

WELL INFORMATION

Company: RED OAK ENERGY, INC.
Address: 7701 E. KELLOGG DR., STE 710
WICHITA, KS 67207

Well Name: PEARCE TRUST 1-32

Location: 253' FNL & 1570' FWL
SECTION 32-T13S-R38W
WALLACE COUNTY, KANSAS

API: 15-199-20440
Field: WILDCAT

K. B. Elevation: 3254 Rotary Depth: 4710
Ground Elevation: 3247 Log Depth: 4708

Spud Date: 5/6/2017 Drilling Completed: 5/14/2017

Completion: CEDAR HILLS DISPOSAL
Surface Casing: 8 5/8", 23# SET @ 386' Production Casing: 5.5" SET @ 2511

Formation at TD: MISSISSIPPIAN
Drilling Fluid Type: CHEMICAL

Rig Contractor: STP DRILLING, RIG #1
Logger: ELI Logs Run: CND, DI

Wellsite Geologist: LARRY P. FRIEND

FORMATION DEPTHS

COMPARED TO:
RED OAK ENERGY, INC.
JOHNSON VIEW 1-30
SW/4, 30-T13S-R38W

FORMATION DEPTHS	SAMPLE	LOG	
BLAINE ANHYDRITE	1801 (+1453)	1800 (+1454)	+56
CEDAR HILLS SAND	2139 (-1115)	2135 (-1119)	+70
STONE CORRAL	2430 (+824)	2427 (+827)	+15
BASE	2459 (+795)	2453 (+801)	+15
FT. RILEY	2673 (+581)	2667 (+587)	-2
BS. FLORENCE	2777 (+477)	2774 (+480)	FLAT
NEVA	3082 (+172)	3078 (+176)	-7
STOTLER	3420 (-166)	3418 (-164)	-8
TOPEKA	3504 (-250)	3501 (-247)	-11
HEEBNER SHALE	3770 (-516)	3767 (-513)	-11
LANSING	3820 (-566)	3817 (-563)	-15
BKC	4186 (-932)	4179 (-925)	-19
MARMATON	4216 (-962)	4210 (-956)	-30
CHEROKEE	4354 (-1100)	4350 (-1096)	-36
MORROW SHALE	4540 (-1286)	4538 (-1284)	-52
UP MORROW SAND	MISSING		
LW MORROW SAND	4645 (-1391)	4642 (-1388)	-45
MISS	4653 (-1399)	4650 (-1396)	-48

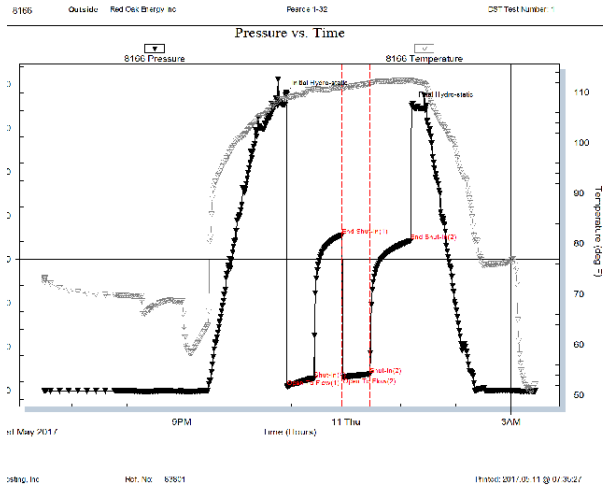
NOTES

IT WAS DECIDED TO RUN CASING TO THE STONE CORRAL TO MAKE THIS HOLE INTO A CEDAR HILLS DISPOSAL WELL.
LARRY FRIEND

DRILLSTEM TESTS

No	Interval	Formation
1	3522 - 3586	TOPEKA

DSI #1: TOPEKA 3522 - 3586



ROCK TYPES

- | | | | |
|--------|-----------|-------|-----------|
| Coal | Lmst fw7> | Shgy | Slst |
| Dolsec | Ss | Shbck | Ool grnst |

ACCESSORIES

MINERAL

- ▲ Chert, dark
- Sandy
- ^ Siliceous
- Silty
- △ Chert White

FOSSIL

- Oolites

OTHER SYMBOLS

OIL SHOWS

- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn
- D Dead Oil Stn
- Fluorescence

INTERVALS

- Core
- DST

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

Curve Track #01					
ROP (min/ft)	—	Depth Intervals	Interpreted Lithology	Oil Shows	Geological Descriptions
Total Gas (units)	- - - -				
					Comment

Cored Interval

DST Interval

1:240 Imperial

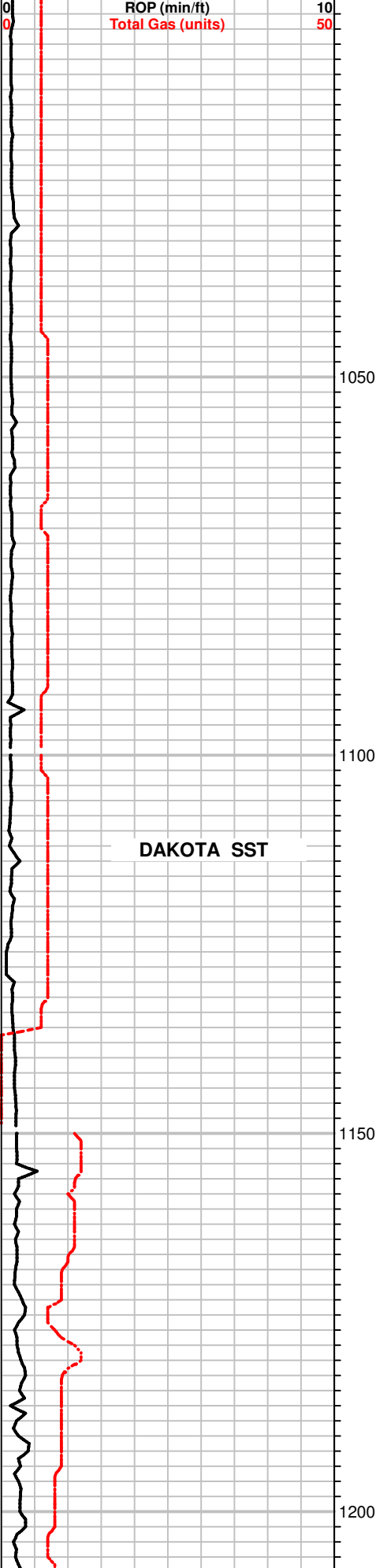
ROP (min/ft)

Total Gas (units)

10

50

0
0



GEO ON LOCATION

CLOSED SAMPLE BOX. GAS
DETRACTOR NOW
WORKING

7:00AM DEPTHS

5-6-17: MIRU, SPUD, SET
SURF @ 386'

5-7-17: 386'

5-8-17: 1754'

5-9-17: 2930'

5-10-17: 3470', DST #1

5-11-17: 3586, CFS

5-12-17: 3918

5-13-17: 4295'

