GEOLOGIST'S REPORT

OPERATOR **KINNEY OIL COMPANY**
LEASE **GRIMM 1-32**
LOCATION **2300' FNL 1400' FEL**
SEC. **32** TWSP **1S** RGE **14E**
COUNTY **NEMAHA** STATE **KANSAS**
FIELD **WILDCAT**

ELEVATIONS

KB **1375**
GL **1365**

ALL MEASUREMENTS FROM K.B.

CONTRACTOR SUMMIT DRILLING CO. RIG NO. 1
COMMENCED APRIL 16, 2012 COMPLETED APRIL 28, 2012
MUD DISPLACED 1900' MUD TYPE CHEMICAL
DRILLING TIME KEPT FROM 800' TO 3963
SAMPLES SAVED FROM 800' TO 3963
SAMPLES EXAMINED FROM 800' TO 3963
GEOLOGICAL SUPERVISION FROM 350' TO 3963
GEOLOGIST ON WELL STEPHEN J MILLER

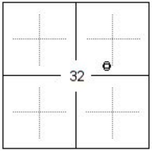
CASING RECORD

Conductor
Surface 8 5/8"@ 262'
Production

ELECTRICAL SURVEYS:

TUCKER WIRELINE
DUAL INDUCTION
COMP NEU-DEN
SONIC LOG
MICRO LOG

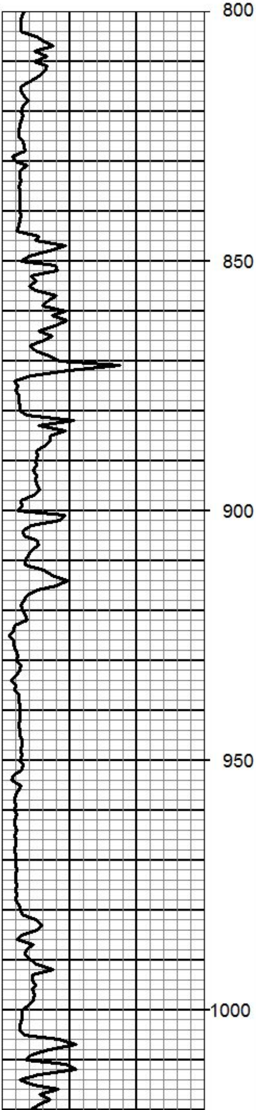
FORMATION NAME	LOG		SAMPLE	
	TOP	DATUM	TOP	DATUM
HEEBNER SHALE	1068	+207	1071	+204
LANSING LIME	1207	+68	1212	+63
BASE KANSAS CITY	1527	-252	1532	-257
MISSISSIPPIAN	2482	-1207	2416	-1141
KINDERHOOK SHALE	2592	-1317	2596	-1321
HUNTON	2791	-1516	2794	-1519
MAQUOKETA	3526	-2251	3529	-2254
VIOLA	3586	-2311	3589	-2314
SIMPSON SAND	3885	-2610	3992	-2617
TOTAL DEPTH	3955	-2680	3963	-2688



REMARKS

API 15-131-20232
Drilling Fluids: FUD MUD
Drill Stem Testing: SUPERIOR TESTERS
Gas Trailer: EARTH-TECH
Reserve Pit Chlorides:

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	SHOWS	SAMPLE DESCRIPTIONS	REMARKS



Shale gray silty sli sandy sli mica

Limestone dk gray f-xln sli fos dense

Limestone lt gray f-md-xln grainy fos

Shale gray grn brn silty sli pyr

Limestone crm tan f-xln fos sli chalky

Shale black carb pyr

Shale gray grn sandy

Limestone tan f-xln fos dense

Sandstone gray f-md grain sub ang fria mica p vis por NS

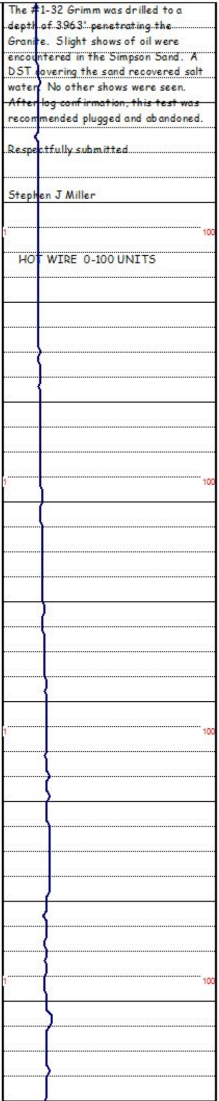
Shale gray dk gray grn brn silty sandy sli mica sli pyr

