

LITHOLOGY STRIP LOG

WellSight Systems

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

Measured Depth Log

Well Name: Dale No. 1-34

Location: 2548'FSL & 352'FEL of Section 34-T12S-R32W Logan County, KS

License Number: API: 15-109-20995

Region: Wildcat

Spud Date: 3-28-11

Drilling Completed: 4-7-11

Surface Coordinates:

Bottom Hole Vertical hole

Coordinates:

Ground Elevation (ft): 2983'

K.B. Elevation (ft): 2988'

Logged Interval (ft): 3600' To: RTD

Total Depth (ft): 4750

Formation: Mississippian at RTD

Type of Drilling Fluid: Chemical

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

OPERATOR

Company: Grand Mesa Operating Company

Address: 1700 N. Waterfront Parkway

Bldg. 600

Wichita, KS 67206-5514

GEOLOGIST

Name: Macklin M. Armstrong, P.G.

Company:

Address: 5140 North Valentine Road

Wichita, Kansas 67219

COMMENTS

Morning Report Depth/Activity at 7 a.m.

3-28-11 Spud

3-29-11 Drilling at 800'

3-30-11 Drilling at 3010'

3-31-11 Drilling at 3515'

4-01-11 Cir for Slps at 3994'

4-02-11 Drilling at 4135'

4-03-11 DST No. 3 at 4260'

4-04-11 Drilling at 4395'

4-05-11 DST No. 4 at 4575'

4-06-11 Logging at 4750'

4-07-11 Set 5 1/2" casing

Contractor: Murfin Drilling Company Rig #24

Pusher: Tony Martin

Surface Casing: 8 5/8" 23# set at 216'

Production Casing: 5 1/2" 15.5# set at 4740'

Mud by: MudCo/Service Mud, Inc.

Engineer: Reid Atkins

DST's by: Eagle Testers

Tester: David Nichols

Logs by: Weatherford (DIL, CN-CD, ML)

Deviation Surveys: 1/4 deg. at 216'; 1/4 deg. at 3403'; 1/2 deg. at 4100'; 1 deg. at 4575'; 1 deg. at 4750'

Bit Record: 12 1/4" Smith RDS 0 to 216' 2 hours
 7 7/8" Smith MI616 216 to 3403' 37 3/4 hours
 7 7/8" Smith GX225 3403 to 4260' 43 1/2 hours
 7 7/8" Smith F27I 4260 to 4575' 27 hours
 7 7/8" Smith F27I 4575 to 4750' 13 1/2 hours

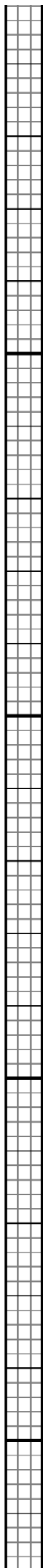
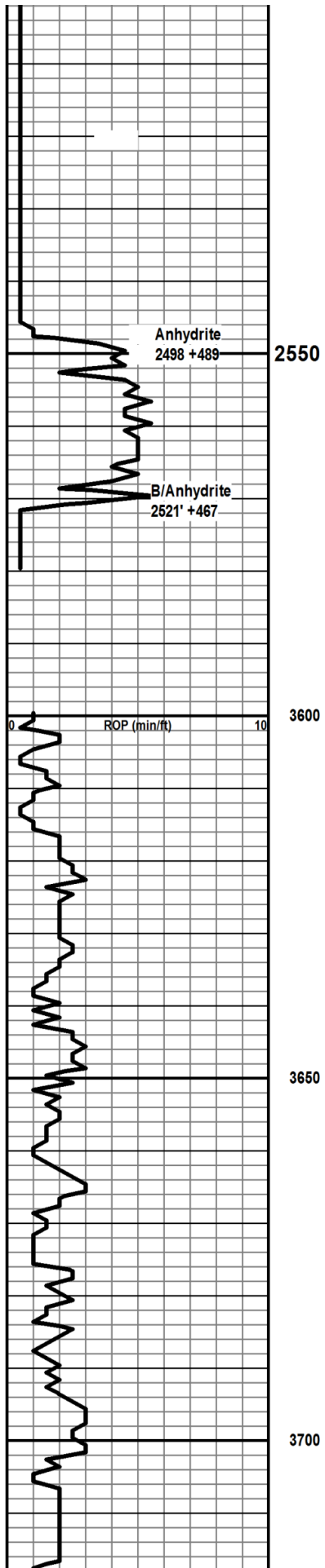
Reference Well: Murfin Drilling Company Kuhlman 'E' No. 1-35 SE NW NW SW Sec 35 T12S R32W Logan County, Kansas

