

GEOLOGIC REPORT

DAVID J. GOLDAK

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

Well Name: Ellis #2-12
Location: Section 12 - T17S - R33W
License Number: API: 15-171-21106
Spud Date: 10 / 29 / 2014
Surface Coordinates: 1900' FSL and 1420' FEL
NE - SE - NW - SE
Region: Scott Co., KS
Drilling Completed: 11 / 08 / 2014
Bottom Hole Coordinates:
Ground Elevation (ft): 2981' K.B. Elevation (ft): 2986'
Logged Interval (ft): 3700' To: 3924' Total Depth (ft): 3924'
Formation: Mississippian - Warsaw
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	344	344	3.25
2	7-7/8	Smith-F27	15-14-14	4924	4580	126.00

SURVEYS: 344'-0.50, 4074'-1.00, 4924'-1.25

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; 800-900 psi at the standpipe.

Daily Status

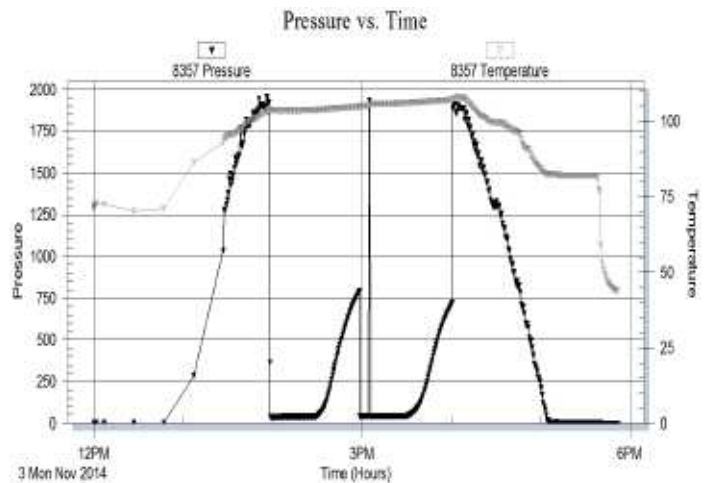
10/29/14 - Spud at 5:00 PM; Set 8-5/8" csg at 343'
 10/30/14 - 375' Drilling
 10/31/14 - 2,630' Drilling
 11/01/14 - 3,395' Drilling; Displace mud @ 3,505'
 11/02/14 - 3,930' Pump repair; TOH; Replace pump
 11/03/14 - 4,074' CFS; DST #1 @ 4,074'
 11/04/14 - 4,221' CFS
 11/05/14 - 4,366' TIH after DST #2; DST #3 @ 4,424'
 11/06/14 - 4,448' Drilling
 11/07/14 - 4,634' TOH with DST #4
 11/08/14 - 4,904' Drilling; TD 4,924' @ 8:10 AM

DST #1: 4,046' - 4,074' (LKC "D")
 30" - 30" - 30" - 30"

Tool slid 6' to bottom
 IF: 1 inch blow, died in 1 minute
 ISI: No blow back
 FF: No blow, flush tool, no blow
 FSI: No blow back

RECOVERY: 50' Total Fluid, consisting of:
 50' OSM (100% M)
 Sampler: 2000 ml OSM @ 150 psi

SIP: 795-723; FP: 38-40, 40-43; HP: 1923-1898; BHT: 107

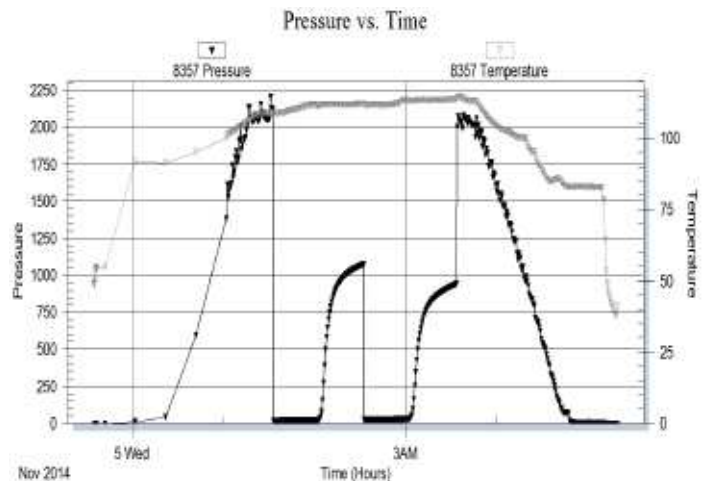


DST #2: 4,338' - 4,366' (Pleasanton)
 30" - 30" - 30" - 30"

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

RECOVERY: 10' Total Fluid, consisting of:
 10' OSM (100% M)
 Sampler: 2000 ml OSM @ 10 psi

SIP: 1076-943; FP: 15-21, 23-28; HP: 2128-2076; BHT: 114



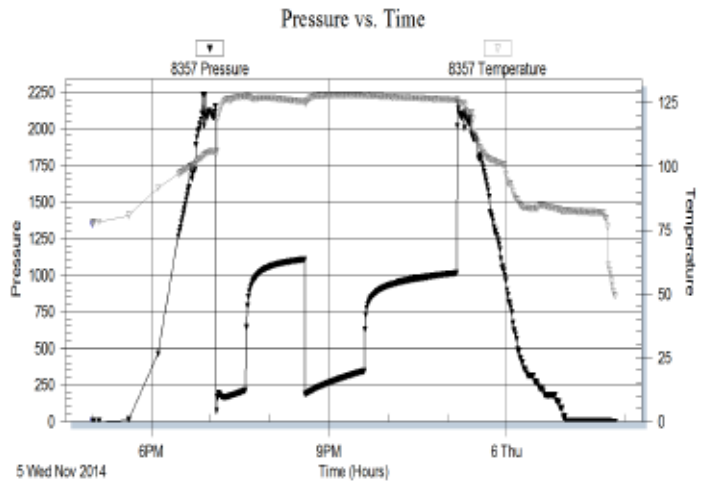
DST #3: 4,396' - 4,424' (Marmaton)
 30" - 60" - 60" - 90"

