

Geologic Report
Aaron L Young
Drilling Time and Sample Log
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Achenbach D #1
API: 15-007-24300
Location: Section 1 - T35S - R12W
License Number: 31938
Spud Date: 01 / 15 / 2016
Surface Coordinates: 165' FSL and 660' FWL or
S2 - S2 - SW - SW
Region: Barber Co., KS
Drilling Completed: 01 / 22 / 2016
Bottom Hole Coordinates:
Ground Elevation (ft): 1359' K.B. Elevation (ft): 1372'
Logged Interval (ft): 4300' To: 5560' Total Depth (ft): 5560'
Formation: Arbuckle
Type of Drilling Fluid: Chemical - MudCo

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Indian Oil Co., Inc
Address: P.O. Box 209
2507 SE US 160 HWY
Medicine Lodge, KS 67104+0209

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Young Consulting LLC
Address: 100 S. Main, Suite 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Duke Drilling, Rig #7

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	13 3/8	Smith RR	15-15-15	300'	287'	6.0
2	7-7/8	HTC PP506 PDC	15-15-15	5560'	5273'	67.75

Surveys: 162'-.5, 300'-.1, 497'-.1, 1030'-.1, 1509'-.4, 2010'-.5, 2518'-.3, 3057'-.1, 3502'-.5, 4009'-.5, 4486'-.2, 4995'-.6, 5560'-.5

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 8,000-14,000 lbs. on bit and 100 RPM w/ 9 stands of collars, 547'.
Pumping 700-950 psi at standpipe.

Daily Status

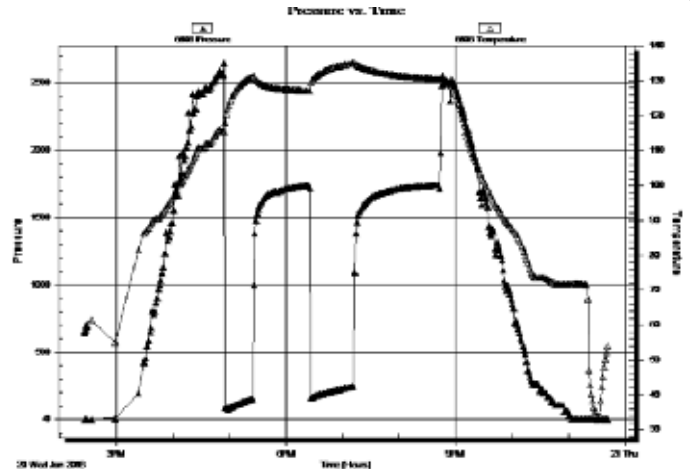
01/15/16 - Spud @ 9:00pm
 01/16/16 - Ran 7 jts 13 3/8" 48# New casing set 295' w/ 300sx Class A, 3% CC
 01/17/16 - Drilling @ 1286'
 01/18/16 - Drilling @ 2800'
 01/19/16 - Drilling @ 4015'
 01/20/16 - DST #1 - 5,110' - 5,132'
 01/21/16 - TD @ 5560', Logging
 01/22/16 - Finished logging, Ran 5 1/2" 15.50# production casing set at 5,553' with 175sx

DST #1: 5,110' - 5,132' Misener
 30" - 60" - 45" - 90"

IF: BOB in 12min
 ISI: 1/2" blowback
 FF: BOB in 30min
 FSI: No blowback

RECOVERY: 2680' GIP, 440' W, 31' SOMCW (2% O, 24% M, 74% W)

SIP: 1738-1742#; FP: 84-155#, 164-249#; HP: 2653-2554#;

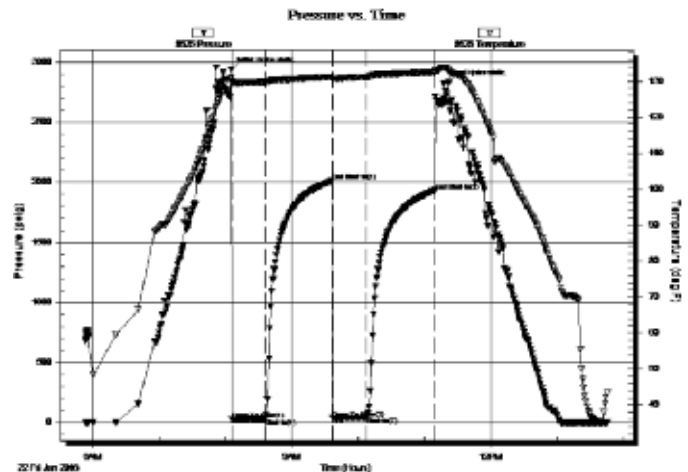


DST #2: 5,351' - 5,370' Simpson Straddle after logs
 30" - 60" - 30" - 60"

