



Joshua R. Austin

Petroleum Geologist

report for

Lebsack Oil Production, Inc.



COMPANY: LEBSACK OIL PRODUCTION INC.

LEASE: RAYMOND #1-H

FIELD: GROVE

SURFACE LOCATION: 150' FSL & 200' FWL

BOTTOM HOLE LOCATION: aprox. 2044' FSL & 1033' FWL

SEC: 27 TWSP: 20s RGE: 10w

COUNTY: RICE STATE: KANSAS

KB: 1732 GL: 1719

API # 15-159-22773-01-00

CONTRACTOR: STERLING DRILLING COMPANY (Rig #4)

Spud: 04/03/2014

Comp: 04/17/2014

MD: 4989'

TVD: 3069'

Mud Up: 2734'

Type Mud: Chemical was displaced

Samples Saved From: 2400' TO 4989'

Geological Supervision From: 2500' TO RTD

Geologist on Well: Josh Austin

Surface Casing: 13 3/8" @ 292' KB

7" @ 2729' KB

Production Casing: Liner hanger at 2645' and 4 1/2" casing set at 3062'

Lebsack Oil Production Inc.

Raymond Lease - Rice County, KS
Raymond #1-H

13' RKB - 1719' GL @ 1732.0usft (Sterling Drilling #4)

Longitude: 98° 25' 27.736 W

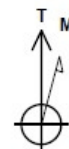
Latitude: 38° 16' 30.433 N

Northing: 1898024.71

Easting: 1334044.22

Design #2

PHOENIX
TECHNOLOGY SERVICES



Azimuths to True North
Magnetic North: 4.63°

Magnetic Field
Strength: 52276.1nT
Dip Angle: 66.10°
Date: 2/26/2014
Model: IGRF2010_14

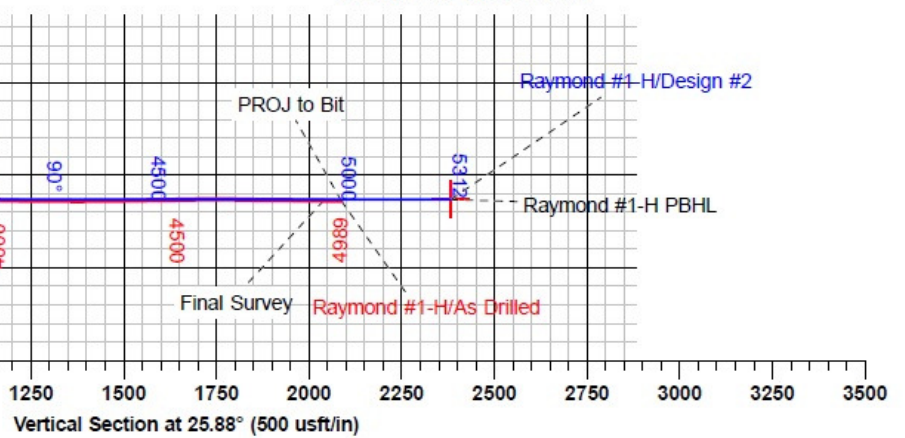
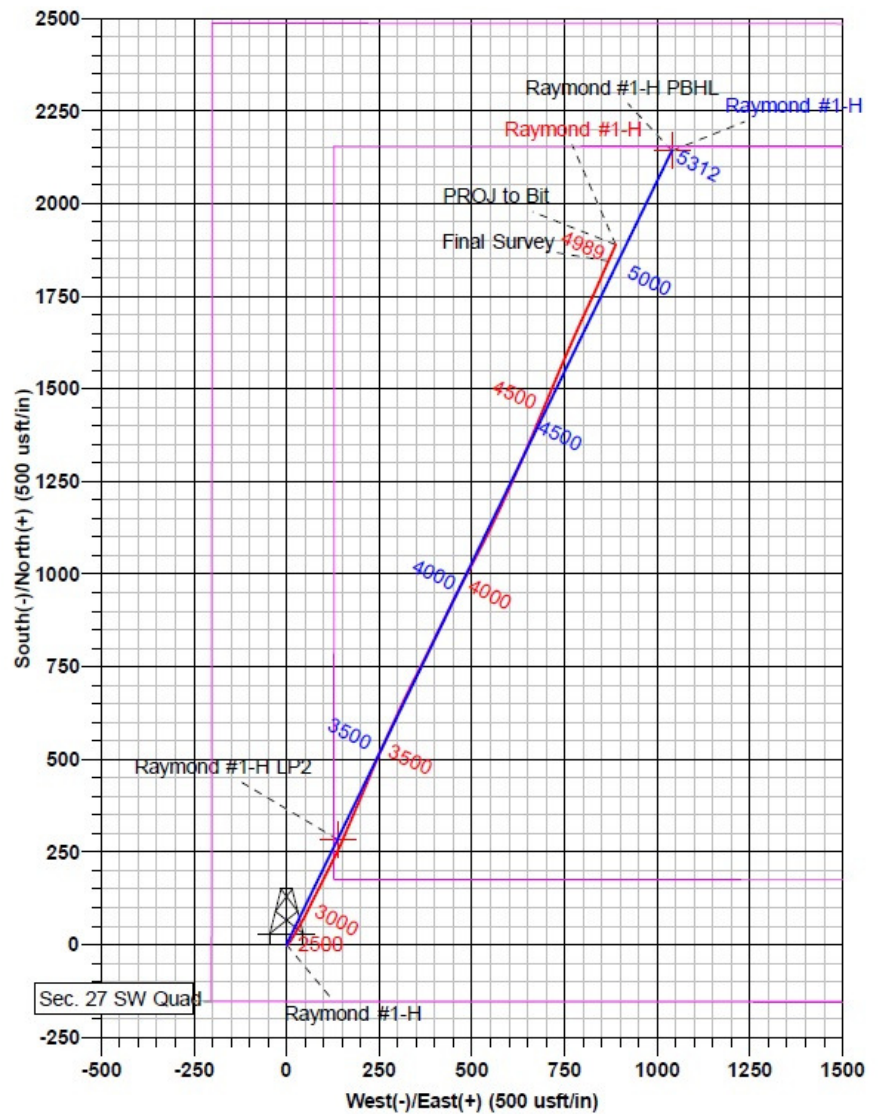
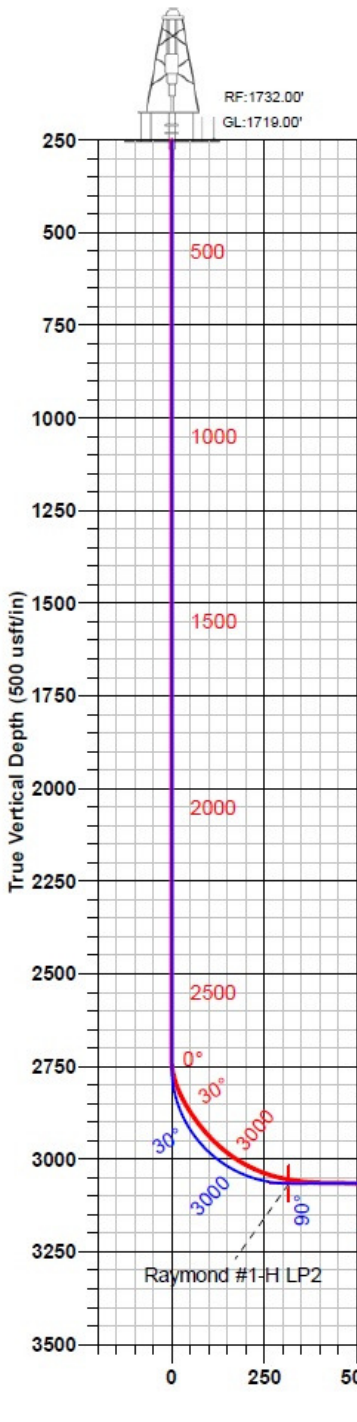
To convert a Magnetic Direction to a Grid Direction, Add 4.58°
To convert a True Direction to a Grid Direction, Subtract 0.05°

