EDISON OPERATING COMPANY LLC

Scale 1:240 Imperial

Well Name:	Rixon #1-16		
Surface Location:	Sec. 16 - T24S - R13W		
Bottom Location:			
API:	15-185-23843-0000		
License Number:	34434		
Spud Date:	12/4/2013	Time:	6:00 PM
Region:	Stafford County, KS		
Drilling Completed:	12/13/2013	Time:	1:00 AM
Surface Coordinates:	2300' FNL & 2000' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	1918.00ft		
K.B. Elevation:	1923.00ft		
Logged Interval:	3000.00ft	To:	4218.00ft
Total Depth:	4218.00ft		
Formation:	Arbuckle, Lansing		
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:	Rixon #1-16		
Location:	Sec. 16 - T24S - R13W	API:	15-185-23843-0000
Pool:		Field:	Wildcat
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 geologic log, sample descriptions, open hole electric logs, and DST results, the decision was made by operator to run 5 1/2" production casing for further evaluation of the Arbuckle section.

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:	Rick Hughes
Daylight Driller:	Mike Kramer		
Evening Driller:	Mark Elsen	Logging Company:	Nabors Completion Service
Morning Driller:	Kent Urban	Engineer:	Jeff Gronewag

Morning Driller: Kent Urban
Relief:

Engineer: Jeff Gronewag
Logs Ran: DIL, DUCP, MEL, BHCS

Gas Detector: Bluestem Environmental
Engineer: Sidney Edelbrock
Unit: 0199
Operational By: 1800'

Testing Company: Superior Testing
Tester: Gene Budig

Deviation Survey	
Depth	Survey
325'	1°
3772'	1 1/4°
RTD 4218'	1 1/4°

Pipe Strap	
Depth	Pipe Strap
3737'	0.94 long to board

Bit Record								
Bit #	Size	Make	Type	Serial Number	Depth In	Depth Out	Feet	Hours
1	12 1/4"	RT	Tooth	RR	0	325	325	
2	7 7/8"	F27	Tooth	PY9749	325	4218	3893	

Surface Casing	
12/4/2013	Ran 7 joints of 24#, 8 5/8" surface casing, Set @ 325'. Used 300 sacks 60/40 Poz, 3% cc, 1/4# cellflake, cement did circulate, by Basic. Plug down @ 0330 hrs on 12.05.13.

Production Casing	
12/13/2013	Ran 99 joints of 15.5#, 5 1/2" production casing, Set @ 4217'. Used 200 sacks total, 30 sacks rathole, 20 sacks mousehole, 150 sacks casing with AA-2, cement did circulate, job completed at 2125 hrs 12.13.13.

DAILY DRILLING REPORT

Date	0700 Hrs Depth	Previous 24 Hours of Operations
12/9/2013	3544'	Drilling and connections Topeka. Displace mud by 3200'. Geologist Adam G. Nighswonger on location 1830 hrs 12.08.13 drilling @ 3275'. Drilling and connections Topeka, Heebner, Toronto, Douglas, and into Brown Lime. CTCH, begin short trip @ 3544'. Made 572' in past 24 hrs of operations. DMC: $4,423.95 CMC: $6,556.45
12/10/2013	3737'	Break water freezing, down for maintenance. Complete short trip for 30 stands; back to bottom, CTCH, resume drilling and connections 1845 hrs Brown Lime and into upper Lansing zones. CFS @ 3643' (LKC 'F') & 3692' (LKC 'H'). Resume drilling and connections lower Lansing zones. CFS @ 3737' (LKC 'J'). Shows warrant test. CTCH, drop survey and strap out for DST #1. Made 193' in past 24 hrs of operations. DMC: $887.35 CMC: $7,443.80
12/11/2013	3772'	Conduct DST #1; test successful. Recovered 1750' gas and 130' mud from DST #1. Back to bottom; CTCH. Resume drilling and connections lower Lansing zones. CFS @ 3772' (LKC 'K'). Shows warrant test. CTCH, drop survey (previous survey failed) and TOH for DST #2. Recovered 350' gas and 65' mud from DST #2. Made 35' in past 24 hrs of operations. DMC: $464.15 CMC: $7,907.95
12/12/2013	4118'	Back to bottom; CTCH. Resume drilling and connections lower Lansing, basal Pennsylvanian, and into Viola. CFS @ 3955' & 3982' (VIOL). Resume drilling and connections Viola, Simpson, and into Arbuckle. CFS @ 4118' (ARBK). Shows warrant test. CTCH and TOH for DST #3. Made 346' in past 24 hrs of operations. DMC: $681.45 CMC: $8,589.40
12/13/2013	RTD 4218'	Conduct DST #3. Recovered 340' HOCWM, 240' OCMW & 120' water from DST #3. Back to bottom; CTCH. Resume drilling and connections Arbuckle. Rotary total depth of 4218' reached 0100 hrs 12.13.13. CTCH, drop survey and TOH for logs. Geologist off location 0530 hrs on 12.13.13. Commence open hole logging operations 0600 hrs, job complted 1015 hrs 12.13.13. Made 100' in past 24 hrs of operations. DMC: $1,556.20 CMC: $10,145.60

WELL COMPARISON SHEET

Drilling Well	Comparison Well	Comparison Well	Comparison Well
Edison Operating Co - Rixon #1-16 Sec. 16 - T24S - R13W	Kan-Ex, Inc. - B.O.C.C. Sec. 16 - T24S - R13W	Mallard Drilling Co. - Delp #1 Sec. 16 - T24S - R13W	Edison Operating Co - Waite #1A-21 Sec. 21 - T24S - R13W

