

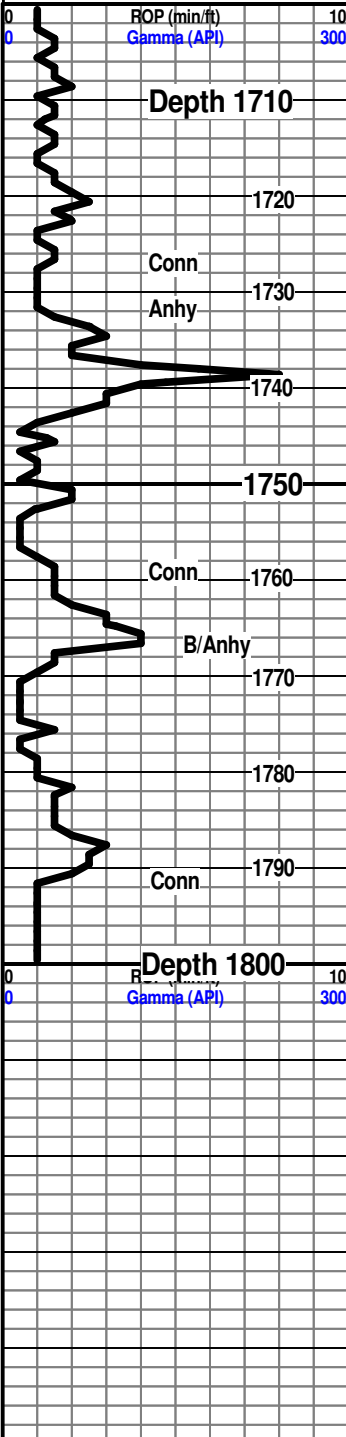
Depth

Lithology

Oil Shows

Geological Descriptions

Remarks



35

3550

3600

3650

Depth 1710

1720

Conn

Anhy 1730

1740

1750

Conn 1760

B/Anhy 1770

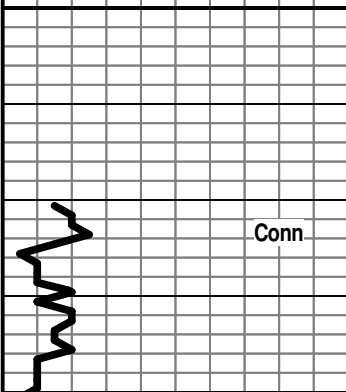
1780

Conn 1790

Depth 1800

Anhy 1732 (+769)

Base Anhy 1767 (+734)



3650

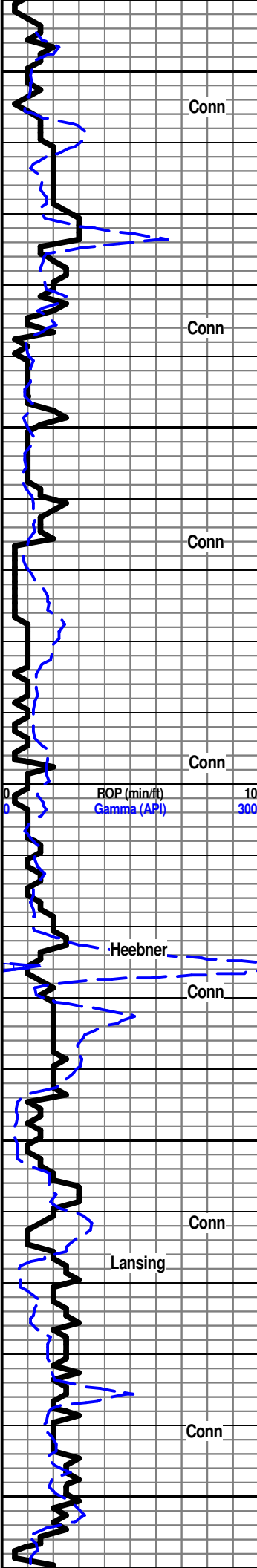
Conn

Geologist on Location @ 3660'.
5:00 pm Jan. 19, 2013.