IF: Blow built to BOB in 9-1/2 minutes
ISI: No blow back
FF: Blow built to BOB in 14 minutes
FSI: Blow back built to BOB in 65 minutes

RECOVERY: 105' GIP & 770' TF, consisting of:
 140' GO (20% G, 80% O); Gravity: 29 API
 126' GOCMW (20% G, 10% O, 40% W, 30% M)
 126' GOCW (20% G, 30% O, 50% W)
 378' OSMW (90% W, 10% M)

Chlorides recovery: 70,000 ppm
Sampler: 200 ml O, 200 ml M & 1500 ml W @ 20 psi

SIP: 1105-1011; FP: 67-212, 185-345; HP: 2151-2183; BHT: 126

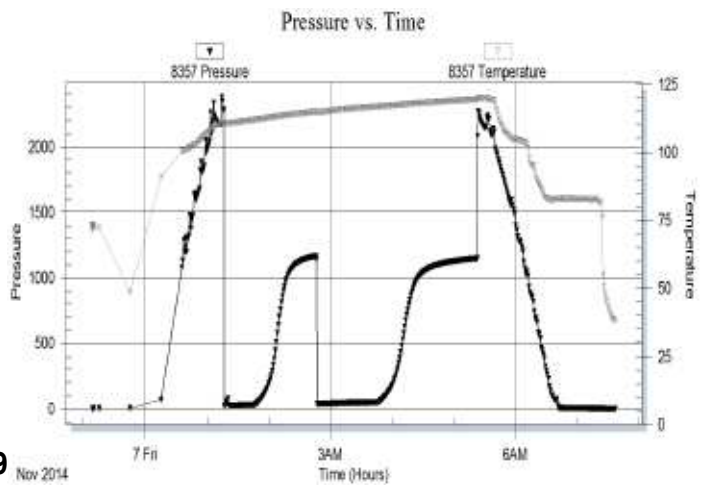


DST #4: 4,580' - 4,634' (Johnson Zone)
 30" - 60" - 60" - 90"



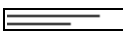
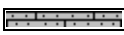
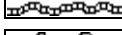


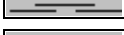
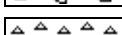


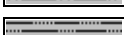

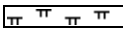





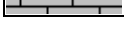

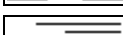








IF: Weak blow building to 6 inches
ISI: No blow back
FF: Fair blow building to BOB in 28 minutes
FSI: Blow back building to 1/2 inch

RECOVERY: 280' GIP & 90' TF, consisting of:
 90' GMCO (20% G, 75% O, 5% M)
 Oil Gravity: 29 API
Sampler: 2 cf Gas, 1400 ml Oil & 100 ml M @ 500 psi

SIP: 1165-1146; FP: 19-29, 36-47; HP: 2345-2269; BHT: 119



ROCK TYPES

 Anhy	 Gyp	 Shgy	 Sandylms
 Bent	 Igne	 Sltst	 Shale
 Brec	 Lmst	 Ss	 Sltstn
 Cht	 Meta	 Till	 Shlyslts
 Clyst	 Mrlst	 Carb sh	 Sltys h
 Coal	 Salt	 Dol	 Lms
 Congl	 Shale	 Dtd	
 Dol	 Shcol	 Gry sh	

