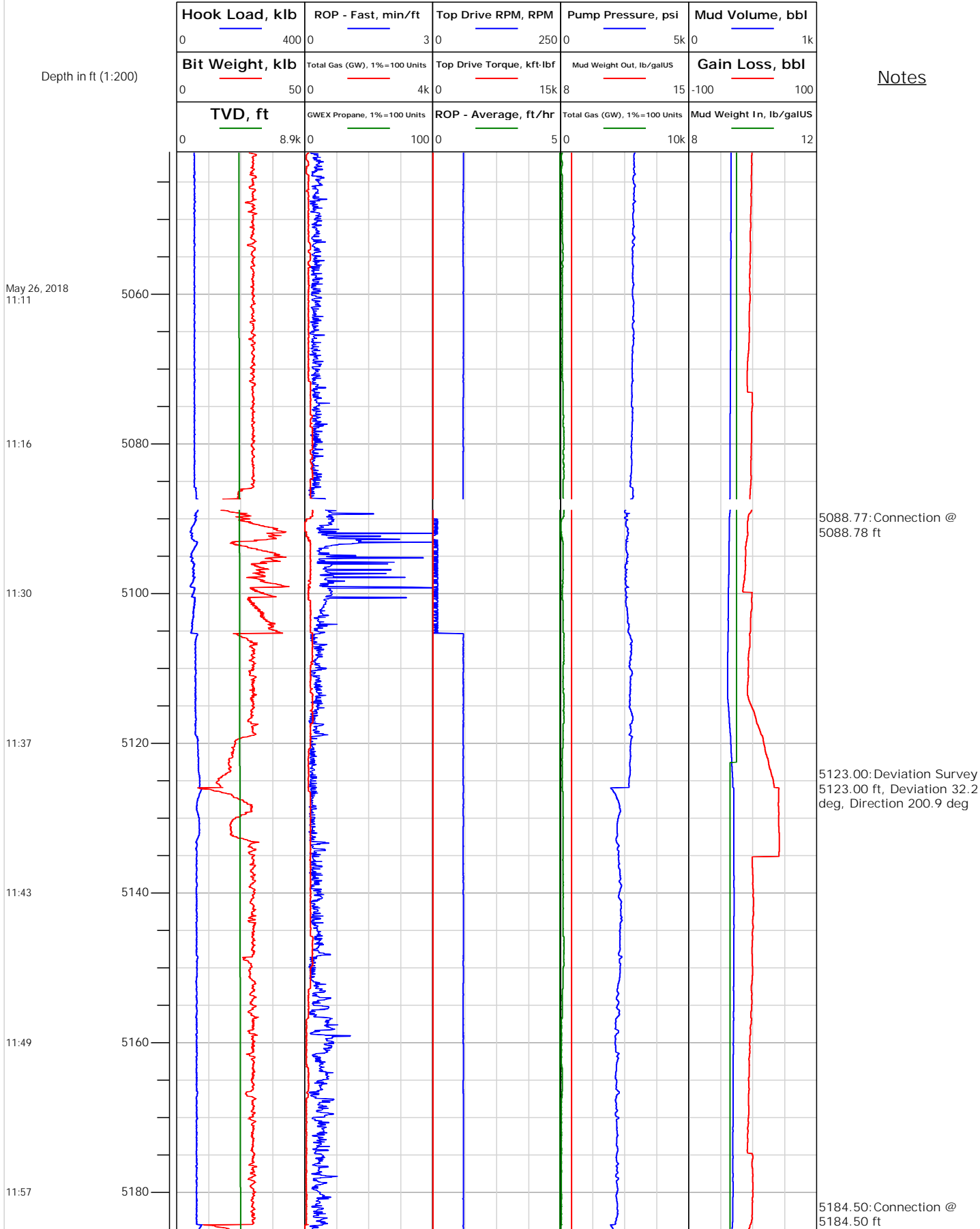
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes





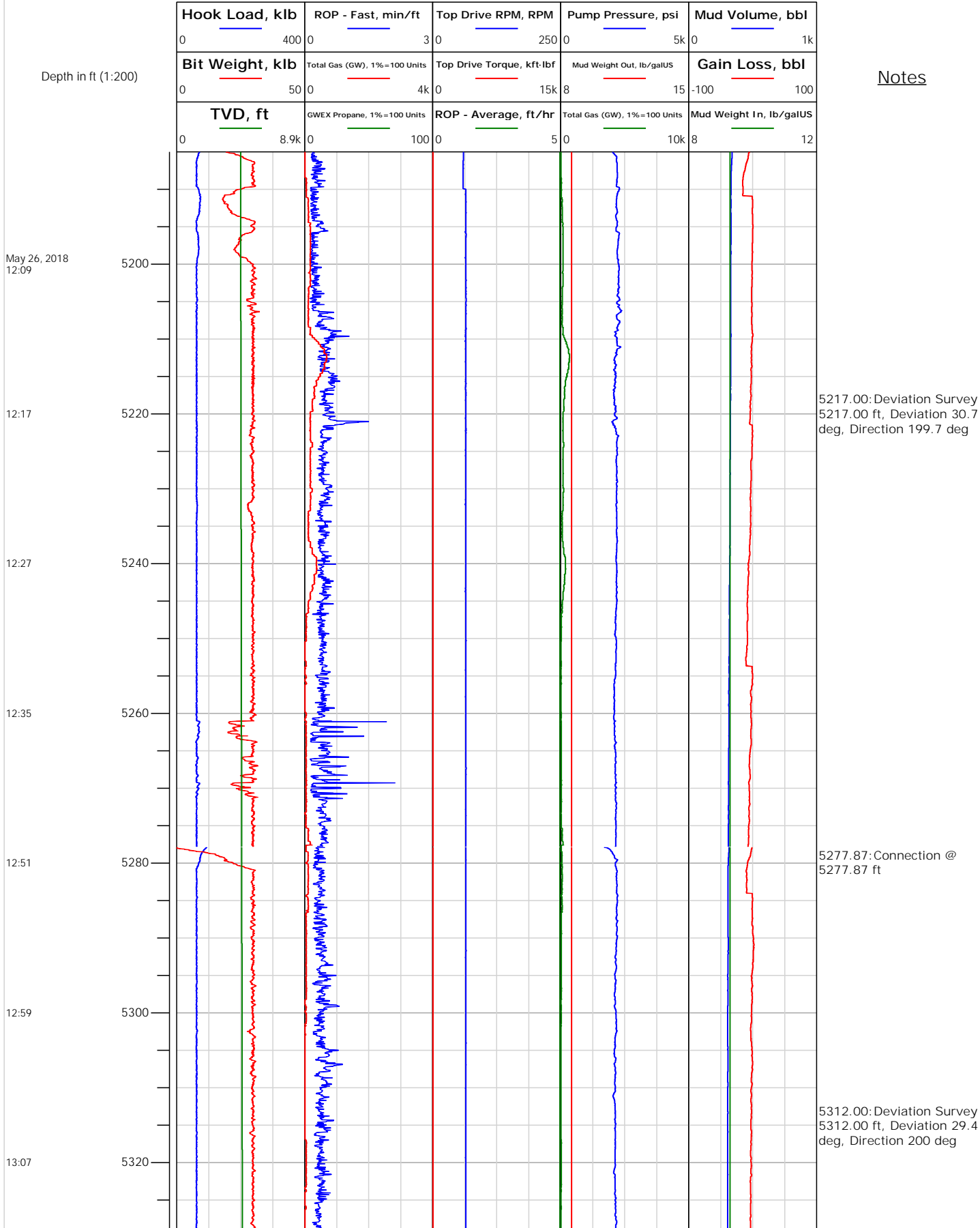
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





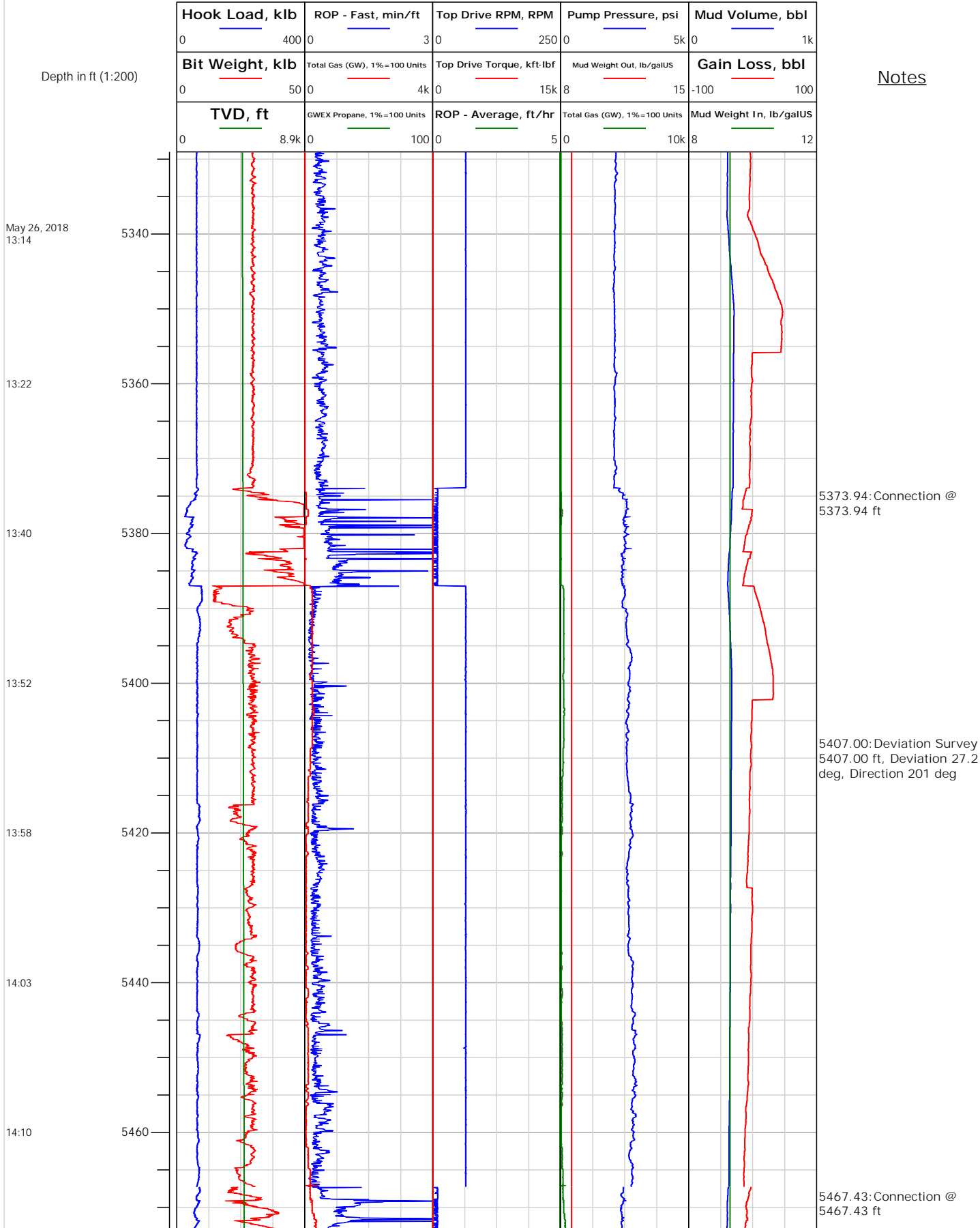
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes





