

TIM PRIEST
Petroleum Geologist
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GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY SHAKESPEARE OIL CO.
 LEASE Tucker #2-9
 FIELD Wildcat
 LOCATION 2216' FSL 1695' FWL
 SEC 9 TWSP 16S RGE 34W
 COUNTY Scott STATE Kansas

ELEVATIONS

KB 3149'

DF

GL 3139'

Measurements Are All
 From KB

CONTRACTOR HD Rig 2
 SPUD 9-9-13 COMP 9-21-13
 RTD 4865' LTD 4862'
 MUD UP 3500' TYPE MUD Chemical

CASING

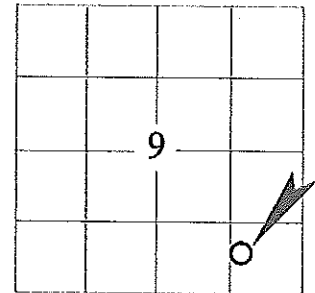
CONDUCTOR N/A
 SURFACE 8-5/8" @ 264'
 PRODUCTION None

SAMPLES SAVED FROM 3800' to RTD
 DRILLING TIME KEPT FROM 3800' to RTD
 SAMPLES EXAMINED FROM 3800' to RTD
 GEOLOGICAL SUPERVISION FROM 3900' to RTD
 GEOLOGIST ON WELL Tim Priest

**ELECTRICAL
 SURVEYS**

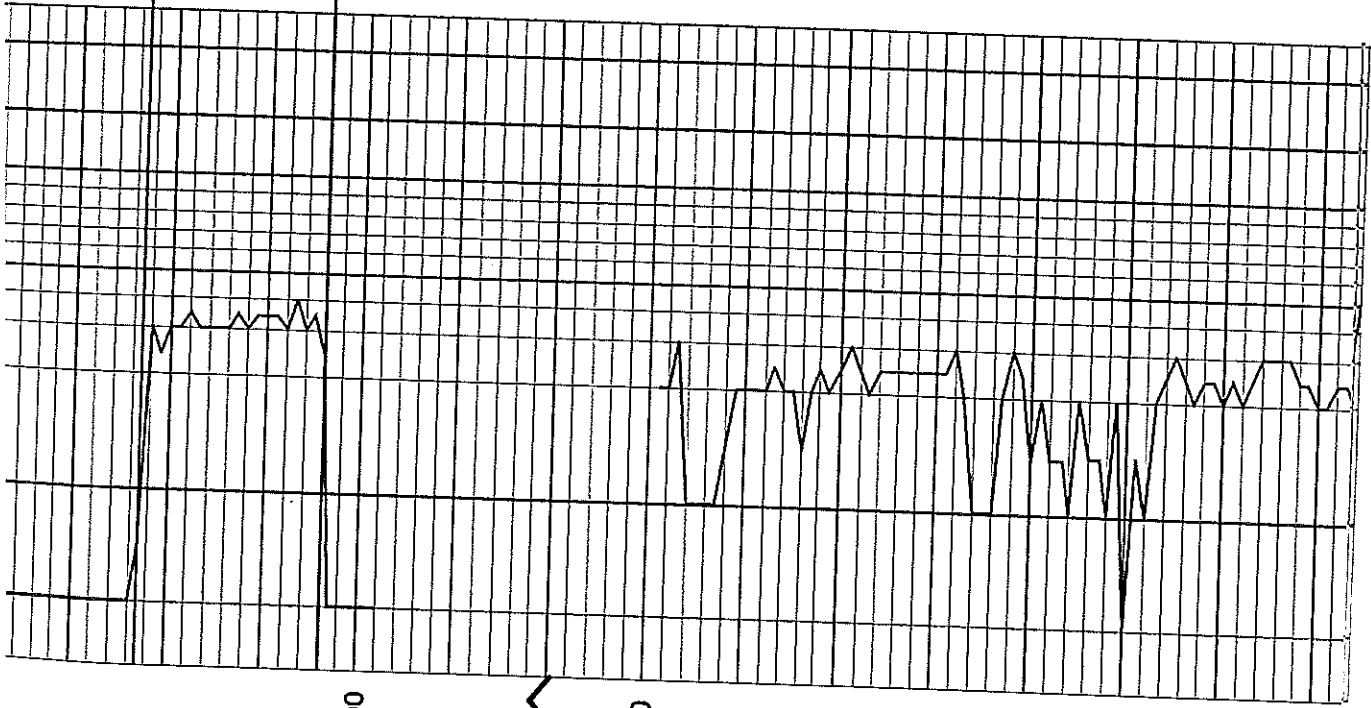
CND;D/SP;P.E.
Micro, sonic
 By: Weatherford

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Anhydrite	2474 (+675)	2477 (+672)
Heebner Shale	3996 (-847)	3998 (-849)
Lansing	4042 (-893)	4043 (-894)
Stark	4314 (-1165)	4316 (-1167)
BKC	4410 (-1261)	4407 (-1258)
Fort Scott	4580 (-1431)	4581 (-1432)
Cherokee Shale	4608 (-1459)	4610 (-1461)
Mississippian	4786 (-1637)	4787 (-1638)



Anhydrite
2477(+672)

Base/ Anhydrite
2496(+653)

