

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

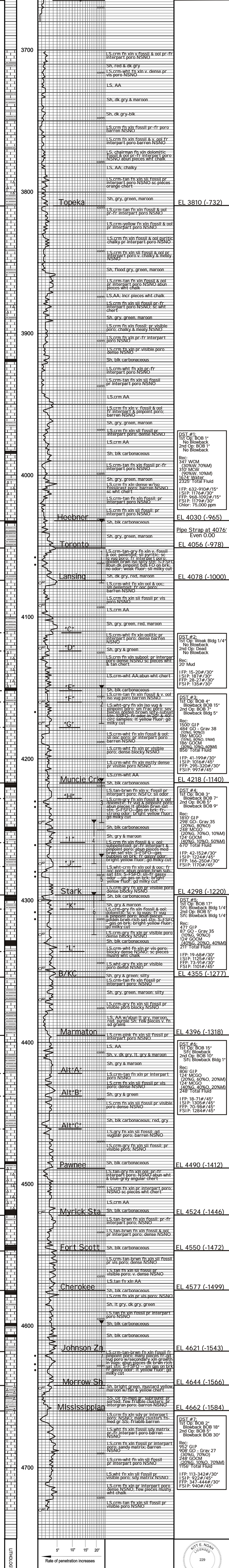
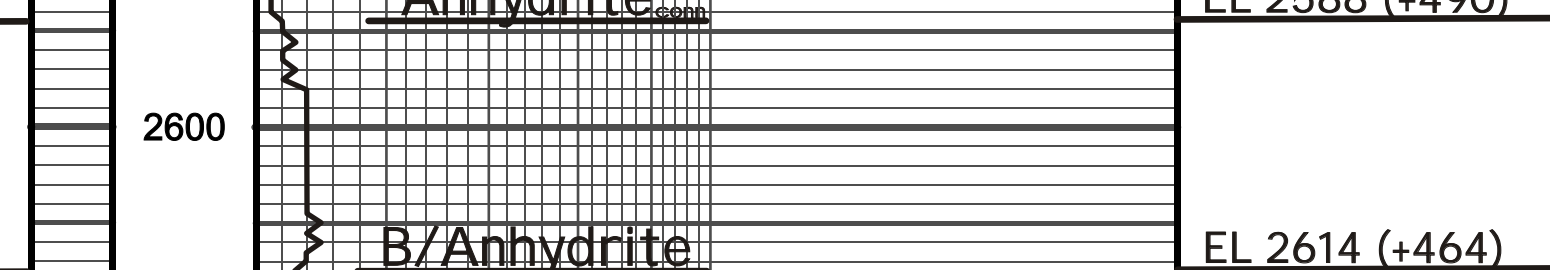
OPERATOR: **Russell Oil, Inc.**
 LEASE: **Bowie** WELL NO.: **#29-1**
 LOCATION: **1014 FN & 957 FE** SEC: **29** TWP: **11S** RNG: **32W**
 COUNTY: **Logan** STATE: **Kansas**

FORMATION	TOP	LOG	DATE
Anhydrite	2588 (+490)		
B/Anhydrite	2614 (+464)		
Heebner	4036 (-958)		
Lansing	4078 (-1000)		
Stark	4298 (-1220)		
B/KC	4385 (-1277)		
Marmaton	4396 (-1318)		
Pawnee	4490 (-1412)		
Cherokee	4577 (-1499)		
Mississippian	4662 (-1584)		
R/D	4730 (-1652)		
L/D	4732 (-1654)		

CONTRACTOR: **WV Drilling Rig #10**
 COM: **7-31-2017** COMP: **8-10-2017**
 RTD: **4730** LTD: **4732**
 SAMPLES SAVED FROM: **3700 TO TD**
 DRILLING TIME SAVED FROM: **3700 TO TD**
 SAMPLES EXAMINED FROM: **3700 TO TD**
 GEOLOGICAL SUPERVISION FROM: **3870 TO TD**
 MUD UP: **3460** MUD TYPE: **Chemical**
 Muddo - Reid Atkins
 DRILL STEW TESTS TAKEN: **7**
 Drillbit: **Branden Turley**
 SURVEY: **Gemini Wireline, LLC**
 COMPENSATED DENSITY NEUTRON
 DUAL INDUCTION
 MICROLOG

