

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Hess #1-31
Location: Section 31 - T17S - R33W
License Number: API: 15-171-20944
Spud Date: 06 / 03 / 2013
Surface Coordinates: 1162' FNL and 336' FWL
Approx. W/2 - W/2 - NW

Region: Scott Co., KS
Drilling Completed: 06 / 12 / 2013

Bottom Hole
Coordinates:
Ground Elevation (ft): 3081' K.B. Elevation (ft): 3088'
Logged Interval (ft): 3550' To: 4930' Total Depth (ft): 4930'
Formation: Mississippian
Type of Drilling Fluid: Chemical - Mud Co

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

OPERATOR

Company: Stelbar Oil Corporation
Address: 1625 N. Waterfront Pkwy, Suite 200
Wichita, Kansas 67206-6602

GEOLOGIST

Name: David J. Goldak
Company: D. J. GOLDAK, INC.
Address: 155 N. Market, Suite 710
Wichita, Kansas 67202

General Info

CONTRACTOR: Pickrell Drilling, Rig #10

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ-L116	3-14s	400	400	4.75
2	7-7/8	JZ-?-PDC	5-14s	3900	3500	47.25
3	7-7/8	JZ-HA25TL	3-14s	4930	1030	53.50

SURVEYS: 400'-0.50, 939'-0.75, 1408'-0.50, 1877'-0.50,
2502'-0.25, 3900'-0.75, 4930'-0.75

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 36,000-38,000 lbs. on bit and 70-75 RPM.
Running 8 stands of collars (6.25"x2.25"): 492.70'
Pumping 60 S/M, 7.32 B/M, and 950 psi at standpipe.

Daily Status

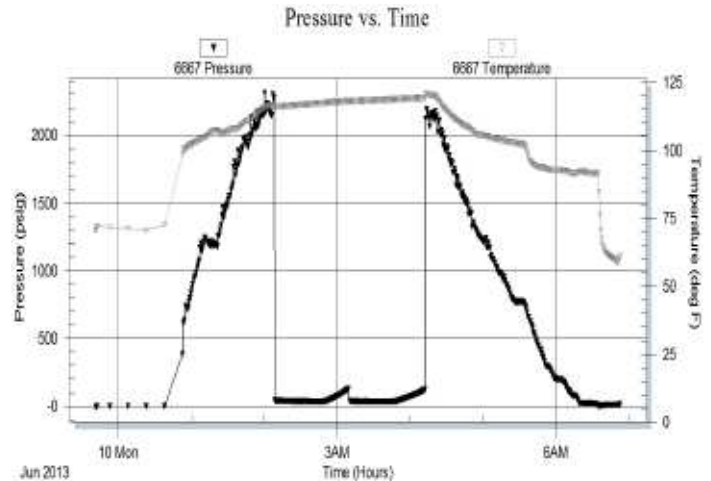
06/03/13 - Spud at 3:00 PM; Set 8-5/5" csg. @ 396'
 06/04/13 - 400' WOC
 06/05/13 - 1,790' Drilling with PDC bit
 06/06/13 - 2,805' Drilling; Down for repairs early AM 06/07
 06/07/13 - 3,550' Drilling; Bit trip @ 3,900'
 06/08/13 - 4,090' Drilling
 06/09/13 - 4,490' Drilling
 06/10/13 - 4,626' TOH with DST #1
 06/11/13 - 4,845' Drilling; TD @ 4,930'; Log well
 06/12/13 - 4,930' TOH with DST #2

DST #1: 4,460' - 4,626' (Marm & Pawnee)
 30" - 30" - 30" - 30"

IF: 1/2 inch blow, died in 22 minutes
 ISI: No blow back
 FF: No blow
 FSI: No blow back

RECOVERY: 5' Total Fluid, consisting of:
 5' Mud (100% Mud)
 Sampler: 2000 ml Mud @ 20 psi