WELL DETAILS: Raymond #1-H

+N/-S	+E/-W	Northing	Ground Level:	1719.0	Latitude	Longitude
0.0	0.0	1898024.71	Easting	1334044.2238° 16'	30.433 N	98° 25' 27.736 W

PROJECT DETAILS: Raymond Lease

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Kansas Southern Zone
 System Datum: Mean Sea Level



04/02/14 rigged up and spudded at 10:15 am. Drilled 17-1/2" hole to 294'. Ran 7 joints new, 54.5#, 13-3/8" casing. Tallied 294', set at 292' KB. Cemented with 325 sacks Class A.; 2% Gel, 3% C.C. & 1/4# CF. Cement did circulate. Plug down at 2:30 am on 04/03/14 by Allied Cementing

04/03/14 Wait on Cement at 294' at 7 am. Drilled 294 in 24 hours.

04/04/14 Drilling with 9-7/8" bit at 1,205' at 7:00 am. Drilled 911' in 24.00 hours.

4/5/2014 Drilling with 9-7/8" bit at 2,065' at 7:00 am. Drilled 860' in 24.00 hours.

04/06/14 Short tripping at 2724' at 7 am. Made 669' feet in 24 hours.

04/07/14 Drilled 9-7/8" hole to 2734'. 1st Short trip was tight entire trip. 2nd short trip much better. Second Casing string of 7": Ran 7 joints new, 25.0#, 7" casing. Tallied 2729.72' with 0.80' FS on bottom. Shoe joint = 34.41'. Set at 2729.72' KB. Cemented with 125 sacks ASC with: 10% Salt, 2% Gel, 6% Gypseal. Plug down at 4:30 am on 04/07/14. WOC at 2734' at 7 am.. Made 0' in 24.00 hours.

04/08/14 Wait on Cement 24.00 of accumulated 26.50 hours at 2734' at 7:00 am. Made 0' in 24.00 hours.

04/09/14 Wait on Cement 24.00 of accumulated 50.50 hours at 2734' at 7:00 am. Made 0' in 24.00 hours.

4/10/2014 Drilled cement plug with water then displaced with saved 9-7/8" hole mud. Displacing mud system at 2734' at 7 am after drilling cement. Made 0 feet in 24 hours.

4/11/2014 Tripped out at 2798' to reset BHA tools at 7:00 am. Made 64' (all curve) in 24.00 hours.

04/12/14 Spot 30 Bbl Oil for shale in curve at 2861' making curve at 3,082' at 7:00 am. Made 284' (all curve) in 24.00 hours.

4/13/2014 Tripped out at 3303' to change BHA and bit to a PDC, 1.50 degrees from Horizontal. Changing out BHA and Bit at 3303' at 7:00 am. Made 221' in 24.00 hours.

04/14/14 Tripped in with bit #2 at 3303'. Drilling at 3765' at 7:00 am. Drilled 463' in 24.00 hours.

04/15/14 Tripped out at 3950' to check mud motor to orientate. Drilling at 4229' at 7:00 am. Drilled 464' in 24.00 hours.

04/16/14 Drilling at 4915' at 7:00 am. Drilled 686' in 24.00 hours. Added 20 bbl oil to mud system 4325'


04/17/14 Lost returns at 8:45 am on Wednesday at 4989'. Stop there and set production casing, RTD (Total Length) = 4989', did not log hole. Ran 17 joints of new 4.5" casing. Casing hanger at 2645' KB. Casing set at 3062' KB.