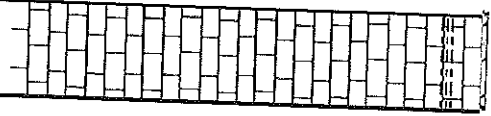


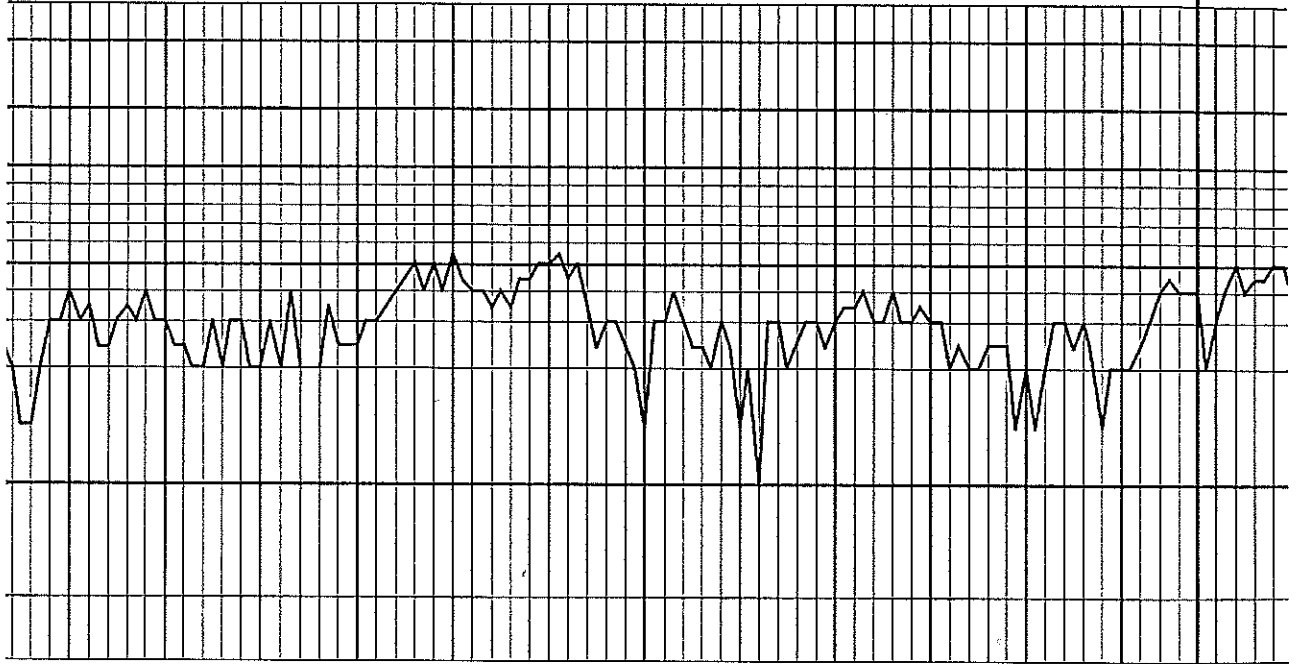
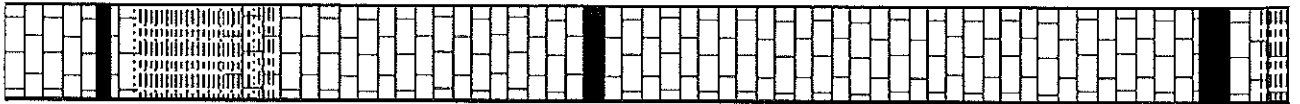
2500



3800

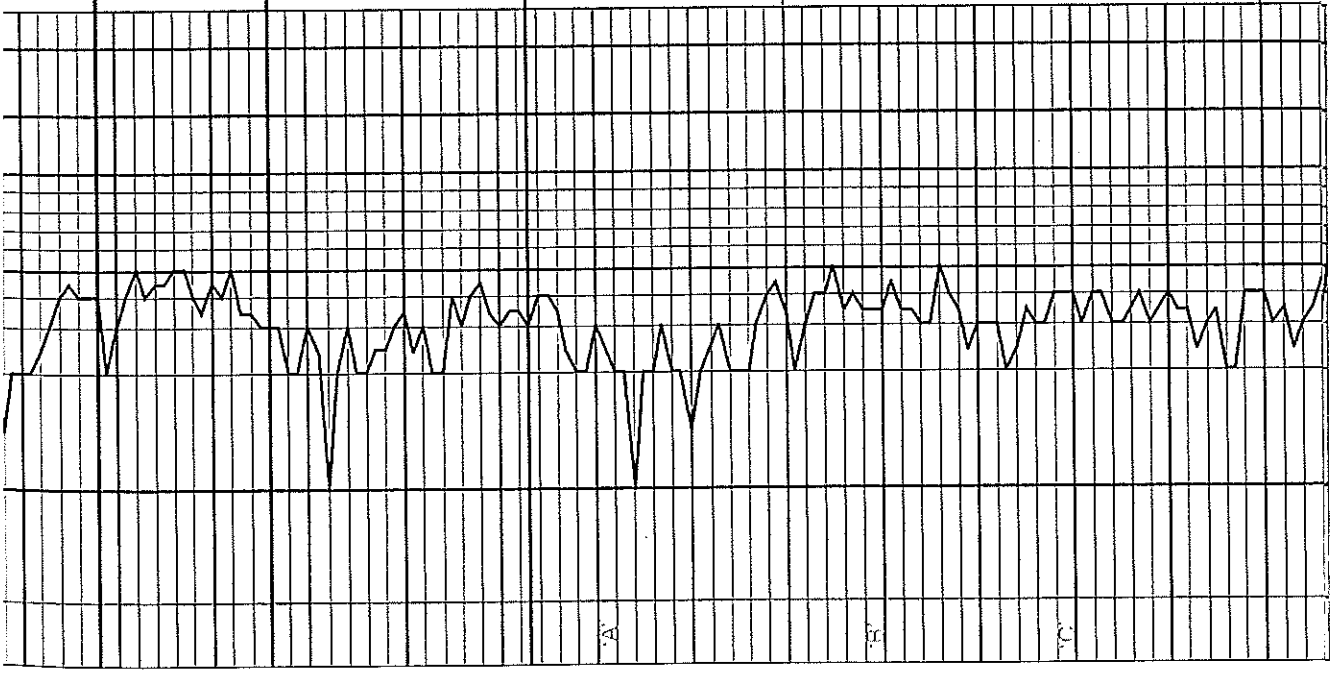
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Ls crm-gry mold, fos, sli chky, p-f int xtl-pp por, NS	Heebner 3998 (-849)
Sh blk, carb	
Sh/SS red-gry, fn-med gm, p sort, friable, NS	
Ls crm-tan-gry, fn xtl, arg in prt no vis por	
Ls tan, vfn xtl, sli fos, dnse	
Sh blk, carb	
Sh red-maroon	
Ls crm-lt gry, fos, chky, p-f int xtl & int frag por, NS	
Ls crm, vfn xtl, chty, dnse	
Ls crm-tan, fn xtl, fos, p-f int xtl-pp por, NS	
Ls crm-tan, fn xtl, fos, f int xtl-pp por, NS	
Sh blk, carb	