5-14-17: 4584'

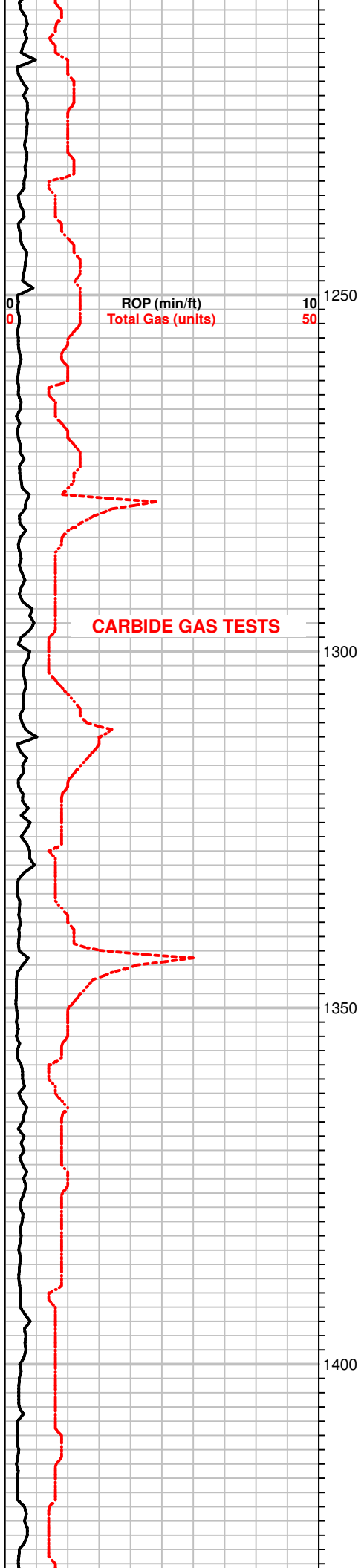
5-15-17: 4710', RUNNING CSG

DEVIATION SURVEYS:

.75 @ 368

.25 @ 3586

1.5 @ 4710

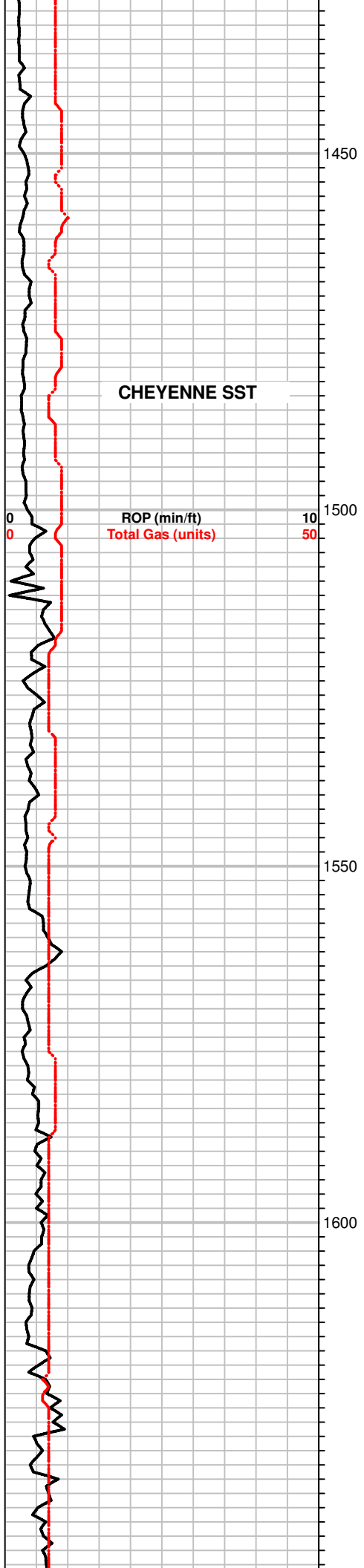


1376: CRM-TAN SILT TO V. FN SST, SOME SUBRND, SLI. MICA, SLI. GLAUC, FRIAB TO TITE; TR. PYRITIC FROSTED SST, TITE W/ CALC. CEM

SHALLOW SAMPLES OF VARYING VALUE. LITTLE MUD IN HOLE. 1 SAMPLE PER KELLY.

1407: SILTSTN, GRY W/ SLI. CALC. CEM; GRY SHALE

1439: GRY SHALE



1470: GRY SHALE

1502: SST, CLR, FN GRND, WELL SORT,
SBANG - SUBRD, FRIAB W/ GD. POR; NS

1533: GRY CLAY, TR. PYRIT

1564: TR. CRM SOFT LIME; MOSTLY GRY
CLAY, SOME SILTY.

1596: LT. GRN LIME, SOFT-HD; RED CLAYS.

NO SAMPLE

1659: TR. CSE QTZ GRNS; SOFT LT. GRY
SHALE.

1650

1691: REDBEDS

1700

1723: AS ABOVE & TR. CSE QTZ.

1754: MIXED

1750

ROP (min/ft)
Total Gas (units)

10
50

MUD AT 1754:
WT. 9.2
VIS. 33
CHLOR: 100
LCM: 3#

1786: REDBEDS

1818: INC. ANHYDRITE; SHALE AS ABOVE.

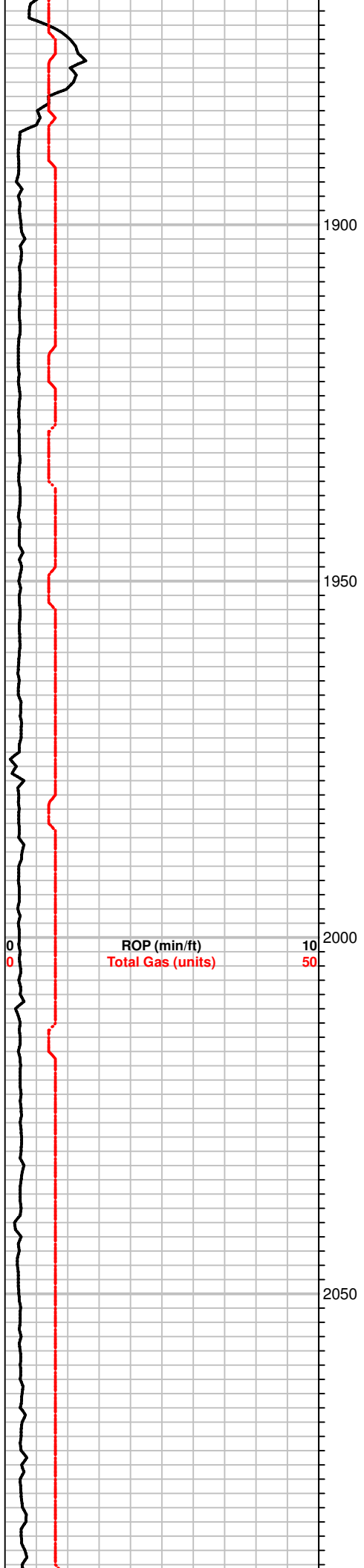
- BLAINE ANHY. -
1801 (+1453)

1800

1849: AS ABOVE

1850

1881: FLOOD CRM & ORANGE ANHYDRITE;
RED & VARY COL. SHALE.



