

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Ellis #1-12
Location: Section 12 - T17S - R33W
License Number: API: 15-171-21103
Spud Date: 10 / 18 / 2014
Surface Coordinates: 405' FNL and 335' FEL
SW - NE - NE - NE
Region: Scott Co., KS
Drilling Completed: 10 / 27 / 2014
Bottom Hole Coordinates:
Ground Elevation (ft): 2972' K.B. Elevation (ft): 2977'
Logged Interval (ft): 3700' To: 4781' Total Depth (ft): 4781'
Formation: Mississippian - St Louis
Type of Drilling Fluid: Chemical - Mud-Co

Printed by MUD.LOG 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: WW Drilling, Rig #8

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	Smith-?	15-14-14	339	339	3.50
2	7-7/8	Smith-F27	15-14-14	4781	4442	108.50

SURVEYS: 339'-0.50, 4005'-0.75, 4781'-0.25

GENERAL DRILLING & PUMP INFORMATION:

Drilling with 7 stands of collars (6.25"x2.25"): 426.71'
Drilling with 35,000-36,000 lbs on bit and 80-85 RPM.
Pumping 57 S/M; 7.35 B/M; 900 psi at the standpipe.

Daily Status

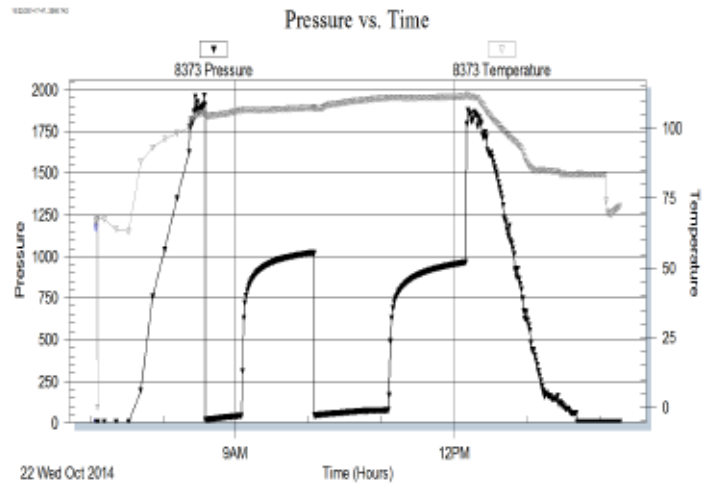
10/18/14 - Spud at 2:00 PM; Set 8-5/8" csg at 338'
10/19/14 - 688' Drilling
10/20/14 - 2,863' Drilling; Displace mud @ 3,469'
10/21/14 - 3,625' Drilling
10/22/14 - 4,005' MUTT for DST #1
10/23/14 - 4,195' MUTT for DST #2
10/24/14 - 4,364' CFS
10/25/14 - 4,520' Down for repairs; DST #3 in PM
10/26/14 - 4,616' TOH for DST #4
10/27/14 - 4,745' Drilling; Log well in PM

DST #1: 3,980' - 4,005' (LKC "B")
30" - 60" - 60" - 60"

IF: Surface blow building to 2-1/2 inches
ISI: No blow back
FF: Surface blow building to 1 inch
FSI: No blow back

RECOVERY: 131' Total Fluid, consisting of:
1' FO (100% O)
70' WCM (10% W, 90% M)
60' MCW (70% W, 30% M)
Sampler: 2000 ml Water @ 400 psi
Chlorides recovery: 27,000 ppm

SIP: 1022-964; **FP:** 15-42, 43-75; **HP:** 1963-1875; **BHT:** 111

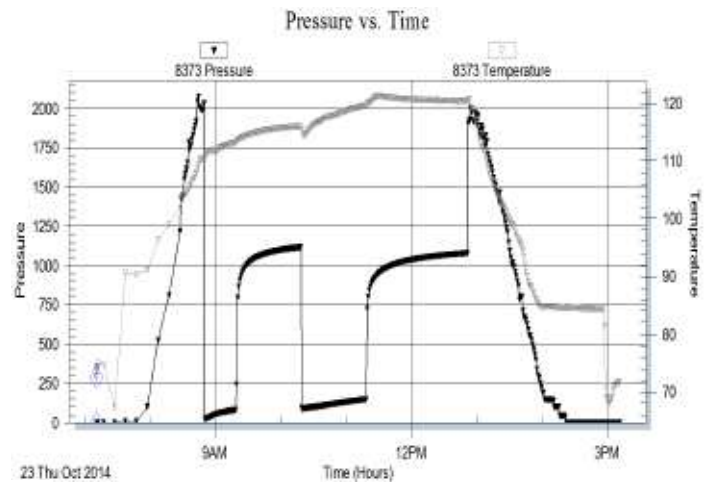


DST #2: 4,172' - 4,195' (LKC "I")
30" - 60" - 60" - 90"

IF: Fair blow building to BOB in 28 minutes
ISI: No blow back
FF: Fair blow building to BOB in 40 minutes
FSI: No blow back

