



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1073569
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: _____

1073569

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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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

February 07, 2012

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

Re: ACO1
API 15-007-23787-01-00
TUCKER B 5 H
NE/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

P.O. # _____

BIG BUCKETS RATHOLE DRILLING

No 4768

ORDERED BY

P.O. Box 5252
Enid, Oklahoma 73702
Phone (580) 233-9850
Fax (580) 233-4588

Date 10/13/11

Bill To Woolsey Operating

Lease Jucker B#5-11 H

Address _____

Legal NE/4 Sec 11 - 343 - 11 W

County Barber, KS

Rig Dan D #5

DESCRIPTION	AMOUNT
Furnish Men & Equipment To <u>Drill rat manx holes, cellar & 43 ft. of 30" hole & remove dirt from lot.</u>	
Materials Furnished <u>43 ft. of 30" pipe - 4 1/2 yds of 8 pk. grout 5' of 60" tinhorn (cellar) - 50 ft. of 15" tinhorn (Belt R & M holes) K's trip permits (2 hrs)</u>	A 6750.00
Operator <u>Dean Wittington</u>	Total 6750.00
Approved By _____	

Customer <i>W000/SEY</i>	Lease No.	Date <i>10-16-11</i>	
Lease <i>Tucker B</i>	Well # <i>5H</i>		
Field Order # <i>5089</i>	Station <i>PRATT Kc</i>	Casing <i>13 3/8</i>	Depth <i>316'</i>
Type Job <i>CPW 13 3/8 Comb.</i>	Formation	County <i>BARBER Co.</i>	State <i>KS</i>
		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		RATE	PRESS	ISIP
Depth <i>316'</i>	Depth	From	To	Pre Pad		Max		5 Min.
Volume <i>47</i>	Volume	From	To	Pad		Min		10 Min.
Max Press <i>500</i>	Max Press	From	To	Frac		Avg		15 Min.
Well Connection <i>4 wire</i>	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth <i>500</i>	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative	Station Manager <i>DAVE SCOTT</i>	Treater <i>Robert J. Howard</i>
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Service Units	<i>27800</i>	<i>33708</i>	<i>20920</i>	<i>19826</i>	<i>19860</i>				
Driver Names	<i>Sullivan</i>	<i>Mokan</i>	<i>Mokan</i>						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>6:15</i>					<i>on loc. safety meeting</i>
					<i>Run 7 57.5 48' 13 3/8 csp.</i>
<i>11:20</i>					<i>CASING ON BOTTOM</i>
<i>11:35</i>					<i>Hook Rig To circ.</i>
<i>11:45</i>	<i>200</i>		<i>3</i>	<i>3</i>	<i>8t spacer</i>
				<i>5</i>	<i>mix cont 300 sk 60/40 cont</i>
			<i>64</i>		<i>cont mixed</i>
				<i>4</i>	<i>8t disp</i>
<i>12:15</i>			<i>47</i>		<i>plug down</i>
					<i>circ 15 bar cont to pit</i>
					<i>SOB complete</i>
					<i>Thank you</i>

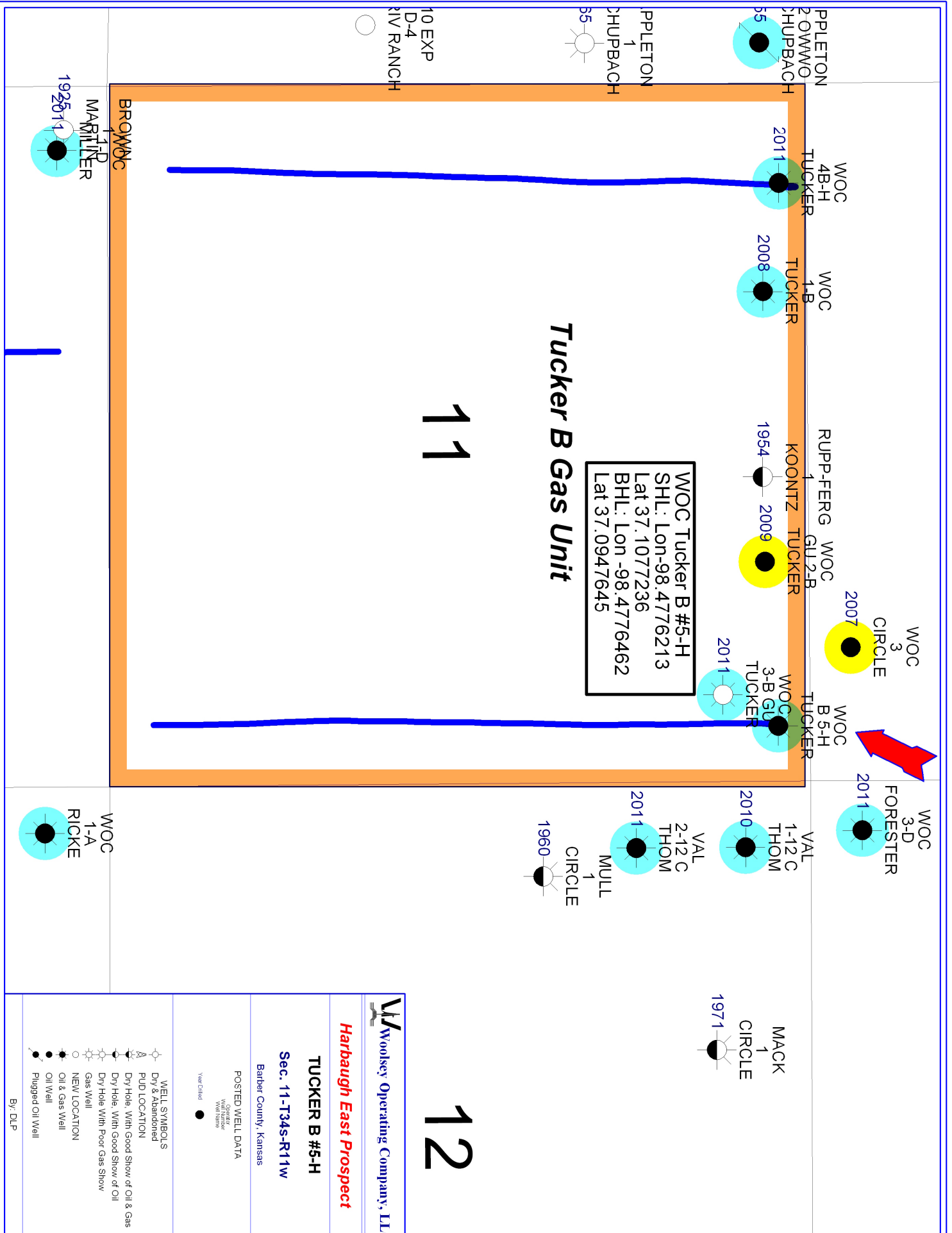
Customer <i>WOOLSEY OPERATING</i>	Lease No.	Date
Lease <i>TUCKER 'B'</i>	Well # <i>5H TD-7</i>	<i>10-25-2011</i>
Field Order # <i>04977</i>	Station <i>PRATT, KS.</i>	Casing <i>7"</i> Depth <i>3214'</i> County <i>BARBER</i> State <i>KS.</i>
Type Job <i>CNW-7" L.S.</i>	Formation	Legal Description <i>11-34-11</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <i>7" x 23</i>	Tubing Size	Shots/Ft	<i>CMT-</i>	Acid	<i>275 SK PREMIUM</i>	RATE	PRESS	ISIP
Depth <i>3198'</i>	Depth	From	To	Pre Pad		Max		5 Min.
Volume	Volume	From	To	Pad		Min		10 Min.
Max Press <i>1000</i>	Max Press	From	To	Frac		Avg		15 Min.
Well Connection <i>P.C.</i>	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth <i>315.3'</i>	Packer Depth	From	To	Flush <i>203 BBL</i>		Gas Volume		Total Load

Customer Representative <i>MIKE THARP</i>	Station Manager <i>D. SCOTT</i>	Treater <i>K. LESLEY</i>
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Service Units	<i>37586</i>	<i>19903</i>	<i>19905</i>	<i>19826</i>	<i>19860</i>				
Driver Names	<i>LESLEY</i>	<i>MATTEL</i>	<i>—</i>	<i>MCGRAW</i>	<i>—</i>				

Time	Casing Pressure	Tubing Pressure	Bbbs. Pumped	Rate	Service Log
<i>10:00 PM</i>					<i>ON LOCATION - SAFETY MEETING</i>
<i>?</i>					<i>RON 121 STS. 7" x 23# CSG.</i>
<i>11:40 PM</i>					<i>CSG. ON BOTTOM</i>
<i>12:00 AM</i>					<i>HOOK UP TO CSG. / BREAK CIRC. W/RIG</i>
<i>1:03 AM</i>	<i>500</i>		<i>5</i>	<i>6</i>	<i>H2O AHEAD</i>
<i>1:04 AM</i>	<i>500</i>		<i>12</i>	<i>6</i>	<i>MUDFLUSH</i>
<i>1:06 AM</i>	<i>500</i>		<i>5</i>	<i>6</i>	<i>H2O SPACER</i>
<i>1:07 AM</i>	<i>450</i>		<i>12</i>	<i>6</i>	<i>MIX 30 SK PREMIUM @ 13.0 PPG</i>
<i>1:09 AM</i>	<i>400</i>		<i>65</i>	<i>6</i>	<i>MIX 245 SK PREMIUM @ 15.0 PPG</i>
<i>1:20 AM</i>					<i>WASH PUMP & LINE CLEAN</i>
<i>1:27 AM</i>					<i>RELEASE PLUG</i>
<i>1:29 AM</i>	<i>0</i>		<i>0</i>	<i>7</i>	<i>START DISPLACEMENT</i>
<i>1:49 AM</i>	<i>400</i>		<i>140</i>	<i>6</i>	<i>LIFT PRESSURE</i>
<i>1:56 AM</i>	<i>1000</i>		<i>180</i>	<i>5</i>	<i>SLOW RATE</i>
<i>2:00 AM</i>	<i>1500</i>		<i>203</i>	<i>4</i>	<i>PLUG DOWN - HELD</i>
					<i>CIRC. THRU JOB</i>
					<i>JOB COMPLETE,</i>
					<i>THANKS -</i>
					<i>KEVEN / LESLEY</i>



WOC Tucker B #5-H
 SHL: Lon-98.4776213
 Lat 37.1077236
 BHL: Lon -98.4776462
 Lat 37.0947645

11

12

Woolsey Operating Company, LLC

Harbaugh East Prospect

TUCKER B #5-H

Sec. 11-T34S-R11W

Barber County, Kansas

POSTED WELL DATA

2011-2012
 Well Status
 Year Colored

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

By: DLP

WOOLSEY OPERATING COMPANY, LLC
 125 North Market, Suite 1000, Wichita, Kansas 67202
 Phone: 316-267-4379 Fax 316-267-4383

TUCKER B-5 H
 Harbaugh East Prospect
 Survey: 250' FNL, 425' FEL
 Apx W2 E2 NE NE Section 11-34-11W
 Barber County, Kansas

API: 15-007-23787-01-00
 Spud: 10/16/2011
 Elev: 1400' GL 1416' KB
 Field: Schubach
 Acctg code: KDWT12

DRILLING REPORT

Deviation surveys: Please refer to Pan American report below

Pan American Drilling Services

Reference : TRUENORTH KB Elevation : 15 Gr Elevation : 1400.00
 Vertical Section Calculated Along Azimuth 180.48°

MD	Inc	Azi	TVD	North	East	V'Sect	D'Leg	Build	Turn
ft	deg	deg	ft	ft	ft	ft	%/100	%/100	%/100
3620.00	0.60	314.70	3619.94	4.92	-9.85	-4.84	0.00	0.00	0.00
3649.00	0.50	303.40	3648.94	5.10	-10.06	-5.01	0.51	-0.34	-38.97
3681.00	0.40	281.60	3680.93	5.20	-10.29	-5.11	0.61	-0.31	-68.12
3712.00	1.80	193.60	3711.93	4.74	-10.51	-4.66	5.90	4.52	-283.87
3744.00	5.30	189.80	3743.86	2.80	-10.88	-2.71	10.96	10.94	-11.87
3775.00	8.40	188.80	3774.64	-0.85	-11.47	0.95	10.01	10.00	-3.23
3806.00	11.00	188.80	3805.19	-6.01	-12.27	6.11	8.39	8.39	0.00
3838.00	13.00	188.90	3836.49	-12.59	-13.29	12.70	6.25	6.25	0.31
3870.00	14.80	185.80	3867.55	-20.21	-14.26	20.33	6.09	5.62	-9.69
3900.00	17.10	182.90	3896.40	-28.43	-14.87	28.55	8.11	7.67	-9.67
3931.00	19.50	178.80	3925.83	-38.15	-14.99	38.28	8.78	7.74	-13.23
3963.00	21.60	178.10	3955.79	-49.38	-14.69	49.50	6.61	6.56	-2.19
3995.00	22.90	180.60	3985.41	-61.49	-14.56	61.61	5.02	4.06	7.81
4026.00	24.90	183.80	4013.75	-74.04	-15.05	74.16	7.69	6.45	10.32
4058.00	27.10	185.40	4042.51	-88.02	-16.18	88.15	7.22	6.87	5.00
4089.00	29.10	184.60	4069.85	-102.56	-17.45	102.71	6.56	6.45	-2.58
4121.00	31.50	183.30	4097.48	-118.67	-18.56	118.82	7.77	7.50	-4.06
4153.00	34.30	182.60	4124.35	-136.03	-19.45	136.18	8.83	8.75	-2.19
4184.00	37.00	181.30	4149.53	-154.08	-20.06	154.24	9.05	8.71	-4.19
4215.00	39.90	180.80	4173.81	-173.35	-20.41	173.52	9.41	9.35	-1.61
4246.00	43.50	179.80	4196.95	-193.97	-20.51	194.14	11.81	11.61	-3.23
4278.00	47.30	178.60	4219.42	-216.75	-20.18	216.91	12.17	11.88	-3.75
4310.00	50.90	179.10	4240.37	-240.93	-19.70	241.08	11.31	11.25	1.56
4341.00	53.30	179.80	4259.41	-265.38	-19.47	265.54	7.94	7.74	2.26
4372.00	55.50	180.10	4277.45	-290.59	-19.45	290.74	7.14	7.10	0.97
4404.00	58.20	180.10	4294.95	-317.38	-19.49	317.53	8.44	8.44	0.00
4436.00	60.40	179.90	4311.29	-344.89	-19.49	345.04	6.90	6.87	-0.62
4468.00	62.30	179.90	4326.63	-372.97	-19.44	373.12	5.94	5.94	0.00
4499.00	64.80	179.40	4340.43	-400.72	-19.27	400.87	8.19	8.06	-1.61
4531.00	67.10	179.40	4353.47	-429.94	-18.97	430.09	7.19	7.19	0.00
4562.00	67.40	179.90	4365.46	-458.53	-18.79	458.67	1.77	0.97	1.61
4594.00	69.40	178.60	4377.24	-488.28	-18.40	488.42	7.30	6.25	-4.06
4626.00	69.70	178.80	4388.42	-518.25	-17.72	518.38	1.11	0.94	0.63
4658.00	69.40	178.80	4399.60	-548.23	-17.09	548.35	0.94	-0.94	0.00
4690.00	68.90	178.60	4410.99	-578.13	-16.41	578.24	1.67	-1.56	-0.63
4721.00	69.50	178.80	4422.00	-607.10	-15.76	607.21	2.03	1.94	0.65
4752.00	68.70	178.60	4433.06	-636.05	-15.10	636.16	2.65	-2.58	-0.65
4784.00	68.20	178.80	4444.81	-665.81	-14.42	665.90	1.67	-1.56	0.63
4816.00	68.80	179.10	4456.54	-695.58	-13.88	695.67	2.07	1.88	0.94
4847.00	68.60	178.80	4467.80	-724.45	-13.35	724.54	1.11	-0.65	-0.97
4879.00	68.30	178.60	4479.56	-754.21	-12.68	754.29	1.10	-0.94	-0.63
4911.00	68.30	178.80	4491.39	-783.93	-12.00	784.01	0.58	0.00	0.63
4941.00	67.90	179.10	4502.58	-811.76	-11.49	811.83	1.62	-1.33	1.00
4973.00	67.70	179.30	4514.67	-841.39	-11.08	841.45	0.85	-0.63	0.63

WOOLSEY OPERATING COMPANY, LLC
 125 North Market, Suite 1000, Wichita, Kansas 67202
 Phone: 316-267-4379 Fax 316-267-4383

TUCKER B-5 H
 Harbaugh East Prospect
 Survey: 250' FNL, 425' FEL
 Apx W2 E2 NE NE Section 11-34-11W
 Barber County, Kansas

API: 15-007-23787-01-00
 Spud: 10/16/2011
 Elev: 1400' GL 1416' KB
 Field: Schubach
 Acctg code: KDWT12

DRILLING REPORT

5005.00	68.10	179.90	4526.71	-871.04	-10.87	871.10	2.14	1.25	1.88
5037.00	68.80	180.60	4538.46	-900.80	-11.00	900.86	2.99	2.19	2.19
5068.00	68.30	180.60	4549.80	-929.65	-11.30	929.71	1.61	-1.61	0.00
5100.00	69.10	180.30	4561.42	-959.46	-11.54	959.53	2.65	2.50	-0.94
5132.00	71.30	180.40	4572.26	-989.57	-11.72	989.63	6.88	6.88	0.31
5163.00	73.10	180.60	4581.74	-1019.08	-11.98	1019.15	5.84	5.81	0.65
5208.00	73.60	180.60	4594.63	-1062.19	-12.43	1062.26	1.11	1.11	0.00
5240.00	75.70	179.80	4603.10	-1093.05	-12.54	1093.12	6.99	6.56	-2.50
5271.00	79.40	178.30	4609.78	-1123.31	-12.03	1123.37	12.84	11.94	-4.84
5302.00	82.00	178.10	4614.79	-1153.88	-11.07	1153.94	8.41	8.39	-0.65
5334.00	86.10	178.10	4618.11	-1185.69	-10.02	1185.73	12.81	12.81	0.00
5366.00	89.30	179.30	4619.39	-1217.65	-9.29	1217.68	10.68	10.00	3.75
5397.00	90.10	179.30	4619.56	-1248.65	-8.91	1248.68	2.58	2.58	0.00
5429.00	91.20	178.90	4619.19	-1280.64	-8.41	1280.67	3.66	3.44	-1.25
5460.00	92.10	178.80	4618.30	-1311.62	-7.79	1311.64	2.92	2.90	-0.32
5492.00	91.90	179.80	4617.18	-1343.60	-7.40	1343.61	3.19	-0.63	3.12
5524.00	92.30	180.30	4616.01	-1375.58	-7.42	1375.59	2.00	1.25	1.56
5555.00	92.40	181.30	4614.74	-1406.55	-7.86	1406.56	3.24	0.32	3.23
5587.00	92.50	181.40	4613.37	-1438.51	-8.61	1438.53	0.44	0.31	0.31
5619.00	91.70	181.30	4612.20	-1470.48	-9.36	1470.50	2.52	-2.50	-0.31
5651.00	90.30	181.30	4611.64	-1502.46	-10.09	1502.50	4.38	-4.38	0.00
5683.00	89.90	181.30	4611.59	-1534.46	-10.82	1534.49	1.25	-1.25	0.00
5715.00	89.80	181.80	4611.67	-1566.44	-11.68	1566.49	1.59	-0.31	1.56
5746.00	89.60	181.80	4611.83	-1597.43	-12.65	1597.48	0.65	-0.65	0.00
5778.00	89.30	181.90	4612.14	-1629.41	-13.69	1629.47	0.99	-0.94	0.31
5810.00	89.80	181.80	4612.39	-1661.39	-14.72	1661.46	1.59	1.56	-0.31
5841.00	90.20	181.80	4612.39	-1692.38	-15.69	1692.45	1.29	1.29	0.00
5873.00	90.20	181.60	4612.28	-1724.36	-16.64	1724.44	0.62	0.00	-0.63
5904.00	90.50	181.60	4612.09	-1755.35	-17.51	1755.43	0.97	0.97	0.00
5936.00	91.20	181.30	4611.61	-1787.34	-18.32	1787.43	2.38	2.19	-0.94
5968.00	90.70	181.10	4611.08	-1819.32	-18.99	1819.42	1.68	-1.56	-0.63
6000.00	89.20	180.80	4611.11	-1851.32	-19.52	1851.42	4.78	-4.69	-0.94
6031.00	89.00	180.80	4611.60	-1882.31	-19.95	1882.41	0.65	-0.65	0.00
6063.00	88.40	180.80	4612.32	-1914.30	-20.40	1914.40	1.88	-1.88	0.00
6095.00	88.40	181.10	4613.22	-1946.28	-20.93	1946.39	0.94	0.00	0.94
6127.00	88.30	181.10	4614.14	-1978.26	-21.54	1978.38	0.31	-0.31	0.00
6159.00	89.40	180.80	4614.78	-2010.25	-22.07	2010.37	3.56	3.44	-0.94
6191.00	90.80	180.30	4614.73	-2042.25	-22.38	2042.37	4.65	4.38	-1.56
6222.00	89.80	180.30	4614.56	-2073.25	-22.54	2073.37	3.23	-3.23	0.00
6254.00	88.90	180.10	4614.93	-2105.25	-22.66	2105.36	2.88	-2.81	-0.63
6286.00	89.20	181.10	4615.46	-2137.24	-22.99	2137.36	3.26	0.94	3.13
6318.00	88.80	181.10	4616.02	-2169.23	-23.60	2169.35	1.25	-1.25	0.00
6349.00	89.70	181.40	4616.42	-2200.22	-24.28	2200.35	3.06	2.90	0.97
6381.00	90.70	182.10	4616.31	-2232.20	-25.26	2232.34	3.81	3.12	2.19
6413.00	90.60	181.90	4615.95	-2264.18	-26.37	2264.32	0.70	-0.31	-0.63
6444.00	88.80	182.10	4616.11	-2295.16	-27.46	2295.31	5.84	-5.81	0.65
6476.00	87.50	181.30	4617.14	-2327.13	-28.41	2327.29	4.77	-4.06	-2.50
6507.00	87.60	181.10	4618.47	-2358.09	-29.05	2358.26	0.72	0.32	-0.65
6539.00	87.80	180.60	4619.75	-2390.06	-29.53	2390.23	1.68	0.63	-1.56
6570.00	89.40	180.30	4620.51	-2421.05	-29.77	2421.22	5.25	5.16	-0.97
6602.00	89.30	180.10	4620.87	-2453.05	-29.88	2453.22	0.70	-0.31	-0.63

WOOLSEY OPERATING COMPANY, LLC
 125 North Market, Suite 1000, Wichita, Kansas 67202
 Phone: 316-267-4379 Fax 316-267-4383

TUCKER B-5 H

Harbaugh East Prospect
 Survey: 250' FNL, 425' FEL
 Apx W2 E2 NE NE Section 11-34-11W
 Barber County, Kansas

API: 15-007-23787-01-00
 Spud: 10/16/2011
 Elev: 1400' GL 1416' KB
 Field: Schubach
 Acctg code: KDWT12

DRILLING REPORT

6634.00	89.80	180.30	4621.12	-2485.05	-30.00	2485.21	1.68	1.56	0.63
6665.00	89.50	180.30	4621.31	-2516.05	-30.16	2516.21	0.97	-0.97	0.00
6697.00	89.30	180.10	4621.65	-2548.05	-30.27	2548.21	0.88	-0.63	-0.63
6729.00	89.10	180.10	4622.09	-2580.04	-30.32	2580.21	0.62	-0.63	0.00
6761.00	88.40	180.80	4622.79	-2612.03	-30.58	2612.20	3.09	-2.19	2.19
6792.00	88.20	181.10	4623.71	-2643.02	-31.09	2643.18	1.16	-0.65	0.97
6824.00	88.60	181.40	4624.61	-2675.00	-31.79	2675.17	1.56	1.25	0.94
6856.00	89.20	182.10	4625.22	-2706.98	-32.76	2707.16	2.88	1.87	2.19
6888.00	90.00	181.60	4625.44	-2738.96	-33.80	2739.14	2.95	2.50	-1.56
6919.00	90.00	181.30	4625.44	-2769.95	-34.58	2770.14	0.97	0.00	-0.97
6951.00	90.20	181.60	4625.39	-2801.94	-35.39	2802.14	1.13	0.63	0.94
6983.00	89.70	181.60	4625.42	-2833.92	-36.29	2834.13	1.56	-1.56	0.00
7015.00	89.10	180.80	4625.75	-2865.92	-36.96	2866.12	3.12	-1.88	-2.50
7046.00	88.70	180.30	4626.35	-2896.91	-37.25	2897.12	2.07	-1.29	-1.61
7078.00	88.50	180.10	4627.13	-2928.90	-37.36	2929.11	0.88	-0.63	-0.63
7110.00	89.00	180.10	4627.83	-2960.89	-37.42	2961.10	1.56	1.56	0.00
7142.00	89.10	180.10	4628.36	-2992.89	-37.48	2993.10	0.31	0.31	0.00
7173.00	88.30	180.10	4629.06	-3023.88	-37.53	3024.09	2.58	-2.58	0.00
7205.00	87.80	179.80	4630.15	-3055.86	-37.50	3056.07	1.82	-1.56	-0.94
7237.00	87.60	180.30	4631.43	-3087.83	-37.53	3088.04	1.68	-0.63	1.56
7269.00	88.10	180.90	4632.63	-3119.81	-37.87	3120.02	2.44	1.56	1.88
7301.00	89.00	181.40	4633.44	-3151.79	-38.51	3152.00	3.22	2.81	1.56
7332.00	91.00	182.10	4633.44	-3182.78	-39.45	3182.99	6.84	6.45	2.26
7364.00	92.20	182.60	4632.55	-3214.74	-40.77	3214.96	4.06	3.75	1.56
7396.00	92.20	181.60	4631.32	-3246.69	-41.94	3246.93	3.12	0.00	-3.13
7428.00	91.60	180.60	4630.26	-3278.67	-42.55	3278.91	3.64	-1.88	-3.12
7459.00	91.60	179.80	4629.39	-3309.65	-42.66	3309.89	2.58	0.00	-2.58
7491.00	91.40	179.60	4628.56	-3341.64	-42.49	3341.88	0.88	-0.63	-0.63
7522.00	91.90	179.30	4627.66	-3372.63	-42.19	3372.86	1.88	1.61	-0.97
7554.00	91.30	179.40	4626.77	-3404.61	-41.83	3404.84	1.90	-1.87	0.31
7586.00	89.50	178.60	4626.55	-3436.61	-41.27	3436.83	6.16	-5.62	-2.50
7618.00	88.40	177.90	4627.13	-3468.58	-40.30	3468.80	4.07	-3.44	-2.19
7650.00	88.60	178.30	4627.97	-3500.56	-39.24	3500.76	1.40	0.63	1.25
7681.00	88.50	177.90	4628.76	-3531.53	-38.21	3531.73	1.33	-0.32	-1.29
7713.00	89.20	177.80	4629.40	-3563.50	-37.01	3563.68	2.21	2.19	-0.31
7745.00	89.50	178.10	4629.76	-3595.48	-35.86	3595.65	1.33	0.94	0.94
7777.00	89.60	178.30	4630.01	-3627.46	-34.86	3627.63	0.70	0.31	0.62
7808.00	89.80	178.10	4630.17	-3658.44	-33.88	3658.60	0.91	0.65	-0.65
7838.00	89.80	178.10	4630.28	-3688.43	-32.89	3688.57	0.00	0.00	0.00
7870.00	89.80	177.80	4630.39	-3720.41	-31.75	3720.54	0.94	0.00	-0.94
7902.00	88.00	177.80	4631.01	-3752.38	-30.52	3752.50	5.62	-5.62	0.00
7933.00	86.20	177.10	4632.57	-3783.30	-29.14	3783.42	6.23	-5.81	-2.26
7965.00	86.00	176.90	4634.75	-3815.19	-27.47	3815.28	0.88	-0.63	-0.63
7996.00	85.90	177.10	4636.94	-3846.07	-25.85	3846.15	0.72	-0.32	0.65
8028.00	86.20	177.40	4639.14	-3877.95	-24.32	3878.02	1.32	0.94	0.94
8060.00	86.90	177.30	4641.07	-3909.86	-22.84	3909.92	2.21	2.19	-0.31
8092.00	87.70	177.60	4642.58	-3941.79	-21.42	3941.84	2.67	2.50	0.94
8123.00	87.60	178.30	4643.85	-3972.75	-20.31	3972.78	2.28	-0.32	2.26
8155.00	88.10	178.30	4645.05	-4004.71	-19.36	4004.73	1.56	1.56	0.00
8186.00	88.90	178.60	4645.86	-4035.69	-18.53	4035.70	2.76	2.58	0.97

WOOLSEY OPERATING COMPANY, LLC
 125 North Market, Suite 1000, Wichita, Kansas 67202
 Phone: 316-267-4379 Fax 316-267-4383

TUCKER B-5 H

Harbaugh East Prospect
 Survey: 250' FNL, 425' FEL
 Apx W2 E2 NE NE Section 11-34-11W
 Barber County, Kansas

API: 15-007-23787-01-00
 Spud: 10/16/2011
 Elev: 1400' GL 1416' KB
 Field: Schubach
 Acctg code: KDWT12

DRILLING REPORT

8218.00	89.30	178.60	4646.36	-4067.68	-17.74	4067.68	1.25	1.25	0.00
8250.00	89.40	178.60	4646.73	-4099.66	-16.96	4099.66	0.31	0.31	0.00
8282.00	89.20	178.90	4647.12	-4131.65	-16.26	4131.65	1.13	-0.63	0.94
8313.00	89.50	178.80	4647.47	-4162.65	-15.64	4162.63	1.02	0.97	-0.32
8345.00	89.70	178.40	4647.69	-4194.64	-14.86	4194.61	1.40	0.63	-1.25
8377.00	89.40	178.60	4647.94	-4226.62	-14.02	4226.59	1.13	-0.94	0.63
8408.00	88.90	178.90	4648.40	-4257.61	-13.35	4257.57	1.88	-1.61	0.97
8440.00	89.30	179.10	4648.91	-4289.60	-12.79	4289.56	1.40	1.25	0.63
8471.00	89.50	178.80	4649.23	-4320.60	-12.22	4320.55	1.16	0.65	-0.97
8503.00	89.10	179.30	4649.62	-4352.59	-11.69	4352.53	2.00	-1.25	1.56
8535.00	89.30	179.10	4650.07	-4384.58	-11.24	4384.52	0.88	0.63	-0.63
8567.00	89.60	179.30	4650.38	-4416.58	-10.80	4416.51	1.13	0.94	0.63
8598.00	89.30	179.10	4650.67	-4447.57	-10.36	4447.51	1.16	-0.97	-0.65
8630.00	89.50	179.40	4651.01	-4479.57	-9.94	4479.50	1.13	0.63	0.94
8662.00	89.00	179.90	4651.43	-4511.57	-9.75	4511.49	2.21	-1.56	1.56
8694.00	89.10	179.90	4651.96	-4543.56	-9.69	4543.48	0.31	0.31	0.00
8725.00	89.30	179.90	4652.39	-4574.56	-9.64	4574.48	0.65	0.65	0.00

Bottom Hole Closure 4574.57ft Along Azimuth 180.12°



Do It Once.
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Confidential Information - not to be disclosed outside
Woolsey Petroleum

Completion
Final

Prepared for		Company		Date		
Mr. Carl Durr		Woolsey Petroleum		4-Nov-11		
Well Name		Type of Installation		Location		
Tucker #B-5H		10-Stage 4-1/2" StackFRAC® HD		Barber, KS		
Depth	Drawing	Description		OD (in)	ID (in)	Length
KOP 3,700'						
TVD 4,653						
TOL 5088.01'						
7" 23# 200.46 bbls.		7" 26# P-110 LT&C Casing				
		29 7" 23-32 ppf x 3.875" Lower Bore x 4.75" Upper Bore SF Liner Hanger Packer (3 shear pins at 482 each; 1,446 psi setting pressure) PN: 108425-000001 SN: SNU0003828		5.875"	4.750"	9.91'
		SF Bottom Guide		5.850"	3.875"	
		3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001		4.500"	4.000"	
		Do not run handling pups on Drillable FracPORT's				
		4-1/2" 11.60# N-80 LTC LINER 3 JOINTS:		4.500"	4.000"	128.28'
		6-1/8" open hole horizontal				
		6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743		4.500"	4.000"	
MD 5232.32		22 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN:EA3007116		5.75"	3.875"	14.46'
		3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743		4.500"	4.000"	
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	169.38'
Stage 10 5410.04 205.45 bbls.		21 Packers Plus 4-1/2" Drillable FracPORT® with 3.375" Seat for 3.500" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000019 SN: EA1015180		5.630"	3.375"	2.65'
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	3.81"
		6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743		4.500"	4.000"	164.02'
MD 5582.81		20 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN:EA3007107		5.75"	3.875"	14.43'
		3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743		4.500"	4.000"	
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	169.19'
Stage 9 5760.33 210.88 bbls.		19 Packers Plus 4-1/2" Drillable FracPORT® with 3.250" Seat for 3.375" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000018 SN: EA3011408		5.630"	3.250"	2.65'
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	3.81"
		6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743		4.500"	4.000"	167.18'
MD 5936.26		18 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN:EA3007131		5.75"	3.875"	14.41'
		3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743		4.500"	4.000"	
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	169.19'
Stage 8 6113.76 216.35 bbls.		17 Packers Plus 4-1/2" Drillable FracPORT® with 3.125" Seat for 3.250" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000017 SN: EA3011335		5.630"	3.125"	2.65'
		4-1/2" 11.60# N-80 LTC LINER 4 JOINTS:		4.500"	4.000"	3.81"
		6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743		4.500"	4.000"	167.42'
MD 6289.89		16 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN:EA2006506		5.75"	3.875"	14.35'
		3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743		4.500"	4.000"	
		Con't page 2				
		Total Page 1				1210.17'
Conway, AR	Telephone 501-327-0241	Contact Gary Leber		Telephone Chad Williams 405-255-3223		

Page 1 of 2



Do it Once.
Do it Right.

