**File: GLALLSNYKN21B.mlw**

**From 2230 To 4735 KB=3051.0**

**GEOCERTIFIED, LLC**

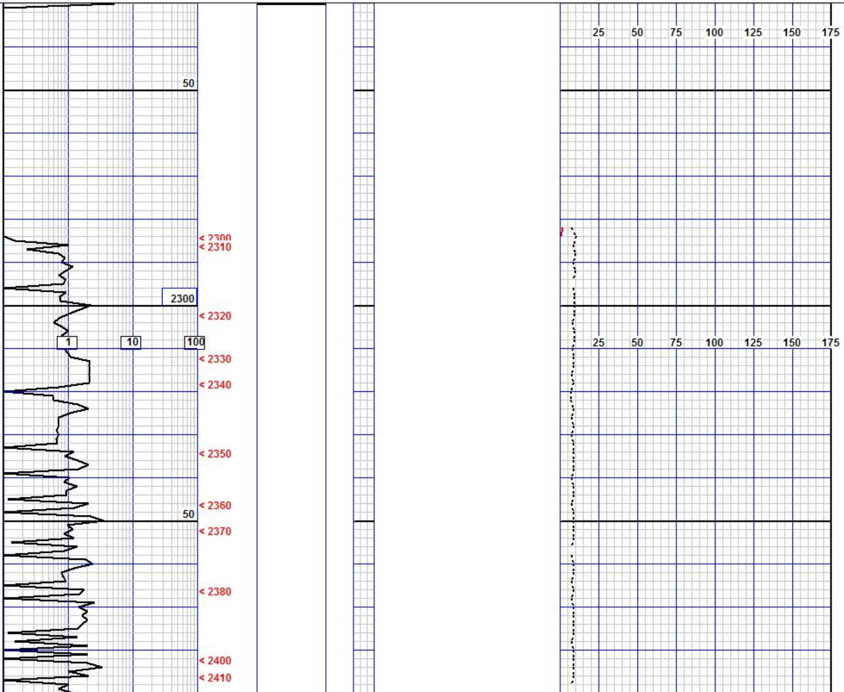
Sand Dolo Lime Chert Anhydrite GY SH
RD SH GN SH ORG SH Carb Sh Salt Granite
Siltstone Coal Bentonite Granite Wash Quartz Wash
Carb Wash Cong Cement SH 1 SH 2 SH 3
SH 4 SH 5 SH 6

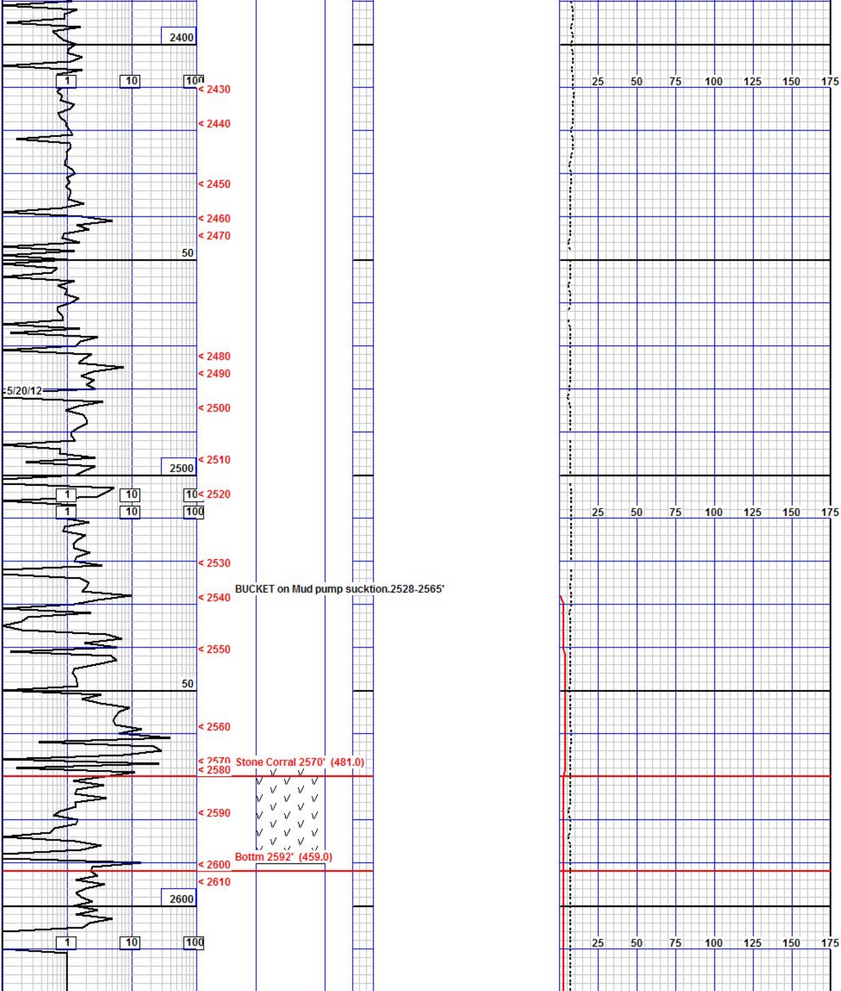
ACCESSORIES
GLAUC CPYRITE FOSSILS OOLITES FRACTURES