RECOVERY: 90' GIP & 340' TF, consisting of:
154' GO (10% G, 90% O); Gravity: 22 API
124' GOCM (10% G, 20% O, 70% M)
62' OCM (10% O, 90% M)
Sampler: 800 ml Gas & 1200 ml Oil @ 75 psi

SIP: 1117-1081; **FP:** 22-83, 91-148; **HP:** 2066-2015; **BHT:** 120

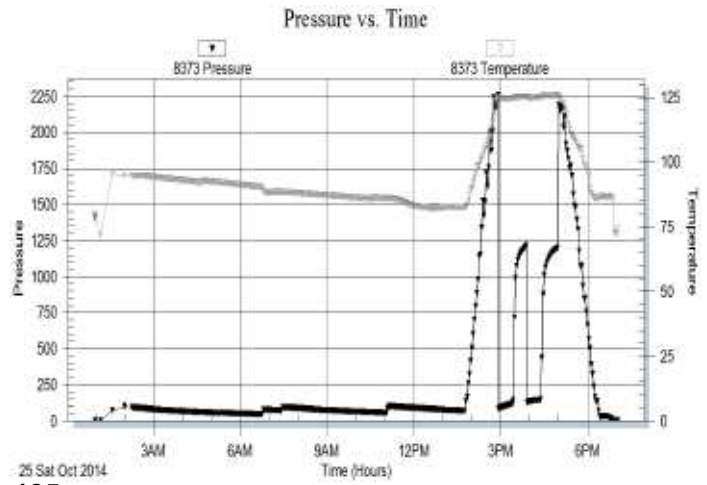


DST #3: 4,286' - 4,520' (Marmaton - Cherokee)
 30" - 30" - 30" - 30"

IF: Weak blow building to 2 inches
ISI: No blow back
FF: Surface blow building to 1 inch
FSI: No blow back

RECOVERY: 150' Total Fluid, consisting of:
 90' WCM (5% W, 95% M)
 60' MCW (80% W, 20% M)
Sampler: 2000 ml Water @ 50 psi
Chlorides recovery: 15,000 ppm

SIP: 1213-1201; FP: 86-120, 126-145; HP: 2259-2189; BHT: 125

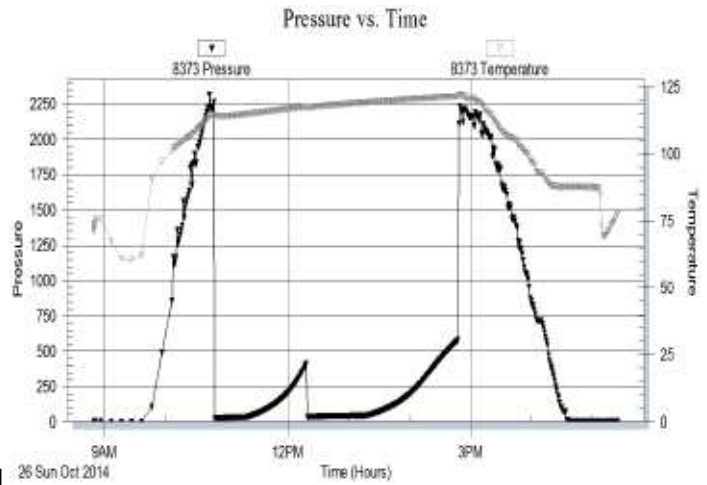


DST #4: 4,572' - 4,616' (Johnson Zone)
 30" - 60" - 60" - 90"


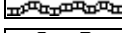
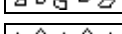
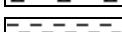




IF: Weak blow building to 3 inches
ISI: No blow back
FF: Fair blow building to 4 inches
FSI: No blow back




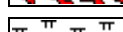

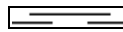
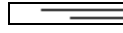

RECOVERY: 186' GIP & 61' TF, consisting of:
 61' GOCM (10% G, 40% O, 50% M)
Sampler: 1000 ml Gas & 1000 ml Oil @ 50 psi
Oil Gravity: 30 API

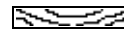
SIP: 410-580; FP: 23-31, 30-43; HP: 2267-2234; BHT: 121


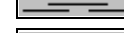
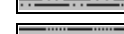





ROCK TYPES

-  Anhy
-  Bent
-  Brec
-  Cht
-  Clyst
-  Coal
-  Congl
-  Dol

-  Gyp
-  Igne
-  Lmst
-  Meta
-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Slstt
-  Ss
-  Till
-  Carb sh
-  Dol
-  Dtd
-  Gry sh

-  Sandylms
-  Shale
-  Slststn
-  Shlyslts
-  Sltysh
-  Lms

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- 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