	2100' FNL & 1850' FWL				C N/2 NE SE				C SW SW NE				830' FNL & 1150' FWL			
	1923 KB				D & A 1927 KB		Structural Relationship		D & A 1926 KB		Structural Relationship		D & A 1928 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Sample	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Topeka	3073	-1150	3074	-1151	Not Called				Not Called				3062	-1134	-16	-17
Heebner	3394	-1471	3394	-1471	3408	-1481	10	10	3396	-1470	-1	-1	3383	-1455	-16	-16
Toronto	3417	-1494	3411	-1488	3428	-1501	7	13	Not Called				3398	-1470	-24	-18
Brown Lime	3530	-1607	3531	-1608	3547	-1620	13	12					3523	-1595	-12	-13
Lansing	3554	-1631	3555	-1632	3575	-1648	17	16	3559	-1633	2	1	3547	-1619	-12	-13
LKC 'B'	3575	-1652	3579	-1656	3598	-1671	19	15	Not Called				3572	-1644	-8	-12
LKC 'F'	3628	-1705	3633	-1710	3650	-1723	18	13					3623	-1695	-10	-15
LKC 'G'	3646	-1723	3645	-1722	3668	-1741	18	19					3645	-1717	-6	-5
Muncie Creek	3680	-1757	3680	-1757	3704	-1777	20	20					3681	-1753	-4	-4
LKC 'H'	3683	-1760	3684	-1761	3709	-1782	22	21	3696	-1770	10	9	3684	-1756	-4	-5
LKC 'I'	3702	-1779	3700	-1777	3728	-1801	22	24					Not Present (?)			
LKC 'J'	3718	-1795	3718	-1795	3742	-1815	20	20					3712	-1784	-11	-11
Stark	3744	-1821	3746	-1823	3773	-1846	25	23	Not Called				3746	-1818	-3	-5
LKC 'K'	3749	-1826	3755	-1832	3782	-1855	29	23					3752	-1824	-2	-8
Hushpuckney	3780	-1857	3786	-1863	3810	-1883	26	20					3782	-1854	-3	-9
LKC 'L'	3791	-1868	3794	-1871	3818	-1891	23	20					3791	-1863	-5	-8
Base Kansas City	3798	-1875	3803	-1880	3827	-1900	25	20	3832	-1906	31	26	3800	-1872	-3	-8
Viola	3904	-1981	3908	-1985	3960	-2033	52	48	3926	-2000	19	15	3897	-1969	-12	-16
Simpson	4042	-2119	4056	-2133	4093	-2166	47	33	4068	-2142	23	9	4040	-2112	-7	-21
Arbuckle	4110	-2187	4112	-2189	4146	-2219	32	30	4119	-2193	6	4	4078	-2150	-37	-39
Total Depth	4218	-2295	4219	-2296	4171	-2244			4160	-2234			4183	-2255		

ROCK TYPES

Cht, Chtcongl, DOL2, LMST1, LMST2, LMST3, Ss, SHALE CAR, SHALE GRN, SHALE GRA, SHALE PUR, SHALE RED

ACCESSORIES

MINERAL
- ⊥ Calcareous
- Chert, tripolitic
- Dolomitic
- P Pyrite
- Sandy
- Silty
- Varicolored chert
- Chert White

FOSSIL
- Bioclastic or Fragmental
- Cephalopod
- F Fossils < 20%
- Oolite
- Oomoldic
- Sponge Spicules

STRINGER
- Conglomerate
- Limestone1
- Limestone2
- Sandstone
- 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

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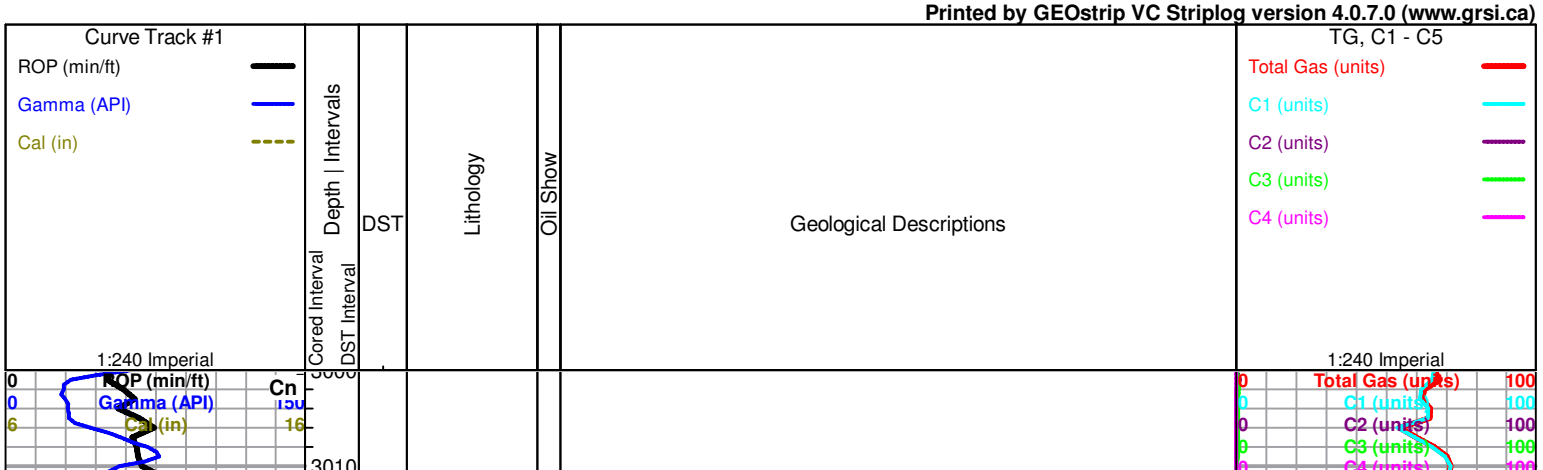
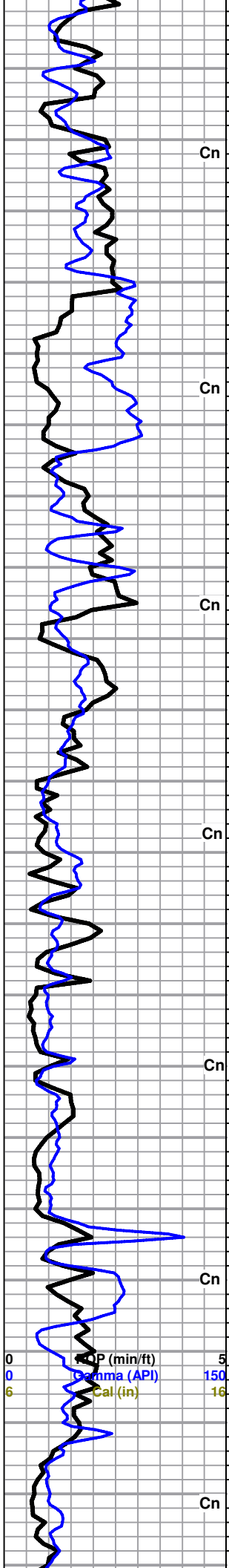
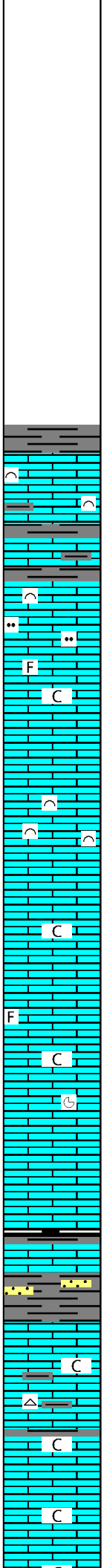






Topeka 3074' (-1151)

Limestone: light gray, some cream white, hard and dense, fine-xlyn, densely fossiliferous to bioclastic in part, poor inter-fossil porosity, no shows noted, lower part with trace shaley material

Start 10' wet & dry samples @ 3100'

Limestone: cream white, some light gray, dense chalky matrix, micro to fine-xlyn, fossiliferous in upper part, with Shale: dark gray, blocky and hard, silty in part