SIP: 128-120; FP: 40-36, 38-36; HP: 2269-2193; BHT: 120

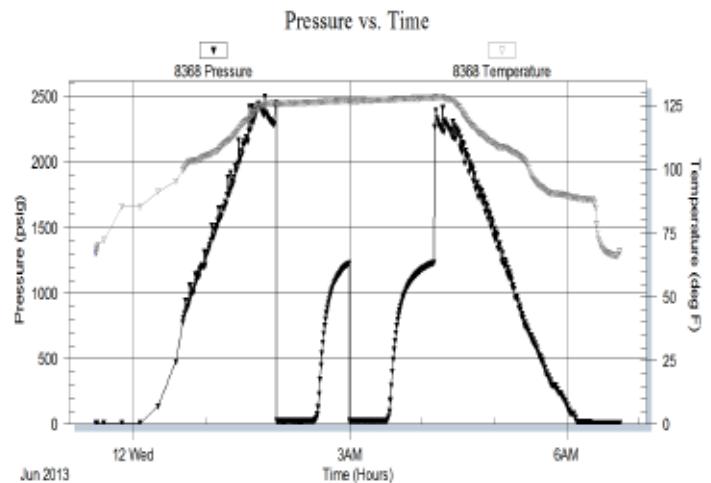


DST #2: 4,744' - 4,766' (Johnson Zone)
 30" - 30" - 30" - 30"

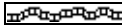
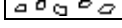
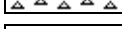
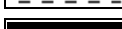
IF: 1/4 inch blow, died in 16 minutes
 ISI: No blow back
 FF: No blow
 FSI: No blow back

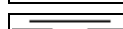
RECOVERY: 3' Total Fluid, consisting of:
 3' Mud (100% Mud)
 Sampler: 2000 ml Mud @ 15 psi

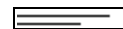
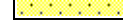
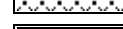
SIP: 1228-1234; FP: 27-27, 26-28; HP: 2454-2392
BHT: 128

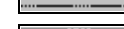


ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal
 Congl
 Dol

 Gyp
 Igne
 Lmst
 Meta
 Mrlst
 Salt
 Shale
 Shcol

 Shgy
 Sltst
 Ss
 Till
 Carb sh
 Dol
 Dtd
 Gry sh

 Sandylms
 Shale
 Sltstn
 Shlyslts
 Slttysh
 Lms

ACCESSORIES

MINERAL

Anhy
 Arggrn
 Arg
 Bent
 Bit
 Brecfrag
 Calc
 Carb
 Chtdk
 Chtlt
 Dol
 Feldspar
 Ferrpel
 Ferr
 Glau
 Gyp
 Hvymn
 Kaol
 Marl
 Minxl
 Nodule
 Phos
 Pyr

Salt
 Sandy
 Silt
 Sil
 Sulphur
 Tuff
 Chlorite
 Dol
 Sand
 Sltly

FOSSIL

Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral
 Crin
 Echin
 Fish
 Foram

Fossil
 Gastro
 Oolite
 Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom
 Fuss
 Oomold