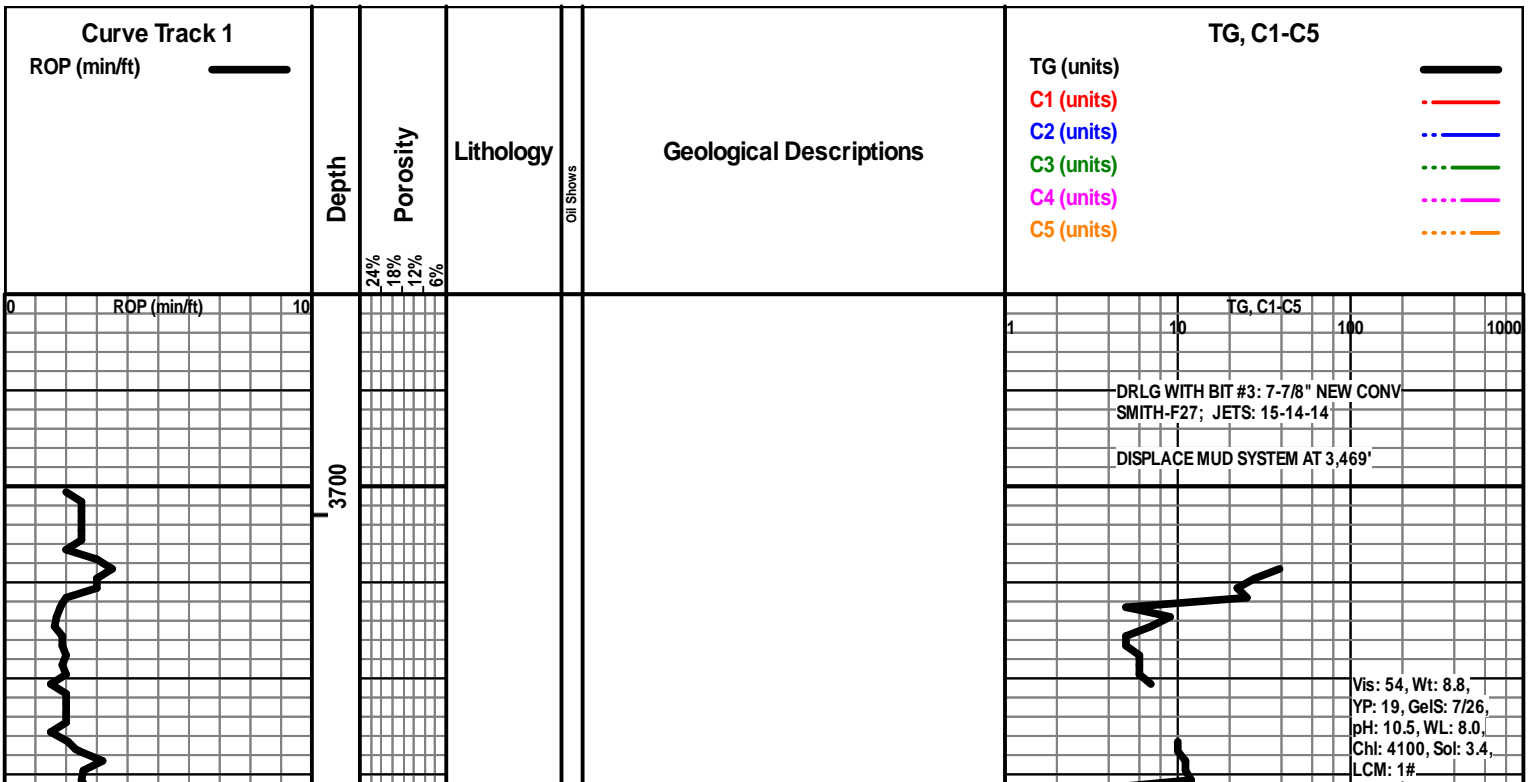
INTERVALS

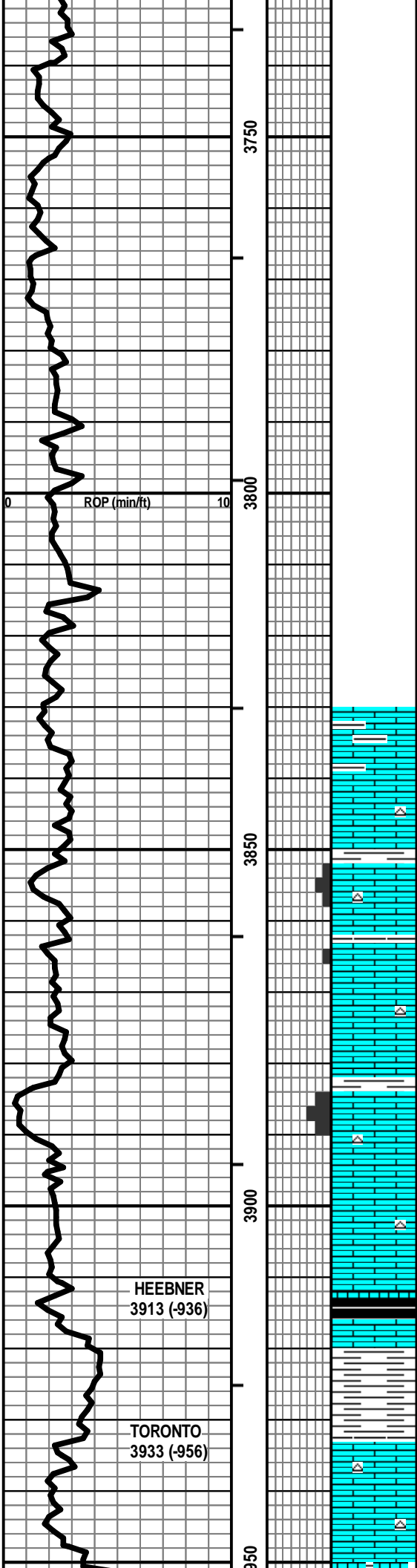
- Core
- Dst

- Dst_1_t
- Dst_1_b
- Dst

EVENTS

- Rft
- Sidewall
- Conn





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

LS - CRM / TAN, VF / F XLN, FOSS IN PT, SCAT P / F PPT + FOSSMOLD POR, SUBCHKY IN PT / DNS, NS W/ SCAT CHT - WHT / GY / TAN

