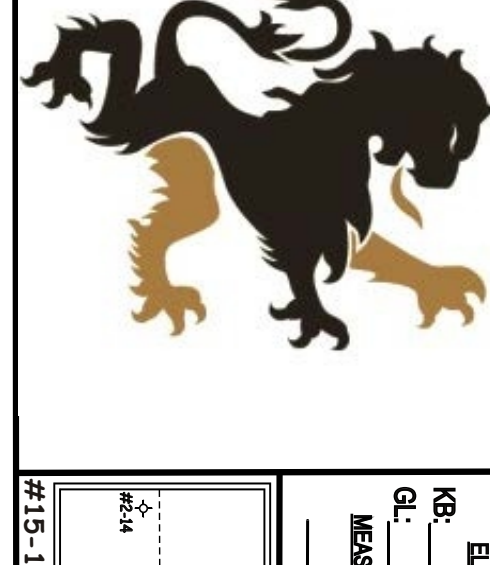


KITT NOAH

PETROLEUM GEOLOGIST
Kansas License #229



GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

ELEVATION: **KB 3150**
 GR.: **3145**
 MESSAGED FROM: **KB**

#15-193-21.045

OPERATOR: **Hartman Oil Co., Inc.**
 LEASE: **Krug** WELL NO.: **#2-14**
 LOCATION: **2305'FS & 335'FW**
 SEC.: **14** TWP: **10S** RNG.: **33W**
 COUNTY: **Thomas** STATE: **Kansas**

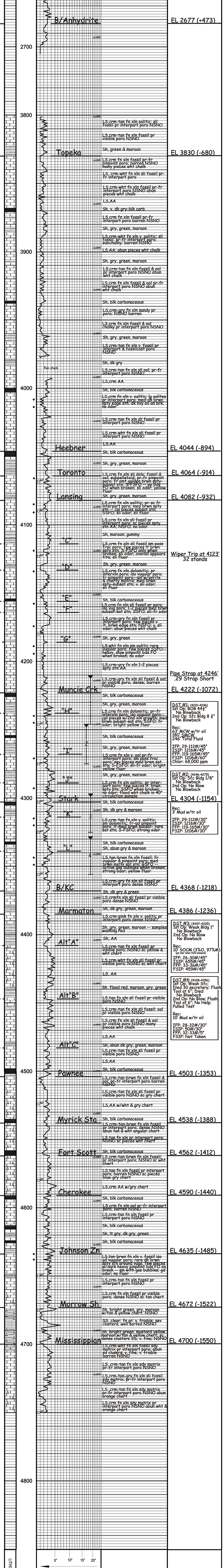
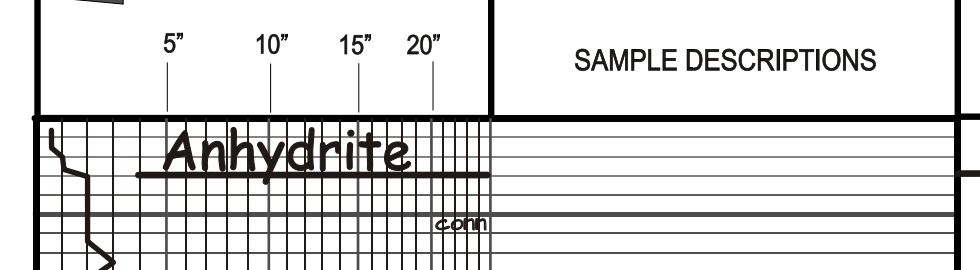
CASING RECORD:
 SURFACES: **8 5/8" set at 348 w/260 stx.**
 PRODUCTION: **None**
 DV TOOL: _____

FORMATION	TOP LOG DATA
Anhydrite	2650 (+500)
B/Anhydrite	2677 (+473)
Heebner	4044 (-894)
Toronto	4064 (-914)
Lansing	4082 (-932)
Stark	4304 (-1154)
B/KC	4368 (-1218)
Marmaton	4386 (-1236)
Pawnee	4503 (-1353)
Cherokee	4590 (-1440)
Mississippian	4700 (-1550)
RID	4750 (-1600)
LTD	4752 (-1602)

CONTRACTOR: **WW Drilling Rig #10**
 COM.: **6-1-2019** COMPL.: **6-10-2019**
 RTD: **4750** LTD: **4752**
 SAMPLES SAVED FROM: **3800 to TD**
 DRILLING TIME SAVED FROM: **3800 to TD**
 SAMPLES EXAMINED FROM: **3820 to TD**
 GEOLOGICAL SUPERVISION FROM: **3820 to TD**
 MUD UP: **3507** MUD TYPE: **chemical**
 Muddo - Reid Atkins
 DRILL STEW TESTS TAKEN: **4**
 Diamond - Kevin Mack

SURVERS: **Pioneer Energy Services**
Dual Compensated Porosity
Mud Production
Microlog

LEGEND



ELEVATION: **KB 3150**

OPERATOR: **Hartman Oil Co., Inc.** LOCATION: **2305'FS & 335'FW**
 LEASE: **Krug** WELL NO.: **#2-14** SEC.: **14** TWP: **10S** RNG.: **33W**
 API: **15-193-21.045** FIELD: **Wildcat** COUNTY: **Thomas** STATE: **Kansas**