

PLOTTED GEOLOGICAL LOG

WellSight Systems

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

Well Name: BUSENITZ #1-28

Location: 670' FSL & 1666' FEL of Sec. 28-T24S-R3E

Licence Number: API # 15-015-24130-00-00

Region: Butler County, Kansas

Spud Date: 10/21/2019

Drilling Completed: 10/26/19

Surface Coordinates: Lat: 37.9289468, Long: -97.1028658 (NAD27)

Bottom Hole Vertical Well

Coordinates:

Ground Elevation (ft): 1375'

K.B. Elevation (ft): 1384'

Logged Interval (ft): 1700' To: 2965

Total Depth (ft): 2965

Formation: Mississipi

Type of Drilling Fluid: Chemical Mud by Fud-Mud

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

OPERATOR

Company: AGV Corp.

Address: P.O. Box 377
Attica, KS 67009

GEOLOGIST

Name: Kent Roberts

Company: Roberts Resources, Inc.

Address: P.O. Box 75187
Wichita, KS 67275
Cell 316-215-1683

BIT INFORMATION

#1 - 12-1/4 Atlas. Cut 271' in 2 Hrs

#2 - 7-7/8 Reed 613 PDC, Out at 1423, Cut 1152' in 24 3/4 hrs.
Pulled Early, Would not drill

#3 - 7-7/8 Atlas 516 PDC, Out at 2965, Cut 1542' in 19-3/4 hrs

INFORMATION

DRILLING CONTRACTOR: C&G Drilling Co., Rig #2

MUD TYPE: Chemical by Fud-Mud

DRILLING TIME KEPT FROM: 1700' to RTD

SAMPLES SAVED FROM: 1700' to RTD

SAMPLES EXAMINED FROM: 1700' to RTD

GEOLOGICAL SUPERVISION FROM: 2130' to RTD

ELECTRICAL SURVEYS: CDL/CNL, DIL, MEL, Sonic by ELI

DAILY ACTIVITY @ 0700 HRS

10/21/2019

Spud well @ 10:30 AM. Cut 12-1/4" hole to 272', Ran 6 joints 8-5/8" tally 256.60' set at 267' (2' below ground level). Cemented w/ 135 sacks cement (2% gel, 3% CC) Plug down at 4:15 PM. Cement did circulate.

10/22/2019

Depth 323', Down for repairs. Drill out under surface @ 1:00 AM. Drill to 323 and mud line high pressure union washed out. Down for repairs from 2:30 AM until 8:00 AM, repairs made and back drilling.

10/23/2019

Depth 1292', Drilling. Made bit trip @ 1422'. 10:50 AM to 1:15 PM. Deviation 1 degree. Hole did not pull tight on trip.

10/24/2019

Depth 2440'. Short trip and prepare for DST #1 in Kansas City (Dennis & Swope Limestones)

10/25/2019

Depth 2778'. Deviation 1 degree. On bottom with DST #2 in Mississippi Dolomite

10/26/19

Depth 2965', Trip out of hole for E-Logs. RTD @ 5:45 AM, CTCH 1-hr. Preparing to run 5-1/2" casing for production.

CASING DATA

CONDUCTOR CASING: None

SURFACE CASING: 8-5/8" set @ 267' w/ 135 sacks

PRODUCTION : 5.5 x 15.5# set @ 2961' KB

COMMENTS

Based on sample analysis, drill stem tests and electric logs it is recommended casing be ran for completion in the Mississippi Dolomite.

WELL NAME: Busenitz 1-28

**ELEV. G.L.= 1375
K.B.= 1384**

FORMATION TOPS	Sample		E- Log	
HEEBNER SHALE	1760	-376	1772	-388
LANSING	2051	-667	2050	-666
BASE LANSING	2184	-800	2182	-798
KANSAS CITY	2323	-939	2320	-936
BASE KANSAS CITY	2477	-1093	2476	-1092
MISSISSIPPI	2761	-1377	2759	-1375
HUNTON	NOT PENETRATED			
VIOLA	NOT PENETRATED			
SIMPSON SAND	NOT PENETRATED			
ARBUCKLE	NOT PENETRATED			
TOTAL DEPTH	2965	-1581	2965	-1581



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

AGV Corporation
123 North Main
P.O. Box 377
Attica, KS. 67009-0377
ATTN: Kent Roberts

28/24S/3E Butler, KS
Busenitz #1-28
Job Ticket: 65408 **DST#: 1**
Test Start: 2019.10.24 @ 10:19:00