ROCK TYPES

 Lmst fw7>  shale, gry  Carbon Sh  Ss

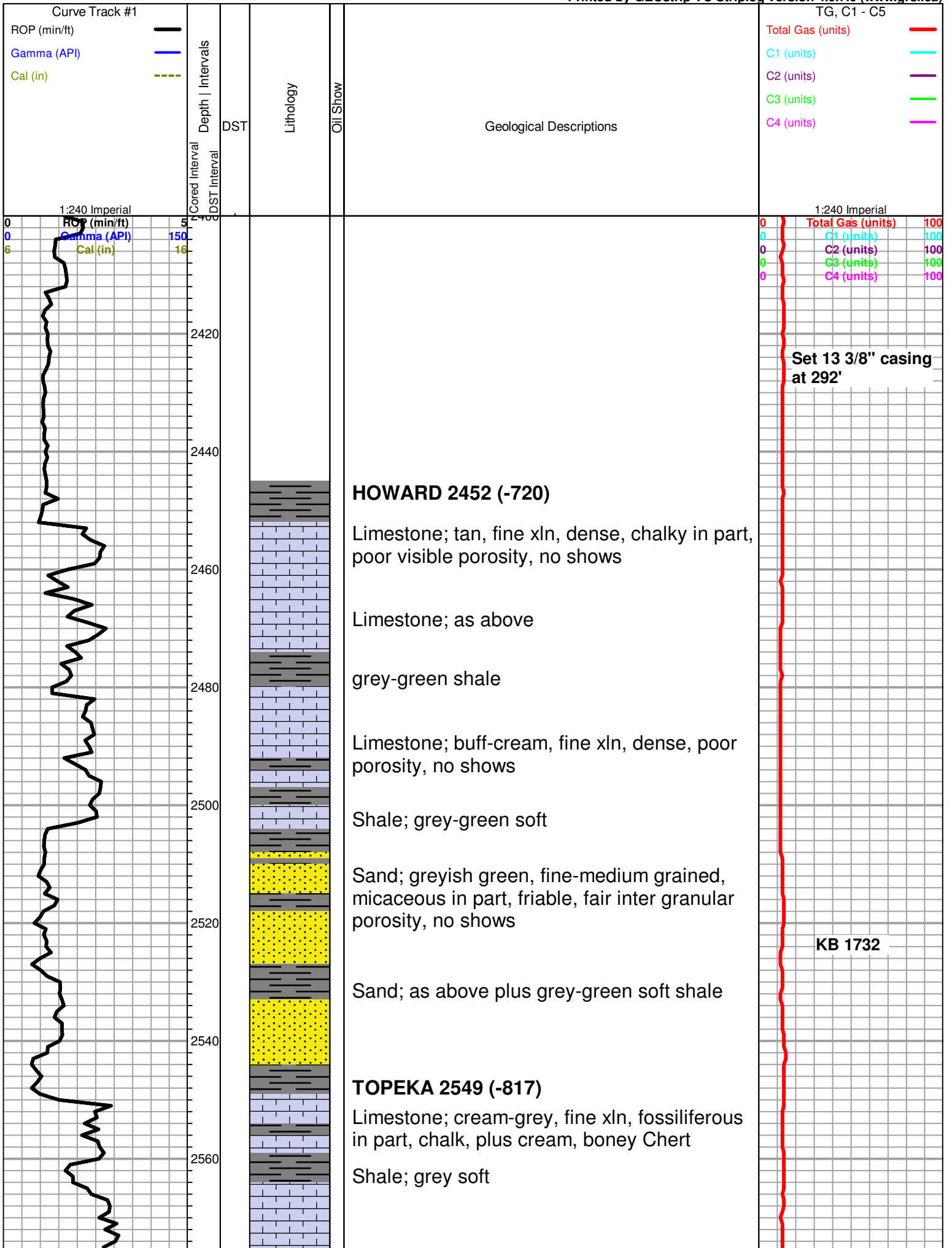
OTHER SYMBOLS

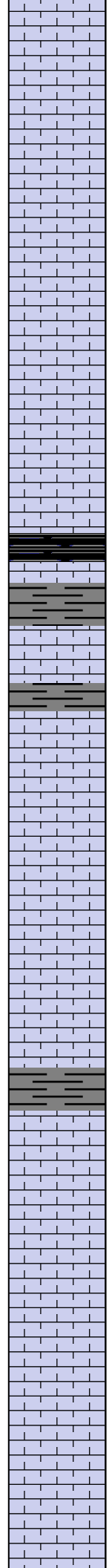
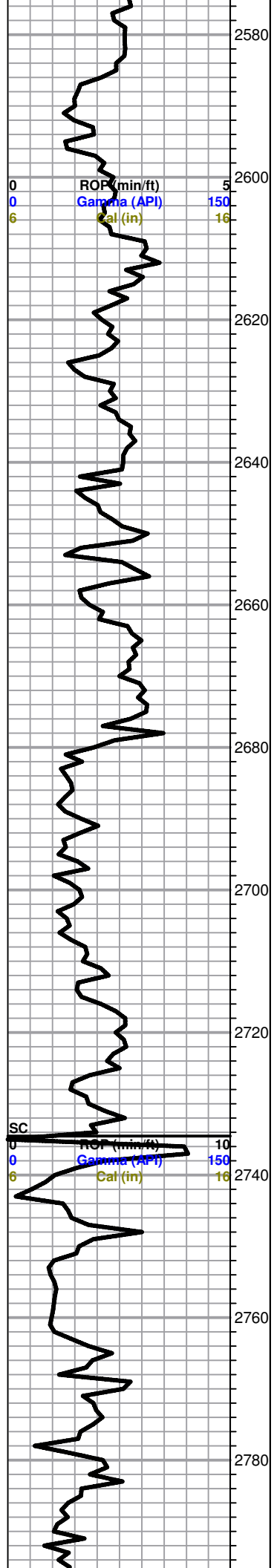
DST

 DST Int

 DST alt

 Core





Limestone; cream, fine-medium xln, chalky in part, slightly fossiliferous, poorly developed porosity, no shows

Limestone; as above plus white chalk

Limestone; grey-cream, fine xln, slightly granular, few fossiliferous pieces, no shows

Limestone; cream-tan, fine xln, dense, chalky in part, no show

black carboniferous shale

grey shale

Limestone; cream-grey, fine xln, fossiliferous, dense,

Limestone; tan-cream, fine-medium xln, granular, fossiliferous, few scattered porosity, no shows, Chert; grey-cream

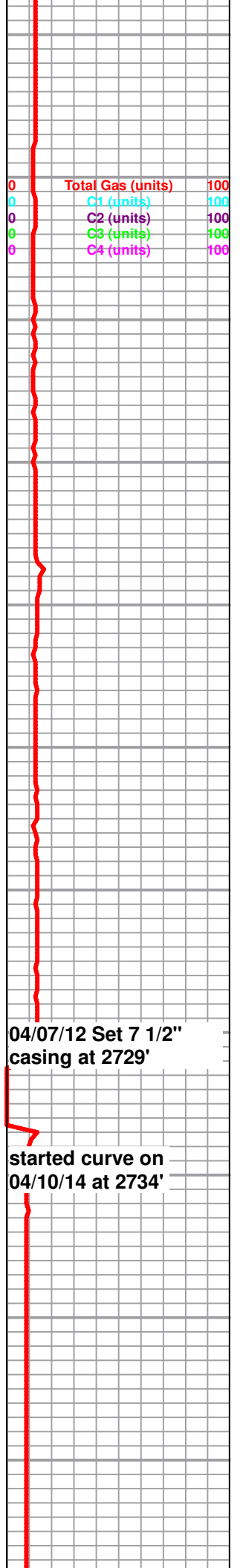
Limestone; as above plus grey boney Chert

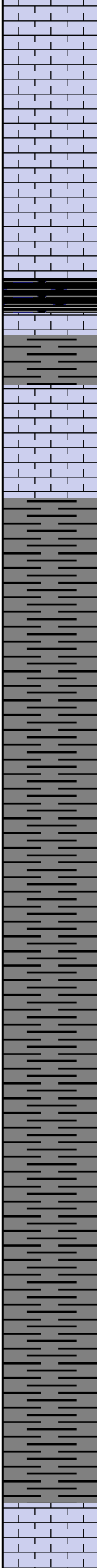
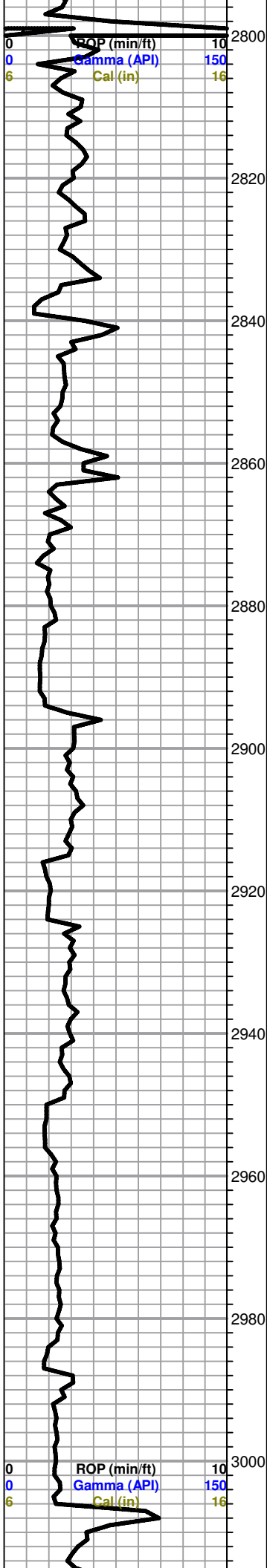
grey shale

Limestone; cream-grey, fossiliferous, poorly developed porosity, no shows, dense

Limestone; as above

Limestone; cream-white, fine xln, few scattered vuggy porosity, no shows, trace Chert; white-grey, boney





Limestone; cream, fine-medium xln, chalky, dense, plus white chalk, few pieces opaque-white-grey boney Chert

