Woolsey Operating Company, LLC

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

Well Name: McFADDEN B-1
API:
Location: Section 22 - Township 28 South - Range 19 West
License Number: 15-097-21835-00-00 **Region:** Kiowa County, Kansas
Spud Date: January 16, 2018 **Drilling Completed:**
Surface Coordinates: C SE NE
2300' FNL & 740' FEL
Bottom Hole Coordinates:
Ground Elevation (ft): 2272' **K.B. Elevation (ft):** 2284'
Logged Interval (ft): 3000' **To:** **Total Depth (ft):**
Formation: Wabaunsee >>> Mississippian
Type of Drilling Fluid: Chemical Mud

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Woolsey Operating Company,LLC
Address: 125 N. Market, Suite 1000
Wichita, KS 67202

GEOLOGIST

Name: Bill Klaver, Joel Gearhart
Company: Woolsey Operating Co. LLC
Address: 125 N. Market, Wichita Kansas, 67202

Comments

Surface Casing: Set 8 joints of 10 3/4" X 32#/ft casing at 252' KB, (tally 337') with 315 sx 60/40 poz, 2% gel, 3% cc, 1/4# Celoflake. Late used 2" to pump 100 sx common.
Production Casing:

Deviation Surveys: 356'-1, 971'-1, 1474'-3/4, 1976'-3/4, 2477'-3/4, 2980'-1/4, 3481'-3/4, 3983'-1, 4474'-3/4,
Pipe Strap @ 4474', Board: 4485.47', Strap: 4483.69', strap 1.78' short to the board. (strong wind!)
Fossil Drilling Rig #3 Bit Record:
1.) 14.75" Reed RR, In-0' Out-356', 5.25 Hrs
2.) 7 7/8" Ulterra U6165, In-356' Out-4474'
3) 7 7/8" Ulterra U6165, in at 4474' out at

Gas Detector: Pason Systems
Mud System: Mud Co. Brad Bortz, Justin Whiting Eng
DSTs: Trilobite Testing, Ken Swinney Tester
ELI

DSTs

DST #1 Kansas City 'Iola', 4440'-4474', 30"-60"-30"-60", weak 2" blow dec to 3/4", Rec: 124' MW/SSO (80%W, 20%M), 124' MW (95%W, 5%M), Rw .204 at 57 deg, Chlorides 42,000 ppm, IHP 2240, IFP 28-96, ICIP 1501, FFP 102-146, FCIP 1483, FHP 2184, BHT 117 deg.

CREWS

Fossil Drilling Rig#3

Rick Barringer - Tool Pusher
Chris Staats - Morning
Pablo Luna- Daylight
Gary Axtell - Evening

ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Sdy dolo
- Shy dolo
- Dol
- Gyp
- Sdy lmst
- Lmst
- Mrlst
- Salt
- Shale
- Sltst
- Ss
- Black sh
- Gry sh
- Shale
- Shysltst
- Sltysh
- Ss 2
- Shale 3
- Silty dol
- Dol lmst
- Dol 2
- Granite wash
- Lmst
- Calc dol
- Shale 3

ACCESSORIES

MINERAL

- Anhy
- Arg
- B Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- P Pyr
- Salt
- Sandy
- Silt
- Chlorite
- Dol
- Sand
- Slty

FOSSIL

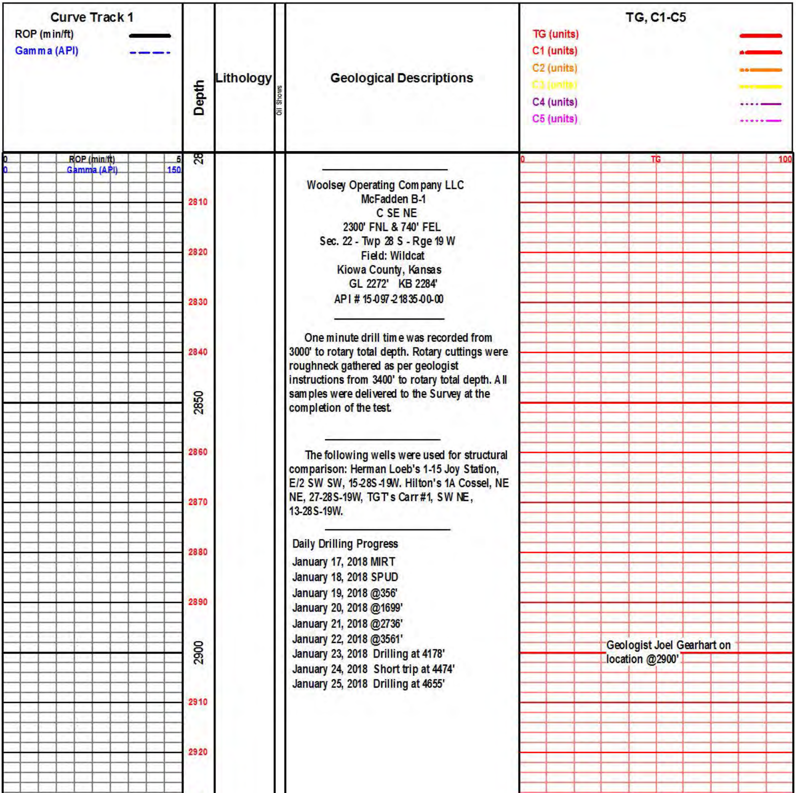
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- F Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest