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

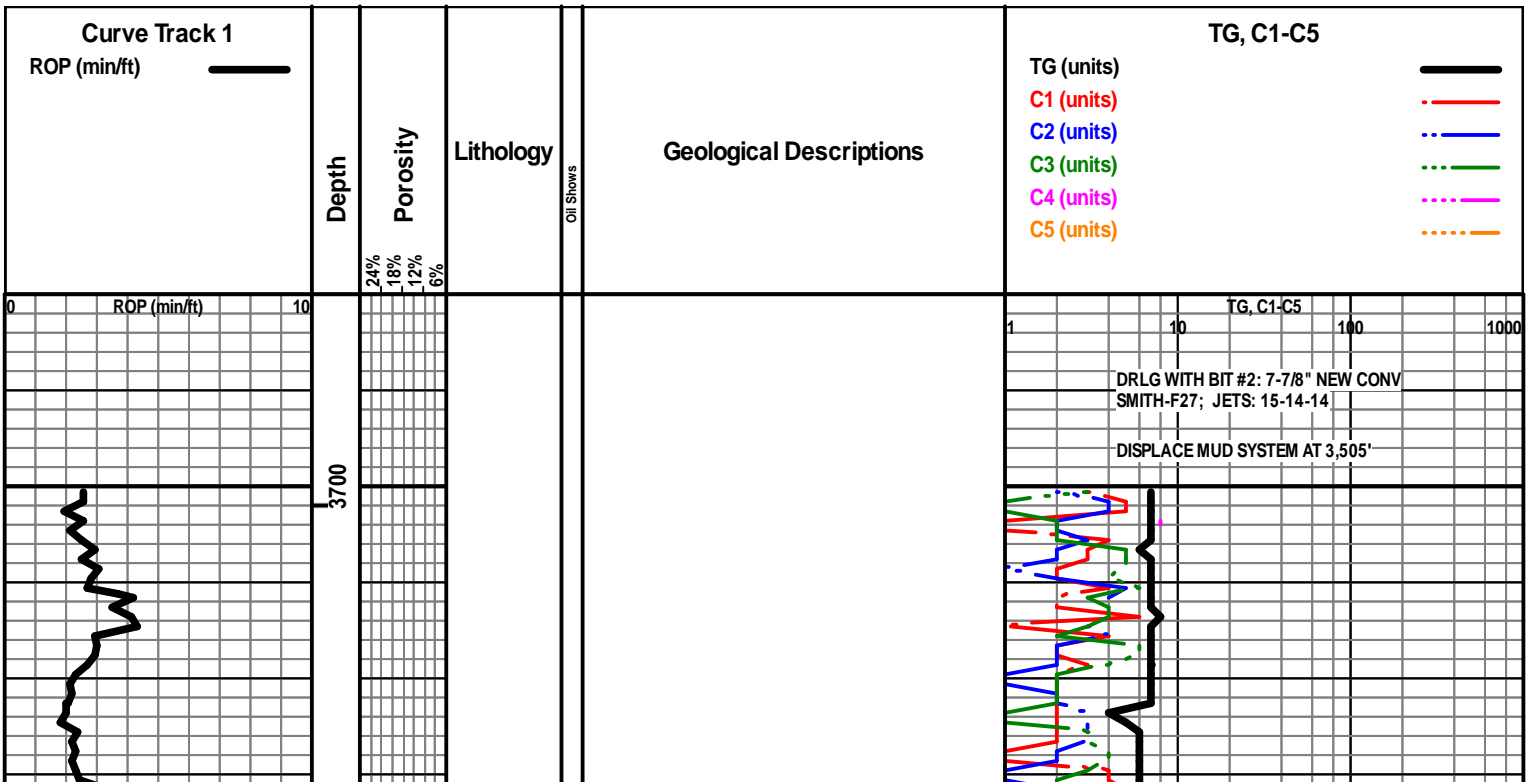
INTERVALS

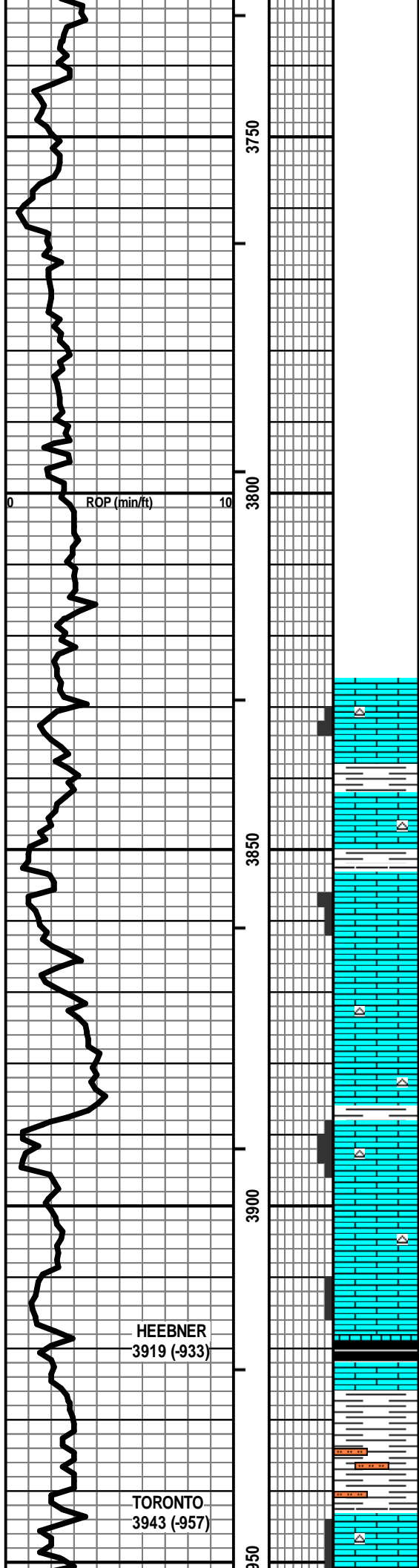
- Core
- Dst

- Dst_1_t
- Dst_1_b
- Dst

EVENTS

- Rft
- Sidewall
- Conn





LS - TAN / CRM, VF / F XLN, OOL + FOSS IN PT, P / F INTPART + FOSSMOLD POR, SL / SCAT F SFO + ASPH + GILS. SCAT BARR POR, NO ODOR, SPTY BLK / BRN STN, F / G F + C W / SCAT CHT - WHT

LS - CRM / TAN, VF XLN, SL FOSS, SUBCHKY IN PT, PRED DNS, NS W / TR CHT - WHT

LS - CRM / GY / SCAT TAN, F XLN, SCAT M REXLN CALC, P / F INTXLN + PPT POR, TR VUG POR, NS

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

LS - CRM / TAN, F XLN, OOL + FOSS IN PT, SCAT F INTXLN + PPT POR, TR VUG POR, TR SPTY DEAD STN, NSFO, NO ODOR W / CHT - LT GY / WHT

LS - TAN / GY, VF / SCAT F XLN, TR FOSS, CHKY IN PT, SCAT P INTXLN POR, SPTY DEAD STN, SS OILY FILM, NSFO, NO ODOR

SH - GY / GRN, SLTY IN PT

LS - CRM / LT GY, VF / F XLN, SL FOSS + OOL, SCAT P

HEEBNER
3919 (-933)

TORONTO
3943 (-957)

