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OPERATOR : MULL DRILLING COMPANY, INC.
LEASE : GLASIR UNIT WELL # : 1 - 3
LOCATION : 110' FSL & 2530' FWL
SEC: 03 TWP : 16 S RGE : 32 W
COUNTY : SCOTT STATE : KANSAS

ELEVATION
KB : 2994
GL : 2989
 MEASUREMENTS FROM
KB

CONTRACTOR : WW DRILLING RIG # 10
COMM: 03 / 08 / 2013 COMP : 03 / 19 / 2013
RTD : 4740 LOG TD : 4740
SAMPLES SAVED FROM : 3800 TO: RTD
GEOLOGICAL SUPERVISION FROM : 3800 TO : RTD
MUD UP : 3700 TYPE MUD : CHEMICAL

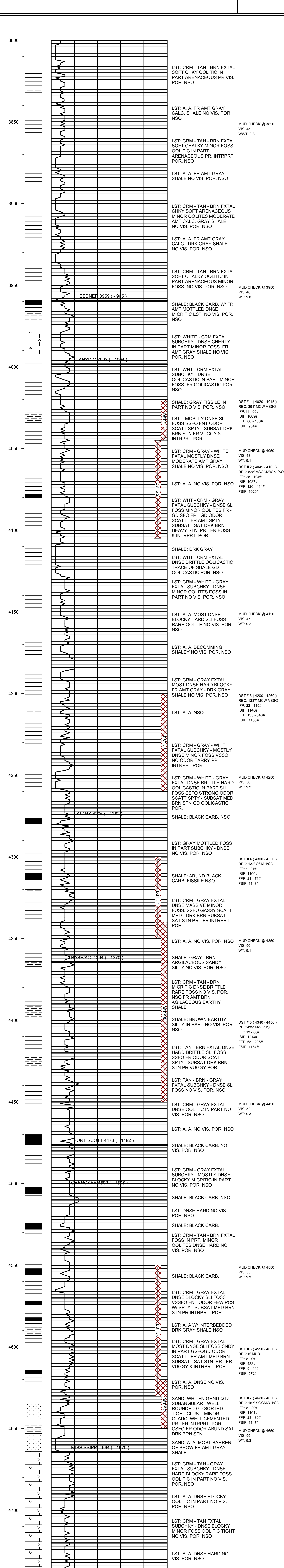
CASING RECORD
SURFACE :
8 5/8" @ 222'
PRODUCTION :
NONE

ELECTRICAL SURVEYS:

FORMATION	TOP	LOG	DATUM	TOP	SAMPLE	DATUM	STRUCT. COMP.
HEEBNER	3959		- 965	3959		- 965	- 12
LANSING	3998		- 1004	3998		- 1004	- 11
STARK	4276		- 1282	4276		- 1282	- 21
BASE/ KC	4364		- 1370	4364		- 1370	- 21
FORT SCOTT	4476		- 1482	4476		- 1482	+ 01
CHEROKEE	4502		- 1508	4502		- 1508	- 03
MISSISSIPPI	4664		- 1670	4664		- 1670	+ 02

REFERENCE WELL FOR STRUCTURAL COMPARISON :
MURFIN DRILLING # 1-9 KOHRS SEC 09 - T 16 S - R 32 W SCOTT COUNTY KANSAS

CDL/CNL
DIL
MICRO
SONIC



LST: CRM - TAN - BRN FXTAL SOFT CHKY OOLITIC IN PART ARENACEOUS PR VIS. POR. NSO

LST: A. A. FR AMT GRAY CALC. SHALE NO VIS. POR NSO

LST: CRM - TAN - BRN FXTAL SOFT CHALKY MINOR FOSS OOLITIC IN PART ARENACEOUS PR. INTRPRT POR. NSO

LST: A. A. FR AMT GRAY SHALE NO VIS. POR. NSO

LST: CRM - TAN - BRN FXTAL CHKY SOFT ARENACEOUS MINOR OOLITES MODERATE AMT CALC. GRAY SHALE NO VIS. POR. NSO

LST: A. A. FR AMT GRAY CALC - DRK GRAY SHALE NO VIS. POR. NSO

LST: CRM - TAN - BRN FXTAL SOFT CHALKY OOLITIC IN PART ARENACEOUS MINOR FOSS. NO VIS. POR. NSO

HEEBNER 3959 (- 965)