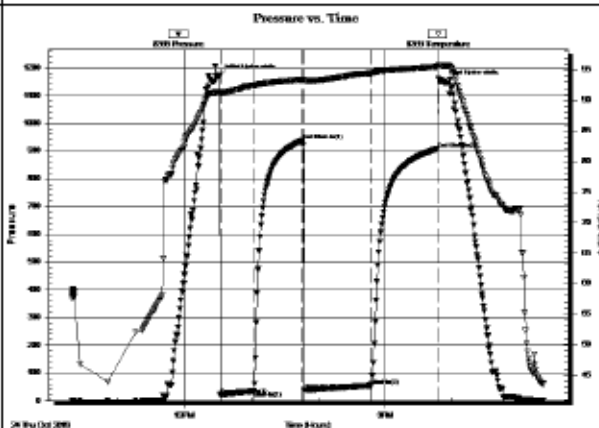
GENERAL INFORMATION:

Formation: **Kansas City, Dennis**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 12:32:00
Time Test Ended: 17:23:00
Interval: **2370.00 ft (KB) To 2440.00 ft (KB) (TVD)**
Total Depth: **2440.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** -hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Jimmy Ricketts**
Unit No: **80**
Reference Elevations: **1384.00 ft (KB)**
1375.00 ft (CF)
KB to GR/CF: **9.00 ft**

Serial #: **8369** **Outside**
Press@RunDepth: **54.37 psig @ 2371.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2019.10.24** End Date: **2019.10.24** Last Calib.: **1899.12.30**
Start Time: **10:19:01** End Time: **17:23:00** Time On Btm: **2019.10.24 @ 12:31:10**
Time Off Btm: **2019.10.24 @ 15:51:39**

TIMES: **30-45-60-60**

TEST COMMENT: **F - Weak blow building to 3 1/2 inches during initial flow period.**
FF - Weak blow building to 1 1/2 inches during final flow period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1170.87	91.42	Initial Hydro-static
1	20.69	91.00	Open To Flow (1)
31	34.82	92.48	Shut-In(1)
75	937.32	93.43	End Shut-In(1)
76	36.96	93.24	Open To Flow (2)
136	54.37	94.49	Shut-In(2)
196	907.68	95.55	End Shut-In(2)
201	1147.94	95.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbi)
70.00	OSM Tr O & 100% M	0.34

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)



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DRILL STEM TEST REPORT

AGV Corporation
123 North Main
P.O. Box 377
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ATTN: Kent Roberts

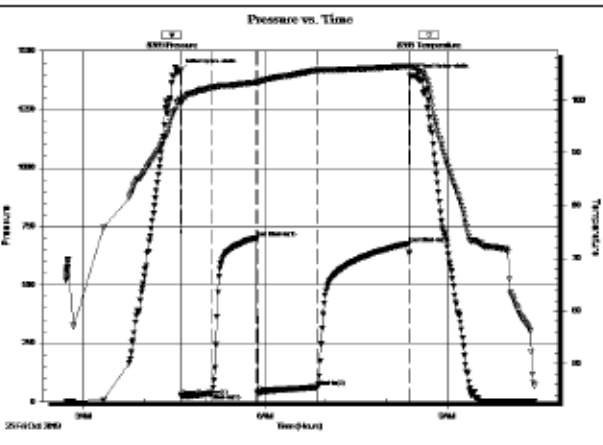
28/24S/3E Butler, KS
Busenitz #1-28
Job Ticket: 65409 **DST#: 2**
Test Start: 2019.10.25 @ 02:43:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 04:37:00
Time Test Ended: 10:26:50
Interval: **2768.00 ft (KB) To 2778.00 ft (KB) (TVD)**
Total Depth: **2778.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches**-hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Jimmy Ricketts**
Unit No: **80**
Reference Elevations: **1384.00 ft (KB)**
1375.00 ft (CF)
KB to GR/CF: **9.00 ft**

Serial #: **8369** **Outside**
Press@RunDepth: **63.12 psig @ 2769.00 ft (KB)**
Start Date: **2019.10.25** End Date: **2019.10.25** Capacity: **8000.00 psig**
Start Time: **02:43:01** End Time: **10:26:50** Last Calib.: **1899.12.30**
Time On Btm: **2019.10.25 @ 04:35:50**
Time Off Btm: **2019.10.25 @ 08:26:30**
TIMES: **30-45-60-90**

