



LARIO OIL & GAS COMPANY KNOBBE #3-4

840' FNL & 725' FWL of Section 4-T19S-R37W
WICHITA COUNTY, KANSAS
API#15-203-20329-00-00

Geologist's Report WellSight Systems

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

Well Name: Knobbe #3-4
API: 15-203-20329-00-00
Location: 840' FNL & 725' FWL of Section 4-T19S-R37W
License Number: API#15-203-20329-00-00
Spud Date: 03-05-2018
Surface Coordinates: 840' FNL & 725' FWL of Section 4-T19S-R37W
Region: Wichita County, KS
Drilling Completed: 03/19/2018

Bottom Hole Vertical Test P & A
Coordinates: Field: Obi-Wan
Ground Elevation (ft): GL 3327 K.B. Elevation (ft): KB 3336
Logged Interval (ft): RTD To: 3400 Total Depth (ft): RTD 4855
Formation: Morrow
Type of Drilling Fluid: Chemical (Displaced @ 3572')

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

Operator

Company: Lario Oil & Gas Company
Address: 301 S Market
Wichita, Kansas 67202
Division Geologist: John Hastings

Geologist

Name: Richard S.(Steve) Davis Jr.
Company: Consulting Petroleum Geologist
Address: 7329 E. Norfolk
Wichita, Kansas 67206
Cell 316-772-6479 Home 316-686-1193

FORMATION TOPS

Formation	Sample	E-Log	Datum	Formation	Sample	E-Log	Datum
KB 3336							
Anhydrite	2362	NA	+974	Lansing L	4310	NA	-974
B/Anhydrite	2381	NA	+955	BKC	4376	NA	-1040
Stotler	3509	NA	-173	Marmaton	4414	NA	-1078
Topeka	3718	NA	-382	Pawnee	4505	NA	-1169
Heebner	3900	NA	-564	Fort Scott	4528	NA	-1192
Lansing	3940	NA	-604	Cherokee Sh	4543	NA	-1207
Lansing D	4060	NA	-724	Lwr Cherokee	4584	NA	-1248
Muncie Creek	4149	NA	-813	Johnson	4653	NA	-1317
Lansing H	4163	NA	-827	Morrow	4758	NA	-1422
Lansing I	4191	NA	-855	Basal Penn Sd		NA	
Lansing J	4219	NA	-883	Mississippi		NA	
Stark	4244	NA	-908	Total Depth	4855	NA	-1519
Lansing K	4249	NA	-913				
Hushpuckney	4297	NA	-961				

DAILY PENETRATION: 7:00 AM

Date	Depth	Activity
03/05/18	0	MIRU & Spud
03/06	375'	Drlg
03/07	1850'	Drlg
03/08	2772'	Drlg
03/09	3400'	Drlg
03/10	3940'	Drlg
03/11	4335'	Drlg
03/12	4442'	TIH w/ bit
03/13	4523'	Drlg
03/14	4647'	Drlg
03/15	4790'	TIH w/DST 4
03/16	4855'	TOH, plugged bit
03/17	4855'	Lost circ.
03/18	4855'	Lost circ.
03/19	4855'	P&A

CONTRACTOR:

Duke Drilling Rig #4

Toolpusher: Hector Tores

MUD:

Mud Co (displacement complete @ 3572')

Reed Atkins

DRILL STEM TESTING: Trilobite Testing Inc.

Brandon Turley

ELECTRIC LOG: No open hole log

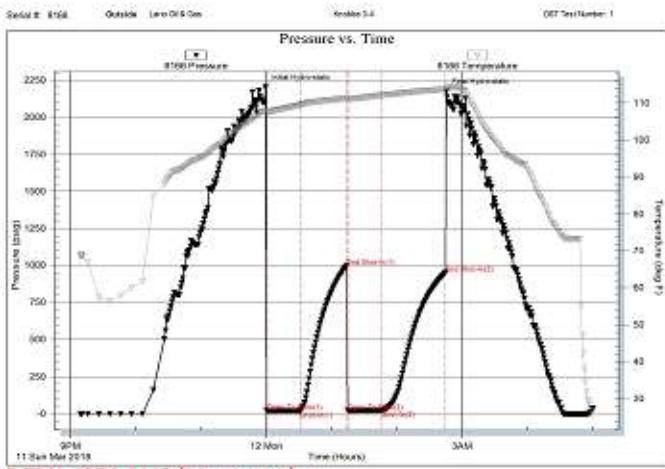
CASING RECORD:

Surface: 8 5/8" @ 347' w/ 240 sx

Production: None

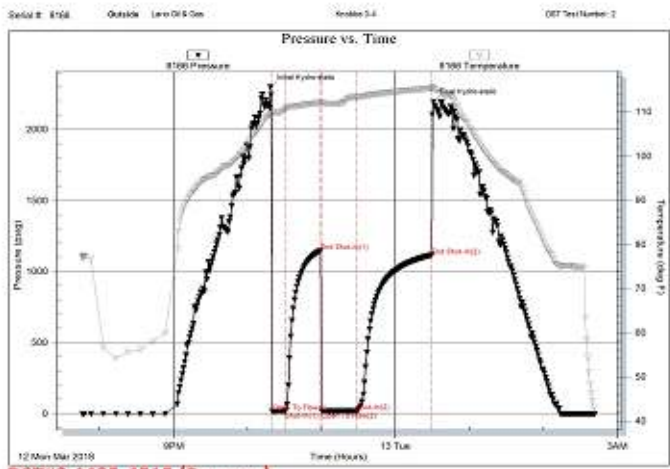
BIT RECORD:

Bit No./Size	Make/Type	Out	Ftg	Hrs
#1/ 12 1/4"	JZ RT	347'	347'	1 3/4
#2/ 7 7/8"	VarHE21MSV	4855'	4508'	121 1/2



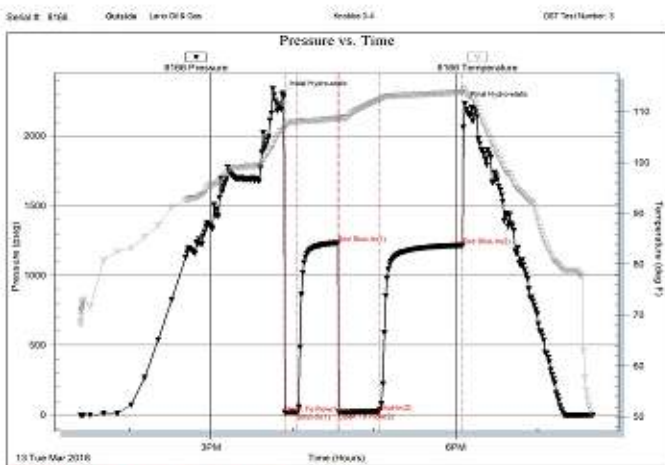
DST#1 4374-4442 (Marmaton)

Fluids Testing, Inc. Ref. No.: 64011 Probed 2018-03-12 @ 07:32:08



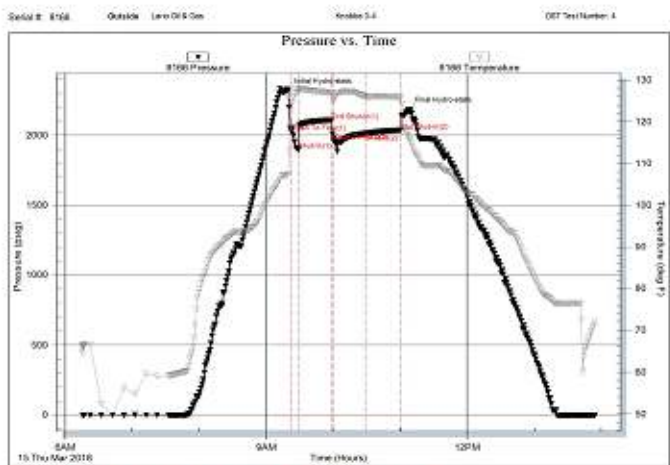
DST#2 4485-4515 (Pawnee)

Fluids Testing, Inc. Ref. No.: 64012 Probed 2018-03-13 @ 06:48:38



DST#3 4520-4546 (Fort Scott)

Fluids Testing, Inc. Ref. No.: 64013 Probed 2018-03-13 @ 21:37:48



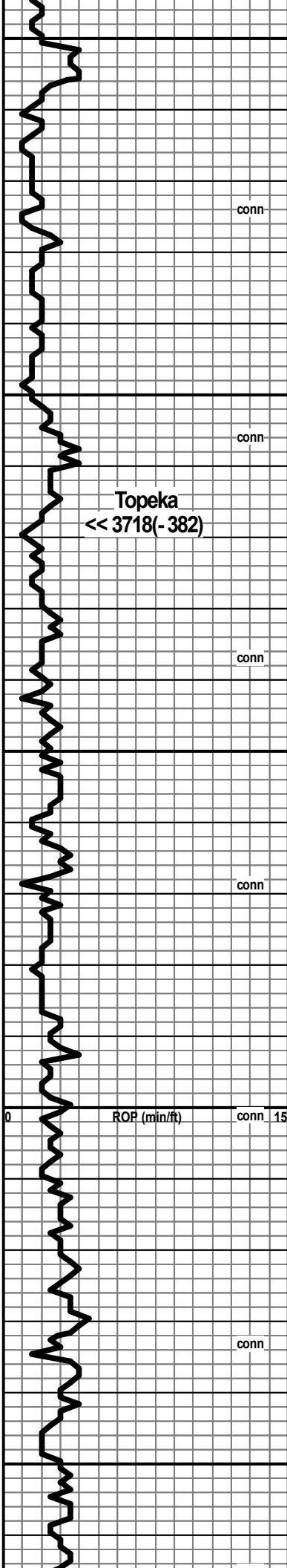
DST#4 4710 - 4790 (Johnson & Morrow Sand)

