



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1072344  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1072344

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	TUCKER B 4 H
Doc ID	1072344

#### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
CONDUCTOR	32	20	53	45	GROUT	4	4 yards, not sx
SURFACE	17.5	13.375	48	271	60/40 POZ	300	2% gel, 3% cc
INTERMEDIATE	8.75	7	23	4779	60/40 POZ	30	
INTERMEDIATE	8.75	7	23	4779	CLASS H	200	10% salt, 10% Cal-set, 8/10 FLA-322, 1/4# Celoflake
PRODUCTION	6.125	4.5	11.6	8079	NONE	0	NO CMT USED

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 20, 2012

DEAN PATTISSON  
Woolsey Operating Company, LLC  
125 N MARKET STE 1000  
WICHITA, KS 67202-1729

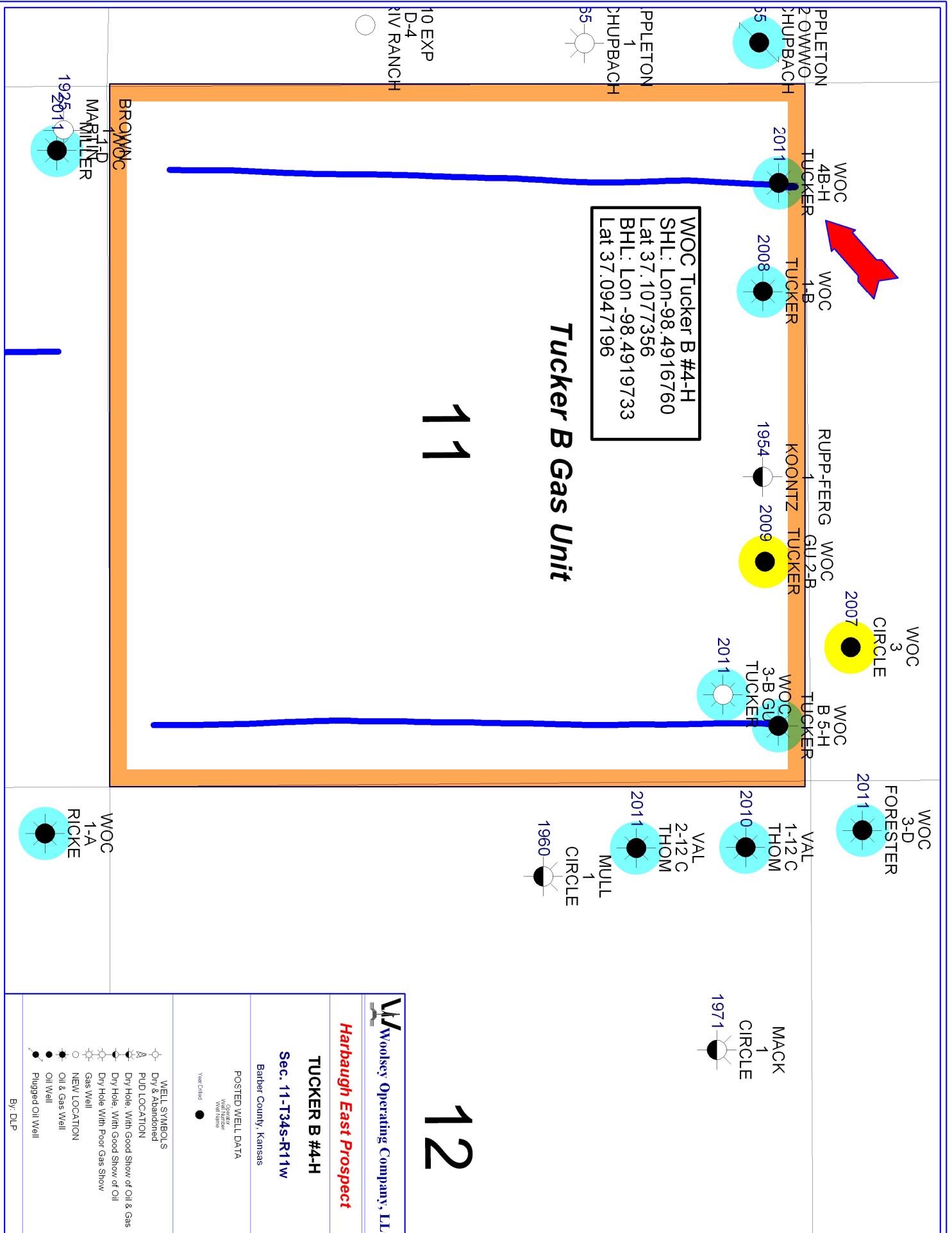
Re: ACO1  
API 15-007-23769-01-00  
TUCKER B 4 H  
NW/4 Sec.11-34S-11W  
Barber County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
DEAN PATTISSON



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**WOC Tucker B #4-H**  
 SHL: Lon-98.4916760  
 Lat 37.1077356  
 BHL: Lon -98.4919733  
 Lat 37.0947196

**Tucker B Gas Unit**

**Woolsey Operating Company, LLC**

**Harbaugh East Prospect**

**TUCKER B #4-H**

**Sec. 11-T34S-R11W**

Barber County, Kansas

POSTED WELL DATA

Year Colored ●

- WELL SYMBOLS**
- Dry & Abandoned PUD LOCATION
  - Dry Hole, With Good Show of Oil & Gas
  - Dry Hole, With Poor Gas Show
  - Gas Well
  - NEW LOCATION
  - Oil & Gas Well
  - Oil Well
  - Plugged Oil Well

By: DLP

# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 1  
 Date : 10/12/2011

**Vertical Section Calculated Along Azimuth 0.00°**  
**KB Elevation = 15.00ft GR. Elevation = 1396.00ft**

	MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	%100	%100	%100
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	788.00	1.80	28.20	787.87	10.91	5.85	10.91	0.23	0.23	3.58
2	852.00	2.30	28.60	851.83	12.92	6.94	12.92	0.78	0.78	0.63
3	916.00	2.40	27.40	915.78	15.24	8.17	15.24	0.17	0.16	-1.87
4	948.00	2.40	32.10	947.75	16.40	8.83	16.40	0.61	0.00	14.69
5	1043.00	2.70	30.90	1042.65	20.01	11.04	20.01	0.32	0.32	-1.26
6	1152.00	2.50	35.20	1151.54	24.15	13.73	24.15	0.26	-0.18	3.94
7	1168.00	2.40	32.20	1167.53	24.72	14.11	24.72	1.02	-0.62	-18.75
8	1231.00	2.50	32.40	1230.47	27.00	15.55	27.00	0.16	0.16	0.32
9	1294.00	2.50	30.10	1293.41	29.35	16.97	29.35	0.16	0.00	-3.65
10	1357.00	2.40	25.60	1356.35	31.72	18.23	31.72	0.34	-0.16	-7.14
11	1419.00	2.40	25.80	1418.30	34.06	19.36	34.06	0.01	0.00	0.32
12	1482.00	2.20	27.60	1481.25	36.32	20.49	36.32	0.34	-0.32	2.86
13	1545.00	2.10	28.60	1544.20	38.41	21.61	38.41	0.17	-0.16	1.59
14	1609.00	2.20	31.40	1608.16	40.49	22.81	40.49	0.23	0.16	4.38
15	1671.00	2.20	26.50	1670.11	42.57	23.96	42.57	0.30	0.00	-7.90
16	1735.00	1.80	28.60	1734.07	44.55	24.99	44.55	0.64	-0.63	3.28
17	1798.00	1.70	22.40	1797.04	46.28	25.82	46.28	0.34	-0.16	-9.84
18	1861.00	1.70	18.70	1860.01	48.03	26.47	48.03	0.17	0.00	-5.87
19	1924.00	1.80	17.40	1922.99	49.86	27.07	49.86	0.17	0.16	-2.06
20	1986.00	2.00	17.50	1984.95	51.82	27.68	51.82	0.32	0.32	0.16
21	2049.00	1.90	14.80	2047.91	53.88	28.28	53.88	0.22	-0.16	-4.29
22	2112.00	1.90	14.90	2110.88	55.90	28.82	55.90	0.01	0.00	0.16
23	2237.00	1.80	16.30	2235.82	59.78	29.90	59.78	0.09	-0.08	1.12
24	2394.00	2.20	20.40	2392.72	64.97	31.64	64.97	0.27	0.25	2.61
25	2519.00	2.30	10.80	2517.62	69.69	32.95	69.69	0.31	0.08	-7.68
26	2645.00	2.10	5.30	2643.53	74.47	33.64	74.47	0.23	-0.16	-4.37
27	2770.00	2.00	3.20	2768.45	78.93	33.97	78.93	0.10	-0.08	-1.68
28	2896.00	2.20	6.90	2894.37	83.52	34.38	83.52	0.19	0.16	2.94
29	2990.00	2.10	2.80	2988.30	87.04	34.68	87.04	0.20	-0.11	-4.36
30	3085.00	2.50	352.20	3083.22	90.83	34.49	90.83	0.61	0.42	-11.16
31	3180.00	2.20	348.80	3178.14	94.67	33.85	94.67	0.35	-0.32	-3.58
32	3275.00	2.00	356.10	3273.08	98.11	33.39	98.11	0.35	-0.21	7.68
33	3369.00	2.20	357.00	3367.02	101.55	33.18	101.55	0.22	0.21	0.96
34	3465.00	2.20	358.00	3462.95	105.23	33.02	105.23	0.04	0.00	1.04
35	3560.00	2.20	0.80	3557.88	108.88	32.98	108.88	0.11	0.00	2.95

# Well Report



Company : Woolsey  
Well : Tucker B-4  
Location : Sec11-34S-11W  
Reference: True North

Page: 2  
Date : 10/12/2011

**Vertical Section Calculated Along Azimuth 0.00°**  
**KB Elevation = 15.00ft GR. Elevation = 1396.00ft**

	MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	%/100	%/100	%/100
36	3653.00	2.30	0.20	3650.80	112.53	33.01	112.53	0.11	0.11	-0.65
37	3748.00	2.10	356.20	3745.73	116.17	32.90	116.17	0.27	-0.21	-4.21
38	3842.00	2.70	349.50	3839.65	120.07	32.39	120.07	0.70	0.64	-7.13
39	3937.00	2.50	340.20	3934.55	124.22	31.28	124.22	0.49	-0.21	-9.79
40	4027.00	2.10	343.50	4024.48	127.64	30.14	127.64	0.47	-0.44	3.67

**Bottom Hole Closure 131.15ft Along Azimuth 13.29°**

# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 1  
 Date : 10/12/2011

## Vertical Section Calculated Along Azimuth 181.20°

KB Elevation = 15.00ft GR. Elevation = 1396.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg %/100	Build %/100	Turn %/100
0	4027.00	2.10	343.50	4024.48	127.64	30.14	-128.25	0.00	0.00	0.00
1	4059.00	1.50	333.70	4056.47	128.58	29.79	-129.18	2.10	-1.87	-30.63
2	4090.00	1.30	227.20	4087.46	128.71	29.35	-129.29	7.25	-0.65	-343.55
3	4121.00	4.20	198.10	4118.42	127.39	28.74	-127.96	10.09	9.35	-93.87
4	4153.00	7.70	195.10	4150.25	124.20	27.82	-124.76	10.98	10.94	-9.37
5	4184.00	11.00	190.00	4180.83	119.28	26.76	-119.82	10.97	10.65	-16.45
6	4216.00	14.30	187.00	4212.05	112.35	25.75	-112.87	10.51	10.31	-9.37
7	4248.00	17.80	184.40	4242.80	103.55	24.90	-104.05	11.16	10.94	-8.12
8	4279.00	21.40	181.90	4272.00	93.17	24.34	-93.66	11.92	11.61	-8.06
9	4311.00	25.00	180.80	4301.40	80.57	24.06	-81.06	11.33	11.25	-3.44
10	4343.00	28.20	182.40	4330.01	66.25	23.64	-66.73	10.25	10.00	5.00
11	4374.00	31.20	184.40	4356.94	50.92	22.72	-51.39	10.19	9.68	6.45
12	4405.00	34.50	185.10	4382.98	34.17	21.33	-34.61	10.72	10.65	2.26
13	4437.00	38.10	184.60	4408.76	15.29	19.73	-15.70	11.29	11.25	-1.56
14	4469.00	41.40	184.20	4433.36	-5.10	18.16	4.72	10.34	10.31	-1.25
15	4501.00	44.60	184.40	4456.76	-26.86	16.52	26.51	10.01	10.00	0.63
16	4532.00	48.10	184.10	4478.16	-49.23	14.86	48.91	11.31	11.29	-0.97
17	4564.00	51.10	183.50	4498.90	-73.54	13.25	73.25	9.48	9.37	-1.87
18	4596.00	54.10	183.20	4518.33	-98.92	11.77	98.65	9.40	9.37	-0.94
19	4628.00	56.90	182.80	4536.45	-125.25	10.39	125.01	8.81	8.75	-1.25
20	4659.00	59.20	182.70	4552.86	-151.52	9.13	151.30	7.42	7.42	-0.32
21	4691.00	61.30	182.80	4568.73	-179.27	7.79	179.07	6.57	6.56	0.31
22	4723.00	63.50	182.60	4583.56	-207.60	6.46	207.42	6.90	6.88	-0.62
23	4748.00	65.30	182.70	4594.36	-230.12	5.42	229.95	7.21	7.20	0.40
24	4816.00	70.60	183.20	4619.88	-293.04	2.17	292.93	7.82	7.79	0.74
25	4848.00	74.00	183.50	4629.61	-323.47	0.39	323.39	10.66	10.62	0.94
26	4880.00	77.30	183.10	4637.54	-354.41	-1.40	354.36	10.38	10.31	-1.25
27	4911.00	80.90	182.80	4643.40	-384.81	-2.96	384.79	11.65	11.61	-0.97
28	4943.00	84.60	182.30	4647.44	-416.51	-4.38	416.51	11.67	11.56	-1.56
29	4975.00	88.20	182.70	4649.45	-448.42	-5.77	448.44	11.32	11.25	1.25
30	5007.00	90.50	183.20	4649.81	-480.37	-7.41	480.42	7.36	7.19	1.56
31	5038.00	91.20	183.50	4649.35	-511.31	-9.23	511.39	2.46	2.26	0.97
32	5070.00	91.60	183.80	4648.57	-543.24	-11.26	543.35	1.56	1.25	0.94
33	5102.00	91.40	183.20	4647.73	-575.17	-13.22	575.32	1.98	-0.63	-1.88
34	5134.00	91.60	183.00	4646.89	-607.11	-14.95	607.29	0.88	0.63	-0.63
35	5165.00	91.80	182.10	4645.97	-638.06	-16.32	638.27	2.97	0.65	-2.90



# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 2  
 Date : 10/12/2011

## Vertical Section Calculated Along Azimuth 181.20°

KB Elevation = 15.00ft GR. Elevation = 1396.00ft

	MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	%/100	%/100	%/100
36	5197.00	92.30	181.30	4644.83	-670.03	-17.27	670.24	2.95	1.56	-2.50
37	5228.00	92.20	180.50	4643.61	-701.00	-17.76	701.22	2.60	-0.32	-2.58
38	5260.00	92.30	179.30	4642.35	-732.98	-17.70	733.19	3.76	0.31	-3.75
39	5292.00	91.70	179.00	4641.24	-764.95	-17.23	765.15	2.10	-1.87	-0.94
40	5323.00	92.00	178.70	4640.24	-795.93	-16.61	796.10	1.37	0.97	-0.97
41	5354.00	91.50	178.60	4639.29	-826.91	-15.88	827.06	1.64	-1.61	-0.32
42	5386.00	90.80	178.20	4638.65	-858.89	-14.98	859.01	2.52	-2.19	-1.25
43	5418.00	91.20	177.90	4638.09	-890.86	-13.90	890.96	1.56	1.25	-0.94
44	5450.00	90.40	177.30	4637.64	-922.83	-12.56	922.89	3.12	-2.50	-1.88
45	5481.00	89.40	177.90	4637.70	-953.81	-11.26	953.83	3.76	-3.23	1.94
46	5513.00	89.50	177.90	4638.00	-985.78	-10.08	985.78	0.31	0.31	0.00
47	5545.00	90.10	177.90	4638.11	-1017.76	-8.91	1017.72	1.87	1.87	0.00
48	5576.00	90.70	177.80	4637.90	-1048.74	-7.75	1048.67	1.96	1.94	-0.32
49	5608.00	89.50	178.50	4637.84	-1080.72	-6.72	1080.62	4.34	-3.75	2.19
50	5640.00	88.70	179.00	4638.34	-1112.71	-6.02	1112.59	2.95	-2.50	1.56
51	5672.00	89.30	179.10	4638.90	-1144.70	-5.49	1144.56	1.90	1.88	0.31
52	5703.00	90.10	179.50	4639.07	-1175.70	-5.11	1175.55	2.89	2.58	1.29
53	5735.00	90.30	179.80	4638.95	-1207.70	-4.91	1207.53	1.13	0.63	0.94
54	5767.00	90.90	179.70	4638.62	-1239.69	-4.77	1239.52	1.90	1.88	-0.31
55	5799.00	91.60	179.60	4637.92	-1271.68	-4.58	1271.50	2.21	2.19	-0.31
56	5831.00	92.60	179.00	4636.75	-1303.66	-4.19	1303.46	3.64	3.13	-1.87
57	5863.00	92.70	180.20	4635.27	-1335.62	-3.96	1335.41	3.76	0.31	3.75
58	5895.00	91.70	180.40	4634.04	-1367.60	-4.13	1367.39	3.19	-3.12	0.63
59	5927.00	90.30	180.40	4633.48	-1399.59	-4.36	1399.38	4.38	-4.38	0.00
60	5958.00	89.30	181.50	4633.59	-1430.59	-4.87	1430.38	4.80	-3.23	3.55
61	5990.00	88.40	181.80	4634.23	-1462.57	-5.79	1462.37	2.96	-2.81	0.94
62	6022.00	87.70	181.60	4635.32	-1494.54	-6.74	1494.35	2.27	-2.19	-0.63
63	6053.00	87.80	181.90	4636.54	-1525.50	-7.69	1525.32	1.02	0.32	0.97
64	6085.00	88.50	182.90	4637.57	-1557.45	-9.02	1557.30	3.81	2.19	3.13
65	6117.00	89.30	182.90	4638.19	-1589.40	-10.64	1589.28	2.50	2.50	0.00
66	6149.00	89.30	183.60	4638.58	-1621.35	-12.46	1621.26	2.19	0.00	2.19
67	6180.00	89.60	183.50	4638.87	-1652.29	-14.38	1652.23	1.02	0.97	-0.32
68	6212.00	90.70	183.40	4638.79	-1684.23	-16.30	1684.20	3.45	3.44	-0.31
69	6244.00	91.30	184.10	4638.23	-1716.16	-18.39	1716.17	2.88	1.88	2.19
70	6276.00	90.70	183.90	4637.67	-1748.07	-20.63	1748.12	1.98	-1.88	-0.63
71	6307.00	90.40	183.50	4637.38	-1779.01	-22.63	1779.09	1.61	-0.97	-1.29

# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 3  
 Date : 10/12/2011

## Vertical Section Calculated Along Azimuth 181.20°

KB Elevation = 15.00ft GR. Elevation = 1396.00ft

	MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	%/100	%/100	%/100
72	6339.00	90.20	183.60	4637.21	-1810.95	-24.61	1811.06	0.70	-0.63	0.31
73	6371.00	90.30	183.40	4637.07	-1842.89	-26.56	1843.04	0.70	0.31	-0.63
74	6403.00	90.40	182.70	4636.87	-1874.84	-28.26	1875.02	2.21	0.31	-2.19
75	6434.00	90.30	183.10	4636.68	-1905.80	-29.83	1906.01	1.33	-0.32	1.29
76	6466.00	90.40	183.40	4636.49	-1937.75	-31.65	1937.99	0.99	0.31	0.94
77	6498.00	90.50	182.50	4636.24	-1969.70	-33.29	1969.97	2.83	0.31	-2.81
78	6529.00	90.40	182.40	4635.99	-2000.67	-34.62	2000.96	0.46	-0.32	-0.32
79	6561.00	90.00	181.60	4635.88	-2032.65	-35.74	2032.96	2.80	-1.25	-2.50
80	6593.00	90.20	180.80	4635.83	-2064.65	-36.41	2064.96	2.58	0.63	-2.50
81	6624.00	90.50	180.90	4635.64	-2095.64	-36.87	2095.96	1.02	0.97	0.32
82	6652.00	89.90	181.10	4635.54	-2123.64	-37.35	2123.96	2.26	-2.14	0.71
83	6683.00	87.70	180.80	4636.19	-2154.63	-37.87	2154.95	7.16	-7.10	-0.97
84	6714.00	87.20	180.50	4637.57	-2185.59	-38.22	2185.91	1.88	-1.61	-0.97
85	6746.00	88.60	181.60	4638.74	-2217.56	-38.81	2217.89	5.56	4.37	3.44
86	6778.00	90.50	182.10	4638.99	-2249.55	-39.84	2249.89	6.14	5.94	1.56
87	6810.00	90.70	182.10	4638.66	-2281.52	-41.01	2281.88	0.62	0.63	0.00
88	6841.00	91.10	182.10	4638.17	-2312.50	-42.15	2312.87	1.29	1.29	0.00
89	6873.00	90.10	181.70	4637.83	-2344.48	-43.21	2344.87	3.37	-3.13	-1.25
90	6905.00	90.10	181.60	4637.78	-2376.46	-44.13	2376.87	0.31	0.00	-0.31
91	6936.00	90.00	181.50	4637.75	-2407.45	-44.97	2407.87	0.46	-0.32	-0.32
92	6968.00	90.30	181.70	4637.67	-2439.44	-45.86	2439.87	1.13	0.94	0.63
93	7000.00	90.00	181.80	4637.58	-2471.43	-46.84	2471.86	0.99	-0.94	0.31
94	7031.00	89.10	181.90	4637.83	-2502.41	-47.84	2502.86	2.92	-2.90	0.32
95	7062.00	88.30	182.10	4638.53	-2533.38	-48.92	2533.85	2.66	-2.58	0.65
96	7094.00	88.80	182.10	4639.34	-2565.35	-50.09	2565.84	1.56	1.56	0.00
97	7126.00	89.20	182.50	4639.90	-2597.32	-51.38	2597.82	1.77	1.25	1.25
98	7158.00	89.70	182.50	4640.21	-2629.29	-52.77	2629.81	1.56	1.56	0.00
99	7189.00	90.00	182.30	4640.29	-2660.26	-54.07	2660.81	1.16	0.97	-0.65
100	7221.00	90.40	182.50	4640.18	-2692.23	-55.41	2692.80	1.40	1.25	0.63
101	7253.00	89.10	181.90	4640.31	-2724.21	-56.64	2724.79	4.47	-4.06	-1.88
102	7285.00	88.80	181.80	4640.90	-2756.18	-57.67	2756.79	0.99	-0.94	-0.31
103	7317.00	88.80	181.90	4641.57	-2788.16	-58.71	2788.78	0.31	0.00	0.31
104	7348.00	88.50	181.70	4642.30	-2819.14	-59.68	2819.77	1.16	-0.97	-0.65
105	7380.00	88.70	181.50	4643.08	-2851.11	-60.57	2851.76	0.88	0.63	-0.63
106	7412.00	89.30	181.20	4643.64	-2883.10	-61.33	2883.75	2.10	1.88	-0.94
107	7444.00	89.50	181.40	4643.98	-2915.09	-62.05	2915.75	0.88	0.63	0.63

# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 4  
 Date : 10/12/2011

## Vertical Section Calculated Along Azimuth 181.20°

KB Elevation = 15.00ft GR. Elevation = 1396.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg %/100	Build %/100	Turn %/100
108	7475.00	89.50	181.20	4644.25	-2946.08	-62.75	2946.75	0.65	0.00	-0.65
109	7507.00	89.10	180.90	4644.64	-2978.07	-63.34	2978.75	1.56	-1.25	-0.94
110	7539.00	89.10	180.90	4645.14	-3010.07	-63.84	3010.74	0.00	0.00	0.00
111	7570.00	89.30	180.80	4645.57	-3041.06	-64.30	3041.74	0.72	0.65	-0.32
112	7602.00	88.60	180.80	4646.16	-3073.05	-64.75	3073.73	2.19	-2.19	0.00
113	7634.00	88.60	180.80	4646.94	-3105.04	-65.20	3105.72	0.00	0.00	0.00
114	7666.00	88.70	180.50	4647.70	-3137.03	-65.56	3137.71	0.99	0.31	-0.94
115	7698.00	88.60	180.50	4648.45	-3169.02	-65.84	3169.70	0.31	-0.31	0.00
116	7729.00	88.40	180.30	4649.26	-3200.00	-66.06	3200.69	0.91	-0.65	-0.65
117	7761.00	88.30	180.60	4650.18	-3231.99	-66.31	3232.67	0.99	-0.31	0.94
118	7793.00	88.70	180.60	4651.02	-3263.98	-66.64	3264.66	1.25	1.25	0.00
119	7825.00	88.50	180.70	4651.80	-3295.97	-67.00	3296.65	0.70	-0.63	0.31
120	7856.00	88.10	180.70	4652.72	-3326.95	-67.38	3327.63	1.29	-1.29	0.00
121	7888.00	86.60	180.70	4654.20	-3358.91	-67.77	3359.60	4.69	-4.69	0.00
122	7920.00	86.70	180.40	4656.07	-3390.86	-68.08	3391.54	0.99	0.31	-0.94
123	7952.00	86.40	180.60	4658.00	-3422.80	-68.36	3423.48	1.13	-0.94	0.63
124	7983.00	86.00	180.80	4660.05	-3453.73	-68.74	3454.41	1.44	-1.29	0.65
125	8014.00	86.00	181.00	4662.21	-3484.65	-69.22	3485.33	0.64	0.00	0.65
126	8045.00	88.20	181.90	4663.78	-3515.60	-70.01	3516.29	7.67	7.10	2.90
127	8077.00	89.50	181.90	4664.42	-3547.57	-71.07	3548.28	4.06	4.06	0.00
128	8111.00	89.00	182.00	4664.87	-3581.55	-72.22	3582.27	1.50	-1.47	0.29
129	8142.00	89.00	182.00	4665.41	-3612.52	-73.31	3613.27	0.00	0.00	0.00
130	8174.00	88.70	181.80	4666.05	-3644.50	-74.37	3645.26	1.13	-0.94	-0.63
131	8206.00	88.60	182.10	4666.81	-3676.47	-75.45	3677.25	0.99	-0.31	0.94
132	8237.00	88.70	182.30	4667.54	-3707.44	-76.64	3708.23	0.72	0.32	0.65
133	8269.00	88.20	182.30	4668.40	-3739.40	-77.93	3740.22	1.56	-1.56	0.00
134	8301.00	87.70	182.20	4669.55	-3771.36	-79.18	3772.19	1.59	-1.56	-0.31
135	8333.00	87.70	182.30	4670.83	-3803.31	-80.44	3804.16	0.31	0.00	0.31
136	8365.00	88.20	182.50	4671.98	-3835.26	-81.78	3836.13	1.68	1.56	0.63
137	8396.00	88.70	183.10	4672.82	-3866.21	-83.29	3867.11	2.52	1.61	1.94
138	8428.00	89.60	183.00	4673.29	-3898.16	-84.99	3899.09	2.83	2.81	-0.31
139	8460.00	88.70	183.30	4673.76	-3930.11	-86.75	3931.06	2.96	-2.81	0.94
140	8489.00	88.50	183.20	4674.47	-3959.05	-88.40	3960.04	0.77	-0.69	-0.34
141	8520.00	92.50	183.50	4674.20	-3989.99	-90.21	3991.01	12.94	12.90	0.97
142	8552.00	94.00	183.30	4672.39	-4021.88	-92.10	4022.93	4.73	4.69	-0.63
143	8584.00	92.60	182.50	4670.55	-4053.79	-93.72	4054.86	5.04	-4.37	-2.50

# Well Report



Company : Woolsey  
 Well : Tucker B-4  
 Location : Sec11-34S-11W  
 Reference: True North

Page: 5  
 Date : 10/12/2011

## Vertical Section Calculated Along Azimuth 181.20°

	KB Elevation = 15.00ft				GR. Elevation = 1396.00ft					
	MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	%/100	%/100	%/100
144	8616.00	91.90	181.80	4669.29	-4085.74	-94.92	4086.83	3.09	-2.19	-2.19
145	8648.00	92.00	181.70	4668.20	-4117.71	-95.89	4118.81	0.44	0.31	-0.31
146	8679.00	91.20	180.90	4667.34	-4148.69	-96.60	4149.80	3.65	-2.58	-2.58
147	8711.00	90.80	180.70	4666.78	-4180.68	-97.04	4181.80	1.40	-1.25	-0.63
148	8743.00	90.60	180.50	4666.39	-4212.68	-97.38	4213.79	0.88	-0.63	-0.63
149	8775.00	90.70	179.80	4666.02	-4244.67	-97.46	4245.78	2.21	0.31	-2.19
150	8807.00	90.40	179.60	4665.72	-4276.67	-97.30	4277.77	1.13	-0.94	-0.63
151	8838.00	88.80	179.60	4665.93	-4307.67	-97.08	4308.76	5.16	-5.16	0.00
152	8870.00	87.60	179.80	4666.94	-4339.65	-96.91	4340.73	3.80	-3.75	0.63
153	8902.00	88.10	180.00	4668.14	-4371.63	-96.86	4372.70	1.68	1.56	0.63
154	8934.00	88.40	180.20	4669.12	-4403.61	-96.91	4404.68	1.13	0.94	0.63
155	8966.00	89.30	180.90	4669.76	-4435.61	-97.22	4436.67	3.56	2.81	2.19
156	8997.00	90.10	181.30	4669.92	-4466.60	-97.81	4467.67	2.89	2.58	1.29
157	9029.00	90.90	181.30	4669.64	-4498.59	-98.54	4499.67	2.50	2.50	0.00
158	9061.00	91.10	181.30	4669.08	-4530.58	-99.27	4531.66	0.62	0.63	0.00
159	9130.00	90.00	181.00	4668.42	-4599.56	-100.65	4600.66	1.65	-1.59	-0.43

**Bottom Hole Closure 4600.66ft Along Azimuth 181.25°**

**WOOLSEY OPERATING COMPANY, LLC****TUCKER B-4 H**

Survey: 210' FNL, 760' FWL

Apx NW NE NW NW Section 11-34S-11W Barber County, Kansas

API: 15-007-23769-01-00

Field: Schupbach

**FRAC PORTS AND TREATMENTS**

- 11/2/11 Stage 1 A. MIRU Basic Energy Frac Equipment at 11:00 a.m. Pressure test 5000 psi. **Start frac port at 8067', 10% MIRA 1000 gallons, Pad 1571.4 bbl, Frac total 6329 bbl. Flush 313 bbl, 30/70 Brown Sand 183,500#.** Avg treating pressure at 3700 psi, Max treating pressure 4100 psi, Avg rate 93 BPM, Max rate at 97 BPM. ISIP at 484 psi, 5 min at 225 psi, 10 min at 161 psi, 15 min at 123 psi. **Stage 1 A total 8213 bbl.**
- 11/3/11 **Stage 1 B.** Basic Energy prime up and pressure test at 9:00 a.m. to 5000 psi. **Frac port 8067', pad 1571 bbl, frac total 6102 bbl. Flush 313 bbl, 30/70 brown sand 183,500#.** Average treating pressure at 4190 psi, Max treating pressure at 4275 psi, Average rate at 91 BPM, Max rate at 94 BPM. ISIP 452 psi. **Stage 1 B total 7988 bbl.**
- 11/3/11 **Stage 2 7671'.** 11:30 a.m. Drop 2.125 diameter ball at 14 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4302 bbl. Flush 313 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 3900 psi, Max treating pressure 4339 psi, Average rate 94 BPM, Max rate 95 BPM. ISIP 565 psi, **Stage 2 total 5664 bbl.**
- 11/3/11 **Stage 3 7357'.** 1:15 p.m. Drop 2.250 diameter ball at 14 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4290 bbl. Flush 315 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 3700 psi, Max treating pressure 3777 psi, Average rate 96 BPM, Max rate 98 BPM. ISIP 830 psi, **Stage 3 total 5653 bbl.**
- 11/3/11 **Stage 4 7039'.** 2:15 p.m. Drop 2.375 diameter ball at 14 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4248 bbl. Flush 315 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 3100 psi, Max treating pressure 3307 psi, Average rate 95 BPM, Max rate 96 BPM. ISIP 694 psi, **Stage 4 total 5610 bbl.**
- 11/3/11 **Stage 5 6683'.** 3:46 p.m. Drop 2.500 diameter ball at 14 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4246 bbl. Flush 315 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 2775 psi, Max treating pressure 2910 psi, Average rate 96 BPM, Max rate 96 BPM. ISIP 704 psi, **Stage 5 total 5608 bbl.**
- 11/3/11 **Stage 6 6386'.** 5:00 p.m. Drop 2.625 diameter ball at 14 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4279 bbl. Flush 315 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 2560 psi, Max treating pressure 2681 psi, Average rate 95 BPM, Max rate 95 BPM. ISIP 683 psi, **Stage 6 total 5643 bbl.**
- 11/3/11 **Stage 7 6053'.** 6:14 p.m. Drop 2.750 diameter ball at 14 BPM. SDON.
- 11/4/11 **Day 2 frac** at 9:45 a.m. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4290 bbl. Flush 225 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 2220 psi, Max treating pressure 2278 psi, Average rate 97 BPM, Max rate 97 BPM. ISIP 574 psi, **Stage 7 total 5562 bbl.**
- 11/4/11 **Stage 8 6386'.** 1:50 p.m. Drop 2.875 diameter ball at 10 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 523 bbl, frac total 2252 bbl. Flush 165 bbl, 30/70 Brown sand 62,500#.** Average treating pressure 950 psi, Max treating pressure 1080 psi, Average rate 62 BPM, Max rate 62 BPM. ISIP 517 psi, 5 min pressure 363 psi, 10 min pressure 292 psi, 15 min pressure 263 psi. **Stage 8 total 2,940 bbl.**
- 11/4/11 **Stage 9 5379'.** 12:42 p.m. Drop 3.000 diameter ball at 9 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 1047 bbl, frac total 4271 bbl. Flush 225 bbl, 30/70 Brown sand 122,500#.** Average treating pressure 1840 psi, Max treating pressure 1900 psi, Average rate 97 BPM, Max rate 97 BPM. ISIP 589 psi. **Stage 9 total 5,543 bbl.**
- 11/4/11 **Stage 10 5024'.** 1:50 p.m. Drop 3.125 diameter ball at 10 BPM. **Pump 1000 gallons 10 MIRA acid. Start pad 523 bbl, frac total 2252 bbl. Flush 165 bbl, 30/70 Brown sand 62,500#.** Average treating pressure 950 psi, Max treating pressure 1080 psi, Average rate 62 BPM, Max rate 62 BPM. ISIP 317 psi, 5 min 363 psi, 10 min 292 psi, 15 min 263 psi. SWI. **Stage 10 total 2940 bbl.**

Total bbl to recover 61,680 bbl. Total Brown sand 2,344,300#.

P.O. # \_\_\_\_\_

**BIG BUCKETS RATHOLE DRILLING**

No 4754

ORDERED BY

P.O. Box 5252

Enid, Oklahoma 73702

Phone (580) 233-9850

Fax (580) 233-4588

Date 9/21/11

*Mike Sharp*

Bill To *Weasley Operating*

Lease *Trucker # B-4H*

Address \_\_\_\_\_

Legal *Sec 11-345-11W*

County *Barber, Ks*

Rig *Ran D #5*

DESCRIPTION

AMOUNT

Furnish Men & Equipment To	<i>drill rat, mouse, cellar &amp; 45 ft. of 30" hole &amp; remove dirt from loc</i>	
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Materials Furnished	<i>45 ft. of 20" pipe - 4 yds 8 ok grout - 5' of 60" timbore (cellar) &amp; 50 ft of 15" timbore (Boat R &amp; M holes) K's trip permits (2 hrs)</i>	<i>6750.00</i>
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Operator *Don Whittington*

Approved By \_\_\_\_\_

Total *6750.00*

Customer <i>Woodsey Operation</i>	Lease No.	Date <i>9-23-11</i>
Lease <i>Tucker B</i>	Well # <i>4-H</i>	
Field Order # <i>5011</i>	Station <i>Pratt</i>	Casing <i>13 3/8</i>
	Depth <i>275</i>	County <i>Barber</i>
Type Job <i>CNW-13 3/8 Conductor</i>	Formation	Legal Description <i>11-34-11</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <i>13 3/8</i>	Tubing Size	Shots/Ft		Acid <i>300svs 60/40poz</i>	RATE	PRESS	ISIP	
Depth <i>275</i>	Depth	From	To <i>292</i>	Pre Pad	Max		5 Min.	
Volume <i>43.2</i>	Volume	From	To <i>390</i>	Pad <i>(calculated)</i>	Min		10 Min.	
Max Press <i>500</i>	Max Press	From	To <i>1/2"</i>	Frac <i>2.11/1.6"</i>	Avg		15 Min.	
Well Connection <i>8wtv</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <i>360</i>	Packer Depth	From	To	Flush <i>40.8</i>	Gas Volume		Total Load	

Customer Representative <i>M. Ko Trail</i>	Station Manager <i>Dave Scott</i>	Treater <i>Steve Gilman</i>
---	--------------------------------------	--------------------------------

Service Units <i>27283 27462 19826 19860</i>								
Driver Names <i>D. Adam Mitchell McGraw</i>								

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>1:30 AM</i>					<i>On location Safety Meeting</i>
					<i>Run 6 J's 13 3/8 Conductor H8<sup>#</sup></i>
					<i>Casing on Bottom</i>
					<i>Break Circulation with Rig</i>
<i>5:27</i>	<i>100</i>		<i>3</i>	<i>4</i>	<i>H2O Ahead</i>
<i>5:38</i>	<i>100</i>		<i>64.6</i>	<i>4</i>	<i>M. x 300svs 60/40poz @ 14.8<sup>#</sup>/6.1</i>
<i>5:49</i>	<i>0</i>		<i>0</i>	<i>4</i>	<i>Start H2O Displacement</i>
<i>5:56</i>	<i>100</i>		<i>28</i>	<i>4</i>	<i>Conent TO Surface</i>
<i>6:00 AM</i>	<i>150</i>		<i>41</i>	<i>4</i>	<i>Displacement Complete</i>
					<i>Close Tr Valve</i>
					<i>Tub Complete</i>
					<i>Thanks, Steve</i>
					<i>Circulation Trip Job</i>
					<i>circulation 1366L TUPIT</i>

Woolsey Operating  
Tucker

Lease No. \_\_\_\_\_ Date 9-30-11

Well # B-4H

Field Order # 5018 Station Pratt Casing 7" 03" Depth 4779 County Barber State KS

Type Job CNW 7" L.S. Horizontal Formation \_\_\_\_\_ Legal Description 11-34-11

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
7" 03"			30 sk	60/40 Scavenger				
Depth 4779	Depth	From	To 200	Pre Pad	Max		5 Min.	
Volume 177.8	Volume	From	To	Pad	Min		10 Min.	
Max Press 3500	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 4731	Packer Depth	From	To	Flush 186	Gas Volume		Total Load	

Customer Representative Mike Tharp Station Manager Dave Scott Treater Steve Ordway

Service Units 27283 27463 19830/21010

Driver Names O'Donnell Lowery McLasky

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:00 PM					On location Safety Meeting
					Casing On Bottom - Break circuit
					Casing Set @ 4779
9:00	350		10	5	Pump mod flush
9:03	350		5	5	H2O spacer
9:04	300		8.8	5	Mix 30 sk Scavenger @ 13#/gal
9:07	300		53	5	Mix 200 sk AAJ @ 15#/gal
					Shut Down - Clear Pump Line
					Release plug
9:05	0		0	6	Shut H2O Displacement
9:49	300		135	5	L.S. pressure
9:57	800		175	4	Slow Rate
10:00	1800		186	4	Plug Down - Hold
					Job Complete
					Thank You Steve





## Woolsey Operating Company, LLC

Scale 1:240 (5"=100') Imperial

Measured Depth Log

Well Name: Tucker B-4 H  
Location: Section 11 - Township 34 South - Range 11 West  
License Number: API: Region: Barber County, KS  
Spud Date: September 23, 2011 Drilling Completed:  
Surface Coordinates: 210'FNL, 760'FWL or App. NW NE NW NW  
Schubach Field  
Bottom Hole  
Coordinates:  
Ground Elevation (ft): 1400' K.B. Elevation (ft): 1409-  
Logged Interval (ft): 4065' To: Total Depth (ft):  
Formation: Kansas City -----> Mississippi  
Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

Company: Woolsey Operating Company, LLC  
Address: 125 N. Market, Suite 1000  
Wichita, KS 67202

### GEOLOGIST

Name: Billy G. Klaver  
Company: Woolsey Operating Co. LLC  
Address: 125 N. Market, Wichita Kansas, 67202

### COMMENTS

Surface Casing:  
Production Casing:

Deviation Surveys:  
Pipe Strap @  
Contractor Bit Record:

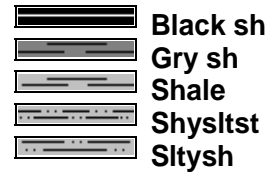
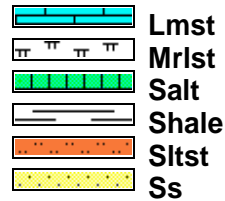
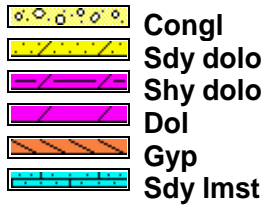
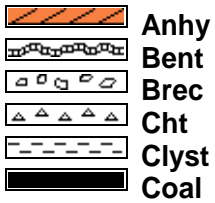
Gas Detector:  
Mud System:  
DSTs:

Note: Log Depths

## DSTs

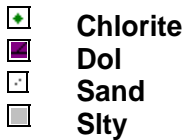
## CREWS

### ROCK TYPES

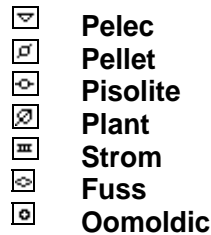
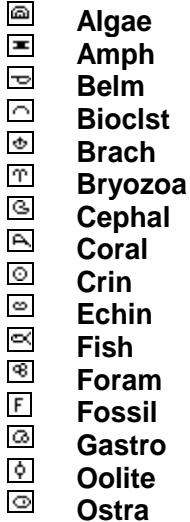


### ACCESSORIES

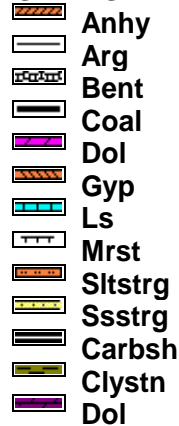
#### MINERAL



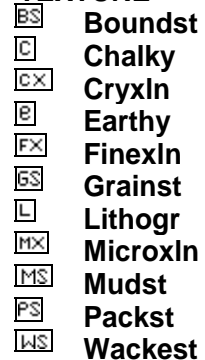
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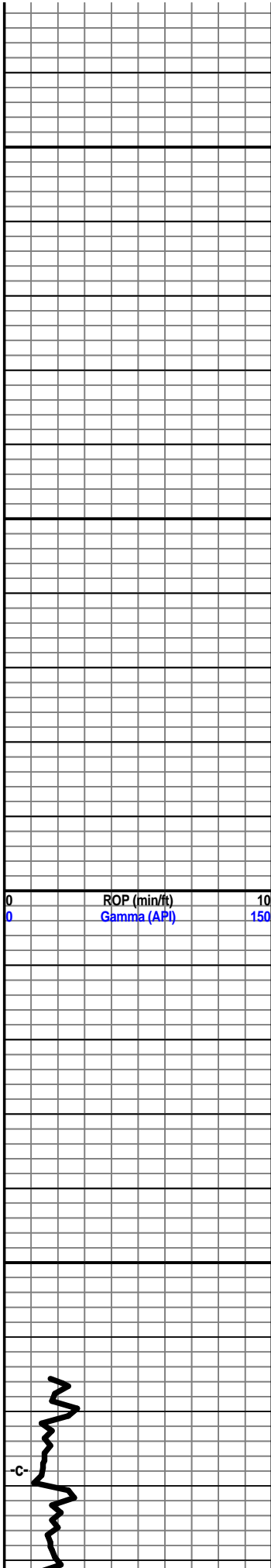
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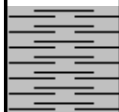
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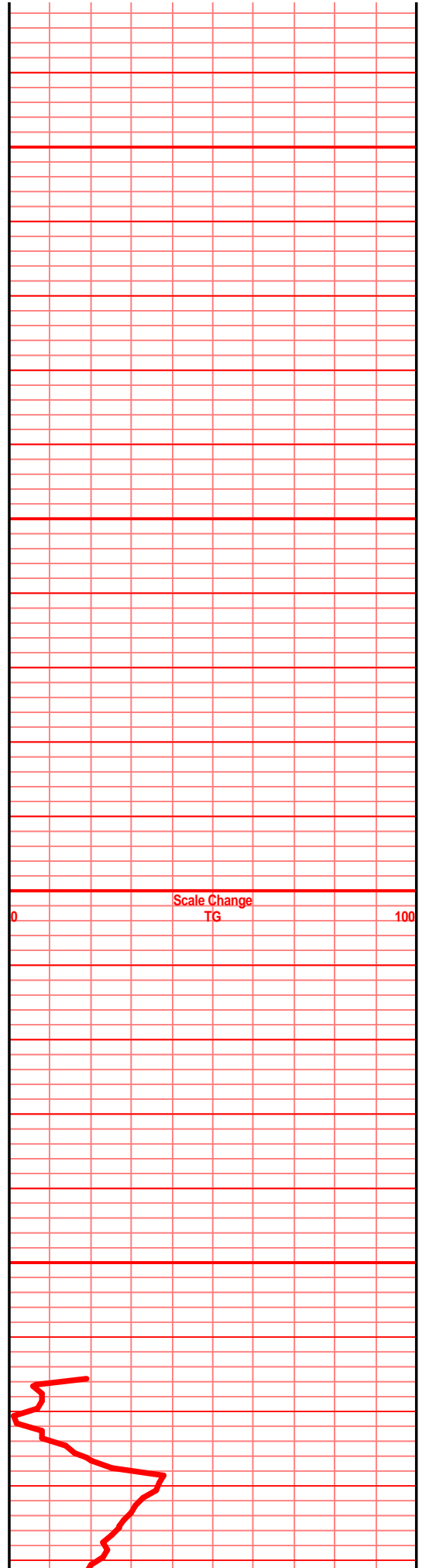