TEST COMMENT: **F - Weak blow building to 10 inches during initial flow period.**
FF - Weak blow building to strong blow 22 minutes into final flow period. Continuing to build to 24 inches.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1415.24	100.22	Initial Hydro-static
2	22.96	99.51	Open To Flow (1)
32	36.28	102.43	Shut-in(1)
75	701.73	103.31	End Shut-in(1)
77	38.11	103.18	Open To Flow (2)
136	63.12	105.64	Shut-in(2)
227	677.00	106.39	End Shut-in(2)
231	1393.87	106.28	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bb)
60.00	GHOCM 17%G 39%O & 44%M	0.30
60.00	Clean oil 100%O	0.30
255.00	Gas in pipe 100%G	2.99

Gas Rates			
	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)



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DRILL STEM TEST REPORT

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ATTN: Kent Roberts

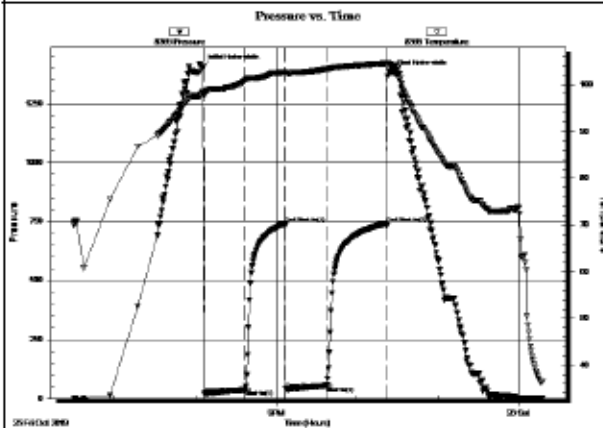
28/24S/3E Butler, KS
Busenitz #1-28
Job Ticket: 65410 **DST#: 3**
Test Start: 2019.10.25 @ 18:30:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 20:08:40
Time Test Ended: 00:17:39
Interval: **2790.00 ft (KB) To 2806.00 ft (KB) (TVD)**
Total Depth: **2806.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** -hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Jimmy Ricketts**
Unit No: **80**
Reference Elevations: **1384.00 ft (KB)**
1375.00 ft (CF)
KB to GR/CF: **9.00 ft**

Serial #: **8369** **Outside**
Press@RunDepth: **53.61 psig @ 2791.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2019.10.25** End Date: **2019.10.26** Last Calib.: **1899.12.30**
Start Time: **18:30:01** End Time: **00:17:40** Time On Btm: **2019.10.25 @ 20:05:50**
Time Off Btm: **2019.10.25 @ 22:25:50**
TIMES: 30-30-30-45

TEST COMMENT: **IF - Weak blow building to 1/2 inch during initial flow period.**
FF - Weak blow building to 1/2 inch during final flow period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1406.59	98.41	Initial Hydro-static
1	19.32	97.67	Open To Flow (1)
32	36.52	100.92	Shut-in(1)
61	740.93	102.68	End Shut-in(1)
62	39.67	102.50	Open To Flow (2)
92	53.61	103.34	Shut-in(2)
137	741.26	104.57	End Shut-in(2)
140	1381.91	104.32	Final Hydro-static