STRINGER

Anhy
 Arg
 Bent
 Coal
 Dol
 Gyp
 Ls
 Mrst
 Sltstrg
 Ssstrg
 Carbsh

Clystn
 Dol
 Grysh
 Gryslt
 Lms
 Sandylms
 Sh
 Sltstn

TEXTURE

Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OTHER SYMBOLS

POROSITY TYPE

Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

SORTING

Well
 Moderate
 Poor

ROUNDING

Rounded
 Subrnd
 Subang
 Angular

OIL SHOWS

Even
 Spotted
 Ques
 Dead
 Gas show

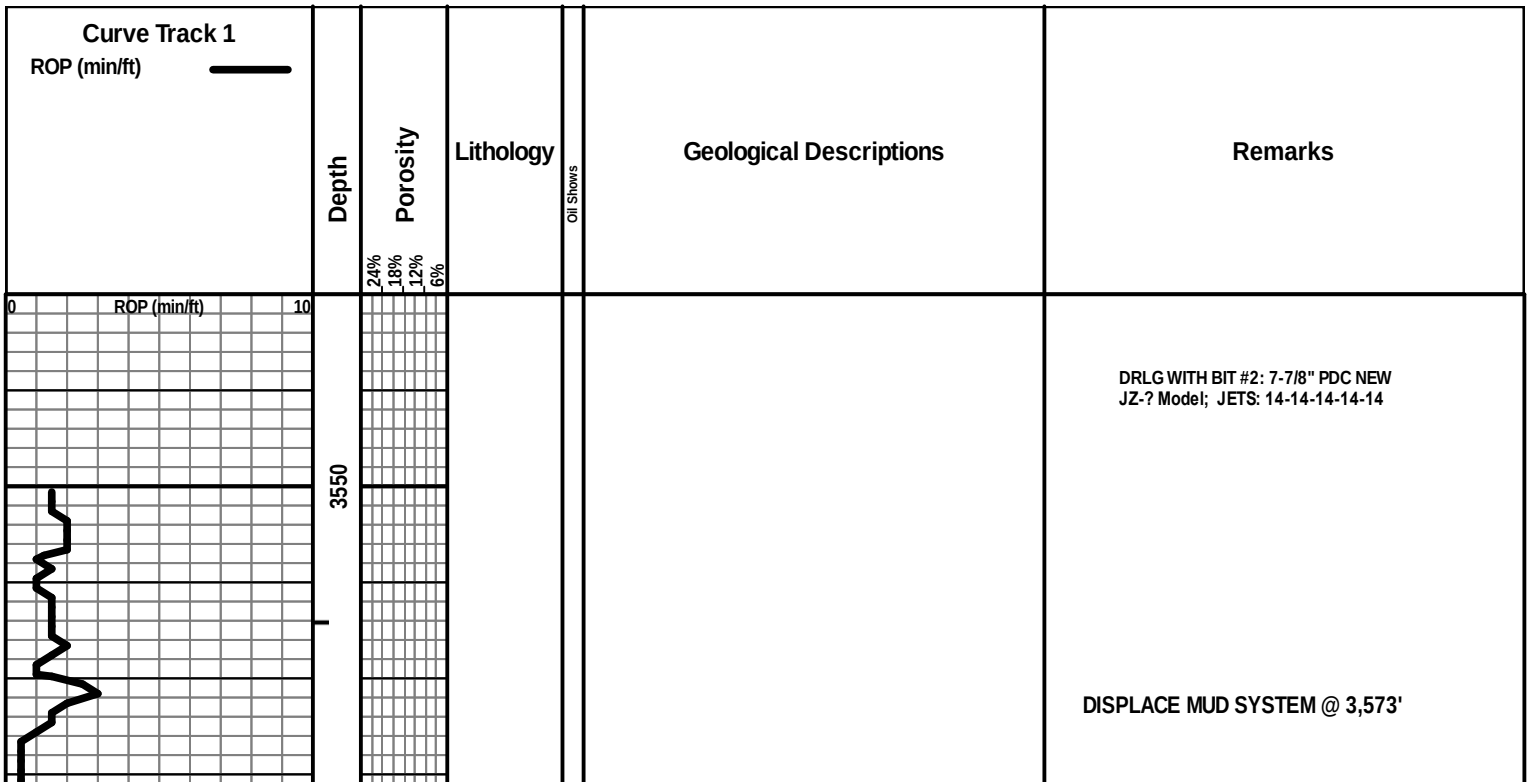
INTERVALS

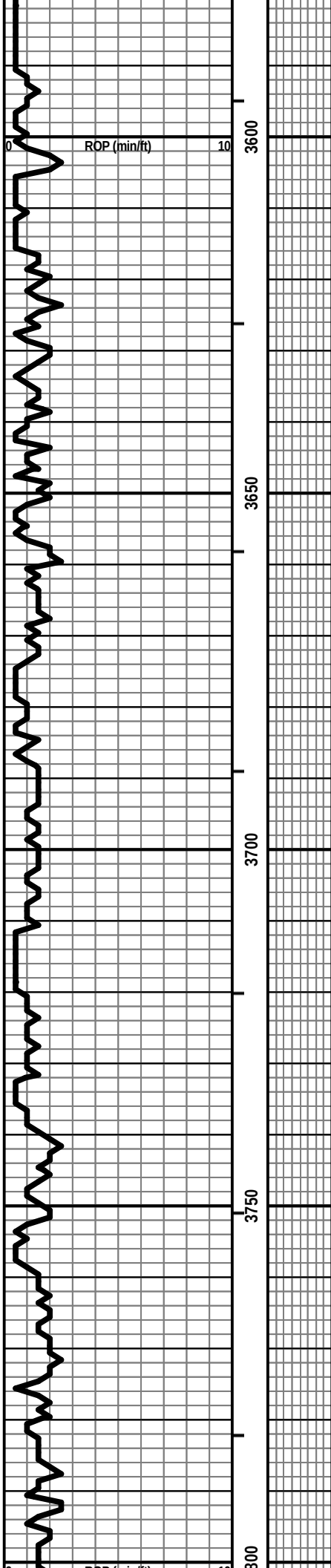
Core
 Dst

Dst_1_t
 Dst_1_b
 Dst

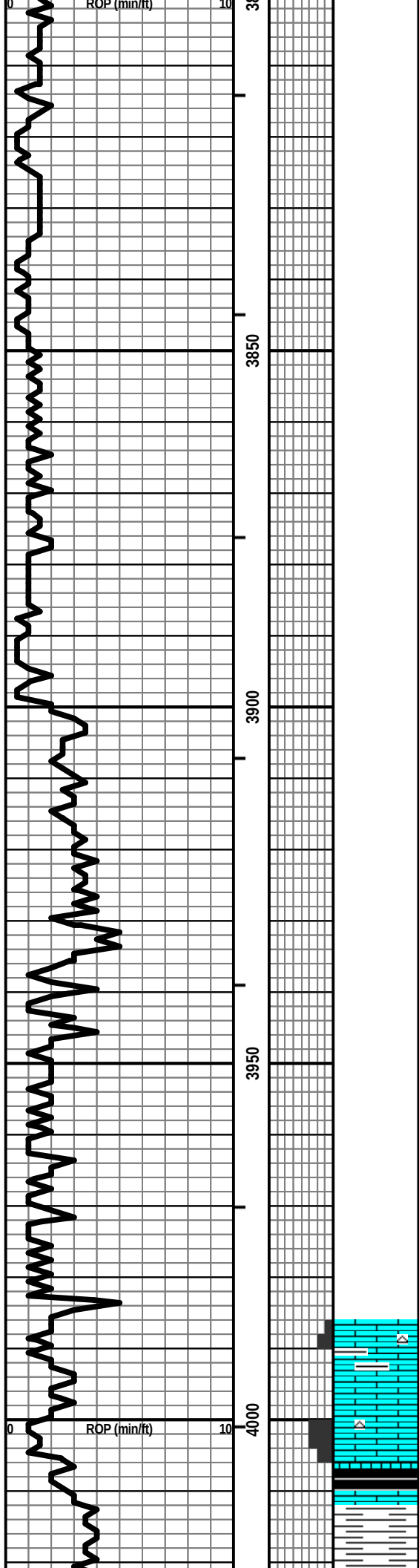
EVENTS

Rft
 Sidewall
 Conn





Vis: 54, Wt: 8.7, YP: 21,
GelS: 15/40, pH: 11.0, WL: 6.4,
Chl: 2,000, Sol: 2.8, LCM: 2#



Vis: 51, Wt: 8.7, LCM: 2#

BIT TRIP @ 3,900'

PIPE STRAP @ 3,900': LONG 0.55'

DRLG WITH BIT #3: 7-7/8" CONV
NEW JZ-HA25TL; JETS: 14-14-14

NO WELL SAMPLES WERE COLLECTED FROM
3920' THROUGH 3990'

LS - CRM / TAN, VF / F XLN, FOSS IN PT, SCAT F VUG +
INTXLN POR, CHKY / DNS IN PT, NS W/ SCAT CHT - WHT / LT
GY W/ SCAT SH - GY / GRN

LS - CRM / TAN, F XLN, SL FOSS, F / G INTXLN POR, F VUG
POR, VSS ASPH, NO ODOR, SCAT BLK SPTY STN W/ CHT -
AS ABOVE W/ SH - BLK / GY / GRN, CARB IN PT

HEEBNER 4007 (-919)

Vis: 50, Wt: 9.0, LCM: 1#

LANSING 4050 (-962)

LS - CRM / WHT / TAN, VF / F / SCAT M XLN, FOSS IN PT, P / F
INTXLN + PPT POR IN PT, SCAT MOLDIC POR, CHKY / DNS IN
PT, NS W/ CHT - GY / WHT