HEEBNER 2835 (-1103)

Black Carboniferous Shale

TORONTO

Limestone cream, fine xln, chalky, dense, few scattered porosity, no shows

DOUGLAS SHALE

Shale; greyish green, soft, micaceous, few silty pieces, (gummy in part)

Shale as above

Siltstone; grey-greyish green, micaceous, silty, plus grey-greyish green soft silty; Shale

Shale and Siltstone as above

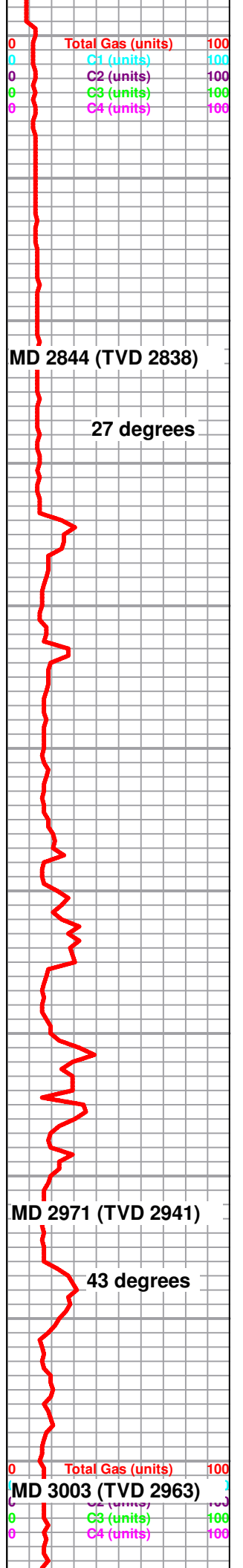
Shale; grey-greyish green, few maroon pieces, micaceous, silty in part, soft

Shale; grey-green, soft silty in part, few fissile pieces

Shale; grey-dark grey, soft

BROWN LIME 3005 (-1273)

Limestone; tan-brown, fine xln, fossiliferous, cherty in part



MD 2844 (TVD 2838)

27 degrees

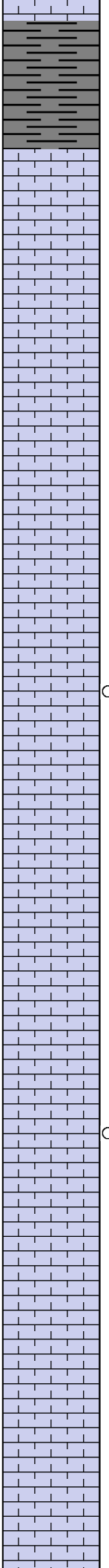
MD 2971 (TVD 2941)

43 degrees

MD 3003 (TVD 2963)

cherty in part

3020
3040
3060
3080
3100
3120
3140
3160
3180
3200
3220



Shale; grey-maroon-green

LANSING 3032

Limestone; cream, fine xln, chalky, few fossiliferous pieces

Limestone; cream-grey, fine xln, dense, cherty, plus white chalk

Limestone; cream-tan, fine-medium xln, fossiliferous, few scattered inter xln porosity, no shows

Limestone; cream-grey, fine-medium xln, slightly mottled, fair inter xln porosity, questionable trace free oil

Limestone; cream-grey, fine xln, chalky, dense, poor visible porosity, no shows

Limestone; cream-grey, fine xln, fossiliferous, chalky in part, few loose fossils, dense, poor visible porosity, no shows

Limestone; cream, slightly oolitic, fair vuggy-oolitic porosity, golden brown stain, SFO, faint odor

Limestone; cream, lt. grey, fine-medium xln, few sparry calcite, slightly granular, no shows

Limestone; cream-tan, fine-medium xln, dense, oolitic in part

Limestone, as above

0 ROP (min/ft) 10
0 Gamma (API) 150
6 Cal (in) 16

MD 3034 (TVD 2983)

52 degrees

MD 3066 (TVD 3025)

Change gas detector filter and chart

MD 3100 (TVD 3038)

SC	Total Gas (units)	400
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

MD 3130 (TVD 3031)

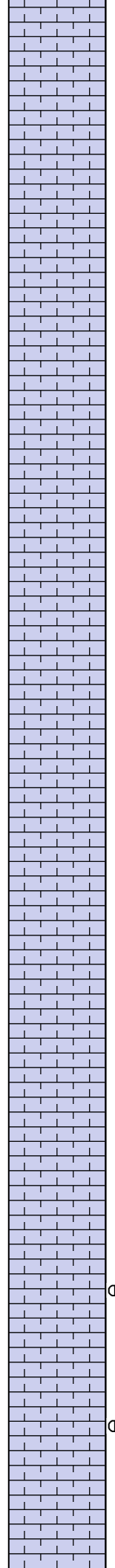
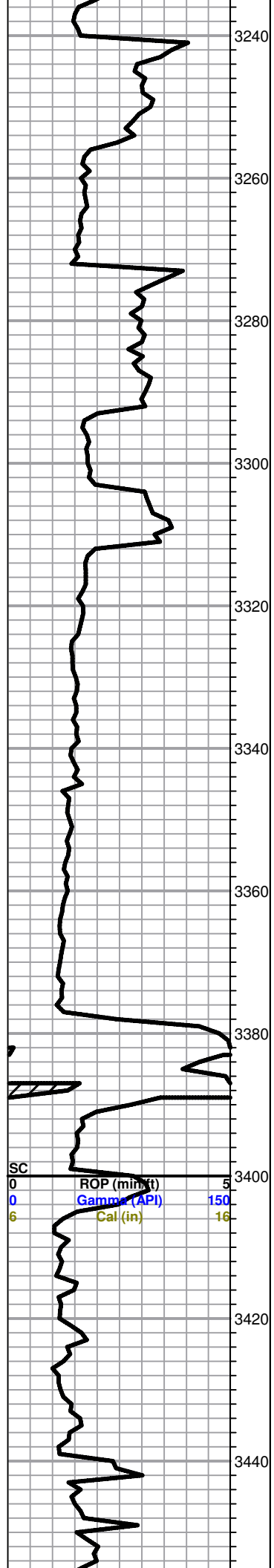
MD 3161 (TVD 3042)

71 degrees

0	Total Gas (units)	400
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

MD 3209 (TVD 3054)

MD 3224 (TVD 3056)



Limestone; as above

Limestone; cream, buff, fine xln, chalky, dense, few fossiliferous pieces, no shows

