



**Scale 1:240 (5"=100') Imperial  
Measured Depth Log**

**Well Name:** Chain Ranch "B" #3  
**Location:** 1-31S-12W  
**License Number:** API: 15-007-24238  
**Spud Date:** 10/08/14  
**Surface Coordinates:** 990' FNL, 990' FWL

**Region:** Barber Co., KS  
**Drilling Completed:** 10/15/14

**Bottom Hole  
Coordinates:**  
**Ground Elevation (ft):** 1638                      **K.B. Elevation (ft):** 1648  
**Logged Interval (ft):** 3000              **To:** 4480              **Total Depth (ft):** 4480  
**Formation:** Kinderhook  
**Type of Drilling Fluid:** Chemical

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**OPERATOR**

**Company:** White Exploration, Inc.  
**Address:** 1635 N. Waterfront Suite 100  
Wichita, KS 67206

**GEOLOGIST**

**Name:** Andrew White  
**Company:** White Exploration, Inc.  
**Address:** 1635 N. Waterfront Suite 100  
Wichita, KS 67206

**Remarks**

Due to shows of oil and gas observed in the Mississippian section, positive structural position, and electric log analysis, it was decided to further test the Chain Ranch 'B' #3 through production casing.

**General Info**

**Drilling Contractor:** Pickrell Rig 1

**Logs:** Pioneer  
Compensated Density/Neutron, Dual Induction, Micro, Sonic

**Drilling Mud:** Mudco/Service Mud, Inc.

**Surveys:** 310'-1; 814'-1; 1319'-1; 2361'-1; 4480'-1.75

## Daily Status

10-08-14: MIRT, spud @ 10 pm, drilled 12-1/4" Surface to 310', ran 7 joints 8-5/8" 24# surface casing and cemented with 200 sacks Class A Cement with 2% gel and 3% CC, set at 308'  
 10-09-14: Waiting on cement, start drilling at 6:30 pm  
 10-10-14: Drilling @ 1034'  
 10-11-14: Drilling @ 1960', made Bit Trip @ 2646'  
 10-12-14: Drilling @ 2647'  
 10-13-14: Drilling @ 3764'  
 10-14-14: Drilling @ 4320'  
 10-15-14: Laying down pipe to run production casing, ran 107 joints new 5-12" S-55 15.5# Production Casing, set @ 4482', pumped 145 sacks ASC cement with 5.5# gypseal/sack, 2% gel, 5# gilsonite/sack, .3% GL-160 and .14# Defoamer/sack, fill Rat hole with 30 sacks and Mouse hole with 20 sacks 60/40 Poz Mix with 4% gel.

White Exploration, Inc.				White Exploration, Inc.		White Exploration, Inc.		
Chain Ranch B #3				Chain Ranch B #1		Chain Ranch B #2		
Sec 1-31S-12W				Sec 1-31S-12W		Sec 1-31S-12W		
990' FNL, 990' FWL				475' FNL, 1916' FWL		330' FNL, 330' FWL		
KB: 1648				KB: 1655		KB: 1630		
Sample	Log	Datum			Relationship		Relationship	
Heebner	3548	3550	-1902	+3		-4		
Brown Lime	3753	3753	-2105	+5		-5		
Stark	4096	4100	-2452	+7		-9		
Mississippian	4270	4290	-2642	+15		-14		
Kinderhook	4376	4380	-2732	0		-8		