Limestone: gray to dark gray, dense matrix, fine-xlyn, densely fossiliferous to bioclastic in part, few parts friable, fair inter-fossil porosity, no shows noted, with Shale as above

Limestone: cream white to light tan, micro to fine-xlyn, dense chalky matrix, trace loose chalk, poor to fair inter-xlyn porosity, no shows noted, with interbedded Shale as above

Limestone: cream white and light tan, fine-xlyn, dense chalky matrix, trace loose chalk, few parts largely fossiliferous, poor inter-xlyn porosity, no shows noted

King Hill Shale 3183' (-1260)

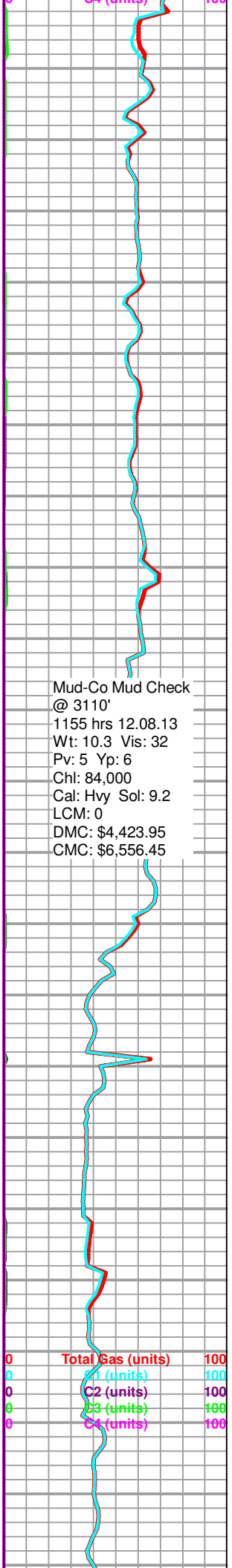
Shale: black carb to dark gray, mostly blocky and soft, some splintery, no show gas

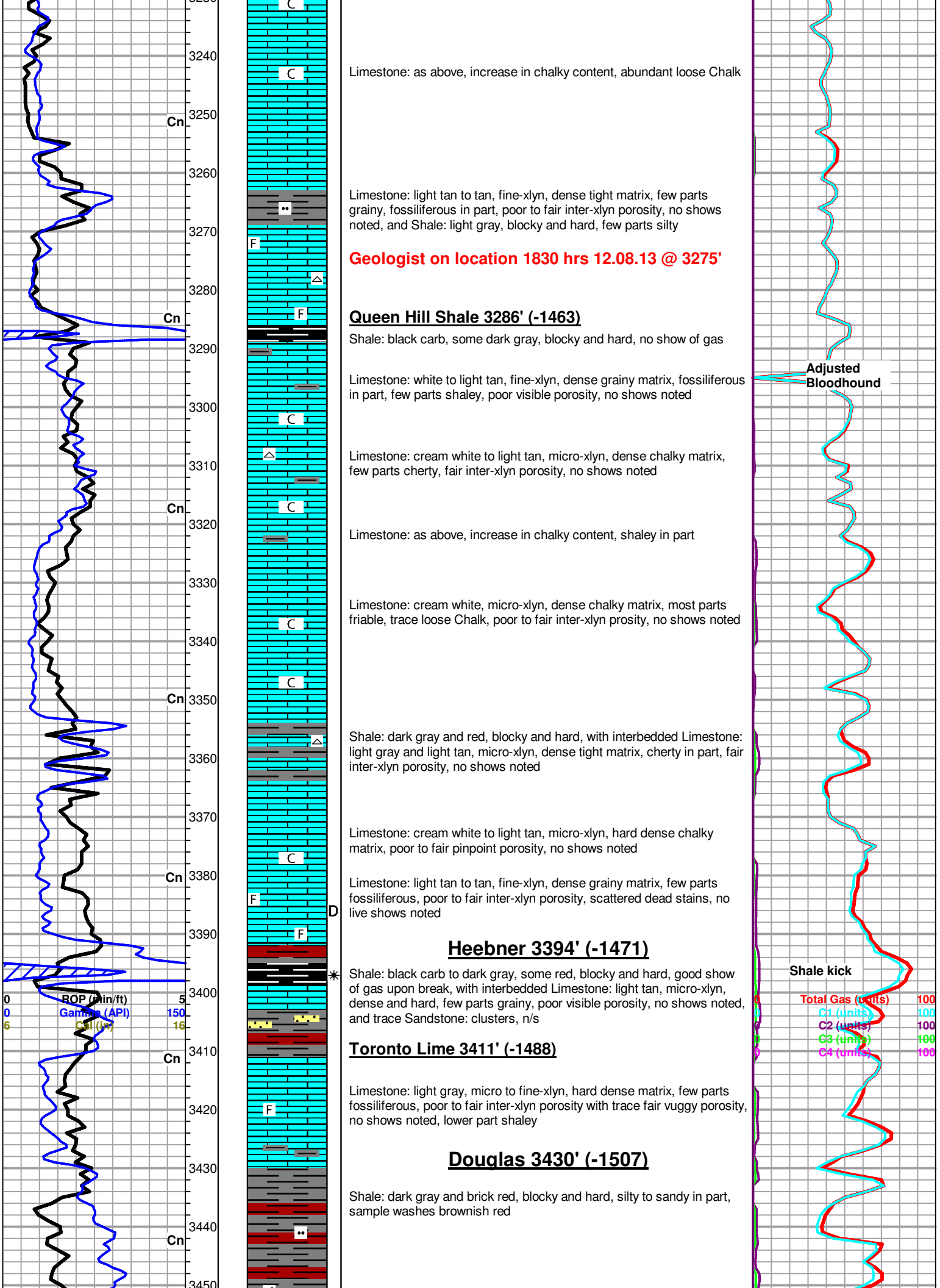
Shale: gray to dark gray, blocky to soft, with few pieces Sandstone: dark tan, vf-grained, poorly sorted and cemented, fair inter-granular porosity, no shows noted

Displace mud system by 3200'

Limestone: cream white, micro to fine-xlyn, dense chalky matrix, some loose chalk, trace cherty, lower part with increase in chalky content, poor to fair inter-xlyn porosity, no shows noted

Limestone: cream white, micro-xlyn, chalky matrix, gummy in part, abundant chalky material, poor inter-xlyn porosity, no shows noted





Limestone: as above, increase in chalky content, abundant loose Chalk

Limestone: light tan to tan, fine-xlyn, dense tight matrix, few parts grainy, fossiliferous in part, poor to fair inter-xlyn porosity, no shows noted, and Shale: light gray, blocky and hard, few parts silty

Geologist on location 1830 hrs 12.08.13 @ 3275'

Queen Hill Shale 3286' (-1463)

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

Limestone: white to light tan, fine-xlyn, dense grainy matrix, fossiliferous in part, few parts shaley, poor visible porosity, no shows noted