Confidential Information - not to be disclosed outside
Woolsey Petroleum

Completion
Final

Prepared for		Company	Date		
Mr. Carl Durr		Woolsey Petroleum	4-Nov-11		
Well Name		Type of Installation	Location		
Tucker #B-5H		10-Stage 4-1/2" StackFRAC® HD	Barber, KS		
Depth	Drawing	Description	OD (in)	ID (in)	Length
	Con't page 1		Page 2 of 2		
Stage 7 6504.94		4-1/2" 11.60# N-80 LTC LINER 15 Packers Plus 4-1/2" Drillable FracPORT® with 3.000" Seat for 3.125" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000016 SN: EA3011273	4.500"	4.000"	206.76'
222.42 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	5.630"	3.000"	2.65'
MD 6680.63		14 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA2006513 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	4.500"	4.000"	166.97'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	168.82'
Stage 6 6857.56		13 Packers Plus 4-1/2" Drillable FracPORT® with 2.875" Seat for 3.000" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000015 SN: EA1014634	5.630"	2.875"	2.65'
227.88 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	168.54'
MD 7034.81		12 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA2006510 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.75"	3.750"	14.38'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	167.36'
Stage 5 7210.47		11 Packers Plus 4-1/2" Drillable FracPORT® with 2.750" Seat for 2.875" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000014 SN: EA1015038	5.630"	2.750"	2.65'
233.35 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	209.11'
MD 7428.32		10 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA2003425 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	4.500"	4.000"	14.31'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	166.50'
Stage 4 7603.04		9 Packers Plus 4-1/2" Drillable FracPORT® with 2.625" Seat for 2.750" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000013 SN: EA1015287	5.630"	2.625"	2.65'
239.44 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	167.35'
MD 7778.59		8 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA0050938 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.75"	3.750"	13.75'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	167.66'
Stage 3 7954.45		7 Packers Plus 4-1/2" Drillable FracPORT® with 2.500" Seat for 2.625" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000012 SN: EA3011966	5.630"	2.500"	2.65'
244.88 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	169.16'
MD 8132.36		6 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA2003452 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.75"	3.750"	14.33'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	171.38'
Stage 2 8311.97		5 Packers Plus 4-1/2" Drillable FracPORT® with 2.375" Seat for 2.500" High Pressure Ball (6 shear pins @ 315 psi each for 1,890 psi opening pressure) PN: 121332-000011 SN: EA1015940	5.630"	2.375"	2.65'
250.43 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	128.36'
MD 8449.06		4 Packers Plus 7" x 4-1/2" RockSEAL® II 10K Hydraulic Set Open Hole Packer (6 pins @ 324 psi each for 1,944 psi setting) PN: 121381-000001 SN: EA2006511 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.75"	3.875"	14.39'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	42.94'
MD 8506.42		3 Packers Plus 7" x 4-1/2" RockSEAL® IIS 10K Hydraulic Set Anchor Packer (6 shear pins at 324 psi each; 1,944 psi setting pressure) PN: 124306-000001 SN: EM0042492 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.75"	3.750"	16.35'
		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	4.500"	4.000"	171.30'
Stage 1 8694.00		2 Packers Plus 4-1/2" Dual Hydraulic FracPORT® (11 pins at 391 psi each; 4,301 psi Upper) / (7 pins at 630 psi each; 4,410 psi Lower) PN: 121288-000001 SN: EA1015325 3' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106982-000001 w/ Centralizer PN: 104743	5.630"	3.750"	13.46'
256.35 bbls		4-1/2" 11.60# N-80 LTC LINER 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013	4.500"	4.000"	42.79'
		1 Packers Plus 4-1/2" Toe Circulating Sub w/ 1.00" Seat for 1.25" High Pressure Ball (3 pins at 366 psi each; 1,098 psi closing pressure) PN: 103039-000011 SN: EA1010032 4-1/2" LTC Single Valve Float Collar PN: 104733-000001 6' x 4-1/2" 11.6# P-110 LTC Pup Joint PN: 106986-000013 w/ Centralizer PN: 104743	5.500"	NA	18.45'
TVD 4,653'		4-1/2" LTC Single Valve Float Collar PN: 104733-000001	5.000"	4.000"	
Depth Set @ MD 8,869'		4-1/2" LTC Guide Shoe PN: 121704-000001	5.000"	NA	
			5.500"	2.250"	
		Total Page 2			2464.48'
		Total Page 1			1210.17'
		Total			3674.65'
Service Center Conway, AR	Telephone 501-327-0241	Contact Gary Leber	Telephone Chad Williams 405-255-3223		

Covey

The Well Watchers

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

Well Name: TUCKER B #5-H
Location: Section 11 - Township 34 South - Range 11 West
Licence Number: 15-007-23,787. 01-00 Region: Barber County, KS.
Spud Date: 16 October 2011 Drilling Completed: 2 November 2011
Surface Coordinates: 250' FNL & 425' FEL
(Approximately NW NE NE NE)
Bottom Hole Horizontal RTD (8,869'MD) reported to be
Coordinates: 4,968.5' FNL & 434.8' FEL of surface coordinates.
Ground Elevation (ft): 1,400' K.B. Elevation (ft): 1,416'
Logged Interval (ft): 3,700' To: 8,869'MD Total Depth (ft): 8,869'MD
Formation: Douglas Shale -----> MISS
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)

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

OPERATOR

Company: WOOLSEY OPERATING COMPANY, LLC
Address: 125 North Water, Suite 1000 Geologist:
Wichita, Kansas 67202 Dean Patisson
(316) 267-4379

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 258-9976

KB: 1,416'

FORMATION TOPS

GL: 1,400'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Heebner SH	3,654' (-2,237')	No open hole logging.
Toronto LS	3,672' (-2,256')	
Douglas Gp	3,694' (-2,278')	
Haskell (Brown)	4,066' MD / TVD 4,047' (-2,631')	
Lansing	4,177' MD / TVD 4,144' (-2,728')	
Stark SH	4,471' MD / TVD 4,328' (-2,912')	
Hushpuckney SH	4,549' MD / TVD 4,360' (-2,944')	
B / KC	4,692' MD / TVD 4,412' (-2,996')	
Pawnee LS	4,947' MD / TVD 4,505' (-3,089')	
Mississippian Chert	5,169' MD / TVD 4,583' (-3,167')	

RTD: 8,869'MD

LTD: NA

ATD: NA

E-log is ? to rotary sample depth.

Loggers: NA

20" Hole

1 Oct --- Set Conductor @ 40' with 4 yds of grout.

17-1/2" Hole

16 Oct --- Spud @ 1am.
7am @ 222'. Drill to 320'.
Run 13-3/8" casing.
Set casing @ 278'.
Cemented w/ 300 sx
60/40 Poz (3% CC). [Allied]
Cement did circulate.
Plug down @ 12:15pm. WOC.

6-1/8" Hole (Horizontal)

25 Oct --- Run 7" casing. Set @ 5,198'.
275 sx Premium [Basic].
Plug down @ 2am.
7am @ 5,214'
26 --- Resumed Drilling @ 2:45am.
7am @ 5,315'. Start and
27 --- Finish Bit/Motor Trip @ 5,769'MD.
7am @ 5,769' MD.
Resumed Drilling @ 8:05am.
28 --- 7am @ 6,275'MD. Drill to 6,530'MD.
Start and

8-3/4" Hole (Vertical & Curve)

16 Oct --- Under surface casing @ 10pm.
17 --- 7am @ 903'.
18 --- 7am @ 1,561'.
19 --- 7am @ 2,830'. Geolog 1.
T/O for BHA @ 3,700'.
20 --- 7am @ 3,700'.
21 --- 7am @ 4,215'.
22 --- 7am @ 4,575'. Bit Trip @ 4,662'.
Resumed Drilling @ 11pm.
23 --- 7am @ 4,825'.
24 --- Drill to 5,214' MD. Prep hole.
7am @ 5,214' MD.

6-1/8" Hole (Horizontal)

29 Oct --- Finish Bit Trip @ 6,530'MD.
Resumed Drilling @ 5:35am.
7am @ 6,560'MD.
30 --- 7am @ 7,125'MD.
Bit Trip @ 7,259'MD.
Resumed Drilling @ 8:35pm.
31 --- 7am @ 7,512'MD.
Start and

GEOLOG 1 - VERTICAL

GEOLOG 2 - HORIZONTAL

6-1/8" Hole (Horizontal)

1 Nov --- 7am @ 7,861'MD.
Finish Bit Trip @ 7,861'MD.
Resumed Drilling @ 8:50am.
2 --- 7am @ 8,837'MD.
RMTD (8,869'MD) @ 7:35am.

HOLE DEVIATION (320' - 3,620'MD)

DEPTH / TVD	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
320' /	1.00	(Surface Casing)					
853' /	0.10						
1,230' /	0.40						
2,211' /	0.10						
3,118' /	0.60						
3,620' /	0.60						
KOP @ 3,700'							

GEOLOG 2

HOLE DEVIATION (3,712' - 5,214' MD)

Selected Directional / MWD Surveys

3,712' / 3,711.9'	1.8	193.6	4.7'		10.5'	5.9
3,995' / 3,985.4'	22.9	180.6		61.5'	14.6'	5.0
4,121' / 4,097.5'	31.5	183.3		118.6'	18.6'	7.7
4,215' / 4,173.8'	39.9	180.8		173.4'	20.4'	9.4
4,310' / 4,240.4'	50.9	179.1		240.9'	19.7'	11.3
4,404' / 4,294.9'	58.2	180.1		317.4'	19.5'	8.4
4,499' / 4,340.4'	64.8	179.4		400.7'	19.3'	8.2
4,594' / 4,377.2'	69.4	178.6		488.3'	18.0'	6.4
4,690' / 4,410.9'	68.9	178.6		578.1'	16.0'	1.7
4,816' / 4,456.5'	68.8	179.1		695.6'	13.5'	2.1
4,910' / 4,526.7'	68.1	179.8		783.0'	11.6'	0.6
5,005' / 4,526.7'	68.1	179.9		871.0'	10.5'	2.1
5,100' / 4,572.3	69.1	180.4		989.6'	11.3'	6.9

Projection to 5,214' ---

5,214' / 4,595.3'	76.06	180.6	1'068.3'		12.5'	5.8
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7" casing set @ 5,198' MD / TVD TVD 4,592' (-3,176')

See Geolog 2 for Hole Deviation 5,214' MD to RTMD.

Calmena Energy Services Oklahoma City, Oklahoma

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
SURFACE ---							
16 Oct 2011	12-1/4"	VAREL L-117	3 / 18's	0' / 320'	280'	5.50	50.9
VERTICAL & CURVE ---							
17 Oct 2011	8-3/4"	REED DSX616MD	16 / 14's	320' / 3,700'	3,380'	60.00	56.6
20 Oct 2011	8-3/4"	REED R-22AP	13 / 14's	3,700' / 4,662'	962'	40.50	23.7
22 Oct 2011	8-3/4"	REED R-22AP	13 / 14's	4,662' / 5,214'	552'	17.00	32.5

SEE GEOLOG 2 FOR THE HORIZONTAL BIT RECORD.

ROCK TYPES

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Granite wash
- Congl
- Dol lmst
- Silty dol

- Calc dol
- Dol 2
- Dol
- Gyp
- Igne
- Lmst 2
- Lmst
- Meta
- Mrlst
- Salt
- Shale 3
- Shale 3
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Ss 2

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks

- Arg
 - Bent
 - Coal
 - Dol
 - Gyp
 - Ls
 - Mrst
 - Calc dol
 - Sltstrg
 - Ssstrg
 - Chalk
 - New symbol
- SHOW**
- Oil
 - Spotted
 - Ques
 - Dead
 - Gas
 - Oil/gas
 - Bed contact

STRINGER

- Calc dol
- Silty dol
- Anhy

ACCESSORIES

FOSSIL

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

- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag

- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos

- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks

STRINGER

- Calc dol

- Silty dol
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- New symbol

OTHER SYMBOLS

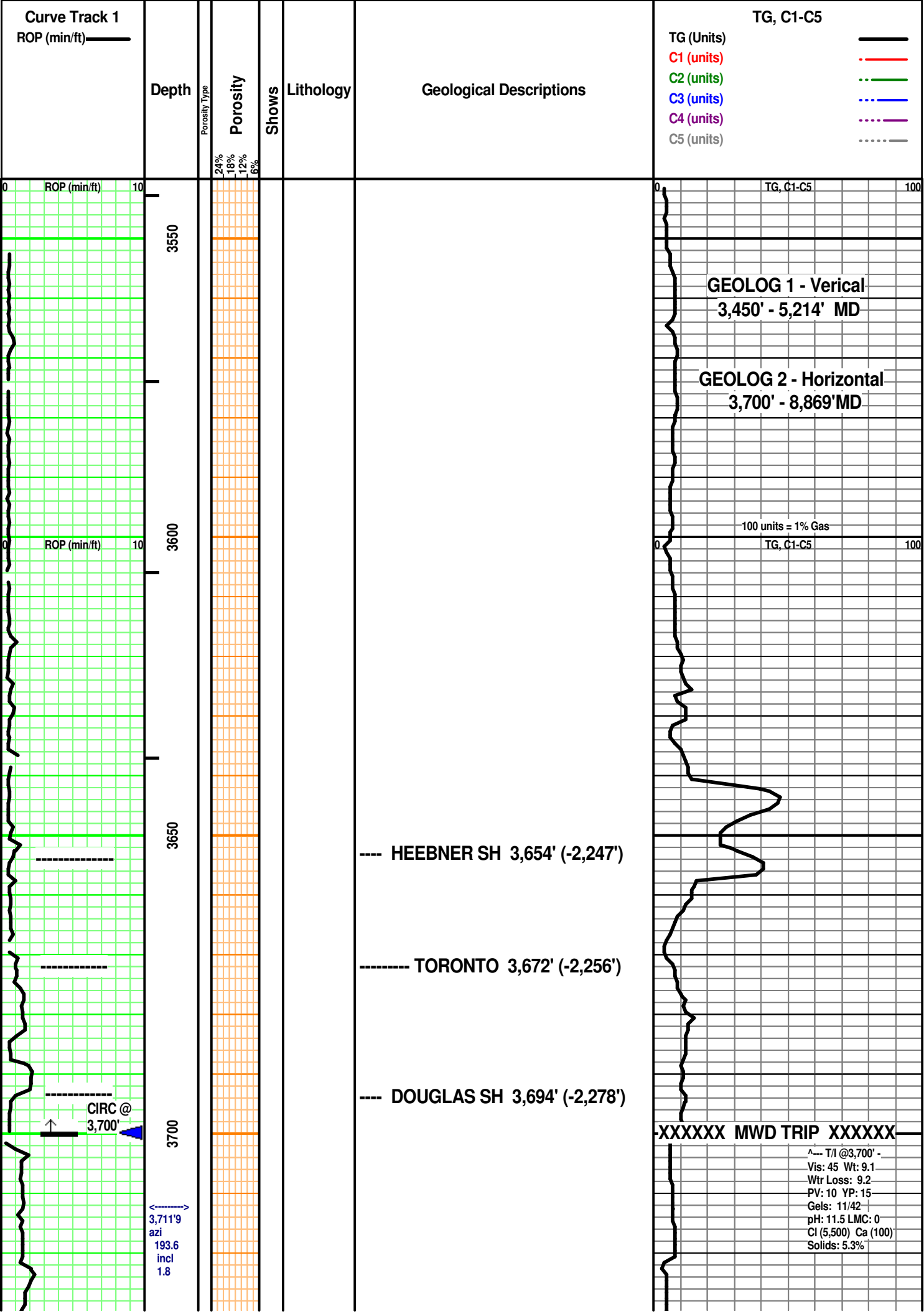
ACTIVITY

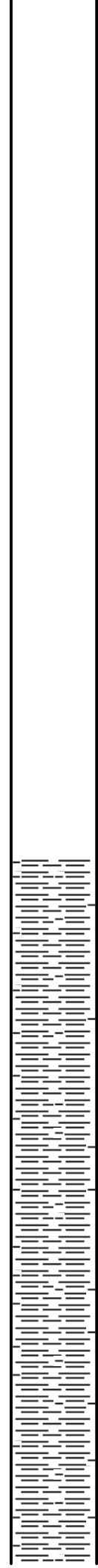
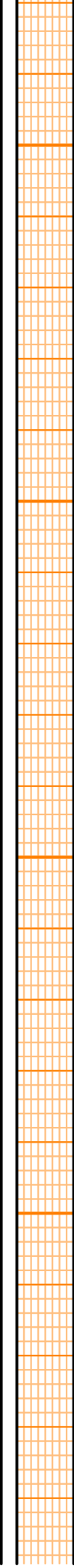
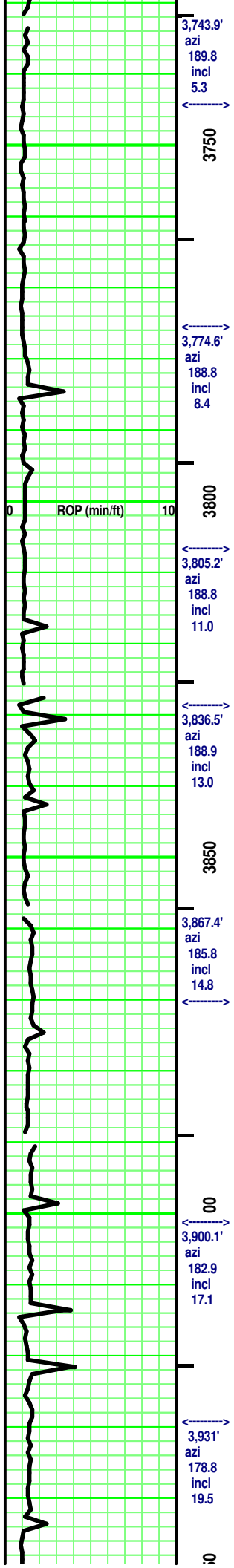
- Lost circluation
- Circulate for same

- Circulate for same
- Rtd
- Trip

- Connection
- Rft

- Sidewall

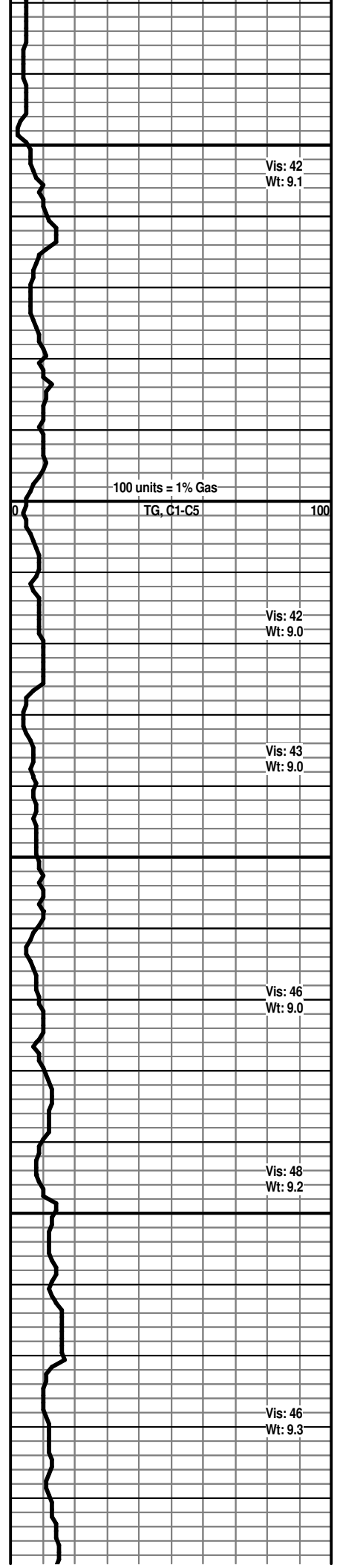


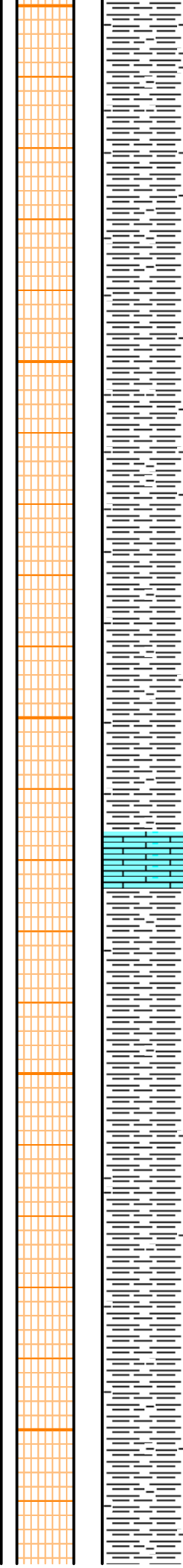
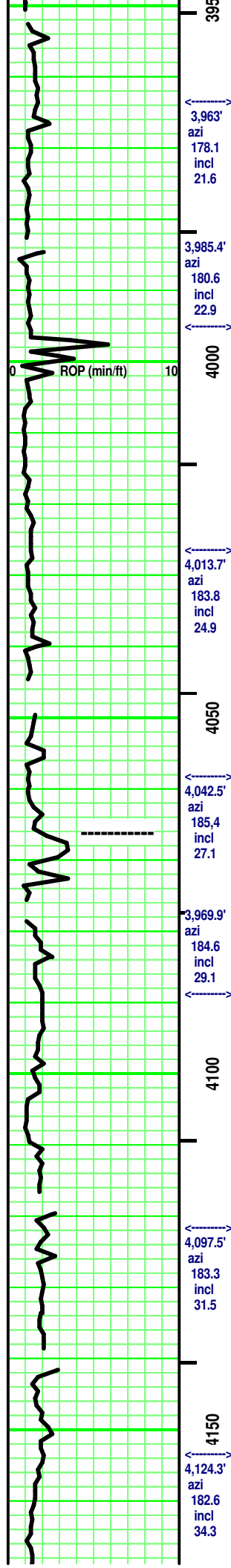


SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

SH - Med/ Dark Gray. Sing. minute dark specks.





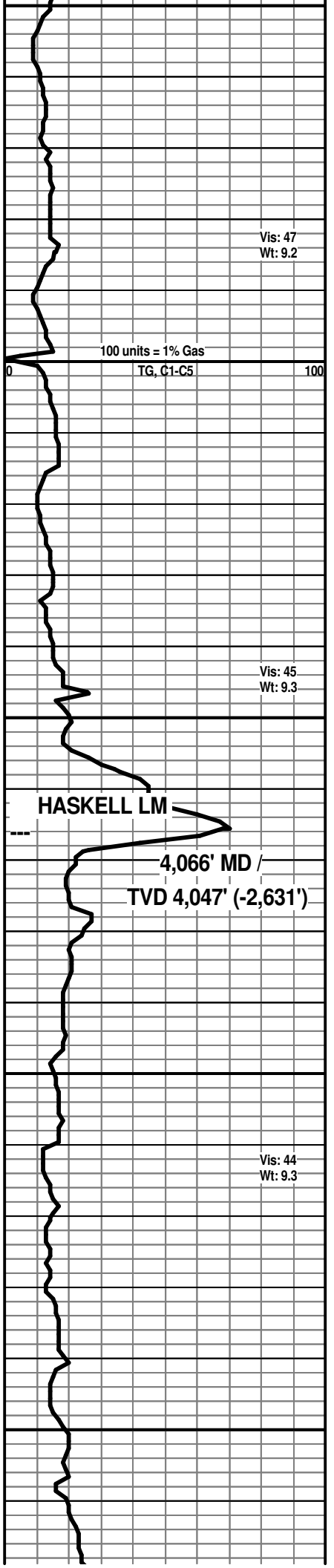
Micaeous. tr Silty in part. Massive. Firm.

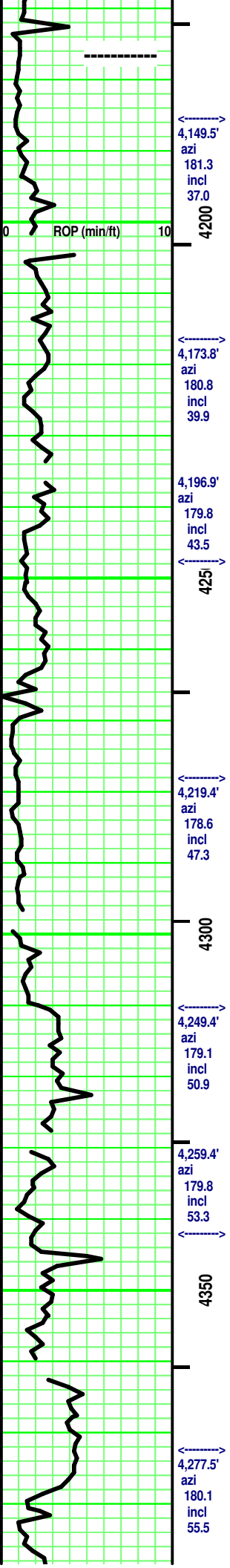
SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

LS - Tan/ Dark Tan. Sing. Crypto-/Micro-xln. xln por. tr Re-xln. Firm to Dense. No/ tr vis por.

SH - Med/ Dark Gray, Silver Gray/ tr Greenish Gray. Sing. Soft. Massive. misc minute inclusions. tr silty in part.

SH - Med/ Dark Gray, Silver Gray/ tr Greenish Gray. Sing. Soft. Massive. misc minute inclusions. tr silty in part.





4,149.5' azi
181.3 incl
37.0

4,173.8' azi
180.8 incl
39.9

4,196.9' azi
179.8 incl
43.5

425

4,219.4' azi
178.6 incl
47.3

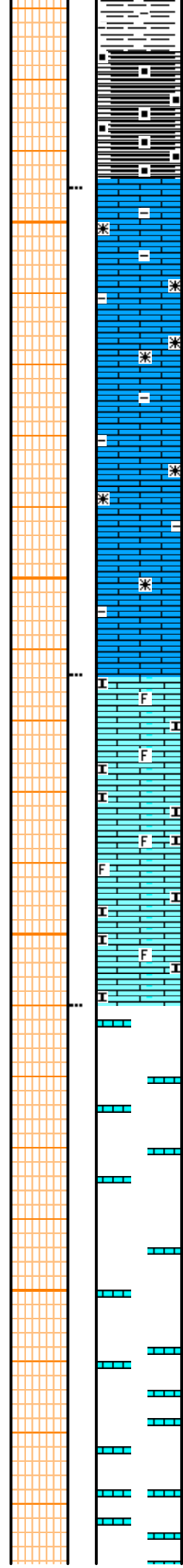
4300

4,249.4' azi
179.1 incl
50.9

4,259.4' azi
179.8 incl
53.3

4350

4,277.5' azi
180.1 incl
55.5



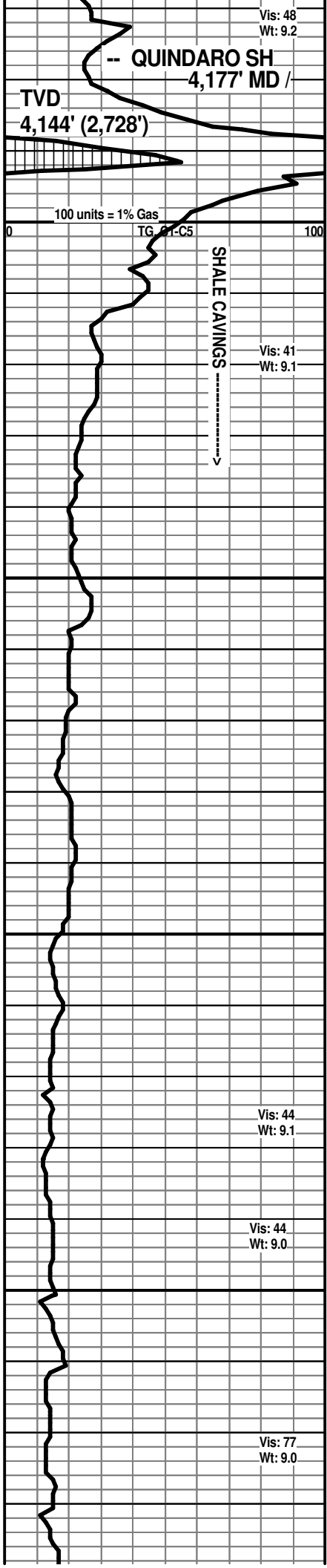
SH - Black. Sing. carb. soft.

LS - Grays/ tr Brown/ some Tan. Mot. Crypto-/
mostly Micro-xln. xln por argil in part. some
Re-xln. tr ls frags. No/ tr vis por.