### ROCK TYPES

#### LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Black shale
- Congl

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

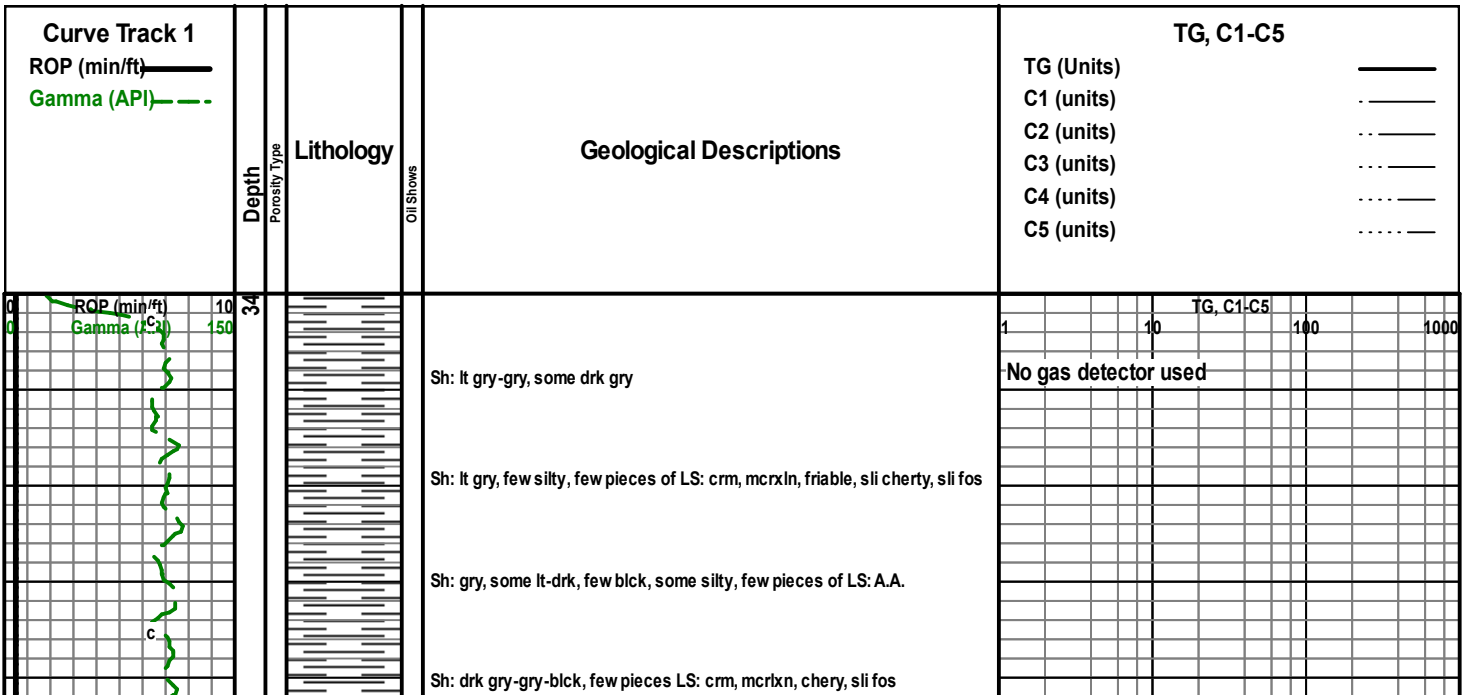
- Shcol
- Shgy
- Sltst
- Ss
- Till

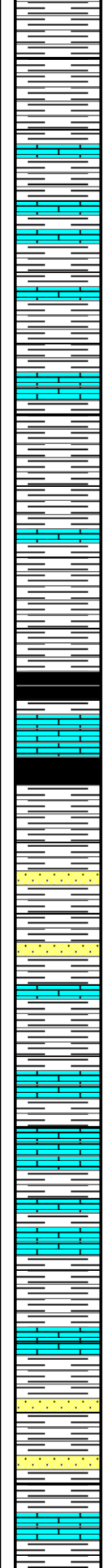
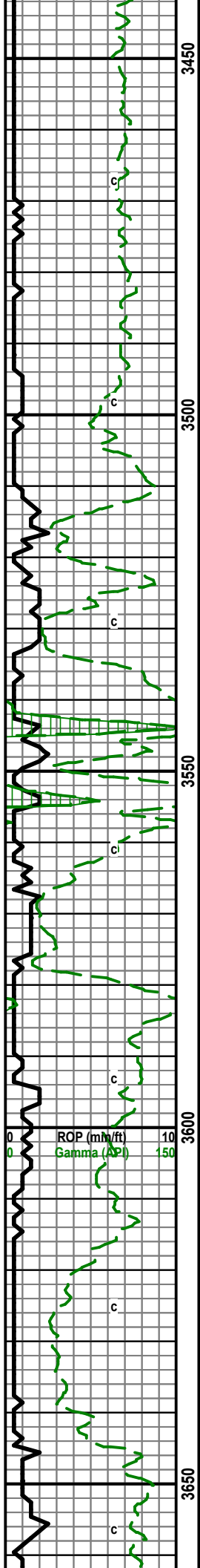
- STRINGER**
- Anhy

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- 

- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg

- OIL SHOW**
- Even
  - Spotted
  - Ques
  - Dead





Sh: gry, some red/orange-lt gry, some LS: A.A. with tan

Sh: gry-lt gry, some silty, LS: crm, mcrxln, cherty sli fos, sli chalky

Sh: and LS: A.A.