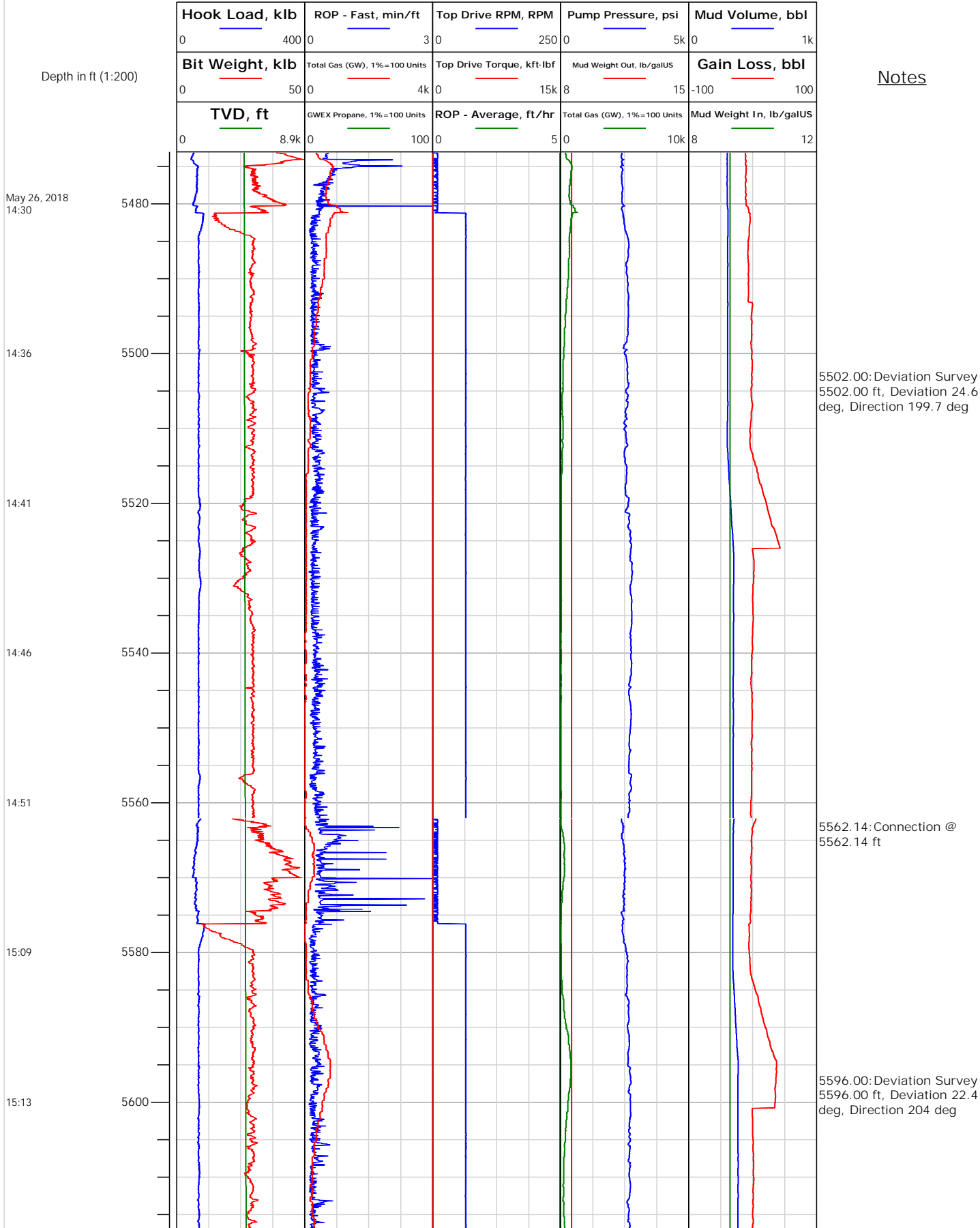
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





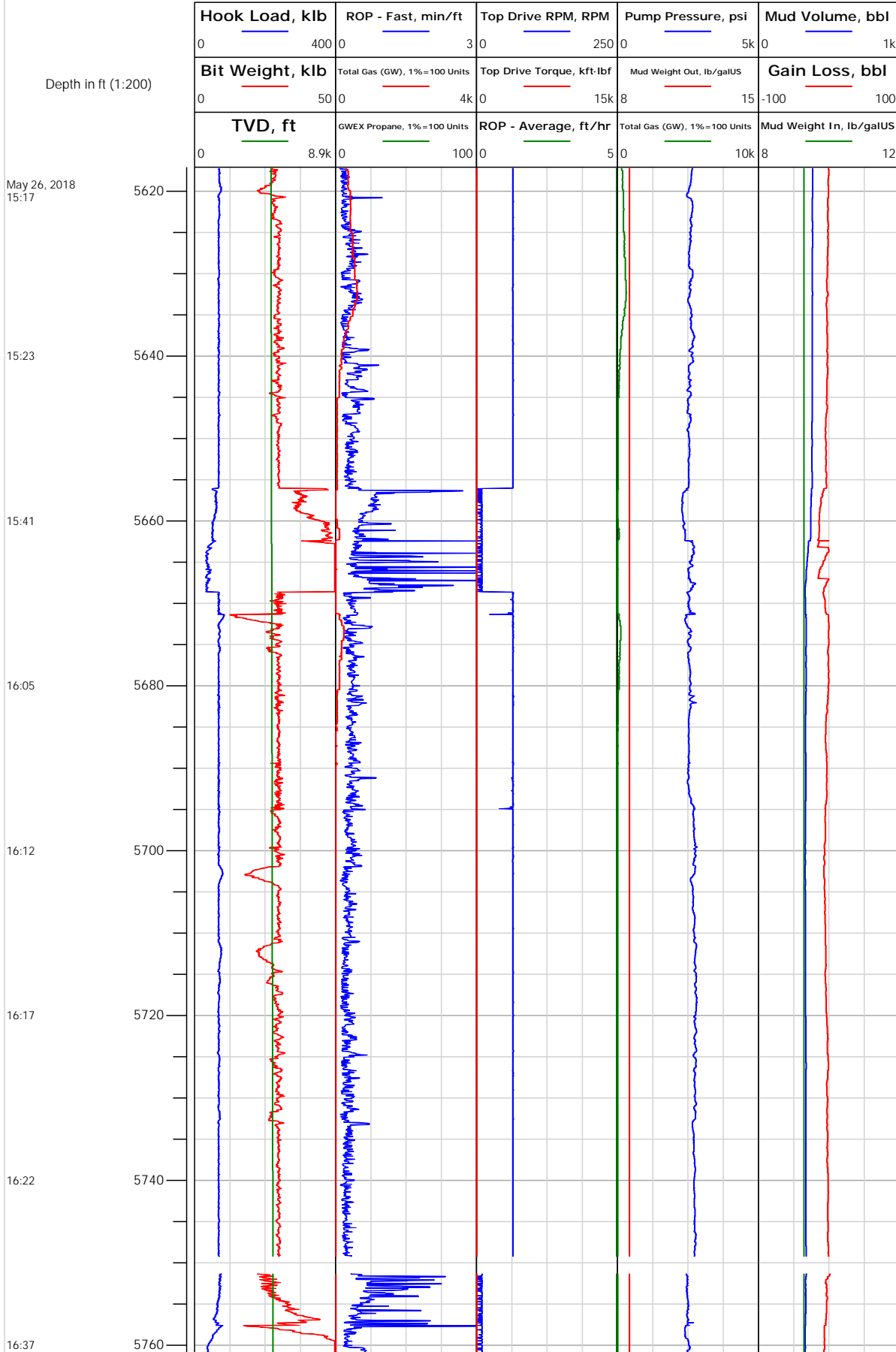
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)

