

# GEOLOGIC REPORT

## DAVID J. GOLDAK

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

Well Name: Arndt #2-34  
Location: Section 34 - T3S - R23W  
License Number: API: 15-137-20582  
Spud Date: 09 / 03 / 2011  
Surface Coordinates: 1980' FSL and 330' FWL  
W/2 - NW - SW

Region: Norton Co., KS  
Drilling Completed: 09 / 08 / 2011

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 2441'                      K.B. Elevation (ft): 2446'  
Logged Interval (ft): 3100'                      To: 3816'                      Total Depth (ft): 3816'  
Formation: Precambrian  
Type of Drilling Fluid: Chemical - Morgan Mud Company

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: American Energies Corporation  
Address: 155 N. Market, Suite 710  
Wichita, Kansas 67202

### 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-RR	15-15-15	345	345	2.50
2	7-7/8	Smith-F27	15-14-14	3816	3471	67.00

SURVEYS: 345' - 0.75; 3580' - 1.0; 3816' - 1.25

#### GENERAL DRILLING & PUMP INFORMATION:

Pumping 60 S/M, 7.8 B/M, with 900 PSI at the Standpipe.  
Drilling with 32,000-35,000 lbs on bit, at 80-85 RPM.

## Daily Status

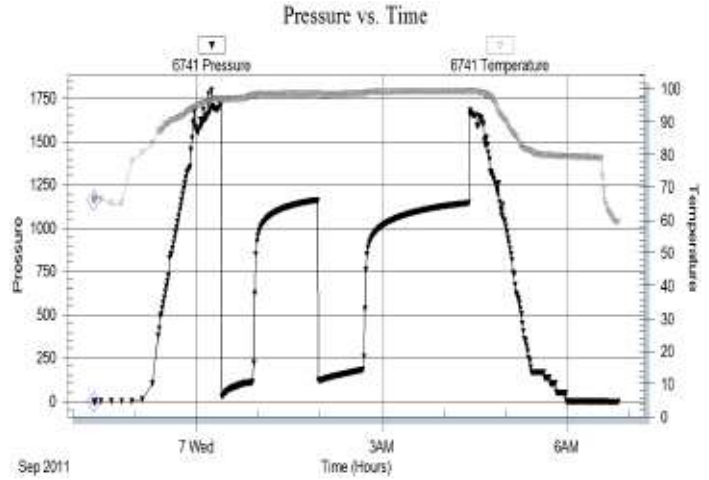
09/03/11 - Spud at 1:15 PM; Set 8-5/8" Csg at 344'  
 09/04/11 - 787' Drilling  
 09/05/11 - 2,650' Drilling; Displace mud at 2,943'  
 09/06/11 - 3,358' Drilling  
 09/07/11 - 3,580' TIH after DST #1; DST #2 in PM  
 09/08/11 - 3,810' Drilling; RTD 3,816' @ 7:30 AM; Log in PM

**DST #1: 3,484' - 3,580' (Tor & Lans A-C)**  
 30" - 60" - 45" - 90"

**IF:** Fair blow, building to BOB in 15 minutes  
**ISI:** No blow back  
**FF:** Fair blow, building to BOB in 20 minutes  
**FSI:** No blow back

**RECOVERY:** 372' Total Fluid, consisting of:  
 62' GCO (5% G, 95% Oil); Gravity: 27 API  
 124' G&MCO (5% Gas, 60% Oil, 35% Mud)  
 186' GW&OCM (10% G, 25% O, 20% W, 45% M)

**SIP:** 1163-1146; **FP:** 26-111, 118-179; **HP:** 1794-1678;  
**BHT:** 99

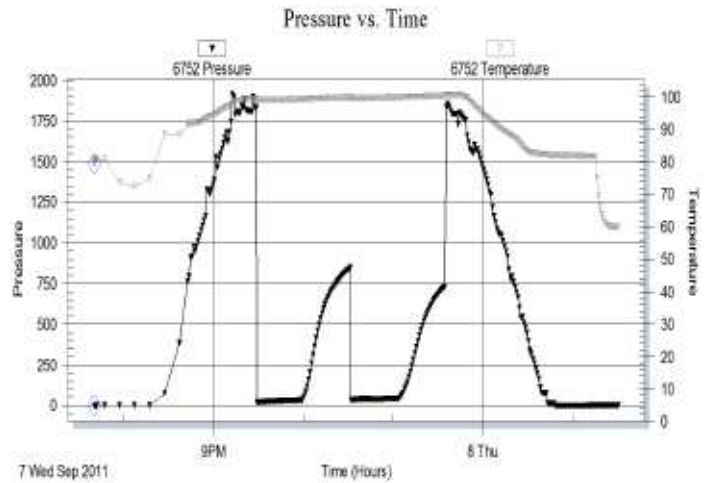


**DST #2: 3,706' - 3,764' (Gorham Sand)**  
 30" - 30" - 30" - 30"  
 (Tool slid 20' to bottom - did not open during slide)