Vis: 53, Wt: 8.7
LCM: 1#

UNIT GAS TEST @ 3,780':
OPERATING NORMALLY

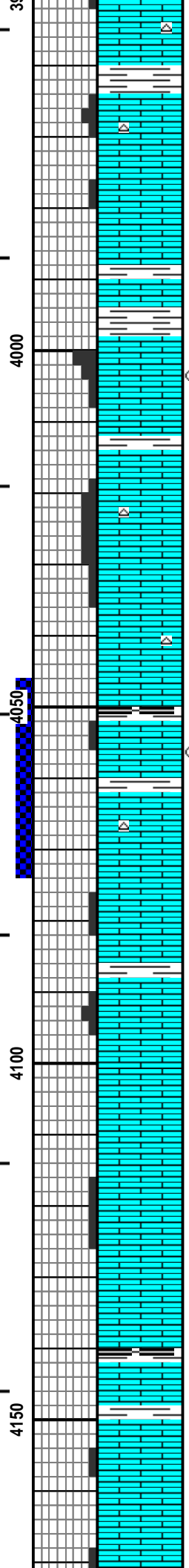
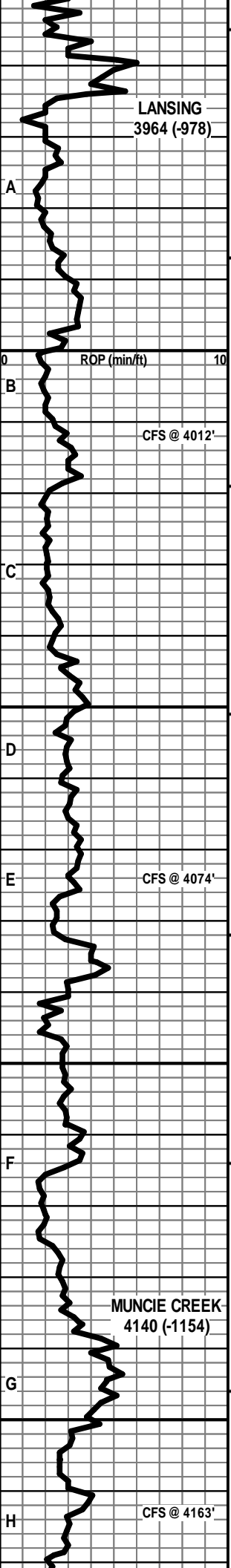
TG, C1-C5
10 100 1000

Vis: 50, Wt: 8.7
LCM: 1#

PUMP PRESSURE
DECREASING

TOH @ 3,930' FOR PUMP REPAIR

Vis: 54, Wt: 8.8,
YP: 16, GeIS: 14/40,
pH: 10.5, WL: 7.2,
Chl: 3000, Sol: 3.5,
LCM: 1#



INTXLN POR, SUBCHKY IN PT, PRED DNS, NS W/ CHT - WHT / LT GY

LS - CRM / TAN, F XLN, OOL, SL FOSS, P / F INTPART / INTXLN POR IN PT, SCAT CHKY, NS W/ SCAT CHT - LT GY / WHT

LS - CRM / LT GY, VF / F XLN, SCAT M REXLN CALC, SL OOL + FOSS, TR P INTXLN POR, SCAT CHKY, PRED DNS, NS

LS - CRM / TAN, F XLN, OOL, SL FOSS, P / G INTPART / INTXLN POR, SCAT VUG POR, PRED SL / TR F SFO, FT ODOR, SPTY / TR SAT STN, SCAT PSFO / BARR, F / G FLUOR + CUT

LS - CRM / GY / TAN, PRED VF / F XLN, SCAT M XLN, SL FOSS + OOL IN PT, P / F PPT + VUG + INTXLN POR, SUBCHKY IN PT, NS W/ SCAT CHT - TAN / CRM

LS - ASABOVE, PRED DNS / SUBCHKY IN PT, NS W/ SCAT CHT - AS ABOVE

LS - CRM / TAN, F / SCAT M XLN, PRED P / TR F VUG + INTXLN POR, SL / SCAT F SFO (V LT / MED BRN COL) + GB + OILY FILM, F ODOR, SPTY / SUBSAT STN, G FLUOR + CUT

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

LS - CRM / TAN / WHT, ASA BOVE, SCAT P INTXLN + PPT POR, SCAT CHKY / DNS, NS

LS - CRM / TAN / GY, F XLN, OOL, SL FOSS, P / F INTOOL / INTXLN POR, CHKY IN PT, NS

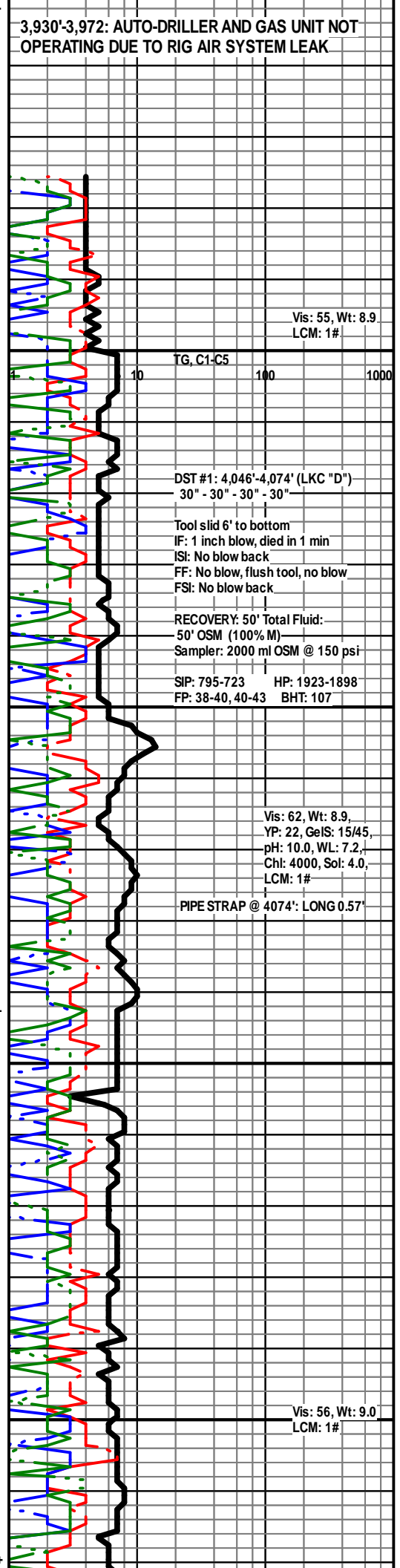
LS - ASABOVE, SUBCHKY IN PT, PRED DNS, NS