Start 1 ft Drilling time @ 3670

Geologist on Location @ 3660'.
5:00 pm Jan. 19, 2013.

Start 1 ft Drilling time @ 3670



3700
3750
3800
3850
3900

Conn
Conn
Conn
Conn
Conn
Conn

ROP (min/ft) 10
Gamma (API) 300

Heebner
Lansing



Ls, tan, brn, mdstn, sl foss. Shy Ls, tan, gry, wkestrn, foss, tr pyr. Sh & Shy Siltstn, dk gry, blk, tr foss, pyr.

Shy Ls, tan, gry, mott, wkestrn, foss, arg, pyr. Ls, tan, brn, mdstn, wkestrn, foss. Shy Siltstn, gry, dk gry, micro pyr.

Ls, wh, tan, wkestrn, pkstn, foss, pell, pp por, tr foss moldic por, spt inter gran por. Tr Cht, tan, gry, milky, foss, sub op, semi transl, ang.

Ls, tan, brn, wkestrn, pkstn, foss, pell, pp por, foss moldic por, spt inter gran por, spt chky text. Tr Cht, tan, gry, milky, foss, sub op, semi transl, ang.

Ls, crm, tan, brn, wkestrn, pkstn, foss, pell, pp por, foss moldic por, spt inter gran por, spt chky text. Tr Cht, AA. Sh & Shy Siltstn, gry, dk gry, blk, pyr.

Ls, wh, tan, gry, wkestrn, pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por, spt inter gran por. Tr Cht tan, gry, milky, foss, semi transl.

Ls, wh, tan, gry, wkestrn, pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por, spt inter gran por. Ls, wh, tan, pkstn, foss, pell, spt chky text. Tr Cht tan, gry, milky, foss, semi transl.

Ls, tan, brn, gry, wkestrn, pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por, spt inter gran por. Ls, wh, tan, pkstn, foss, pell, pp por, foss moldic por, soft.

Ls, tan, brn, gry, wkestrn, pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por, spt inter gran por. Ls, wh, tan, pkstn, foss, pell, pp por, foss moldic por, soft.

Ls, tan, brn, gry, wkestrn, pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por, spt inter gran por. Ls, wh, tan, pkstn, foss, pell, pp por, foss moldic por, soft.

Sh, blk, carb, pyr, SSG. Shy Siltstn, gry, dk gry-blk, tr foss, pyr.

Sh & Shy Siltstn, gry, dk gry, blk, tr foss, pyr. Shy Ls, tan, gry, mott, wkestrn, pkstn, foss, arg, pyr. Ls, tan, brn, wkestrn, foss, dns.

Flood Ls, tan, brn, wkestrn, foss, pp por, spt inter gran por, soft to hard. Ls, tan, gry, mdstn, sl foss, dns. Tr Cht, milky, tan, gry, semi transl, foss, ang.

Sh & Shy Siltstn, gry, dk gry, tr foss, pyr. Shy Ls, gry, wkestrn, foss, arg, tr pyr.

Flood Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, mdstn, dns. Tr Cht, milky, tan, foss, semi transl.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, mdstn, wkestrn, foss, clear 2nd calcite filled por, dns. Ls, tan, gry, mdstn, dns.

Shy Ls, gry, dk gry, sl foss, arg. Ls, tan, brn, gry, mott, mdstn, dns. Ls, tan, mdstn, sl foss, soft-hard.

Ls, tan, brn, gry, mdstn, wkestrn, foss, tr micro pyr, hard, dns. Ls, gry, wkestrn, foss, ool, pell, 2nd calcite, dns. Sh & Shy Siltstn, gry, dk gry, tr foss, pyr.