Limestone: cream white to light tan, micro-xlyn, dense chalky matrix, few parts cherty, fair inter-xlyn porosity, no shows noted

Limestone: as above, increase in chalky content, shaley in part

Limestone: cream white, micro-xlyn, dense chalky matrix, most parts friable, trace loose Chalk, poor to fair inter-xlyn prosity, no shows noted

Shale: dark gray and red, blocky and hard, with interbedded Limestone: light gray and light tan, micro-xlyn, dense tight matrix, cherty in part, fair inter-xlyn porosity, no shows noted

Limestone: cream white to light tan, micro-xlyn, hard dense chalky matrix, poor to fair pinpoint porosity, no shows noted

Limestone: light tan to tan, fine-xlyn, dense grainy matrix, few parts fossiliferous, poor to fair inter-xlyn porosity, scattered dead stains, no live shows noted

Heebner 3394' (-1471)

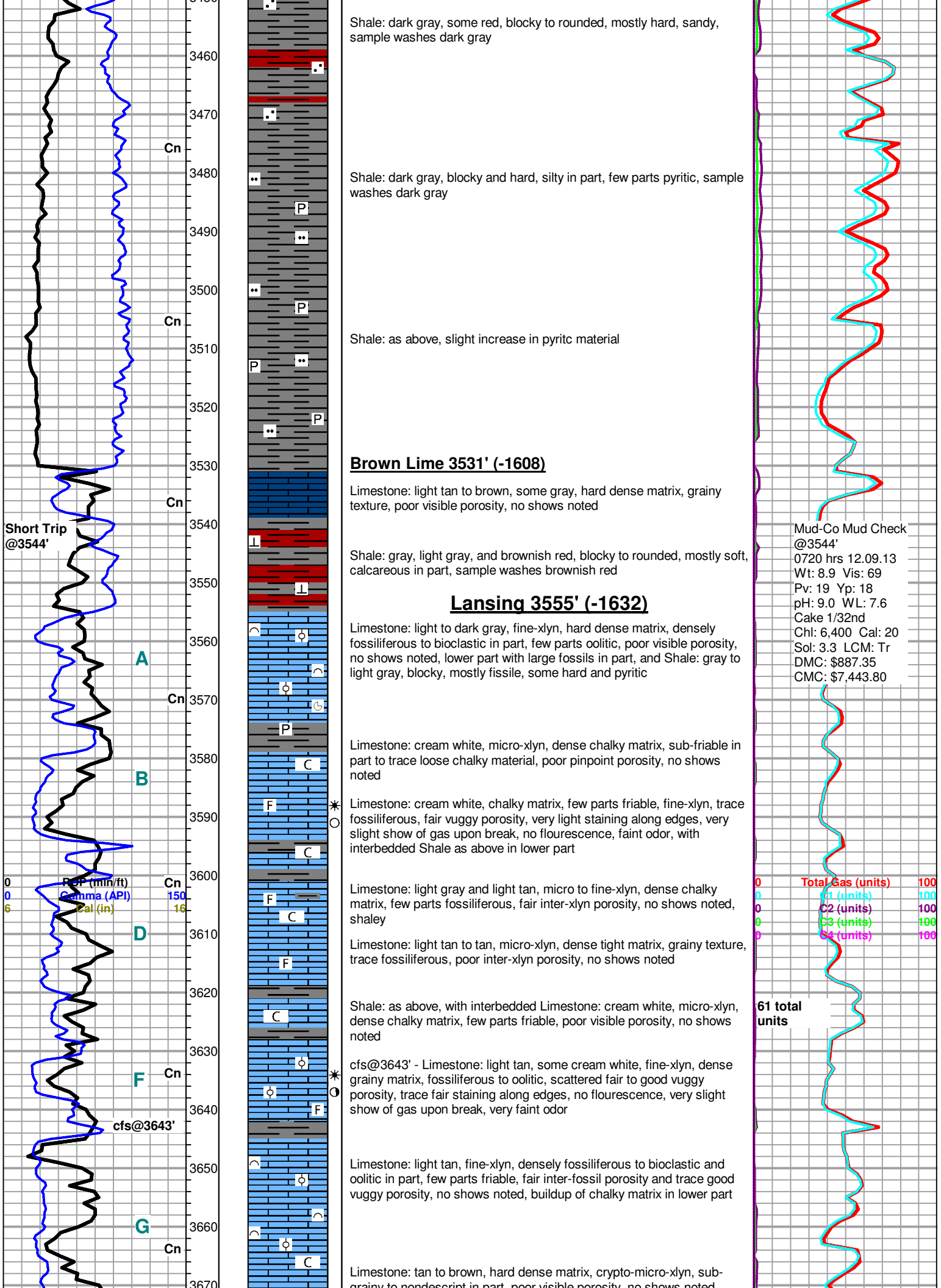
Shale: black carb to dark gray, some red, blocky and hard, good show of gas upon break, with interbedded Limestone: light tan, micro-xlyn, dense and hard, few parts grainy, poor visible porosity, no shows noted, and trace Sandstone: clusters, n/s

Toronto Lime 3411' (-1488)

Limestone: light gray, micro to fine-xlyn, hard dense matrix, few parts fossiliferous, poor to fair inter-xlyn porosity with trace fair vuggy porosity, no shows noted, lower part shaley

Douglas 3430' (-1507)

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


3460
3470
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3610
3620
3630
3640
3650
3660
3670
Cn
Short Trip
@3544'
A
B
D
F
G
cfs@3643'
0
ROP (min/ft)
Cn
0
Gamma (API)
150
6
Cal (in)
16
Shale: dark gray, some red, blocky to rounded, mostly hard, sandy, sample washes dark gray
Shale: dark gray, blocky and hard, silty in part, few parts pyritic, sample washes dark gray
Shale: as above, slight increase in pyritc material
Brown Lime 3531' (-1608)
Limestone: light tan to brown, some gray, hard dense matrix, grainy texture, poor visible porosity, no shows noted
Shale: gray, light gray, and brownish red, blocky to rounded, mostly soft, calcareous in part, sample washes brownish red
Lansing 3555' (-1632)
Limestone: light to dark gray, fine-xlyn, hard dense matrix, densely fossiliferous to bioclastic in part, few parts oolitic, poor visible porosity, no shows noted, lower part with large fossils in part, and Shale: gray to light gray, blocky, mostly fissile, some hard and pyritic
Limestone: cream white, micro-xlyn, dense chalky matrix, sub-friable in part to trace loose chalky material, poor pinpoint porosity, no shows noted
Limestone: cream white, chalky matrix, few parts friable, fine-xlyn, trace fossiliferous, fair vuggy porosity, very light staining along edges, very slight show of gas upon break, no flourescence, faint odor, with interbedded Shale as above in lower part
Limestone: light gray and light tan, micro to fine-xlyn, dense chalky matrix, few parts fossiliferous, fair inter-xlyn porosity, no shows noted, shaley
Limestone: light tan to tan, micro-xlyn, dense tight matrix, grainy texture, trace fossiliferous, poor inter-xlyn porosity, no shows noted
Shale: as above, with interbedded Limestone: cream white, micro-xlyn, dense chalky matrix, few parts friable, poor visible porosity, no shows noted
cfs@3643' - Limestone: light tan, some cream white, fine-xlyn, dense grainy matrix, fossiliferous to oolitic, scattered fair to good vuggy porosity, trace fair staining along edges, no flourescence, very slight show of gas upon break, very faint odor
Limestone: light tan, fine-xlyn, densely fossiliferous to bioclastic and oolitic in part, few parts friable, fair inter-fossil porosity and trace good vuggy porosity, no shows noted, buildup of chalky matrix in lower part
Limestone: tan to brown, hard dense matrix, crypto-micro-xlyn, sub-
Mud-Co Mud Check
@3544'
0720 hrs 12.09.13
Wt: 8.9 Vis: 69
Pv: 19 Yp: 18
pH: 9.0 WL: 7.6
Cake 1/32nd
Chl: 6,400 Cal: 20
Sol: 3.3 LCM: Tr
DMC: $887.35
CMC: $7,443.80
0
Total Gas (units)
100
0
C1 (units)
100
0
C2 (units)
100
0
C3 (units)
100
0
C4 (units)
100
61 total
units