Pipe was set to further test the Johnson Zone.

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	SAMPLE TOPS		LOG TOPS		Murfin Kuhlman 'E' No.1-35
	Depth	Datum	Depth	Datum	
Anhydrite	2498'	+489	2493'	+495	
B/Anhydrite	2521'	+467	2517'	+471	
Heebner	3963'	-975	3959'	-971	+9
Toronto	3992'	-1004	3987'	-999	+10
Lansing	4006'	-1018	4000'	-1012	+10
Muncie Creek	4148'	-1160	4145'	-1157	+7
Stark	4231'	-1243	4225'	-1237	+10
Hushpuckney	4268'	-1280	4263'	-1275	+7
B/KansasCity	4301'	-1313	4298'	-1310	+5
Marmaton	4330'	-1342	4328'	-1340	+5
Pawnee	4409'	-1421	4404'	-1416	+1
Fort Scott	4476'	-1488	4471'	-1483	+2
Cherokee Shale	4524'	-1536	4519'	-1531	-2
Johnson Zone	4566'	-1578	4561'	-1573	-1
Morrow Shale	4589'	-1601	4585'	-1597	-4
Morrow Sand	4619'	-1631	4614'	-1626	-12
Mississippi	4662'	-1674	4658'	-1670	-22
Total Depth	4750'	-1762	4747'	-1759	

Curve Track 1 ROP (min/ft)		Depth	Lithology	SSO, EFG, HWS	Geological Descriptions	Remarks
0	10					
2500						



Bit Trip at 3404'

Pipe Strap at 3404' 0.55' short

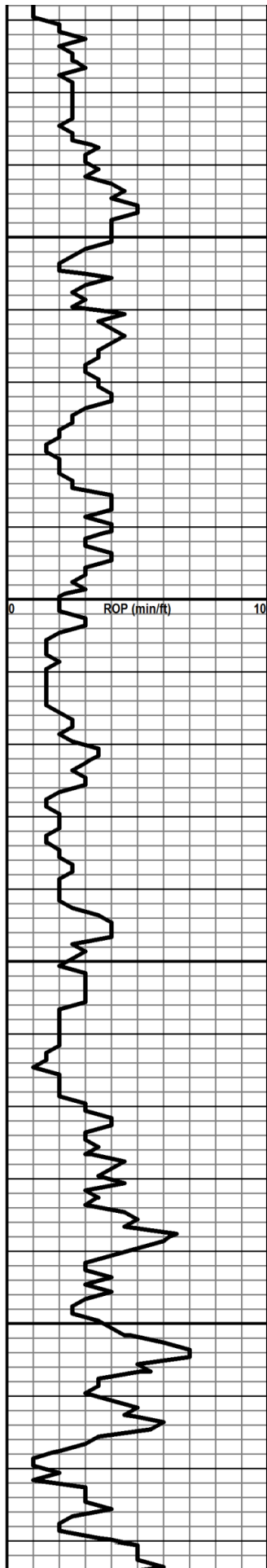
Geologist on Loc at 3600' at 9:24 p.m. on 3-31-11