Fluids Testing, Inc. Ref. No.: 64216 Probed 2018-03-15 @ 14:21:28

Rock Types

- | | | | | | | | | | |
|--|-------------|--|--------------|--|-------------|--|--------------|--|--------------|
| | Anhy | | Clyst | | Gyp | | Mrlst | | Shgy |
| | Bent | | Coal | | Igne | | Salt | | Sltst |
| | Brec | | Congl | | Lmst | | Shale | | Ss |
| | Cht | | Dol | | Meta | | Shcol | | Till |

ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
	3400			Start 20' Wet & Dry Samples @ 3400'

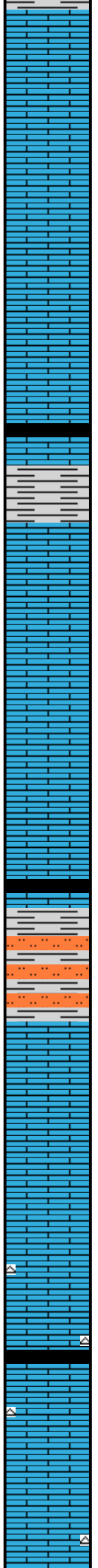


3650
3700
3750
3800
3850

Topeka
<< 3718(- 382)

ROP (min/ft)

conn
conn
conn
conn
conn
conn
conn
conn
conn
conn



LS, gy-tan, vf-fxln, chky IP, NV por + LS, gy-tan, fxdn, arg, foss, NV por, m hd

LS, lt gy-tan, f-vfxln, chky IP, sltly foss, NV por, sft

Shale, blk, sub carb

LS, gy-bm, vfxln, arg, foss, NV por, m hd

LS, gy-gn, f-vfxln, arg-chky IP, sltly foss, NV por

Shale, blk, carb-sub carb

Shale & Siltstone, gy-gn

LS, gy-cm, vfxln, arg, sltly foss, NV por, m hd

LS, tan-gy, f-vfxln, ool & foss, chky IP, r P ixln por, NS, most NV por

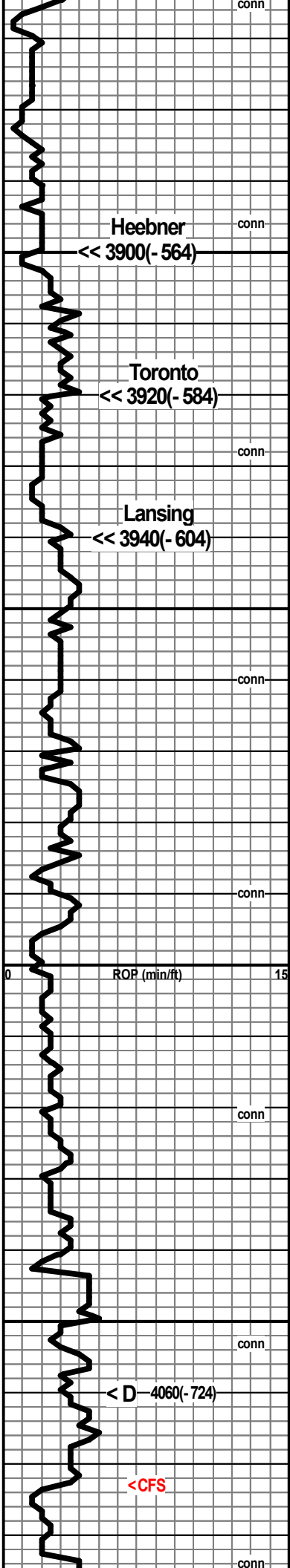
LS, wh-tan, vfxln, NV por, dns + Cht, tan-wh, opq

Shale, blk carb

LS, bm-gy, vf-micxln, foss-ool, NV por, hd + Cht, tan, opq

Vis 59 Wt 8.5

Vis 56 Wt 8.4 LCM 2#



Heebner
 << 3900(- 564)

Toronto
 << 3920(- 584)

Lansing
 << 3940(- 604)

ROP (min/ft)

< D- 4060(- 724)

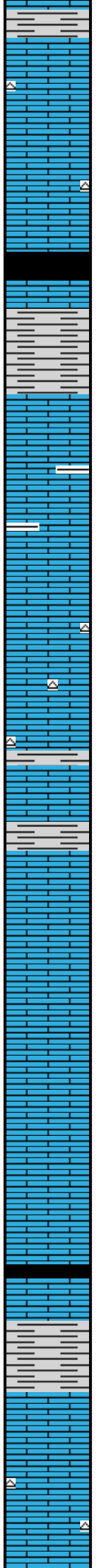
<CFS

3900

3950

4000

4050



LS, gy-bm, vfxln, foss & ool, NV por, hd + Cht, gy-tan, sltly foss, opq

LS, gy-tan, fxl, chky-arg IP, sltly foss, m hd + Cht, gy-tan, foss, opq

Shale, blk carb + pyr
 LS, bm, micxln, NV por, dns

Shale, dk gy, gn(sft)