LS - CRM / TAN / SCAT GY, F XLN, P / SCAT F PPT POR, TR VUG POR, FEW PCS SSFO, ASPH IN PT, NO ODOR, TR SPTY STN, PRED DNS W/ SCAT CHT - AS ABOVE

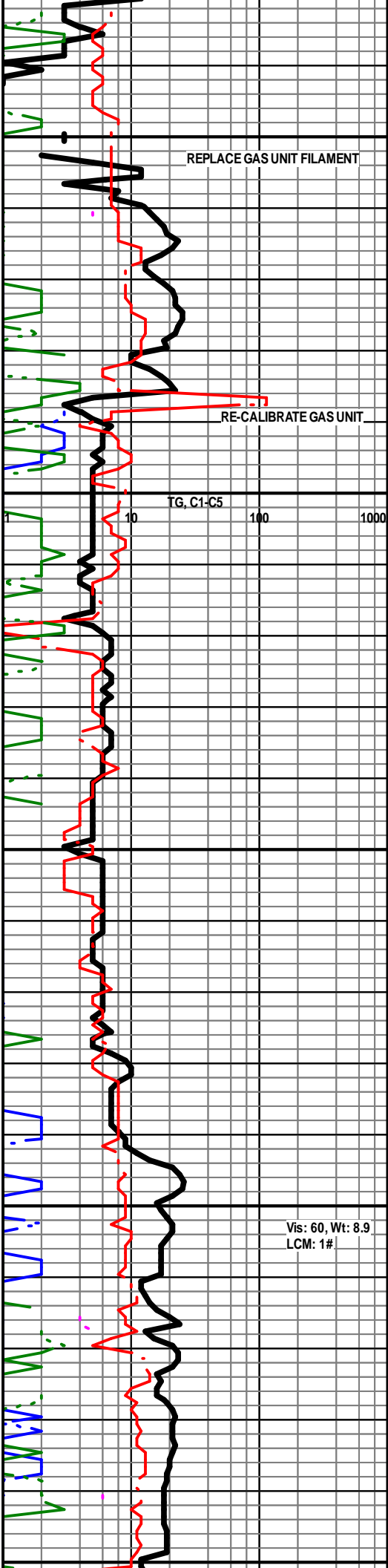
LS - CRM / TAN / GY, F XLN, OOL + FOSS, F / G INTOOL POR, NS W/ SCAT CHT - AS ABOVE

LS - CRM, VF / SCAT F XLN, TR FOSS, SCAT P / TR F INTXLN POR, TR P PPT POR, PRED DNS, SSGB IN PT, NO ODOR, NO STN --- TO LS - TAN / GY, VF / F XLN, TR FOSS, DNS, NS

SH - BLK, CARB W/ LS - TAN, VF / F XLN, SL FOSS, PRED DNS, NS

SH - GY / GRN W/ LS - AS ABOVE

LS - CRM / TAN / SCAT LT GY, VF / F XLN, SL FOSS, TR OOL, SCAT SUBCHKY, PRED DNS, NS W/ CHT - WHT / LT GY / TAN



HEEBNER
3913 (-936)

TORONTO
3933 (-956)

Vis: 60, Wt: 8.9
LCM: 1#

LANSING
3956 (-979)

A

B

C

D

E

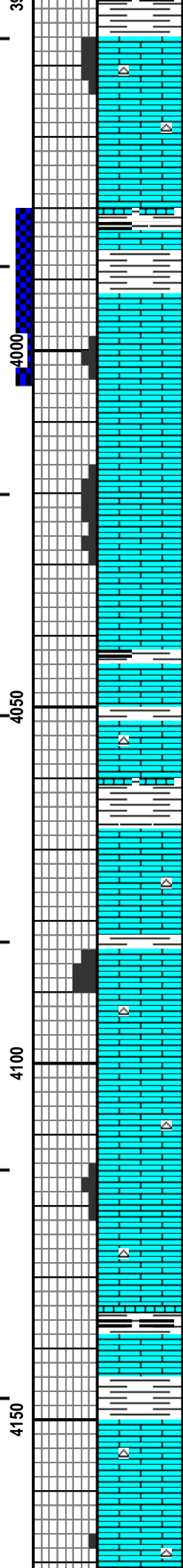
F

G

H

MUNCIE CREEK
4135 (-1158)

ROP (min/ft) 10
CFS @ 4005'



