



# Joshua R. Austin

## Petroleum Geologist

report for

### RAMA Operating CO., Inc



COMPANY: RAMA Operating Company, Inc.

LEASE: Beran #1-10

FIELD: Hall-Gurney

LOCATION: Se-Nw-Nw-Sw (2300' FSL & 420' FWL)

SEC: 10 TWSP: 15s RGE: 12w

COUNTY: Russell STATE: Kansas

KB: 1822' GL: 1809'

API # 15-167-23949-00-00

CONTRACTOR: Sterling Drilling (rig #5)

Spud: 2/12/2014 Comp: 2/17/2014

RTD: 3375' LTD: 3374'

Mud Up: 2400' Type Mud: Chemical was displaced

Samples Saved From: 2700' to RTD  
 Drilling Time Kept From: 2700' to RTD  
 Samples Examined From: 2700' to RTD  
 Geological Supervision From: 2900' to RTD  
 Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @729'  
 Production Casing:

Electronic Surveys: By Pioneer Energy Services

#### NOTES

On the basis of the poor results on the drill stem test and after reviewing the electric logs, it was recommended by all parties involved, to plug and abandon the Beran #1-10 at the rotary total depth 3375' (-1553).

## RAMA Operating Co., Inc.

### well comparison sheet

DRILLING WELL

COMPARISON WELL

COMPARISON WELL

1822 KB					1812 KB				Structural Relationship		1821 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log		
Anyhidrite	727	1095			720	1092	-3			728	1093	-2		
Heebner	2876	-1054	2873	-1051	2866	-1054	0	3		2882	-1061	7	10	
Toronto	2893	-1071	2888	-1066	2882	-1070	-1	4		2898	-1077	6	11	
Douglas	2909	-1087	2906	-1084	2891	-1079	-8	-5		2915	-1094	7	10	
Brown Lime	2967	-1145	2964	-1142	2958	-1146	1	4		2976	-1155	10	13	
Lansing	2979	-1157	2974	-1152	2968	-1156	-1	4		2988	-1167	10	15	
Base KC	3240	-1418	3236	-1414	3229	-1417	-1	3		3240	-1419	1	5	
Gorham SS	3275	-1453	3272	-1450	3265	-1453	0	3						
Arbuckle										3258	-1437			
Reagan	3297	-1475	3291	-1469	3281									
Total Depth	3375	-1553	3374	-1552	3310	-1498				3343	-1522			



**DIAMOND TESTING**  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: Beran # 1-10 Dst 1

TIME ON: 04:02  
 TIME OFF: 10:46

Company Rama OP. Co. Inc Lease & Well No. Beran # 1-10  
 Contractor Sterling Drilling Rig 5 Charge to Rama OP. CO. Inc  
 Elevation KB 1822 GL 1809 Formation Lansing E-F Effective Pay -- Ft. Ticket No. RR003  
 Date 02/16/2014 Sec. 10 Twp. 15 S Range 12 W County Russell State KANSAS  
 Test Approved By Josh Austin Diamond Representative Ricky Ray

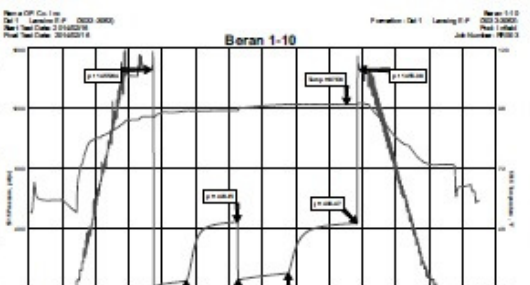
Formation Test No. 1 Interval Tested from 3033 ft. to 3053 ft. Total Depth 3053 ft.  
 Packer Depth 3028 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.  
 Packer Depth 3033 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

Depth of Selective Zone Set --  
 Top Recorder Depth (Inside) 3021 ft. Recorder Number 5515 Cap. 5,000 P.S.I.  
 Bottom Recorder Depth (Outside) 3035 ft. Recorder Number 5586 Cap. 5,000 P.S.I.  
 Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. -- P.S.I.