Shale gray grn silty sandy mica

Limestone crm tan f-xln v fos sli chalky

Shale blk carb

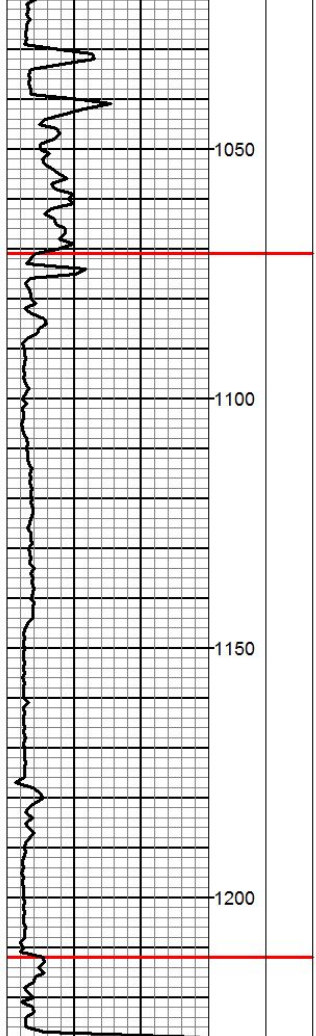
Limestone crm f-xln sli fos sli chalky



The #1-32 Grimm was drilled to a depth of 3963' penetrating the Granite. Slight shows of oil were encountered in the Simpson Sand. A DST covering the sand recovered salt water. No other shows were seen. After log confirmation, this test was recommended plugged and abandoned.

Respectfully submitted

Stephen J Miller



Shale grn brn gray pyr sli mica sli sandy

Limestone brn f-xln v fos dense

Shale gray sli mica

Limestone tan crm f-xln fos sli chalky

Shale blk carb sli pyr

Shale brn grn sandy sli pyr sli mica

Limestone crm gray f-xln fos grainy dense

Shale gray grn brn soft sandy sli mica

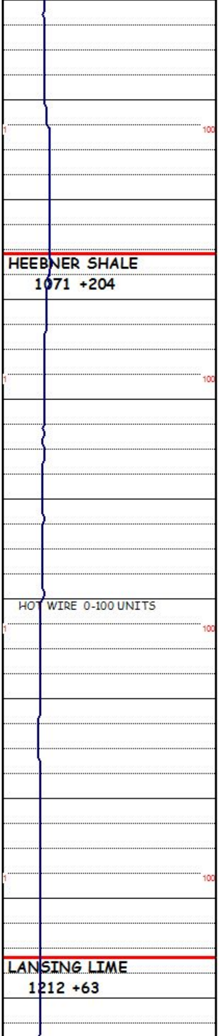
Shale gray grn silty sli mica sli sandy sli pyr

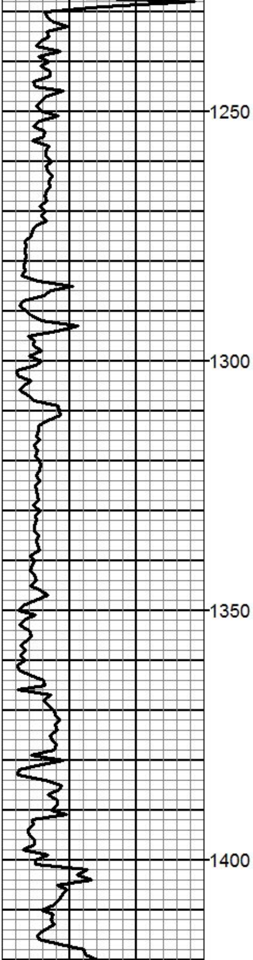
Sandstone gray VF grain mica no vis por NS

Shale grn brn gray sandy sli mica sli pyr

Limestone crm tan f-xln sli fos

Shale gray grn brn





Limestone crm tan wht f-xln fos dense

Shale dk gray carb

Shale grn brn sli sandy

Limestone lt gray crm f-xln sli fos sli chalky dense

Shale gray sli mica sli pyr

Shale dk gray sli pyr

Limestone crm tan f-xln fos fuss

Shale grn brn sli mica

Limestone crm lt gray f-xln sli fos dense

Limestone gray f-xln sli pyr grainy dense

Shale blk carb sli pyr

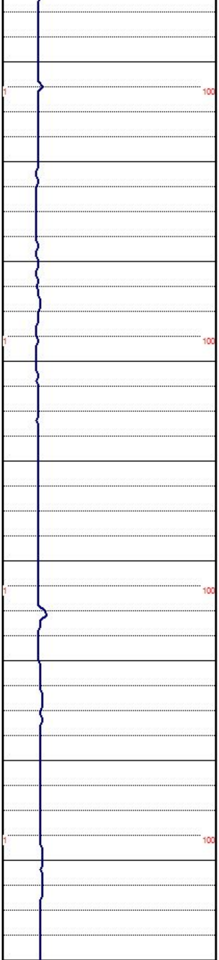
Shale gray grn brn sli pyr sli mica

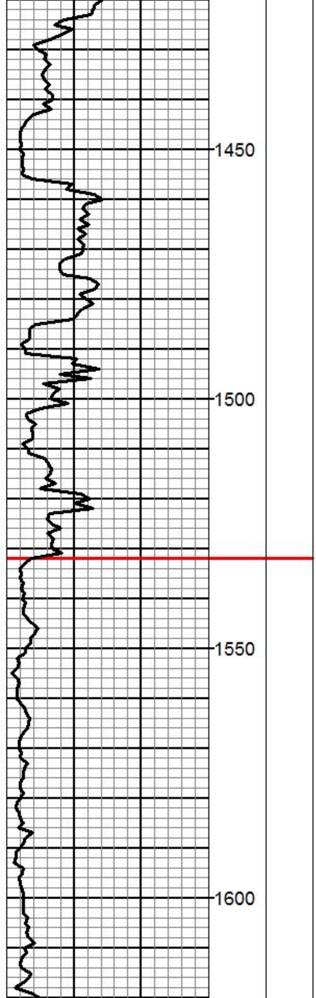
Limestone crm white f-xln ool fos chalky

