

Scale 1:240 Imperial

Well Name: HRABE #1  
Surface Location: NE SW SW NE Sec. 16 - 8S 18W  
Bottom Location:  
API: 15-163-24374  
License Number: 33813  
Spud Date: 9/28/2018 Time: 6:30 PM  
Region: ROOKS COUNTY  
Drilling Completed: Time:  
Surface Coordinates: 3289' FSL & 2310' FEL  
Bottom Hole Coordinates:  
Ground Elevation: 1954.00ft  
K.B. Elevation: 1964.00ft  
Logged Interval: 0.00ft To: 0.00ft  
Total Depth: 0.00ft  
Formation: LANSING - KANSAS CITY; ARBUCKLE  
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

#### OPERATOR

Company: JASON OIL COMPANY, LLC  
Address: 3718 183rd RD  
P.O. BOX 701  
RUSSELL, KS 67665  
Contact Geologist: SHELDON BENNETT  
Contact Phone Nbr: (785) 483-4204  
Well Name: HRABE #1  
Location: NE SW SW NE Sec. 16 - 8S 18W  
API: 15-163-24374  
Pool: State: KANSAS Field: HARBE  
Country: USA

#### SURFACE CO-ORDINATES

Well Type: Vertical  
Longitude: -99.3329172  
Latitude: 39.3593010  
N/S Co-ord: 3289' FSL  
E/W Co-ord: 2310' FEL

#### LOGGED BY



Company: BIG CREEK CONSULTING, INC.  
Address: 1909 MAPLE  
ELLIS, KS 67637  
Phone Nbr: (785) 259-3737  
Logged By: GEOLOGIST Name: JEFF LAWLER

#### CONTRACTOR

Contractor: SOUTHWIND DRILLING  
Rig #: 8  
Rig Type: MUD ROTARY  
Spud Date: 9/28/2018 Time: 6:30 PM  
TD Date: Time:  
Rig Release: Time:

### ELEVATIONS

K.B. Elevation: 1964.00ft  
K.B. to Ground: 10.00ft

Ground Elevation: 1954.00ft

### NOTES

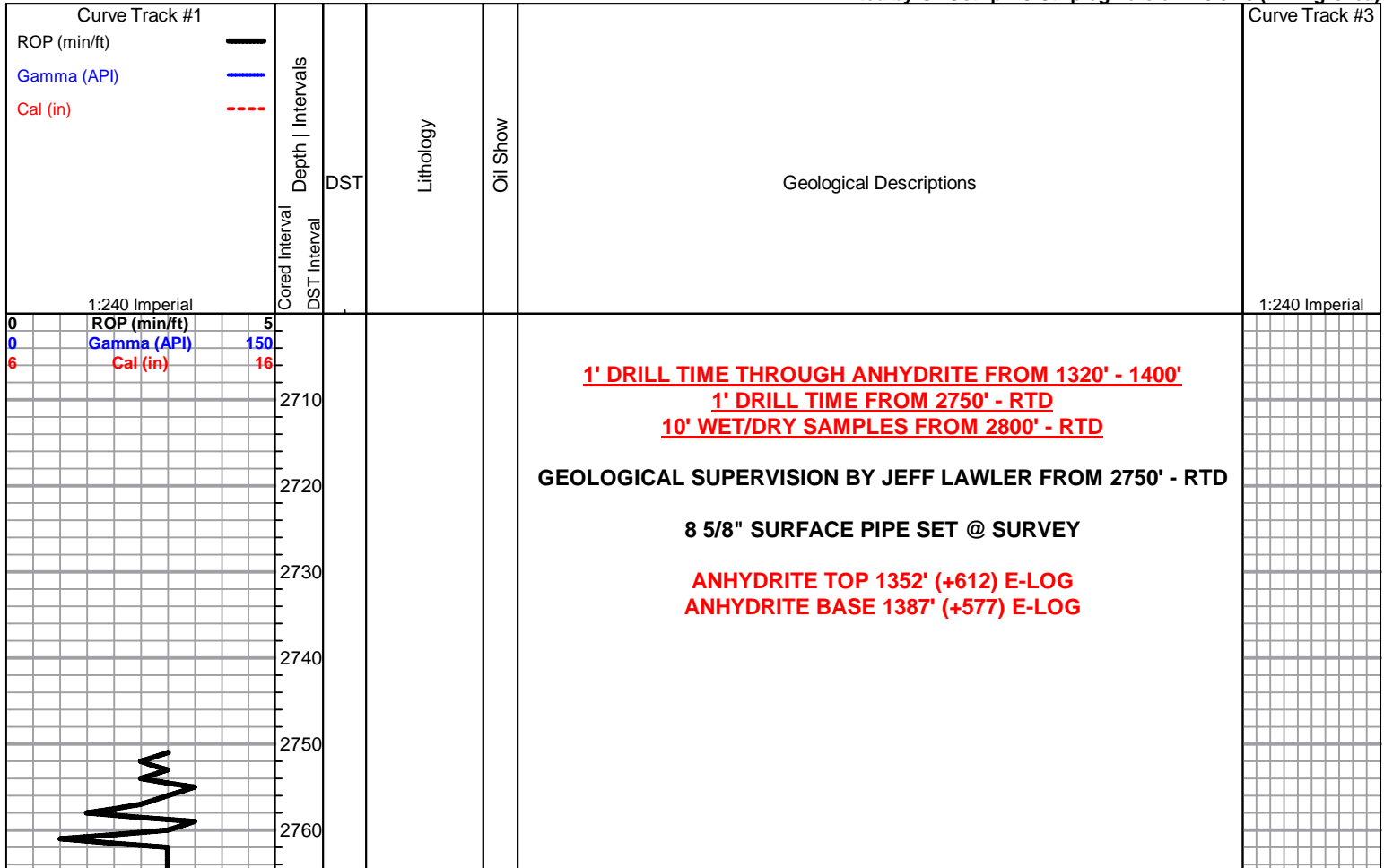
### WELL COMPARISON SHEET

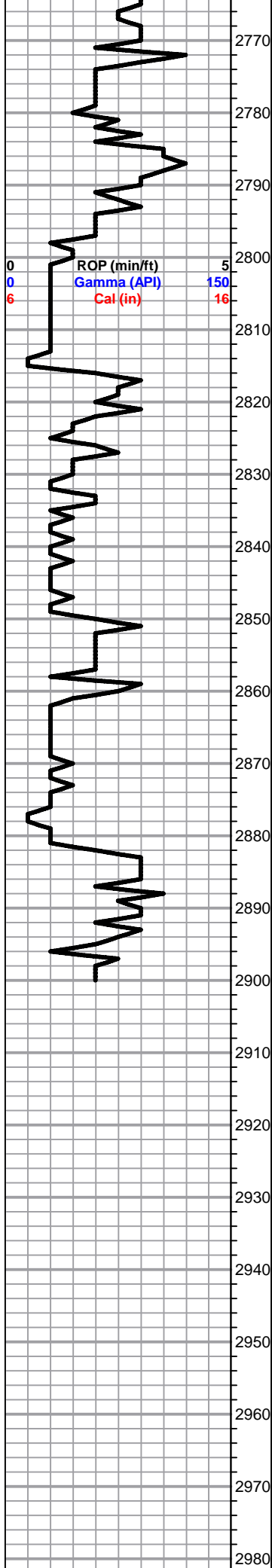
FORMATION	HRABE #1				NENESW 16-8-18				SE NW SE 16-8-18				SE SE NE 16-8-18				NENE 16-8-16			
	1964		1954		1966		1955		1937		1937		1937		1937					
	LOG TOPS		SAMPLE TOPS		LOG		LOG		LOG		LOG		LOG		LOG					
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM				
ANHYDRITE TOP		1352	612	1343	623			1330	625			1333	604			1323	614			
ANHYDRITE BASE		1387	577	1377	589			1360	595							1357	580			
TOPEKA		2882	-918	2882	-916			2864	-909			2863	-926			2863	-926			
HEEBNER SHALE				3090	-1124			3071	-1116			3073	-1136			3072	-1135			
TORONTO				3110	-1144			3095	-1140			3096	-1159			3096	-1159			
LKC				3132	-1166			3116	-1161			3117	-1180			3116	-1179			
BKC				3349	-1383			3329	-1374			3339	-1402			3333	-1396			
REWORKED ARBUCKLE																				
ARBUCKLE				3423	-1457			3364	-1409			3387	-1450			3355	-1418			
TOTAL DEPTH				3682	-1716			3494	-1539			3396	-1459			3412	-1475			