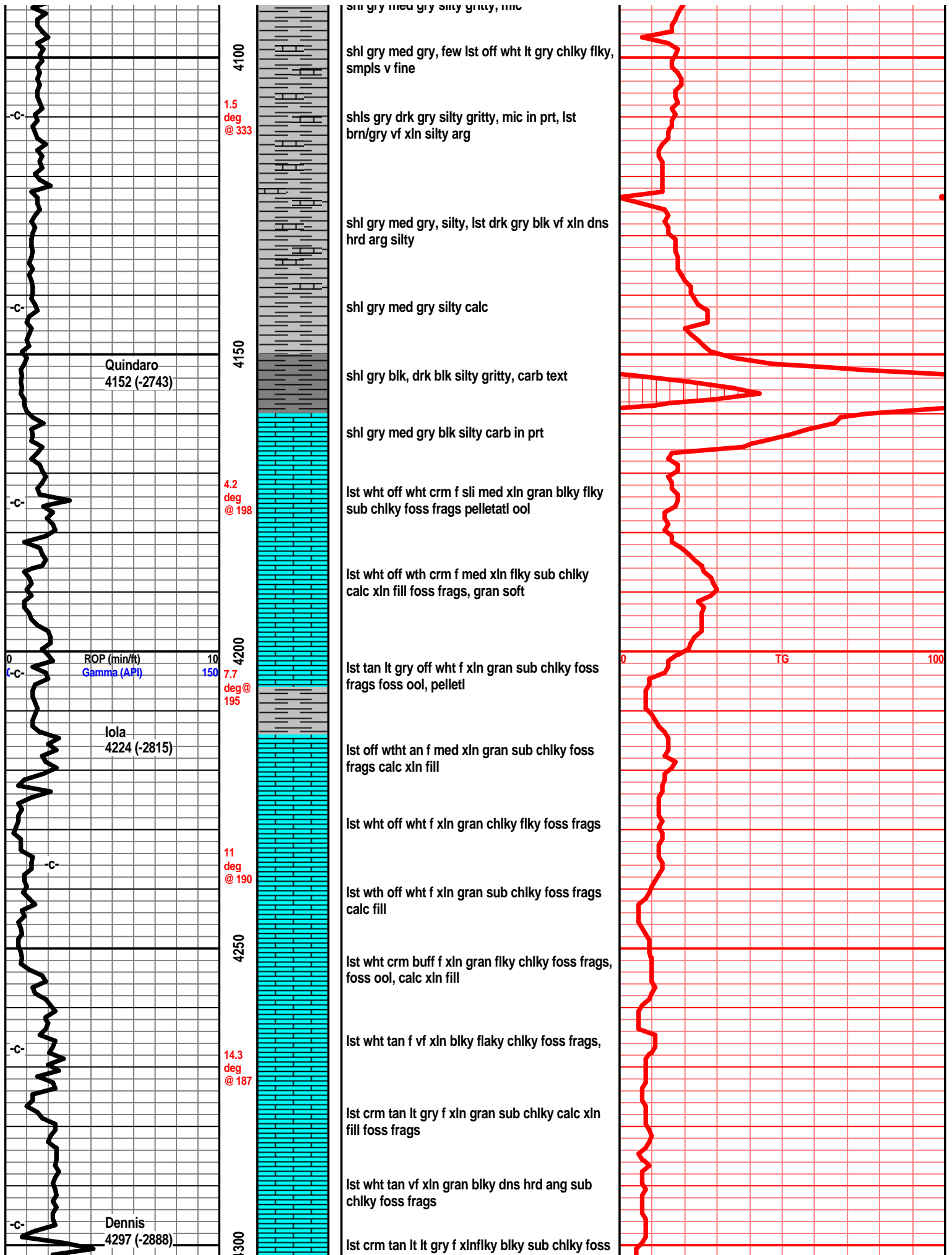
2.1  
deg  
@ 343

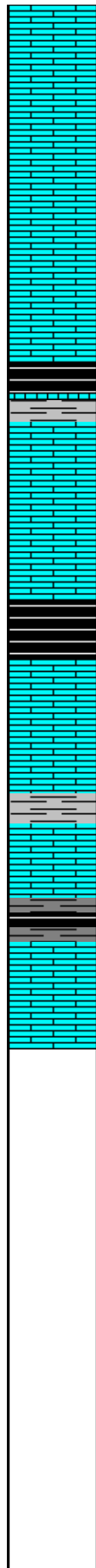
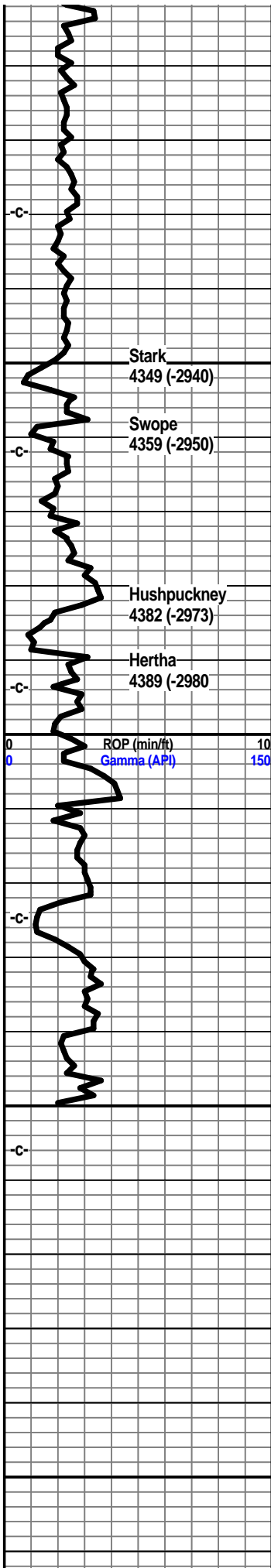


shl gry med gry mic, silty

shl gry med gry silty gritty mic







frags

lst wth tan f xln chlky foss frags, foss ool, calc xln fill

lst wht off wht f xln gran blkly flky sub chlky foss frags, calc xln fill

lst wht lt tan f xln blkly ang chlky foss frags foss ool, pelletal

shl gry blk, blk carb, lst aa

lst crm tan f xln blkly tr chlky tr calc xln fill, tr chrt wht lt gry shrp opaq

lst crm tan f xln blkly ang sub chlky foss frags, chrt wht tan shrp frsh

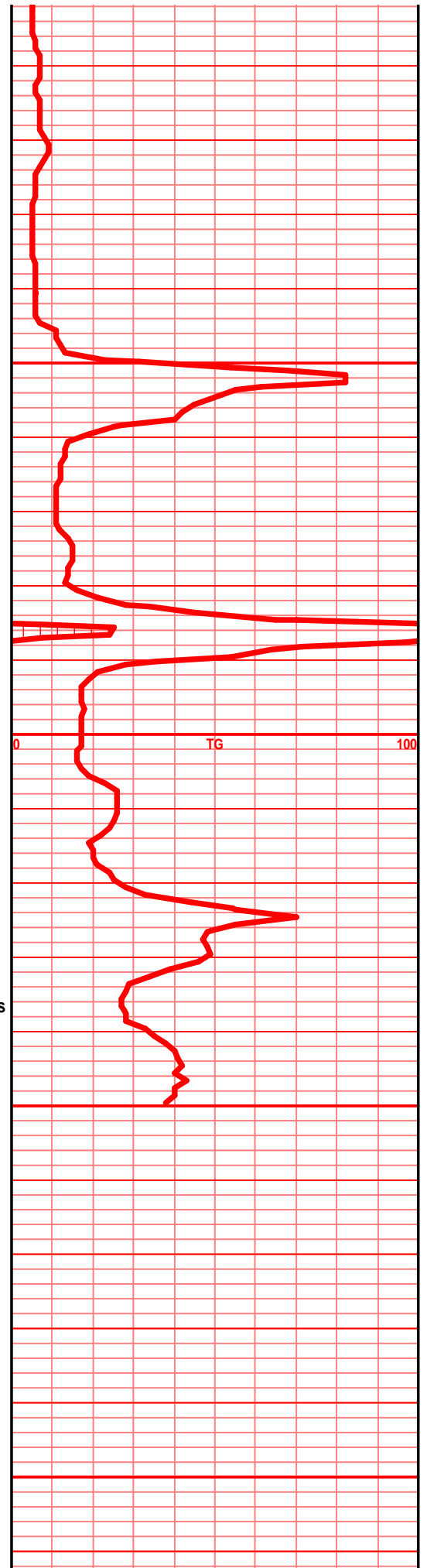
shl gry blk carb wxy grsy lst aa

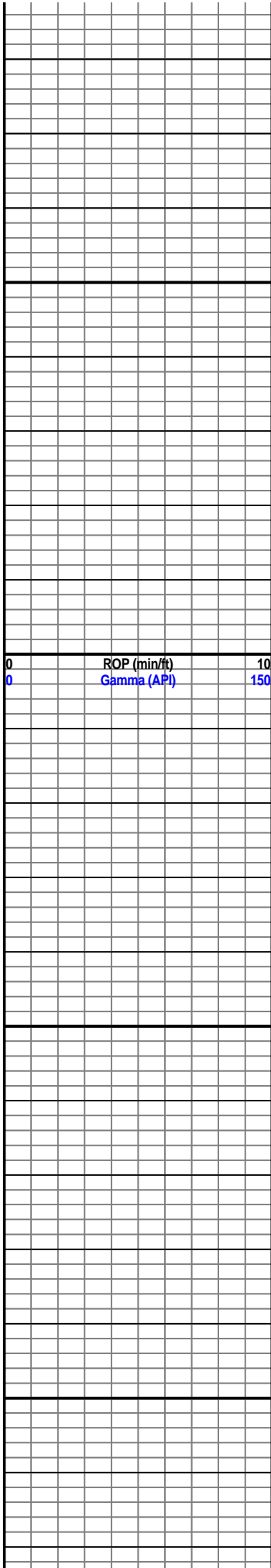
lst wht tan f xln gran sub chlky foss frags, calc xln fill

lst crm tan lt gry f xln blkly flky sub chky foss frags

shl gry blk semi carg, silty gritty

much, gry blk, blk shls, lst tan lrn f xln blkly dns hrd arg





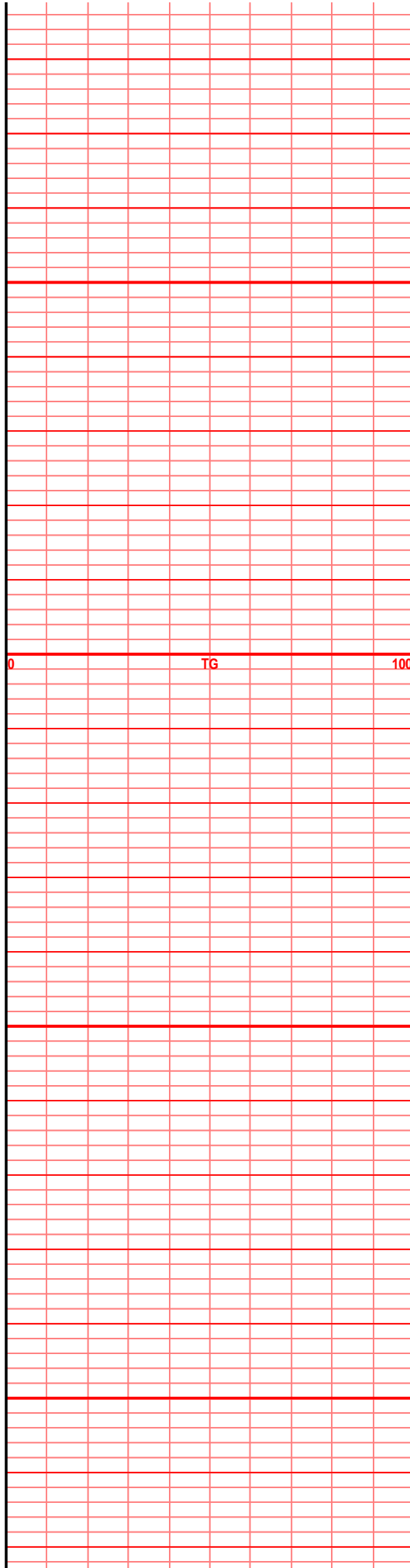
4550

4600

4650

4700

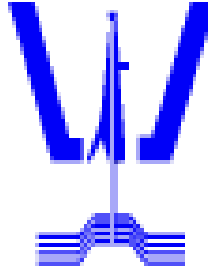
ROP (min/ft) 10  
Gamma (API) 150



TG 100







# Woolsey Operating Company, LLC

Scale 1:600 (2"=100") Metric  
Measured Depth Log

Well Name: Tucker B-4 H  
Location: Section 11 - Township 34 South - Range 11 West  
License Number: \_\_\_\_\_ Region: Barber County Ks  
Spud Date: September 23, 2011 Drilling Completed: \_\_\_\_\_  
Surface Coordinates: 210' FNL, 760'FWL or App NW NE NW NW  
Schubach Field  
Bottom Hole Coordinates: \_\_\_\_\_  
Ground Elevation (m): 1400' K.B. Elevation (m): 1409'  
Logged Interval (m): 4065' To: Total Depth (m): \_\_\_\_\_  
Formation: Kansas City ---> Mississippi  
Type of Drilling Fluid: \_\_\_\_\_

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

## OPERATOR

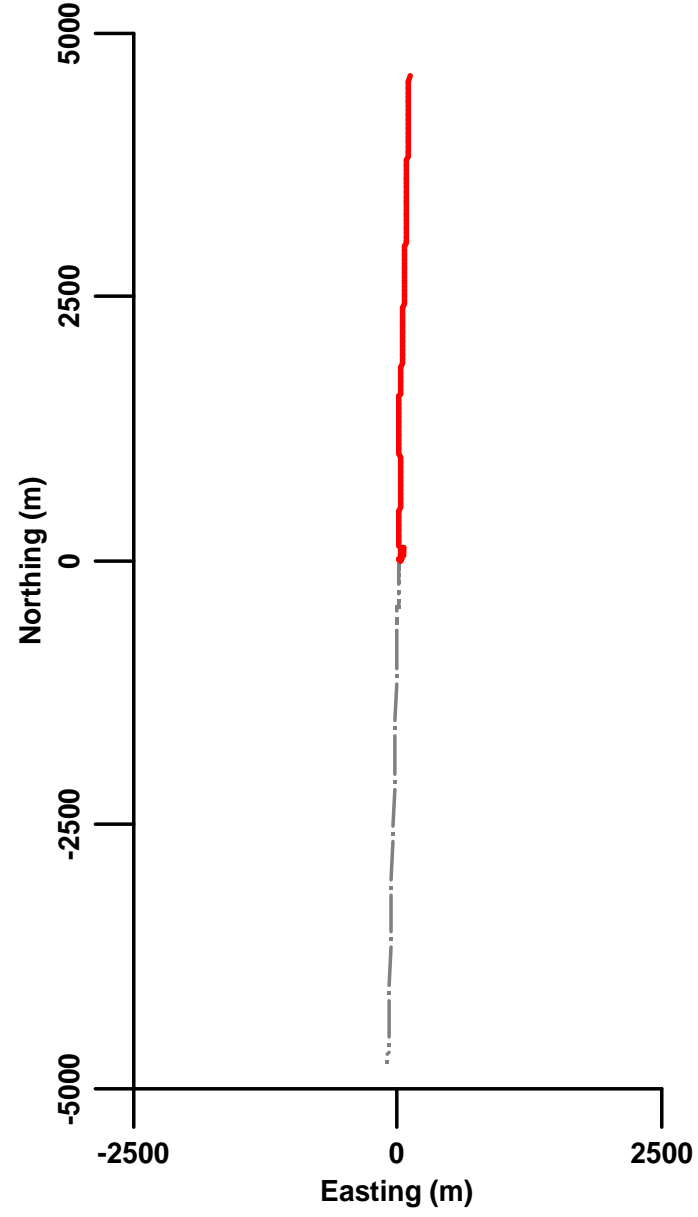
Company: Woolsey Operating Company, LLC  
Address: 125 N. Market Suite 1000  
Wichita, Kansas 67202

## GEOLOGIST

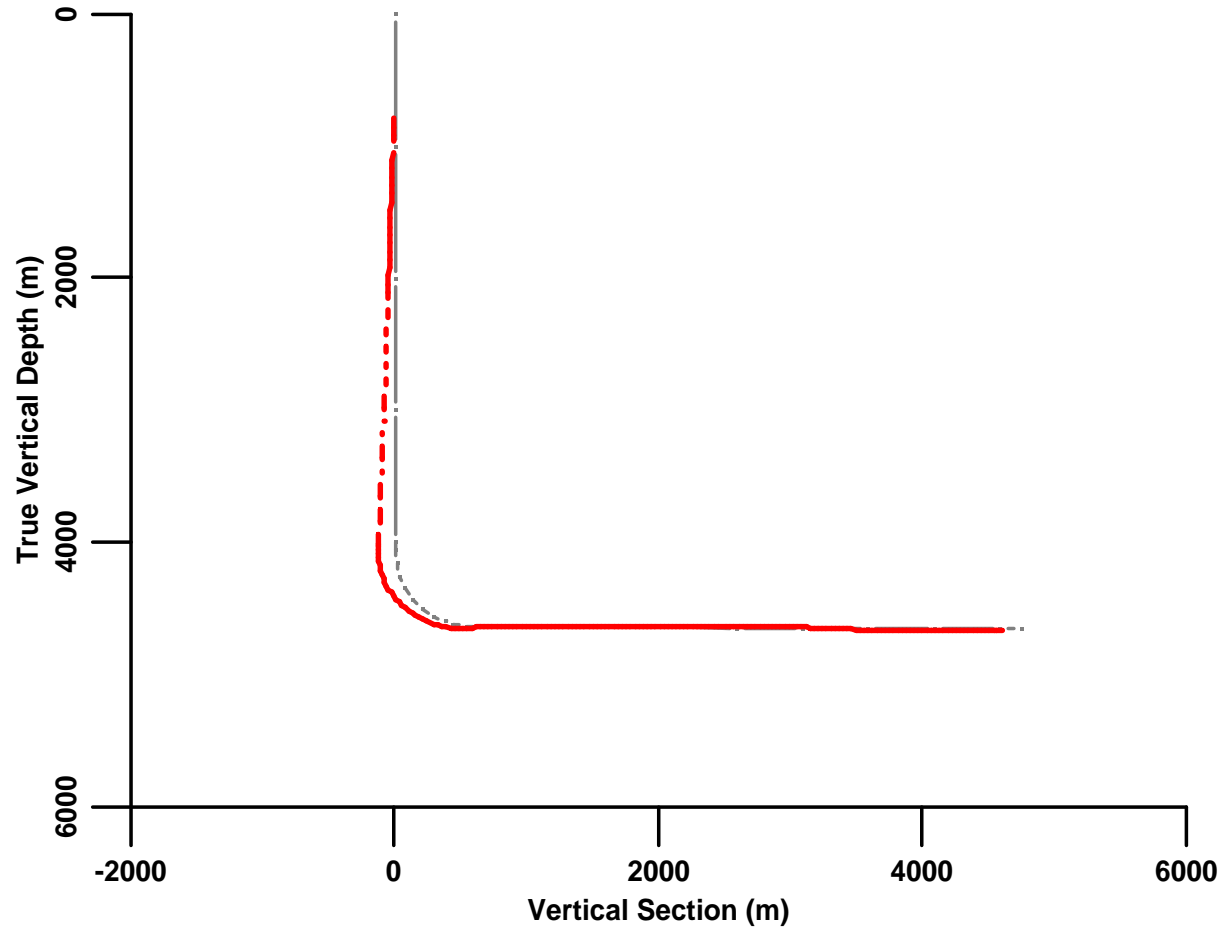
Name: Bill Klaver  
Company: Woolsey Operating Company, LLC  
Address: 125 N. Market Suite 1000  
Wichita, Kansas 67202

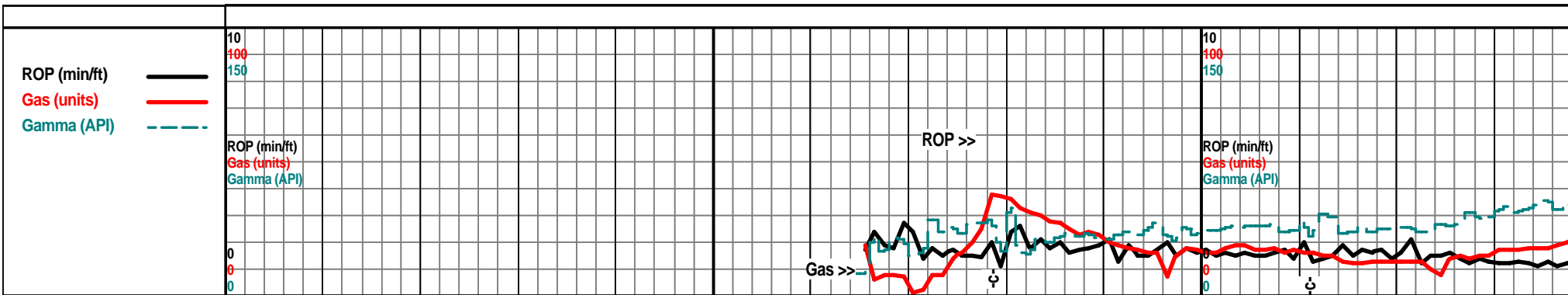
Comments

# Plan



# Elevation





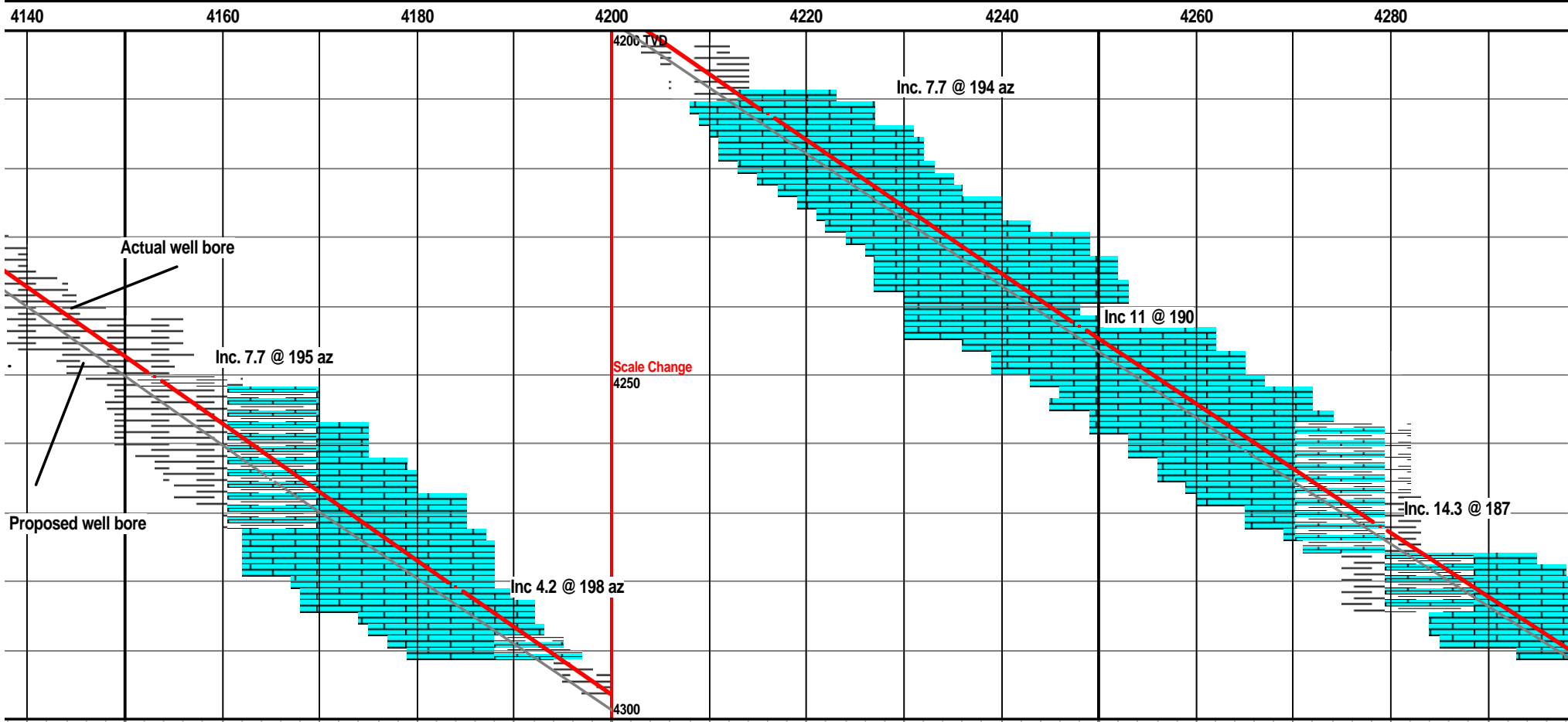
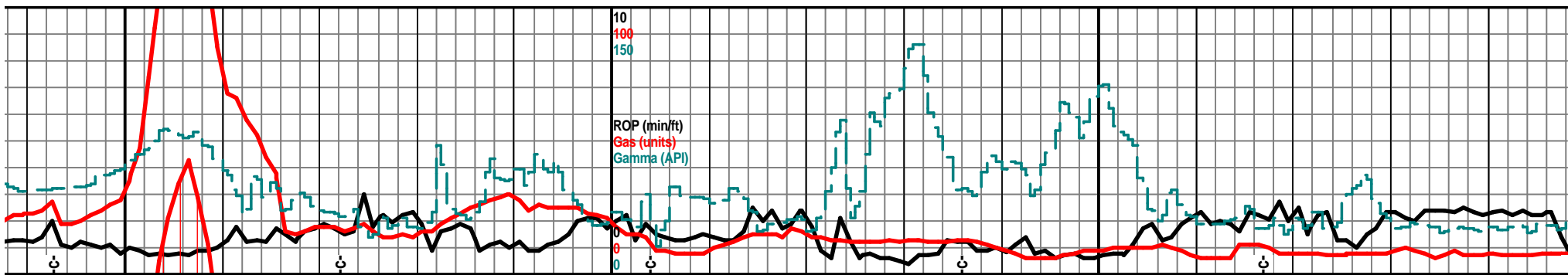
Oil Shows

