

MAXWELL LAFON WELLSITE GEOLOGY**WELL INFO**

Well Name: Sabatka #1
 Location: S/2 SE SE NW sec. 2, T. 1S, R. 35W
 Footage: 2310' FWL, 2370' FNL
 County/State: Rawlins Co., Kansas
 Field: Wildcat
 Coordinates: N 39.866430 , W 100.862512
 API #: 15-153-21238

Ground Elev: 3057' KB Elev: 3063'
 Logged Interval: 3230' - TD Total Depth: 4330'

OPERATOR INFO

Company: Meridian Energy Inc.
 Address: 1475 Ward Cir.
 Franktown, CO 80116

CONTRACTOR

Contractor: Flex Drilling
 Rig #: 1
 Rig Type: Rotary Double
 Spud Date: 7/25/2019 Time: 4:30 PM
 TD Date: 7/31/2019 Time: 9:48 PM
 Rig Release: Time:

WELLSITE GEOLOGIST

Geologist: Maxwell LaFon
 Address: PO Box 9867
 Denver, CO 80209
 Phone: 303-594-0515
 Email: mjlafon@gmail.com

DRILL STEM TESTS

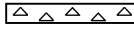







No.	Interval	Formation	Recovery
1	3850 - 3899	Oread	382' MCW w/ tr O

FORMATIONS

Formation	Depth - Samples	Depth - Logs	Subsea
Stone Corral	2962' (+101)	2962'	+101
Neva	3463' (-400)	3464'	-401
Red Eagle	3530' (-467)	3528'	-465
Foraker	3576' (-513)	3576'	-513
Stotler	3718' (-655)	3718'	-655
Topeka	3790' (-727)	3788'	-725
Oread	3860' (-797)	3860'	-797
Toronto	3961' (-898)	3958'	-895
Lansing A/KC	4002' (-939)	4000'	-937
Lansing B	4060' (-997)	4058'	-995
Lansing C	4109' (-1046)	4108'	-1045
Lansing D	4158' (-1095)	4150'	-1090

Lansing D	4158' (-1095)	4159'	-1096
Lansing E	4214' (-1151)	4201'	-1138
Lansing F	4251' (-1188)	4244'	-1181
Base Lansing/KC	4289' (-1226)	4290'	-1227
TD	4330'	4329'	

ROCK TYPES










 Cht	 Lmst fw>7	 Shgy	 Slst
 Lmst fw<7	 Ss	 Shcol	 Anhy vert

OTHER SYMBOLS

OIL SHOWS

- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn
- D Dead Oil Stn
- Fluorescence