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

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

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, SCAT P INTXLN / INTOOL POR, V CHKY IN PT / DNS, NS

LS - CRM / TAN / GY, MOT IN PT, VF / F XLN, SCAT OOL +



FOSS, TR P INTXLN POR, SCAT CHKY, PRED DNS, NS

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

LS - TAN / GY / BRN, MOT IN PT, F XLN, OOL IN PT, TR P PPT POR, SUBCHKY IN PT, PRED DNS, TR SPTY DEAD STN, NSFO, NO ODOR W/ SCAT CHT - TAN / WHT

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

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

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

LS - CRM / TAN / GY, MOT IN PT, F XLN, OOL IN PT, SCAT P INTOOL + PPT POR, SSFO + ASPH, FT ODOR, SPTY BLK STN, F / G FLUOR + CUT (V SM AMT POR + SHOW)

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

LS - BRN / TAN, F XLN, SCAT M / C REXLN CALC, SL FOSS, TR P INTXLN POR, PRED DNS, VSSFO, FT ODOR, TR SPTY STN (V SM AMT POR + SHOW) W/ SH - BLK / GY

LS - CRM / TAN / GY, VF / F XLN, SL FOSS + OOL, ONE PCE P PPT POR, PRED DNS, VSSFO, V FT ODOR W/ SCAT CHT - LT GY

LS - CRM / TAN, VF / F XLN, OOL IN PT, SCAT P INTOOL POR, TR P OOM POR, DNS, NS

LS - CRM / TAN, F XLN, SL FOSS, TR P INTXLN POR, PRED DNS, VSSFO, V FT ODOR, TR SPTY STN (V SM AMT POR + SHOW)

LS - TAN / GY / CRM, VF / F XLN, SL OOL + FOSS, SCAT P / TR F INTXLN POR, CHKY IN PT, TR OILY FILM, NSFO, NO ODOR

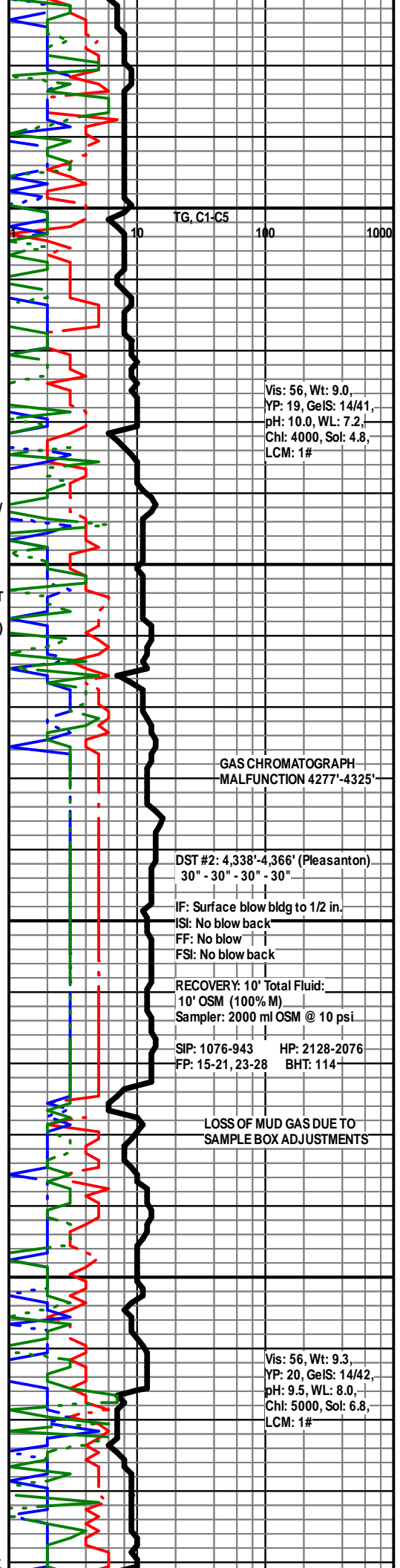
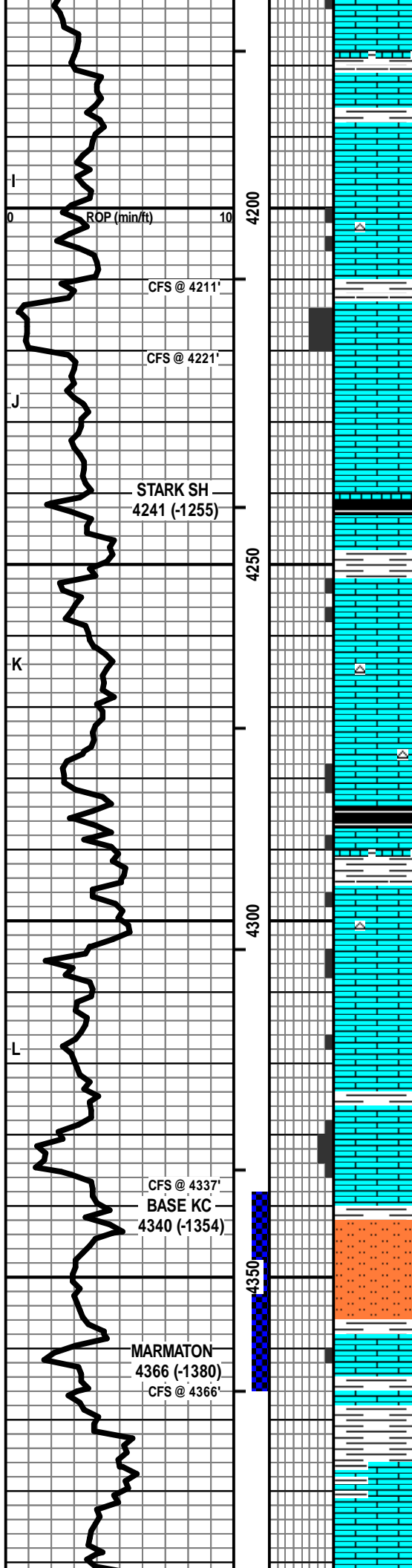
SLTST - GY / GRN W/ SCAT SH - GY