Mud Type Chem Viscosity 80 Drill Collar Length 330 ft. I.D. 2 1/4 in.  
 Weight 8.9 Water Loss 8.8 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.  
 Chlorides 3000 P.P.M. Drill Pipe Length 2677 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NA Test Tool Length 26 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 20 ft. 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: 1/2" Blow-BOB 16 mins 1/4" BB  
 2nd Open: 1/4" Blow-BOB 18 mins 3" BB

Recovered 242 ft. of GIP  
 Recovered 10 ft. of HMCO 58%O 42%M  
 Recovered 93 ft. of SLWCOCM 25%O 8%W 67%M  
 Recovered 96 ft. of SLMCSLOCW 8%O 89%W 3%M  
 Recovered 199 ft. of Total Fluid  
 Recovered -- ft. of PH: 7 RW: .22 @ 48 Deg  
 Remarks: Chlorides: 42,000ppm



Tool Sample: 10% O 89% W 1%M



Time Set Packer(s) 5:53 am <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 8:53 am <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 98

Initial Hydrostatic Pressure..... (A) 1456 P.S.I.

Initial Flow Period..... Minutes 30 (B) 11 P.S.I. to (C) 56 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 447 P.S.I.

Final Flow Period..... Minutes 45 (E) 64 P.S.I. to (F) 107 P.S.I.

Final Closed In Period..... Minutes 60 (G) 438 P.S.I.

Final Hydrostatic Pressure..... (H) 1455 P.S.I.



**DIAMOND TESTING**  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: Beran # 1-10 Dst 2

TIME ON: 03:36  
 TIME OFF: 12:08

Company Rama OP. Co. Inc Lease & Well No. Beran # 1-10  
 Contractor Sterling Drilling Rig 5 Charge to Rama OP. CO. Inc  
 Elevation KB 1822 GL 1809 Formation Gorham Sand Effective Pay -- Ft. Ticket No. RR004  
 Date 02/17/2014 Sec. 10 Twp. 15 S Range 12 W County Russell State KANSAS  
 Test Approved By Josh Austin Diamond Representative Ricky Ray

Formation Test No. 2 Interval Tested from 3249 ft. to 3281 ft. Total Depth 3281 ft.  
 Packer Depth 3244 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.  
 Packer Depth 3249 ft. Size 6 3/4 in. Packer depth -- ft. Size 6 3/4 in.

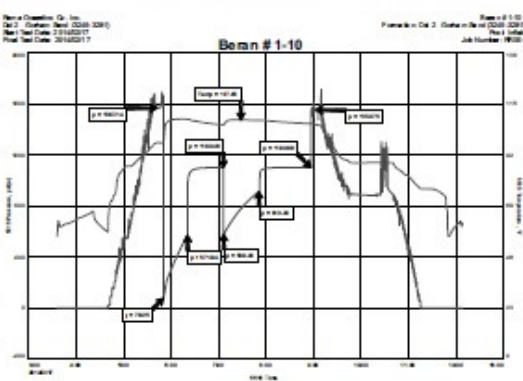
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 3230 ft. Recorder Number 5515 Cap. 5,000 P.S.I.  
 Bottom Recorder Depth (Outside) 3249 ft. Recorder Number 5586 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 390 ft. I.D. 2 1/4 in.  
 Weight 9.3 Water Loss 8.4 cc. Weight Pipe Length -- ft. I.D. 2 7/8 in.  
 Chlorides 3000 P.P.M. Drill Pipe Length 2826 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NA Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out YES Anchor Length 32 ft. 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: 1/4" Blow-BOB 2" mins NOBB  
 2nd Open: 1/2" Blow-BOB 1-3/4 mins NOBB

Recovered 171 ft. of MCW 77%W 23%M  
 Recovered 252 ft. of SLMCW 99%W 1%M  
 Recovered 1455 ft. of SLMCW 99%W 1%M (Cir to pit)  
 Recovered 120 ft. of SLMCW 99%W 1%M  
 Recovered 1998 ft. of Total Fluid  
 Recovered \_\_\_\_\_ ft. of Ph: 7 RW .6 @ 58 Deg  
 Remarks: Chlorides 13,000ppm


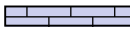







Tool Sample: 97%W 3%M




Time Set Packer(s) 5.51 A.M. P.M. Time Started Off Bottom 8.51 A.M. P.M. Maximum Temperature 108

Initial Hydrostatic Pressure..... (A) 1567 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 79 P.S.I. to (C) 572 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 1102 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 580 P.S.I. to (F) 913 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 1103 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1553 P.S.I.

