Timothy G. Pierce

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY N-10 Exploration, LLC
LEASE Medicine River Ranch 'D' #3
FIELD Landis
LOCATION SE SE
SEC 10 TWSP 34S RGE 11W
COUNTY Barber STATE Kansas
CONTRACTOR Hardt Drilling Rig #1
SPUD 11-17-2011 COMP 11-27-2011
RTD 5102 LTD 5100
MUD UP 2861 TYPE MUD Chemical

SAMPLES SAVED FROM 4100 TO RTD
DRILLING TIME KEPT FROM 4000 TO RTD
SAMPLES EXAMINED FROM 4100 TO RTD
GEOLOGICAL SUPERVISION FROM 3725' to RTD
GEOLOGIST ON WELL Tim Pierce

ELEVATIONS

KB 1380'
DF
GL 1370'
Measurements Are All From Kelly Bushing

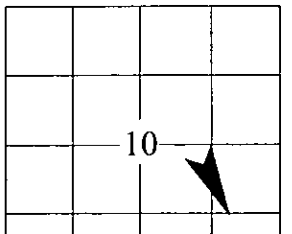
CASING

CONDUCTOR
SURFACE 8-5/8" at 269'
PRODUCTION 5-1/2" at 5094'

ELECTRICAL SURVEYS

DIL / CN-CD
Log-Tech

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Heebner Sh.	3634 (-2254)	NA
Iatan LS.	4053 (-2673)	4054 (-2674)
Stark Sh.	4318 (-2938)	4318 (-2938)
Cherokee Sh.	4537 (-3157)	4539 (-3159)
Mississippi	4575 (-3195)	4578 (-3198)
Viola	4910 (-3530)	4911 (-3531)
Simpson	5003 (-3623)	5005 (-3625)



API # 15-007-23,803

REMARKS *Samples and electric logs indicate a probable productive zone in the top of the Mississippi from 4585'-4660', this interval should be perforated and fracture treated for production.*

A sample show in the Meisner Sand at 4886'-4888' was evaluated by DST with negative results

A sample show in the Viola at 4914'-4920' was evaluated by DST with negative results.

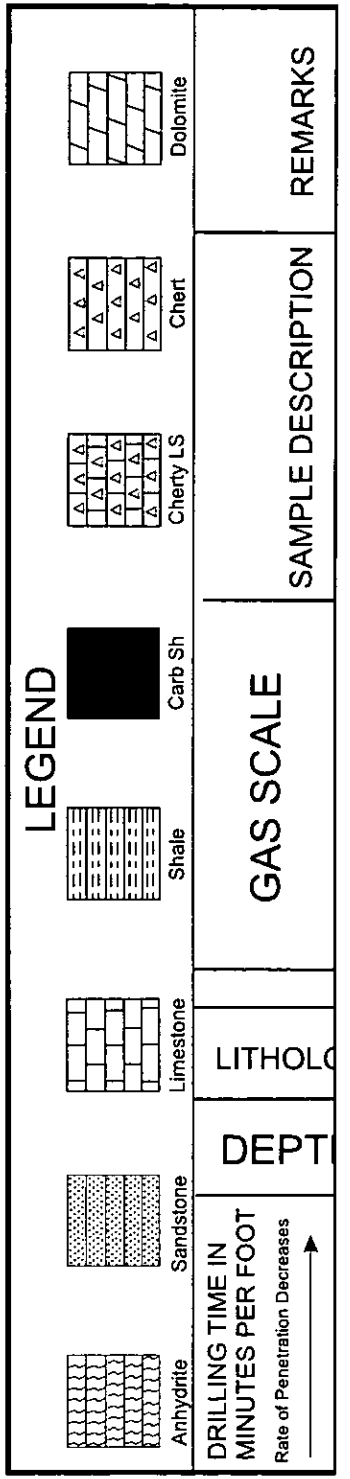
A sample show was observed in the Simpson sand at 5014'-5022', electric logs indicate a tight sand, this interval should be evaluated before the well is plugged

