



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1181837
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: _____

1181837

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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Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	BRIDGES 1-26
Doc ID	1181837

Tops

Name	Top	Datum
Stone Corral	2357	+655
Bs/Stone Corral	2376	+636
Heebner	3931	-920
Muncie Creek	4148	-1137
Stark	4248	-1237
Hushpuckney	4296	-1285
Marmaton	4371	-1360
Little Osage	4499	-1488
Morrow	4655	-1643
Mississippian	4716	-1704
LTD	4800	

GRAND MESA

OPERATING COMPANY

(316) 265-3000
FAX: (316) 265-3455

1700 N. WATERFRONT PARKWAY
BLDG. 600
WICHITA, KANSAS 67206-5514

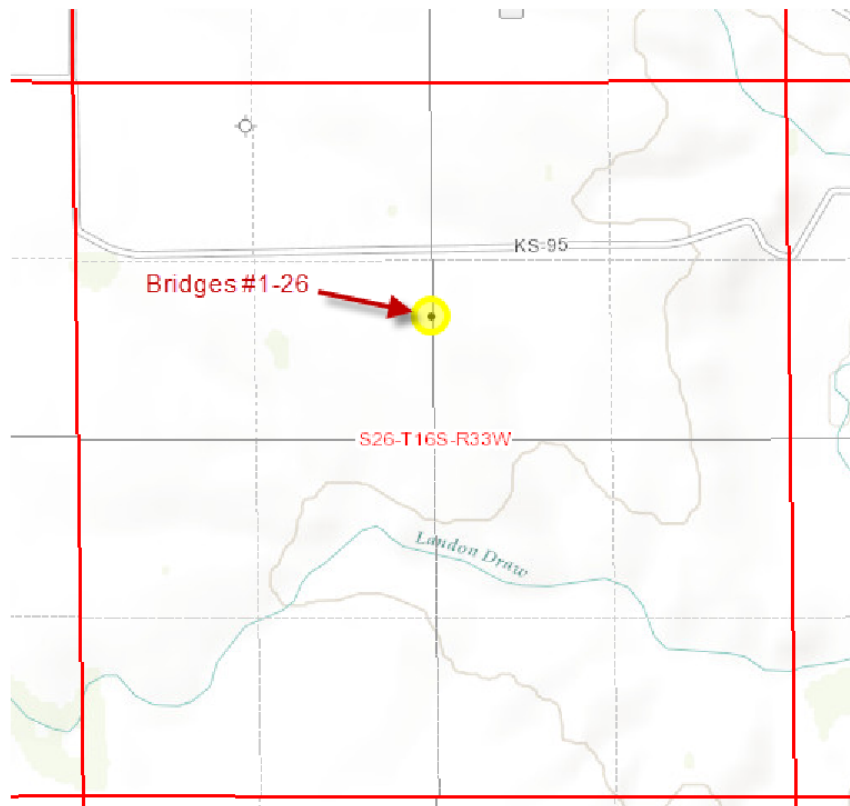
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Bridges #1-26
Location: 1727' FNL, 2625' FEL, Sec 26-T16S-R33W, Scott County, Kansas
License Number: API: 15-171-21015 Region: Scott County
Spud Date: 12/27/2013 Drilling Completed: 01/04/2014
Surface Coordinates: Lat: 38.6367524
Long: -100.9346668
Bottom Hole Coordinates: Vertical hole
Ground Elevation (ft): 3002' K.B. Elevation (ft): 3011'
Logged Interval (ft): 3700' To: RTD Total Depth (ft): 4798'
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical

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

GEOLOGIST

Name: Kent R. Matson
Company: Matson Geological Services, LLC
Address: 33300 W. 15th Street S.
Garden Plain, Kansas 67050
316-644-1975