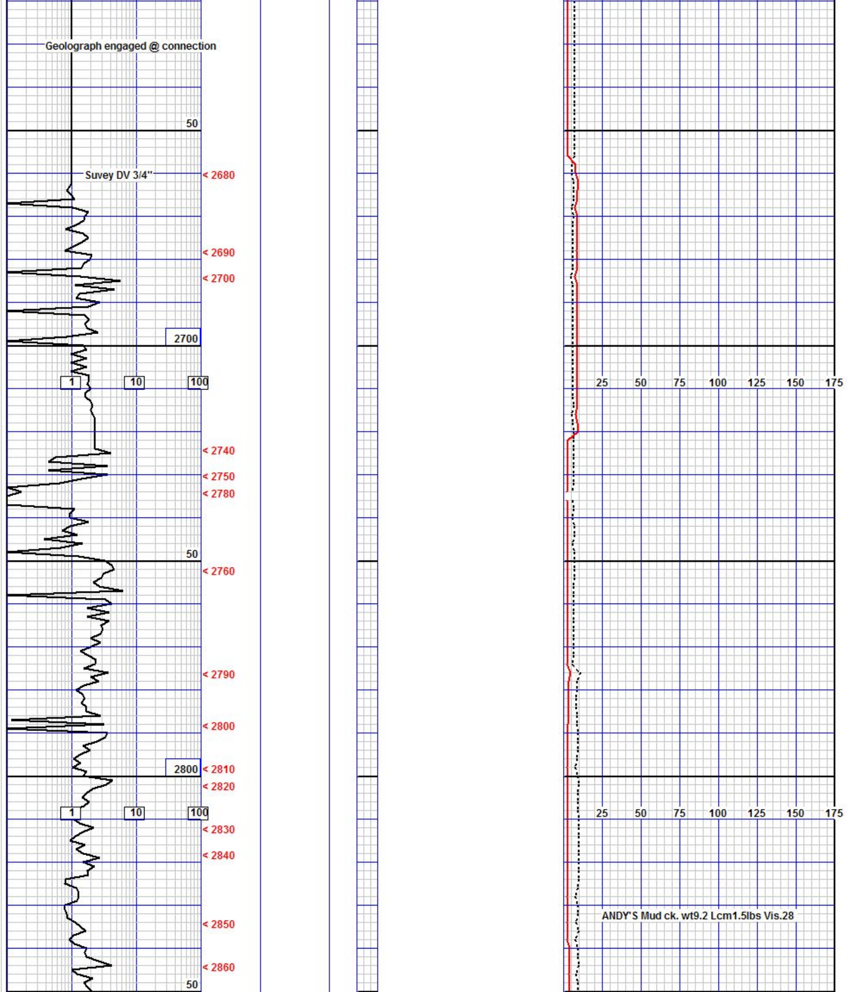
HW

| | | | |
|---|---|---|---|
| COMPANY : | G.L. ALLISON Oil Operations, Inc Greg Allison | DATES LOGGED : | 5/19/2012 to 5/27/2012 |
| WELL : | Younkin 21B-2 | DEPTHS LOGGED : | 2230' to 4735 |
| LOCATION : | Sec 21 T12S R32W NE SW NE or 1670' FNL, 1950' FEL | GL : | 3044' |
| | Andy's Mud | KB : | 3051' |
| | LOGAN Co., Kansas | UNIT No : | 10 |
| API NO. : | 15-109-21081-00-00 | LOGGERS : | LOGTECH-Hays D.Schmidt |