**IF:** Weak surface blow, died in 10 minutes  
**ISI:** No blow back  
**FF:** No blow, attempt to flush tool, no blow  
**FSI:** No blow back

**RECOVERY:** 20' Total Fluid, consisting of:  
 20' Mud w/ oil specks (100% M)

**SIP:** 850-731; **FP:** 18-31, 34-40; **HP:** 1915-1856;  
**BHT:** 100



## 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
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlit
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn
- Igne

#### FOSSIL

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

#### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh

#### 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

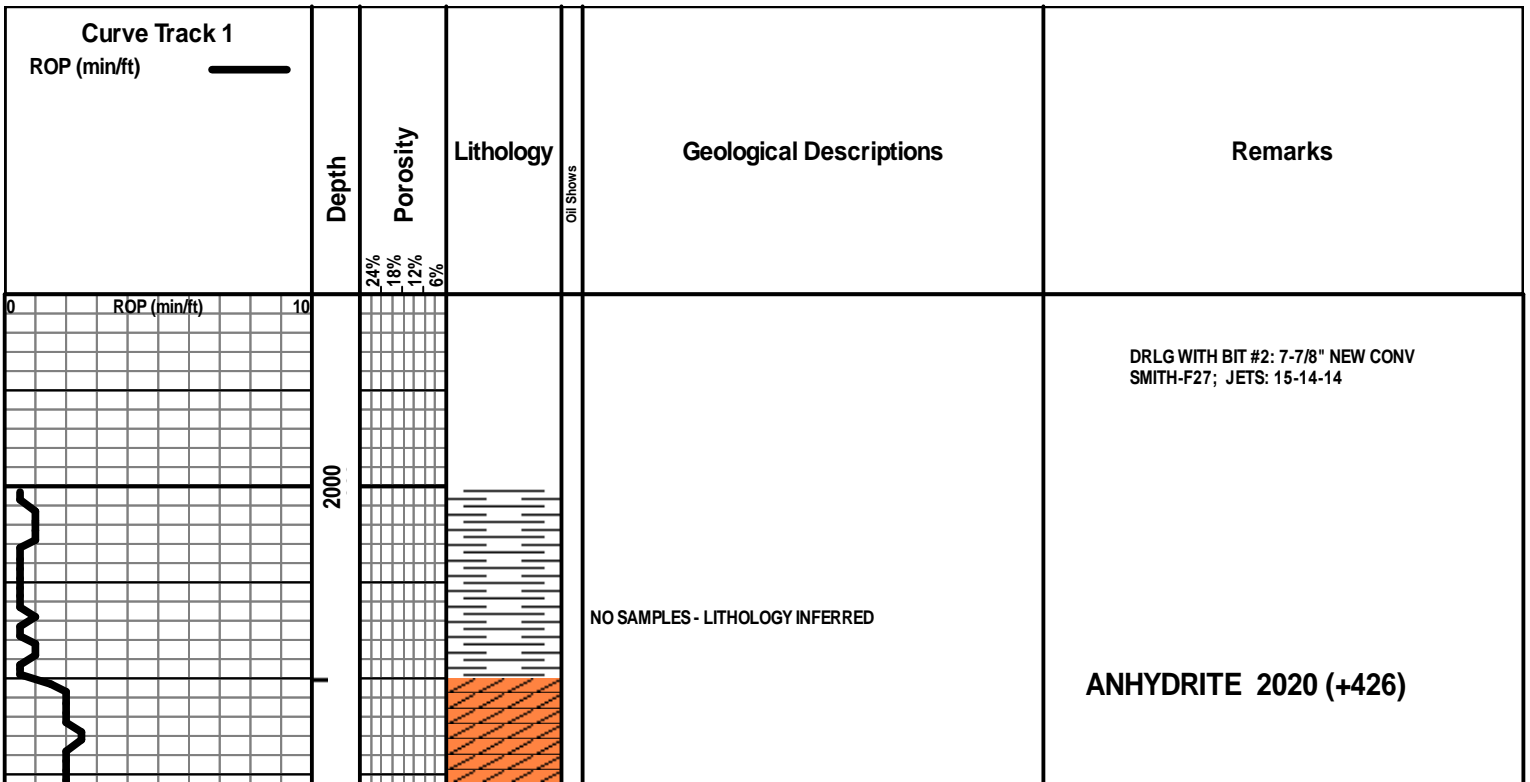
#### INTERVALS

- Core
- Dst

- Dst

#### EVENTS

- Rft
- Sidewall
- Conn

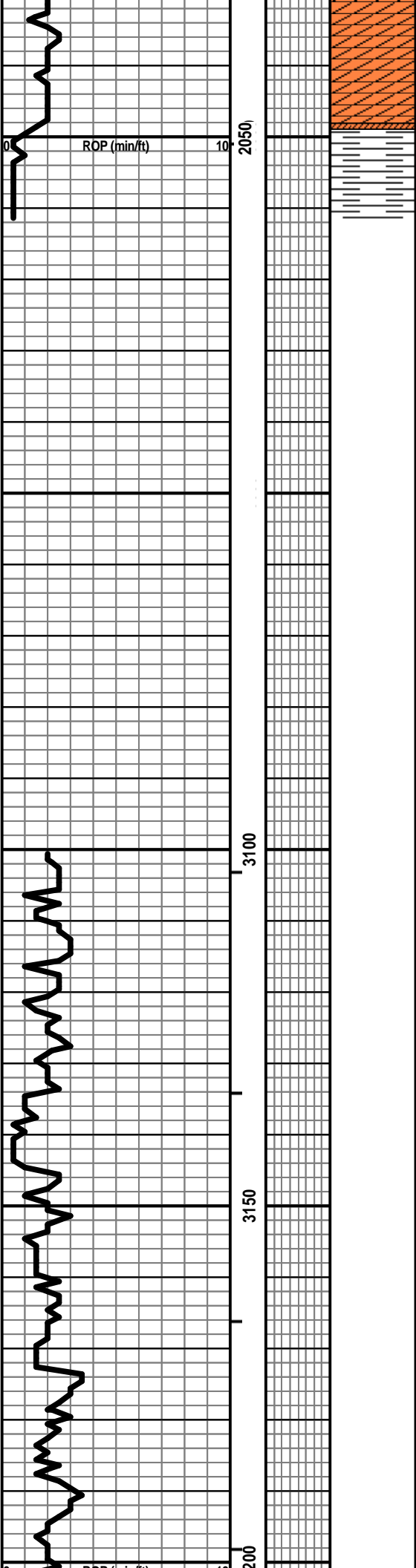


NO SAMPLES - LITHOLOGY INFERRED

BASE OF ANHY 2049 (+397)

DISPLACE MUD SYSTEM @ 2,943'

Vis: 75, Wt: 8.8,  
LCM: 2#





Vis: 70, Wt: 9.0,  
LCM: 2#

SH - GY / SCAT RED W/LS - CRM / GY, VF / F XLN, FOSS,  
