EDISON OPERATING COMPANY LLC

Scale 1:240 Imperial

Well Name:	Waite #1A-21		
Surface Location:	Sec. 21 - T24S - R13W		
Bottom Location:			
API:	15-185-23820-0000		
License Number:	34434		
Spud Date:	7/31/2013	Time:	5:00 PM
Region:	Stafford County, KS		
Drilling Completed:	8/8/2013	Time:	5:15 AM
Surface Coordinates:	830' FNL & 1150' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	1923.00ft		
K.B. Elevation:	1928.00ft		
Logged Interval:	3000.00ft	To:	4183.00ft
Total Depth:	4183.00ft		
Formation:	Arbuckle		
Drilling Fluid Type:	Chemical/Fresh Water Gel		

OPERATOR

Company:	Edison Operating Company, LLC		
Address:	8100 E 22nd St. N Building 1900 Wichita, KS 67226		
Contact Geologist:	David Withrow		
Contact Phone Nbr:	316-201-1744		
Well Name:	Waite #1A-21		
Location:	Sec. 21 - T24S - R13W	API:	15-185-23820-0000
Pool:		Field:	Van Lieu
State:	Kansas	Country:	USA

LOGGED BY

VALHALLA EXPLORATION

Company:	Valhalla Exploration, LLC		
Address:	8100 E 22nd St. N Building 1800-2 Wichita, KS 67226		
Phone Nbr:	316.210.1295		
Logged By:	Geologist	Name:	Adam G. Nighswonger

REMARKS

After review of the open hole electric logs, DST results, and sample descriptions, the decision was made by operator to plug and abandon the Waite #1A-21.

The well samples were saved, submitted, and will be available for review at the Kansas Geologic Survey's Well Sample Library located in Wichita, KS.

Respectfully Submitted,

Adam G. Nighswonger

GENERAL INFORMATION

Service Companies

Drilling Contractor:	Mallard Drilling Rig #2	Drilling Fluid:	Mud-Co/Service Mud
Tool Pusher:	Lavon Urban	Engineer:	Brad Bortz
Daylight Driller:	Mark Elsen		
Evening Driller:	Frank Symank	Logging Company:	Nabors
Morning Driller:	Josh Scott	Engineer:	Jeff Luebbers

Morning Driller: Josh Scott
Relief: Kent Urban

Gas Detector: Bluestem Environmental
Engineer: Sidney Edelbrock
Unit: 0115, 0279
Operational By: 2500', 3719'

Engineer: Jeff Luebbers
Logs Ran: DIL, CDNL, Micro, Sonic

Testing Company: Superior Testers
Tester: Jared Sheck

Deviation Survey	
Depth	Survey
300'	1/4°
3696'	1/2°
4083'	1 1/2°

Pipe Strap	
Depth	Pipe Strap
3696'	0.86 short to board

Bit Record								
Bit #	Size	Make	Type	Serial Number	Depth In	Depth Out	Feet	Hours
1	8 5/8"				0	300'	300	
2	7 7/8"	F27RR	PY6383		300'	4183'	3883'	

Surface Casing	
7/31/2013	Set 8 5/8" surface casing @300'

DAILY DRILLING REPORT

Date	0700 Hrs Depth	Previous 24 Hours of Operations
8/5/2013	3542'	Drilling and connections Topeka. Geologist Adam G. Nighswonger on location 1420hrs 08.04.13. Adjusted Bloodhound depth ~30' deeper to correspond with geolograph. Resume drilling and connections Topeka, Heebner, Toronto, Douglas, and Brown Lime. CTCH @3534', conduct short trip for 20 stands. Resume drilling and connections Brown Lime. Made 615' in past 24 hours of operations. DMC: $3,384.85 CMC: $9,690.95

8/6/2013	3696'	Drilling and connections into Lansing zones. CFS @3600' (LKC 'D'), 3633' (LKC 'F'), 3690' & 3696' (LKC 'H'). Shows warrant test. Strap out for DST #1. Pulled tight; conduct short trip for 15 stands. TOH for DST #1, conduct test. Made 154' in past 24 hours of operations. DMC: $2,046.35 CMC: $11,737.30
8/7/2013	4041'	DST #1 successful. TIH and CTCH, resume drilling and connections Lansing. Bloodhound Unit 0115 replaced due to technical failure @ ~3720'. Resume drilling and connections Lansing. CFS at 3759' (LKC 'K'). Resume drilling and connections Lansing, lower Pennsylvanian, and into Viola. CFS @3906' (VIOL). Resume drilling and connections Viola. Made 345' in past 24 hours of operations. DMC: $1,823.90 CMC: $13,561.20
8/8/2013	RTD 4183'	Drilling and connections Viola, Simpson, and into Arbuckle. CFS @4075' (SMPS) & 4083' (ARBK). Shows warrant test. TOH for DST #2. Conduct test, test successful. TIH and CTCH, resume drilling and connections Arbuckle. Total depth of 4183' reached 0515 hrs 08.08.13. CTCH and condition mud. Made 142' in past 24 hours of operations. DMC: $942.50 CMC: $14,503.70
8/9/2013	RTD 4183'	CTCH and condition mud; TOH for logging. Commence open hole logging operations 1300 hrs; job completed 1700 hrs 08.08.13. Geologist off location 1745 hrs 08.08.13. CTCH, conduct DST #3 (strad. Packer) in LKC 'K' zone; test successful. Decision made to plug & abandon the Waite #1A-21 on 08.09.13. DMC: $2,607.05 CMC: $17,110.75

WELL COMPARISON SHEET

	Drilling Well				Comparison Well				Comparison Well				Comparison Well			
	Edison Operating Co - Waite #1A-21 Sec. 21 - T24S - R13W 830' FNL & 1150' FWL				Petroleum, Inc. - Beckerdite #2 Sec. 21 - T24S - R13W C NW/4				Iannitti Oil Co - Beckerdite #1 Sec. 21 - T24S - R13W 65' S, C W/2 W/2 NW				Stanolind O&G Co - Beckerdite #2 Sec. 21 - T24S - R13W C NW NW			
	1928 KB				Oil - Arbuckle 1926 KB		Structural Relationship		Oil - Arbuckle 1928 KB		Structural Relationship		Oil - Arb OH 1926 DF		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	Sample	Sub-Sea	Sample	Log
Topeka	3062	-1134	3055	-1127	3056	-1130	-4	3	3051	-1123	-11	-4	3090	-1164	30	37
Heebner	3383	-1455	3382	-1454	3375	-1449	-6	-5	3372	-1444	-11	-10				
Toronto	3398	-1470	3401	-1473	3395	-1469	-1	-4	3392	-1464	-6	-9				
Douglas	3423	-1495	3420	-1492	3413	-1487	-8	-5	3413	-1485	-10	-7				

