KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1053577

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2:
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 34127
Name: Tomcat Drilling LLC
Wellsite Geologist: CURTIS COVEY
Purchaser: n/a

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [x] SWD Permit #: D-30,773
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

12/05/2010	12/22/2010	01/25/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-21719-00-00
Spot Description:
NE - NE - NE - NE Sec. 23 Twp. 34 S. R. 9 [ ] East [x] West
250 Feet from [x] North / [ ] South Line of Section
200 Feet from [x] East / [ ] West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- [x] NE
- [ ] NW
- [ ] SE
- [ ] SW

County: Harper
Lease Name: HIBBARD Well #: 1 SWD
Field Name: HIBBARD
Producing Formation: n/a
Elevation: Ground: 1289 Kelly Bushing: 1300
Total Depth: 6268 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 245 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 20000 ppm Fluid volume: 1800 bbls
Dewatering method used: Evaporated

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

- [ ] **Letter of Confidentiality Received**
  Date:
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [x] **UIC Distribution**

ALT [x] **I** [ ] **II** [ ] **III** **Approved by:** Deanna Garrisor **Date:** 10/10/2011

Side Two

1053577

Operator Name: Woolsey Operating Company, LLC Lease Name: HIBBARD Well #: 1 SWD

Sec. 23 Twp. 34 S. R. 9 ☐ East ☑ West County: Harper

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Compact Photo Density Compensated Neutron
Array Induction Shallow Focused
Micro Resistivity

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
VIOLA	4967	-3667
SIMPSON	5032	-3732
ARBUCKLE	5228	-3928

CASING RECORD ☑ New ☐ 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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
		5000 GAL 28% HCL ACID	5290-6262 OPEN HOLE

TUBING RECORD: Size: 4.5 Set At: 5254 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 1/31/2011

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☑ Other *(Explain)* OPEN HOLE SWD

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☑ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	HIBBARD 1 SWD
Doc ID	1053577

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Tyep and Percent Additives
CONDUCTOR	30	20	53	43	GROUT	5	(5 yds not 5 sx)
SURFACE	17.25	13.375	54	245	CLASS A	300	2% gel, 3% cc
PRODUCTION	9.625	7	23	5295	60/40 POZ	50	4% gel, 1/4# Celoflake
PRODUCTION	9.625	7	23	5295	CLASS H	150	10% salt, 10% Gypseal, 6# Kolseal, 1/4# Celoflake, .8% fluid loss

P.O. # ____

BIG BUCKETS RATHOLE DRILLING

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

№ 4549

ORDERED BY Mike Sharp

Date 11/30/10

Bill To Woolsey Oper. LLC

Lease Hibbard #1-SWD

Address

Legal Sec 23-34S-9W

County Harper KS

Rig Tomcat Drlg #2

DESCRIPTION	AMOUNT
Furnish Men & Equipment To drill rat, mouse holes cellar & 43 ft. of 30" hole - remove dirt from loc.	
Materials Furnished 43 ft. of 20" pipe - 4½ yds of 8 sk grout. Welder & Materials - 5' of 60" steel cellar form. Mud trk w/ drlg mud	$6425 00
Total	$6425 00

Operator Paul Wood

Approved By

ALLIED CEMENTING CO., LLC. 041423

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Medicine Lodge

DATE 12-5-10	SEC. 23	TWP. 34 S	RANGE 9W	CALLED OUT 3:30 PM	ON LOCATION 6:00 PM	JOB START 10:30 PM	JOB FINISH 11:15 PM
LEASE Hibbard	WELL # SWD #1		LOCATION Corwin Rd South to Gas plant + 2 East + 1/4 W			COUNTY Harper	STATE Kansas
OLD OR NEW (Circle one)							

CONTRACTOR Tom-Cat
TYPE OF JOB Surface
HOLE SIZE 17 1/2 T.D.
CASING SIZE 13 3/8 DEPTH 256
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 500 MINIMUM —
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 36 1/2 Bbls Freshwater

OWNER Woolsey Operating

CEMENT

AMOUNT ORDERED 300 sx Class A+3%cc+2%gel

EQUIPMENT

PUMP TRUCK #360-265 CEMENTER Carl Baldwin
HELPER Raymond R.
BULK TRUCK # 364 DRIVER Raymond
BULK TRUCK # DRIVER

REMARKS:

Run 256' 13 3/8 Casing
Break circulation.
Mix 300 sx A 3+2
Displace with 36 1/2 Bbls water
leave 20' Cement in pipe
+ Shut in.
Cement Did circulate

COMMON	Class A 300	@ 15.45	4,635
POZMIX		@	
GEL	8 sx	@ 20.80	124.80
CHLORIDE	10 sx	@ 58.20	582.00
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	306 sx	@ 2.40	758.40
MILEAGE	306 x 25 x .10		796.00
		TOTAL	6,890.20

SERVICE

DEPTH OF JOB	256'		
PUMP TRUCK CHARGE			1,018
EXTRA FOOTAGE		@	
MILEAGE	25	@ 7.00	175.00
MANIFOLD		@	
		@	
		@	
		TOTAL	1,193.00

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
	TOTAL	

SALES TAX (If Any)
TOTAL CHARGES [redacted]
DISCOUNT [redacted] IF PAID IN 30 DAYS
[redacted]

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME MIKE THARP

SIGNATURE

ALLIED CEMENTING CO., LLC. 040599

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Medicine Lodge KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
12-24-2023	23	34S	9W	12-23 6:30 pm	12-23 8:00 pm	7:30 AM	8:30 AM
LEASE Hibbard SWD	WELL # 1		LOCATION Hwy 2 & Corwin Rd, 6 south to Old Gas Plant, 2E 9S2, 3/4 North			COUNTY Harper	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Tomcat #2
TYPE OF JOB Production
HOLE SIZE 9 5/8 T.D. 6268'
CASING SIZE 7" DEPTH 5295'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42'
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 206 bbls of fresh water

OWNER Woolsey Operating

EQUIPMENT

PUMP TRUCK # 352 CEMENTER Darin F
HELPER Dave F / Ron C
BULK TRUCK # 381-252 DRIVER Raymond R
BULK TRUCK # DRIVER

REMARKS:

Pipe on bottom & break Circulation mix 25sx for Rathole, mix 10sx for mousehole, mix 50sx for Surface Cement, mix 150sx of H Cement, Shut down, Wash pump & lines, Release plug Start displacement, Lift pressure @ 180 bbls, Slow rate to 3 bpm @ 190 bbls, Bump plug @ 206 bbls 700-1400 psi, float did hold

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

CEMENT

AMOUNT ORDERED 85sx 60:40:4% Gel
150sx Class H + 10% Gyp + 10% Salt
6# Kolseal, + .8% FL-160 + 1/4# Floseal

COMMON A	51 sx	@ 15.45	787.95
POZMIX	34 sx	@ 8.00	272.00
GEL	3 sx	@ 20.80	62.40
CHLORIDE		@	
ASC		@	
Class H	150 sx	@ 16.75	2512.50
Gypseal	14 sx	@ 29.20	408.80
Salt	16 sx	@ 12.00	192.00
Kolseal	900 #	@ .89	801.00
FL-160	113 #	@ 13.30	1502.90
Floseal	375 #	@ 2.50	937.50
		@	
		@	
HANDLING	290	@ 2.40	696.00
MILEAGE	290/.25/.10		725.00
		TOTAL	8898.05

SERVICE

DEPTH OF JOB 5295'
PUMP TRUCK CHARGE 2185.00
EXTRA FOOTAGE @
MILEAGE 25 @ 7.00 175.00
MANIFOLD @
Headrental @
@
TOTAL 2360.00

PLUG & FLOAT EQUIPMENT

7"

1-Triplex Shoe	@	1005.00
1-Lesco Down Plug	@	205.00
4-Turbolizers	@ 50.00	200.00
1-Basket	@	200.00
	@	
	TOTAL	1610.00

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME X Allen F. Dick

SIGNATURE X

Thank You!!!

DRILL STEM TEST REPORT

Woolsey Operating Company LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Curtis Covey

Hibbard #1SWD

23 34s 9w Harper

Job Ticket: 37407 **DST#: 1**

Test Start: 2010.12.20 @ 02:22:50

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:28:45
Time Test Ended: 16:21:15

Test Type: Conventional Bottom Hole
Tester: Esak Hadley
Unit No: 34

Interval: 5786.00 ft (KB) To 5827.00 ft (KB) (TVD)
Total Depth: 5827.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

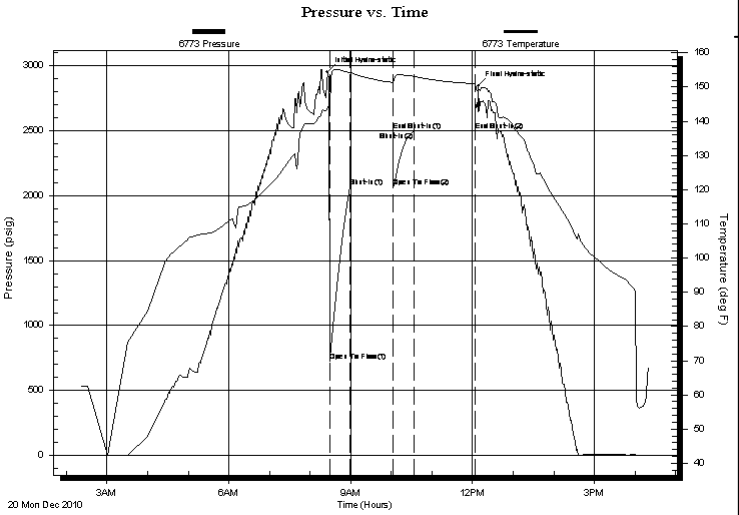
Reference Elevations: 1303.00 ft (KB)
1291.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6773 **Inside**