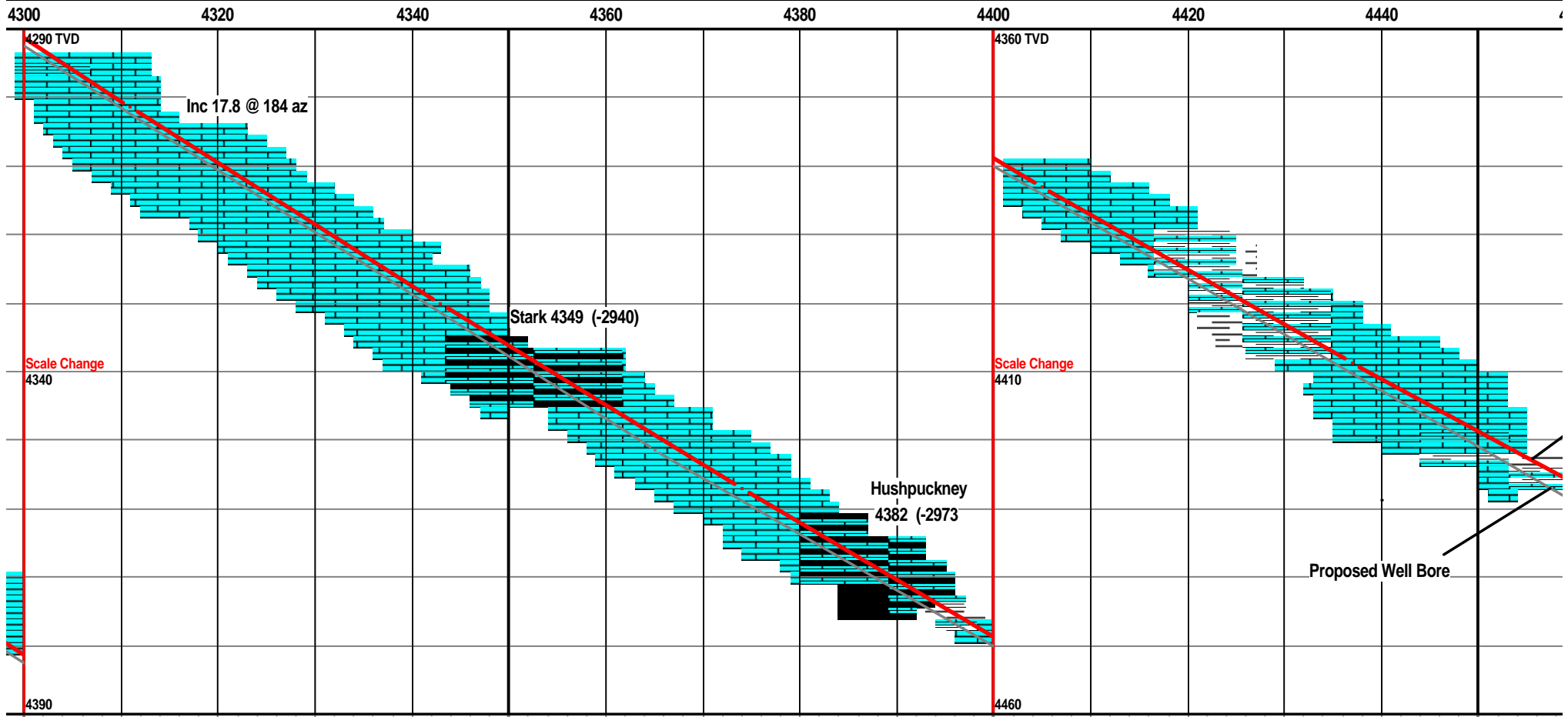
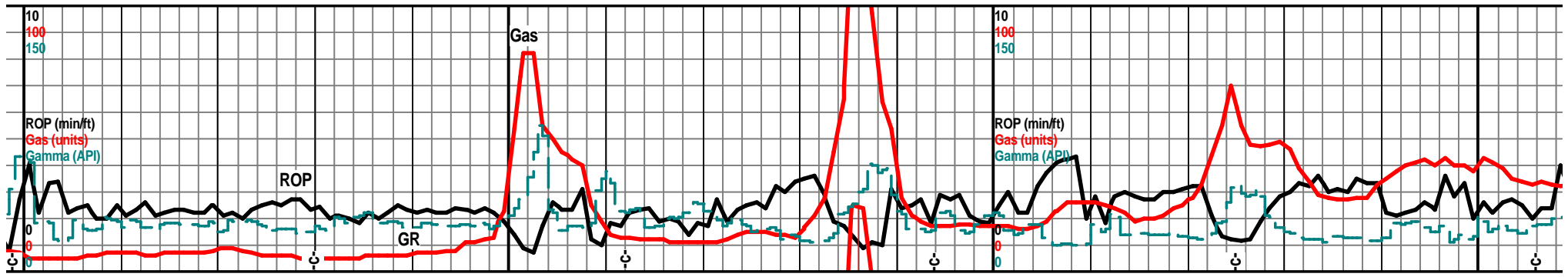
Depth 00 4020 4040 4060 4080 4100 4120

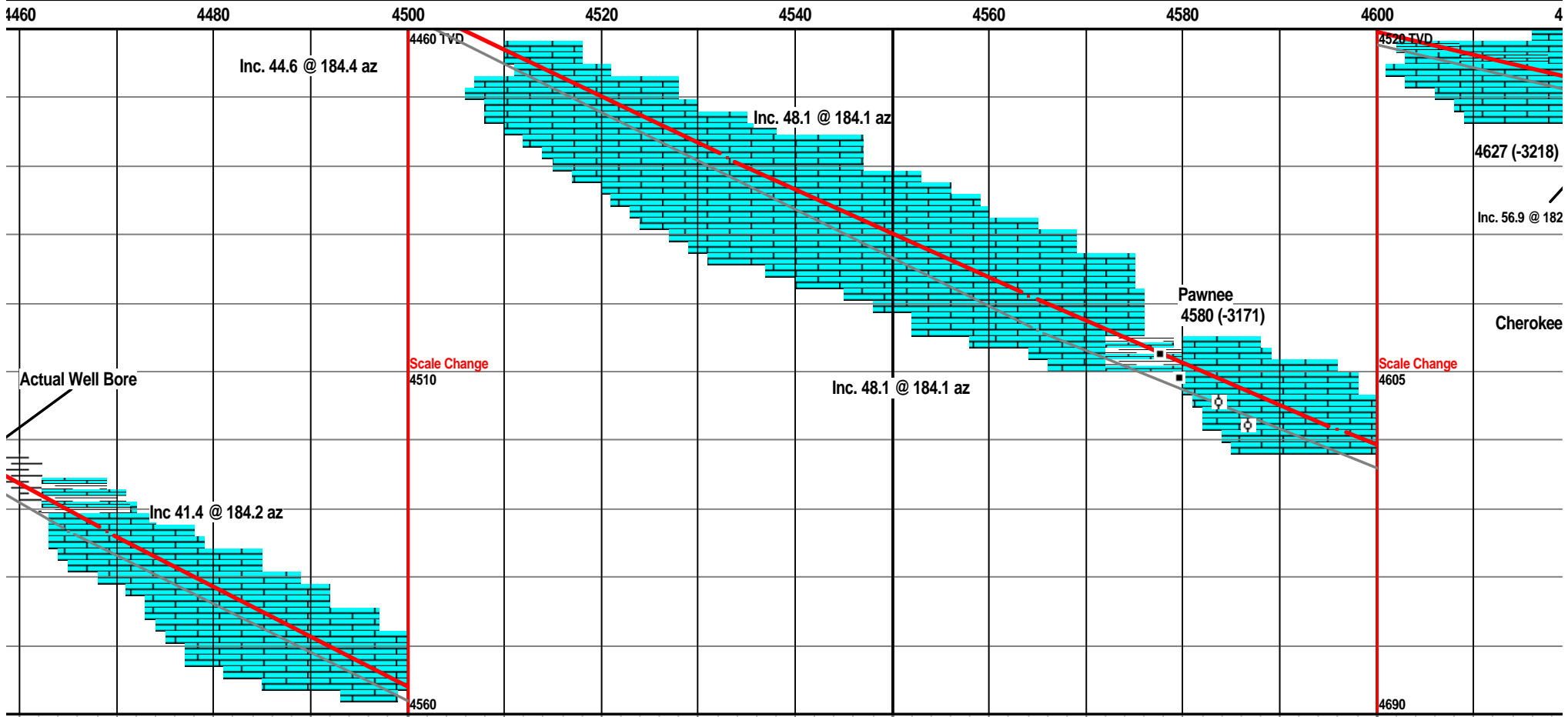
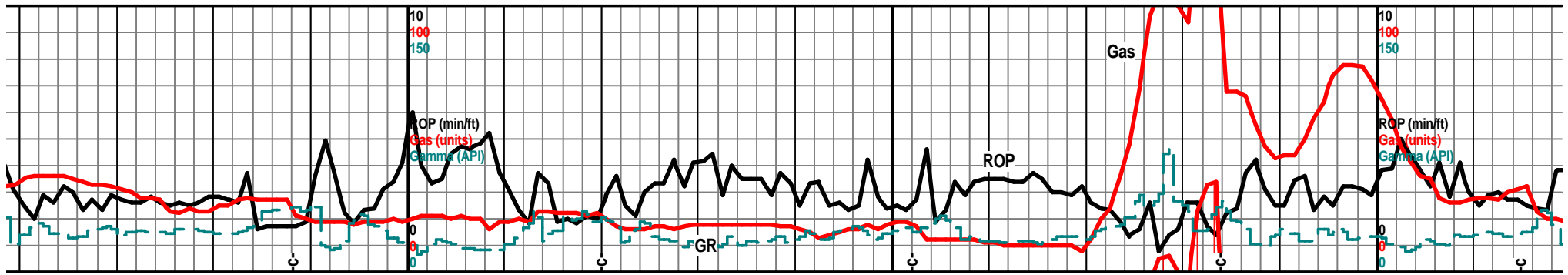


Porosity 24% 18% 12% 6%

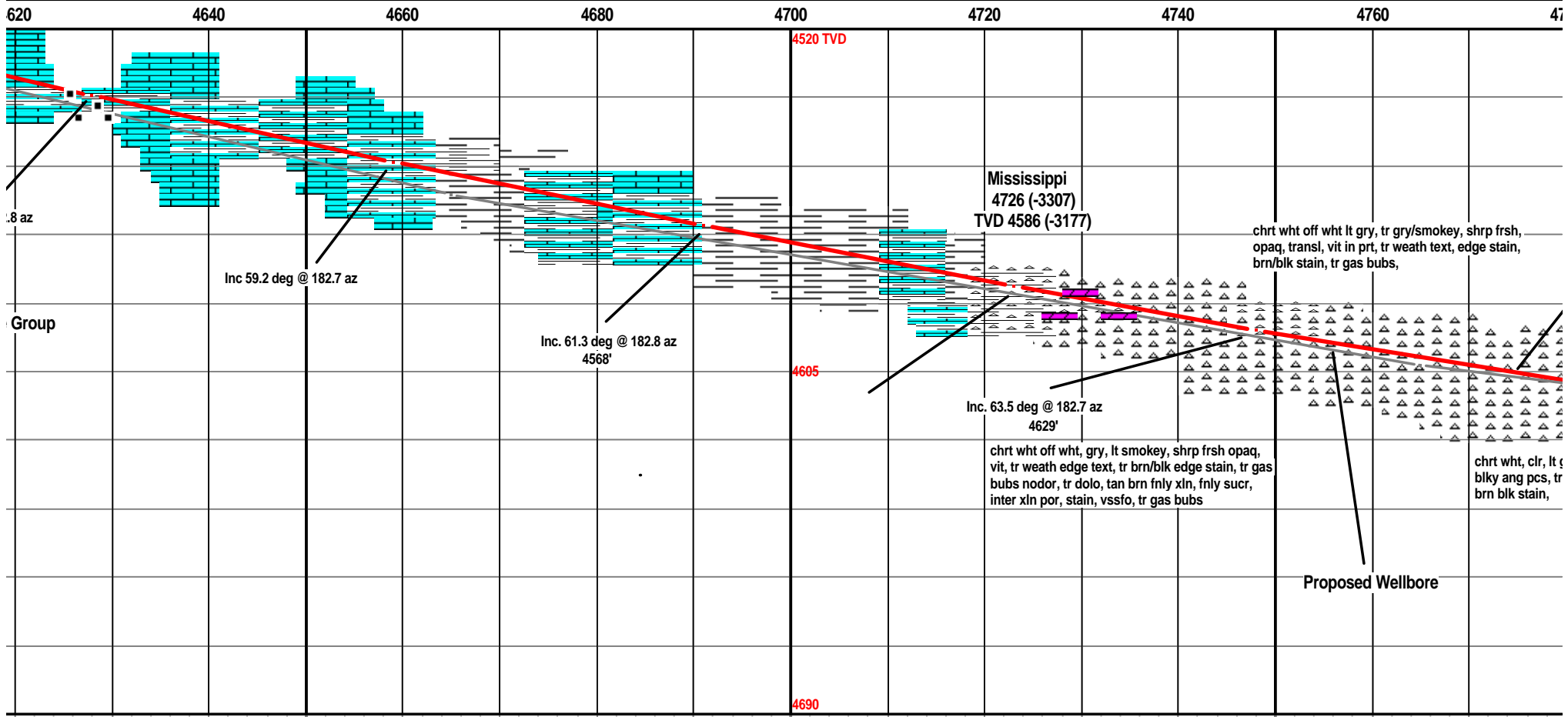
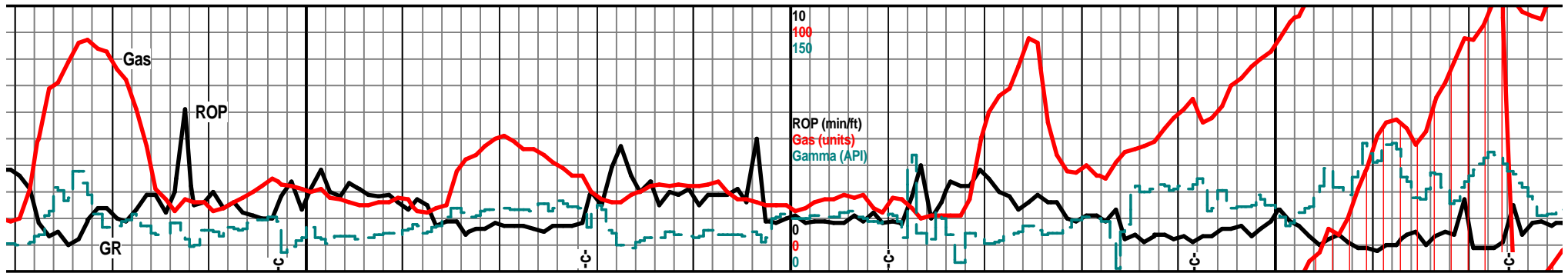
Porosity Type

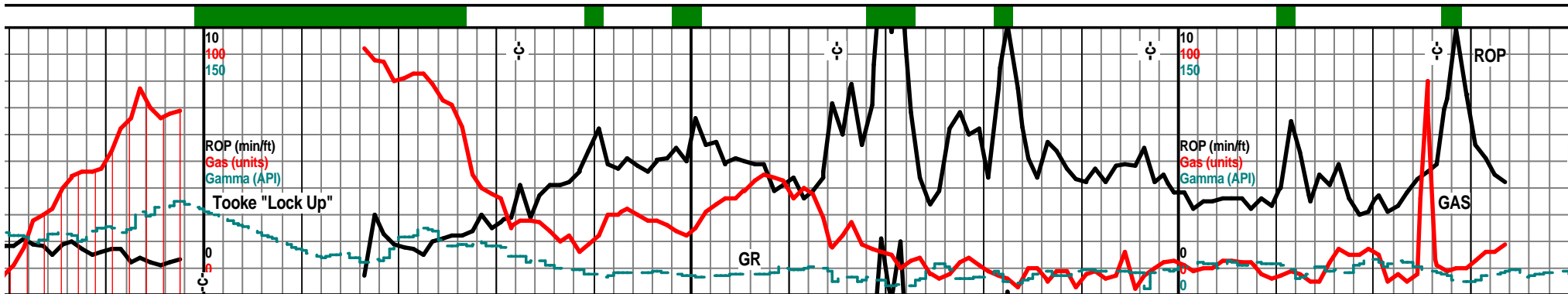




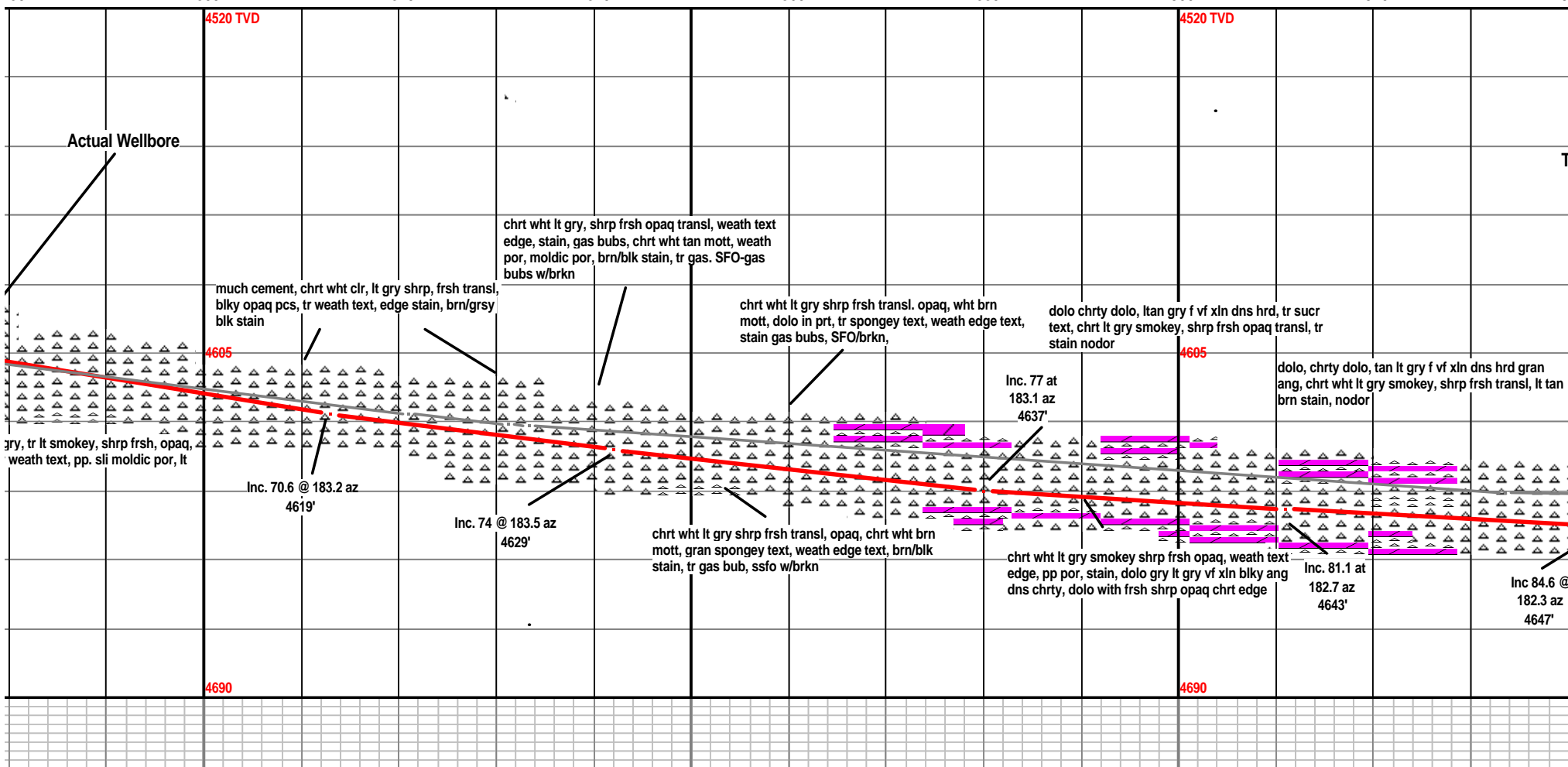


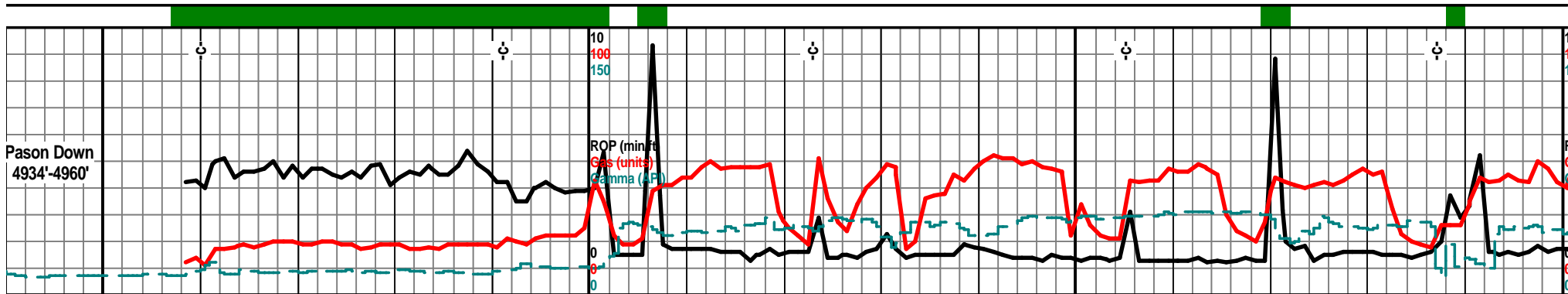






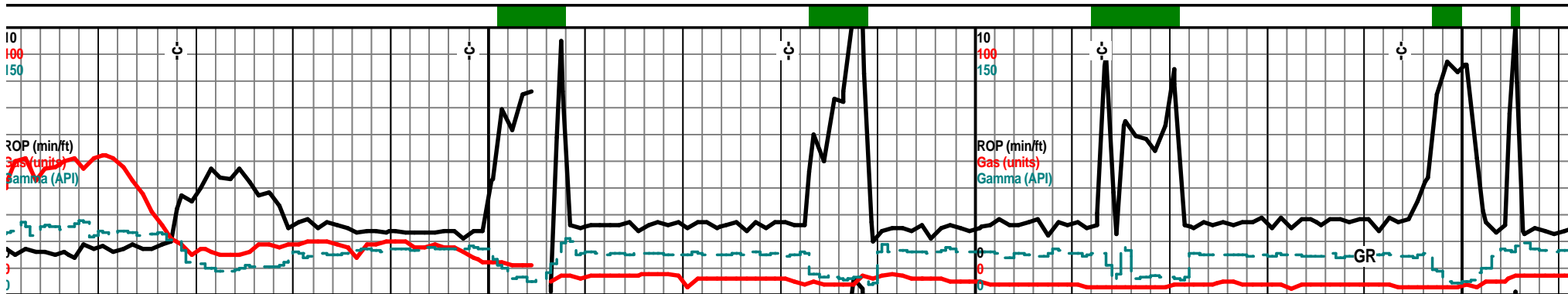
780 4800 4820 4840 4860 4880 4900 4920 49