1912: CRM-TAN DOL. LS, V. OOLITIC, PR-FR
INTEROOL. POR, NS

1944: REDBEDS

1976: AS ABOVE

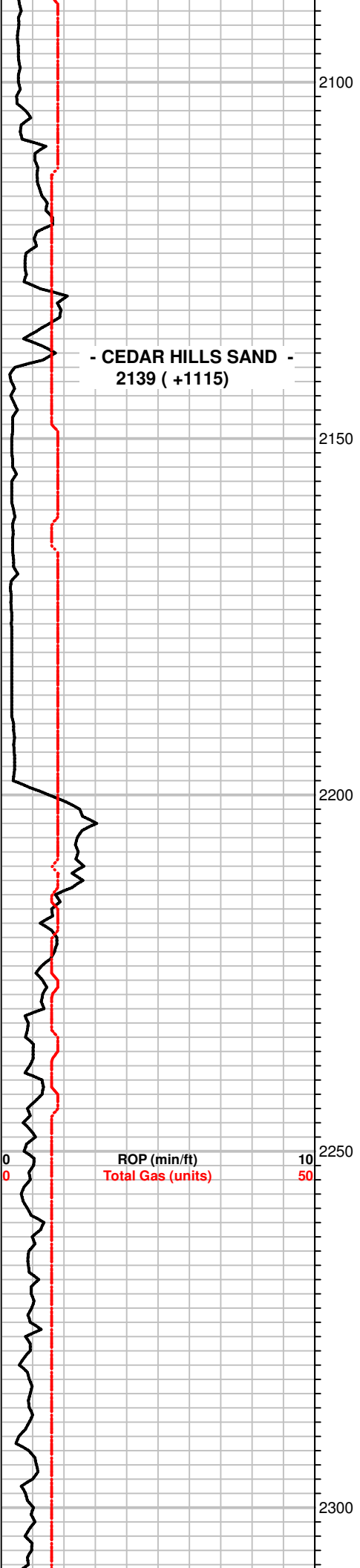
2007: REDBEDS

2039: REDBEDS, ANHYDRITE, TR. PYRITE

2077: TR. SST, FN-MED, CLR, SBANG-SBRD,
TITE; PYRITE; REDBEDS

2102: TR. CSE QTZ GRNS, SUBRD; TR. SST
TITE; REDBEDS

2134: REDBEDS



2167: CRM ANHYDRITE; VARY COL. SHALE

2199: CRM-TAN DOLOMITIC; ANHYDRITE;
VARY COL. SHALE, TR. BLK

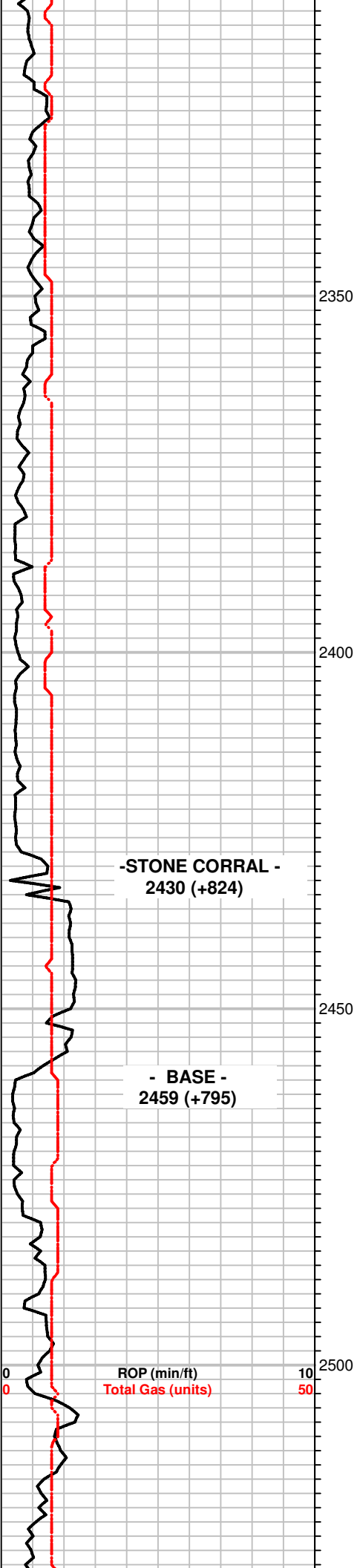
VERY POOR SAMPLES

2230: TRASH

2261: SHALE, RED.

2293: REDBEDS; TR. CSE QTZ GRNS.

2325: MIXED



2388: REDBEDS; TR. TITE SST.

2350

2419: REDBEDS; TR. PYRITE

2400

2451: AS ABOVE

-STONE CORRAL -
2430 (+824)

2482: BIG INC. CRM-GRY ANHYDRITE

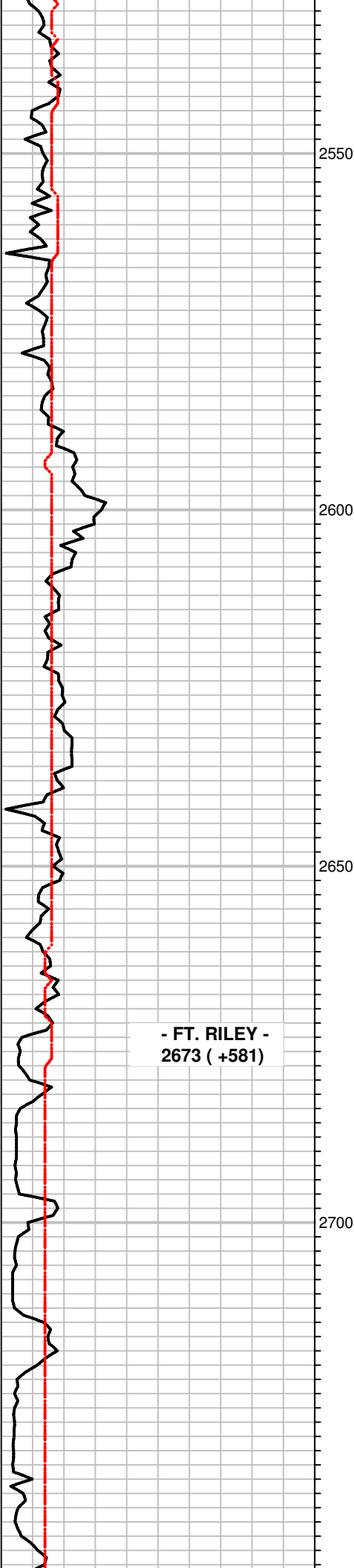
2450

- BASE -
2459 (+795)

2513: TR. LS, BRN, FXLN, FOSS, PR. XLN.
POR;

2500

2545: LS, BRN, FXLN, SLI. CALCITIC, PR. XLN.
POR.