Recovery

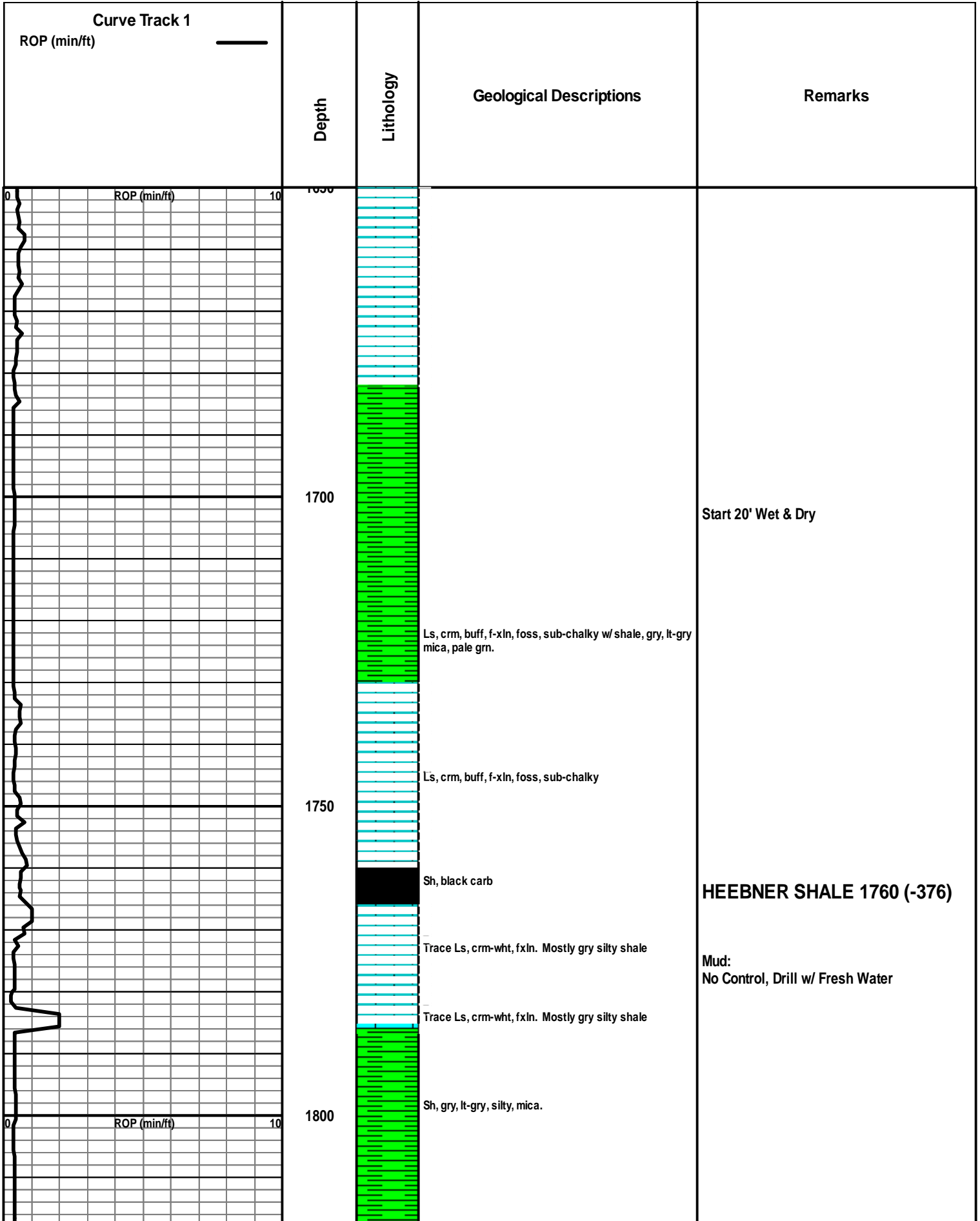
Length (ft)	Description	Volume (bbl)
75.00	OSM Tr O & 100% M	0.37