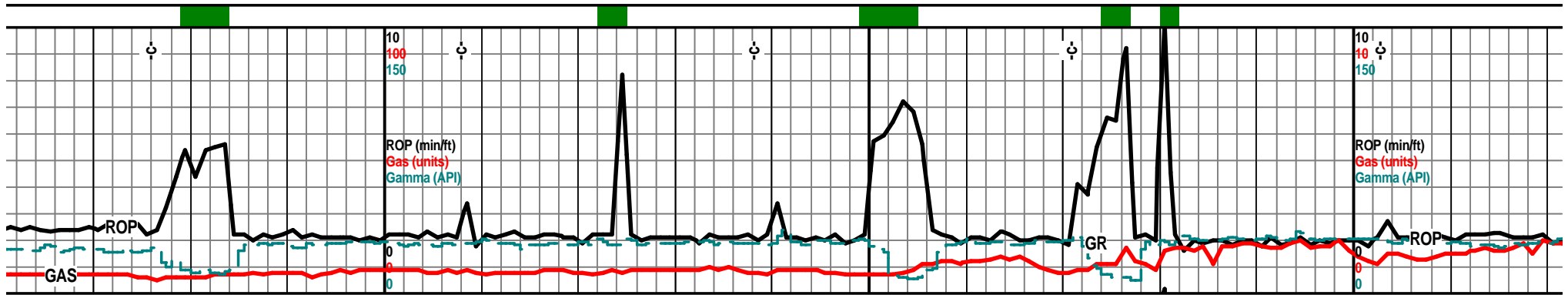


40 4960 4980 5000 5020 5040 5060 5080 510

	4960' at 7 am Sunday October 2, 2011		4520 TVD		samples becoming very fine				MTD 5070 TVD 4648 (-3239)
MTD 4943 VD 4643 (-3234)									
chrt wht lt gry shrp frsh opa, trans. dolo chrt, tan lt brn/tan f vf xln dns gran lt brn stain, frsh opa chrt w/tan lt brn dolo edge, stain tr gas bubs nodor			4605		dolo chrt dolo, dolo tan crm lt brn f vf xln blk ang gran, inter xln por, moldic por, tan brn stain, chrt inclu, chrt wht lt gry smokey shrp frsh opa, transl, tr w/dolo edges, tan stain, nodor				chrt wht lt gry shrp frsh opa, tr weath text edge, pp moldic por, stain, SFO w/brkn, tr gas, chrt dolo, tan crm f vf xln gran blk gran, inter xln por, chrt inclu, stain SSFO/brkn, tr gas
	Inc. 88.2 @ 182.7 az 4649'			Inc. 90.5 @ 183.2 az 4649'					Inc. 91.9 @ 183.8 az 4648'
	chrt wht lt gry tr smokey shrp frsh opa, transl, chrt dolo, gry tan f vf xln blk ang, gry lt gry chrt inclu, chrt w/weath text, stain, tr gas bubs, SSFO w/brkn			chrt lt gry lt smokey shrp frsh opa transl, w/dolo edge, dolo tan crm drk tan f vf xln gran tr suc text, chrt, chrt inclu, weath text por, inter xln por, moldic por, lt tan/brn stain, gas bubs, VSSFO w brkn		183.5 az Inc. 91.2 @			chrt wht lt tah gry shrp frsh opa w/dolo edge, tr weath text por, pp/moldic por, dolo tan crm f vf xln blk ang chrt, chrt inclu, tan brn stain, VSSFO w/brkn
	Sweep Hole								
			4690						

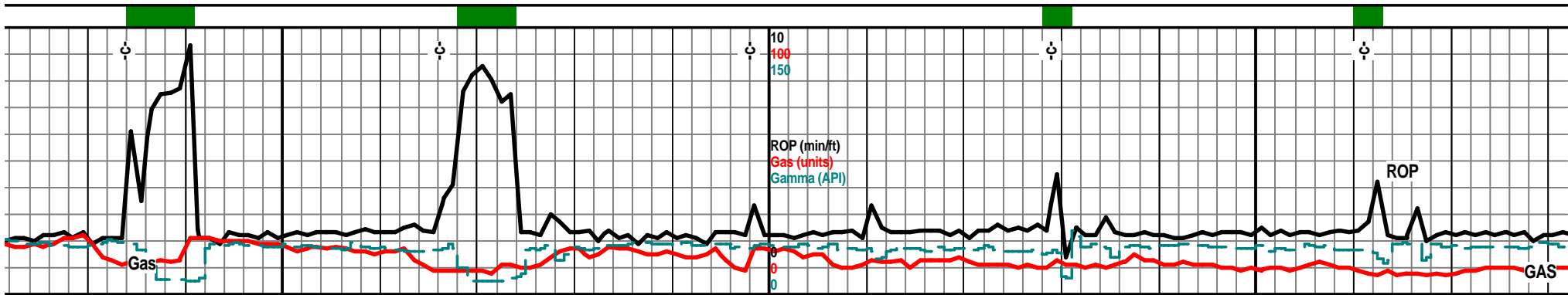


10	5120	5140	5160	5180	5200	5220	5240	5261
1520 TVD		samples incr to vry fine	5154' 5 pm Sunday October 2, 2011		4520 TVD		5246' 7am October 3, 2011	
			Bit Trip 5158'	MTD 5165 TVD 4645 (-3236)		Mud-Co. 5276' wt. 8.3 vis. 26		TVD
							chrt wht clr lt gry shrp frsh transl, vf xln gran blk soft, tr lt stain, ch text edge, brn blk stain	
1685		incr chrt, wht lt gry, opa, shrp frsh transl, tr w/dolo edge, tr weath text edge, stain, ssfo/brkn, chrt dolo, tan crm dolo, f vf xln stain, chrt inclu, shrp frsh opa transl	chrt wht lt gry tan shrp frsh transl, blk ang, chrt dolo, f vf xln gran blk tr suc text, chrt inclu, w/weath text por, pp moldic por, stain, nodor in any	dolo chrt dolo, crm tan f vf xln gran blk ang pcs, chrt inclu, chrt wht lt gry shrp frsh opa, transl, stain, tr gas bubs, VSSFO/brkn-couple of pcs, odor in cooked dry spl	dolo crm off wht tan f vf xln gran ang blk pcs, tr suc text, chrt in prt, chrt inclu, chrt wht lt gry shrp frsh blk transl opa, vis brn/blk stain, nodor		dol tan crm off wht f vf xln gran soft, chrt, chrt inclu, chrt wht lt tan lt gry shrp frsh opa transl, tr weath edge, tr trip tex por, brn/blk stain, nodor	
	Inc. 91.4 @ 183.2 az 4647'		Inc 91.6 @ 183.0 az 4646'	Inc 91.8 deg @ 182.1 az 4645'	Inc. 92.3 deg @ 181.3 az 4644'		Inc. 92.2 @ 180.9 az 4643'	Inc. 92.1 @ 179.3 az 4642'
		incr chrt, wht lt gry wht, shrp frsh, transl. opa, chrt dolo, crm tan f vf xln dns blk, lt gry wht off wht chrt inclu, stain, ssfo w/brkn,	chrt wht lt tan gry, shrp frsh opa blk transl, chrt dolo, tan crm f vf xln gran tr sli suc text, inter xln por, chrt w/weath edge stain, blk resid stain, lt brn stain nodor in any	chrt wht lt tan lt gry tr lt smokey, shrp frsh, blk ang pcs, dolo edge, dolo tan crm f vf xln gran, w/ chrt inclu, tr weath text edge, brn blk stain, VSSFO w/brkn in a few pcs, no odor	dolo tan off wht f vf xln gran soft blk, inter xln por, chrt, chrt inclu, chrt wht lt gry shrp frsh opa transl, brn/blk stain,		dolo tan off wht crm f vf xln gran soft, chrt, chrt inclu, chrt wht lt gry shrp frsh opa transl, brn/blk stain, tr weath edge por, pp moldic por,	
1690					4690			



0 5280 5300 5320 5340 5360 5380 5400 5420

	sliding to drop angle and turn	4520 TVD		slide to drop angle and turn		4520 TVD	
MTD 5260 ) 4642 (-3233)		Red--Actual Wellbore Grey--Proposed Wellbore		MTD 5355 TVD 4639 (-3230)			
dolo crm tan f rt inclu w/weath							
dolo crm tan f vf xln gran tr sucr text, tr glau, chrt inclu, chrt wht lt gry shrp frsh opa, transl, tr weath text por, pp/moldic text, brn blk stain, nodor		dolo crm lt tan tan f vf xln gran blk soft chrt, tr stain, chrt inclu, chrt wht lt gry shrp frsh vit, transl, chrt with dolo edge, tr stain, nodor		dolo crm tan f vf xln gran blk soft, glau, chrt, chrt inclu, tr weath text, pp por, stain, chrt dolo, chrt wht lt gry transl, shrp frsh		dolo crm tan f vf xln gran soft blk ang, chrt inclu, tr stain, chrt wht lt gry msly wht vit transl, tr weath text edge pp por, blk stain nodor	dolo crm buff f vf xln blk agy flky pcs, chrt in prt chrt inclu, tr weath text edge, pp tr moldic por, tr stain, chrt wht clr lt gry opa shrp frsh, tr w/dolo edge, w/ weath edge blk stain nodor
3 @ az 2'	Inc. 91.7 @ 179.0 az 4641'	Inc 92 @ 178.7 az 4640'		Inc, 91.5 @ 178.6 az 4639'		Inc. 90.8 @ 178.2 az 4638'	Inc. 91.2 @ 177.9 az 4638'
dolo crm tan f vf lxn gran ang blk dns tr sucr text, tr glau, chrt, chrt inclu, chrt wht lt gry shrp frsh transl, w/tr weath edge text, brn blk stain, nodor		chrt wht lt gry shrp frsh, opa, transl, tr dolo edge, tr weath text edge, pp/moldic por, chrt wht lt gry shrp frsh opa, trans nodor		dolo tan crm off wht f vf xln gran blk, chrt in prt, chrt inclu, tr stain, chrt wht lt gry shrp frsh, tr weath text por, pp moldic por, tr stain nodor		dolo tan crm f vf xln gran, tr sucr test, chrt inclu, tr weath text edge on chrt stain, SSFO /brkn, chrt wht lt gry shrp frsh opa transl	dolo crm tan off wht f vf xln gran sli sucr text inclu w/weath text edge, stain, chrt wht shrp opa transl
		4690				4690	



5440 5460 5480 5500 5520 5540 5560 5580

much steel in very very fine sample mix

5440' sample, incr vis show, tan brn mott chrt, weath text por stain, brn stain

MTD 5481  
TVD 4637 (-3228)

4520 TVD

Samples very fine

Red-Actual Wellbore  
Grey-Proposed Wellbore

chrt wht tan lt gry shrpt frsh, dolo tan crm f vf lxn gran tr suc text, incr crm brn mott chrt, weath text por, gran, tr spongy text, brn stain, blk stain, nodor

chrt wht lt gry shrp frsh opa q blk ang trans, w/dolo edge, weath text por, pp moldic por, incr tan brn mott dolo chrt, dolo w/chrt inclu, brn stain dull UV?

cht chrt dolo, tan crm with wht shrp frsh transl chrt inclu, tan brn mott in prt, pp/moldic por, stain

chrt, chrt dolo, tan crm, f vf xln chrt, chrt inclu, tan brn mott in color, stain, chrt wht lt gry shrp frsh opa q w/dolo edge, tan/brn stain, sho incr with depth

chrt wht off wht tr lt gry shrp frsh opa q transl, w/sli trip text, weath text edges, pp moldic por, brn blk stain, dolo edges, tan crm f vf lxn blk ang gran tr stain

chrt clr lt g edge, pp n NSFO/gas, text por, st

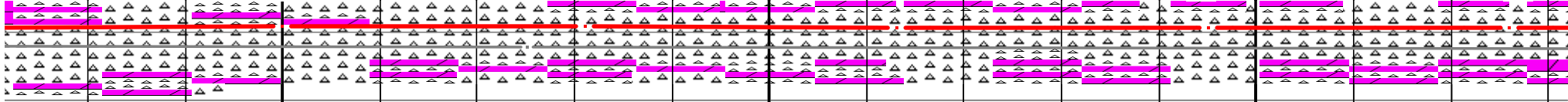
Inc 90.4 @ 177.3 az 4637'

Inc 89.4 @ 177.9 az 4637'

Inc. 89.5 @ 177.9 az 4637'

Inc. 90.1 @ 177.9 az 4637'

Inc. 90.7 @ 177.8 az 4638'



chrt dolo wht tl gry crm f vf xln gran, chrt in prt, tr frsh weath gran text, chrt inclu, tr chrt, chrt wht transl shrp frsh opa q

dolo, chrt dolo, crm tan, brn tan mott, f vf xln chrt, chrt inclu, weath text por, pp moldic por, brn stain, nodor, tr glau

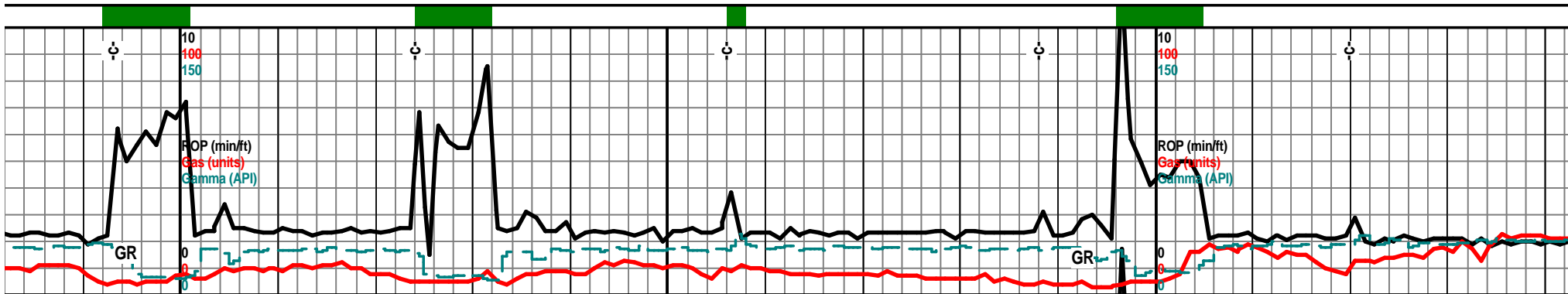
chrt, chrt dolo, dolo tan crm f vf xln gran sli suc text in prt, chrt inclu, wht lt gry shrp frsh with dolo edge, brn stain, nodor vis sho incr w/depth

chrt dolo, tan crm, tan brn mott in color, f vf xln gran chrt tan brn stain, chrt wht lt gry shrp frsh opa q w/dolo edge, weath text por, pp moldic por, sli stain

chrt wht off wht lt gry, shrp frsh opa q tr transl, weath sli trip weath text edge, pp moldic por, tan brn stain, dolo edge in prt, f vf xln gran tr stain

chrt wht lt g weath text, dolo, chrt in

4690



5600 5620 5640 5660 5680 5700 5720 5740

	4520 TVD		5656' 7 am Tuesday October 4, 2011		4520 TVD	
	MTD 5608 TVD 4637 (-3228)			Mud-Co. 5699' wt. 8.3 vis. 25	MTD 5703 TVD 4639 (-3230)	

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

ry shrp frsh opa, blk, w/weath sli trip edge, blk stain, dolo tan crm f vf xln w/ chrt incl, w/weath sli trip edge, blk stain

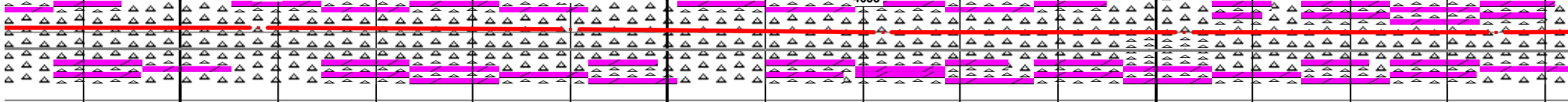
Inc. 89.5 @  
178.5 az  
4639'

Inc. 88.7 @  
179.0 az  
4638'

Inc. 89.3 @  
179.1 az  
4638'

Inc. 90.1 @  
179.5 az  
4639'

Inc. 90.3 @  
179.9 az  
4638'



ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

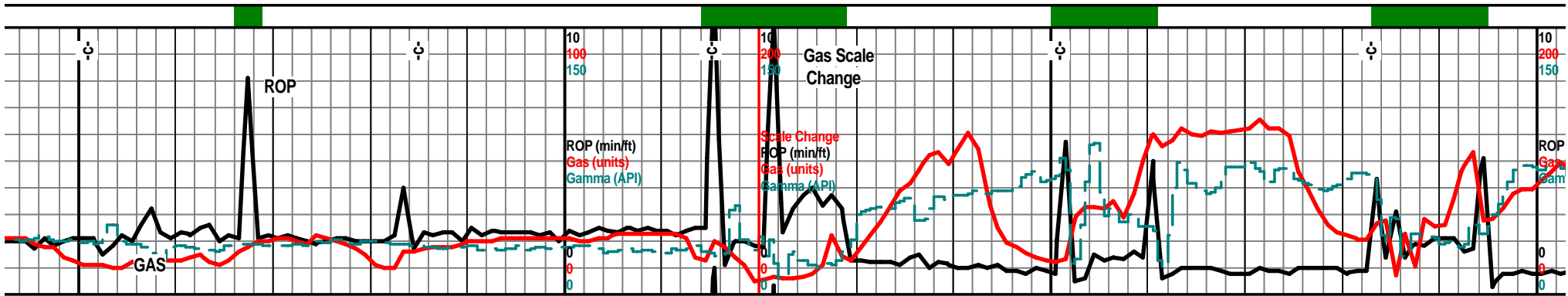
ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

ry shrp frsh opa transl, w/sli trip edge, blk stain, dolo tan crm with chrt incl, por text aa, pp moldic por, blk stain nodor

4690 4690



5760 5780 5800 5820 5840 5860 5880 5900

			4520 TVD	Bit Trip @ 5815' Add 5' stab. sub at 5815'						4520
									MTD 5895 TVD 4634 (-3225)	

frsh transl, blk vit, tr weath  
ldic por, tr dolo wht tan f vf xln  
wht lt gry shrp frsh opa, blk

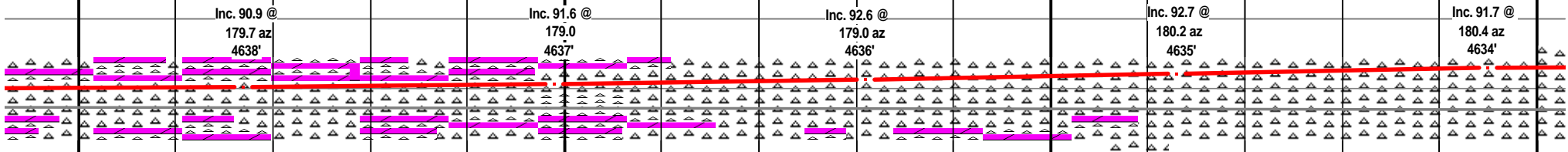
chrt wht lt gry clr shrp frsh transl, opa, w/weath  
sli trip text, pp moldic por, brn/blk stain, nodor,  
dolo wht tan f vf xln , ang pcs, tr glau

chrt wht lt gry clr shrp frsh transl opa, tr weath  
trip edge text, pp moldic por, brn blk stain, dolo  
tan crm with weath chrt inclu, brn blk stain

chrt wht clrt gry shrp frsh opa transl, with weath  
trip text edge, pp moldic por, brn blk stain, tr gas  
bubs,

chrt wht clr lt gry smokey, shrp frsh opa transl,  
weath gran trip text, pp moldic por, blk stain  
asphaltic grsy stain/SFO nodor, tr dolo tan crm f  
vf lxn w/weath trip text chrt inclu

chrt  
4blk  
anc



t transl, chrt dolo, tan  
dns, hrd, chrt inclu,  
blk stain nodor

chrt wht lt gry shrp frsh transl, opa, weath sli  
edge, pp moldic por, brn blk edge stain, nodor, tr  
gas?

chrt wht lt gry clr, opa transl, shrp frsh, tr dolo  
with chrt inclu, shrp frsh opa w/weath sli trip  
text, tr glau, tan brn tr blk stain , NSFO, nodor in  
any

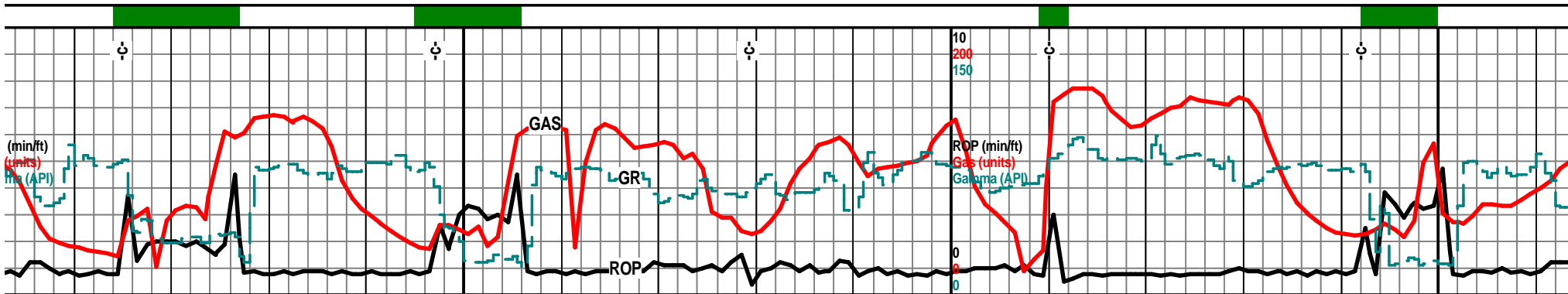
chrt wht lt gry smokey shrp frsh opa with weath  
dolo trip text edge, pp moldic por, brn blk stain

chrt wht lt gry clr tr smodey shrp frsh opa with  
weath trip text, pp moldic por, blk brn stain

c  
ti  
a  
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4690 4690





5920 5940 5960 5980 6000 6020 6040 6060

TVD 4520 TVD 6047' 7 am Wednesday October 5, 2011

MTD 5990  
TVD 4634 (-3225)