May 26, 2018  
16:44

16:48

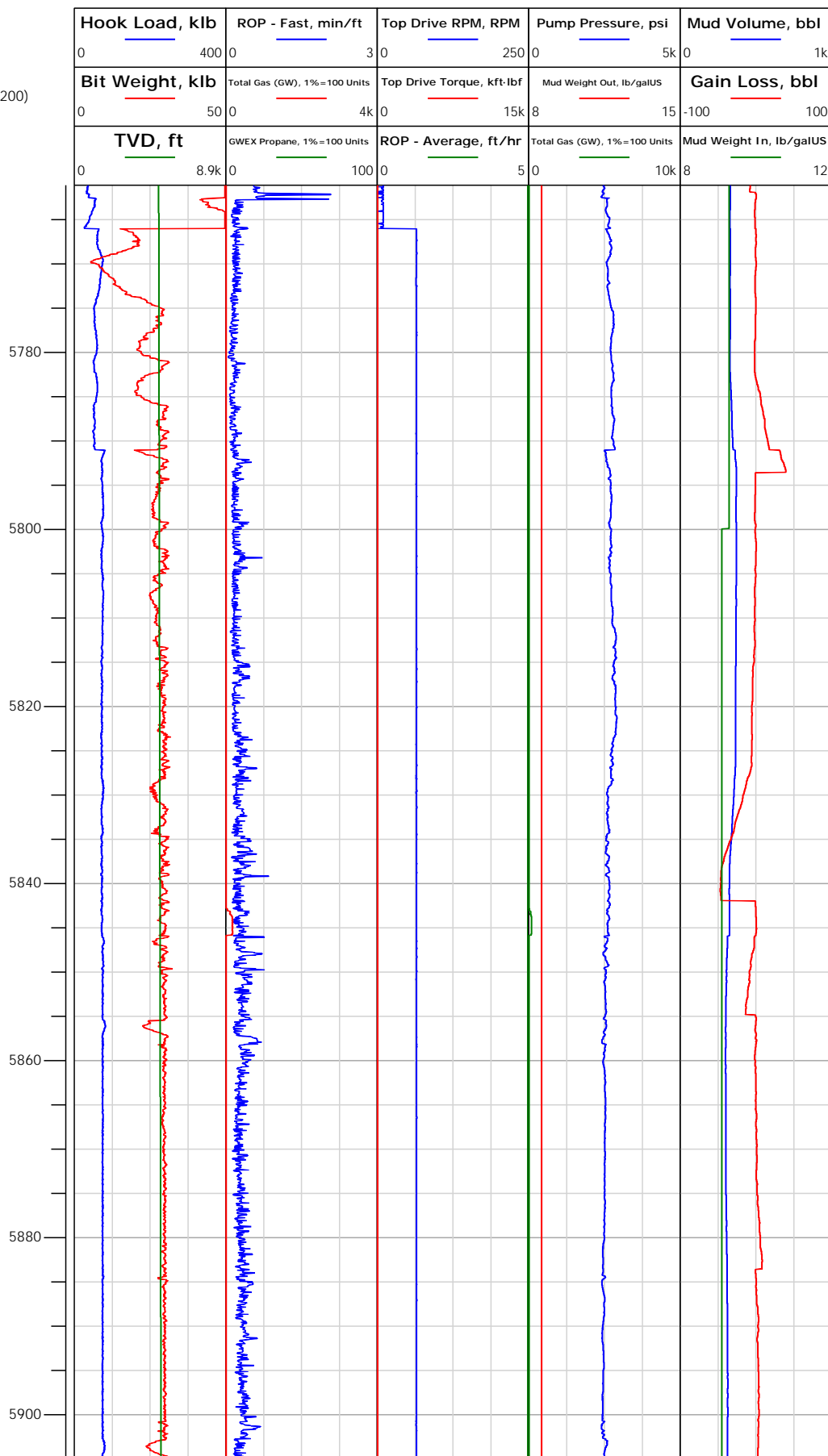
16:52

16:57

17:23

17:28

17:35



5786.00: Deviation Survey  
5786.00 ft, Deviation 16.6 deg, Direction 204.5 deg

5846.21: Connection @  
5846.21 ft  
5848.27: Rig Floor set Hole  
Depth from 5847.98 ft to  
5846.00 ft

5880.00: Deviation Survey  
5880.00 ft, Deviation 15.6 deg, Direction 203.4 deg



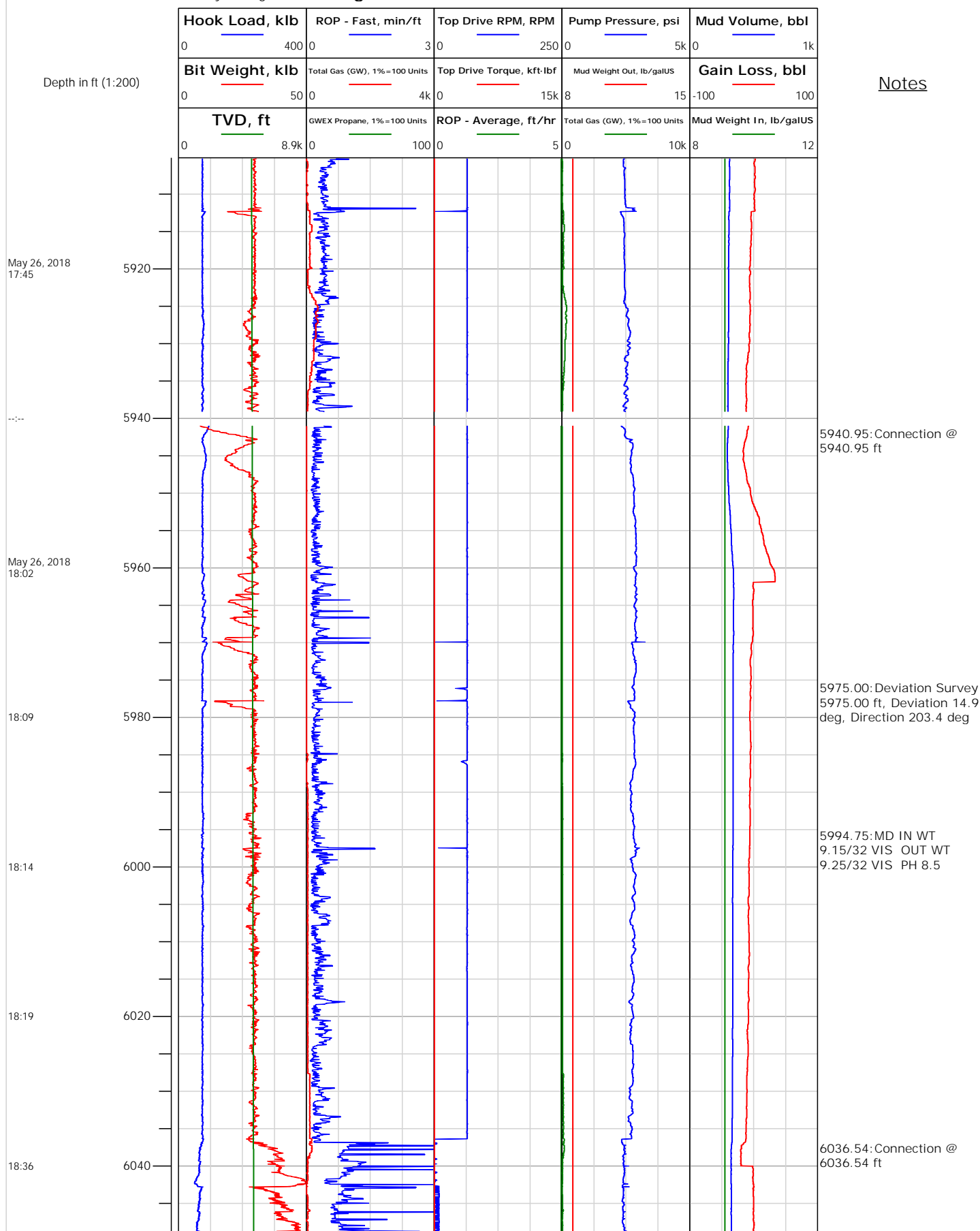
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes







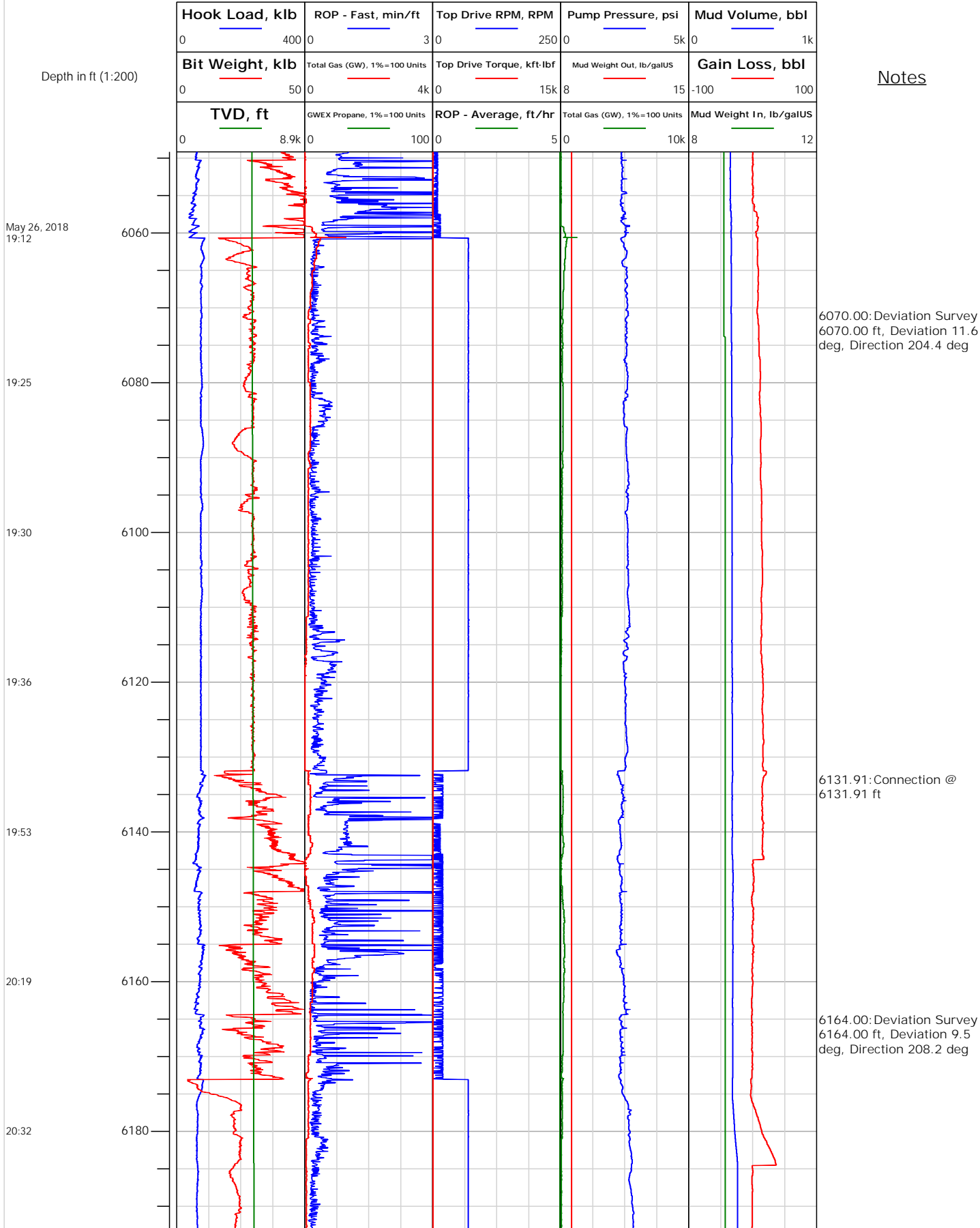
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