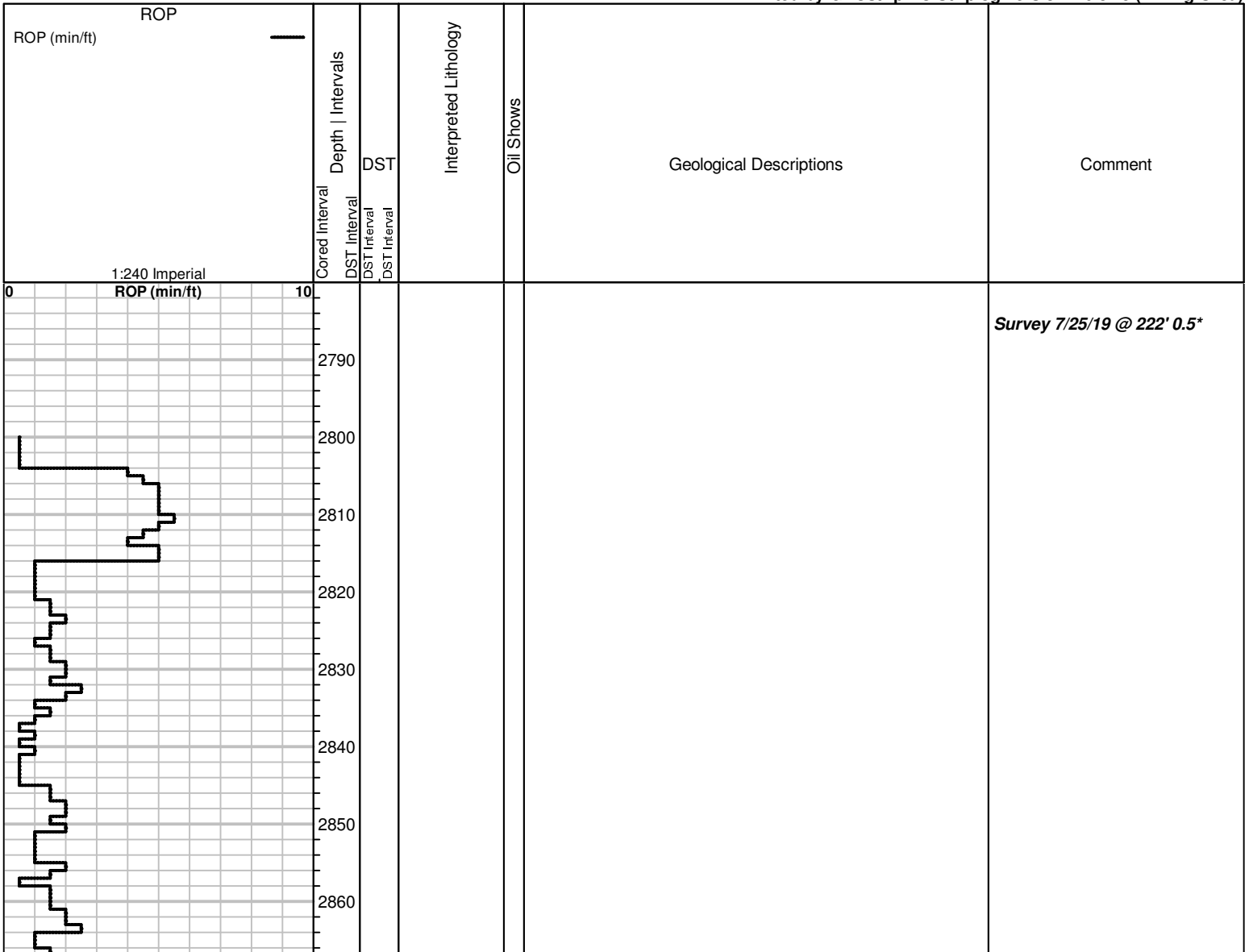
MISC

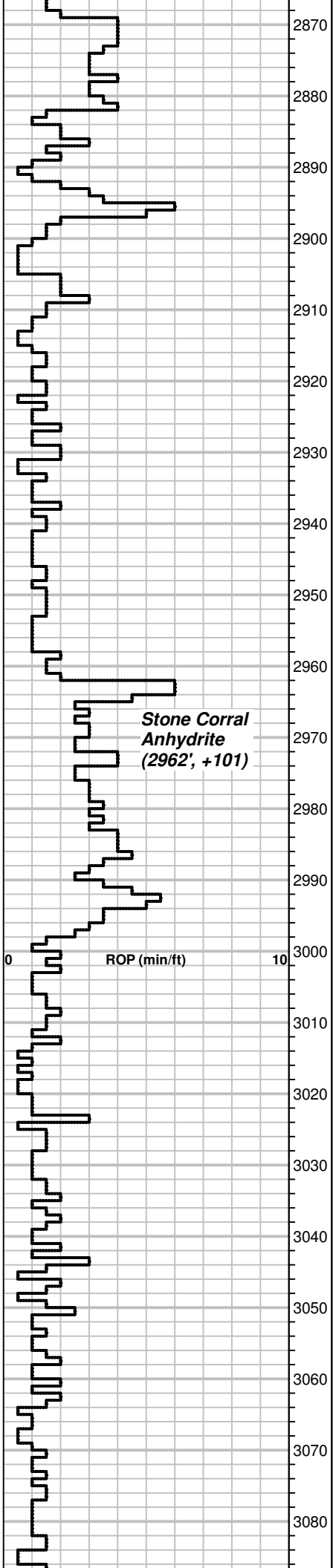
-  Daily Report
-  Digital Photo
-  Document
-  Folder
-  Link
-  Vertical Log File
-  Horizontal Log File
-  Core Log File
-  Drill Cuttings Rpt

