

Douglas 1X

MACKLIN M. ARMSTRONG

Geologist

License Number 743

316-209-5047

Scale 1:240 Imperial

Well Name: Douglas No. 1X
Surface Location: Sec 17 T22S R22W
Bottom Location: 1570' FSL and 1847' FWL
API: 15-083-21742
License Number: 34317
Spud Date: 12/7/2011 Time: 5:30 AM
Region: Hodgeman County, Kansas
Drilling Completed: 12/15/2011 Time: 6:18 AM
Surface Coordinates:
Bottom Hole Coordinates:
Ground Elevation: 2233.00ft
K.B. Elevation: 2246.00ft
Logged Interval: 1300.00ft To: 4543.00ft
Total Depth: 4550.00ft
Formation: Mississippi
Drilling Fluid Type: Chemical/Fresh Water Gel

OPERATOR

Company: Berexco LLC
Address: 2020 North Bramblewood
Wichita, Kansas 67206
Contact Geologist:
Contact Phone Nbr: 316-337-8331
Well Name: Douglas No. 1X
Location: Sec 17 T22S R22W
Pool: Oil
State: Kansas
API: 15-083-21742
Field: Hanston-Oppy
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: 99.76486
Latitude: 38.13522
N/S Co-ord:
E/W Co-ord:

LOGGED BY

Company: Macklin M. Armstrong
Address: 100 South Ridge Road
Wichita, Kansas 67209
Phone Nbr: 316-209-5047
Logged By: Macklin M. Armstrong
Name: Kansas License Number 743

CONTRACTOR

Contractor: Beredco
Rig #: 2
Rig Type: mud rotary

Rig Type: mud rotary
 Spud Date: 12/7/2011
 TD Date: 12/15/2011
 Rig Release: 12/16/2011

Time: 5:30 AM
 Time: 6:18 AM
 Time: 6:00 PM

ELEVATIONS

K.B. Elevation: 2246.00ft
 K.B. to Ground: 13.00ft
 Ground Elevation: 2233.00ft

NOTES

Date	Depth at 7 am	Activity
12-06-11	MIRU	
12-07-11	100	Drilling
12-08-11	345	Drilling
12-09-11	1609	Drilling
12-10-11	2520	Drilling
12-11-11	3160	Drilling
12-12-11	3861	Drilling
12-13-11	4266	Drilling
12-14-11	4468	TOH for DST No.1
12-15-11	4550	Cir for Log
12-16-11	4550	Set 5 1/2"

Surface Casing: 8 5/8" 20# at 260
 Production Casing: 5 1/2" 14# at 4543

Deviation: 1234 - 1.5 deg; 2264 - 1.25 deg; 3327 - 1.5 deg; 4468 - 1.5 deg

Bit Record:	Make	Type	Depth In	Depth Out	Hours
	Smith	F27IX	260	4550	106

Drill Stem Tests:

DST No. 1 4402 to 4468 Formation: Mississippi
 30-60-60-60
 Recovery: 50' Oil (39 deg gravity)
 445' GOMW (10%G, 10%O, 40%M, 40%W)
 651' GOMW (10%G, 10%O, 30%M, 50%W)
 1000' MW (Chlorides - 43,000 ppm)
 IHP 2240 FHP 2083
 FFP 41-544 FFP 556-964
 ISIP 1310 FSIP 1307
 Temp 132 deg

Formation	Sample	E-Log	Datum	Well 1	Well 2	Well 3
Anhydrite		1398	+848	+4	+4	+2
Heebner	3798	3791	-1545	+5	+4	+6
Lansing	3855	3847	-1601	+9	+7	+9
B/Kansas City	4153	4145	-1899	+7	+4	+11
Marmaton	4221	4210	-1964	+12	+13	+15
Pawnee	4322	4304	-2058	+10	+9	+15
Fort Scott	4381	4369	-2123	+11	+9	+15
Cherokee Shale	4404	4393	-2147	+10	+10	+15
Mississippi	4465	4554	-2208	+18	+5	+11
Total Depth	4550	4543	-2297			

Well 1: Sunray DX Oil Ewy No. 1 C NW SW Sec 17 T22S R22W
 Well 2: Sunray DX Oil Ewy No. 2 C NE SW Sec 17 T22S R22W
 Well 3: Sunray DX Oil Ewy No. 3 C SE SW Sec 17 T22S R22W

Pipe was set to further test the Mississippi Zone.

