

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

BACH OIL PRODUCTION

WELL: MCCLAIN UNIT#1

LOC.: 75' FSL & 850' FWL
SEC. 21-1-17W
PHILLIPS COUNTY, KANSAS
API: 15-147-20699-00-00

DRILLING CONTR.: MURFIN RIG #8
SPUD: 11-20-12 COMP: 11-24-12
MUD UP: 3100' TYPE MUD: CHEM.
DRILL TIME: 3100' to' RTD
RTD: 3747' LTD: 3749'
SAMPLES SAVED: 3150'-RTD
GEOLOGIST: ROBERT J. PETERSEN

ELEVATION

KB: 2212
 GL: 2207
 LOG MEASURED
 FROM: KB

SURFACE CASING

20# 8 5/8 "
 Casing set @ 210'
 w/180 SX

PRODUCTION CASING

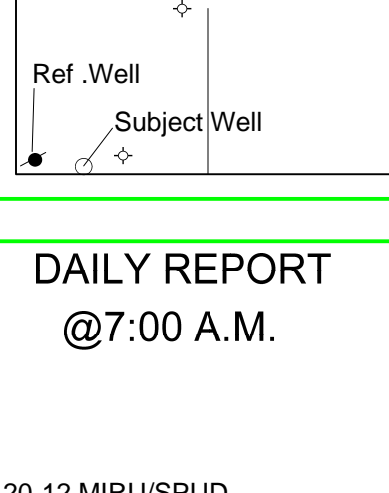
D & A

WELL LOG SURVEYS

DIL/CDL/MICRO/Sonic

ELECTRIC LOG TOPS

FORMATION	DEPTH	DATUM	REF
Stone Corral	1856	+356	+12
Base Stone Corral	1865	+347	+8
Topeka	3261	-1049	-14
Heebner	3466	-1254	Flat
Toronto	3495	-1083	Flat
Lansing	3514	-1302	Flat
Muncie Creek	3631	-1419	+1
Stark	3700	-1488	Flat
LTD	3749	-1537	N/A



REFERENCE WELL:

Westgate Greenlan Et Al
 Rolland #1
 SW SW SW
 21-1-17W

REMARKS AND RECOMMENDATIONS

Zones of interest were tested and found to be non-productive.
 This test was plugged by the operator.

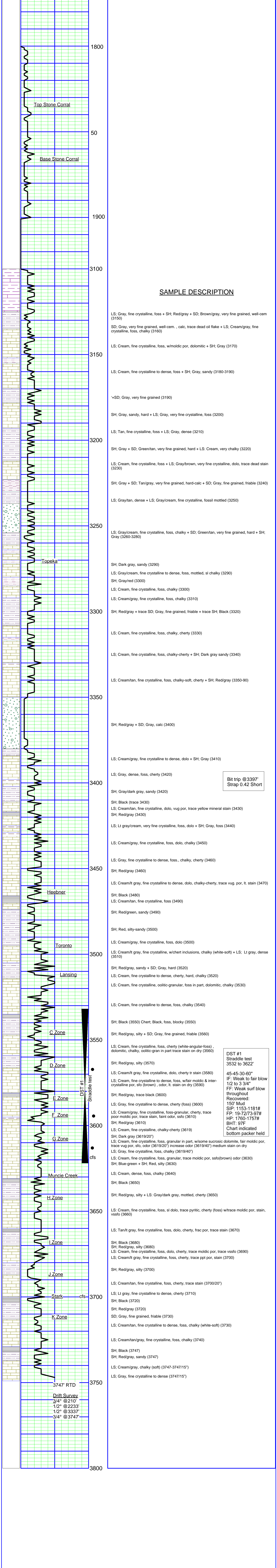
Respectfully submitted,

Robert J. Petersen
 Robert Petersen

DAILY REPORT

@7:00 A.M.

11-20-12 MIRU/SPUD
 11-21-12 440' Drilling
 11-22-12 2180' Drilling
 11-23-12 3210' Drilling
 11-24-12 3743' Drilling (3' Above RTD)