Press@RunDepth: 2494.42 psig @ 5787.00 ft (KB)
Start Date: 2010.12.20 End Date: 2010.12.20
Start Time: 02:22:45 End Time: 16:21:10

Capacity: 8000.00 psig
Last Calib.: 2010.12.20
Time On Btm: 2010.12.20 @ 08:26:09
Time Off Btm: 2010.12.20 @ 12:08:25

TEST COMMENT: IF Strong blow . BOB in 60 sec.
ISI Weak blow . Slow increase to 3".
FF Strong blow . BOB in 60 sec.
FSI Weak surface blow . No more than 1/4".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2951.41	144.32	Initial Hydro-static
3	728.41	143.65	Open To Flow (1)
33	2070.12	154.18	Shut-In(1)
97	2502.23	151.35	End Shut-In(1)
97	2065.87	151.39	Open To Flow (2)
127	2494.42	153.15	Shut-In(2)
218	2502.38	150.99	End Shut-In(2)
223	2845.91	149.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
283.00	WCM 40%w 60%m	2.29
95.00	MCW 30%m 70%w	1.33
189.00	MCW 20%m 80%w Rw .23@63deg=35K	2.65
378.00	MCW 10%m 90%w	5.30
4055.00	MCW 5%m 95%w Rw .11@63deg=80K	56.88

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Company LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Curtis Covey

Hibbard #1SWD

23 34s 9w Harper

Job Ticket: 37407 **DST#: 1**

Test Start: 2010.12.20 @ 02:22:50

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.58 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.20 inches				

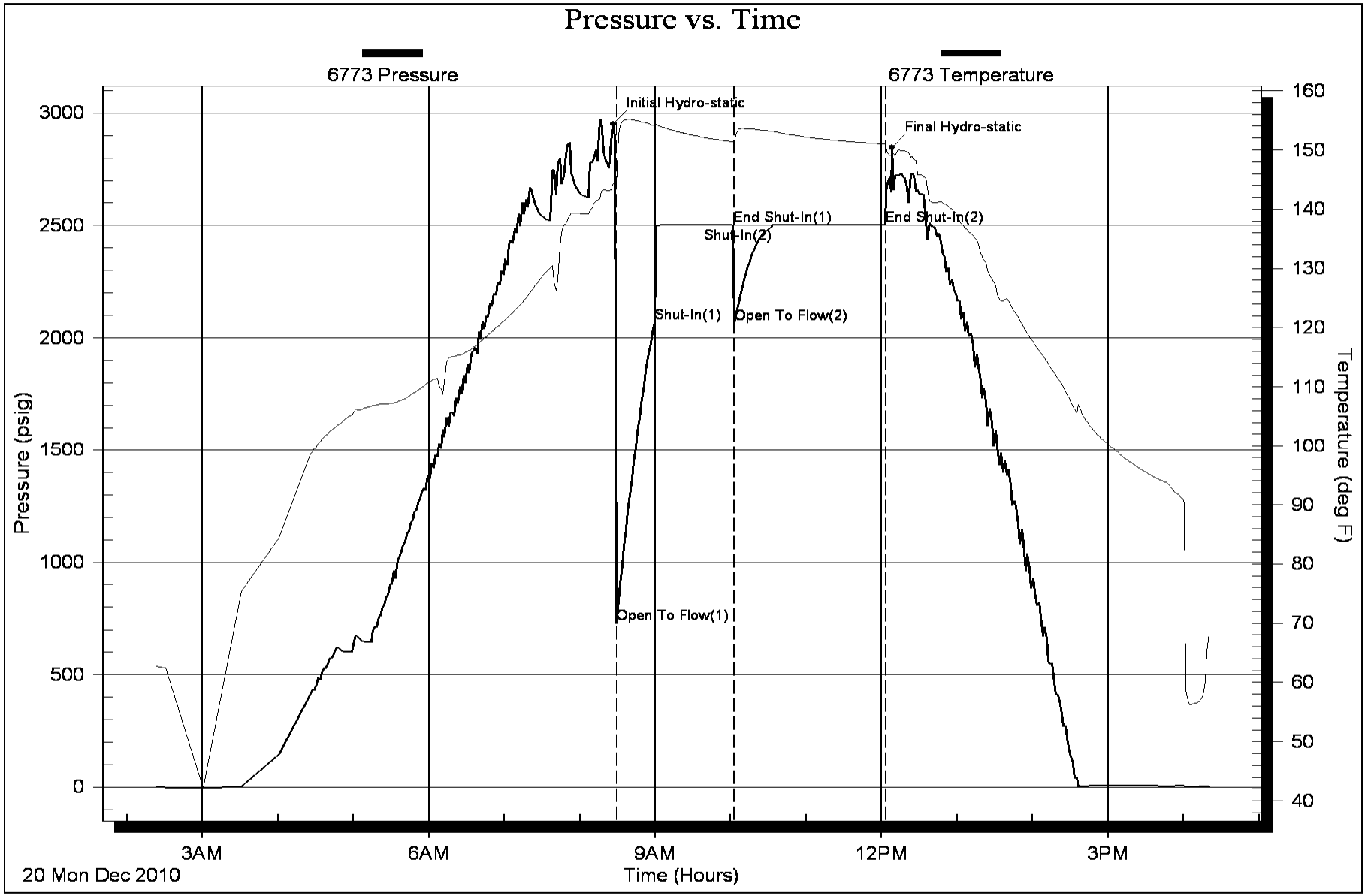
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
283.00	WCM 40%w 60%m	2.294
95.00	MCW 30%m 70%w	1.333
189.00	MCW 20%m 80%w Rw .23@63deg=35Kppm	2.651
378.00	MCW 10%m 90%w	5.302
4055.00	MCW 5%m 95%w Rw .11@63deg=80Kppm	56.881

Total Length: 5000.00 ft Total Volume: 68.461 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6773 Pressure
6773 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Shut-In(1)
Open To Flow(2)
Open To Flow(1)
Pressure (psig)
Temperature (deg F)
3000
2500
2000
1500
1000
500
0
160
150
140
130
120
110
100
90
80
70
60
50
40
3AM
6AM
9AM
12PM
3PM
20 Mon Dec 2010
Time (Hours)

Covey
The Well Watchers

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

Well Name:	HIBBARD #1 SWD
Location:	Section 23 - Township 34 South - Range 9 West
License Number:	15-077-21,719 - 00-00
Region:	Harper County, KS.
Spud Date:	5 December 2010
Drilling Completed:	22 December 2010
Surface Coordinates:	250' FNL & 200' FEL (Approx NE NE NE NE)
Bottom Hole Coordinates:	
Ground Elevation (ft):	1,289'
K.B. Elevation (ft):	1,300'
Logged Interval (ft):	5,000' To: 6,262'
Total Depth (ft):	6,262'
Formation:	Kinderhook Shale ------> Arbuckle
Type of Drilling Fluid:	Chemical; Low Solids (non-dispersed)

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

OPERATOR

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

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby,Kansas 67037
Office: (316) 776 - 0367
wellsitegeo1@gmail.com
Cell: (316) 217-4679

KB: 1,300'

FORMATION TOPS

GL: 1,289'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
Wilcox Sand	5,038' (-3,738')	5,040' (-3,740')
McLish Sand	5,186' (-3,886')	5,188' (-3,888')
Arbuckle	5,228' (-3,928')	5,228' (-3,928')

iRTD: 5,302' LTD: 5,304' iATD: 5,304'

Rotary sample depth is 2' lower than E-logger's depth.

FINAL RTD: 6,262'

E-Loggers: Weatherford
Liberal, Kansas

DST #1 - ARBUCKLE

Rotary Depth: 5,786' - 5,827'
Logger's Depth: NA

IFP: 728# - 2,070# / 30"
ISIP: 2,502# / 60"
FFP: 2,066# - 2,494# / 60"
FSIP: 2,502# / 90"
151 deg F
MH: 2,971# - 2,332#

Rec: 283' Water cut Mud (40%W,60%M)
95' Mud cut Water (30%m,70%W)
189' Mud cut Water (20%M,80%W)
378' Mud cut Water (10%M, 90%W)
4,055' Muc cut Water (5%M,95%W)

Total Fluid: 5,000'

IF: BOB in 1 minute, Strong Blow.
ISI: Weak Blow - slow build to 3 inches.
FF: BOB in 1 minute, Strong Blow.
FSI: Weak Surface Blow, no more than 1/4 inch.

Recovery Water: (35M - top)
(80M - rest)
System Water: (4,000 ppm)
Reported Rw =
0.23 ohms @ 63 deg F - top
0.11 ohms @ 63 deg F - rest

Trilobite Testing, Inc.
Pratt, KS.

2010

DAILY DRILLING STATUS -- DECEMBER

2010

30" Hole

3 Nov --- 20" conductor set @ 43'
with 5 yds grout. 5'x5' cellar.

17-1/4" Hole

5 Nov --- Spud @ 10:30am. Drill to 280'.
Run 13-3/8" casing. Set casing
@ 245'. Cemented w/ 230 sx
Class A (2% gel+3%CC). [Allied]
Cement did circulate.
Plug down @ 11:15pm. WOC.

9-7/8" Hole
Tri-Cone: 280' ---> RTD.

6 Nov --- WOC. 6am @ 280'.
Under surface casing @ 1:45pm.

9-7/8" Hole
Tri-Cone: 280' ---> RTD.

7 Dec --- 6am @ 776'.
Work on Pump & clutches.
8 --- 6am @ 1,710'.
9 --- 6am @ 2,221'.
10 --- 6am @ 2,800'.
11 --- 6am @ 3,374'.
12 --- 6am @ 4,013'.
13 --- Bit Trip @ 4,314'.
Resumed Drilling.
6am @ 4,324'.
14 --- 6am @ 4,675'.
15 --- 6am @ 5,050'.
Bit Trip @ 5,057'.
16 --- Resumed Drilling.
6am @ 5,123'.
Drill to 5,302' @ 8:50pm.
Prep hole for E-log.

