



Joshua R. Austin

Petroleum Geologist

report for
RAMA Operating CO., Inc



COMPANY: RAMA Operating Company, Inc.

LEASE: Schroeder 'C' 9

FIELD: Stoltenberg

LOCATION: Ne-Se-Nw-Nw (675' FNL & 1210' FWL, 40' SE)

SEC: 34 TWSP: 16s RGE: 10w

COUNTY: Ellsworth STATE: Kansas

KB: 1839' GL: 1828'

API # 15-053-21357-00-00

CONTRACTOR: Sterling Drilling (rig #4)

Spud: 09/22/2017 Comp: 09/28/2017

RTD: 3284' LTD: N/A

Mud Up: 2507' Type Mud: Chemical was displaced

Samples Saved From: 2500' to RTD

Drilling Time Kept From: 2500' to RTD

Samples Examined From: 2500' to RTD

Geological Supervision From: 2640' to RTD

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @392'

Production Casing: 5 1/2" @3278'

Electronic Surveys: Electric logs not ran

NOTES

on the basis of the positive drill stem test and structural position, it was recommended to run 5 1/2" production casing to Rotary Total Depth 3284 to open hole complete the Arbuckle. No electric logs were ran.

RAMA Operating Co., Inc.
well comparison sheet

DRILLING WELL			COMPARISON WELL			COMPARISON WELL		
Schroeder C 9			Schroeder C 8			Schroeder C 7		
1839 KB			1825 KB			1825 KB		
			Structural Relationship			Structural Relationship		
Formation	Sample	Sub-Sea	Log	Sub-Sea	Sample	Log	Sub-Sea	Sample
Topeka	2601	-762	2588	-763	1	2592	-767	5
Heebner	2855	-1016	2838	-1013	-3	2843	-1018	2
Toronto	2873	-1034	2856	-1031	-3			
Douglas	2884	-1045	2868	-1043	-2			
Brown Lime	2960	-1121	2945	-1120	-1	2950	-1125	4
Lansing	2983	-1144	2967	-1142	-2	2973	-1148	4
Base KC	3249	-1410	3234	-1409	-1			
Arbuckle	3270	-1431	3255	-1430	-1	3263	-1438	7
Total Depth	3284	-1445	3350	-1525		3338	-1513	



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Company Inc.

34/16S/10W/Ellsworth

101 S Main Street
Stafford Kansas
67578

Schroeder C #9

Job Ticket: 62647

DST#: 1

ATTN: Josh Austin

Test Start: 2017.09.27 @ 16:14:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No Whipstock** ft (KB)

Time Tool Opened: 18:05:02

Time Test Ended: 21:12:17

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Ken Swinney**

Unit No: **72 Great Bend/60**

Interval: **3240.00 ft (KB) To 3278.00 ft (KB) (TVD)**

Total Depth: **3278.00 ft (KB) (TVD)**

Hole Diameter: **7.80 inches** Hole Condition: **Fair**

Reference Elevations: **1839.00 ft (KB)**

1828.00 ft (CF)

KB to GR/CF: **11.00 ft**

Serial #: 6755

Inside

Press@RunDepth: **12.01 psig @ 3241.00 ft (KB)**

Start Date: **2017.09.27**

End Date: **2017.09.27**

Capacity:

psig

Start Time: **16:14:01**

End Time: **21:12:17**

Last Calib.: **2017.09.27**

Time On Btm: **2017.09.27 @ 18:04:32**

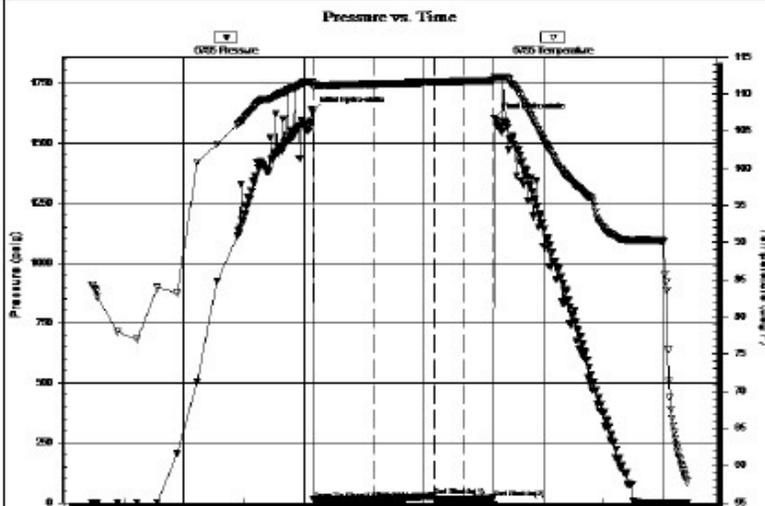
Time Off Btm: **2017.09.27 @ 19:35:32**

TEST COMMENT: **I.F. 30 Minutes/ Weak surface blow died in 7 1/2 minutes**

I.S.I. 30 Minutes/ No blow back

F.F. 15 Minutes/ Dead no blow

F.S.I. 15 Minutes/ No blow back



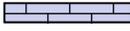
PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.18	111.58	Initial Hydro-static
1	10.00	110.85	Open To Flow (1)
31	11.68	111.37	Shut-In(1)
61	27.30	111.56	End Shut-In(1)
61	12.00	111.57	Open To Flow (2)
76	12.01	111.67	Shut-In(2)
91	18.00	111.83	End Shut-In(2)
91	1605.20	112.23	Final Hydro-static

Length (ft)	Description	Volume (bbl)
62.00	Mud cut gassy Oil	0.30
0.00	Mud 20% Gas 20% Oil 60%	0.00
589.00	Gassy Oil	6.91
0.00	Gas 30% Oil 70%	0.00
0.00	403 feet of GIP	0.00