Brown Lime	3523	-1595	3521	-1593	3514	-1588	-7	-5	3511	-1583	-12	-10					
Lansing	3547	-1619	3547	-1619	3540	-1614	-5	-5	3533	-1605	-14	-14	3550	-1624	5	5	
LKC 'B'	3572	-1644	3571	-1643	3565	-1639	-5	-4	3560	-1632	-12	-11					
LKC 'D'	3595	-1667	3593	-1665	3586	-1660	-7	-5	3580	-1652	-15	-13					
LKC 'F'	3623	-1695	3623	-1695	3616	-1690	-5	-5	3610	-1682	-13	-13					
LKC 'G'	3645	-1717	3644	-1716	3634	-1708	-9	-8	3628	-1700	-17	-16					
Muncie Creek	3681	-1753	3684	-1756	3667	-1741	-12	-15	3661	-1733	-20	-23					
LKC 'H'	3684	-1756	3690	-1762	3674	-1748	-8	-14	3667	-1739	-17	-23					
LKC 'I'	Not Present (?)				3690	-1764			3683	-1755							
LKC 'J'	3716	-1788	3712	-1784	3707	-1781	-7	-3	3699	-1771	-17	-13					
Stark	3746	-1818	3740	-1812	3736	-1810	-8	-2	3726	-1798	-20	-14					
LKC 'K'	3752	-1824	3748	-1820	3746	-1820	-4	0	3734	-1806	-18	-14					
Hushpuckney	3782	-1854	3778	-1850	3775	-1849	-5	-1	3764	-1836	-18	-14					
LKC 'L'	3791	-1863	3786	-1858	3782	-1856	-7	-2	3774	-1846	-17	-12					
Base Kansas City	3800	-1872	3794	-1866	3790	-1864	-8	-2	3782	-1854	-18	-12					
Basal Penn Congl	3881	-1953	3887	-1959	3882	-1956	3	-3	3874	-1946	-7	-13					
Viola	3897	-1969	3894	-1966	3890	-1964	-5	-2	3898	-1970	1	4					
Simpson	4040	-2112	4036	-2108	4013	-2087	-25	-21	4008	-2080	-32	-28	4024	-2098	-14	-10	
Arbuckle	4078	-2150	4078	-2150	4051	-2125	-25	-25	4046	-2118	-32	-32	4069	-2143	-7	-7	
Total Depth	4183	-2255	4180	-2252	4056	-2130			4107	-2179			4076	-2150			

ROCK TYPES

- Cht
- Cht vari
- Chtcongl
- DOL2
- DOL3
- LMST1
- LMST2
- LMST3
- Ss
- SILTSTONE
- SHALE CAR
- SHALE GRN
- SHALE GRA
- SHALE PUR
- SHALE RED

ACCESSORIES

MINERAL

- ⊥ Calcareous
- P Pyrite
- •• Silty
- Varicolored chert
- Chert White
- Mc Mica

FOSSIL

- F Fossils < 20%
- Oolite
- Oomoldic

STRINGER

- Dolomite3
- Limestone1
- Limestone3
- Sandstone
- Shale Carb
- Shale Gray
- Shale Red

TEXTURE

- C Chalky
- L Lithogr

OTHER SYMBOLS

MISC

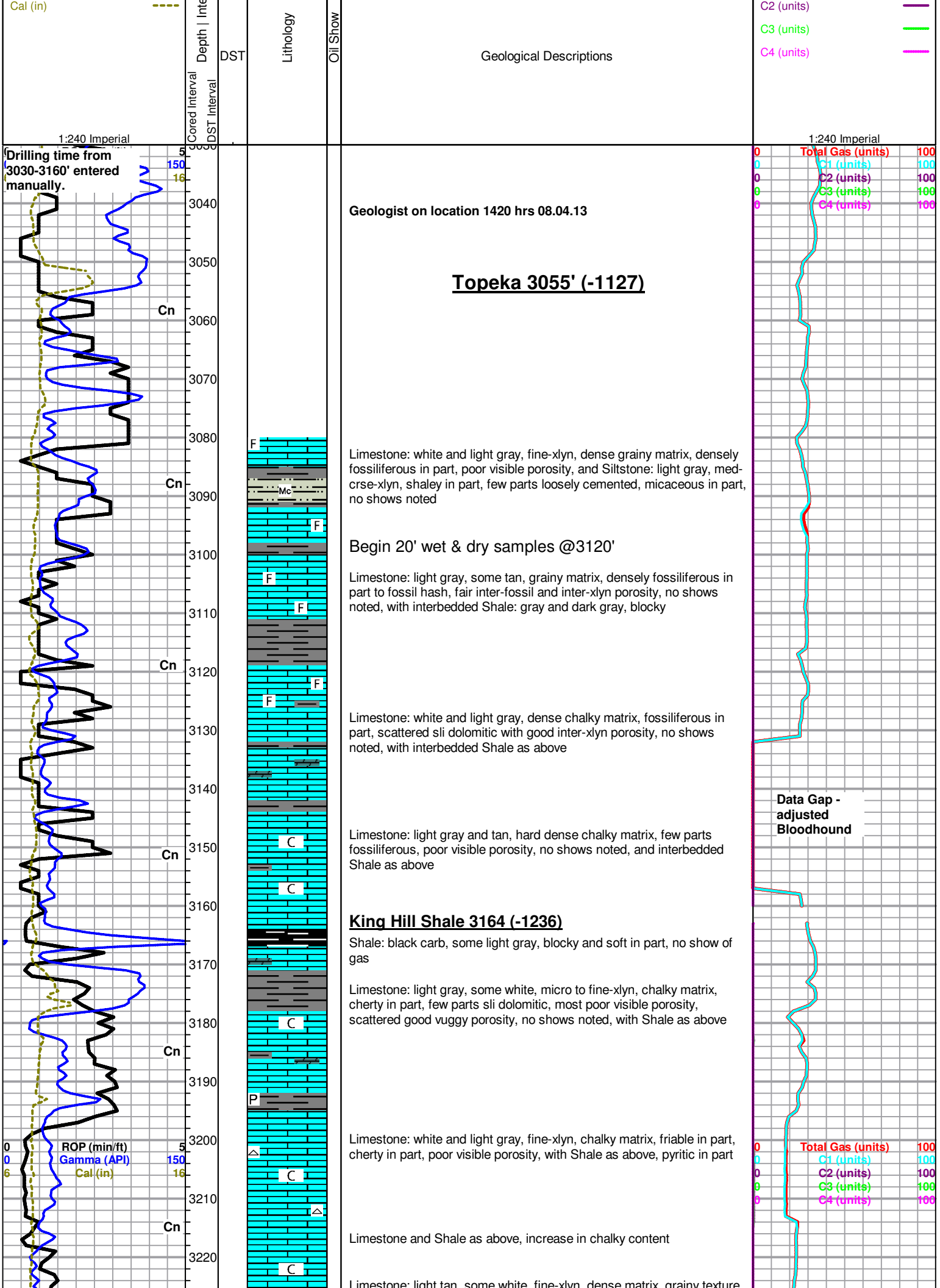
- DR Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