SAMPLE DESCRIPTION

LS: Gray, fine crystalline, foss + SH; Red/gray + SD: Brown/gray, very fine grained, well-cem (3150)
 SD: Gray, very fine grained, well-cem. , calc, trace dead oil flake + LS; Cream/gray, fine crystalline, foss, chalky (3160)
 LS: Cream, fine crystalline, foss, w/moldic por, dolomitic + SH; Gray (3170)
 LS: Cream, fine crystalline to dense, foss + SH; Gray, sandy (3180-3190)
 *+SD: Gray, very fine grained (3190)
 SH: Gray, sandy, hard + LS; Gray, very fine crystalline, foss (3200)
 LS: Tan, fine crystalline, foss + LS; Gray, dense (3210)
 SH: Gray + SD; Green/tan, very fine grained, hard + LS; Cream, very chalky (3220)
 LS: Cream, fine crystalline, foss + LS; Gray/brown, very fine crystalline, dolo, trace dead stain (3230)
 SH: Gray + SD; Tan/gray, very fine grained, hard-calc + SD; Gray, fine grained, friable (3240)
 LS: Gray/tan, dense + LS; Gray/cream, fine crystalline, fossil mottled (3250)
 LS: Gray/cream, fine crystalline, foss, chalky + SD; Green/tan, very fine grained, hard + SH; Gray (3260-3280)
 SH: Dark gray, sandy (3290)
 LS: Gray/cream, fine crystalline to dense, foss, mottled, sl chalky (3290)
 SH: Gray/red (3300)
 LS: Cream, fine crystalline, foss, chalky (3300)
 LS: Cream/gray, fine crystalline, foss, chalky (3310)
 SH: Red/gray + trace SD; Gray, fine grained, friable + trace SH; Black (3320)
 LS: Cream, fine crystalline, foss, chalky, cherty (3330)
 LS: Cream, fine crystalline, foss, chalky-cherty + SH; Dark gray sandy (3340)
 LS: Cream/tan, fine crystalline, foss, chalky-soft, cherty + SH; Red/gray (3350-90)
 SH: Red/gray + SD; Gray, calc (3400)
 LS: Cream/gray, fine crystalline to dense, dolo + SH; Gray (3410)
 LS: Gray, dense, foss, cherty (3420)
 SH: Gray/dark gray, sandy (3420)
 SH: Black (trace 3430)
 LS: Cream/tan, fine crystalline, dolo, vug por, trace yellow mineral stain (3430)
 SH: Red/gray (3430)
 LS: Lt gray/cream, very fine crystalline, foss, dolo + SH; Gray, foss (3440)
 LS: Cream/gray, fine crystalline, foss, dolo, chalky (3450)
 LS: Gray, fine crystalline to dense, foss, chalky, cherty (3460)
 SH: Red/gray (3460)
 LS: Cream/lit gray, fine crystalline to dense, dolo, chalky-cherty, trace vug. por, lt. stain (3470)
 SH: Black (3480)
 LS: Cream/tan, fine crystalline, foss (3490)
 SH: Red/green, sandy (3490)
 SH: Red, silty-sandy (3500)
 LS: Cream/gray, fine crystalline, foss, dolo (3500)
 LS: Cream/lit gray, fine crystalline, w/chert inclusions, chalky (white-soft) + LS; Lt gray, dense (3510)
 SH: Red/gray, sandy + SD; Gray, hard (3520)
 LS: Cream, fine crystalline to dense, cherty, hard, chalky (3520)
 LS: Cream, fine crystalline, oolitic-granular, foss in part, dolomitic, chalky (3530)
 LS: Cream, fine crystalline to dense, foss, chalky (3540)
 SH: Black (3550) Chert; Black, foss, blocky (3550)
 SH: Red/gray, silty + SD; Gray, fine grained, friable (3560)
 LS: Cream, fine crystalline, foss, cherty (white-angular-foss) , dolomitic, chalky, oolitic-gran in part trace stain on dry (3560)
 SH: Red/gray, silty (3570)
 LS: Cream/lit gray, fine crystalline, dolo, cherty tr stain (3580)
 LS: Cream, fine crystalline to dense, foss, w/fair moldic & inter-crystalline por, sfo (brown) , odor, lt. stain on dry (3590)
 SH: Red/gray, trace black (3600)
 LS: Gray, fine crystalline to dense, cherty (foss) (3600)
 SH: Cream/gray, fine crystalline, foss-granular, cherty, trace poor moldic por, trace stain, faint odor, ssfo (3610)
 SH: Red/gray (3610)
 LS: Cream, fine crystalline, chalky-cherty (3619)
 SH: Dark gray (3619/20")
 LS: Cream, fine crystalline, foss, granular in part, w/some sucrosic dolomite, fair moldic por, trace vug por, sfo, odor (3619/20") increase odor (3619/40") medium stain on dry
 LS: Gray, fine crystalline, foss, chalky (3619/40")
 LS: Cream, fine crystalline, foss, granular, trace moldic por, ssfo(brown) odor (3630)
 SH: Blue-green + SH; Red, silty (3630)
 LS: Cream, dense, foss, chalky (3640)
 SH: Black (3650)
 SH: Red/gray, silty + LS: Gray/dark gray, mottled, cherty (3650)
 LS: Cream, fine crystalline, foss, sl dolo, trace pyritic, cherty (foss) w/trace moldic por, stain, vsfso (3660)
 LS: Tan/lit gray, fine crystalline, foss, dolo, cherty, frac por, trace stain (3670)
 SH: Black (3680)
 SH: Red/gray, silty (3680)
 LS: Cream, fine crystalline, foss, dolo, cherty, trace moldic por, trace vsfso (3690)
 LS: Cream/lit gray, fine crystalline, foss, cherty, trace ppt por, stain (3700)
 SH: Red/gray, silty (3700)
 LS: Cream/tan, fine crystalline, foss, cherty, trace stain (3700/20")
 LS: Lt gray, fine crystalline to dense, cherty (3710)
 SH: Black (3720)
 SH: Red/gray (3720)
 SD: Gray, fine grained, friable (3730)
 LS: Cream/tan, fine crystalline to dense, foss, chalky (white-soft) (3730)
 LS: Cream/tan/gray, fine crystalline, foss, chalky (3740)
 SH: Black (3747)
 SH: Red/gray, sandy (3747)
 LS: Cream/gray, chalky (soft) (3747-3747/15")
 LS: Gray, fine crystalline to dense (3747/15")

Bit trip @3397'
 Strap 0.42 Short

DST #1
 Straddle test
 3532 to 3622"
 45-45-30-60"
 IF: Weak to fair blow
 1/2 to 3 3/4"
 FF: Weak surf blow
 throughout
 Recovered:
 150' Mud
 SIP: 1153-1181#
 FP: 19-72/73-97#
 HP: 1760-1757#
 BHT: 97F
 Chart indicated
 bottom packer held

3747' RTD
 Drift Survey
 3/4" @210'
 1/2" @2233'
 1/2" @3337'
 3/4" @3747'