



**GEOLOGISTS REPORT**

OPERATOR **MURFIN DRILLING COMPANY, INC.**  
LEASE **JOHNSON "E" # 1-10**

LOCATION **2310 FSL & 330 FEL**  
SEC. **10** TWP **4S** RGE **36W**

COUNTY **RAWLINS** STATE **KANSAS**

FIELD **WILDCAT**

CONTRACTOR **Murfin Drilling Company** FLS No. **24**  
COMMENTED **8 July 2015** NMD FILED **16 July 2015**  
WMD DISPLACED **3446** NMD TYPE **Chemical**  
DRILLING TIME/KEPT FROM **3782** TO **4870**  
SAMPLES SAVED FROM **3830** TO **4870**  
SAMPLES EXAMINED FROM **3830** TO **4870**

GEOLOGICAL SUPERVISION FROM **3782** TO **4870**  
GEOLOGIST ON WELL **Paul Gunzelman**

FORMATION **LOG** SAAP/E  
NAME TOP DATUM TOP DATUM  
Stone Corral 3007 +238 3012 +233  
Base Anhydrite 3046 +199 3050 +195  
Topeka 3839 -694 3836 -691  
Heebner Shale 4096 -851 4100 -855  
Lansing 4146 -901 4150 -905  
Base/Kansas City 4398 -1153 4398 -1153  
Pawnee 4524 -1279 4524 -1279  
Cherokee 4598 -1353 4598 -1353  
Mississippian 4811 -1566 4808 -1563  
Total Depth 4870 -1625 4870 -1625