Drill Rate Min/Ft Por Lithology Flu Cut Gas Units



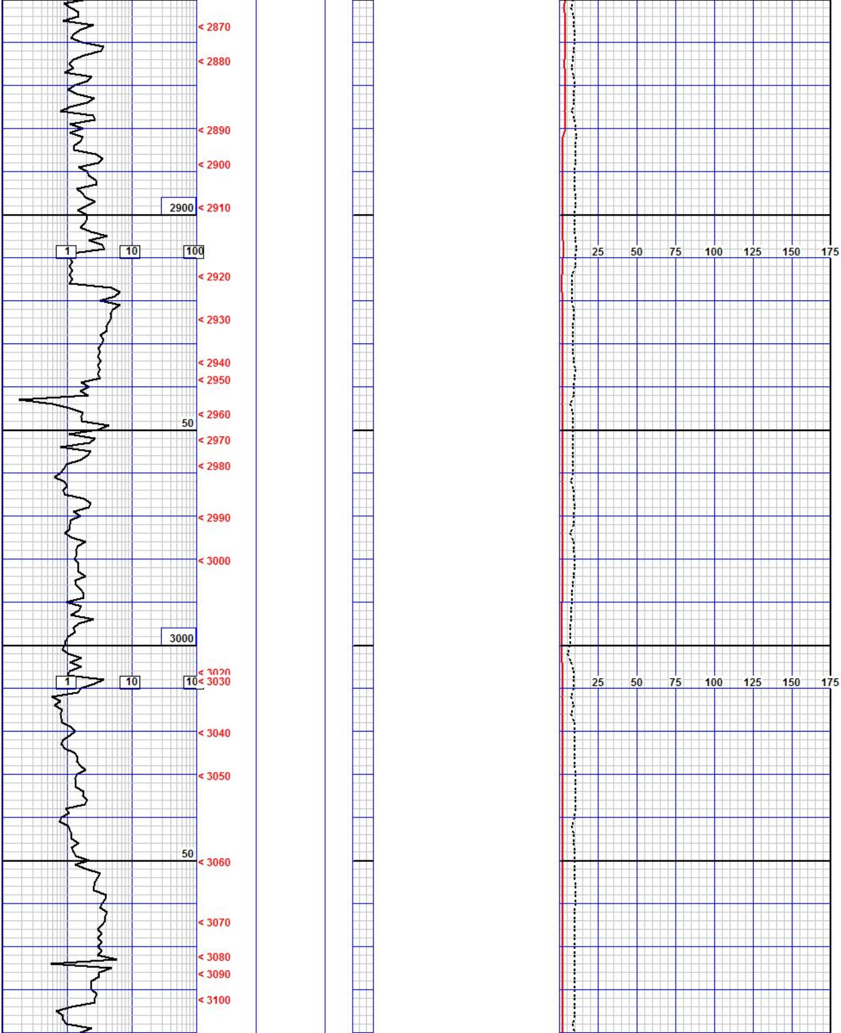