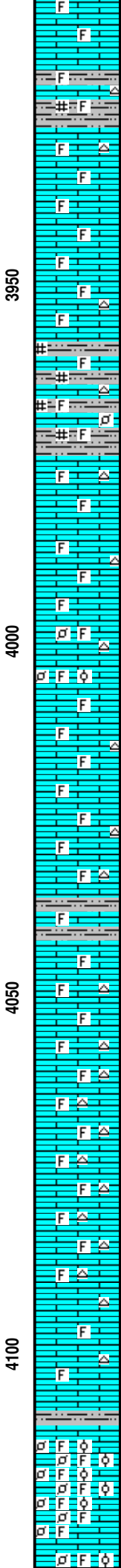
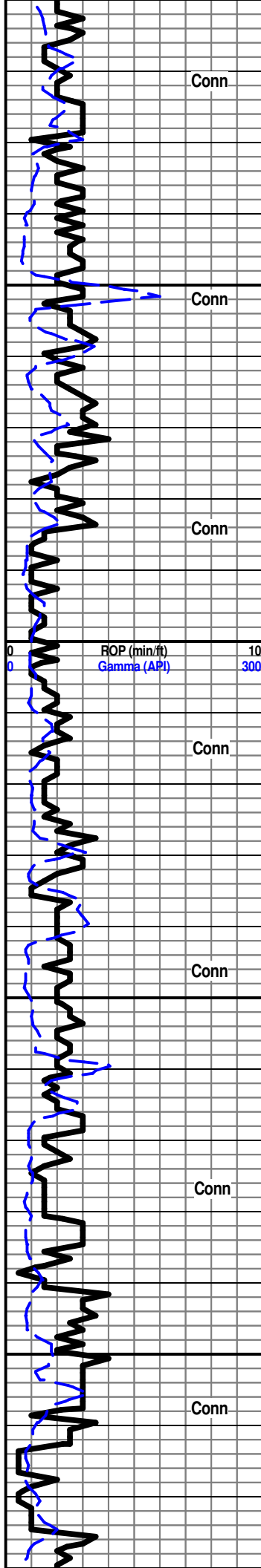
Ls, wh, mdstn, soft chky text. Ls, wh, tan, mott, mdstn, wkestrn, foss, 2nd calcite, soft-hard. Tr Cht, milky, gry, smoky, transl, ang.

Start 10 ft Wet & Dry Samples

Tight Conn @ 3766
Work Drill Pipe 30 min.

Heebner 3823 (-1322)

Lansing 3867 (-1366)



ang.

Ls, wh, tan, mdstn, sl foss, soft. Ls, tan, mdstn, dns. Ls, tan, wkestrn, foss.

Shy Ls, gry, mdstn, wkestrn, foss, dns. Tr Cht, milky, tan, gry, semi transl, ang.

Flood Ls, wh, tan, mdstn, wkestrn, foss, clear 2nd calcite, spt chky text. Ls, tan, mdstn, sl foss, dns. Tr Cht, milky, tan, semi transl, ang.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, wkestrn, tr pkstn, foss, pell, 2nd calcite, tr pp por.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, lt gry, mdstn, sl foss, dns. Tr Cht, tan, transl, ang.

Sh & Shy Slstn, gry, dk gry, tr foss, pyr. Ls, tan, lt gry, mdstn, dns. Ls, wh, tan, mdstn, wkestrn, foss, soft-hard.

Sh & Shy Slstn, gry, dk gry, tr foss, pyr. Shy Ls, gry, foss, arg. Ls, tan, brn, mdstn, wkestrn, foss, pell, 2nd calcite, dns. Tr Cht, tan, milky, lt gry, transl, ang.

Ls, wh, tan, mdstn, wkestrn, foss, soft-hard. Ls, tan, brn, lt gry, mdstn, wkestrn, foss, soft-hard. Tr Cht, milky, tan, brn, transl, ang.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, wh, tan, lt gry, mdstn, wkestrn, foss, soft-hard. Ls, tan, lt gry, mdstn, dns. Tr Cht, tan, milky, lt gry, foss, ang.

Ls, wh, mdstn, chky text. Ls, wh, tan, mott, wkestrn, tr pkstn, foss, pell, tr fn ool, pp por, foss moldic por, tr fn oom por. Ls, tan, mdstn, wkestrn, foss, dns. Tr Cht, milky, tan, transl, ang.

Ls, wh, mdstn, chky text. Ls, wh, tan, mott, mdstn, wkestrn, foss, lg sparite. Ls, tan, lt gry, mdstn, sl foss, dns. Tr Cht, milky, tan, transl, ang.