SCAT GLAUC, SCAT P MOLDIC POR, PRED DNS, NS

LS - CRM / TAN, F XLN, FOSS, P / F VUG + INTXLN POR IN PT,  
TR G POR, DNS / CHKY IN PT, TR GILS, NSFO, NO ODOR

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

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

LS - CRM / LT GY / SCAT TAN, MOT IN PT, VF / F XLN, OOL +  
FOSS, P / SCAT F INTOOL + FOSS MOLDIC POR, TR VUG  
POR, SSFO, V FT ODOR, SPTY STN, F / G FLOUR + CUT

LS - CRM / TAN / SCAT LT GY, VF / F XLN, OOL, SL FOSS,  
SCAT P / TR F INTOOL + PPT POR, SSFO, V FT ODOR, SCAT  
SPTY SRN, F / G FLOUR + CUT

LS - CRM / TAN, F XLN, FOSS, SCAT OOL, P / F INTXLN + VUG  
POR, TR G POR, SCAT CHKY, FSFO, FT ODOR, SPTY / SAT  
STN, PRED G FLOUR + CUT

LS - CRM / LT GY, MOT IN PT, F XLN, FOSS + OOL, P / F  
INTXLN + VUG POR, TR G POR, FSFO, FT ODOR, SPTY / SAT  
STN, PRED G FLOUR + CUT W/SCAT CHT - LT GY

LS - CRM / WHT / SCAT TAN, VF / F XLN, FOSS + OOL IN PT,  
SCAT P / F INTXLN POR, TR VUG POR, SSFO, V FT ODOR,  
SCAT SPTY / SAT STN, F / G FLOUR + CUT