LS, cm-wh, fxl, chky IP, ool-foss, P ixln & pp por, NS,

LS, tan-wh-lt gy, f-vfxln, chky IP, sltly foss, NV por + Shale, gn, mar & blk

LS, lt gy-tan, f-vfxln, chky IP, foss & ool, NV por, hd + LS, tan-bm, micxln, foss, NV por, dns

LS, wh-cm, f-vfxln, sub ool-foss, rP pp por, NS, hd + Cht, wh, opq

Shale, blk, gy, gn & mar

LS, tan-gy, vf-micxln, sltly foss, NV por, dns

Shale, blk, gy, gn & mar

LS, wh-lt gy, f-vfxln, chky IP, ool-foss, NV por, hd

LS, gy-bm, f-mxln, chky IP, foss-ool, rP pp por, NS, m sft

LS, cm-gy-wh, f-mxln, foss-ool, F ipart por, NS, m hd

LS, cm-lt gy, vf-fxl, chky IP, sltly foss, P pp por & F-P foss mold por, NS, m hd

LS, tan-lt gy, micxln, sltly foss, dns

Shale, blk, carb-sub carb
 LS, bm-lt gy, vf-micxln, sltly foss, NV por, dns

Shale, blk-dk gy, gn & mar

LS, cm-tan, f-mxln, P ixln por & P vgy por, NS + LS, gy-bm, micxln, sltly foss, chty IP, NV por, dns

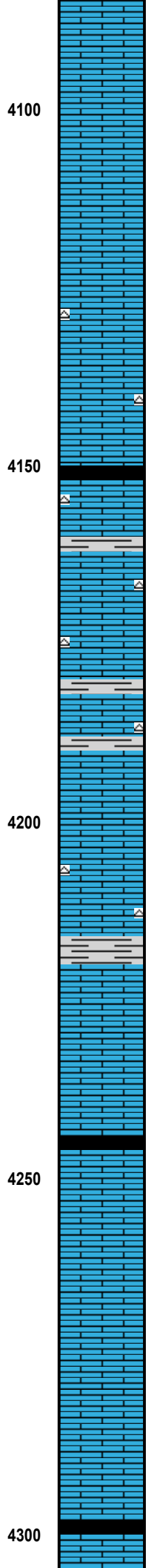
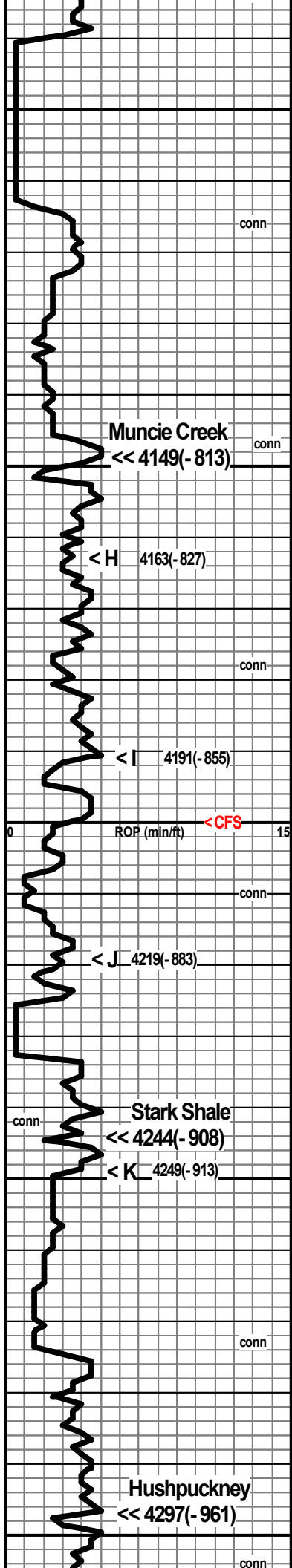
LS, tan-bm-lt gy, foss-ool packed, NV por, hd + Cht, wh, opq

LS, cm-gy, vf-micxln, sltly foss, chty IP, NV por, dns

Start 10' Wet & Dry Samples @ 3900'

Vis 58 Wt 8.7 Fl 6.2 PH 11.5
 Chl 3,000 LCM 2#
 03/10/2018 @ 3975'