LS - Tans/ Off White/ some Lt Gray. Mottled.
Micro- tr XF-xln. xln por. subchalky. tr argil.
Friable. tr fossil frags. Tr/ Fair vis por.

LS - Tans/ tr Lt Gray. Sing. XF-/Micro-xln. xln por.
some Re-xln. [tr CHERT - Tan/ Gray. Sing.
Opaque. No tripolitic. No inclusions.] Firm. No/ tr
vis por.

LS - Tan. Sing. Crypto- mostly Micro-xln. xln por.
tr Re-xln. tr argil/ shaly stringer. Firm. No/ tr vis
por.



Vis: 48
Wt: 9.2

-- QUINDARO SH
4,177' MD /

TVD
4,144' (2,728')

100 units = 1% Gas
TG 01-C5

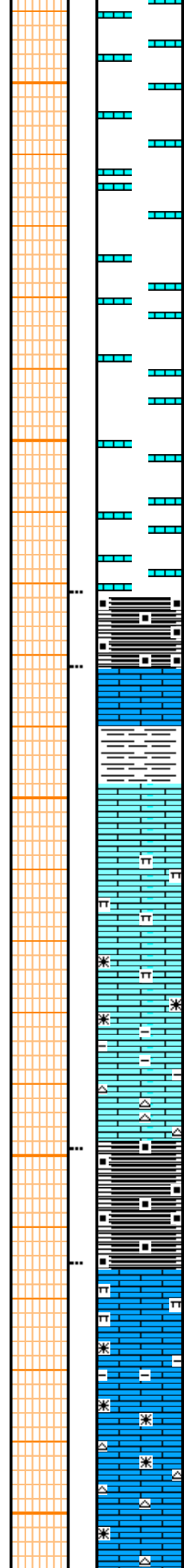
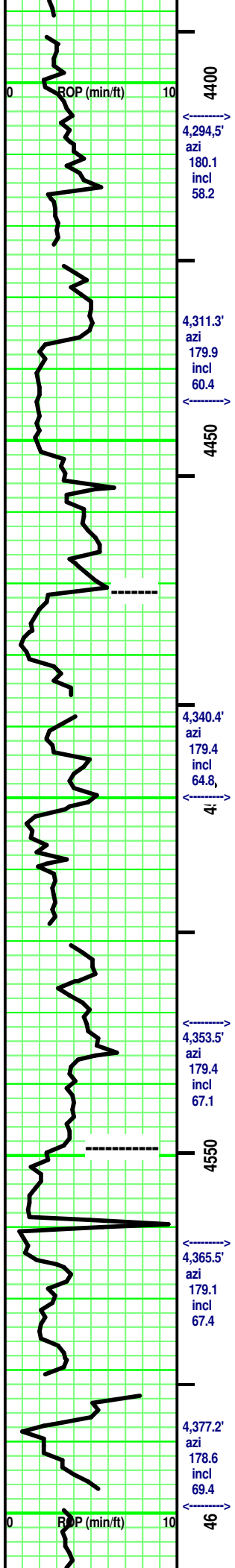
SHALE CAVINGS

Vis: 41
Wt: 9.1

Vis: 44
Wt: 9.1

Vis: 44
Wt: 9.0

Vis: 77
Wt: 9.0



LS - Off White/ Tan VF Oolitest. some clear/ Tan matrix. Opaque to semitransparent. Friable. Tr vis por.

LS - Tans/ some Off White, tr Lt Gray. mostly Sing/ some Mot. some Crypto-/ mostly Micro-xln & XF-xln. xln por. some Re-xln. some argil in part. rare minute off white fossil frags. [some CHERT - Clear/Tan. Sing/ tr Mot. Opaque to semi-transparent. No inclusions. No tripolitic.] Firm. No/ tr vis por.

LS - Off White/ some Tan. Sing. Micro-xln. xln por. tr Re-xln. Subchalky. partly Friable. tr, irregular Med Gray shale streaks. Tr vis por.

--- STARK SH 4,471' MD / TVD 4,328' (-2,912')
SH - Black. Sing. Carb. Blocky.

LS - Tan. Sing. Micro-xln. xln por. Firm. No/ tr vis por.

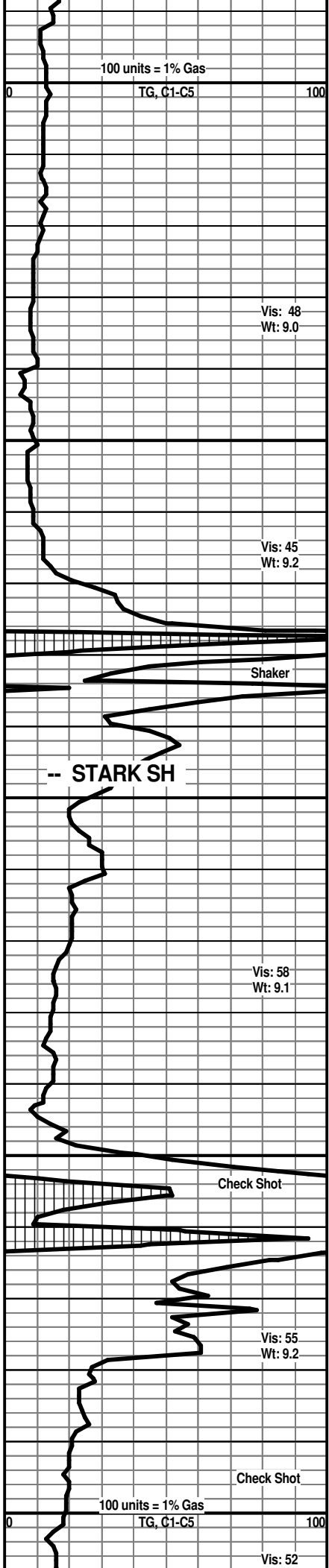
SH - Med/ Dark Gray. Sing. soft. Massive.

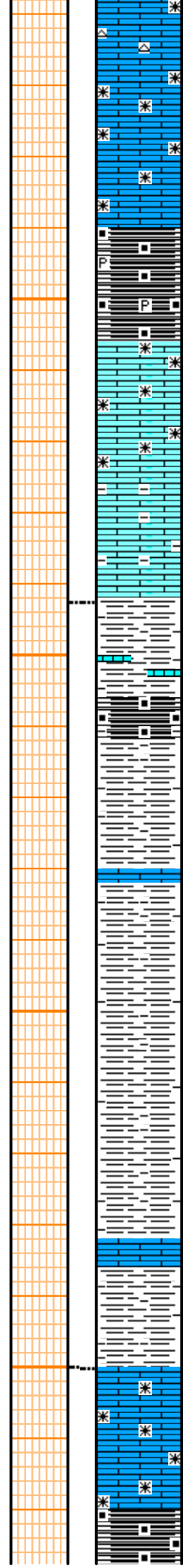
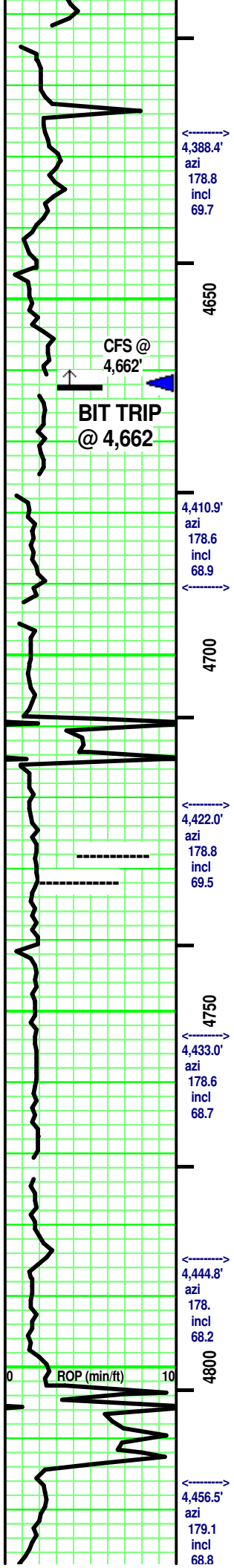
LS - Off White/ some Tan. Sing. Micro-xln. xln por. tr Re-xln. Subchalky. partly Friable. tr, irregular Med Gray shale streaks. Tr vis por.

Add: few pcs CHERT - Tan/Gray. Sing/ tr Mot. Opaque. No inclusions. No tripolitic.

HUSHPUCKNEY SH 4,549' / TVD 4,360' (-2,944')
SH - Black. Sing. Carb. Soft.

LS - Lt Gray/ rare Brown/ Tan. Sing. Crypto-/ Micro-xln. xln por. Re-xln. some interbedded Lt Gray argil/ marl. [few pcs CHERT - similar to above.] mostly Firm. No/ tr vis por.





SH - Black, Carb. rare pyritic. partly fissile. partly soft.

LS - Tans/ some Off White & Grays. Sing/ tr Mot. XF-/ Micro-xln. xln por. some argil/ shaly in part. some Re-xln. Firm. No/ tr vis por.

B/KC 4,692' / TVD 4,412' (-2,996')

Intermixed & interbedded SH & LS

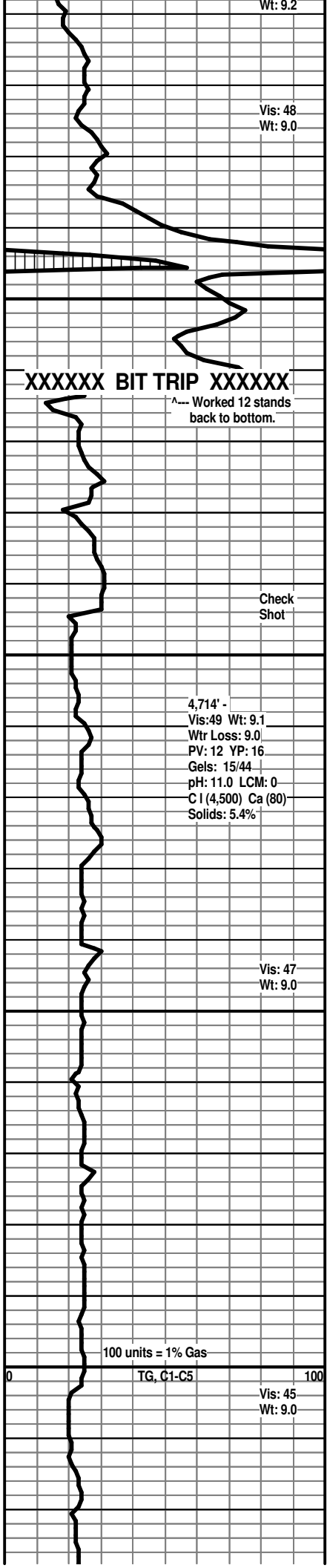
SH - Med/ Dark Grays, Black - carb. Sing. rare rubble.

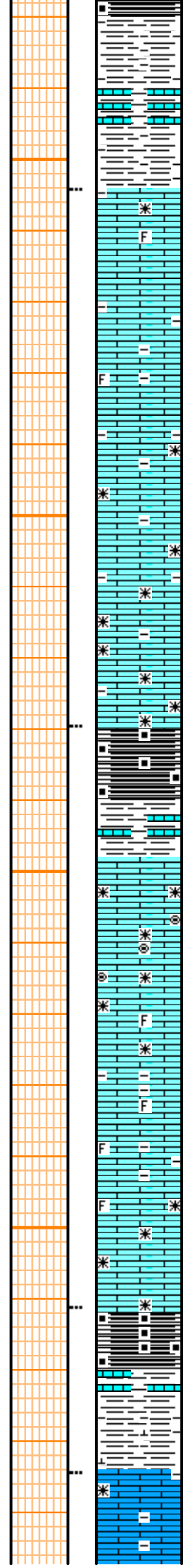
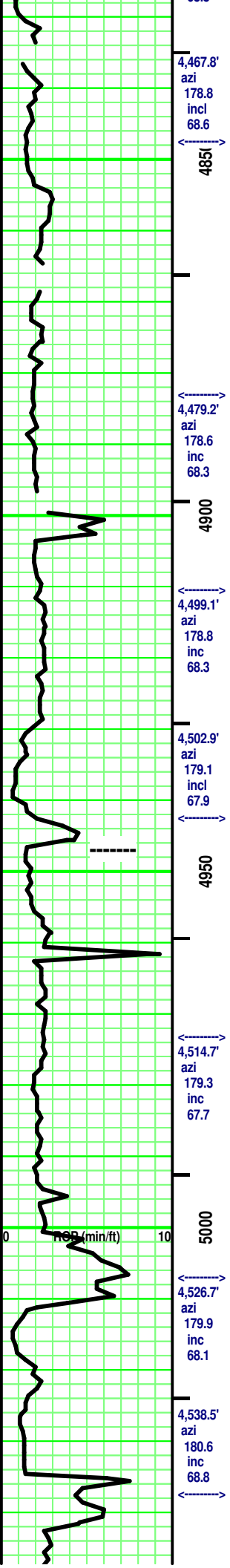
SH - Grays, Greenish Grays, Silverish Gray. Black & Carb. Sing. tr silty.

LS - Tan/ Grays, rare Off White. Sing. Micro-/ tr crypto-xln. xln por. some Re-xln. some argil. Firm. No/ tr vis por.

LS - Tan/ Pale Lt Gray. Sing. Micro-/ Crypto-xln. xln por. Firm/ Dense. No vis por.

SH - Black. Carb Soft. at top. Grays. Sing with limy streaks with depth.

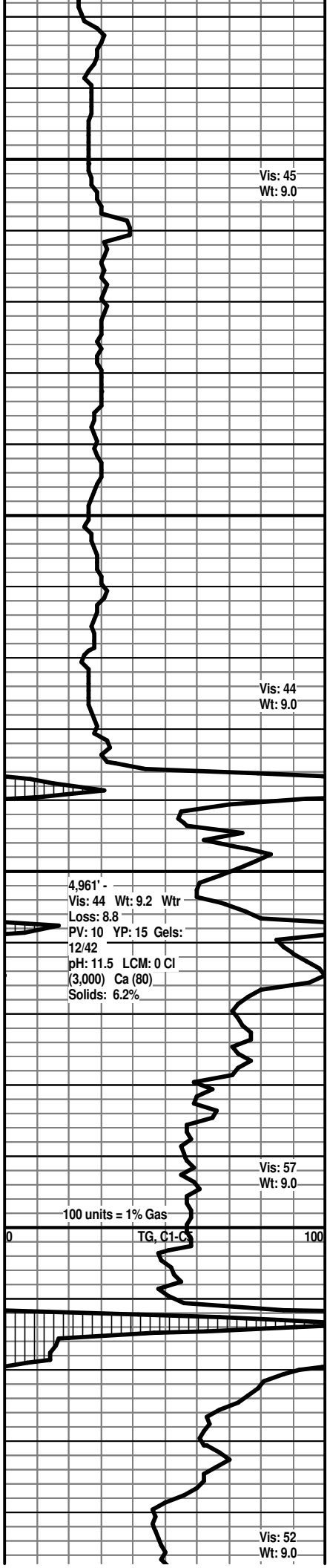


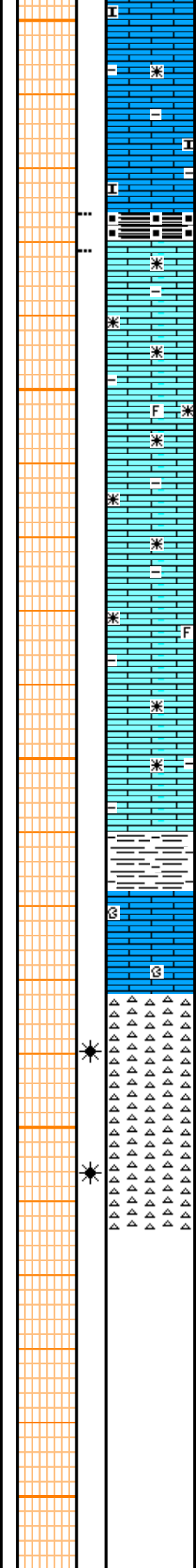
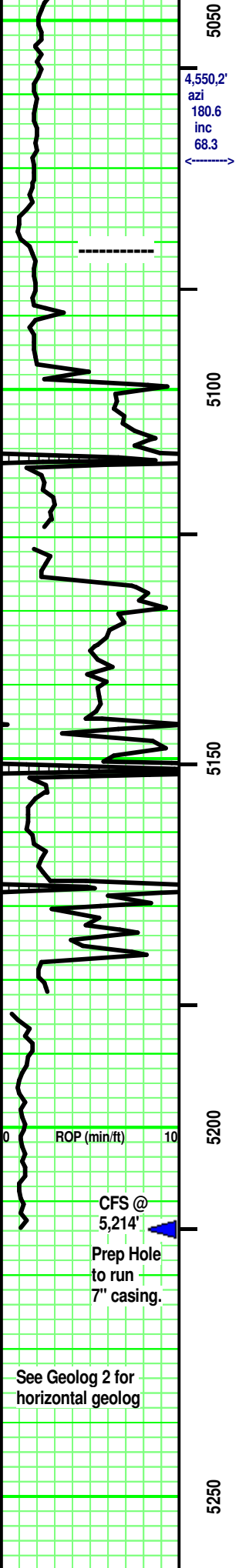


LS - Tans/ Grays. tr Off White. tr Sing/ mostly Mot. mostly Micro-xln, tr XF-xln. xln por. lots Re-xln. some argil/shaly in part. some marl at top. rare fossil frag. mostly Firm. No/ tr vis por.

-- PAWNEE 4,947' MD /
 LS - Tans/ some Off White. Sing/ tr Mot. some Crypto-/ mostly Micro- & XF-xln. xln por. some Re-xln. tr fossil frags. [rare Micro-Ooloid. Tan. in Off Whitish Tan Matrix. No vis por. Re-xln.] mostly Firm. No/ tr vis por.

SH - Black. Sing. Carb. Soft.
 SH - Med/ Dark Gray. Sing. some highly LS stringers. tr/ some calc with depth.
 LS - Tan/ some Lt & Med Gray. Sing/ some Mot. XF-/ Micro-xln. xln por. Re-xln. some argil/ shaly in part. mostly Firm. few pcs: subchalky. No/ tr vis por.





SH - Black. Sing. Carb. Soft.
 CHEROKEE GP 5,081' MD / TVD 4,555' (-3,139')

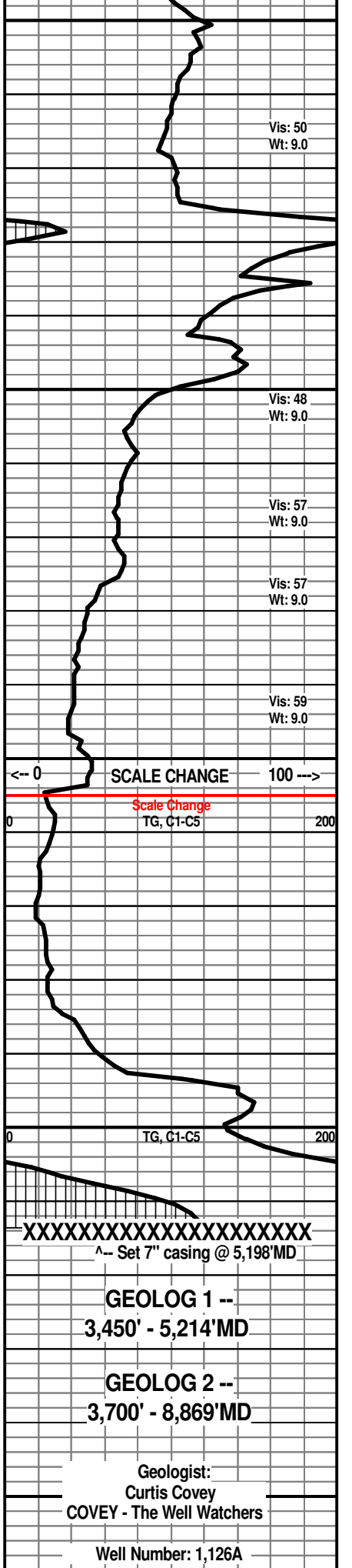
LS - Tans/ Lt & MedGray, Med Gray with depth.
 Sing/ tr Mot. XF-/ Micro-xln. xln por. some Re-xln.
 argil in part. tr fossil frags. some, minute limy
 frags. mostly Firm. mostly No/ tr vis por.

SH - Med/ Dark Gray, some Greenish Gray. some Black, carb,
 soft. tr pyritic. some limy streaks in part.

Rubble
 ----- MISS 5,169' MD / TVD 4,583' (-3,167')

CHERT - Off White/ White/ Tan/ some Slivery Gray.
 Mot. Opaque to semitransparent. some misc
 fossil frags/hash Inclusions. Spotted/ some
 Uniform Tripolitic with some Spotted/ uniform Lt/
 Med Brown stain. rare Highly limy dol or dol /
 frags in part. Tr/ fair vis por

Fair to Good odor. Spotted/ some Uniform Yellow
 flourescence. tr free oil/ rare minute gas bubble.
 Stain as above (30% - 80%) . Weak Pos/ Pos cut/
 residual. Weak Pos/ Pos acid/ residual. few/ some
 Oil spots on wash water.



GEOLOG 1 --
 3,450' - 5,214'MD

GEOLOG 2 --
 3,700' - 8,869'MD

Geologist:
 Curtis Covey
 COVEY - The Well Watchers

Well Number: 1,126A

See Geolog 2 for
 horizontal geolog

Covey

The Well Watchers

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

Well Name: TUCKER B #5-H
Location: Section 11 - Township 34 South - Range 11 West
Licence Number: 15-007-23,787. 01-00 Region: Barber County, KS.
Spud Date: 16 October 2011 Drilling Completed: 2 November 2011
Surface Coordinates: 250' FNL & 425' FEL
(Approximately NW NE NE NE)
Bottom Hole Horizontal RTD (8,869'MD) reported to be
Coordinates: 4,968.5' FNL & 434.8' FEL of surface coordinates.
Ground Elevation (ft): 1,400' K.B. Elevation (ft): 1,416'
Logged Interval (ft): 3,700' To: 8,869'MD Total Depth (ft): 8,869'MD
Formation: Douglas Shale -----> MISS
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)

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

OPERATOR

Company: WOOLSEY OPERATING COMPANY, LLC
Address: 125 North Water, Suite 1000 Geologist:
Wichita, Kansas 67202 Dean Patisson
(316) 267-4379

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 258-9976

KB: 1,416'

FORMATION TOPS

GL: 1,400'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Heebner SH	3,654' (-2,237')	No open hole logging.
Toronto LS	3,672' (-2,256')	
Douglas Gp	3,694' (-2,278')	
Haskell (Brown)	4,066' MD / TVD 4,047' (-2,631')	
Lansing	4,177' MD / TVD 4,144' (-2,728')	
Stark SH	4,471' MD / TVD 4,328' (-2,912')	
Hushpuckney SH	4,549' MD / TVD 4,360' (-2,944')	
B / KC	4,692' MD / TVD 4,412' (-2,996')	
Pawnee LS	4,947' MD / TVD 4,505' (-3,089')	
Mississippian Chert	5,169' MD / TVD 4,583' (-3,167')	

RTD: 8,869'MD

LTD: NA

ATD: NA

E-log is ? to rotary sample depth.

Loggers: NA

20" Hole

1 Oct --- Set Conductor @ 40' with 4 yds of grout.

17-1/2" Hole

16 Oct --- Spud @ 1am.
7am @ 222'. Drill to 320'.
Run 13-3/8" casing.
Set casing @ 278'.
Cemented w/ 300 sx
60/40 Poz (3% CC). [Allied]
Cement did circulate.
Plug down @ 12:15pm. WOC.

6-1/8" Hole (Horizontal)

25 Oct --- Run 7" casing. Set @ 5,198'.
275 sx Premium [Basic].
Plug down @ 2am.
7am @ 5,214'
26 --- Resumed Drilling @ 2:45am.
7am @ 5,315'. Start and
27 --- Finish Bit/Motor Trip @ 5,769'MD.
7am @ 5,769' MD.
Resumed Drilling @ 8:05am.
28 --- 7am @ 6,275'MD. Drill to 6,530'MD.
Start and

8-3/4" Hole (Vertical & Curve)

16 Oct --- Under surface casing @ 10pm.
17 --- 7am @ 903'.
18 --- 7am @ 1,561'.
19 --- 7am @ 2,830'. Geolog 1.
T/O for BHA @ 3,700'.
20 --- 7am @ 3,700'.
21 --- 7am @ 4,215'.
22 --- 7am @ 4,575'. Bit Trip @ 4,662'.
Resumed Drilling @ 11pm.
23 --- 7am @ 4,825'.
24 --- Drill to 5,214' MD. Prep hole.
7am @ 5,214' MD.

6-1/8" Hole (Horizontal)

29 Oct --- Finish Bit Trip @ 6,530'MD.
Resumed Drilling @ 5:35am.
7am @ 6,560'MD.
30 --- 7am @ 7,125'MD.
Bit Trip @ 7,259'MD.
Resumed Drilling @ 8:35pm.
31 --- 7am @ 7,512'MD.
Start and

GEOLOG 1 - VERTICAL

GEOLOG 2 - HORIZONTAL

6-1/8" Hole (Horizontal)

1 Nov --- 7am @ 7,861'MD.
Finish Bit Trip @ 7,861'MD.
Resumed Drilling @ 8:50am.
2 --- 7am @ 8,837'MD.
RMTD (8,869'MD) @ 7:35am.

HOLE DEVIATION (320' - 3,620'MD)

DEPTH / TVD	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
320' /	1.00	(Surface Casing)					
853' /	0.10						
1,230' /	0.40						
2,211' /	0.10						
3,118' /	0.60						
3,620' /	0.60						
KOP @ 3,700'							

GEOLOG 2

HOLE DEVIATION (3,712' - 5,214' MD)

Selected Directional / MWD Surveys

3,712' / 3,711.9'	1.8	193.6	4.7'		10.5'	5.9
3,995' / 3,985.4'	22.9	180.6		61.5'	14.6'	5.0
4,121' / 4,097.5'	31.5	183.3		118.6'	18.6'	7.7
4,215' / 4,173.8'	39.9	180.8		173.4'	20.4'	9.4
4,310' / 4,240.4'	50.9	179.1		240.9'	19.7'	11.3
4,404' / 4,294.9'	58.2	180.1		317.4'	19.5'	8.4
4,499' / 4,340.4'	64.8	179.4		400.7'	19.3'	8.2
4,594' / 4,377.2'	69.4	178.6		488.3'	18.0'	6.4
4,690' / 4,410.9'	68.9	178.6		578.1'	16.0'	1.7
4,816' / 4,456.5'	68.8	179.1		695.6'	13.5'	2.1
4,910' / 4,526.7'	68.1	179.8		783.0'	11.6'	0.6
5,005' / 4,526.7'	68.1	179.9		871.0'	10.5'	2.1
5,100' / 4,572.3	69.1	180.4		989.6'	11.3'	6.9

Projection to 5,214' ---

5,214' / 4,595.3'	76.06	180.6	1'068.3'		12.5'	5.8
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7" casing set @ 5,198' MD / TVD TVD 4,592' (-3,176')

See Geolog 2 for Hole Deviation 5,214' MD to RTMD.

Calmena Energy Services Oklahoma City, Oklahoma

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
SURFACE ---							
16 Oct 2011	12-1/4"	VAREL L-117	3 / 18's	0' / 320'	280'	5.50	50.9
VERTICAL & CURVE ---							
17 Oct 2011	8-3/4"	REED DSX616MD	16 / 14's	320' / 3,700'	3,380'	60.00	56.6
20 Oct 2011	8-3/4"	REED R-22AP	13 / 14's	3,700' / 4,662'	962'	40.50	23.7
22 Oct 2011	8-3/4"	REED R-22AP	13 / 14's	4,662' / 5,214'	552'	17.00	32.5

SEE GEOLOG 2 FOR THE HORIZONTAL BIT RECORD.