Shale gray grn brn sli pyr

Limestone gray dk gray f-xln fos ool dense

Shale gray brn grn pyr





Limestone crm lt gray f-xln mottled fos ool(small) sli chalky

Limestonecrm tan f-xln sli fos w/ chert wht gray fresh sli fos

Shale blk dk gray carb sli pyr

Shale dk gray fis

Limestone gray wht f-md-xln sli fos sli chalky

Shale dk gray carb grn brn gray soft pyr

Limestone crm f-xlnfos sli ool sli chalky

Shale gray grn brn silty sandy pyr

Coal blk fis

Shale lt gray sandy soft

Limestone crm tan lt gray f-xln sli fos sli sandy sli chalky

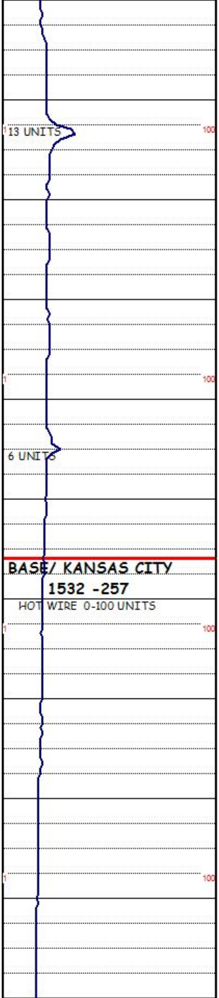
Shale gray frn dk gray brn sli mica sli sandy

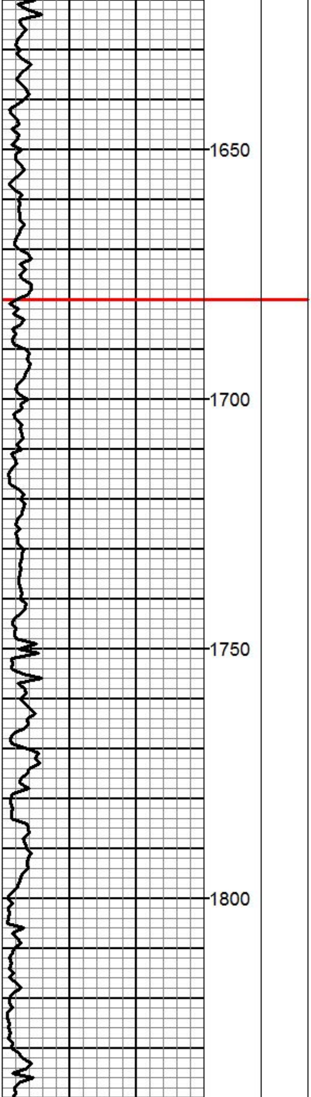
Sandstone clear f-lg grain sub ang-ang no clusters

Shale red brn grn lt gray silty sandy

Sandstone f-md grain ang no clusters

Shale red brn grn maroon silty sandy





Sandstone clear few orange f-md grain ang fria p vis por NS

Shale grn gray brn yel silty sandy

Limestone lt gray f-xln sli fos sli chalky

Shale blk carb

Shale multi color sandy

Shale dk gray carb

Sandstone clear orange f-lg grain ang-sub ang few cluster w/ lime matrix

Shale multi color

Shale gray fis

Sandstone clear f-lg grain ang few cluster

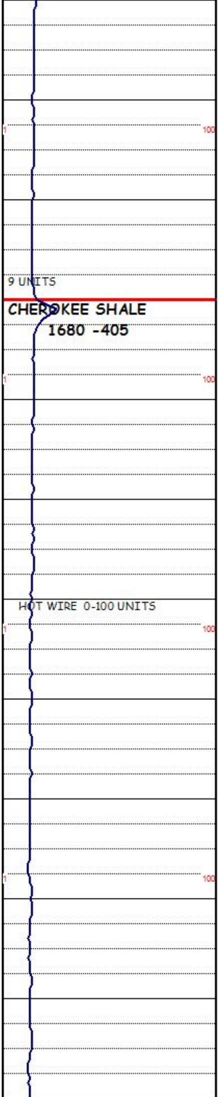
Shale multi color sli fis sandy

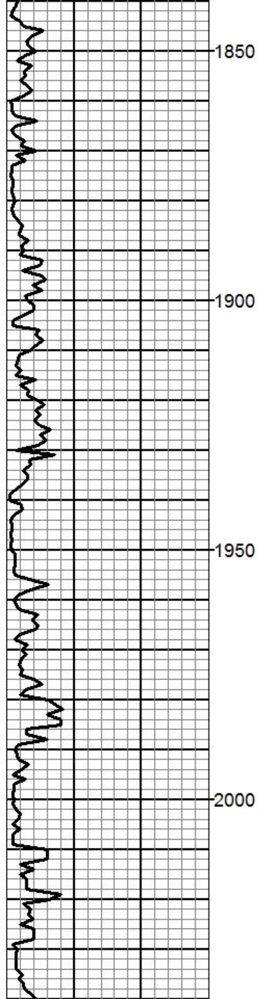
Sandstone clear some orange f-md grain sub ang-sub rounded uncons