Vis 55 Wt 8.9 LCM 2#



LS, cm-tan, fxln, ool, G oom & ooc por, NS

LS, cm-tan-lt gy, fxln, ool, G oom & ooc por, NS

LS, wh-cm-bm, f-vfxln, chky IP-dns, sub ool, NV por

LS, lt gy-wh, vf-micxln, chty IP, sharp, sub ool, r P vgy por, NS, hd + Cht, wh, opq

Shale, blk, carb

LS, lt gy-off wh, micxln, chty IP, NV por, dns + Cht, gy, opq & Shale, gy-gn, sft

LS, gy-bm, vfxln, sub ool-foss, NV por, dns + LS, wh-cm, vfxln, chky-chty IP, NV por, hd & Cht, gy, opq

Shale, blk, sub carb + LS, lt gy-off wh, vf-micxln, stily foss, chty IP, sharp, NV por, dns + Cht, wh-lt gy, stily foss, opq

LS, wh-cm, f-mxln, ool & foss, F-P mold por & F-P ixln por, NS + Cht, lt gy-wh, stily foss, opq & Abnt Shale, blk, gy, gn & mar

LS, wh-gy, fxln, chky, ool, NV por, sft + LS, cm-gy, fxln, ool, F-G oom por & Cht, gy-wh, opq

Shale, dk gy, blk & gn

LS, cm-lt gy, fxln, ool, F-G oom por, NS

LS, bm-gy, vf-micxln, sub ool, NV por, dns

Shale, blk, carb

LS, lt gy-cm, fxln, ool, F-P oom por, NS, sft

LS, cm-wh, vfxln, F-P oom por, NS, sft

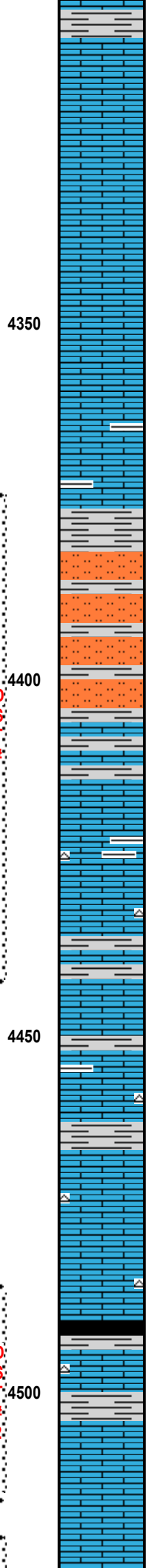
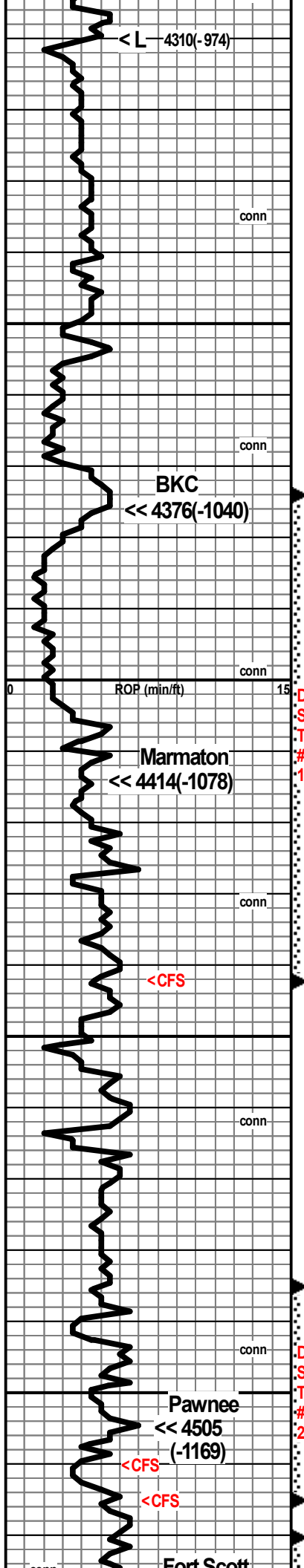
LS, gy-tan, vf-micxln, stily foss, NV por, hd

LS, lt gy-bm, vf-micxln, dns, NV por

Shale, blk, carb

LS, bm-gy, vf-micxln, chty IP, sharp, NV por, dns + Cht, wh-lt gy, stily foss, opq

Vis 55 Wt 9.0 LCM 2#



LS, bm-gy, vf-micxn, chky IP, sharp, NV por, dns + Shale, gy, gn & mar

LS, tan-lt gy, vfxln, sltly foss, NV por, dns

LS, lt gy-wh, vfxln, sltly foss, NV por, dns

LS, wh-tan, vfxln, chky IP, m hd + Cht, gy, sltly foss, opq

LS, bm-gy, vfxln, sltly foss, NV por, dns + few pc's Cht, gy-wh, opq

LS, dk bm-gy, vf-micxn, foss, NV por, dns w/ inc Shale, blk & mar

Shale, blk, gn, mar & red

Shale, vcol + Sltst, lt gy-gn

Shale, gy, gn, blk & mar + Sltst, gy-gn

LS, dk bm-gy, vf-micxn, ool & foss, arg, NV por, dns + Shale, vcol

LS, tan-lt gy, vf-micxn, chky IP, sub ool, r P vgy-pp por, NS, most NV por, hd

LS, bm-gy, fxl, chky IP, ool & foss, F-P ipart-iool por + P vgy por, FSFO, few gas bubb, spt'd stn & fluor, N odor, inc Cht, tan-gy-amber, tmsl & Shale, blk, gn, gy & mar