ROCK TYPES

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Granite wash
- Congl
- Dol lmst
- Silty dol

- Calc dol
- Dol 2
- Dol
- Gyp
- Igne
- Lmst 2
- Lmst
- Meta
- Mrlst
- Salt
- Shale 3
- Shale 3
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Ss 2

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

STRINGER

- Calc dol
- Silty dol
- Anhy

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks

- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- New symbol

SHOW

- Oil
- Spotted
- Ques
- Dead
- Gas
- Oil/gas
- Bed contact

ACCESSORIES

FOSSIL

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

- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

- Mica
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breccfrag

- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos

- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Copper
- Ooliticastic
- Ooloid
- Oolite
- Sucrosic
- Dark specks

STRINGER

- Calc dol

- Silty dol
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk
- New symbol

OTHER SYMBOLS

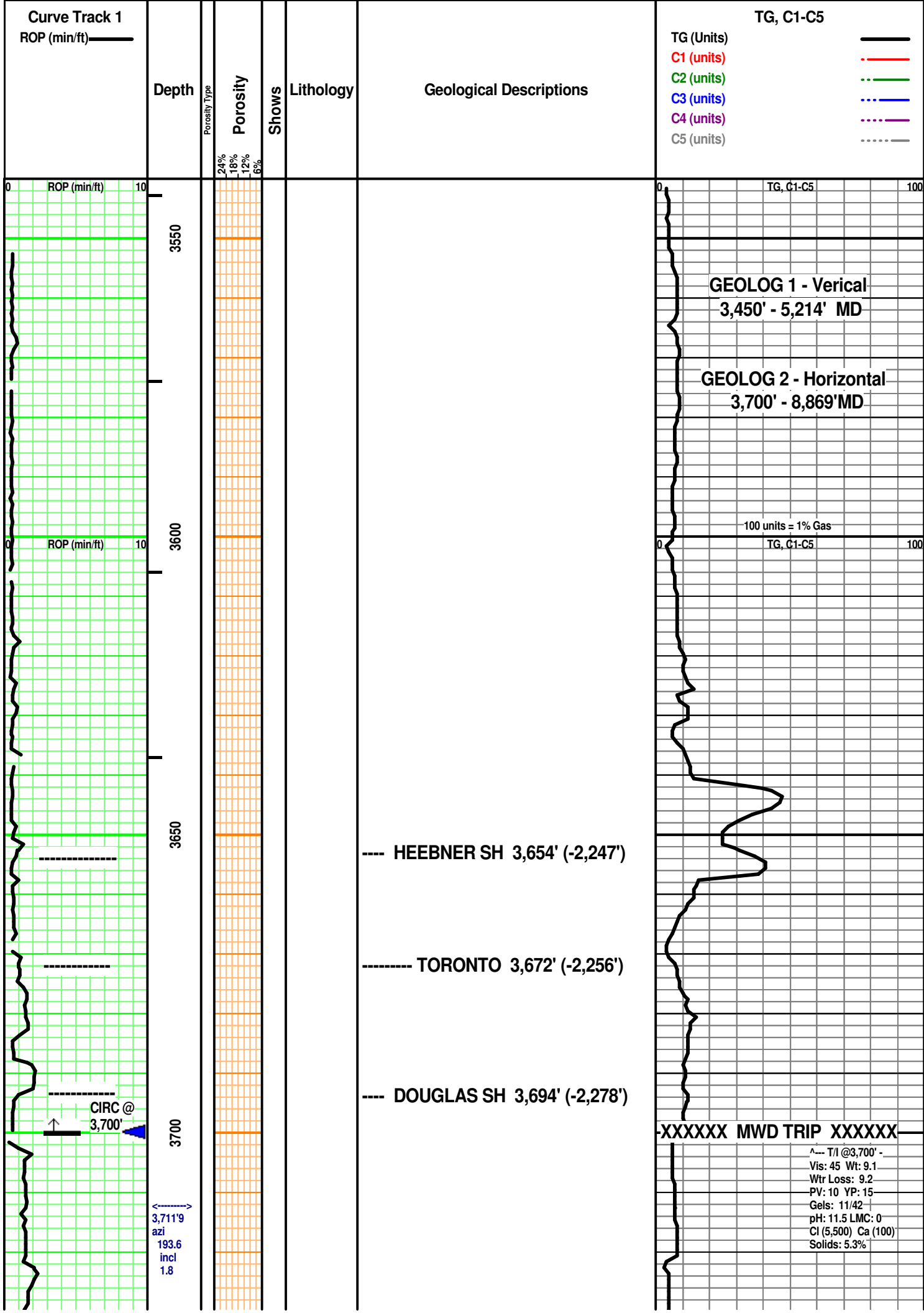
ACTIVITY

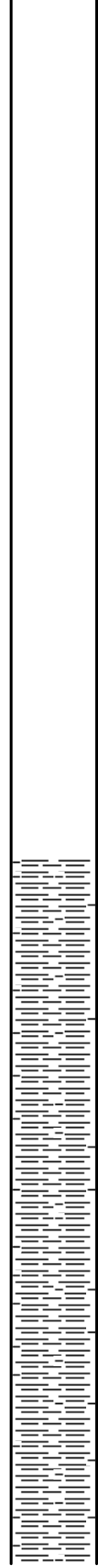
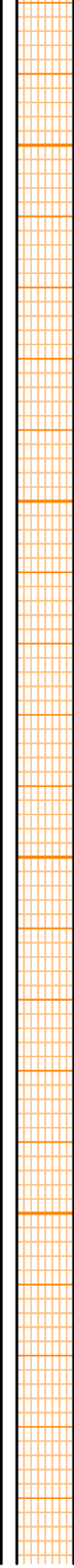
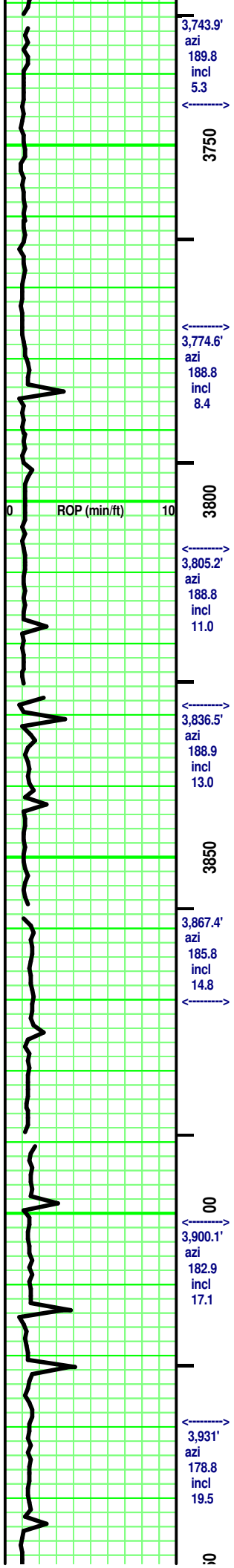
- Lost circluation
- Circulate for same

- Circulate for same
- Rtd
- Trip

- Connection
- Rft

- Sidewall

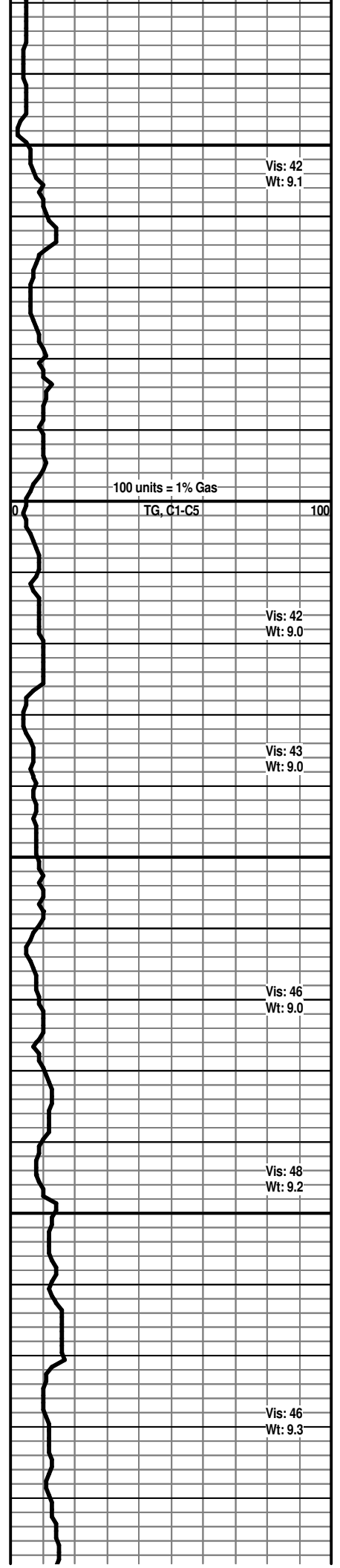




SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

SH - Med/ Dark Gray. Sing. minute dark specks.



Vis: 42
Wt: 9.1

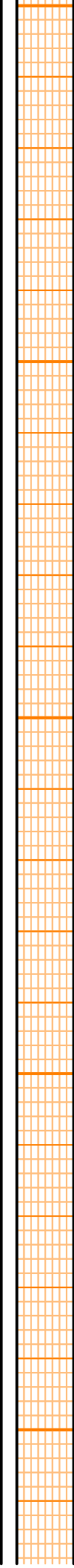
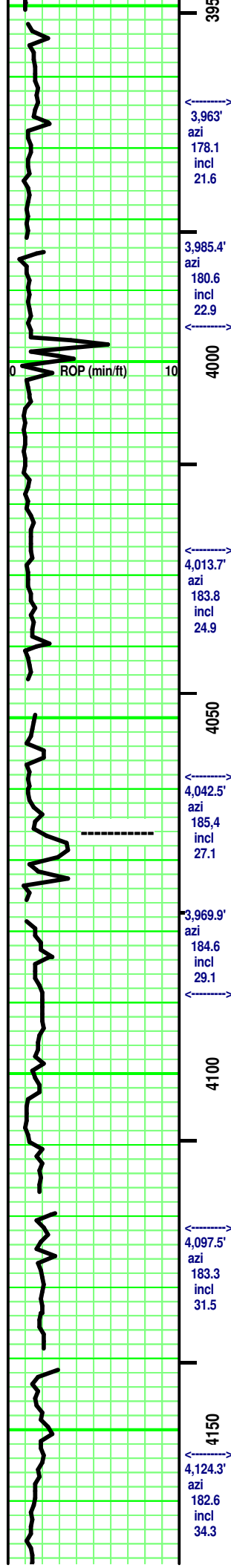
Vis: 42
Wt: 9.0

Vis: 43
Wt: 9.0

Vis: 46
Wt: 9.0

Vis: 48
Wt: 9.2

Vis: 46
Wt: 9.3



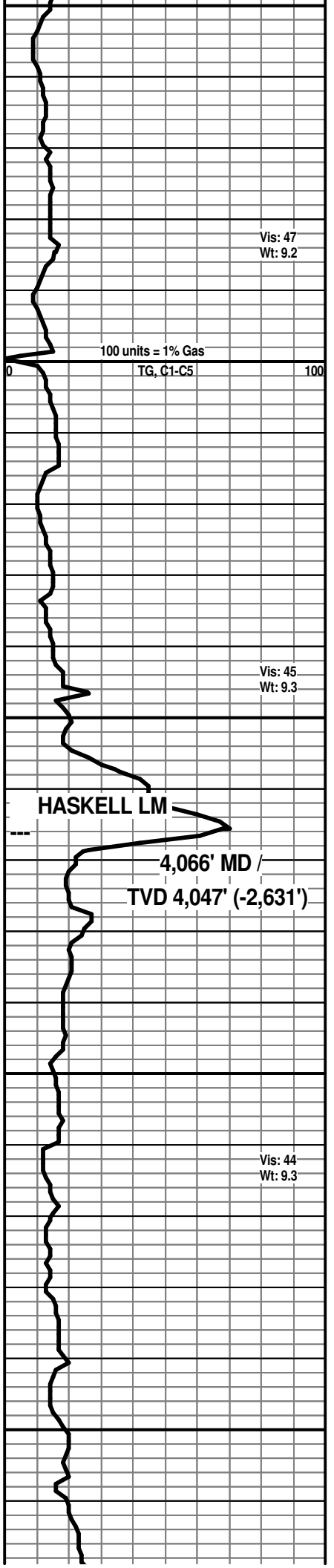
Micaeous. tr Silty in part. Massive. Firm.

SH - Med/ Dark Gray. Sing. minute dark specks. Micaeous. tr Silty in part. Massive. Firm.

LS - Tan/ Dark Tan. Sing. Crypto-/Micro-xln. xln por. tr Re-xln. Firm to Dense. No/ tr vis por.

SH - Med/ Dark Gray, Silver Gray/ tr Greenish Gray. Sing. Soft. Massive. misc minute inclusions. tr silty in part.

SH - Med/ Dark Gray, Silver Gray/ tr Greenish Gray. Sing. Soft. Massive. misc minute inclusions. tr silty in part.



Vis: 47
Wt: 9.2

Vis: 45
Wt: 9.3

Vis: 44
Wt: 9.3

HASKELL LM

**4,066' MD /
TVD 4,047' (-2,631')**

3,963'
azi
178.1
incl
21.6

3,985.4'
azi
180.6
incl
22.9

4,013.7'
azi
183.8
incl
24.9

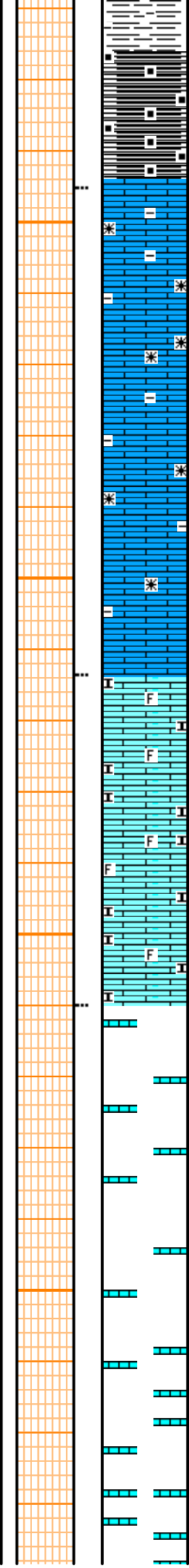
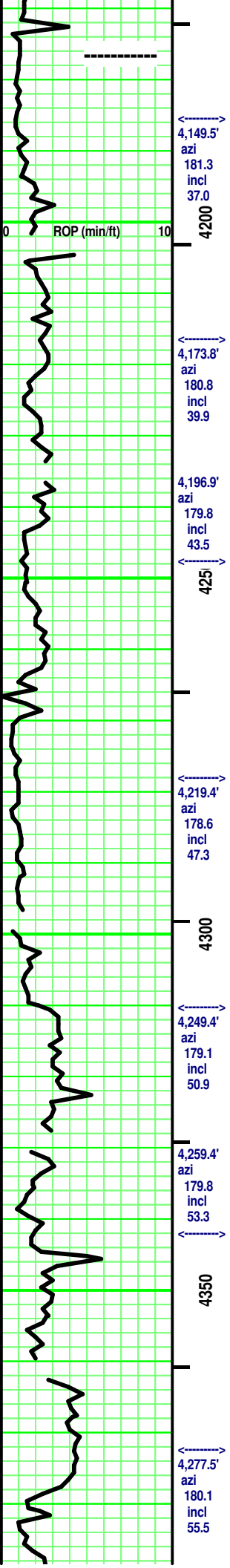
4,042.5'
azi
185.4
incl
27.1

3,969.9'
azi
184.6
incl
29.1

4,097.5'
azi
183.3
incl
31.5

4,124.3'
azi
182.6
incl
34.3

100 units = 1% Gas
TG, C1-C5



SH - Black. Sing. carb. soft.

LS - Grays/ tr Brown/ some Tan. Mot. Crypto- mostly Micro-xln. xln por argil in part. some Re-xln. tr ls frags. No/ tr vis por.

LS - Tans/ Off White/ some Lt Gray. Mottled. Micro-/ tr XF-xln. xln por. subchalky. tr argil. Friable. tr fossil frags. Tr/ Fair vis por.

LS - Tans/ tr Lt Gray. Sing. XF-/Micro-xln. xln por. some Re-xln. [tr CHERT - Tan/ Gray. Sing. Opaque. No tripolitic. No inclusions.] Firm. No/ tr vis por.

LS - Tan. Sing. Crypto- mostly Micro-xln. xln por. tr Re-xln. tr argil/ shaly stringer. Firm. No/ tr vis por.

4,149.5' azi
181.3 incl
37.0

4,173.8' azi
180.8 incl
39.9

4,196.9' azi
179.8 incl
43.5

425

4,219.4' azi
178.6 incl
47.3

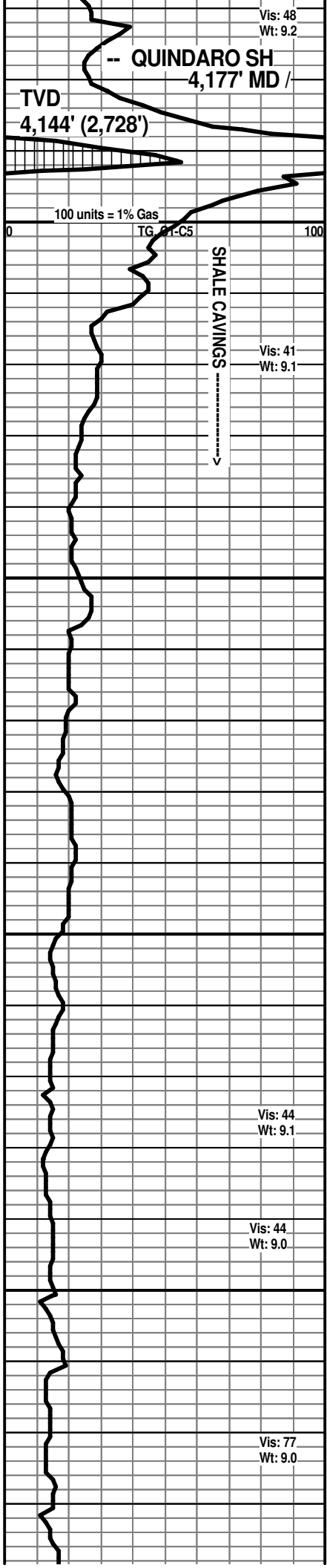
4300

4,249.4' azi
179.1 incl
50.9

4,259.4' azi
179.8 incl
53.3

4350

4,277.5' azi
180.1 incl
55.5



QUINDARO SH
4,177' MD /

TVD
4,144' (2,728')

100 units = 1% Gas
TG 01-C5

SHALE CAVINGS

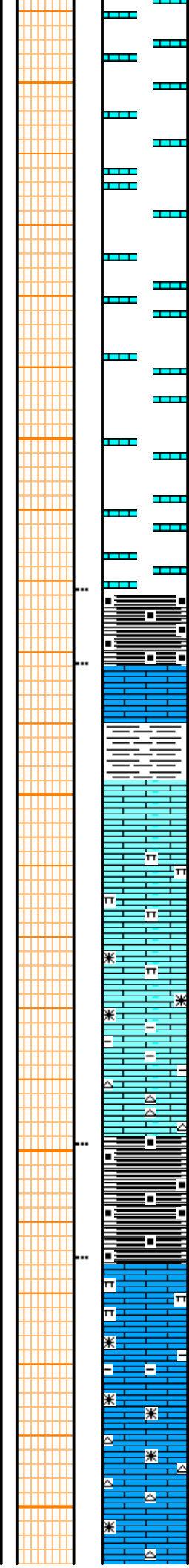
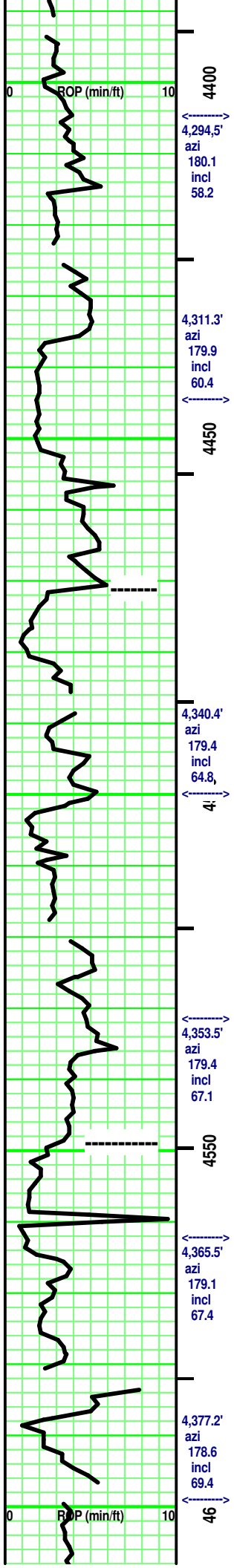
Vis: 48
Wt: 9.2

Vis: 41
Wt: 9.1

Vis: 44
Wt: 9.1

Vis: 44
Wt: 9.0

Vis: 77
Wt: 9.0



LS - Off White/ Tan VF Oolitest. some clear/ Tan matrix. Opaque to semitransparent. Friable. Tr vis por.

LS - Tans/ some Off White, tr Lt Gray. mostly Sing/ some Mot. some Crypto-/ mostly Micro-xln & XF-xln. xln por. some Re-xln. some argil in part. rare minute off white fossil frags. [some CHERT - Clear/Tan. Sing/ tr Mot. Opaque to semi-transparent. No inclusions. No tripolitic.] Firm. No/ tr vis por.

LS - Off White/ some Tan. Sing. Micro-xln. xln por. tr Re-xln. Subchalky. partly Friable. tr, irregular Med Gray shale streaks. Tr vis por.

--- STARK SH 4,471' MD / TVD 4,328' (-2,912')

SH - Black. Sing. Carb. Blocky.

LS - Tan. Sing. Micro-xln. xln por. Firm. No/ tr vis por.

SH - Med/ Dark Gray. Sing. soft. Massive.

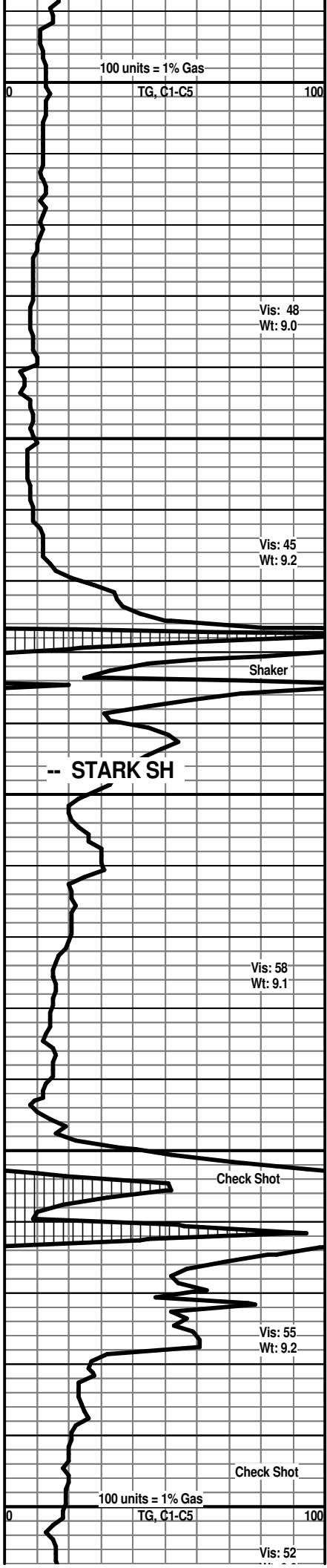
LS - Off White/ some Tan. Sing. Micro-xln. xln por. tr Re-xln. Subchalky. partly Friable. tr, irregular Med Gray shale streaks. Tr vis por.

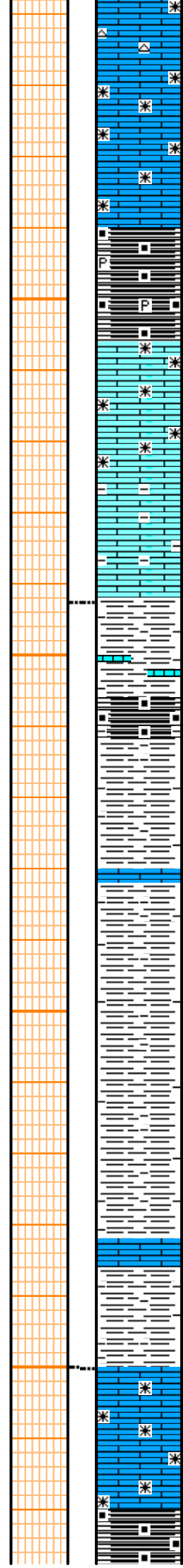
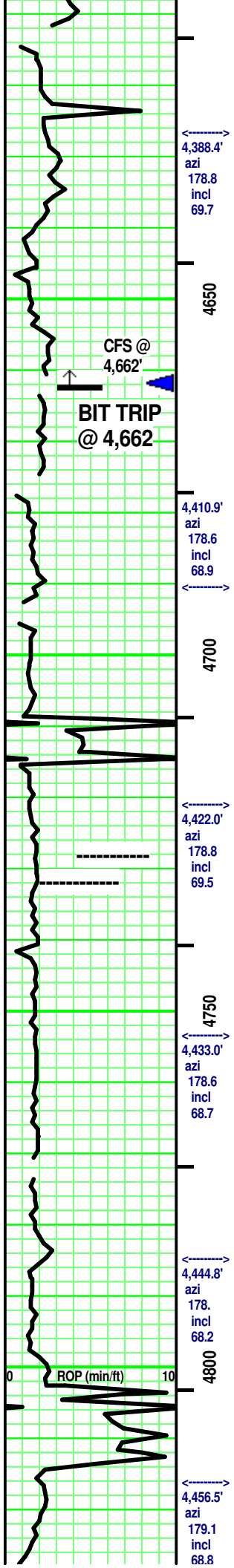
Add: few pcs CHERT - Tan/Gray. Sing/ tr Mot. Opaque. No inclusions. No tripolitic.

HUSHPUCKNEY SH 4,549' / TVD 4,360' (-2,944')

SH - Black. Sing. Carb. Soft.

LS - Lt Gray/ rare Brown/ Tan. Sing. Crypto-/ Micro-xln. xln por. Re-xln. some interbedded Lt Gray argil/ marl. [few pcs CHERT - similar to above.] mostly Firm. No/ tr vis por.





SH - Black, Carb. rare pyritic. partly fissile. partly soft.

LS - Tans/ some Off White & Grays. Sing/ tr Mot. XF-/ Micro-xln. xln por. some argil/ shaly in part. some Re-xln. Firm. No/ tr vis por.

B/KC 4,692' / TVD 4,412' (-2,996')

Intermixed & interbedded SH & LS

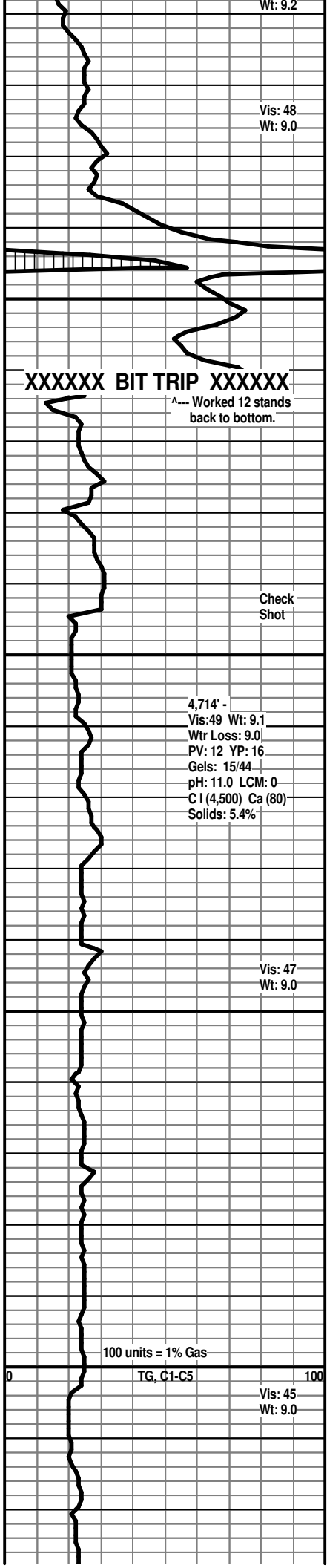
SH - Med/ Dark Grays, Black - carb. Sing. rare rubble.

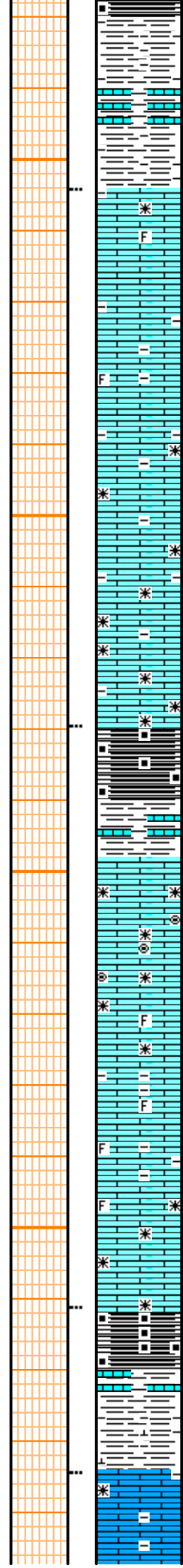
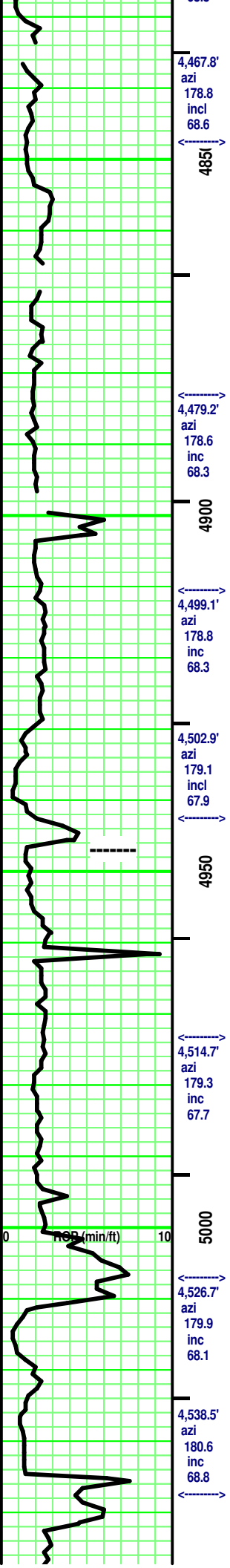
SH - Grays, Greenish Grays, Silverish Gray. Black & Carb. Sing. tr silty.

LS - Tan/ Grays, rare Off White. Sing. Micro-/ tr crypto-xln. xln por. some Re-xln. some argil. Firm. No/ tr vis por.

LS - Tan/ Pale Lt Gray. Sing. Micro-/ Crypto-xln. xln por. Firm/ Dense. No vis por.

SH - Black. Carb Soft. at top. Grays. Sing with limy streaks with depth.





LS - Tans/ Grays. tr Off White. tr Sing/ mostly Mot. mostly Micro-xln, tr XF-xln. xln por. lots Re-xln. some argil/shaly in part. some marl at top. rare fossil frag. mostly Firm. No/ tr vis por.

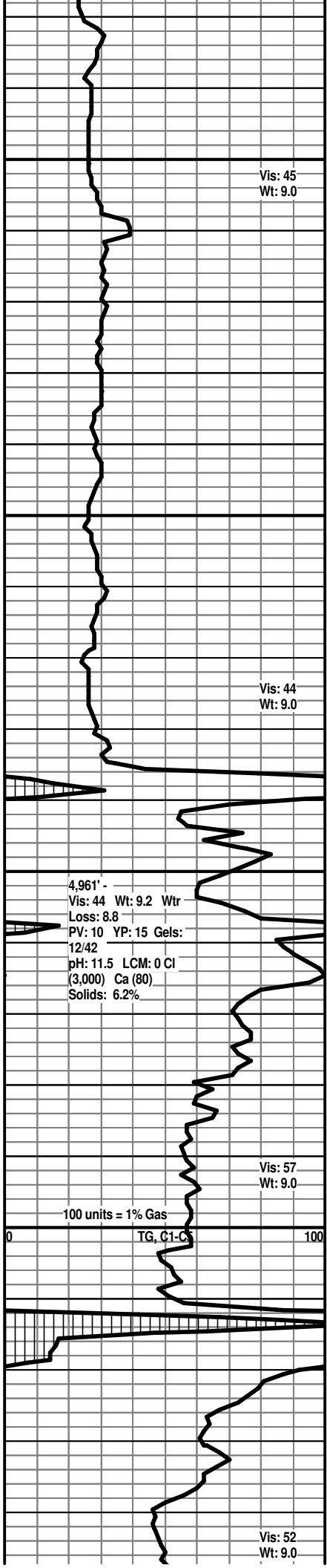
-- PAWNEE 4,947' MD /

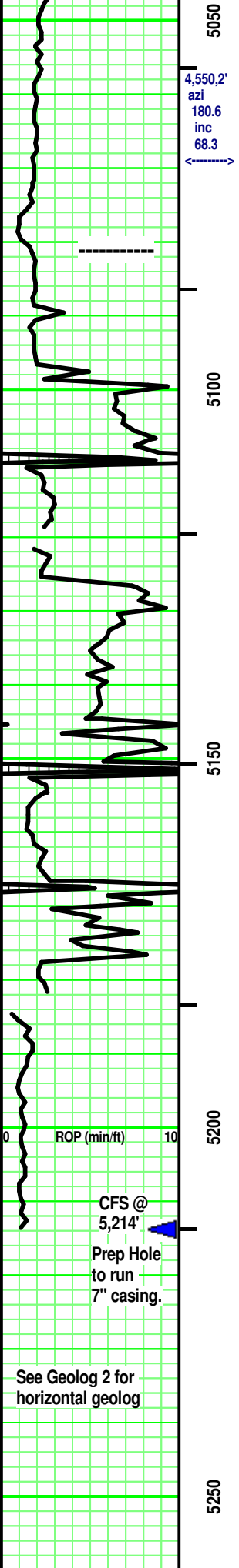
LS - Tans/ some Off White. Sing/ tr Mot. some Crypto-/ mostly Micro- & XF-xln. xln por. some Re-xln. tr fossil frags. [rare Micro-Ooloid. Tan. in Off Whitish Tan Matrix. No vis por. Re-xln.] mostly Firm. No/ tr vis por.

SH - Black. Sing. Carb. Soft.

SH - Med/ Dark Gray. Sing. some highly LS stringers. tr/ some calc with depth.