FORMER SAAP/E  
Dual Induction  
Micro Resistivity  
Comp. Sonic

ELECTRICAL SURVEYS:  
Pioneer Energy Services  
Comp. Neutron Density

CAISING RECORD  
Conductor None  
Surface 8 5/8" @ 253'  
Production None

GL **3240 Ft.**  
KB **3245 Ft.**

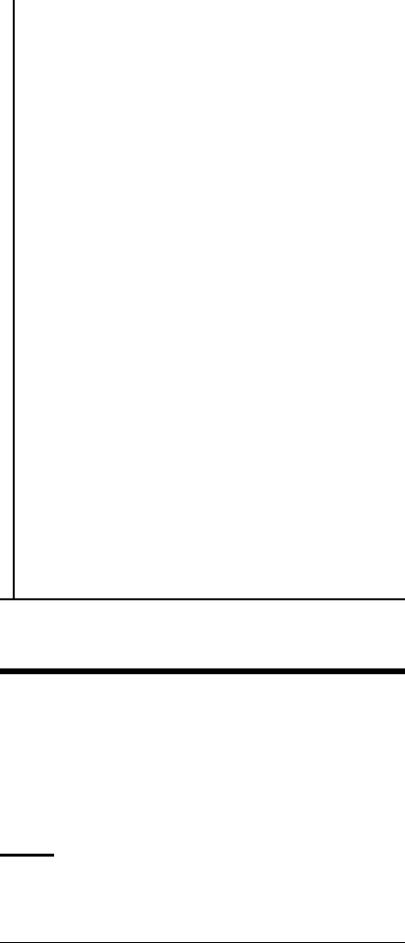