2576: LT - MED GRY SHALE.

2608: RED SILTY & GRY SHALE

2638: LT. GRY SILTSTONE, TITE.

2661: AS ABOVE.

2703: LT. GRY SILTSTONE, GD. POR;
REDBEDS

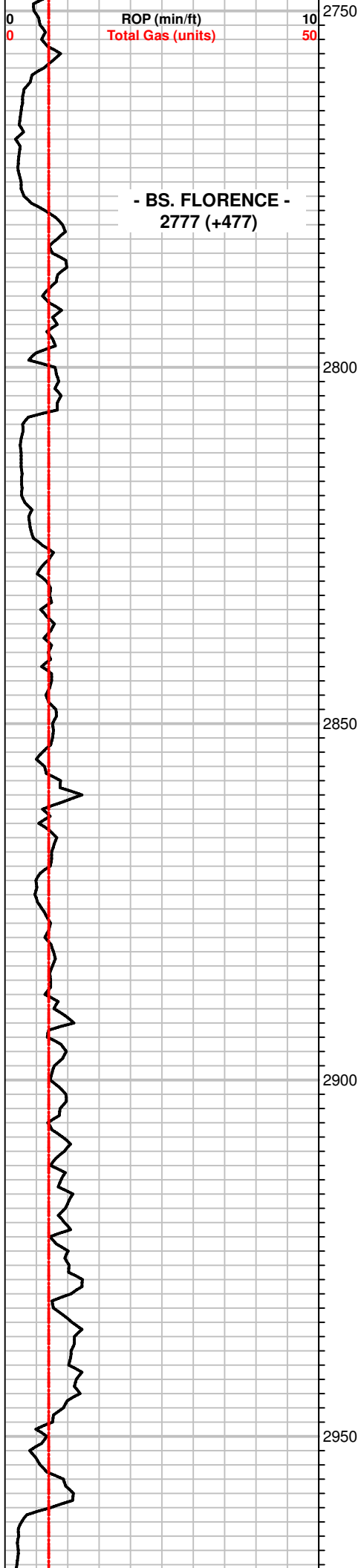
**- FT. RILEY -
2673 (+581)**

AS ABOVE.

2765: TR. GRY SILTSTONE; MOSTLY
REDBEDS

POOR SAMPLES. LITTLE
MUD IN HOLE.

FLUID LEVEL DROPPED IN
SAMPLE BOX WITH GAS
EXTRACTOR BEING TOO
HIGH. NOT WORKING HERE.



2797: AS ABOVE.

2829: CRM DOLOMITE, FXLN, PR-FR. XLN. POR

POOR SAMPLES - LITTLE MUD IN HOLE.

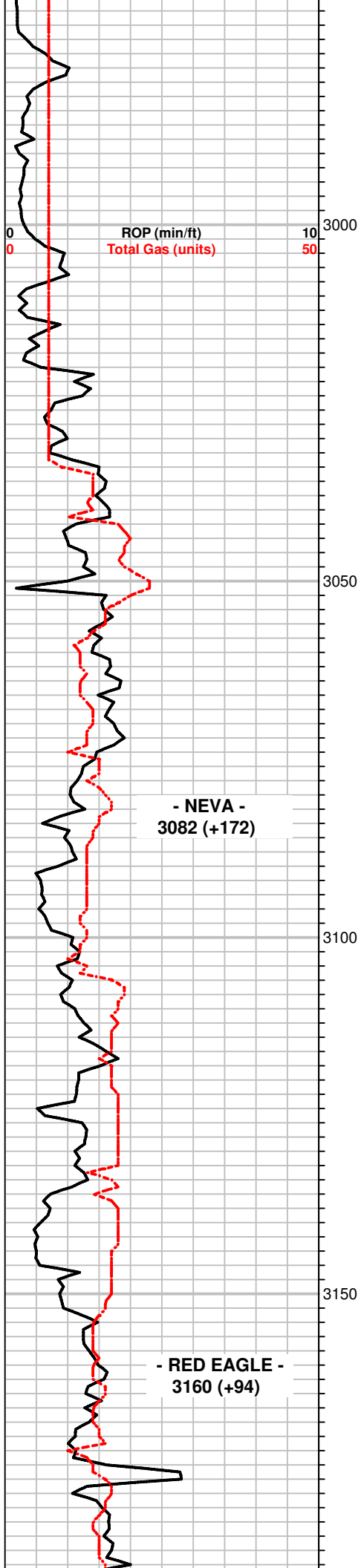
2860: DOLOMITE AS ABOVE; SOME CRM/ LT. GRN SILTSTONE W/ PR-GD. POR.

2892: SILTSTONE, CRM-GRY, SOME CALC. CEM, PR-GD. POR.

2924: NO SAMPLE

2954: NEW LT. GRY SHALE.

2986: SILTSTONE, CRM - LT. GRY, GD. POR.



SAMPLE MIXED

SAMPLE MIXED

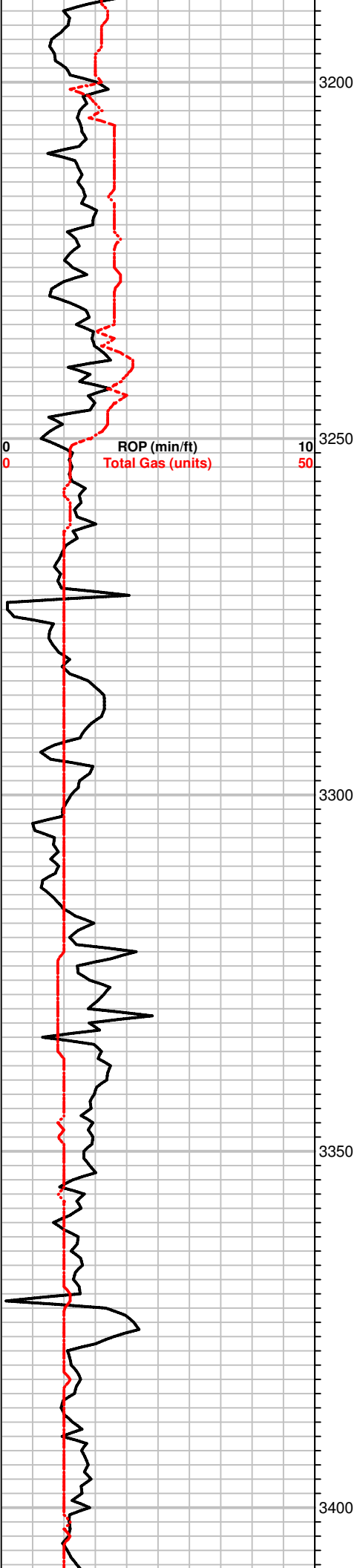
MUD CHECK AT 3020:
WT: 9.8
VIS: 31
CHLOR: 63,000
LCM: TR.

LOWERED GAS DETECTOR
BACK DOWN INTO MUD.
WORKING AGAIN.