7-7/8" Hole
Tri-Cone: 5,302' ---> RTD.

17 Dec --- 6am @ 5,302'.
E-log.
18 --- Resumed Drilling @ 5am.
6am @ 5,312'.
19 --- 6am @ 5,680'.
Drill to 5,827'. Prep
Hole. Start & ....
20 --- 6am @ 5,827'.
Finish DST #1: Arbuckle
(5.786' - 5,827').
T/I after test, repeated circ.
21 --- 6am @ 5,827'.
Resumed Drilling @ 6:20am.
22 --- 6am @ 6,120'.
RTD @ 6,262' @ 1:30pm.

HOLE DEVIATION (280' - 5,777 ') & STRAP

DEPTH /	TVD	--- INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
280' /		--- 1.00 (Surface)						
996' /		--- 0.50						
1,490' /		--- 0.75						
2,000' /		--- 1.25						
2,251' /		--- 1.25						
2,598' /		--- 1.00						
3,037' /		--- 1.00						
4,013' /		--- 0.75						
4,324' /		--- 0.75 (Bit Trip)						
4,706' /		--- 0.25						
5,057' /		--- 1.00						
5,302' /		--- 1.00 (E-log)						
5,777' /		--- 0.75						

E-LOG STRAP -
Board: 5,302.84'
Strap: 5,307.91'
Diff: 5.07'

TOMCAT DRILLING, LLC.

100 South Main, # 508
Wichita, Kansas 67202

(316) 262-8554

Drilling Rig #2 - (620) 282-0370

Toolpusher: Carlos Ayala (620) 282-8667

On main hole (tri-cone), 80 RPM.

Mud Pump:
Main: 3ND 1000
6" x 12" @ 100 SPM.

Pump Pressure: 1,400 psi @ standpipe.

280' --> 5,302':

Dry Wt of Collars: 73,025#
[117.2' x 140.5#/ft = 16,467#]
[616.44' x 91.75#/ft = 56,558]
Drill Collars: 7-7/8" OD x 3" ID &
6-1/4" x 2-3/16" ID
Buoyancy Wt of Collars: 62,655#
[73,025# x .858 (9.3ppg) = 62,655#]
Available WOB: 53,291#
[62,695# x .85 = 53,257#]

Contractor reports running
48M on bit
[At & See Conc @ 4,894' for details]
Tension on drill string - 9,398#
[15% Design Factor]
to keep drill string straight.

Weight Indicator light by 15%; therefore,
48M showing has true WOB 55,200M.

5,303' ---> RTD

Dry Wt of Collars: 59,445#
[647.91' x 91.75#/ft = 59,445]
Drill Collars: 6-1/4" x 2-3/16" ID
Buoyancy Wt of Collars: 51,123#
[59,445# x .860 (9.2ppg) = 51,123#]
Available WOB: 43,454#
[51,123# x .85 = 43,454#]
Weight Indicator weighs
light by 15%, therefore
WI of 37,786# = true WOB 43,454#.

Contractor report running
28M on bit in Arbuckle @ 5,303'.
Contractor report running
36M on bit in Arbuckle @ 5,338'.

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	ROP
5 Dec	17-1/4"	REED	14 - 16 - 16 - 16	0' / 280'	280'	6.00	35.0
6 Dec	9-7/8"	REED TD52X *	16 - 16 - 16	280' / 4,324'	4,044'	133.25	30.4
13 Dec	9-7/8"	REED ETD 35	16 - 16 - 16	4,324' / 5,057'	732'	43.25	18.3
16 Dec	9-7/8"	REED TD52X *	16 - 16 - 16	5,057' / 5,302'	247'	19.50	12.7
			* Same Bit				
18 Dec	7-7/8"	REED TD53AM	16 - 16 - 16	5,302' / 5,827'	525'	30.25	17.4
20 Dec	7-7/8"	REED R30AP	15 - 15 - 15	5,827' / 6,262'	435'	31.00	14.0

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
- Brecfrag
- 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
- Silty dol
- Anhy
- Arg
- Bent
- Chert
- Coal
- Dol
- Dol ls
- Gyp
- Ls
- Mrst
- Calc dol
- Sltstrg
- Ssstrg
- Chalk

STRINGER

- Dol ls

SHOW

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

ACCESSORIES

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Spore
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