Respectfully submitted,
 Macklin M. Armstrong

ROCK TYPES

	Cht		Lmst fw7>		Carbon Sh
	Dolprim		shale, gry		

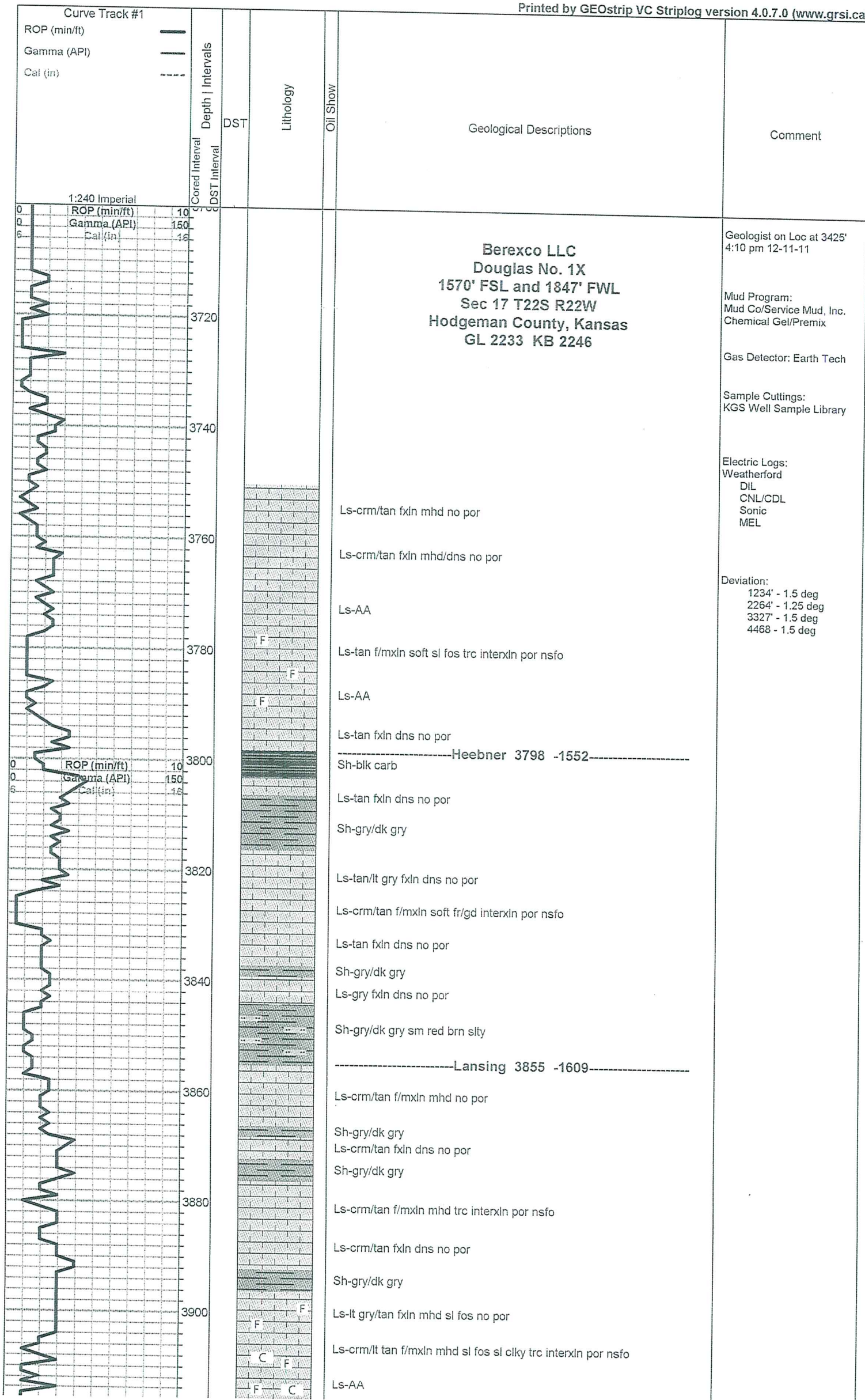
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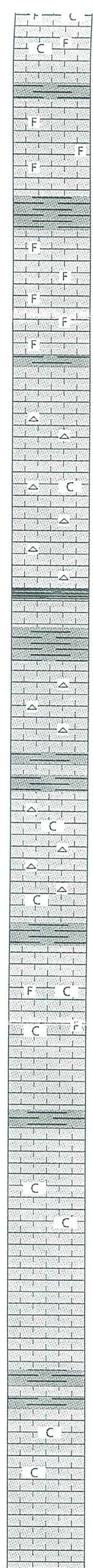
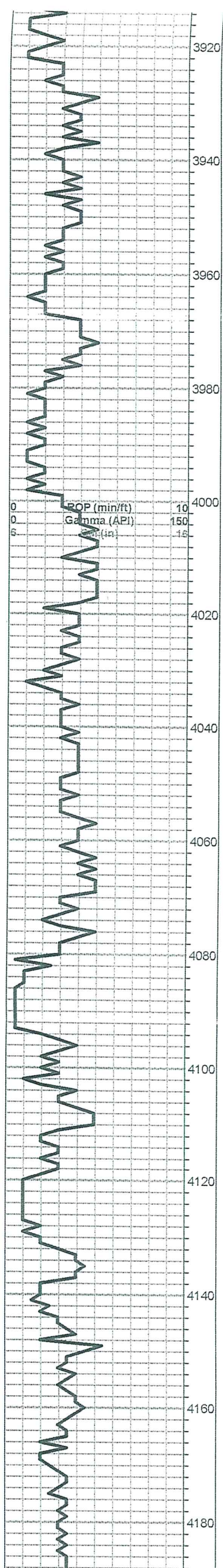
MINERAL	FOSSIL	STRINGER	TEXTURE
△ Chert White	F Fossils < 20%		C Chalky