SHALE: BLACK CARB. W/ FR AMT MOTTLED DNSE MICRITIC LST. NO VIS. POR. NSO

LST: WHITE - CRM FXTAL SUBCHKY - DNSE CHERTY IN PART MINOR FOSS. FR AMT GRAY SHALE NO VIS. POR. NSO

LANSING 3998 (- 1004)

LST: WHT - CRM FXTAL SUBCHKY - DNSE OOLICASTIC IN PART MINOR FOSS. FR OOLICASTIC POR. NSO

SHALE: GRAY FISSILE IN PART NO VIS. POR. NSO

LST: . MOSTLY DNSE SLI FOSS SSFO FNT ODOR SCATT SPTY - SUBSAT DRK BRN STN FR VUGGY & INTRPRT POR

LST: CRM - GRAY - WHITE FXTAL MOSTLY DNSE MODERATE AMT GRAY SHALE NO VIS. POR. NSO

LST: A. A. NO VIS. POR. NSO

LST: WHT - CRM - GRAY FXTAL SUBCHKY - DNSE SLI FOSS MINOR OOLITES FR - GD SFO FR - GD ODOR SCATT - FR AMT SPTY - SUBSAT - SAT DRK BRN HEAVY STN. PR - FR FOSS. & INTRPRT. POR.

SHALE: DRK GRAY

LST: WHT - CRM FXTAL DNSE BRITTLE OOLICASTIC TRACE OF SHALE GD OOLICASTIC POR. NSO

LST: CRM - WHITE - GRAY FXTAL SUBCHKY - DNSE MINOR OOLITES FOSS IN PART NO VIS. POR. NSO

LST: A. A. MOST DNSE BLOCKY HARD SLI FOSS RARE OOLITE NO VIS. POR. NSO

LST: A. A. BECOMMING SHALEY NO VIS. POR. NSO

LST: CRM - GRAY FXTAL MOST DNSE HARD BLOCKY FR AMT GRAY - DRK GRAY SHALE NO VIS. POR. NSO

LST: A. A. NSO

LST: CRM - GRAY - WHIT FXTAL SUBCHKY - MOSTLY DNSE MINOR FOSS VSSO NO ODOR TARRY PR INTRPRT POR

LST: CRM - WHITE - GRAY FXTAL DNSE BRITTLE HARD OOLICASTIC IN PART SLI FOSS SSFO STRONG ODOR SCATT SPTY - SUBSAT MED BRN STN GD OOLICASTIC POR.

SHALE: BLACK CARB. NSO

STARK 4276 (- 1282)

LST: GRAY MOTTLED FOSS IN PART SUBCHKY - DNSE NO VIS. POR. NSO

SHALE: ABUND BLACK CARB. FISSILE NSO

LST: CRM - GRAY FXTAL DNSE MASSIVE MINOR FOSS. SSFO GASSY SCATT MED - DRK BRN SUBSAT - SAT STN PR - FR INTRPRT. POR

LST: A. A. NO VIS. POR. NSO

SHALE: GRAY - BRN ARGILACEOUS SANDY - SILTY NO VIS. POR. NSO

LST: CRM - TAN - BRN MICRITIC DNSE BRITTLE RARE FOSS NO VIS. POR. NSO FR AMT BRN ARGILACEOUS EARTHY SHALE

SHALE: BROWN EARTHY SILTY IN PART NO VIS. POR. NSO

LST: TAN - BRN FXTAL DNSE HARD BRITTLE SLI FOSS SSFO FR ODOR SCATT SPTY - SUBSAT DRK BRN STN PR VUGGY POR.

