OPERATOR

Company:	JASON OIL COMPANY, LLC / NGH OIL OPERATIONS		
Address:	3718-83RD STREET PO BOX 701 RUSSELL, KS 67665-0701		
Contact Geologist:	JIM SCHOENBERGER		
Contact Phone Nbr:	785-483-4204		
Well Name:	STEINERT B #3		
Location:	NE SW NE SW S21 T15S R15W		
API:	15-167-24001-00-00		
Pool:		Field:	STEINERT
State:	KANSAS	Country:	USA

Scale 1:240 Imperial

Well Name:	STEINERT B #3		
Surface Location:	NE SW NE SW S21 T15S R15W		
Bottom Location:			
API:	15-167-24001-00-00		
License Number:	33813		
Spud Date:	9/11/2014	Time:	2:30 PM
Region:	RUSSELL COUNTY		
Drilling Completed:	9/17/2014	Time:	6:22 PM
Surface Coordinates:	1760 FSL & 1820 FWL		
Bottom Hole Coordinates:			
Ground Elevation:	1858.00ft		
K.B. Elevation:	1865.00ft		
Logged Interval:	2450.00ft	To:	3440.00ft
Total Depth:	3440.00ft		
Formation:	LANSING / KANSAS CITY		
Drilling Fluid Type:	CHEMICAL / FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-98.9973716
Latitude:	38.7304167
N/S Co-ord:	1760 FSL
E/W Co-ord:	1820 FWL

LOGGED BY

SOLUTIONS CONSULTING

Company:	SOLUTIONS CONSULTING, INC.		
Address:	108 W 35TH HAYS, KS 67601		
Phone Nbr:	(785) 639-1337		
Logged By:	Geologist	Name:	STEVE REED

CONTRACTOR

Contractor:	ROYAL DRILLING, INC		
Rig #:	1		
Rig Type:	MUD ROTARY		
Spud Date:	9/11/2014	Time:	2:30 PM
TD Date:	9/17/2014	Time:	6:22 PM
Rig Release:	9/18/2014	Time:	10:00 AM

ELEVATIONS

K.B. Elevation:	1865.00ft	Ground Elevation:	1858.00ft
K.B. to Ground:	7.00ft		

NOTES

BASED ON FAVORABLE STRUCTURAL POSITION IN THE LANSING/KANSAS CITY COMPARED TO SURROUNDING WELLS AND THE POSITIVE RESULTS OF DST #1, THE DECISION WAS MADE TO SET 5 1/2" PRODUCTION CASING TO FURTHER TEST THE PRODUCTIVITY OF THE WELL

OPEN HOLE LOGGING PROVIDED BY: GEMINI WIRELINE
DUAL INDUCTION LOG, COMPENSATED DENSITY NEUTRON LOG, AND MICRO RESISTIVITY LOGS WERE COMPLETED

DRILL STEM TESTING PROVIDED BY: DIAMOND TESTING
TWO (2) CONVENTIONAL TESTS WERE PERFORMED

FORMATION TOPS COMPARISON AND DAILY ACTIVITY SUMMARY

	WELL NAME		COMPARISON WELL	COMPARISON WELL
	STEINERT B #3		STEINERT #4	STEINERT #2
	API: 15-167-24001		API: 15-167-22151	API: 15-167-20060
FORMATION	SAMPLE TOPS	LOG TOPS	LOG TOPS (DATUM)	LOG TOPS (DATUM)
ANHYDRITE TOP	922' (+943')	922' (+943')	+944'	+940'
ANHYDRITE BASE	960' (+905')	950' (+915')	+913'	NA
GRAND HAVEN	2490' (-625')	2492' (-627')	NA	NA
DOVER LIME	2525' (-660')	2522' (-657')	NA	NA
STOTLER/TARKIO LM	2567' (-702')	2564' (-699')	NA	NA
TOPEKA	2823' (-958')	2820' (-955')	-959'	-962'
HEEBNER	3048' (-1183')	3046' (-1181')	-1184'	-1186'
TORONTO	3067' (-1202')	3062' (-1197')	-1203'	-1205'
DOUGLAS SHALE	3081' (-1216')	3079' (-1214')	-1219'	-1221'
LKC	3106' (-1241')	3104' (-1239')	-1245'	-1246'
BKC	3334' (-1469')	3331' (-1466')	-1470'	-1472'
ARBUCKLE	3380' (-1515')	3376' (-1511')	-1494'	-1513'
RTD	3440' (-1575')	3439' (-1574')	-1519'	-1562'

SUMMARY OF DAILY ACTIVITY

9-11-14 R.U., drill rat and mouse hole, drilling surface

9-12-14 850', drilling, 8 5/8" surface casing set at 925' w/325 sxs common, 2% gel, 3%cc, WOC, drilling

9-13-14 1290', drilling

9-14-14 2312', drilling

9-15-14 2921', drilling, CFS @ 3112', CFS @ 3134', short trip, CTCH, TOWB, survey 1°, strap 1.05 short to board, DST #1 3069' to 3134'

9-16-14 3134', TIHWB, drilling, CFS @ 3258', CFS @ 3300, CFS @ 3320, mini trip (6 stands), CTCH, DST #2 3232' to 3320'