OTHER SYMBOLS

- DST
- DST Int
- DST alt
- Core

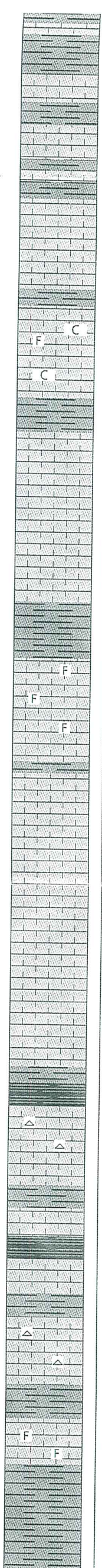
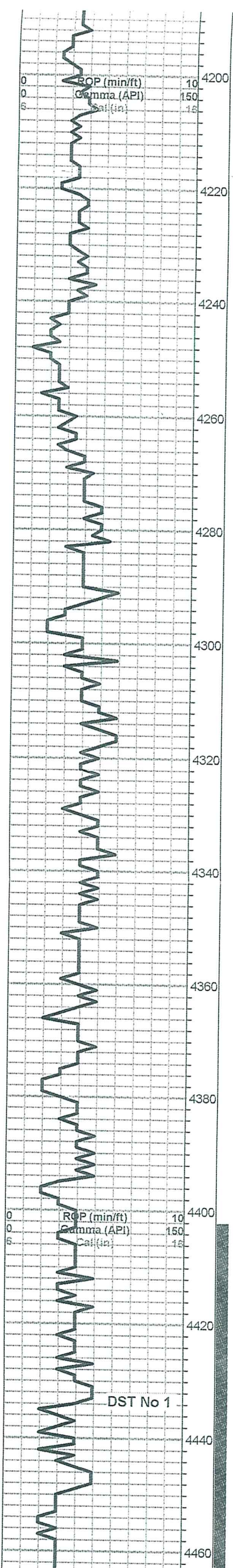
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Ls-AA
 Ls-crm/lt tan fxln dns no por
 Sh-gry/dk gry
 Ls-crm/tan f/mxln mhd sl fos no por
 Ls-AA
 Sh-gry/dk gry
 Ls-tan/lt gry f/mxln mhd sl fos no por
 Ls-AA
 Ls-tan fxln dns sl fos no por
 Sh-gry/dk gry
 Ls-crm/tan fxln dns no por
 Ls-crm/lt tan fxln mhd no por sm Cht-wt fsh opac
 Ls-AA sm Cht-AA
 Ls-crm/lt tan fxln mhd sl clkly no por sm Cht-wt fsh opac
 Ls-crm f/mxln dns no por sm Cht-AA
 Ls-AA sm Cht-AA
 Sh-blk carb
 Ls-crm/tan fxln mhd no por
 Sh-gry/dk gry
 Ls-crm/tan f/mxln mhd no por sm Cht-wt fsh opac
 Ls-AA sm Cht-AA
 Sh-gry/dk gry
 Sh-gry/dk gry
 Ls-crm/lt tan fxln mhd sl clkly no por sm Cht-wt/gry wt fsh
 Ls-AA sm Cht-AA
 Ls-crm/tan fxln dns no por
 Ls-crm lt tan fxln mhd clkly no por sm Cht-wt/gry wt fsh opac
 Sh-gry/dk gry
 Ls-crm/tan fxln mhd/dns no por
 Ls-crm/lt tan fxln soft sl fos clkly fr inter xln por nsfo
 Ls-AA
 Ls-crm/tan fxln mhd/dns no por
 Ls-crm/tan fxln dns no por
 Sh-gry/dk gry
 Ls-crm/tan fxln mhd/dns no por
 Ls-crm/lt tan f/mxln soft clkly fr interxln por nsfo
 Ls-AA
 Ls-tan fxln dns no por
 Ls-tan f/mxln mhd trc interxln por nsfo
 Ls-tan/brn fxln dns no por
 -----B/KansasCity 4153 -1907-----
 Sh-gry/dk gry
 Ls-crm/lt tan fxln mhd clkly no por
 Ls-AA
 Ls-tan fxln dns no por
 Ls-AA

