

OPERATOR

Company: Charles N. Griffin
 Address: PO Box 347
 Pratt, KS 67124

Contact Geologist:
 Contact Phone Nbr:

Well Name: #1 Aria
 Location: Section 34-29S-15W
 API: 15-151-22497
 Pool:
 State: Kansas

Field: Wildcat
 Country: USA

Scale 1:240 Imperial

Well Name: #1 Aria
 Surface Location: Section 34-29S-15W
 Bottom Location:
 API: 15-151-22497
 License Number:
 Spud Date: 7/30/2019 Time: 9:30 PM
 Region: Pratt County
 Drilling Completed: 8/7/2019 Time: 7:30 AM
 Surface Coordinates: 660' FSL & 1650' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1987.00ft
 K.B. Elevation: 1999.00ft
 Logged Interval: 3800.00ft To: 4825.00ft
 Total Depth: 4825.00ft
 Formation:
 Drilling Fluid Type: Chemical (MudCo)

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 660' FSL
 E/W Co-ord: 1650' FWL

LOGGED BY

TERRATECH
 ENERGY SERVICE, LLC

Company: TerraTech Energy Service LLC.
 Address: 1632 S. West St. Suite 12
 Wichita, KS 67208

Phone Nbr: 316-617-3959
 Logged By: Geologist

Name: Bruce Reed

CONTRACTOR

Contractor: Fossil Drilling
 Rig #: 3
 Rig Type: mud rotary
 Spud Date: 7/30/2019
 TD Date: 8/7/2019
 Rig Release: 8/8/2019

Time: 9:30 PM
 Time: 7:30 AM
 Time: 12:00 AM

ELEVATIONS

K.B. Elevation: 1999.00ft
 K.B. to Ground: 12.00ft

Ground Elevation: 1987.00ft

NOTES

Surface Casing: 8-5/8" at 271'
 Production Casing: D&A

Daily Penetration: 7/30/19 Spud @ 9:30 PM
 7/31/19 273'
 8/01/19 1380'
 8/02/19 2647'
 8/03/19 3544'
 8/04/19 4000'
 8/05/19 4370'
 8/06/19 4642'
 8/07/19 4802' RTD @ 7:30AM
 8/08/19 4825'

DRILL STEM TEST

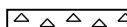




DTS#1 4670' to 4696', Viola. No blow on either of the openings. Recovered: 5' DM
 IFP: 30" 19-20 psi, ISIP: 30" 38 psi, FFP: 30" 1919 psi, FSIP: 30" 29 psi

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
Heebner	3884'	-1885	3880'	-1881	+4
Brown Lime	4058'	-2059	4054'	-2055	flat
Lansing	4075'	-2076	4075'	-2076	-7
Stark	4339'	-2340	4331'	-2332	+3
Base KC	4461'	-2462	4455'	-2456	+5
Pawnee	4517'	-2518	4516'	-2517	+5
Cherokee	4556'	-2557	4555'	-2556	+3
Viola	4584'	-2585	4578'	-2579	flat
Simpson	4739'	-2740	4736'	-2737	+3
Simpson Sand	4773'	-2774	4770'	-2771	

*Pickrell Dilling Company, Inc. #1 Gillam B, C SW SW, Section 34-29S-15W, Pratt County, Kansas