OTHER SYMBOLS

ACTIVITY

- Lost circluation
- Circulate for sample 2
- Circulate for samples
- Rtd

- Bit trip

INTERVAL

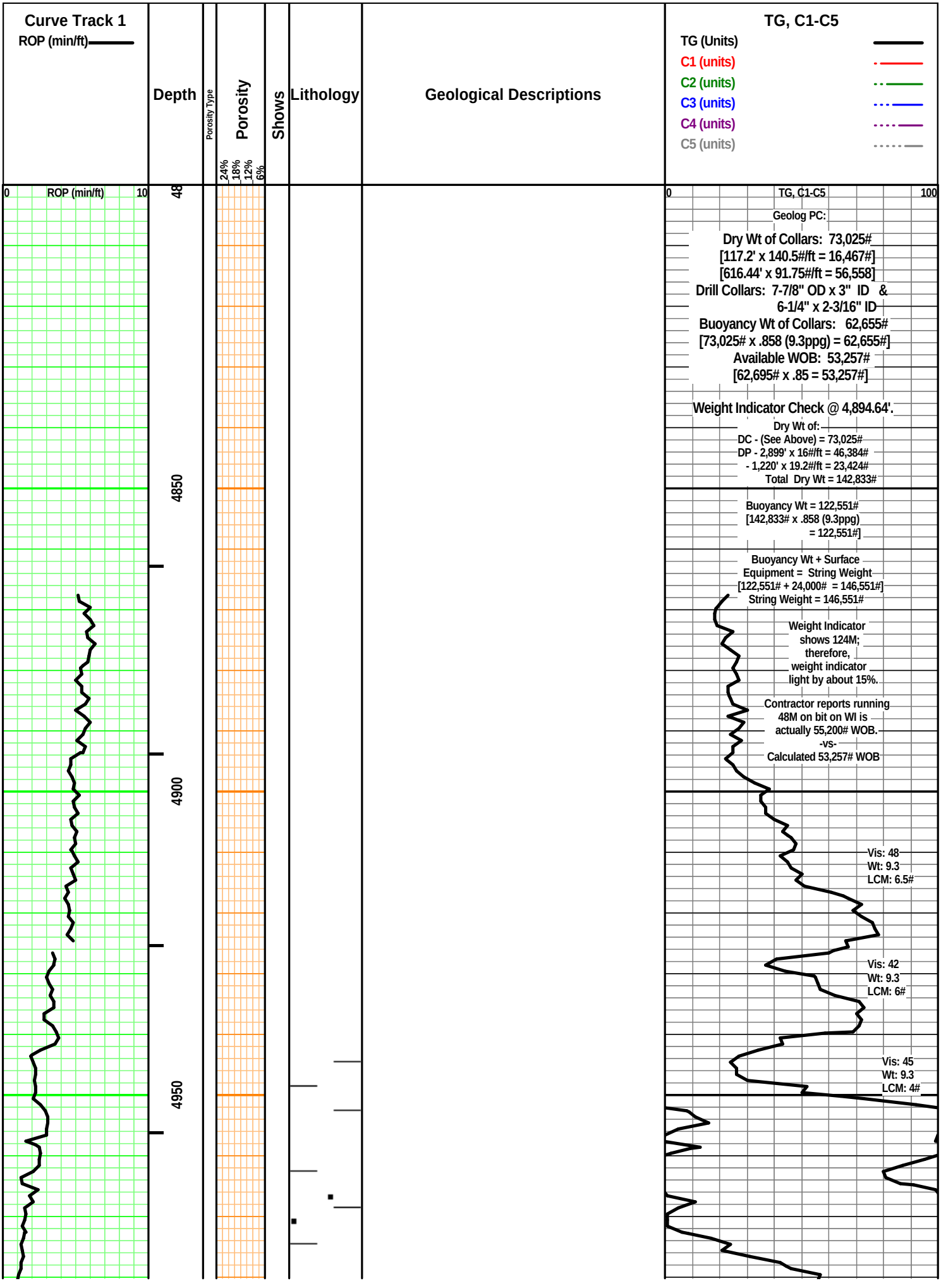
- Core
- Dst

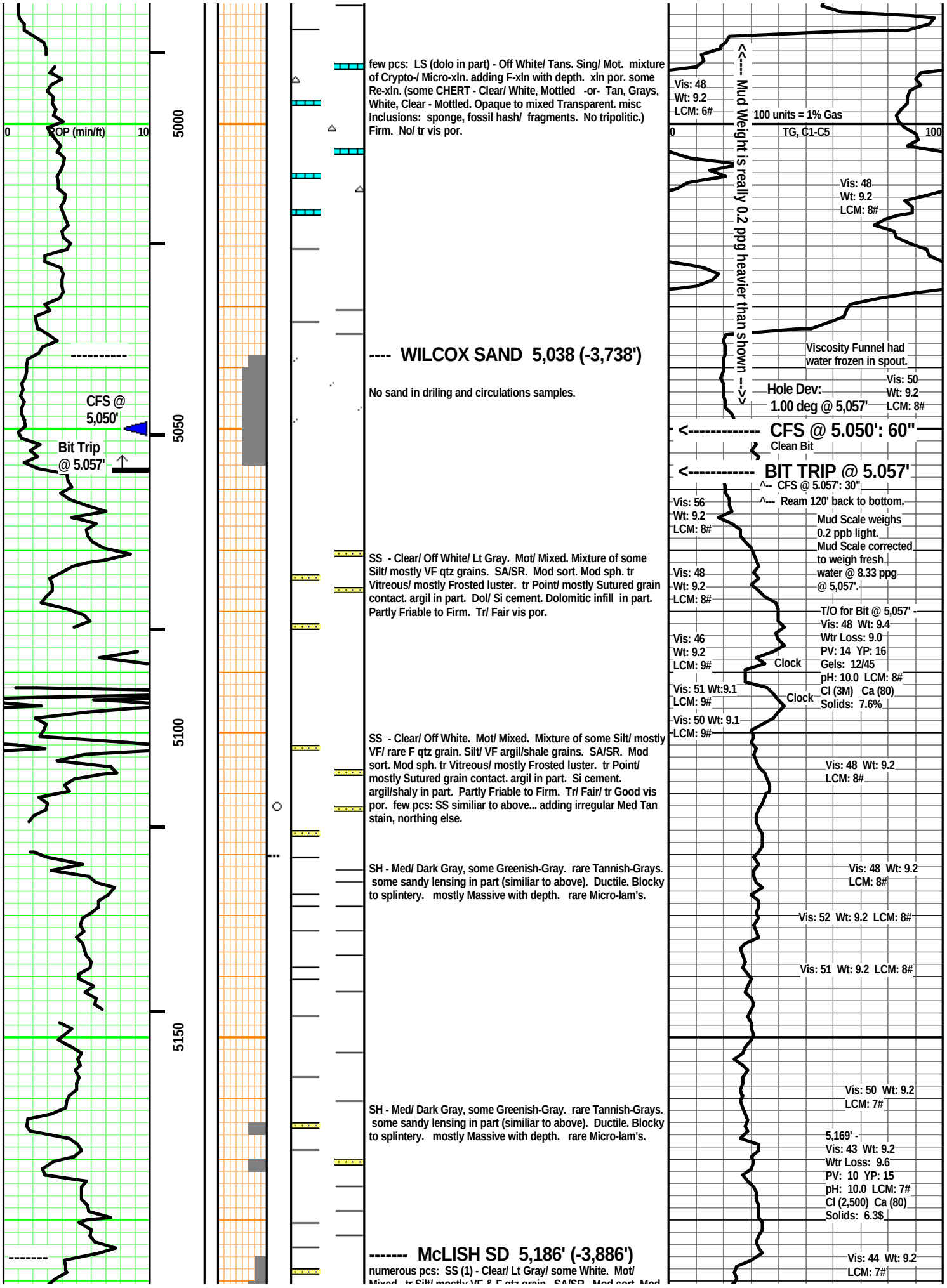
- Jammed core

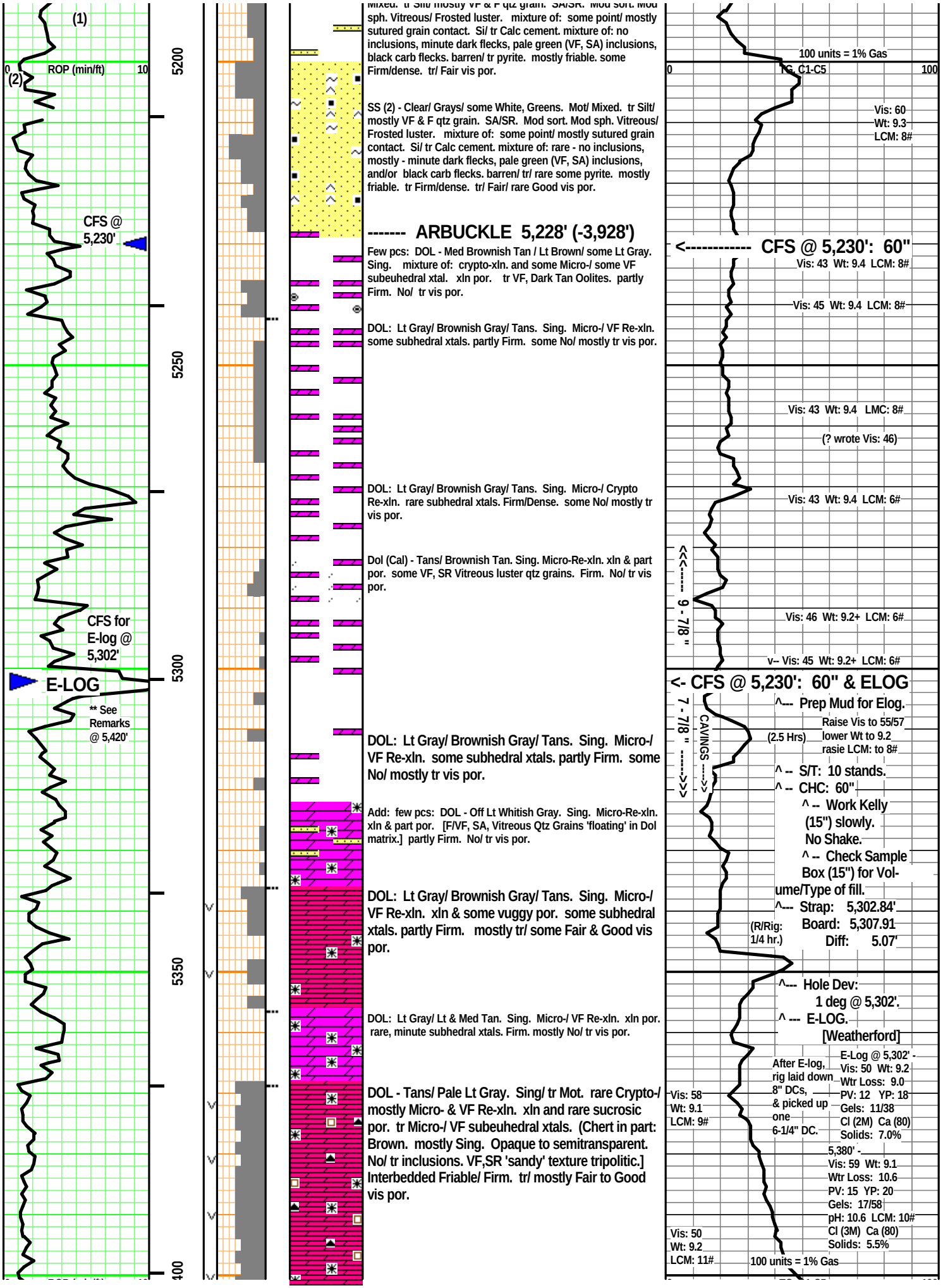
EVENT

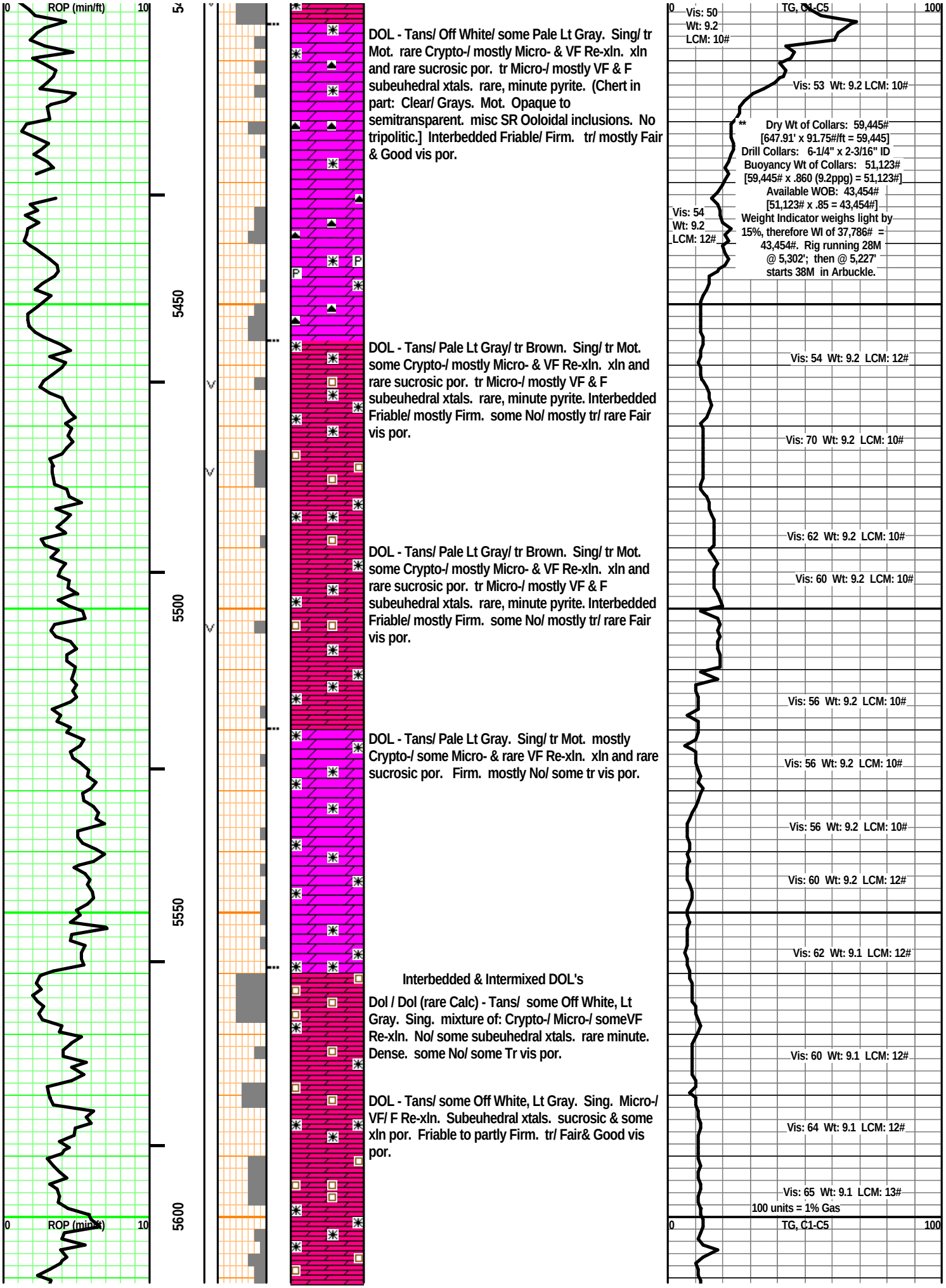
- Connection
- Rft

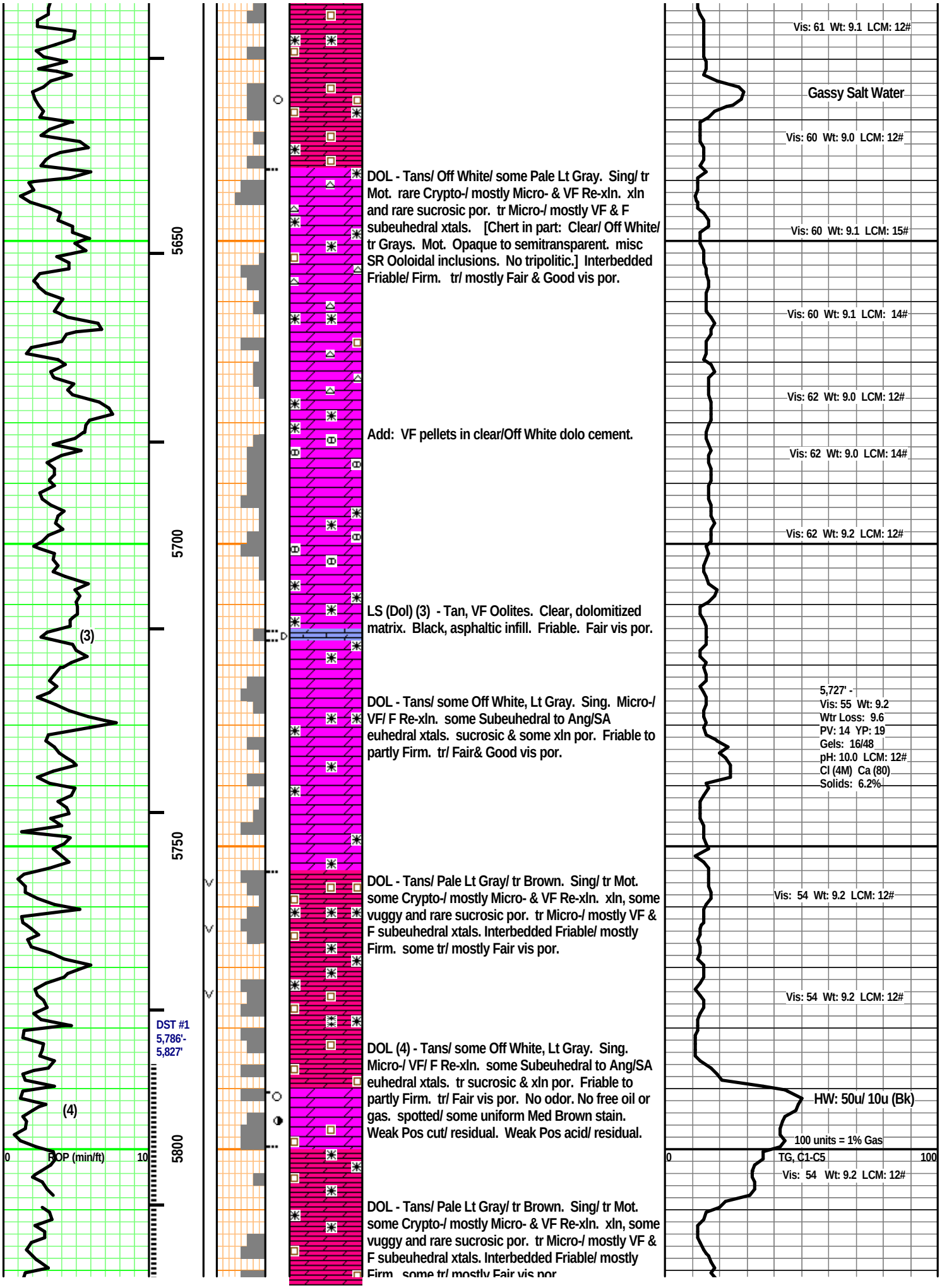
- Sidewall

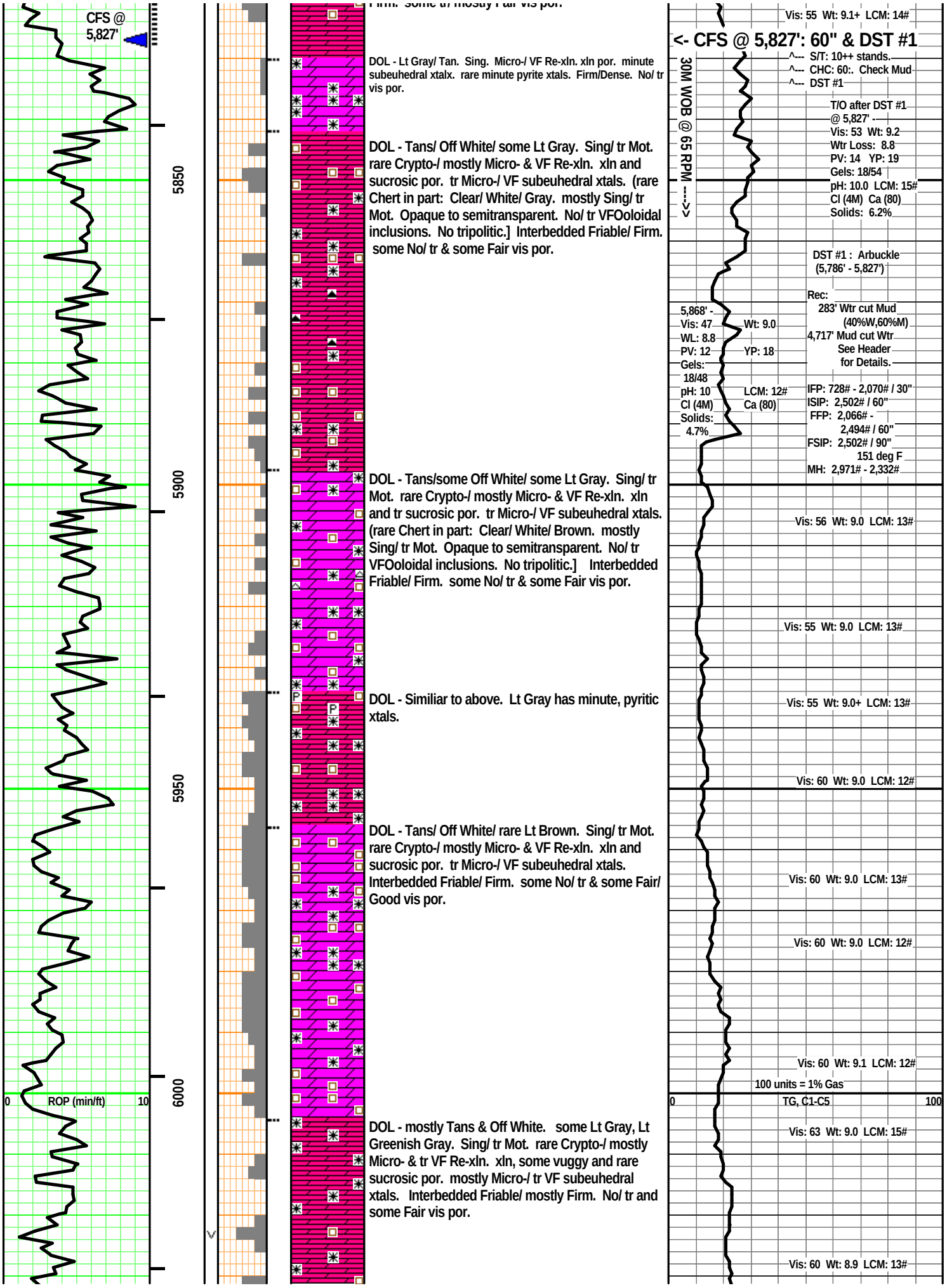

Curve Track 1
ROP (min/ft)
Depth
Porosity Type
Porosity
24%
18%
12%
6%
Shows
Lithology
Geological Descriptions
TG, C1-C5
TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
0
ROP (min/ft)
10
4850
4900
4950
0
TG, C1-C5
100
Geolog PC:
Dry Wt of Collars: 73,025#
[117.2' x 140.5#/ft = 16,467#]
[616.44' x 91.75#/ft = 56,558]
Drill Collars: 7-7/8" OD x 3" ID &
6-1/4" x 2-3/16" ID
Buoyancy Wt of Collars: 62,655#
[73,025# x .858 (9.3ppg) = 62,655#]
Available WOB: 53,257#
[62,695# x .85 = 53,257#]
Weight Indicator Check @ 4,894.64'.
Dry Wt of:
DC - (See Above) = 73,025#
DP - 2,899' x 16#/ft = 46,384#
- 1,220' x 19.2#/ft = 23,424#
Total Dry Wt = 142,833#
Buoyancy Wt = 122,551#
[142,833# x .858 (9.3ppg)
= 122,551#]
Buoyancy Wt + Surface
Equipment = String Weight
[122,551# + 24,000# = 146,551#]
String Weight = 146,551#
Weight Indicator
shows 124M;
therefore,
weight indicator
light by about 15%.
Contractor reports running
48M on bit on WI is
actually 55,200# WOB.
-vs-
Calculated 53,257# WOB
Vis: 48
Wt: 9.3
LCM: 6.5#
Vis: 42
Wt: 9.3
LCM: 6#
Vis: 45
Wt: 9.3
LCM: 4#

