



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Hill 'A' #2-23
Location: Sec. 23 - T30S - R19W, Kiowa County, KS
License Number: API #: 15-097-21746
Spud Date: March 7, 2013
Surface Coordinates: 990' FSL & 1980' FWL
Region: Alford
Drilling Completed: March 14, 2013

Bottom Hole
Coordinates:
Ground Elevation (ft): 2237' K.B. Elevation (ft): 2248'
Logged Interval (ft): 3900' To: 5240' Total Depth (ft): 5240' RTD
Formation: Mississippian
Type of Drilling Fluid: Chemical Mud

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCoy Petroleum Corporation
Address: 8080 E. Central Ave.
Suite 300
Wichita, KS 67206

GEOLOGIST

Name: Evan Stone
Company: McCoy Petroleum Corporation
Address: 8080 E. Central Ave.
Suite 300
Wichita, KS 67206



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

23-30s-19w Kiowa

8080 E Central Ste 300
Wichita Ks 67206 + 2366

Hill "A" 2-23

Job Ticket: 48506

DST#: 1

ATTN: Scott Hampel

Test Start: 2013.03.13 @ 09:18:08

GENERAL INFORMATION:

Formation: **Miss**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 11:38:08

Time Test Ended: 19:15:38

Test Type: Conventional Bottom Hole (Initial)

Tester: Jeff Brown

Unit No: 44

Interval: **5076.00 ft (KB) To 5128.00 ft (KB) (TVD)**

Total Depth: 5128.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2248.00 ft (KB)

2237.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8167

Inside

Press@RunDepth: 227.76 psig @ 5112.00 ft (KB)

Start Date: 2013.03.13

End Date:

2013.03.13

Start Time: 09:18:13

End Time:

19:12:38

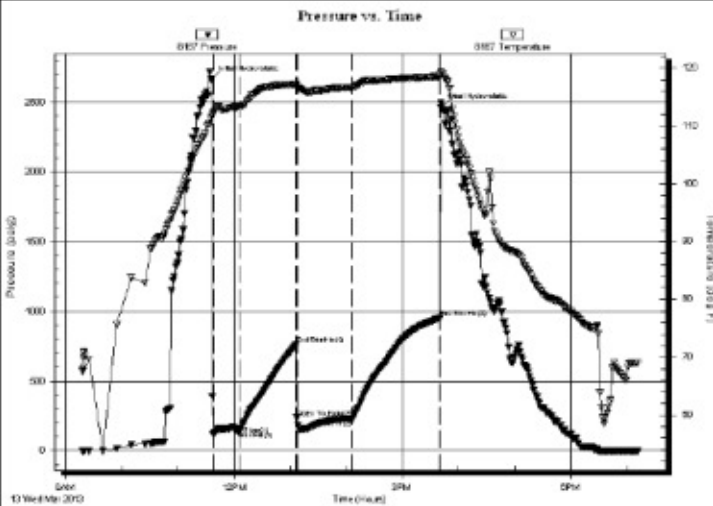
Capacity: 8000.00 psig

Last Calib.: 2013.03.13

Time On Btm: 2013.03.13 @ 11:36:08

Time Off Btm: 2013.03.13 @ 15:41:08

TEST COMMENT: IFP=Strong blow BOB in 15 sec Gas to surface in 18 min
IS=Good Blow BOB and Gas to surface in 52 min
FFP=Strong blow BOB and Gas to surface in 30 sec
FS=Strong blow BOB and Gas to surface in 1 1/2 in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2664.44	111.65	Initial Hydro-static
2	117.01	112.07	Open To Flow (1)
31	147.12	113.36	Shut-In(1)
91	761.96	117.22	End Shut-In(1)
91	239.65	117.10	Open To Flow (2)
151	227.76	116.66	Shut-In(2)
244	953.34	118.59	End Shut-In(2)
245	2463.48	119.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	GWMCO 20%G 10%M 5%W 65%O	1.22
66.00	SOCM 5%O 95%M	0.93
126.00	MCOG 20%G 15%M 65%O	1.77
0.00	4620-GP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	40.00	364.94
Last Gas Rate	0.50	2.00	108.61
Max. Gas Rate	0.50	40.00	364.94



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corporation
8080 E Central Ste 300
Wichita Ks 67206 + 2366
ATTN: Scott Hampel

23-30s-19w Kiowa
Hill "A" 2-23
Job Ticket: 48506 **DST#: 1**
Test Start: 2013.03.13 @ 09:18:08

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil APT:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume:		
Water Loss: 9.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure:		
Salinity: 8000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	GWMCO 20%G 10%M 5%W 65%O	1.220
66.00	SOCM 5%O 95%M	0.926
126.00	MCGO 20%G 15%M 65%O	1.767
0.00	4620-GIP	0.000

Total Length: 440.00 ft Total Volume: 3.913 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Gas Rates Information

Temperature: 59 (deg F)
 Relative Density: 0.65
 Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	23	0.50	40.00	364.94
1	28	0.50	17.00	209.79
2	30	0.25	14.00	44.58
2	40	0.25	13.00	42.99
2	52	0.50	7.00	142.33
2	54	0.50	2.00	108.61