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

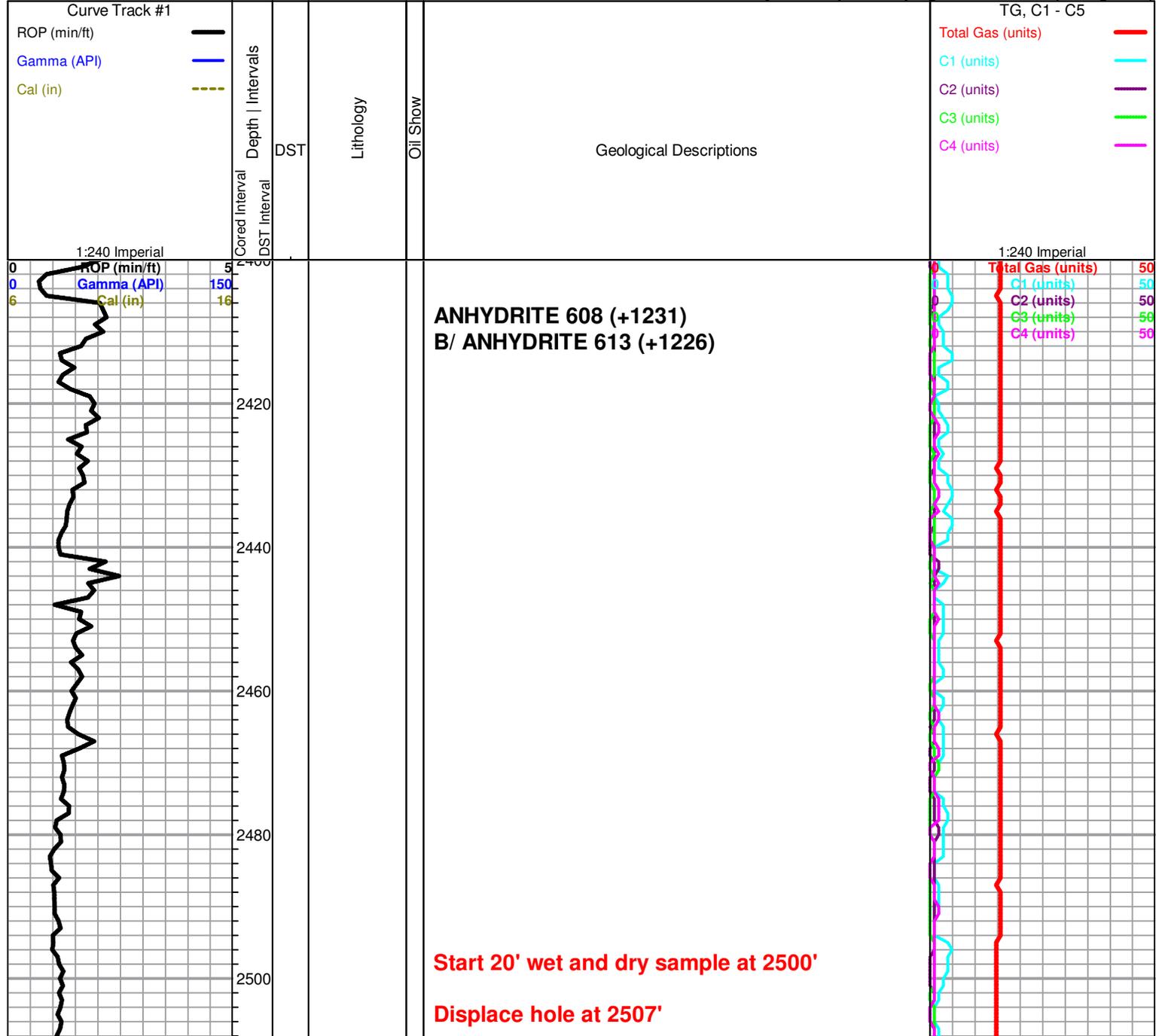
ROCK TYPES

 Cht	 Lmst fw7>	 shale, gry	 shale, red	 Slst
 Dolsec	 shale, grn	 Carbon Sh	 Ss	

OTHER SYMBOLS

- DST**
-  DST Int
 -  DST alt
 -  Core
 -  tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



2520
2540
2560
2580
2600
2620
2640
2660
2680
2700
2720

HOWARD 2514 (-675)

Limestone; gray-cream, fine-medium xln, slightly fossiliferous in part, poor porosity, no shows

Shale; gray-grayish green, fissile in part, soft/gummy

Limestone; cream-tan, fine xln, slightly fossiliferous, chalky, poor visible porosity, no shows

SEVERY 2576 (-737)

Shale; gray-dark gray, soft, micaceous in part, plus Siltstone; lt. gray, micaceous, no shows

TOPEKA 2601 (-762)

Limestone; cream, granular in part, dense, fossiliferous in part, few loose fossil fragments, no shows

Limestone; cream-gray, dense, fine xln, fossiliferous in part, sparry calcite inclusions, poor visible porosity, no shows, plus interbedded Shale; gray-grayish green

Limestone; gray-cream, fine xln, fossiliferous, mottled in part, few pinpoint porosity, no shows

Limestone; tan-lt.gray, micro-fine xln, dense, cherty, fossiliferous, poor visible porosity, no shows, plus Chert; tan-gray, fossiliferous

Limestone; cream, fine xln, chalky, granular in part, slightly fossiliferous, poor porosity, no shows, plus dark gray fossiliferous Chert

KING HILL 2691 (-852)