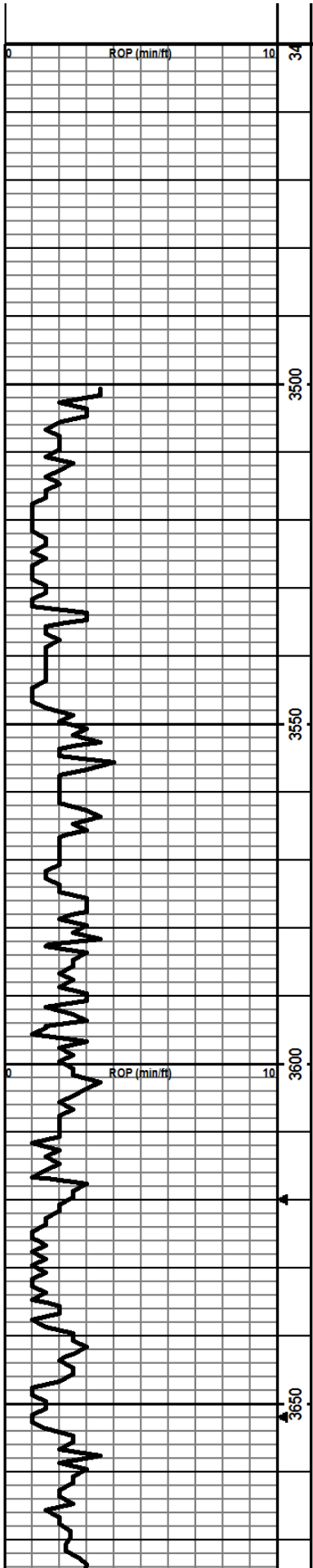
COMMENTS

Contractor: Duke Drilling Rig #4.
 Pusher: Rich Wheeler.
 Surface Casing: 8 5/8" set at 221' (KB) w/165sx cement.
 Production Casing: Production casing was not installed and the hole was plugged and abandoned based on field observations of drill cuttings and electric log review. DSTs were not conducted based on drill cutting evaluations.
 Mud by: MudCo.
 DST's by: Diamond Testing - No DSTs were conducted.
 Logs by: Weatherford (DIL w/SP, CN-CD, ML).
 RTD= 4798', -1787'.
 LTD= 4800', -1789'.

FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Queen Hill	3866'	-855	3868'	-857
Heebner Shale	3930'	-919	3931'	-920
Toronto	3949'	-938	3951'	-940
Lansing	3975'	-964	3977'	-966
Muncie Creek Shale	4148'	-1137	4148'	-1137
Stark Shale	4248'	-1237	4248'	-1237
Hushpuckney Shale	4296'	-1285	4296'	-1285
Marmaton	4371'	-1360	4371'	-1360
Upper Fort Scott	4475'	-1464	4477'	-1466
Little Osage Shale	4499'	-1488	4499'	-1488
Excello Shale	4517'	-1506	4517'	-1506
Johnson Zone	4590'	-1579	4590'	-1579
Morrow	4654'	-1643	4655'	-1644
Mississippian	4715'	-1704	4716'	-1705
RTD	4798'	-1787		
LTD			4800'	-1789

ROP (min/ft)	rop	Depth	Lithology	CFS Point	Oil Shows	Geological Descriptions	Remarks
	—						



Morning Report Depth/Activity

12/27/2013, Spud
 12/28, drill @ 790'
 12/29, drill @ 2390'
 12/30, drill @ 3164'
 12/31, drill @ 3593'
 01/01/2014, drill @ 4018'
 01/02, drill @ 4265'
 01/03, drill @ 4570'
 01/04, drill @ 4766'; TD @ 4798', E-logging.

Anhydrite: Top @ 2354', Botton @ 2376'

ROP Data begins @ 3500' on 12/31/2013

NOTE: No DSTs were conducted during drilling operations based on drill cutting evaluations.

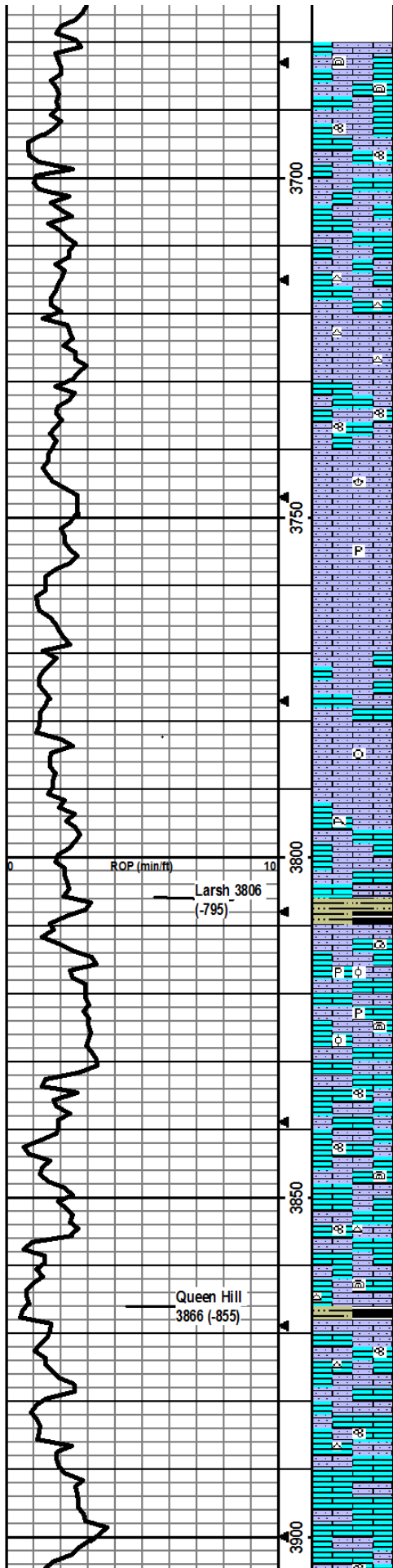
Mudco Check #1 @ 0'
 12/21/13; predrilling recommendations.