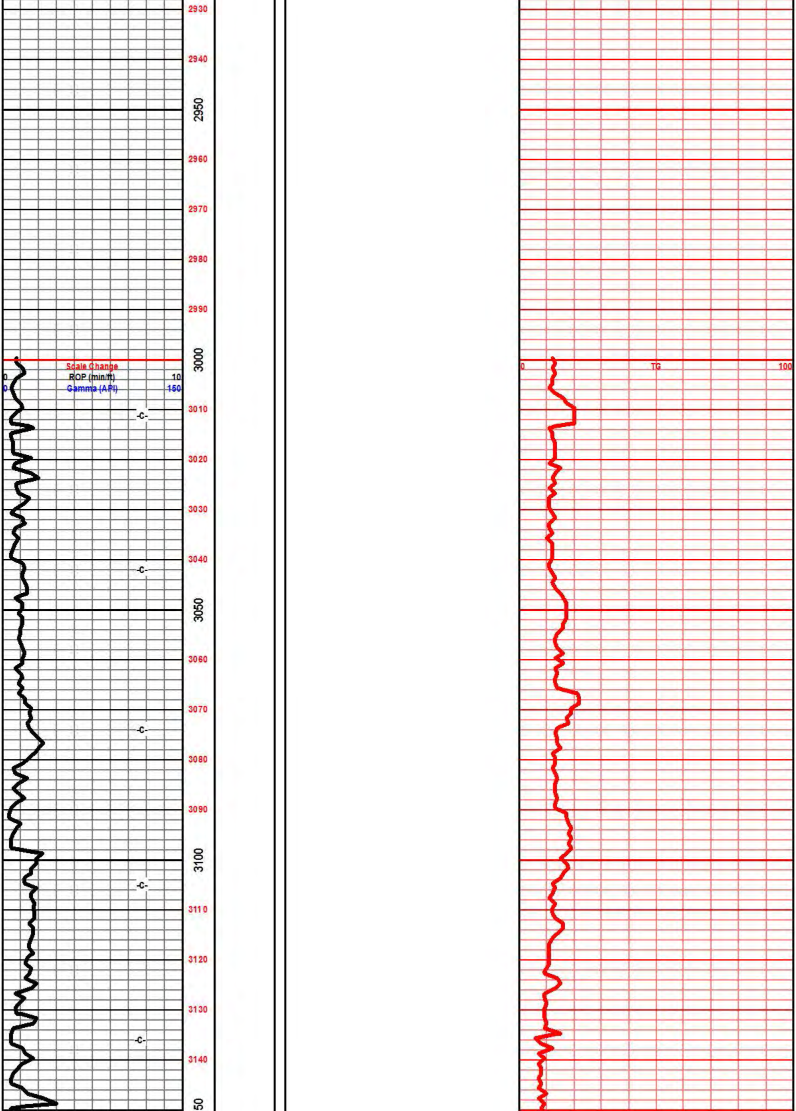
Woolsey Operating Company LLC
McFadden B-1
C SE NE
2300' FNL & 740' FEL
Sec. 22 - Twp 28 S - Rge 19 W
Field: Wildcat
Kiowa County, Kansas
GL 2272' KB 2284'
API # 15-097-21835-00-00

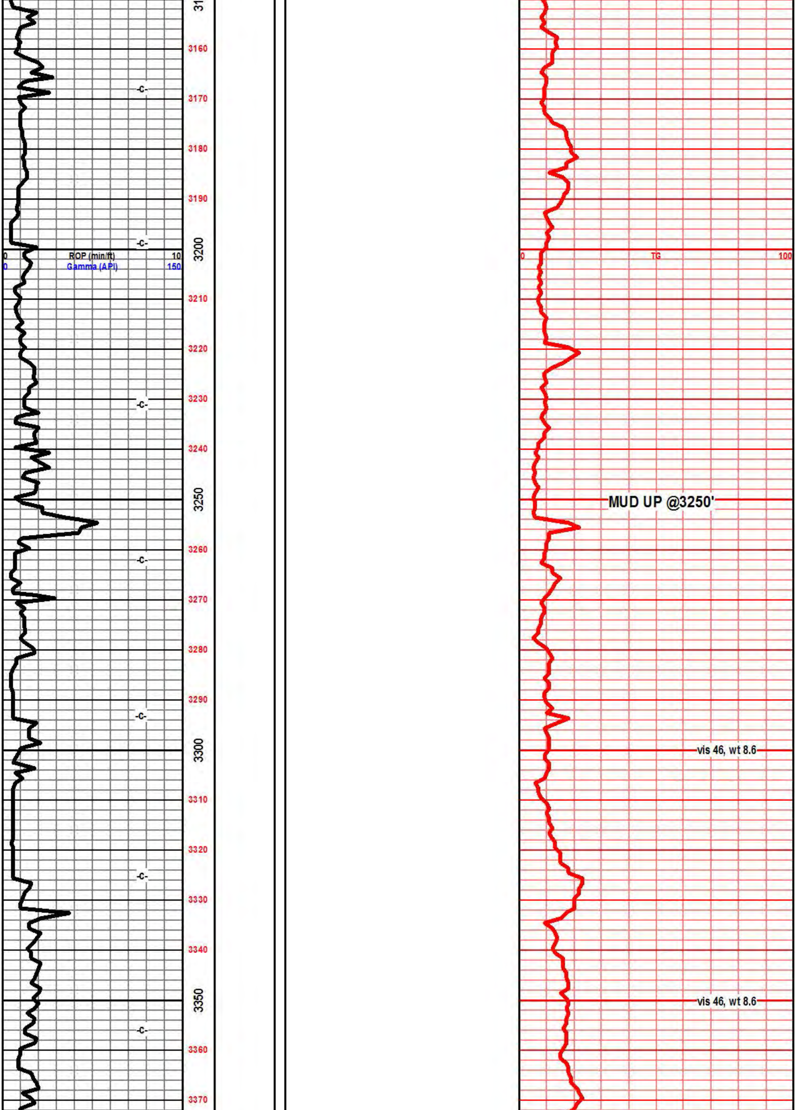
One minute drill time was recorded from 3000' to rotary total depth. Rotary cuttings were roughneck gathered as per geologist instructions from 3400' to rotary total depth. All samples were delivered to the Survey at the completion of the test.

The following wells were used for structural comparison: Herman Loeb's 1-15 Joy Station, E/2 SW SW, 15-28S-19W. Hilton's 1A Cossel, NE NE, 27-28S-19W, TGT's Carr #1, SW NE, 13-28S-19W.