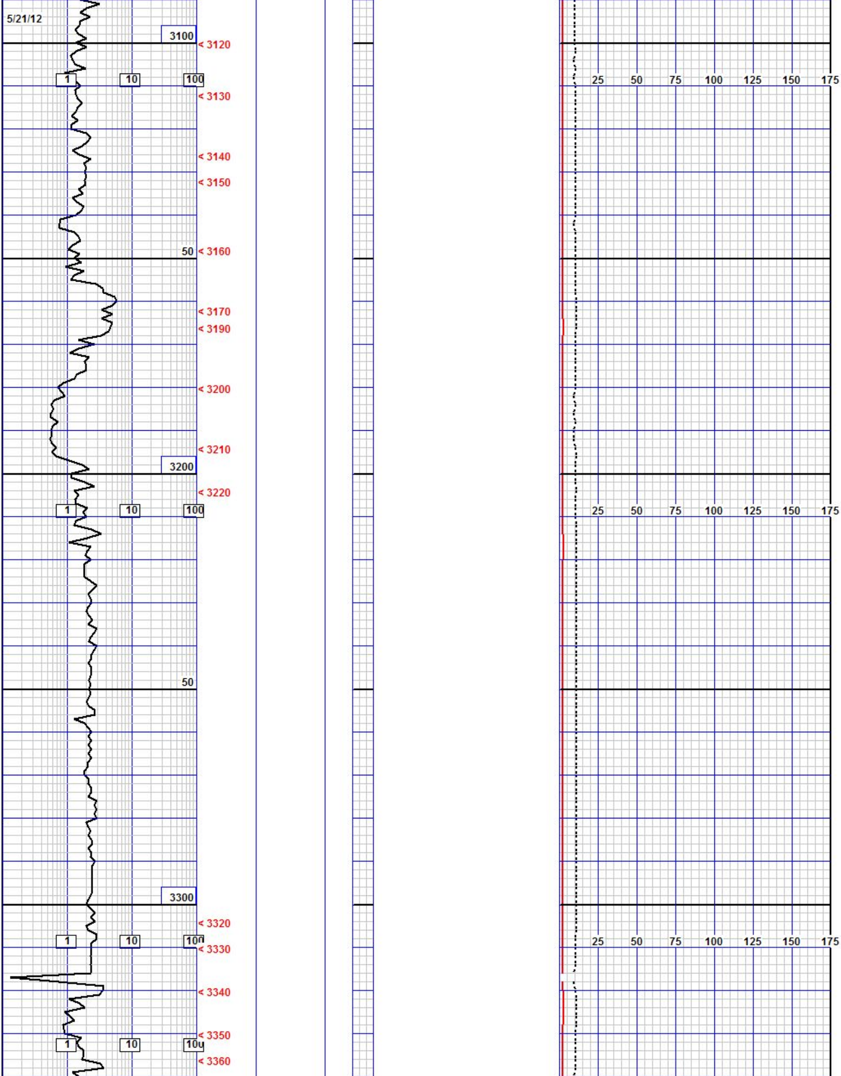


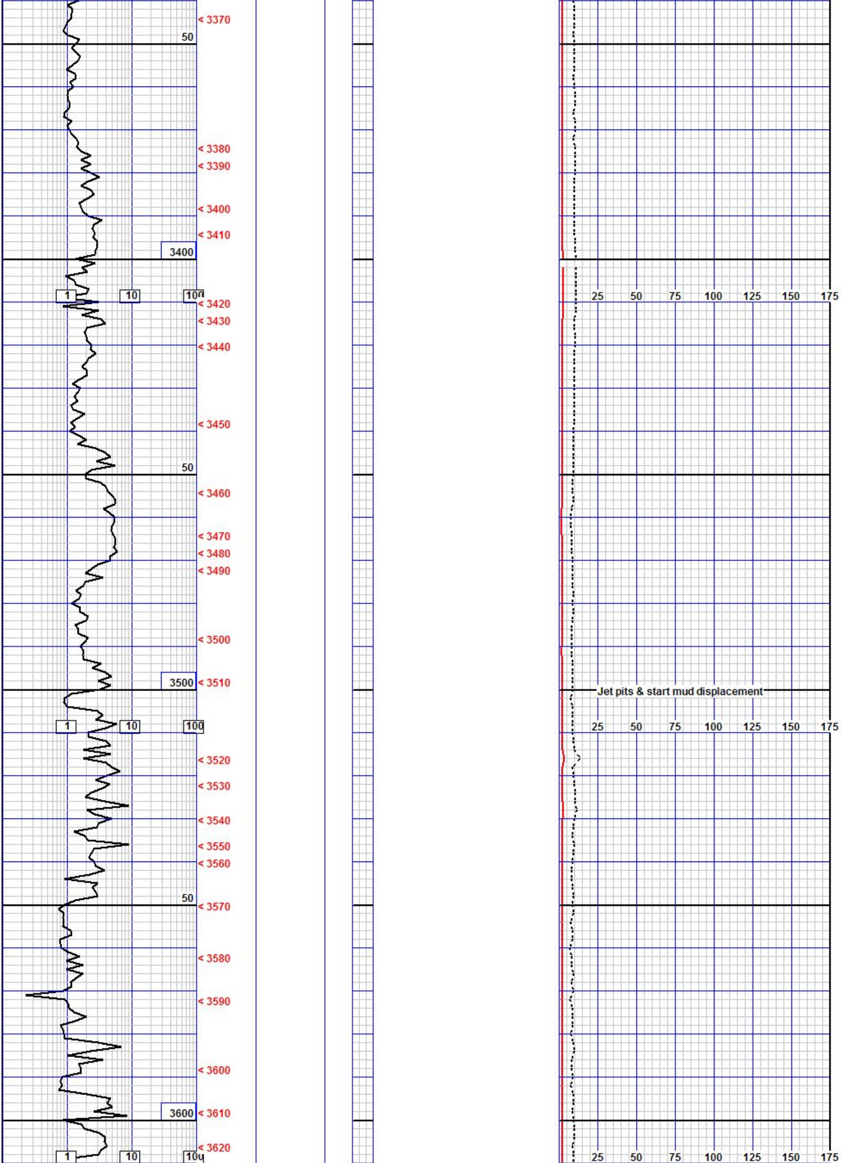
Geolograph engaged @ connection

Suvey DV 3/4"