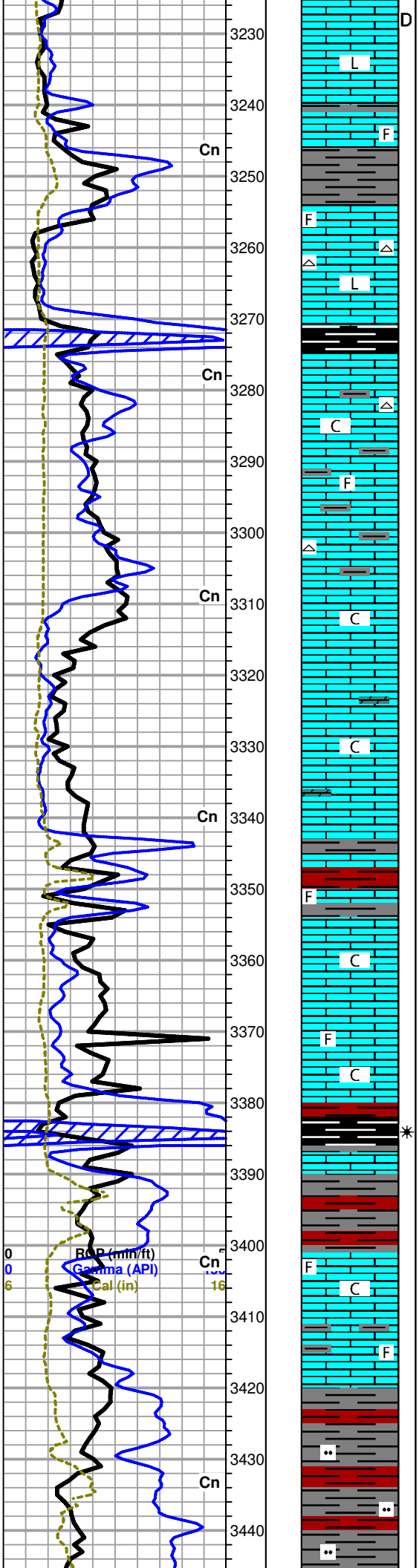
DST

- DST1
- DST2
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1					TG, C1 - C5
ROP (min/ft)					Total Gas (units)
Gamma (API)	rvals				C1 (units)


Cal (in)
Depth | Inte
Cored Interval
DST Interval
DST
Lithology
Oil Show
Geological Descriptions
C2 (units)
C3 (units)
C4 (units)
1:240 Imperial
1:240 Imperial
Drilling time from 3030-3160' entered manually.
5
150
16
3040
3050
3060
3070
3080
3090
3100
3110
3120
3130
3140
3150
3160
3170
3180
3190
3200
3210
3220
Cn
Cn
Cn
Cn
Cn
Cn
0
0
6
ROP (min/ft)
Gamma (API)
Cal (in)
5
150
16
F
Mc
F
F
F
F
C
C
C
C
P
C
C
Geologist on location 1420 hrs 08.04.13
Topeka 3055' (-1127)
Limestone: white and light gray, fine-xlyn, dense grainy matrix, densely fossiliferous in part, poor visible porosity, and Siltstone: light gray, med-crse-xlyn, shaley in part, few parts loosely cemented, micaceous in part, no shows noted
Begin 20' wet & dry samples @3120'
Limestone: light gray, some tan, grainy matrix, densely fossiliferous in part to fossil hash, fair inter-fossil and inter-xlyn porosity, no shows noted, with interbedded Shale: gray and dark gray, blocky
Limestone: white and light gray, dense chalky matrix, fossiliferous in part, scattered sli dolomitic with good inter-xlyn porosity, no shows noted, with interbedded Shale as above
Limestone: light gray and tan, hard dense chalky matrix, few parts fossiliferous, poor visible porosity, no shows noted, and interbedded Shale as above
King Hill Shale 3164 (-1236)
Shale: black carb, some light gray, blocky and soft in part, no show of gas
Limestone: light gray, some white, micro to fine-xlyn, chalky matrix, cherty in part, few parts sli dolomitic, most poor visible porosity, scattered good vuggy porosity, no shows noted, with Shale as above
Limestone: white and light gray, fine-xlyn, chalky matrix, friable in part, cherty in part, poor visible porosity, with Shale as above, pyritic in part
Limestone and Shale as above, increase in chalky content
Limestone: light tan, some white, fine-xlyn, dense matrix, grainy texture
0
Total Gas (units)
100
0
C1 (units)
100
0
C2 (units)
100
0
C3 (units)
100
0
C4 (units)
100
Data Gap - adjusted Bloodhound
0
Total Gas (units)
100
0
C1 (units)
100
0
C2 (units)
100
0
C3 (units)
100
0
C4 (units)
100



few parts re-xlyn, poor to fair inter-xlyn porosity, scattered dead stains, no live shows noted

Limestone: light gray, some tan, fine-xlyn, dense grainy matrix, large fossiliferous in part, few parts cherty, poor to fair inter-xlyn and inter-fossil porosity, no shows noted

Limestone: light to dark gray, micro-xlyn, sub-grainy matrix, few parts sub-lithographic, cherty in part, poor visible porosity, no shows noted, with Shale: dark gray, blocky

Queen Hill Shale 3271 (-1343)

Shale: black carb, some dark gray and scattered red, blocky and hard, no show of gas

Limestone: white and light gray, some tan, micro to fine-xlyn, hard dense chalky matrix, shaley, fossiliferous in part, few parts cherty, poor visible porosity, scattered dead stains, no live shows noted

Limestone: cream white, micro-xlyn, hard dense chalky matrix, poor visible porosity, no shows noted

Limestone: white and light gray, some tan, micro to fine-xlyn, sub-chalky matrix, few parts sli dolomitic and re-xlyn, scattered good vuggy porosity, no shows noted

Limestone: cream white and light gray, micro to fine-xlyn, sub-chalky matrix, hard and dense, sparsely fossiliferous, poor visible porosity, no shows noted, with interbedded Shale: gray to dark gray, trace red, blocky and hard

Limestone: cream white, some light tan, micro-xlyn, hard dense chalky matrix, trace fossiliferous, poor pinpoint and inter-xlyn porosity, no shows noted

Begin 10' wet & dry samples @3410'

Heebner 3382 (-1454)

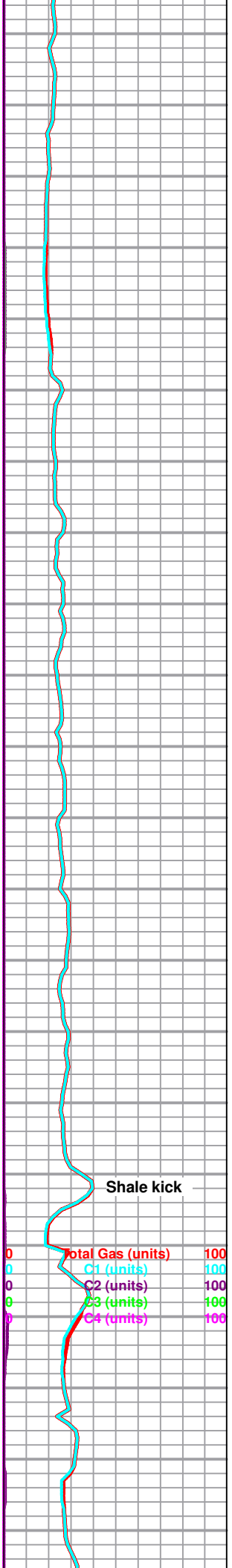
Shale: black carb, some dark gray and red, blocky and hard, fair gas show upon break and building under lamp, with interbedded Limestone: light tan, micro-xlyn, hard and dense, chalky, poor visible porosity, no shows noted