Mudco Check #2 @ 2639'
 12/29/13 12:00pm
 wt vis pH chl
 9.8 29 7.0 60000
 Filt LCM
 n/c 1

Mudco Check #3 @ 3181'
 12/30/13 11:30am
 wt vis pH chl
 9.5 30 7.0 42000
 Filt LCM
 n/c 1

Mudco Check #4 @ 3608'
 12/31/13 10:40am
 wt vis pH chl
 8.6 61 11.0 2200
 Filt LCM
 5.6 2

Drill cutting samples at 10' intervals start at



3700'.

LS: lt brn/gry, micro-med xtal, foss frags/algae, some vry silty, some ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/gry, micro-med xtal, foss frags/fusn, silty, min in-xtal/frac por, no odor, ns.

LS: crm/lt-med gry, micro-med xtal, foss frags, some vry silty, some wht chalk, min in-xtal por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags, some vry silty, some wht grainy chert, min in-xtal por, no odor, ns.

LS: lt brn/lt-med gry, micro-med xtal, min foss frags, vry silty, some wht grainy chert, min in-xtal/frac por, no odor, ns.

LS: lt brn, micro-med xtal, foss frags/fusn, some vry silty, some ppt in-xtal por, no odor, ns.

LS: crm/lt brn/lt-med gry, micro-fn xtal, min foss frags/brac, vry silty, some chalky, min ppt in-xtal por, no odor, ns.

LS: crm/lt brn/lt-med gry, micro-fn xtal, min foss frags, vry silty, slt pyritic, some soft wht chalky pcs, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-fn xtal, foss frags, vry silty, some wht chalky pcs, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt-med gry, micro-fn xtal, min foss frags, vry silty, increase in wht soft chalk, min in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt-med gry, micro-fn xtal, min foss frags/crin, vry silty, some chalky, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt-med gry, micro-med xtal, foss frags/coral, silty, some chalky, min frac por, no odor, ns.

LS: crm/lt brn/lt-med gry, micro-fn xtal, min foss frags, vry silty, some chalky, some ppt in-xtal/frac por, no odor, ns.

SH: med-dk gry, silty, carb, soft-firm, fissile.

LS: lt brn/lt gry, micro-med xtal, foss frags/gas/ool, some vry silty, min in pyrite, some ppt in-xtal por, no odor, ns.

LS: lt brn/lt-med gry, micro-med xtal, foss frags/algae/ool, some vry silty, some chalky, min pyrite, min ppt in-xtal/frac por, no odor, ns.

LS: lt brn/lt-med gry, micro-fn xtal, foss frags/fusn, some silty, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt-med brn/lt-med gry, micro-med xtal, min foss frags/fusn/algae, some silty, some chalky, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, foss frags/fusn, some silty, some soft wht chalky pcs, some wht/lt gry chert, min ppt in-xtal por, no odor, ns.