### OTHER SYMBOLS

- DST**  
■ DST Int  
■ DST alt

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Lm- Cream Buff, FXLN, dense, fsl, well cemented, sctrd XLN porosity, some sl chalky in part, barren

Lm- A/A w/ black trash fsl high-energy bioclastic, dense XLN porosity

Sh/Ss- Gray, dense & waxy, some gummy wash, shaley Ss/sandy shale

Sh- Gray argillaceous clumps

Lm- Buff Cream, FXLN, fsl, dense high-energy mix, sctrd-dense XLN porosity, some chalky in part

Sh- Gray Green, argillaceous clumps, Ss- Fn Grn, consolidated & well sorted, loosely cemented, intergranular porosity, barren, sl micaceous

Sh- A/A w/ dark gray, dense & waxy

Lm- Off White Gray, Fn Grn, loosely & well cemented arenaceous Ls w/ sctrd intergranular to poor vis. porosity, barren

Sh- Gray Maroon Green, abundant gummy wash & argillaceous clumps Ss- Frosted, Fn Grn, friable, consolidated & well sorted, sub-rounded, barren, calcareous micaceous gray shale

**TOPEKA 2882' (-918) E-LOG** Lm- Cream, VFXLN, dense, vry well cemented, tight w/ min. vis. porosity, trace of clear replacement cementation, barren

Lm- Gray Buff Tan, VF-FXLN, well cemented & tight, fsl, sctrd micro XLN porosity

2990

3000

3010

3020

3030

3040

3050

3060

3070

3080

3090

3100

3110

3120

3130

3140

3150

3160

3170

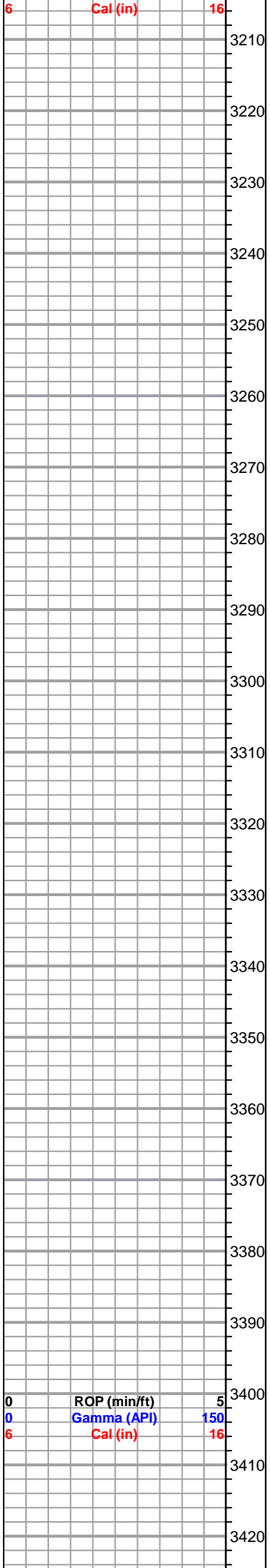
3180

3190

3200

0 ROP (min/ft) 5  
0 Gamma (API) 150  
6 Cal (in) 16

0 ROP (min/ft) 5  
0 Gamma (API) 150



3430  
3440  
3450  
3460  
3470  
3480  
3490