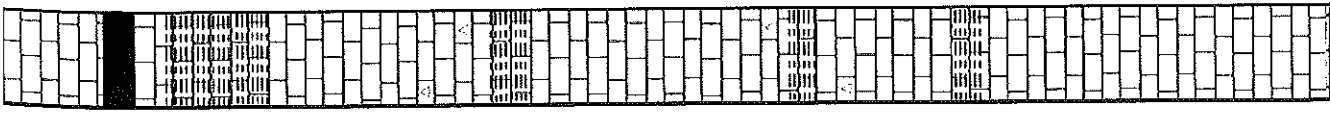
pp por, NS	Heebner 3998 (-849)
Sh blk, carb	
Sh gry-dk gry, calc	
Ls crm-lt gry, fn xtl, fos, v chky, f int xtl-pp por, NS	Toronto 4016 (-867)
Ls crm-lt gry, vfn xtl, sli chty, dnse	
Sh red-grn-gry, calc	Lansing 4043 (-894)
Ls crm-lt gry, fn xtl, fos, chky, f int xtl & int frag por, NS	
Ls crm, fn xtl, fos, v chky, p-f int xtl-pp por, NS	
Sh grn-gry	
Ls crm-lt gry, fn xtl, fos-sub ool, chky, p-f int xtl-pp por, NS	
Sh red-grm	
Ls crm, fn xtl, fos, v chky, p-f int xtl-pp por, NS	
Ls crm-lt gry, vfn xtl, sli chky, dnse	
Ls crm-lt gry, fn xtl, sli fos, chky, p-f int xtl-pp por, NS	



4000

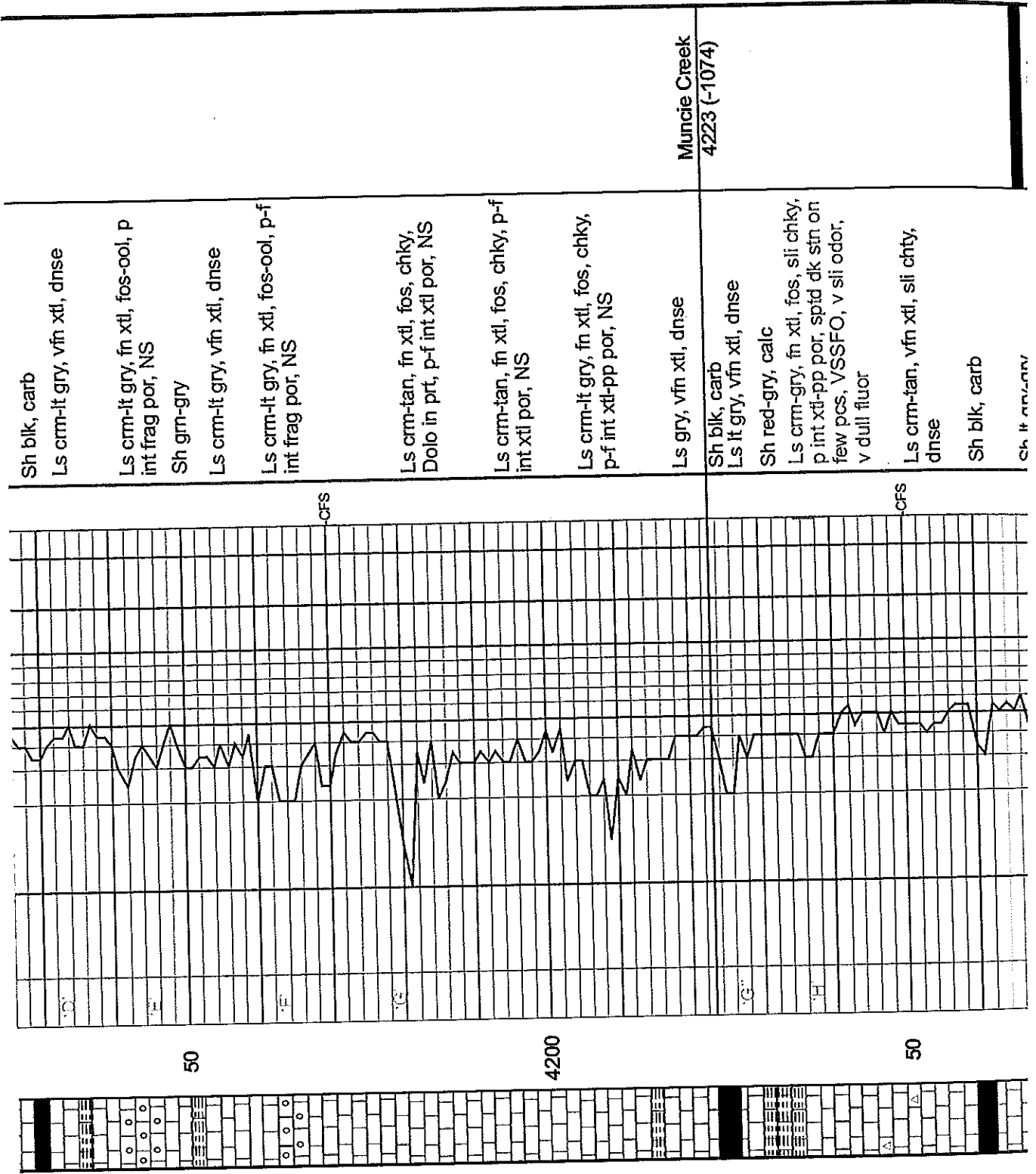
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4100