Serial #: 8167

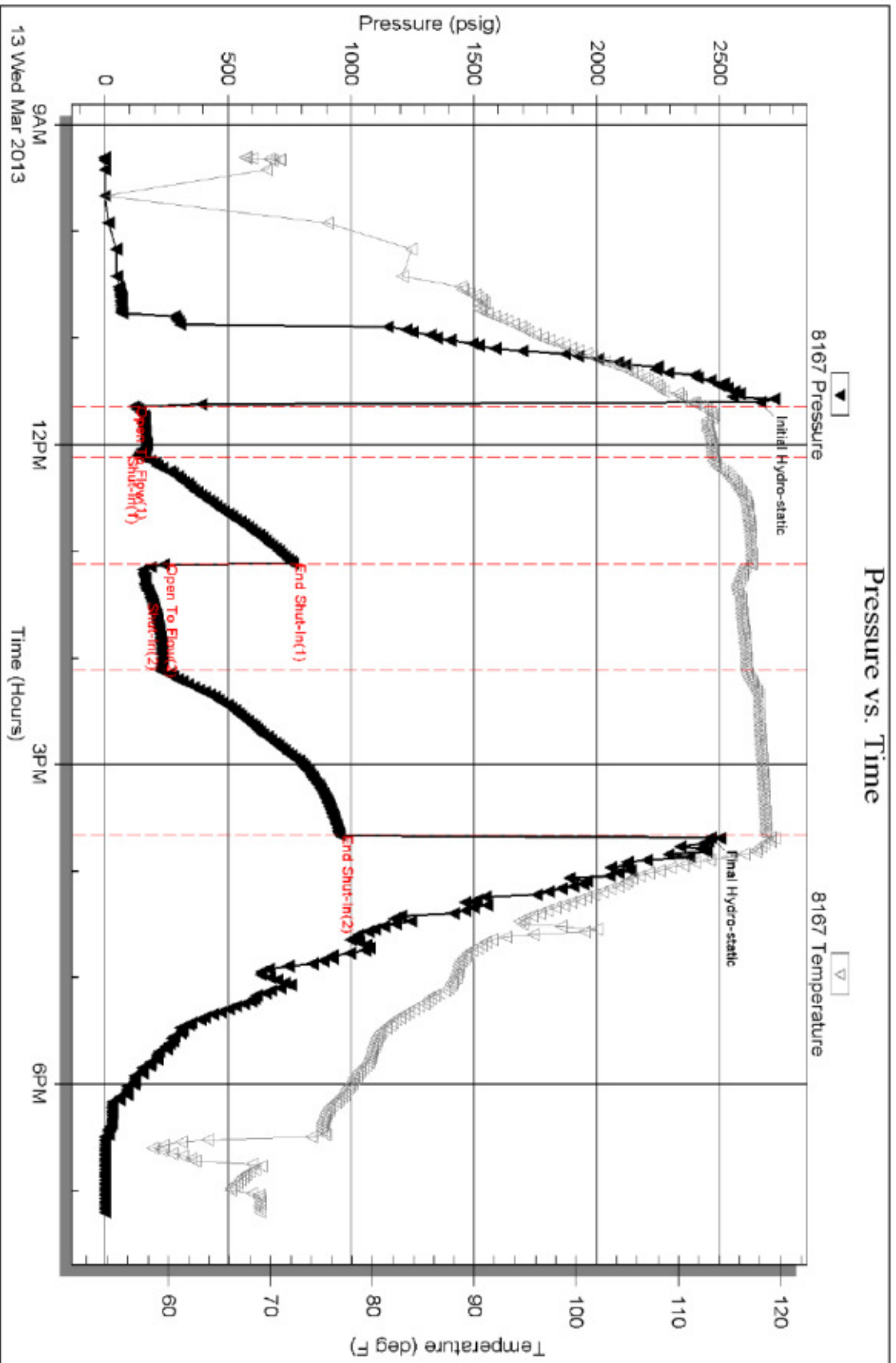
Inside

McCoy Petroleum Corporation

Hil 'A'-2-23

DST Test Number: 1

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

23-30s-19w Kiowa

8080 E Central Ste 300
Wichita Ks 67206 + 2366

Hill "A" 2-23

Job Ticket: 50900

DST#: 2

ATTN: Scott Hampel

Test Start: 2013.03.14 @ 04:22:01

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:50:30

Time Test Ended: 13:29:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 45

Interval: **5135.00 ft (KB) To 5145.00 ft (KB) (TVD)**

Reference Elevations: 2248.00 ft (KB)

Total Depth: ft (KB) (TVD)

2237.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6798

Inside

Press@RunDepth: 52.50 psig @ 5142.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.14 End Date: 2013.03.14

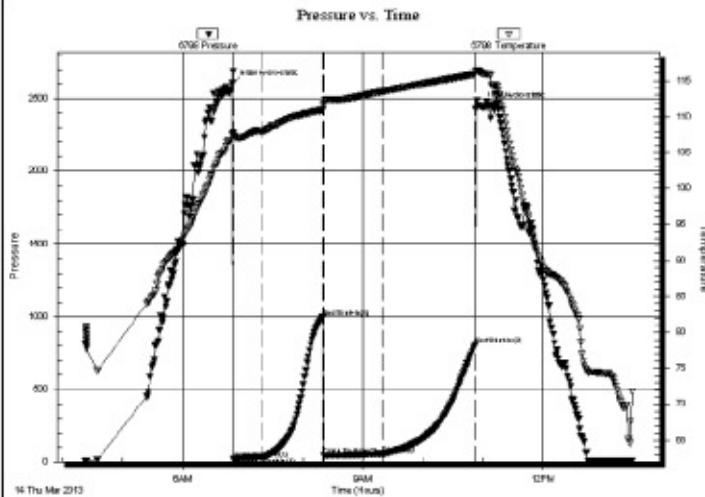
Last Calib.: 2013.03.14

Start Time: 04:22:01 End Time: 13:29:15

Time On Btm: 2013.03.14 @ 06:49:30

Time Off Btm: 2013.03.14 @ 10:56:45

TEST COMMENT: IFF - Very weak blow building to 1/4 inch
FFP - Very weak blow building to 1/2 inch