Sh: lt gry-gry, silty, LS: crm, mcrxln, cherty

Sh: lt gry, some blk, LS: A.A.

Sh: A.A. with few pieces LS: crm, mcrxln, cherty

Sh: lt gry, silty, some blk-grn-red/orange, few SS cluster: clear vfgrn, sub round

Sh: lt gry, some gry-red/orange-grn, some LS: crm-tan, mcrxln, sli cherty

Sh: lt gry, few SS: sli silty, opaque vfgrn

Sh: gry, some blk, LS: crm-tan, mcrxln

Sh: drk gry-blk, some gry, SS: clear-gry, silty, sub round, sli odor (show gas in cup)

Sh: A.A. with SS: gry-opaque, silty, sub round, sli odor (show gas in cup)

Sh: gry, some lt gry, few pieces SS: A.A.

Sh: gry-lt gry, silty, LS: crm-tan, mcrxln, some fxln, fos, sli cherty, same SS ( encountered in next 5 samples, cavings?)

Sh: gry-lt gry, some LS: A.A.

Sh: lt gry-gry, with LS: crm, some tan, mcrxln, few pieces fxln, sli fos

Sh: lt gry-gry, with LS: crm, some tan, mcrxln, sli fos, sli cherty

Sh: lt gry-gry, LS: A.A.

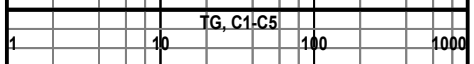
Sh: lt gry-gry, some grn, with few pieces LS: crm, mcrxln, sli fos

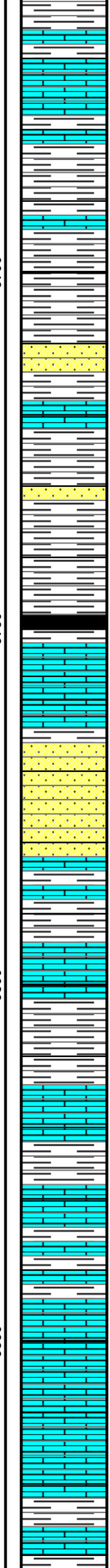
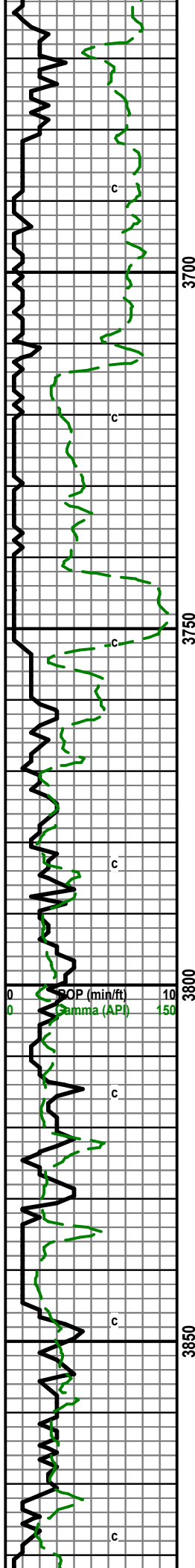
Sh: lt gry-gry, some drk gry, SS: clear, vf grn-grn, sub ang,

Sh: A.A. with SS: lt gry-clear, vfgrn, sli silty,

Sh: gry-drk gry, some blk, some LS: crm, mcrxln, SS: gry-clear, vf-f grn, sub ang, sli silty

**Heebner: 3548 (-1900)**





Sh: gry-drk gry, with few pieces LS: A.A. and SS: A.A.

Sh: gry-drk gry, some blk, LS: crm-tan, mcrxln, some fxln, sli fos, same S.S.

Sh: gry-drk gry, some blk, few pieces LS: A.A., SS: lt gry vfgrn, silty

Sh: lt gry, some gry, some silty, SS: A.A.