Limestone; cream, fine-medium xln, sparry calcite, slightly granular, no shows

Limestone; cream, fine xln, chalky, plus white chalk, no shows

Limestone; as above, cream, fine xln, chalky, plus white chalk, no shows

as above

Limestone; cream, fine xln, granular in part, chalky, no shows

as above

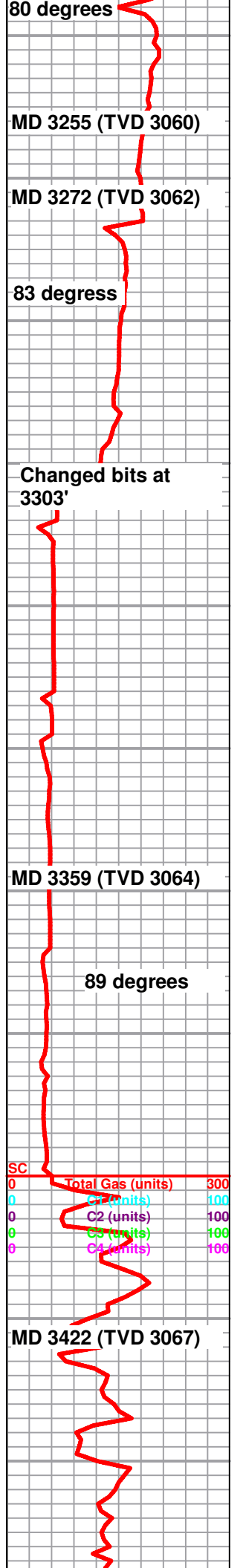
Limestone; cream, fine-medium xln, sparry calcite, slightly granular, no shows

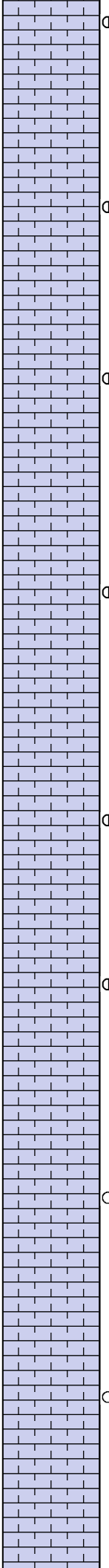
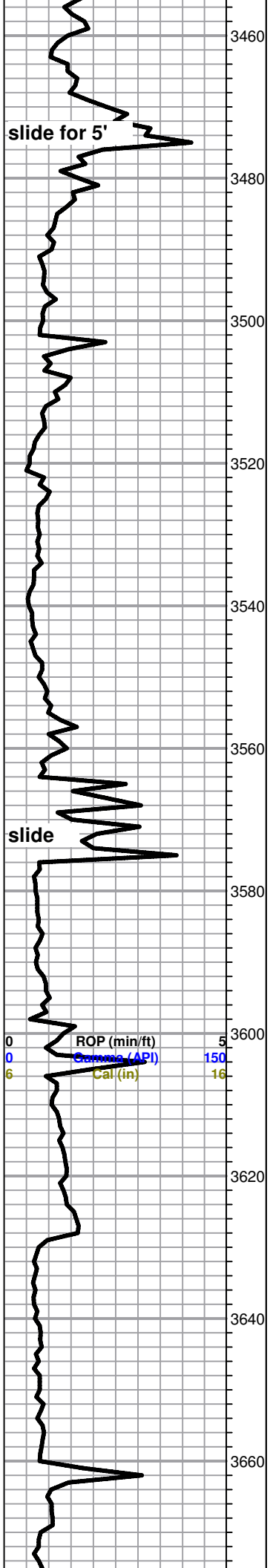
LANSING 'F' ZONE 3404 (TVD 3065)

Limestone; tan, oomoldic, oolitic, good oomoldic porosity, brown stain, SFO, good odor

Limestone; as above

Limestone; tan cream oomoldic oolitic good





Limestone; tan-cream, oomoldic-oolitic, good oomoldic porosity, brown-golden brown stain, 50-60% SFO, fair-good odor

Limestone; cream-tan, fine-medium xln, highly oolitic, good oomoldic/oolitic type porosity, brown stain, SFO, fair-good odor, gas bubbles

Limestone; as above

Limestone; cream-buff-tan, fine-medium xln, oomoldic, highly oolitic in part, good porosity, brown stain, SFO, trace gas bubbles, good odor

Samples very fine

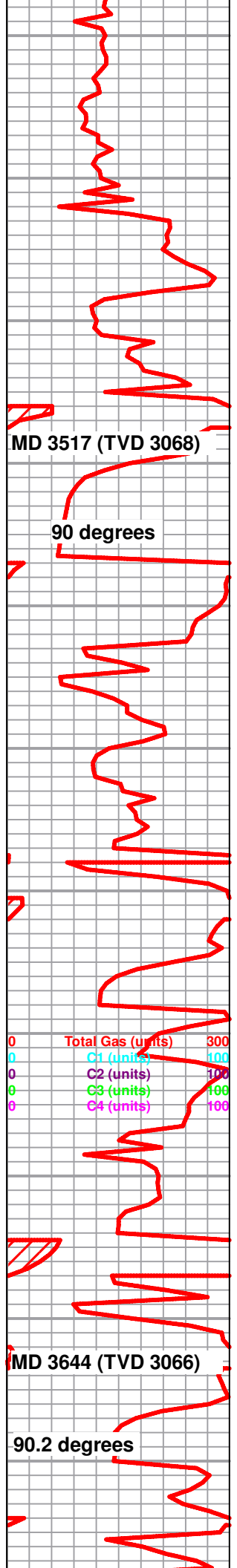
Limestone; tan, oomoldic, oolitic, good oomoldic porosity, brown stain, 60% SFO, good odor

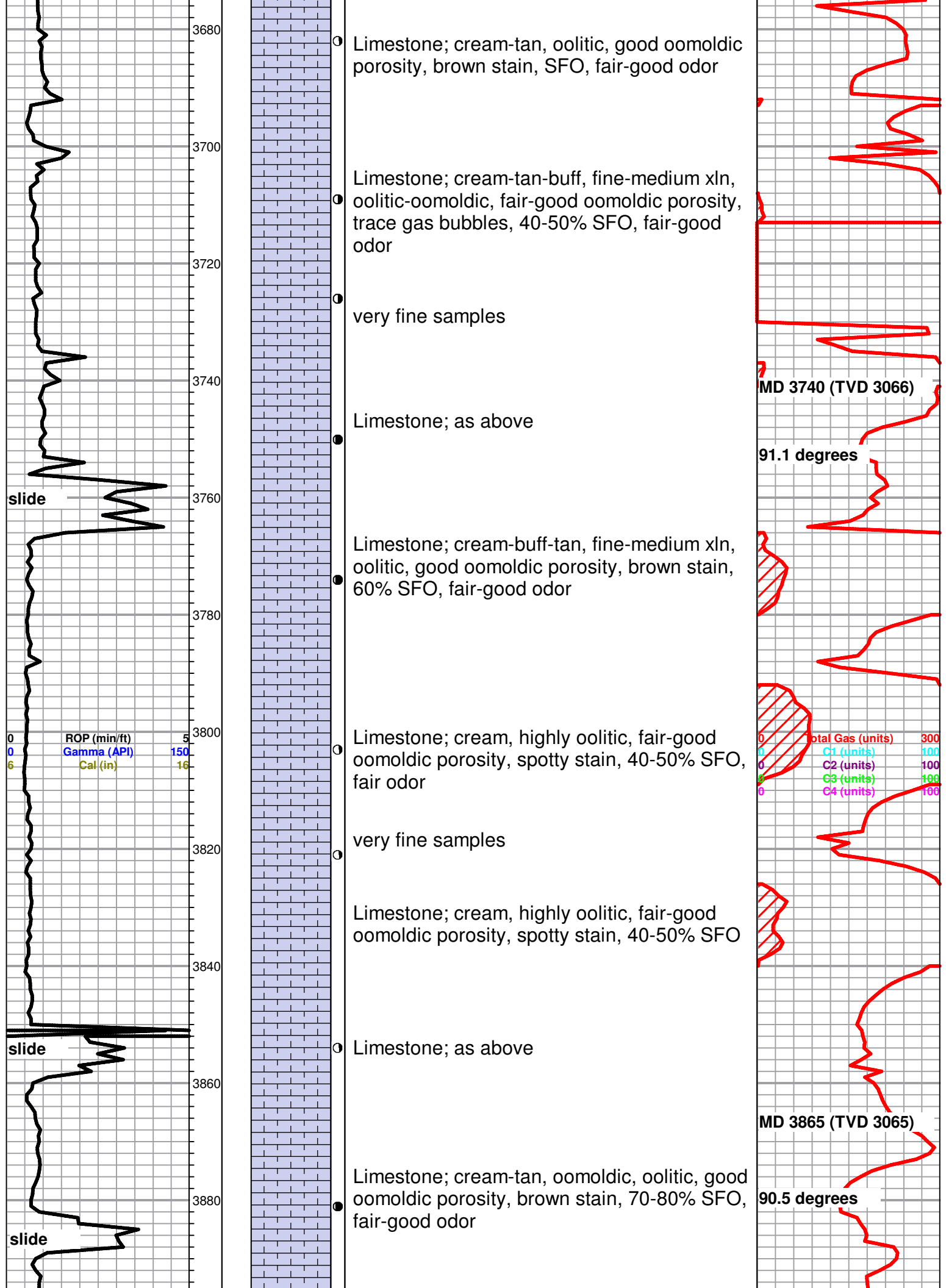
Limestone; cream-buff-tan, fine-medium xln, oolitic, good oomoldic porosity, brown stain, 60% SFO, fair-good odor