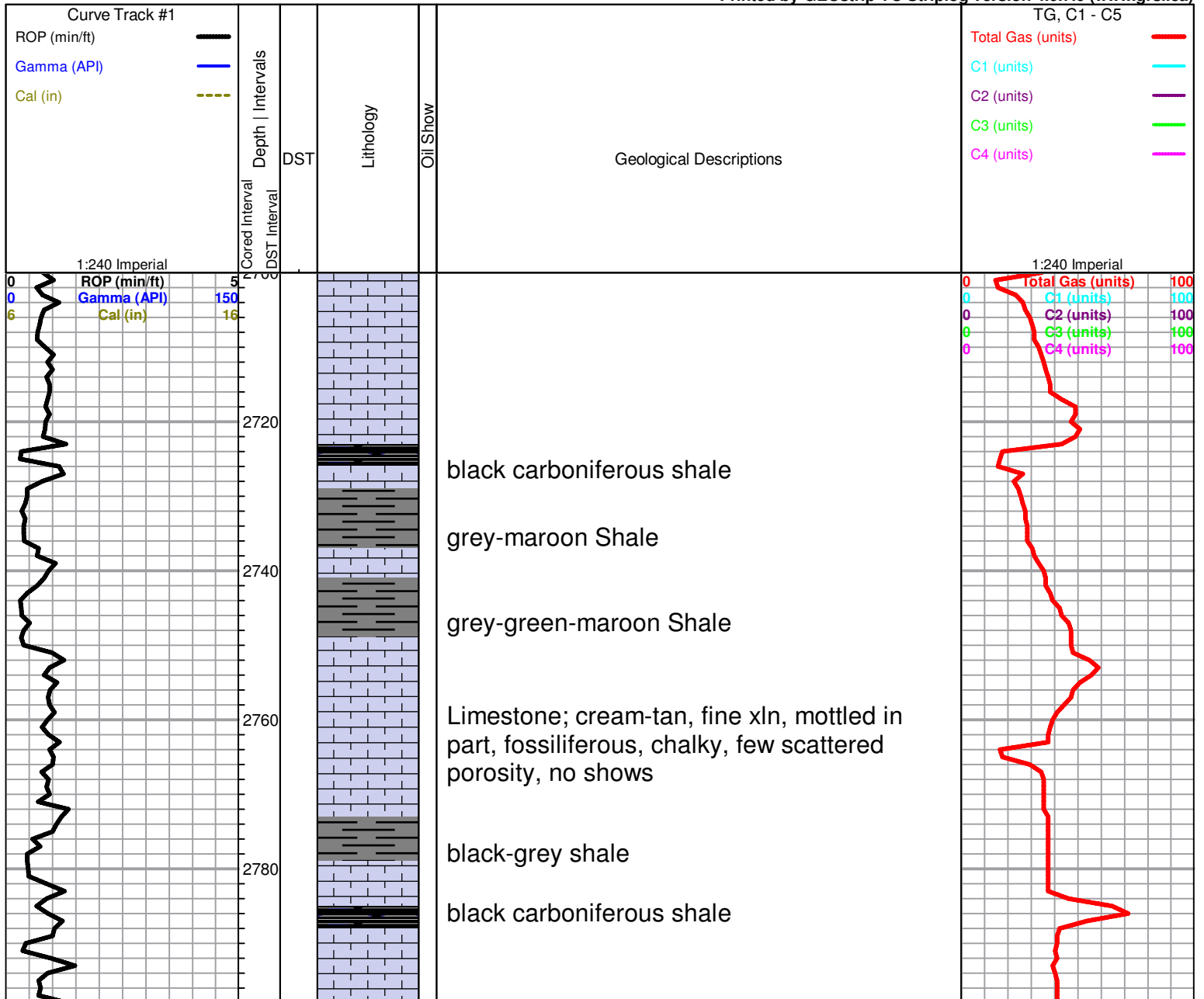
**ROCK TYPES**

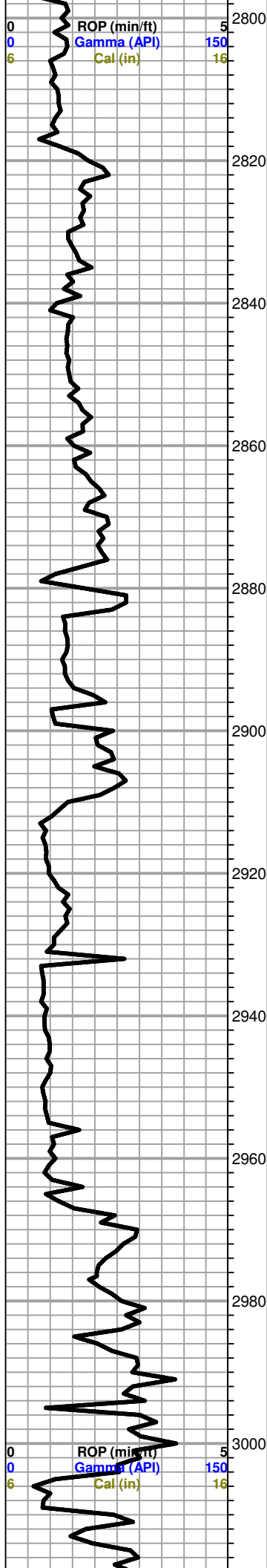
 Congl    
  Lmst fw7>  
 Dolsec    
  shale, grn    
  shale, gry    
  Ss  
 Carbon Sh

**OTHER SYMBOLS**

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

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





Limestone; cream-buff, fine xln, chalky, slightly fossiliferous, mottled in part, poor visible porosity, few sparry calcite, no shows

Limestone; cream-tan-buff, fine-medium xln, slightly sucrosic, chalky, dolomitic in part, poorly deviated porosity, spotty brown stain, trace gas bubbles, questionable odor