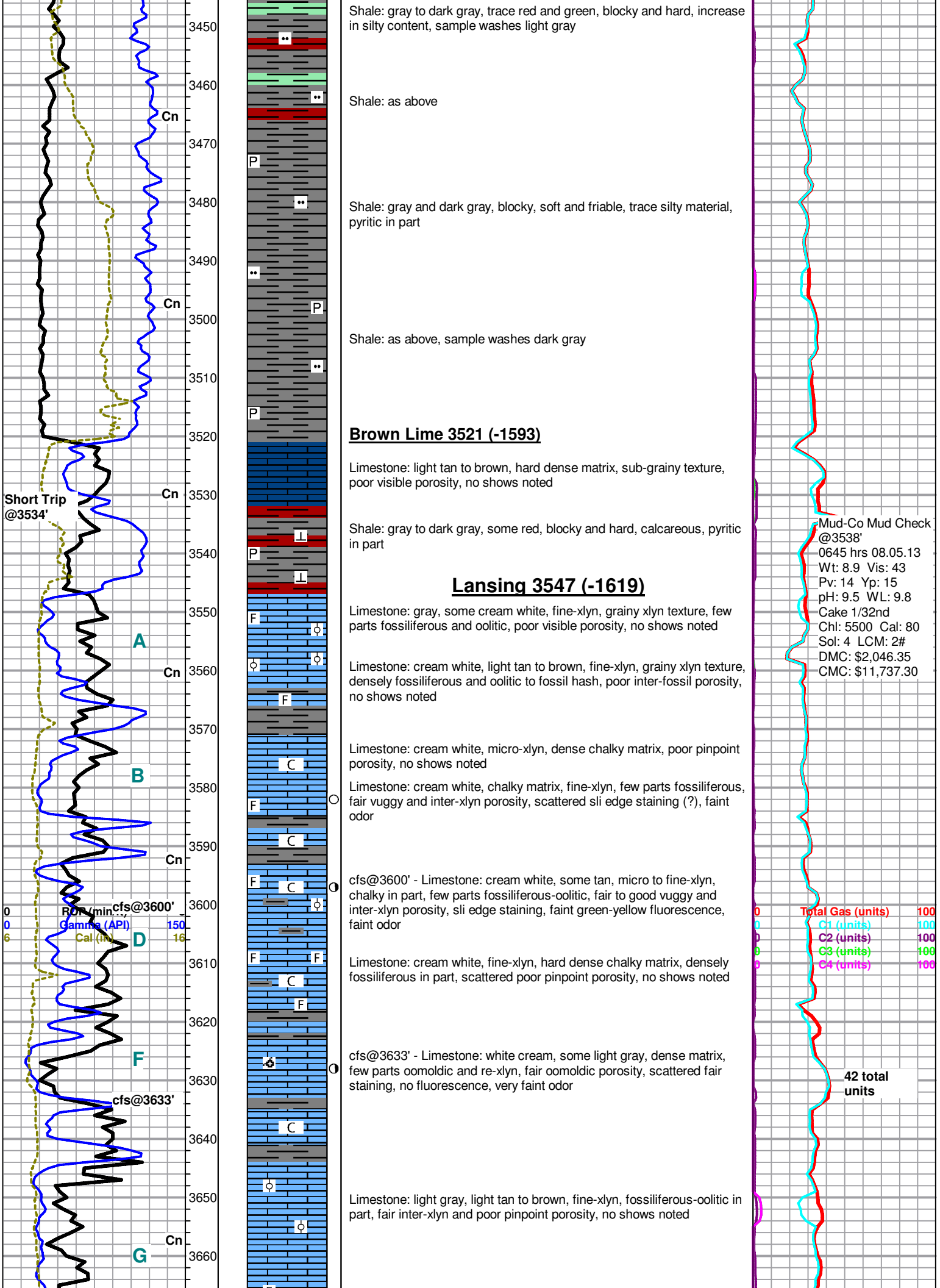
Toronto Lime 3401 (-1473)

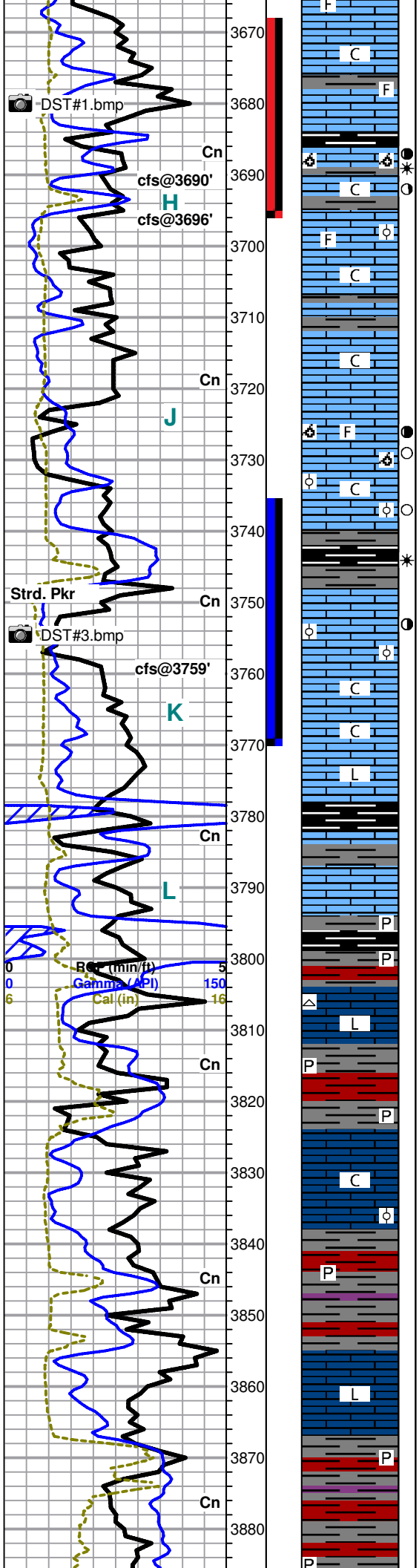
Limestone: white and light gray, micro to fine-xlyn, hard dense chalky matrix, fossiliferous in part, shaley in lower part, poor visible porosity, scattered fair vuggy porosity in lower part, no shows noted

Douglas 3420 (-1492)

Shale: brick red, gray to dark gray, blocky and hard, slightly silty in part, sample washes brownish red