Sample Cuttings: KGS Well Sample Library

Testing: Eagle Testers

Deviation:
 216' - 1/4
 3404' - 1/4
 4100' - 1/2
 4575' - 1
 4750' - 1

Electric Logs:
 Westherford:
 DIL-GR-SP
 CN/CDL-GR-PE
 MICRO LOG

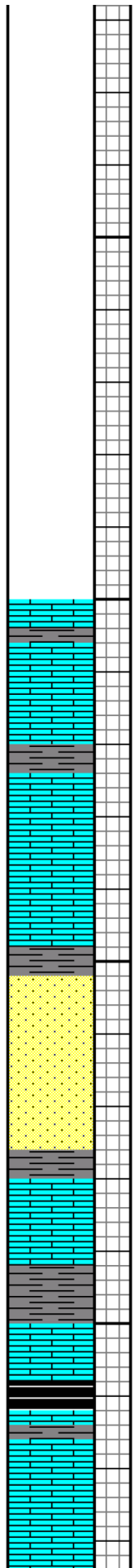


3750

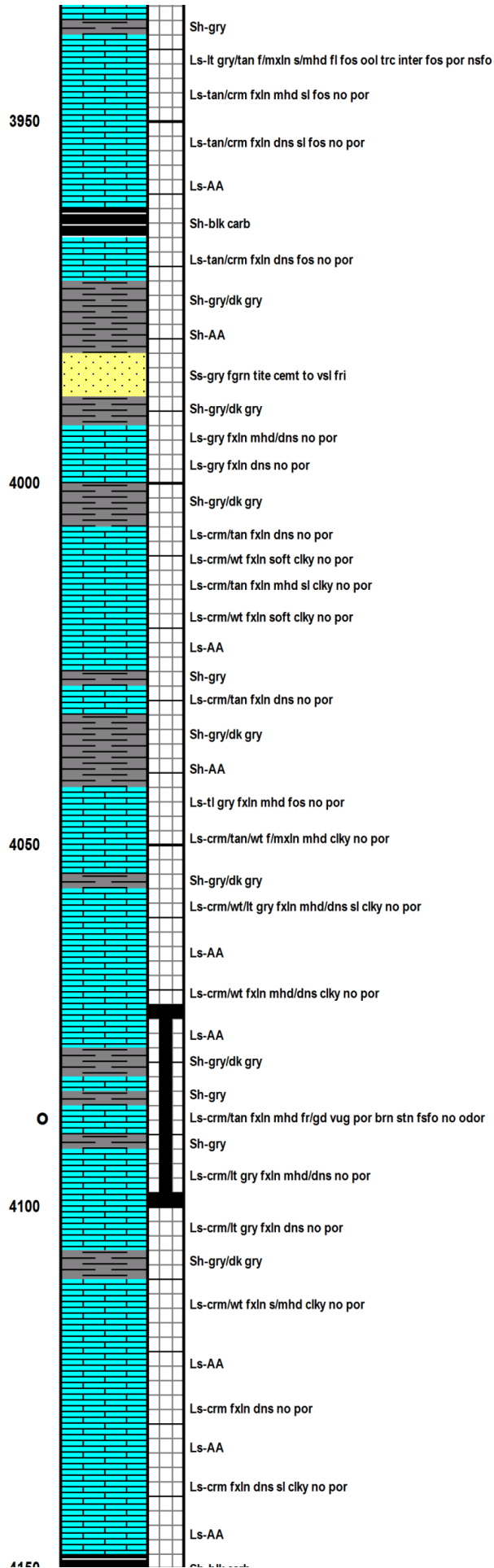
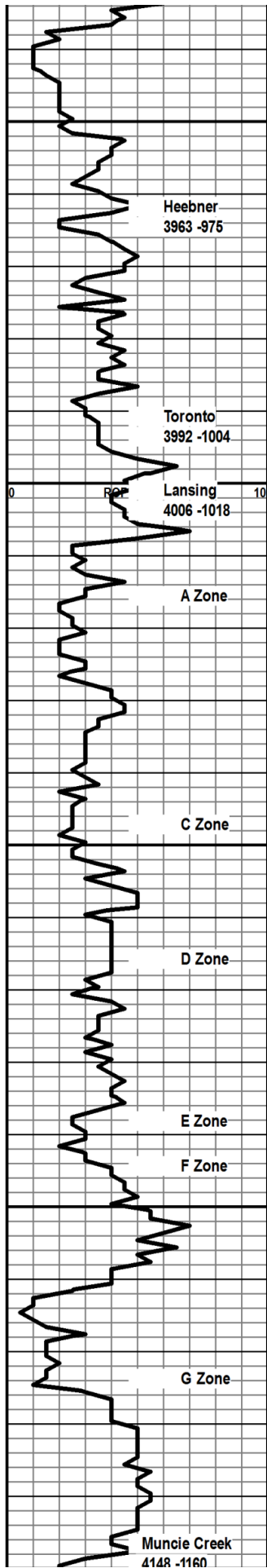
3800