Shale gray grn brn silty

Sandstone f-lg grain clear some orange sub ang uncons

Shale gray brn sli sandy sli pyr





Sandstone clear f-lg grain sub ang uncons

Shale multi-color sandy

Sandstone f-md grain sub ang uncons

Shale brn grn gray sandy silty

Sandstone clear f-md grain sub ang-rounded uncons

Shale brn grn gray red sandy

Sandstone clear f-md grain sub ang-well rounded uncons

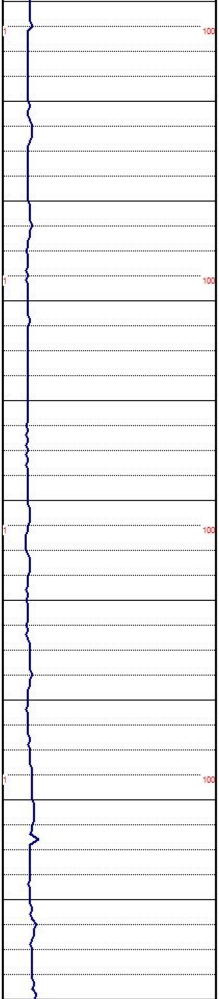
Shale grn brn gray sandy silty

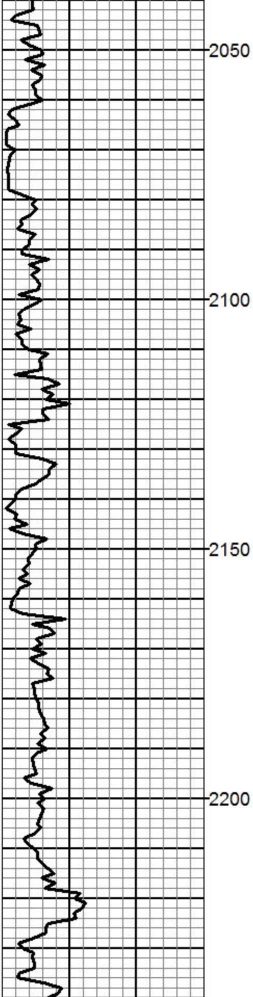
Sandstone clear f-lg grain sub ang-ang uncons

Shale brn gray olive sandy

Limestone crm f-xln sli chalky

Sandstone wht VF grain rounded limy matrix fria NS





Shale multi-color sandy

Sandstone f-lg grain sub ang-rounded uncons

Shale gray fis

Shale multi color sandy

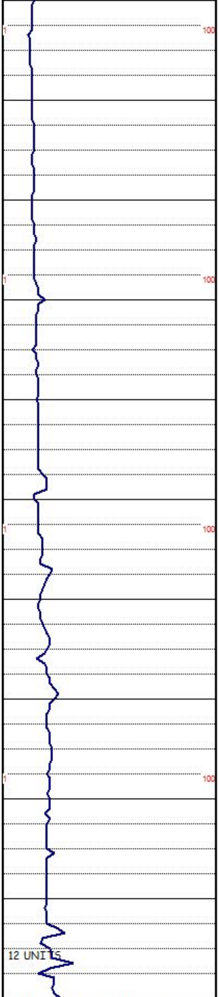
Sandstone f-lg grain clear ang-rounded uncons