9-17-14 3320', TOHWT, TIHWB, circulate 30 minutes, drilling, CFS @ 3261, CFS @ 3268, TD of 3440 reached @ 6:22pm, CTCH, TOWB for logs, Survey 1° , logging, prepare to set 5 ½" production casing

9-18-14 release rig

DST #1 SUMMARY

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: STNRT3DST1

TIME ON: 0050
TIME OFF: 0710

Company JASON OIL COMPANY, LLC — Lease & Well No. STEINERT B #3
Contractor ROYAL DRILLING, INC. RIG #1 — Charge to NGH OIL OPERATIONS
Elevation 1865 KB — Formation TORONTO-LKC "C" — Effective Pay ____ Ft. — Ticket No. M707
Date 9/16/2014 — Sec. 21 — Twp. 15 S — Range 15 W — County RUSSELL — State KANSAS
Test Approved By STEVE REED — Diamond Representative MIKE COCHRAN

Formation Test No. 1 — Interval Tested from 3069 ft. to 3134 ft. — Total Depth 3134 ft.
Packer Depth 3064 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Packer Depth 3069 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 3058 ft. — Recorder Number 5448 — Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3071 ft. — Recorder Number E1150 — Cap. 5,000 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEM — Viscosity 55 — Drill Collar Length 0 ft. — I.D. 2 1/4 in.
Weight 8.7 — Water Loss 8.4 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 3,000 P.P.M. — Drill Pipe Length 3044 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number NA — Test Tool Length 25 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 65 ft. (32' DP) — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: SSB, BOB 1½ MIN (NO BB)
2nd Open: SSB, BOB 1½ MIN (4" BB)

Recovered 360 ft. of GIP — GRAVITY: 37.3 @ 60°
Recovered 267 ft. of GHOCM 4% GAS, 41% OIL, 55% MUD
Recovered 267 ft. of TOTAL FLUID
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____

Remarks:
TOOL SAMPLE: 100% OIL W/ SOME GASSY BUBBLES

Price Job	
Other Charges	
Insurance	
Total	

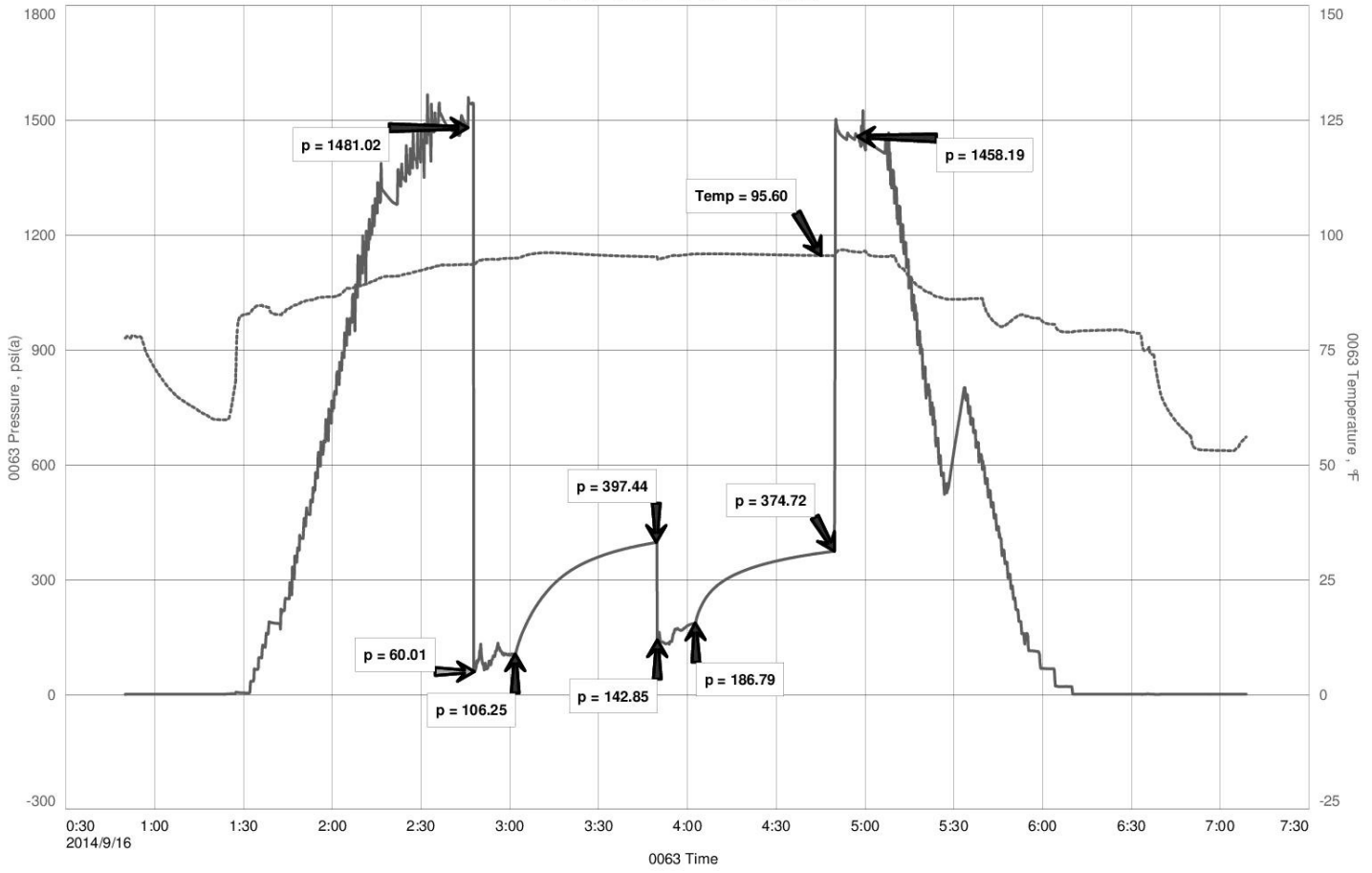
Time Set Packer(s) 2:45 A.M. A.M. P.M. — Time Started Off Bottom 4:45 A.M. A.M. P.M. — Maximum Temperature 96°F