-CFS

-CFS



Sh blk, carb

Ls crm-lt gry, vfn xtl, dnse

Ls crm-lt gry, fn xtl, fos-ool, p
int frag por, NS

Sh grn-gry

Ls crm-lt gry, vfn xtl, dnse

Ls crm-lt gry, fn xtl, fos-ool, p-f
int frag por, NS

CFS

Ls crm-tan, fn xtl, fos, chky,
Dolo in prt, p-f int xtl por, NS

Ls crm-tan, fn xtl, fos, chky, p-f
int xtl por, NS

Ls crm-lt gry, fn xtl, fos, chky,
p-f int xtl-pp por, NS

Ls gry, vfn xtl, dnse

Muncie Creek
4223 (-1074)

Sh blk, carb

Ls lt gry, vfn xtl, dnse

Sh red-gry, calc

Ls crm-gry, fn xtl, fos, sli chky,
p int xtl-pp por, sptd dk str on
few pcs, VSSFO, v sli odor,
v dull fluor

CFS

Ls crm-tan, vfn xtl, sli chty,
dnse

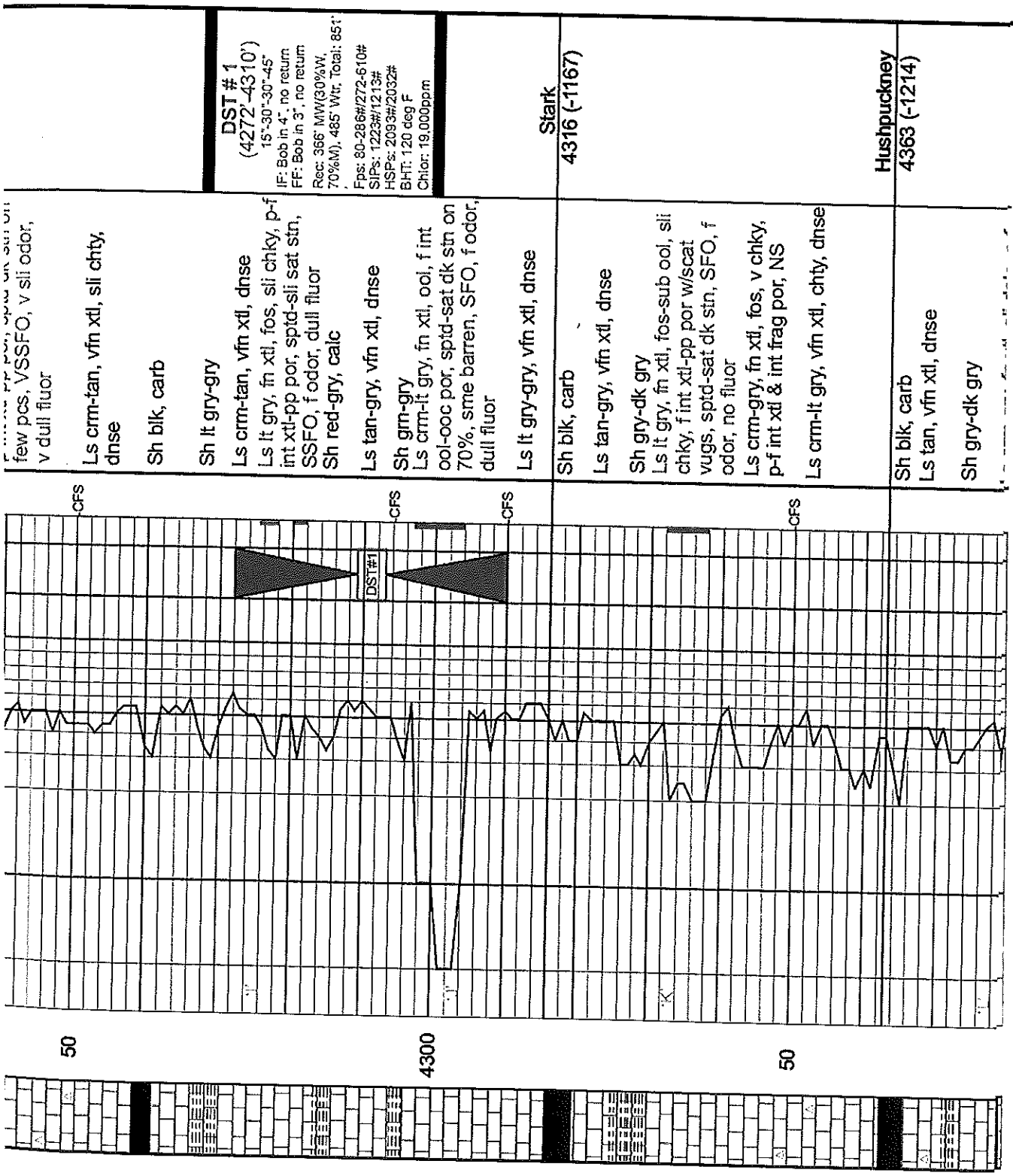
Sh blk, carb

Sh lt crm-gry

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4200

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few pcs, VSSFO, v sli odor, v dull fluor