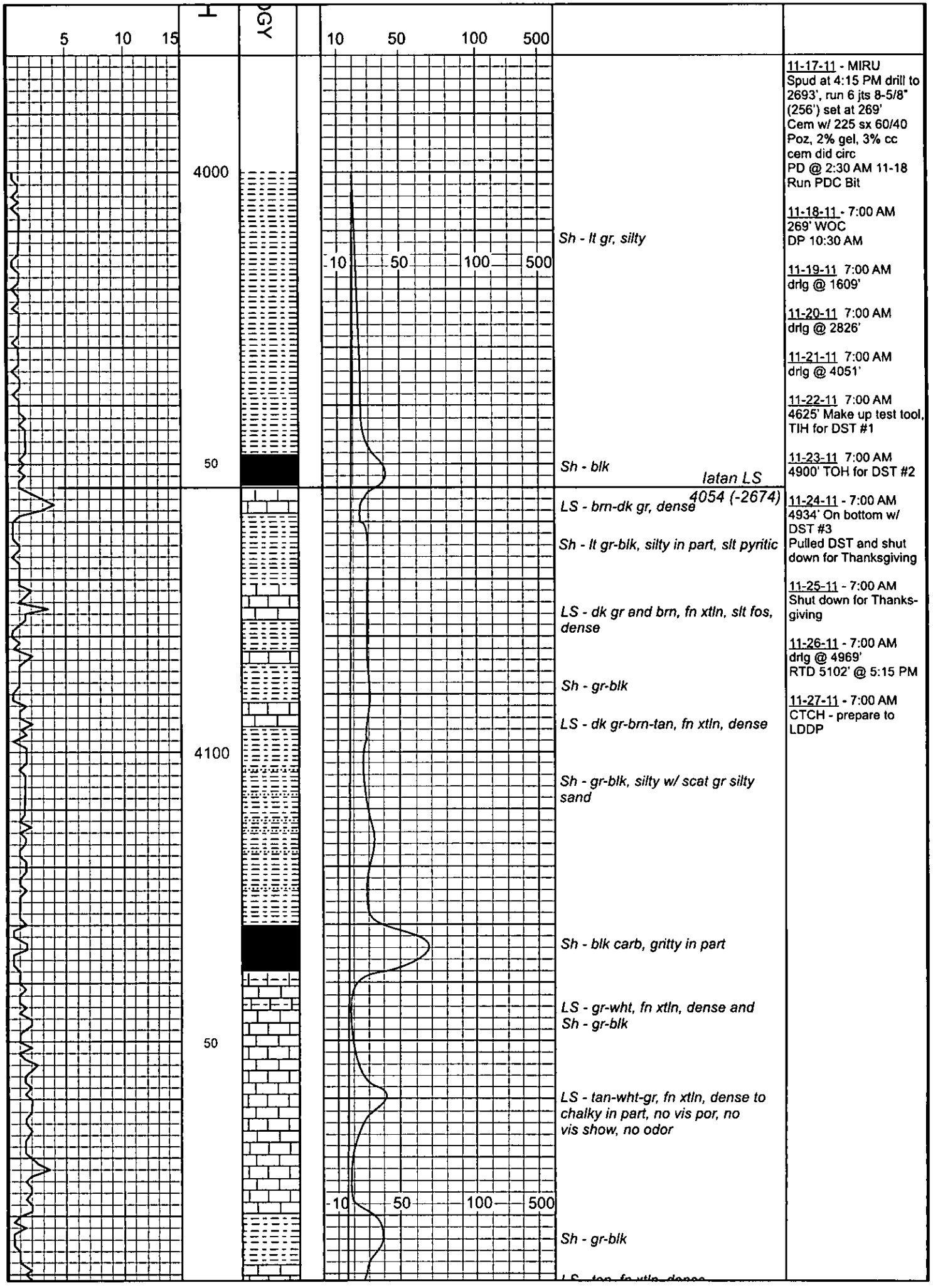
A gas kick was registered in the Pawnee LS from 4493'-4497', this zone should be considered before the well is plugged

A gas kick and sample show were observed in the Chattanooga Sh. at 4856'-4866', this should be considered before the well is plugged.

There were no other zones of interest indicated by samples or electric logs

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11-17-11 - MIRU
Spud at 4:15 PM drill to 2693', run 6 jts 8-5/8" (256') set at 269'
Cem w/ 225 sx 60/40 Poz, 2% gel, 3% cc
cem did circ
PD @ 2:30 AM 11-18
Run PDC Bit

11-18-11 - 7:00 AM
269' WOC
DP 10:30 AM

11-19-11 7:00 AM
drlg @ 1609'

11-20-11 7:00 AM
drlg @ 2826'

11-21-11 7:00 AM
drlg @ 4051'