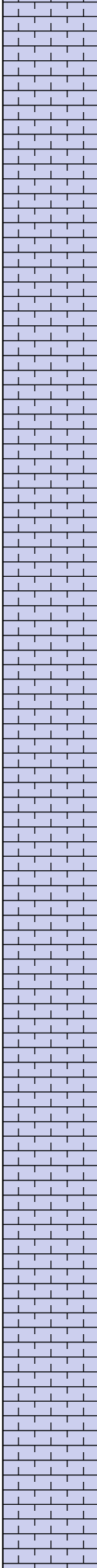
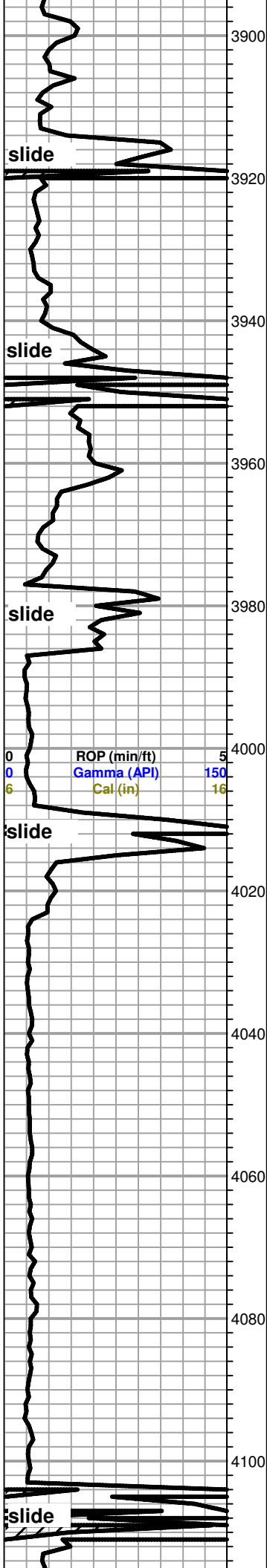
as above, very fine samples

Limestone; tan, fine xln, dense in part, oolitic, oomoldic porosity, brown stain, spotty 30-40% SFO, fair-good odor, trace gas bubbles, samples very fine

Limestone; as above







●

○

Limestone; cream-buff-tan, highly oolitic in part, oomoldic, fair oomoldic porosity, black-brown stain, 60% SFO, gas bubbles, fair odor

○

Limestone; as above, poor samples after bit trip

BIT TRIP AND CHANGE MUD MOTOR

Limestone; cream, fine xln, chalky, poor visible porosity, no shows (samples very fine)

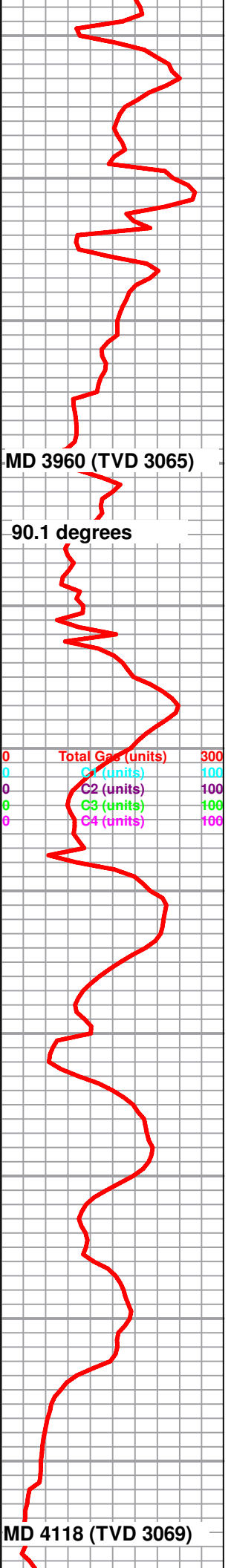
slide

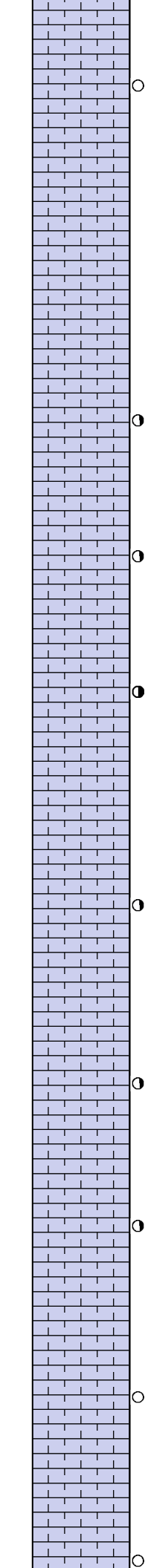
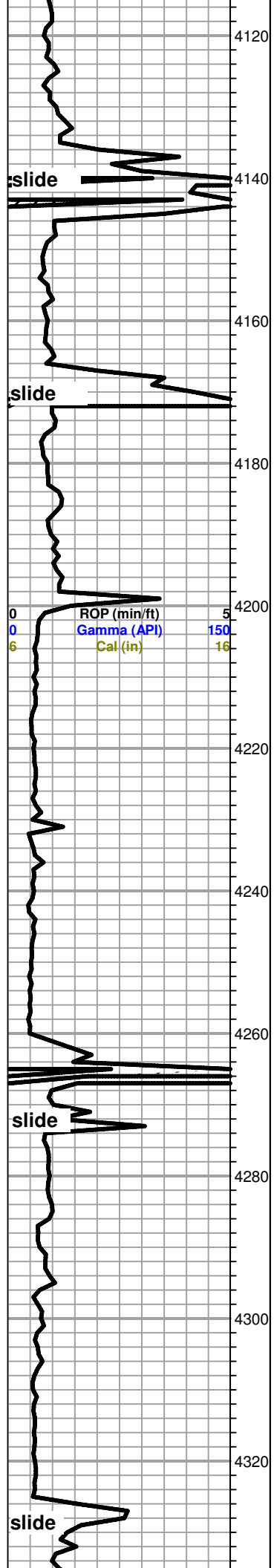
Limestone; cream-lt. grey, fine xln, chalky, poor porosity, no shows