Limestone; cream, tan, fine xln, dense, fossiliferous in part, plus cream-lt. tan Chert

**HEEBNER 2876 (-1054)**

Black Carboniferous Shale

Shale; grey-greyish green

**TORONTO 2893 (-1071)**

Limestone; cream-grey, fine xln, fossiliferous, dense, no shows

**DOUGLAS 2909 (-1087)**

Shale; grey-greyish green, soft/ gummy

Siltstone; greyish green, very fine grained, micaceous, plus Shale; grey-green, few micaceous pieces, soft/gummy

Siltstone as above plus Sand; grey-greyish green, very fine grained, sub angular, micaceous, silty, no shows, plus grey-green, Shale

**BROWN LIME 2967 (-1145)**

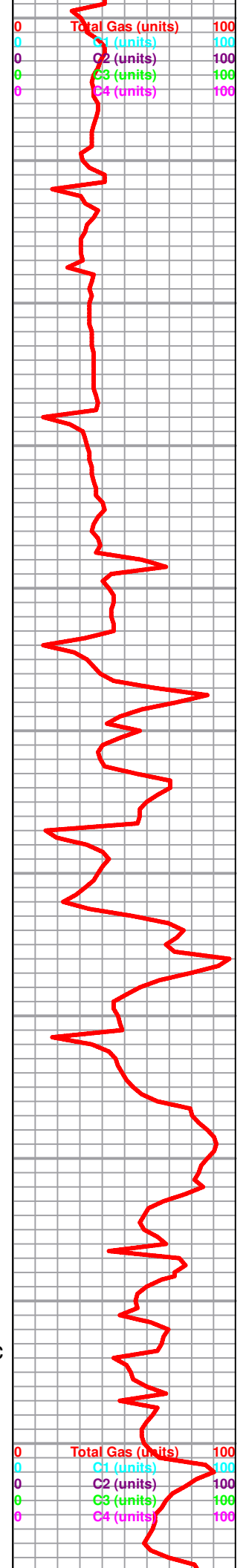
Limestone; tan-cream, fine xln, dense, fossiliferous, cherty