TITE CONNECTION AT 3049.
WORKING PIPE UP AND
DOWN.

3143: TR. LS, BRN, VF-FN XLN, PR. POR.

3207: TR. LS, TAN- LT. BRN, VF- FN XLN; TR.
BRN CHERT.



LS, BRN, VFXLN, DSE TO V. LMY, TAN GRANULAR SILTSTONE; NS

MUD UP @ 3228
 LOWERED GAS
 BACKGROUND

LS, AS ABOVE.

STARTED 10 FT. SAMPLES AT
 3300.

SHALE, GRY, GRN

GRY VERY LIMY SILTSTONE

TR. LS CRM-TAN, FXLN, V. FOSS. PR-FR. XLN. POR.; NS

MOSTLY GRY VERY LMY SILTSTONE.

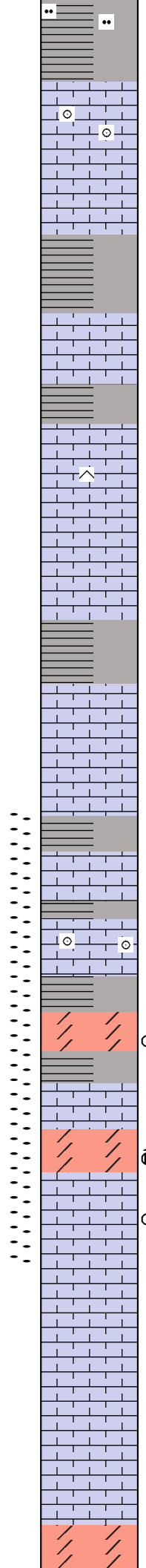
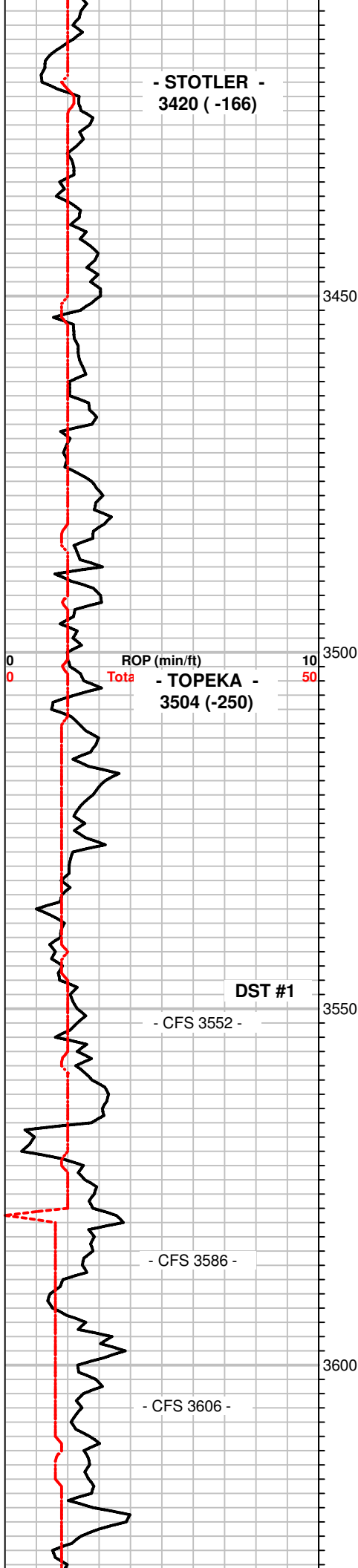
LS, CRM-TAN, FXLN, CALCITTE FILL IN LARGE VUGS/ MIOLDS, PR-FR XLN. POR

CARBIDE TEST 3365 - V.
 MINOR KICK - NOT
 WORKING

VERY LMY CRM SILTSTONE

SHALE, GRY; TR. LS, TAN, FXLN, V. OOLITIC - FOSS.

GRY-GRN LMY SILTSTONE TO GRY SILTY SHALE.



INC. GRY SHALE

TR. TAN V. OOLITIC LS, PR. POR TO TAN V. LMY SILTSTONE; NS

MUCH GRY-TAN V. LMY SILTSTONE.

GRY-BLK SHALE; TR. PYRITE.

LS, TAN, FXLN, V. FOSS, PR-FR XLN POR; NS

LS AS ABV & TAN LMY SILTSTONE.

LT. GRY, VFXLN LS, SLI. CHERTY, DSE

LS, TAN-BRN, VFXLN, DSE.

SHALE & TR.LS, CRM-TAN, FXLN, PR-FR. XLN. POR; NS

LS, TAN-BRN FXLN, FOSS, PR. POR, TR. CHALKY; NS

SHALE GRY & DK. GRY FOSS. LS, PR. POR

3552 CIRC: LS, CRM-TAN, FXLN, V. FOSS, FR. XLN. POR; TR. LS, V. OOLITIC, PR. POR; NS, NO FLUOR.

70: TR. DOL, CRM, GD XLN POR & TR PPT POR, VSSFO, LT. BRN SAT STN, TR, SPTY FLUOR

TR. DOL, CRM, GD XLN & PPT-VUG POR, S - FSFO, PART - EVEN LT BRN SAT STN, TR. SPTY FLUOR, FR. ODOR

TR. DOL AS ABOVE, .

06: LS, CRM-TAN, FXLN, SLI. FOSS, FR. XLN & PR. PPT. POR; NS

CIRC: TRASH: RED BEDS; DID HAVE A TR OF DOL FROM ABOVE W/ GD. POR. & SFO.

LS, BRN, FXLN, V. FOSS, PR. XLN. POR; NS; MOSTLY TRASH

CIRC: POOR SAMPS: DO HAVE TR. DOL TAN

GAS DETECTOR NOT WORKING HERE.