LS - CRM / WHT / LT GY, PRED VF / CRYPTO XLN, SCAT F  
XLN, TR FOSS, TR P INTXLN POR + TR FO (CAVINGS?),  
SCAT CHKY, PRED DNS, NO ODOR W/CHT - WHT / LT GY /  
CRM

LS - CRM / TAN / GY, MOT IN PT, F XLN, OOL, SL FOSS, SCAT  
P / TR F INTOOL POR, SSFO, FT ODOR, SCAT SPTY STN, F / G  
FLOUR + CUT W/LS - LT GY / CRM, VF XLN, TR FOSS, CHKY  
IN PT, PRED DNS, NS W/SCAT CHT - TAN

### HEEBNER 3486 (-1040)

### TORONTO 3512 (-1066)

### LANSING 3526 (-1080)

Vis: 58, Wt: 9.0, YP: 17,  
GeIS: 5/20, pH: 11.0, WL: 6.4,  
Chl: 900, Sol: 5.0, LCM: 2#

DST #1: 3,484' - 3,580' (Tor & LKC 'A'-'C')  
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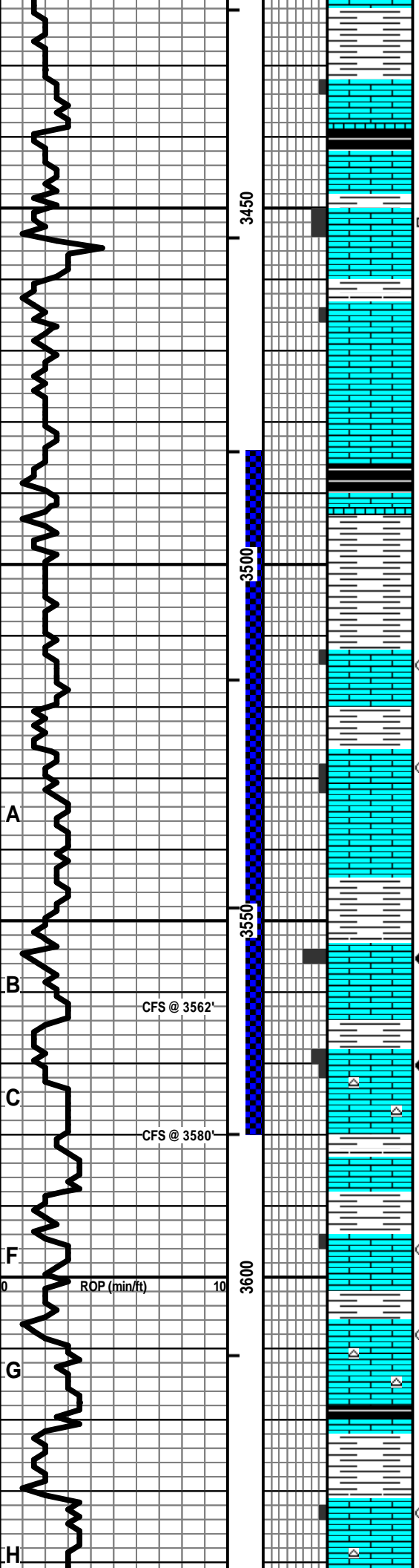
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FP: 26-111, 118-179      BHT: 99

PIPE STRAP @ 3,580': LONG 0.86'