Daily Drilling Progress
January 17, 2018 MIRT
January 18, 2018 SPUD
January 19, 2018 @356'
January 20, 2018 @1699'
January 21, 2018 @2736'
January 22, 2018 @3561'
January 23, 2018 Drilling at 4178'
January 24, 2018 Short trip at 4474'
January 25, 2018 Drilling at 4655'

Geologist Joel Gearhart on location @2900'

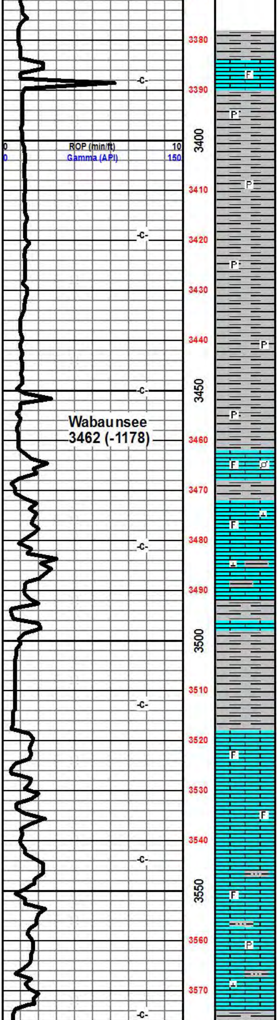




MUD UP @3250'

vis 46, wt 8.6

vis 46, wt 8.6



SH: gry-drk gry, tabular, blky, sft, nsfo&g

LS: tan-lt tan, vfn-micro xln, grainy text, foss frags, trc green-gry argil inclus, sub ang, blky, hrd, nsfo&g

SH: gry-drk gry, micas, trc pyrite, tabular, sub ang, sft, nsfo&g

SH: gry-drk gry, red, micas, trc pyrite, tabular, sub ang, sft, nsfo&g

SH: gry-drk gry, red, pyrite, tabular, sub ang, sft, nsfo&g

SH: gry-drk gry, red, pyrite, tabular, sub ang, sft, nsfo&g

SH: gry-drk gry, red, grainy, pyrite, tabular, sub ang, sft, nsfo&g

SH: gry-drk gry, red, grainy, pyrite, tabular, sub ang, sft, nsfo&g

LS: tan-lt tan, fn xln, trc wt chlky edges, foss casts, trc foss frags, sli pelletal, sli argil, sub ang, hrd, nsfo&g

LS: tan-lt tan, med xln, crs cal fill, wt chlky edges, trc foss frags, sli argil, sub ang, hrd, nsfo&g

LS: tan-lt tan, lt gry, med xln, crs cal fill, wt chlky edges, trc foss frags, argil, lt gry sndy shl inclus, sub ang, hrd, nsfo&g

SH: gry-dark gry, lt teal grn, gritty, trc pyrite, tabular, sub ang, hrd, nsfo&g

SH: gry-dark gry, carb, lt teal grn, gritty, trc pyrite, tabular, sub ang, hrd, nsfo&g

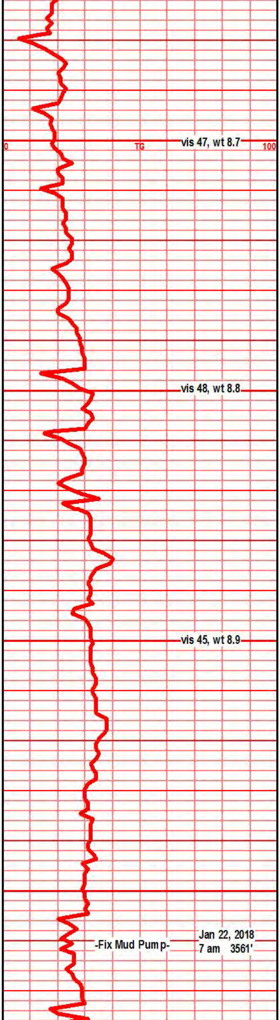
LS: lt tan, lt tan-gry, fn xln, trc gritty, chlky wt, trc foss frags, sub ang, blky, hrd, nsfo&g

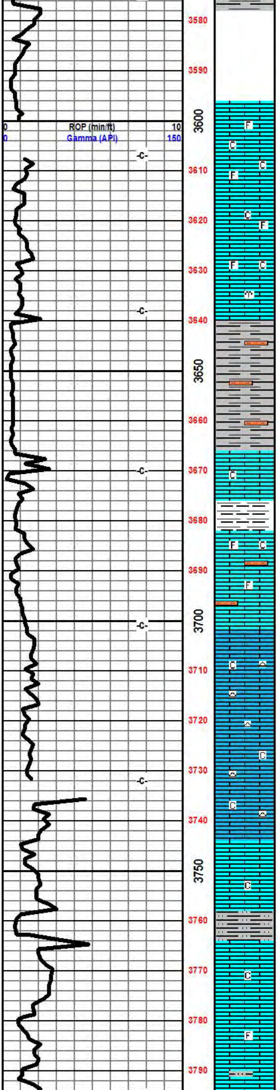
LS: lt tan, lt tan-gry, fn xln, trc gritty, chlky wt, trc foss frags, sub ang, blky, hrd, nsfo&g

LS: tan, tan-gry, fn xln, gritty, chlky, argil, trc silty shl inclus, trc foss frags, pyrite, sub ang, blky, hrd, nsfo&g

LS: tan, tan-gry, fn xln, gritty, chlky, argil, trc silty shl inclus, trc foss frags, pyrite, sub ang, blky, hrd, nsfo&g

LS: tan, tan-gry, fn xln, gritty, chlky, argil, trc silty shl inclus, trc foss frags, xln cal fill, pyrite, sub ang, blky, hrd, nsfo&g





NO SAMPLES CAUGHT

LS: off wt-lt tan, chlky wt, foss frags, trc cal fill, sub ang, blky, brttle, nsfo&g