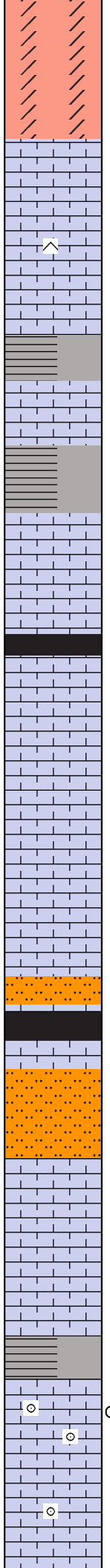
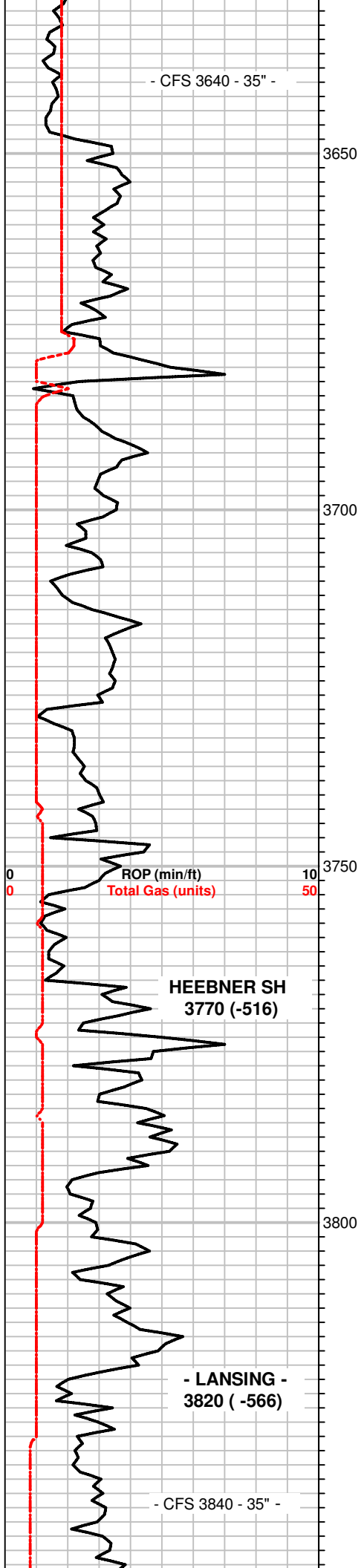
MUD CHECK AT 3516:
 WT: 8.8
 VIS: 52
 FILTRATE: 6.4
 CHLOR: 3,000
 LCM: 3#

RAN 30 STAND SHORT TRIP BEFORE TEST.
PIPE STRAP AT 3586 = 3.72'
 SHORT TO BOARD IS SOMEWHAT QUESTIONABLE DUE TO WEATHER CONDITIONS.

DST #1: 3522-3586
TIMES: 30-30-30-45
IF: BLOW BUILT TO 3"
FF: BLOW BUILT TO 1.25"
REC: 45' MUD W/ OIL SPOTS
124' WTR CUT MUD (20%W)
CHLOR 19,000
SYSTEM CHLOR 3,000
(RW .49 @ 52 F)
IFP: 22-70, FFP: 76-93#
SIP: 889-855#
TEMP: 112

EXCHANGED GAS DETECTOR AGITATOR AT 3586. CARBIDE TEST - NO KICK - STILL NOT WORKING

SAMPLES POOR HERE HAD A LOT OF RAIN AFFECTING MUD
 VIS. 41. MIXING MUD



35\"/>

60: FLOOD LT. BRN, FXLN, SUCROSIC DOL. LS
GD. XLN POR AND TR. LS, CRM, FOSS, GD XLN. POR; NS, NO FLUOR.

70: LS, TAN, FXLN AS ABV W/ MUCH CALCITE FILLIN PR-FR. XLN. POR; NS

LS, TAN, FXLN, SUCROSIC, SLI. CHTY, PR-FR XLN. POR; NS

SHALE & TR. LS, BRN, VFXLN, DSE.

LS, TAN, FXLN, V. FOSS, PR. XLN. POR; NS

LS, BRN, VF-FXLN, DSE, TR. SILTY.

LS, SOFT, CRM CHALKY.

LS, TAN, FXLN, FOSS, PR. POR TO LS, CRM - LT. GRN, SOFT CHALKY

LS, CRM-GRY, SOFT CHALKY AND GRY LMY SILTSTONE; SLI. INC. BLK SHALE..

LT. GRY LMY SILTSTONE

LS, CRM, FLXN, SLI. FOSS, PR-FR. XLN. POR; NS

LS, CRM-TAN, FXLN, SLI. FOSS, PR- TR. FR. XLN. POR; SHALE GRY; NS

TR, CRM, FXLN, FAINTLY OOLITIC, FR. XLN POR, 1 SM. PC W/ TR. FO & SPTY SAT. STN; NO ODOR.

35\"/>

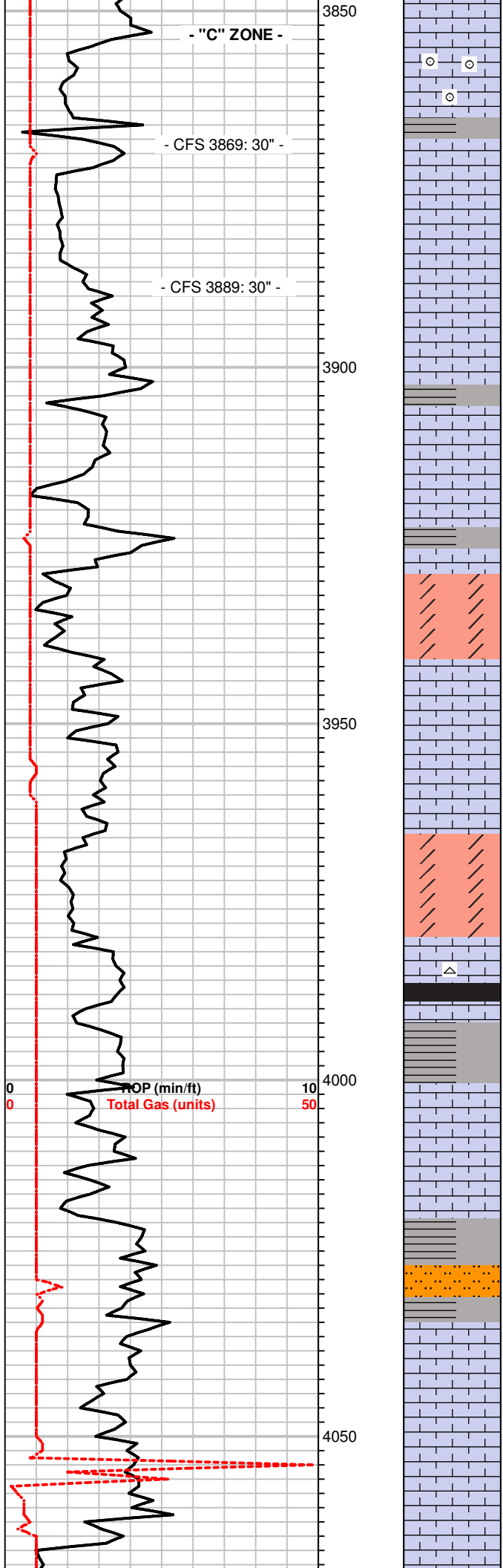
SOFT GRY LMY SHALE

FOUND GAS DETECTOR HOSE UNHOOKED. MAY HAVE HAPPENED WHEN BLOWING OUT LINES ??