SS: gry-clear, some opaque, vf-f gm, sub ang, some LS: crm-tan, mcrxln, sli fos, Sh: lt gry

Sh with interbedded SS: lt gry, silty/vfgrn, some LS: crm-tan, mcrxln, sli fos

Sh with interbedded SS: A.A. with few cluster clear, fg, sub ang

Sh: lt gry silty, some LS: crm-tan, mcrxln, sli fos

Sh: A.A., some drk gry-blk, with LS: crm, mcr-fxln, fos

LS: crm-tan, fxln, fos, with Sh: gry, silty

LS: crm-tan, mcr-fxln, sli fos, sample had good amount of SS: clear, f gm, sub ang, fair-good sort

SS: A.A. few pieces LS: crm-tan, mcr-fxln, sli fos

LS: crm-tan, mcrxln, sli fos, few cluster SS: A.A. with some Sh: drk gry-gry

LS: crm-tan, mcr-fxln, sli cherty, sli fos

LS: tan-crm, mcrxln, some fxln, some Sh: gry-lt gry

LS: crm, mcr-fxln, fos, sli cherty, Sh: gry-drk gry

LS: crm, some gry, mcrxln, some fxln, sli cherty, Sh: drk gry-gry

LS: crm-tan, some gry, mcr-fxln, sli cherty, sli fos, some Sh: A.A.

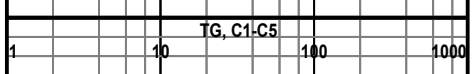
LS: crm-tan, fxln, sli cherty, fos, Sh: drk gry

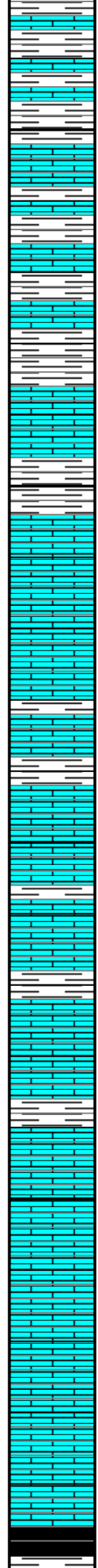
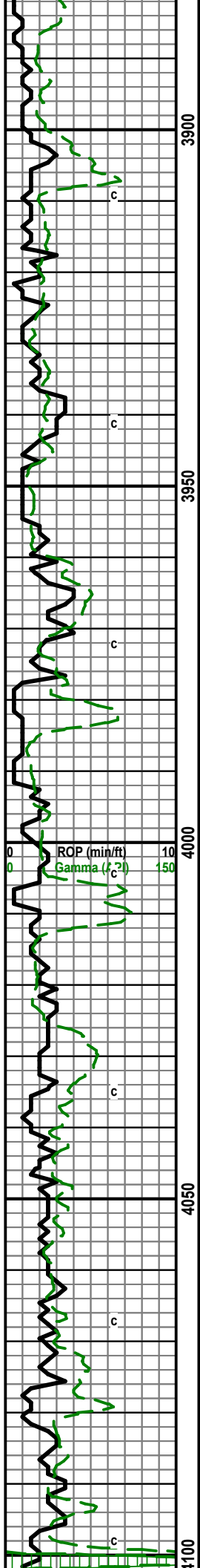
LS: tan-crm, fxln, sli fos, sli cherty, Sh: A.A.

LS: tan, some crm, mcrxln, some fxln

LS: tan-brwn, some crm, mcrxln, cherty, Sh: lt gry-gry

**Brown Lime: 3753 (-2105)**





LS: tan, some crm, mcr-fxln, cherty, sli fos, Sh: drk gry-gry

LS: tan, somecm, mcrxln, cherty, sli fos, Sh: A.A.

LS: tan-crm, some brn, mcr-fxln, cherty, fos, sli chalky

LS: crm-tan, mcr-fxln, sli cherty, sli fos, sli chalky

LS: crm, some tan, fxln, sli fos, Sh: gry-lt gry

LS: tan-crm, mcr-fxln, sli cherty

LS: tan-crm, mcrxln, some fxln, cherty, sli fos, Sh: gry

LS: crm, sli gry, mcrxln, some fxln, cherty, fos, Sh: gry-drk gry-lt gry

LS: crm-tan-gry, mcr-fxln, sli cherty, sli fos, some ool, Sh: A.A.

LS: crm, few gry, mcrxln, some fxln, sli cherty, sli fos, Sh: gry-lt gry

LS: crm-tan, fxln, fos, sli cherty, Sh: gry-lt gry-drk gry

LS: crm-tan-gry, mcrxln, sli chalky, sli fos, some chert

LS: crm-tan, some gry, mcr-fxln, sli ool, sli chalky, some chert, Sh: drk gry-gry

LS: and Sh: A.A.