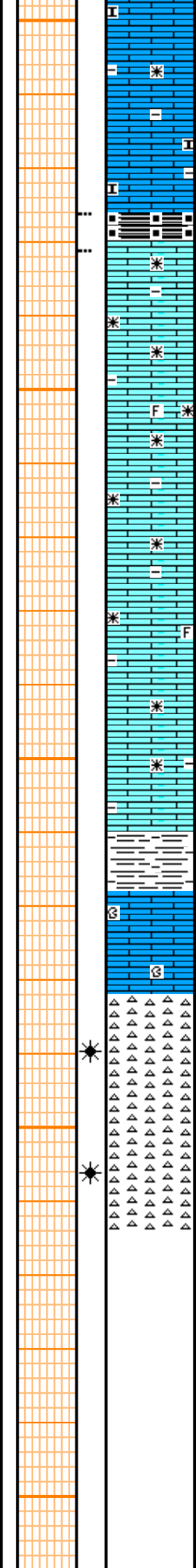
LS - Tan/ some Lt & Med Gray. Sing/ some Mot. XF-/ Micro-xln. xln por. Re-xln. some argil/ shaly in part. mostly Firm. few pcs: subchalky. No/ tr vis por.





CFS @ 5,214'
 Prep Hole to run 7" casing.

See Geolog 2 for horizontal geolog



SH - Black. Sing. Carb. Soft.
 CHEROKEE GP 5,081' MD / TVD 4,555' (-3,139')

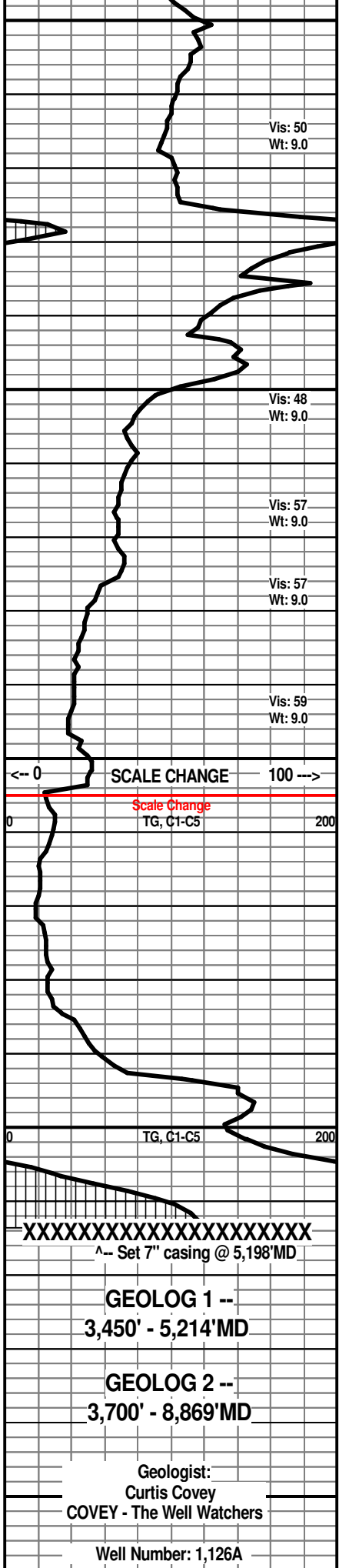
LS - Tans/ Lt & MedGray, Med Gray with depth. Sing/ tr Mot. XF-/ Micro-xln. xln por. some Re-xln. argil in part. tr fossil frags. some, minute limy frags. mostly Firm. mostly No/ tr vis por.

SH - Med/ Dark Gray, some Greenish Gray. some Black, carb, soft. tr pyritic. some limy streaks in part.

Rubble
 MISS 5,169' MD / TVD 4,583' (-3,167')

CHERT - Off White/ White/ Tan/ some Slivery Gray. Mot. Opaque to semitransparent. some misc fossil frags/hash Inclusions. Spotted/ some Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain. rare Highly limy dol or dol / frags in part. Tr/ fair vis por

Fair to Good odor. Spotted/ some Uniform Yellow flourescence. tr free oil/ rare minute gas bubble. Stain as above (30% - 80%) . Weak Pos/ Pos cut/ residual. Weak Pos/ Pos acid/ residual. few/ some Oil spots on wash water.



Covey

The Well Watchers

HORIZONTAL LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: TUCKER B #5-H
Location: Section 11 - Township 34 South - Range 11 West
License Number: 15-007-23,787. 01-00 Region: Barber Cty, KS.
Spud Date: 16 October 2011 Drilling Completed: 2 November 2011
Surface Coordinates: 250' FNL & 425' FEL, NE/4
(Approximately NW NE NE NE)
Bottom Hole Horizontal RTD (8,869'MD) reported to be
Coordinates: 4,968.5' FNL & 434.8' FEL of surface coordinates.
Ground Elevation (ft): 1,400' K.B. Elevation (ft): 1,416'
Logged Interval (ft): 3,700'MD To: 8.869'MD Total Depth (ft): 8,869'MD
Formation: Douglas Shale -----> MISS
Type of Drilling Fluid: Low Solids, Non-Dispersed -- Chemical
Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: WOOLSEY OPERATING COMPANY, LLC
Address: 125 North Market, Suite 1000
Wichita, Kansas 67202
Geologist:
Dean Patisson

GEOLOGIST

Name: Curtis E. Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776-0367 Cell: (316) 217-4679

KB: 1,416'

FORMATION TOPS

GL: 1,400'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Heebner SH	3,654' (-2,237')	No open hole log.
Toronto LS	3,672' (-2,256')	
Douglas Gp	3,694' (-2,278')	
Haskell (Brown)	4,066' MD / TVD 4,047' (-2,631')	
Stark SH	4,471' MD / TVD 4,328' (-2,912')	
Hushpuckney SH	4,549' MD / TVD 4,360' (-2,944')	
B / KC	4,692' MD / TVD 4,412' (-2,996')	
Pawnee LS	4,947' MD / TVD 4,505' (-3,089')	
Cherokee Gp	5,081' MD / TVD 4,555' (-3,139')	
Mississippian	5,169' MD / TVD 4,583' (-3,167')	
Mississippian Chert	5,185' MD / TVD 4,588' (-3,172')	

RTD: 8,869'MD

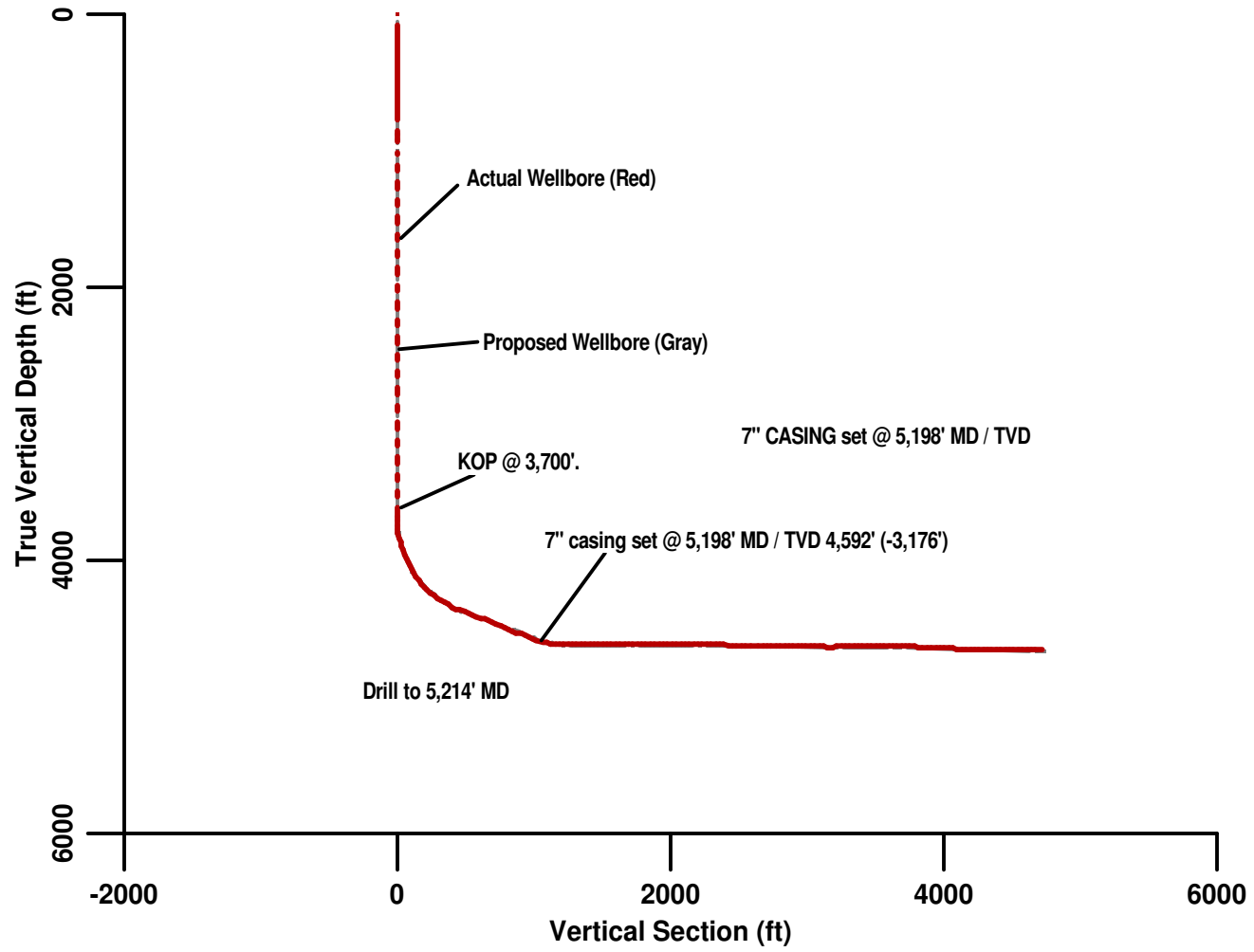
LTD: NA

ATD: NA

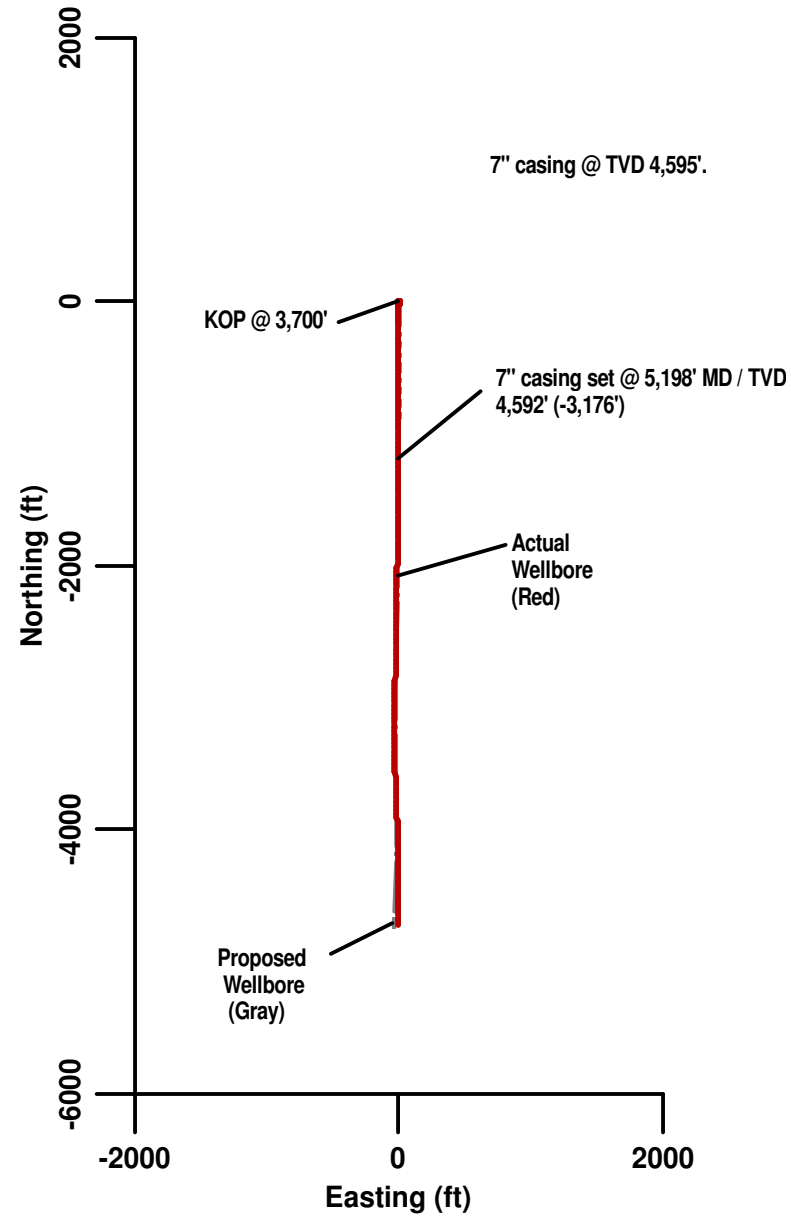
Rotary sample depth is ? to E-log depth.

E-Loggers: NA

SIDE VIEW Elevation



Bird's Eye View Plan



GEOLOG 1 - VERTICAL

20" Hole

1 Oct --- Set Conductor @ 40' with 4 yds of grout.

17-1/2" Hole

16 Oct --- Spud @ 1am.
7am @ 222'. Drill to 320'.
Run 13-3/8" casing.
Set casing @ 278'.
Cemented w/ 300 sx
60/40 Poz (3% CC). [Allied]
Cement did circulate.
Plug down @ 12:15pm. WOC.

8-3/4" Hole (Vertical & Curve)

16 Oct --- Under surface casing @ 10pm.
17 --- 7am @ 903'.
18 --- 7am @ 1,561'.
19 --- 7am @ 2,830'. Geolog 1.
T/O for BHA @ 3,700'.
20 --- 7am @ 3,700'.
21 --- 7am @ 4,215' MD. Bit Trip @ 4,662'.
Resumed Drilling @ 11pm.
23 --- 7am @ 4,825'.
24 --- Drill to 5,214' MD. Prep hole.
7am @ 5,214' MD.

GEOLOG 2 - HORIZONTAL

6-1/8" Hole (Horizontal)

25 Oct --- Run 7" casing. Set @ 5,198'.
275 sx Premium [Basic].
Plug down @ 2am.
7am @ 5,214'
26 --- Resumed Drilling @ 2:45am.
7am @ 5,315'. Start and
27 --- Finish Bit/Motor Trip @ 5,769'MD.
7am @ 5,769' MD.
Resumed Drilling @ 8:05am.
28 --- 7am @ 6,275'MD. Drill to 6,530'MD.
Start and

6-1/8" Hole (Horizontal)

29 Oct --- Finish Bit Trip @ 6,530'MD.
Resumed Drilling @ 5:35am.
7am @ 6,560'MD.
30 --- 7am @ 7,125'MD.
Bit Trip @ 7,259'MD.
Resumed Drilling @ 8:35pm.
31 --- 7am @ 7,512'MD.
Start and

6-1/8" Hole (Horizontal)

1 Nov --- 7am @ 7,861'MD.
Finish Bit Trip @ 7,861'MD.
Resumed Drilling @ 8:50am.
2 --- 7am @ 8,837'MD.
RMTD (8,869'MD) @ 7:35am.

HOLE DEVIATION (0' - 6,888' MD)

Selected Directional / MWD Surveys

DEPTH / TVD	---	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
0' / 0'	---	0.0	0	0	0	0	0	0
1,010' / 1,010'	---	0.2	138.6		1.2'	1.2'		
1,985' / 1,984.8'	---	0.2	345.2		1.9'		0.6'	
2,993' / 2,992.9'	---	0.4	292.1	0.6'			5.3'	
KOP @ 3,770'								
3,712' / 3,711.9'	---	1.8	193.6	4.7'			10.5'	5.9
3,995' / 3,985.4'	---	22.9	180.6		61.5'		14.6'	5.0
4,121' / 4,097.5'	---	31.5	183.3		118.6'		18.6'	7.7
4,215' / 4,173.8'	---	39.9	180.8		173.4'		20.4'	9.4
4,310' / 4,240.4'	---	50.9	179.1		240.9'		19.7'	11.3
4,404' / 4,294.9'	---	58.2	180.1		317.4'		19.5'	8.4
4,499' / 4,340.4'	---	64.8	179.4		400.7'		19.3'	8.2
4,594' / 4,377.2'	---	69.4	178.6		488.3'		18.0'	6.4
4,690' / 4,410.9'	---	68.9	178.6		578.1'		16.0'	1.7
4,816' / 4,456.5'	---	68.8	179.1		695.6'		13.5'	2.1
4,920' / 4,491.0'	---	68.3	178.8		783.0'		11.6'	0.6
5,005' / 4,526.7'	---	68.1	179.9		871.0'		10.5'	2.1
5,100' / 4,572.3'	---	69.1	180.4		989.6'		11.3'	6.9
Projected to 5,214' :								
5,214' / 4,595.3'	---	76.06	180.6	1'068.3'			12.5'	5.8
Run 7" casing @ 5,198'.								
5,208' / 4,594.6'	---	73.6	180.6		1,062.2'		12.4'	1.1
5,302' / 4,609.8'	---	82.0	178.1		1,123.3'		12.0'	12.8
5,397' / 4,619.6'	---	90.1	179.3		1,248.0'		9.9'	2.6
5,492' / 4,617.2'	---	91.9	179.8		1,343.6'		7.4	3.3
5,619' / 4,612.2'	---	91.9	181.3		1,470.5'		9.5'	2.6
5,715' / 4,611.8'	---	89.6	181.8		1,597.4'		12.6'	0.6
5,810' / 4,617.4'	---	89.8	181.8		1,661.4'		14.7'	1.6
5,905' / 4,612.1'	---	90.5	181.6		1,756.4'		17.5'	0.9
6,000' / 4,611.1'	---	89.2	180.8		1,851.3'		19.5'	4.8
6,095' / 4,613.2'	---	88.4	181.1		1,946.3'		20.9'	0.9
6,191' / 4,614.7'	---	90.8	180.3		2,042.3'		22.4'	4.7
6,318' / 4,616.0'	---	88.8	181.4		2,169.2'		24.2'	1.3
6,413' / 4,616.1'	---	88.8	182.1		2,295.2'		28.0'	5.8
6,507' / 4,619.8'	---	87.8	180.6		2,390.1'		29.5'	1.7
6,602' / 4,620.9'	---	89.3	180.1		2,453.1'		29.9'	0.7
6,697' / 4,621.7'	---	89.3	180.1		2,548.1'		30.3'	0.9
6,792' / 4,623.7'	---	88.2	181.2		2,643.0'		31.1'	1.2
6,888' / 4,675.8'	---	90.0	181.6		2,738.9'		33.8'	2.9

HOLE DEVIATION (7,015' MD - 8.821'MD) Selected Directional / MWD Surveys




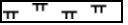






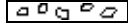







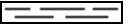

DEPTH / TVD	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
7,015' / 4,625.8'	89.1	180.8		2,866.1'		36.9'	3.1
7,110' / 4,627.8'	89.0	180.1		2,960.9'		37.4'	1.6
7,205' / 4,630.2'	87.8	179.8		3,055.9'		37.5'	1.8
7,301' / 4,633.5'	89.0	181.4		3,151.8'		38.5'	3.2
7,396' / 4,631.3'	92.2	181.6		3,246.7'		41.9'	3.1
7,491' / 4,628.6'	91.4	179.6		3,341.6'		42.5'	0.9
7,618' / 4,627.1'	88.4	177.9		3,468.6'		40.3'	4.1
7,713' / 4,629.4'	89.2	177.8		3,563.5'		37.0'	1.3
7,808' / 4,630.2'	89.8	178.1		3,688.4'		32.9'	0.0
7,902' / 4,631.0'	88.0	177.8		3,752.4'		30.5'	5.6
7,996' / 4,636.9'	85.9	177.6		3,846.1'		25.8'	0.7
8,091' / 4,642.5'	87.7	177.6		3,940.5'		21.5'	2.8
8,186' / 4,645.9'	88.9	178.6		4,035.7'		18.5'	2.8
8,313' / 4,647.0'	89.5	178.8		4,167.6'		15.6'	1.0
8,408' / 4,648.4'	88.9	178.9		4,252.6'		13.3'	1.9
8,503' / 4,649.6'	89.1	179.3		4,352.6'		11.7'	2.0
8,598' / 4,650.7'	89.3	179.1		4,447.6'		10.4'	1.2
8,694' / 4,651.9'	89.1	179.9		4,543.6'		9.7'	0.3
8,789' / 4,653.2'	88.6	180.3		4,638.6'		9.6'	3.4
8,821' / 4,654.0'	88.6	180.1		4,670.5'		9.8'	0.6
Projection to:							
8,869' / 4,655.2'	88.6	180.0		4,718.5'		9.8'	0.2

Calmena Energy Services -- Oklahoma City, Oklahoma
























































BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
SURFACE ---							
16 Oct	12-1/4"	VAREL L-117	3 / 18's	40' / 320'	280'	5.50	50.9
VERTICAL & CURVE ---							
17 Oct	8-3/4"	REED DSX616MD	16 / 14's	320' / 3,700'	3,380'	60.00	56.6
20 Oct	8-3/4"	REED R-22AP	3 / 20's	3,700' / 4,662'	962'	40.50	23.7
22 Oct	8-3/4"	REED R-22AP	3 / 20's	4,662' / 5,214'	552'	17.00	32.5
HORIZONTAL ---							
25 Oct	6-1/8"	SMITH XR40Y0DPS	3 / 20's	5,214' / 5,769'	555'	23.00	24.1
27 Oct	6-1/8"	SMITH XR50Y	3 / 20's	5,769' / 6,530'	761'	24.50	31.1
29 Oct	6-1/8"	HUGHES STX50DX	3 / 20's	6,530' / 7,259'	729'	49.75	14.7
30 Oct	6-1/8"	HUGHES STX50DX	3 / 20's	7,259' / 7,861'	602'	16.50	36.5
1 Nov	6-1/8"	HUGHES F50Y	3 / 20's	7,861' / 8,869'	1,008'	22.50	44.8

ROCK TYPES








	Anhy		Clyst		Gyp		Mrlst		Shcol
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale black		Ss
	Cht		Dol		Meta		Shale		Till

ACCESSORIES

MINERAL		Gyp	FOSSIL		Ostra		Mrst
	Anhy		Hvymin		Pelec		Sltstrg
	Arggrn		Kaol		Pellet		Ssstrg
	Arg		Marl		Pisolite		
	Bent		Minxl		Plant		
	Bit		Nodule		Strom		
	Brecfrag		Phos			TEXTURE	
	Calc		Pyr		Anhy		Boundst
	Carb		Salt		Arg		Chalky
	Chtdk		Sandy		Bent		Cryxln
	Chtlt		Silt		Coal		Earthy
	Dol		Sil		Dol		Finexln
	Feldspar		Sulphur		Gyp		Grainst
	Ferrpel		Tuff		Ls		Lithogr
	Ferr				Dol ls		Microxln
	Glau						Mudst


OTHER SYMBOLS

POROSITY





-  Earthy
-  Fenest
-  Fracture
-  Inter
-  Moldic
-  Organic
-  Pinpoint

-  Vuggy

SORTING

-  Well
-  Moderate
-  Poor

ROUNDING



-  Rounded
-  Subrnd
-  Subang
-  Angular

OIL SHOW

-  Gas

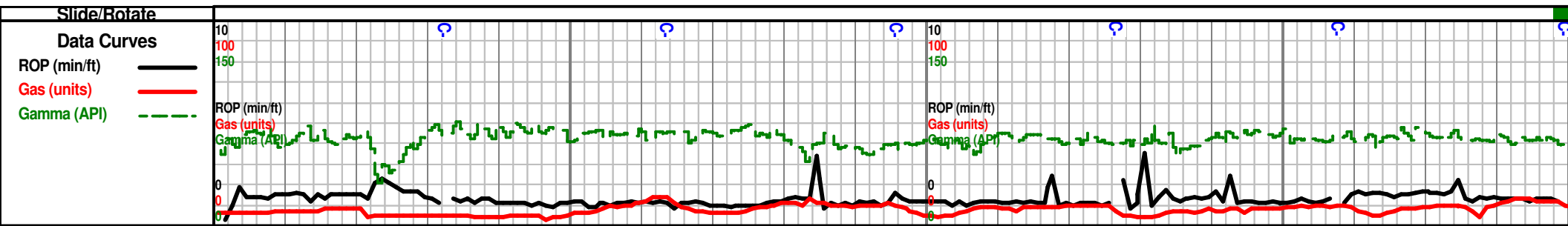
-  Even
-  Spotted
-  Ques
-  Dead

INTERVAL

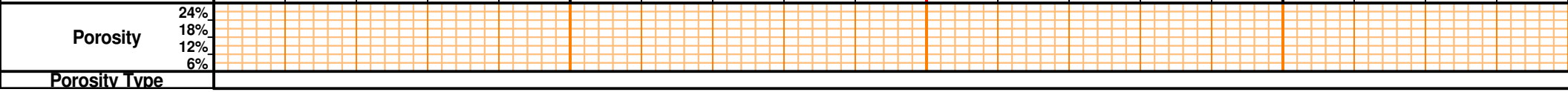
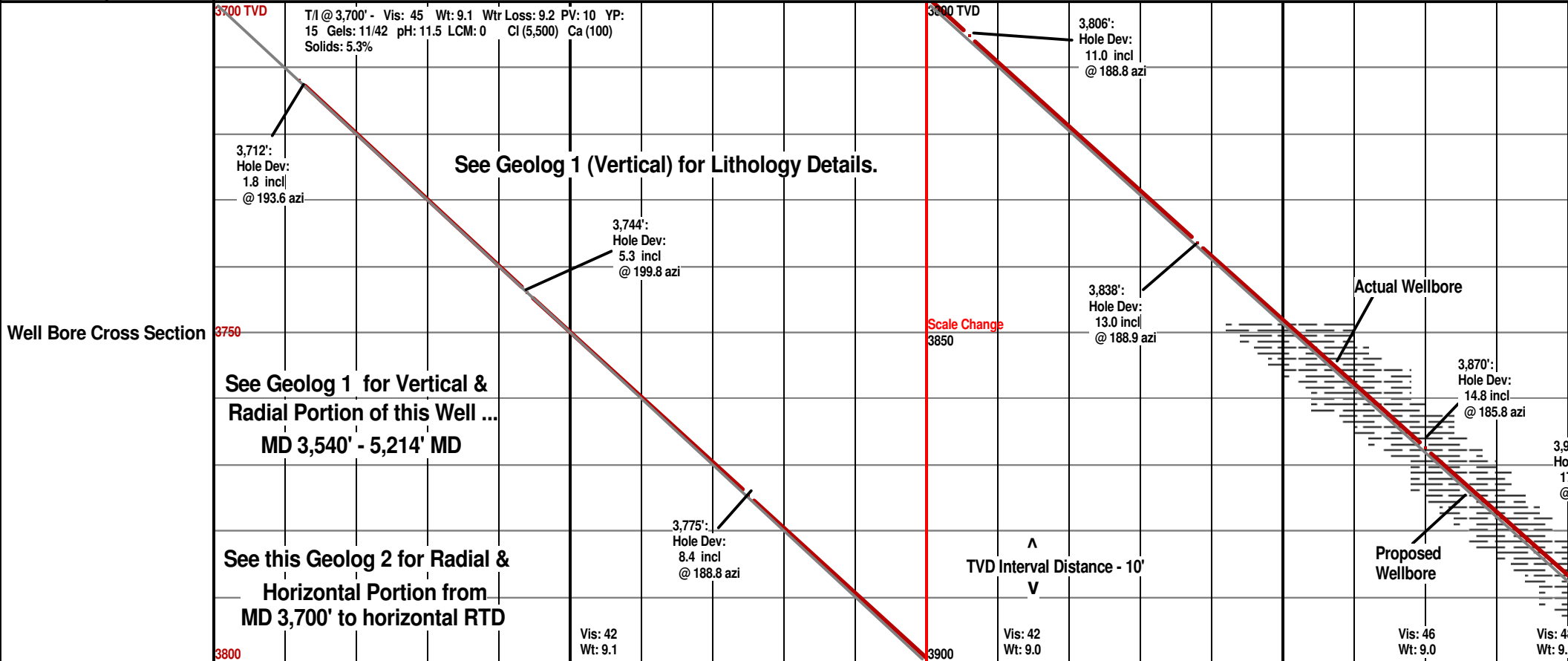
-  Core
-  Dst

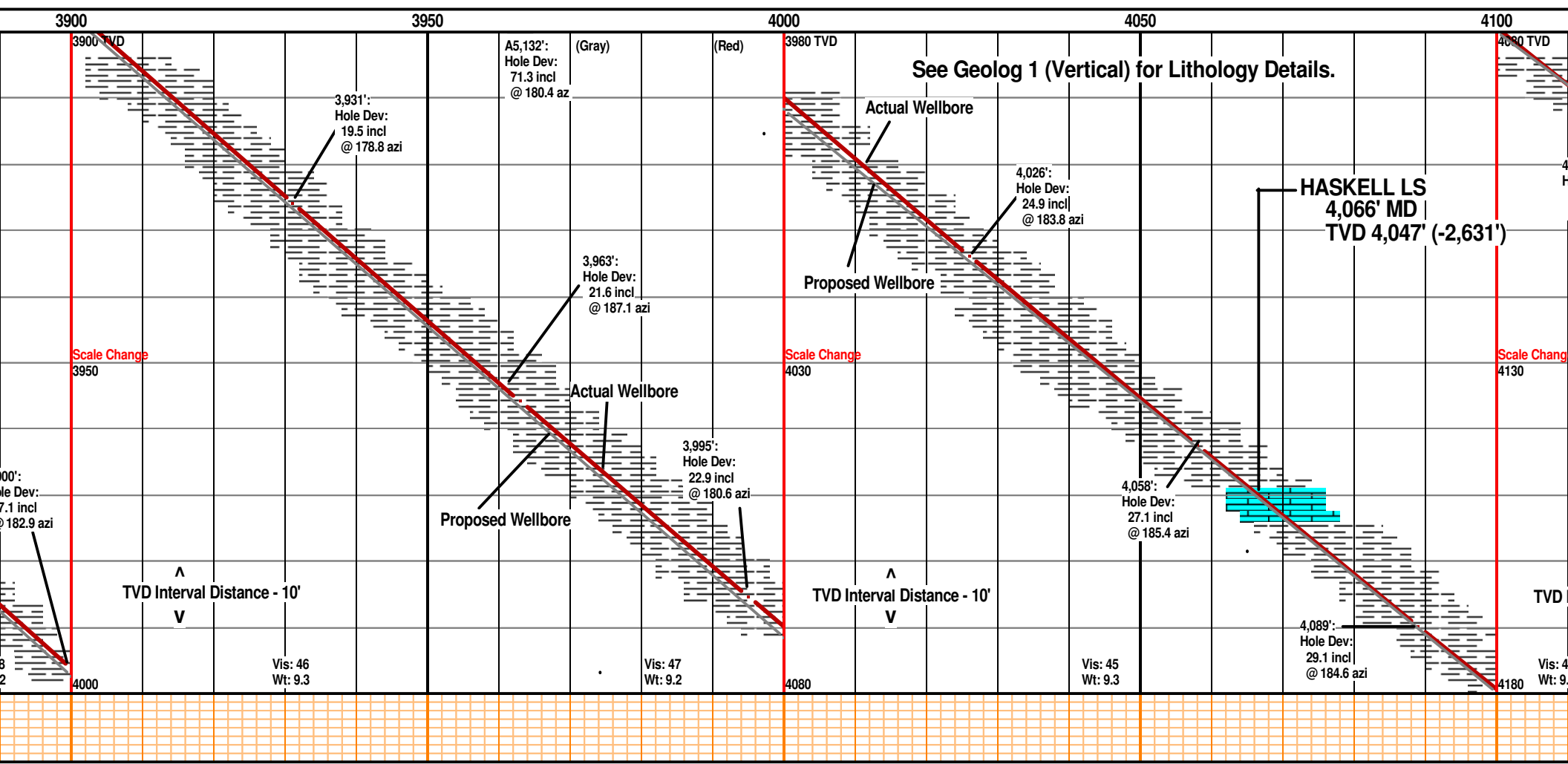
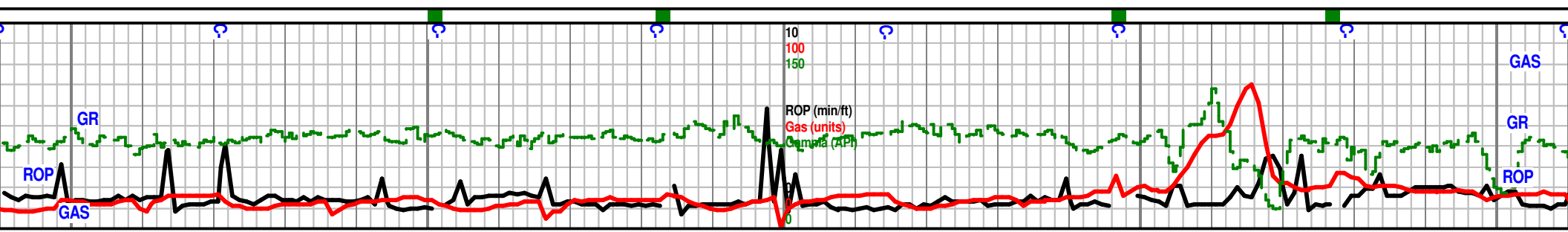
EVENT