11-22-11 7:00 AM
4625' Make up test tool, TIH for DST #1

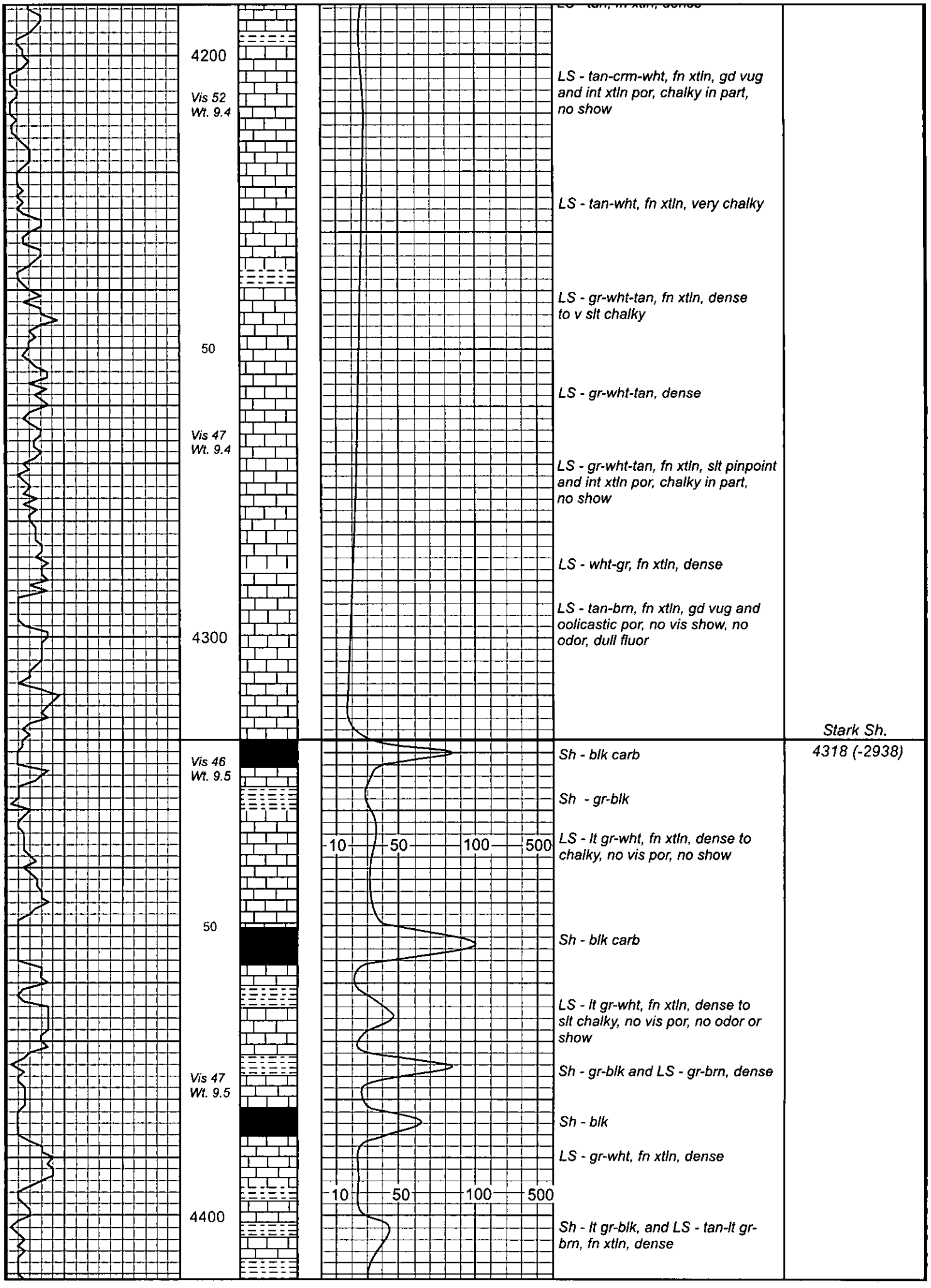
11-23-11 7:00 AM
4900' TOH for DST #2

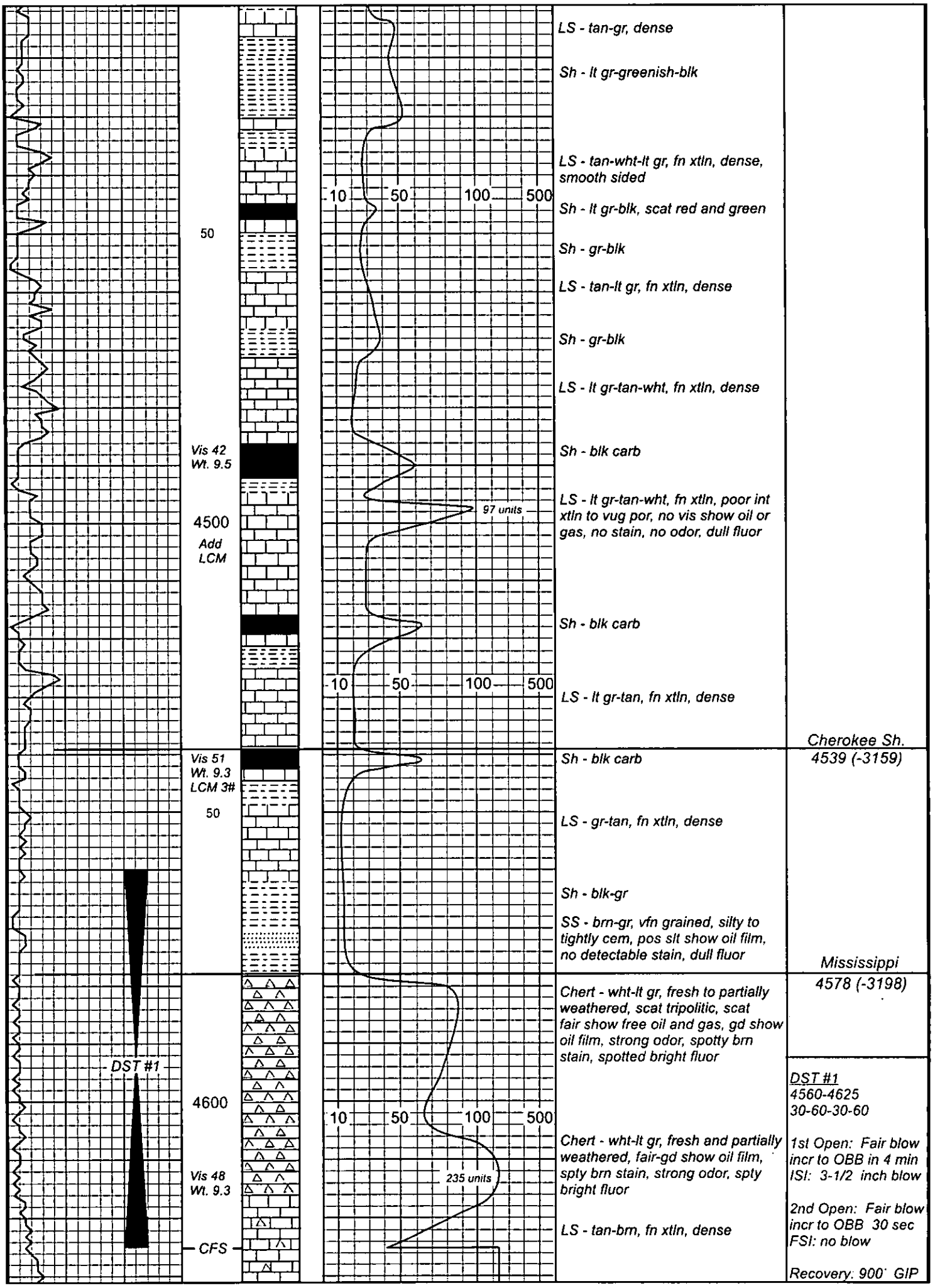