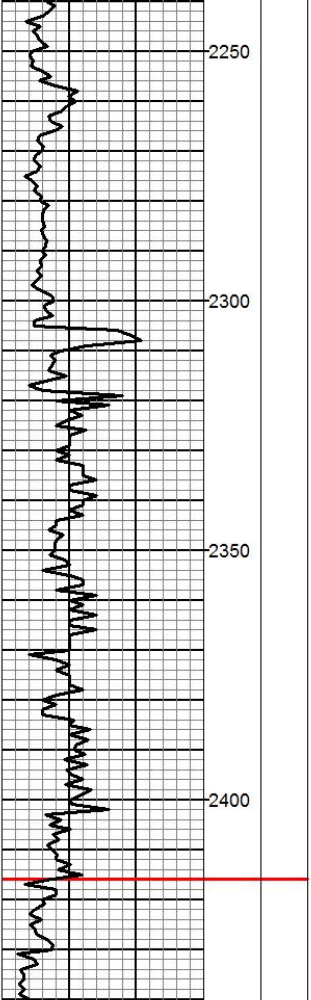
Shale gray dk gray fis sli pyr

Shale gray grn brn sli pyr

Shale dk gray fis sli silty

Coal blk fis sli pyr





Shale gray grn sandy silty soft

Shale dk gray fis sli pyr

Sandstone wht f-md grain ang fria p vis por NS

Shale gray dk gray sli silty sli pyr

Shale dk gray sli mica fis

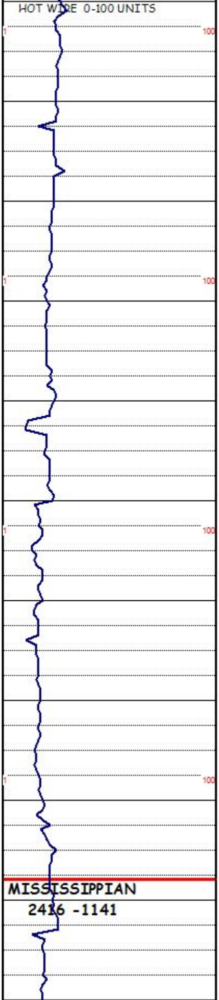
Shale dk gray w/ chert wht fresh

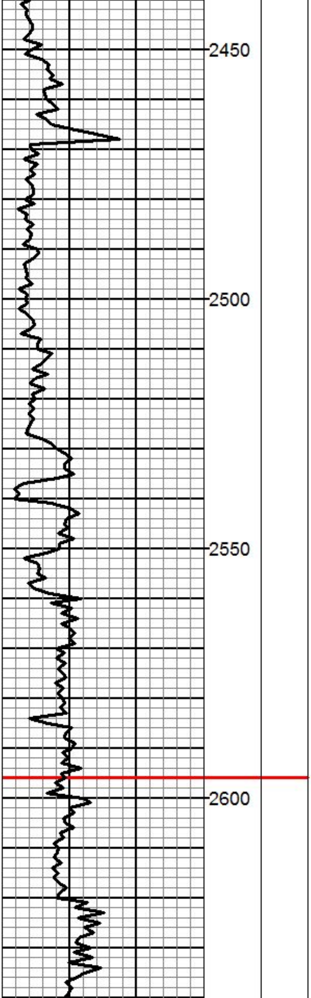
Limestone tan f-xln dense

Coal blk carb

Shale dk gray fis sli pyr sli mica

Sandstone gray VF grain hard silty matrix no vis por





Sandstone wht f-grain ang fria some carb matrix interbedding p vis por NS

Chert wht lt gray weat fos scat vug por NS w/ Limestone tan f-md-xln sli fos sandy scat vug por NS

Chert lt gray wht fresh w/ Limestone tan f-md grain sucrosic f vug por NS

Limestone crm f-xln fos ool no vis por

Limestone lt gray tan f-xln v fos mottled sli chalky dense

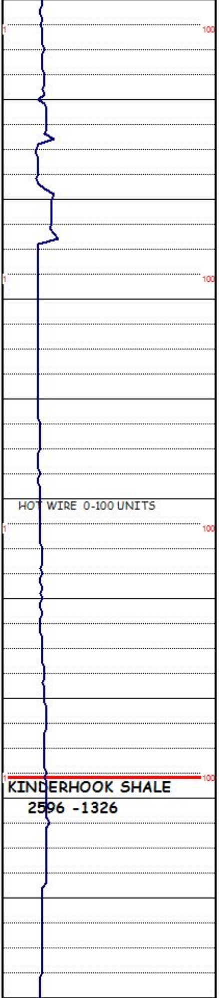
Limestone tan lt gray f-md-xln sli fos sli chalky