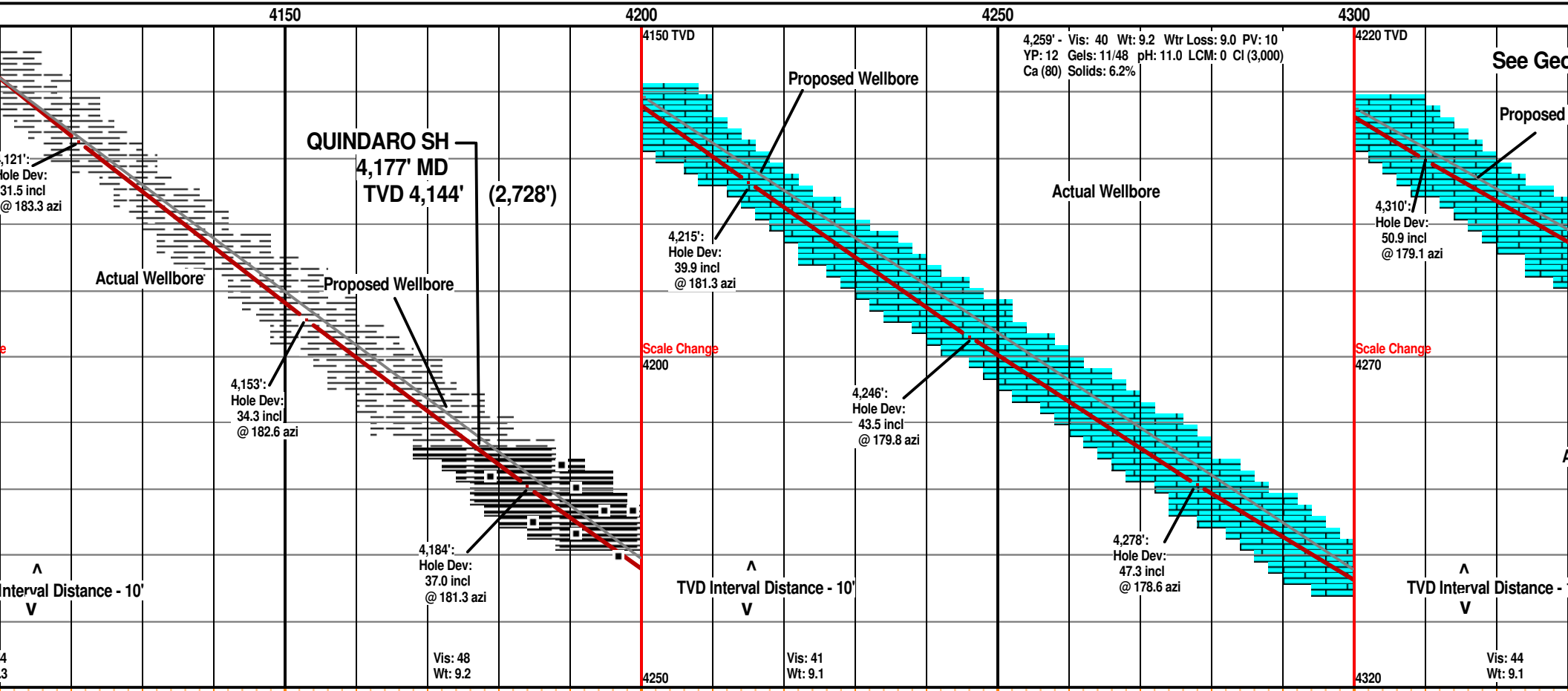
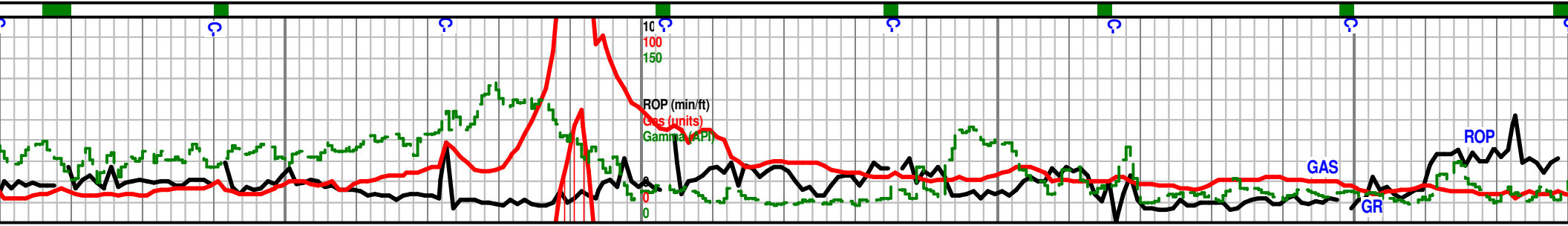
-  Rft
-  Sidewall

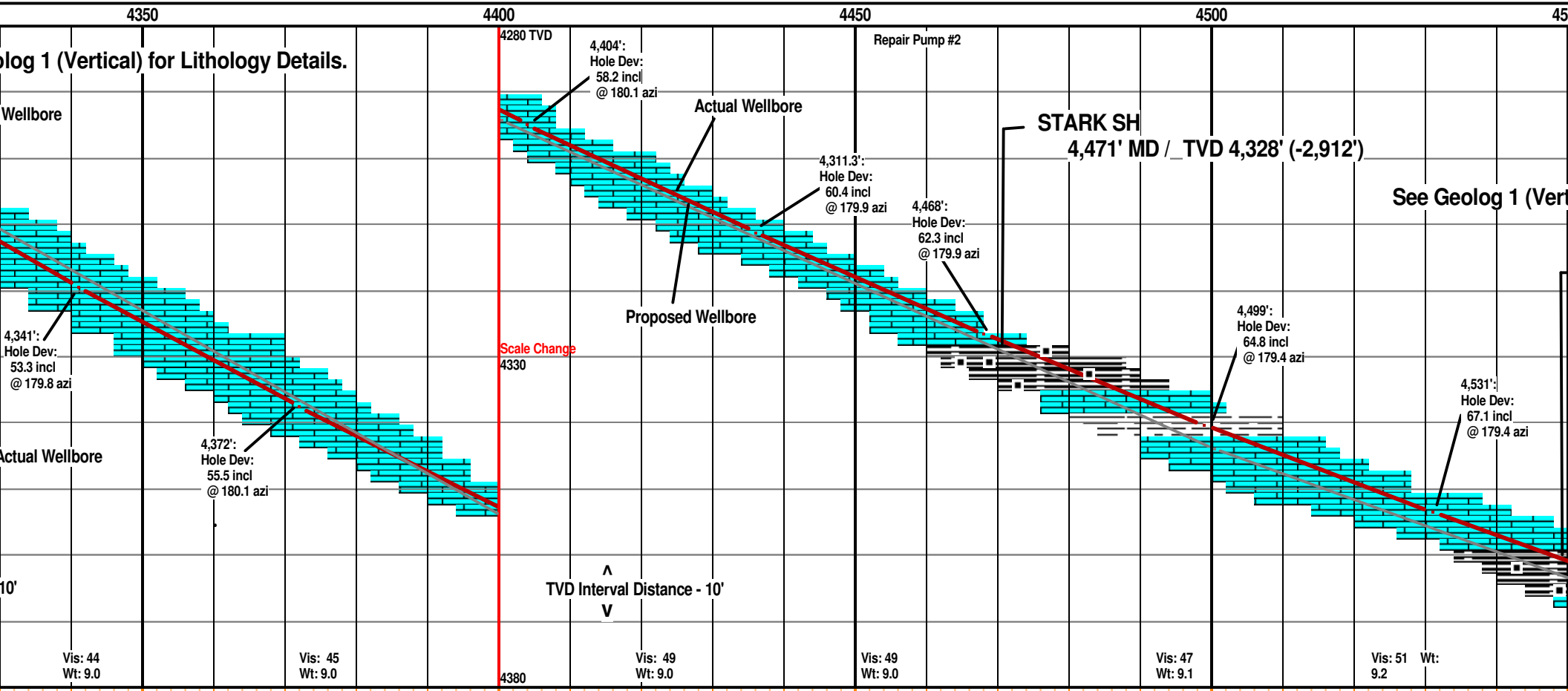
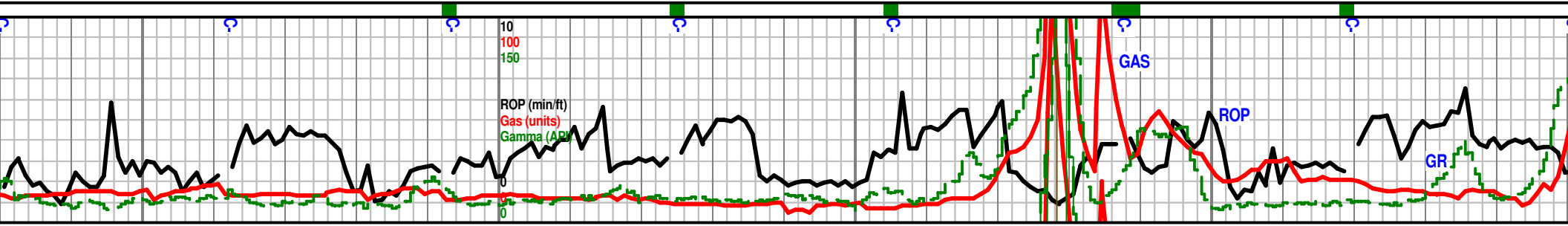


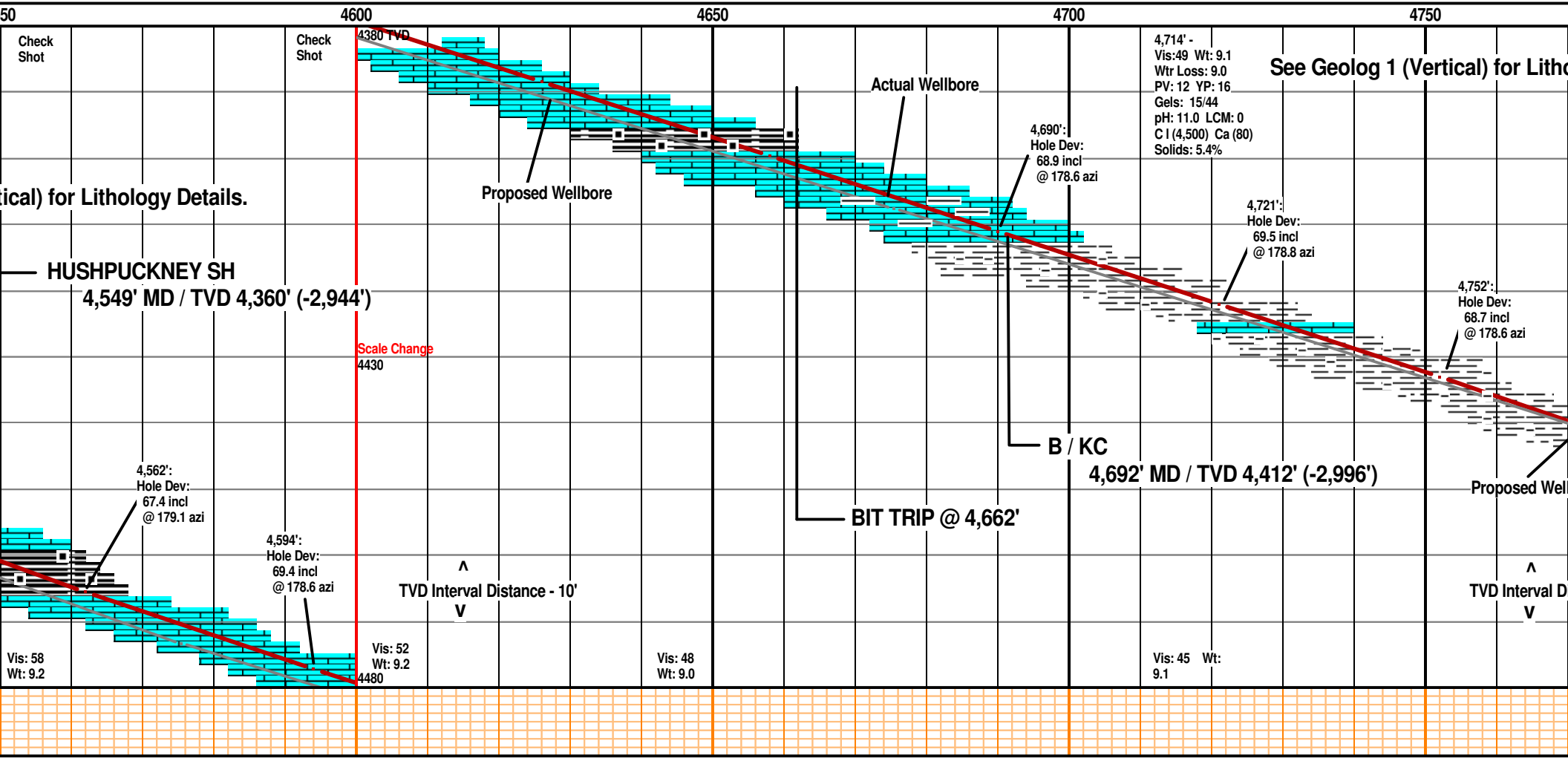
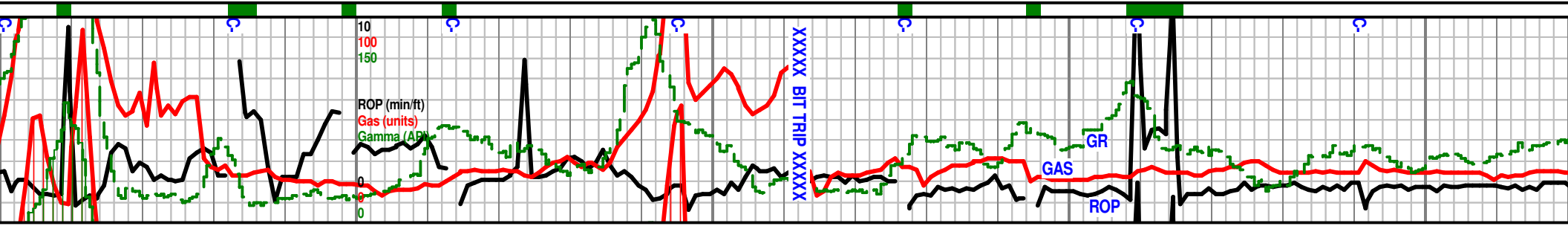
Oil Shows

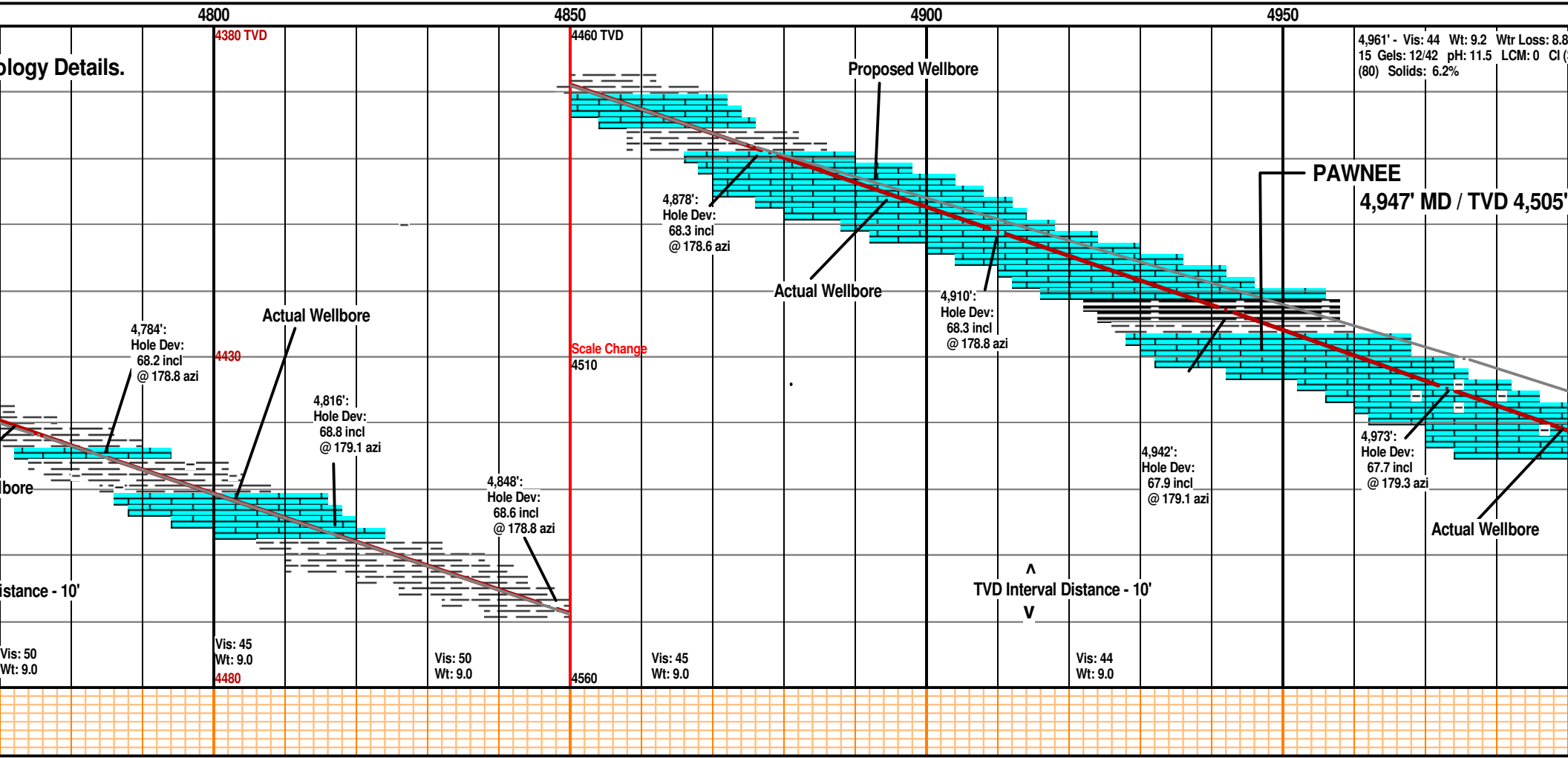
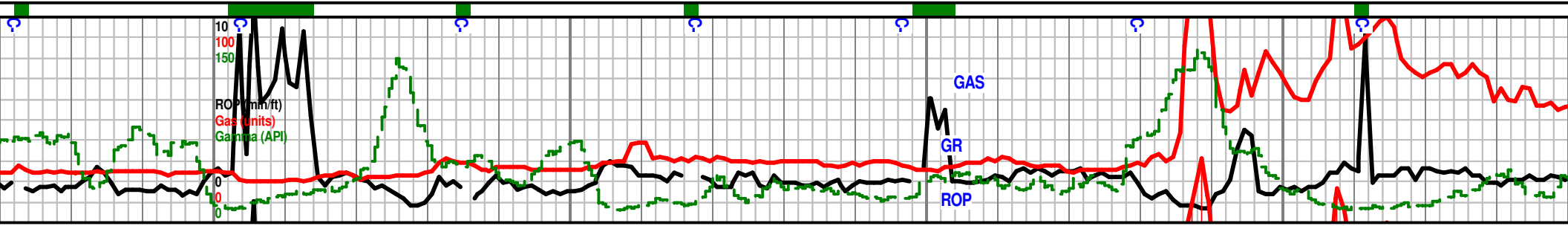


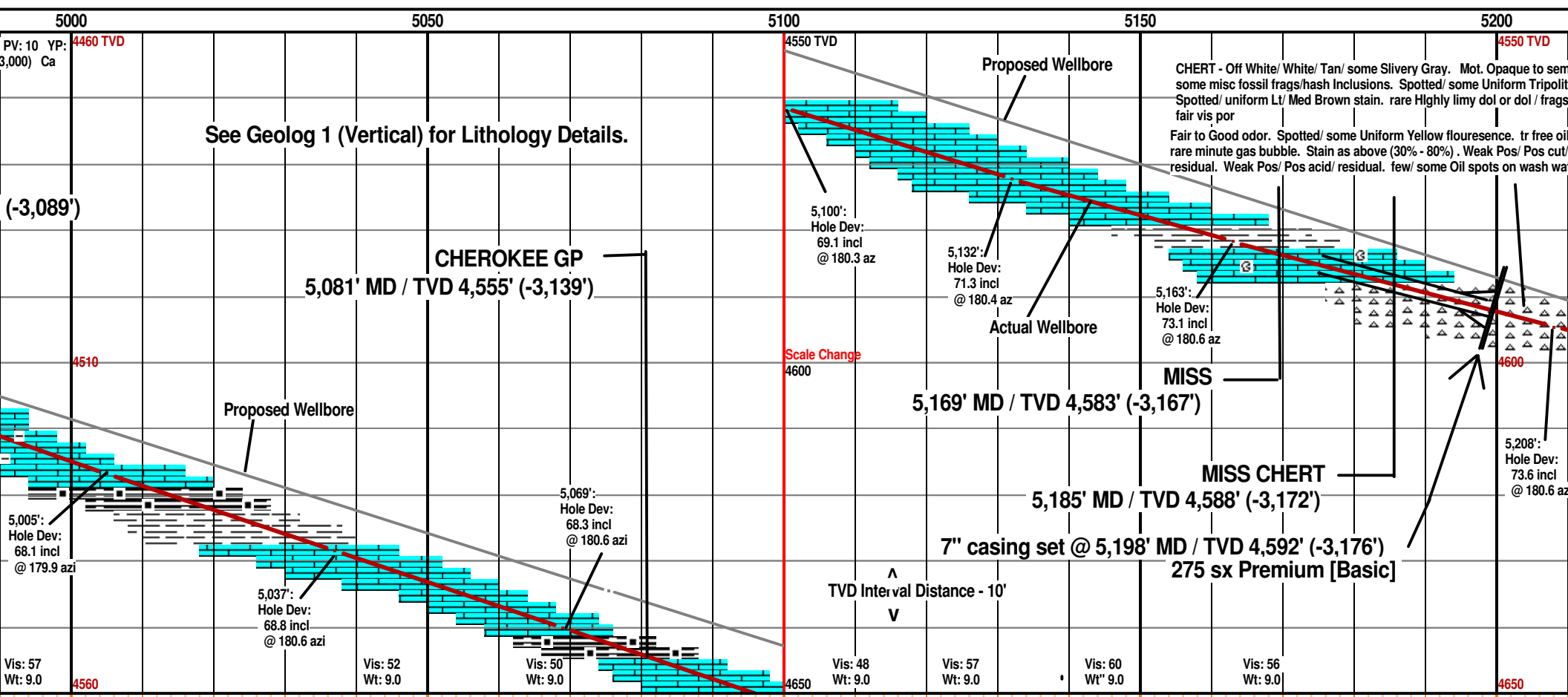
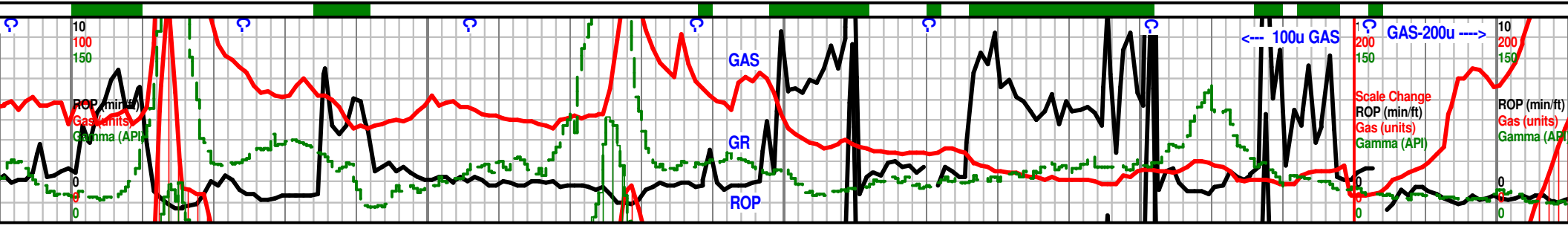


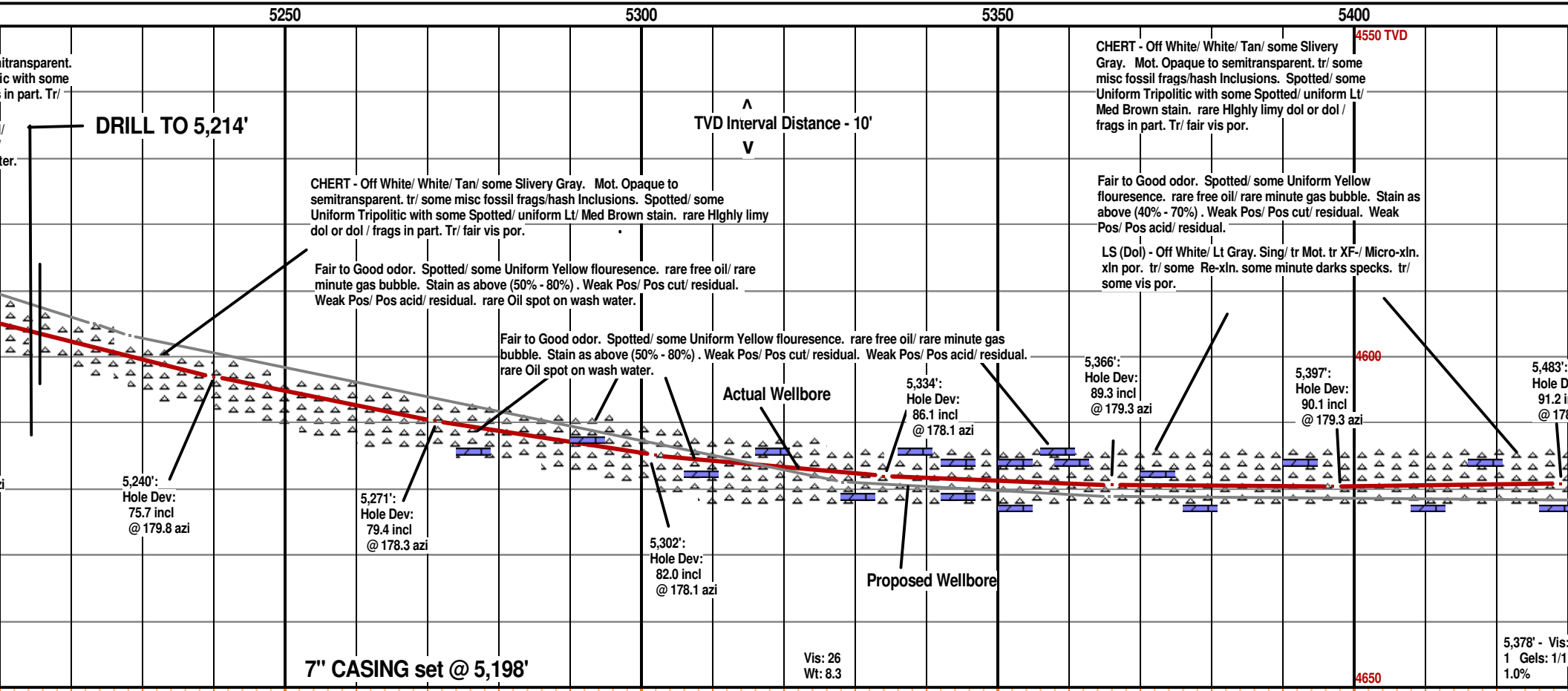
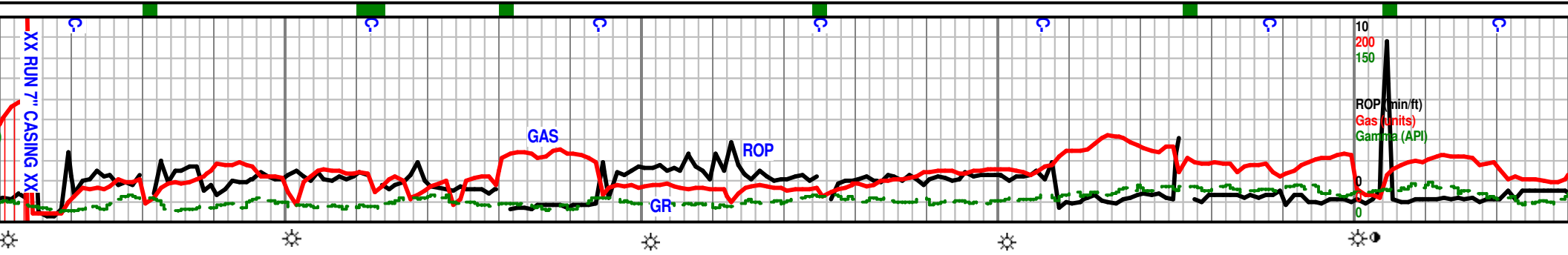