Initial Hydrostatic Pressure ..... (A) 1481 P.S.I.
Initial Flow Period ..... Minutes 15 (B) 60 P.S.I. to (C) 106 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 397 P.S.I.
Final Flow Period ..... Minutes 15 (E) 143 P.S.I. to (F) 187 P.S.I.
Final Closed In Period ..... Minutes 45 (G) 375 P.S.I.
Final Hydrostatic Pressure ..... (H) 1458 P.S.I.

DST #1 PRESSURE VS TIME CHART

JASON OIL COMPANY, LLC
DST#1 3069-3134 TORONTO-LKC "C"
Start Test Date: 2014/09/16
Final Test Date: 2014/09/16

STEINERT B #3
Formation: DST#1 3069-3134 TORONTO-LKC "C"
Pool: WILDCAT
Job Number: M707



C:\Users\Roger Friedly\Documents\aMIKEDST\STEINERT B #3\STNRT3DST1\STNRT3DST1CHT.FKT 16-Sep-14 Ver

DST #2 SUMMARY

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: STNRT3DST2

TIME ON: 0300
TIME OFF: 0905

Company JASON OIL COMPANY, LLC — Lease & Well No. STEINERT B #3
Contractor ROYAL DRILLING, INC. RIG #1 — Charge to NGH OIL OPERATIONS
Elevation 1865 KB — Formation KC "H-K" — Effective Pay — Ft. — Ticket No. M708
Date 9/17/2014 — Sec. 21 — Twp. 15 S — Range 15 W — County RUSSELL — State KANSAS
Test Approved By STEVE REED — Diamond Representative MIKE COCHRAN

Formation Test No. 2 — Interval Tested from 3232 ft. to 3320 ft. — Total Depth 3320 ft.
Packer Depth 3227 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Packer Depth 3232 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Depth of Selective Zone Set

Top Recorder Depth (Inside)	3221 ft.	Recorder Number	5448	Cap.	5,000 P.S.I.
Bottom Recorder Depth (Outside)	3234 ft.	Recorder Number	E1150	Cap.	5,000 P.S.I.
Below Straddle Recorder Depth	ft.	Recorder Number		Cap.	P.S.I.

Mud Type	CHEM	Viscosity	50	Drill Collar Length	0 ft.	I.D.	2 1/4 in.
Weight	8.9	Water Loss	8.8 cc.	Weight Pipe Length	0 ft.	I.D.	2 7/8 in
Chlorides	5,000 P.P.M.			Drill Pipe Length	3207 ft.	I.D.	3 1/2 in
Jars: Make	STERLING	Serial Number	NA	Test Tool Length	25 ft.	Tool Size	3 1/2-IF in
Did Well Flow?	NO	Reversed Out	NO	Anchor Length	88 ft.	Size	4 1/2-FH in
Main Hole Size	7 7/8	Tool Joint Size	4 1/2 XH in.	Surface Choke Size (62' DP)	1 in.	Bottom Choke Size	5/8 in

Blow: 1st Open: WSB, INC. TO ¾" IN 10 MIN. DIMINISHING TO A WSB @ SHUT IN (NO BB)

2nd Open: NO BLOW, FLUSH TOOL, NO HELP (NO BB)