LS - CRM / TAN, F XLN, OOL, F OOM POR, SCAT F INTOOL POR, SCAT CHKY, NS W/ CHT - WHT / LT GY

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

LS - ASABOVE W/ SH - GY / SCAT GRN + BLK

LS - CRM / TAN, F XLN, OOL, SL FOSS, P / F INTOOL + VUG POR, SL / F SFO, FT ODOR, SPTY / TR SAT STN, G FLUOR + CUT

LS - CRM / WHT / TAN, VF / F / M XLN, OOL IN PT, TR FOSS, P / F INTXLN + PPT POR, TR VUG POR, CHKY IN PT, TR SPTY DEAD STN, NSFO, NO ODOR, PRED NS

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

LS - CRM / TAN, VF / F XLN, OOL + FOSS IN PT, CHTY IN PT, TR P INTXLN POR, PRED DNS, TR OILY FILM, PRED NS, V FT ODOR, TR SPTY LIGHT STN, NO / TR F FLUOR, NO / TR P CUT

LS - CRM / TAN, VF / F XLN, OOL IN PT, SCAT P / F INTPART POR, SUBCHKY IN PT / DNS, NS W/ SCAT CHT - WHT / LT GY

LS - CRM / TAN, F XLN, OOL, G OOM POR, F / G INTXLN POR, SCAT CHKY, NS

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

LS - CRM / GY / TAN, VF / F XLN, SL FOSS, SCAT P / TR F INTXLN POR, SUBCHKY IN PT / DNS, NS W/ SCAT CHT - WHT / LT GY

SH - GY / GRN / BLK W/ LS - TAN / BRN, VF / F XLN, SL FOSS + OOL, PRED NS, NS

LS - CRM / TAN, VF / F XLN, OOL IN PT, SCAT P INTXLN POR, SUBCHKY IN PT, PRED DNS, NS W/ CHT - LT GY / WHT

DST #1: 3,980'-4,005' (LKC "B")
30" - 60" - 60" - 60"

IF: Surface blow bldg to 2.5 in
ISI: No blow back
FF: Surface blow bldg to 1 in
FSI: No blow back

RECOVERY: 131' Total Fluid:
1' FO (100% O)
70' WCM (10% W, 90% M)
60' MCW (70% W, 30% M)
Sampler: 2000 ml W @ 400 psi
Chlorides recovery: 27,000 ppm

SIP: 1022-964 HP: 1963-1875
FP: 15-42, 43-75 BHT: 111

TG, C1-C5
PIPE STRAP @ 4005':
LONG 0.95'

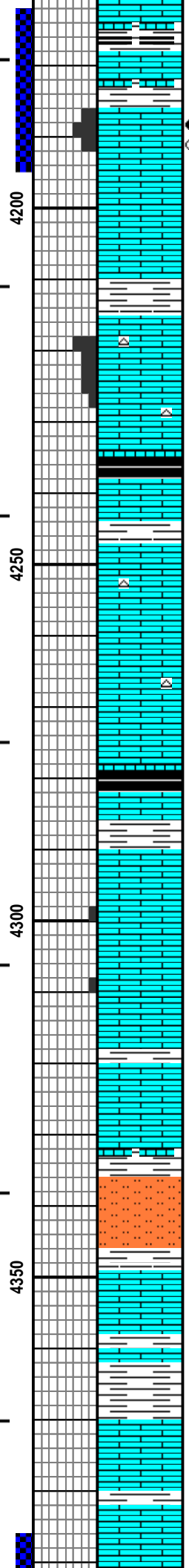
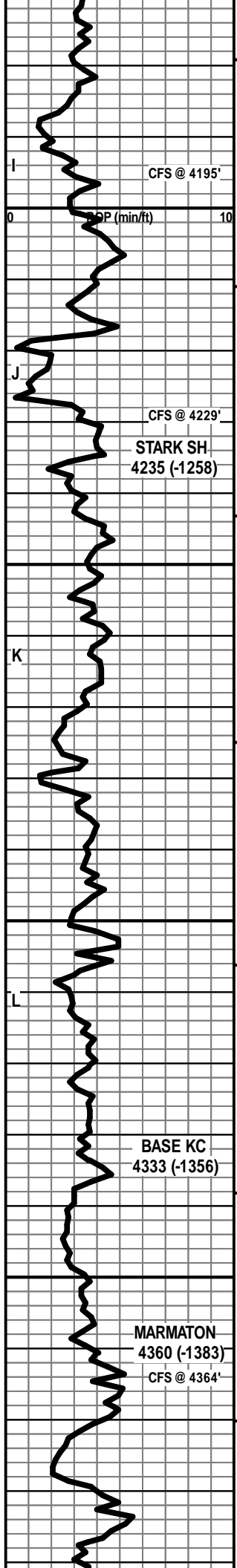
Vis: 51, Wt: 9.1,
YP: 15, GeI: 4/18,
pH: 10.0, WL: 6.8,
Chl: 2500, Sol: 5.6,
LCM: 2#

Vis: 56, Wt: 9.1
LCM: 1#

DST #2: 4,172'-4,195' (LKC "I")
30" - 60" - 60" - 90"

IF: Fair blow, BOB in 28 min
ISI: No blow back
FF: Fair blow, BOB in 40 min
FSI: No blow back