LS: crm, some tan, mcrxln few fxln, sli ool, sli chalky, sli cherty

LS: crm, sli gry, mcrxln, sli ool, sli chalky, sli cherty, some Sh: gry-lt gry

LS: crm-gry, mcrxln,

LS: A.A. sli fos,

LS: tan, sli gry, mcrxln, some fxln, sli chalky, sli cherty, some pieces fos

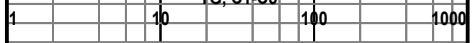
LS: crm-gry, some tan, fxln, some mcrxln, cherty, sli chalky, fos,

LS: tan-crm, some brn, fxln, some mcrxln, cherty, fos, sli chalky

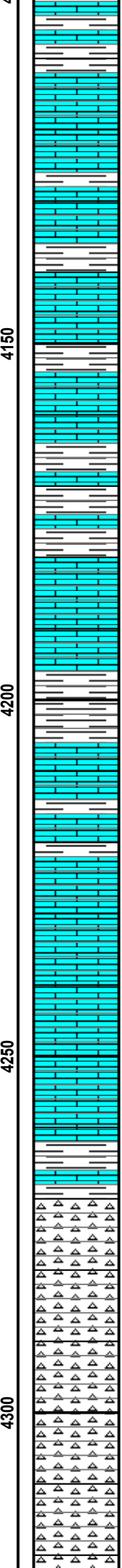
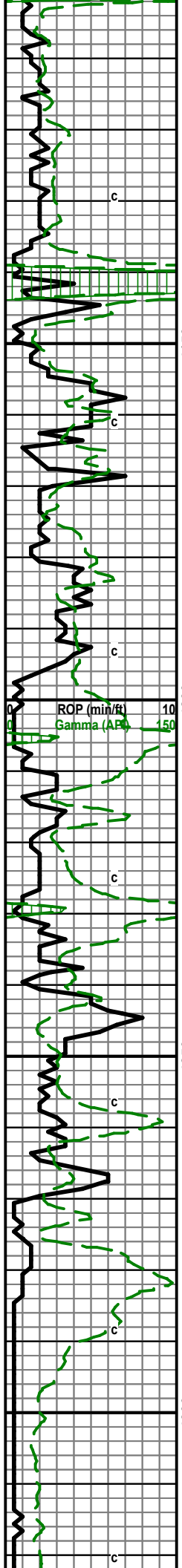
LS: crm-tan, mcrxln, sli chalky, sli fos, some Sh: drk gry-gry, few blk

Mudco mdck  
 Wt: 9.0 Vis: 50  
 pH: 10.5 Fil: 8.8  
 LCM: 1#

TG, C1-C5



**Stark Shale: 4096 (-2448)**



LS: A.A. with Sh: lt gry-gry

LS: crm-tan, some gry, mcrxln, some fxln, sli chalky sli fos

LS: crm-gry, mcr-fxln, sli chalky, fos, few pieces chert with Sh: drk gry-bck

LS: crm-tan, mcr some fxln, sli cherty, dense, with few friable pieces, pr por with few fr ppnt por, sli sfo, sli show gas, fr odor, very dull yellow fluor in few pieces

LS: crm-gry, mcrxln, dense, sli ool, sli cherty, some Sh: bck-drk gry, fr odor, sli show gas in cup

LS: gry some crm, mcrxln, dense, ool, few pieces with fr vug por, Sh: A.A. some bleeding gas

LS: crm-gry, mcr-fxln, ool, dense, some with fr vug por, sli cherty, Sh: A.A.