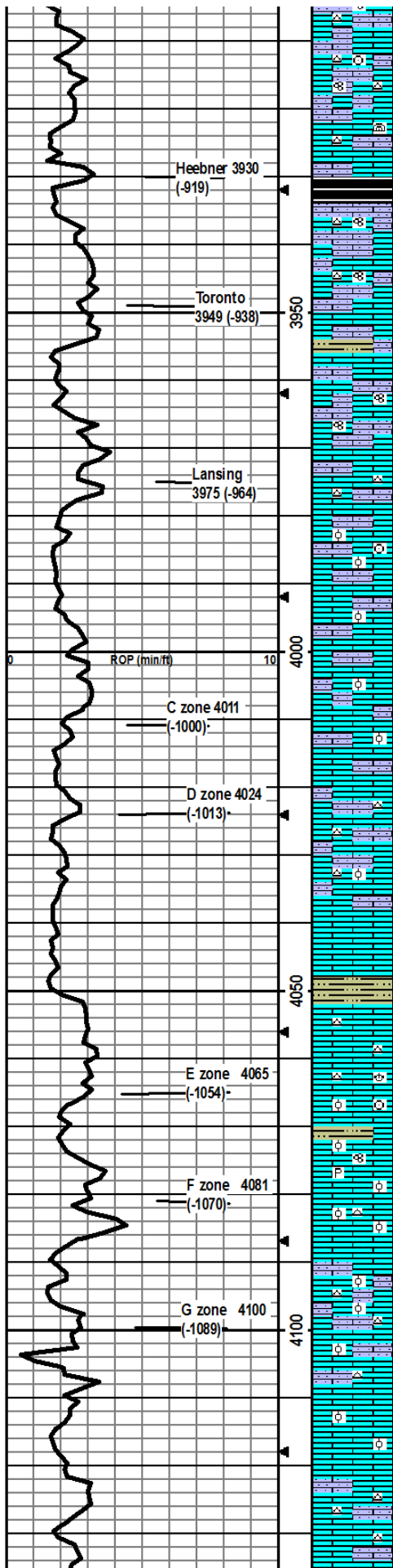
SH: med-dk gry/blk, silty, carb, soft-firm, fissile.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/fusn, some silty, some wht chert, some chalky, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, min foss frags/fusn, some silty, some wht/lt gry/orange chert, some ppt in-xtal/frac por, no odor, ns.

LS: crm/lt-dk brn/gry, micro-fn xtal, foss frags, some silty, min soft wht chalky pcs, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-fn xtal, foss frags/min fusn, some silty, some chalky, some wht/lt gry chert, min ppt in-xtal/frac por, no odor, ns.



some chalky, some lt gry chert, min frac por, no odor, ns.

LS: crm/lt gry, micro-med xtal, foss frags/fusln/crin, some silty, wht/lt gry chert, some chalky, min frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, min foss frags/algae, some silty, some wht/lt gry chert, min ppt in-xtal/frac por, no odor, ns.

SH: dk gry-blk, silty, carb, firm, fissile.

LS: crm/lt brn/gry, micro-fn xtal, min foss frags/fusln, some silty, min lt gry chert, min ppt in-xtal por, no odor, ns.

LS: crm/lt brn/gry, micro-fn xtal, foss frags/fusln, some silty, some wht/lt gry chert, min in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags, some silty, some gry soft silty SH, min frac por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, min foss frags/fusln, some silty, wht/lt gry chert, some frac por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, min foss frags, some silty, some chalky pcs, some wht/lt gry chert, min frac por, no odor, ns.

LS: crm/lt gry, micro-med xtal, foss frags/crin/ool, silty, some chalky pcs, wht/lt gry chert, min frac por, no odor, 1 pcs in 60 min smpl w/ppt-fn in-xtal por w/sfo, yel flor/cut, ssfo.

LS: crm/lt brn, micro-med xtal, min foss frags/ool, some chalky, some wht/lt gry chert, min ppt in-xtal por, no odor, ns.

Same as above w/3 pcs w/ppt-fn in-xtal por w/sfo, no odor, yel flor/cut, ssfo.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/min ool, some pyritic, some chalky, min ppt in-xtal por, 1 pce in 30 min smpl w/brn oil stain, 1 pcs wfo in 4030 smpl, no odor, silty el flor/cut, ssfo.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags, some silty, some chalky, wht/lt brn chert, some ppt-fn in-xtal por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/ool, some silty, some chalky, some wht chert, some ppt-med in-xtal por, no odor, 1 pcs in 60 min smpl w/sfo, yel flor/cut, ssfo.

LS: crm/lt brn, micro-med xtal, min foss frags, some ppt-fn in-xtal por, no odor, ns.

SH: lt-med gry/greenish gry/gryish brn, silty, firm-hard.

LS: crm/lt brn, micro-med xtal, min foss frags, wht/crm/brn chert, some chalky, some ppt-fn in-xtal por, no odor, ns.