DST

-  DST Interval
-  DST Interval

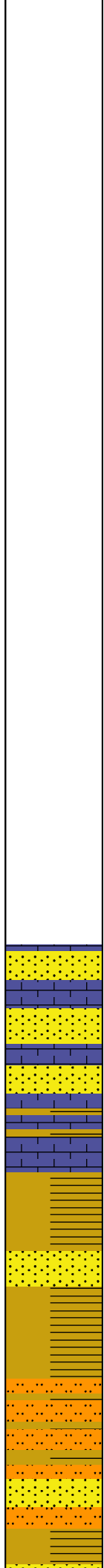
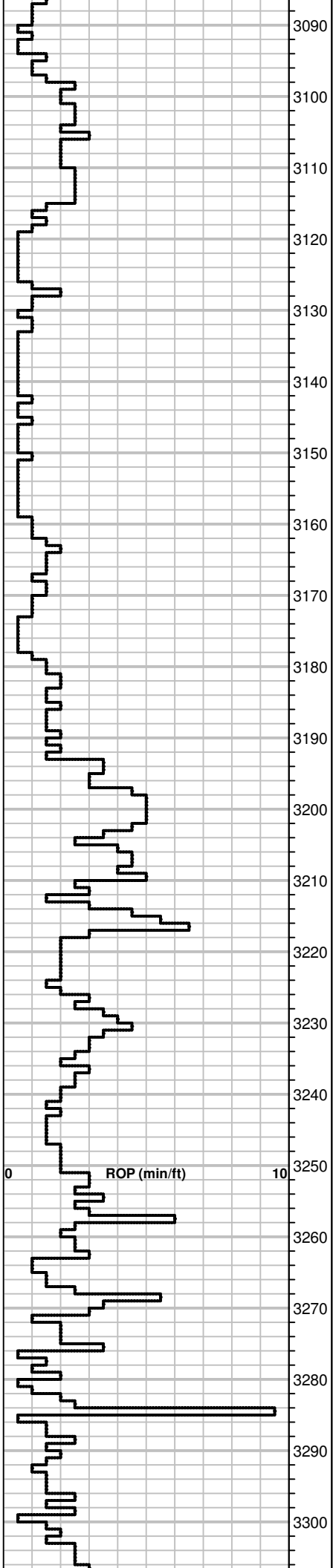
Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





*Stone Corral
Anhydrite
(2962', +101)*





3219-50 SS gry fine grnd, friable, fair por, NS. LS gry xtln, very hard, no por, NS. Tr Sh red

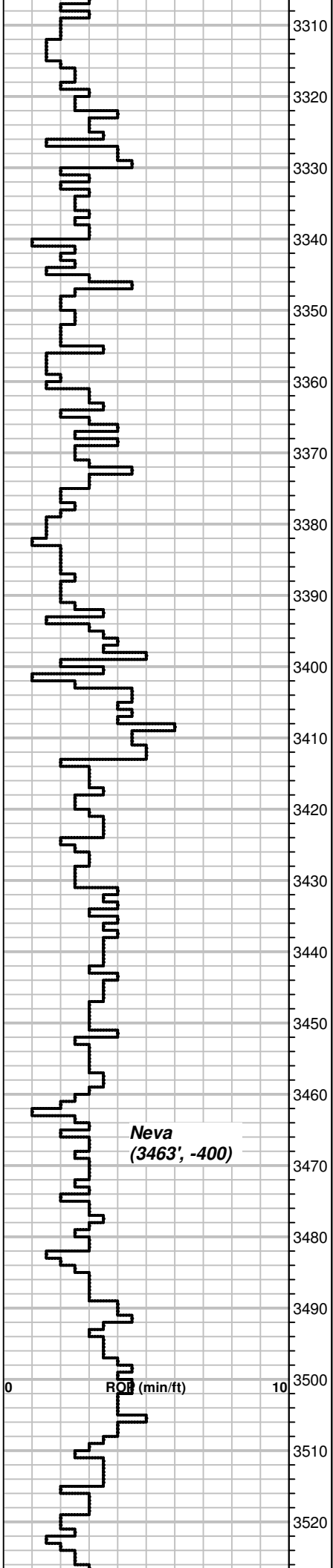
3250-75 Sh red, Tr SS as above

3275-3306 Sh arg red, Sh gry, SS brwn, fine grnd, slightly friable, fair por, NS

Bit Trip, PDC for cone
Survey 7/27/19 @ 3193' 0.5*
Pipe Strap - 0.95' short

KS Drilling Technologies
Mud check 7/28/19
 Depth: 3210' Btms Up: 32 min
 Wt: 8.3 Vis: 53 Filt: 7.8
 Cake: 1/32" LCM: 2# YP: 20
 Chlor: 1000 ppm Grad: 0.432 psi/ft

Wt: 8.2
 Vis 76



Neva
(3463', -400)

ROP (min/ft)

3306-38 SS as above, Sh arg red

3338-68 As above

3368-3404 As above, Tr Sh dk gry

3404-11 Sh red

3411-19 Sh red, arg red, Tr LS white chlky, very friable, NS

3419-32 Sh red cly

3432-41 Sh arg red and cly

3441-50 As above

3450-58 As above

3458-69 Good slug LS lt. gry - cream coarse xtl, very hard, no por, NS.