CFS

Ls crm-tan, vfn xtl, sli chty, dnse

Sh blk, carb

Sh lt gry-gry

DST # 1
(4272-4310')

15'-30"-30'-45"
IF: Bob in 4', no return
FF: Bob in 3', no return
Rec: 366' MW(30%W, 70%M), 465' Wtr. Total: 851'
Fps: 80-286#/272-610#
SIPs: 1229#/1213#
HSPs: 2093#/2032#
BHT: 120 deg F
Chlor: 19,000ppm

Ls crm-tan, vfn xtl, dnse
Ls lt gry, fn xtl, fos, sli chky, p-f int xtl-pp por, sptd-sli sat str, SSFO, f odor, dull fluor
Sh red-gry, calc

Ls tan-gry, vfn xtl, dnse

Sh gm-gry

Ls crm-lt gry, fn xtl, ool, f int ool-ool por, sptd-sat dk str on 70%, sme barren, SFO, f odor, dull fluor

Ls lt gry-gry, vfn xtl, dnse

Stark
4316 (-1167)

Sh blk, carb

Ls tan-gry, vfn xtl, dnse

Sh gry-dk gry

Ls lt gry, fn xtl, fos-sub ool, sli chky, f int xtl-pp por w/scat vugs, sptd-sat dk str, SFO, f odor, no fluor

Ls crm-gry, fn xtl, fos, v chky, p-f int xtl & int frag por, NS

Ls crm-lt gry, vfn xtl, chty, dnse

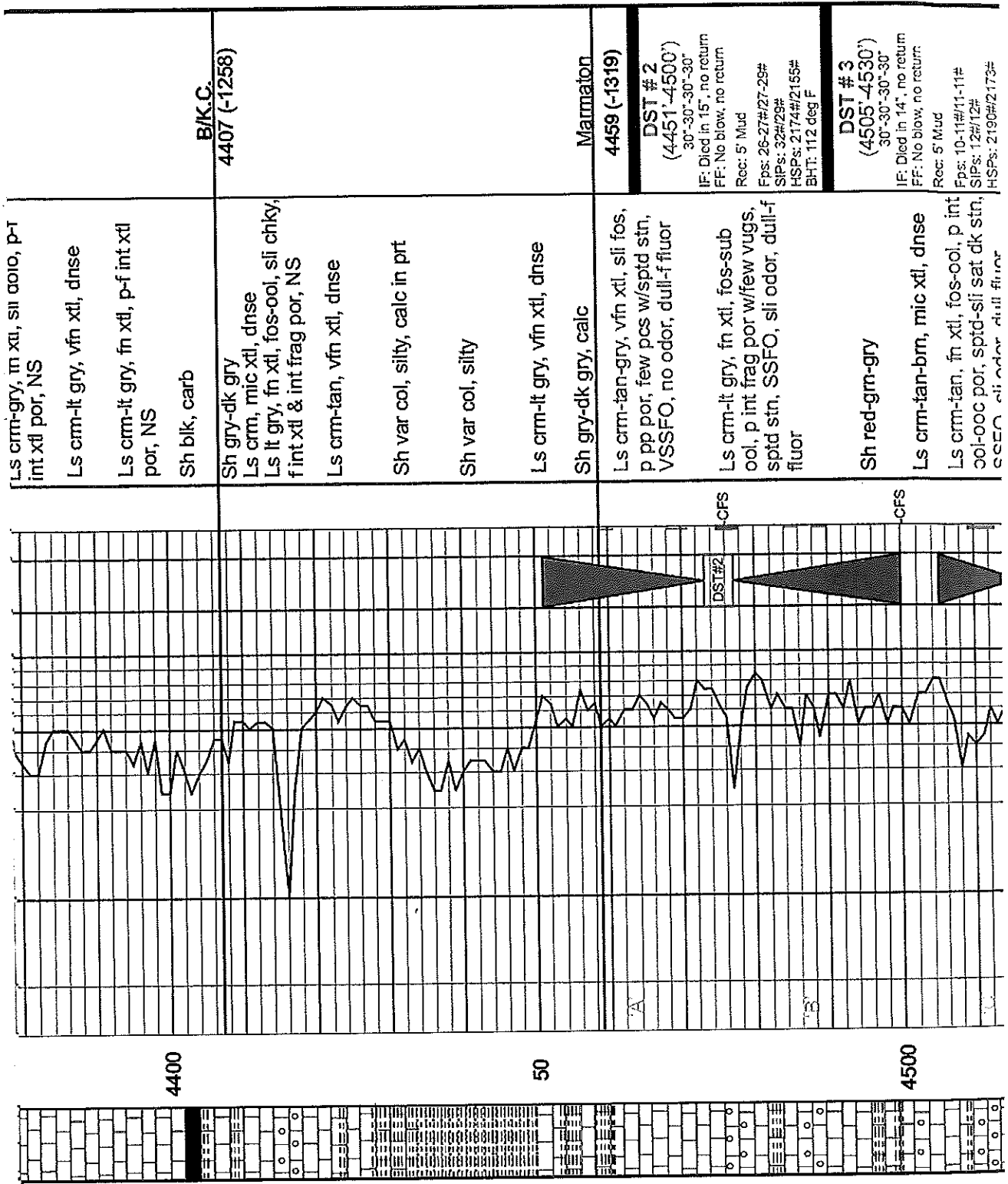
CFS

Hushpuckney
4363 (-1214)