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2600.56	107.65	Initial Hydro-static
1	19.05	107.35	Open To Flow (1)
31	31.96	108.00	Shut-In(1)
91	994.00	110.95	End Shut-In(1)
91	44.64	111.90	Open To Flow (2)
151	52.50	113.51	Shut-In(2)
243	801.82	115.86	End Shut-In(2)
248	2448.67	116.18	Final Hydro-static

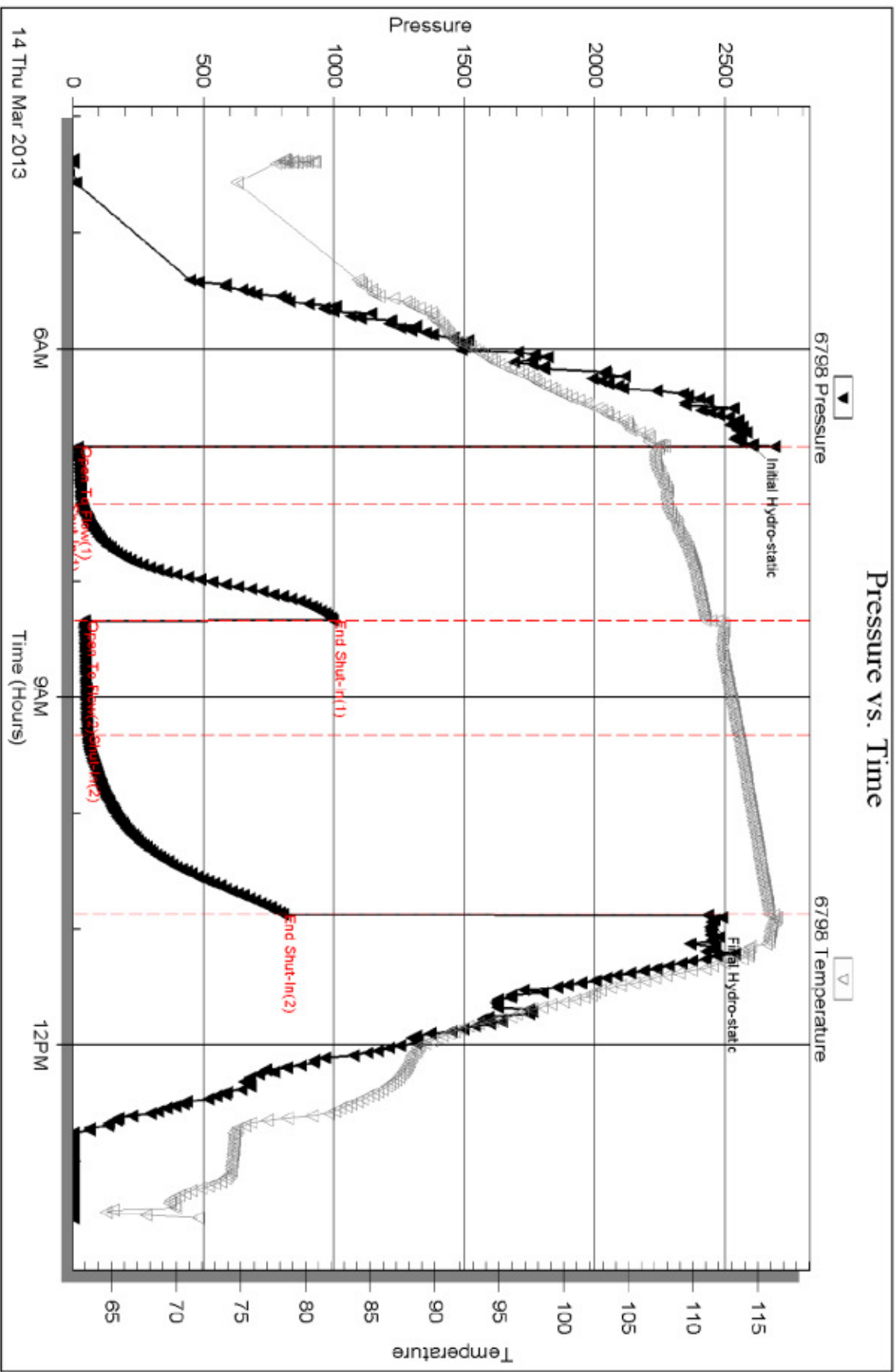
Recovery

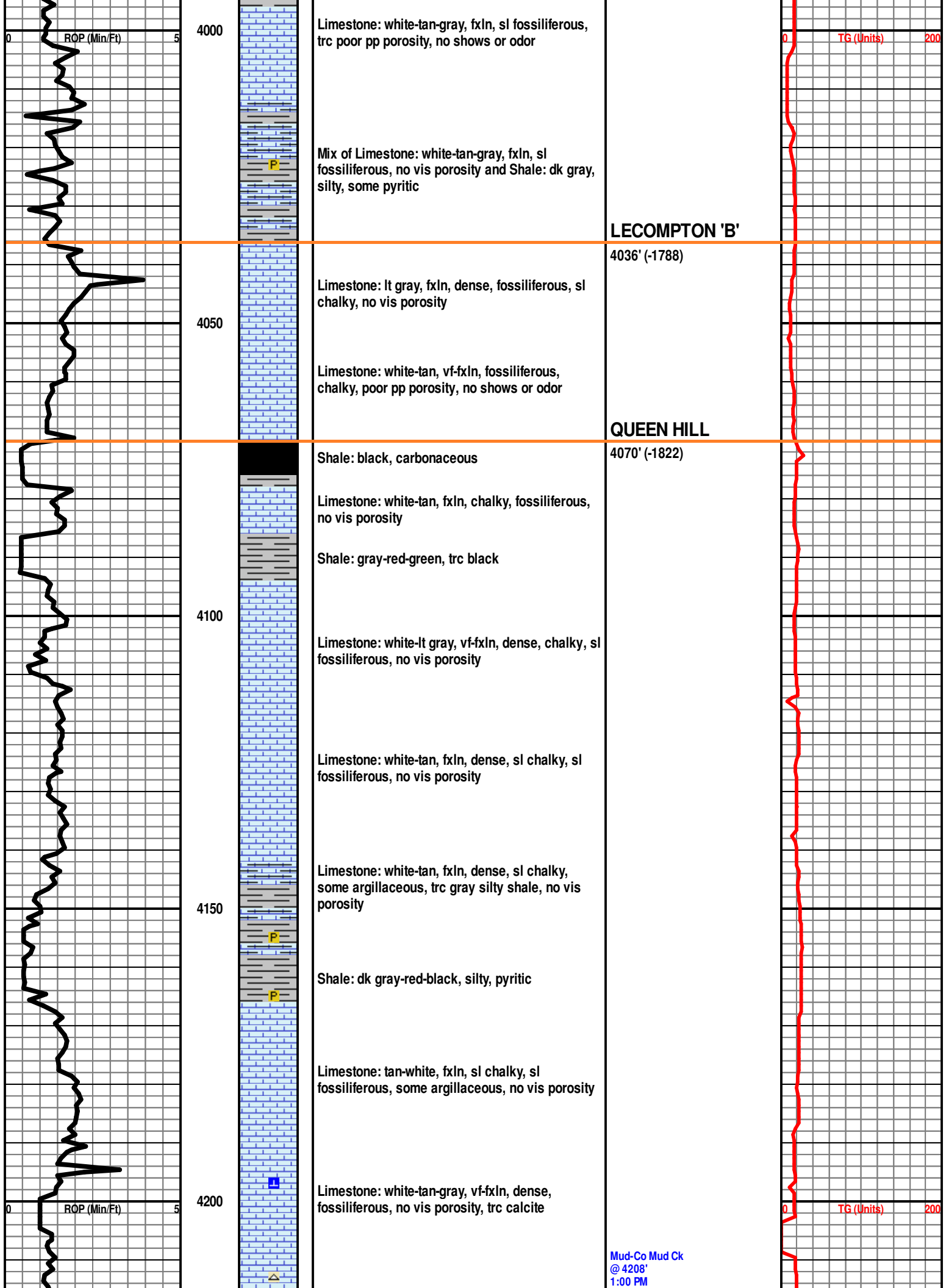
Length (ft)	Description	Volume (bbl)
25.00	O&WCM 5%O 1%W 94%M	0.12
60.00	O&HWCM 4%O 39%w 57%M	0.30

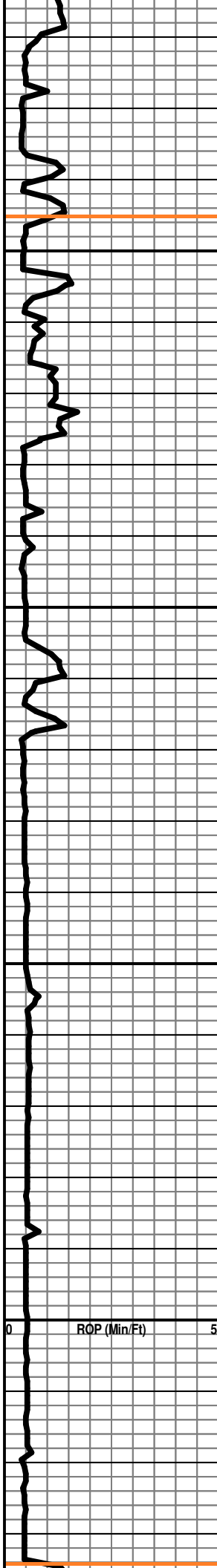
Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Pressure vs. Time







Mix of Limestone (as above) and gray silty Shale, trc opaque white chert

Shale: black, carbonaceous

Limestone: white-gray, vfxln, sl chalky, opaque white-tan chert, trc calcite, no vis porosity

4250

Shale: black, carbonaceous

Limestone: white-tan-lt brown, fxlN, fossiliferous, chalky, no vis porosity

Limestone: tan-gray, fxlN, dense, fossiliferous, sl chalky, trc opaque white chert, no vis porosity

Shale: gray-black-red

Shale: gray-black-red

4300

Limestone: white-tan-lt brown, f-mxln, chalkky, sl fossiliferous, trc calcite, no vis porosity