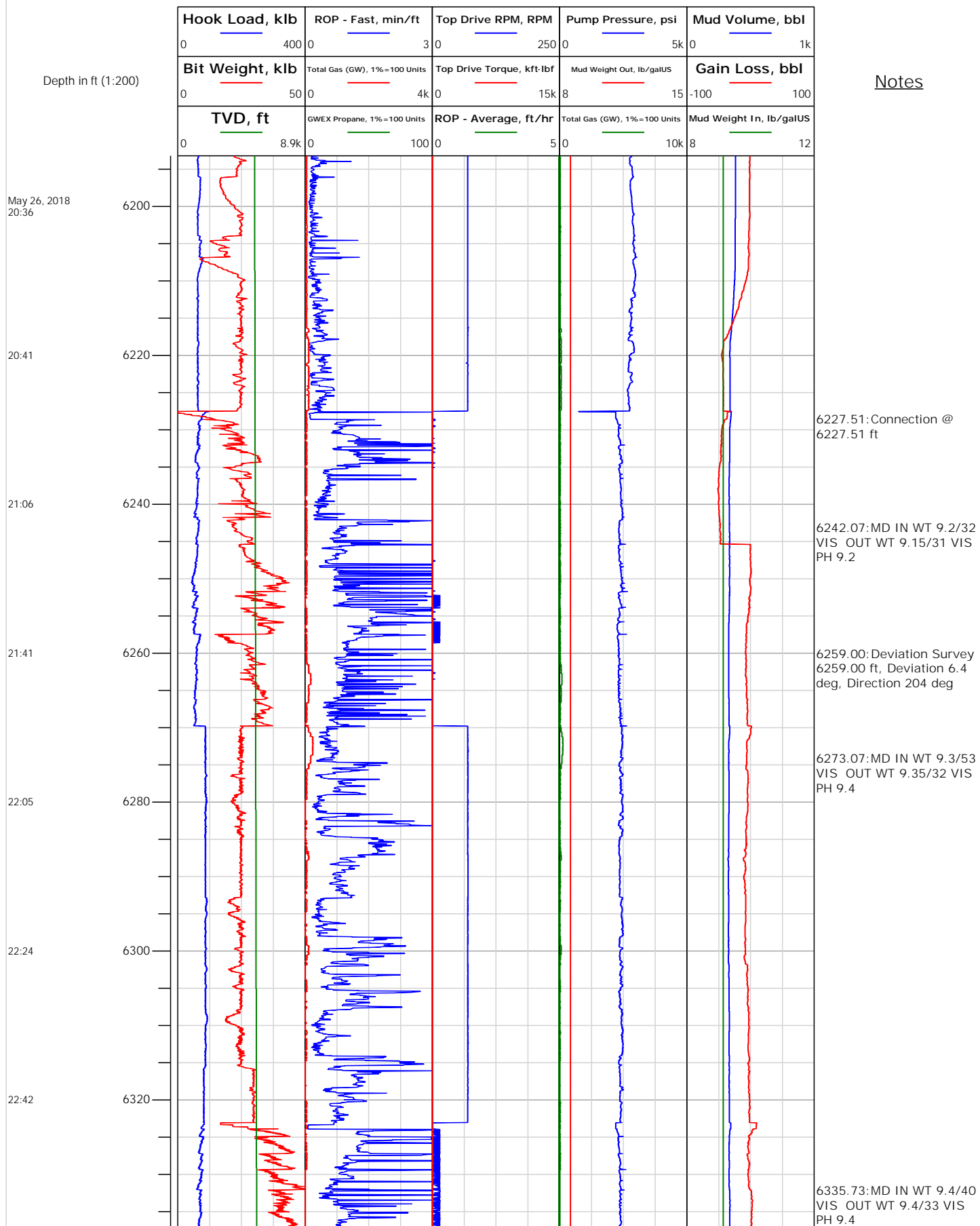
**Location:** S/E N/W 24

## Notes



**Location:** S/E N/W 24

# Electronic Drilling Recorder



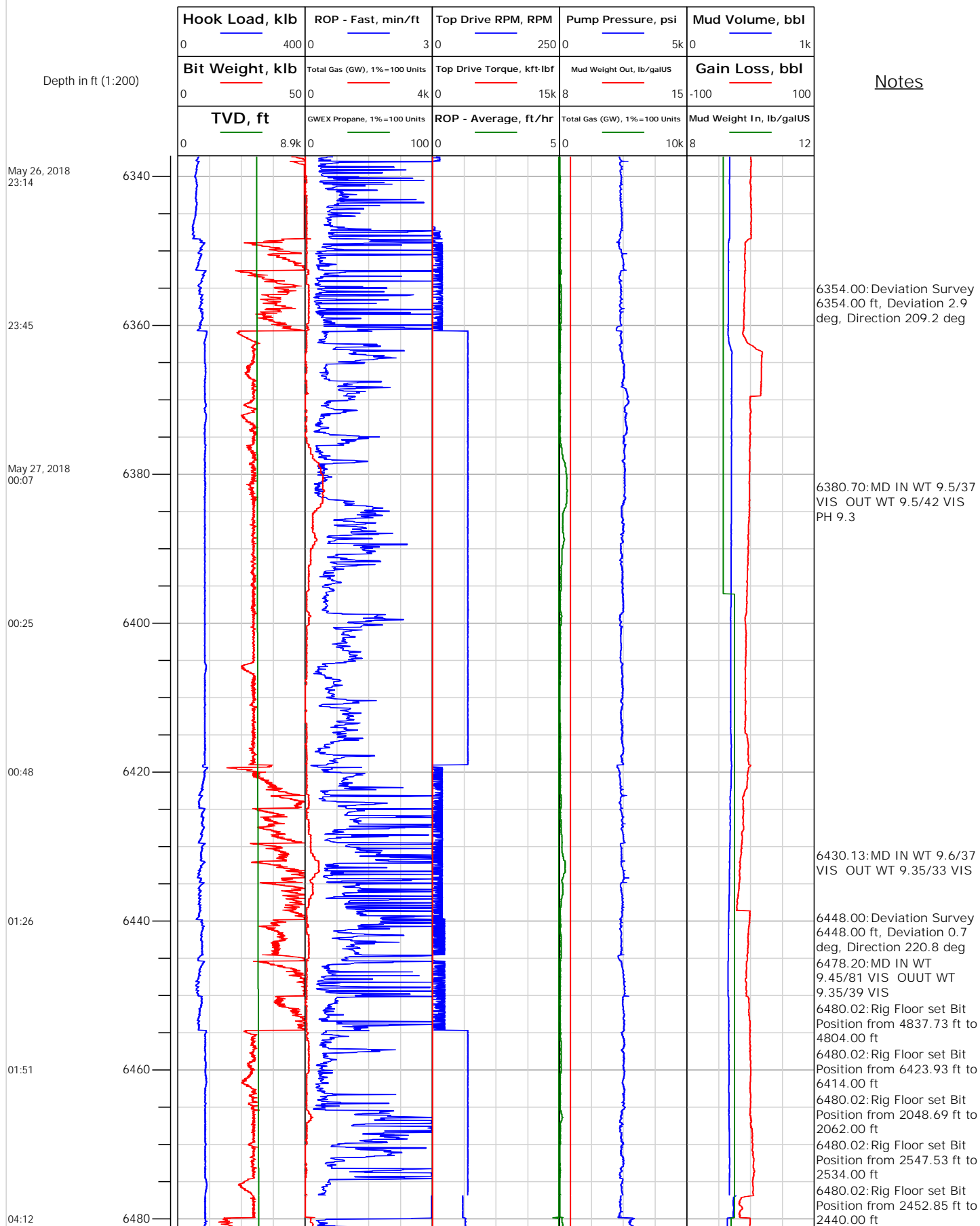


## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24





# Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

Depth in ft (1:200)