LIGHTER TEST - MINOR KICK - STILL NOT WORKING VERY WELL. COULD NOT DETERMINE PROBLEM

GETTING V. LITTLE SAMPLE HERE

SAMPLES BETTER



- "C" ZONE -

- CFS 3869: 30" -

- CFS 3889: 30" -

ROP (min/ft) 0 10
Total Gas (units) 0 50

3850

3900

3950

4000

4050

SOFT GRAY LMY SHALE.
FEW PCS LS, CRM, SLI. CHLKY, V. OOLITIC W/
GD. XLN. POR & TR. FR. INTEROOL. POR.,
PR. TR. DK. SPTY STN, TR. FO, NO FLUOR,
GD. FLUSH CUT, NO ODOR

LS, VFXLN, HARD, W/ PR-FR. SCAT. VUG.
POR
NS, NO FLUOR

LS, CRM, CHLKY & LS, TAN, VFXLN, DSE; NS

LS, BRN, VF-FXLN, SLI. FOSS, PR. VIS. POR
& LS, CRM CHLKY; NS

LS, CRM CHLKY TO LS, BRN, VFXLN, DSE; NS

DOL, TAN, FXLN, SUCROSIC, FR. XLN. POR;
NS

LS, TAN-BRN, FXLN, DSE, SOME CRM SLI.
CHLKY; NS

DOL, TAN, HARD, FXLN, SUCROSIC, PR-FR.
XLN. POR; NS

LS, TAN, VFXLN, PR. POR; TR. CHERT; NS

SMALL AMT. SHALE, BLK, GRY, GRN.

LS, BRN, VFXLN, DSE TO LS, CRM CHLKY; NS

GRY - GRN SILTSTONE; SHALE, GRY

LS, TAN-BRN, XLN, SOME SLI. FOSS.,
MOSTLY PR - TR. FR. XLN. POR; NS

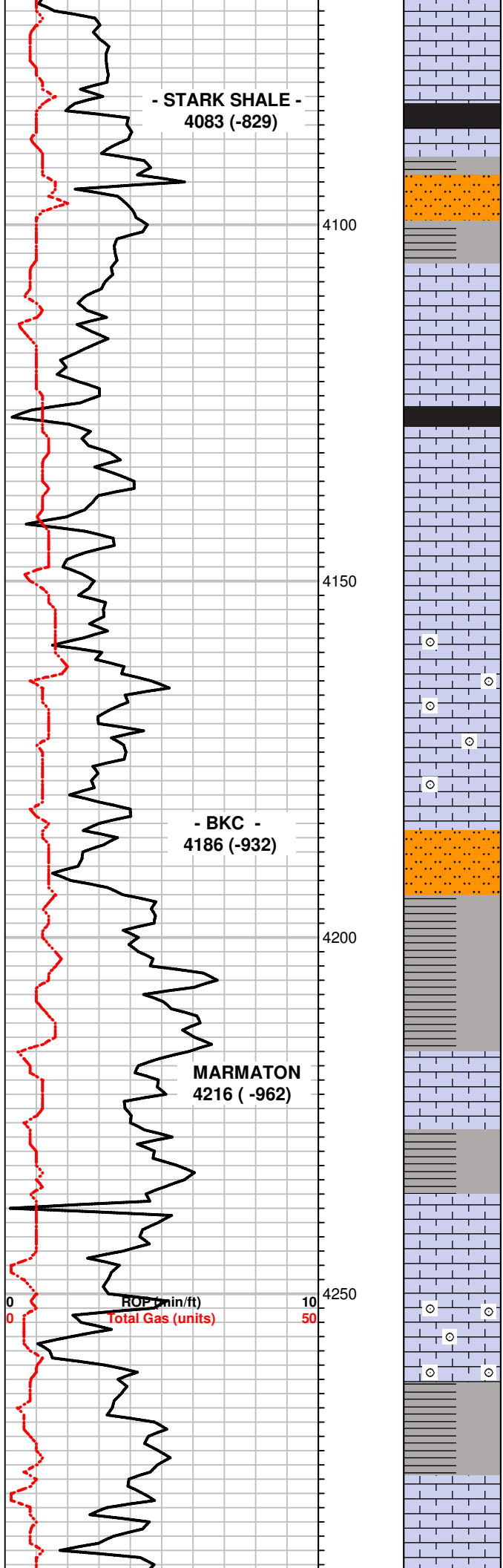
TR. CRM, DETRITAL LS & SHALE, GRY

MUD CHECK AT 4013:
WT: 9.2
VIS: 55
FILTRATE: 8.8
CHLOR: 3,800
LCM: 2#

GAS CALIBRATION

TIM W/ EARTH TECH FOUND

GAS DILUTION KNOB
TURNED WIDE OPEN. ALSO
BUBBLE JAR ON AGITATOR
LOOSENEED. ADJUSTED
THESE & DETECTOR
WORKING AGAIN



LS, CRM-BRN, XLN, PR-FR XLN. POR;
CARRYING SOME CRM CHLKY LIME; NS

TR. SHALE BLK

GRY LMY SILTSTONE, SHALE, GRY

LS, CRM, SLI. CHLKY TO LS, BRN, VFXLN, SLI.
FOSS, DSE TO SOME W/ PR-FR. XLN. POR.;
NS

TR. BLK SHALE; LS, CRM SLI. CHLKY TO LS,
BRN, PR. POR; NS

LS, TAN-BRN, VF-FXLN, PR. POR TO SOME,
CRM, SLI. CHLKY; NS

LS, BRN, FXLN, V. OOLITIC / FOSS, PR. POR;
NS

GRY, LMY SILTSTONE, TITE TO FAIRLY
FRIABLE; AND GRY SHALE.

LS, BRN, VF-FXLN, DSE - PR. POR; NS

LS, AS ABV. SOME SLI. FOSS, SLI.
WEATHERED; NS

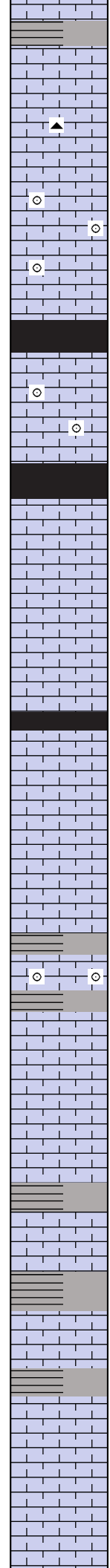
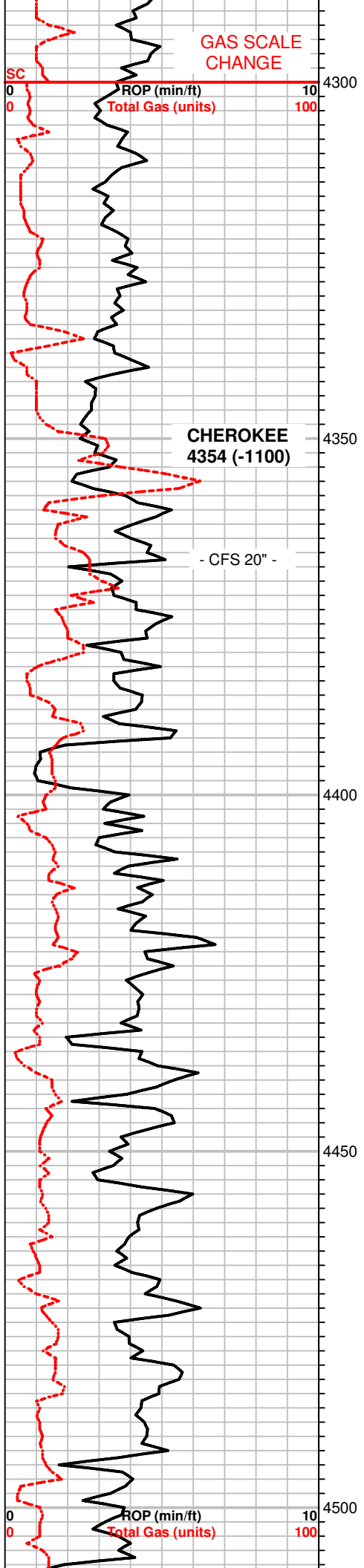
GRY SHALE AND GRY LMY SILTSTONE.