3450
3460
3470
3480
3490
3500
3510
3520
3530
3540
3550
3560
3570
3580
3590
3600
3610
3620
3630
3640
3650
3660
Cn
Short Trip
@3534'
A
B
D
F
G
0
Gamma (API)
150
6
Cal (in)
16
cfs@3600'
cfs@3633'
Shale: gray to dark gray, trace red and green, blocky and hard, increase in silty content, sample washes light gray
Shale: as above
Shale: gray and dark gray, blocky, soft and friable, trace silty material, pyritic in part
Shale: as above, sample washes dark gray
Brown Lime 3521 (-1593)
Limestone: light tan to brown, hard dense matrix, sub-grainy texture, poor visible porosity, no shows noted
Shale: gray to dark gray, some red, blocky and hard, calcareous, pyritic in part
Lansing 3547 (-1619)
Limestone: gray, some cream white, fine-xlyn, grainy xlyn texture, few parts fossiliferous and oolitic, poor visible porosity, no shows noted
Limestone: cream white, light tan to brown, fine-xlyn, grainy xlyn texture, densely fossiliferous and oolitic to fossil hash, poor inter-fossil porosity, no shows noted
Limestone: cream white, micro-xlyn, dense chalky matrix, poor pinpoint porosity, no shows noted
Limestone: cream white, chalky matrix, fine-xlyn, few parts fossiliferous, fair vuggy and inter-xlyn porosity, scattered sli edge staining (?), faint odor
cfs@3600' - Limestone: cream white, some tan, micro to fine-xlyn, chalky in part, few parts fossiliferous-oolitic, fair to good vuggy and inter-xlyn porosity, sli edge staining, faint green-yellow fluorescence, faint odor
Limestone: cream white, fine-xlyn, hard dense chalky matrix, densely fossiliferous in part, scattered poor pinpoint porosity, no shows noted
cfs@3633' - Limestone: white cream, some light gray, dense matrix, few parts oomoldic and re-xlyn, fair oomoldic porosity, scattered fair staining, no fluorescence, very faint odor
Limestone: light gray, light tan to brown, fine-xlyn, fossiliferous-oolitic in part, fair inter-xlyn and poor pinpoint porosity, no shows noted
Mud-Co Mud Check
@3538'
0645 hrs 08.05.13
Wt: 8.9 Vis: 43
Pv: 14 Yp: 15
pH: 9.5 WL: 9.8
Cake 1/32nd
Chl: 5500 Cal: 80
Sol: 4 LCM: 2#
DMC: $2,046.35
CMC: $11,737.30
0
Total Gas (units)
100
0
C1 (units)
100
0
C2 (units)
100
0
C3 (units)
100
0
C4 (units)
100
42 total
units



Limestone: as above, denser chalky matrix, increase in fossiliferous material, poor visible porosity, no shows noted

Muncie Creek Shale 3684 (-1756)

cfs@3690' - Limestone: white and light gray, some tan, micro to fine-xlyn, dense matrix, grainy in part, fossiliferous and oomoldic in part, fair-good oomoldic porosity, fair show oil & gas upon break and under lamp, scattered light brown staining, spotty pale yellow fluorescence, faint bluish white cut, good odor, grading down to Limestone: white, dense and chalky, micro-xlyn, poor visible porosity

cfs@3696' - Limestone: white and light tan, dense sub-grainy matrix, fine-xlyn, few parts oolitic-oomoldic, scattered fair vuggy porosity, fair light brown staining, spotty yellow fluorescence, faint odor

(3701-22') Limestone: cream white, hard dense chalky matrix, micro-fine xlyn, fossiliferous part, scattered fair vuggy porosity, no shows noted

(3723-35') Limestone: cream white and light tan, micro to fine-xlyn, oomoldic in part, few parts fossiliferous, good oomoldic porosity, poor-fair light staining, sli show of light oil upon break, no visible fluorescence, fair-good odor

Stark Shale 3740 (-1812)

Shale: dark gray and black carb, blocky and hard, gas on break

cfs@3759' - Limestone: white and light tan, micro-xlyn, dense xlyn matrix, fossiliferous-oolitic in part, fair to good vuggy and pinpoint porosity, fair light brown staining along porosity, faint yellow fluorescence, good odor

Limestone: cream white to light tan, micro-xlyn, hard dense chalky matrix, few parts grainy to sub-lithographic, scattered loose chalk, poor visible porosity, no shows noted

Hushpuckney Shale 3778 (-1850)

Shale: black carb, some dark gray, blocky to splintery, few parts fissile, slight show gas bubbles upon break

Limestone: cream white, dense matrix, micro to fine-xlyn, re-xlyzed in part, poor inter-xlyn porosity throughout, no shows noted

Base Kansas City 3794 (-1866)

Shale: dark gray and red, trace black carb, blocky and hard, pyritic in part, with interbedded Limestone: gray light gray and light tan, dense tight matrix, fine-xlyn, grainy to sub-lithographic, few parts cherty, poor visible porosity, no shows noted

Shale: as above, with Limestone: cream white, hard dense chalky matrix, crypto to micro-xlyn, poor pinpoint porosity, no shows noted, trace loose chalk

Limestone: light to dark gray, hard dense chalky matrix, micro-xlyn, few parts oolitic, poor visible porosity, no shows noted

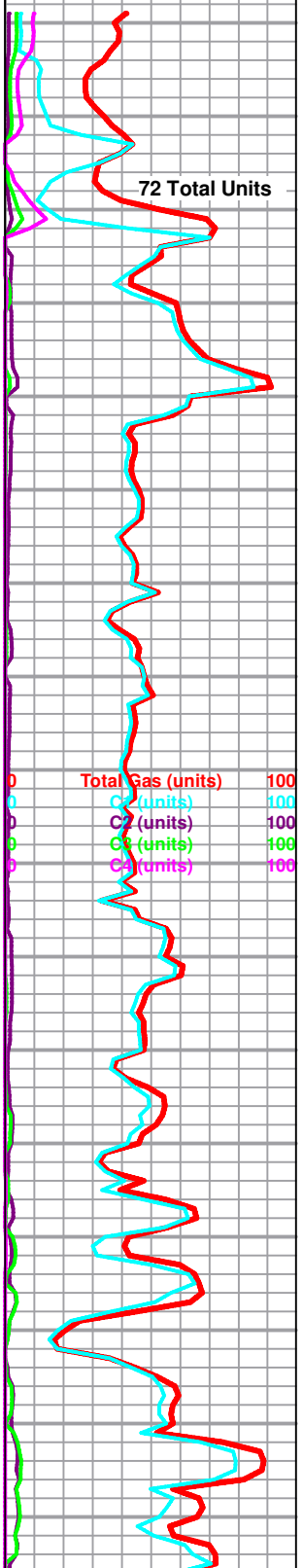
Shale: as above, trace purple, with Limestone: light gray, tan to brown, hard and dense, fine-xlyn, few parts oolitic, poor visible porosity, no shows noted