Shale: dk gray-red-trc green

4350

Shale: lt gray-dk gray, trc red, silty

Shale: lt gray-dk gray, silty

Shale: gray-green, silty

4400

Shale: dk gray, trc red-green, silty

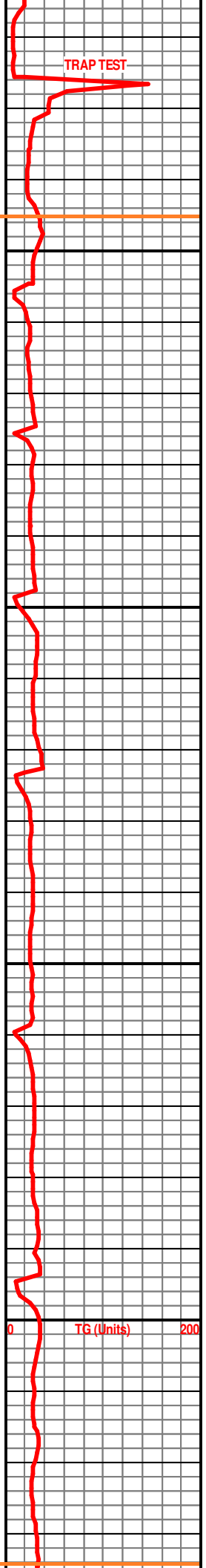
Shale: gray-green-lt brown, silty

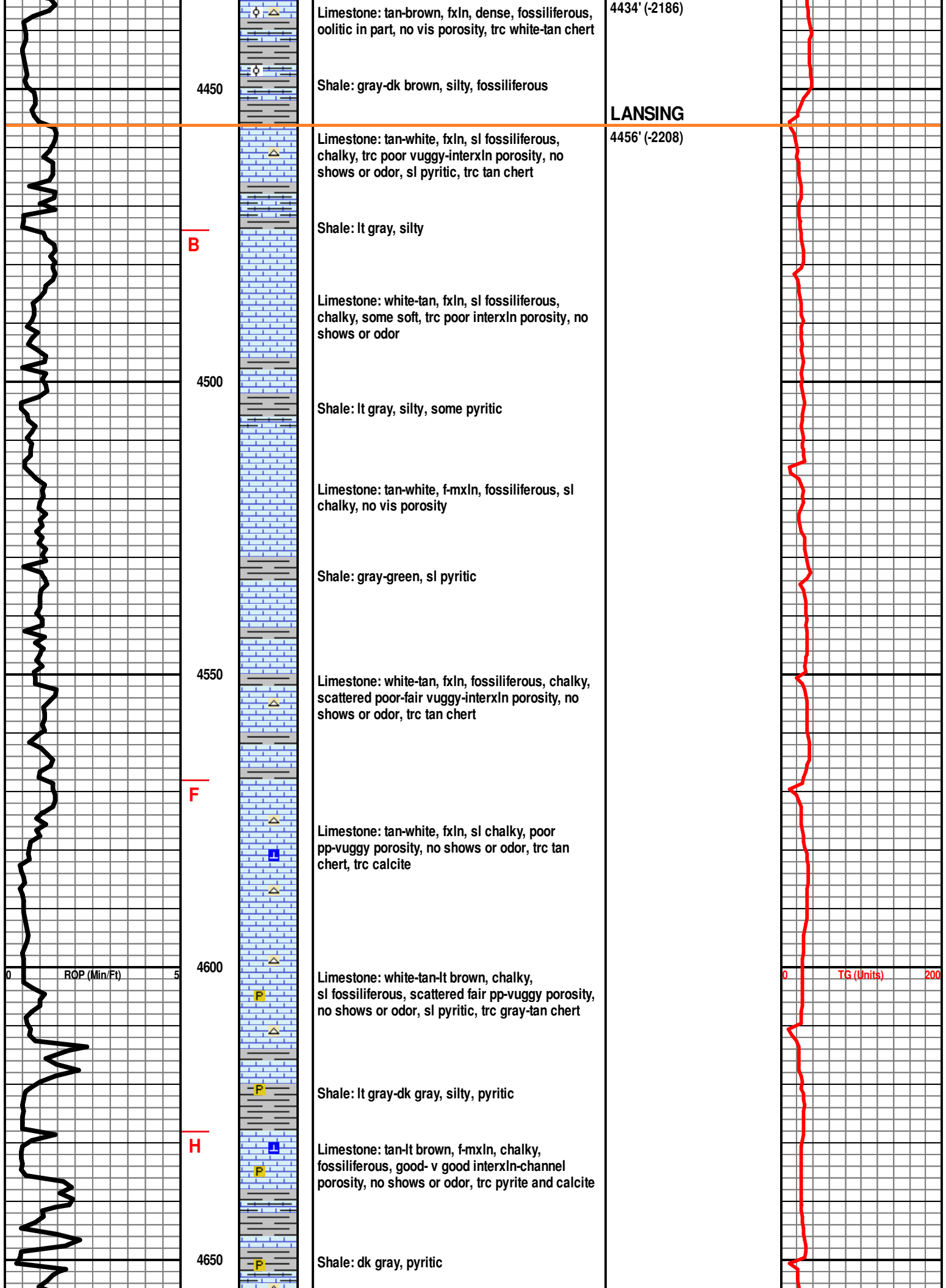
3/11/2013 VIS: 44
 WT: 9.4 YP: 15
 PV: 13 LCM: 0#
 CHL: 10,000