Notes

May 27, 2018  
12:12

12:30

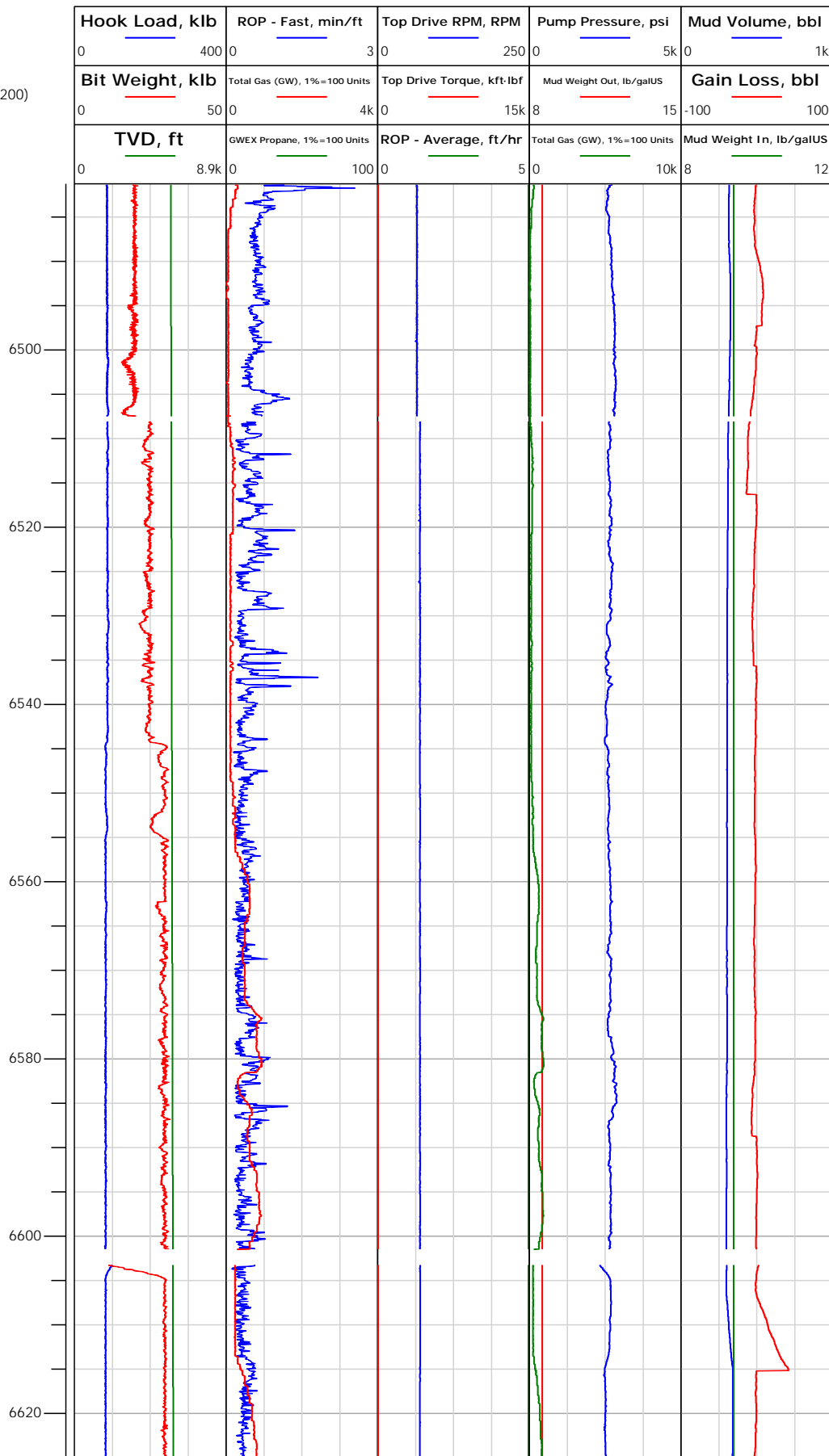
12:41

12:48

12:54

13:02

13:16





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes

Depth in ft (1:200)

May 27, 2018  
13:22

13:28

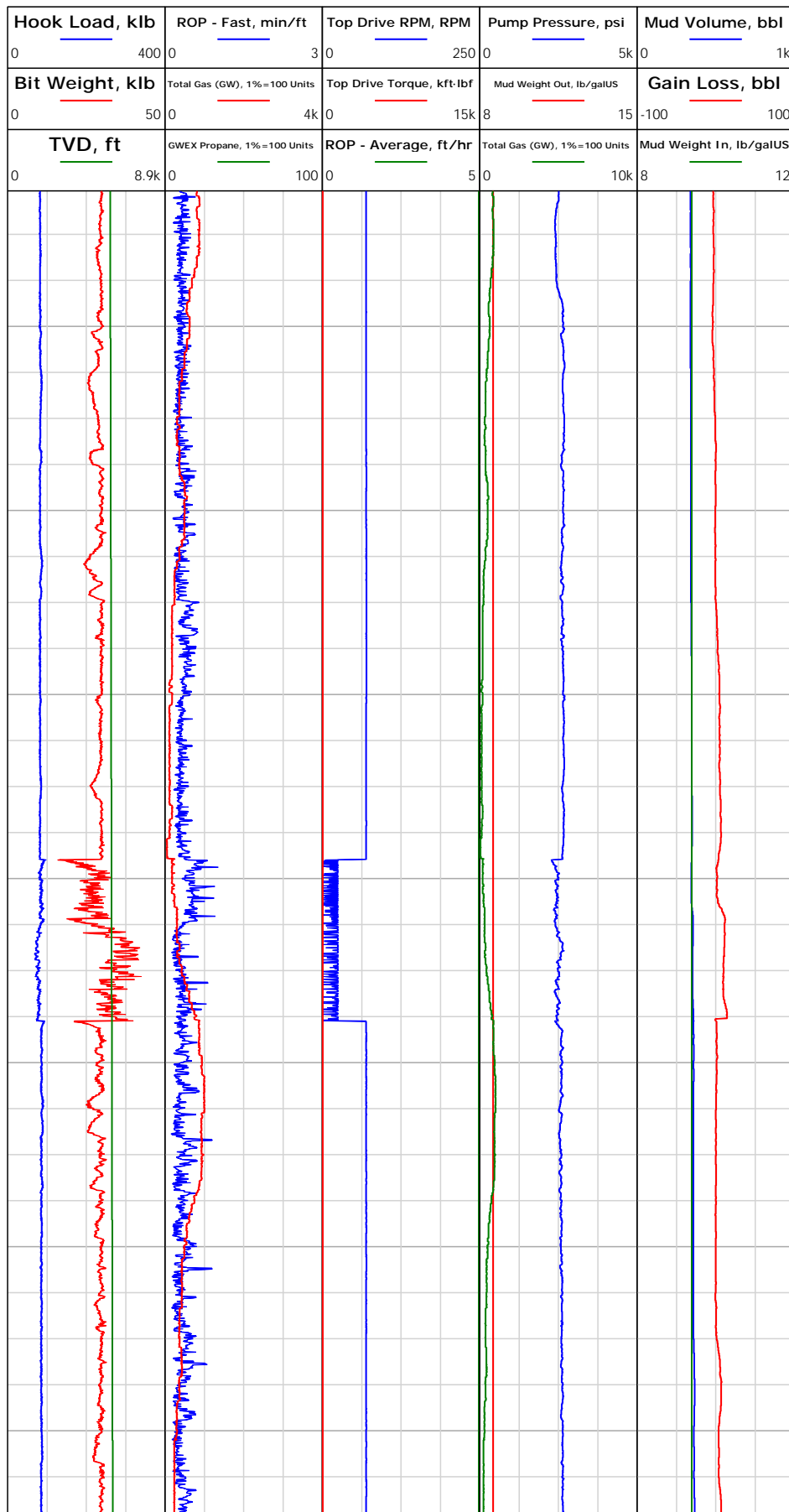
13:35

13:50

14:03

14:09

14:16



6637.00: Deviation Survey  
6637.00 ft, Deviation 1.1  
deg, Direction 263.9 deg

6697.99: Connection @  
6697.99 ft

6732.00: Deviation Survey  
6732.00 ft, Deviation 1.1  
deg, Direction 259.7 deg



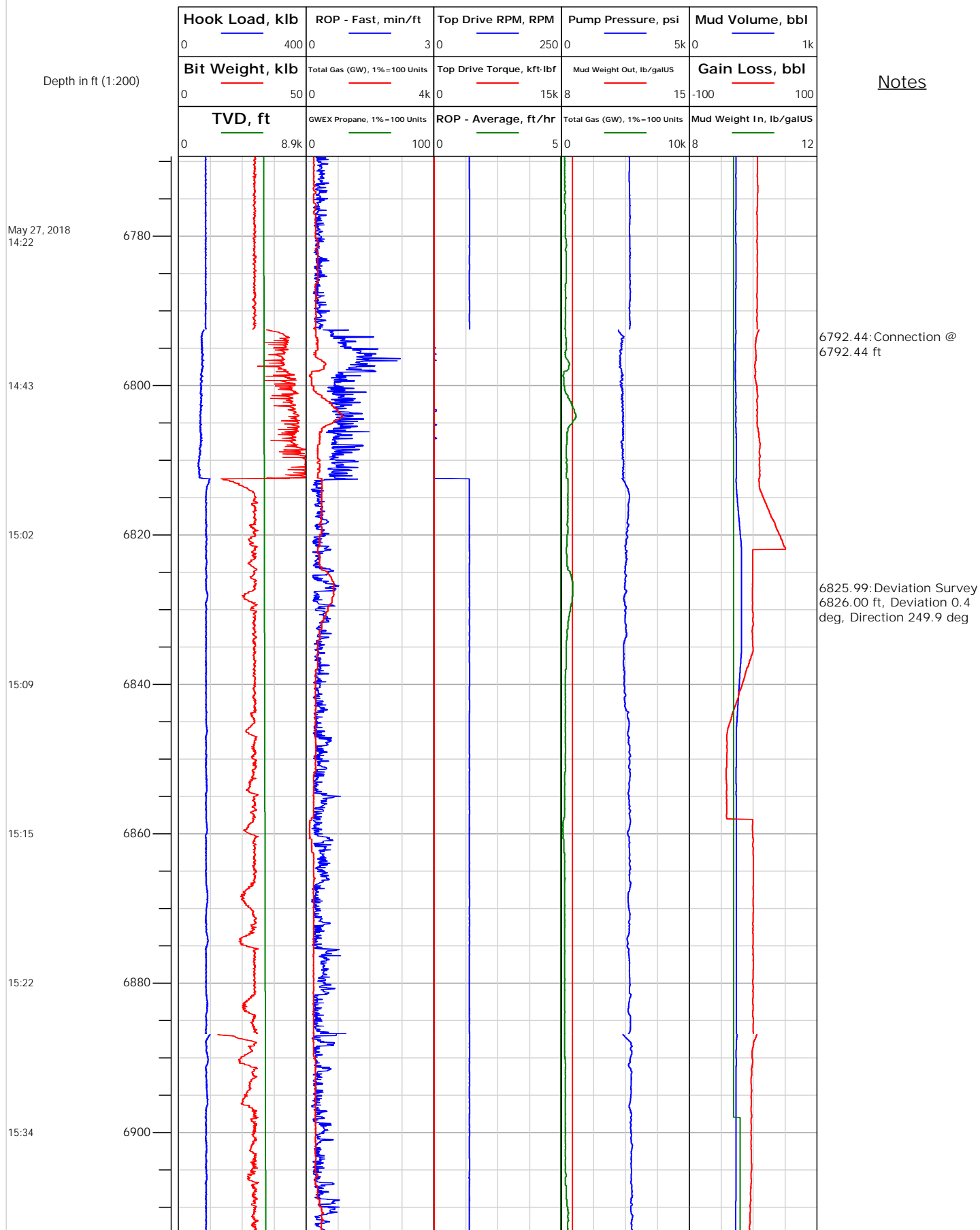
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