11-24-11 - 7:00 AM
4934' On bottom w/ DST #3
Pulled DST and shut down for Thanksgiving

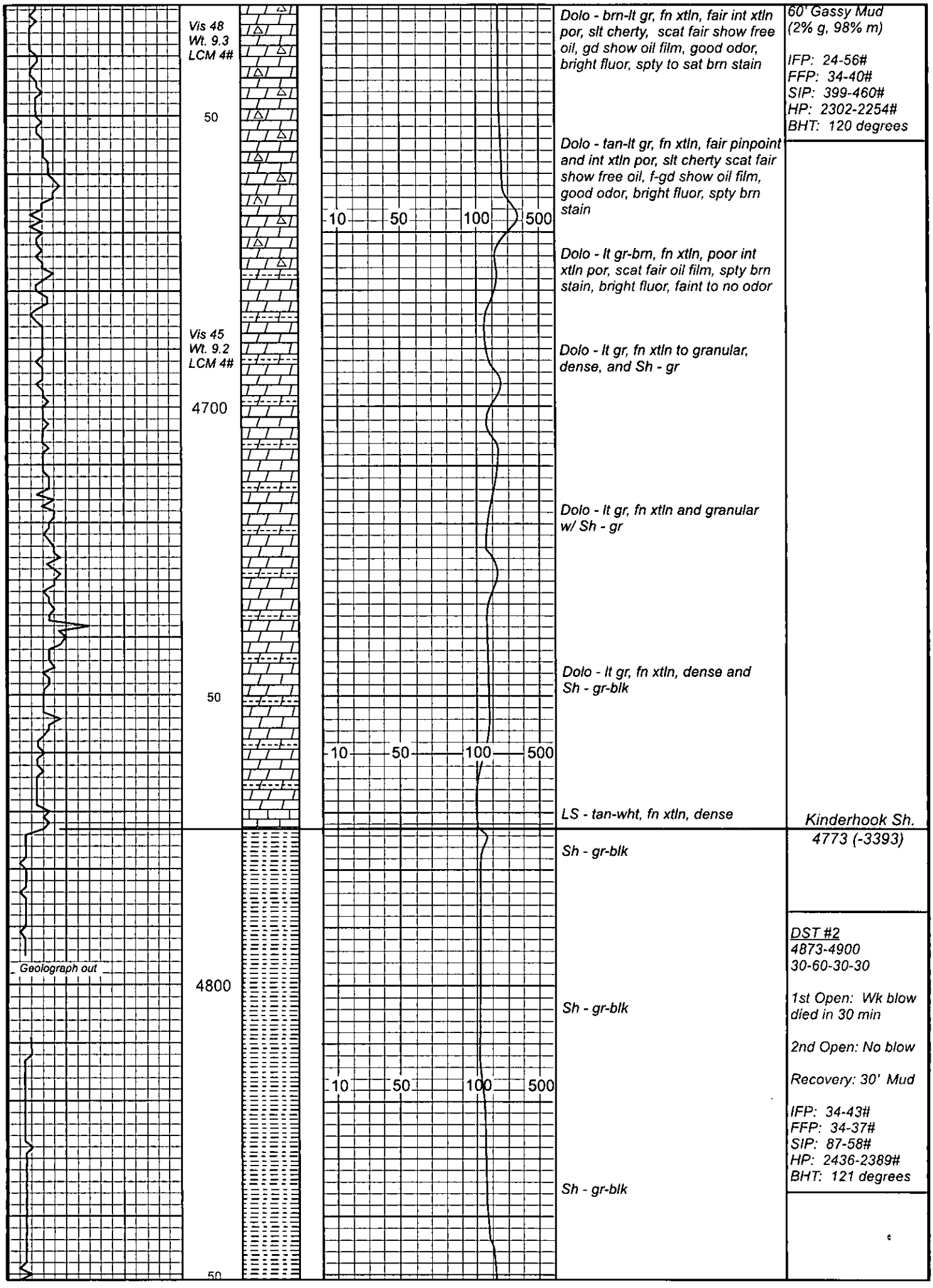
11-25-11 - 7:00 AM
Shut down for Thanks-giving

