

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc.**

LEASE **Patti #3-10**

FIELD **James Cannon Southeast**

LOCATION **6601st & 6601st**

SEC **10 TWP 1S RGE 37W**

COUNTY **Cheyenne State Kansas**

CONTRACTOR **Murfin Drilling Co. Inc. Rig #2**

SPUD **2/25/2015 COMP 3/5/2015**

RTD **4/7/60' LTP 4/7/8'**

MUD UP **3:55' TYPE MUD Chemical**

SAMPLES SAVED FROM **3:30' TO TD**

DRILLING TIME KEPT FROM **3:30' TO TD**

SAMPLES EXAMINED FROM **3:30' TO TD**

GEOLOGICAL SUPERVISION FROM **3640'**

GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

ELECTRIC LOG

SAMPLE

Neva

Topoka

Stark

BKC

Lansing

Foraker

ELEVATIONS

KB **3233'**

DF

GL **3222'**

Measurements Are All From **Kelly Bushing**

CASING

CONDUCTOR

SURFACE **5:28' at 229'**

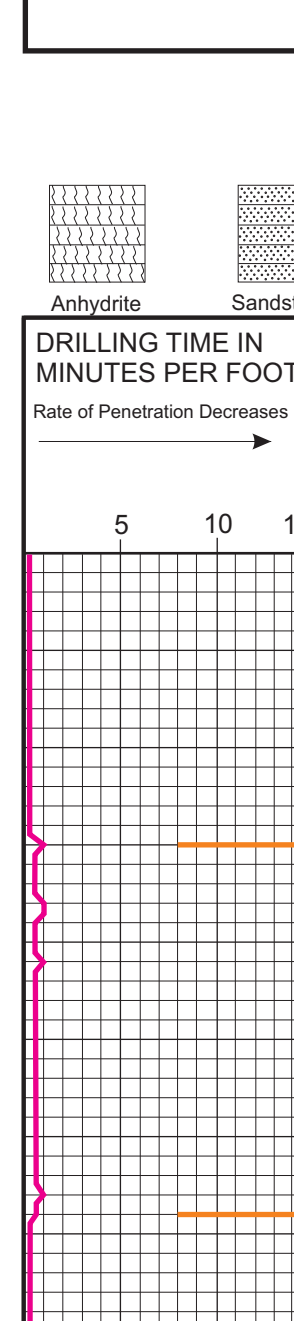
PRODUCTION **5:12' @ 4738'**

ELECTRICAL SURVEYS

Done by **Victor Mironov/Kellogg/Stone**

Checked by **Walter Mironov/Stone**

API# **15-023-21-421**



REMARKS:

DEPTH	LITHOLOGY	SAMPLE DESCRIPTION	REMARKS
3150	Anhydrite		Anhydrite 3180 (+53)
3200	Anhydrite		Base Anhydrite 3218 (+15)
3250	Sandstone	Shale: red, v-sandy Sandstone: white/tan, vfn gr, well sorted, rnd, semi-frangible, calcareous, no vis por	bit trip at 3507' strap 0.86' long to board
3550	Sandstone	Shale: red, gray, green, brown, silty Shale: red, gray, silty, v-sandy	
3600	Sandstone	Shale: red, gray, green, brown, silty, sandy	
3650	Sandstone	Shale: red, gray, silty, v-sandy	
3700	Sandstone	Shale: red, gray, green, brown, silty, sandy	
3750	Sandstone	Shale: red, gray, silty, v-sandy	
3800	Sandstone	Shale: red, gray, green, brown, silty, sandy	
3850	Sandstone	Shale: red, gray, silty, v-sandy	
3900	Sandstone	Shale: red, gray, green, brown, silty, sandy	
3950	Sandstone	Shale: red, gray, silty, v-sandy	
4000	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4050	Sandstone	Shale: red, gray, silty, v-sandy	
4100	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4150	Sandstone	Shale: red, gray, silty, v-sandy	
4200	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4250	Sandstone	Shale: red, gray, silty, v-sandy	
4300	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4350	Sandstone	Shale: red, gray, silty, v-sandy	
4400	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4450	Sandstone	Shale: red, gray, silty, v-sandy	
4500	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4550	Sandstone	Shale: red, gray, silty, v-sandy	
4600	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4650	Sandstone	Shale: red, gray, silty, v-sandy	
4700	Sandstone	Shale: red, gray, green, brown, silty, sandy	
4750	Sandstone	Shale: red, gray, silty, v-sandy	
4800	Sandstone	Shale: red, gray, green, brown, silty, sandy	

DST #1
4052-4112
30-60-60-90
1st open: blow built to 1 3/4"
2nd open: no blow
no returns
Rec:
60' oil spotted mud
hydro: 2091-2009 psi
lf: 14-30 psi
if: 33-47 psi
sp: 1253-1231 psi
bht: 129°F

DST #2
4180-4254
30-60-60-90
1st open: built to 8"
2nd open: built to 5 3/4"
no returns
Rec:
2' free oil
129' ocm 5/95
63' osmw 45/55
126' osmw 25/75
hydro: 2202-2070 psi
lf: 51-97 psi
ff: 109-161 psi
sp: 799-634 psi
bht: 136°F
chlordes: 45,000 ppm