Ls, wh, tan, mdstn, spt chky text. Ls, tan, mdstn, wkestrn, foss, tr clear 2nd calcite filled por, soft-hard. Cht, tan, milky, transl, ang.

Ls, tan, brn, gry, mott, wkestrn, foss, dns. Ls, wh, tan, mdstn, sl foss, dns. Shy Slstn, gry. Tr Cht, tan, lt gry, transl.

Ls, tan, mdstn, wkestrn, foss, tr lg sparite, tp pp por & isolated foss moldic por in dns matrix. Ls, wh, tan, mott, mdstn, spt chky text. Tr Cht, wh, sub op, ang.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, brn, gry, mdstn, wkestrn, foss, clear 2nd calcite, dns. Cht, tan, milky, foss, transl, ang.

Ls, wh, tan, mott, mdstn, soft chky text. Flood Cht, tan, brn, transl, ang, blk. Ls, tan, mdstn, clear 2nd calcite, dns.

Ls, wh, tan, mott, mdstn, foss, spt chky text. Ls, wh, tan, wkestrn, foss, pp por, tr foss moldic por. Ls, tan, mdstn, dns. Abdnt Cht, tan, brn, transl, ang, blk.

Flood Ls, wh, tan, mott, mdstn, wkestrn, foss, spt chky text. Ls, tan, mdstn, sl foss, soft-hard. Ls, tan, mdstn, dns. Cht, milky, tan, foss, transl, ang.

Ls, tan, gry, mdstn, foss, dns. Ls, wh, tan, mott mdstn, soft-hard. Ls, tan, wkestrn, foss, clear 2nd calcite, dns. Cht, tan, lt gry, transl, ang.

Ls, wh, tan, foss, pell, fn ool in part, pkstn, tr rnstn, pp por, foss moldic por, poor to gd spt oom por, fair inter gran por, soft.

Ls, wh, tan, wkestrn, pkstn, foss, pell, fn ool in part, pp por, foss moldic por, poor to fair spt oom por, clear 2nd calcite filling

Conn

Conn

Conn

Conn

Conn

Conn

Conn

3950

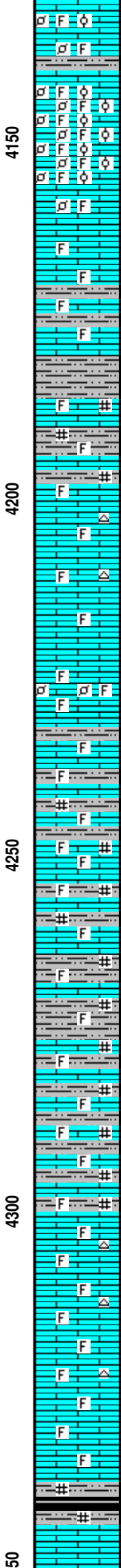
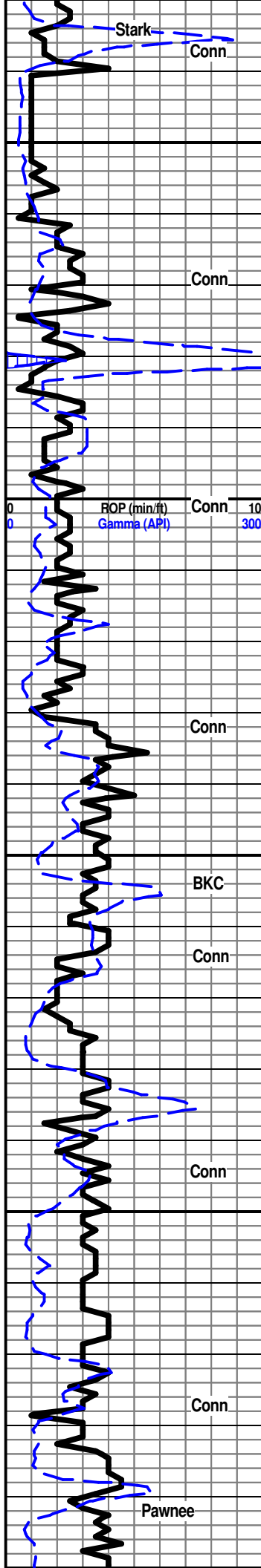
4000

4050

4100

ROP (min/ft)
Gamma (API)

10
300



moldic por, poor to fair scatt oom por, clear 2nd calcite filling some por. Ls, tan, pkstn, foss, pell, fn ool, 2nd calcite, dns.