3469-79 70% As above, 30% Sh red, brwn cly

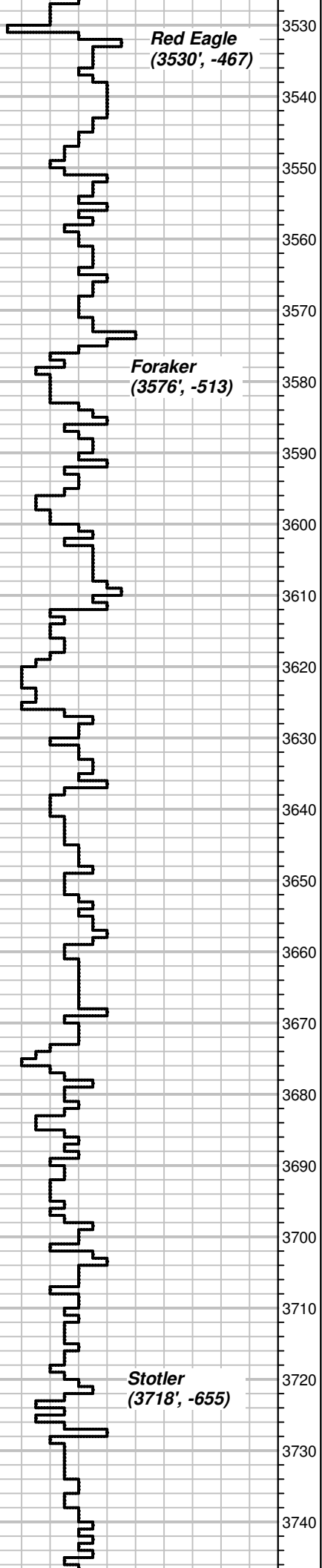
3479-92 LS cream med xtl, very hard, no por, NS

3492-3502 Sh red, Tr LS lt. gry xtl, very hard, no por, NS

3502-09 Sh red cly, cly lt. gry

3509-16 Mostly Sh red, Cly red, Tr LS lt. gry xtl, very hard, no por, NS

3516-32 Cly red and lt. gry, Sh red



Red Eagle
(3530', -467)

Foraker
(3576', -513)

Stotler
(3718', -655)

3532-40 Good slug LS gry xtlN - med xtlN, very hard, no por, NS. LS cream fine grnstrn, hard, no por, NS

3540-51 LS xtlN from above, Tr chert opaque gry and orange

3551-61 Sh red cly, Sh gry, Tr LS gry fine xtlN, very hard, no por, NS

3561-69 Sh red arg and cly

3569-79 Sh red cly, Tr LS white xtlN, slightly friable, very poor por, **dead tarry bitumen** in pores, NSFO, LS gry microxtlN, very hard,

3579-88 Good slug LS white xtlN as above w/ bitumen, LS lt. gry - white med grnstrn, very hard, no por, NS

3588-3601 LS grnstrn as above, LS gry/brwn xtlN, very hard, no por, NS

3601-08 LS gry xtlN, hard, no por, NS. LS lt. gry grnstrn mostly very hard, no por, NS. Some slightly friable w/ **dead bitumen stain**, NSFO

3608-14 LS gry fine xtlN, very hard, no por, NS. LS dk gry xtlN, very hard, no por, NS

3614-29 LS dk gry xtlN from above, LS lt. gry xtlN very hard, no por, NS

3629-38 LS dk gry very fine xtlN, very hard, no por, NS. LS lt. gry xtlN, hard, no por, NS

3638-50 Some Sh red cly, LS brwn microxtlN, very hard, no por, NS. LS white med grnstrn, hard, poor por, **dead bitumen**, NSFO

3650-59 LS lt. gry med xtlN, hard, no por, NS. LS gry med grnstrn, hard, poor por, **bitumen in pores**, NSFO

3659-67 LS white med - coarse xtlN, hard, very poor por, **bitumen in pores**, NSFO