LS - CRM / TAN, PRED F XLN, FOSS + OOL, F / G INTXLN +
MOLDIC POR IN PT, SCAT VUG POR, NS

LS - CRM / WHT, PRED F XLN, FOSS + OOL, F / G INTXLN +
MOLDIC POR IN PT, NS

PRED SH - GY / GRN W/ LS - CRM / TAN, VF / F XLN, FOSS IN
PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, FOSS, SL OOL, P / SCAT F
INTXLN + PPT POR, SCAT CHKY, NS

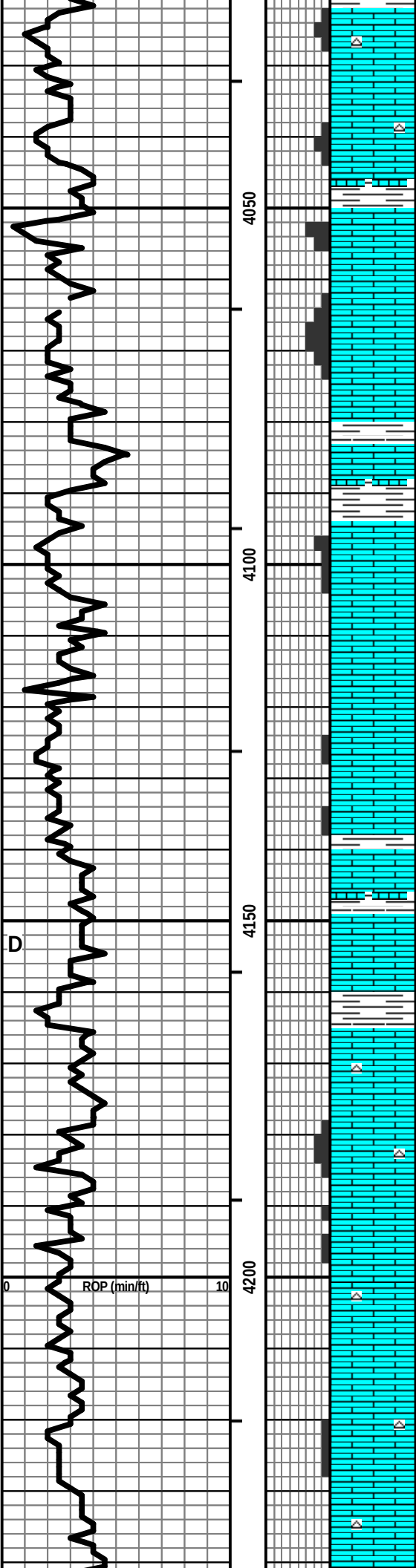
LS - CRM / WHT / TAN, F XLN, FOSS IN PT, SCAT P / TR F
INTXLN + PPT POR, CHKY IN PT / DNS, NS

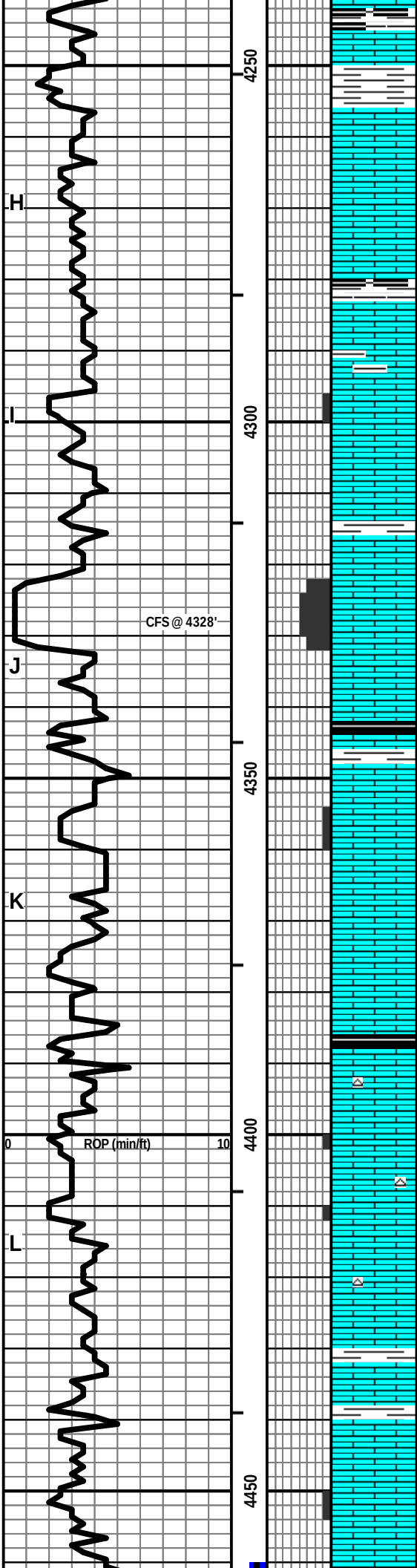
LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS IN PT,
PRED DNS, NS W/ ABNT SH - GY / GRN / RED