Ls, wh, tan, mott, pkstn, tr grnstn, foss, pell, fn ool in part, pp por, foss moldic por, poor to gd oom por, clear 2nd calcite filling some por.

Ls, wh, tan, mott, pkstn, tr grnstn, foss, pell, fn ool in part, pp por, foss moldic por, poor to gd oom por, clear 2nd calcite filling some por.

Ls, wh, tan, mdstn, wkestn, foss, clear 2nd calcite, dns. Ls, tan, mdstn, dns.

Flood Ls, tan, mdstn, sl foss, dns. Ls, wh, tan, wkestn, pkstn, foss, pell, dns. Ls, brn, gry, wkestn, foss, dns. Shy Ls, gry, foss, arg, pyr.

Sh & Shy Slstn, gry, dk brn, blk, pyr. Tr Sh, blk, carb, pyr.

Ls, tan, dk brn, gry, mdstn, wkestn, foss, dns. Shy Ls, gry, dk gry, foss, arg, tr pyr.

Sh & Shy Slstn, gry, dk gry, foss, tr pyr. Shy Ls, gry, dk gry, foss, tr micro pyr.

Ls, wh, tan, mdstn, wkestn, foss, clear 2nd calcite, tr pyr, soft-hard. Ls, tan, wkestn, foss, pell, tr clear 2nd calcite filled por, dns. Tr Cht, tan, brn, transl, ang.

Ls, tan, brn, mdstn, wkestn, foss, tr pyr, dns. Ls, tan, gry, mott, wkestn, dk gry, foss, arg, in part. Shy Slstn, gry, dk gry, sl foss, pyr.

Ls, wh, tan, wkestn, pkstn, foss, pell, pp por, spt foss moldic por, fair inter gran por.

Ls, tan, brn, lt gry, wkestn, tr pkstn, foss, pell, 2nd calcite, dns. Ls, tan, brn, mdstn, wkestn, foss, dns. Shy Ls, tan, gry, dk brn, wkestn, foss, arg, tr pyr.

Ls, tan, brn, mdstn, wkestn, foss, dns. Ls, tan, wkestn, foss, tr micro pyr, soft-hard. Tr Shy Ls, gry, wkestn, foss, arg, tr pyr.

Ls, wh, tan, mdstn, foss, soft-hard. Ls, tan, brn, mdstn, wkestn, foss, 2nd calcite, dns.

Ls, tan, brn, mdstn, wkestn, foss, 2nd calcite, soft-hard. Ls, tan, brn, mdstn, foss, dns. Sh & Shy Slstn, gry, soft.

Flood Sh & Shy Slstn, gry, dk gry, blk, tr foss, pyr. Shy Ls, tan, brn, gry, wkestn, foss, arg, tr pyr. Ls, tan, brn, wkestn, foss, 2nd calcite, dns.

Sh & Shy Slstn, gry, dk gry, blk, tr foss, pyr. Shy Ls, tan, brn, gry, wkestn, foss, aarg, tr pyr. Ls, tan, brn, mott gry, wkestn, foss, w/dk gry sh stringers, pyr.

Sh & Slstn, gry, dk gry, blk, pyr. Shy Ls, gry, wkestn, foss, soft, Ls, brn, dk brn, wkestn, foss, 2nd calcite filled por, dns.

Ls, wh, tan, mott, mdstn, wkestn, foss, soft-hard. Ls, tan, brn, mdstn, sl foss, dns. Tr Cht, clear, tan, transl, ang.

Flood Ls, wh, tan, mdstn, foss, spt chky text. Ls, wh, tan, mott, mdstn, wkestn, foss, clear 2nd calcite filled por, dns. Tr Cht, clear, tan, brn, yell, transl, ang.