3667-77 50/50 LS as above, some w/ **bitumen stain** and Sh red

3677-87 Sh red, cly

3687-99 Some Sh red, LS lt. gry, grnstrn, hard, no por, NS

3699-3708 LS grnstrn from above, LS gry xtlN, very hard, no por, NS

3708-17 Some Sh red, LS gry xtlN from above

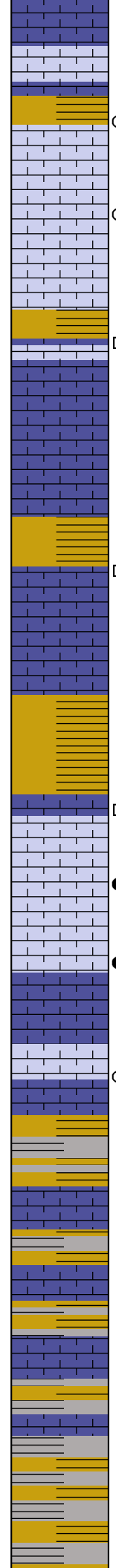
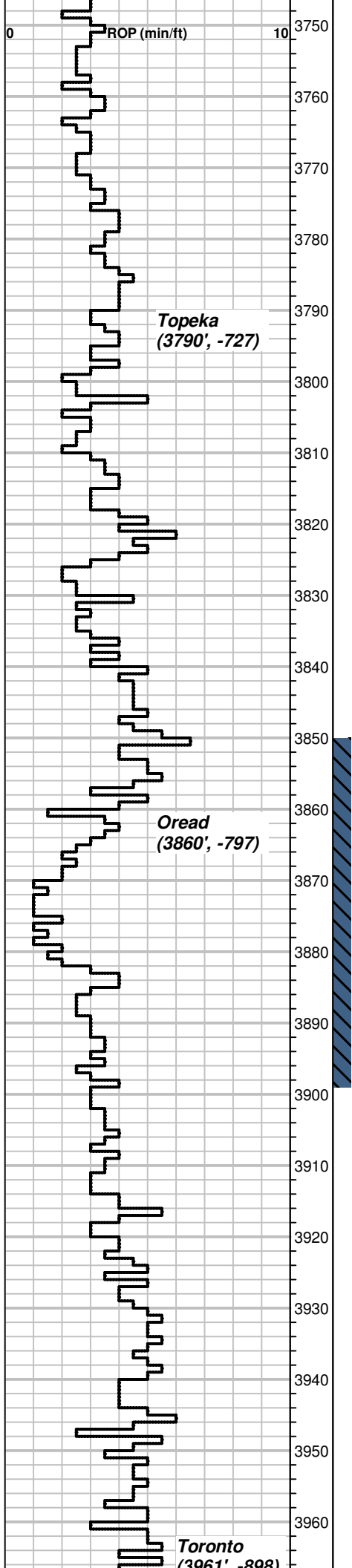
3717-28 LS cream fine grnstrn, friable, fair por, dead bitumen and oil stain, NSFO, no odor. LS cream fossiliferous coarse grnstrn, hard, poor por, **some dead bitumen**, NSFO

3728-40 As above, one grain w/ **oil stain and a couple drops heavy oil** when crushed, **poor show**, no odor, some small pinpoint vugs on microxtlN w/ **oil stain**

3740-48 LS lt. gry coarse grnstrn, very hard, poor por, **lots of dead bitumen**, NSFO. LS white med xtlN, hard, poor por, **lots of dead**

KS Drilling Technologies
Mud check 7/29/19

Depth: 3647' Btms Up: 35 min
Wt: 8.6 Vis: 61 Filt: 8.0
Cake: 1/32" LCM: 2# YP: 20
Chlor: 1000 ppm Grad: 0.447 psi/ft



bitumen, NSFO

3748-58 LS lt. gry fine xtln, hard, no por, NS. same LS grnstrn as above

3758-71 Sh red, LS lt. gry/red arg, hard, no por, NS. LS tan grnstrn w/ fair intrgrnlr por, some small vugs, friable, **highly saturated w/ dead oil stain**, NSFO, no moveable oil, **weak odor, very strong cut**. fair shw, don't think por is enough to move heavy oil if moveable ***review on logs**

3771-82 LS grnstrn as above w/ **same show**, more cuttings w/ shw than above, one grain had some vugs w/ **heavy free oil, fair show**, seems tight

3782-90 As above, less saturated grains

3790-99 Sh red, LS lt. gry - tan xtln, very hard, no por, NS. Trace LS grnstrn from above w/ **dead bitumen staining**

3799-3811 LS lt. gry xtln and microxtln, very hard, no por, NS. LS white sucrosic xtln, friable, poor por, NS.