Recovered 4 ft. of VSOSM ~100% MUD W/ A FEW SPOTS OF OIL

Recovered 4 ft. of TOTAL FLUID

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

TOOL SAMPLE: 1% GAS, 2% OIL, 97% MUD

Price Job	
Other Charges	
Insurance	
Total	

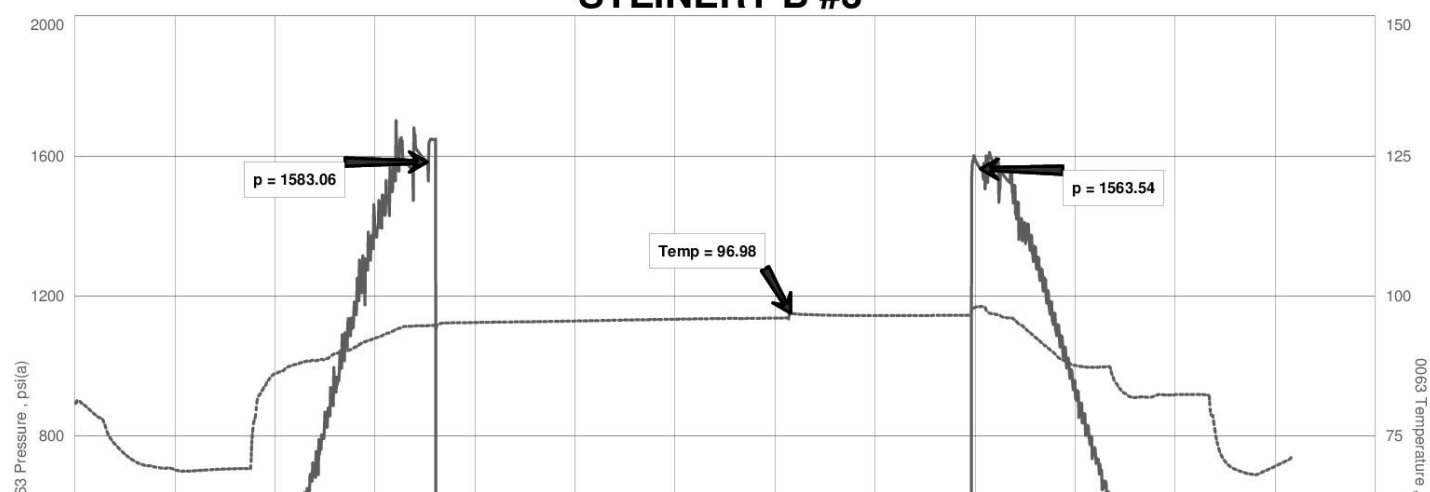
Time Set Packer(s) 4:45 A.M. A.M. P.M. Time Started Off Bottom 7:25 A.M. A.M. P.M. Maximum Temperature 97°F

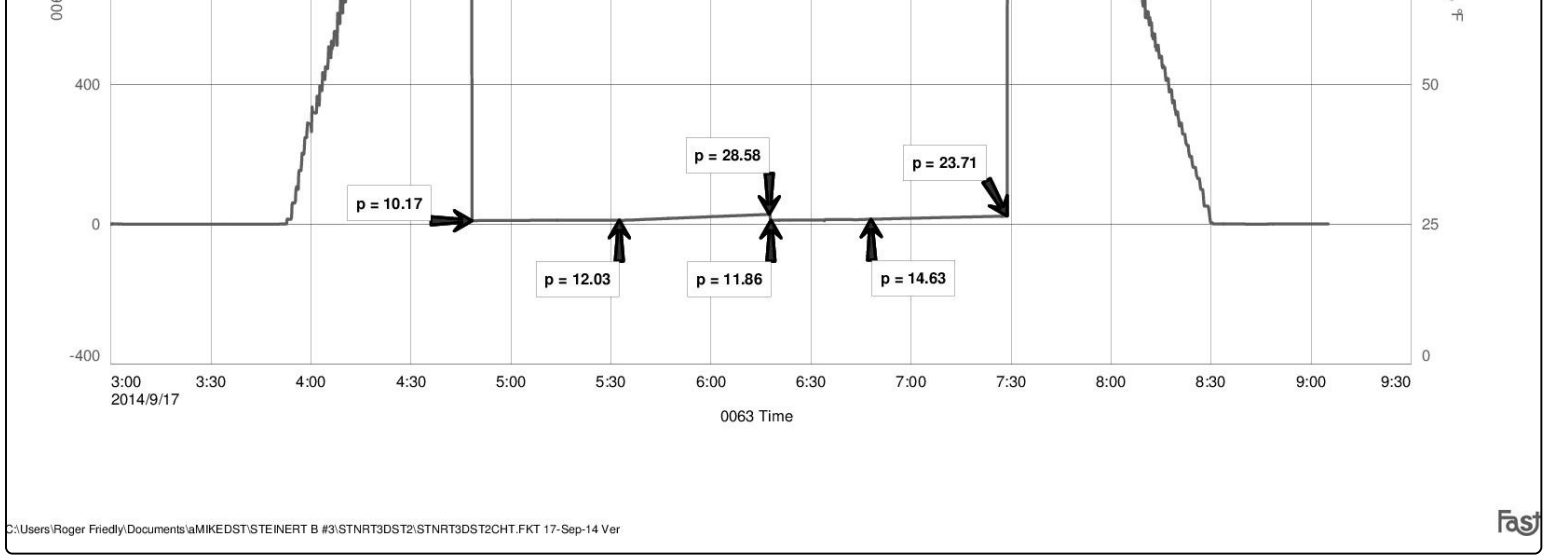
Initial Hydrostatic Pressure			(A)	1583 P.S.I.			
Initial Flow Period	Minutes	45	(B)	10 P.S.I. to (C)		12 P.S.I.	
Initial Closed In Period	Minutes	45	(D)	29 P.S.I.			
Final Flow Period	Minutes	25	(E)	12 P.S.I. to (F)		15 P.S.I.	
Final Closed In Period	Minutes	45	(G)	24 P.S.I.			
Final Hydrostatic Pressure			(H)	1564 P.S.I.			