LS, BRN, VFXLN, SLI. FOSS, PR. POR; SHALE,
GRY; NS

LS, BRN, V. OOLITIC / FOSS., PR - TR. FR.
XLN. POR & TR. INTER-OOLITIC PPT POR.;
NS

CARRYING LS AS ABV.; NS

LS, BRN, V. FOSS. / FRAGMENTAL, PR-FR.
XLN. POR; NS



LS, BRN, VF-FXLN, SOME FOSS, PR-FR. XLN. POR; NS

SHALE, GRY; TR. BRN CHERT.

LS, TAN-BRN, V. OOLITIC / FOSS, W/ PR-FR. XLN. POR; NS

TR. BLK SHALE

LS, BRN, SOME V. OOLITIC / FOSS, PR. VIS. POR; NS

SHALE, BLK.

LS, BRN, VF-FXLN, SOME FOSS, PR. VIS. POR SHALE, GRY; NS

TR. BLK SHALE.

POOR SAMPLES: HAD SOME SOFT CRM LIME; NS

LS, BRN, VFXLN, PR. POR. TO SOME WEATHERED SLI. CHLKY; NS

LS, BRN, V. OOLITIC / FOSS, PR. XLN. POR; NS

SHALE, GRY

LS, TAN - DK BRN, VF-FXLN, SOME FOSS, PR. VIS. POR; SOME SHALE GRY, TR. PYRITE; NS

LS, AS ABOVE; NS

GAS SCALE CHANGE

MUD CHECK AT 4346:
 WT: 9.3
 VIS: 56
 FILTRATE: 7.2
 CHLOR: 4,000
 LCM: 3#

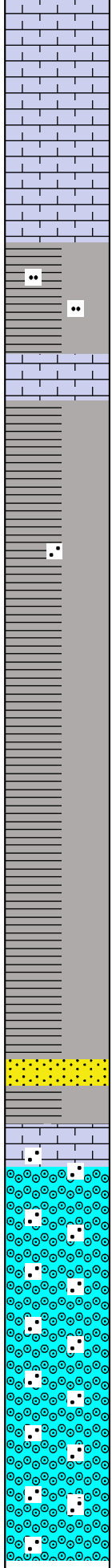
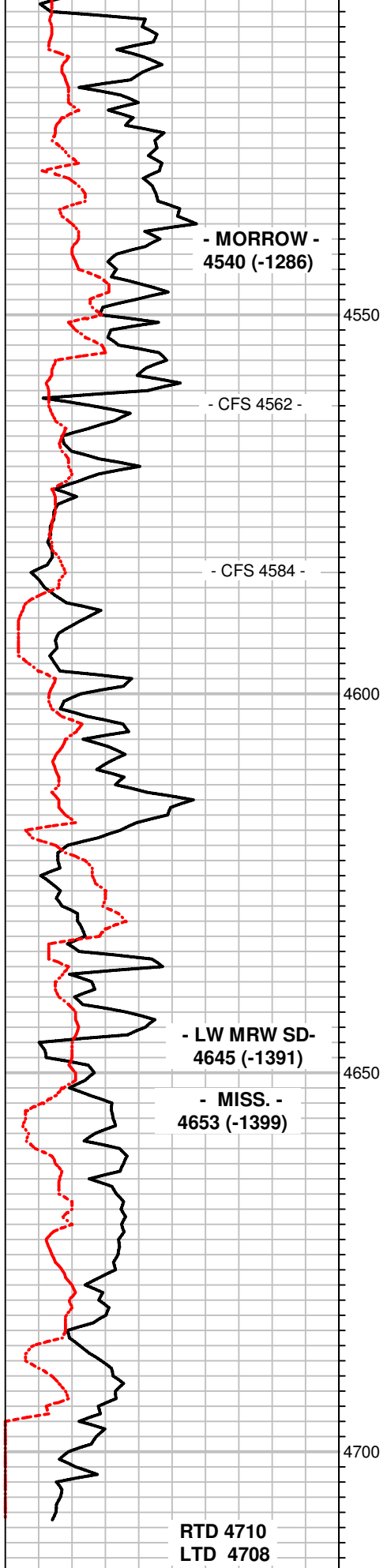
15-20 UNIT KICK.

SAMPLE QUALITY GETTING WORSE.

52 UNIT GAS KICK

SHORT TRIP PIPE AT 4405.

GETTING VERY LITTLE SAMPLE - ADDING MUD



LS, TAN-BRN, VF-FXLN, SOME FOSS, PR - TR. FR. XLN. POR; NS

SHALE, GRY, GRN; TR. CRM LMY SILTSTONE, FRIABLE

LS, TAN, VF-FXLN, DSE; NS

SHALE, BLACK & GRY; 1 PC SST, VF GRND, CLR, SBRD, WELL SORT, TITE; NS

SHALE, BLK, GRY, BRN; 1 PC SST AS ABV; NS

SHALE, LT-DK GRY, BLK; TR. PYRITE.

SHALE, AS ABV, PYRITE; TR. LS, DK BRN, WEATHERED LOOKING; NS

GRY-BRN LMY SILTSTONE AND SHALE GRY-BLK.

SM. AMT. CRM SST, VF GRND, CLR, FRLY WELL SORT, TITE; TAN CHERT, SHARP; NS

LS, GRY, VF-FXLN, SLI. FOSS, SLI. WEATH, PR. TR. FR. XLN. POR; NS

LS, TAN, FXLN, MICRO-OOLITIC / ARENACEOUS, PR - FR. XLN. POR; NS

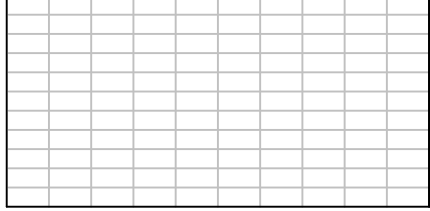
LS, AS ABV; TR. SST, CRM VF GRND, CLR, TITE AS ABV; NS

LS, CRM-TAN, FXLN, MICRO-OOLITIC / ARENACEOUS, PR-FR. XLN. POR, SOME SLI CHLKY; NS

10 UNIT GAS INCREASE IN MORROW SHALE

MUD CHECK AT 4562:
WT: 9.2
VIS: 54
FILTRATE: 8.0
CHLOR: 4,000
LCM: 3#

GAS INCREASE

				
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