3811-21 LS white chlky xtln, very friable, no por, NS. LS white xtln, slightly friable, no por, NS

3821-30 Some Sh red, LS xtln from above, LS white med xtln, hard, poor por, some w/ **bitumen stain**

3830-44 LS as above. LS lt. purple xtln, hard, no por, NS

3844-52 LS lt. purple xtln as above, Sh red

3852-58 Sh red, dk gry, tr grn

3858-62 LS white chlky xtln, friable, **lots of bitumen**, no por, NS. LS lt. gry grnstrn, hard, poor por, **bitumen**, NSFO, Sh red

3862-77 Good slug, LS white med grnstrn, hard, poor por, **heavy free oil in pores, tight but good drill break, lots of oil scum and oil in cup, drops are angular partially dead, good odr, good oil sat, good shw**

3877-87 As above w/ **same shw**, LS lt. gry and cream microxtln, very hard, no por, NS, oil drops in cup, **weak odor**

3887-94 LS lt. gry microxtln, very hard, no por, NS

3894-99 Mostly LS as above, Tr LS lt. gry grnstrn, very hard, poor por, some cuttings have **fair shw free oil**, less sat than upper Oread zone

3899-3911 Sh dk gry and red, LS lt. gry xtln, hard, no por, NS

3911-23 As above, Also LS lt. gry microxtln, very hard, no por, NS

3923-33 As above

3933-43 LS lt. gry microxtln, hard, no por, NS. Sh dk gry and red

3943-52 Mostly Sh dk gry and red, Tr LS lt. gry very fine xtln, friable, no por, NS

3952-63 Sh dk gry/red/grn

3963-68 As above

Wt. 8.5
Vis 48

Stotler - 3771.JPG

Stotler - 3782.JPG

DST # 1 (3850-3899)
Oread
0-45-60-120
Recovery: 382' MCW tr O
IF: tool didn't open SF: 26-194
Shut Ins: n/a /1254

0" IF - Built to 1/8"
45" ISI - No blow back
60" FF - BOB in 15.5 min, built to 39"
120" FSI - No blow back
Rw: 0.204 @ 90.3° F
Chlorides: 26,000 ppm

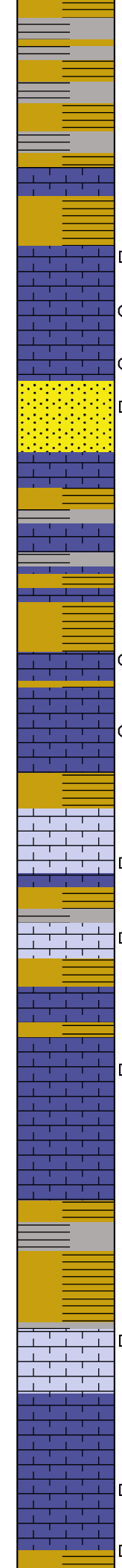
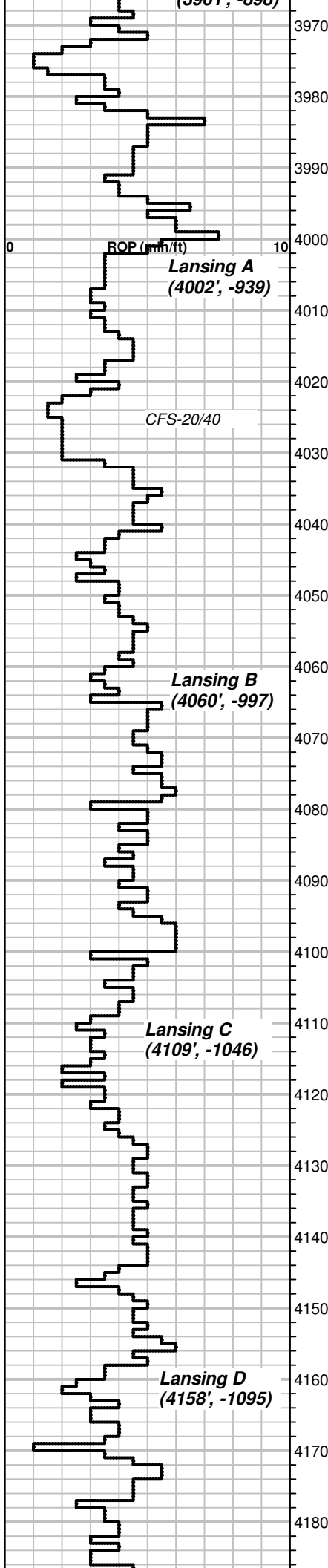
DST 1 - Sabatka 1.pdf