Abnt Shale, blk, gn, gy & mar + LS, bm-gy, vf-micxn, NV por, dns

LS, bm-gy, fxl, ool-foss, arg, NV por, sft + LS, gy-bm, vfxln, ool, r P vgy & iool por, spt'd stn, NSFO, N odor (?new), abnt Shale, blk, gy & mar

LS, gy-bm, vf-micxn, ool packed, chky IP, NV por, hd+ LS, dk gy-bm, vf-micxn, NV por, dns & Shale, blk, gy & mar

LS, gy-bm, vfxln, ool, NV por, dns + LS, bm-gy, vf-micxn, sub ool-foss, chky IP-dns w/ inc Cht, gy-tan, ool, opq-tmsl

Shale, blk, sub carb

LS, dk bm-gy, vf-micxn, ool-sub ool, chky IP, dns + Cht, gy-blk, ool, tmsl-opq w/ inc. Shale, blk, mar, gy & gn

LS, off wh-lt gy-tan, fxl, sltly foss, chky IP, F-P ixln & pp por, SSFO, few gas bubb, spt'd stn & fluor, fnt odor

LS, gy-tan, fxl, ool-foss, arg, chky IP, NV por, hd

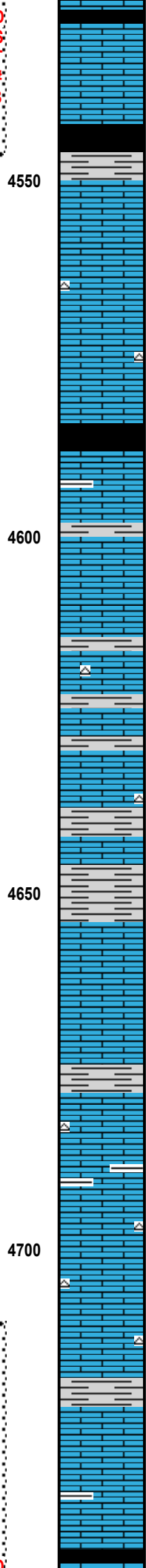
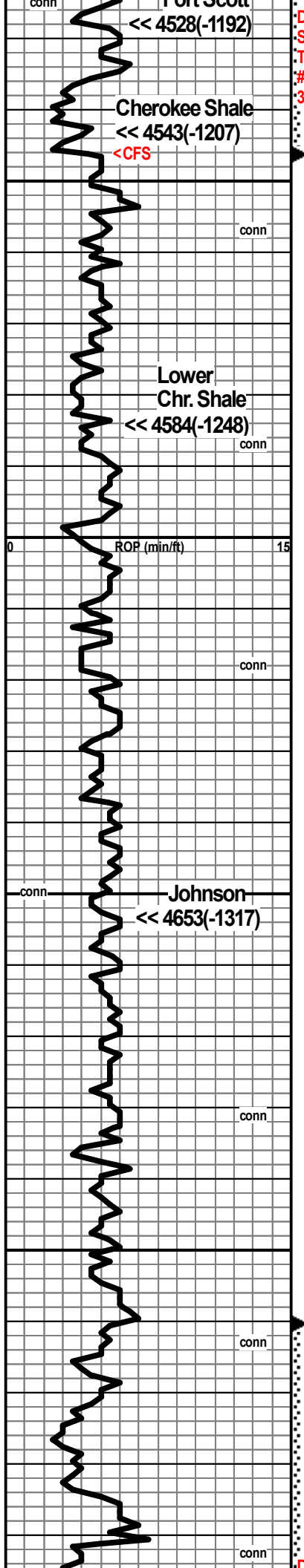
Vis 64 Wt 9.1 Fil 6.4 PH 11.0
Chl 3,000 LCM 2#
03/11/2018 @4375'

Pipe strap @4442', 04' long
Survey "bullseye"

DST #1 4374' - 4442'
(Marmaton A)
30 45 30 60
BLOW:
IF 1/4" Built to 1"
FF No blow
RECOVERY:
10' M (100% m)
IH 2200
IF 17 - 18
ISI 995
FF 19 - 21
FSI 949
FH 2173 BHT 113 deg F

Vis 63 Wt 9.0 Fil 7.2 PH 11.0
Chl 4,000 LCM 2#
03/12/2018 @4443'