DST #2 PRESSURE VS TIME CHART

JASON OIL COMPANY, LLC
DST#2 3232-3320 KC "H-K"
Start Test Date: 2014/09/17
Final Test Date: 2014/09/17

STEINERT B #3
Formation: DST#2 3232-3320 KC "H-K"
Pool: WILDCAT
Job Number: M708





C:\Users\Roger Friedly\Documents\aMIKEDST\STEINERT B #3\STNRT3DST2\STNRT3DST2CHT.FKT 17-Sep-14 Ver

ROCK TYPES

Congl	Dolsec	shale, grn	shale, red
Chtcongl	Lmst fw<7	shale, gry	Ss
Dolprim	Lmst fw7>	Carbon Sh	

ACCESSORIES

MINERAL
- Chert, dark
- Glauconite
- P Pyrite
- Chert White
- Mc Mica
- Euhed rhombs of dol or

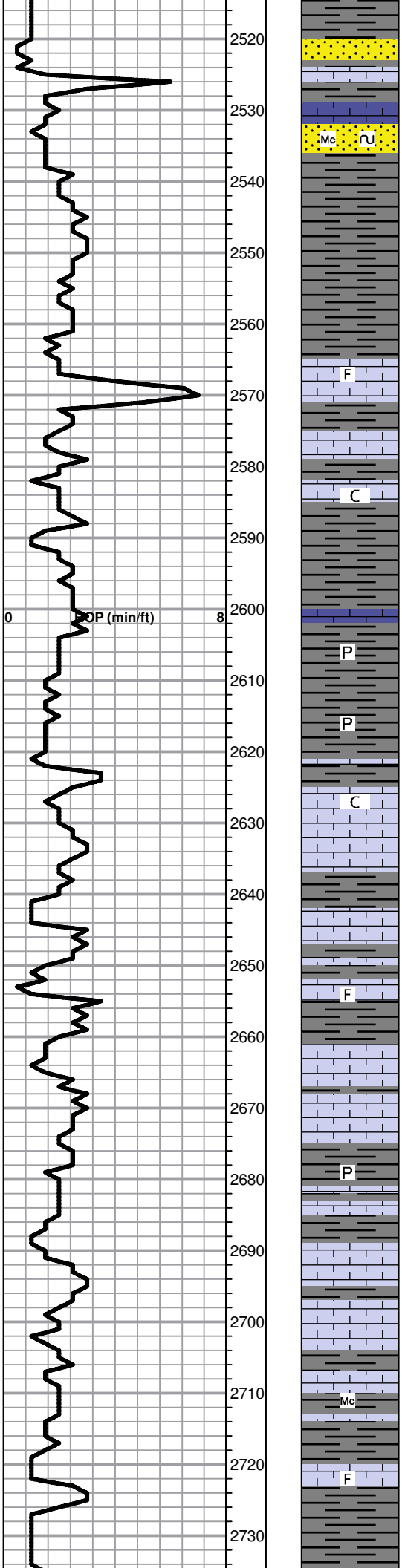
FOSSIL
- F Fossils < 20%
- Oolite
- Oomoldic
- Fussilinid

STRINGER
- Chert
- carb shale

TEXTURE
- C Chalky
- L Lithogr

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)

Curve Track #1 ROP (min/ft) 1:240 Imperial	Depth | Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3 1:240 Imperial
0 ROP (min/ft) 8	2450				**ANHYDRITE TOP 922 (+943) ELOG 922 (+943)** **ANHYDRITE BASE 960 (+905) ELOG 950 (+915)**	**8 5/8" SURFACE CASING SET AT 925 W/ 325 SXS COMMON, 2% GEL, 3%CC**
	2460				BEGIN 1' DRILL TIME @ 2450 CATCH 10' WET AND DRY SAMPLES FROM 2540 TO RTD	
	2470					
	2480					
	2490				**GRAND HAVEN SPL 2490 (-625) ELOG 2492(-627)**	
	2500					**SLOWED ROTARY TABLE AND DECREASED WEIGHT ON BIT TO 20K THROUGH TARKIO**
	2510				Sh - light gray, micaceous, soft, silty, blocky	



DOVER LM SPL 2525 (-660) ELOG 2522 (-657)

SS - light gray, micaceous, glauconite specks, fine grained, well sorted, well rounded, friable, no stain, no shows

Sh - light-medium gray, soft, extremely sticky

Sh - medium gray, soft, blocky, some forming sticky clumps

STOTLER/TARKIO LM SPL 2567 (-702) ELOG 2564 (-699)