RECOVERY: 90' GIP & 340' TF:
154' GO (10% G, 90% O)
124' GOCM (10% G, 20% O, 70% M)
52' GCM (10% G, 20% M)



SH - GY/BLK W/LS - GY/BRN, VF / F XLN, SL FOSS + OOL, PRED DNS, NS

LS - TAN / GY, PRED F / M XLN, SCAT F / C REFLN CALC, OOL IN PT, P / G INTXLN + VUG POR, SL / G SFO, F ODOR, SPTY / SAT STN, G FLUOR + CUT (SM AMT OF POR & SHOW IN SAMPLES)

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

LS - CRM / LT GY / TAN, F XLN, OOL, F / G OOM POR, NS W/ SCAT CHT - WHT W/ MOD ABNT SH - GY / GRN / SCAT BLK

LS - TAN / CRM, VF / F XLN, OOL IN PT, PRED DNS, NS W/ SCAT CHT W/ SH - BLK, CARB

LS - CRM / TAN, VF / F XLN, FOSS + OOL IN PT, SUBCHKY IN PT, PRED DNS, NS W/ SCAT CHT - WHT / CRM

LS - CRM / SCAT TAN, VF / F XLN, OOL IN PT, SL FOSS, SCAT P INTOOL POR, SUBCHKY IN PT / DNS, NS W/ SCAT CHT - LT GY / WHT

LS - TAN / BRN, VF / F XLN, SL FOSS, PRED DNS, NS W/ SH - GY / GRN / BLK, CARB

LS - LT / MED GY / SCAT TAN, PRED VF XLN, SCAT FOSS, TR P INTXLN POR, PRED DNS, TR SPTY STN, NSFO, NO ODOR, PRED NS

LS - CRM / TAN / BRN, PRED F XLN, OOL + FOSS IN PT, TR P INTXLN POR, PRED SUBCHKY / DNS, TR SPTY STN, NSFO, NO ODOR, PRED NS

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

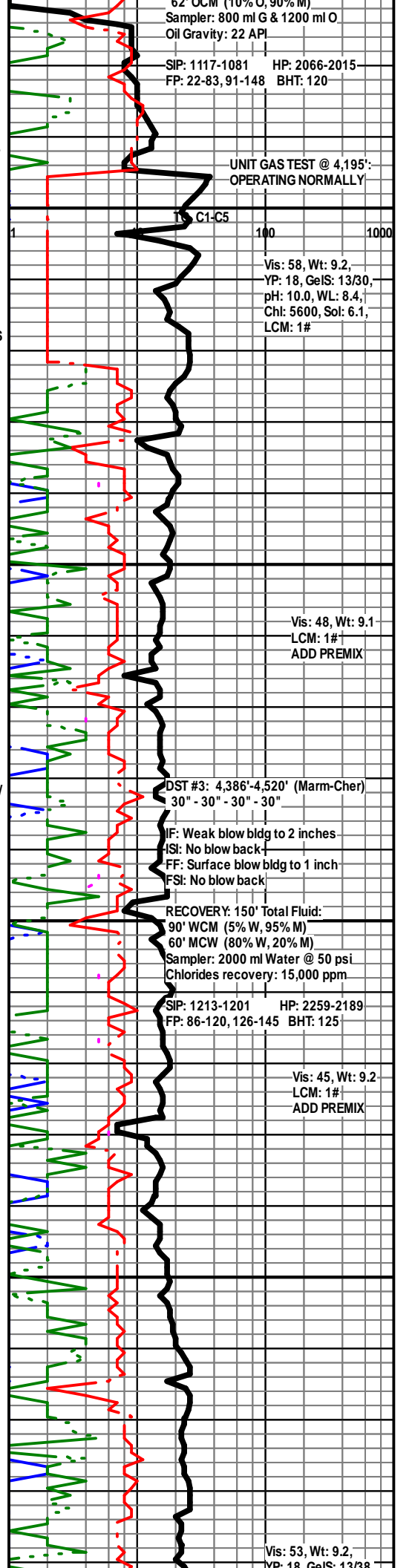
SLTST - LT / MED GY / GRN W/ SH - VARICOL

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

PRED SH - VARICOL W/ SCAT LS - AS ABOVE

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

LS - CRM / TAN / SCAT WHT, VF / F XLN, FOSS + OOL, SCAT GLAUC, TR P INTXLN POR, CHKY IN PT, PRED DNS, TR SPTY DEAD STN, NSFO, NO ODOR, PRED NS



62' OCM (10% O, 90% M)
 Sampler: 800 ml G & 1200 ml O
 Oil Gravity: 22 API

SIP: 1117-1081 HP: 2066-2015
 FP: 22-83, 91-148 BHT: 120

UNIT GAS TEST @ 4,195':
 OPERATING NORMALLY

C1-C5 100 1000

Vis: 58, Wt: 9.2,
 YP: 18, GeIS: 13/30,
 pH: 10.0, WL: 8.4,
 Cht: 5600, Sol: 6.1,
 LCM: 1#

Vis: 48, Wt: 9.1
 LCM: 1#
 ADD PREMIX

DST #3: 4,386'-4,520' (Marm-Cher)
 30" - 30" - 30" - 30"