grainy to nondescript in part, poor visible porosity, no shows noted

Muncie Creek Shale 3680' (-1757)

Shale: black carb and light gray, blocky and hard, no gas show

cfs@3692' - Limestone: white to light tan, fine-xlyn, hard dense matrix, fair to good oomoldic development & porosity, trace fair vuggy porosity, black tarry dead oil stains in part, very slight show of gas upon break, faint odor, lower part hard dense & chalky

Shale: dark gray, blocky and hard, with interbedded Limestone: cream white, dense chalky matrix, fine-xlyn, oolitic in part, n/s

Limestone: cream white and light tan, micro-xlyn, dense chalky matrix, fossiliferous in part, trace friable, fair inter-xlyn porosity, trace spotty staining (?), no flourescence, no odor, interbedded Shale as above in lower part

Limestone: cream white, micro-xlyn, dense chalky matrix, few parts with poor oomoldic development and porosity, friable in part, no shows noted

cfs@ 3737' - Limestone: cream white to light tan, fine-xlyn, sli friable matrix, good oomoldic development & porosity in part, fair light brown staining, trace free oil upon break, no flourescence, no cut, fair odor

Stark Shale 3746' (-1823)

Shale: black carb and dark gray, some red, blocky and hard, slight show of gas upon break

Limestone: cream white, micro-xlyn, dense chalky matrix, few parts friable, poor inter-xlyn porosity, no shows noted

cfs@3772' - Limestone: cream white, fine-xlyn, dense matrix, oolitic in part, trace friable, fair inter-xlyn with scattered good vuggy porosity, light brown spotty stains in part, no flourescence, very faint odor, lower part
Limestone: cream white, micro-xlyn, hard dense chalky matrix, poor visible porosity, no shows noted

Hushpuckney Shale 3786' (-1863)

Shale: black carb, blocky and hard, trace gray and frissile, slight show of gas upon break

Limestone: cream white, some gray and tan, micro-xlyn, hard dense matrix, grainy texture to sub-lithographic in part, poor inter-xlyn with trace fair vuggy porosity, no shows noted

Base Kansas City 3803' (-1880)

Shale: dark gray to red, some black carb, blocky and hard, few parts pyritic

Limestone: gray and light tan, fine-xlyn, hard dense matrix, grainy to sub-lithographic, chety in part, poor visible porosity, no shows noted, with interbedded Shale as above, sample washes dark gray

Shale: light to dark gray, some red, blocky to rounded, mostly soft, few parts calcareous

Limestone: light gray and light tan, hard dense chalky matrix, micro to fine-xlyn, fossiliferous to oolitic in part, poor visible porostiy, no shows noted

Shale: gray to dark gray, some red, trace purple, blocky and hard, with few pieces red cherty Conglomerate

Conglomerate: red shaley matrix, with Limestone: cream white to light gray, hard and dense, grainy in part, poor to fair pinpoint porosity, no shows noted, and Chert: white, some light green, heavily weathered to tripolitic, poor visible porosity, no shows noted, sample washes red-brown

Mud-Co Mud Check
@3737'
Wt: 9.25 Vis: 58
Pv: 15 YP; 18
pH: 10 WL: 9.6
Cake 1/32nd
Chl: 7,200 Cal: 0
Sol: 6.3 LCM: 0
DMC: $464.15
CMC: $7,907.95