LS: off wt-lt tan, chlky, sub ang, blky, brttle, nsfo&g

LS: off wt-lt tan, chlky, sub ang, blky, brttle, nsfo&g

LS: off wt-lt tan, chlky, foss frags, broi zoan foss frag, sub ang, blky, brttle, nsfo&g

SH: gry-drk gry, gritty, silty in parts, tabular, firm, nsfo&g

SH: gry-drk gry, gritty, silty in parts, tabular, firm, nsfo&g

LS: tan, lt tan, lt gry tan, micro-fn xln, chlky, sub ang, blky, hrd, nsfo&g

SH: drk gry- blk, carb, pcs of lmstn, conglom look, inclus of lt gry silty shl, blky, hrd, nsfo&g

LS: off wt-lt gry, fn xln, chlky, foss frags, lt gry silt inclus, sub ang, blky, vry hrd, nsfo&g

LS: off wt-lt gry, fn xln, chlky, foss frags, lt gry silt inclus, sub ang, blky, vry hrd, nsfo&g

LS: off wt-tan, fn xln, chlky, sub ang, trc trans frosty wt chrt nodules, sub ang, small chips, vry hrd, nsfo&g

LS: off wt-tan, fn xln, chlky, sub ang, trc trans frosty wt chrt nodules, sub ang, small chips, vry hrd, nsfo&g

LS: off wt-tan, fn xln, chlky, sub ang, trc trans frosty wt chrt nodules, sub ang, small chips, vry hrd, nsfo&g

LS: off wt-tan, lt tan gry, trc brn, fn xln, chlky, sub ang,sub ang, small chips, hrd, nsfo&g

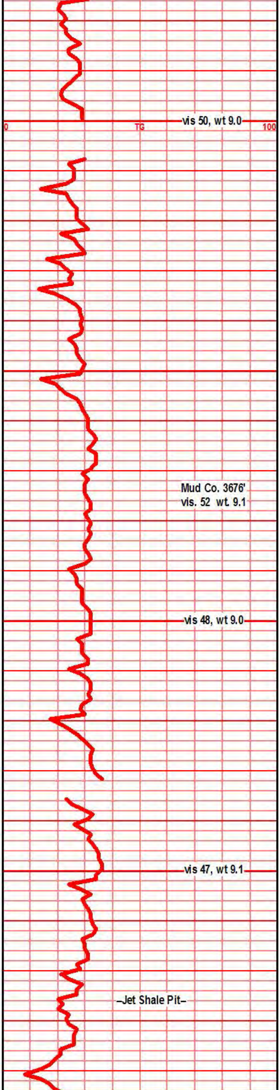
LS: off wt, lt tan-gry, trc brn, fn xln, dirty arrgil color, lttl dull, chlky, sub ang,sub ang, blky, hrd, nsfo&g

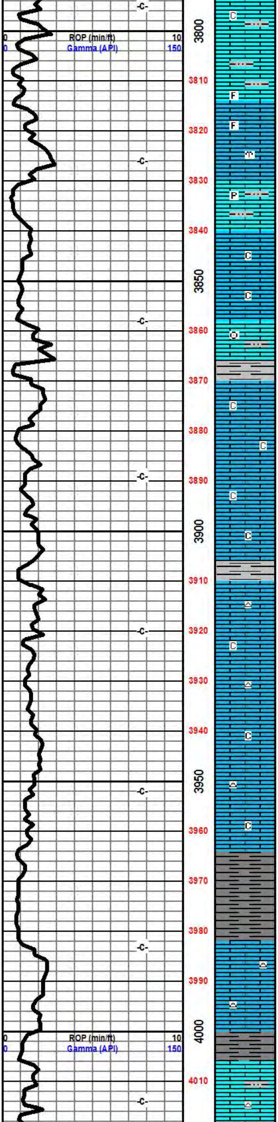
SH: drk gry, silty, gritty text, tabular, soft, nsfo&g

LS: off wt, lt tan-gry, trc brn, fn xln, agil look, lttl dull, chlky, sub ang,sub ang, small chips, hrd, nsfo&g

LS: off wt, lt tan-gry, trc brn, fn xln, agil look, lttl dull, chlky, sub ang,sub ang, small chips, hrd, nsfo&g

LS: off wt-lt tan, gry tan-lt gry, fn xln, sli argil, gry shl inclus, sli chlky, trc foss frags, sub ang, blky, nsfo&g





LS: off wt-lt tan, gry tan-lt gry, fn xln, argil, gry silty shl inclus, trc chlky, trc foss frags, sub ang, blky, nsfo&g

LS: off wt-lt tan, gry tan-lt gry, fn xln, argil, gry silty shl inclus, trc chlky, trc foss frags, sub ang, blky, nsfo&g

LS: gry-drk gry, gry tan, lt tan, micro xln, dull look, trc chlky edges, foss frags, bryozoan foss, blky, sub ang, vry hrd, nsfo&g

LS: tan-tan gry, lt gry, fn-med xln, argil, gritty text, gry-drk gry silty shl inclus, pyrite, blky, sub ang, brittle, nsfo&g

LS: off wt, lt tan-gry, trc brn, micro-fn xln, chlky, sub ang, blky, hrd, nsfo&g

LS: off wt, lt tan-gry, trc brn, micro-fn xln, chlky, sub ang, blky, brttl, nsfo&g

LS: gry-drk gry, trc lt pale grn hue, argil, fn-xln, foss frags, crinoid fossil, blky, vry hrd, nsfo&g

SH: gry-drk gry, silty, gritty, tabular, firm, nsfo&g

LS: off wt, lt tan-gry, trc brn, micro-fn xln, chlky edges, sub ang, blky, hrd, nsfo&g

LS: off wt, lt tan-gry, trc brn, micro-fn xln, chlky edges, sub ang, blky, hrd, nsfo&g