Limestone; as above

Limestone; cream-lt. grey, fine xln, poorly developed porosity, few sarry calcite, no shows

Limestone; as above





Limestone; cream-lt. grey, few oomoldic pieces possilbe uphole, brown stain, spotty SFO, no odor

Limestone; cream, fine xln, chalky, no shows

Limestone; cream-tan, fine xln, sub oomoldic, chalky, few oomoldic porosity, trace brown stain, slight SFO, very faint odor

Samples Very Fine

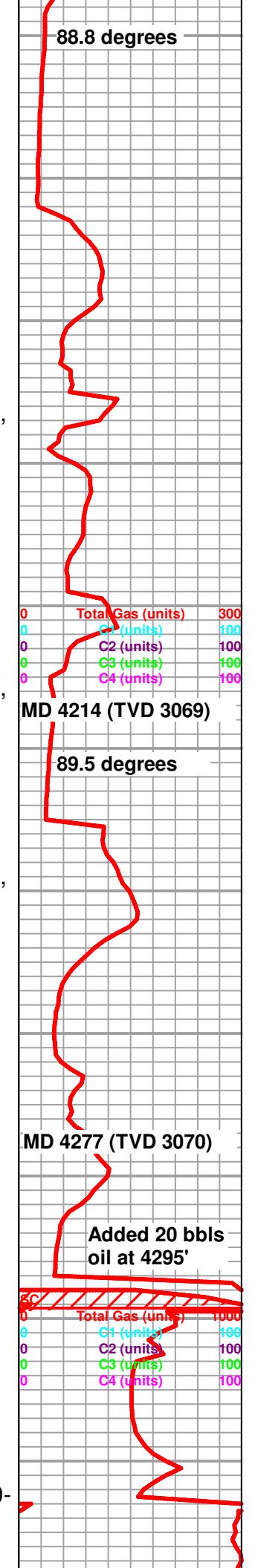
Limestone; cream-tan, fine xln, sub oomoldic, chalky, few oomoldic porosity, brown stain, 40-50% SFO, faint odor, samples very fine

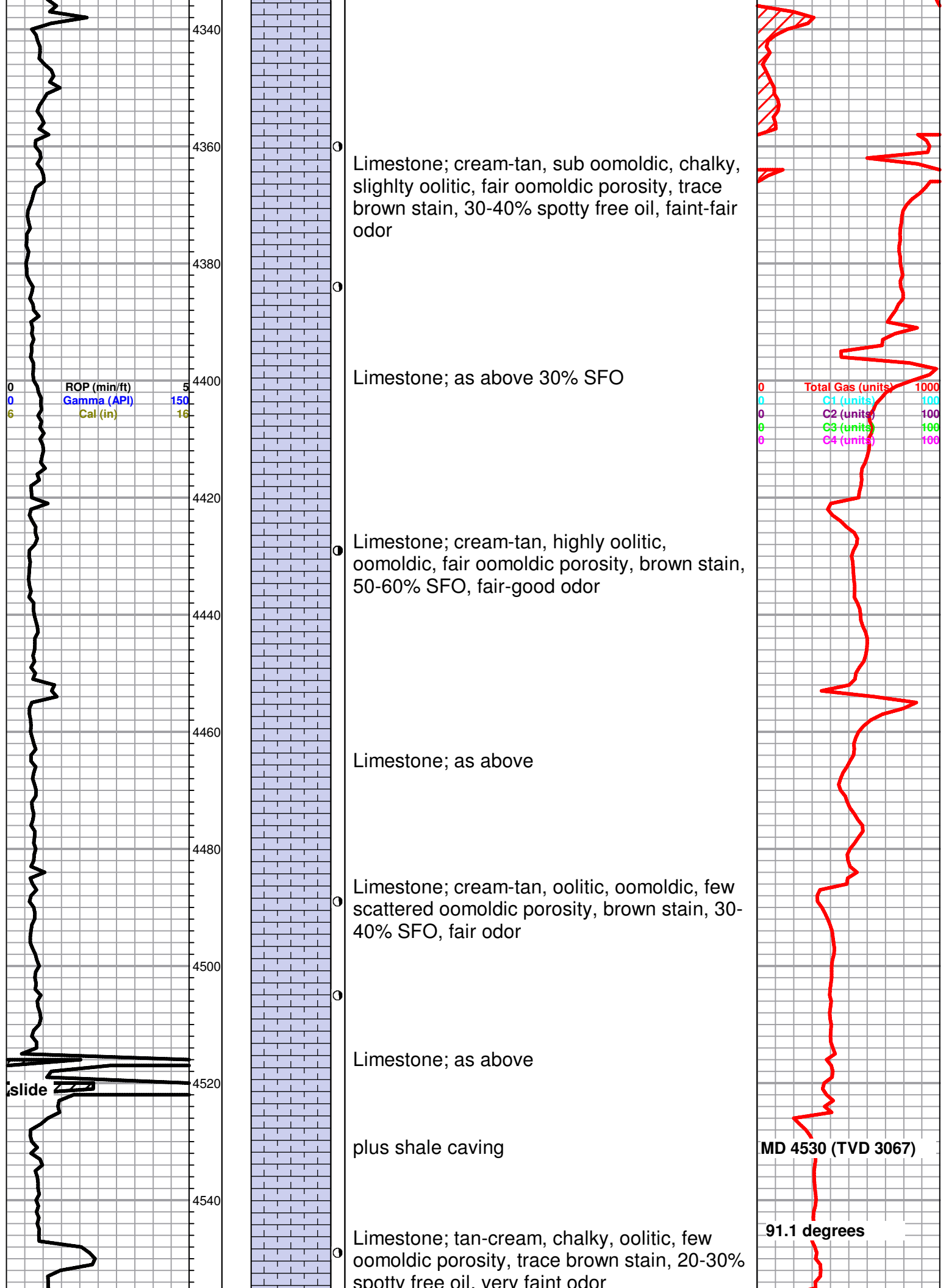
Limestone; cream-tan, fine xln, sub oomoldic, chalky, few oomoldic porosity, trace brown stain, 30% slight SFO, very faint odor