Oread - 3877.JPG

Oread cup - 3877.JPG

KS Drilling Technologies
Mud check 7/30/19
Depth: 3899' Btms Up: 37 min
Wt: 9.0 Vis: 52 Filt: 11.4
Cake: 1/32" LCM: 2# YP: 20
Chlor: 1500 ppm Grad: 0.468 psi/ft

Survey 7/3//19 @ 3899' 1*
Pipe Strap - 2.55' long



3968-83 As above

3983-94 Sh dk gry/gry/red, Tr LS lt. gry microxtln, hard, no por, NS

3994-4001 Sh dk gry/gry/red

4001-11 Good slug LS, Lansing A top. LS gry/tan microxtln, very hard, no por, NS. A few fracture planes w/ **oil stain/dead oil**, NSFO

4011-16 LS as above, very sparse grains w/ pinpoint - small isolated vugs, **oil stnd and free oil in some vugs, poor shw** - sparse

4016-21 As above, same **poor shw, a few small oil drops in cup**, no odor, LS tan microxtln, very hard, no por, NS

4021-25 LS tan microxtln, very hard, no por, NS. SS lt. gry - gry very fine grnd, calc. cement, friable, good por, some small specks, **dead oil**, wet, NSFO

4025-33 LS tan microxtln, very hard, no por, NS. SS from above, LS lt. gry microxtln, very hard, no por, NS

4033-41 As above, LS white, very fine xtln, slightly friable, no por, NS, Tr Sh red/dk gry

4041-53 Sh red/dk gry/grn, LS lt. gry/tan microxtln, very hard, no por, NS

4053-63 LS lt. gry grnstn rextlzd, hard, very poor por, small **oil filed pores when broken**, not intrcnctd, **poor shw free oil, lots of oil drops in cup, weak odor**, Sh red/grn

4063-73 LS as above w/ same **poor shw**, no odor. LS lt. gry/blue xtln, hard, no por, NS. LS lt. gry/blue microxtln, very hard, no por, NS

4073-82 Sh red/gry/grn, LS lt. gry xtln and microxtln, very hard, no por, NS

4082-94 LS lt. gry grnstn, very hard, no por, **tr dead oil/stn** between grns, NSFO, Tr Sh red

4094-4102 Sh red cly, Sh gry, Same LS grnstn from above w/ **dead oil**

4102-09 Sh red/grn, LS lt. gry xtln, very hard, no por, NS. Tr grnstn from above

4109-22 Tr Sh red, LS white xtln, slightly friable, poor por, **dead oil specks** in por, NSFO. LS gry and tan microxtln, very hard, no por, NS. LS gry xtln, very hard, no por, NS

4122-33 As above, NS

4133-42 LS lt. gry med xtln, very hard, no por, NS, Sh red/ dk gry

4142-52 Sh red/dk gry/grn, LS brwn med xtln, very hard, no por, NS

4152-59 Sh blk and red, Tr LS lt. gry fine grnstn, slightly friable, poor por, NS, very few cuttings w/ **dead oil in pores**, most look wet

4159-72 Good slug LS lt. gry - lt. tan microxtln, very hard, no por, NS. Tr grnstn from above, very hard, no por, NS

4172-81 LS lt. gry xtln, very hard, no por, NS. Some cuttings w/ small vugs, **dead oil in vugs**, NSFO