Limestone tan ly gray f-md-xln sli sucrosic no vis por

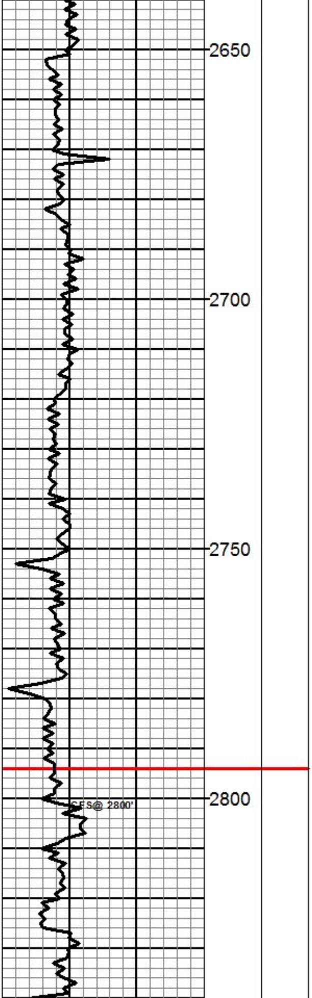
Shale dk gray fis

Shale lt gray brn grn silty sli pyr

Shale grn brn gray sandy w/ chert wht gray fresh fos



KINDERHOOK SHALE
2596 -1326



Shale dk gray sli carb blocky w/ shale lt grn brn silty

Shale dk gray fis w/shale lt grn brn sandy

Shale lt gray sandy soft

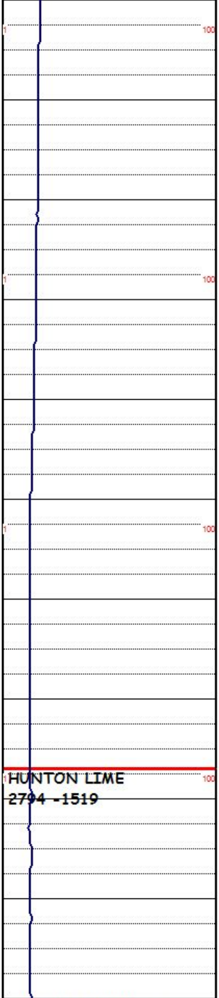
Shale gray grn brn sandy silty soft

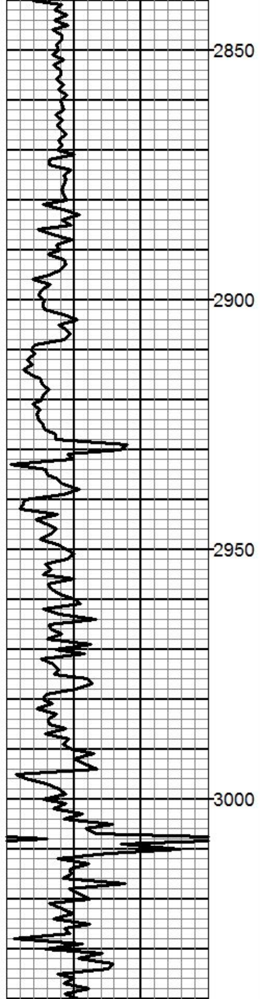
Shale gray fis lt gray sandy soft

Sandstone gray tan f grain well rounded fria p vis por NS

Limestone crm gray f-xln dense

Limestone crm f-xln grainy chalky w/ dolomite gray f-xln sucrosic sli silty p vis por NS





Dolomite gray brn f-xln sucrosic sli carb sli sandy no vis por

Dolomite tan lt brn pale grn brn f-md-xln suc p vis por

Dolomite tan lt brn md-xln sucrosic scat vuggy por NS

Dolomite crm f-md-xln scat inter-xln & pinpoint por w/ chert white fresh

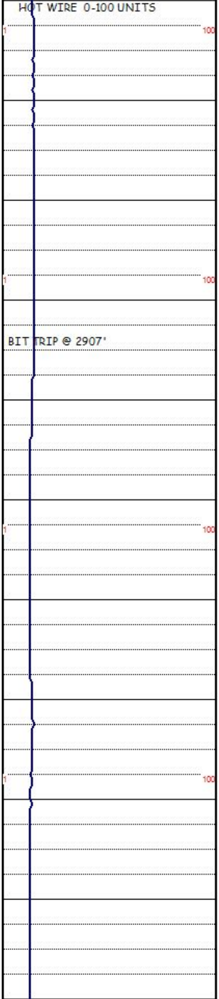
Dolomite tan f-xln sucrosic scat vuggy por