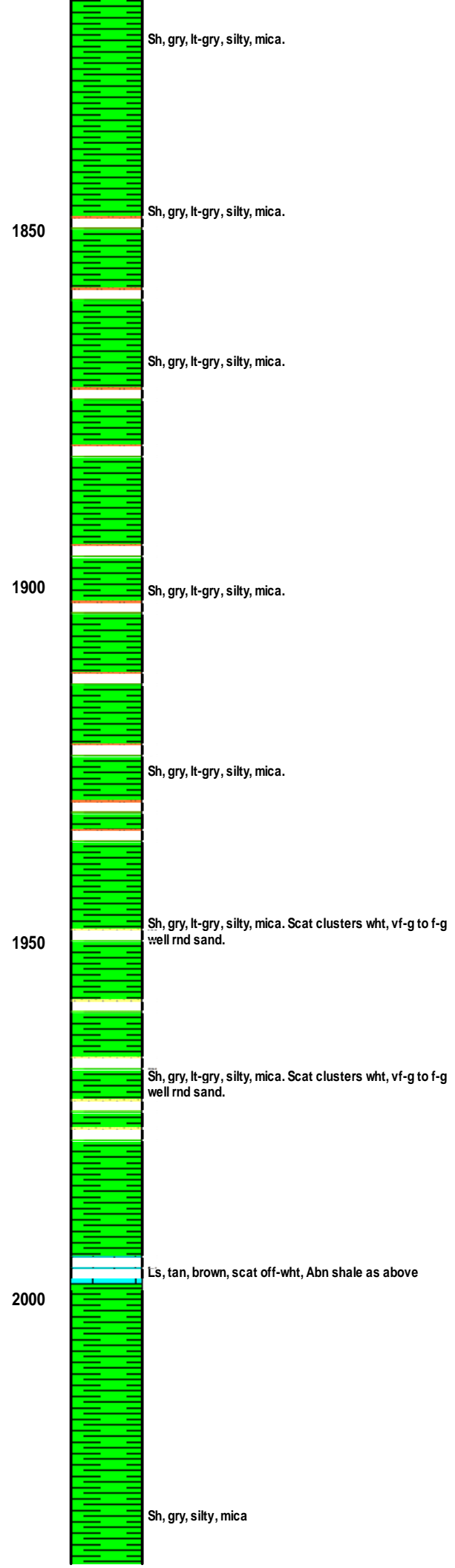
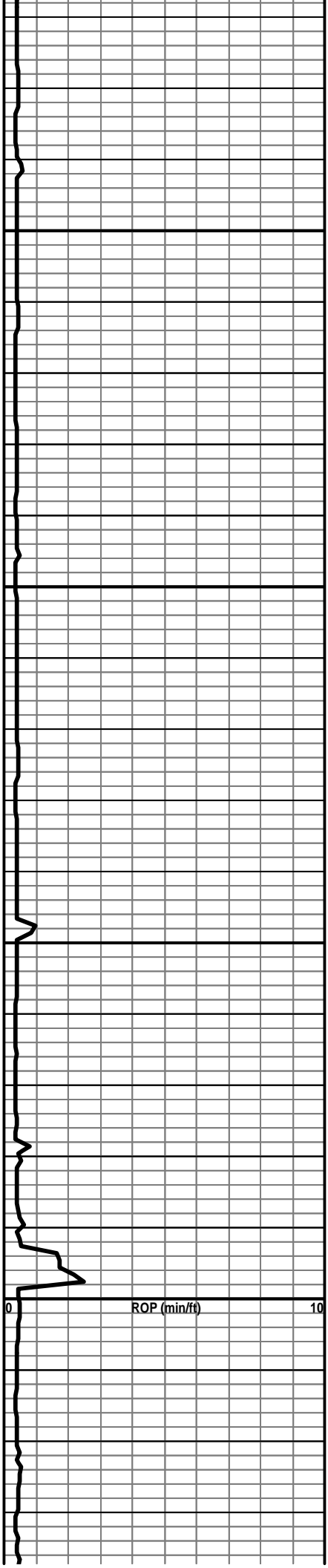
Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)

