

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

BACH OIL PRODUCTION

WELL: TIEN #1

LOC.: 530' FNL & 330' FWL
 SEC. 15-2-19W
 PHILLIPS COUNTY, KANSAS
 API: 15-147-20658-00-00

ELEVATION

KB: 2217
 GL: 2212
 LOG MEASURED
 FROM: KB

SURFACE CASING

20# 8 5/8" Casing set @ 224 w/160 SX

PRODUCTION CASING

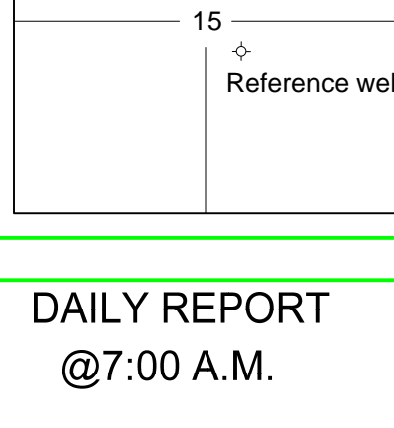
P&A

WELL LOG SURVEYS

RAG

ELECTRIC LOG TOPS

| FORMATION | DEPTH | DATUM | POSITION |
|-------------------|-------|-------|----------|
| Base Stone Corral | 1809 | +408 | -7 |
| Topeka | 3153 | -936 | -11 |
| Heebner | 3370 | -1153 | -14 |
| Toronto | 3402 | -1185 | -14 |
| Lansing | 3418 | -1201 | -13 |
| Base Kansas City | 3632 | -1415 | -16 |



REFERENCE WELL:

Deep Rock
 Van Kooten #1
 D&A
 NW NW SE
 15-2-19W

DAILY REPORT

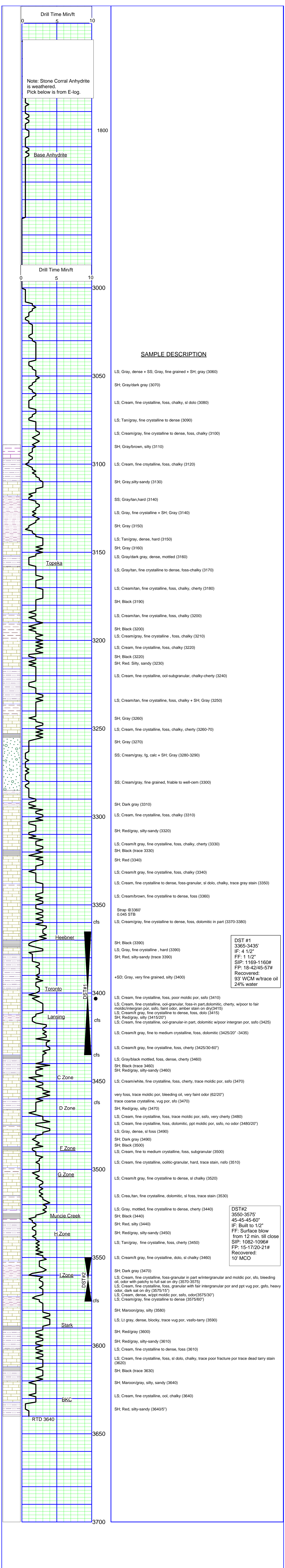
@7:00 A.M.

12-31-11 MIRU, Spud
 01-01-12 320' Drilling
 01-02-12 2300' Drilling
 01-03-12 3140' Drilling
 01-04-12 3435' DST #1
 01-05-12 3579' Drilling

REMARKS AND RECOMMENDATIONS

Due to negative drill stem tests this well was plugged and abandoned.