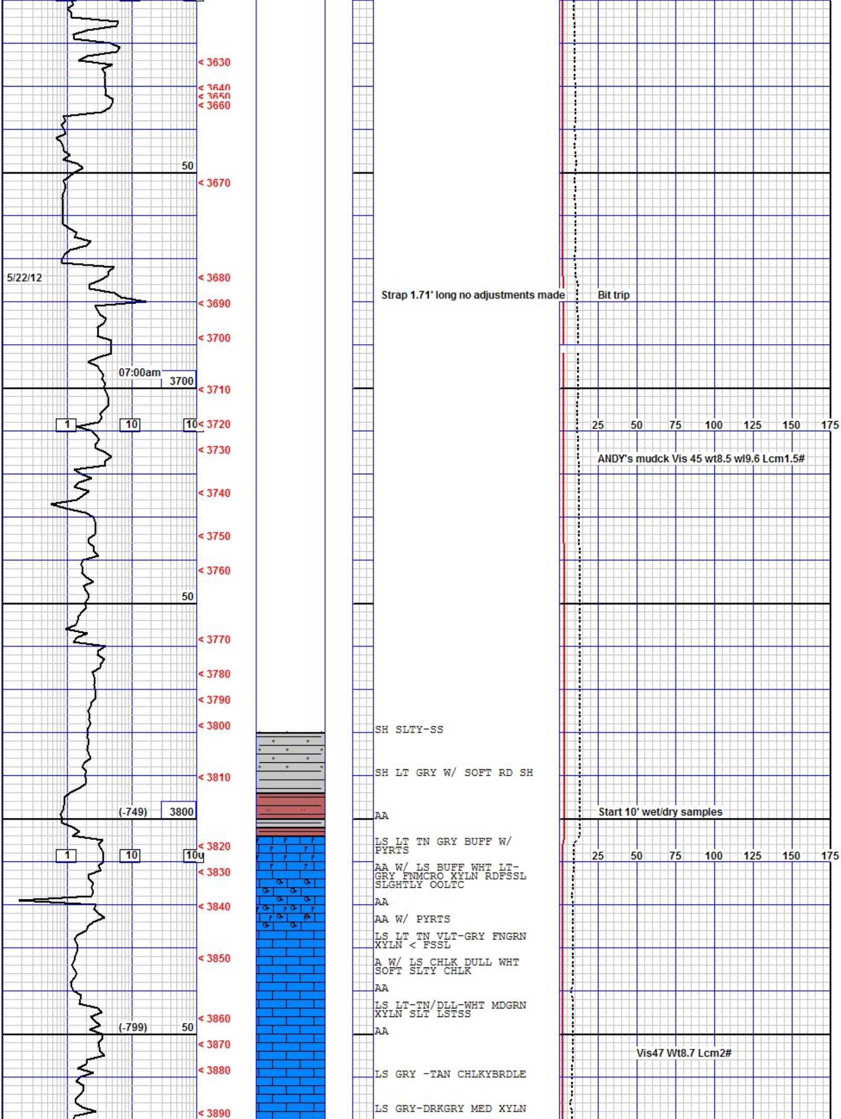
ANDY'S Mud ck. wt9.2 Lcm1.5lbs Vis.28







Jet pits & start mud displacement



5/22/12

Strap 1.71' long no adjustments made

Bit trip

07:00am

ANDY's mudck Vis 45 wt8.5 wl9.6 Lcm1.5#

SH SLTY-SS

SH LT GRY W/ SOFT RD SH

AA

Start 10' wet/dry samples

LS LT TN GRY BUFF W/ PYRTS

AA W/ LS BUFF WHT LT-GRY FNMCRO XYLN RDFSSL SLGHTLY OOLTC

AA

AA W/ PYRTS

LS LT TN VLT-GRY FNGRN XYLN < FSSL

A W/ LS CHLK DULL WHT SOFT SLTY CHLK

AA

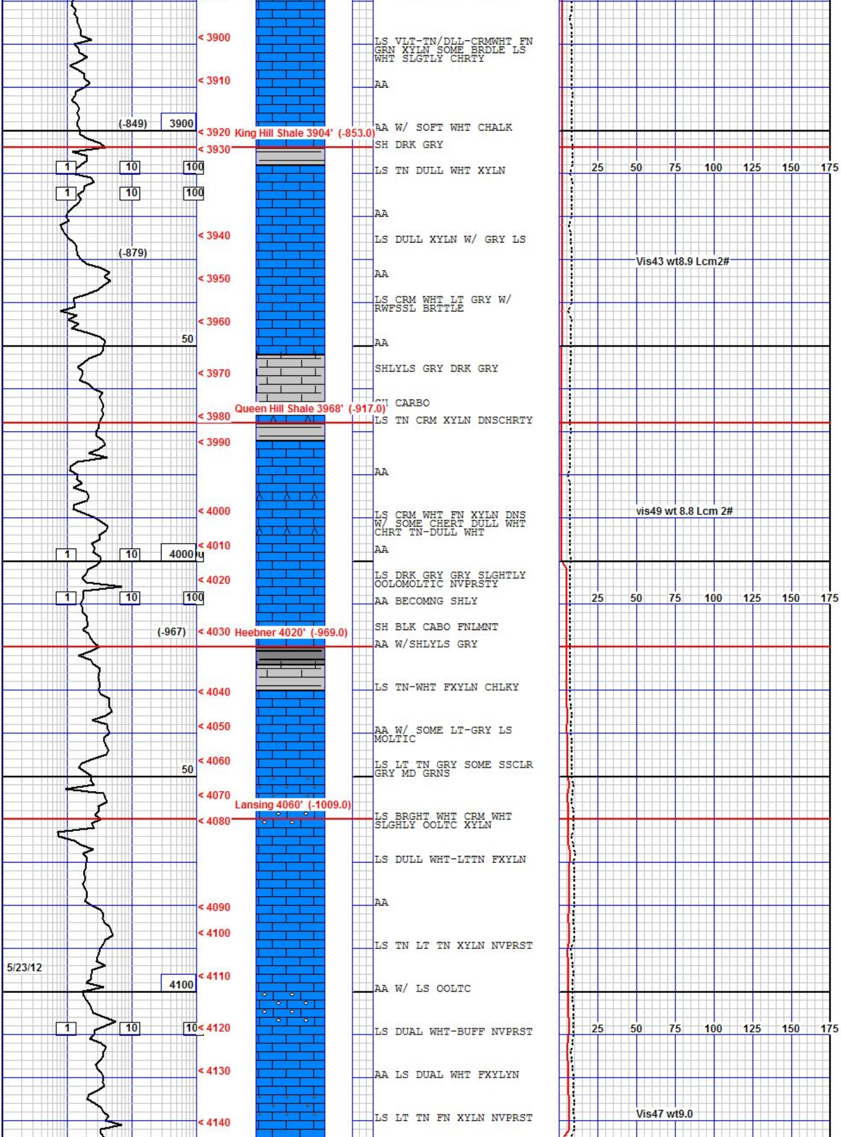
LS LT-TN/DLL-WHT MDGRN XYLN SLT LSTSS

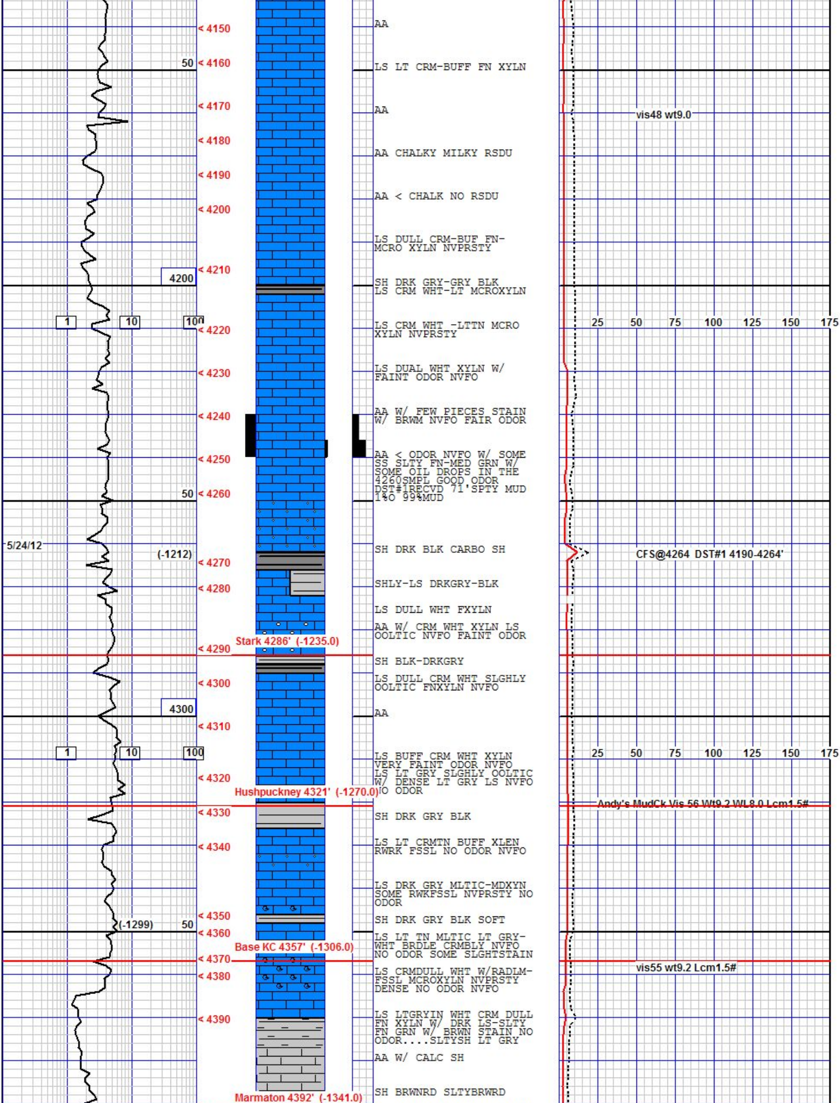
AA

Vis47 Wt8.7 Lcm2#

LS GRY -TAN CHLKYBRDLE

LS GRY-DRKGRY MED XYLN





AA

LS LT CRM-BUFF FN XYLN

AA

AA CHALKY MILKY RSDU

AA < CHALK NO RSDU

LS DULL CRM-BUF FN-MCRO XYLN NVPRSTY

SH DRK GRY-GRY BLK
LS CRM WHT-LT MCROXYLN

LS CRM WHT -LTTN MCRO XYLN NVPRSTY

LS DUAL WHT XYLN W/ FAINT ODOR NVFO

AA W/ FEW PIECES STAIN W/ BRWM NVFO FAIR ODOR

AA < ODOR NVFO W/ SOME SS SLTY FN-MED GRN W/ SOME OIL DROPS IN THE 4260SMPL GOOD ODOR DST#1RECVD 71'SPTY MUD 1%O 99%MUD

SH DRK BLK CARBO SH

SHLY-LS DRKGRY-BLK

LS DULL WHT FXYLN

AA W/ CRM WHT XYLN LS OOLTIC NVFO FAINT ODOR

Stark 4286' (-1235.0)