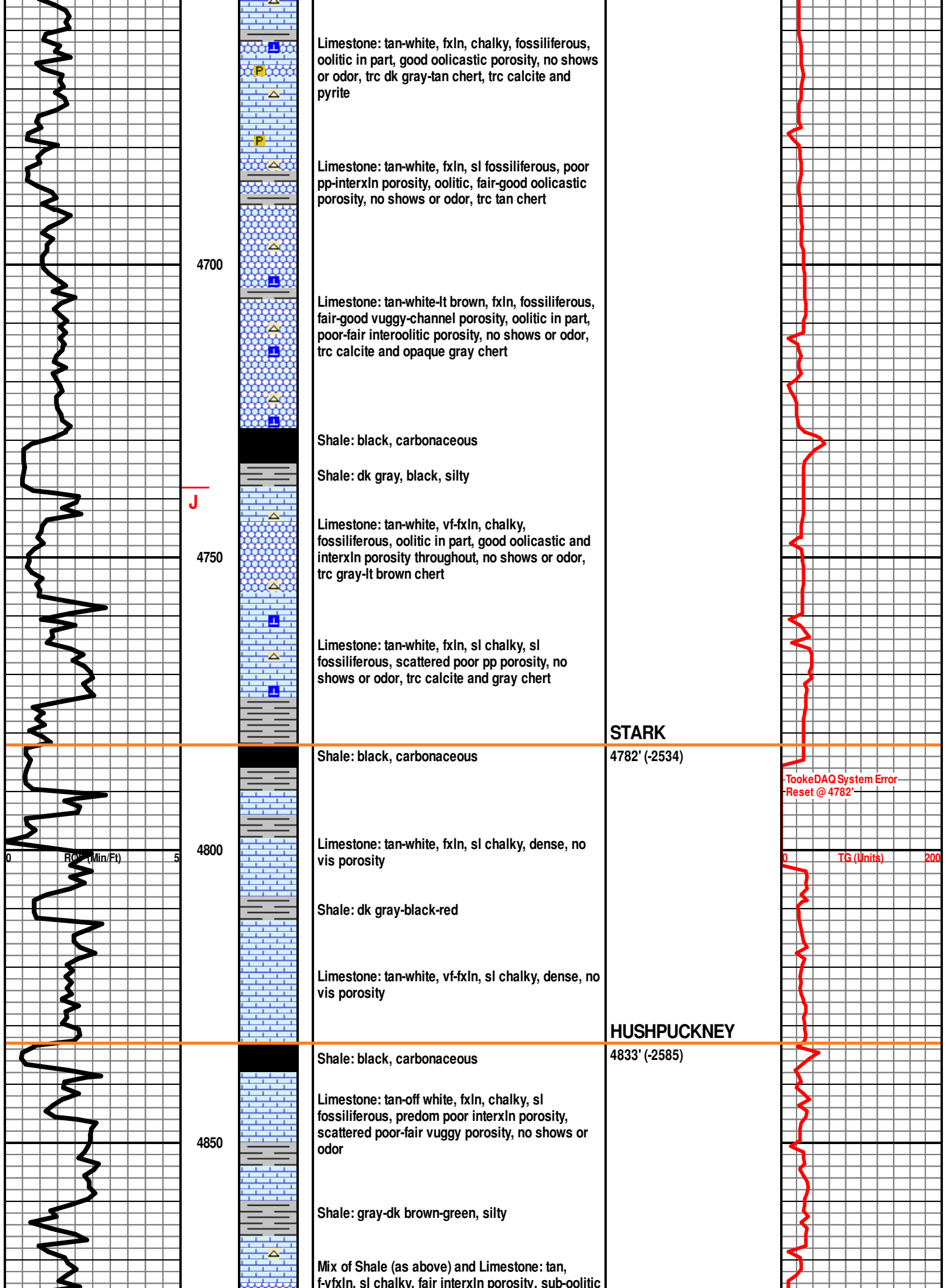
HEEBNER

4245' (-1997)

BROWN LIME







4700

4750

4800

4850

Limestone: tan-white, fxln, chalky, fossiliferous, oolitic in part, good oolitic porosity, no shows or odor, trc dk gray-tan chert, trc calcite and pyrite

Limestone: tan-white, fxln, sl fossiliferous, poor pp-interxln porosity, oolitic, fair-good oolitic porosity, no shows or odor, trc tan chert

Limestone: tan-white-lt brown, fxln, fossiliferous, fair-good vuggy-channel porosity, oolitic in part, poor-fair interoolitic porosity, no shows or odor, trc calcite and opaque gray chert

Shale: black, carbonaceous

Shale: dk gray, black, silty

Limestone: tan-white, vf-fxln, chalky, fossiliferous, oolitic in part, good oolitic and interxln porosity throughout, no shows or odor, trc gray-lt brown chert

Limestone: tan-white, fxln, sl chalky, sl fossiliferous, scattered poor pp porosity, no shows or odor, trc calcite and gray chert

STARK

4782' (-2534)

Shale: black, carbonaceous

Limestone: tan-white, fxln, sl chalky, dense, no vis porosity

Shale: dk gray-black-red

Limestone: tan-white, vf-fxln, sl chalky, dense, no vis porosity

HUSHPUCKNEY

4833' (-2585)

Shale: black, carbonaceous

Limestone: tan-off white, fxln, chalky, sl fossiliferous, predom poor interxln porosity, scattered poor-fair vuggy porosity, no shows or odor