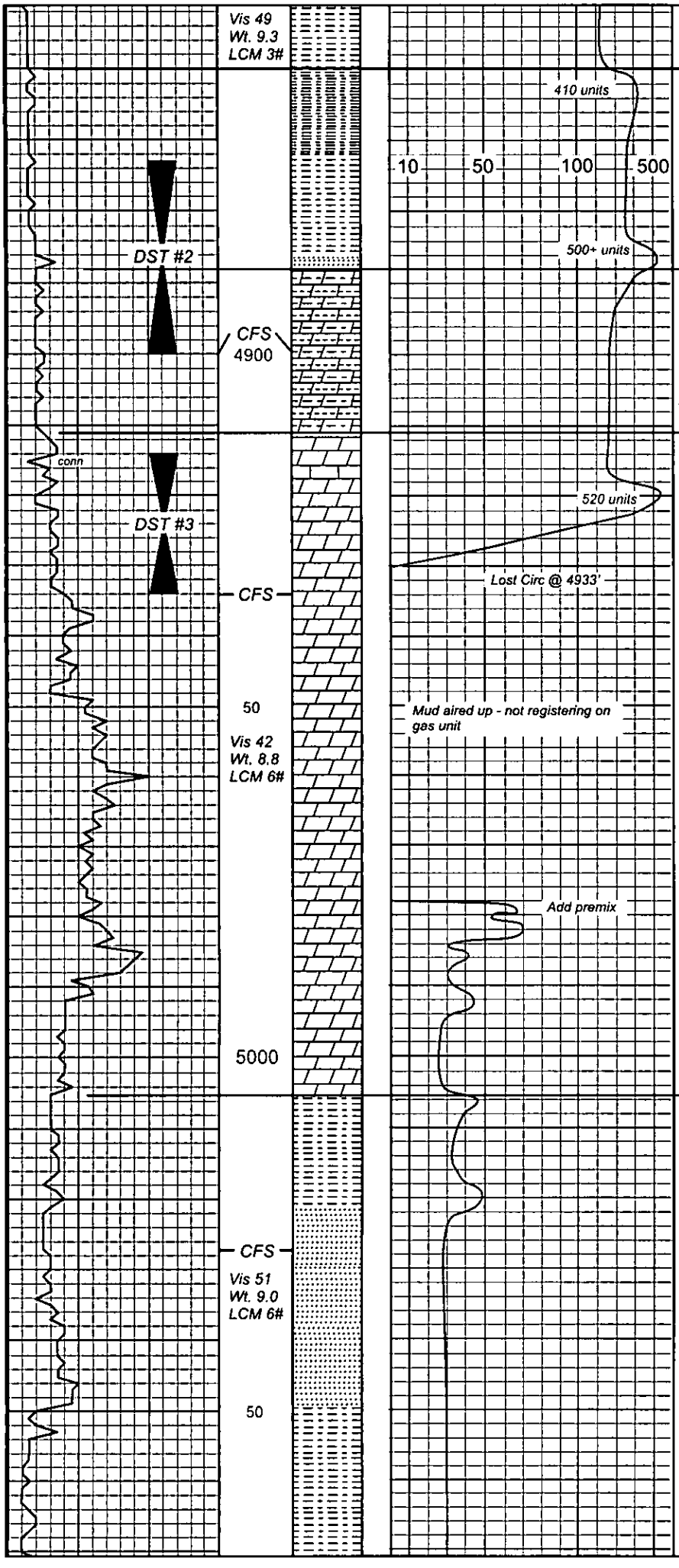
11-26-11 - 7:00 AM
drlg @ 4969'
RTD 5102' @ 5:15 PM