LS: off wt, lt tan-gry, trc brn, micro-fn xln, chlky, sub ang, blky, hrd, nsfo&g

LS: off wt-lt tan, tan, micro-fn xln, chlky, trans gry-frosty wt shrp frsh chrt, sub ang, hrd, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, sli mottld, vry por vuggy por, micro-fn xln, chlky, trans gry-frosty wt shrp frsh chrt, sub ang, hrd, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, micro-fn xln, chlky, trans gry-frosty wt shrp frsh chrt, sub ang, hrd, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, micro-fn xln, chlky, trans gry-frosty wt shrp frsh chrt, sub ang, hrd, nsfo&g

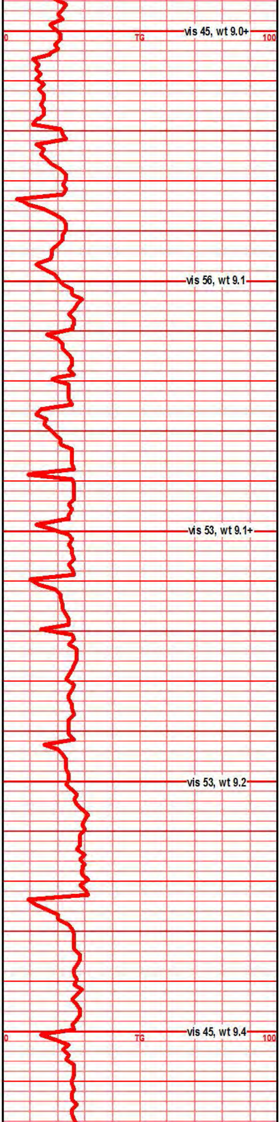
SH: drk gry, sli gritty, sli slty, tabular, firm, nsfo&g

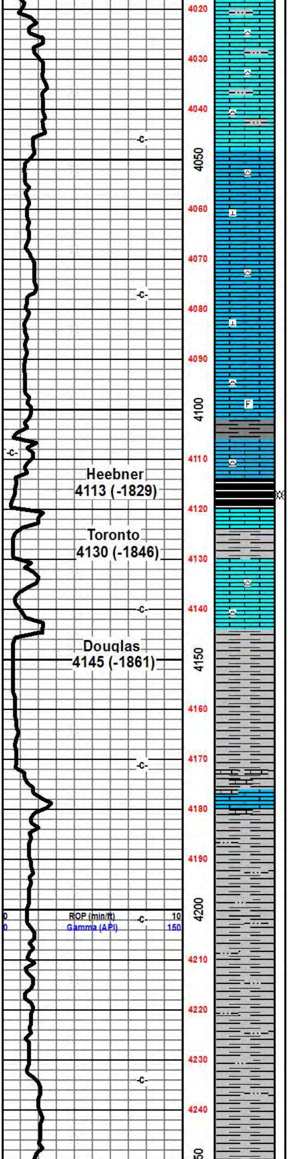
SH: drk gry, sli gritty, slty, tabular, firm, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, micro xln, smky gry-frosty wt shrp frsh chrt, sub ang, blky, vry hrd, nsfo&g

SH: drk gry, sli gritty, sli slty, tabular, firm, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, micro xln, argil, gry-drk gry silty shl inclus, smky gry-frosty wt shrp frsh chrt, sub ang, blky, vry hrd, nsfo&g





Heebner
4113 (-1829)

Toronto
4130 (-1846)

Douglas
4145 (-1861)

LS: off wt-lt tan, tan, trc brn edgs, micro xln, argil, gry-drk gry silty shl inclus, smky gry-frosty wt shrp frsh chrt, sli mottld, sub ang, blky, vry hrd, nsfo&g

LS: off wt-lt tan, tan, trc brn edgs, micro xln, argil, gry-drk gry silty shl inclus, foss frags, smky gry-frosty wt shrp frsh chrt, sub ang, blky, vry hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, grainy text, chlky edgs, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, grainy text, chlky edgs, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, chlky, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, chlky, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, chlky, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

LS: tan-lt brn tan, off wt, fn xln, chlky, wt opaque weathered chrt, trc xln cal fill, sub ang, hrd, nsfo&g

SH: blk, carb, sli slty, tabular, trc pyrite, firm, nsfo, gas bubs

SH: gry-drk gry, sli gritty, sli slty, tabular, firm, nsof&g

LS: off wt-lt tan, chlky, wh wthrd chrt, grainy, sub ang, blky, hrd, nsfo&g

LS: off wt-lt tan, chlky, wh wthrd chrt, grainy, sub ang, blky, hrd, nsfo&g

SH: drk gry-gry, green gry, pyrirte, lams of blk shl, tabular, waxy, firm, nsfo&g

SH: drk gry-gry, green gry, pyrirte, lams of blk shl, tabular, waxy, firm, nsfo&g

SH: drk gry-gry, green gry, pyrirte, lams of blk shl, tabular, waxy, firm, nsfo&g

shl gry med drk gry silty , lst tan gry vf xln dn shrd blky arg silty, lst wht f xln blky sub chlky tr foss frags

shl gdkr gry green silty fnly sndy/gritty, mic, carb flecks,

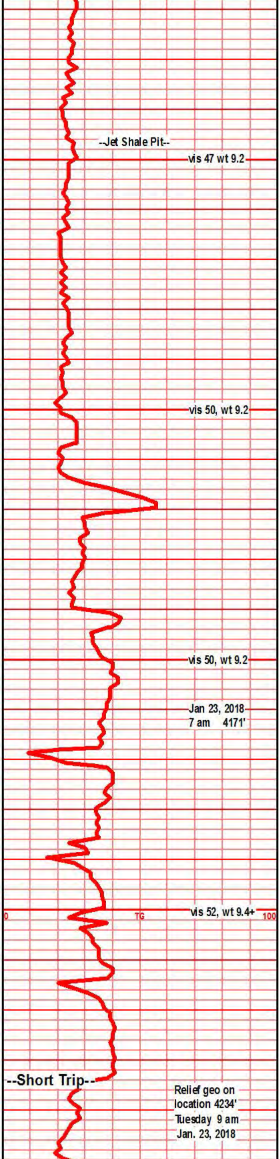
shl gry drk gry green, silty gritty, fnly sndy/gritty, mic in prt, carb flecks