ELEVATION: **KB 3078**
 GL: **3073**
 MEASURED ROCK: **KB**
 #15-109-21.513

LEGEND



DST #1:
1st Op: BOB 1'
No Blowback
2nd Op: BOB 1'
No Blowback
Rec:
341' WCM
(30%W 70%M)
310' MCV
(90%W, 10%M)
1674' Water
2325' Total Fluid
IFP: 632-910#/15"
ISIP: 1176#/30"
FFP: 968-1092#/15"
FSIP: 1179#/30"
Chlor: 75,000 ppm

DST #2:
1st Op: Weak Bldg 1/4'
No Blowback
2nd Op: Dead
No Blowback
Rec:
20' Mud
IFP: 15-20#/30"
ISIP: 187#/30"
FFP: 28-27#/30"
FSIP: 135#/30"

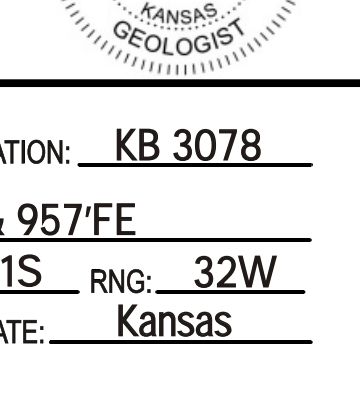
DST #3:
1st Op: BOB 4'
Blowback BOB 15'
2nd Op: BOB 7'
Blowback Bldg 5'
Rec:
1500' GIP
494' GO - Grav 38
(10%G, 90%O)
186' MCGO
(18%G, 80%O, 50%M)
186' GOCM
(30%G, 10%O, 60%M)
856' Total Fluid
IFP: 41-199#/30"
ISIP: 1016#/45"
FFP: 295-320#/30"
FSIP: 997#/45"

DST #4:
1st Op: BOB 3'
Blowback BOB 7'
2nd Op: BOB 5'
Blowback BOB 9'
Rec:
1810' GIP
298' GO - Grav 35
(20%G, 80%O)
248' MCGO
(20%G, 70%O, 10%M)
124' GOCM
(40%G, 10%O, 50%M)
670' Total Fluid
IFP: 42-152#/30"
ISIP: 1224#/45"
FFP: 166-250#/30"
FSIP: 1170#/45"

DST #5:
1st Op: BOB 17'
Sfc Blowback Bldg 1/4'
2nd Op: BOB 5'
Sfc Blowback Bldg 1/4'
Rec:
471' GIP
87' GO - Grav 35
(10%G, 90%O)
124' GOCM
(40%G, 20%O, 40%M)
211' Total Fluid
IFP: 19-68#/30"
ISIP: 1125#/45"
FFP: 73-91#/30"
FSIP: 1101#/45"

DST #6:
1st Op: BOB 15'
Sfc Blowback BOB 10'
2nd Op: BOB 10'
Sfc Blowback Bldg 1'
Rec:
806' GIP
124' MCGO
(20%G, 60%O, 20%M)
124' GOCM
(40%G, 40%O, 20%M)
248' Total Fluid
IFP: 18-71#/45"
ISIP: 1305#/45"
FFP: 70-98#/45"
FSIP: 1284#/45"

DST #7:
1st Op: BOB 2'
Blowback BOB 18"
2nd Op: BOB 5"
Blowback BOB 30"
Rec:
952' GIP
908' GO - Grav 27
(30%G, 70%O)
248' GOCM
(20%G, 10%O, 70%M)
1156' Total Fluid
IFP: 113-342#/30"
ISIP: 922#/45"
FFP: 347-444#/30"
FSIP: 940#/45"



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 LEASE: **Bowie** WELL NO.: **#29-1** SEC: **29** TWP: **11S** RNG: **32W**
 API: **15-109-21.513** FIELD: **Wildcat** COUNTY: **Logan** STATE: **Kansas**