DST # 2 4485' - 4515'
(Pawnee)
10 30 30 60
BLOW:
IF Surface blow died 8 min
FF No blow
RECOVERY:
10' M (100% m)
IH 2294
IF 15 - 17
ISI 1145
FF 16 - 18
FSI 1113
FH 2192 BHT 115 deg F



Shale, blk, carb

LS, dk bm, micxn, ool, NV por, dns

LS, cm-gy, f-vfxn, chky, ool, P iool por, SSFO, r pp spt'd stn, N fluor, N odor

Shale, blk, carb

Shale, blk, gy, gn & mar + LS, gy-tan, vfxn, arg, NV por, dns

LS, gy-bm, f-vfxn, arg, NV por dns

LS, bm-gy, vfxn, ool-sub ool, NV por, hd + few pc's Cht, tan, tmsl, some ool

LS, bm-gy, vf-fxn, ool-sub ool, chky IP, NV por, hd

Shale, blk, carb

LS, gy-bm, vf-micxn, sub ool, arg, chky IP, NV por, dns

Abnt Shale, blk, gy, gn & mar + LS, bm-gy, vfxn, sub ool, r P oom por, NS

LS, bm-lt gy, micxn, NV por, dns + Shale, blk, sub carb, dk gy, gn & mar, inc. Cht, gy-bm, ool, tmsl

LS, cm-gy, fxn, chky, ool-foss, NV por, m hd + LS, bm-dk gy, micxn, NV por, dns & Abnt vol shale

LS, gy-tan, vfxn, chky IP, NV por, hd + LS, dk bm-blk, micxn, chty IP, sharp, sub ool-foss, NV por, dns

LS, gy-bm, vf-fxn, gran, P pp por, spt'd asph stn, NSFO, N fluor, N odor + Shale, blk, gy & gn

LS, bm-gy, vf-fxn, stly foss, NV por, dns

LS, tan-gy, vf-micxn, sub ool-foss, chty, NV por, hd

LS, bm-gy-blk, micxn, NV por, chty, stly foss, sharp, NV por, hd + Shale, blk, gy & mar

LS, bm-gy, vf-micxn, chy, sharp, NV por, dns + Cht, tan-bm, tmsl

LS, bm-gy, vf-fxn, stly foss, NV por, hd + LS, gy-bm, micxn, NV por, dns w/ inc. Cht, blk-dk bm-gy, opq-tmsl

LS, lt gy-tan, f-vfxn, chky IP, stly foss, NV por, hd + LS, dk gy-blk-bm, micxn, chty, sharp, NV por, dns & Cht, blk-bm, tmsl

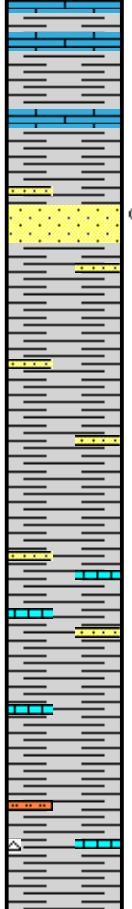
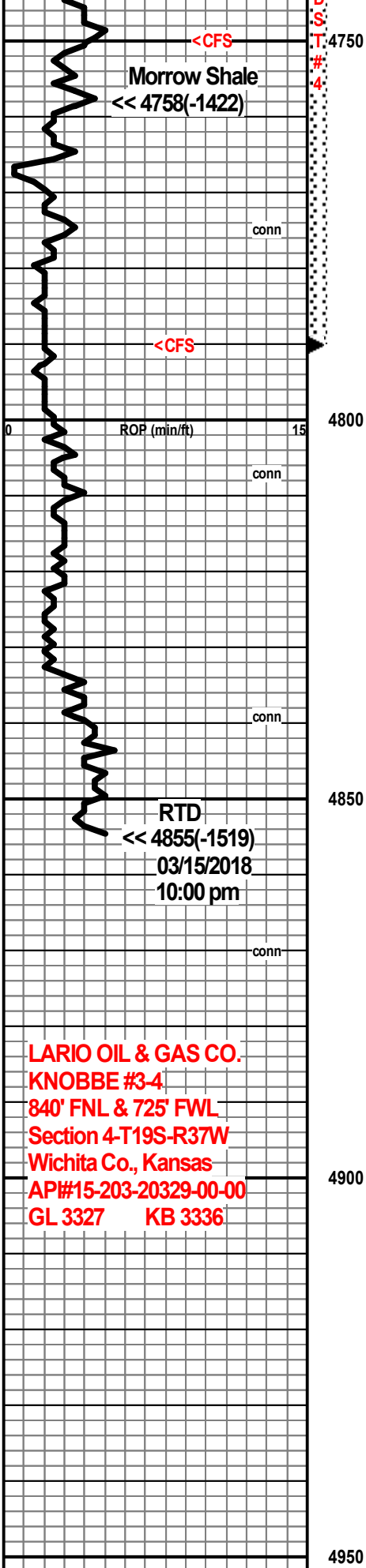
LS, dk gy-tan, fxn, gran, chky IP, sub ool-foss, P ixl & pp por, m hd, F-GSFO on brk, some bleeding, spt'd stn, frt odor