Ls, tan, mdstn, crypto xln, clear 2nd xln filled por, & frac, dns. Ls, tan, mdstn, wkestn, foss, clear 2nd xln filled por. Tr Cht, clear, tan, brn, yell, transl, ang. Tr clear geodal qtz w/xln faces.

Ls, wh, tan, mdstn, spt chky text. Ls, tan, mdstn, wkestn, foss, 2nd clear calcite filled por, dns.

Sh & Shy Slstn, gry, dk gry, blk, tr foss, micro pyr. Shy Slstn, lt gry, micro pyr, soft.

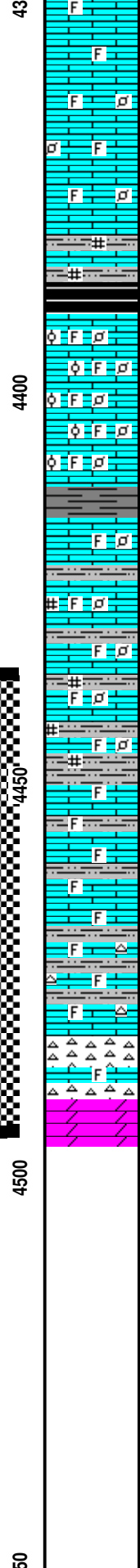
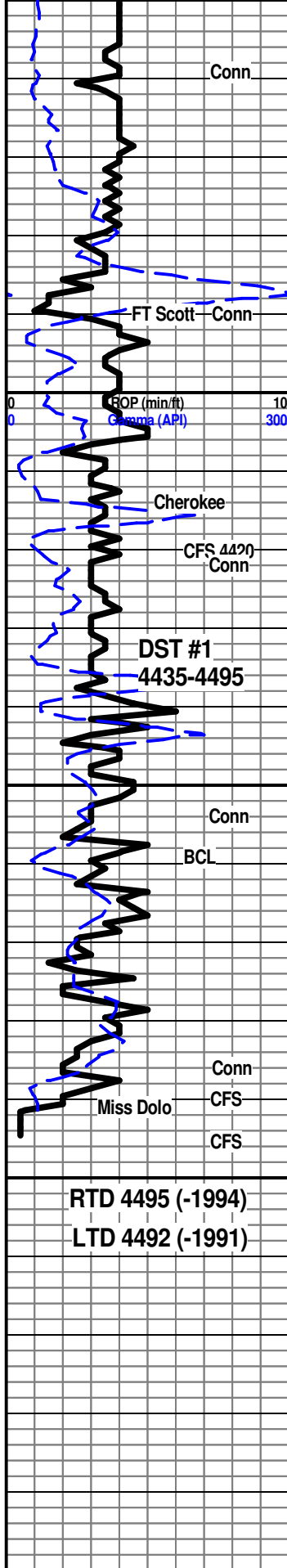
Ls, tan, mdstn, cryptoxln, dns. Ls, wh, tan, mott, mdstn, sl foss, dns. Ls, tan, mdstn, wkestn, foss, tr micro ovr, dns.

Stark 4134 (-1633)

Mud-CO/Service Mud
01/20/2013 11:20 am
Drilling @ 4179'
Vis 44, Wt 9.2, WL 6.2
Ph 10.5, LCM 2#, Chl 3,400

BKC 4254 (-1753)

Pawnee 4342 (-1841)



Ls, tan, brn, mdstn, crypto xln, clear 2nd cacite filled por, dns.
Ls, wh, tan, mdstn, wkestrn, foss, pell, dns.

Ls, tan, brn, mdstn, crypto xln, dns. Ls, tan, mdstn, wkestrn, foss, pell, tr micro pyr, dns.

Sh & Shy Sltstn, dk gry-blk, micro pyr. Shy Ls, gry, mdstn, arg, micro pyr. Flood Sh, blk, carb, pyr, soft.

Ls, lt gry, tan, wkestrn, foss, pell, soft. Ls, tan, wkestrn, tr pkstn, foss, pell, ool, soft-hard. Ls, tan, brn, wkestrn, pkstn, foss, pell, ool, clear 2nd calcite filled inter gran por, dns.