Notes





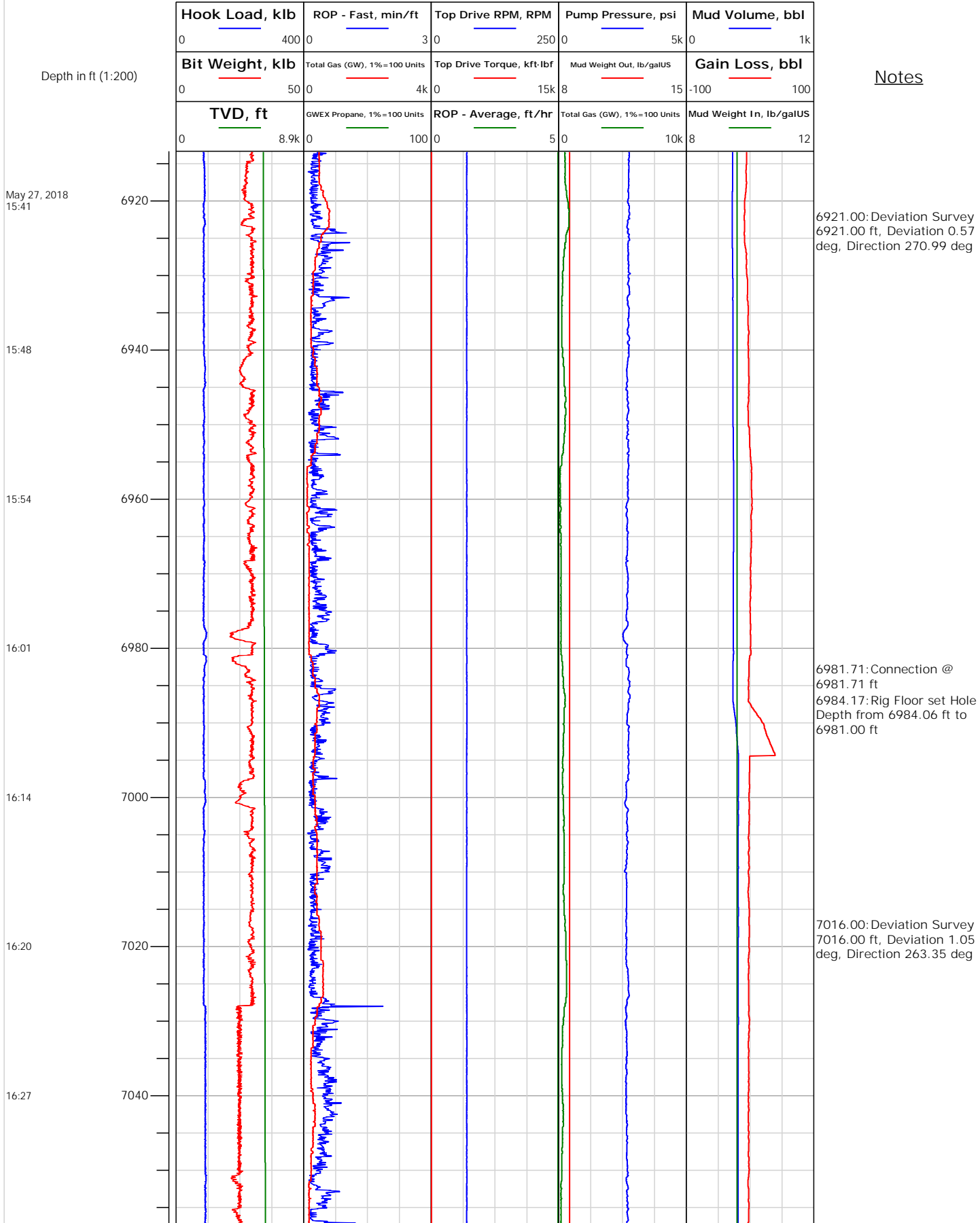
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes



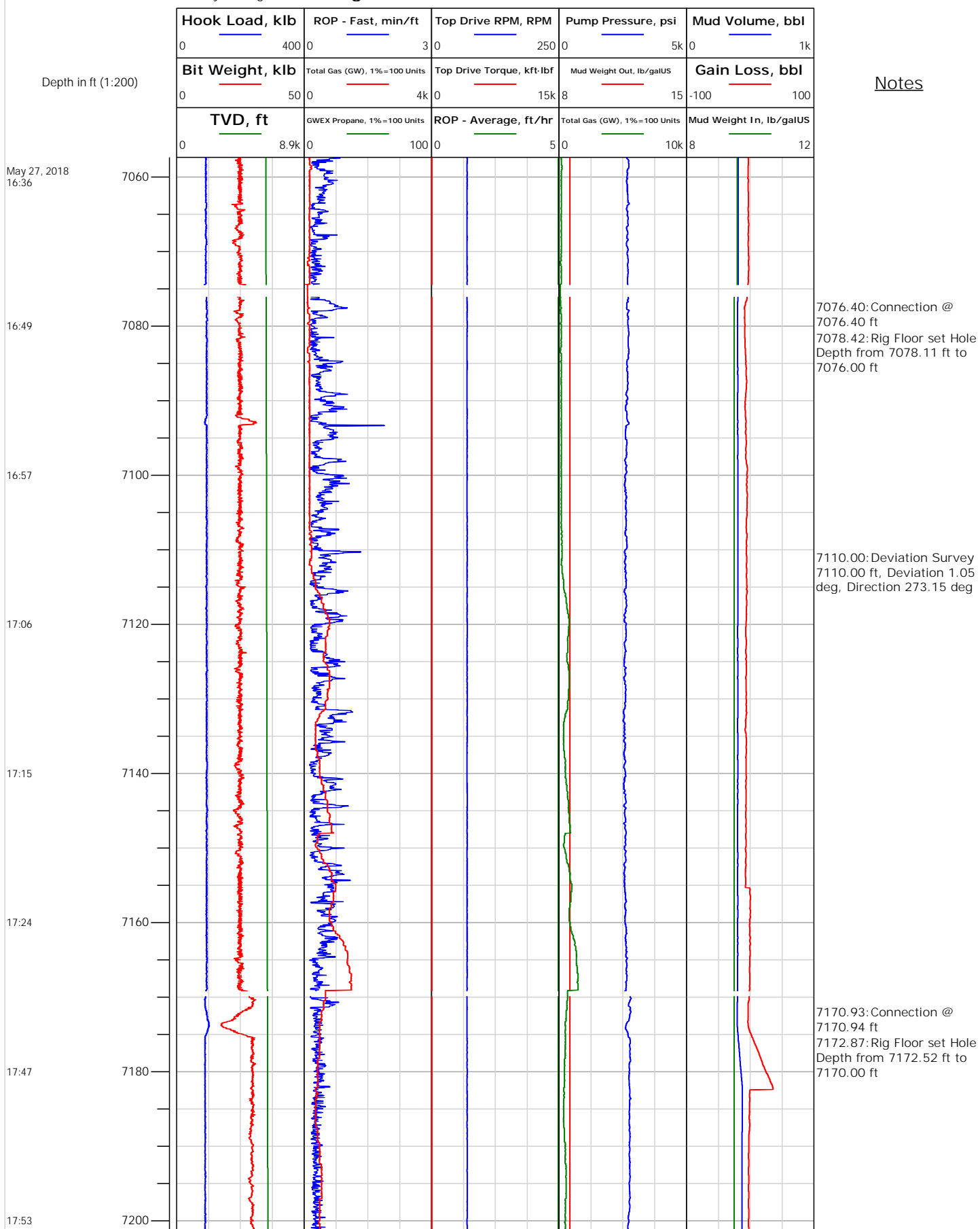


## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24







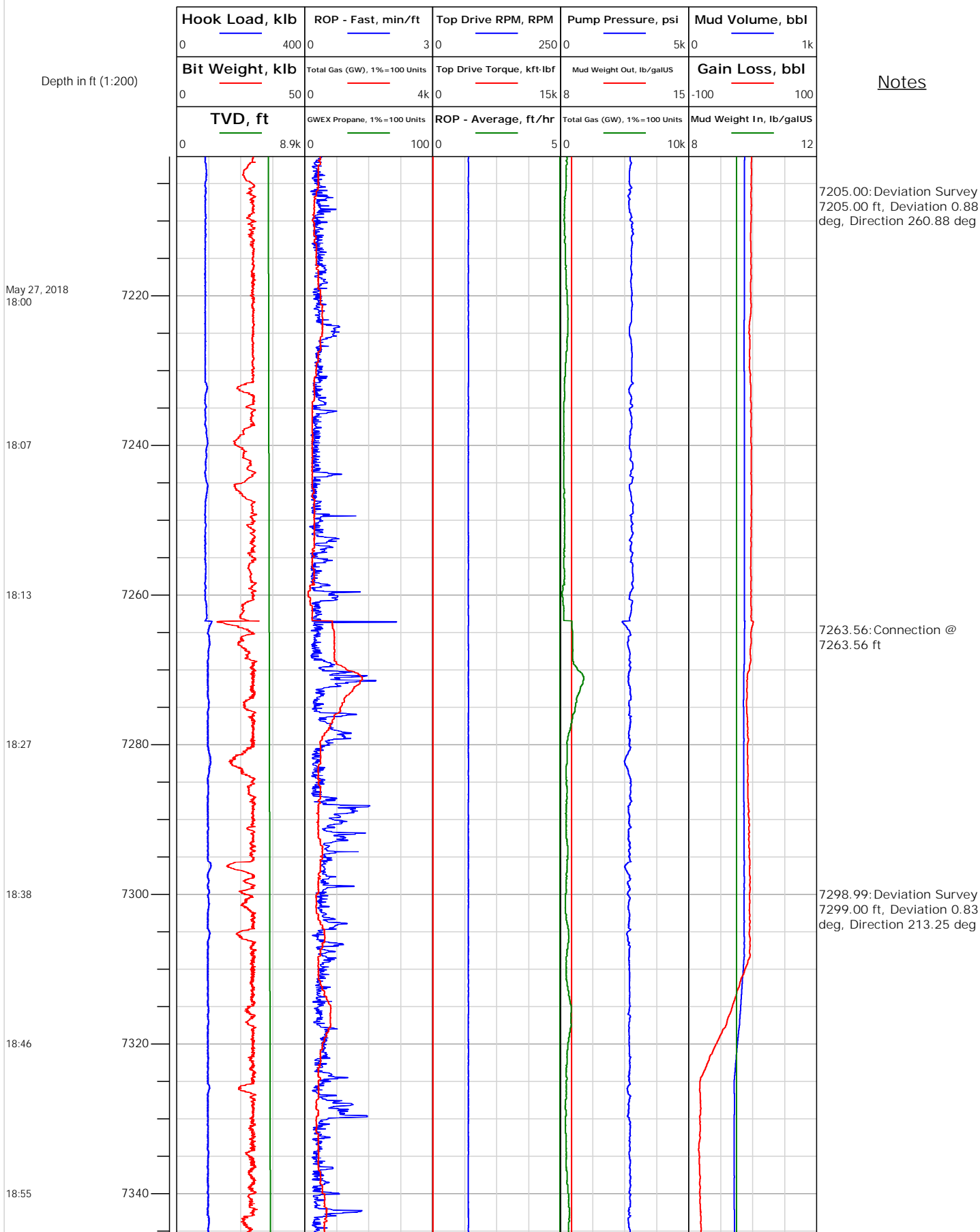
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes





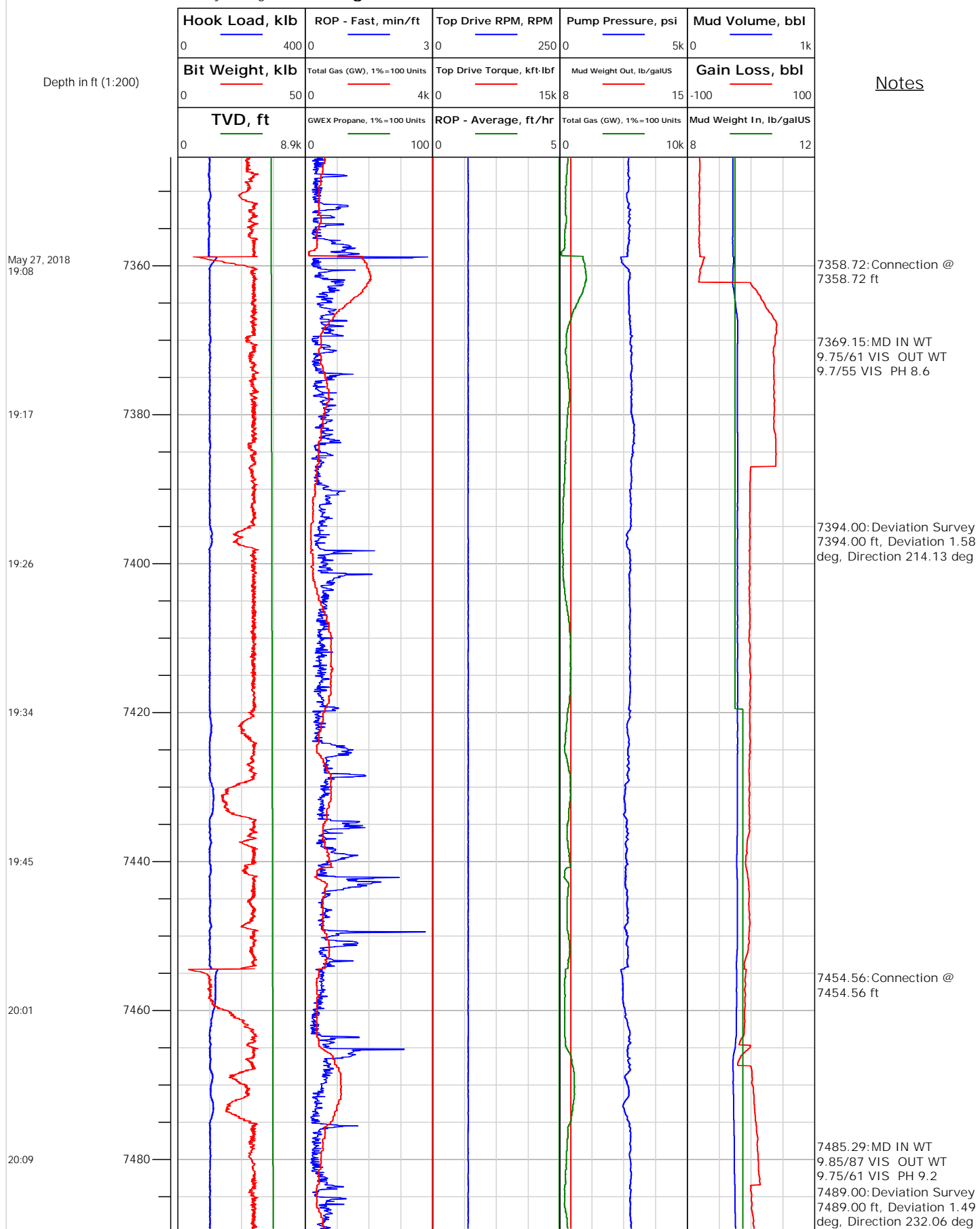
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





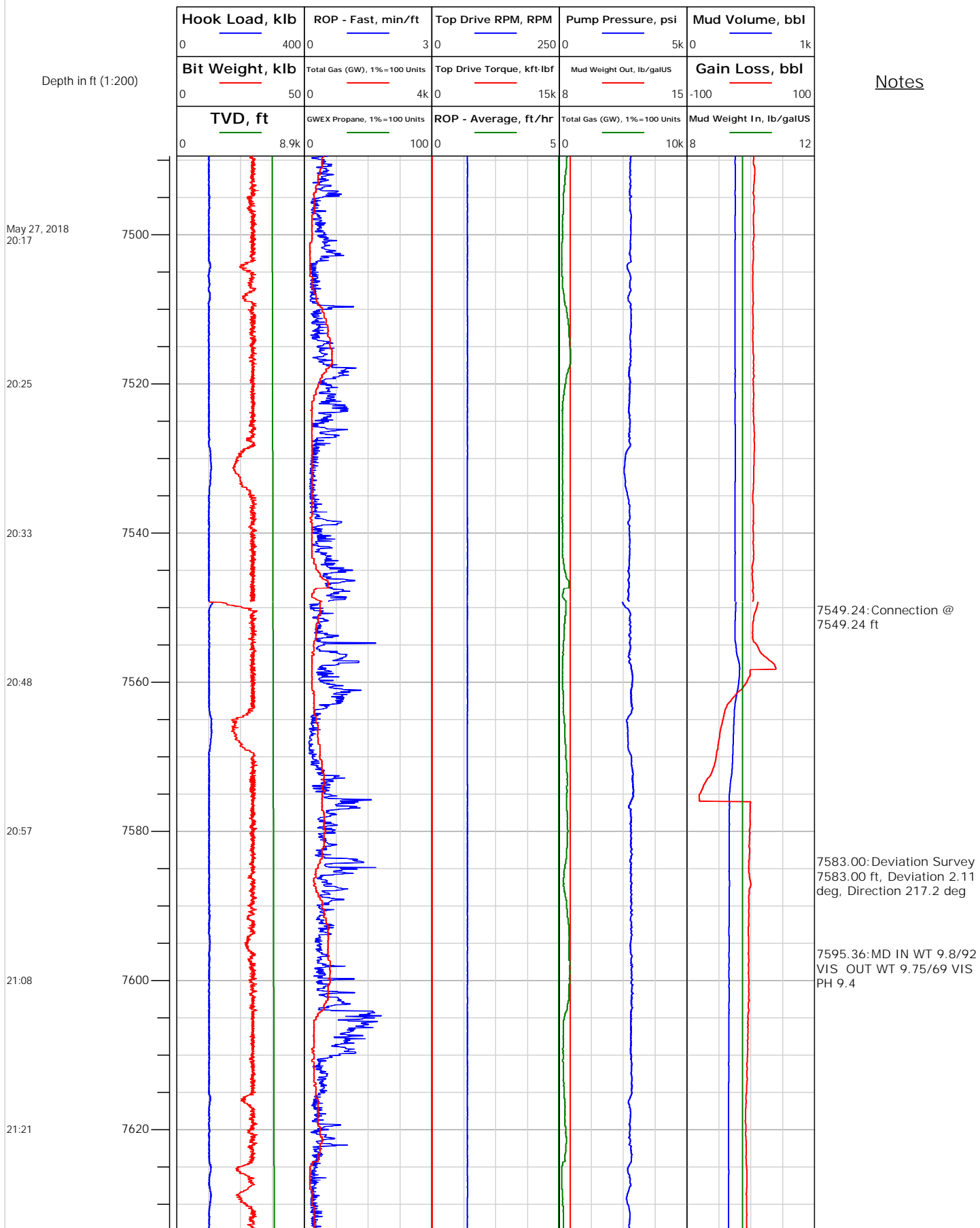
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