LS: crm/lt brn/lt gry, micro-fn xtal, min foss frags/brac/crin/ool, min pyritic, some chalky, some wht chert, min ppt-fn in-xtal por, 3 pcs in 30 min and 1 pce in 60 min smpls w/sfo, 1 pce wdk brn thicker tar oil, yel flor/cut, slit crush odor, sfo.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/fusln/ some w/abund ool, ool pcs are dense, min pyritic, med-dk gry silty SH, min frac por, no odor, ns.

LS: crm/lt brn, micro-med xtal, foss frags/ool, some chalky, some lt gry chert, 1 pce in 30 min w/in-ool ppt-fn por w/sfo, yel flor/cut, slit crush odor, ssfo.

LS: crm/lt brn, micro-med xtal, foss frags/ool, some silty, wht chert, some med-dk gry silty SH, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn, micro-med xtal, foss frags/some ool, some silty, wht chert, min frac por, no odor, ns.

LS: crm, micro-med xtal, min foss frags w/some ool/oo-castic, some fn-med in-ool/oo-castic por, no odor, ns.

LS: crm/lt brn, micro-med xtal, min foss frags, some silty, some wht chert, some chalky, min ppt in-xtal por, no odor, ns.

LS: same as above.

CF S @ 3990'
30"/60"

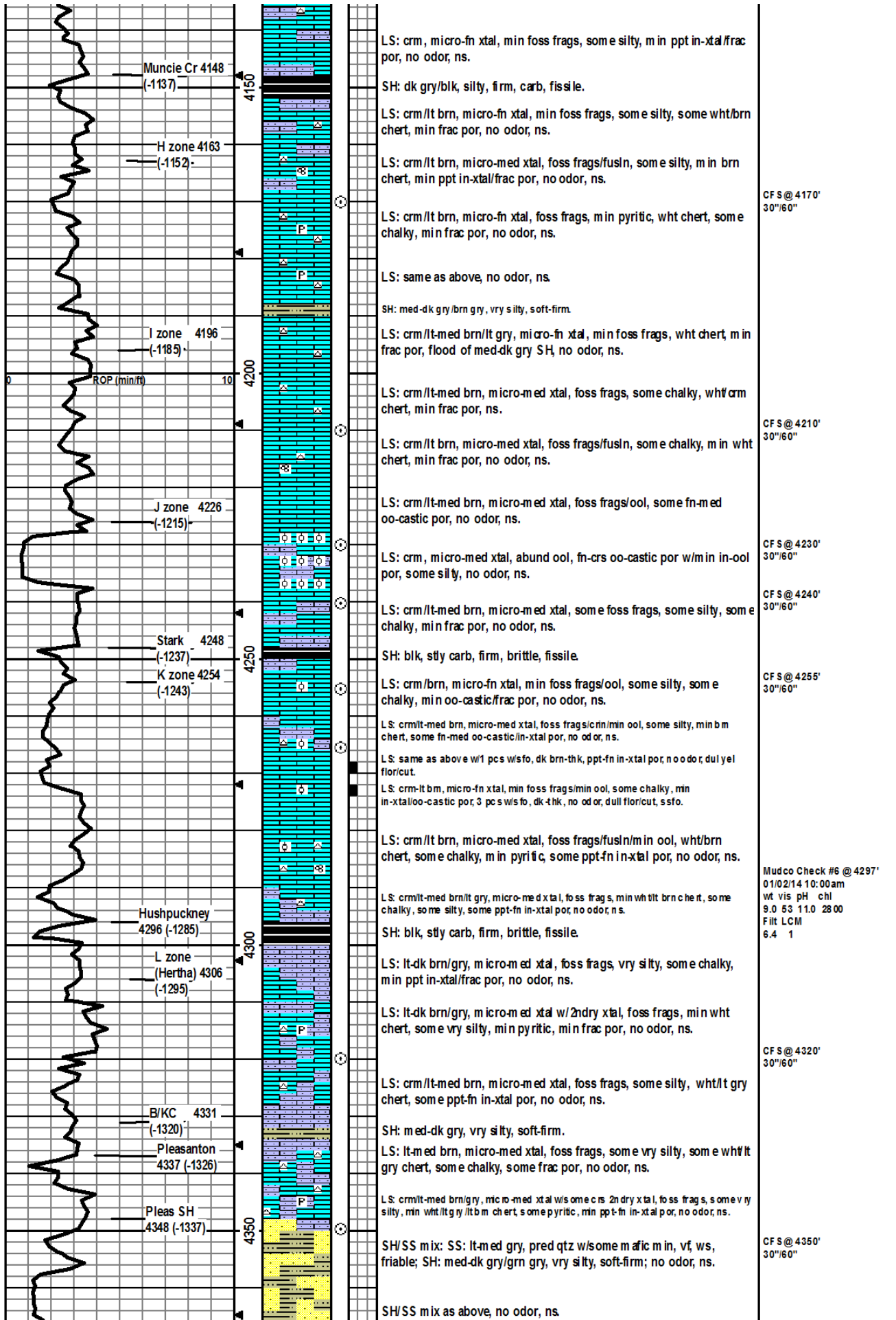
CF S @ 4015'
30"/60"