Note Scale Change

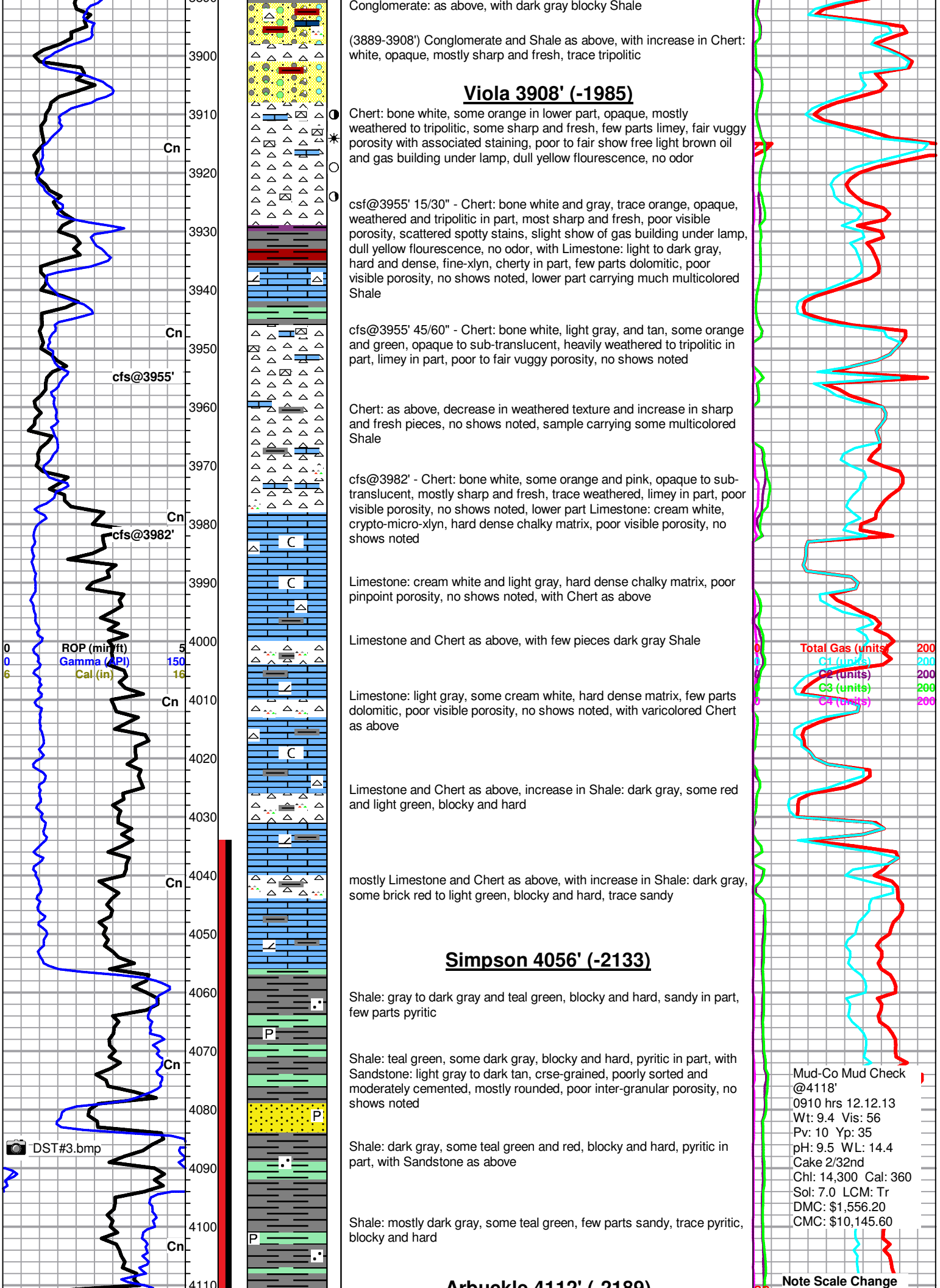
Contaminated mud system

Mud-Co Mud Check
@3772'
0810 hrs 12.11.13
Wt: 9.1 Vis: 49
Pv: 10 Yp: 23
pH: 9.0 WL: 14.2
Cake 1/32nd
Chl: 12,800 Cal: 240
Sol: 5.0 LCM: Tr
DMC: $681.45
CMC: $8,589.40

DST#1.bmp
DST#2.bmp
cfs@3692'
cfs@3737'
cfs@3772'
H
I
J
K
Cn

ROP (min/ft) 0 5
Gamma (API) 0 150
Cal (in) 6 16

Total Gas (units) 0 200
C1 (units) 0 200
C2 (units) 0 200
C3 (units) 0 200
C4 (units) 0 200



Conglomerate: as above, with dark gray blocky Shale

(3889-3908') Conglomerate and Shale as above, with increase in Chert: white, opaque, mostly sharp and fresh, trace tripolitic

Viola 3908' (-1985)

Chert: bone white, some orange in lower part, opaque, mostly weathered to tripolitic, some sharp and fresh, few parts limey, fair vuggy porosity with associated staining, poor to fair show free light brown oil and gas building under lamp, dull yellow flourescence, no odor

csf@3955' 15/30" - Chert: bone white and gray, trace orange, opaque, weathered and tripolitic in part, most sharp and fresh, poor visible porosity, scattered spotty stains, slight show of gas building under lamp, dull yellow flourescence, no odor, with Limestone: light to dark gray, hard and dense, fine-xlyn, cherty in part, few parts dolomitic, poor visible porosity, no shows noted, lower part carrying much multicolored Shale

cfs@3955' 45/60" - Chert: bone white, light gray, and tan, some orange and green, opaque to sub-translucent, heavily weathered to tripolitic in part, limey in part, poor to fair vuggy porosity, no shows noted

Chert: as above, decrease in weathered texture and increase in sharp and fresh pieces, no shows noted, sample carrying some multicolored Shale

cfs@3982' - Chert: bone white, some orange and pink, opaque to sub-translucent, mostly sharp and fresh, trace weathered, limey in part, poor visible porosity, no shows noted, lower part Limestone: cream white, crypto-micro-xlyn, hard dense chalky matrix, poor visible porosity, no shows noted

Limestone: cream white and light gray, hard dense chalky matrix, poor pinpoint porosity, no shows noted, with Chert as above

Limestone and Chert as above, with few pieces dark gray Shale

Limestone: light gray, some cream white, hard dense matrix, few parts dolomitic, poor visible porosity, no shows noted, with varicolored Chert as above

Limestone and Chert as above, increase in Shale: dark gray, some red and light green, blocky and hard

mostly Limestone and Chert as above, with increase in Shale: dark gray, some brick red to light green, blocky and hard, trace sandy

Simpson 4056' (-2133)

Shale: gray to dark gray and teal green, blocky and hard, sandy in part, few parts pyritic

Shale: teal green, some dark gray, blocky and hard, pyritic in part, with Sandstone: light gray to dark tan, crse-grained, poorly sorted and moderately cemented, mostly rounded, poor inter-granular porosity, no shows noted

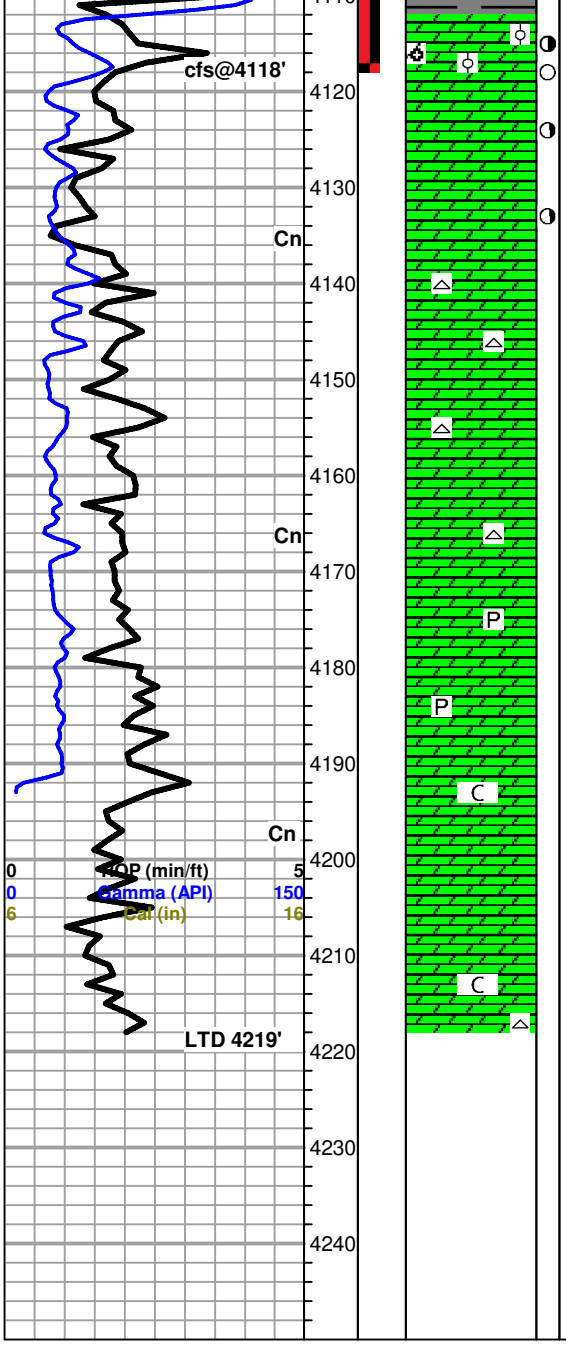
Shale: dark gray, some teal green and red, blocky and hard, pyritic in part, with Sandstone as above