LS - CRM / TAN / GY, MOT IN PT, F XLN, OOL, TR FOSS, P / F
INTPART POR IN PT, SCAT P OOM + PPT POR TO DNS, NS W/
CHT - LT GY / WHT

LS - CRM / TAN / GY, VF / M XLN, OOL IN PT, SCAT P INTPART
+ PPT POR, CHKY IN PT, PRED DNS, NS W/ CHT - LT GY /
WHT

Vis: 48, Wt: 9.0, YP: 18,
GelS: 14/34, pH: 10.5, WL: 8.0,
Chl: 4,500, Sol: 4.8, LCM: 2#





SH - BLK / GY / GRN, CARB IN PT W/ LS - GY / CRM, VF / F XLN, SL FOSS, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS + OOL IN PT, SCAT CHKY, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, TR P INTXLN POR, NSFO, NO ODOR, TR SPTY STN

LS - CRM / LT GY, F XLN, OOL, G OOM + INTXLN POR, NS, NO ODOR, NO STN

LS - ASABOVE, NS W/ LS - CRM / TAN, F XLN, SCAT OOL, PRED DNS, NS W/ SH - BLK, CARB

LS - CRM / TAN / GY, VF / F XLN, OOL IN PT, SCAT P PPT + OOM POR, NS W/ ABNT CAVINGS (G OOM POR, NS)

LS - CRM / GY / SCAT TAN, MOT IN PT, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F / SCAT M XLN, SCAT OOL, TR P OOM POR, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - CRM / TAN / GY, MOT IN PT, VF / F XLN, SCAT OOL, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - V SIMILAR TO ABOVE, NS

LS - CRM / TAN, F XLN, OOL, SL FOSS, TR P OOM + INTXLN POR, SCAT CHKY, PRED DNS, NS

MUNCIE CREEK 4242 (-1154)

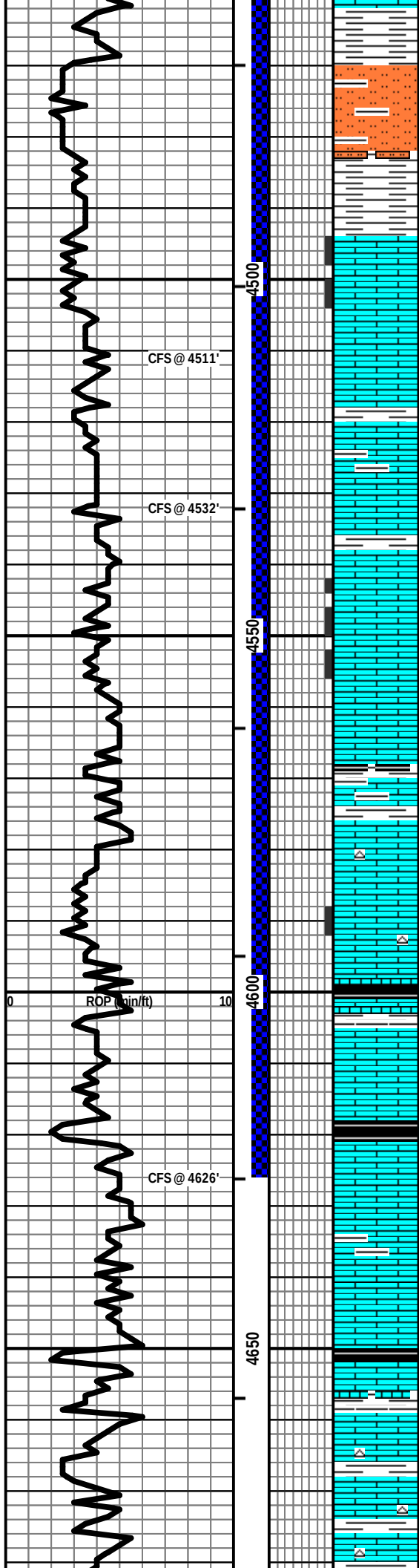
Vis: 68, Wt: 9.2, LCM: 1#

STARK SHALE 4342 (-1254)