IF: 1/2" blow
 ISI: No blowback
 FF: Weak surface blow, died in 8min
 FSI: No blowback

RECOVERY: 10' Mud

SIP: 131-133#; FP: 27-32#, 37-45#; HP: 2932-2819#;



ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta
	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Slstst
	Ss
	Till
	Carb sh
	Dol
	Dtd
	Gry sh

	Sandylms
	Shale
	Slststn
	Shlyslts
	Sltysh
	Lms

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- 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

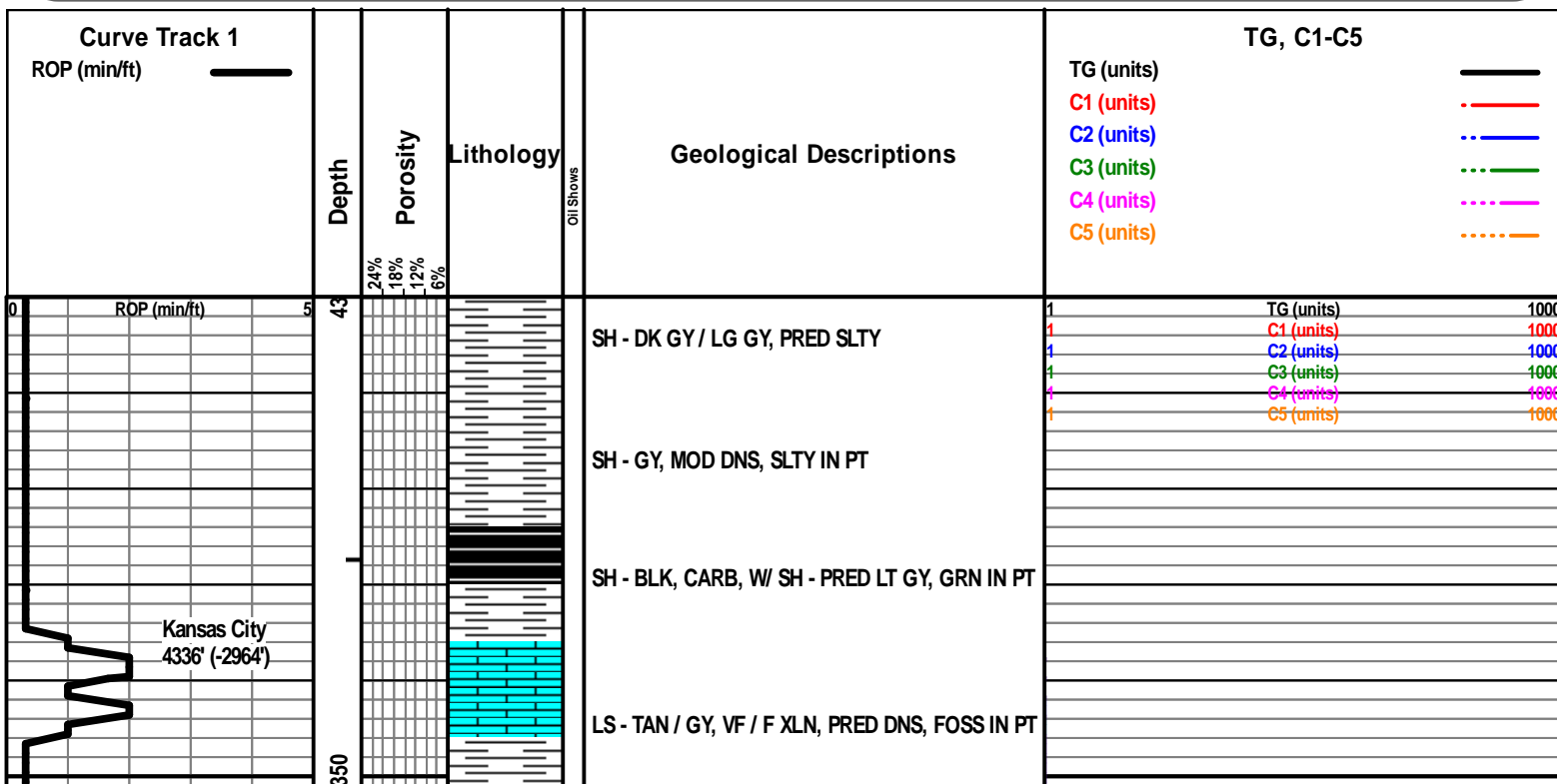
INTERVALS

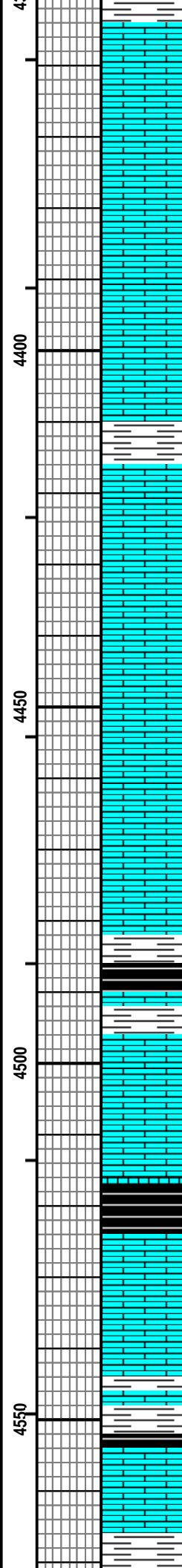
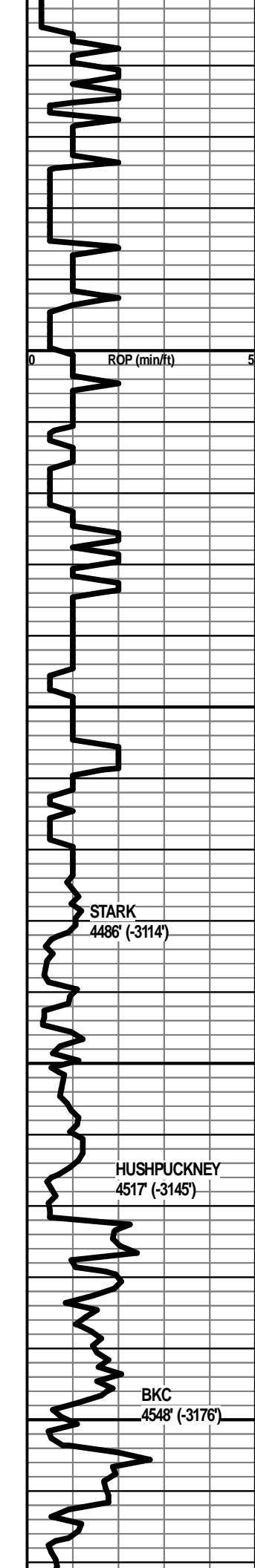
- Core
- Dst