11-27-11 - 7:00 AM
CTCH - prepare to LDDP


4200
Vis 52
Wt. 9.4
50
Vis 47
Wt. 9.4
4300
Vis 46
Wt. 9.5
50
Vis 47
Wt. 9.5
4400
10
50
100
500
10
50
100
500
LS - tan-crm-wht, fn xtln, gd vug and int xtln por, chalky in part, no show
LS - tan-wht, fn xtln, very chalky
LS - gr-wht-tan, fn xtln, dense to v slt chalky
LS - gr-wht-tan, dense
LS - gr-wht-tan, fn xtln, slt pinpoint and int xtln por, chalky in part, no show
LS - wht-gr, fn xtln, dense
LS - tan-brn, fn xtln, gd vug and oolicastic por, no vis show, no odor, dull fluor
Stark Sh.
4318 (-2938)
Sh - blk carb
Sh - gr-blk
LS - lt gr-wht, fn xtln, dense to chalky, no vis por, no show
Sh - blk carb
LS - lt gr-wht, fn xtln, dense to slt chalky, no vis por, no odor or show
Sh - gr-blk and LS - gr-brn, dense
Sh - blk
LS - gr-wht, fn xtln, dense
Sh - lt gr-blk, and LS - tan-lt gr-brn, fn xtln, dense


LS - tan-gr, dense
Sh - lt gr-greenish-blk
LS - tan-wht-lt gr, fn xtln, dense, smooth sided
Sh - lt gr-blk, scat red and green
Sh - gr-blk
LS - tan-lt gr, fn xtln, dense
Sh - gr-blk
LS - lt gr-tan-wht, fn xtln, dense
Sh - blk carb
LS - lt gr-tan-wht, fn xtln, poor int xtln to vug por, no vis show oil or gas, no stain, no odor, dull fluor
Sh - blk carb
LS - lt gr-tan, fn xtln, dense
Sh - blk carb
LS - gr-tan, fn xtln, dense
Sh - blk-gr
SS - brn-gr, vfn grained, silty to tightly cem, pos slt show oil film, no detectable stain, dull fluor
Chert - wht-lt gr, fresh to partially weathered, scat tripolitic, scat fair show free oil and gas, gd show oil film, strong odor, spotty brn stain, spotted bright fluor
Chert - wht-lt gr, fresh and partially weathered, fair-gd show oil film, spty brn stain, strong odor, spty bright fluor
LS - tan-brn, fn xtln, dense
10 50 100 500
97 units
235 units
50
Vis 42
Wt. 9.5
4500
Add LCM
Vis 51
Wt. 9.3
LCM 3#
50
DST #1
4600
Vis 48
Wt. 9.3
CFS
Cherokee Sh.
4539 (-3159)
Mississippi
4578 (-3198)
DST #1
4560-4625
30-60-30-60
1st Open: Fair blow incr to OBB in 4 min
ISI: 3-1/2 inch blow
2nd Open: Fair blow incr to OBB 30 sec
FSI: no blow
Recovery: 900' GIP


Vis 48
Wt. 9.3
LCM 4#
50
Vis 45
Wt. 9.2
LCM 4#
4700
50
Geolograph out
4800
50
10
50
100
500
10
50
100
500
10
50
100
500
Dolo - brn-lt gr, fn xtln, fair int xtln por, slt cherty, scat fair show free oil, gd show oil film, good odor, bright fluor, spty to sat brn stain
Dolo - tan-lt gr, fn xtln, fair pinpoint and int xtln por, slt cherty scat fair show free oil, f-gd show oil film, good odor, bright fluor, spty brn stain
Dolo - lt gr-brn, fn xtln, poor int xtln por, scat fair oil film, spty brn stain, bright fluor, faint to no odor
Dolo - lt gr, fn xtln to granular, dense, and Sh - gr
Dolo - lt gr, fn xtln and granular w/ Sh - gr
Dolo - lt gr, fn xtln, dense and Sh - gr-blk
LS - tan-wht, fn xtln, dense
Sh - gr-blk
Sh - gr-blk
Sh - gr-blk
60' Gassy Mud
(2% g, 98% m)
IFP: 24-56#
FFP: 34-40#
SIP: 399-460#
HP: 2302-2254#
BHT: 120 degrees
Kinderhook Sh.
4773 (-3393)
DST #2
4873-4900
30-60-30-30
1st Open: Wk blow died in 30 min
2nd Open: No blow
Recovery: 30' Mud
IFP: 34-43#
FFP: 34-37#
SIP: 87-58#
HP: 2436-2389#
BHT: 121 degrees



Chattanooga Sh.