SH BLK-DRKGRY

LS DULL CRM WHT SLGHLY OOLTIC FNXYLN NVFO

AA

LS BUFF CRM WHT XYLN VERY FAINT ODOR NVFO LS LT GRY SLGHLY OOLTIC W/ DENSE LT GRY LS NVFO NO ODOR

Hushpuckney 4321' (-1270.0)

SH DRK GRY BLK

LS LT CRMTN BUFF XLEN RWRK FSSL NO ODOR NVFO

LS DRK GRY MLTIC-MDXYN SOME RWKFSSL NVPRSTY NO ODOR

SH DRK GRY BLK SOFT

LS LT TN MLTIC LT GRY-WHT BRDLE CRMBLY NVFO NO ODOR SOME SLGHTSTAIN

Base KC 4357' (-1306.0)

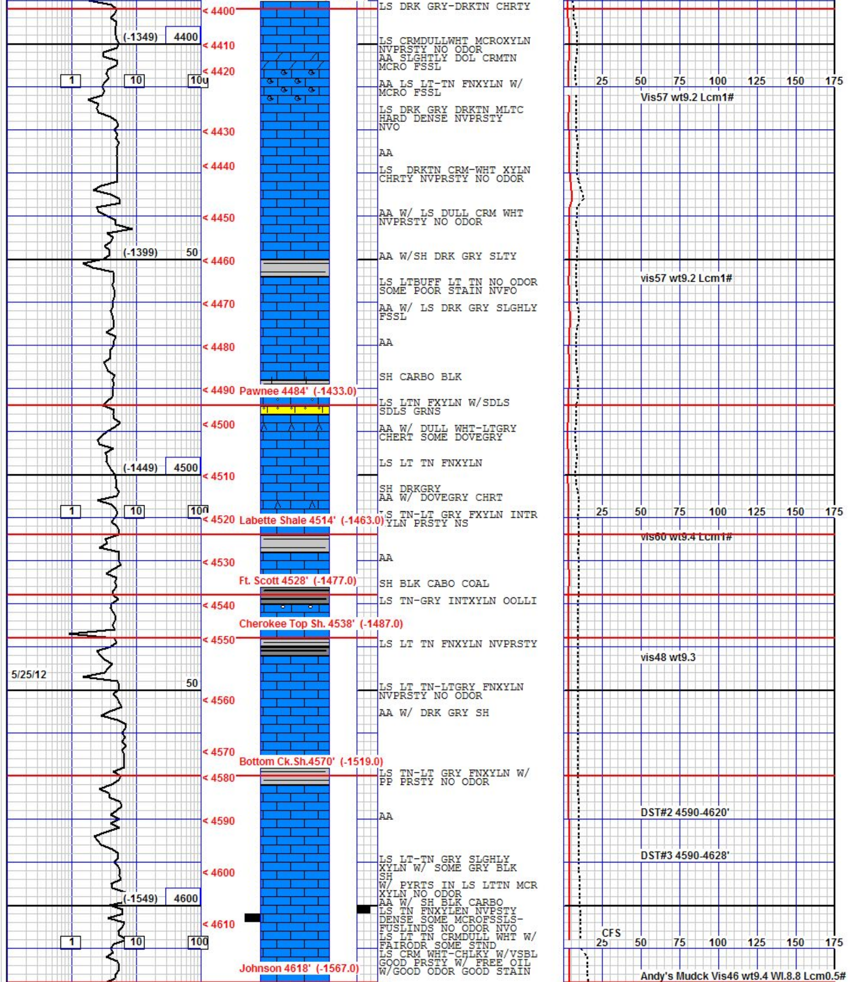
LS CRMDULL WHT W/RADLM-FSSL MCROXYLN NVPRSTY DENSE NO ODOR NVFO

LS LTGRYIN WHT CRM DULL FN XYLN W/ DRK LS-SLTY FN GRN W/ BRWN STAIN NO ODOR....SLTYSH LT GRY

AA W/ CALC SH

Marmaton 4392' (-1341.0)