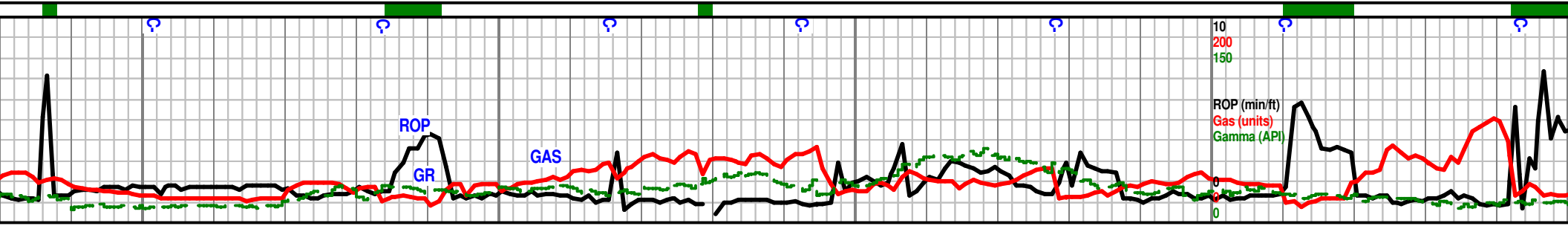








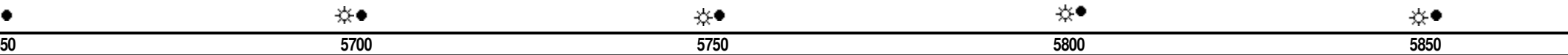
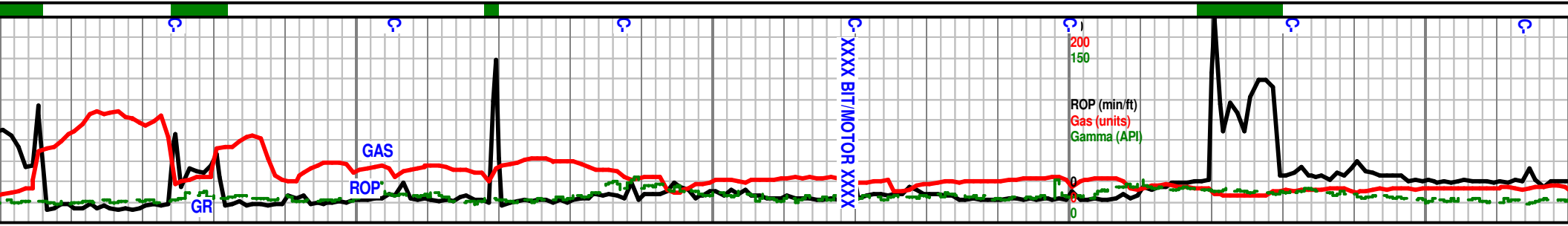




5450 5500 5550 5600 5650

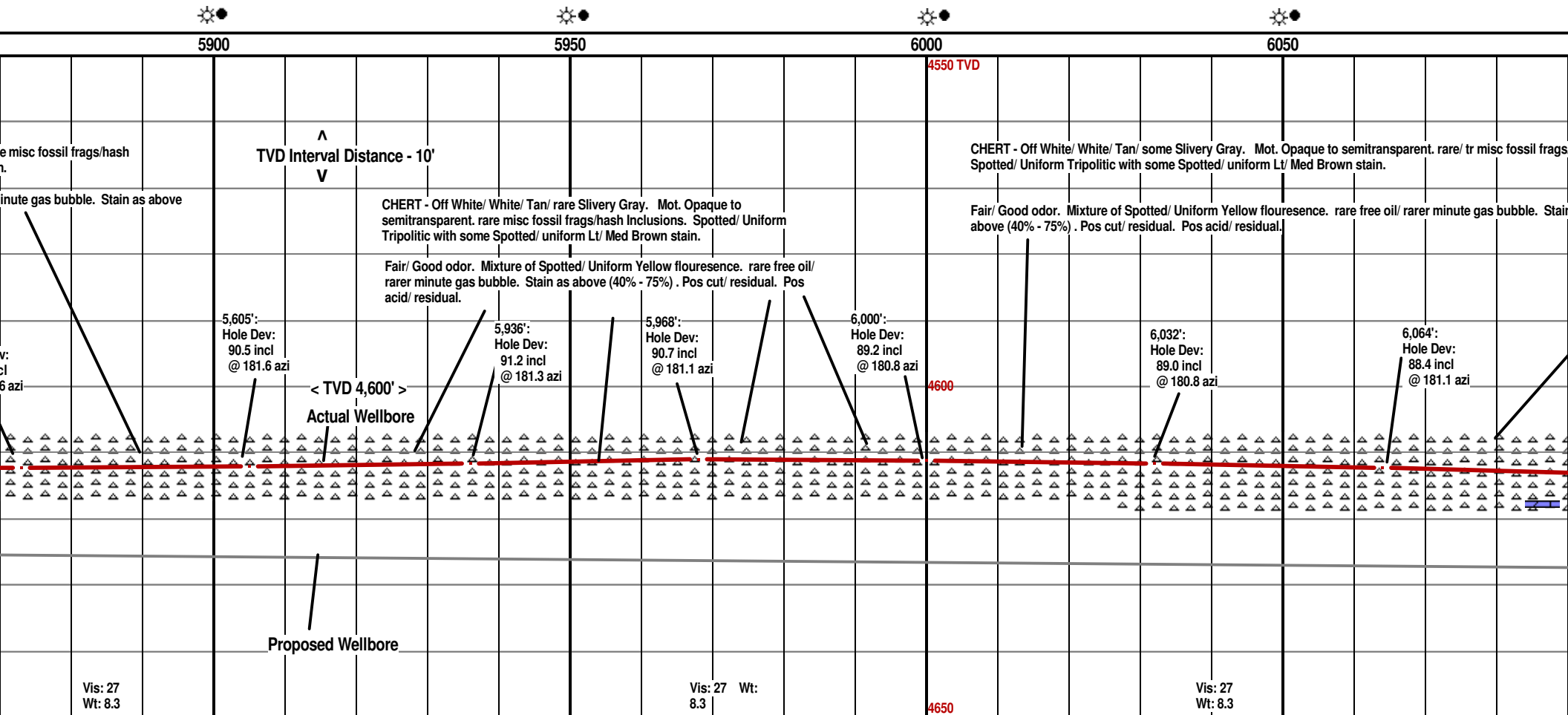
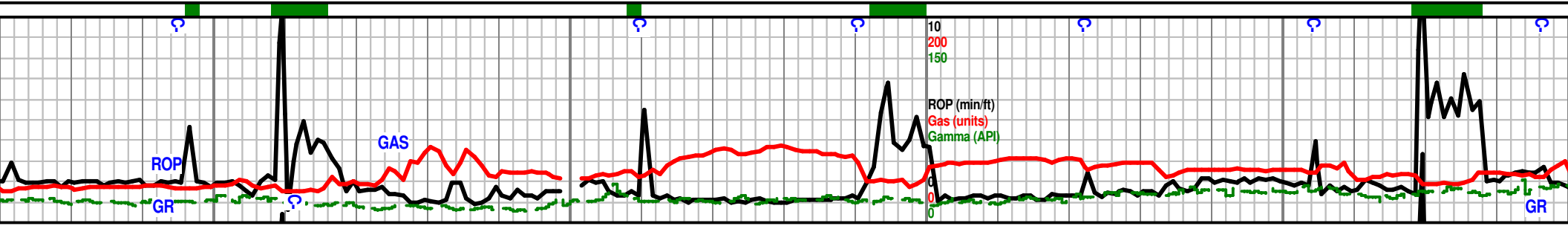
<p>^ TVD Interval Distance - 10' v</p>									
<p>CHERT - Off White/ White/ Tan/ some Silvery Gray. Mot. Opaque to semitransparent. tr/ some misc fossil frags/hash Inclusions. Spotted/ some Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain. rare Highly limy dol or dol / frags in part. Tr/ fair vis por.</p>					<p>CHERT - Off White/ White/ Tan/ some Silvery Gray. Mot. Opaque to semitransparent. tr/ some misc fossil frags/hash Inclusions. Spotted/ some Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.</p>				
<p>No / ? odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (60% - 90%) . Weak Pos/ Pos cut/ residual. Weak Pos/ Pos acid/ residual.</p>					<p>No / ? odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (70% - 90%) . Weak Pos/ Pos cut/ residual. Weak Pos/ Pos acid/ residual.</p>				
<p>Actual Wellbore</p>									
<p>Proposed Wellbore</p>									
<p>5,461': Hole Dev: 90.2 incl @ 178.8 azi</p>									
<p>5,492': Hole Dev: 91.9 incl @ 179.8 azi</p>									
<p>< TVD 4,600' ></p>									
<p>5,524': Hole Dev: 92.3 incl @ 180.3 azi</p>									
<p>5,556': Hole Dev: 92.4 incl @ 181.3 azi</p>									
<p>5,588': Hole Dev: 92.5 incl @ 181.4 azi</p>									
<p>5,619': Hole Dev: 91.7 incl @ 181.3 azi</p>									
<p>4550 TVD</p>									
<p>4600</p>									
<p>4650</p>									
<p>25 Wt: 8.3 Wtr Loss: NC PV: 1 YP: pH: 7.0 Cl (800) Ca (320) Solids:</p>					<p>Vis: 26 Wt: 8.2</p>				
					<p>Vis: 27 Wt: 8.3</p>				
					<p>Vis: 27 Wt: 8.3</p>				





Depth (MD)	Actual Wellbore	Proposed Wellbore
5769'	BIT TRIP @ 5,769' MD	
5769'	CFS @ 5,769': 60"	
5769'	TVD Interval Distance - 10'	
5769'	CHERT - Off White/ White/ Tan/ some Silvery Gray. Mot. Opaque to semitransparent. tr/ some misc fossil frags/hash Inclusions. Spotted/ Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.	CHERT - Off White/ White/ Tan/ rare Silvery Gray. Mot. Opaque to semitransparent. rare Inclusions. Spotted/ Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.
5769'	Fair/ Good odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (70% - 90%) . Pos cut/ residual. Pos acid/ residual.	Fair/ Good odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer m (40% - 70%) . Pos cut/ residual. Pos acid/ residual.
5,651': Hole Dev: 90.3 incl @ 181.3 azi		
5,683': Hole Dev: 89.9 incl @ 181.3 azi		
5,715': Hole Dev: 89.8 incl @ 181.8 azi		
5,746': Hole Dev: 89.6 incl @ 181.8 azi		
5,778': Hole Dev: 89.3 incl @ 181.9 azi		
5,809': Hole Dev: 89.8 incl @ 181.8 azi		
5,841': Hole Dev: 90.2 incl @ 181.8 azi		
5,873': Hole Dev: 90.2 incl @ 181.8 azi		
5,823'	Vis: 26 Wt: 8.3 Wtr Loss: NC PV: 1 YP: 1 Gels: 1/1 pH: 7.0 LCM: 0 Cl (700) Ca (240) Solids: 1.0%	





10
200
150

ROP (min/ft)
Gas (units)
Gamma (API)

5900

5950

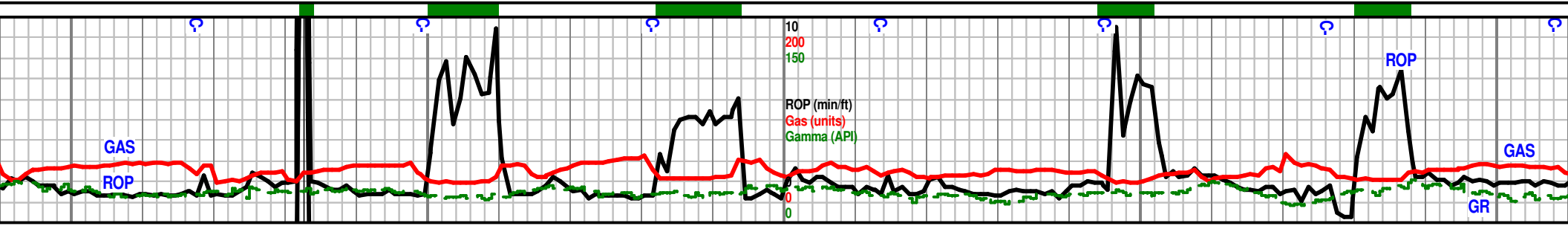
6000

6050

4550 TVD

4600

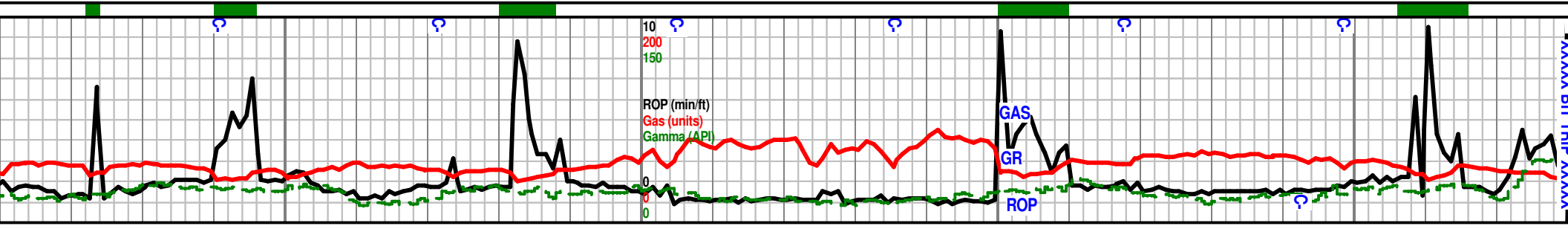
4650



6100 6150 6200 6250 6300

<p>hash Inclusions. TVD Interval Distance - 10'</p> <p>CHERT - Off White/ White/ Tan/ some Silvery Gray. Mot. Opaque to semitransparent. rare/ tr misc fossil frags/hash Inclusions. Spotted/ Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.</p> <p>Fair/ Good odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (40% - 75%). Pos cut/ residual. Pos acid/ residual.</p> <p>LS (DoI) - Off White/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr/ some Re-xln. some minute darks specks. tr/ some vis por.</p>										<p>CHERT - Off White/ White/ Tan/ some Silvery Gray. Mot. Opaque to semitransparent. rare/ tr misc fossil frags/hash Inclusions. Spotted/ uniform Lt/ Med Brown stain.</p> <p>Fair odor. Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (60% - 80%). Pos cut/ residual. Pos acid/ residual.</p>										<p>CHERT - C Inclusions. TVD</p> <p>Fair odor. Pos cut/ residual.</p>																																																	
<p>6,095': Hole Dev: 88.4 incl @ 181.1 azi</p>										<p>6,127': Hole Dev: 88.3 incl @ 181.1 azi</p>										<p>6,159': Hole Dev: 89.4 incl @ 180.8 azi</p>										<p>6,191': Hole Dev: 90.8 incl @ 180.3 azi</p>										<p>6,222': Hole Dev: 89.8 incl @ 180.3 azi</p>										<p>6,254': Hole Dev: 88.9 incl @ 181.1 azi</p>										<p>6,286': Hole Dev: 89.2 incl @ 181.1 azi</p>									
<p>< TVD 4,600' ></p>										<p>4550 TVD</p>										<p>4600</p>										<p>4650</p>										<p>4650</p>										<p>4650</p>																			
<p>Actual Wellbore</p>										<p>Proposed Wellbore</p>										<p>Actual Wellbore</p>										<p>Proposed Wellbore</p>										<p>Actual Wellbore</p>										<p>Proposed Wellbore</p>																			
<p>Vis: 27</p>										<p>Wt: 8.3</p>																																																											

Vis: 27
Wt: 8.3



6350	6400	6450	6500
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Interval Distance - 10' TVD Interval Distance - 10'

Clear/ Off White/ White/ Tan/ some rare Silvery Gray. Mot. Opaque to semitransparent. rare/ tr misc fossil frags/hash inclusions. Spotted/ Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

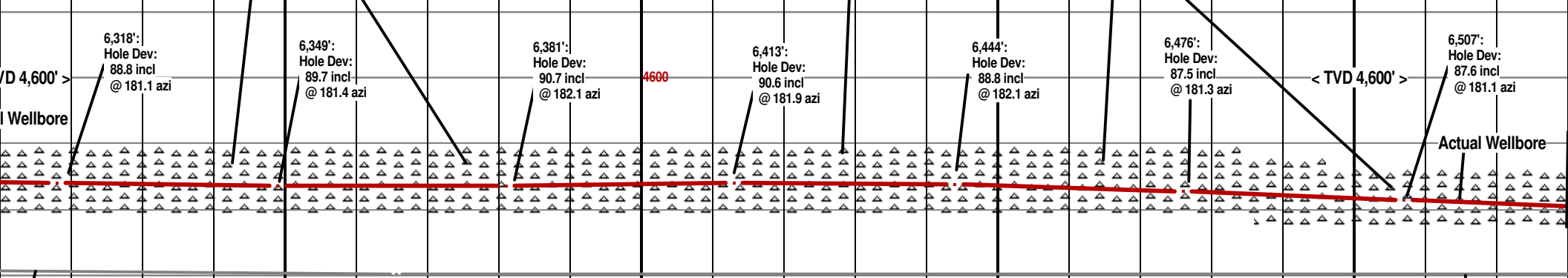
CHERT - Clear/ Off White/ White/ Tan. Mot. Opaque to semitransparent. rare/ tr misc fossil frags/hash inclusions. Spotted/ Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

Mixture of Spotted/ Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (30% - 60%) residual. Pos acid/ residual.

Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (30% - 50%) . Pos cut/ residual. Pos acid/ residual.

BIT TRIP @ 6,530' MD

CFS @ 6,530': 60"

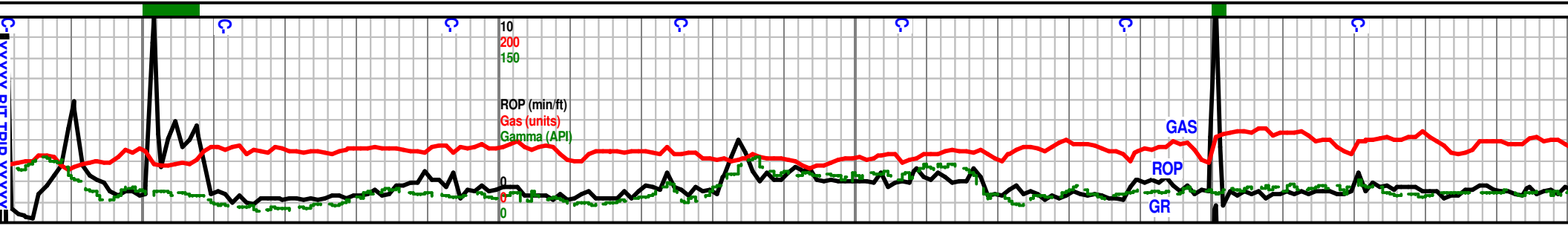


Proposed Wellbore	Proposed Wellbore	Actual Wellbore	Proposed Wellbore
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6,337' - Vis: 27 Wt: 8.3 Wtr Loss: NC PV: 1
Yp: 1 Gels: 1/1 pH: 7.0 LCM: 0 Cl (800) Ca
(360) Solids: 1.0%

Vis: 25
Wt: 8.3

Vis: 28
Wt: 8.3



6550

6600

6650

6700

67

CHERT - Clear/ Off White/ White/ Tan. Mot. Opaque to semitransparent. rare misc fossil frags/hash Inclusions. Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ rarer minute gas bubble. Stain as above (30% - 50%) . Pos cut/ residual. Pos acid/ residual.

LS (Dol) - Off White/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr/ some Re-xln. some minute darks specks. tr/ some vis por.

CHERT - Clear/ Off White/ White/ Tan. Mot. Opaque to semitransparent. rare misc fossil frags/h some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil. Stain as above (20% - 50%) . Pos cut/ residual. Pos acid/ residual.

few pcs: LS (Dol) - Off White/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr/ some Re-xln. some vis por.

^
TVD Interval Distance - 10'
v

6,539':
Hole Dev:
87.8 incl
@ 180.6 azi

6,571':
Hole Dev:
89.4 incl
@ 180.6 azi

6,602':
Hole Dev:
89.3 incl
@ 180.1 azi

6,634':
Hole Dev:
89.8 incl
@ 180.3 azi

6,666':
Hole Dev:
89.5 incl
@ 180.3 azi

6,697':
Hole Dev:
89.3 incl
@ 180.1 azi

6,729':
Hole Dev:
89.1 incl
@ 180.1 azi

< TVD 4,600' >

Actual Wellbore

Proposed Wellbore

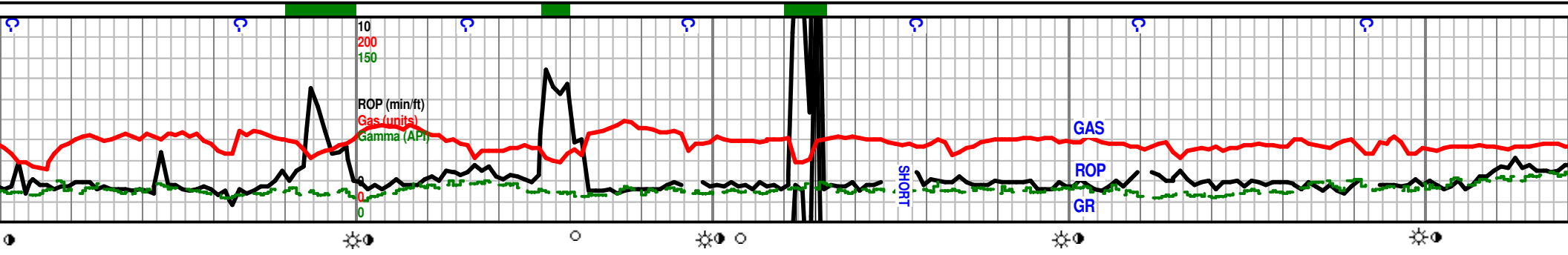
6,625' - Vis: 25 Wt: 8.3 Wtr Loss: NC PV: 1
YP: 1 Gels: 1/1 pH: 7.0 LCM: 0 Cl (600) Ca
(360) Solids: 1.0%

Vis: 28
Wt: 8.3

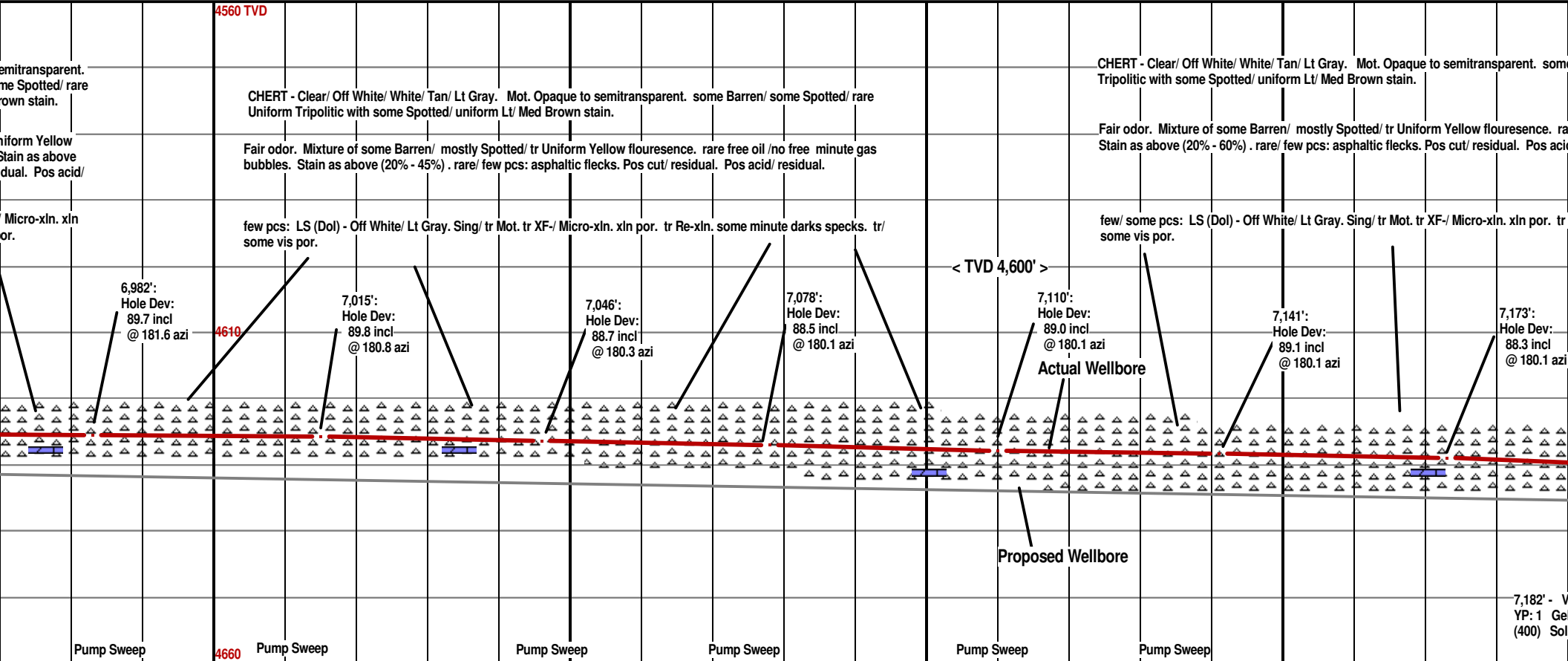
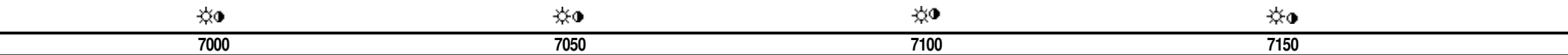
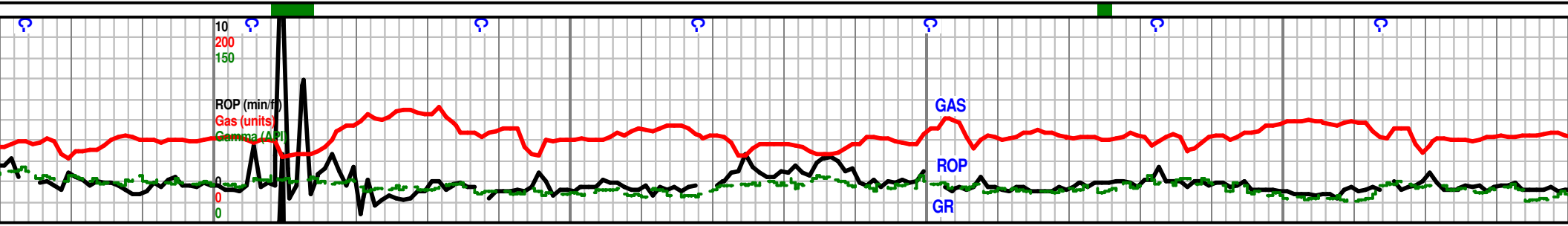
4550 TVD

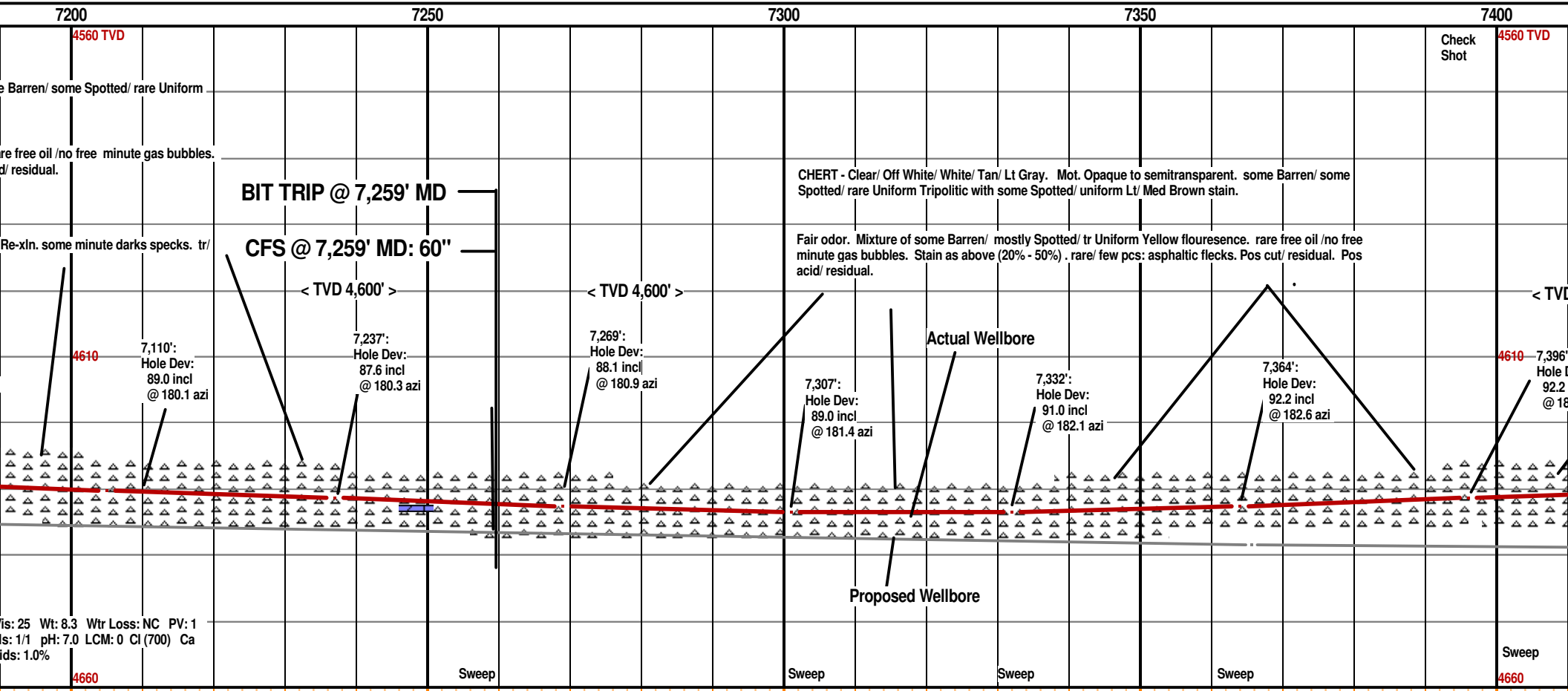
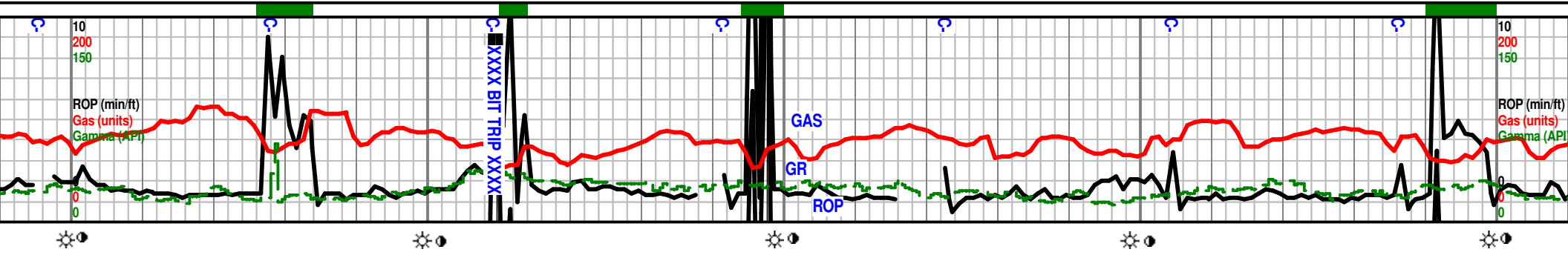
4600