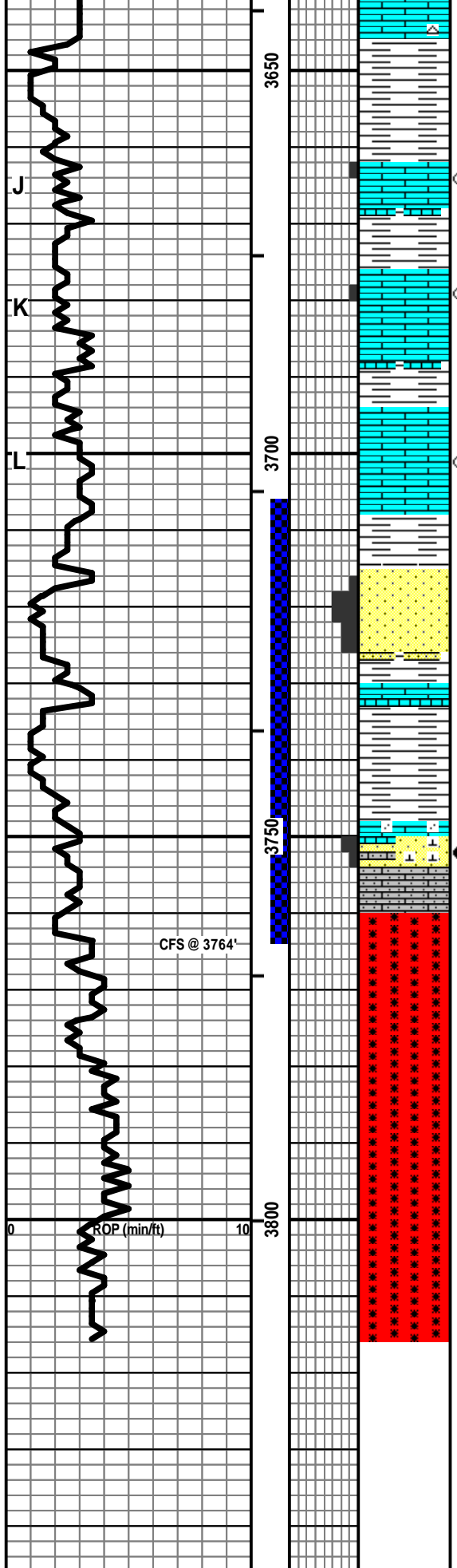
Vis: 55, Wt: 9.1, YP: 18,  
GeIS: 4/16, pH: 10.0, WL: 6.8,  
Chl: 1900, Sol: 5.7, LCM: 1.5#



CFS @ 3562'

CFS @ 3580'

ROP (min/ft)



INT, P, RED DNS, NS W/ SCAT CHY - TAN

LS - CRM / LT GY, VF / F XLN, OOL + FOSS IN PT, TR PINTOOL + VUG POR, PRED DNS, SCAT SSFO, V FT ODOR, SCAT SPTY STN, P / G FLOUR + CUT

LS - CRM / TAN, VF / F XLN, FOSS + OOL IN PT, SCAT PRED P / TR F INTXLN + VUG POR, SCAT CHKY, PRED DNS, SSFO, V FT ODOR, SCAT SPTY STN, F / G FLOUR + CUT

LS - TAN / CRM / GY, MOT IN PT, VF / F XLN, FOSS + OOL, ARGIL IN PT, TR P INTXLN POR, CHKY IN PT, PRED DNS, TR FO, NO ODOR, TR SPTY STN

SS - GY / GRN / RED, SLT / VF QTZ GR, CALC IN PT, F INTGR POR IN PT, NS

LS - GY / REDISH, MOT IN PT, VF / F XLN, PRED DNS, NS W/ SH - RED / GY / GRN

LS - GY / CRM, F XLN, AREN IN PT, CHL + GLAUC, VP / NO VIS POR, TR FO, TR SPTY STN  
 SS CLSTRS - GY / CRM / TAN, VF / M / SCAT C QTZ GR, FW / P SRTD, R / WR, V CALC W/ LS - CRM / TAN, F XLN, V AREN, VF / M QTZ GR; OVERALL - P / SCAT F INTGR / INTXLN POR IN PT, F / G SFO, SPTY / SAT STN, G ODOR, G FLOUR + CUT

GW MAT - LRG ANG UNCONS QTZ, WEATH FELD, MICA, RED SHALE, NS

GW MAT - LRG ANG UNCONS QTZ, WEATH FELD, MICA, SCAT RED SHALE, NS

PC - PRED UNWEATH, LRG ANG UNCONS QTZ, FELD, MICA, MOD HVY MIN

PC - PRED UNWEATH, LRG ANG UNCONS QTZ, FELD, MICA, MOD HVY MIN

DST #2: 3,706' - 3,764' (Gorham Sand)  
 30" - 30" - 30" - 30"  
 (Tool slid 20' - did not open during slide)

IF: Surface blow, died in 10 min.  
 ISI: No blow back  
 FF: No blow, try to flush tool, no blow  
 FSI: No blow back

RECOVERY: 20' Total Fluid:  
 20' Mud w/ oil specks (100% M)

SIP: 850-731      HP: 1915-1856  
 FP: 18-31, 34-40      BHT: 100

**BASE OF KC 3708 (-1262)**

Vis: 53, Wt: 9.3,  
 LCM: 1.5#

**GORHAM SAND 3751 (-1305)**

**GRANITE WASH 3760 (-1314)**

Vis: 52, Wt: 9.3,  
 LCM: 1#

**TOTAL DEPTH 3816 (-1370)**