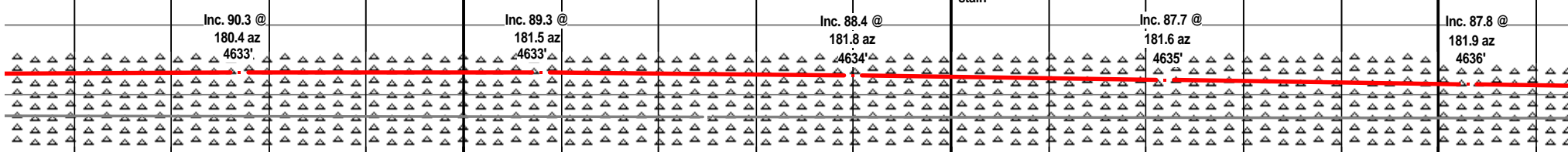
off wht lt gry clr smokey shrp frsh opa, w/ weath trip text edge, pp moldic por, grsy stain tr dolo tan crm with weathe chrt inclu sho aa, sli odor

chrt clr wht lt gry shrp frsh opa trans, with weath trip text edge, pp moldic por, blk stain, frac por, sli odor? dolo wht lt gry f vf xln gran tr glau, chrt inclu aa

chrt wht tan brn mott, weath semi trip text, spongy text, soft gran in prt, gas bubs, brn stain, blk asphaltic stain, chrt wht tan lt gry shrp frsh, w/weath trip text edge, stain

chrt wht tan brn mott weath trip text, gran soft, spongy text in prt, pp/moldic por, brn blk stain chrt off wht smokey shrp frsh opa trans, with weath sli trip edge, pp moldic por, SSFO, brn/blk stain

chrt wht lt gry shrp frsh opa trans, shrp shards, chrt tan crm brn mott, weath semi trip text, pp moldic por, tr spongy text, brn stain, blk grsy stain



hrt off wht lt gry clr, smokey shrp frsh opaq rans, w/weath trip text edge, pp moldic por, grsy asphaltic stain odor, tr dolo tan crm f vf xln blk yng dns with chrt inclu w/sho text aa, sli odor

chrt wht lt gry smokey clear, shrp frsh opaq transl, dolo tan wht f vf xln blk yng ang with chrt inclu, wht clr lt gry shrp frsh with weath trip text edge, stain blk grsy stain

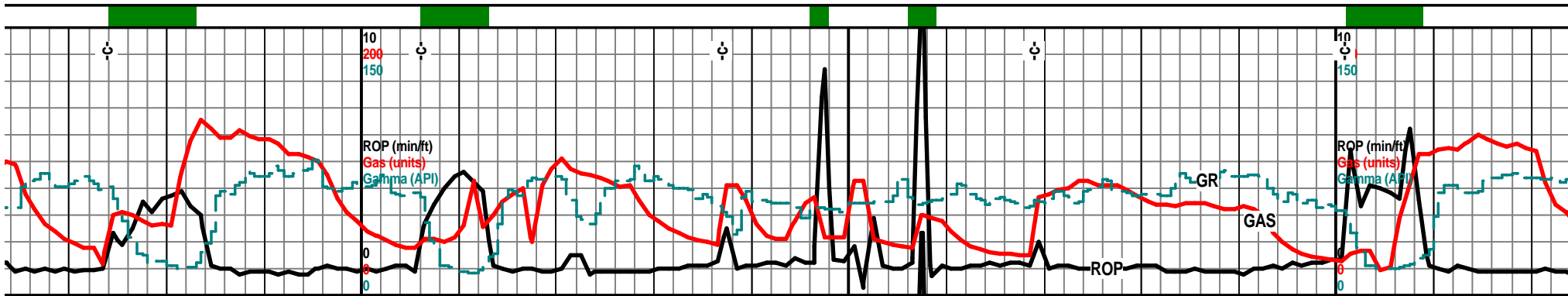
chrt wht brn mott, weath gran trip text with frsh shrp gry frsh opaq shards, brn stain blk SFO, sli odor

chrt wht tan brn mott, weath gran trip text, tr spongy text, pp/moldic por, brn stain, blk asphaltic stain, chrt wht lt gry smokey shrp frsh opaq with weath trip text edge, stain tr SFO, filmy on water

chrt wht clr lt gry smokey, shrp frsh ang blk yng transl, chrt shards, chrt tan lt brn mott weath sli trip text, pp/moldic por, brn stain, blk asphaltic stain

cl tr bi di

4690



6080

6100

6120

6140

6160

6180

6200

6220

4520 TVD

4520 TVD

MTD 6085  
TVD 4637 (-3228)

Mud-Co. 6157'  
vis. 26 wt. 8.3

MTD 6212  
TVD 4638 (-3229)

chrt off wht clr lt gry, smokey, shrp frsh opa  
transl, chrt shards, chrt gry smokey aa with sli  
trip weath edge, pp moldic por, blk stain,

4605 chrt off wht lt gry smokey shrp frsh opa transl,  
weath sli trip text edge, tr tan brn mott, gran trip  
text, brn stain, blk stain, filmy SFO on spl water

chrt clr off wht, lt gry tr lt smokey, shrp frsh, semi  
trans, tr foss frag incu, trip weath text, spotted  
med brn some blk stain, pp moldic por

chrt clr off wht lt gry smokey, shrp frsh blk, chrt  
shards, semi trans, tr glau, weath text, semi trip  
weath text, spotted med brn, some blk stain, pp  
moldic por. filmy RBSFO on sample water

4610 chrt with lt gry smokey shrp frsh blkly :  
transl, semi trip weath text, spotted m  
stain, pp moldic por, nodor, grsy stair

Inc. 88.5 @  
182.9 az  
4637'

Inc. 89.3 @  
182.9 az  
4638'

Inc. 89.3 @  
183.6 az  
4638'

Inc. 89.6 @  
183.5 az  
4638'

Inc. 90.7 @  
183.4 az  
4638'

hrt off wht lt gry tr smmokey shrp frsh opa, vit  
ansl, with semi trip weath text, pp moldic por,  
rn stain, blk asphaltic stain, tr RBSFO, odor in  
rys

chrt off wht lt gry smokey shrp frsh opa transl,  
with weath semi trip text edges, pp por, stain, blk  
stain, mstly frsh

chrt lt gry smokey shrp frsh opa transl, with  
weath sli trip text, pp, moldic por, tan brn stain tr  
blk asphaltic stain, nodor, tr wht flky lst f xln sub  
chlky, with chrt inclu aa

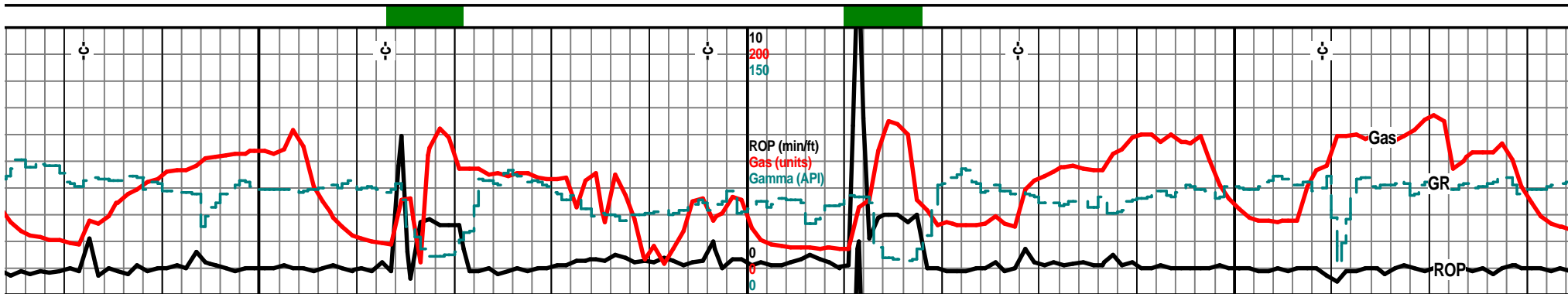
chrt clr off wht lt gry tr smokey, shrp frsh blk  
opa, semi trans, transl, tr glau, weath edge text,  
sli trip to trip text, pp moldic por, spotted brn blk  
stain, rainbow film on spl water

chrt wht off wht lt gry shrp frsh opa blkly shards,  
weath semi trip text, pp moldic por, spotted brn  
blk stain, nodor, filmy sfo on spl water

chrt  
chrt  
text  
tr ga

4690

4690



6240

6260

6280

6300

6320

6340

6360

6380

4520 TVD

6 pm 6355'  
Wednesday  
October 5, 2011

MTD 6307  
TVD 4637 (-3228)

semi transp,  
ed brn blk

chrt lt wht clr lt gry lt smokey, shrp frsh opa  
semi transp chert shards, tr foss inclu, chrt aa  
with semi triplitec weath text, pp moldic por,  
spotted brn/blk stain, filmy RBSFO, gas bubs gd  
UV

Inc. 91.3 @  
184.1 az

chrt lt tan lt gry, shrp frsh opa, foss frag inclu,  
semi transp, tan brn mott, weath trip text, spotted  
to fair/gd stain, brn stain, tr blk gas bubs, filmy  
SFO on sampl water

Inc. 91.3 @  
183.5 az  
4637'

chrt off wht lt gry clr shards, frsh opa, transp in  
most, tr foss frag inclu, tr glau, weath trip text,  
pp.moldic por, spotted brn blk stain, tiny oil  
droplets on smpl water, nodor

Inc. 90.4 @  
183.5 az  
4637'

chrt off wht lt tan lt gry, clr chrt shards, frsh opa  
transl, transp, tr glau, tr foss frags, weath trip text  
por, pp/moldic por, spotted/fair brn blk stain, tr  
gas bub nodor

Inc. 90.2 @  
183.4 az  
4637'

chrt clr lt gry transl, transp frsh opa sha  
shards, tr foss frag inclu, tr glau, spotted  
stain w/weath sub trip edges, nodor

Inc. 90.3 @  
183.4 az  
4637'

lt gry smokey, clr shrp frsh opa semi transp chrt off wht lt gry tr lt smokey, shrp frsh opa  
shards, chrt aa with weath semi trip weath blk, transp in prt, with tan brn mott trip text  
edge, spotted brn blk stain, nodor, filmy RBSFO weath edge, spotted to fair stain, brn blk stain,  
is filmy SFO on water

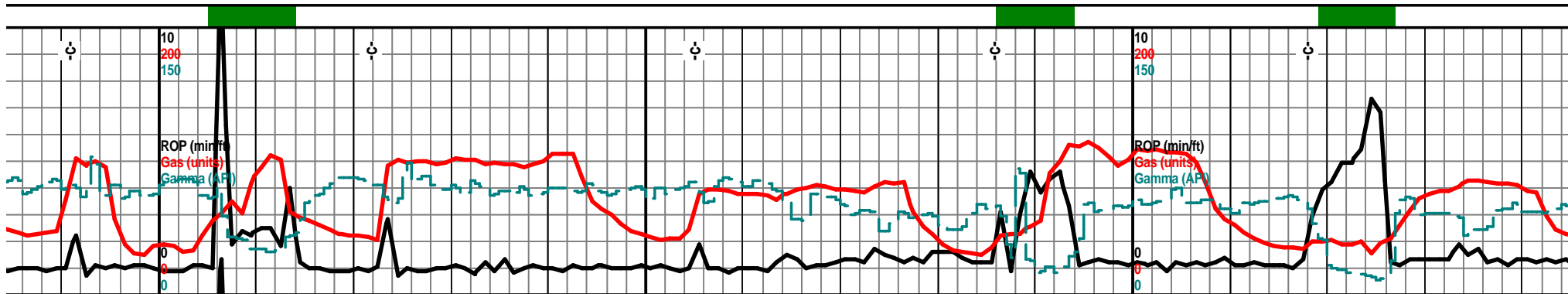
chrt lt gry clr shrp frsh blk transp in prt, chrt aa  
with tan brn tr blk mott, mod weath trip text,  
spotted brn blk stain, vis pp/weath moldic por

chrt off wht, lt gry shrp frsh opa, transl, mstly  
transp, tr foss frags inclu, tr glau, spotted brn blk  
stain w/weath trip edge, SFO droplets on spl  
water

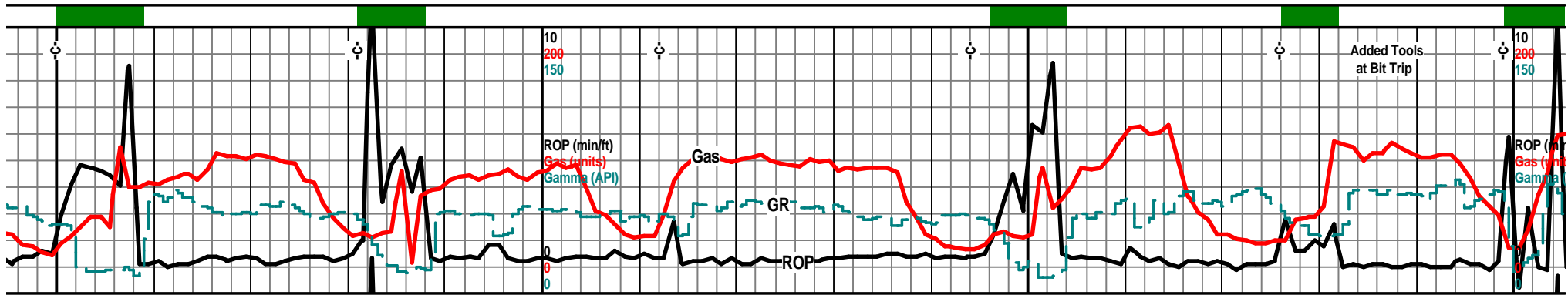
chrt off wht lt gry transl, transp, frsh shrp chrt  
shards w/gran weath trip text por, pp/moldic por,  
spotted brn stain nodor, ssfo droplets on spl  
water

chrt lt wt  
spotted i

4690

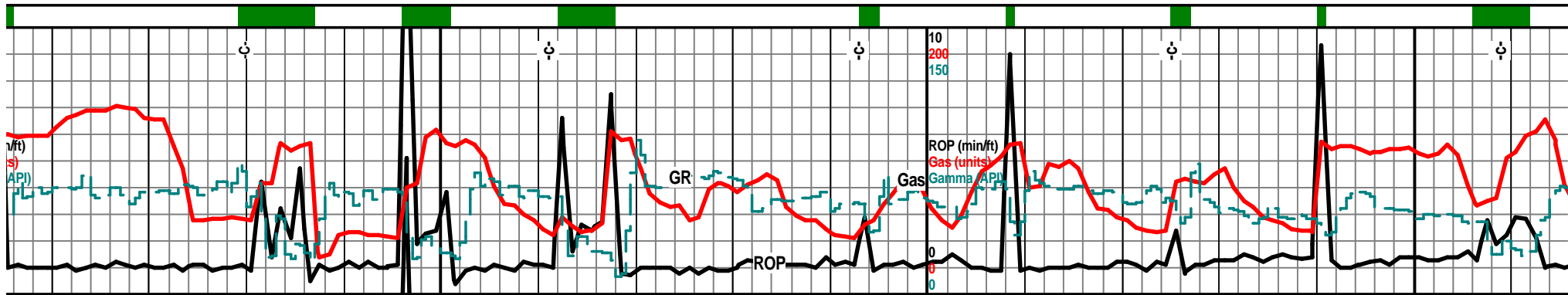


6400	6420	6440	6460	6480	6500	6520	6540
4520 TVD					4520 TVD		Samples very fine!
	Strong odor on pits						
MTD 6403 TVD 4636 (-3227)					MTD 6498 TVD 4636 (-3227)		
			trace dolo, wht lt green tint, f vf xln gran flky, calc, chlky, glau, chrty inclu				
chrt lt gry clr, tranl, mstly transp frsh opaqt chrt shards, w/spotted brn blk stain, weath trip por, pp/moldic por, tr asphaltic stain, tr droplets of spl wtr		chrt lt gry off wht shrp frsh opaqt mstly transp, gry tan/brn mott, weath sli trip edge, stain spotted tan brn stain, small oil droplets on spl str		chrt clr lt gry frsh shrp opaqt shards, transl, mstly transp, with tan brn mott weath trip edge/por, pp moldic por, spotted to fair brn blk stain nodor oil droplets of spl wtr		chrt lt gry shrp frsh transl, transp, opaqt shards, with tan/brn mott weath trip text edge, spotted brn blk stain, pp moldic por, filmy sfo on spl wtr. nodor	chrt off wt pcs, tan t sli trip po stain
Inc. 90.4 @ 182.7 az 4636'		Inc. 90.3 @ 183.1 az 4636'		Inc. 90.4 @ 183.4 az 4636'		Inc. 90.5 @ 182.5 az 4636'	Inc. 90.4 @ 182.4 az 4636'
chrt lt gry frsh shrp opaqt transp chrt shard, brn blk stain with weath sub trip text,	chrt off wht lt gry clr shrp transl, transp opaqt shards, foss frag inclu, tr glau, spotted tan brn blk stain w weath sli trip text, nodor,		chrt clr lt gry shrp chrt shards, transp, transl, frsh w.gry tan brn mott, weath trip text por, pp moldic por, spotted/fair brn blk stain, nodor, tiny oil drops/wtr		chrt clr lt gry frsh shrp transl, opaqt tr glau, much spotted brn stain, with weath trip por, pp/moldic por, tr dolo wht lt green f xln glau flky chlky		chrt off wht clr lt gry shrp frsh opaqt blkly spotted tan brn mott, with weath trip text, moldic por, scattered spotted brn blk stain SFO
4690					4690		



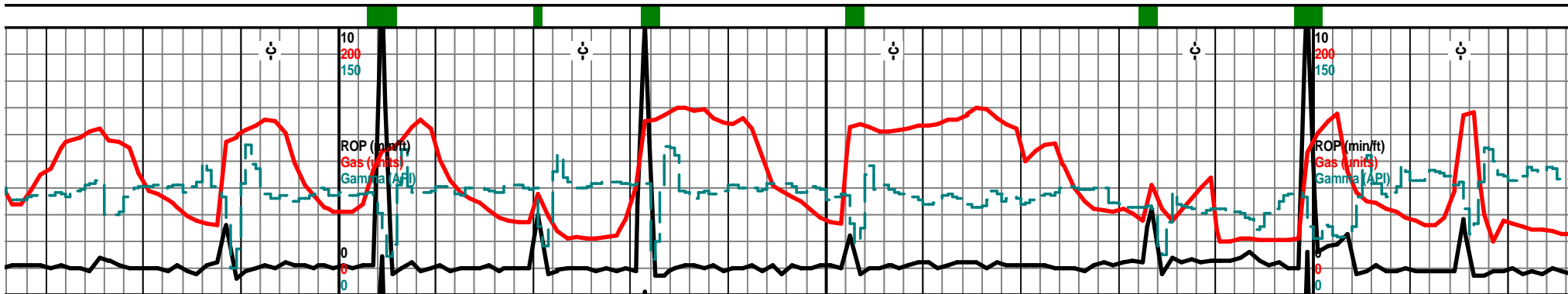
6560 6580 6600 6620 6640 6660 6680 6700

			4520 TVD	Samples pretty fine!		7 am 6676' Thursday October 6, 2011		4520 TVD
		MTD 6593 TVD 4635 (-3226)				Tool Trip 6676' Down hole motor spools up		M TVD
	tr dolo wht lt green f vf xln blkly flky, tr calc, tr chlky, chrty, glau in prt, 6570' and 6580' spls							
lt th gry clr, shrp, frsh, blkly, transl, opaq rn mott edge stain, tan brn mott weath r pp moldic por, spotted tan brn blk	chrt clr lt tan lt gry, shrp, frsh, opaq, transl shards/pcs, mottled brn blk weath trip text por, pp moldic por, spotted/fair tan brn/blk stain nodor			chrt off wth tan lt gry, shrp frsh, transl, opaq, tr tan brn mottled with tan brn spotted stain, weath trip text, pp/moldic por, tan brn stain, tr asphaltic, filmy SFO on spl water, odor on pits		cht lt tan off wht tr lt gry, shrp, frsh, opaq, transl, transp in prt, blkly shards, tan brn mott weath trip text, pp moldic por, tan brn stain, nodor		chr off wht lt gry clr, shrp, frsh, opaq, l transpl, transl, weath trip text edge, tan edge, pp moldic por, spotted/fair tan b
Inc. 90.0 @ 181.6 az 4635'	Inc. 90.2 @ 180.8 az 4635'		Inc. 90.5 @ 180.9 az 4635'		Inc. 89.9 @ 181.1 az 4636'		Inc. 87.7 @ 180.8 az	
shards, pp n, grsy	chr lt tan lt gry clr, opaq, transl, blkly, frsh, shards pcs, mottled brn blk weath trip pcs, pp moldic por, spotted/fair brn blk stain, filmy SFO on spl wtr	chrt clt lt gry shrp frsh, opaq, blkly ang, pcs, tan brn mott semi trip weath text, spotted/fair tan brn stain, pp moldic por, nodor, RBSFO on spl wtr, oil droplets	chrt lt tan lt gry clr, shrp, frsh, opaq, transp in prt, tan brn mottled weath trip text por, pp/ moldic por, spotted to fair tan brn stain, filmy SFO on spl water		cht clr lt tan lt gry shrp, frsh, blkly opaq, transp in prt, tan brn mottled stain, vis weath trip edge por, pp/moldic por, spotted/fair brn blk stain		chrt lt gry clr, shrp frsh transp in prt, with weat brn stain, pp/moldic po	
		4690						4690

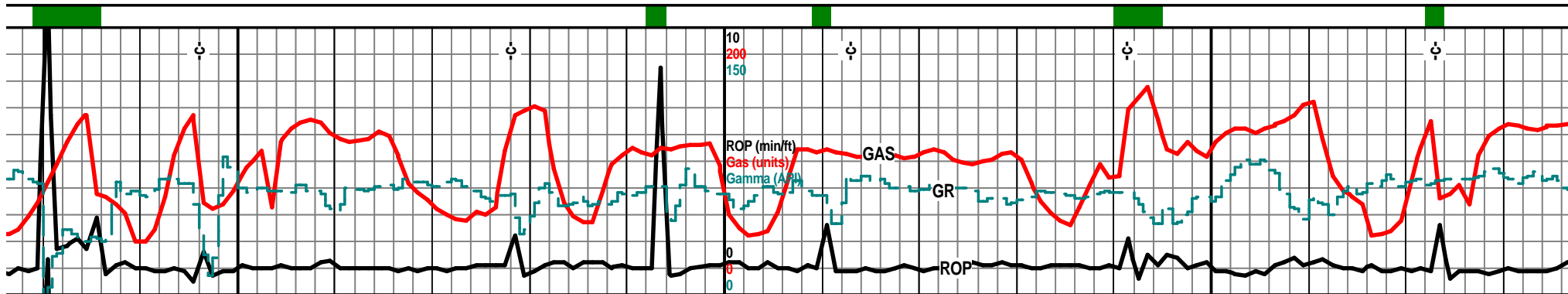


6720 6740 6760 6780 6800 6820 6840 6860

						4520 TVD				
ITD 6714 4637 (-3228)						MTD 6810 TVD 4838 (-3229)				
blky n mottled rn stain	chrt lt gry clr transl, semi transp blky ang frsh opaq, tr foss frags, tr lst/dolo edge, f xln flky chiky, spotted brn blk stain, pp/moldic por		chrt clr lt gry shrp frsh blky opaq transl, semi transp, weath trip text edges, spotted brn stain, pp moldic por, pyritic in prt, tr foss frags, glau			chrt clr lt gry shrp frsh blky ang pcs, semi transp, transl in prt, tan brn mottled weath trip text por, pp/moldic por, spotted/fair brn stain		chrt clr lt gry, semi transp, shrp, frsh, blky ang pcs, opaq, weath sli trip text, pp moldic por, spotted tan drk brn stain, tr foss frags, tr wht lt green flky calc dolo		chrt clr lt gry shrp f semi trip edge, tan spotted tan brn sta water
Inc. 87.2 @ 180.5 az 4637'		Inc. 88.6 @ 181.6 az 4638'		Inc. 90.5 @ 182.1 4638'		Inc. 90.7 @ 182.1 az 4638'		Inc. 91.1 @ 182.1 az 4638'		
blky ang opaq, transl, h sli trip text edge, spotted ir	chrt lt gry clr, blky ang pcs, shrp frsh opaq transl, semi transp in prt, weath tan brn mottled trip test, spotted tan brn tr blk stain, pp moldic por,		chrt clr off wht lt gry shrp frsh opaq blky ang pcs, weath semi trip text, pp moldic por, spotted/fair/even tan brn stain		chrt clr lt gry shrp frsh opaq pcs, semi transp, weath trip text por, pp moldic por, spotted/fair tan brn stain		chrt clr lt gry shrp frsh opaq transl, semi transp, weath sli trip text, spotted tan brn stain, pp moldic por, lst, calc dolo wht f xln flky chiky glau		chrt clr lt transl, tr pp moldi wht lt gr	
						4690				