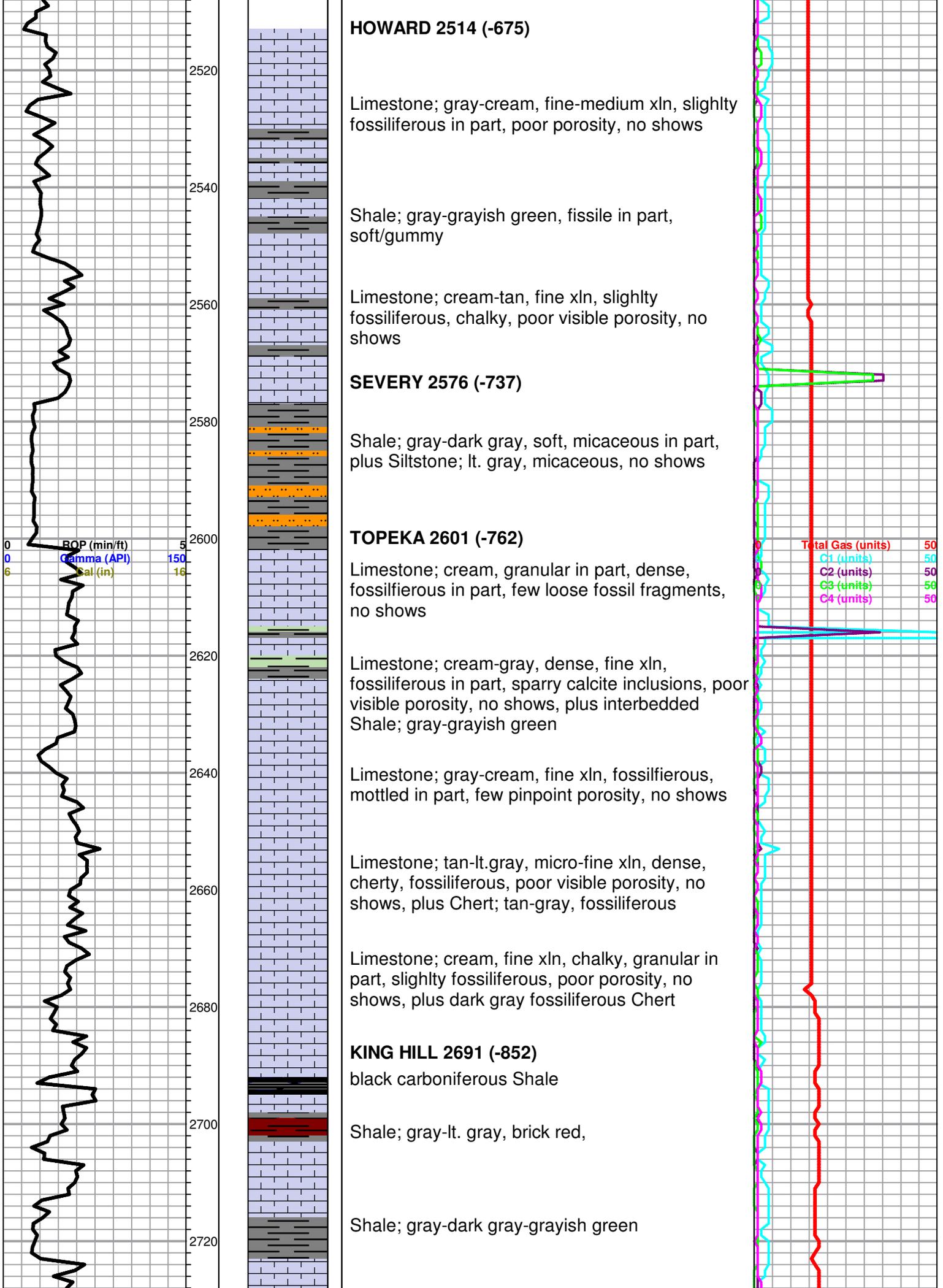
black carboniferous Shale

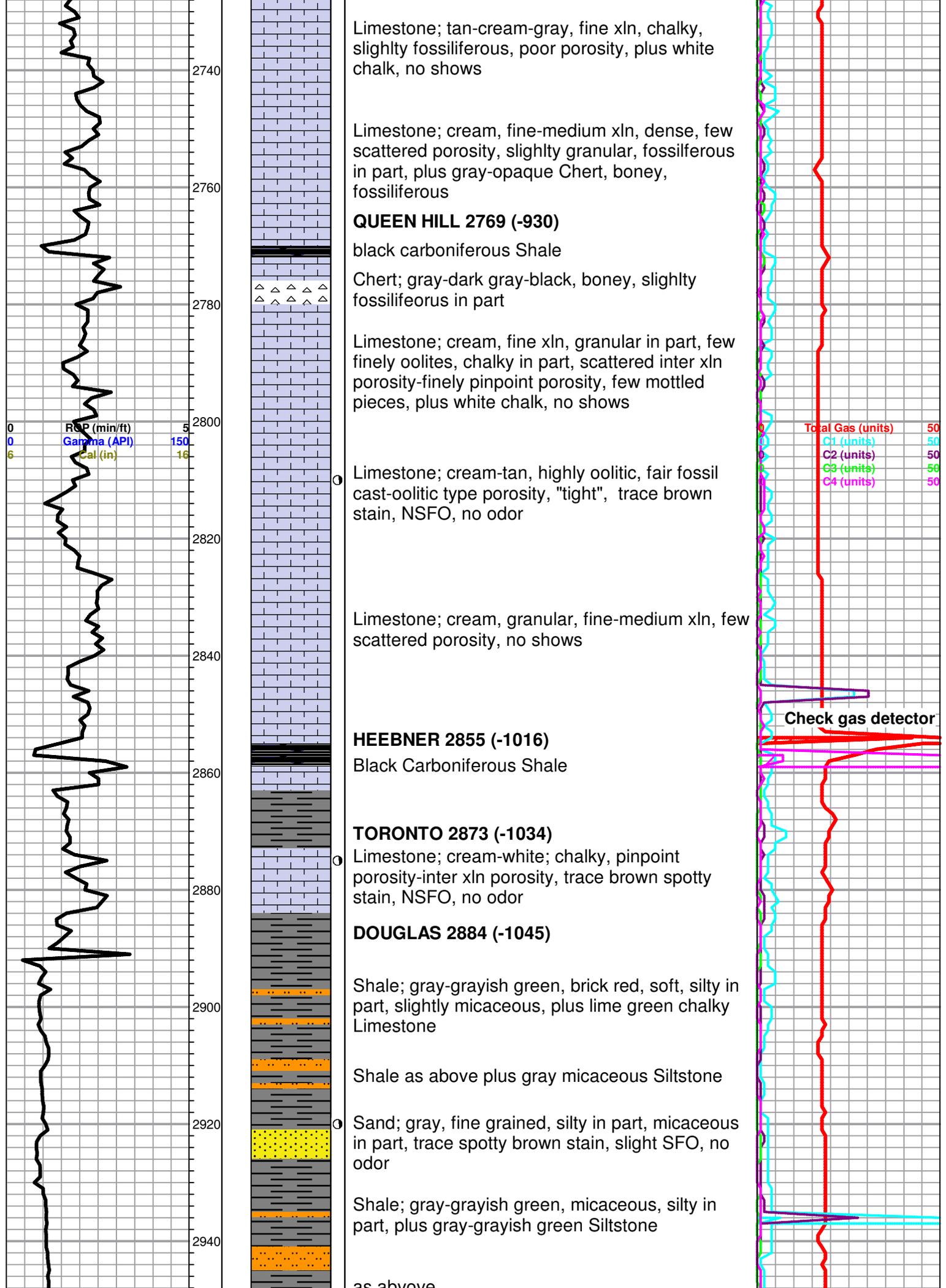
Shale; gray-lt. gray, brick red,

Shale; gray-dark gray-grayish green

0 BOP (min/ft) 5
0 Gamma (API) 150
6 Sal (in) 16

Total Gas (units) 50
C1 (units) 50
C2 (units) 50
C3 (units) 50
C4 (units) 50





as above

Start 10' wet and dry samples

BROWN LIME 2960 (-1121)

Limestone; tan-buff, fine xln, dense, cherty, fossiliferous in part

Shale; gray-maroon

LANSING 2983 (-1144)

Limestone; cream-white, fine xln, chalky, trace "sandy" Limestone; spotty brown stain, NSFO

Limestone; cream, fine-medium xln, highly fossiliferous-oolitic, few scattered fossil cast proosity, no shows

Limestone; cream, oomoldic, trace sub oomoldic porosity, spotty brown stain, NSFO, faint odor

Limestone; tan-cream, fine xln, fossiliferous, dense, cherty

Limestone; white-cream, fine xln, chalky, poorly developed porosity, trace brown stain, NSFO

