

# ROBERT E. O'DELL

## Petroleum Geologist

### GEOLOGIST'S REPORT

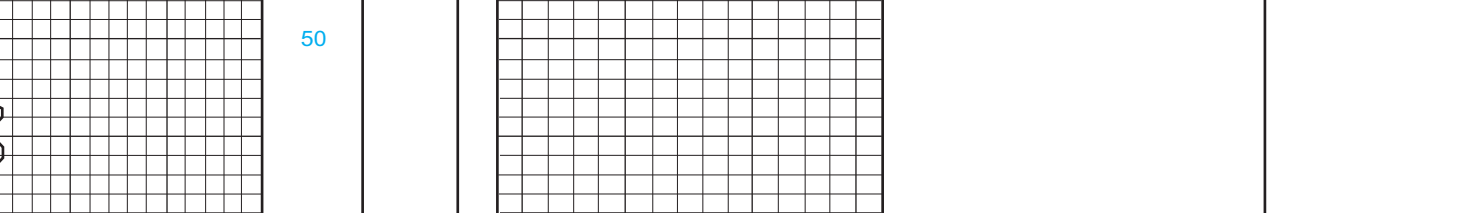
#### DRILLING TIME AND SAMPLE LOG

COMPANY	Tomlinson Operating, LLC.		
LEASE	Jensen #2	STATE	Kansas
FIELD	Southern Southeast	CONTRACTOR	Southwind Drilling Inc #70
LOCATION	12207 FSL & 16507 FWL	SPUD	4-12-2013
SEC	35 TWPSP 11S R0E	RTD	3775
COUNTY	Ellis	MUD UP	2900
CONDUCTOR	Ellys	TYPE MUD	Chemical
MEASUREMENTS	From KB	SAMPLES SAVED FROM	3000' TO RTD
CASING	From KB	DRILLING TIME KEPT FROM	3000' TO RTD
ELECTRICAL	From KB	SAMPLES EXAMINED FROM	3000' TO RTD
REMARKS	Due to the positive drillstem test in the Arbuckle, decision was made to set 5-1/2" casing at 3775' RTD and attempt completion through perforations.		

Respectfully submitted,  
 Rob O'Dell  
 4/19/2013

API # 15-051-26,494

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Arbuckle	14931 (+ 663)	3156 (- 1000)
Topoka	3380 (- 1224)	3384 (- 1228)
Heabner	3420 (- 1264)	3423 (- 1267)
Lansing	3653 (- 1487)	3657 (- 1501)
BKC	3696 (- 1540)	3700 (- 1544)
Arbuckle	3775 (- 1619)	3775 (- 1619)



DEPTH	LITHOLOGY	GAS SCALE	SAMPLE DESCRIPTION	REMARKS
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4/12/2013 - WDR  
 4/13/2013 - 7:00 a.m. Drilling @ 440'  
 4/14/2013 - 7:00 a.m. Drilling @ 1656'  
 4/15/2013 - 7:00 a.m. Drilling @ 2556'  
 4/16/2013 - 7:00 a.m. Drilling @ 3125'  
 Geologist on location @ 9:30 a.m. Drilling @ 3300'  
 4/17/2013 - 7:00 a.m. Running DST #1 @ 3470'  
 4/18/2013 - 7:00 a.m. Running DST #2 @ 3630'  
 4/19/2013 - 7:00 a.m. CTR of fer DST #3 @ 3707'