4860 (-3580)

Sh - gr-blk, silty and gritty in part, f-gd show gas, slt show flakey oil, spty bright fluor, no odor

Sh - blk-gr w/ scat SS - wht-lt gr, scat semi-friable clusters w/ dk sh inclusions, slt pyritic, slt show oil film, bright fluor, v faint odor, no vis stain

Maquoketa Sh.

4888 (-3508)

Sh - brn-lt gr, dolomitic,

Sh - gr-brn, dolomitic

Viola

4911 (-3531)

Dolo - LS - wht, fn xtln, dense to chalky

Dolo - wht, fn-med xtln, scat v gd vug and int xtln por, f-gd show oil under black light, spty lt brn stain, no odor, bright fluor

DST #3
4914-4934
30-60-30-60

1st Open: Wk blow incr to OBB 8 min

2nd Open: Wk blow incr to OBB 23 min

Recovery: 150' TF
310' GIP
90' WM
(10%w, 90%m)
60' SOCMW
(1%o, 90%w, 9%m)
chlorides 7,000

IFP: 58-104#
FFP: 58-98#
SIP: 512-372#
HP: 2446-2342#
BHT: 130 degrees

Dolo - brn-wht-tan, fn xtln to gran, dense

Dolo - brn-tan-wht, fn xtln, dense

Dolo - brn-wht, fn xtln, dense

Simpson

5005 (-3625)

Sh - blk-gr

SS - wht-lt gr, fn grained, mod sort, semi-friable to tightly cem, mostly w/ no show, scat clusters w/ bright fluor, spty to even lt brn stain, no odor

SS - wht-clear-lt gr, fn grained, mod-well sort, sub rd, semi-fria to friable, scat dk sh inclusions, no fluor, show or odor

Sh - blk-gr, scat red, w/ scat wht slt glauconitic silty sand

Vis 45
Wt. 9.1
LCM 4#

5100
Spot
Premix
for logs

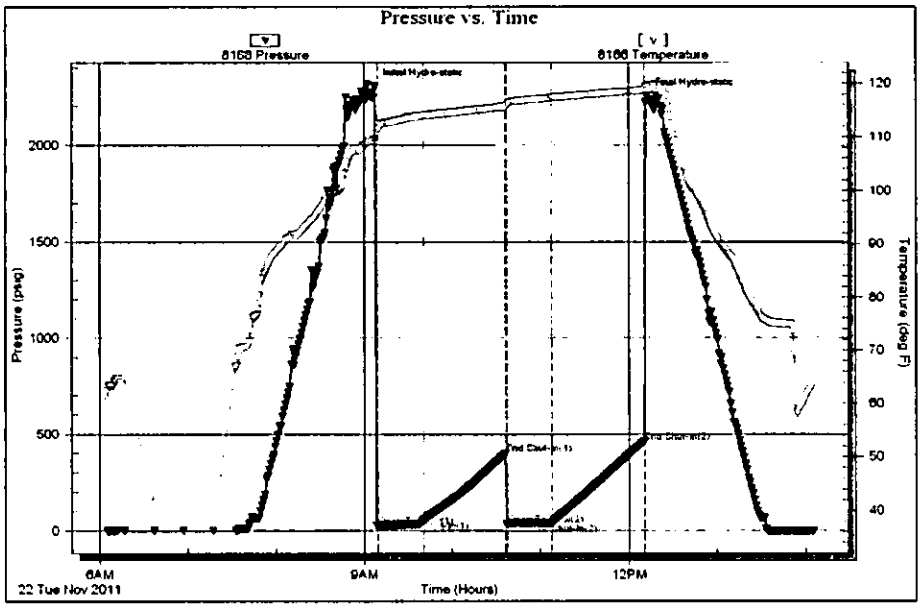
RTD 5102'

10 — 50 — 100 — 500

SS - wht-gr, fn grained, poorly sort, sub ang, silty in part, friable, slt glauconitic, slt pyritic, no show

Sh - blk-gr, w/ SS - gr-brn silty in part, fn grained, poorly sort, abundant dk mineral grains, no show

Serial # 8166 Outside N-10 Exploration LLC MedicineRiverRanch03 DST Test Number 1