4650

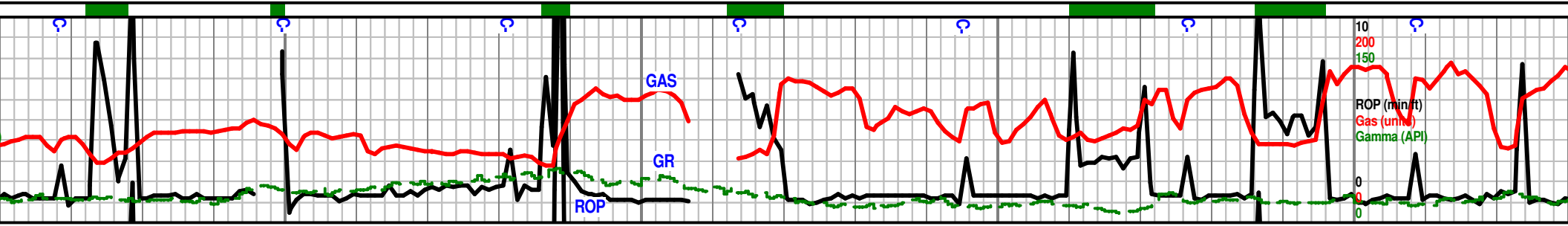


6850	6880	6900	6950
4550 TVD		4560 TVD	
<p>CHERT - Clear/ Off White/ White/ Tan. Mot. Opaque to semitransparent. rare misc fossil frags/hash Inclusions. some Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.</p> <p>Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ no free minute gas bubbles. Stain as above (20% - 50%) . rare/ few pcs: asphaltic flecks. Pos cut/ residual. Pos acid/ residual.</p> <p>few pcs: LS (Do) - Off White/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr/ some Re-xln. some minute darks specks. tr/ some vis por.</p>		<p>CHERT - Clear/ Off White/ White/ Tan. Mot. Opaque to semitransparent. rare misc fossil frags/hash Inclusions. some Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.</p> <p>Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ no free minute gas bubbles. Stain as above (20% - 50%) . rare/ few pcs: asphaltic flecks. Pos cut/ residual.</p> <p>few pcs: LS (Do) - Off White/ Lt Gray. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr/ some Re-xln. some minute darks specks. tr/ some vis por.</p>	
6,761': Hole Dev: 88.4 incl @ 180.8 azi	6,792': Hole Dev: 88.2 incl @ 181.1 azi	6,824': Hole Dev: 88.8 incl @ 181.4 azi	6,856': Hole Dev: 89.2 incl @ 182.1 azi
		6,888': Hole Dev: 90.0 incl @ 181.6 azi	6,919': Hole Dev: 90.0 incl @ 181.3 azi
			6,951': Hole Dev: 90.2 incl @ 181.6 azi
		Scale Change 4610	
			Actual Wellbore
			Proposed Wellbore
		Pump Sweep	Pump Sweep
		4660	





is: 25 Wt: 8.3 Wtr Loss: NC PV: 1
 is: 1/1 pH: 7.0 LCM: 0 Cl (700) Ca
 ids: 1.0%



7450

7500

7550

7600

CHERT - Clear/ Off White/ White/ Tan/ Lt Gray. Mot. Opaque to semitransparent. some Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

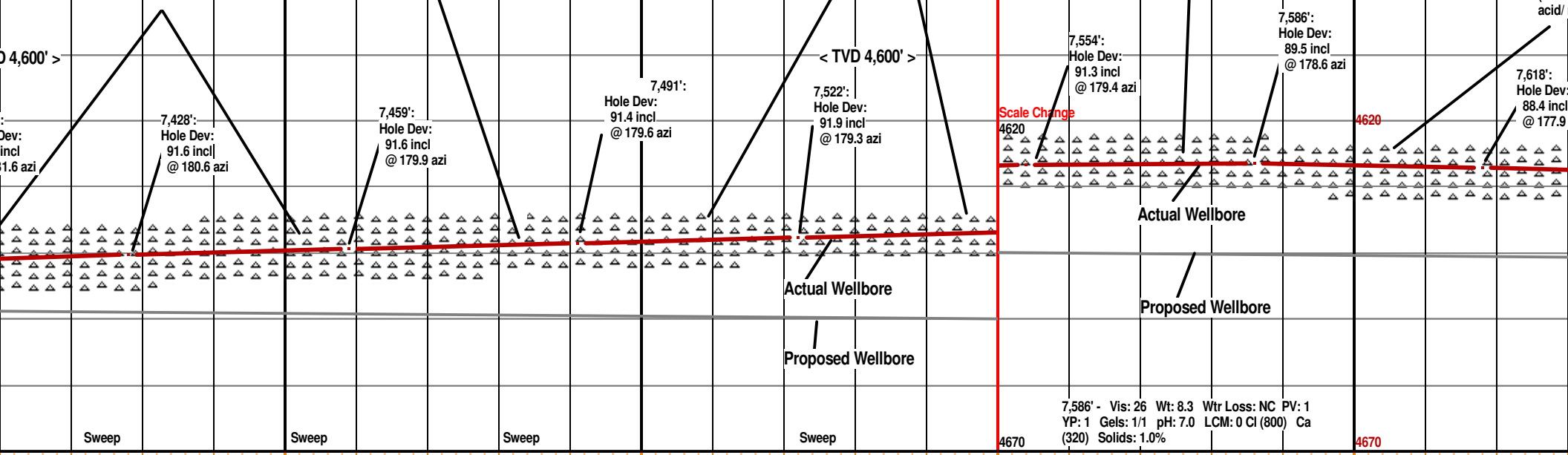
Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ no free minute gas bubbles. Stain as above (40% - 70%) . rare/ few pcs: asphaltic flecks. Pos cut/ residual. Pos acid/ residual.

CHERT - Clear/ Off White/ White/ Tan/ Lt Gray. Mot. Opaque to semitransparent. some Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.

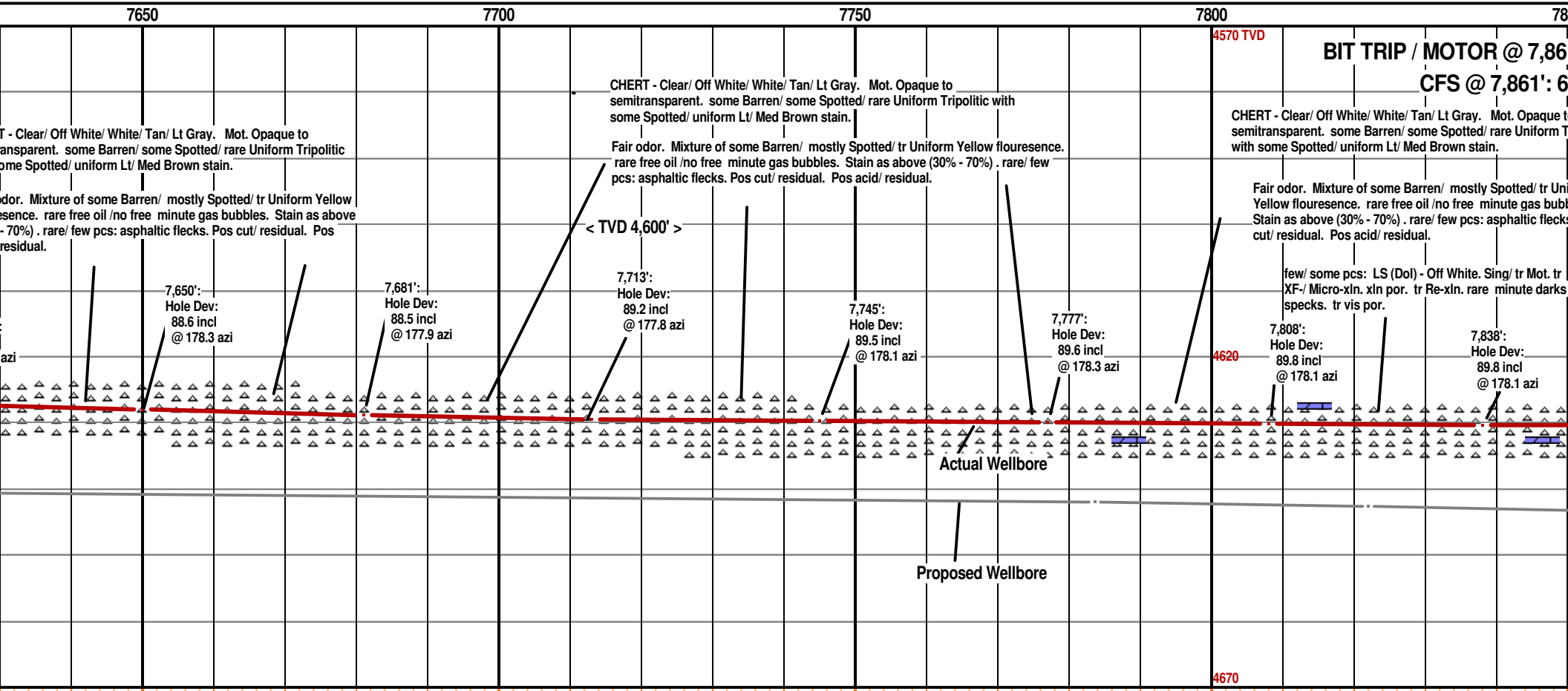
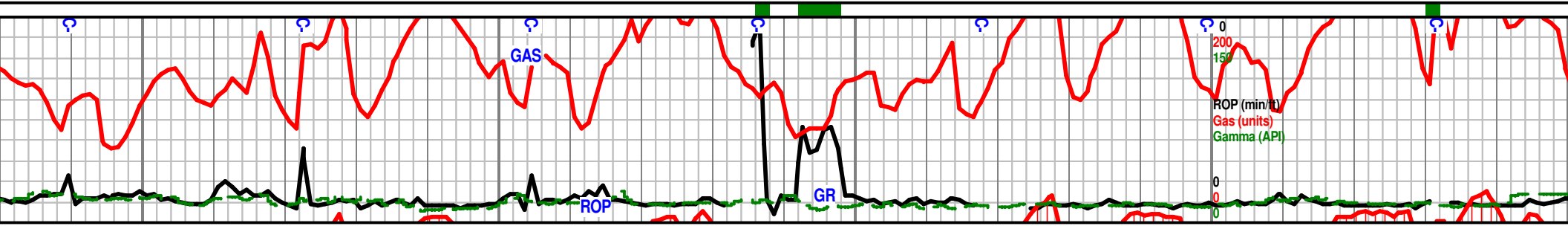
Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare free oil/ no free minute gas bubbles. Stain as above (40% - 80%) . rare/ few pcs: asphaltic flecks. Pos cut/ residual. Pos acid/ residual.

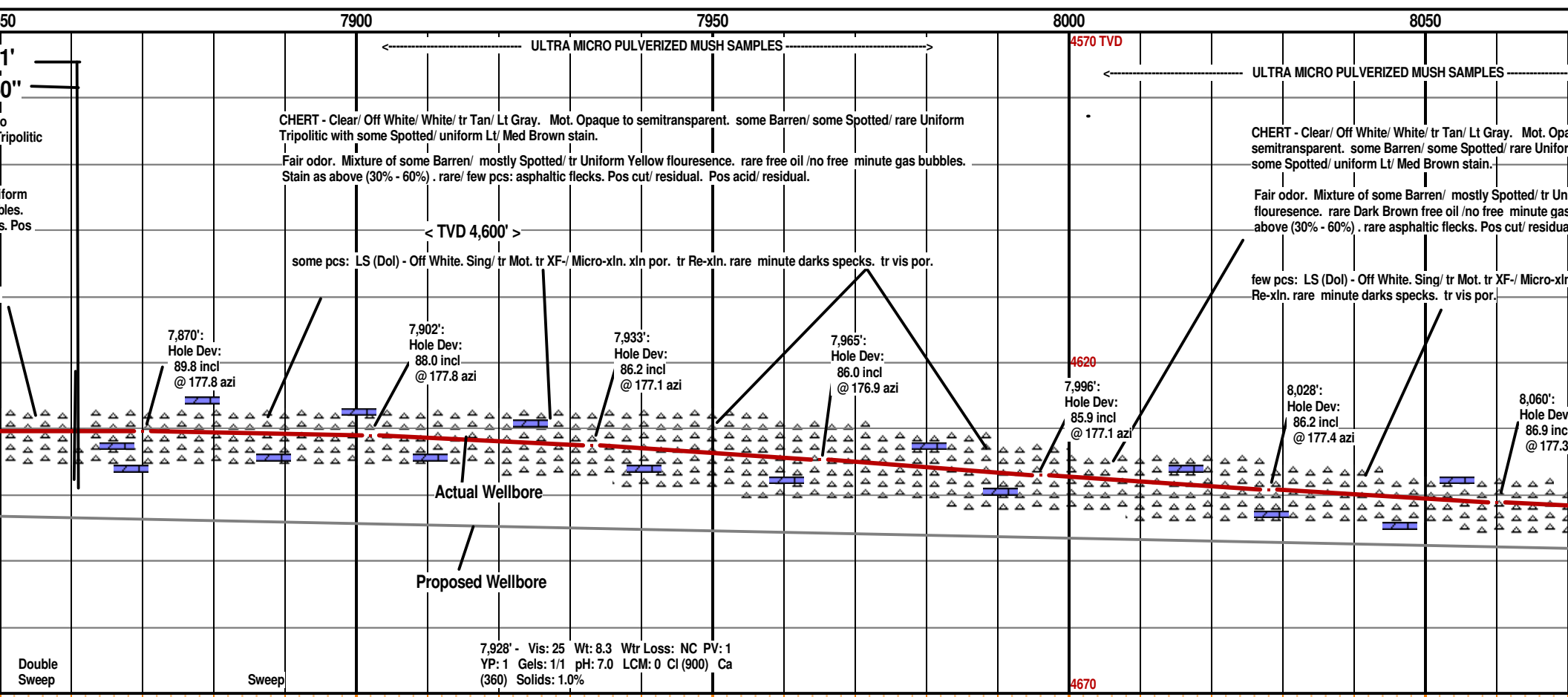
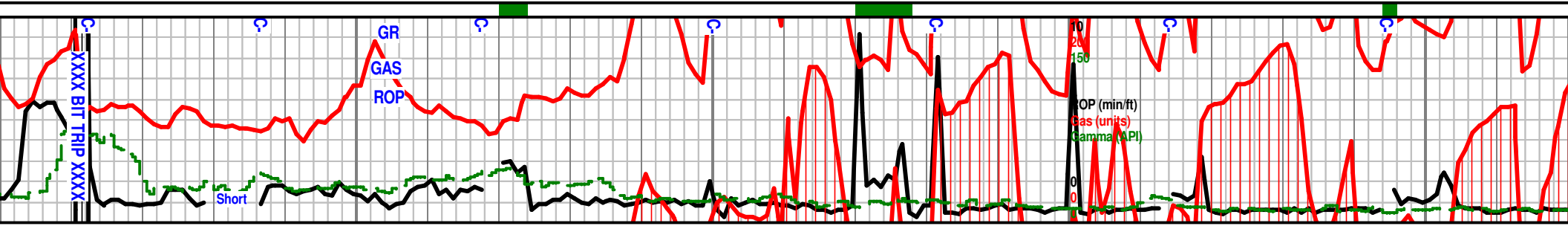
CHERT semitr with s

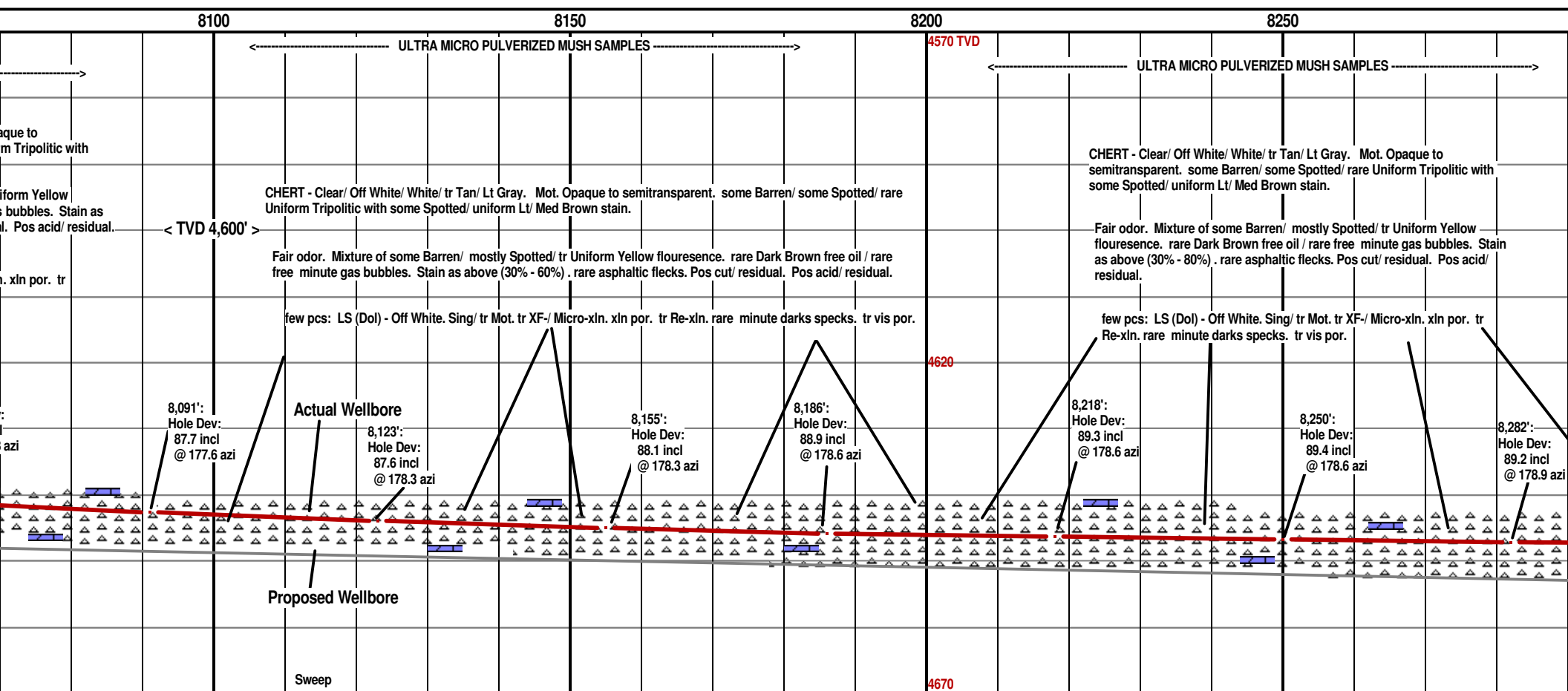
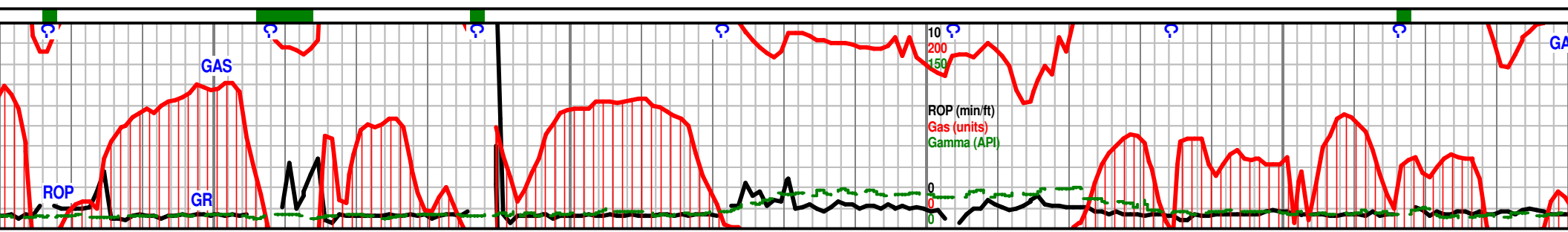
Fair o floure (40% acid/

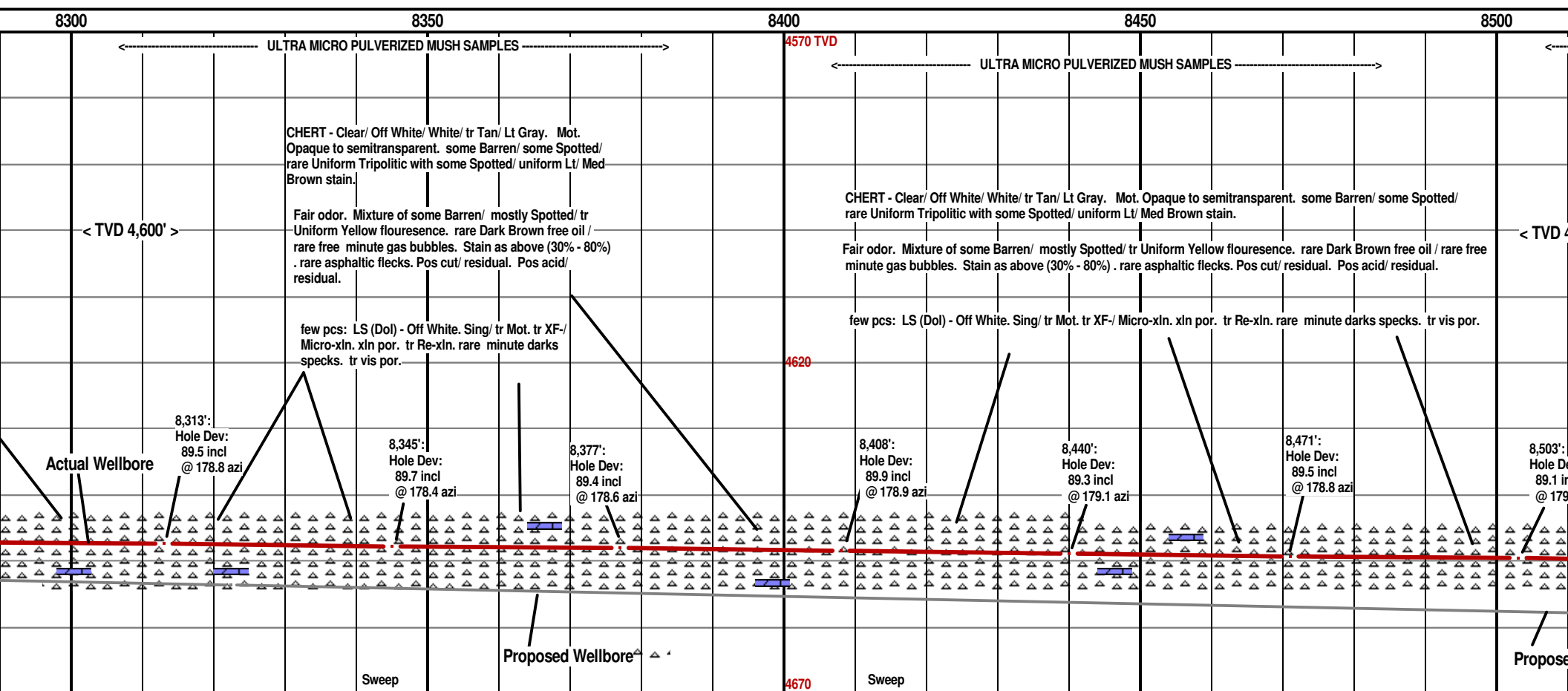
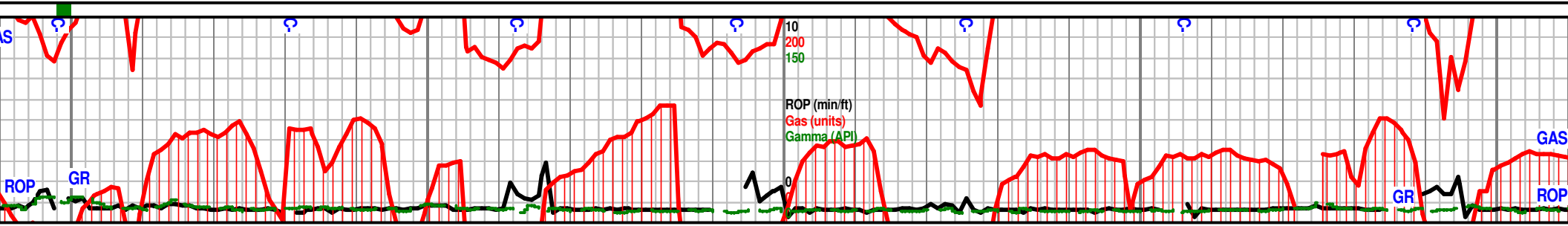


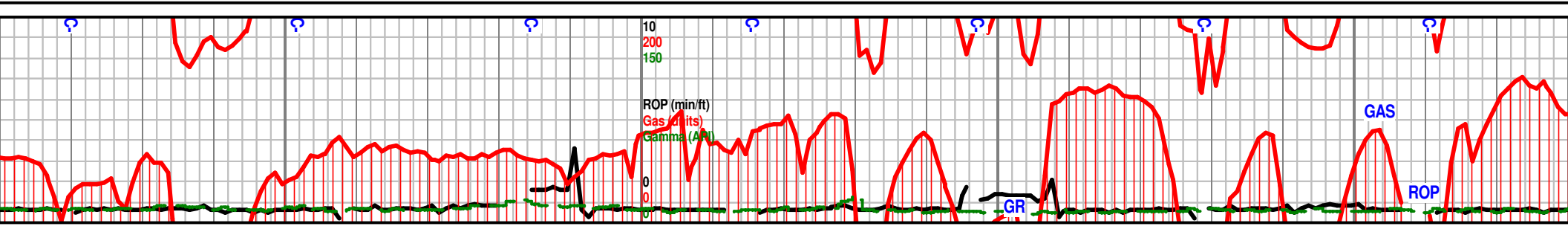
7,586' - Vis: 26 Wt: 8.3 Wtr Loss: NC PV: 1
 YP: 1 Gels: 1/1 pH: 7.0 LCM: 0 Cl (800) Ca
 (320) Solids: 1.0%





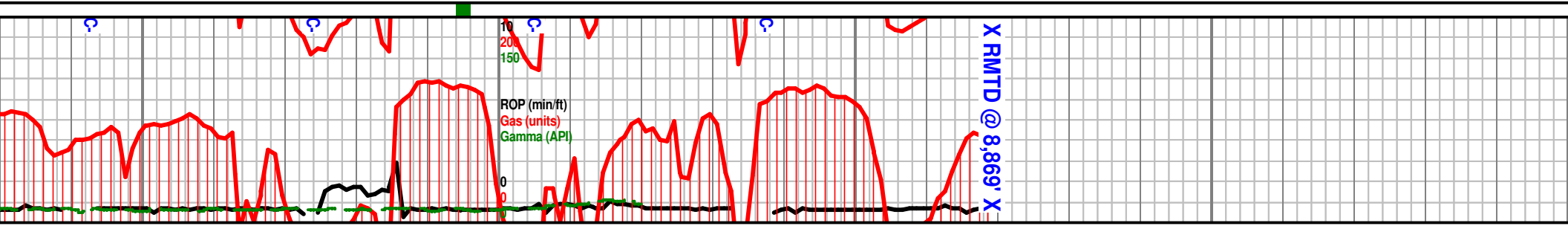






8550	8600	8650	8700
ULTRA MICRO PULVERIZED MUSH SAMPLES		ULTRA MICRO PULVERIZED MUSH SAMPLES	
CHERT - Clear/ Off White/ White/ tr Tan/ Lt Gray. Mot. Opaque to semitransparent. some Barren/ some Spotted/ rare Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.		CHERT - Clear/ Off White/ White/ tr Tan/ Lt Gray. Mot. Opaque to semitransparent. some Barren/ some Spotted/ some Uniform Tripolitic with some Spotted/ uniform Lt/ Med Brown stain.	
Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare Dark Brown free oil / rare free minute gas bubbles. Stain as above (40% - 80%) . rare asphaltic flecks. Pos cut/ residual. Pos acid/ residual.		Fair odor. Mixture of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare Dark Brown free oil / rare free minute gas bubbles. Stain as above (40% - 80%) . rare asphaltic flecks. Pos cut/ residual. Pos acid/ residual.	
few pcs: LS (Dol) - Off White. Sing/ tr Mot. tr XF/ Micro-xln. xln por. tr Re-xln. rare minute darks specks. tr vis por.		few pcs: LS (Dol) - Off White. Sing/ tr Mot. tr XF/ Micro-xln. xln por. tr Re-xln. rare minute darks specks. tr vis por.	
8,535': Hole Dev: 89.3 incl @ 179.1 azi	8,567': Hole Dev: 89.6 incl @ 179.3 azi	8,598': Hole Dev: 89.3 incl @ 179.1 azi	8,630': Hole Dev: 89.5 incl @ 179.4 azi
8,662': Hole Dev: 89.0 incl @ 179.9 azi	8,694': Hole Dev: 89.1 incl @ 179.9 azi	8,725': Hole Dev: 89.3 incl @ 179.9 azi	
Actual Wellbore	Actual Wellbore	Actual Wellbore	Actual Wellbore
		Proposed Wellbore	





8750 8800 8850 8900 89

RA MICRO PULVERIZED MUSH SAMPLES

4570 TVD
ULTRA MICRO PULVERIZED MUSH SAMPLES

8,869' - Vis: 25 Wt: 8.3 Wtr Loss: NC PV: 1
YP: 1 Gels: 1/1 pH: 7.0 LCM: 0 Cl (1,300) Ca
(480) Solids: 1.0%

See Geolog 1 for Vertical & Radial
Portion (3,540' - 5,214' MD) of this Well

See this Geolog 2 for Radial & Horizontal
Portion from 3,700' MD to horizontal RTD.

White/ White/ tr Tan/ Lt Gray. Mot. Opaque to semitransparent. some Barren/ some Spotted/ some Uniform
e Spotted/ uniform Lt/ Med Brown stain.

Projected to 8,869' --
TVD 4,655.2'
88.6 inclination
180.0 azimuth

RMTD @ 8,869'

of some Barren/ mostly Spotted/ tr Uniform Yellow fluorescence. rare Dark Brown free oil / rare free minute
as above (40% - 88%) . rare asphaltic flecks. Pos cut/ residual. Pos acid/ residual.

TUCKER B #5-H
250' FNL & 425' FEL 11 - T34S -R11W
Barber County, Kansas

Off White. Sing/ tr Mot. tr XF-/ Micro-xln. xln por. tr Re-xln. rare minute darks specks. tr vis por.

Horizontal RTD (8,869'MD) reported to be
4,968.5' FNL & 434.8' FEL of surface coordinates.

8,757':
Hole Dev:
89.6 incl
@ 179.9 azi

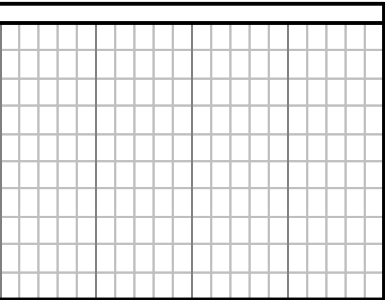
8,789':
Hole Dev:
88.6 incl
@ 180.3 azi

8,821':
Hole Dev:
88.6 incl
@ 180.1 azi

Actual
Wellbore

WOOLSEY OPERATING COMPANY
Wichita, Kansas

4670 Proposed Wellbore



50

Geolog 2

**Geologist:
Curtis Covey
COVEY - The Well Watchers
Well Number: 1,126B**