Wt: 9.3, Vis: 86 LCM: 1#;
ADDING WATER @ 5 GPM

REDUCE PUMP RATE
TO 58 S/M @ 4,400'

Vis: 120+, Wt: 9.2, LCM: 1#;
ADDING WATER @ 10 GPM;
JET; PREPARE PREMIX



SH - GY / GRN / RED W/ SLTST - LT / MED GY

LS - CRM / WHT / TAN, PRED F XLN, OOL, SCAT P INTOOL
POR, CHKY IN PT, NSFO, NO ODOR, SCAT SPTY STN

LS - ASABOVE, PRED DNS, NS W/ SCAT SH- GY / GRN

LS - CRM / TAN / SCAT GY, MOT IN PT, F XLN, OOL IN PT,
SCAT CHKY, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT OOL, SCAT P INTXLN +
PPT POR, PRED DNS, VSSFO, NO ODOR, SCAT SPTY STN

LS - CRM / TAN / GY, VF / F XLN, TR OOL, TR PINTXLN POR,
PRED DNS, VSSFO, NO ODOR, SCAT SPTY STN (CAVINGS ?)
W/ SH - GY / BLK / GRN

LS - CRM / TAN, VF / F XLN, FOSS IN PT, TR PINTXLN POR,
PRED DNS, TR FO, NO ODOR, TR SPTY STN W/ SCAT CHT -
GY / WHT / TAN

LS - TAN / BRN / CRM, F XLN, FOSS IN PT, PRED DNS, NS, NO
ODOR

LS - CRM / TAN, VF / F XLN, OOL IN PT, FOSS IN PT, PRED
DNS, CHKY IN PT, NS

SH - BLK, CARB W/ LS - TAN / CRM / BRN, VF / F XLN, FOSS
IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT BRN, VF / F XLN, SL FOSS, CHKY IN
PT, PRED DNS, NS W/ SCAT CHT - GY / WHT

BASE OF KC 4462 (-1374)

MARMATON 4494 (-1406)

Vis: 56, Wt: 9.2, YP: 21,
GelS: 15/41, pH: 10.5, WL: 8.8,
Chl: 4,300, Sol: 6.2, LCM: 1#

DST #1: 4460'-4626' (Marm & Pawnee)
30" - 30" - 30" - 30"

IF: 1/2 inch blow, died in 22 min.
ISI: No blow back
FF: No blow
FSI: No blow back

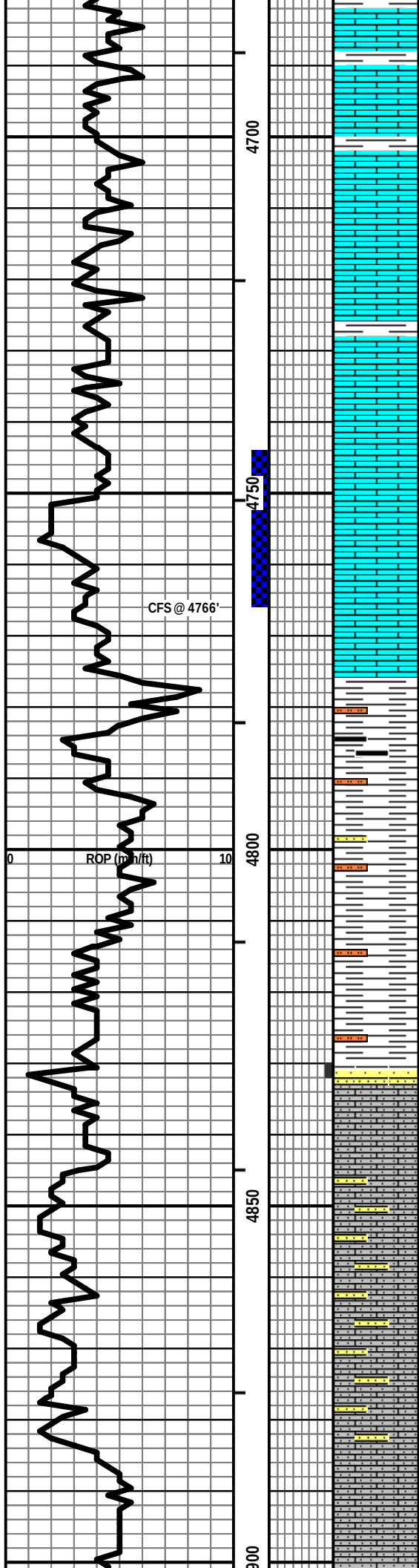
RECOVERY: 5' Total Fluid:
5' Mud (100% M)
Sampler: 2000 ml Mud @ 20 psi