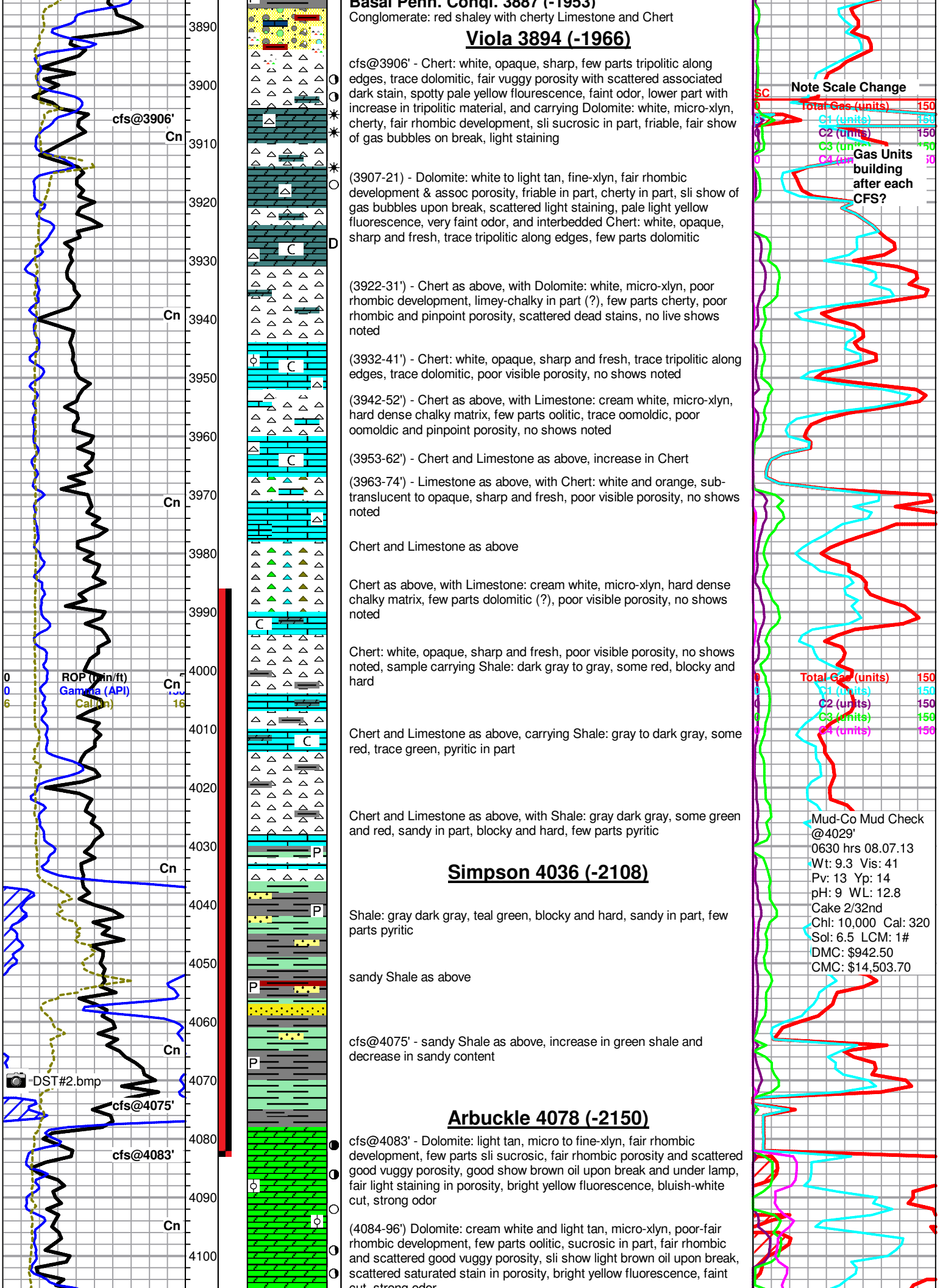
Limestone: light gray, hard dense grainy matrix, sub-lithographic in part, poor visible porosity, no shows noted

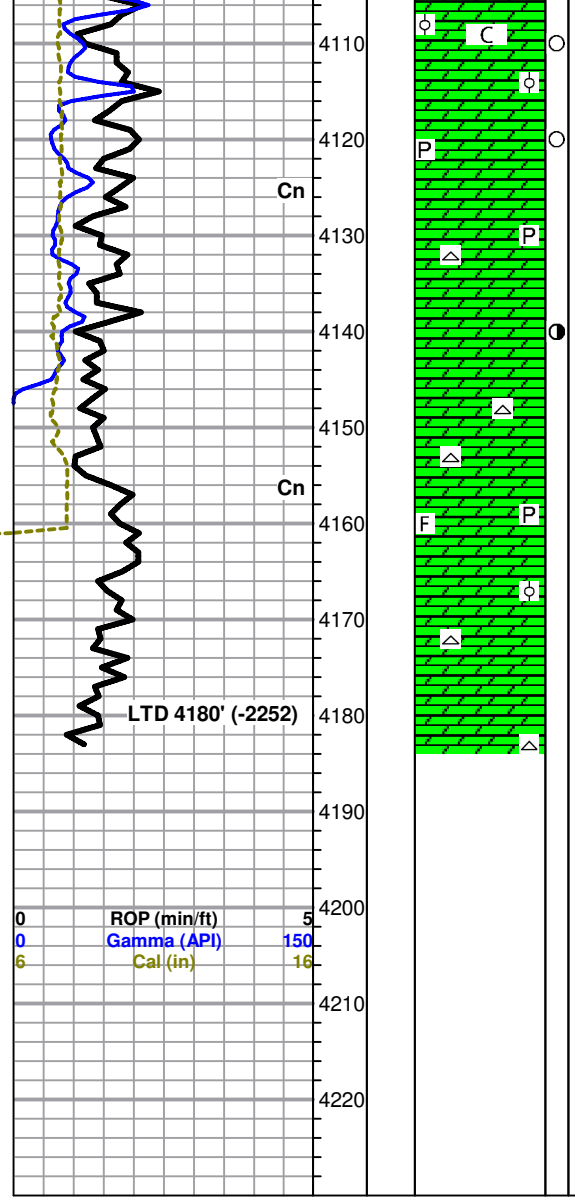
Shale: as above

Mud-Co Mud Check
@3696'
0645 hrs 07.06.13
Wt: 9.0 Vis: 36
Pv: 11 Yp: 13
pH: 9 WL: 10.4
Cake 1/32nd
Chl: 6000 Cal: 160
Sol: 4.7 LCM: 2#
DMC: $1,823.90
CMC: $13,561.20