Sh blk, carb

Ls tan, vfn xtl, dnse

Sh gry-dk gry



Ls crm-gry, m xtl, sil ool, p-t
int xtl por, NS

Ls crm-lt gry, vfn xtl, dnse

Ls crm-lt gry, fn xtl, p-f int xtl
por, NS

Sh blk, carb

Sh gry-dk gry

Ls crm, mic xtl, dnse

Ls lt gry, fn xtl, fos-ool, sil chky,
f int xtl & int frag por, NS

Ls crm-tan, vfn xtl, dnse

Sh var col, silty, calc in prt

Sh var col, silty

Ls crm-lt gry, vfn xtl, dnse

Sh gry-dk gry, calc

Ls crm-tan-gry, vfn xtl, sil fos,
p pp por, few pcs w/spid stn,
VSSFO, no odor, dull-f fluor

Ls crm-lt gry, fn xtl, fos-sub
ool, p int frag por w/few vugs,
spid stn, SSFO, sil odor, dull-f
fluor

Sh red-gm-gry

Ls crm-tan-brn, mic xtl, dnse

Ls crm-tan, fn xtl, fos-ool, p int
ool-ool por, spid-sil sat dk stn,
SSFO, sil odor, dull fluor

B/K.C.
4407 (-1258)

Marmaton
4459 (-1319)

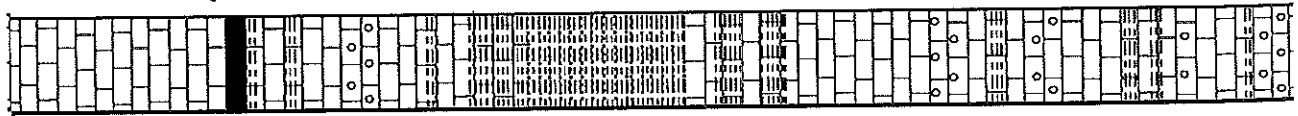
DST # 2
(4451'-4500')
30"-30"-30"-30"
IF: Died in 15', no return
FF: No blow, no return
Rec: 5' Mud
Fps: 26-27#/27-29#
SIPs: 32#/29#
HSPs: 2174#/2155#
BHT: 112 deg F

DST # 3
(4505'-4530')
30"-30"-30"-30"
IF: Died in 14', no return
FF: No blow, no return
Rec: 5' Mud
Fps: 10-11#/11-11#
SIPs: 12#/12#
HSPs: 2190#/2173#