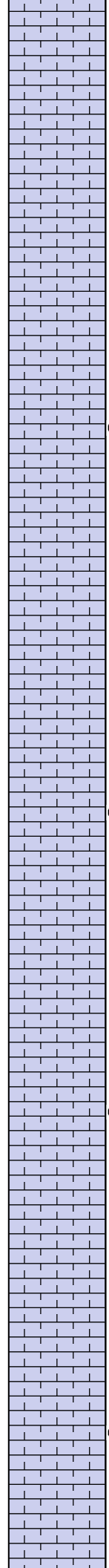
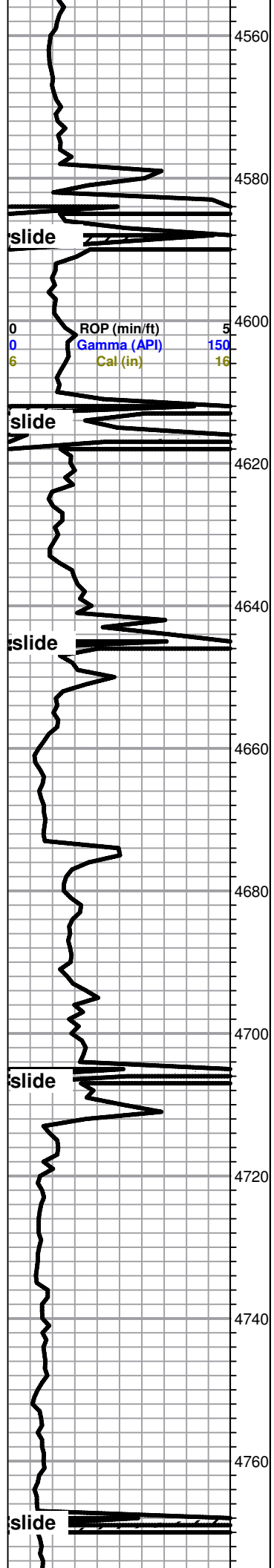
Limestone; cream-tan, sub oomoldic, chalky, slightly oolitic, fair oomoldic porosity, trace brown stain, 30-40% spotty free oil, faint-fair odor

Limestone; as above 30-40% oil shows

Limestone; cream, lt. grey, fin xln, sub oomoldic, chalky, brown stain, slight SFO 20-30%, faint-fair odor







spotty free oil, very faint odor

Samples very fine-crushed

Limestone; as above

10-15% shale caving

Limestone; cream, fine xln, chalky, few oolitic-oomoldic pieces, traces brown spotty stain, trace free oil 20-30%

Limestone as above; samples very fine-crushed

10-15% shale caving

Limestone; cream, fine xln, chalky, oolitic-oomoldic pieces, traces brown spotty stain, trace free oil 20-30%, very faint odor

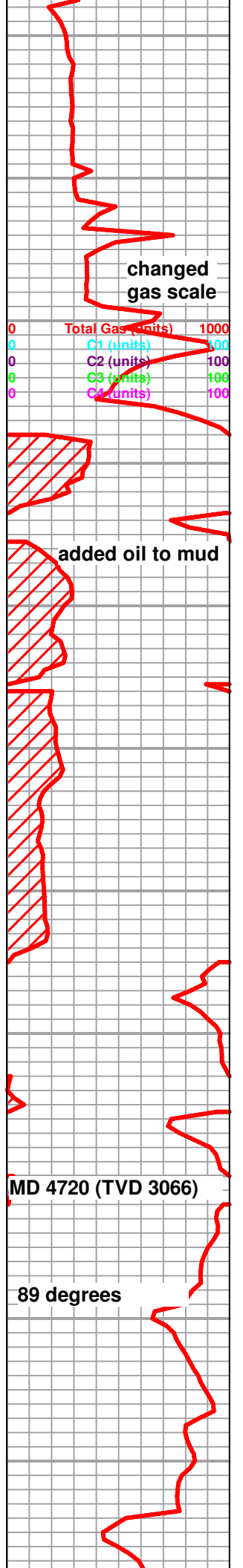
Limestone as above, very fine / crushed

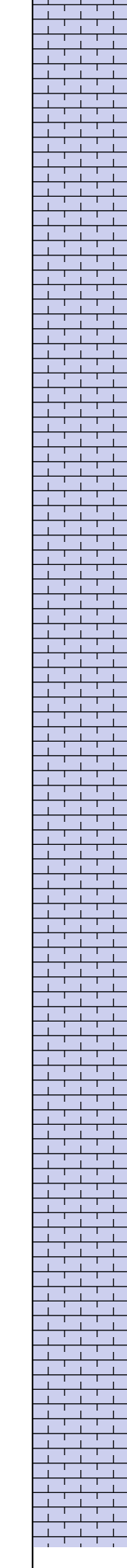
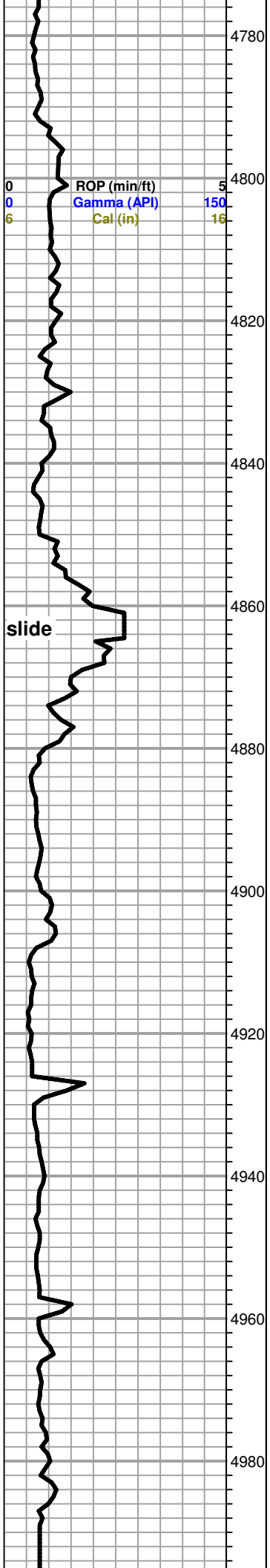
Limestone; cream-tan, chalky, slightly oolitic, poor porosity, trace brown stain, 30% spotty free oil, very faint odor

Limestone; as above

10-15% shale caving

Limestone; cream, fine xln, chalky, few oolitic-oomoldic pieces, traces brown spotty stain, trace free oil 20-30%





○ Samples as above; very fine-crushed
 10-15% shale caving

○ Limestone; cream, sub oomoldic, chalky,
 slightly oolitic, trace oomoldic porosity, trace
 brown stain, 30-40% spotty free oil, faint-fair
 odor (very fine crushed samples)

10-15% shale caving

Limestone; as above

○ Limestone; cream-tan, trace sub oomoldic,
 chalky, slightly oolitic, fair oomoldic porosity,
 trace brown stain, 30-40% spotty free oil,
 faint-fair odor

○ Limestone; cream-tan, highly oolitic,
 oomoldic, fair oomoldic porosity, brown stain,
 50-60% SFO, faint-fair odor

Limestone; as above

○ Limestone; cream-tan, highly oolitic,
 oomoldic, fair oomoldic porosity, brown stain,
 50-60% SFO, faint odor

○ lost approximately 40-60 bbls of mud

ROTARY TOTAL DEPTH 4989 MD