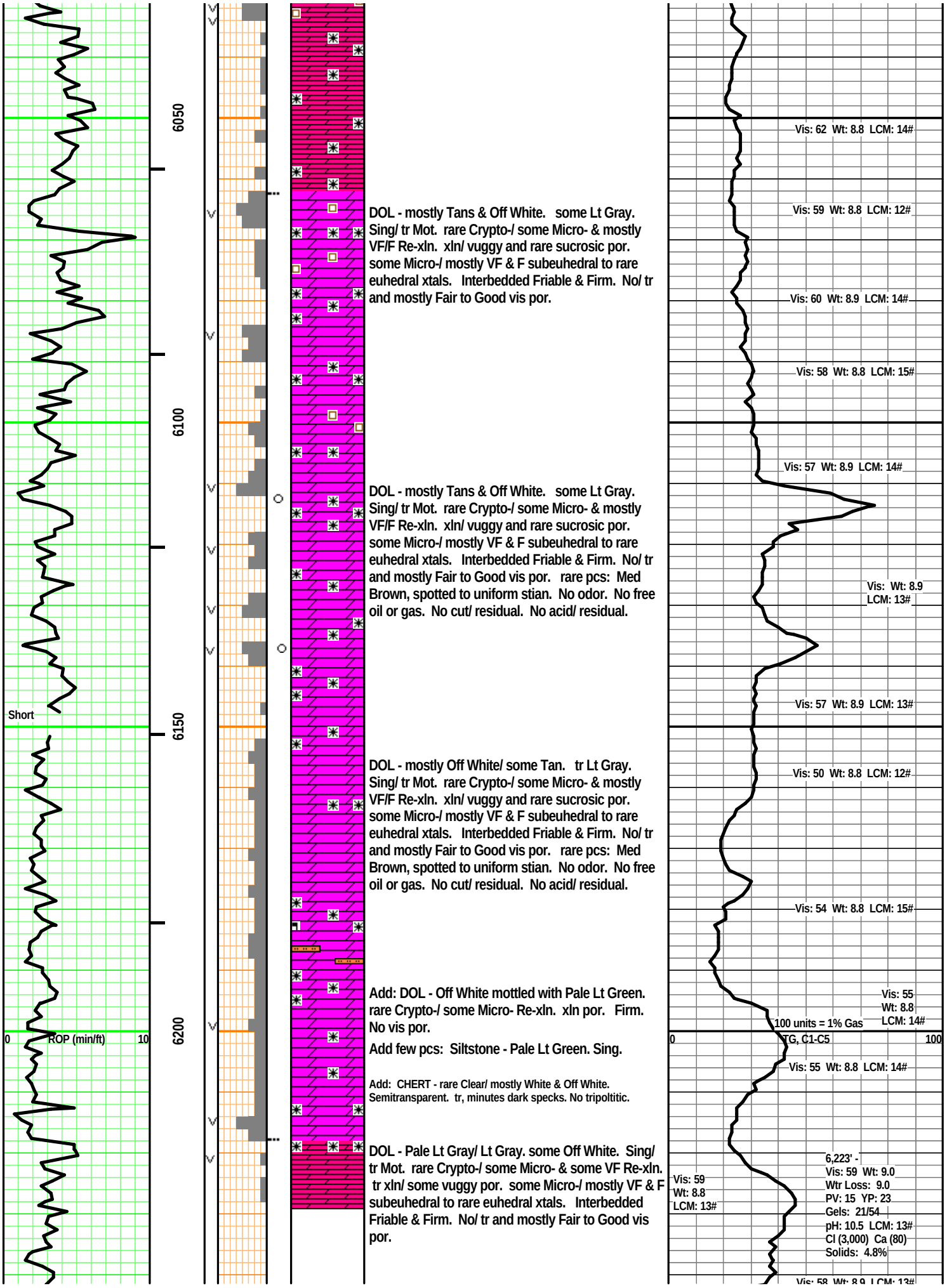

0
ROP (min/ft)
10
5000
5050
5100
5150
CFS @ 5,050'
Bit Trip @ 5.057'
few pcs: LS (dolo in part) - Off White/ Tans. Sing/ Mot. mixture of Crypto-/ Micro-xln. adding F-xln with depth. xln por. some Re-xln. (some CHERT - Clear/ White, Mottled -or- Tan, Grays, White, Clear - Mottled. Opaque to mixed Transparent. misc Inclusions: sponge, fossil hash/ fragments. No tripolitic.) Firm. No/ tr vis por.
---- WILCOX SAND 5,038 (-3,738')
No sand in driling and circulations samples.
SS - Clear/ Off White/ Lt Gray. Mot/ Mixed. Mixture of some Silt/ mostly VF qtz grains. SA/SR. Mod sort. Mod sph. tr Vitreous/ mostly Frosted luster. tr Point/ mostly Sutured grain contact. argil in part. Dol/ Si cement. Dolomitic infill in part. Partly Friable to Firm. Tr/ Fair vis por.
SS - Clear/ Off White. Mot/ Mixed. Mixture of some Silt/ mostly VF/ rare F qtz grain. Silt/ VF argil/shale grains. SA/SR. Mod sort. Mod sph. tr Vitreous/ mostly Frosted luster. tr Point/ mostly Sutured grain contact. argil in part. Si cement. argil/shaly in part. Partly Friable to Firm. Tr/ Fair/ tr Good vis por. few pcs: SS similiar to above... adding irregular Med Tan stain, northing else.
SH - Med/ Dark Gray, some Greenish-Gray. rare Tannish-Grays. some sandy lensing in part (similiar to above). Ductile. Blocky to splintery. mostly Massive with depth. rare Micro-lam's.
SH - Med/ Dark Gray, some Greenish-Gray. rare Tannish-Grays. some sandy lensing in part (similiar to above). Ductile. Blocky to splintery. mostly Massive with depth. rare Micro-lam's.
------- McLISH SD 5,186' (-3,886')
numerous pcs: SS (1) - Clear/ Lt Gray/ some White. Mot/
Vis: 48
Wt: 9.2
LCM: 6#
<<--- Mud Weight is really 0.2 ppg heavier than shown --->>
100 units = 1% Gas
0
TG, C1-C5
100
Vis: 48
Wt: 9.2
LCM: 8#
Viscosity Funnel had water frozen in spout.
Hole Dev:
1.00 deg @ 5,057'
Vis: 50
Wt: 9.2
LCM: 8#
<---------- CFS @ 5.050': 60"
Clean Bit
<---------- BIT TRIP @ 5.057'
^-- CFS @ 5.057': 30"
^--- Ream 120' back to bottom.
Vis: 56
Wt: 9.2
LCM: 8#
Mud Scale weighs 0.2 ppb light.
Mud Scale corrected to weigh fresh water @ 8.33 ppg @ 5,057'.
Vis: 48
Wt: 9.2
LCM: 8#
T/O for Bit @ 5,057' -
Vis: 48 Wt: 9.4
Wtr Loss: 9.0
PV: 14 YP: 16
Gels: 12/45
pH: 10.0 LCM: 8#
Cl (3M) Ca (80)
Solids: 7.6%
Vis: 46
Wt: 9.2
LCM: 9#
Clock
Vis: 51 Wt:9.1
LCM: 9#
Clock
Vis: 50 Wt: 9.1
LCM: 9#
Vis: 48 Wt: 9.2
LCM: 8#
Vis: 48 Wt: 9.2
LCM: 8#
Vis: 52 Wt: 9.2 LCM: 8#
Vis: 51 Wt: 9.2 LCM: 8#
Vis: 50 Wt: 9.2
LCM: 7#
5,169' -
Vis: 43 Wt: 9.2
Wtr Loss: 9.6
PV: 10 YP: 15
pH: 10.0 LCM: 7#
Cl (2,500) Ca (80)
Solids: 6.3$
Vis: 44 Wt: 9.2
LCM: 7#