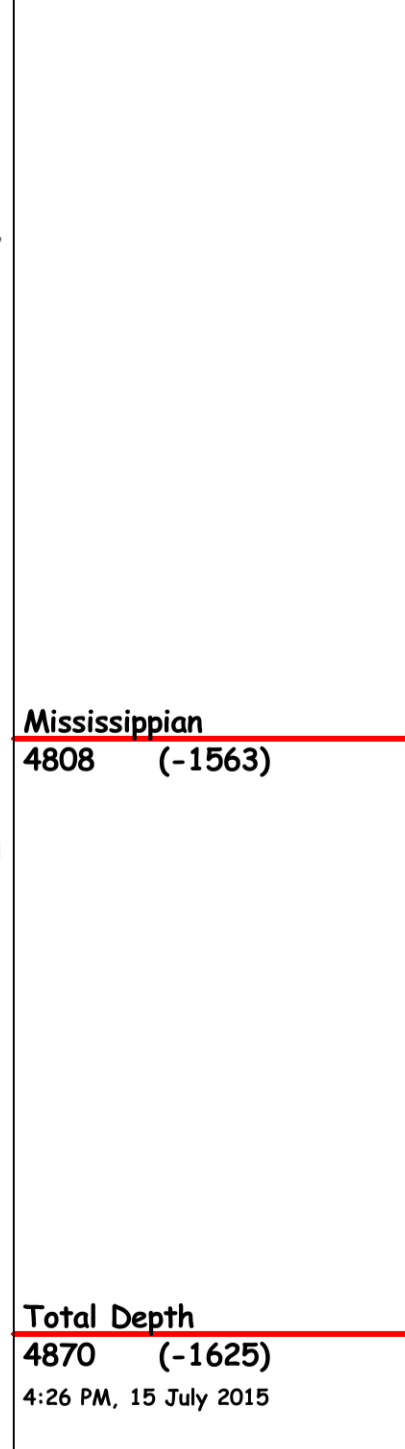
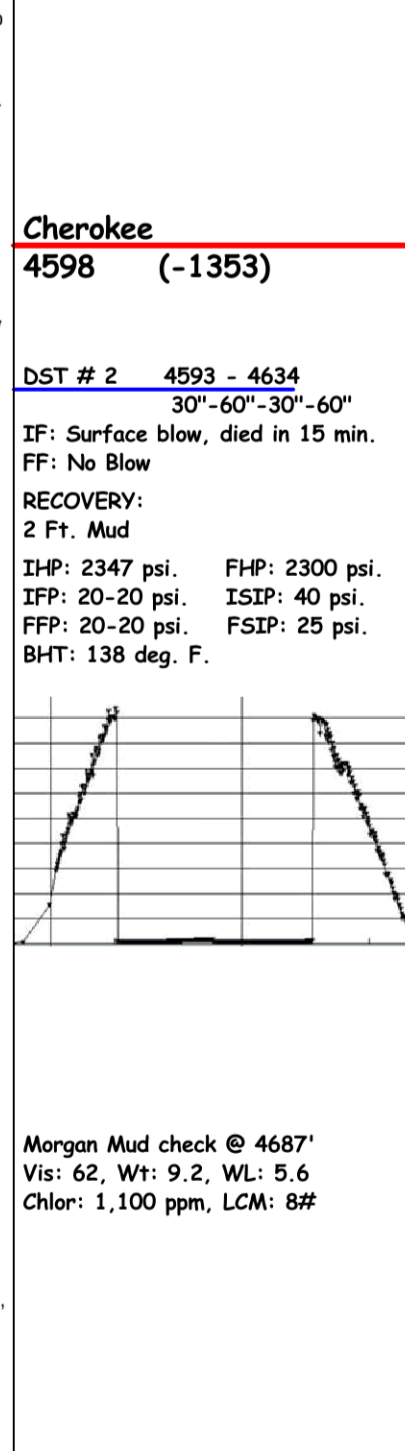
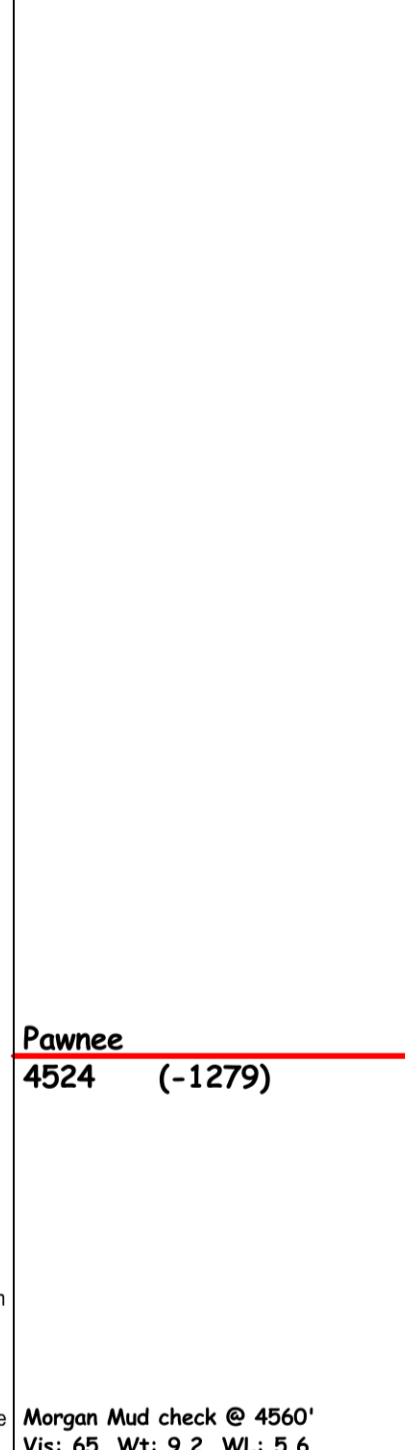
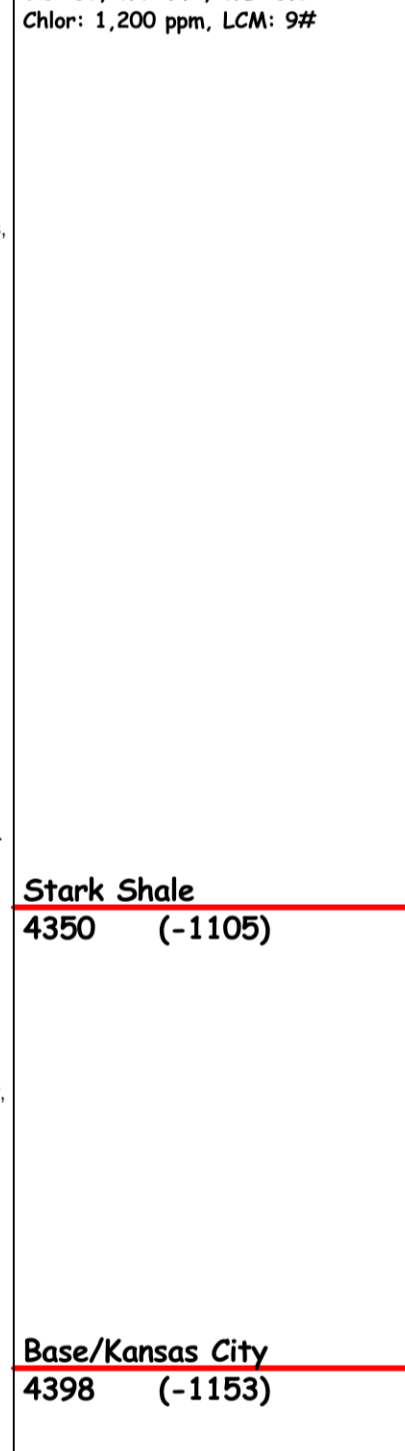
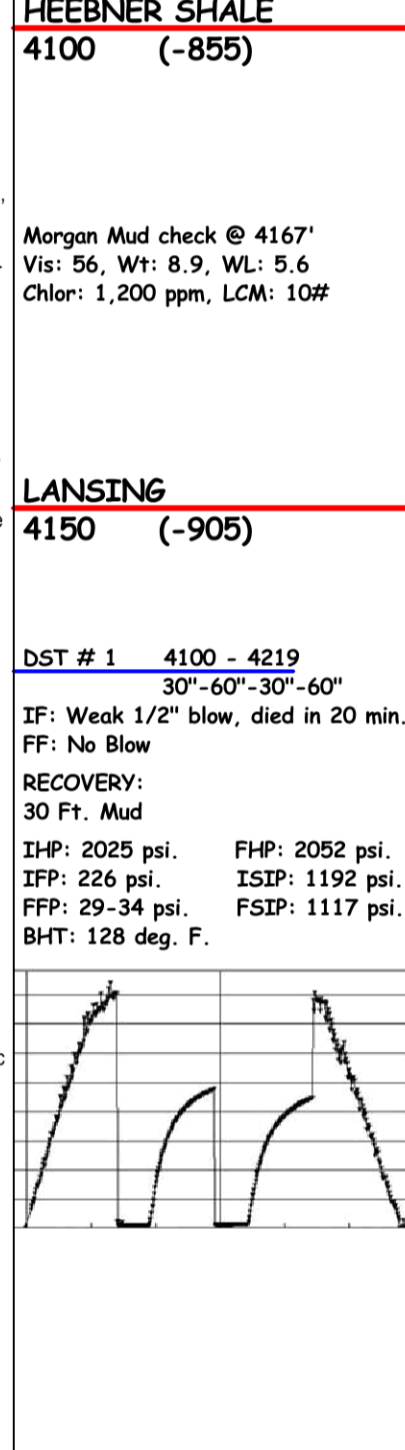
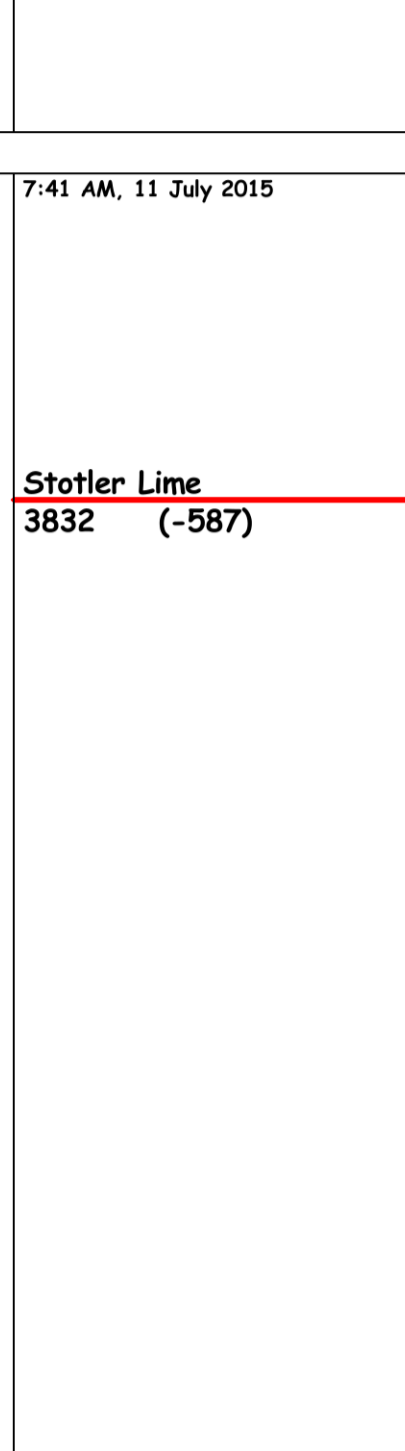
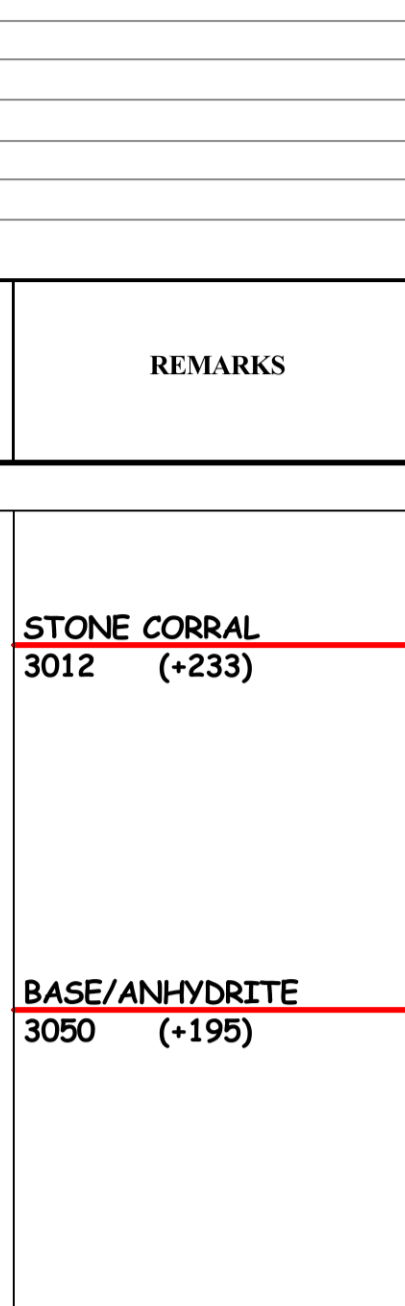
ALL MEASUREMENTS FROM N.B.