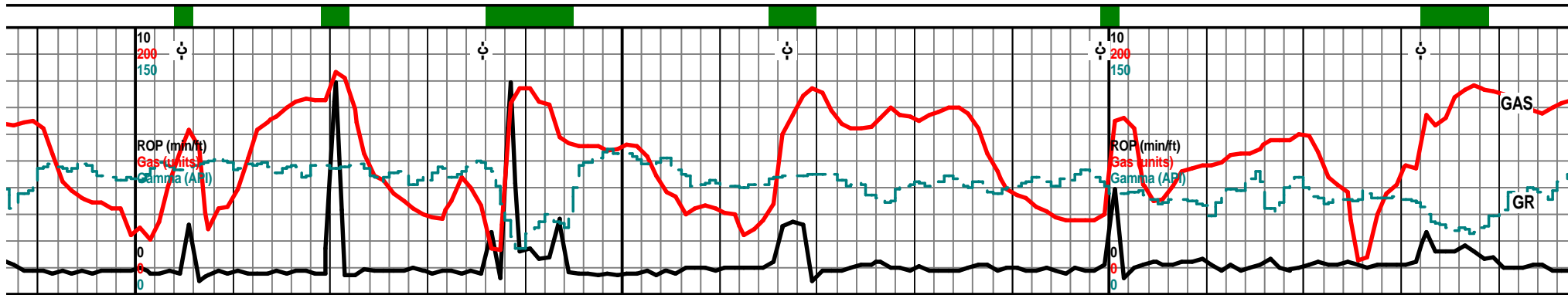
6880	6900	6920	6940	6960	6980	7000	7020
	4520 TVD		7am 6940' Friday October 7, 2011			4520 TVD	
	MTD 6905 TVD 4637 (-3228)					MTD 6999 TVD 4637 (-3228)	
frsh opaq, transl, with weath brn mottled, pp moldic por, in, nodor, filmy SFO on spl	chrt clr lt gry tr wht, glau, shrp, frsh, opaq, blkly, mstly transp, transl in most, tan brn weath sli trip edge, spotted/fair tan brn stain, tr gas, sli odor?	chrt, clr lt gry, tr wht, shrp frsh, opaq, mstly transp, tr transl, lt tan brn weath sli trip text, pp moldic por, spotted tan brn stain, filmy SFO on spl water, 3-4 pcs wht lt green calc dolo, flky chlky f xln glau	chrt lt gry clr, tr wht, shrp frsh opaq transp shards, tr glau, tr foss frags inclu, tan brn weath trip por, pp moldic por, spotted tan brn stain, filmy RBSFO/wtr	chrt clr lt gry shrp frsh opaq, transp in most tan brn mottled weath trip text, pp/moldic por spotted tan brn some blk stain			
Inc. 90.1 @ 181.7 az 4638'	Inc. 90.1 @ 181.6 az 4638'	Inc. 90.0 @ 181.5 az 4637'	Inc. 90.0 @ 181.5 az 4637'	Inc. 90.3 @ 181.7 az 4637'	Inc. 90.0 @ 181.5 az 4637'	Inc. 90.0 @ 181.5 az 4637'	
lt gry, tr wht, shrp, frsh, blkly, ang, opaq, ansp in prt, weath sli trip gran edge por, ic por, spotted brn blk stain, tr calc dolo, een flky chlky glau	chrt lt gry clr, tr wht, glau, shrp, frsh, opaq, blkly shards, msly transp, tr transl, lt tan brn weath sli trip edge, spotted tan brn stain	chrt lt gry off wht clr, tr wht, glau shrp frsh, opaq, blkly ang pcs, mstly transp, tan brn mottled weath sli trip por, pp moldic por, spotted/fair tan brn stain	chrt clr lt gry tr wht shrp, frsh, opaq, mstly transp, blkly ang pcs, transl in prt, tan brn mottled weath sli trip por/text, pp moldic por, spotted tan brn stain	chrt clr lt gry tr wht shrp, frsh, opaq, mstly transp, blkly ang pcs, transl in prt, tan brn mottled weath sli trip por/text, pp moldic por, spotted tan brn stain			chrt clr lt g glau, tan lt moldic por pcs wht lt
	4690					4690	



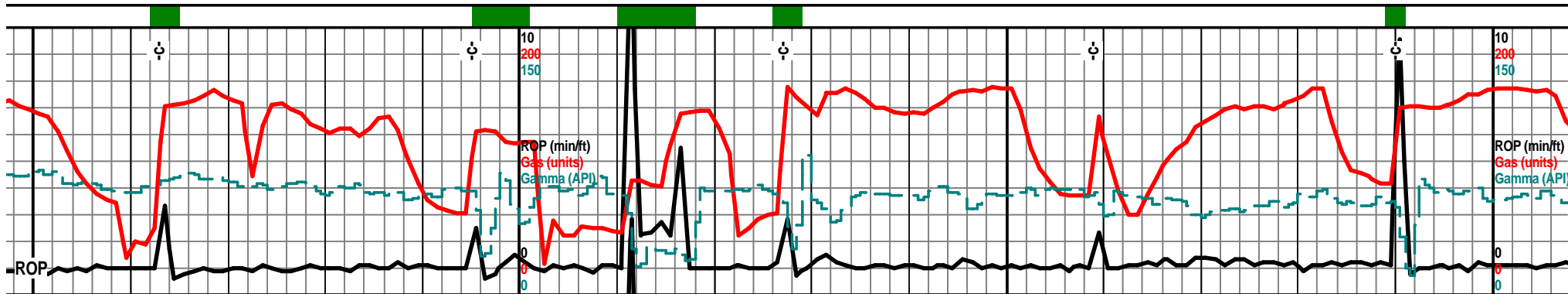
7040                      7060                      7080                      7100                      7120                      7140                      7160                      7180

				4520 TVD						Samples finer with depth much sharp jagged steel in spls
				MTD 7094 TVD 4639 (-3230)						
t, glau, or,	chrt clr lt tan lt gry, shrp frsh, opa, blkly ang shards, transp, transl in prt, tr foss frag inclu, tr glau, tan brn mottled weath trip por, pp moldic por, spotted brn/blk stain		chrt clr lt tan/gry shrp frsh, opa, blkly ang pcs, transp, mstly transl, tr foss frag inclu, tan brn mottled weath trip edge por, pp moldic por, spotted tan brn stain		chr wht clr lt gry, tr wht, frsh shrp blkly ang shards, opa, transl, transp in most, tan brn mottled weath trip text, pp moldic por, tan gran spotted stain filmy SFO on spt wter				chrt clr lt gry shrp frsh, opa, blkly shards, tr transl in most, tr foss frags inclu, tr glau, tan mott weath trip text por, pp moldic por, spotted/fair tn brn stain	
	Inc. 89.1 @ 181.9 az	Inc. 88.3 @ 182.1 az 4638'	Inc. 88.8 @ 182.1 az 4639'		Inc. 89.2 @ 182.5 az 4639'			Inc. 89.7 @ 182.5 az 4640'		
	ry frsh shrp blkly ang, tr foss inclu, tr brn mottled weath sli trip text, pp r, spotted tan brn some blk stain, 1-2 green flky f xln dolo, tr glau		chrt clr lt gry lt tan shrp, frsh, opa, tansp, transl, sharp shards, tan brn weath trip edge text, spotted tan brn stain, odor? SSFO on spl wter		chrt clr lt tan lt gry shrp, frsh opa, transp, much transl, foss frags tr glau, brn mottled weath sli trip por, pp moldic por, spotted/fair tan brn blk stain			chrt wht lt gry shrp frsh opa blkly ang shards, transl, transp in most, tr foss frag incul tr glau, spotted tan brn stain, pp moldic por		chrt clr lt g transl, tran tan brn sp
				4690						

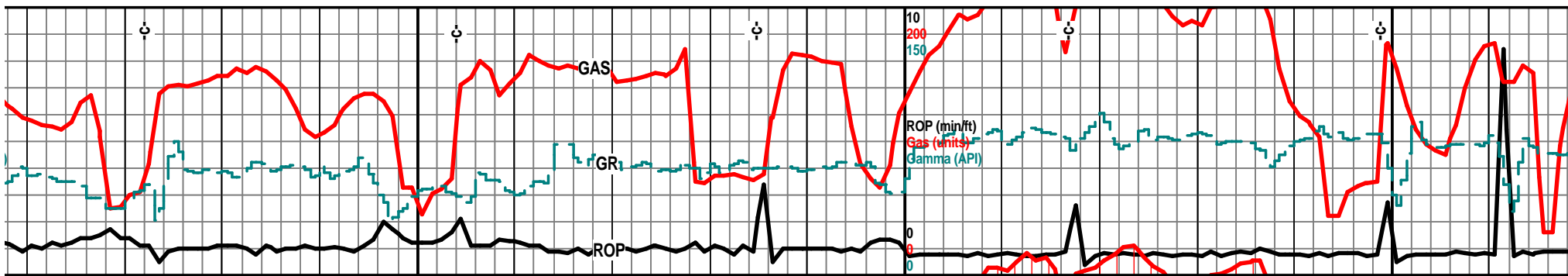




Ft	7200	7220	7240	7260	7280	7300	7320	7340
	4520 TVD					4520 TVD	5 pm 7308' Friday October 7, 2011	
		MTD 7221' TVD 4640 (-3231)		Sample shows, percent of fresh chrt and extent of weathered tripolitic texture tend to increase and decrease along the way. Filmy RBSFO common, Distinct odor out around mud pits.				MTD 7342' TVD 4642 (-3231)
ansp, brn	chrt clr lt gry shrp frsh opa q blky ang shards, transl, mstly transp, foss frag inclu, tr glau, tan brn mottled weath trip text, spotted tan brn stain, filmy SFO on spl water, nodor in any doh!		chrt lt gry clr shrp frsh blky ang pc, transl, transp, foss frags, tr glau, tan brn mott weath edge trip por, spotted tan brn stain, nodor in any of this,		chrt lt gry clr shrp frsh blky ang shards, mstly transp, tr transl, foss frag inclu, tr glau, weath edge trip type por, pp moldic por, spotted brn blk stain, nodor		chrt lt gry off wht, tr wht, shrp, blky ang pcs & shards, opa q transp, some transl, foss frags inclu, tr glau, weath gran trip text por, pp/mm por, spotted/fair tan brn stain, filmy sho on spl	
nc. 90.0 @ 182.3 az 4640'		Inc. 90.4 @ 182.5 az 4640'		Inc. 89.1 @ 181.9 az 4640'		Inc. 88.8 @ 1181.8 az 4641'	Inc. 88.8 @ 182.0 az 4641'	Inc. 88.8 @ 182.0 az 4641'
	ry, shrp frsh, opa q, blky ang shards, sp in most, tan brn weath trip text por, spotted stain, pp moldic por, filmy SFO	chrt clr lt gry shrp frsh opa q, blky shards, tr foss inclu, tr glau, plentiful in prt, tansl, transp, weath sli trip text por, pp/mmoldic por, spotten brn stain		chrt wht off wht tr wht clr, shrp frsh opa q transl, mstly transp, tr foss frag inclu, tr glau, tan brn mottled weath trip type por, pp moldic por, spotted/fair tan brn stain		chrt off wht lt gry shrp frsh blky ang pcs & shards, opa q, transp, some transl, tr foss frag inclu, tr glau, tan brn mottled weath sli trip por, tan brn spotted stain		chr lt tan lt shards, tra stain, pp m
	4690					4690		



Depth (TVD)	7360	7380	7400	7420	7440	7460	7480	7500
ROP (min/ft)			10					10
Gas (units)			200					200
Gamma (API)			150					150
ROP			0					0
Gas			0					0
Gamma			0					0
Notes		Samples become finer, show/stain is less obvious, percent of fresh vrs weathered material varies and changes along the way.		MTD 7412 TVD 4643 (-3234)		chrt lt gry clr, frsh shrp opa, blkly ang brkn pcs, transl, mottled tan brn weath sli trip text, pp moldic por, spotted stain, floating oil droplets on spl water		chrt lt tan clr lt gry, shrp frsh, opa, shards an brkn blkly pcs, tr foss inclu, tr glau, tan brn weath edge, tr trip text, spotted tan brn stain
Inc. 88.5 @ 181.7 az 4642		Inc. 88.7 @ 181.5 az 4643		Inc. 89.3 @ 181.2 az 4643'	Scale Change 4625	Inc. 89.5 @ 181.4 az 4643'	Inc. 89.5 @ 181.2 az 4644'	Inc. 89.5 @ 180.9 az 4644'
chrt off wht lt gry frsh shrp opa, blkly ang pcs and shards, pp moldic por, weath gran sli trip por, spotted tan brn stain, nodor,		chrt clr lt gry shrp, frsh, opa, blkly, shards, 4transp in most, tan brn weath trip text edge, spotted tan brn stain, pp moldic por, foss frag inclu, tr glau.						
chrt shrp frsh opa, blkly ang pcs and nsp. weath sli trip text, spotted tan brn moldic por, filmy SFO		chrt clr lt gry tr hwt shrp, frsh opa, blkly ang pcs, shards, weath trip text, spotted tan brn stain, pp moldic por		chrt lt gry clr, frsn shrp opa, shards & blkly ang brkn pcs, transp, spotted trip weath text, spotted tan brn stain, tr blk stain		chrt clr lt gry tan shrp frsh opa, transl, transp, tr foss frags, tr glau, mottled tan brn weath trip text, spotted stain pp moldic por, same		chrt wth o ang pcs, sli tan brn sta
			4520 TVD		4540 TVD			4540 TVD
								MTD : TVD 4644
			4690		4710			4710



7520                      7540                      7560                      7580                      7600                      7620                      7640                      7660

7507 (-3235)                      Samples become finer with depth, show/stain is less obvious, percent of fresh vrs weath trip material varies and changes along the way.                      4540 TVD                      MTD 7602 TVD 4646 (-3237)

depth                      chrt clr lt gry, clr, tranp, transl, shrp, frsh, opaq, brkn blkly pcs, lt tan weath sli trip text, spotted lt brn stain pp/mldic por, tr foss frags inclu, tr glau, oil droplet floating, RBSFO                      chrt lt gry clr, frsh, shrp transl, transp pce, brkn blkly ang pcs, tr glau, tr foss inclu, tan lt brn stained sli weath trip text por, spotted tan brn stain nodor, floaters                      chrt clr lt gry shrp frsh, blkly ang brkn pcs, shards, foss frag inclu, tr glau, sil weath trip text, spotted brn stain, pp/ moldic por,                      chrt lt gry clr, shrp frsh, blkly ang brkn pcs, weath gran sli trip text por pp, moldic por spotted stain, floating ol droplets, nodor

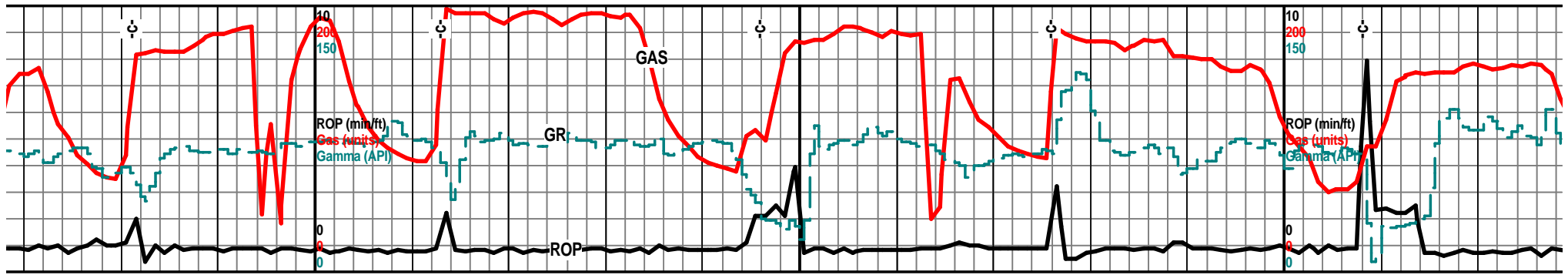
l.1 @                      Inc. 89.1 @                      Inc. 89.3 @                      Inc. 88.6 @                      Inc. 88.6 @                      Inc. 88.7

180.9 az                      180.8 az                      180.8 az                      180.0 az                      180.5 az

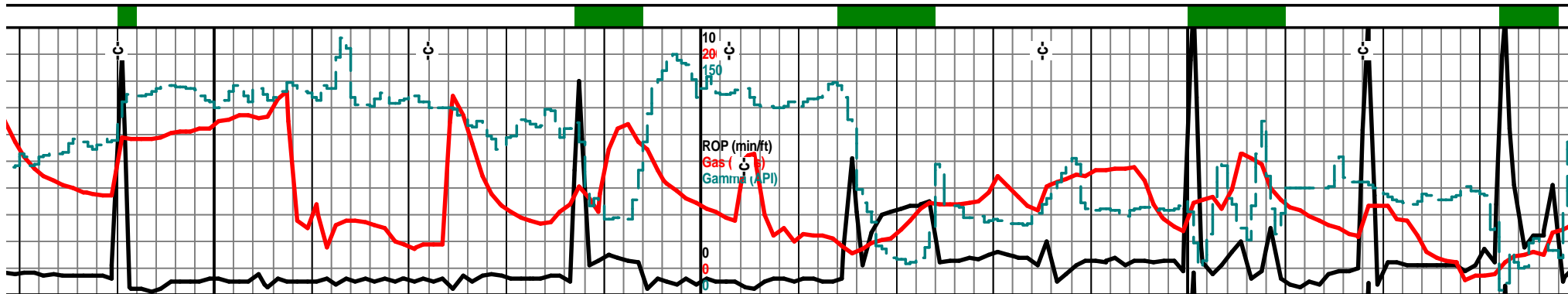


lt gy clr transl, transp, shrp frsh blkly hards, lt tan weath trip egde, spotted in, pp moldic por                      chrt lt gry shrp frsh, opaq, shards, brkn blkly ang pcs, lt tan stain w/sli weath trip text, spotted stain, mottled tan lt brn stain,                      chrt clr lt gry shrp, frsh, opaq, transl, transp, shards, brkn ang blkly pcs, sli weath trip text, spotted tan brn stain, pp moldic por                      chrt lt gry lt tan, lt gry shrp, frsh, opaq, transl, transp, opaq, weath edge, sli weath trip text, spotted brn stain, nodor, tr glau, tr foss frag inclu                      chrt lt gry clr, sha transl, transp, tr f brn stain, pp molc

4710

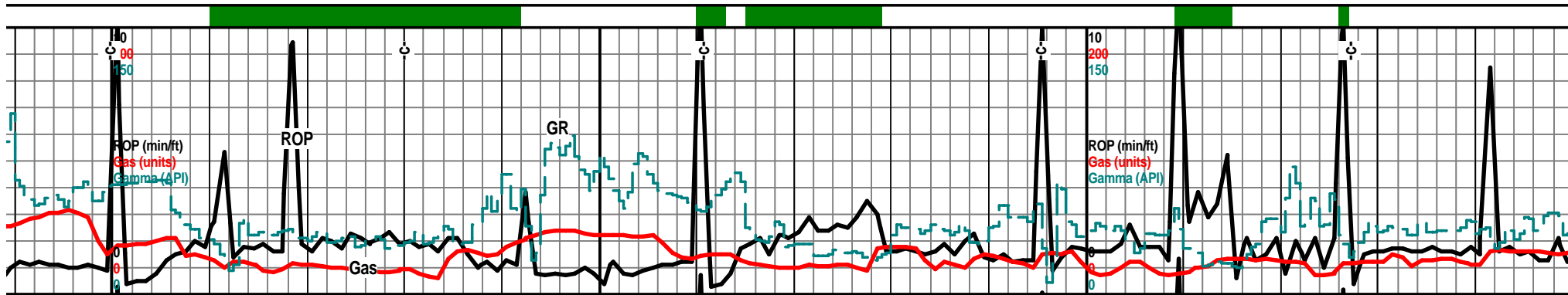


7680	7700	7720	7740	7760	7780	7800	7820
	4540 TVD					4540 TVD	
MTD 7697' TVD 4648 (-3239)						MTD 7793 TVD 4651 (-3243)	
chrt clr lt gry, shrp frsh opa, blk, blk brkn ang pcs, shards, transl, tranp pcs, scat weath gran trip text pcs, spotted tan brn stain pp moldic por tr glau		chrt clr lt gry wht, shrp frsh, opa, transl, tranp in most, pyriic, tr foss frags inclu, tr glau, spotted tan brn stain, mottlded tan brn weath sli trip text pp/moldic por, nodor, RBSFO on wtr		chrt wht lt gry wht, shrp frsh opa, blk shards, transl, mstly tranp, foss frags inclu, spotted tan brn stain, mottled tan brn weath trip text, pp/moldic por, nodor, filmy SFO		chrt clr lt gry shrp frsh opa, shards, blk brkn pcs, tranp, scat weath sli trip text, moldic por, spotted tan brn stain,	
@	Inc. 88.6 @ 180.5 az 4648'	Inc. 88.4 @ 180.3 az 4649'	Inc. 88.3 @ 180.6 az 4650'	Inc. 88.5 @ 180.5 az 4654'	Inc. 88.5 @ 180.7 az 4651'		
rds, brkn blk ang pcs, oopaq, sss frag inclu, gr glau, spotted fic por, filmy SFO nodor	chrt lt gry clr transl, tranp pcs, shrp frsh opa, blk brkn pcs, weath trip gran weath pc, spotted brn stain, pp moldic pcs, tr glau, floaters	chrt wht lt gry shrp frsh opa, transl, blk brkn pcs, weath trip text por, scattered tan brn stain, pp moldic por	chrt clr lt gry shrp frsh opa, blk ang pcs, transl, tranp in most, weath sli trip edge, spotted tan brn edge stain, pp moldic por	chrt clr lt gry shrp frsh opa, blk ang pcs, transl, tranp in most, weath sli trip edge, spotted tan brn edge stain, pp moldic por	chrt clr lt gry shrp frsh opa, blk ang pcs, transl, tranp in most, weath sli trip edge, spotted tan brn edge stain, pp moldic por		
	4710					4710	