Flood Ls, tan, brn, wkestrn, pkstn, foss, pell, ool, inter gran por filled w 2nd calcite, dns. Ls, lt gry, mott tan, wkestrn, pkstn, foss, pell, ool, tr micro pyr, soft-hard.

Shy Sltstn, gry, dk gry, blk, micro pyr.
Flood Ls, wh, tan, mott, mdstn, wkestrn, foss, pell, soft-hard. Ls, lt gry, mdstn, wkestrn, foss, micro pyr.

Ls, wh, tan, mott, mdstn, wkestrn, foss, pell, soft-hard. Sh & Shy Sltstn, gry, dk gry, pyr.

Ls, wh, tan, mott, mdstn, wkestrn, foss, pell, tr micro pyr, soft-hard. Ls, tan, brn, mdstn, dns. Sh & Shy Sltstn, gry, grn, dk gry, tr foss, micro pyr.

Sh & Shy Sltstn, gry, grn, dk gry, blk, tr foss, pyr. Ls, wh, tan, mott, mdstn, wkestrn, foss, tr pell, soft-hard. Ls, tan, brn, mdstn, dns. Ls, brn, gry, mdstn, micro pyr.

Sh & Shy Sltstn, AA. Ls, tan, brn, mdstn, tr foss, clear 2nd calcite, tr pyr, dns. Ls, crm, tan, mdstn, wkestrn, foss, tr pell, clear 2nd calcite, soft-hard. Sh & Shy Sltstn, gry, grn, dk gry, tr foss, pyr.

Sh & Shy Sltstn, AA. Shy Ls, gry, wkestrn, tan to dk gry foss, arg in part tr pyr. Ls, wh, tan, mdstn, wkestrn, foss, 2nd calcite, few frag w/ trace blk spt dead oil stn.

4468-4482 Sh & Shy Sltstn, AA. Shy Ls, gry, dk gry, mdstn, arg, tr pyr. Ls, tan, brn, gry, wkestrn, tan-gry foss, arg in part, tr pyr. Ls, crm, tan, brn, mdstn, dns. Ls, crm, tan, wkestrn, foss, pell, 2nd calcite, pp por, 1% frag w/spt blk oil stn in isolated vug por & pp por. Tr Cht, milky tan, transl, ang.

CFS@ 4490: 4482-4490 Sh & Sltstn, AA. Flood Cht, clear, milky, tan, yell, org, transl, SS spt blk oil stn, tr tarry oil. Few frag trip Cht with blk stn. Ls, tan, brn, gry, mdstn, wkestrn, foss, tr pyr, tr pp blk stn, in por.

CFS @ 4495: 4490-4495 Slight odor. Dolo tan, brn, vfn-fn xln, poor to fair suc por, vug & foss moldic por, SS tan brn FO on break w/yell flor, tr gas bubbles.

Fort Scott 4390 (-1889)

Cherokee 4414 (-1913)

Short Trip @ 4420'. Stuck in Hole 5 stands off bottom @ 4137'. Was able to work pipe free and complete 15 stand short trip. Did not hit anything going back to bottom.

BCL 4461 (-1960)

Mud-CO/Service Mud
01/21/2013 11:35 am
CFS @ 4490'
Vis 51, Wt 9.4, WL 5.6
Ph 11.0, LCM 1#, Chl 3,000

Miss Dolomite 4491 (-1990)

DST #1 (Miss) 4435-4495/30-60-60-90
1st Op: 1/4 inch blow built to 8 inches.
2nd Op: BOB/40 min.
Recover: 298' Total Fluid.
112' OCM (2% Oil, 98% Mud).
62' M w/show of Oil (100% Mud).
124' MCW (70% Wtr, 30% Mud).
IH 2235#, IFP 24-70#, ISIP1304#,
FFP 73-154#, FSIP 1303#, FH 2158#,
BHT 123 F
API .51 @ 42 F. Chl 23,000.

RTD 4495 (-1994)
LTD 4492 (-1991)