ROCK TYPES





 Cht
 Dolprim
 Lmst fw7>
 shale, gry
 Carbon Sh
 Ss

OTHER SYMBOLS




INTERVALS

 Core
 DST

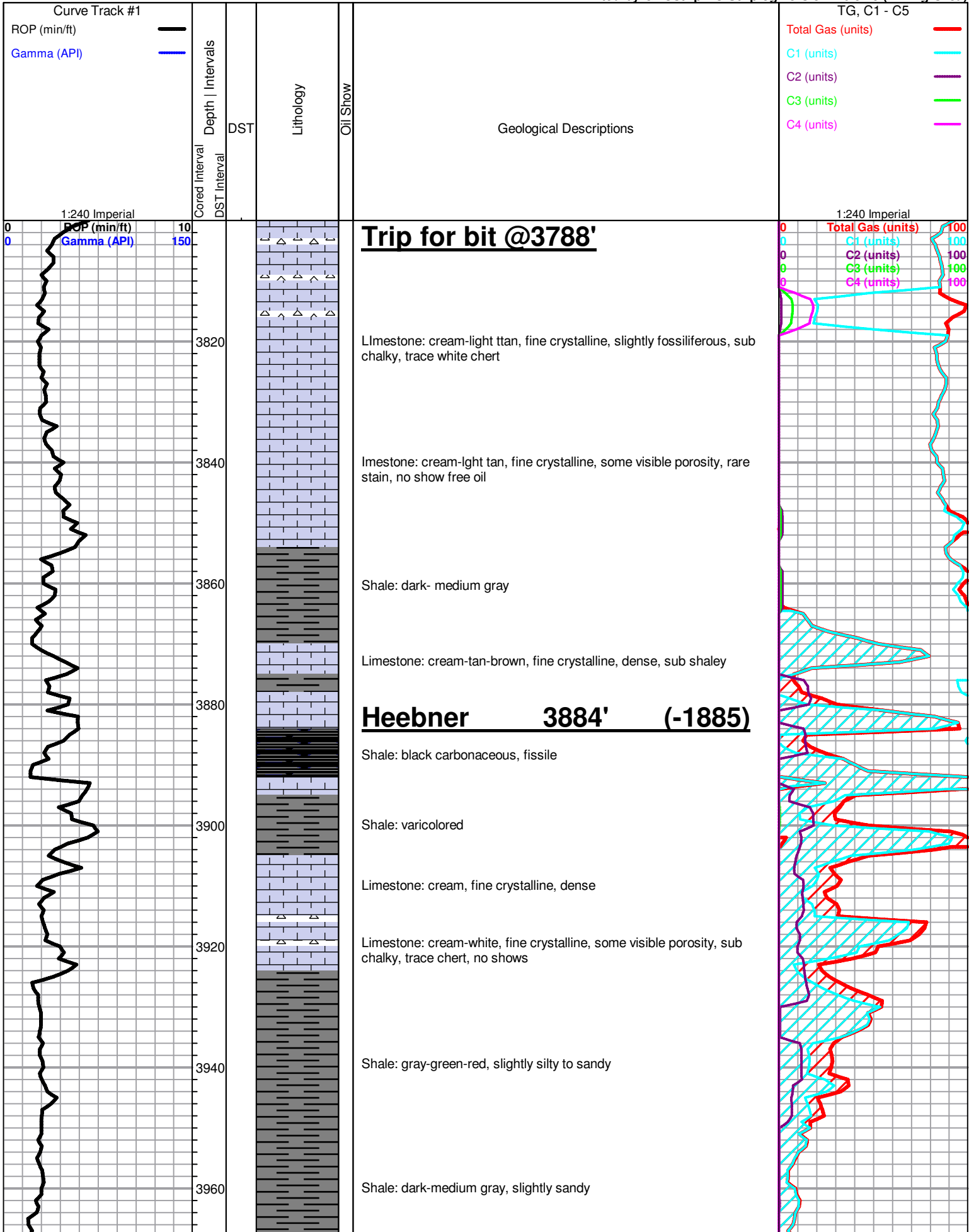
Oil Show

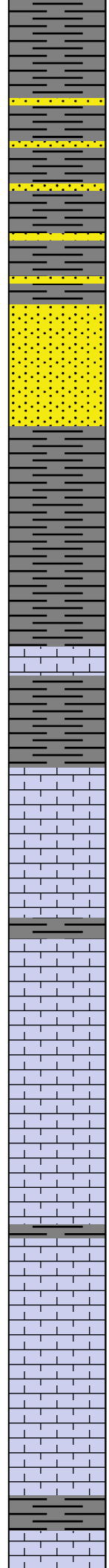
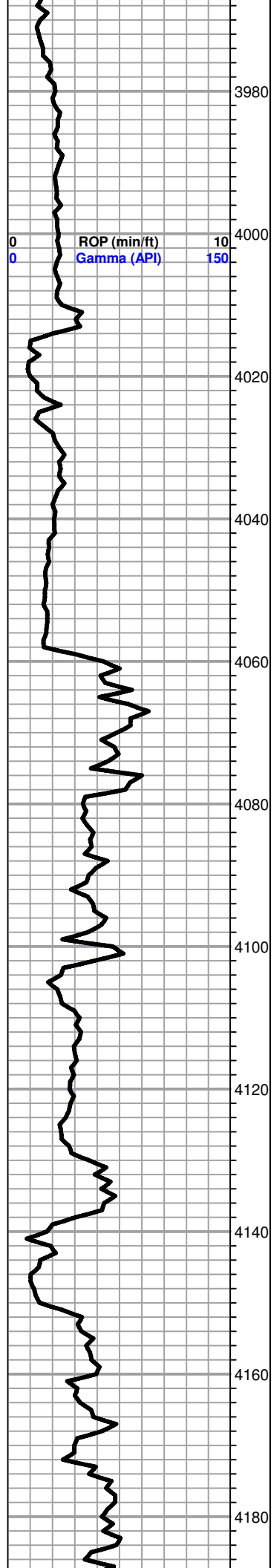
 Good Show
 Fair Show
 Poor Show
 Spotted or Trace