Lm - cream, slightly fossiliferous, fnxln, hard, brittle

Sh - light gray, soft, sticky

Lm - tan, fnxln, dense, hard, brittle, white sticky chalk in part

Sh - light-medium gray, soft, blocky, silty, gritty

Sh - light-medium gray, soft, blocky, forming sticky clumps, pyrite clusters

Sh - light gray, soft, blocky, pyrite

Lm - cream, fnxln, hard, brittle, slightly chalky

Lm - tan-medium brown, fnxln, hard, brittle

Lm - tan, fnlxn, dense, hard

Lm - light gray-brown, fnxln, slightly fossiliferous, dense, hard, brittle

Lm - tan-cream, fnxln, hard, brittle

Lm - tan-light brown, fnxln, dense, hard

Sh - light-medium gray, firm, blocky, pyrite specks

Lm - tan-light gray, fnxln, britle

Lm - light gray, slightly fossiliferous, fnxln, brittle

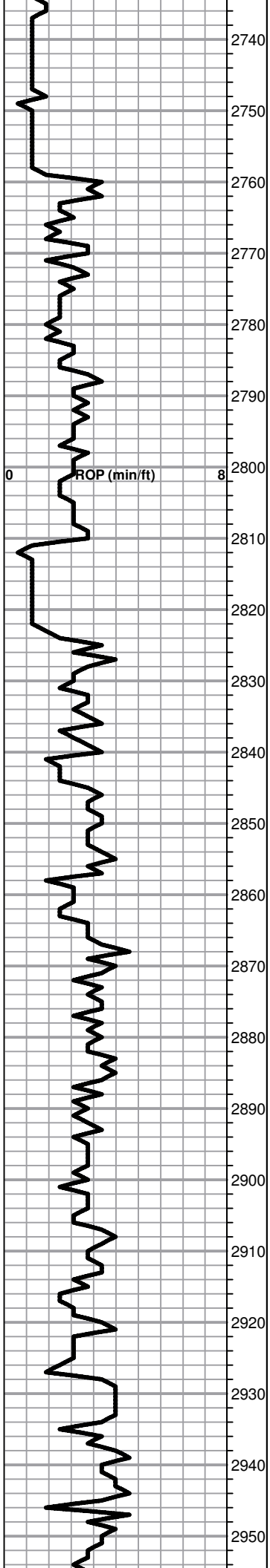
Sh - light gray, soft, sticky

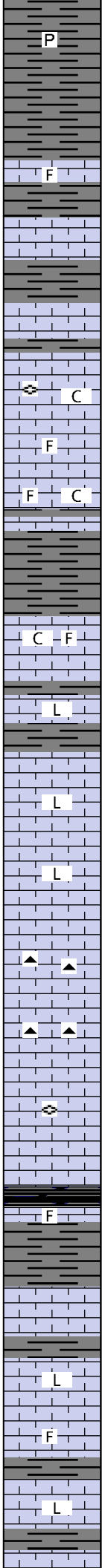
Sh - medium gray, soft to firm, blocky, black micaceous specks

Sh - medium gray, soft, blocky

Lm - cream-light brown, fnxln, black fossil clasts, hard, brittle

MUD WT 8.6
VIS 59
LCM 2#





Sh - medium gray, soft, blocky, silty, pyrite

MUD WT 8.4
VIS 59
LCM 1#

Lm - cream-light gray, vf-fnxln, slightly fossiliferous, brittle

Sh - light-medium gray, firm, blocky

Sh - light gray, soft, blocky, forming sticky clumps

Lm - cream, fnxln, brittle, chalky in part, fusilinids

Lm - cream-tan, fnxln, hard, brittle, slightly fossiliferous

Lm - tan, slightly fossiliferous, slightly chalky, brittle

Sh - light-medium gray, soft, blocky

TOPEKA SPL 2823 (-958) ELOG 2820 (-955)

Lm - cream-tan, slightly fossiliferous, slightly chalky, hard, brittle

Lm - tan-light gray, vfxln to lithographic in some, dense, hard, brittle

Lm - tan-cream, fnxln to lithographic, dense, very hard

Lm - tan, lithographic, dense, very hard

Lm - cream-tan, vf-fnxln, mottled, dense, hard, black chert

Lm - cream-light brown, vf-fnxln, dense, brittle, bedded chalk in part, black chert

