

LITHOLOGY STRIP LOG

WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: **Murfin Drilling Company, Inc Janke #1-15** D&A
Well Id:
Location: **1320 FNL & 2310 FEL Section 15-16S-R20W**
License Number: **API: 15-165-22061** Region: **Rush Co., Kansas**
Spud Date: **March 12, 2014** Drilling Completed: **March 18, 2014**
Surface Coordinates: **W2 W2 NE Section 15-16S-R20W**

Bottom Hole Coordinates:
Ground Elevation (ft): **2178** K.B. Elevation (ft): **2183**
Logged Elevation (ft): **3130** To: **4040** Total Depth (ft): **4040**
Lithology Formation: **RTD 4040 (-1587), LTD 4041 (-1585)**
Type of Drilling Fluid: **Chemical. Displaced at 2982'.**
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: **Murfin Drilling Company, Inc**
Address: **250 N. Water, Ste 300
Wichita, Kansas 67202**

GEOLOGIST

Name: **Mikeal K. Maune**
Company: **Consulting Petroleum Geologist - Kansas Licensed No. 210**
Address: **Wichita, Kansas**
Office: **316-722-8173**

COMMENTS

Surface Casing: Spud @ 12:45 pm 3/12/2014. 8 5/8" set @ 218' w/150 sx, comm. 3% cc, 2% gel. PD @ 5:00 pm 3/12/2014, cmt circ. Production Casing: None. D&A.

Deviation Surveys: 1/4 @ 220 ft, 3/4 @ 3600, 3/4 @ 3955, 3/4 @ 4040 ft RTD.
No Pipe Strap.
Murfin Drilling Rig #16 Bit Record:
#1 12 1/4" Varfel CH1GMS in @ GL, out @ 220'.
#2 7 7/8" HTCO 6X20C in @ 220', out @ 3600'.
#3 7 7/8" HTCO 6X20C in @ 3600', out @ 4040'.

Gas Detector: None
Mud System: Kansas Drilling Technologies
DSTs: Tribolite Testing Inc.

OH Logs: Pioneer Energy Services DIL, CNL/CDL, MEL/BHCS.

Note: Correlation of the OH Log with the drilling time indicates the depths are approximately equal from the Topoka to RTD. The Gamma Ray curve was imported directly into this log without any depth adjustment. The Rotary drilling time has been correlated with the OH Log and the formation tops on this report adjusted accordingly.

OH Log Formation Tops: Anhydrite 1420 (+763), Base Anhydrite 1460 (+723), Topoka 3232 (-1049), Heebner 3519 (-1336), Lansing 3557 (-1374), Arbuclke 3955 (-1772), LTD 4041 (-1585).

DSTs

DST #1 (Lansing B) 3574-3600/30-60-90. 1st Op: Built to 3 1/2 inches in 30 min. 2nd Op: Built to 4 inches. Recovery Total 82' Fluid. 2' Free Oil. 80' MW (70% Wtr, 30% Mud). IH 1785#, IFF 25-42#, ISIP 416#, FFP 43-59#, FSIP 408#, FH 1770#, BHT 105 F.

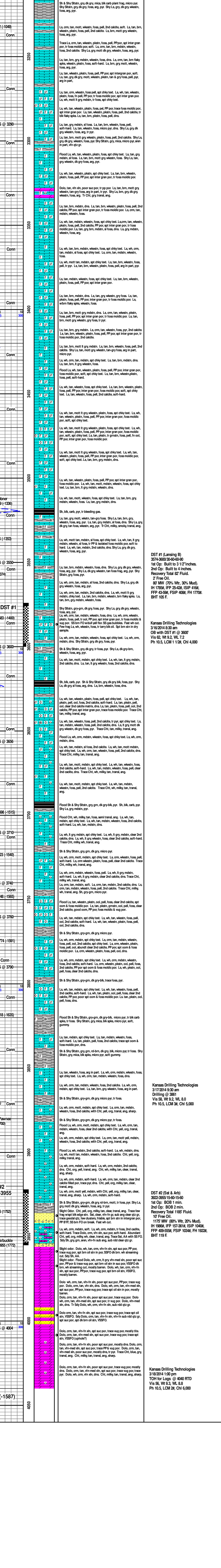
DST #2 (Sst & Arb) 3922-3955/15-60-150. 1st Op: BOB 1 min. 2nd Op: BOB 2 min. Recovery Total 1185' Fluid. 10' Free Oil. 1175' MW (80% Wtr, 20% Mud). IH 1986#, IFF 157-361#, ISIP 1040#, FFP 409-555#, FSIP 1034#, FH 1922#, BHT 119 F.

ROCK TYPES

Anhy	Congl	Lmst	Black sh
Bent	Shy dol	Mrlst	Gry sh
Brec	Sly ool	Salt	Shale
Cht	Dol	Shalt	Shy slst
Clyst	Gyp	Silt	Shy sh
Coal	Soy lms	Ss	Shy slst

ACCESSORIES

Chlorite	Peloc	Grysl
Dol	Pelioidal	Lms
Sand	Pisolite	Sandylms
Silty	Plant	Sh
Fossil	Strom	Sstn
Algae	Fuss	Oomoldic
Amph	Oomoldic	STRINGER
Belm	Anhy	Arg
Bioclst	Bent	Coal
Cephal	Dol	Gyp
Coral	Ls	Mrst
Echin	Sstn	Sstn
Fish	Carbst	Clystn
Fossil	Dol	Dol
Gastro	Dol	Dol
Oolite	Dol	Dol
Ostra	Dol	Dol



Curve Track 1
ROP (min/ft)
Gamma (API)

Depth
Lithology
Geological Descriptions
Remarks

Anhydrite 1421 (+762)

Base Anhydrite 1460 (+723)

Start 10 ft. Wet & Dry Samples

Kansas Drilling Technologies
315 2014 7:10 am
Drilling @ 3174
Vis 62, Wt 8.6, Wt 6.4
Ph 11.0, LCM 11.2%, Chl 2,500

DST #1 (Lansing B)
3574-3600/30-60-90-90
1st Op: Built to 3 1/2" inches
2nd Op: Built to 4 inches
Recovery Total 82' Fluid.
2' Free Oil.
80' MW (70% Wtr, 30% Mud).
IH 1785#, IFF 25-42#, ISIP 416#,
FFP 43-59#, FSIP 408#, FH 1770#,
BHT 105 F.

Kansas Drilling Technologies
316 2014 8:30 am
OS with DST #1 @ 3600'
Vis 62, Wt 9.2, Wt 8.0
Ph 10.5, LCM 11.2%, Chl 4,000

DST #2 (Sst & Arb)
3922-3955/15-60-150-150
1st Op: BOB 1 min.
2nd Op: BOB 2 min.
Recovery Total 1185' Fluid.
10' Free Oil.
1175' MW (80% Wtr, 20% Mud).
IH 1986#, IFF 157-361#, ISIP 1040#,
FFP 409-555#, FSIP 1034#, FH 1922#,
BHT 119 F.

Kansas Drilling Technologies
318 2014 1:00 pm
TCH for Logs @ 4040 RTD
Vis 55, Wt 8.3, Wt 8.8
Ph 10.5, LCM 2%, Chl 6,000