ROCK TYPES

-  Anhy
-  Congl
-  Salt
-  Siltstone
-  Cht
-  Dolomite
-  Shale
-  Sandstone
-  Black shale
-  Limestone
-  Cherty dol.





Start Mud Up @ 1950

2050

LANSING 2051 (-667)

Samples are very fine but clean.

Ls, crm, buff, wht, vf-f xln, foss i/p

Ls, crm, buff, lt-tan, trace foss, wht, sub chalky w scat
Sh, gry, red, mn

2100

Ls, crm, buff, lt-tan, trace foss, Tan, dense, cherty, wht,
sub chalky w scat Sh, gry, red, mn

Ls, crm, buff, lt-tan, trace foss, Tan, dense, cherty, wht,
sub chalky w scat Sh, gry, red, mn

On Location 9:30 PM 10/23/19
Drilling @ 2130'

Ls, crm-wht, vf-xln, gry, lt-gry,

2150

Ls, crm, buff, lt-tan, fxln, foss

Ls, tan, brn, gry, dk-gry, fxln, dense w/ scat Sh, gry,
black carb.

BASE LANSING 2184 (-800)

Sh, gry, soft, gumbo, some silty

2200

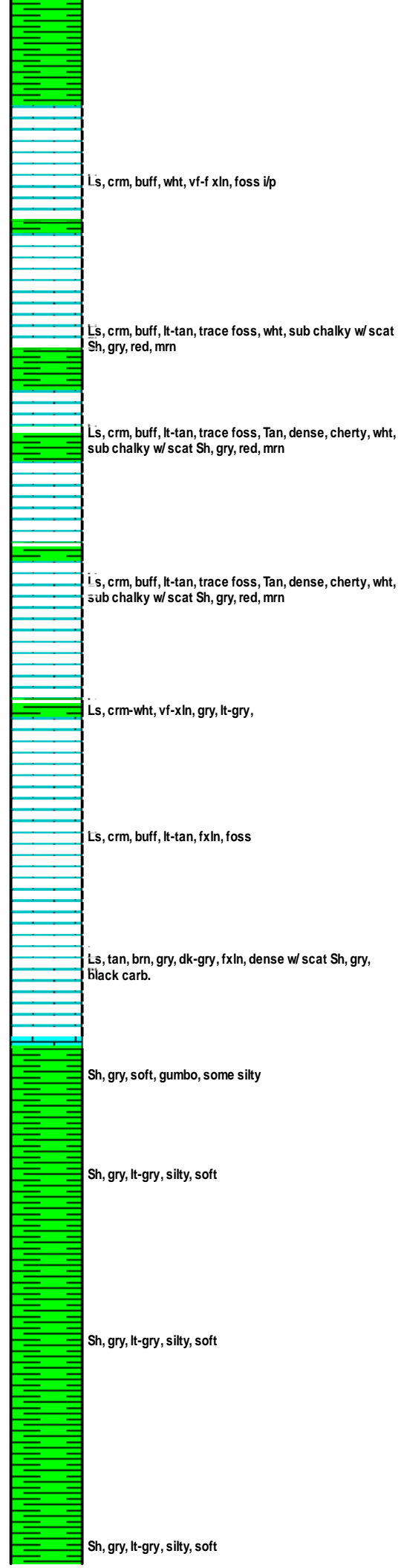
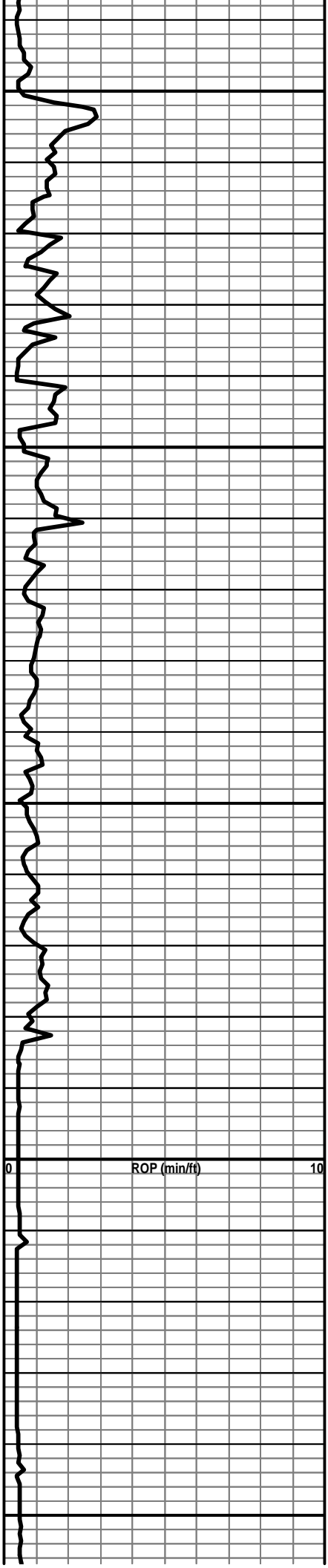
ROP (min/ft)

Sh, gry, lt-gry, silty, soft

Sh, gry, lt-gry, silty, soft

2250

Sh, gry, lt-gry, silty, soft

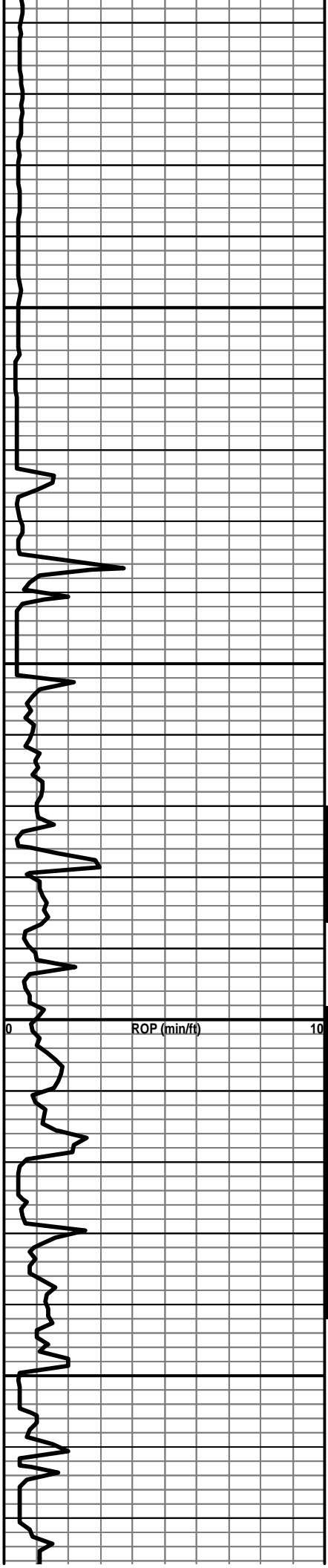


LANSING 2051 (-667)

Samples are very fine but clean.