CF S @ 4035'
30"/60"

Mudco Check #5 @ 4060'
01/01/14 10:00am
wt vis pH chl
9.0 59 10.0 2500
Filt LCM
6.8 2

CF S @ 4070'
30"/60"

CF S @ 4085'
30"/60"



CFS @ 4170'
30"/60"

CFS @ 4210'
30"/60"

CFS @ 4230'
30"/60"

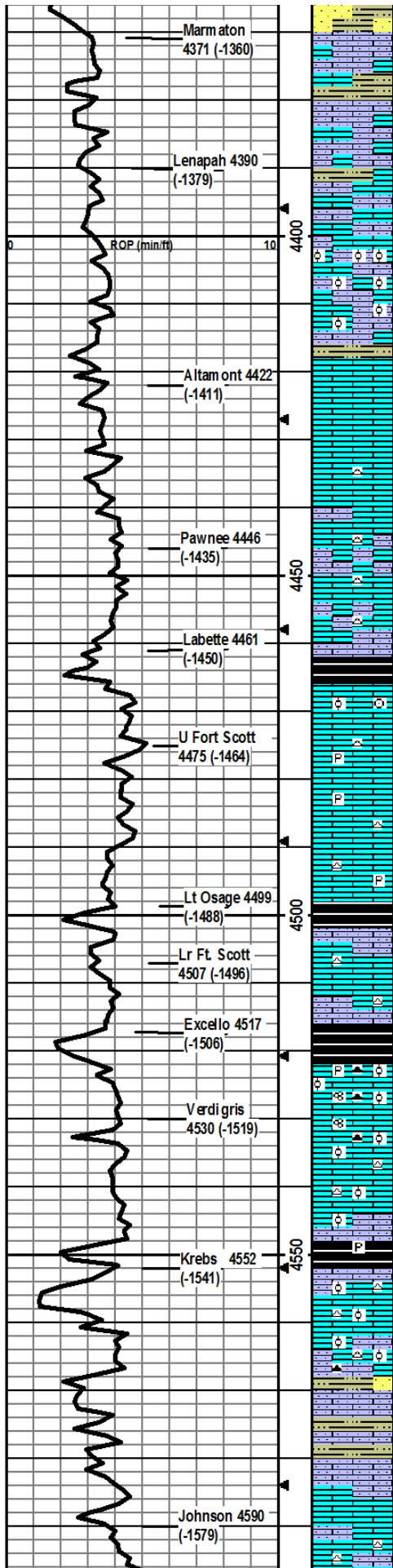
CFS @ 4240'
30"/60"

CFS @ 4255'
30"/60"

Mudco Check #6 @ 4297'
01/02/14 10:00am
wt vis pH chl
9.0 53 11.0 28 00
Filt LCM
6.4 1

CFS @ 4320'
30"/60"

CFS @ 4350'
30"/60"



LS: crm/lt brn, micro-fn xtal, some foss frags, some chalky, some silty, min frac por, no odor, ns.
 SH: med-dk gry/grn gry, vry silty, soft-firm.

LS: crm/lt brn, micro-fn xtal, min foss frags, some silty, some chalky, min frac por, no odor, ns.
 LS: crm/lt brn/lt gry, m micro-fn xtal, m in foss frags, some silty, some gry firm silty SH, min ppt in-xtal por, no odor, ns.
 LS: crm/lt brn/yel brn, m micro-med xtal, min foss frags w/abund ool, some silty, some chalky, min frac por, no odor, ns.
 LS: crm/lt brn/yel brn, m micro-med w/some crs xtal, min foss frags w/some ool, some chalky, min frac por, no odor, ns.
 SH: lt-med gry, vry silty, soft.

LS: crm, micro-fn xtal, min foss frags, some chalky, m in frac por, no odor, ns.
 LS: crm/lt brn, micro-med xtal, m in foss frags, some lt gry chert, m in frac por, no odor, ns.
 LS: crm/lt brn, micro-fn xtal, min foss frags, some silty, some wht/lt gry chert, some frac por, no odor, ns.