Data Gap - Bloodhound Replaced for Unit 0279




Basal Penn. Congl. 3887 (-1953)
Conglomerate: red shaley with cherty Limestone and Chert
Viola 3894 (-1966)
cfs@3906' - Chert: white, opaque, sharp, few parts tripolitic along edges, trace dolomitic, fair vuggy porosity with scattered associated dark stain, spotty pale yellow flourescence, faint odor, lower part with increase in tripolitic material, and carrying Dolomite: white, micro-xlyn, cherty, fair rhombic development, sli sucrosic in part, friable, fair show of gas bubbles on break, light staining
(3907-21) - Dolomite: white to light tan, fine-xlyn, fair rhombic development & assoc porosity, friable in part, cherty in part, sli show of gas bubbles upon break, scattered light staining, pale light yellow fluorescence, very faint odor, and interbedded Chert: white, opaque, sharp and fresh, trace tripolitic along edges, few parts dolomitic
(3922-31') - Chert as above, with Dolomite: white, micro-xlyn, poor rhombic development, limey-chalky in part (?), few parts cherty, poor rhombic and pinpoint porosity, scattered dead stains, no live shows noted
(3932-41') - Chert: white, opaque, sharp and fresh, trace tripolitic along edges, trace dolomitic, poor visible porosity, no shows noted
(3942-52') - Chert as above, with Limestone: cream white, micro-xlyn, hard dense chalky matrix, few parts oolitic, trace oomoldic, poor oomoldic and pinpoint porosity, no shows noted
(3953-62') - Chert and Limestone as above, increase in Chert
(3963-74') - Limestone as above, with Chert: white and orange, sub-translucent to opaque, sharp and fresh, poor visible porosity, no shows noted
Chert and Limestone as above
Chert as above, with Limestone: cream white, micro-xlyn, hard dense chalky matrix, few parts dolomitic (?), poor visible porosity, no shows noted
Chert: white, opaque, sharp and fresh, poor visible porosity, no shows noted, sample carrying Shale: dark gray to gray, some red, blocky and hard
Chert and Limestone as above, carrying Shale: gray to dark gray, some red, trace green, pyritic in part
Chert and Limestone as above, with Shale: gray dark gray, some green and red, sandy in part, blocky and hard, few parts pyritic
Simpson 4036 (-2108)
Shale: gray dark gray, teal green, blocky and hard, sandy in part, few parts pyritic
sandy Shale as above
cfs@4075' - sandy Shale as above, increase in green shale and decrease in sandy content
Arbuckle 4078 (-2150)
cfs@4083' - Dolomite: light tan, micro to fine-xlyn, fair rhombic development, few parts sli sucrosic, fair rhombic porosity and scattered good vuggy porosity, good show brown oil upon break and under lamp, fair light staining in porosity, bright yellow fluorescence, bluish-white cut, strong odor
(4084-96') Dolomite: cream white and light tan, micro-xlyn, poor-fair rhombic development, few parts oolitic, sucrosic in part, fair rhombic and scattered good vuggy porosity, sli show light brown oil upon break, scattered saturated stain in porosity, bright yellow fluorescence, faint
Note Scale Change
Total Gas (units) 150
C1 (units) 150
C2 (units) 150
C3 (units) 150
C4 (units) 150
Gas Units building after each CFS?
Mud-Co Mud Check @4029'
0630 hrs 08.07.13
Wt: 9.3 Vis: 41
Pv: 13 Yp: 14
pH: 9 WL: 12.8
Cake 2/32nd
Chl: 10,000 Cal: 320
Sol: 6.5 LCM: 1#
DMC: $942.50
CMC: $14,503.70
ROP (min/ft)
Gamma (API)
Caliper (in)
cfs@3906'
cfs@4075'
cfs@4083'
DST#2.bmp
Cn
3890
3900
3910
3920
3930
3940
3950
3960
3970
3980
3990
4000
4010
4020
4030
4040
4050
4060
4070
4080
4090
4100



cut, strong odor

(4097-4106') Dolomite: cream white and light pink, micro-xlyn, fair rhombic development, sucrosic in part, fair-good rhombic porosity, scattered light staining in porosity, bright yellow fluorescence, faint cut, strong odor

(4107-16') Dolomite: white to light tan, micro-xlyn, poor-fair rhombic development, few parts oolitic, few parts chalky, poor rhombic porosity, trace good vuggy porosity, trace light staining along edges, yellow-green fluorescence, no cut, good odor

(4117-26') Dolomite: light tan, micro to fine-xlyn, fair-good rhombic development, few parts re-xlyn / crystal fill, trace pyritic, poor rhombic porosity, scattered light staining on edge, yellow-green fluorescence, no cut, good odor

(4127-36') Dolomite: as above, trace cherty, no shows noted

(4137-46') Dolomite: white, fine-xlyn, fair rhombic development, few parts sucrosic, poor rhombic porosity, pale green fluorescence, faint odor, with trace Dolomite (from uphole?): light tan, fine-xlyn, good rhombic development & porosity, bleeding show of dark brown heavy oil

(4147-56') Dolomite: white to light brown, fine-xlyn, fair-good rhombic development, few parts cherty, poor-fair rhombic porosity, pale green fluorescence, faint odor

Rotary Total Depth 4183 (-2255)

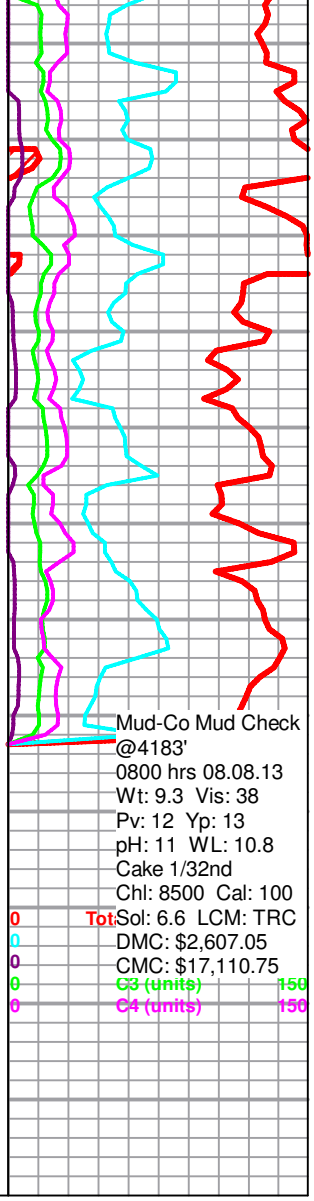
Sample descriptions continued:

(4157-69') Dolomite: white, fine-xlyn, good rhombic development, few parts fossiliferous-oolitic, poor rhombic porosity, pale green fluorescence, faint odor

(4170-83') Dolomite: light tan to brown, micro-xlyn, poor rhombic development, cherty in part, poor rhombic and scattered fair vuggy porosity, no shows noted

Geologist off location 1745 hrs 08.08.13
Decision made to plug & abandon 08.09.13
Respectfully submitted,

Adam G. Nighswonger



DST#1.bmp

DRILL STEM TEST REPORT

Edison Operating Company L.L.C

8100 E 22nd st N Bldg 1900 Wichita KS 67226

ATTN: Adam Myshwager

21-24s-13w Stafford

Waite #1A-21

Job Ticket: 17019 **DST#: 1**

Test Start: 2013.08.06 @ 01:48:00

GENERAL INFORMATION:

Formation: **LKC 'H'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:18:00
Time Test Ended: 09:29:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend- 65

Interval: 3668.00 ft (KB) To 3696.00 ft (KB) (TVD)
Total Depth: 3696.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

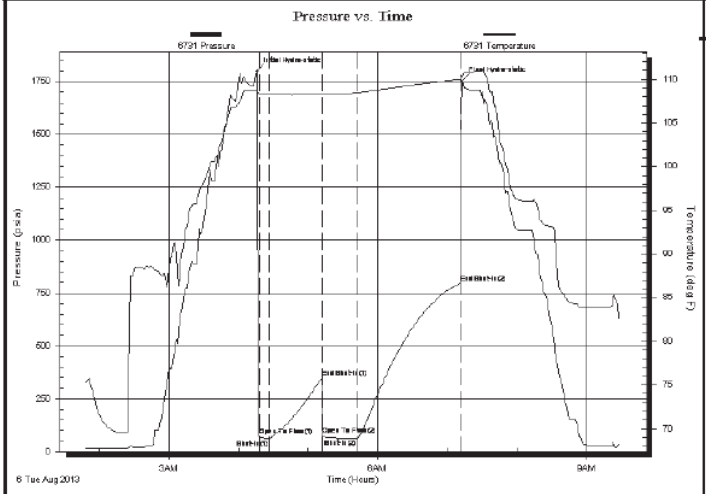
Reference Elevations: 1928.00 ft (KB)
1923.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6731