- Dst

EVENTS

- Rft
- Sidewall
- Conn





LS - CRM / TAN, BRN IN PT, F XLN, PRED DNS,
BRN PIECES V DNS, FOSS IN PT

LS - WHT / CRM, CHKY / V CHKY

LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS IN
PT

LS - TAN / GY, VF / F XLN, MOD DNS / SUBCHKY
IN PT, STYLOLITIZED IN PT, FOSS IN PT, W/ SH -
DK GY, MOD DNS

LS - CRM, VF / F XLN, PRED SUBCHKY, MOD DNS
IN PT, CHKY IN PT, BLK SPECS IN THE SUBCHKY
LS

SH - BLK, SLI CARB, W/ SH - GY, SLTY, W/ LS -
CRM, VF / F XLN, SUBCHKY

LS - WHT / CRM, VF / F XLN, SUBCHKY / CHKY

SH - BLK, SLI CARB

LS - TAN / GY, F XLN, DNS / V DNS IN PT, FOSS IN
PT, W/ FEW PIECES OF CHT - WHT / GY,
TRANSLCNT / OPAQ

LS - CRM / TAN, VF / F XLN, MOD DNS / DNS,
SUBCHKY IN PT

SH - BLK, SLI CARB

SH - GY / GRN, SOFT, WAXY IN PT, W/ LS - LT
BRN / GY, F XLN, DNS

1	TG (units)	1000
1	C1 (units)	1000
1	C2 (units)	1000
1	C3 (units)	1000
1	C4 (units)	1000
1	C5 (units)	1000

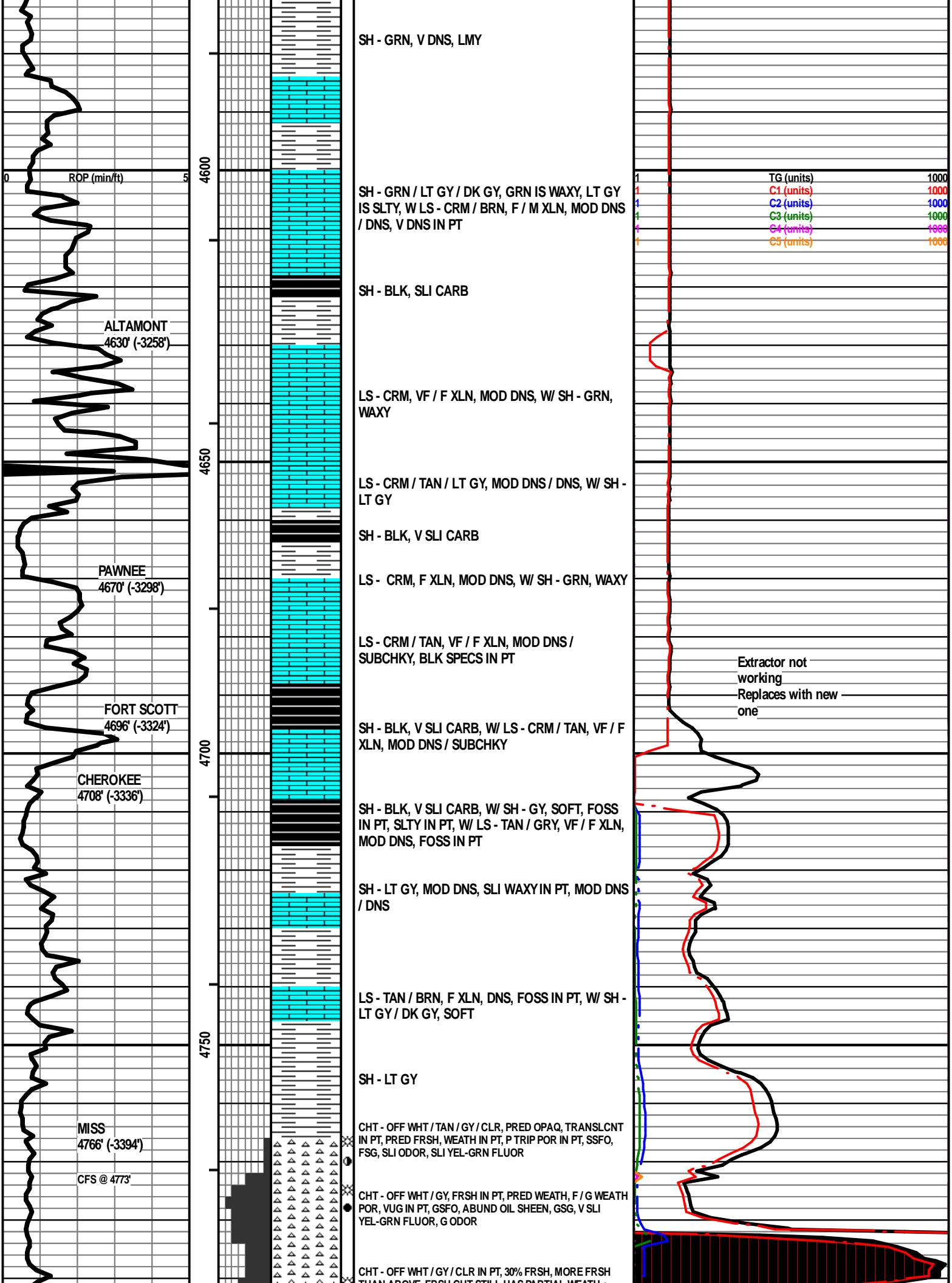


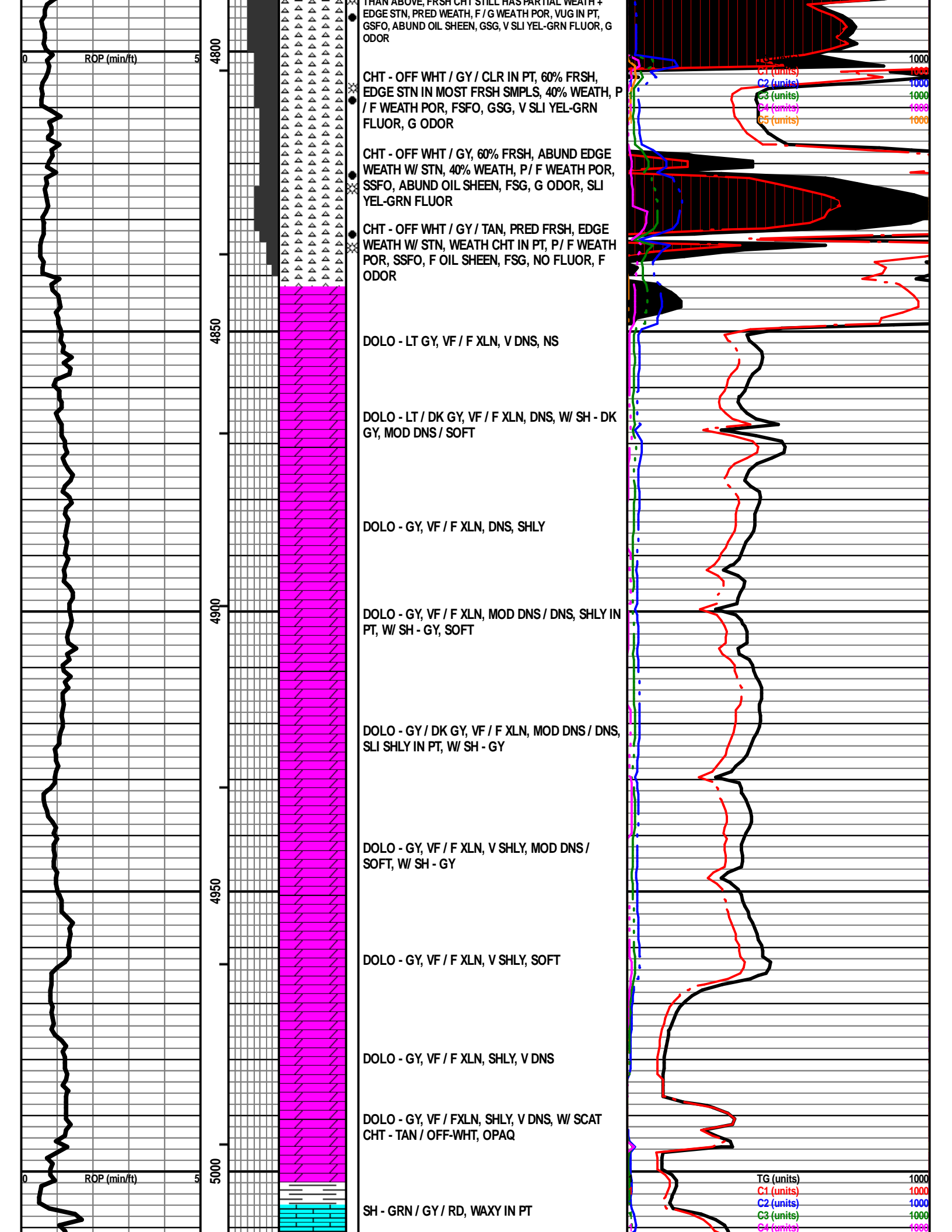
WT 9.3
VIS 51

STARK
4486' (-3114')

HUSHPUCKNEY
4517' (-3145')

BKC
4548' (-3176')





KINDERHOOK
5024' (-3652')