DST

 DST Int
 DST alt
 Core
 tail pipe

- Spotted or Trace
- Questionable Stn
- Dead Oil Stn
- Fluorescence
- * Gas





Shale: as above, some light-gray-cream sandstone

Shale and sandstone: as above

Sandstone: cream-fine grained

Shale: light gray, silty to sandy

Brown Lime 4058' (-2059)

Limestone: tan-brown, fine crystalline, dense

Shale: medium-dark gray, hard

Lansing 4075' (-2059)

Limestone: tan-cream-light brown, mostly fossiliferous, some pieces fine crystalline, poor visible porosity, dense, no shows

Shale: gray

Limestone: cream-light tan-white, fossiliferous, some visible porosity, questionable odor, no show free oil

Limestone: cream-white-brown, fine crystalline, poor visible porosity, dense

Limestone: as above, some chalky material

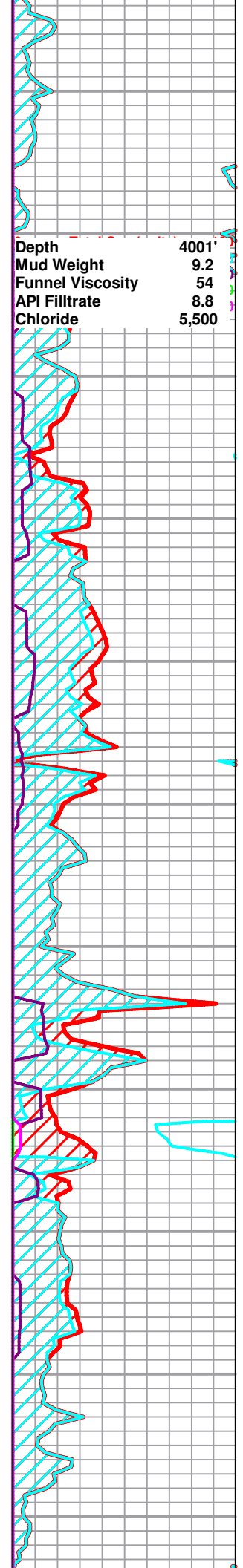
Shale: gray

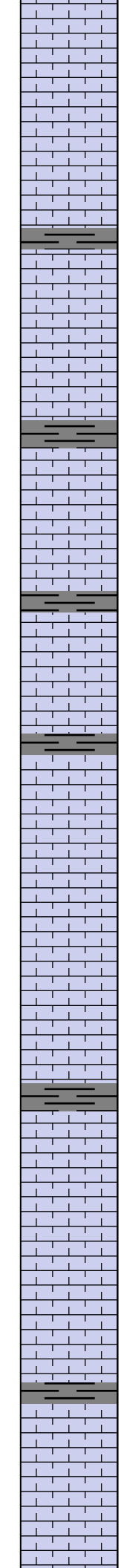
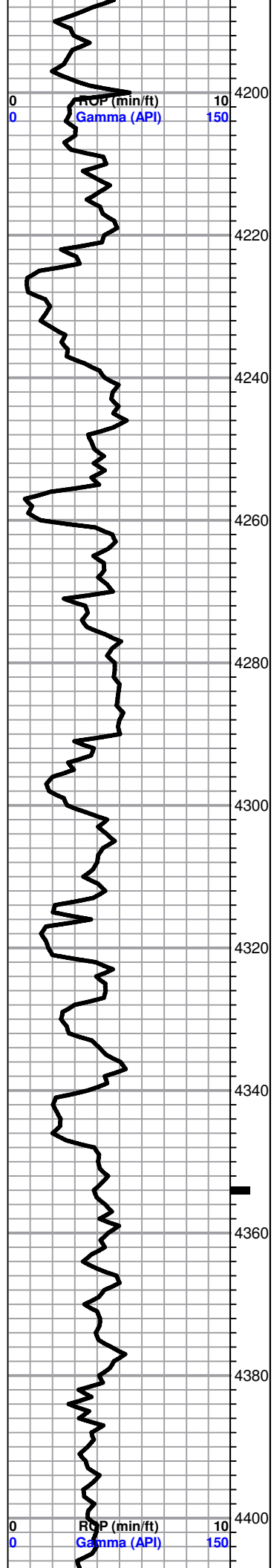
Limestone: light tan, fine crystalline, rare visible porosity, no shows