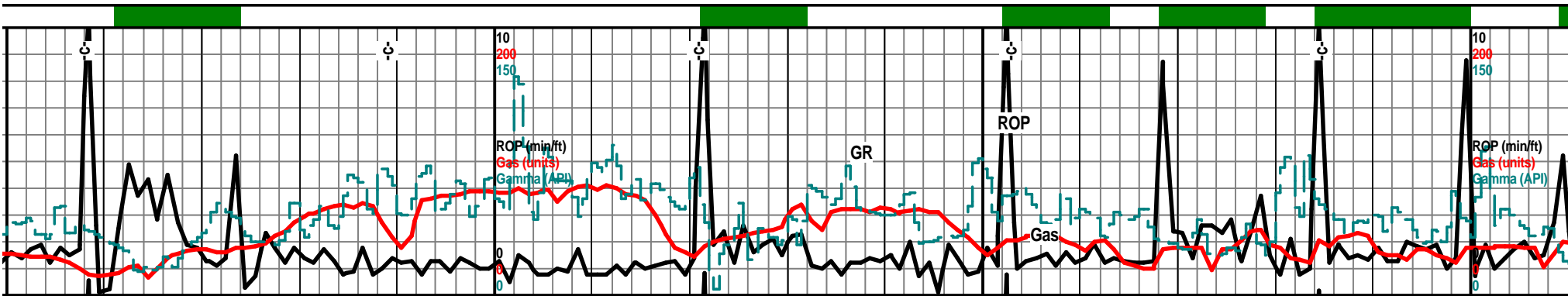


7840                      7860                      7880                      7900                      7920                      7940                      7960                      7980

<p>7 am 7840' Oct. 8, 2011 Bit Trip 7840'</p> <p>Drill ahead after trip at 6 pm</p>		<p>MTD 7888' TVD 4654' (-3245)</p>	<p>4540 TVD</p>		<p>Samples very fine and granular, broken, blocky, crushed chrt</p>
<p>ang pp</p>	<p>chr clr lt gry frsh shrp blk ang opa, transl, transp, brkn ang pcs, weath sli trip text edge, ppmoldic por, spotted tan brn stain, filmy sfo in sple</p>	<p>chrt lt gry clr, shrp frsh opa, foss frags inclu, transl, transp, brkn blk ang pcs, weath sli trip por, spotted brn blk stain, nodor, filmy SFO on spl wtr</p>	<p>17'</p>	<p>chrt lt tan, clear, shrp, opa, frsh, chrt shards, semi opa to mostly transparent, msly broken angular pieces, trace fossil fragment incution, tr spotted glau, Mix of frsh and wht brn mottled sli weathered sli tripolitic texture, spotted tan brown stain</p>	<p>chrt clr white light gray, frsh sharp, blk broken pcs, semi-opaq to semi transparent, rare fossil inclu, mix of frsh and weath tripolitic text, pp, moldic por, mix of barren and spotted stain, dul UV, tr filmy SFO on wtr, nodor in any</p>
	<p>Inc. 88.1 @ 180.7 az 4652'</p>	<p>Inc. 86.6 @ 180.7 az 4654'</p>	<p>4625</p>	<p>Inc. 86.7 @ 180.4 az 4656'</p>	<p>Inc. 86.4 @ 180.6 az 4658'</p>
<p>p frsh opa, blk ang brkn pcs, th sli trip text edge, spotted tan moldic por,</p>	<p>chrt lt gry clr, sharp frsh ang blk brkn pcs, tr brm mottled trip/weath/gran por, spotted stain poor samples</p>		<p>4710</p>		

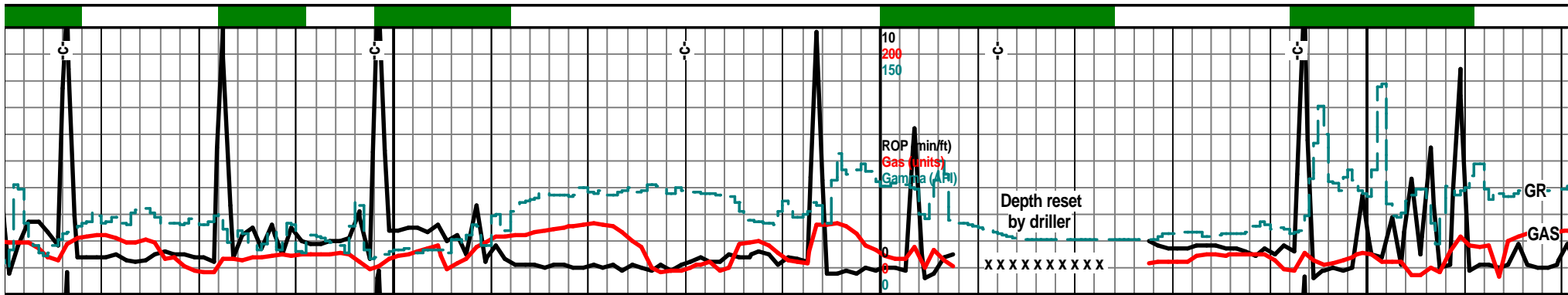


8000	8020	8040	8060	8080	8100	8120	8140				
4540 TVD					4540 TVD						
MTD 8014 TVD 4662 (-3253)				MTD 8142 TVD 4665 (-3256)							
chrt white off white, clear, light grey, frsh, shrp, blk, some blk any brkn pieces, semi opa, mostly transparent, tr fossil inclusions, weathered tripolitic text edge, pp/moldic por, mix of barren and spotted tan/brown stain, dull UV, fimy SFO (rare), tr blk asphaltic stain nodor in any				chrt white, off white, lt gray, sharp, fresh, semi opa to transparent, tr transl, mostly broken blocky pieces, tr fossil inclusions, trace white with glau inclusions, weathered trip text edge, vis pp/moldic por, mixture of barren and spotted tan/brn stain, tr black greasy stain, nodor, trace white fine xln, chrty calc dolo/lime, chalky, flakey				chrt clear, off white, light grey, tr white, fresh, sharp, fresh sharp shards, mostly broken crushed, angular in part, semi-opaq, mostly transparant, trace fossil inclusions, glau, good mix of weathered trip edge texture/porosity, pp & weath moldic porosity, good to fair spotted tan brown stain, tr asphaltic stain, dull UV, tr filmy SFO, trace floating oil droplets, nodor in any			
4625	Inc. 86.0 @ 181.0 az 4662'	Inc. 88.2 @ 181.9 az 4663'		Inc. 89.5 @ 181.9 az 4664'	4625	Inc. 89.0 @ 182.0 az 4664'	Inc. 89.0 @ 182.0 az 4665'				
4710					4710						



8160 8180 8200 8220 8240 8260 8280 8300

			4540 TVD							4540 TVD
		7 am 8192' Sunday October 9, 2011							MTD 8269 TVD 4668 (-3259)	
chert white, clear, tr lt grey, fresh, sharp, sharp shards in most, blk broken angular in some, semi opa, mostley semi transparant, trace transl, some/rare fossil inclusions, good amount of glau, 50-50 weathered trip edge text/fresh, spotted tan brn stain, pp moldic porosity, dull UV, filmy SFO on spl water, tr floating oil droplets, trace asphaltic stain, nodor. trace white f xln, chrty, chalky dolo/lime, glau			chrt white, light gray, fresh, sharp, sharp shards and broken crushed blocky angular pieces, semi-opaq, some transparent, rare fossil inclusions, good amount of glau, good mix of vit fresh and weathered tripolitic texture, pp moldic porosity, spotted to fair tan brown stain, dull UV, filmy RBSFO, tr floating oil droplets and gas bubbles, odor?? trace wht off wht f vf xln chrty dolo/lime, glau, chrty soft sub chalkey			chrt white lt gry mostly clear transparent, sharp, fresh, semi-opaq, trace semi-transparent, some fossil inclusions, tr glau, 50-50 mix off fresh chrt as above and weathered trip text, pp & moldic porosity, spotted tan brown stain, trace blk asphaltic stain, dull UV, filmy SFO, trace oil droplets, trace gas bubbles, sli odor in cooked dry samples only, some floating chert pieces, tr white f xln chlky chrty dolo/lst, green tint, glau				
	Inc. 88.7 @ 181.8 az 4666'		Inc. 88.6 @ 4625 182.1 az 4666'		Inc. 88.7 @ 182.3 az 4667'		Inc. 88.2 @ 182.3 az 4668'		Inc. 87.7 @ 182.2 az 4669'	
			4710							4710



8320                      8340                      8360                      8380                      8400                      8420                      8440                      8460

"mighty fine samples"

chert white off white, lite gray, sharp, fresh, blocky angular crushed pieces, semi-opaq, mostly transparent, trace fossil fragment inclusions, much glau, mix of fresh chert as above and weathered tripolitic textured porosity, spotted to fair tan brown stain with porosity, trace blk greasy stain, dull UV, filmy SFO in part, tr floating droplets, trace hidden gas bubble, some floating chert pieces,

chrt white lite gray, some off white, sharp, angular, blocky broken pieces, semi-opaq, mostly transparent, tr fossil fragments, 50-50 mix of fresh chert as above and chert with weath tripolitic edge porosity, spotted to fair tan to brn stain, trace asphaltic/greasy, dull to bright UV, filmy RBSFO on sample water, tr floating droplets, tr gas bubbles, floating chrt cutting/show, trace calc dolo, tan with green tint, f xln gran soft chky, glau

chert-white, off white, clear, light gray, shrp, frsh, blocky crushed pieces, semi-opaq, trace translucent, mostly transparent, trace fossil fragment inclusions, remains a mix of 50-50 fresh chert as above and weathered tripolitic weath type porosity, spotted to fair tan brown stain, pp and moldic porosity, dull UV, trace floating oil droplets, tr gas bubs, trace greasy asphaltic stain, nodor in wet samples

chert white off w fresh, blocky an mostly transpare glau, remains a r above, and weat spotted tan brow porosity, dull UV some greasy asf samples have nc it's very bad!

Inc. 87.7 @  
182.3 az  
4670'

Inc. 88.2 @  
182.5 az  
4672'

Inc. 88.7 @  
183.1 az  
4672'

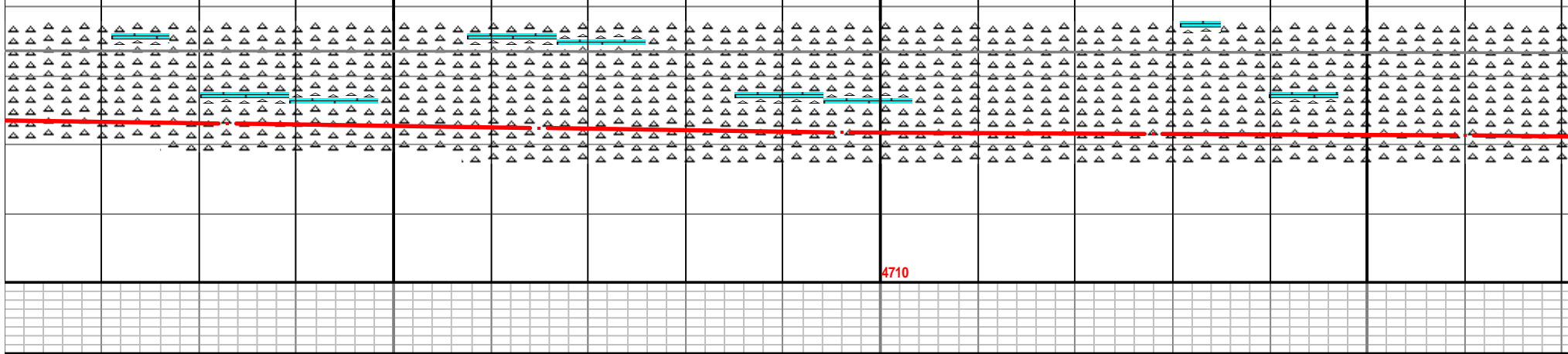
Inc. 89.6 @  
183.0 az  
4673'

Inc. 88.7 @  
183.3 az  
4673'

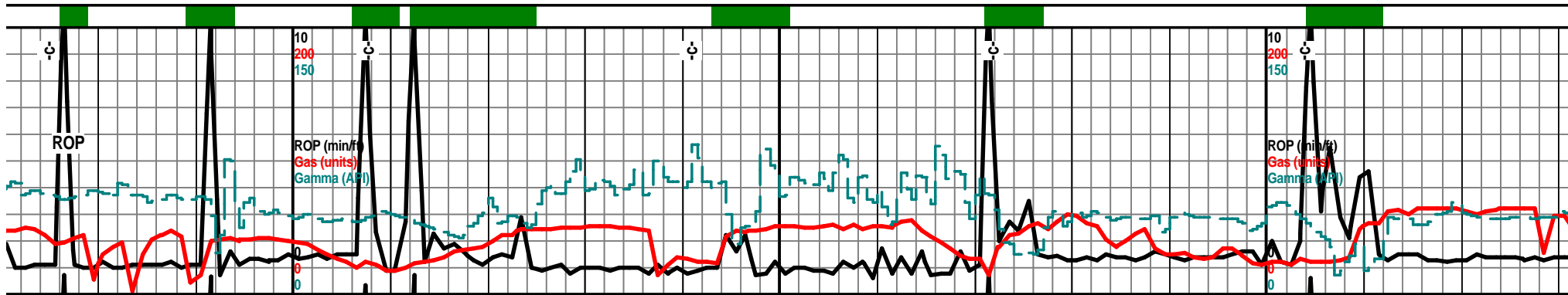
4540 TVD

4625

4710





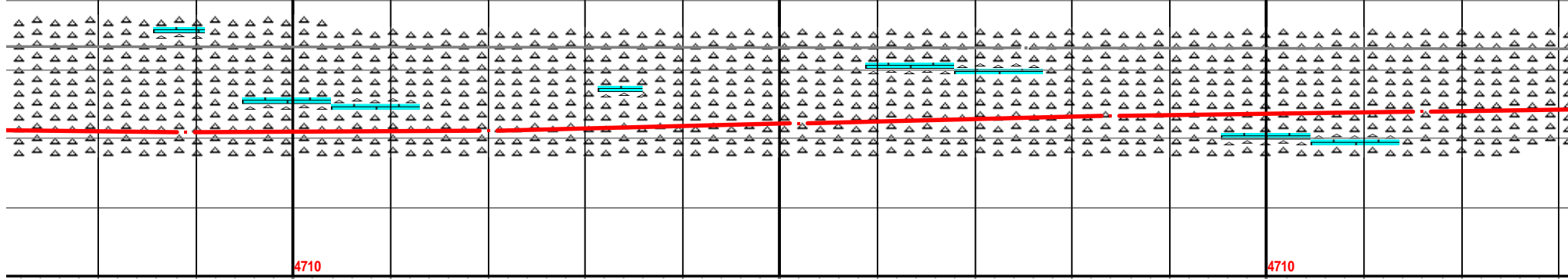


8480                      8500                      8520                      8540                      8560                      8580                      8600                      8620

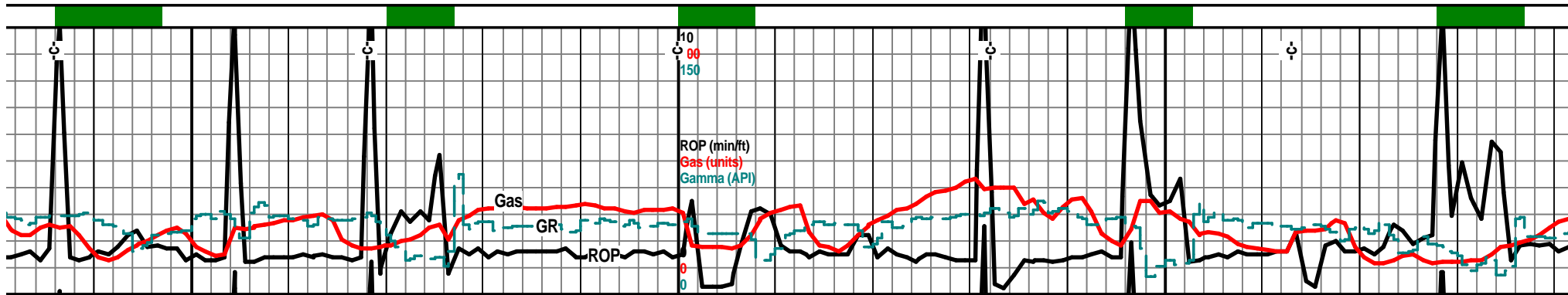
4540 TVD                      4540 TVD

<p>hite, light gray, clear, sharp gular crushed pieces, semi-opaq, ant, some fossil fragment, trace mix of 50-50 sharp fresh chert as hered tripolitic edge texture, n stain with pp and moldic ', some floating oil droplets, chaltic stain nodor in any, xt changed except for size, and</p>	<p>Bit Trip 8512'</p> <p>chert clear light gray, mostly clear, sharp, fresh, blocky angular crushed rubbly pieces, ultra fine, semi-opaq, mostly transp, trace transl, good mix of fresh with tan brn mottled weath tripolitic textured edge, spotten brown stain, pp and moldic por, poor samples after bit trip, poor samples anyhow!</p>	<p>chert white, off white, light gray, sharp, fresh, blocky crushed broken pieces, semi-opaq, mostly transparent, trace transl, trace fossil fragment inclusions, mostly fresh as above with mix of fresh and weath slightly tripolitic texture, spotted to some fair tan brown stain, tr blk asphaltic stain, floating chert fragments in sample, trace filmy RBSFO, some floating oil droplets, trace odor in cooked dry samples</p>	<p>chert white off white, clear, shrp, l pcs, semi-opaq, some cloudy tran fragment inclusions, trace glau, m weathered sli trip edge texture, s stain, greasy black stain in some, droplets floating in sample water brown stain floating also, nodor</p>
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<p>Inc. 88.5 @ 183.2 az 4674'</p>	<p>Inc. 92.5 @ 183.5 az 4674'</p>	<p>Inc. 94.0 @ 183.3 az 4672'</p>	<p>Inc. 91.9 @ 181.8 az 4669'</p>
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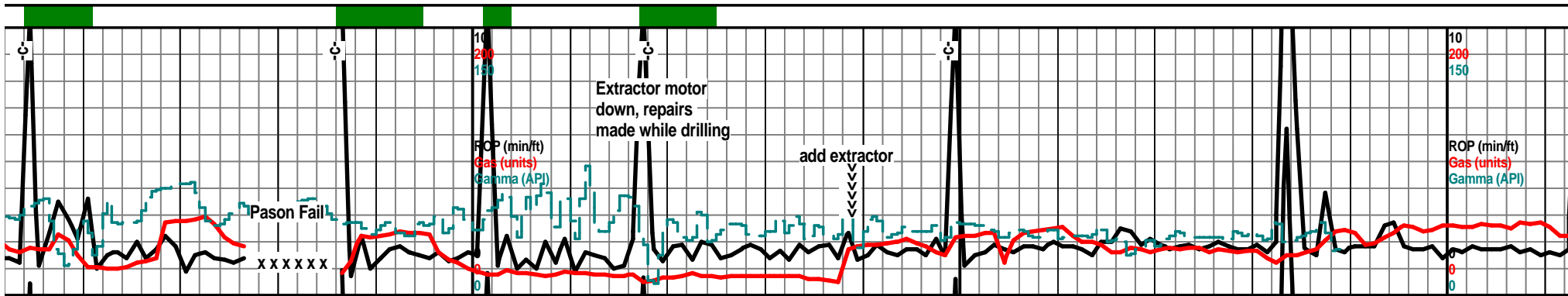


4710                      4710

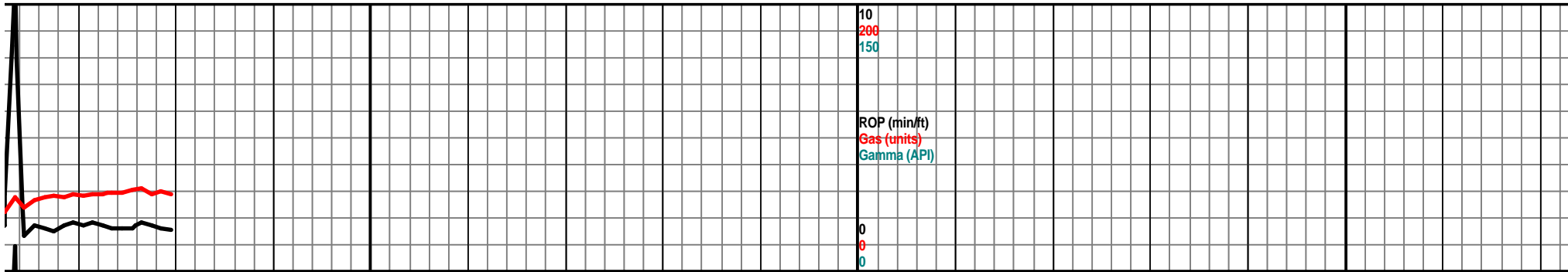


8640	8660	8680	8700	8720	8740	8760	8780
			4540 TVD				
frsh, blkly ang isl, trace foss ix of fresh with otted tan brn dull UV, oil , chert with tan	chert white, off white, clear, sharp, fresh, blkly, broken crushed pieces, semi-opaq, some cloudy, fossil fragment inclu, tr glauconite, fresh clear white fresh chert with weath sli tripolitic edge, spotted tan brown stain, trace black greasy stain, pp moldic porosity, dull UV, oil droplets on sample water, nodor,			chrt clear, white, off white, tr light gray, fresh, sharp, shards, blkly, semi opaq to semi-transparent, rare fossil inclusion, weathered tripolitic text on edges, pp/moldic porosity, mix of barren and spotted to fair tan brn stain, dull UV, filmy RBSFO and scattered oil droplett floaters, trace black asphaltic stain, tr hidden gas bubble nodor		chert white, off white, clear, trace lite gray, semi-opaq to semi transparent, shards, mostly broken crushed pieces, rare fossil inclusion, trace glau, weathrd sli tripolitic edge text, pp/moldic por, trace crm wht tan calc dolo, f xln gran, mix of barren and spotted tan brown stain, dull UV, filmy SFO, oil droplett "floaters", floating chert pieces with tan brn spotted stain edge, trace black asphaltic stain, nodor in any	
Inc. 92.0 @ 181.7 az 4668'		Inc. 91.2 @ 180.9 az 4667'	4625	Inc. 90.8 @ 180.6 az 4666'	Inc. 90.6 @ 180.5 az 4666'		Inc. 90.7 @ 179.8 az 4666''
			4710				





8960	8980	9000	9020	9040	9060	9080	9100
	cc-upmspls	4540 TVD					4540 TVD
<p>chert white, off white, clear, sharp, blk, angular shards, mostly broken crushed pieces, semi-opaq, semi-translucent, trace white off white calc dolomite, f xln, soft, gran, trace glau, mix of barren fresh opaq chrt, with tr weathered sli tripolitic textued edges, spotted tan brown stain, dull UV, filmy SFO, floating stained chert pieces,</p>			<p>chrt white off white, clear, translucent, semi opaq, sharp fresh shards, mostly broken crushed pieces, trace foss fragment inclusions, trace glau, white off white calc dolo, f xln gran soft, cherty in prt, weathered sli tripolitic edge text, pp moldic por, scattered spotted tan brown stain, dull UV, filmy SFO on sample water</p>		<p>chert white off white tr lt gry, mosly clear, semi-opaq, mostly transparent, some lite translucent, frsh sharp shards, mostly broken crushed, tr calc dolo, lt tan wht f xln gran soft, cherty in part, chert is weatherd sli tripolitic edge text, pp moldic porosity, scattered spotted tan brn stain, dull UV, filmy SFO, gas bubbles, floaters</p>		<p>chert whit semi-opaq mostly cr off white, sli tripoliti spotted st pieces wit</p>
Inc. 89.3 @ 180.9 az 4669'		Inc. 90.1 @ 181.3 az 4669'		Inc. 90.0 @ 181.3 az 4669'	Inc. 91.1 @ 181.3 az 4668'	Inc. 91.0 @ 181.2 az 4668'	4625
		4710					4710



9120                      9140                      9160                      9180                      9200                      9220                      9240                      9260

4540 TVD

ie off white, lite gray, mostly clear,  
 q, semi-transparent, fresh, sharp shards,  
 ushed/broken pieces, tr calc dolo, tan  
 f xln granular, chrty, chert with weather  
 ic weath text, pp moldic por, scatatered  
 tain, dull UV, filmy SFO, floating chert  
 th stain.

Inc. 91.0 @  
 181.2  
 4667'  
 (Projected)

4625

MTD 9130'

4710