Mud Data at 3931'
 10:55 am 12-12-11
 Wt 9
 Vis 44
 WL 9.6
 pH 10
 Chl 10,200
 Sol 4.4%
 YP 13
 LCM 1#



Sh-gry/dk gry
 Sh-gry/dk gry
 Ls-tan fxln dns no por
 Sh-gry/dk gry
 Ls-tan/brn fxln dns no por
 Sh-gry/dk gry/gry grn
 -----Marmaton 4221 -1975-----
 Ls-tan/brn fxln dns no por
 Ls-AA
 Sh-gry/dk gry/gry grn
 F C
 Ls-crm/tan f/mxln mhd sl fos sl clky trc inter xln por nsfo
 C
 Ls-crm/lt tan fxln mhd sl clky no por
 Sh-gry/dk gry
 Ls-crm/tan fxln dns no por
 Ls-AA
 Ls-crm/tan fxln dns no por
 Ls-AA
 Sh-gry/dk gry
 F
 Ls-crm/tan fxln dns fos no por
 F
 Ls-AA
 F
 -----Pawnee 4322 -2076-----
 Ls-tan fxln dns no por
 Ls-AA
 Ls-tan fxln dns no por
 Ls-AA
 Ls-tan fxln dns no por
 Ls-crm/tan fxln dns no por
 Ls-tan/brn fxln dns no por
 Sh-blk carb
 -----Fort Scott 4381 -2135-----
 Ls-tan/brn fxln dns no por sm Cht-wt/gry wt fsh opac
 Ls-AA
 Sh-gry/dk gry
 Ls-crm/tan/lt gry fxln mhd no por
 -----Cherokee Shale 4404 -2158-----
 Sh-gry/dk gry
 Ls-crm/tan fxln dns no por
 Sh-gry/dk gry
 Ls-tan/brn fxln dns no por sm Cht-wt/gry wt fsh opac
 Sh-gry/dk gry/grn/mar sm red brn
 F F
 Ls-tan fxln dns sl fos no por
 Sh-gry/dk gry/grn/mar
 Sh-AA

CFS at 4270' - 45"

Mud Data at 4296'
 10:30 am 12-13-11
 Wt 9.4
 Vis 51
 WL 9.6
 pH 11
 Chl 8200
 Sol 7.4%
 YP 17
 LCM 1#

DST No. 1 4402 to 4468
 1st Open: BOB in 4'15"
 2nd Open: BOB in 6"30"
 Rec: 50' Oil (39 deg grav)
 1096' GOMW
 1000' MW (43,000 ppm)
 IHP 2240 FHP 2083
 IFP 41-544 FFP 556-964
 ISIP 1310 FSIP 1307
 Temp 132 deg

Sh-AA

-----Mississippi 4465 -2219-----

① Cht-wt/gry wt fsh sm sl weat trc stn fr fluor fr cut in few pcs faint odor ssfo