Limestone: medium-dark tan, fine crystalline, slightly fossiliferous, poor to no visible porosity

Shale: medium gray

Depth	4001'
Mud Weight	9.2
Funnel Viscosity	54
API Filtrate	8.8
Chloride	5,500





Limestone: cream-light tan, fine crystalline, very slightly fossiliferous, poor to no visible porosity, dense

Limestone: cream-medium tan, highly fossiliferous

Limestone: as above

Shale: gray

Limestone: cream-tan-white, fine crystalline, very chalky

Limestone: cream-white-tan, dense

Shale: dark-medium gray

Limestone: cream-light tan, fine crystalline, few pieces oolitic, poorly developed porosity, no shows

Shale: gray

Limestone: cream-white-light tan, fine crystalline to slightly fossiliferous, dense

Shale: gray

Limestone: cream-white, fine crystalline, chalky

Limestone: cream, fine crystalline, rare visible porosity, chalky

Stark 4339' (-2340)

Shale: gray-black

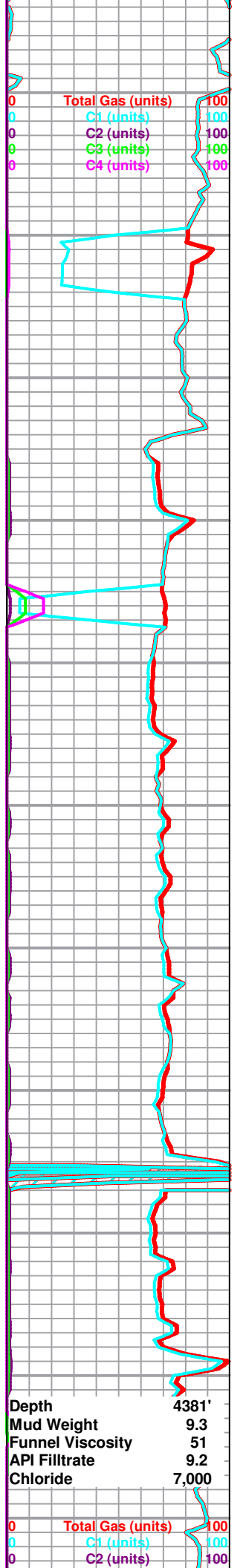
Circulated at 4354' Limestone: cream-white-light tan, fine crystalline, few pieces fossiliferous, sub chalky, slight odor in fresh, no show free oil

Limestone: cream-white, fine to slightly micro-crystalline, dense

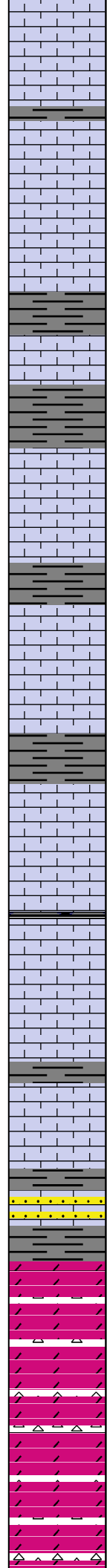
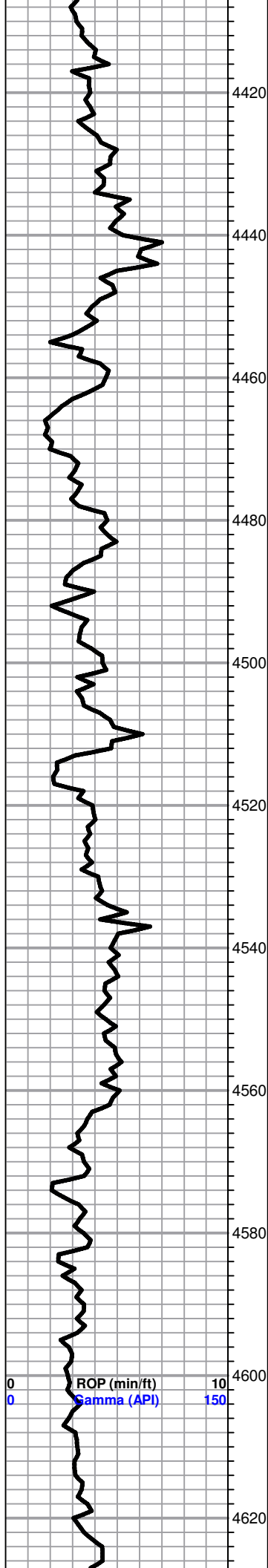
Limestone: cream-light brown-tan, fine crystalline, no visible porosity, dense