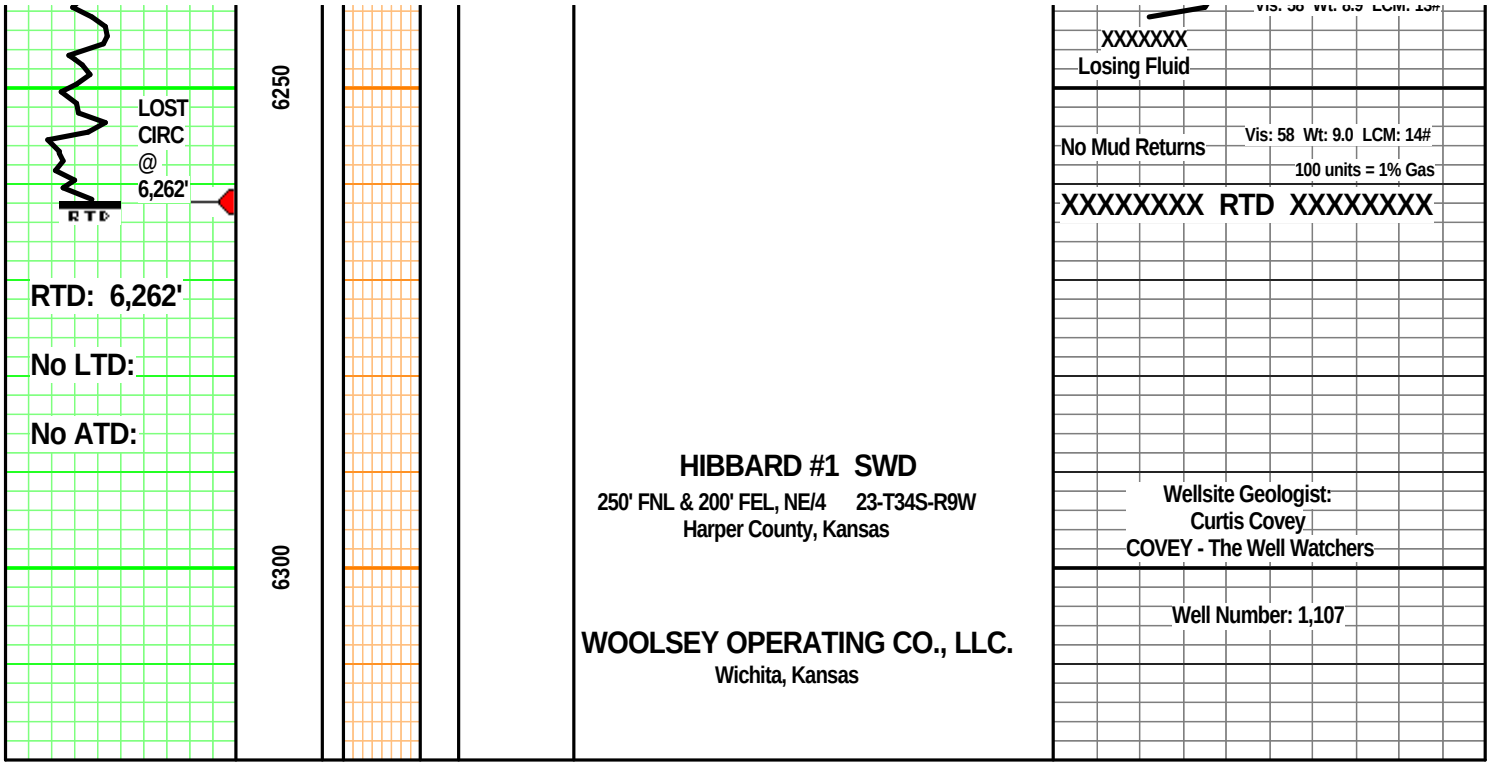

(1)
0
ROP (min/ft)
10
(2)
5200
5250
5300
5350
5400
CFS @
5,230'
CFS for
E-log @
5,302'
E-LOG
** See
Remarks
@ 5,420'
Mixed. tr Silt/ mostly VF & F qtz grain. SA/SR. Mod sort. Mod sph. Vitreous/ Frosted luster. mixture of: some point/ mostly sutured grain contact. Si/ tr Calc cement. mixture of: no inclusions, minute dark flecks, pale green (VF, SA) inclusions, black carb flecks. barren/ tr pyrite. mostly friable. some Firm/dense. tr/ Fair vis por.
SS (2) - Clear/ Grays/ some White, Greens. Mot/ Mixed. tr Silt/ mostly VF & F qtz grain. SA/SR. Mod sort. Mod sph. Vitreous/ Frosted luster. mixture of: some point/ mostly sutured grain contact. Si/ tr Calc cement. mixture of: rare - no inclusions, mostly - minute dark flecks, pale green (VF, SA) inclusions, and/or black carb flecks. barren/ tr/ rare some pyrite. mostly friable. tr Firm/dense. tr/ Fair/ rare Good vis por.
------- ARBUCKLE 5,228' (-3,928')
Few pcs: DOL - Med Brownish Tan / Lt Brown/ some Lt Gray. Sing. mixture of: crypto-xln. and some Micro-/ some VF subeuhedral xtal. xln por. tr VF, Dark Tan Oolites. partly Firm. No/ tr vis por.
DOL: Lt Gray/ Brownish Gray/ Tans. Sing. Micro-/ VF Re-xln. some subhedral xtals. partly Firm. some No/ mostly tr vis por.
DOL: Lt Gray/ Brownish Gray/ Tans. Sing. Micro-/ Crypto Re-xln. rare subhedral xtals. Firm/Dense. some No/ mostly tr vis por.
Dol (Cal) - Tans/ Brownish Tan. Sing. Micro-Re-xln. xln & part por. some VF, SR Vitreous luster qtz grains. Firm. No/ tr vis por.
DOL: Lt Gray/ Brownish Gray/ Tans. Sing. Micro-/ VF Re-xln. some subhedral xtals. partly Firm. some No/ mostly tr vis por.
Add: few pcs: DOL - Off Lt Whitish Gray. Sing. Micro-Re-xln. xln & part por. [F/VF, SA, Vitreous Qtz Grains 'floating' in Dol matrix.] partly Firm. No/ tr vis por.
DOL: Lt Gray/ Brownish Gray/ Tans. Sing. Micro-/ VF Re-xln. xln & some vuggy por. some subhedral xtals. partly Firm. mostly tr/ some Fair & Good vis por.
DOL: Lt Gray/ Lt & Med Tan. Sing. Micro-/ VF Re-xln. xln por. rare, minute subhedral xtals. Firm. mostly No/ tr vis por.
DOL - Tans/ Pale Lt Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and rare sucrosic por. tr Micro-/ VF subeuhedral xtals. (Chert in part: Brown. mostly Sing. Opaque to semitransparent. No/ tr inclusions. VF,SR 'sandy' texture tripolitic.] Interbedded Friable/ Firm. tr/ mostly Fair to Good vis por.
100 units = 1% Gas
0
TG, C1-C5
100
Vis: 60
Wt: 9.3
LCM: 8#
<---------- CFS @ 5,230': 60"
Vis: 43 Wt: 9.4 LCM: 8#
Vis: 45 Wt: 9.4 LCM: 8#
Vis: 43 Wt: 9.4 LMC: 8#
(? wrote Vis: 46)
Vis: 43 Wt: 9.4 LCM: 6#
<<<------ 9 - 7/8 "
Vis: 46 Wt: 9.2+ LCM: 6#
v-- Vis: 45 Wt: 9.2+ LCM: 6#
<- CFS @ 5,230': 60" & ELOG
7 - 7/8 " ------>>>
CAVINGS ------>>>
^--- Prep Mud for Elog.
Raise Vis to 55/57
(2.5 Hrs)
lower Wt to 9.2
rasie LCM: to 8#
^ -- S/T: 10 stands.
^ -- CHC: 60"
^ -- Work Kelly (15") slowly. No Shake.
^ -- Check Sample Box (15") for Volume/Type of fill.
^--- Strap: 5,302.84'
(R/Rig: 1/4 hr.)
Board: 5,307.91
Diff: 5.07'
^--- Hole Dev: 1 deg @ 5,302'.
^ --- E-LOG. [Weatherford]
After E-log, rig laid down 8" DCs, & picked up one 6-1/4" DC.
E-Log @ 5,302' - Vis: 50 Wt: 9.2 Wtr Loss: 9.0 PV: 12 YP: 18 Gels: 11/38 Cl (2M) Ca (80) Solids: 7.0%
5,380' - Vis: 59 Wt: 9.1 Wtr Loss: 10.6 PV: 15 YP: 20 Gels: 17/58 pH: 10.6 LCM: 10# Cl (3M) Ca (80) Solids: 5.5%
Vis: 58
Wt: 9.1
LCM: 9#
Vis: 50
Wt: 9.2
LCM: 11#
100 units = 1% Gas


0
ROP (min/ft)
10
5450
5500
5550
5600
0
ROP (min/ft)
10
DOL - Tans/ Off White/ some Pale Lt Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. rare, minute pyrite. (Chert in part: Clear/ Grays. Mot. Opaque to semitransparent. misc SR Ooloidal inclusions. No tripolitic.] Interbedded Friable/ Firm. tr/ mostly Fair & Good vis por.
DOL - Tans/ Pale Lt Gray/ tr Brown. Sing/ tr Mot. some Crypto-/ mostly Micro- & VF Re-xln. xln and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. rare, minute pyrite. Interbedded Friable/ mostly Firm. some No/ mostly tr/ rare Fair vis por.
DOL - Tans/ Pale Lt Gray/ tr Brown. Sing/ tr Mot. some Crypto-/ mostly Micro- & VF Re-xln. xln and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. rare, minute pyrite. Interbedded Friable/ mostly Firm. some No/ mostly tr/ rare Fair vis por.
DOL - Tans/ Pale Lt Gray. Sing/ tr Mot. mostly Crypto-/ some Micro- & rare VF Re-xln. xln and rare sucrosic por. Firm. mostly No/ some tr vis por.
Interbedded & Intermixed DOL's
Dol / Dol (rare Calc) - Tans/ some Off White, Lt Gray. Sing. mixture of: Crypto-/ Micro-/ someVF Re-xln. No/ some subeuhedral xtals. rare minute. Dense. some No/ some Tr vis por.
DOL - Tans/ some Off White, Lt Gray. Sing. Micro-/ VF/ F Re-xln. Subeuhedral xtals. sucrosic & some xln por. Friable to partly Firm. tr/ Fair& Good vis por.
0
TG, C1-C5
100
Vis: 50
Wt: 9.2
LCM: 10#
Vis: 53 Wt: 9.2 LCM: 10#
** Dry Wt of Collars: 59,445#
[647.91' x 91.75#/ft = 59,445]
Drill Collars: 6-1/4" x 2-3/16" ID
Buoyancy Wt of Collars: 51,123#
[59,445# x .860 (9.2ppg) = 51,123#]
Available WOB: 43,454#
[51,123# x .85 = 43,454#]
Weight Indicator weighs light by 15%, therefore WI of 37,786# = 43,454#. Rig running 28M @ 5,302'; then @ 5,227' starts 38M in Arbuckle.
Vis: 54
Wt: 9.2
LCM: 12#
Vis: 54 Wt: 9.2 LCM: 12#
Vis: 70 Wt: 9.2 LCM: 10#
Vis: 62 Wt: 9.2 LCM: 10#
Vis: 60 Wt: 9.2 LCM: 10#
Vis: 56 Wt: 9.2 LCM: 10#
Vis: 56 Wt: 9.2 LCM: 10#
Vis: 56 Wt: 9.2 LCM: 10#
Vis: 60 Wt: 9.2 LCM: 12#
Vis: 62 Wt: 9.1 LCM: 12#
Vis: 60 Wt: 9.1 LCM: 12#
Vis: 64 Wt: 9.1 LCM: 12#
Vis: 65 Wt: 9.1 LCM: 13#
100 units = 1% Gas
0
TG, C1-C5
100