Trilobite Testing Inc Ref. No: 44107 Printed 2011.11.22 @ 14:34:00

DST #1
4560-4625
30-60-30-60

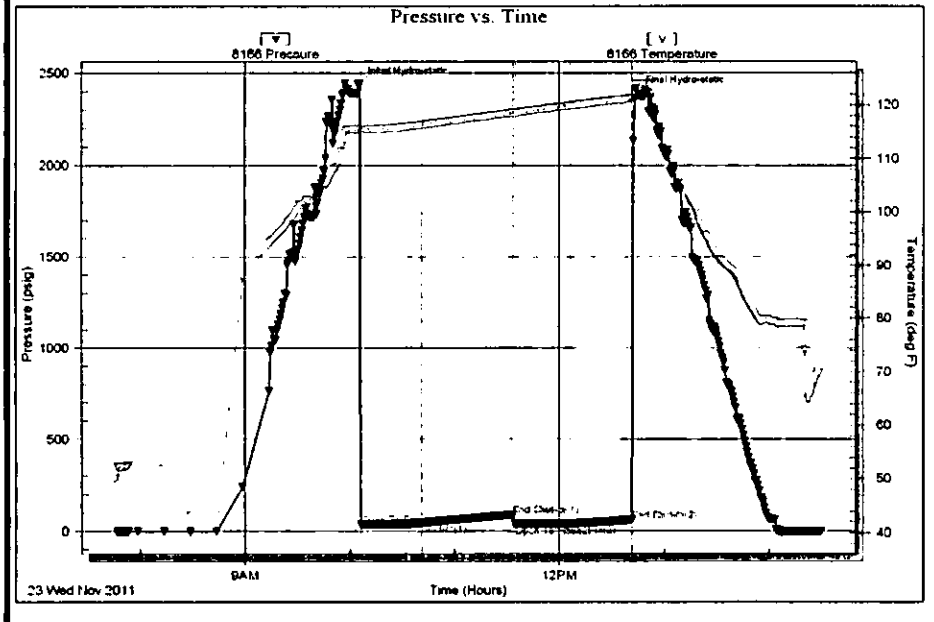
1st Open: Fair blow incr to OBB in 4 min
ISI: 3-1/2 inch blow

2nd Open: Fair blow incr to OBB 30 sec
FSI: no blow

Recovery: 900' GIP
60' Gassy Mud
(2% g, 98% m)

IFP: 24-56#
FFP: 34-40#
SIP: 399-460#
HP: 2302-2254#
BHT: 120 degrees

Serial # 8166 Outside N-10 Exploration LLC MedicineRiverRanch03 DST Test Number 2



DST #2
4873-4900
30-60-30-30

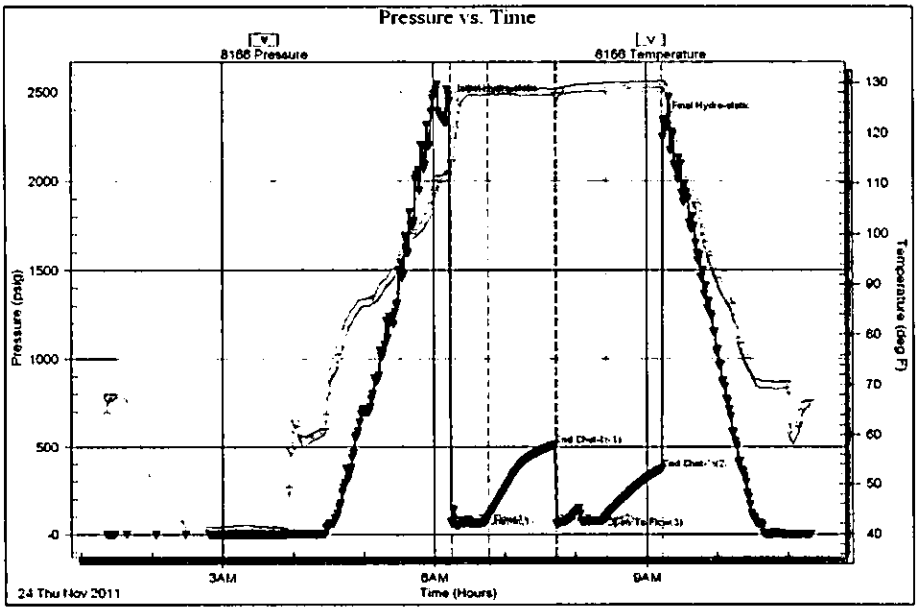
1st Open: Wk blow died in 30 min

2nd Open: No blow

Recovery: 30' Mud

IFP: 34-43#
FFP: 34-37#
SIP: 87-58#
HP: 2436-2389#
BHT: 121 degrees

Serial #: 8166 Outside N 10 Exploration LLC MedicineRiverRanch03 DST Test Number 3



DST #3
4914-4934
30-60-30-60

1st Open: Wk blow incr to OBB 8 min

2nd Open: Wk blow incr to OBB 23 min

Recovery: 150' TF
310' GIP
90' WM
(10%w, 90%m)
60' SOCMW
(1%o, 90%w, 9%m)
chlorides 7,000

IFP: 58-104#
FFP: 58-98#
SIP: 512-372#
HP: 2446-2342#
BHT: 130 degrees

Tribble Testing Inc Ref No 44109 Printed 2011.11.24 @ 11:34:54