Shale-dark grey, grey, part calcareous  
 Lst-white, lt grey, fm xln, part fossiliferous, part calcitic, no vis porosity  
 Lst-grey, tan, f-m xln, part argillaceous, scattered calcitic, no vis porosity  
 Lst-as above to tan, brown, f-xln, granular, scattered fossiliferous, no vis porosity  
 Shale-grey, lt grey, soft, slightly sandy  
 Lst-tan, lt grey, white, f-m xln, fossiliferous, scattered calcitic, scattered cherty, soft, no vis porosity  
 Shale-dark grey, grey, scattered calcareous  
 Shale-black, dark grey, grey, soft  
 Lst-white, tan, fm xln, granular, part cherty, no vis porosity  
 Shale-dark grey, grey  
 Lst-white, tan, fm xln, fossiliferous, calcitic, no vis porosity  
 Lst-white, tan, lt grey, f-xln, fossiliferous, calcitic, scattered cherty, part dense, no vis porosity  
 Lst-grey, white, v-f xln, part granular, part calcitic, scattered white, f-xln, granular, dolomitic, friable, part cherty, poor xln porosity, very slight show stringy free oil, no odor, lt partial str  
 Lst-white, lt grey, tan, f-xln, granular, part cherty, no vis porosity  
 Shale-grey, dark grey, part calcareous  
 Lst-white, lt grey, tan, f-m xln, scattered fossiliferous, part argillaceous, no vis porosity  
 Lst-tan, grey, fm xln, granular, scattered fossiliferous, calcitic, fair xln & pinpoint porosity, no show  
 Shale-dark grey, black  
 Lst-white, lt grey, v-f xln, cherty, blocky, dense, no vis porosity  
 Lst-lt grey, tan, white, f-xln, granular, part fossiliferous, no vis porosity  
 Shale-dark grey, lt grey  
 Shale-black, hard  
 Lst-white, f-xln, granular, cherty, soft, no vis porosity to very scattered white, fm xln, calcitic, fossiliferous, calcitic, very slight show free oil, no odor, dark str & partial saturation (<1% of sample)  
 Lst-white, tan, f-xln, part cherty, part argillaceous, scattered cherty, no vis porosity  
 Lst-white, tan, f-xln, granular, cherty, part soft, no vis porosity  
 Shale-black, dark grey, fissile  
 Shale-pale grey, pale green, very soft, gummy  
 Lst-tan, white, v-f xln, cherty, scattered cherty, most dense, no vis porosity  
 Lst-white, tan, v-f xln, part very cherty, dense, part fossiliferous, argillaceous, no vis porosity  
 Lst-as above to lt grey, v-f xln, part granular, dense, no vis porosity  
 Lst-tan, v-f xln, cherty, dense, no vis porosity  
 Shale-grey, dark grey, green, part calcareous  
 Shale  
 Lst-lt grey, grey, fm xln, granular, dolomitic, fossiliferous, part calcitic to white, f-xln, calcitic, calcitic, poor to fair xln & interbedded porosity, fair show free oil, faint odor, lt partial str to dark saturation  
 Shale-dark grey, dark green  
 Lst-tan, brown, lt grey, v-f xln, part fossiliferous, calcitic, part cherty, dense, no vis porosity  
 Lst-lt grey, v-f xln, cherty, dense, no vis porosity  
 Lst-as above to white, f-xln, part granular, cherty, no vis porosity  
 Lst-white, lt grey, tan, v-f xln, part cherty, part cherty, no vis porosity  
 Lst-grey, fm xln, scattered fossiliferous, argillaceous, no vis porosity  
 Shale-lt grey  
 Shale-lt grey, grey, very soft, gummy  
 Lst-white, tan, fm xln, fossiliferous, calcitic, cherty, very scattered poor xln porosity, very slight show free oil, no odor, scattered str (<2% of sample)  
 Lst-brown, grey, v-f xln, cherty, dense, no vis porosity  
 Shale-black  
 Lst-white, tan, v-f xln, cherty, part cherty, poor xln porosity, very slight show free oil, faint odor, dark str to saturation  
 Lst-grey, tan, white, f-xln, fossiliferous, cherty, calcitic, poor to fair xln & vlgular porosity, slight show free oil, faint odor, spotted dark str  
 Shale-black, dark grey, green  
 Lst-white, f-xln, cherty, soft to grey, f-xln, fossiliferous, calcitic, poor vlgular & xln porosity, slight show free oil, faint odor, scattered str  
 Lst-tan, lt grey, v-f xln, blocky, dense, no vis porosity  
 Shale-black, dark grey  
 Lst-white, lt grey, tan, f-xln, fossiliferous, cherty, dense, no vis porosity  
 Shale-dark grey, green, red, part sandy  
 Lst-white, tan, grey, f-xln, argillaceous, part calcitic, scattered cherty, no vis porosity  
 Shale-argillaceous  
 Dol-white, tan, fm xln, rhombic, sucrosic, part fissile, poor to fair xln & vlgular porosity, good show free oil, good odor, partial str to dark saturation  
 Dol-as above to tan, f-xln, scattered cherty, dense, no vis porosity  
 Dol-white, f-xln, rhombic, fair to good vlgular porosity, fair show heavy free oil, good odor, dark str to saturation  
 Dol-white, tan, v-f xln, part cherty, part calcitic, most dense, scattered fair vlgular porosity, fair show of heavy free oil, good odor, dark str & saturation  
 Dol-white, tan, rhombic, good vlgular porosity, fair show heavy free oil, faint odor, dark str & saturation to f-xln, sucrosic, dense, no vis porosity  
 Dol-lt grey, tan, v-f xln, part sucrosic, scattered rhombic, part dense, part good xln porosity, fair show heavy free oil, good odor, dark str & saturation  
 Dol-tan, lt grey, f-m xln, rhombic, sucrosic, good xln porosity, slight show black flinty oil, fair odor, spotted dark str

DST #1  
 3156-3380  
 1st open: Weak 1/8" blow  
 2nd open: Weak surface blow  
 Rec. 20' OCM (1% w. 20% m)

DST #2  
 3372-3630  
 30-45-60-60  
 1st open: Weak 1" blow  
 2nd open: Strong surface blow  
 Rec. 55' SOCMW (1% w. 60% m)

DST #3  
 3652-3707  
 30-45-30-45  
 1st open: Strong blow OBB#4  
 2nd open: Strong blow OBB#8  
 Rec. 495' MGO, (20% g, 70% w, 10% m)  
 435' HO&GCMW, (20% g, 30% w, 40% m, 10% m)  
 124' OCW (1% w. 10% m)

FP: 48-237/234-500#  
 SIP: 1132-1128#  
 HP: 768-1755#  
 Tmp: 116'  
 CHI: 30,000 ppm  
 Sys: 2,800 ppm

Tomlinson Operating, LLC.  
 Jensen #2  
 12207 FSL & 16507 FWL  
 Section 35-11S-19W  
 Ellis County, Kansas

Elev: 2156 KB  
 API # 15-051-26,494

Eagle Creek Corporation  
 Barnhart/Wilkinson #2-18