5650
5700
5750
5800
(3)
(4)
DST #1
5,786'-
5,827'
0
ROP (min/ft)
10
DOL - Tans/ Off White/ some Pale Lt Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. [Chert in part: Clear/ Off White/ tr Grays. Mot. Opaque to semitransparent. misc SR Ooloidal inclusions. No tripolitic.] Interbedded Friable/ Firm. tr/ mostly Fair & Good vis por.
Add: VF pellets in clear/Off White dolo cement.
LS (Dol) (3) - Tan, VF Oolites. Clear, dolomitized matrix. Black, asphaltic infill. Friable. Fair vis por.
DOL - Tans/ some Off White, Lt Gray. Sing. Micro-/ VF/ F Re-xln. some Subeuhedral to Ang/SA euhedral xtals. sucrosic & some xln por. Friable to partly Firm. tr/ Fair& Good vis por.
DOL - Tans/ Pale Lt Gray/ tr Brown. Sing/ tr Mot. some Crypto-/ mostly Micro- & VF Re-xln. xln, some vuggy and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. Interbedded Friable/ mostly Firm. some tr/ mostly Fair vis por.
DOL (4) - Tans/ some Off White, Lt Gray. Sing. Micro-/ VF/ F Re-xln. some Subeuhedral to Ang/SA euhedral xtals. tr sucrosic & xln por. Friable to partly Firm. tr/ Fair vis por. No odor. No free oil or gas. spotted/ some uniform Med Brown stain. Weak Pos cut/ residual. Weak Pos acid/ residual.
DOL - Tans/ Pale Lt Gray/ tr Brown. Sing/ tr Mot. some Crypto-/ mostly Micro- & VF Re-xln. xln, some vuggy and rare sucrosic por. tr Micro-/ mostly VF & F subeuhedral xtals. Interbedded Friable/ mostly Firm. some tr/ mostly Fair vis por.
Vis: 61 Wt: 9.1 LCM: 12#
Gassy Salt Water
Vis: 60 Wt: 9.0 LCM: 12#
Vis: 60 Wt: 9.1 LCM: 15#
Vis: 60 Wt: 9.1 LCM: 14#
Vis: 62 Wt: 9.0 LCM: 12#
Vis: 62 Wt: 9.0 LCM: 14#
Vis: 62 Wt: 9.2 LCM: 12#
5,727' -
Vis: 55 Wt: 9.2
Wtr Loss: 9.6
PV: 14 YP: 19
Gels: 16/48
pH: 10.0 LCM: 12#
Cl (4M) Ca (80)
Solids: 6.2%
Vis: 54 Wt: 9.2 LCM: 12#
Vis: 54 Wt: 9.2 LCM: 12#
HW: 50u/ 10u (Bk)
100 units = 1% Gas
0
TG, C1-C5
100
Vis: 54 Wt: 9.2 LCM: 12#


CFS @ 5,827'
5850
5900
5950
6000
0
ROP (min/ft)
10
Firm: some tr/ mostly Fair vis por.
DOL - Lt Gray/ Tan. Sing. Micro-/ VF Re-xln. xln por. minute subeuhedral xtalx. rare minute pyrite xtals. Firm/Dense. No/ tr vis por.
DOL - Tans/ Off White/ some Lt Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and sucrosic por. tr Micro-/ VF subeuhedral xtals. (rare Chert in part: Clear/ White/ Gray. mostly Sing/ tr Mot. Opaque to semitransparent. No/ tr VFOoloidal inclusions. No tripolitic.] Interbedded Friable/ Firm. some No/ tr & some Fair vis por.
DOL - Tans/some Off White/ some Lt Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and tr sucrosic por. tr Micro-/ VF subeuhedral xtals. (rare Chert in part: Clear/ White/ Brown. mostly Sing/ tr Mot. Opaque to semitransparent. No/ tr VFOoloidal inclusions. No tripolitic.] Interbedded Friable/ Firm. some No/ tr & some Fair vis por.
DOL - Similiar to above. Lt Gray has minute, pyritic xtals.
DOL - Tans/ Off White/ rare Lt Brown. Sing/ tr Mot. rare Crypto-/ mostly Micro- & VF Re-xln. xln and sucrosic por. tr Micro-/ VF subeuhedral xtals. Interbedded Friable/ Firm. some No/ tr & some Fair/ Good vis por.
DOL - mostly Tans & Off White. some Lt Gray, Lt Greenish Gray. Sing/ tr Mot. rare Crypto-/ mostly Micro- & tr VF Re-xln. xln, some vuggy and rare sucrosic por. mostly Micro-/ tr VF subeuhedral xtals. Interbedded Friable/ mostly Firm. No/ tr and some Fair vis por.
Vis: 55 Wt: 9.1+ LCM: 14#
<- CFS @ 5,827': 60" & DST #1
30M WOB @ 65 RPM --->>
^--- S/T: 10++ stands.
^--- CHC: 60:. Check Mud
^--- DST #1
T/O after DST #1 @ 5,827' -
Vis: 53 Wt: 9.2
Wtr Loss: 8.8
PV: 14 YP: 19
Gels: 18/54
pH: 10.0 LCM: 15#
Cl (4M) Ca (80)
Solids: 6.2%
DST #1 : Arbuckle (5,786' - 5,827')
Rec:
283' Wtr cut Mud (40%W,60%M)
4,717' Mud cut Wtr
See Header for Details.
5,868' -
Vis: 47
WL: 8.8
PV: 12
Gels: 18/48
pH: 10
Cl (4M)
Solids: 4.7%
Wt: 9.0
YP: 18
LCM: 12#
Ca (80)
IFP: 728# - 2,070# / 30"
ISIP: 2,502# / 60"
FFP: 2,066# - 2,494# / 60"
FSIP: 2,502# / 90"
151 deg F
MH: 2,971# - 2,332#
Vis: 56 Wt: 9.0 LCM: 13#
Vis: 55 Wt: 9.0 LCM: 13#
Vis: 55 Wt: 9.0+ LCM: 13#
Vis: 60 Wt: 9.0 LCM: 12#
Vis: 60 Wt: 9.0 LCM: 13#
Vis: 60 Wt: 9.0 LCM: 12#
Vis: 60 Wt: 9.1 LCM: 12#
100 units = 1% Gas
0
TG, C1-C5
100
Vis: 63 Wt: 9.0 LCM: 15#
Vis: 60 Wt: 8.9 LCM: 13#


6050
6100
6150
6200
Short
0
ROP (min/ft)
10
DOL - mostly Tans & Off White. some Lt Gray. Sing/ tr Mot. rare Crypto-/ some Micro- & mostly VF/F Re-xln. xln/ vuggy and rare sucrosic por. some Micro-/ mostly VF & F subeuhedral to rare euhedral xtals. Interbedded Friable & Firm. No/ tr and mostly Fair to Good vis por.
DOL - mostly Tans & Off White. some Lt Gray. Sing/ tr Mot. rare Crypto-/ some Micro- & mostly VF/F Re-xln. xln/ vuggy and rare sucrosic por. some Micro-/ mostly VF & F subeuhedral to rare euhedral xtals. Interbedded Friable & Firm. No/ tr and mostly Fair to Good vis por. rare pcs: Med Brown, spotted to uniform stian. No odor. No free oil or gas. No cut/ residual. No acid/ residual.
DOL - mostly Off White/ some Tan. tr Lt Gray. Sing/ tr Mot. rare Crypto-/ some Micro- & mostly VF/F Re-xln. xln/ vuggy and rare sucrosic por. some Micro-/ mostly VF & F subeuhedral to rare euhedral xtals. Interbedded Friable & Firm. No/ tr and mostly Fair to Good vis por. rare pcs: Med Brown, spotted to uniform stian. No odor. No free oil or gas. No cut/ residual. No acid/ residual.
Add: DOL - Off White mottled with Pale Lt Green. rare Crypto-/ some Micro- Re-xln. xln por. Firm. No vis por.
Add few pcs: Siltstone - Pale Lt Green. Sing.
Add: CHERT - rare Clear/ mostly White & Off White. Semitransparent. tr, minutes dark specks. No tripoltitic.
DOL - Pale Lt Gray/ Lt Gray. some Off White. Sing/ tr Mot. rare Crypto-/ some Micro- & some VF Re-xln. tr xln/ some vuggy por. some Micro-/ mostly VF & F subeuhedral to rare euhedral xtals. Interbedded Friable & Firm. No/ tr and mostly Fair to Good vis por.
Vis: 62 Wt: 8.8 LCM: 14#
Vis: 59 Wt: 8.8 LCM: 12#
Vis: 60 Wt: 8.9 LCM: 14#
Vis: 58 Wt: 8.8 LCM: 15#
Vis: 57 Wt: 8.9 LCM: 14#
Vis: Wt: 8.9
LCM: 13#
Vis: 57 Wt: 8.9 LCM: 13#
Vis: 50 Wt: 8.8 LCM: 12#
Vis: 54 Wt: 8.8 LCM: 15#
Vis: 55
Wt: 8.8
LCM: 14#
100 units = 1% Gas
0
TG, C1-C5
100
Vis: 55 Wt: 8.8 LCM: 14#
Vis: 59
Wt: 8.8
LCM: 13#
6,223' -
Vis: 59 Wt: 9.0
Wtr Loss: 9.0
PV: 15 YP: 23
Gels: 21/54
pH: 10.5 LCM: 13#
Cl (3,000) Ca (80)
Solids: 4.8%


LOST
CIRC
@
6,262'
RTD
RTD: 6,262'
No LTD:
No ATD:
6250
6300
HIBBARD #1 SWD
250' FNL & 200' FEL, NE/4 23-T34S-R9W
Harper County, Kansas
WOOLSEY OPERATING CO., LLC.
Wichita, Kansas
XXXXXXX
Losing Fluid
No Mud Returns
Vis: 58 Wt: 9.0 LCM: 14#
100 units = 1% Gas
XXXXXXXX RTD XXXXXXXX
Wellsite Geologist:
Curtis Covey
COVEY - The Well Watchers
Well Number: 1,107