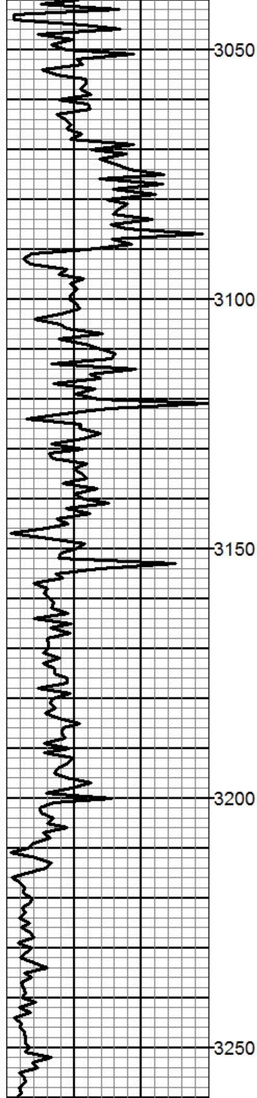
Dolomite tan md-lg-xln gd int-xln por

Dolomite tan lt gray f-xln dense

Dolomite crm md-lg-xln gd vuggy por

Dolomite tan crm grn f-xln sli chalky w/ chert lt gray wht fresh





Dolomite crm lt grn f-xln sli sandy grainy

Dolomite lt brn coarse-xln gd inter-xln por

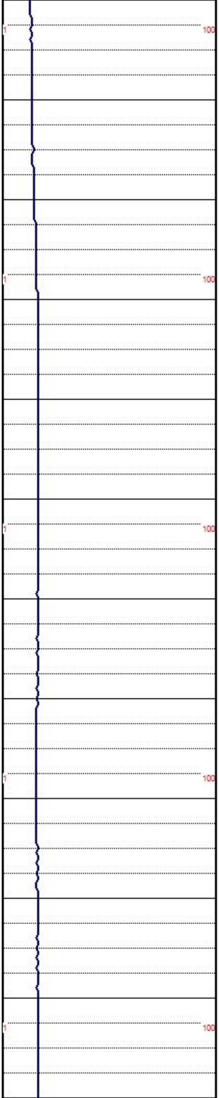
Dolomite lt gray f-xln sli pyr dense

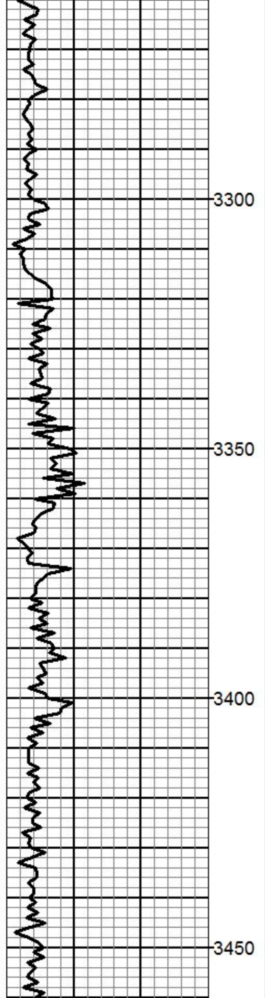
Dolomite tan md-lg-xln gd int-xln por

Dolomite crm tan f-md-xln scat vuggy por

Dolomite lt gray md-lg-xln gd int-xln por

Dolomite crm md-lg-xln VG int-xln por





Dolomite lt gray md-xln VG int-xln & vuggy por

Dolomite lt gray crm f-xln p int-xln por

Dolomite lt gray md-lg-xln G int-xln & vuggy por

Dolomite lt gray f-xln grainy scat vuggy por

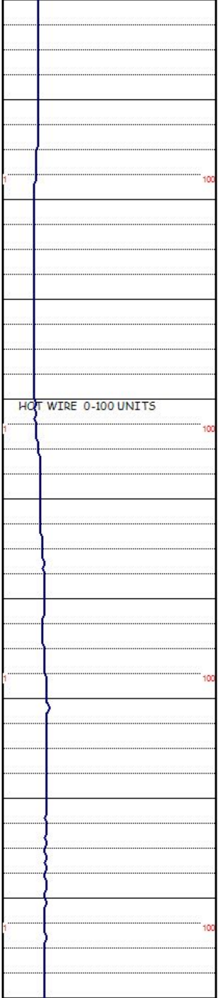
Dolomite lt gray f-lg-xln gd int-xln por scat vuggy por sli chalky

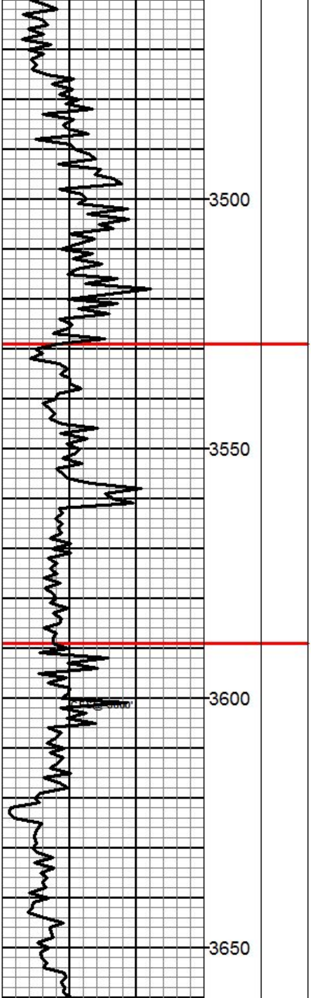
Dolomite lt gray f-xln P int-xln por

Dolomite crm f-md-xln gd int-xln por sli chalky

Dolomite lt gray md-xln gd int-xln por

Dolomite lt gray md-xln sli chalky gd int-xln por





Dolomite tan f-xln p int-xln por scat vuggy por

Dolomite crm f-xln p int-xln por chalky

Dolomite tan f-xln grainy scat vuggy por

Shale gray grn sli pyr

Dolomite rose brn f-xln scat vuggy por

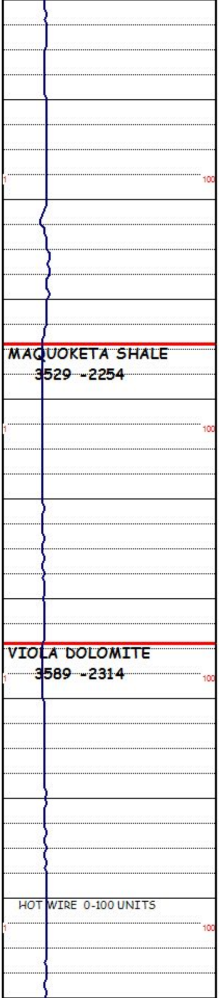
Shale gray grn silty sandy sli fis

Shale gray grn brn sandy silty w/ dolomite dk brn sucrosic brn spore inclusions

Dolomite lt gray f-coarse-xln scat int-xln por NS

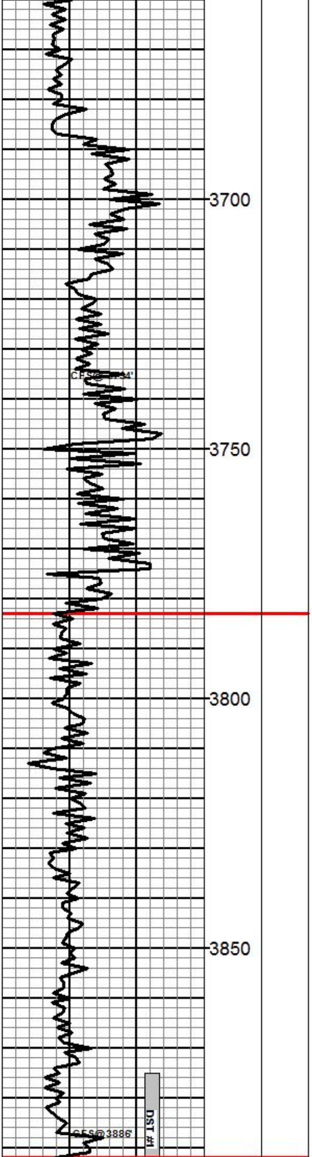
Dolomite lt gray tan f-lg xln sli pyr p int-xln por w/ chert gray devit sli fos