LST: TAN - BRN - GRAY FXTAL SUBCHKY - DNSE SLI FOSS NO VIS. POR. NSO

LST: CRM - GRAY FXTAL DNSE OOLITIC IN PART NO VIS. POR. NSO

LST: A. A. NO VIS. POR. NSO

SHALE: BLACK CARB. NO VIS. POR. NSO

LST: CRM - GRAY FXTAL SUBCHKY - MOSTLY DNSE BLOCKY MICRITIC IN PART NO VIS. POR. NSO

SHALE: BLACK CARB. NSO

LST: DNSE HARD NO VIS. POR. NSO

SHALE: BLACK CARB.

LST: CRM - TAN - BRN FXTAL FOSS IN PRT. MINOR OOLITES DNSE HARD NO VIS. POR. NSO

SHALE: BLACK CARB.

LST: CRM - GRAY FXTAL DNSE BLOCKY SLI FOSS VSSFO FNT ODOR FEW PCS W/ SPTY - SUBSAT MED BRN STN PR INTRPRT. POR.

LST: A. A. DNSE NO VIS. POR. NSO

SAND: WHT FN GRND QTZ. SUBANGULAR - WELL ROUNDED GD SORTED TIGHT CLUST. MINOR GLAUC. WELL CEMENTED PR - FR INTRPRT. POR GSFO FR ODOR ABUND SAT DRK BRN STN

SAND: A. A. MOST BARREN OF SHOW FR AMT GRAY SHALE

LST: CRM - TAN - GRAY FXTAL SUBCHKY - DNSE HARD BLOCKY RARE FOSS OOLITIC IN PART NO VIS. POR. NSO

LST: A. A. DNSE BLOCKY OOLITIC IN PART NO VIS. POR. NSO

LST: CRM - TAN FXTAL SUBCHKY - DNSE BLOCKY MINOR FOSS OOLITIC TIGHT NO VIS. POR. NSO

LST: A. A. DNSE HARD NO VIS. POR. NSO

MUD CHECK @ 3850
 VIS: 45
 WWT: 8.8

MUD CHECK @ 3950
 VIS: 46
 WT: 9.0

DST # 1 (4020 - 4045)
 REC: 391' MCW VSSO
 IFF: 11 - 60#
 ISIP: 1009#
 FFP: 66 - 186#
 FSIP: 934#

MUD CHECK @ 4050
 VIS: 48
 WT: 9.1

DST # 2 (4045 - 4105)
 REC: 825' VSOCMW <1%O
 IFF: 28 - 104#
 ISIP: 1037#
 FFP: 120 - 411#
 FSIP: 1029#

MUD CHECK @ 4150
 VIS: 47
 WT: 9.2

DST # 3 (4200 - 4260)
 REC: 132' MCW VSSO
 IFF: 7 - 21#
 ISIP: 1166#
 FFP: 135 - 546#
 FSIP: 1135#

MUD CHECK @ 4250
 VIS: 50
 WT: 9.2

DST # 4 (4300 - 4350)
 REC: 132' OSM 1%O
 IFF: 7 - 21#
 ISIP: 1166#
 FFP: 21 - 71#
 FSIP: 1148#

MUD CHECK @ 4350
 VIS: 50
 WT: 9.1

DST # 5 (4340 - 4450)
 REC: 167' SOCMMW 1%O
 IFF: 13 - 60#
 ISIP: 1214#
 FFP: 65 - 206#
 FSIP: 1167#

MUD CHECK @ 4450
 VIS: 50
 WT: 9.3

DST # 6 (4550 - 4630)
 REC: 5' MUD
 IFF: 8 - 9#
 ISIP: 433#
 FFP: 9 - 11#
 FSIP: 572#

DST # 7 (4620 - 4650)
 REC: 167' SOCMMW 1%O
 IFF: 8 - 20#
 ISIP: 1161#
 FFP: 23 - 80#
 FSIP: 1147#

MUD CHECK @ 4650
 VIS: 55
 WT: 9.3

RTD = 4740 LTD = 4740

COMMENTS:

**DUE TO NEGATIVE DST RESULTS THIS WELL
WAS PLUGGED AS DRY & ABANDONDED**

KEVIN L. KESSLER