shl gry dkr gry green, silty gritty, fnly sndy/gritty, mic in prt

shl gry drk gry green silty gritty, tr sndy, mic,

shl gry drk gry, ddrk gry/green, silty gritty, mic

shl gry drk gry blk, drk green, blky ang silty gritty mic



--Jet Shale Pit--

vis 47 wt 9.2

vis 50, wt 9.2

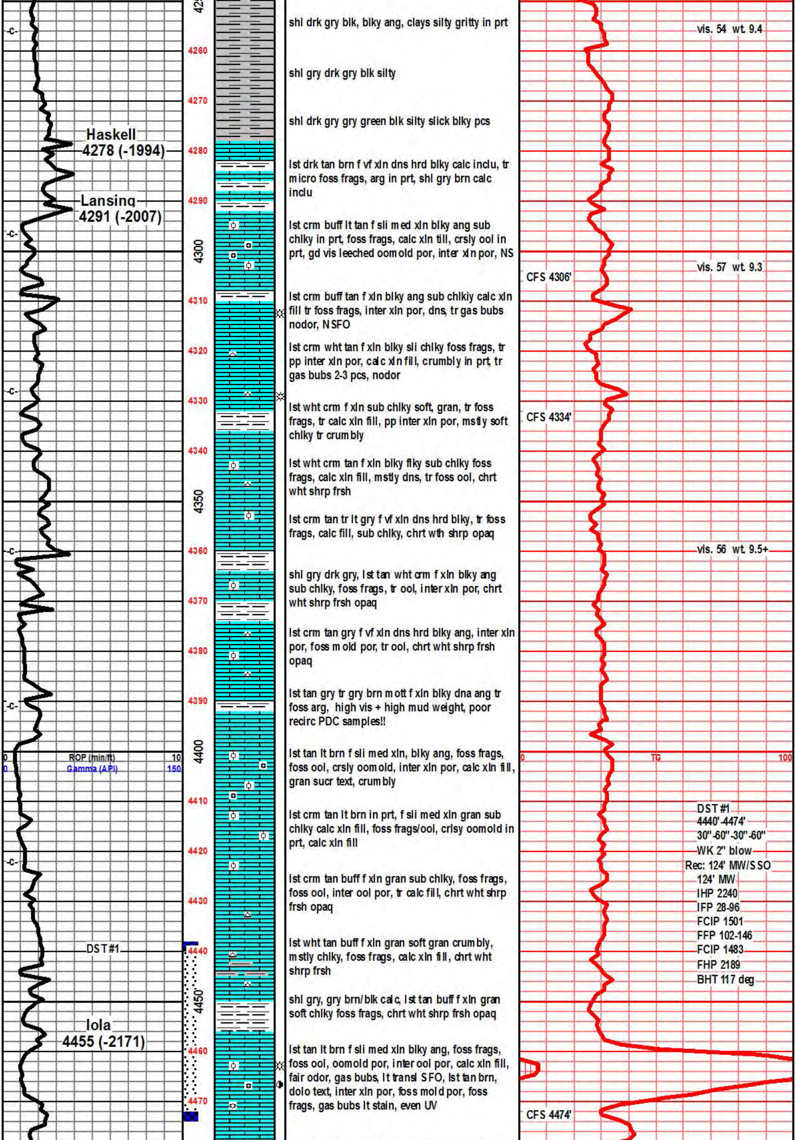
vis 50, wt 9.2

Jan 23, 2018
7 am 4171'

vis 52, wt 9.4+

--Short Trip--

Relief geo on
location 4234'
Tuesday 9 am
Jan. 23, 2018



shl drk gry blk, blky ang, clays silty gritty in prt

shl gry drk gry blk silty

shl drk gry gry green blk silty slick blky pcs

lst drk tan brn f vf xln dns hrd blky calc inclu, tr micro foss frags, arg in prt, shl gry brn calc inclu

lst crm buff lt tan f sli med xln blky ang sub chlky in prt, foss frags, calc xln till, crsly ool in prt, gd vis leeched oomold por, inter xln por, NS

lst crm buff tan f xln blky ang sub chlkiy calc xln fill tr foss frags, inter xln por, dns, tr gas bubs nodor, NSFO

lst crm wht tan f xln blky sli chlky foss frags, tr pp inter xln por, calc xln fill, crumbly in prt, tr gas bubs 2-3 pcs, nodor

lst wht crm f xln sub chlky soft, gran, tr foss frags, tr calc xln fill, pp inter xln por, mstly soft chlky tr crumbly

lst wht crm tan f xln blky flky sub chlky foss frags, calc xln fill, mstly dns, tr foss ool, chrt wht shrp frsh

lst crm tan tr lt gry f vf xln dns hrd blky, tr foss frags, calc fill, sub chlky, chrt wth shrp opaq

shl gry drk gry, lst tan wht crm f xln blky ang sub chlky, foss frags, tr ool, inter xln por, chrt wht shrp frsh opaq

lst crm tan gry f vf xln dns hrd blky ang, inter xln por, foss mold por, tr ool, chrt wht shrp frsh opaq

lst tan gry tr gry brn mott f xln blky dna ang tr foss arg, high vis + high mud weight, poor recirc PDC samples!!

lst tan lt brn f sli med xln, blky ang, foss frags, foss ool, crsly oomold, inter xln por, calc xln fill, gran sucr text, crumbly

lst crm tan lt brn in prt, f sli med xln gran sub chlky calc xln fill, foss frags/ool, crlsy oomold in prt, calc xln fill