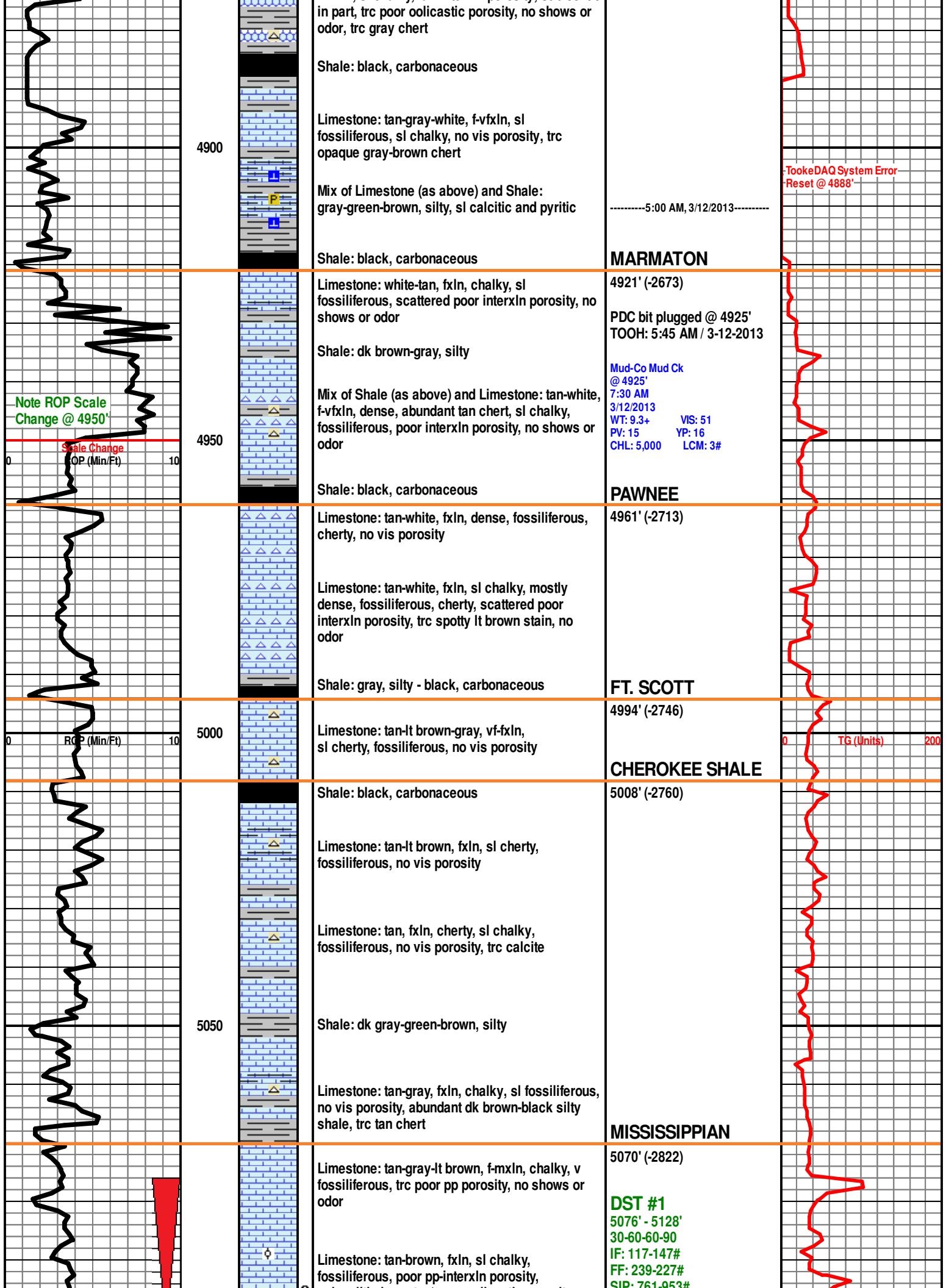
Shale: gray-dk brown-green, silty

Mix of Shale (as above) and Limestone: tan, f-vfxln, sl chalky, fair interxln porosity, sub-oolitic

TookeDAQ System Error - Reset @ 4782'

TG (Units) 200

RO (Min/Ft) 5



in part, trc poor oolitic porosity, no shows or odor, trc gray chert

Shale: black, carbonaceous

Limestone: tan-gray-white, f-vfxln, sl fossiliferous, sl chalky, no vis porosity, trc opaque gray-brown chert

Mix of Limestone (as above) and Shale: gray-green-brown, silty, sl calcitic and pyritic

-----5:00 AM, 3/12/2013-----

TookeDAQ System Error
Reset @ 4888'

4900

Shale: black, carbonaceous

MARMATON

4921' (-2673)

PDC bit plugged @ 4925'
TOOH: 5:45 AM / 3-12-2013

Limestone: white-tan, fxln, chalky, sl fossiliferous, scattered poor interxln porosity, no shows or odor

Shale: dk brown-gray, silty

Mud-Co Mud Ck
@ 4925'
7:30 AM
3/12/2013
WT: 9.3+ VIS: 51
PV: 15 YP: 16
CHL: 5,000 LCM: 3#

Mix of Shale (as above) and Limestone: tan-white, f-vfxln, dense, abundant tan chert, sl chalky, fossiliferous, poor interxln porosity, no shows or odor

Note ROP Scale Change @ 4950'

Scale Change
ROP (Min/Ft)

4950

Shale: black, carbonaceous

PAWNEE

4961' (-2713)

Limestone: tan-white, fxln, dense, fossiliferous, cherty, no vis porosity

Limestone: tan-white, fxln, sl chalky, mostly dense, fossiliferous, cherty, scattered poor interxln porosity, trc spotty lt brown stain, no odor

Shale: gray, silty - black, carbonaceous

FT. SCOTT

4994' (-2746)

Limestone: tan-lt brown-gray, vf-fxln, sl cherty, fossiliferous, no vis porosity

TG (Units)

5000

Shale: black, carbonaceous

CHEROKEE SHALE

5008' (-2760)

Limestone: tan-lt brown, fxln, sl cherty, fossiliferous, no vis porosity

Limestone: tan, fxln, cherty, sl chalky, fossiliferous, no vis porosity, trc calcite

Shale: dk gray-green-brown, silty

5050

Limestone: tan-gray, fxln, chalky, sl fossiliferous, no vis porosity, abundant dk brown-black silty shale, trc tan chert