4400

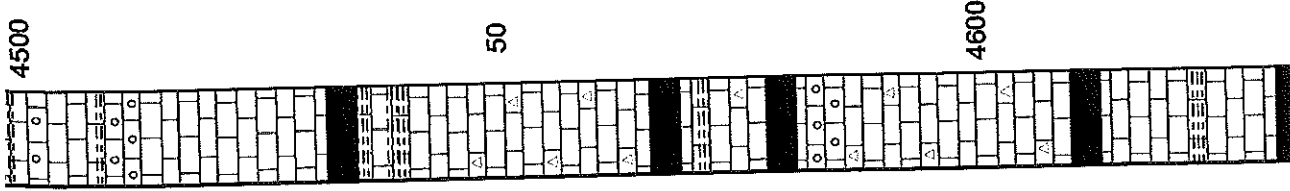
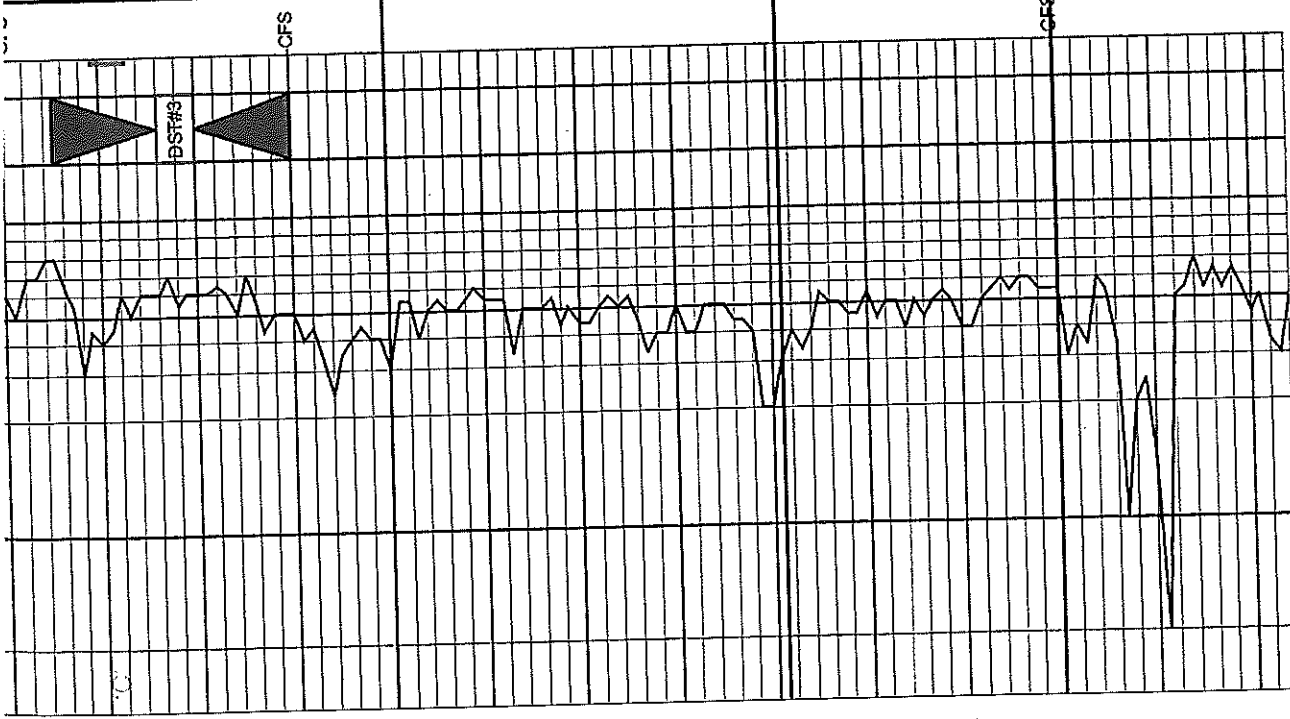
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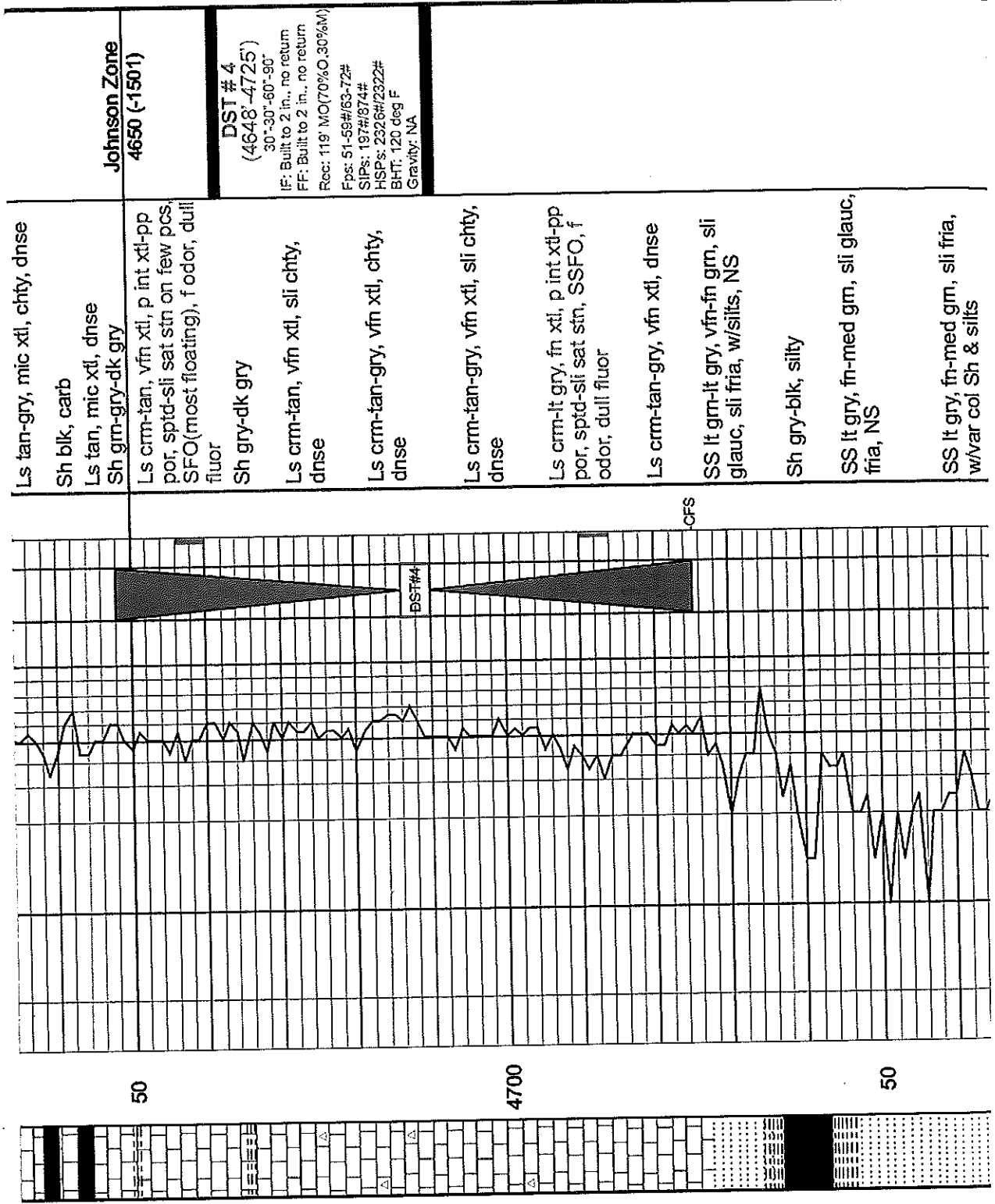
4500



FF: No blow, no return
 Rec: 5 Nuc
 Fps: 10-11#/11-11#
 SPS: 12#/12#
 HSPs: 2190#/2173#
 BHT: 114 deg F

Ls crm-tan-brn, mic xtl, dnse	Pawnee 4540 (-1391)
Ls crm-tan, fn xtl, fos-ool, p int ool-ool por, spid-sli sat dk stn, SSFO, sli odor, dull fluor	
Ls crm-gry, vfn xtl, sli fos, sli chky, dnse	Fort Scott 4581 (-1432)
Sh blk, carb	
Ls tan-gry, vfn xtl, arg in prt	
Ls crm-tan-it gry, vfn xtl, sli chty, dnse	
Ls crm-it gry, vfn xtl, sli chty, dnse	Cherokee Shale 4610 (-1461)
Sh blk, carb	
Ls crm-tan, vfn xtl, fos-ool in prt, sli chty, dnse	
Sh blk, carb	
Ls crm-tan-gry, vfn xtl, sli ool in prt, no vis por, NS	
Ls tan-gry, vfn xtl, sli fos, sli chty, dnse	
Sh grm-gry	
Ls crm-gry, vfn xtl, sli chty, dnse	
Sh blk, carb	
Ls gry-tan, fn xtl, fos, chky, fgd int xtl & int frag por, NS	
Sh dk gry	
Ls gry, mic xtl, dnse	
Sh blk, carb	