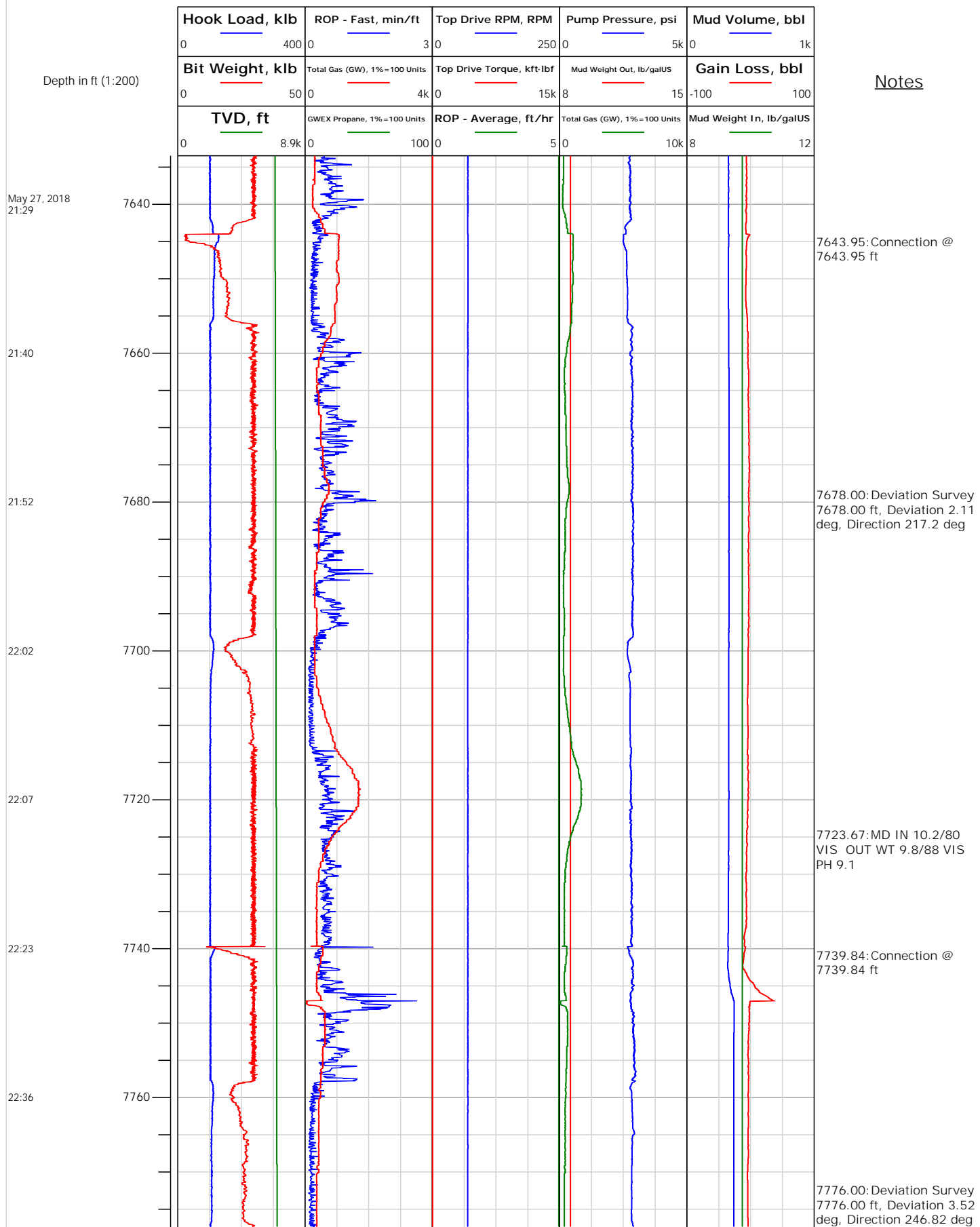
Location: S/E N/W 24

Notes



**Location:** S/E N/W 24

# Electronic Drilling Recorder





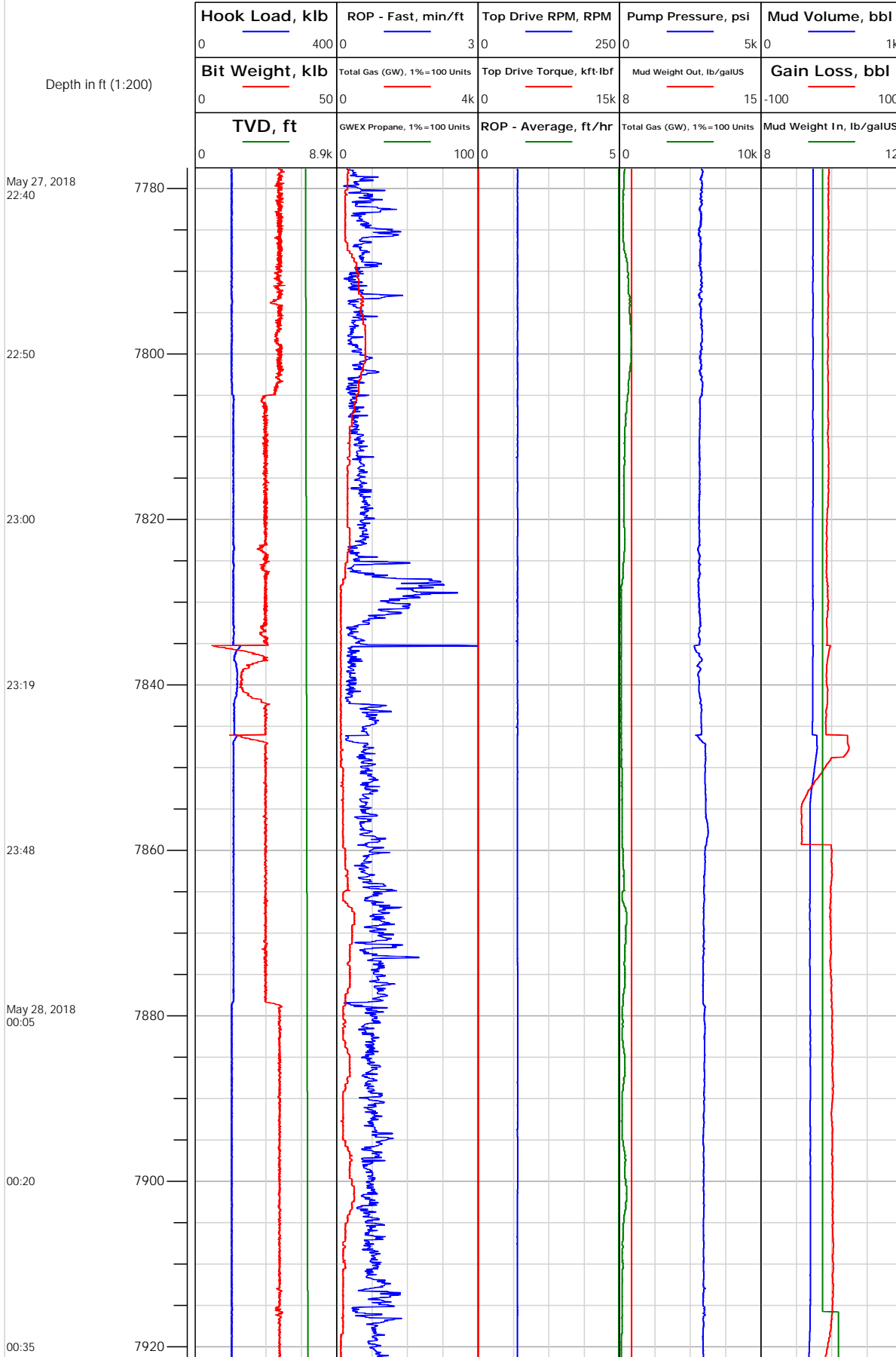
# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

## Notes



7833.39: MD IN WT  
10.25/87 VIS OUT WT  
9.85/85 VIS PH 9.0  
7835.24: Connection @  
7835.25 ft

7867.00: Deviation Survey  
7867.00 ft, Deviation 3.78  
deg, Direction 255 deg



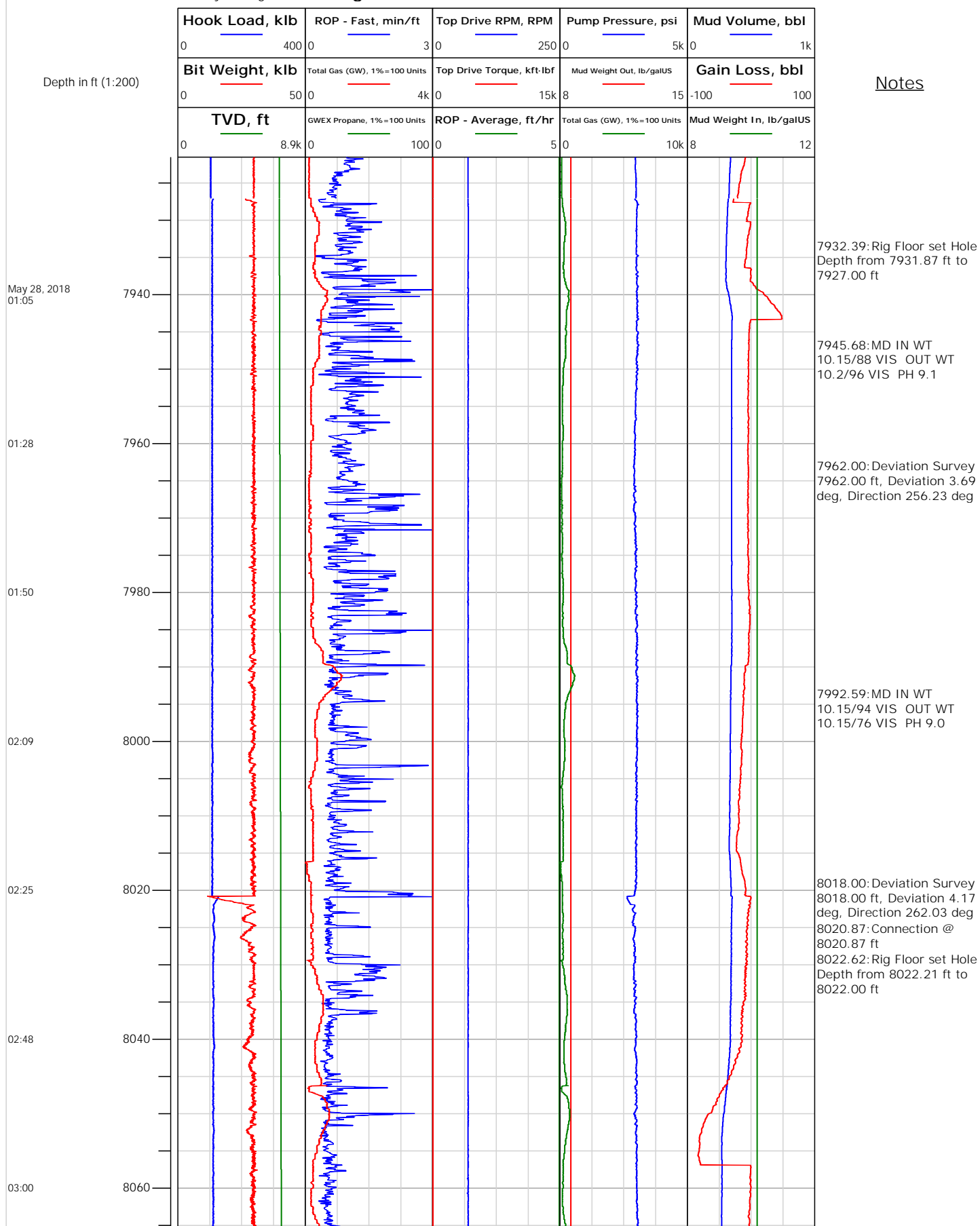
## Electronic Drilling Recorder

Operator: Laramie Energy  
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols 24-21W  
Rig: 290

Location: S/E N/W 24

## Notes





# Electronic Drilling Recorder

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

**Well Name:** Nichols 24-21W  
**Rig:** 290

**Location:** S/E N/W 24

Notes

Depth in ft (1:200)

May 28, 2018  
 14:29

14:29

8080

8100

8078.03:MD IN WT  
 10.1/76 VIS OUT WT  
 10.15/84 VIS PH 8.9