Shale: gray

Limestone: cream-light tan, fine to micro-crystalline, no visible porosity, dense



Depth	4381'
Mud Weight	9.3
Funnel Viscosity	51
API Filtrate	9.2
Chloride	7,000



Limestone: as above

Shale: gray

Limestone: cream-tan-brown-gray, fine crystalline to slightly fossiliferous, poor to no visible porosity, dense

Bit trip @ 4444'

Shale: gray-red-brown

B/KC 4461' (-2462)

Shale: dark-medium gray-green, soft

Limestone: cream-light tan-gray, fine crystalline to fossiliferous, poor visible porosity

Shale: gray

Limestone: cream-light tan-white, fine crystalline, sub chalky

Shale: dark-medium gray-green

Pawnee 4517' (-2518)

Limestone: cream-gray, fine crystalline to slightly medium crystalline, dense, some mineral fluorescence, no shows

Shale: black

Limestone: cream, fine crystalline, dense, no shows

Cherokee 4556' (-2557)

Shale: dark gray-black

Shale: gray-green-brown with cream limestone, few pieces fine grained sandstone, no shows

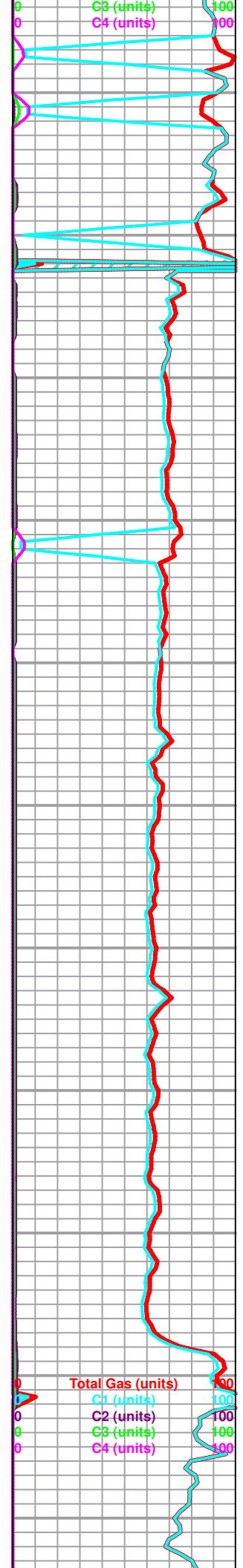
Viola 4584' (-2585)