SH BRWNRD SLTYBRWRD



LS DRK GRY-DRKTN CHRTY

LS CRMDULLWHT MCROXYLN
NVPRSTY NO ODOR
AA SLGHTLY DOL CRMTN
MCRO FSSL

AA LS LT-TN FNXYLN W/
MCRO FSSL

Vis57 wt9.2 Lcm1#

LS DRK GRY DRKTN MLTC
HARD DENSE NVPRSTY
NVO

AA

LS DRKTN CRM-WHT XYLN
CHRTY NVPRSTY NO ODOR

AA W/ LS DULL CRM WHT
NVPRSTY NO ODOR

AA W/SH DRK GRY SLTY

vis57 wt9.2 Lcm1#

LS LTBUFF LT TN NO ODOR
SOME POOR STAIN NVFO

AA W/ LS DRK GRY SLGHLY
FSSL

AA

SH CARBO BLK

Pawnee 4484' (-1433.0)

LS LTN FXYLN W/SDLS
SDLS GRNS

AA W/ DULL WHT-LTGRY
CHERT SOME DOVEGRY

LS LT TN FNXYLN

SH DRKGRY
AA W/ DOVEGRY CHRT

LS TN-LT GRY FXYLN INTR
XYLN PRSTY NS

Labette Shale 4514' (-1463.0)

vis60 wt9.4 Lcm1#

AA

Ft. Scott 4528' (-1477.0)

SH BLK CABO COAL

LS TN-GRY INTXYLN OOLLI

Cherokee Top Sh. 4538' (-1487.0)

LS LT TN FNXYLN NVPRSTY

vis48 wt9.3

LS LT TN-LTGRY FNXYLN
NVPRSTY NO ODOR

AA W/ DRK GRY SH

Bottom Ck.Sh.4570' (-1519.0)

LS TN-LT GRY FNXYLN W/
PP PRSTY NO ODOR

AA

DST#2 4590-4620'

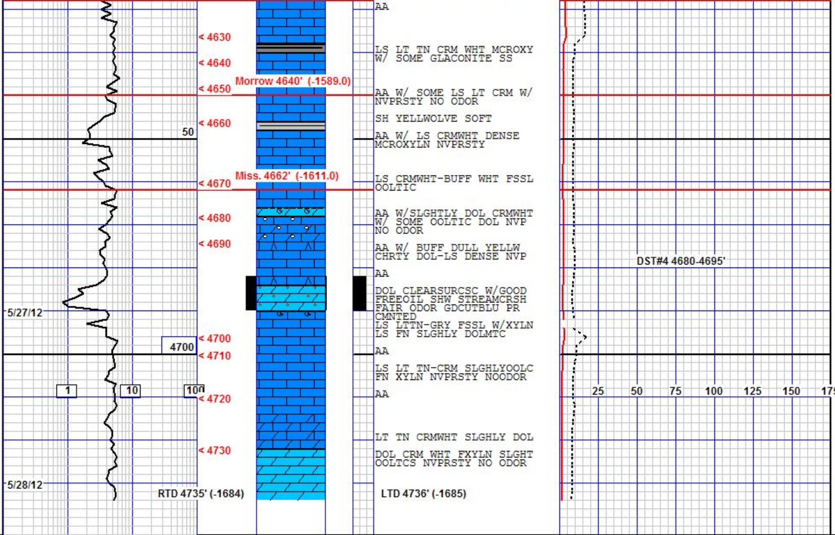
LS LT-TN GRY SLGHLY
XYLN W/ SOME GRY BLK
SH

DST#3 4590-4628'

W/ PYRTS IN LS LTTN MCR
XYLN NO ODOR
AA W/ SH BLK CARBO
LS TN FNXYLEN NVPSTY
DENSE SOME MCROFSSLS-
FUSLINDS NO ODOR NVO
LS LT TN CRMDULL WHT W/
FAIRODR SOME STND
LS CRM WHT-CHLKY W/VSBL
GOOD PRSTY W/ FREE OIL
W/GOOD ODOR GOOD STAIN

Johnson 4618' (-1567.0)

Andy's Mudck Vis46 wt9.4 Wl.8.8 Lcm0.5#



AA

LS LT TN CRM WHT MCROXY
W/ SOME GLACONITE SS

AA W/ SOME LS LT CRM W/
NVPRSTY NO ODOR

SH YELLWOLVE SOFT

AA W/ LS CRMWHT DENSE
MCROXYLN NVPRSTY

LS CRMWHT-BUFF WHT FSSL
OOLTIC

AA W/SLGHTLY DOL CRMWHT
W/ SOME OOLTIC DOL NVP
NO ODOR

AA W/ BUFF DULL YELLW
CHRTY DOL-LS DENSE NVP

AA

DOL CLEARSURCSC W/GOOD
FREEOIL SHW STREAMCRSH
FAIR ODOR GDCUTBLU PR
CMNTED
LS LTTN-GRY FSSL W/XYLN
LS FN SLGHLY DOLMTC

AA

LS LT TN-CRM SLGHLYOOLC
FN XYLN NVPRSTY NOODOR

AA

LT TN CRMWHT SLGHLY DOL

DOL CRM WHT FXYLN SLGHT
OOLTCS NVPRSTY NO ODOR