ELEVATIONS

REMARKS

REMARKS

APR 15-153-21157-00-00  
Drilling Fluids: Morgan Mud, Inc. (David Lines, engineer)  
Drill Stem Testing: Trilobite Testing, Inc. (Chuck Smith, tester)  
Gas Trailer: No Gas Trailer  
Reserve Pit Chlorides: 900 PPM, 750 Bbl



STONE CORRAL  
3012 (+233)

7-41 AM, 11 July 2015  
Stotler Lime  
3832 (-587)

TOPEKA  
3940 (-695)

HEEBNER SHALE  
4100 (-855)  
Morgan Mud check @ 4167'  
Vis: 56, Wt: 8.9, WL: 5.6  
Chlor: 1,200 ppm, LCM: 10#

LANSING  
4150 (-905)  
DST # 1 4100 - 4219  
30"-60"-30"-60"  
IF: Weak 1/2" blow, died in 20 min.  
FF: No Blow  
RECOVERY: 30 Ft. Mud  
IHP: 2025 psi. FHP: 2052 psi.  
IFP: 226 psi. ISIP: 1192 psi.  
FFP: 29-34 psi. FSIP: 1117 psi.  
BHT: 128 deg. F.

Stark Shale  
4350 (-1105)

Base/Kansas City  
4398 (-1153)

Pawnee  
4524 (-1279)  
Morgan Mud check @ 4560'  
Vis: 65, Wt: 9.2, WL: 5.6  
Chlor: 1,200 ppm, LCM: 8#

Cherokee  
4598 (-1353)  
DST # 2 4593 - 4634  
30"-60"-30"-60"  
FF: Surface blow, died in 15 min.  
IF: No Blow  
RECOVERY: 2 Ft. Mud  
IHP: 2347 psi. FHP: 2300 psi.  
IFP: 20-20 psi. ISIP: 40 psi.  
FFP: 20-20 psi. FSIP: 25 psi.  
BHT: 138 deg. F.

Mississippian  
4808 (-1563)

Total Depth  
4870 (-1625)  
4:26 PM, 15 July 2015

Operator: MURFIN DRILLING COMPANY, INC.  
Lease: JOHNSON "E" # 1-10  
Location: 2310 FSL & 330 FEL SEC. 10 TWP 4S RGE 36W  
County: RAWLINS State: KANSAS