Lm - light brown-gray, fnxln, brittle, hard, fusilinids

Lm - cream, fnxln, slightly fossiliferous, bedded chalk

Sh - black, carbonaceous, waxy

Lm - tan, vfxln, slightly fossiliferous, hard, brittle

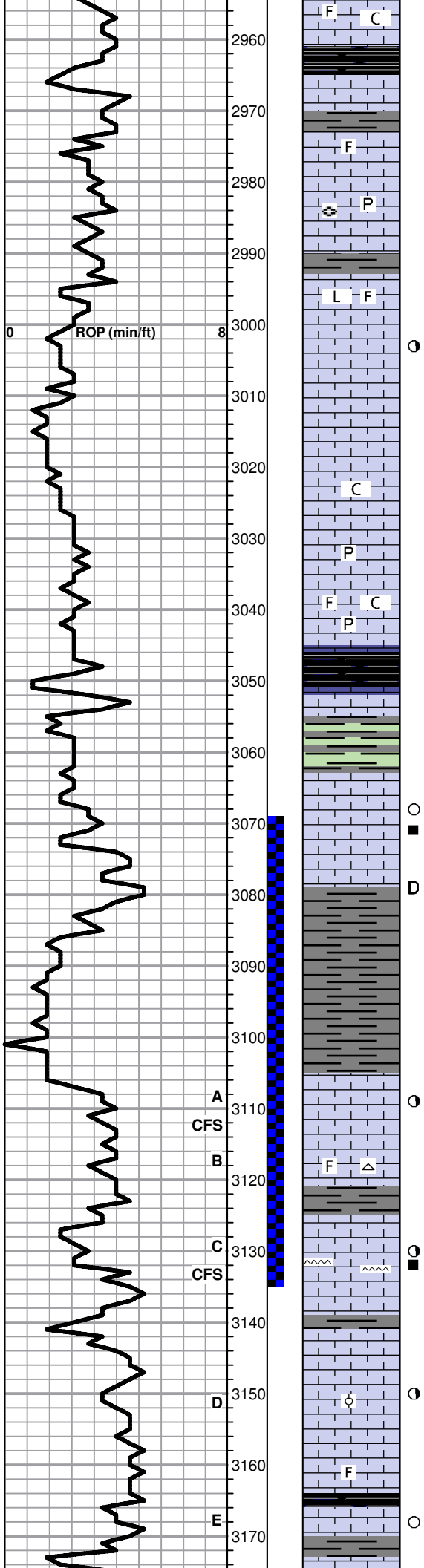
Sh - light-medium gray, soft, blocky

MUD WT 8.7
VIS 52
LCM 1#

Lm - cream, lithographic, dense, hard, brittle

Lm - cream-tan, fnxln, slightly fossiliferous, hard

Lm - tan, fnxln to lithographic in part, brittle, slight bedded chalk



Lm - tan, fnxln, slightly fossiliferous, slightly chalky, brittle

Sh - black, carbonaceous, waxy

Lm - cream-tan, medxln, slightly fossiliferous, bedded chalk in part

Lm - tan-light brown, fnxln, bedded chalk in part, fusilinids, pyrite

Lm - light-medium brown, fnxln to lithographic in some, slightly fossiliferous, bedded chalk

Lm - cream-light gray, vfxln, dense, hard, brittle

Lm - cream, fine pinpoint porosity, slight scattered stain, SFO upon crush, no odor

Lm - cream-light brown, fnxln, brittle

Lm - cream-tan, fnxln to granular in part, slightly chalky

Lm - tan, fnxln, brittle, bedded chalk in part, pyrite

Lm - cream-tan, fnxln, fossilifeorus, brittle, slightly chalky, pyritized ammonite fossil

MUD WT 8.8
VIS 53
LCM 1#

HEEBNER SPL 3048 (-1183) ELOG 3046 (-1181)

Sh - black, carbonaceous, waxy, soft, bronze specks

Sh - greenish gray, soft, blocky

TORONTO SPL 3067 (-1202) ELOG 3062 (-1197)

Lm - offwhite, bright and clean, fnxln to granular in some, few chips with scattered pinpoint porosity, light brown stain, NSFO, no odor, good streaming wet cut under UV light.

Lm - cream-offwhite, slightly chalky, scattered gilsonitic stain

DST #1 3069 TO 3134 SEE HEADER FOR TEST SUMMARY

DOUGLAS SH SPL 3081 (-1216) ELOG 3079 (-1214)

Sh - light-medium gray / maroon, soft, blocky

Sh - light-medium gray to greenish gray, soft, blocky

LKC SPL 3106 (-1241) ELOG 3104 (-1239)

Lm - cream, mostly fnxln, dense, few chips with scattered pinpoint porosity, SFO upon crush, goood odor

MUD WT 8.7
VIS 55
LCM .75#

Lm - cream, fnxln, hard, brittle, bedded chalk in part, white fossiliferous chert

Sh - medium gray, soft, blocky

Lm - cream, fnxln with scattered pinpoint/vuggy porosity, light brown stain, few specks of free oil, good streaming wet cut, faint odor, cherty

Sh - light gray, soft, blocky

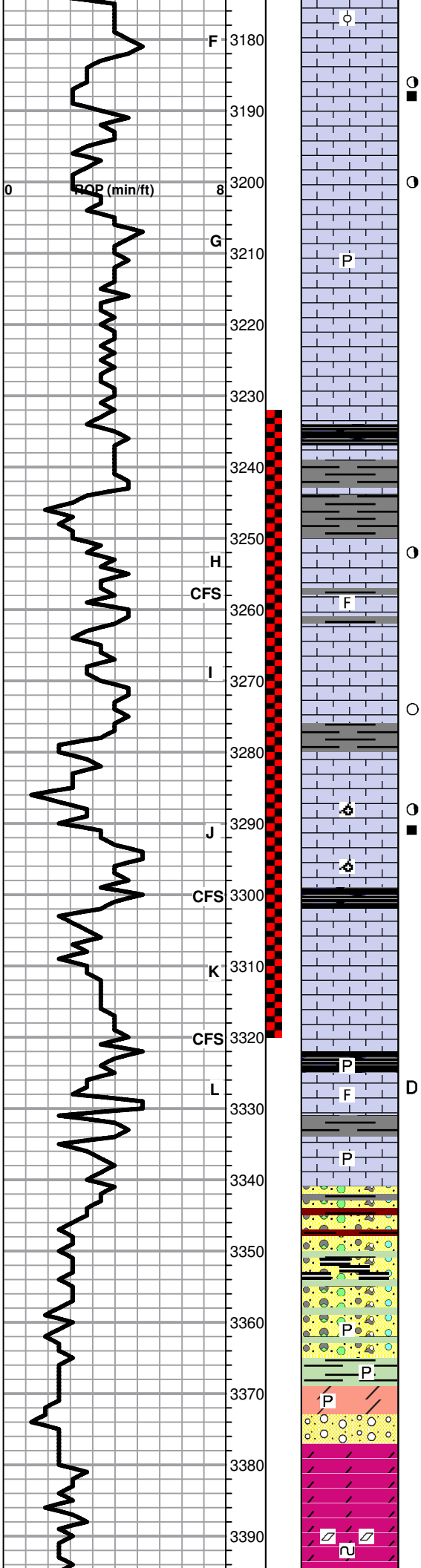
Lm - cream-tan, slightly oolitic, scattered fine pinpoint porosity, scattered light brown stain, specks of free oil upon crush, limited total porosity