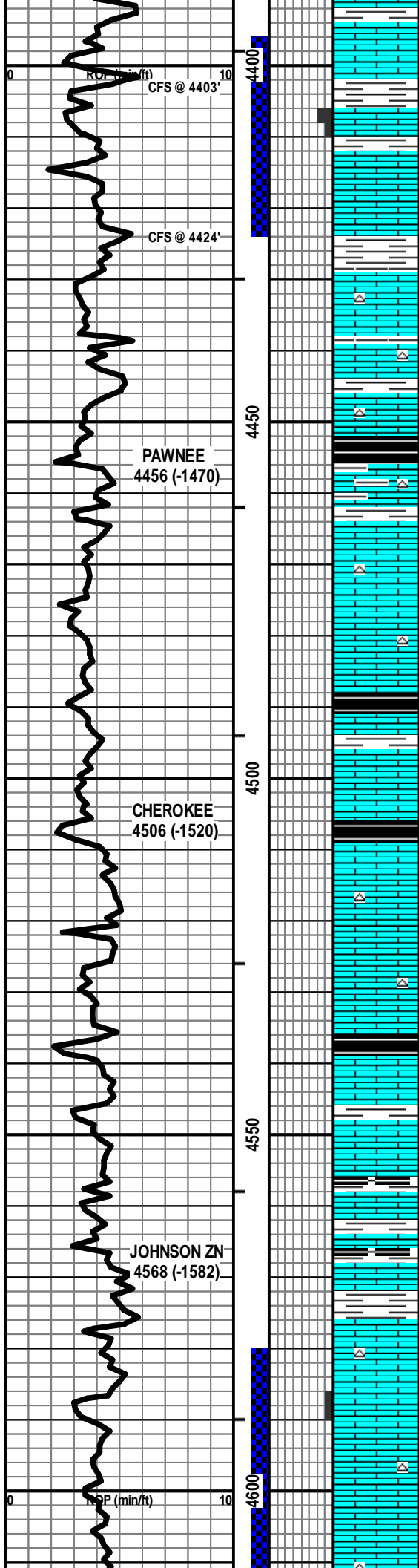
LS - TAN / BRN, F / M XLN, MOD AMT REXLN CALC, SL OOL + FOSS, P / F INTXLN / INTPART POR, SCAT PPT POR, F / G SFO, FT ODOR, SPTY / SUBSAT STN, G FLUOR + CUT

MOD ABNT SH - VARICOL & LS CAVINGS

LS - CRM / TAN / SCAT WHT, F XLN, OOL + FOSS IN PT, CHKY IN PT, PRED DNS, NS W/ MOD ABNT SH - VARICOL & LS CAVINGS

LS - CRM / TAN, F / VF XLN, OOL, SL FOSS, SCAT CHKY





PRED DNS, NS, NO ODOR W/ ABNT CAVINGS W/ FEW PCES TAN, F / M REXLN, P INTXLN POR, SSFO, SPTY STN W/ ONE PCE CRM, F XLN, OOL, P PPT + VUG POR, SSFO (CAVINGS?)

LS - CRM / TAN, F / M XLN, F / C REXLN CALC, SL OOL + FOSS, P / F INTXLN + VUG POR, TR G POR, SL / F SFO + GB, V FT ODOR, SPTY / TR SAT STN, F / G FLUOR, G CUT