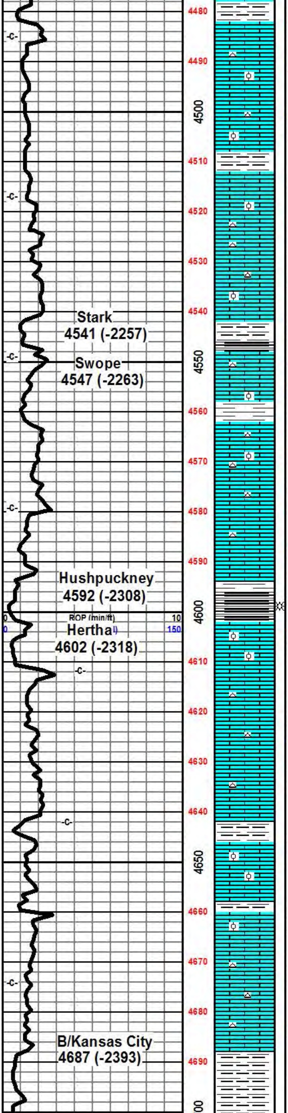
lst crm tan buff f xln gran sub chlky, foss frags, foss ool, inter ool por, tr calc fill, chrt wht shrp frsh opaq

lst wht tan buff f xln gran soft gran crumbly, mstly chlky, foss frags, calc xln fill, chrt wht shrp frsh

shl gry, gry brn/blk calc, lst tan buff f xln gran soft chlky foss frags, chrt wht shrp frsh opaq

lst tan lt brn f sli med xln blky ang, foss frags, foss ool, oomold por, inter ool por, calc xln fill, fair odor, gas bubs, lt transl SFO, lst tan brn, dolo text, inter xln por, foss mold por, foss frags, gas bubs lt stain, even UV

DST #1
4440'-4474'
30"-60"-30"-60"
WK 2" blow
Rec: 124' MW/SSO
124' MW
IHP 2240
IFP 28-96
FCIP 1501
FFP 102-146
FCIP 1483
FHP 2189
BHT 117 deg



shl gry drk gry, lst tan crm f xln blky ang dns hrd, foss frags/ool, poor spls, tr calc xln fill, tr inter xln por,

lst wht crm f xln soft gran chlky foss frags, calc xln fill, tr chrt wht shrp opaq, spls wsh wht

lst crm wht tan f xln soft chlky, gran, foss frags, foss ool, inter xln por, mstly soft chlky, spls wsh wht, chrt tan wht frsh opaq

lst crm tan buff f xln blky ang dns, sub chky foss frags, foss ool, calc xln fill, tr chrt wht shrp frsh

lst wht crm bufff f xln gran blky dns sub chlky foss frags, calc xln fill, inter xln por, tr chrt wht shrp frsh

lst wht crm tan buff f xln dns hrd blky ang sub chlky foss frags, inter xln por, chrt aa

lst wht tan buff f xln blky ang sub chlky, foss frags, vry chlky in prt, calc xln fill , sh gry drk gry blk, silty gritty, calc, shl blk carb wxy grsy text 4570' spl

lst wht tan buff f xln blky ang sub chlky foss frags, chlky, chrt wht shrp opaq, shl gry, gry blk calc, tr carb silty gritty

lst wht crm tan f xln gran chlky foss frag, inter xln por, moldic por, calc xln fill mstly dns chlky, chrt off wht shrp frsh

lst crm buff wht tan f xln chlky gran soft, foss frags, tr ool, calc xln fill, chrt off wht shrp frsh, , mstly chlky soft gran wsh wht

lst crm tan buff f xln blky dns hrd, sli chlky, foss frags, micro foss, calc xln fill, chrt off wht lt gry shrp frsh opaq

4630' spl shl gry drk gry blk, blk carb, wxy grsy text, gas bubs, lst aa

lst crm tan buff f sli med xln blky ang sli chlky, foss frags, crsly in prt, tr ool/oomold por, inter xln por, gran crumbly in prt, chrt wht shrp frsh

lst crm buff tan tr tan/brn, f sli med xln in prt, chlky crumbly text, foss frags, ool/oomold in prt, crsly foss in prt, calc xln fill, inter xln por, chrt wht shr frsh

lst crm buff tan f xln gran sub chlky, foss frags, crsly in prt, frags and ool, inter xln por, mstly dns soft chlky, chrt wht off wht shrp frsh opaq

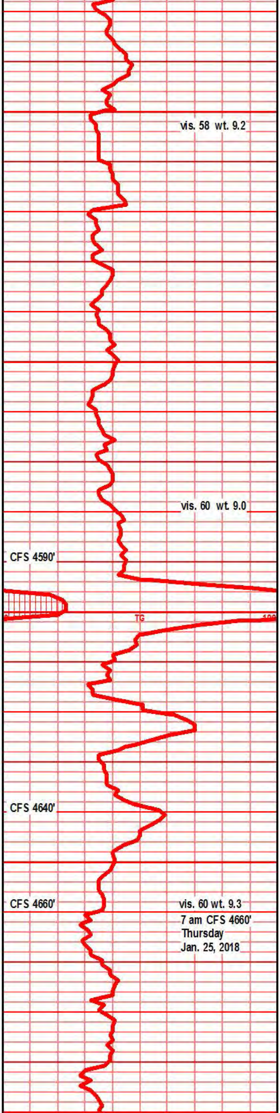
shl gry gry blk, crm gry lt gry f vf xln dns hrd blky tr arg, tr crumbly chlky text, tr foss frags, foss ool, foss mold por, calc xln fill