Limestone; cream-buff, fine xln, dense, fossiliferous in part, cherty, poor porosity, no shows

Limestone; cream-gray, fine xln, chalky in part, oolitic, dense, poor visible porosity, no shows

Limestone; cream-buff, oomoldic, fair-good oomoldic porosity, (barren)

Limestone; gray, fine xln, slightly fossiliferous, dense, no visible porosity, no shows

MUNCIE CREEK 3115 (-1276)

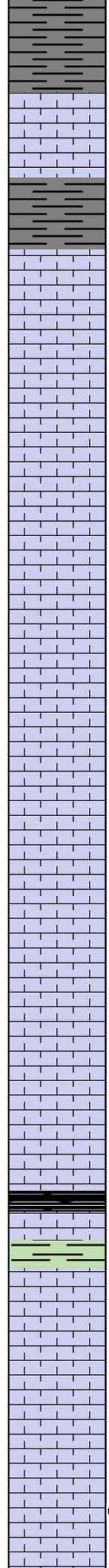
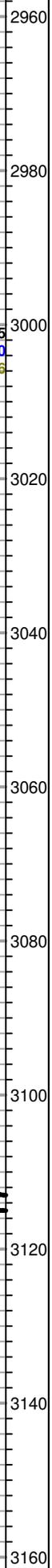
black carboniferous shale

green-gray "limey" Shale

Limestone; cream-lt. gray, fine xln, chalky, dense, poor visible porosity, no shows, plus white chalk

Limestone; cream, fine-medium xln, slightly fossiliferous/oolitic, chalky, few inter xln porosity, no shows

Limestone; cream-buff, highly oolitic, chalky, inter xln-fossil cast type porosity, spotty brown stain, lt. SFO, fair odor



0
0
6
AOP (min/ft)
Gamma (API)
CCL (in)

5
150
16

0
2
12
13
24
Total Gas (units)
(units)
(units)
(units)
(units)

50
50
50
50
50