Ls tan-gry, mic xtl, chty, dnse
 Sh blk, carb
 Ls tan, mic xtl, dnse
 Sh gm-gry-dk gry
 Ls crm-tan, vfn xtl, p int xtl-pp
 por, sptd-sli sat strn on few pcs,
 SFO(most floating), f odor, dull
 fluor
 Sh gry-dk gry
 Ls crm-tan, vfn xtl, sli chty,
 dnse
 Ls crm-tan-gry, vfn xtl, chty,
 dnse
 Ls crm-tan-gry, vfn xtl, sli chty,
 dnse
 Ls crm-lt gry, fn xtl, p int xtl-pp
 por, sptd-sli sat strn, SSFO, f
 odor, dull fluor
 Ls crm-tan-gry, vfn xtl, dnse
 SS lt gm-lt gry, vfn-fn gm, sli
 glauc, sli fria, w/silts, NS
 Sh gry-blk, silty
 SS lt gry, fn-med gm, sli glauc,
 fria, NS
 SS lt gry, fn-med gm, sli fria,
 w/var col Sh & silts

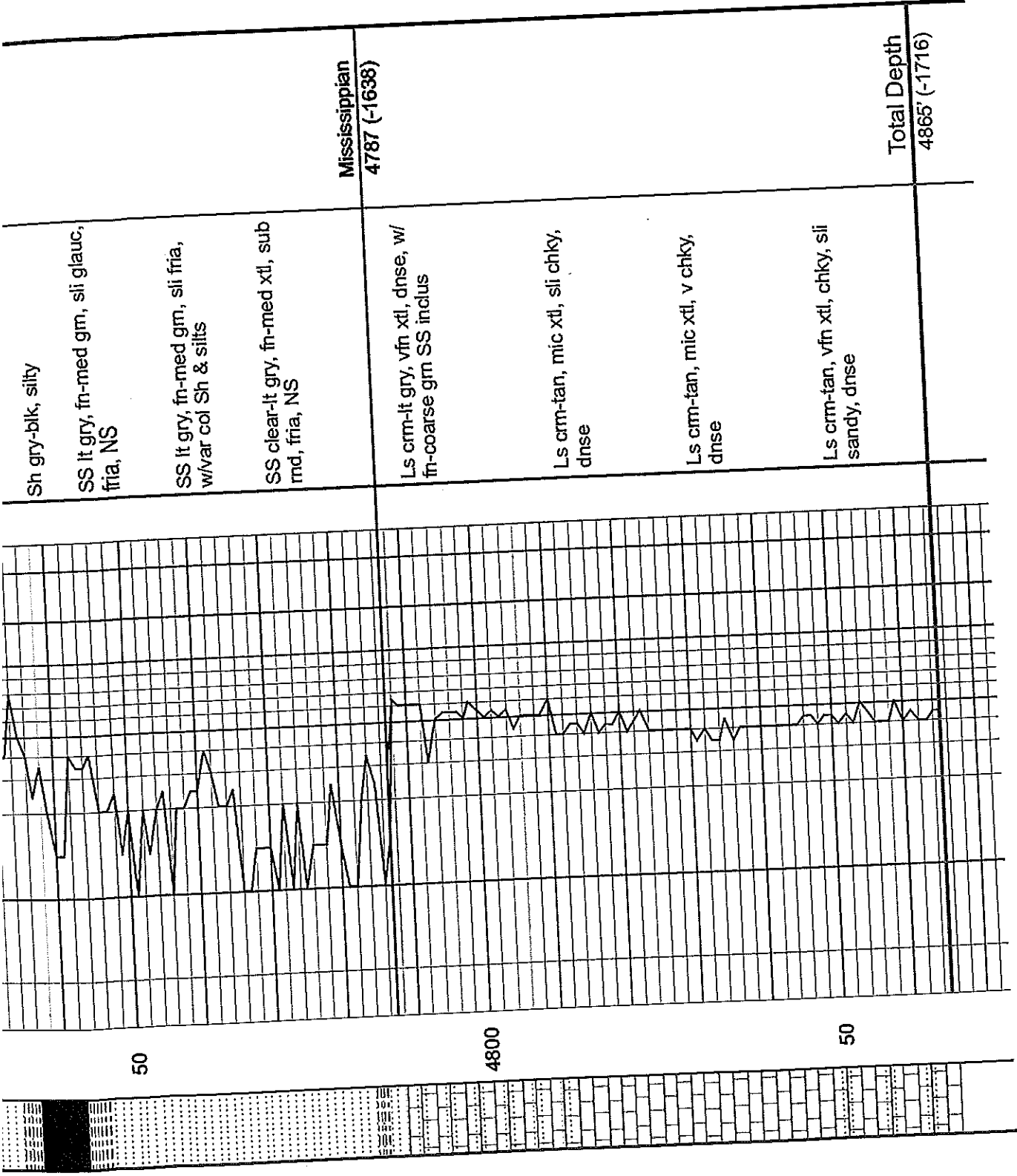
Johnson Zone
 4650 (-1501)

DST# 4
 (4648-4725)
 30"-30"-60"-90"
 IF: Built to 2 in., no return
 FF: Built to 2 in., no return
 Rec: 119' MO(70%O,30%M)
 Fps: 51-59#/63-72#
 SIPs: 197#/874#
 HSPs: 2326#/2322#
 BHT: 120 deg F
 Gravity: NA

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4700

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Sh gry-blk, silty

SS lt gry, fn-med gm, sli glauc, fria, NS

SS lt gry, fn-med gm, sli fria, w/var col Sh & silts

SS clear-lt gry, fn-med xtl, sub rmd, fria, NS

Mississippian
4787 (-1638)

Ls crm-lt gry, vfn xtl, dnse, w/ fn-coarse gm SS inclus

Ls crm-tan, mic xtl, sli chky, dnse

Ls crm-tan, mic xtl, v chky, dnse

Ls crm-tan, vfn xtl, chky, sli sandy, dnse

Total Depth
4865' (-1716)

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4800

50