LS - CRM, VF / F XLN, SUBCHKY, SLI CHTY IN PT,
W/ CLR CHT

SH - DK GY

SH - DK GY / BRNISH GY, MOD DNS

SH - DK GY / BRNISH-GY, MOD DNS / SOFT

SH - LT GY, SOFT, SLTY IN PT

WOODFORD
5100' (-3728')

SH - BRNISH-BLK, SHOW OF GAS, V SLI CARB,
MOD DNS / SOFT

MISENER
5124' (-3752')
CFS @ 5128'

SS - LT GY / CLR, FN GR, SUB-RND, MOD / W
SRTD, HARD CLUSTERS, F INTGR POR, SSFO,
LT BRN OIL DROPLETS WHEN CLUSTER
BROKEN, FRI IN PT, SCAT PYRITE IN SOME
CLUSTERS, BRI YEL-GRN FLUOR, V FAINT
ODOR

SH - LT GY / GY, SOFT / MOD DNS

SH - GY / GRN / MAR / RD-ORNG / RDISH-BRN

VIOLA
5182' (-3810')

DOLO - TAN / LT GY, VF XLN, MOD DNS, NO VIS POR, NS, NO
ODOR, NO FLUOR

ROP (min/ft)

DOLO - LT GY, VF XLN, MOD DNS, SLTY

C5 (units) 1000

WT 9.3
VIS 53
LCM 10#

DST #1
Misener 5,110'-5,132'
30"-60"-45"-90"

IF: BOB in 12min
ISI: 1/2" blowback
FF: BOB in 30min
FSI: No blowback

Rec'd: 2680' GIP, 440' W, 31'
SOMCW (2% O, 24% M, 74% W)

IH: 2653#
IF: 84-155#
ISI: 1738#
FF: 164-249#
FSI: 1742#
FH: 2554#

TG (units) 1000
C1 (units) 1000
C2 (units) 1000
C3 (units) 1000
C4 (units) 1000
C5 (units) 1000