SIP: 128-120 HP: 2269-2193
FP: 40-36, 38-36 BHT: 120

PAWNEE 4570 (-1482)

CHEROKEE SH 4618 (1530)

Vis: 58, Wt: 9.5, YP: 21,
GelS: 15/42, pH: 10.0, WL: 9.6,
Chl: 6,000, Sol: 8.2, LCM: Tr



(FAIR SAMPLE QUALITY) MOD AMT SH & CAVINGS W/ LS - CRM / TAN, VF / F XLN, FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS

(POOR SAMPLE QUALITY) MOD AMT SH & CAVINGS W/ LS - CRM / TAN / SCAT BRN, VF / F XLN, FOSS IN PT, TR P / F FOSSMOLD POR, PRED DNS, VSSGB, NSO, NO ODOR, NO STN (CAVINGS ?)

(V POOR SAMPLE QUALITY) ABNT SH & CAVINGS W/ SCAT LS - CRM / TAN, VF / F XLN, SL FOSS, SUBCHKY IN PT, PRED DNS, NS, NO ODOR

(V POOR SAMPLE QUALITY) ABNT SH & CAVINGS W/ SCAT LS - AS ABOVE, PRED DNS, TR INTXLN POR (CAVINGS ?), NS, NO ODOR

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR W/ SCAT COAL

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR W/ TR SS - LT GY, VF QTZ GR, W SRTD, SA / SR, SIL CEM, SL MIC, NO VIS POR, NS

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, TR P INTOOL POR, CHKY IN PT, PRED DNS, NS W/ TR SS - LT GY, VF QTZ GR, W SRTD, SA / SR, P / F INTGR POR, NS, NO ODOR

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, SCAT GLAUC, CHKY IN PT, PRED DNS, NS W/ SS - LT GY, VF / SCAT F QTZ GR, W SRTD, SA / SR, SIL CEM, P / SCAT F INTGR POR, NS

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, CHKY IN PT, PRED DNS, NS W/ SS - LT GY, VF / SCAT F QTZ GR, W SRTD, SA / SR, SIL CEM, P / SCAT F INTGR POR, NS

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, CHKY IN PT, PRED DNS, NS W/ SCAT SS - AS ABOVE, NS

JOHNSON ZONE 4682 (-1594)

DST #2: 4744'-4766' (Johnson Zone)
(Straddle test) 30" - 30" - 30" - 30"

IF: 1/4 inch blow, died in 16 min.
ISI: No blow back
FF: No blow
FSI: No blow back

RECOVERY: 3' Total Fluid:
3' Mud (100% M)
Sampler: 2000 ml Mud @ 15 psi

SIP: 1228-1234 HP: 2454-2392
FP: 27-27, 26-28 BHT: 128

Vis: 56, Wt: 9.4, LCM: 1#

V POOR SAMPLE QUALITY - ABNT SHALE AND CAVINGS; JET NEAR SUCTION-LINE OF SUCTION PIT; CLEAN-OUT MUD PUMP AND SUCTION-LINE.

MORROW SH 4776 (-1688)

MISS. ST GEN 4833 (-1745)

Vis: 53, Wt: 9.2, YP: 21,
GelS: 15/39, pH: 10.0, WL: 8.8,
Chl: 5,000, Sol: 6.1, LCM: 2#