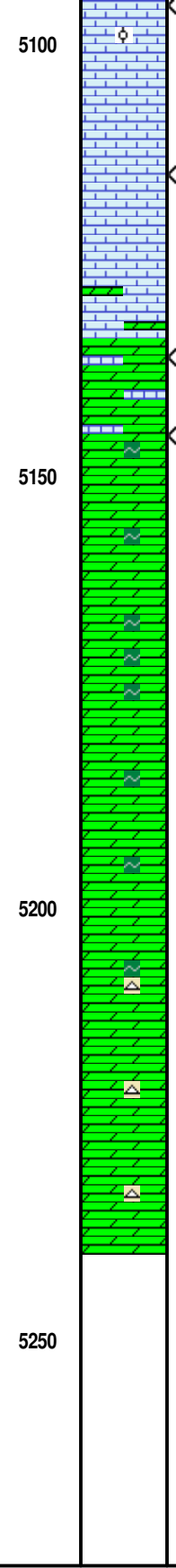
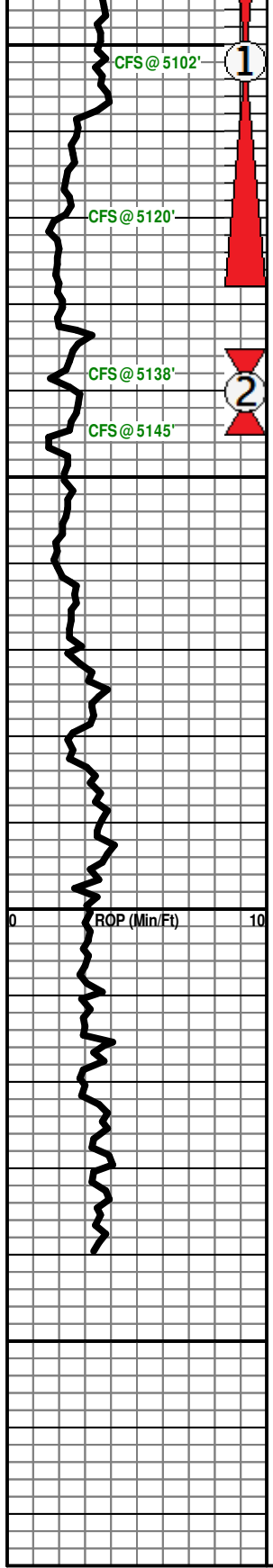
MISSISSIPPIAN

5070' (-2822)

Limestone: tan-gray-lt brown, f-mxln, chalky, v fossiliferous, trc poor pp porosity, no shows or odor

DST #1
5076' - 5128'
30-60-60-90
IF: 117-147#
FF: 239-227#
SIP: 761.053#

Limestone: tan-brown, fxln, sl chalky, fossiliferous, poor pp-interxln porosity,



sub-oolitic in part w/ poor oolitic porosity, scattered spotty lt brown stain, v faint odor

Limestone: tan-white, f-mxl, chalky, sl cherty, fossiliferous, fair-good interxl porosity, scattered poor-fair vuggy porosity, good odor, no free oil, trc spotty lt brown stain

Limestone/Dolomite: tan-lt gray, f-mxl, spotty glauconitic, fair-good interxl-vuggy porosity, sl-fsfo on break, trc free oil droplets in sample tray, good odor

Dolomite/Limestone: tan-lt brown-white, fxln, chalky, sl fossiliferous, spotty glauconitic, fair-good interxl porosity, trc sfo on break, lt brown sat stain, fair odor

Dolomite, lt gray-tan, f-mxl, glauconitic, chalky, fair interxl porosity, no free oil, scattered lt brown sat stain, sl odor

Dolomite: gray-green-tan, f-mxl, abundant glauconite, sl fossiliferous, poor interxl porosity, no shows or odor

Dolomite: lt gray-white-green, f-mxl, soft, chalky, glauconitic, sl fossiliferous, fair interxl porosity, no free oil, sl odor

Dolomite: dk gray-tan-green, f-mxl, sl chalky, glauconitic, trc poor interxl porosity, no shows or odor

Dolomite: gray, f-mxl, cherty, glauconitic, sl fossiliferous, trc poor interxl porosity, no shows or odor

Dolomite: gray, f-mxl, cherty, dense, sl fossiliferous, trc poor interxl porosity, no shows or odor

Dolomite: lt gray, fxln, cherty, dense, trc poor interxl porosity, no shows or odor

RTD 5240' (-2992)

SI: 701-950#
 Hydro: 2664-2463#
 BHT: 119°
 Recovery:
 4620' GIP
 126' MCGO - (20%G, 15%M, 65%O)
 66' SOCM - (5 O, 95%M)
 248' GWMCO - (20%G, 10%M, 5%W, 65%O)

-----5:00 AM, 3/13/2013-----
 Mud-Co Mud Ck
 @ 5128'
 6:15 AM
 3/13/2013
 WT: 9.4+ VIS: 59
 PV: 20 YP: 20
 CHL: 8,000 LCM: 3#
 -----5:00 AM, 3/14/2013-----
 Mud-Co Mud Ck
 @ 5145'
 7:00 AM
 3/14/2013
 WT: 9.4 VIS: 50
 PV: 15 YP: 16
 CHL: 11,000 LCM: 2#

DST #2
 5135' - 5128'
 30-60-60-90
 IF: 19-31#
 FF: 44-52#
 SIP: 994-801#
 Hydro: 2600-2448#
 BHT: 116°
 Recovery:
 25' O&WCM - (5%O, 1%W, 94%M)
 60' O&HWCM - (4%O, 39%W, 57%M)