LS: crm, some gry, mcrxln few fxln, some ool, sli cherty

LS: gry-crm, mcrxln, dense, sli cherty

Sh: gry-drk gry, some bck,

LS: crm, sli gry, mcrxln, sli fos, sli chalky

LS: crm-gry, mcrxln, sli fos, sli chalky, some Sh: drk gry-gry some bck

LS: crm-tan, mcr some fxln, sli fos, some chalk, few pieces chert

LS: crm, sli tan-gry, mcrxln, dense, sli cherty,

LS: crm-tan, mcrxln, some fxln, sli fos, sli chalky in part, sli cherty,

LS: crm, mcrxln, cherty, sli fos, some Sh: gry-grm

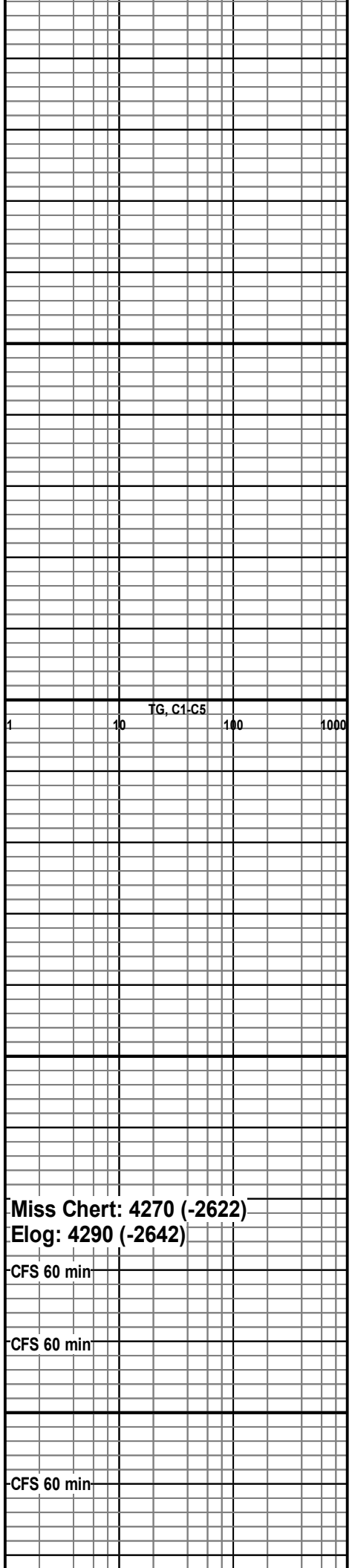
LS: gry-crm, mcrxln, sli cherty

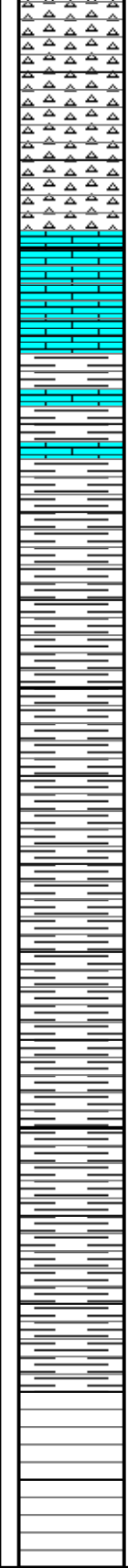
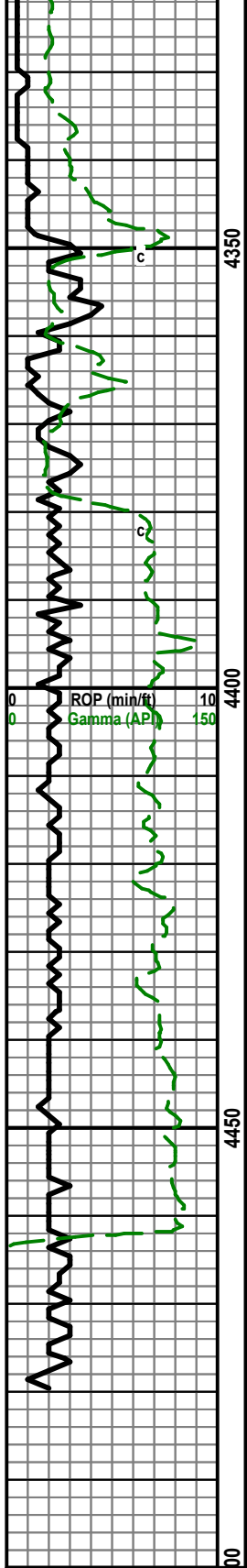
Chert: white, trip and fresh, friable, sli por, sat stain, show fr o, sli odor, sli show gas

Chert: A.A. some pieces are dense

Chert: white, trip, some fresh, friable, some dense, sat stain, sli vis por, good show o, good odor, sli show gas, dull yellow fluor,

Chert: white, trip, some fresh, some pieces friable, most dense, sat stain in some, sli vis por, good show o, good odor, sli show gas, dull yellow fluor,





Chert: A.A.

Chert: white, most fresh, dense, few pieces have stain and show

Chert: crm, dense, with LS: gry-crm, mcr-fxn, dense

LS: gry-crm, mcrxn-fxn, dense, sli fos, Sh: gry-drk gry, sample still contains Chert from above

Mostly Sh: gry-lt gry-drk gry, some LS: A.A. and Chert

Sh: gry-lt gry-gm

Sh: gry, some lt-drk

Sh: A.A.

Sh: gry, some lt-drk

Sh: A.A.

RTD: 4480

LTD: 4483