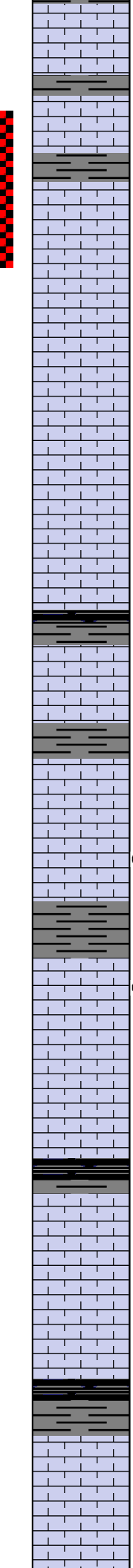
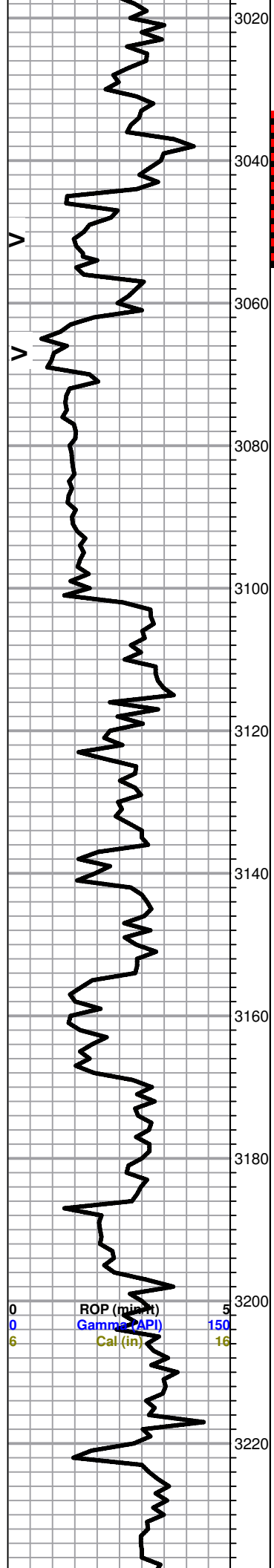
**LANSING 2979 (-1157)**

Trace Limestone; oomoldic, tan, fair oomoldic porosity, brown stain, SFO, fair odor

Limestone; cream-grey, fine xln, chalky, few scattered porosity, trace golden brown stain, NSFO, very faint odor

Limestone; as above, oomoldic porosity, trace lt. FO, no odor, plus white Chalk





Limestone; cream-tan, oomoldic, chalk in part, fair-good oomoldic porosity, trace brown stain, NSFO, no odor

Limestone; grey-cream, fine xln, dense, chertv grey shale

Limestone; cream-tan, fossiliferous, fair inter xln-poorly developed fossil cast type porosity, golden brown stain, SFO, good odor

Limestone; cream, oomoldic, chalky, good oomoldic porosity, trace brown stain, lt. SFO, "sulfur" odor. Plus cream-orange Chert, oolitic

Limestone; as above, good oomoldic porosity (barren) Chert; as above

black carboniferous shale, plus grey-green shale

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

Limestone; cream-tan, finely oolitic, trace vuggy porosity, dense, "tight", brown stain, SFO, faint-fair odor

Shale; grey-maroon-green

Limestone; tan-cream, oomoldic, chalky in part, good oomoldic porosity, trace brown stain, trace spotty free oil, mostly barren, very faint odor

Limestone; cream, fine xln, chalky, dense, slightly fossiliferous, no shows

black carboniferous shale

Limestone; lt. grey-cream, fine xln, chalky, poor porosity, no shows, plus lt. grey boney oolitic, Chert

black carboniferous shale plus grey-dark grey Shale

Limestone; buff-tan, fossiliferous in part, dense, slightly cherty, no shows

**BASE KANSAS CITY 2240 ( 1410)**