Shale: mostly dark gray, some teal green, few parts sandy, trace pyritic, blocky and hard

Mud-Co Mud Check
@4118'
0910 hrs 12.12.13
Wt: 9.4 Vis: 56
Pv: 10 Yp: 35
pH: 9.5 WL: 14.4
Cake 2/32nd
Chl: 14,300 Cal: 360
Sol: 7.0 LCM: Tr
DMC: $1,556.20
CMC: $10,145.60

Note Scale Change

Arbuckle 4112' (-2189)



Arbuckle 4112' (-2189)

cfs@4118' - Dolomite: light gray and light tan, hard dense matrix, fine-crse-xlyn, poor rhombic development, oolitic in part with trace fair oomoldic development & porosity, trace good vuggy porosity, re-xlyzed in part, fair even staining in part, no free oil, bright green-yellow flourescence, good odor

(4119-29') Dolomite: off white to light tan, dense matrix, v.fine-xlyn, sli sucrosic to friable in part, poor rhombic development & porosity, scattered spotty stains, green-yellow flourescence, fair odor

(4130-39') Dolomite: mostly tan, dense matrix, fine-xlyn, fair rhombic development & poor associated porosity, trace fair to good vuggy porosity, scattered spotty stains, green-yellow flourescence, fair odor

(4140-49') Dolomite: light gray and light tan, hard dense matrix, vf-fine-xlyn, fair rhombic development & poor associated porosity, cherty in part, very faint odor, no visible shows noted

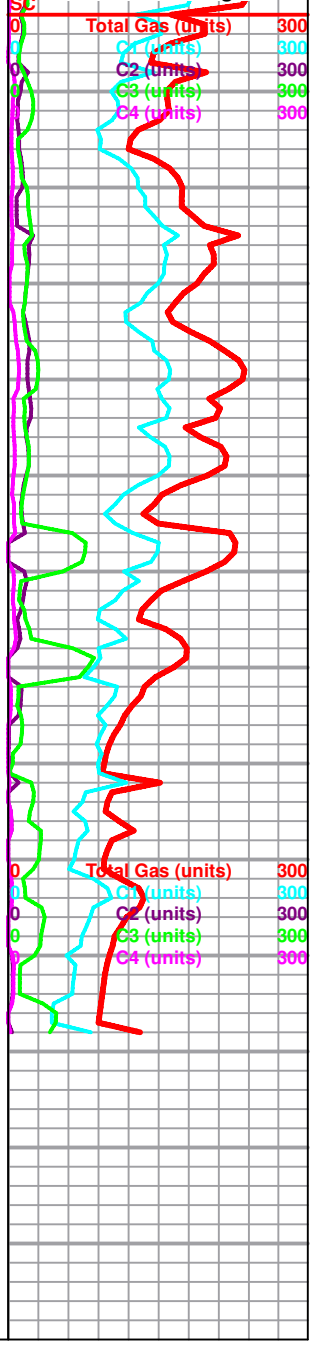
(4150-59') Dolomite: light tan to tan, hard dense matrix, fine-crse-xlyn, fair rhombic development and trace good associated porosity, cherty in part, very faint odor, no visible shows noted

(4160-71') Dolomite: tan and gray, hard dense matrix, fine-xlyn, fair rhombic development and poor associated porosity, cherty in part, no shows noted

(4172-89') Dolomite: tan and gray, hard dense matrix, crse-xlyn, good rhombic development and scattered fair associated porosity, few parts pyritic, no shows noted

(4190-97') Dolomite: cream white to light tan, dense matrix, fine-crse-xlyn, fair rhombic development and porosity, chalky in part, no shows noted

(4198-4208') Dolomite: light tan to tan, hard and dense, crse-xlyn, good rhombic development with scattered fair to good associated porosity, no shows noted



Rotary Total Depth 4218' (-2295)

Sample descriptions continued:

(4209-18') Dolomite: cream white, dense matrix, vf-fine-xlyn, poor rhombic development and porosity, few parts chalky, trace cherty, no shows noted

Orders received to run 5 1/2" production casing

Respectfully submitted,

Adam G. Nighswonger

DST#1.bmp

DRILL STEM TEST REPORT

Edison Operating Company LLC

8100 East 22nd Steet North
Building 1900
Wichita, Kansas 67226
ATTN: Adam Nighswonger

16-24s-13w Stafford

Rixon #1-16

Job Ticket: 18178 **DST#: 1**

Test Start: 2013.12.08 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing Kansas City**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Gene Budig
Unit No: 3335

Interval: 3707.00 ft (KB) To 3737.00 ft (KB) (TVD)
Total Depth: 3737.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

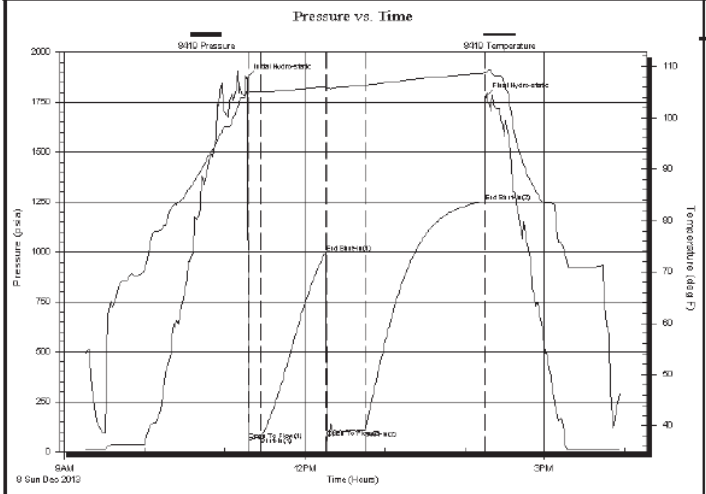
Reference Elevations: 1925.00 ft (KB)
1920.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8419 **Inside**

Press@RunDepth: 1252.46 psia @ 3733.00 ft (KB)
Start Date: 2013.12.08 End Date: 2013.12.08
Start Time: 09:15:00 End Time: 15:56:30

Capacity: 5000.00 psia
Last Calib.: 2013.12.08
Time On Btm: 2013.12.08 @ 11:16:30
Time Off Btm: 2013.12.08 @ 14:16:00