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

LS - TAN / GY / SCAT CRM, PRED VF / F XLN, SCAT CRYPTO XLN, SL FOSS + OOL, PRED DNS, NS W/ CHT - GY / TAN

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

SH - BLK, CARB / GY W/ LS - CRM / TAN / SCAT WHT, VF / F XLN, PRED DNS, NS

LS - CRM / WHT / SCAT TAN, VF / CRYPTO XLN, SCAT F XLN, SCAT OOL + FOSS, PRED DNS, NS W/ CHT - LT / MED GY

LS - V SIM TO ABOVE, PRED DNS, NS W/ SH - BLK, CARB

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

LS - TAN / BRN / GY, VF / F XLN, OOL IN PT, SL FOSS, TR PINTOOL POR, PRED DNS, NS W/ SCAT CHT - GY

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

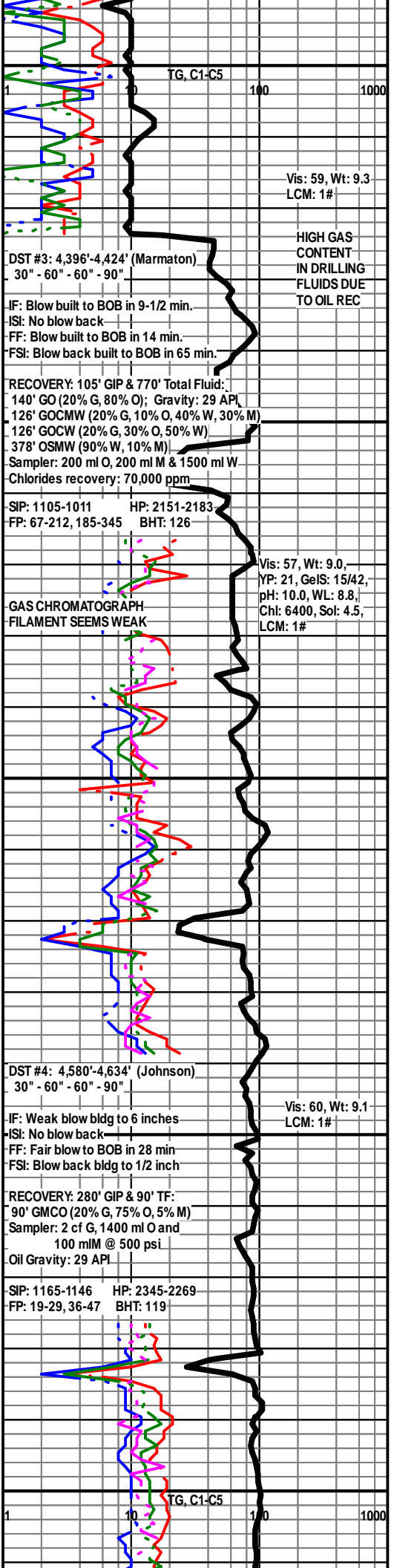
LS - TAN / SCAT CRM, VF / F XLN, SL FOSS, SUBCHKY IN PT, PRED DNS, NS

LS - TAN / CRM / GY, MOT IN PT, VF / F XLN, SCAT M REXLN CALC, FOSS IN PT, PRED DNS, NS W/ SH - GY / BLK

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

LS - TAN / CRM, VF / F XLN, SL FOSS + OOL, PRED DNS, NS W/ SCAT LS - AS ABOVE W/ CHT - GY / TAN

LS - CRM / TAN, F / M XLN, OOL IN PT, SCAT P / F INTXLN POR, TR PPT POR, PRED DNS / CHKY IN PT, SL /



TG, C1-C5

100 1000

Vis: 59, Wt: 9.3 LCM: 1#

HIGH GAS CONTENT IN DRILLING FLUIDS DUE TO OIL REC

DST #3: 4,396'-4,424' (Marmaton)
30" - 60" - 60" - 90"

IF: Blow built to BOB in 9-1/2 min.
IS: No blow back
FF: Blow built to BOB in 14 min.
FSI: Blow back built to BOB in 65 min.

RECOVERY: 105' GIP & 770' Total Fluid:
140' GO (20% G, 80% O); Gravity: 29 API
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126' GOCW (20% G, 30% O, 50% W)
378' OSMW (90% W, 10% M)
Sampler: 200 ml O, 200 ml M & 1500 ml W
Chlorides recovery: 70,000 ppm

SIP: 1105-1011 HP: 2151-2183
FP: 67-212, 185-345 BHT: 126

Vis: 57, Wt: 9.0, YP: 21, GeIS: 15/42, pH: 10.0, WL: 8.8, Chl: 6400, Sol: 4.5, LCM: 1#

GAS CHROMATOGRAPH FILAMENT SEEMS WEAK

DST #4: 4,580'-4,634' (Johnson)
30" - 60" - 60" - 90"

Vis: 60, Wt: 9.1 LCM: 1#

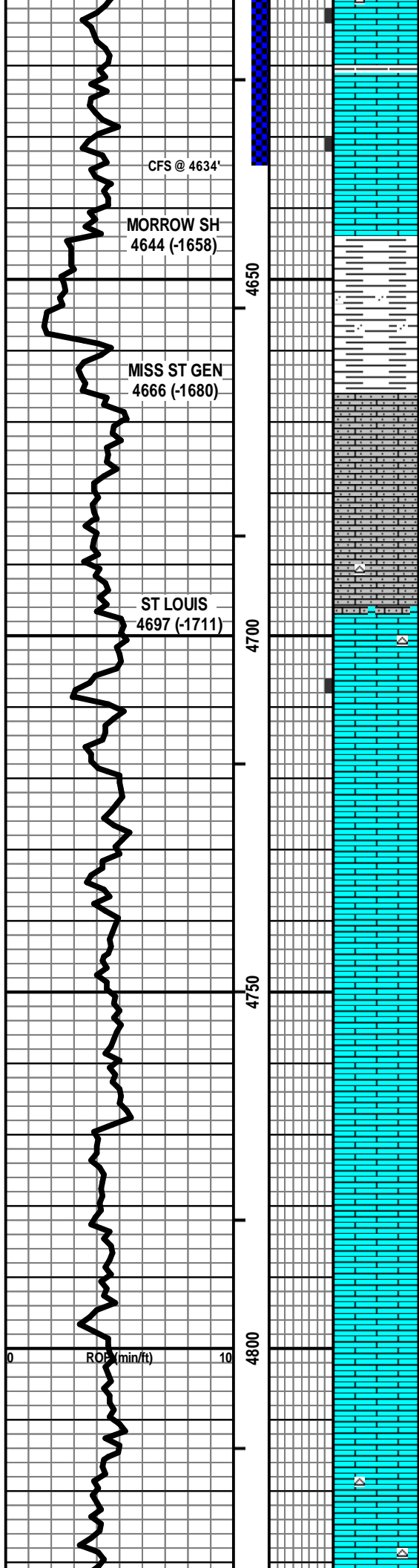
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IS: No blow back
FF: Fair blow to BOB in 28 min
FSI: Blow back bldg to 1/2 inch