3850

3900



- Ls-crm/tan fxln mhd/dns no por
- Sh-gry/dk gry
- Ls-crm/lt tan cxln s/mhd fos sl oomoldic/ooc
- Ls-AA
- Sh-gry/dk gry
- Ls-crm/tan f/cxln mhd fos oomoldic sl dolo clky no por
- Ls-AA
- Ls-AA
- Ls-tan fxln dns sl fos no por
- Sh-gry/dk gry
- Ss-lt gry/gry fgrn sub ang tite cement
- Ss-lt gry/gry fgrn sub rnd to sub ang sl fri to tite cement
- Ss-AA
- Ss-red brn fgrn sub rnd to sub ang tite cement
- Sh-gry/dk gry
- Ls-crm/lt gry fxln mhd/dns no por
- Ls-crm/lt gry fxln dns no por
- Sh-gry/dk gry
- Ls-crm/lt gry fxln dns no por
- Sh-blk carb
- Sh-gry/dk gry
- Ls-crm/lt gry fxln mhd clky trc xln por nsfo
- Ls-crm/lt gry mhd/dns sl clky no por
- Ls-crm/lt gry dns no por



CFS at 3994' - 45"

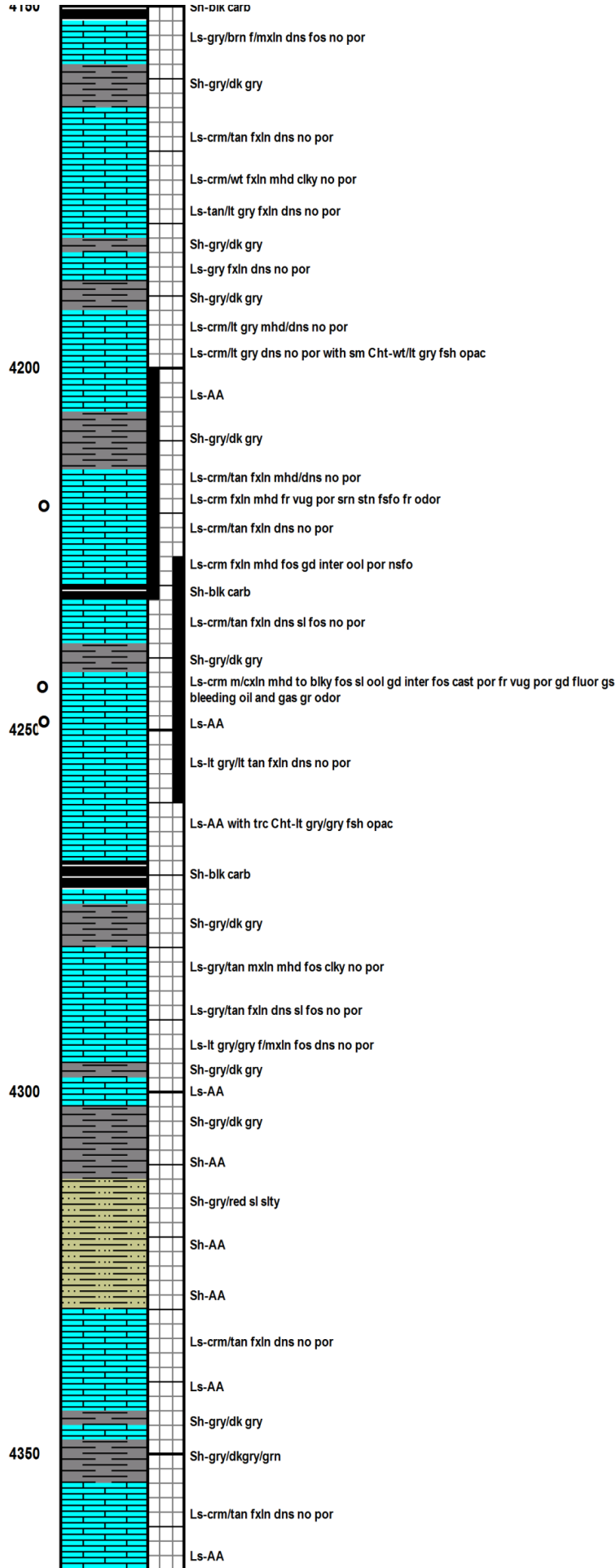
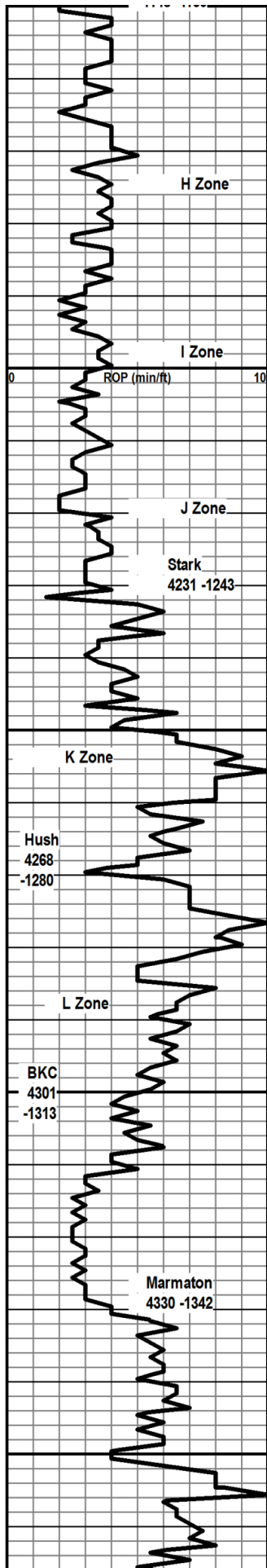
Mud Data at 4016' at
9 a.m. on 4-1-11 Wt 9 Vis
59 WL 6.4 pH 10.5 Chlor
1500 YP 19

CFS at 4054' - 45"

DST No. 1
4072' to 4100'

CFS at 4090' - 45"

CFS at 4100' - 45"



Mud Data at 4180' at 10:30 a.m. on 4-2-11 Wt 9.2 Vis 66 WL 7.2 pH 10 Chlor 2000 YP 22

DST No. 2 4200' to 4232'