LS: crm, micro-fn xtal, min foss frags, some silty, some wht/lt gry chert, some chalky, m in frac por, no odor, ns.
 SH: dk gry/blk, slt carb, firm, fissile.
 LS: crm/lt brn, micro-med xtal, m in foss frags/crin w/some dense ool pcs, m in frac por, no odor, ns.
 LS: crm/lt gry, m micro-fn xtal, m in foss frags, crm/lt brn chert, m in pyritic, min frac por, no odor, ns.
 LS: same above, some chalky, no odor, ns.

LS: crm/lt gry, m micro-fn xtal, foss frags, stly pyritic, some chalky, lt brn chert, no vis por, no odor, ns.
 SH: blk, carb, gas bubbles, hard, fissile.

LS: crm/lt-med brn/lt gry, micro-med xtal, m in foss frags, some silty, crm/lt-med brn chert, min frac por, no odor, ns.
 SH: dk gry/blk/some brn tint, carb, slt gas bubbles, some silty, firm, fissile.

LS: crm/lt-med brn, micro-med xtal, foss frags/fusln/ool, lt-med brn chert, 2 pcs w/ppt fn in-ool por w/sfo, yel flor/cut, no odor, ss fo.
 LS: crm/lt-dk brn, micro-med xtal, foss frags/fusln/ool, some chalky, wht/lt gry chert, stly pyritic, mostly dense w/1 pce w/ppt-fn in-oo por w/sfo, yel flor/cut, no odor, sfo.
 LS: crm/lt-med brn, micro-med xtal, foss frags/ool, some silty, some chalky, wht/lt brn chert, some frac por, no odor, ns.

SH: dk gry/blk/dk brn, carb, silty, pyritic, firm, fissile.
 LS: crm/lt-med brn, micro-med xtal, min foss frags w/some abund ool pcs, some silty, lt brn chert, 4 pcs w/ppt-fn in-oo por w/sfo, yel flor/cut, no odor, sfo.

LS: crm/lt brn, micro-med xtal, foss frags/ w/dense ool ps, some silty, wht/lt gry/lt-dk brn chert, frac vis por, no odor, ns.

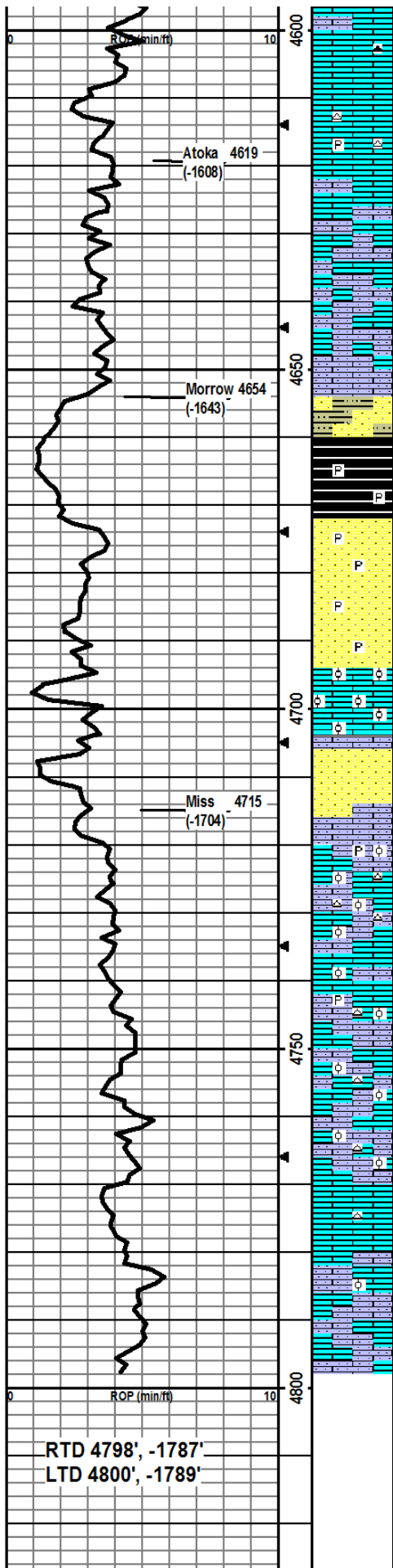
SH/SS/LS mix: SH: med-dk gry/greenish gry/dk brn, soft-firm, silty; SS: gry, med qtz vs w friable; LS: crm/lt brn/lt gry, micro-med xtal, min foss frags, vry silty, min ppt in-xtal por, no odor, ns.