RECOVERY: 280' GIP & 90' TF:
90' GMCO (20% G, 75% O, 5% M)
Sampler: 2 cf G, 1400 ml O and 100 ml M @ 500 psi
Oil Gravity: 29 API

SIP: 1165-1146 HP: 2345-2269
FP: 19-29, 36-47 BHT: 119

TG, C1-C5

10 100 1000



INTXENL POR, TR P VUG POR, PRED DNS/CHKY IN PT, SL / F SFO, BLEEDING OIL IN PT, F ODOR, SCAT SPTY / TR SAT STN, F / G FLUOR + CUT (SM AMT POR + SHOW)

LS - CRM / TAN / GY, SIM TO ABOVE, SCAT P / F INTXLN POR, TR P VUG POR, SL / F SFO, F ODOR, SCAT SPTY / TR STN, POSS CAVINGS ?, PRED DNS + NS

LS - CRM / TAN / SCAT GY, VF / F XLN, SCAT OOL, PRED DNS, NS W/ SCAT LS - AA, POR + SHOWS AA (CAVINGS ?), FT ODOR

PRED SH - GY / BLK / SCAT GRN, SLTY IN PT W/ SCAT SS - GRN / MED GY, SLT / VF QTZ GR, W SRTD, SA / SR, SH FRAG, NO VIS POR, NS, NO ODOR

LS - WHT / CRM, VF / F XLN, OOL, V AREN, PRED DNS, NS W/ SCAT SH - AS ABOVE

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

LS - AS ABOVE W/ LS - TAN / SCAT CRM, VF / CRYPTO XLN, PRED DNS, NS W/ SCAT CHT - GY / TAN / ORG

LS - TAN / SCAT CRM, VF / F XLN, OOL IN PT, CHKY IN PT, SCAT PINTOOL POR, PRED DNS, SSFO, SCAT BARR POR ?, NO ODOR, SCAT SPTY STN

LS - TAN / SCAT CRM, VF / CRYPTO XLN, PRED DNS, NS W/ TR LS - AS ABOVE, TR PINTOOL POR, VSSFO (CAVINGS?), NO ODOR

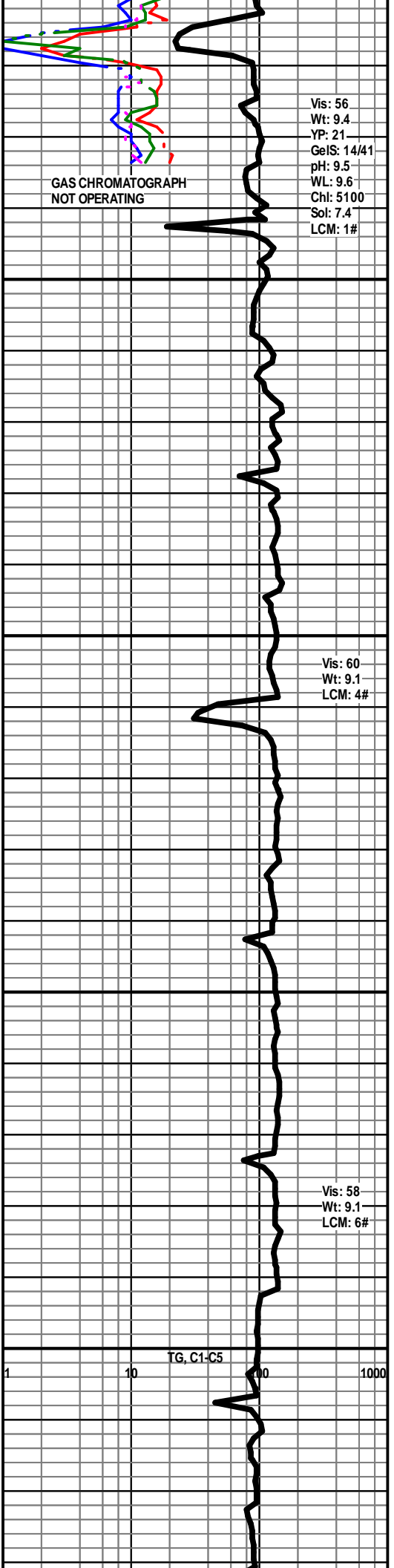
LS - TAN / CRM, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

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

LS - TAN / BRN / SCAT GY, PRED VF / F XLN, SCAT CRYPTO XLN, OOL IN PT, TR PINTOOL POR, PRED DNS, TR GILS + OILY FILM, PRED NS, NO ODOR

LS - TAN / BRN, VF / F XLN, SCAT CRYPTO XLN, SCAT REXLN CALC, TR PINTXLN POR, PRED DNS, NS

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



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

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

DOLO - TAN / GY, MOT IN PT, F XLN, PRED P / F / SCAT G
PPT + VUG POR, P / F INTXLN POR, NS, NO ODOR W/
CHT - GY

LS - BRN / TAN / GY, MOT, F XLN, SCAT REXLN CALC,
OOL, PRED DNS, NS W/ SCAT CHT - GY

DOLO - TAN / BRN / GY, F XLN, LMY IN PT, P / SCAT F
INTXLN POR, TR SPTY DEAD STN, NSFO W/ LS - AS
ABOVE, DOLO IN PT, CHKY IN PT, PRED DNS, NS, NO
ODOR

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

TOTAL DEPTH 4924 (-1938)

Vis: 54
Wt: 9.1
LCM: 5#

Vis: 56, Wt: 9.1,
YP: 21, GeIS: 15/42,
pH: 9.0, WL: 8.8,
Chl: 5600, Sol: 5.0,
LCM: 5#

WARSAW
DOLOMITE
4869 (-1883)

CFS @ 4877'

CFS @ 4924'

4850

4900

4950