Lm - cream, slightly fossiliferous, fnxln, dense, hard, brittle, no shows

Sh - black, carbonaceous, fissile

Lm - cream-tan, fnxln, slight scattered pinpoint porosity with staining, NSFO, no odor

MUD WT 8.9
VIS 51
LCM 1#



Lm - cream, oolitic, poorly developed, well cemented, dense, hard, no shows

Lm - cream-tan, oolites and various fossil fragments, well cemented, fine interxln porosity, light golden brown stain, good streaming wet cut under UV light with dilute HCL, SFO upon crush, limited total porosity

Lm - tan, oolitic, fine interxln porosity, light scattered stain, oil specks upon crush, faint odor, slightly chlaky

Lm - cream, vfxln, hard, brittle, bedded chalk in part, pyrite

Lm - cream, fnxln, hard, brittle, bedded chalk

Lm - cream-tan, fnxln, brittle, slightly chalky, few pieces with scattered pinpoint porosity, slight stain, NSFO, no odor

Sh - black, carbonaceous, waxy

Sh - medium gray, soft, blocky

Lm - cream-tan, fossiliferous, fine interxln porosity, scattered light brown stain, SFO upon crush, brittle, pyrite

Lm - tan, fnxln, slightly fossiliferous, dense, brittle, bedded chalk

Lm - offwhite-tan, vfxln, dense, very hard

Lm - offwhite, slight scattered pinpoint porosity with dark oil stain, few specks of thick free oil, limited total porosity

Lm - cream-tan, slightly oomoldic with scattered pinpoint porosity, scattered light golden brown stain, specks of free oil upon crush, good streaming wet cut under UV light, limited total porosity

Lm - cream-tan, slightly oomoldic, very fine interxln porosity, dense, very hard, slightly chalky

Sh - black, carbonaceous, waxy, firm

Lm - tan, fossiliferous, fine interxln porosity, slightly vuggy, limited staining, NSFO, no odor

Lm - tan, vf-fnxln, dense, very hard

Sh - black, carbonaceous, soft, fissile, pyrite

Lm - tan, fossiliferous, fine interxln porosity, slight scattered gilsonitic stain

BKC SPL 3334 (-1469) ELOG 3331 (-1466)

Lm - offwhite, fnxln to granular, brittle, no shows, pyrite

Conglomerate - various colored Lm's fnxln to granular, Cherts - pink, white, orange, yellow, Sh - maroon, gray, green, soft, blocky

Conglomerate A/A with clear opaque quartzite pieces with interbedded black carbonaceous shale

Conglomerate A/A pyrite clusters with quartz grain inclusions

Sh - lime green, firm, waxy, pyrite inclusions

Dolo - bright white, vfxln, with pyrite inclusions

ARBUCKLE SPL 3380 (-1515) ELOG 3376 (-1511)

Dolo - tan, fnxln, brittle, no odor, no shows

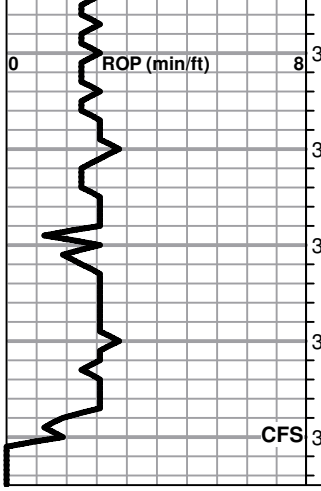
Dolo - bone white, well developed rhombic xtals, medxln, dense, hard, brittle, glauconite specks

LCM 1#

DST #2 3232 TO 3320 SEE HEADER FOR TEST SUMMARY

MUD WT 8.9
VIS 55
LCM .5#

MUD WT 9.1
VIS 50
LCM 1#



3400		◑	Dolo - buff, fn-medxln, spotted black oil stain, show of free tar like oil upon crush, no odor
3410	Mc		Dolo - offwhite, fnxln, quartz grain inclusions, black micaceous specks, glauconite, no shows, no odor
3420	P		Dolo - pinkish white, fnxln, opaque quartz grain inclusions, well cemented, hard, pyrite
3430			Dolo - cream, sandy, well cemented, clean and barren, no odor, no shows
3440			SS - clear quartz fine grained, angular, well cemented, well sorted, no shows **RTD 3440 (-1575) LTD 3439 (-1574)**