IF: Weak blow bldg to 2 inches
 ISI: No blow back
 FF: Surface blow bldg to 1 inch
 FSI: No blow back

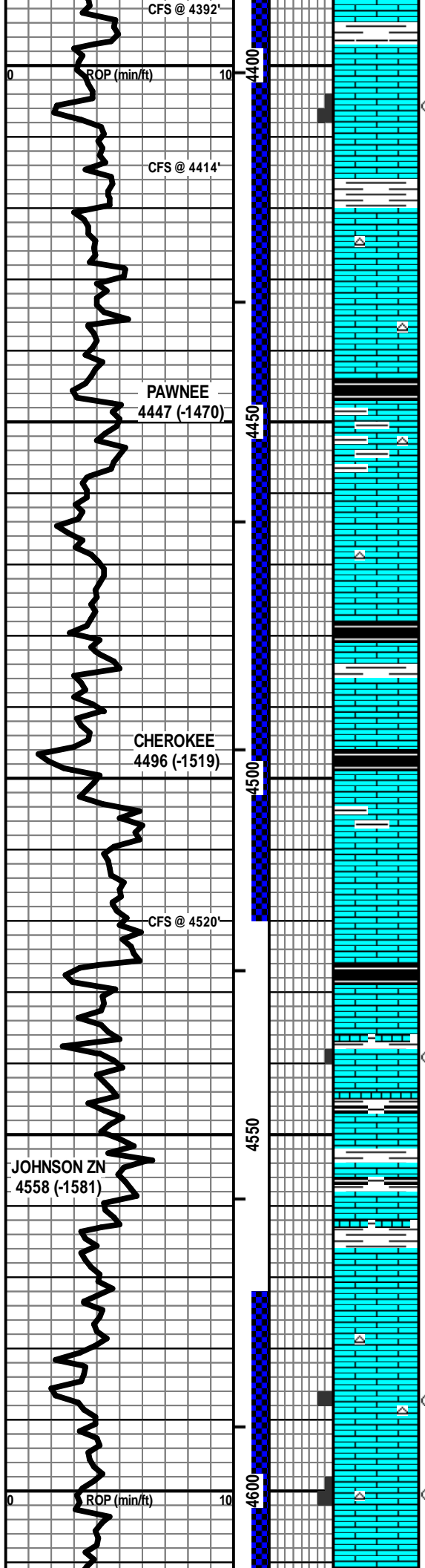
RECOVERY: 150' Total Fluid:
 90' WCM (5% W, 95% M)
 60' MCW (80% W, 20% M)
 Sampler: 2000 ml Water @ 50 psi
 Chlorides recovery: 15,000 ppm

SIP: 1213-1201 HP: 2259-2189
 FP: 86-120, 126-145 BHT: 125

Vis: 45, Wt: 9.2
 LCM: 1#
 ADD PREMIX

Vis: 53, Wt: 9.2,
 YP: 18, GeIS: 13/30

11: 10, Gels: 13/30,
pH: 10.0, WL: 8.0,
Chl: 3500, Sol: 6.2,
LCM: 1#



LS - CRM / TAN, F XLN, SL FOSS + OOL, SCAT P / F VUG + PPT POR, PRED DNS / SUBCHKY, SCAT SL / F SFO, TR GB, V FT ODOR, SCAT SPTY STN, F / G FLUOR + CUT (SM AMT OF POR & SHOW IN SAMPLES)

LS - TAN / GY / SCAT BRN, VF / F XLN, SCAT F / M REXLN CALC, TR FOSS, PRED DNS, NS W/ CHT - GY / TAN / BRN

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

LS - CRM / WHT, VF / F XLN, SL FOSS, SCAT P INTXLN POR, SUBCHKY IN PT, PRED DNS, TR SPTY STN, NSFO, NO ODOR, PRED NS W/ CHT - LT GY

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

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

LS - AS ABOVE W/ SH - BLK, CARB

LS - GY / TAN, PRED F XLN, SCAT REXLN CALC, V SCAT P INTXLN + VUG POR, SSFO + GB, FT ODOR, V SCAT SPTY STN, F / G FLUOR + CUT