Respectfully submitted,
Robert J. Petersen
 Robert J. Petersen



SAMPLE DESCRIPTION

LS: Gray, dense + SS: Gray, fine grained + SH: gray (3060)
 SH: Gray/dark gray (3070)
 LS: Cream, fine crystalline, foss, chalky, sl dolo (3080)
 LS: Tan/gray, fine crystalline to dense (3090)
 LS: Cream/gray, fine crystalline to dense, foss, chalky (3100)
 SH: Gray/brown, silty (3110)
 LS: Cream, fine crstalline, foss, chalky (3120)
 SH: Gray,silty-sandy (3130)
 SS: Gray/tan,hard (3140)
 LS: Gray, fine crystalline + SH: Gray (3140)
 SH: Gray (3150)
 LS: Tan/gray, dense, hard (3150)
 SH: Gray (3160)
 LS: Gray/dark gray, dense, mottled (3160)
 LS: Gray/tan, fine crystalline to dense, foss-chalky (3170)
 LS: Cream/tan, fine crystalline, foss, chalky, cherty (3180)
 SH: Black (3190)
 LS: Cream/tan, fine crystalline, foss, chalky (3200)
 SH: Black (3200)
 LS: Cream/gray, fine crystalline, foss, chalky (3210)
 LS: Cream, fine crystalline, foss, chalky (3220)
 SH: Black (3220)
 SH: Red. Silty, sandy (3230)
 LS: Cream, fine crystalline, ool-subgranular, chalky-cherty (3240)
 LS: Cream/tan, fine crystalline, foss, chalky + SH: Gray (3250)
 SH: Gray (3260)
 LS: Cream, fine crystalline, foss, chalky, cherty (3260-70)
 SH: Gray (3270)
 SS: Cream/gray, fg, calc + SH: Gray (3280-3290)
 SS: Cream/gray, fine grained, friable to well-cem (3300)
 SH: Dark gray (3310)
 LS: Cream, fine crystalline, foss, chalky (3310)
 SH: Red/gray, silty-sandy (3320)
 LS: Cream/lt gray, fine crystalline, foss, chalky, cherty (3330)
 SH: Black (trace 3330)
 SH: Red (3340)
 LS: Cream/lt gray, fine crystalline, foss, chalky (3340)
 LS: Cream, fine crystalline to dense, foss-granular, sl dolo, chalky, trace gray stain (3350)
 LS: Cream/brown, fine crystalline to dense, foss (3360)
 Strap @3360' 0.045 STB
 LS: Cream/gray, fine crystalline to dense, foss, dolomitic in part (3370-3380)
 SH: Black (3390)
 LS: Gray, fine crystalline, hard (3390)
 SH: Red, silty-sandy (trace 3390)
 +SD: Gray, very fine grained, silty (3400)
 LS: Cream, fine crystalline, foss, poor moldic por, ssfo (3410)
 LS: Cream, fine crystalline, ool-granular, foss-in part,dolomitic, cherty, w/poor to fair moldic/intergran por, ssfo, faint odor, amber stain on dry(3415)
 LS: Cream/lt gray, fine crystalline to dense, foss, dolo (3415)
 SH: Red/gray, silty (3415/20")
 LS: Cream, fine crystalline, ool-granular-in part, dolomitic w/poor intergran por, ssfo (3425)
 LS: Cream/lt gray, fine to medium crystalline, foss, dolomitic (3425/20" -3435)
 LS: Cream/lt gray, fine crystalline, foss, cherty (3425/30-60")
 LS: Gray/black mottled, foss, dense, cherty (3460)
 SH: Black (trace 3460)
 SH: Red/gray, silty-sandy (3460)
 LS: Cream/white, fine crystalline, foss, cherty, trace moldic por, ssfo (3470)
 very foss, trace moldic por, bleeding oil, very faint odor (62/20")
 trace coarse crystalline, vug por, sfo (3470)
 SH: Red/gray, silty (3470)
 LS: Cream, fine crystalline, foss, trace moldic por, ssfo, very cherty (3480)
 LS: Cream, fine crystalline, foss, dolomitic, ppt moldic por, ssfo, no odor (3480/20")
 LS: Gray, dense, sl foss (3490)
 SH: Dark gray (3490)
 SH: Black (3500)
 LS: Cream, fine to medium crystalline, foss, subgranular (3500)
 LS: Cream, fine crystalline, oolitic-granular, hard, trace stain, nsfo (3510)
 LS: Cream/lt gray, fine crystalline to dense, sl chalky (3520)
 LS: Crea./tan, fine crystalline, dolomitic, sl foss, trace stain (3530)
 LS: Gray, mottled, fine crystalline to dense, cherty (3440)
 SH: Black (3440)
 SH: Red, silty (3440)
 SH: Red/gray, silty-sandy (3450)
 LS: Tan/gray, fine crystalline, foss, cherty (3450)
 LS: Cream/lt gray, fine crystalline, dolo, sl chalky (3460)
 SH: Dark gray (3470)
 LS: Cream, fine crystalline, foss-granular in part w/intergranular and moldic por, sfo, bleeding oil, odor with patchy to full sat on dry (3570-3575)
 LS: Cream, fine crystalline, foss, granular with fair intergranular por and ppt vug por, gsfo, heavy odor, dark sat on dry (3575/15")
 LS: Cream, dense, w/ppt moldic por, ssfo, odor(3575/30")
 LS: Cream/gray, fine crystalline to dense (3575/60")
 SH: Maroon/gray, silty (3580)
 LS: Lt gray, dense, blocky, trace vug por, vssfo-tarry (3590)
 SH: Red/gray (3600)
 SH: Red/gray, silty-sandy (3610)
 LS: Cream, fine crystalline to dense, foss (3610)
 LS: Cream, fine crystalline, foss, sl dolo, chalky, trace poor fracture por trace dead tarry stain (3620)
 SH: Black (trace 3630)
 SH: Maroon/gray, silty, sandy (3640)
 LS: Cream, fine crystalline, ool, chalky (3640)
 SH: Red, silty-sandy (3640/5")

DST #1
 3365-3435'
 IF: 4 1/2"
 FF: 1 1/2"
 SIP: 1169-1160#
 FP: 18-42/45-57#
 Recovered:
 93' WCM w/trace oil
 24% water

DST#2
 3550-3575'
 45-45-60"
 IF: Built to 1/2"
 FF: Surface blow
 from 12 min. till close
 SIP: 1082-1096#
 FP: 15-17/20-21#
 Recovered:
 10' MCO