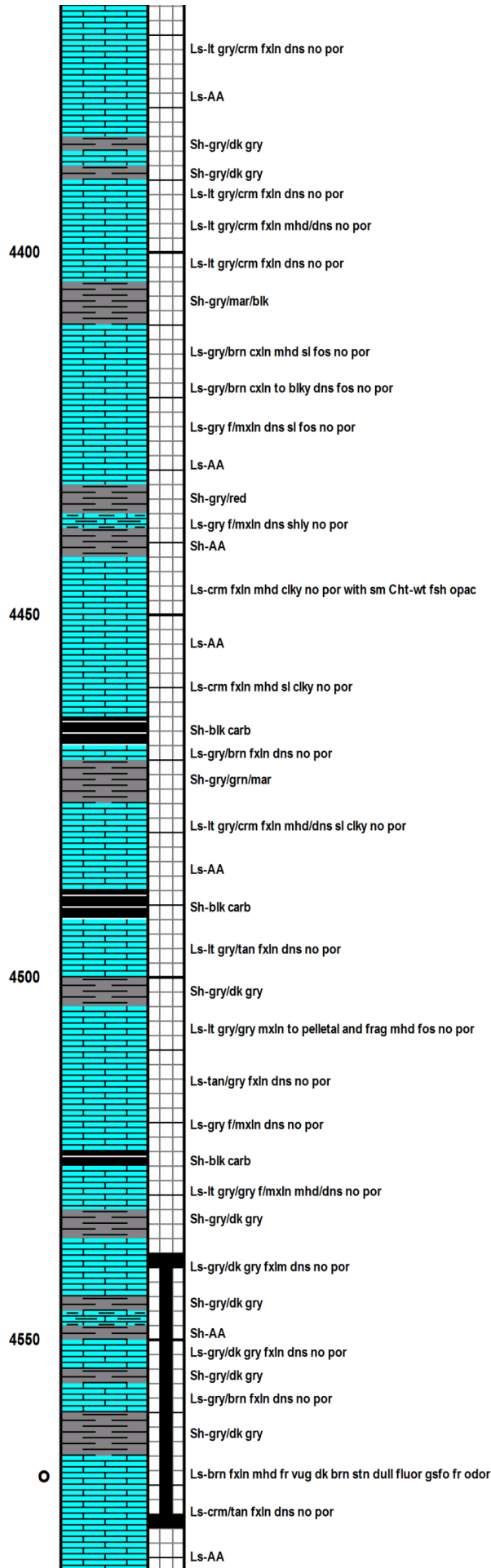
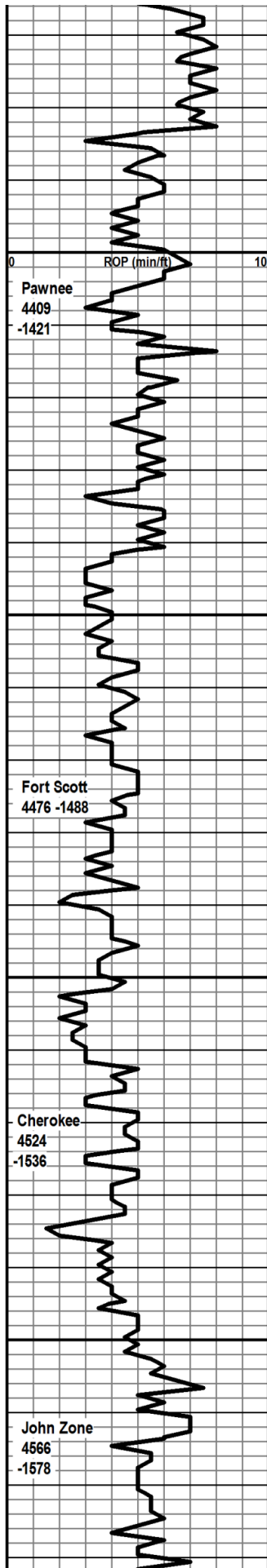
CFS at 4210' - 45"

DST No. 3 4226' to 4260'

CFS at 4232' - 45"

CFS at 4260' - 45"

Mud Data at 4260' at 6 a.m. on 4-3-11 Wt 9.3 Vis 58 WL 8 pH 10.5 Chlor 2500 YP 18