Dolomite tan lt gray f-md xln grainy gd int-xln por NS



MAQUOKETA SHALE
3529 -2254

VIOLA DOLOMITE
3589 -2314



Dolomite tan crm f-xln p int-xln por sli chalky w/ chert lt gray fresh pyr

Dolomite tan lt brn f-xln grainy no vis por w/ chert lt gray fresh fos

Dolomite crm tan f-xln chalky dense w/ chert gray fresh

Limestone crm tan f-md xln chalkyno vis por

Limestone brn f-xln dense w/ chert tan gray fresh sli pyr

Shale dk gray fis w/shale grn brn silty sli sandy

Limestone crm lt gray f-xln dark inclusions (Mg) chalky sli mica

Shale lt gray lt grn grn gray sli sandy sli pyr

Dolomite brn f-xln sli fos dense

Shale gray grn fis sli pyr

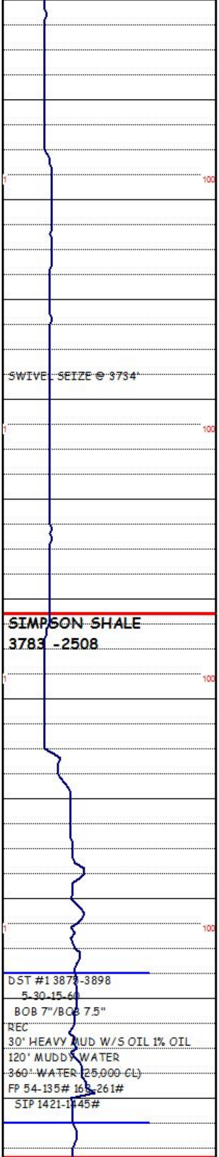
Limestone lt gray tan f-xln sli chalky dense

Shale gray dk fray fis sli mica sli pyr

Shale grn brn silty sli sandy sli pyr

Sandstone md-lg grain p sorted well rounded p vis por scat flaky stain NSFO

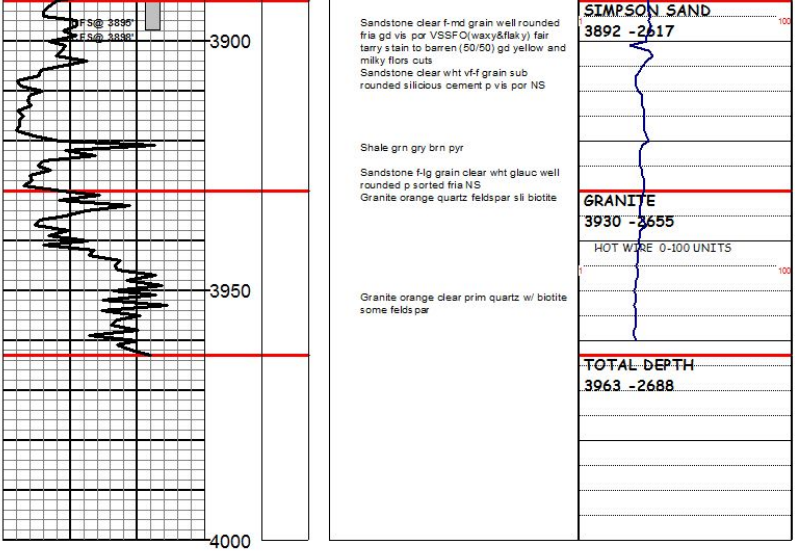
Limestone crm tan f-xln sli pyr sli chalky sli sandy



SWIVEL SEIZE @ 3734'

SIMPSON SHALE
3783 -2508

DST #1 3875-3898
5-30-15-60
BOB 7"/BOB 7.5"
REC
30' HEAVY MUD W/S OIL 1% OIL
120' MUDDY WATER
360' WATER (25,000 CL)
FP 54-135# 168-261#
SIP 1421-1445#



Sandstone clear f-md grain well rounded fria gd vis por VSSFO(waxy&flaky) fair tarry stain to barren (50/50) gd yellow and milky flors cuts
Sandstone clear wht vf-f grain sub rounded silicious cement p vis por NS

Shale grn gry brn pyr

Sandstone f-lg grain clear wht glauc well rounded p sorted fria NS
Granite orange quartz feldspar sli biotite

Granite orange clear prim quartz w/ biotite some feldspar

Operator:	KINNEY OIL COMPANY
Lease:	GRIMM 1-32
Location:	2300' FNL 1400' FEL SEC. 32 TWSP 1S RGE 14E
County:	NEMAHA State: KANSAS