LS: crm/lt-med brn/gry, m micro-med xtal, min foss frags, some vry silty/sndy, some chalky, frac por, no odor, ns.

LS: crm/lt-med brn, micro-med xtal, foss frags, wht/lt brn chert, some silty, 1 pce w/ppt in-xtal por w/sfo, dul yel flor/yel cut, slt crush odor,

CF S @ 4570'
 30"/60"

Mudco Check #7 @ 4574'
 01/03/14 08:30am
 wt vis pH chl
 9.3 54 11.0 40.00
 Filt LCM
 6.4 1



ssfo.

LS: crm/lt-med brn, micro-med xtal, foss frags/fusin, lt brn chert, 8 pcs w/ppt in-xtal por w/sfo, dul yel flor/cut, no odor, sfo.

LS: crm/lt brn, micro-fn xtal, min foss frags, some lt brn gry chert, 5 pcs in 30 min and 4 pcs in 60 min smpls w/ppt por w/sfo, no odor, yel flor/cut, sfo.

LS: lt-med brn, micro-med xtal, foss frags, some vry silty, min frac por, no odor, ns.

LS: crm/lt-med brn/some green encrusted, min foss frags, some vry silty, flood of m-e-dk gry/greenish gry/brn vry silty SH, 3 pcs w/ppt-med in-xtal por w/sfo, dull yel flor/cut, no odor, ssfo.

LS: as above w/ns of oil; cont flood of SH as above.

SS/SH mix: SH - med-dk gry/greenish gry/maroon brn, vry silty, soft-firm SS - lt-med br/lt greenish gry/lt gry, p red qtz, glau, ws, wr, vf, some hard, some friable, ns. 1 pce of LS w/ppt-fn in-xtal por w/sfo.

SH: flood of dk gry/blk, carb, vry silty, some pyritic, soft-firm, fissile

SS: lt-med gry, ws, vf, wr, hard but friable, CaCO3 matrix, some pyritic, no odor, ns.

SS: same as above w/some glau, no odor, ns.

LS: crm/lt brn, micro-med xtal, min foss frags w/abund ool pcs, some lt brn chert, min oo-castic por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, vry sandy, chalky, soft, no odor, ns.

SS: wht/lt gry, vf-m, mod sort, sr-wr, some vry chalky, chalky is soft non-chalky is hard, friable, no odor, ns.

LS: crm, micro-med xtal, foss frags/dense ool pcs, some chalky, some silty/sandy, min pyritic, min wht grainy chert, min ppt-fn in-xtal/in-ool por, no odor, ns.

LS: crm, micro-med xtal, foss frags/ool, some chalky, some silty/sndy, wht/crm chert, min frac por, no odor, ns.

LS: crm/lt brn, micro-med xtal, min foss frags w/some abund ool pcs, some silty/sndy, some chalky pcs, wht/lt brn chert, min pyritic, some frac por, no odor, ns.

LS: crm/lt gryish crm, micro-med xtal, some ool pcs, some silty/sndy, lt brn/lt orangish brn chert, min frac por, no odor, ns.

LS: crm/lt brn w/some dk brn, micro-med xtal, some ool pcs, some vry sndy, some chalky, min crm chert, some frac por, no odor, ns.

LS: crm, micro xtal, no foss, some wht/lt brn grainy chert, no vis por, no odor, ns.

LS: crm/m in lt brn, micro-med xtal, some ool pcs, some sandy pcs, some chalky pcs, min frac por, no odor, ns.

LS: crm/lt gryish crm, micro-fn xtal, some sndy pcs, some chalky, min frac por, no odor, ns.

TD @ 4798.

CF S @ 4620'
30"/60"

CF S @ 4665'
30"/60"

CF S @ 4675'
30"/60"

CF S @ 4685'
30"/60"

CF S @ 4695'
30"/60"

CF S @ 4715'
30"/60"

CF S @ 4735'
30"/60"

Mudco Check #8 @ 4779'
01/04/14 08:00am
wt vis pH chl
9.4 54 10.5 4000
Filt LCM
7.2 1

CF S @ 4798'
30"/60"
Cir 1.5 hrs total to clean hole.

RTD 4798', -1787'
LTD 4800', -1789'

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