LS, bm-gy, vf-micxn, arg, stly foss, NV por, dns w/ inc Shale, mar, gn, blk, sub carb & bm

DST # 3 4520' - 4546'
 (Fort Scott)
 10 30 30 60
 BLOW:
 IF Surface blow
 FF Surface blow
 RECOVERY:
 20' M (100% m)
 IH 2303
 IF 15 - 17
 ISI 1234
 FF 18 - 23
 FSI 1217
 FH 2228 BHT 113 deg F

Vis 68 Wt 8.9 Fil 8.8 PH 10.0
 Chl 6,000 LCM 1#
 03/13/2018 @ 4546'

Vis 55 Wt 9.1 Fil 8.8 PH 11.0
 Chl 5,500 LCM 2#
 03/14/2018 @ 4676'



LS, dk gy-bm, vfxin, arg, NV por, dns + Shale, gy, gn, blk, sub carb & pyr

Most Shale AA w/ few clus SS, gy-clr qtz, f-mgm, mod sort, sub rd-su ang, comp, F-P ig por, SSFO, spt'd-unf strn, N fluor, N odor (Increase in SS clus, cfs 45" spl)

Shale, gn, blk & gy + SS w/ show AA

Shale, lt gy-gn, blk & mar + SS, wh-gn, glauc, vfgm, well sort, rd, F ig por, NS w/ inc LS, gy-tan, arg, NV por, dns (few clus SS w/ show AA)

Shale, gy, blk, gn & mar + LS, gy-blk, vf-fxn, arg, NV por, dns w/ few clus SS, tan-clr qtz, vfgm, rd, well sort, fri, F ig por, NS

Most Shale, blk, gy, gn & mar + LS, gy, vfxin, arg, NV por, dns

Shale, blk, gy, gn, mar, turq & red w/ Sitst gy + LS, dk gy-tan, arg, NV por, dns, inc Cht, gy-tan, tmsl

LOST CIRCULATION @ 4750' WHILE CFS

Vis 56 Wt 8.8 Fil 6.4 PH 11.0
Chl 4,000 LCM 5#
03/15/18 @ 4790'

DST #4 4710' - 4790'

(Johnson & Morrow Sd)
10 30 30 30
IF BOB when tool opened
ISI No return
FF BOB, died 25 min
FSI No return
RECOVERY:
4221' M (100% m)
IH 2315
IF 2025 - 1896
ISI 2108
FF 1958 - 2011
FSI 2035
FH 2181 BHT 116 deg F

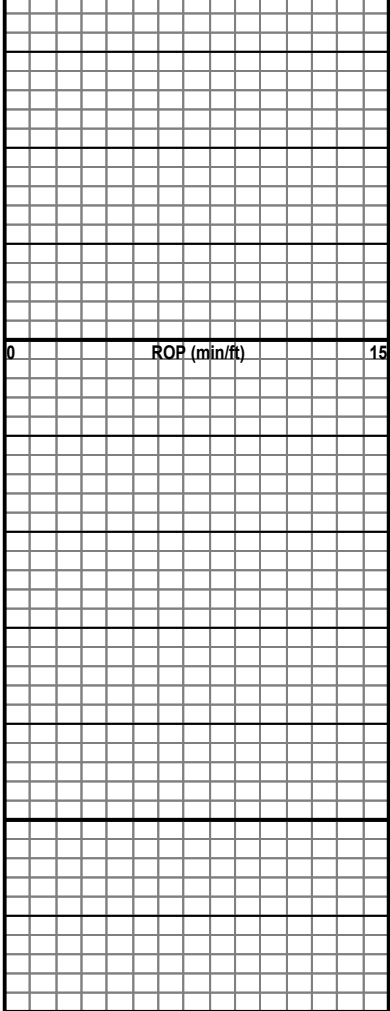
Vis 55 Wt 8.7 LCM 8#

LOST CIRCULATION @ 4855' WHILE DRILLING

Vis 55 Wt 8.7 Fil 6.4 PH 10.5
Chl 2,000 LCM 31#
03/17/2018 @ 4855'

Note: Extreme lost circulation was experienced on the Knobbe #3-4. Multiple attempts to re-establish circulation failed. When an attempt to run a temperature survey proved hole conditions getting worse, orders were issued by the operator to plug and abandon this well.

**LARIO OIL & GAS CO.
KNOBBE #3-4
840' FNL & 725' FWL
Section 4-T19S-R37W
Wichita Co., Kansas
API#15-203-20329-00-00
GL 3327 KB 3336**



0

ROP (min/ft)

15

5000

5050