② Cht-wt/gry wt fsh and trip brn stn fr fluor fr cut faint odor ssfo

③ Cht-wt/gry wt fsh and sl trip opac sl brn stn vssfo

Cht-wt/gry wt fsh opac no stn nsfo

Cht-AA

Cht-wt/gry wt fsh opac nsfo

Cht-AA

Cht-wt/gry wt fsh opac to semi trans nsfo

Cht-AA

Dolo-wt fsuc dns no por sm Cht-wt fsh opac

-----RTD 4550 -2304-----

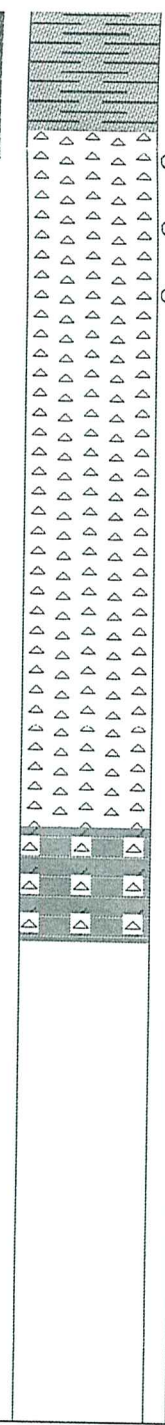
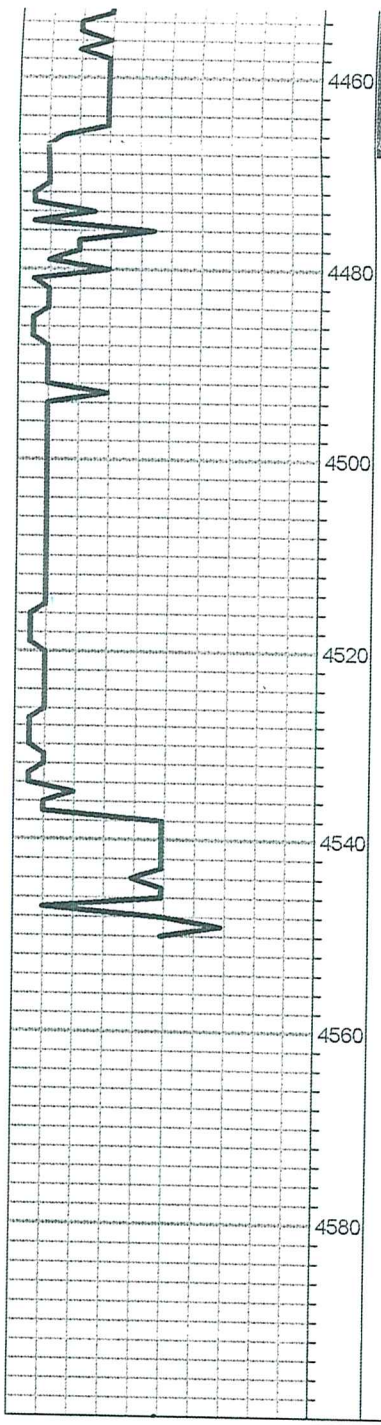
CFS at 4468' - 60"

Pulled 20 Stand Short Trip at 4468' then Cir for Test - 60"

Mud Data at 4468'
11:45 am 12-14-11
Wt 9.3
Vis 45
WL 9.2
pH 9.5
Chl 6900
Sol 6.7%
LCM trc

Finished Drilling at 6:19 am
on 12-15-11
Cir for Log - 90"

Finished Logging at 3:45 pm
on 12-15-11



Sh-AA
-----Mississippi 4465 -2219-----
① Cht-wt/gry wt fsh sm sl weat trc stn fr fluor fr cut in few pcs faint odor ssfo
② Cht-wt/gry wt fsh and trip brn stn fr fluor fr cut faint odor ssfo
③ Cht-wt/gry wt fsh and sl trip opac sl brn stn vssfo
Cht-wt/gry wt fsh opac no stn nsfo
Cht-AA
Cht-wt/gry wt fsh opac nsfo
Cht-AA
Cht-wt/gry wt fsh opac to semi trans nsfo
Cht-AA
Dolo-wt fsuc dns no por sm Cht-wt fsh opac
-----RTD 4550 -2304-----

CFS at 4468' - 60"
Pulled 20 Stand Short Trip at 4468' then Cir for Test - 60"
Mud Data at 4468'
11:45 am 12-14-11
Wt 9.3
Vis 45
WL 9.2
pH 9.5
Chl 6900
Sol 6.7%
LCM trc
Finished Drilling at 6:19 am
on 12-15-11
Cir for Log - 90"
Finished Logging at 3:45 pm
on 12-15-11