On Location 9:30 PM 10/23/19
Drilling @ 2130'

BASE LANSING 2184 (-800)



DST #1

CFS

CFS

CFS

CFS

CFS

CFS

CFS



Sh, gry, lt-gry, silty, soft

2300

Sh, gry, dk-gry, silty

Sh, as above with trace crm, tan dense Ls

Ls, crm, tan, brn, fxln, dense, cherty i/p w/ Sh, gry

2350

Sh, gry, gm

Ls, crm, buff fxln, foss, fr xln porosity, Abn soft wht chalk. No show, stain, fluor or odor

Ls, crm, buff, wht, fxln

Sh, gry, dk-gry trace pyr inclusion

Ls, crm, buff, fxln, pr-fr xln porosity, lt brn oil stain, slight show free oil, bright fluor, fair odor

2400

Sh, gry, gm, Black Carb.

Ls, Crm, buff, foss, oolitic, foss w/ fr xln and oolitic porosity, even to sat brn stain, bright fluor, several pcs with good saturation w/ fr show free oil, strong odor.

Ls, crm, tan dense

2450

Sh, Black Carb

Ls, brn, fxln, dense

KANSAS CITY 2323 (-939)

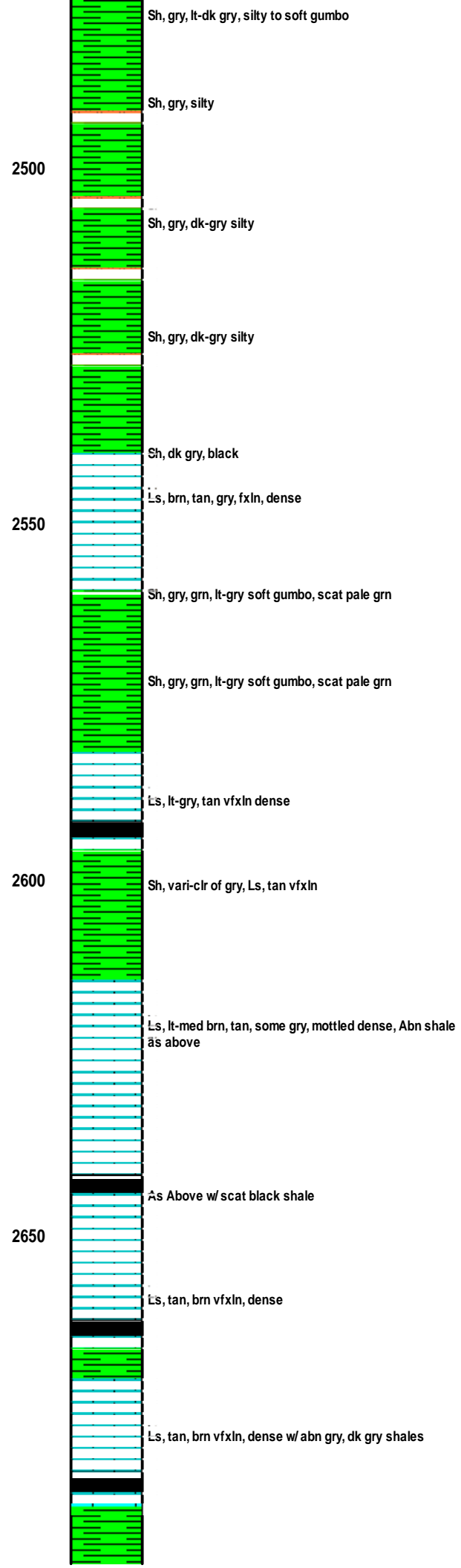
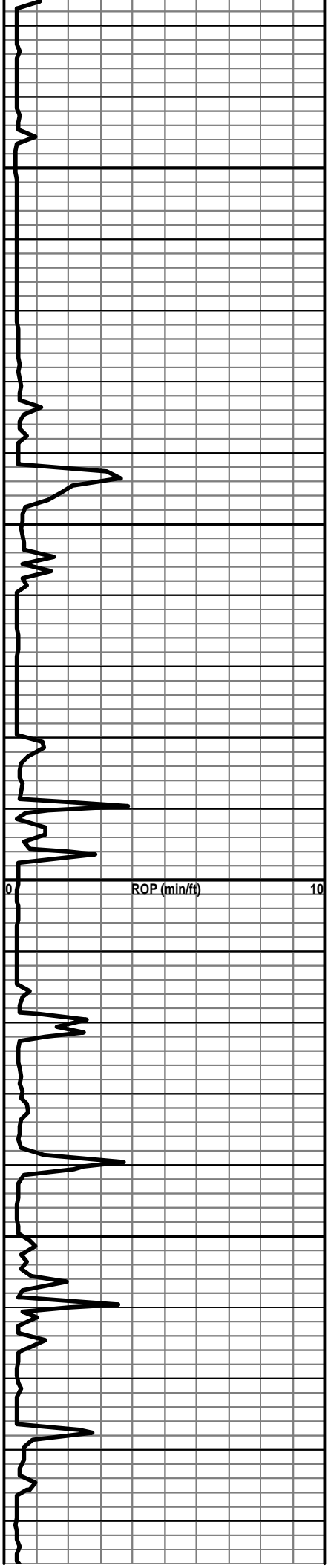
Vis 36 Wt 9.2