TEST COMMENT:
1st Opening 10 Minutes-Weak building blow built to 8 inches into the water
1st Shut-In 45 Minutes-No blow back
2nd Opening 30 Minutes-Strong blow bleed it off after 5 min. fair blow built to the bottom of the bucket in 3 minutes
2nd Shut-In 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1873.24	105.41	Initial Hydro-static
2	54.81	105.15	Open To Flow (1)
11	72.50	105.07	Shut-In(1)
59	996.75	106.09	End Shut-In(1)
61	71.31	105.82	Open To Flow (2)
89	107.09	106.36	Shut-In(2)
179	1252.46	108.68	End Shut-In(2)
180	1777.49	108.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1750 feet of gas in the pipe	0.00
130.00	feet of drillin mud	0.64

Gas Rates

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

DST#2.bmp

DRILL STEM TEST REPORT

Edison Operating Company LLC

8100 East 22nd Steet North
Building 1900
Wichita, Kansas 67226
ATTN: Adam Nighsw onger

16-24s-13w Stafford

Rixon #1-16

Job Ticket: 18179 **DST#: 2**

Test Start: 2013.12.09 @ 00:00:00

GENERAL INFORMATION:

Formation: **Lansing Kansas C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Gene Budig 66
Unit No: 3335

Interval: 3740.00 ft (KB) To 3772.00 ft (KB) (TVD)
Total Depth: ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

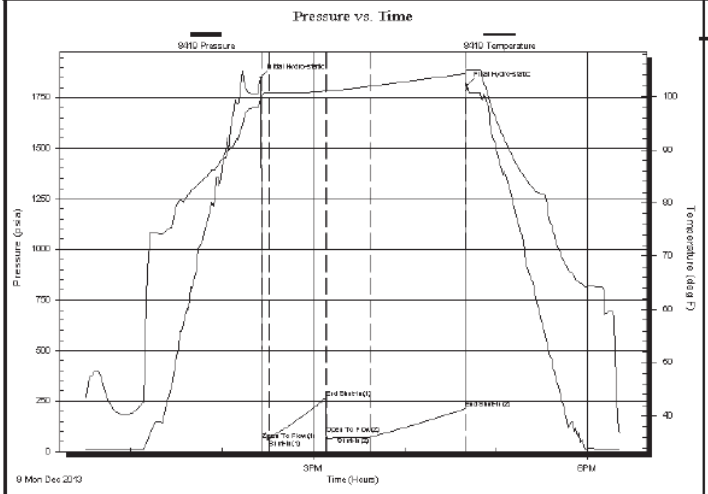
Reference Elevations: 1925.00 ft (KB)
1920.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8419 **Inside**

Press@RunDepth: 212.49 psia @ 3768.00 ft (KB)
Start Date: 2013.12.09 End Date: 2013.12.09
Start Time: 12:30:00 End Time: 18:22:00

Capacity: 5000.00 psia
Last Calib.: 2013.12.09
Time On Btm: 2013.12.09 @ 14:25:30
Time Off Btm: 2013.12.09 @ 16:41:00

TEST COMMENT:
1st Opening 10 Minutes-Weak Surface Bloe
1st Shut-In 30 Minutes-No blow back
2nd Opening 30 Minutes-w eak building blow built to 8 inches into the w ater
2nd Shut-In 60 Minutes- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1848.00	99.67	Initial Hydro-static
1	57.41	99.90	Open To Flow (1)
6	61.03	100.77	Shut-In(1)
43	262.51	101.03	End Shut-In(1)
43	89.28	100.98	Open To Flow (2)
72	71.57	101.92	Shut-In(2)
135	212.49	104.27	End Shut-In(2)
136	1812.39	104.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	350 gas in the pipe	0.00
65.00	mud	0.32

Gas Rates

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

DRILL STEM TEST REPORT

Edison Operating Company LLC

8100 East 22nd Steet North
Building 1900
Wichita, Kansas 67226
ATTN: Adam Nighsw onger

16-24s-13w Stafford

Rixon #1-16

Job Ticket: 18180 **DST#: 3**

Test Start: 2013.12.10 @ 00:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Gene Budig
Unit No: 3335-65

Interval: 4034.00 ft (KB) To 4118.00 ft (KB) (TVD)
Total Depth: 4118.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

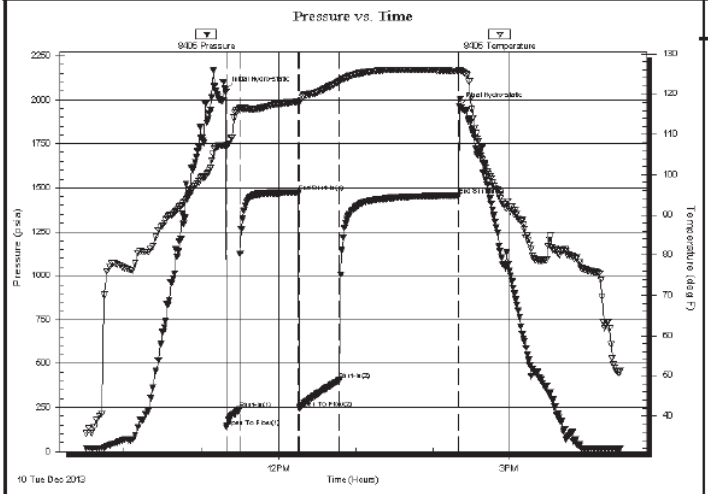
Reference Elevations: 1925.00 ft (KB)
1920.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8405 **Outside**

Press@RunDepth: 1456.56 psia @ 4114.94 ft (KB)
Start Date: 2013.12.10 End Date: 2013.12.10
Start Time: 09:30:00 End Time: 16:25:30

Capacity: psia
Last Calib.: 2013.12.10
Time On Btm: 2013.12.10 @ 11:19:00
Time Off Btm: 2013.12.10 @ 14:20:30

TEST COMMENT: 1st Opening 10 Minutes-Fair blow built ot the bottom of a 5 gallon bucket in 3 minutes
1st Shut-In 45 Minutes-Weak blow back
2nd Opening 30 Minutes-Fair blow built to the bottom of a 5 gallon bucket in8 Minutes
2nd Shut-In 90 Minutes-Weak blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2055.27	107.30	Initial Hydro-static
1	137.37	106.84	Open To Flow (1)
11	241.46	116.35	Shut-In(1)
57	1471.95	118.12	End Shut-In(1)
58	247.10	117.74	Open To Flow (2)
89	405.50	123.08	Shut-In(2)
181	1456.56	125.76	End Shut-In(2)
182	1965.39	125.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	oil cut muddy w ater	0.20
0.00	5%gas 45%oil 25%mud 25%w ater	0.00
120.00	Oil cut muddy w ater	0.59
0.00	5%Gas 35%oil 35%mud 25%w ater	0.00
180.00	`2%gas 34%oil 34%mud 30%w ater	1.79
120.00	oil cut muddy w ater	1.68

Gas Rates

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