Press@RunDepth: 61.51 psia @ ft (KB)
Start Date: 2013.08.06 End Date: 2013.08.06
Start Time: 01:48:00 End Time: 09:29:00

Capacity: 5000.00 psia
Last Calib.: 2013.08.06
Time On Btm: 2013.08.06 @ 04:16:00
Time Off Btm: 2013.08.06 @ 07:12:30

TEST COMMENT: 1st Opening 10 Minutes-Fair blow built 8 1/2 inches into water in 10 minutes
1st Shut-in 45 Minutes-Very weak blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket less then 1 minute
2nd Shut-in 90 Minutes-Very weak surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1798.95	108.73	Initial Hydro-static
2	73.59	108.39	Open To Flow (1)
11	59.07	108.24	Shut-In(1)
56	350.04	108.30	End Shut-In(1)
57	79.22	108.23	Open To Flow (2)
86	61.51	108.46	Shut-In(2)
175	796.27	110.02	End Shut-In(2)
177	1753.26	110.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud	0.15

Gas Rates

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

DST#3.bmp

DRILL STEM TEST REPORT

Edison Operating Company L.L.C

8100 E 22nd st N Bldg 1900 Wichita KS 67226

ATTN: Adam Myshwager

21-24s-13w Stafford

Waite #1A-21

Job Ticket: 17021 **DST#: 3**

Test Start: 2013.08.08 @ 23:57:00

GENERAL INFORMATION:

Formation: **Lansing K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:21:20
Time Test Ended: 07:56:30

Test Type: Conventional Straddle (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend-65

Interval: 3735.00 ft (KB) To 4183.00 ft (KB) (TVD)
Total Depth: 4183.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

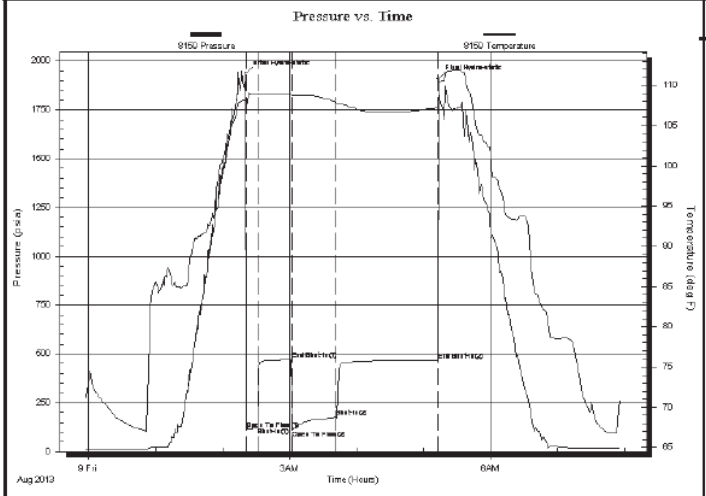
Reference Elevations: 1928.00 ft (KB)
1923.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8159

Press@RunDepth: 176.73 psia @ ft (KB)
Start Date: 2013.08.08 End Date: 2013.08.09
Start Time: 23:57:00 End Time: 07:56:30

Capacity: 5000.00 psia
Last Calib.: 2013.08.09
Time On Btm: 2013.08.09 @ 02:20:50
Time Off Btm: 2013.08.09 @ 05:13:30

TEST COMMENT: 1st Opening 10 Minutes-Strong blow built bottom of bucket in 1 minute
1st Shut-in 30 Minutes-Yes blow back
2nd Opening 40 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface see gas report
2nd Shut-in 90 Minutes-Yes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1935.60	108.23	Initial Hydro-static
1	112.98	107.75	Open To Flow (1)
11	123.35	108.82	Shut-In(1)
41	470.24	108.89	End Shut-In(1)
43	111.87	108.80	Open To Flow (2)
81	176.73	107.90	Shut-In(2)
172	468.52	107.22	End Shut-In(2)
173	1909.49	109.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	mud	0.89
0.00	3320 feet gas in pipe	0.00
0.00	gas sample was taken	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.50	47.50	320.42
Last Gas Rate	0.50	57.60	388.55
Max. Gas Rate	0.50	57.60	388.55

DST#2.bmp

DRILL STEM TEST REPORT

Edison Operating Company L.L.C

8100 E 22nd st N Bldg 1900 Wichita KS 67226

ATTN: Adam Myshwager

21-24s-13w Stafford

Waite #1A-21

Job Ticket: 17020 **DST#: 2**

Test Start: 2013.08.07 @ 14:28:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:19:30
Time Test Ended: 21:44:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend- 65

Interval: 3986.00 ft (KB) To 4083.00 ft (KB) (TVD)
Total Depth: 4083.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

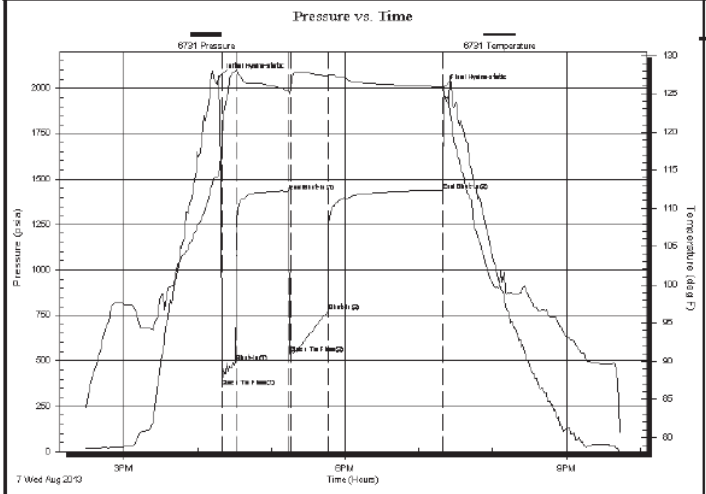
Reference Elevations: 1928.00 ft (KB)
1923.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6731

Press@RunDepth: 770.76 psia @ ft (KB)
Start Date: 2013.08.07 End Date: 2013.08.07
Start Time: 14:28:00 End Time: 21:44:00

Capacity: 5000.00 psia
Last Calib.: 2013.08.07
Time On Btm: 2013.08.07 @ 16:17:30
Time Off Btm: 2013.08.07 @ 19:20:00

TEST COMMENT: 1st Opening 10 Minutes-Tool chased 30 feet to bottom strong blow bottom bucket 1 minute
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
2nd Shut-in 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2061.25	114.46	Initial Hydro-static
2	357.65	118.32	Open To Flow (1)
13	492.39	127.92	Shut-In(1)
57	1433.20	125.39	End Shut-In(1)
58	539.92	125.03	Open To Flow (2)
89	770.76	127.31	Shut-In(2)
182	1436.69	125.88	End Shut-In(2)
183	2001.63	125.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1260.00	oil mud cut water 10%oil 40%mud 50%w	15.49
240.00	mud	3.37
0.00	chlorides 25,000 resistivity .15 @ 70 de	0.00

Gas Rates

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