DST #1
 Kansas City from 2370' to 2440'.
 30-45-60-60
 IF: Weak blow building to 3-1/2 inches in bucket.
 ISI: No blow.
 FF: Weak blow building to 1-1/2 inches in bucket.
 FSI: No Blow.
 Recovered 70' Oil Spotted Mud. Mud had a good odor of oil.
 HP: 1171-1148, FP: 21-35 / 37-54
 SIP: 937-908.
 BHT = 96 degrees

Vis 37, Wt 9.4 Add tank of mud

STARK SHALE 2419 (-1035)

Fud Mud check 2440' @ 8:50 AM
 Cum. Mud Cost \$5603.60
 TOH f/ DST #1
 Vis 49
 Wt 9.4
 Fil. 8.8
 LCM 1 #



2700

Ls, gry, tan, brn, foss, dense, sh, gry, black carb.

2750

Sh, gry, dk-gry, black, grn, lt-grn, a few sandy i/p. A few cluster of f-grn grn, glauconitic, No shows, No clean sand

DST # 2

Dol, crm, tan, buff vfxln, dense

CFS

2778' - 20" cfs - Dol, tan, brn, fxln, fr xln & pin-point porosity, few pcs fine sucrosic all with good saturation, fr-gd show free oil, bleeding very good show light gassy free oil, bright fluor, very strong odor

CFS

2786' - 40" cfs, Dol - Ls, crm, tan, vfxln, dense, cherty, scat wht - opq chert, Patchy edge fluor, VSSF0, faint odor

CFS

2792' - 40" cfs, Same as above w/ very slight odor

DST # 3

2800

2806' - 20 cfs Dol, tan fine sucrosic, fr porosity, even brn saturation, pr-fr SFO, Abn wht, m-cxln dolomite, foss i/p, Abn glauc inclusions, patchy to even lt brown stain, pr-fr SFO, Bright fluor, Strong Odor. Abn soft white chalk

CFS

Dol, crm, buff, vfxln, Ls, crm, wht, dense, cherty, No show, fluor, weak odor

Ls, wht, m-cxln, foss, scat cht, tan

2850

Cht, wht, slightly weathered, Abn wht chalk and gry, grn and black shales. No shows, faint odor

CFS

Cht, wht, blocky, Ls, wht, fxln w/ Abn soft wht chalk

Cht, wht, sharp to weathered, few pcs weathered have light spotty stain, Ls, wht, f-mxln, still very chalky. No shows, fluor or odor

2900

DST # 2

Miss Dolomite from 2768' to 2778'.
30-45-60-90

IF: Weak blow built to 10" in bucket. ISI: No blow.

FF: Weak built to Strong blow in 22 minutes, Blow built to 24 ".

FSI: No blow.

Recovered 255' Gas in Pipe, 60' Clean Oil, 60' Gassy Heavy Oil Cut Mud (17% gas, 39% oil, 44% mud)

HP: 1415-1394

FP: 23-26 / 38-63

SIP: 702-677

BHT 106 Degree.

Oil Gravity 41.5

Vis 44, Wt 9.3

MISSISSIPPI DOLOMITE
2761 (-1377)

2778 - 40" cfs, Dol, crm, buff, fine sucrosic, saturated lt brn oil stain, fr-gd show light gassy free oil, bright fluor, very strong odor

2778 - 60" cfs, Dol, crm, buff, fine sucrosic, saturated lt brn oil stain, fr-gd show light gassy free oil, floating in tray, very good show when crushed, bright fluor, very strong odor

2806' - 40 & 60" cfs, No rocks in sample box hole is clean

DST # 3

Miss Dolomite from 2790' to 2806'.
30-30-30-45

IF: Weak blow building to 1/2" in bucket. ISI: No blow.

FF: Weak blow building 1/2" in bucket.

FSI: No blow.

Recovered 75' Oil Spotted Mud.

HP: 1407-1382.

FP: 19-37 / 40-54.

SIP: 741-741.

BHT 105

Samples wash white

ROP (min/ft)