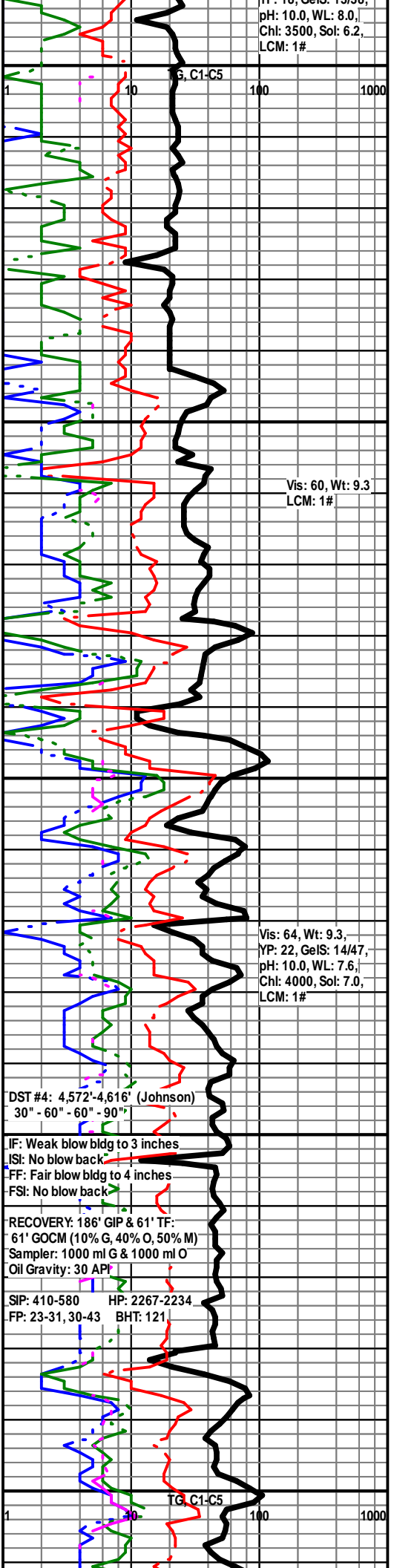
LS - TAN / BRN / SCAT GY, MOT IN PT, F XLN, BRECC. IN PT, TR FOSS, SCAT CHKY, PRED DNS, NS W/ SH - GY / SCAT BLK

LS - TAN / BRN / SCAT CRM, VF / F XLN, SCAT FOSS, SCAT SUBCHKY, PRED DNS, NS

LS - TAN / CRM, F XLN, FOSS IN PT, P / F INTXLN POR, SCAT PPT POR, SL / F SFO + GB, F ODOR, SPTY / SAT STN, G FLUOR + CUT W/ CHT - GY / TAN

LS - CRM / TAN, F / M XLN, FOSS + OOL IN PT, P / F INTPART POR, TR VUG POR, SUBCHKY IN PT, SL / F SFO, SL / G SGB, FT ODOR, SPTY / SAT STN, F / G FLUOR + CUT W/ SCAT CHT - WHT / GY / TAN

LS - SIM TO ABOVE, SUBCHKY IN PT, PRED DNS, V



Vis: 60, Wt: 9.3
LCM: 1#

Vis: 64, Wt: 9.3,
YP: 22, GeIS: 14/47,
pH: 10.0, WL: 7.6,
Chl: 4000, Sol: 7.0,
LCM: 1#

DST #4: 4,572'-4,616' (Johnson)
30" - 60" - 60" - 90"

IF: Weak blow bldg to 3 inches
IS: No blow back
FF: Fair blow bldg to 4 inches
FS: No blow back

RECOVERY: 186' GIP & 61' TF:
61' GOCM (10% G, 40% O, 50% M)
Sampler: 1000 ml G & 1000 ml O
Oil Gravity: 30 API

SIP: 410-580 HP: 2267-2234
FP: 23-31, 30-43 BHT: 121

Vis: 60, Wt: 9.3
LCM: 1#

FEW PCS WITH POR + SHOW (POSS CAVINGS)

RECYCLE

CFS @ 4616'

MORROW SH
4629 (-1652)

CFS @ 4637'

4650

CFS @ 4662'

MISS ST LOUIS
4683 (-1706)

4700

4750

LS - ASABOVE, PRED DNS, NS

SH - GY / BLK / GRN, SLTY IN PT W/ SCAT SS - MED /
DK GY, VF / M QTZ GR, F SRTG, A / SR, PRED SIL / SL
CALC CEM, NO VIS POR, NS

PRED SH - GY / GRN / BLK, SLTY IN PT W/ MOD AMT
UNCONS QTZ GR, F / C, SR / WR

PRED SH - GY / GRN / BLK, SLTY IN PT

SS - LT GY, VF / F QTZ GR, W SRTD, SA / SR, SIL CEM, F
INTGR POR, SL / MOD FRI IN PT, NS W/ SCAT SS - LT
GY, VF / M QTZ GR, F SRTG, SA / R, F / G INTGR POR,
FRI, NS

SS - ASABOVE, NS W/ SS - LT GY / LT GRN, VF QTZ GR,
W SRTD, SA, SIL CEM, WELL CEM, NO VIS POR, NS W/
SH - GY / GRN

LS - CRM / TAN, VF / SCAT F XLN, TR AREN, VF QTZ GR,
CHKY IN PT, PRED DNS, NS

LS - ASABOVE, NS

LS - CRM / TAN, VF / F XLN, AREN IN PT, OOL IN PT,
SCAT P INTPART POR, CHKY IN PT, NS

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

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

LS - ASABOVE, NS

TOTAL DEPTH 4781 (-1804)

Vis: 62
Wt: 9.2
YP: 22
GeIS: 15/45
pH: 10.0
WL: 8.0
Chl: 4500
Sol: 6.2
LCM: 0.5#

Vis: 54, Wt: 9.4
LCM: 0.5#

Vis: 53, Wt: 9.4,
YP: 19, GeIS: 15/39,
pH: 10.0, WL: 8.8,
Chl: 5000, Sol: 7.4,
LCM: 1#

ROP (min/ft)

4800

TG, C1-C5