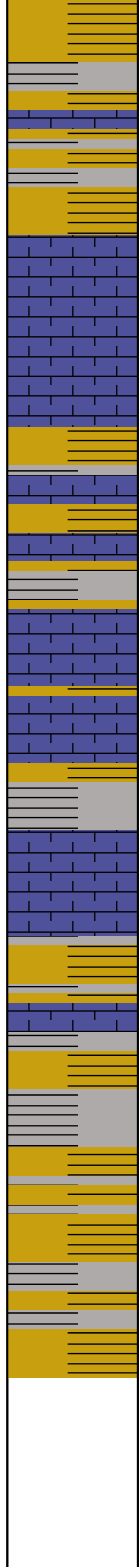
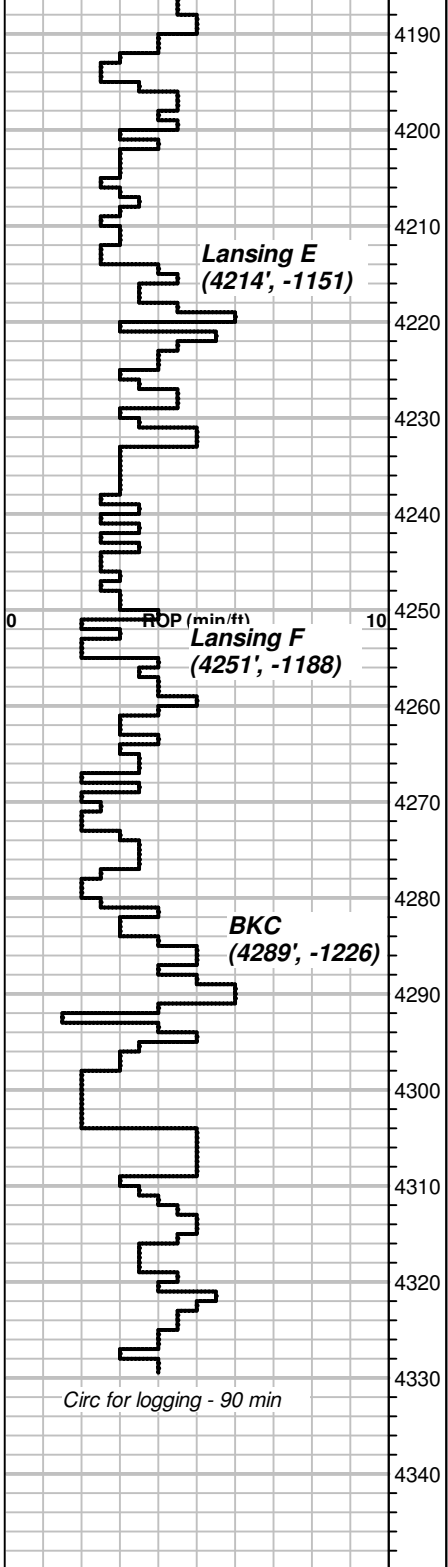
4181-90 LS lt. gry - white xtln, very hard, no por, Tr w/ same **dead oil shw** as above, Sh red/dk gry

Lansing A - 4016.JPG

Lansing B - 4063.JPG

KS Drilling Technologies
Mud check 7/31/19
 Depth: 4143' Btms Up: 39 min
 Wt: 9.1 Vis: 42 Filt: 13.2
 Cake: 1/32" LCM: 1.5# YP: 15
 Chlor: 2000 ppm Grad: 0.473 psi/ft

Lansing D - 4181.JPG



4190-99 Mostly Sh red/dk gry/grn, Some LS lt. gry/tan xtltn, very hard, no por, NS

4199-4210 95% Sh red/gry/dk gry, Tr LS white very fine xtltn, slightly friable, no por, NS

4210-21 Tr Sh red, LS lt. tan semi opaque microxtln, very hard, no por, some free oil in fractures, poor shw. LS lt. tan/gry grnstrn, prtly rextlzd, hard, poor por, very poor shw free oil in pores when crushed, looks wet, sparse shw, tight

4221-29 As above w/ same poor shws

4229-37 Sh red/dk gry/grn, Tr LS white fine xtltn, friable, no por, NS

4237-49 As above, Tr LS lt. gry xtltn, very hard, no por, NS

4249-59 70% LS lt. gry xtltn, hard, no por, NS, 30% Sh red/gry

4259-66 50/50 Sh red/gry/grn, LS lt. gry - gry microxtln, very hard, no por, NS

4266-82 As above

4282-89 LS lt. gry coarse xtltn, very hard, no por, NS. Sh red/gry

4289-4300 As above, Mostly Sh

4300-11 Sh red, gry, grn

4311-21 As above

4321-30 As above

Driller TD 4330'
Logger TD 4329'

Lansing E - 4221.JPG

KS Drilling Technologies
Mud check 7/31/19
Depth: 4228' Btms Up: 40 min
Wt: 9.0 Vis: 46 Filt: 10.2
Cake: 1/32" LCM: 3# YP: 16
Chlor: 2000 ppm Grad: 0.468 psi/ft

8/1/19 @ 4330'
Survey 0.5*
Pipe Strap - 0.62' long