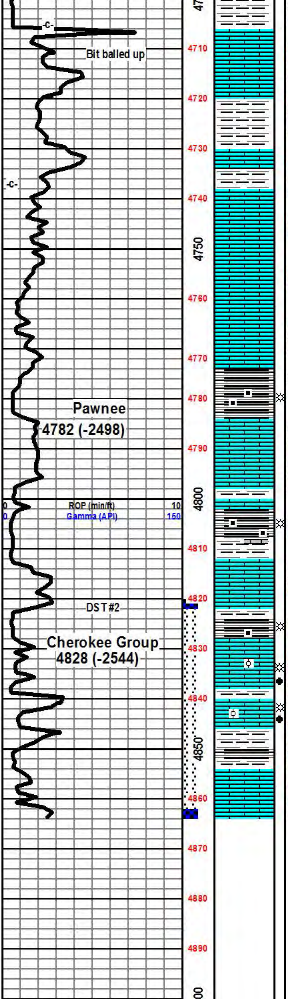
lst tan crm brn f xln blky ang vry chlky, spl wht clay balls, foss frags, tr calc xln fill, chrt wht shrp frsh opaq

lst tan buff f xln gran sub chlky foss frags, calc xln fill, lst drk tan/gry, drk gry f mic xln dns hrd blky ang arg, silts, shl gry blk calc

lst drk tan/gry f mic xln dns hrd blky ang arg, silty, tr chrt tan brn gry shrp frsh

shl gry, drk gry blk, silty gritty ratty, tr blk silty





shl gry blk, drk gry/blk, silty ratty shrp pcs, calc in prt, micro sndy gritty in prt

lst tan buff f xln blky ang dns hrd tr sub chlky, micro xln in prt, calc xln fill, micro foss frags, calc xln fill , inter xln por

lst tan buff f vf xln sub chlky, foss frags, calc xln fill, flky, inter xln, inter foss por, shl drk gry, silty gritty calc, blk ratty

lst crm buff lt gry tan f sli med xln, gran sub chlky foss frags, calc xln fill, inter gran por, tr foss mold por, mstly dns

lst tan crm buff f xln blky ang tr sub chlky micro foss frags, inter xln por, xln fill,

lst off wht buff lt tan f vf xln tr sub chlky, micro foss frags, foss miro ool, inter xln por, xln fill,

lst crm off wht buff f sli med xln flky in prt, tr sub chlky micro foss frags, micro ool in prt, tr chrt wht shrp frsh opaq

shl drk gry green, tr gry blk, blk, blky ang pcs, pyritic in prt, gran gritty text in prt, tr gas bubs

lst crm gry tr drkr gry f vf xln gran soft chlky, dns, arg in prt, poor pdc spls!

lst gry tan off wht f vf xln gran sub chlky in prt, dns, micro foss frags, inter xln text, mstly dns arg pr spls

shl drk gry, gry/blk, blk carb, wxy grsy text, gas bubs

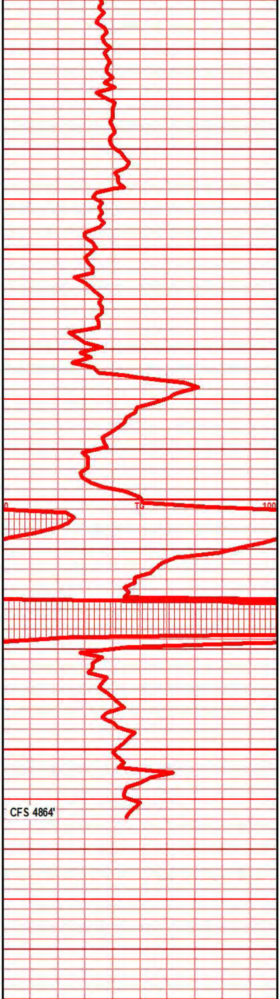
lst crm lgry tan f vf xln dns sub chlky, arg gran soft text, lst wht buff f xln blky ang sub chlky micro foss dns hrd

shl drk gry blk, blk carb, wxy grsy text, abun gas bubs

lst tan buff lt brn in prt vf xln blky ang pcs, calc fill, micro foss frags, gd foss mold por, tr inter xln por, tan/brn stain, SFO/brk good/strong odor, abun gas bub, even UV

shl gry drk gry blk silty gritty gran, tr carb text, lst tan lt brn/buff f xln tr flky foss frags, inter foss por, pp tr moldic por, lt tranl SFO, gd odor, abun gas bubs

60" spl, lst aa, strong odor remains, lst off wht buff tan f xln blky ang dns hrd, calc fill, tr inter xln por tr chlky, foss frags



49

4910

4920

4930

4940

4950

4960

4970

4980

4990

5000

0 ROP (min/ft) 10

0 Gamma (API) 150

0 TG 100

5010

5020

5030

5040

5050

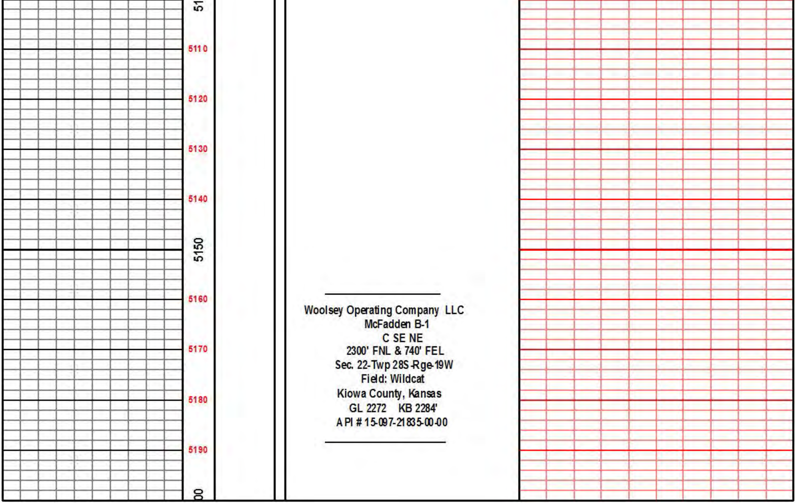
5060

5070

5080

5090

00



Woolsey Operating Company LLC
McFadden B-1
C SE NE
2300' FNL & 740' FEL
Sec. 22-Twp 28S-Rge-19W
Field: Wildcat
Kiowa County, Kansas
GL 2272 KB 2284'
API # 15-097-21835-00-00