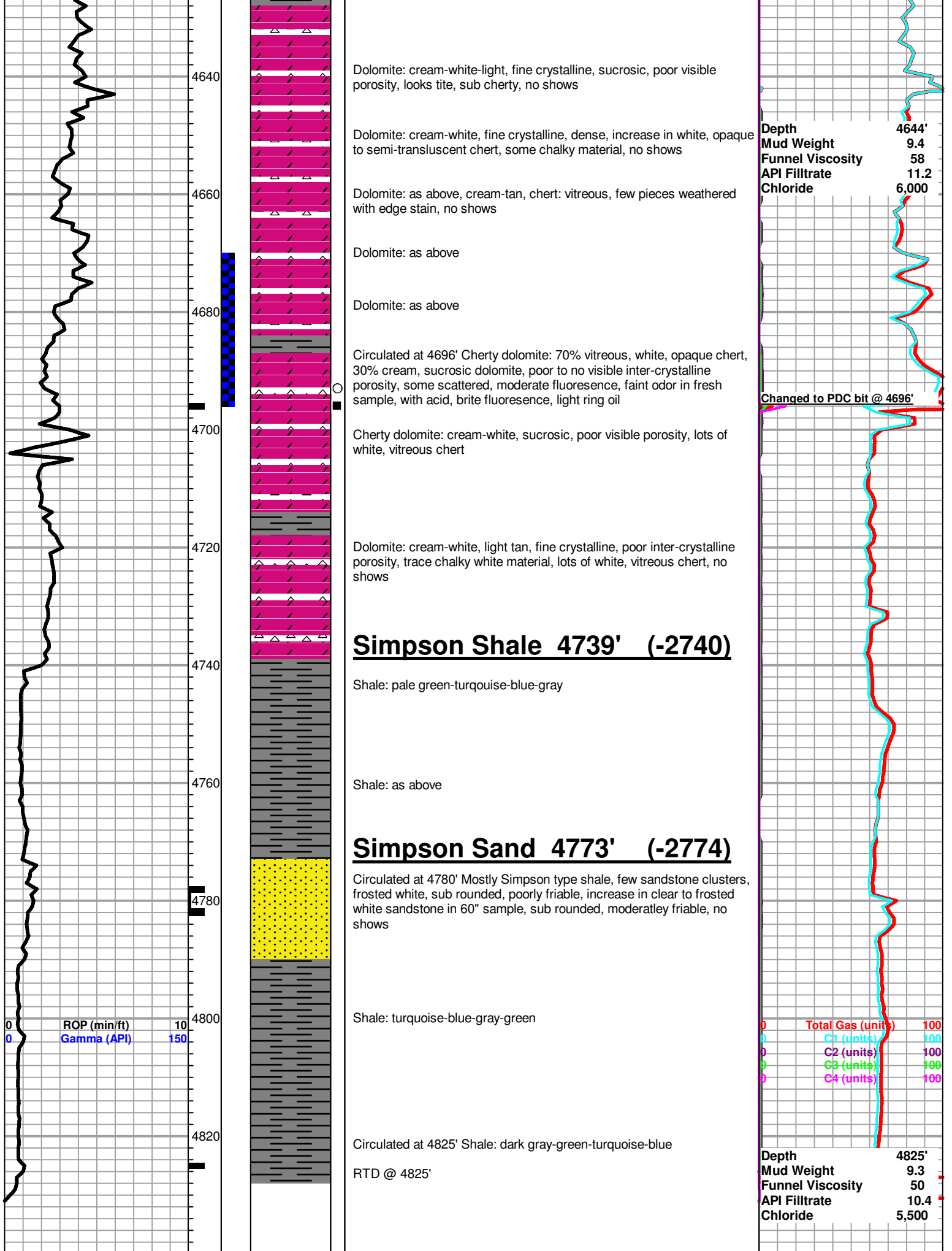
Shale: varicolored, some orange-tan, vitreous chert, few pieces tan-brown sucrosic dolomite

Cherty dolomite: tan, sucrosic, tite, cherts pink-orange-cream, mostly vitreous with some weathered piece with edge stain, cherts more white, semi-transluscent, some chalky material

Cherty dolomite: cream-white, vitreous, few weathered pieces with vugular porosity, some light-tan, sucrosic dolomite, tite

Cherty dolomite: as above, cream-white, fine crystalline, sucrosic, lots of vitreous chert, minor and weathered pieces with black gilsonite





4640
4660
4680
4700
4720
4740
4760
4780
4800
4820

Dolomite: cream-white-light, fine crystalline, sucrosic, poor visible porosity, looks tite, sub cherty, no shows

Dolomite: cream-white, fine crystalline, dense, increase in white, opaque to semi-transluscent chert, some chalky material, no shows

Dolomite: as above, cream-tan, chert: vitreous, few pieces weathered with edge stain, no shows

Dolomite: as above

Dolomite: as above

Circulated at 4696' Cherty dolomite: 70% vitreous, white, opaque chert, 30% cream, sucrosic dolomite, poor to no visible inter-crystalline porosity, some scattered, moderate fluorensce, faint odor in fresh sample, with acid, brite fluorensce, light ring oil

Cherty dolomite: cream-white, sucrosic, poor visible porosity, lots of white, vitreous chert

Dolomite: cream-white, light tan, fine crystalline, poor inter-crystalline porosity, trace chalky white material, lots of white, vitreous chert, no shows

Simpson Shale 4739' (-2740)

Shale: pale green-turquoise-blue-gray

Shale: as above

Simpson Sand 4773' (-2774)

Circulated at 4780' Mostly Simpson type shale, few sandstone clusters, frosted white, sub rounded, poorly friable, increase in clear to frosted white sandstone in 60" sample, sub rounded, moderatley friable, no shows

Shale: turquoise-blue-gray-green

Circulated at 4825' Shale: dark gray-green-turquoise-blue

RTD @ 4825'

Depth 4644'
Mud Weight 9.4
Funnel Viscosity 58
API Filtrate 11.2
Chloride 6,000

Changed to PDC bit @ 4696'

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

Depth 4825'
Mud Weight 9.3
Funnel Viscosity 50
API Filtrate 10.4
Chloride 5,500

ROP (min/ft) 10
Gamma (API) 150