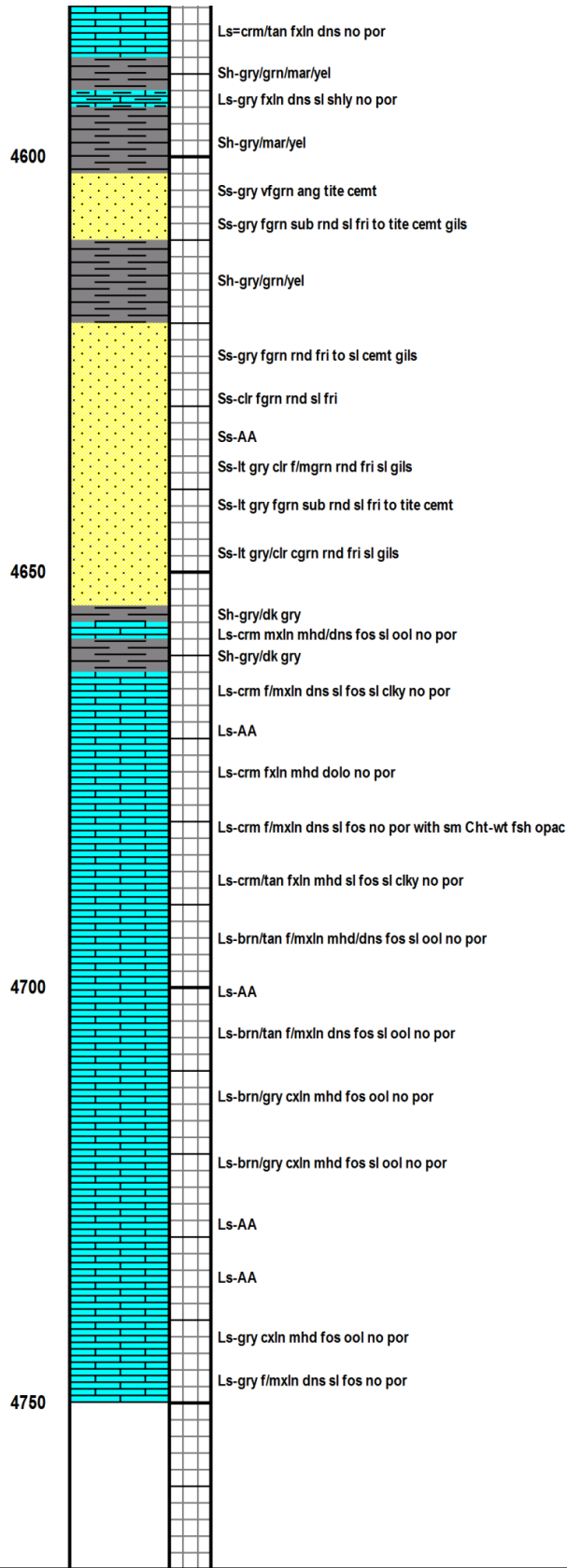
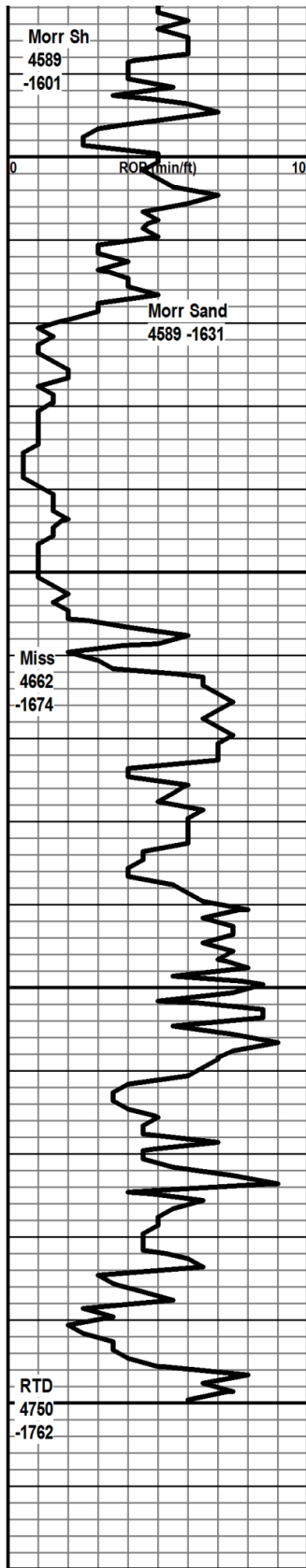


Mud Data at 4412' at 8:30
a.m. on 4-4-11 Wt 9.4 Vis
79 WL 7.2 pH 10.5 Chlor
3000
YP 26

DST No. 4
4538' to 4575'

CFS at 4575' - 45"

Mud Data at 4575' at 8:30



a.m. on 4-5-11 Wt 9.7 Vis
54 WL 10.4 pH 9 Chlor
3500 YP 17

CFS at 4630' - 45"

Finished Drilling at 5:02
a.m. on 4-6-11 Cir for Log
- 90"

Finished logging at 12:05
p.m. on 4-6-11