KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1072972

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 31725
Name: Shelby Resources LLC
Address 1: 2717 Canal Blvd
Address 2: Suite C
City: HAYS State: KS Zip: 67601 + _ _ _ _
Contact Person: Chris Gottschalk
Phone: (785) 623-1524
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Charlie Sturdavant
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover
- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

10/08/2011	10/15/2011	10/16/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-145-21653-00-00
Spot Description:
NE - SW - SE - SE Sec. 1 Twp. 22 S. R. 17 [ ] East [x] West
555 Feet from [ ] North / [x] South Line of Section
705 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Pawnee
Lease Name: Woods Trust Well #: 1-1
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 2016 Kelly Bushing: 2027
Total Depth: 4030 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1022 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 43000 ppm Fluid volume: 1000 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Shelby Resources L.L.C.
Lease Name: Eakin #2-7 License #: 31725
Quarter NE Sec. 7 Twp. 22 S. R. 16 [ ] East [x] West
County: Pawnee Permit #: D-30,939

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

- [ ] Letter of Confidentiality Received
  Date:
- [ ] Confidential Release Date:
- [x] Wireline Log Received
- [x] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: Deanna Garrison Date: 01/31/2012

Side Two

1072972

Operator Name: Shelby Resources LLC Lease Name: Woods Trust Well #: 1-1

Sec. 1 Twp. 22 S. R. 17 ☐ East ☑ West County: Pawnee

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken *(Attach Additional Sheets)*	☐ Yes	☑ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Electric Log Submitted Electronically *(If no, Submit Copy)*	☑ Yes	☐ No

List All E. Logs Run:
Attached

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Topeka	3140	-1116
Heebner	3434	-1410
Lansing	3543	-1519
Base KC	3796	-1772
Conglomerate	3869	-1845
Arbuckle	3935	-1911

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	1022	60/40 Poz	400	2% gel, 3% cc

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
	-			
	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	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: ☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	Woods Trust 1-1
Doc ID	1072972

All Electric Logs Run

Dual Induction
Compensated Neutron
Micro
Sonic
Cement Bond

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 5220
Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10/9/11	1	22	17	Rawlins	KS		8:30 PM

Lease Woods Trust Well No. 1-1 Location Larned, Hwy 56, 1 SW, N into

Contractor Sterling Drilling Rig #2
Type Job Surface
Hole Size 12¼" T.D. 1027'
Csg. 8⅝" 23# Depth 1027'
Tbg. Size Depth
Tool Depth
Cement Left In Csg. 42' Shoe Joint 42'
Meas Line Displace 62 3/4 Bbls

Owner
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Charge To Captiva IT
Street
City State
The above was done to satisfaction and supervision of owner agent or contractor.
Cement Amount Ordered 400sx 60/40 3%cc 2%gel 1/4# Flocele

EQUIPMENT

Pumptrk 9 No.	Cementer	Paul	
	Helper		
Bulktrk 12 No.	Driver	Matt	
	Driver		
Bulktrk 10 No.	Driver	Doug	
	Driver		

JOB SERVICES & REMARKS

Remarks:
Rat Hole
Mouse Hole
Centralizers
Baskets
D/V or Port Collar
Est. Circ.
Mix 400sx
Displace
Land Plug
Cement Circulated
Float Held
Thank You!!

Common	240
Poz. Mix	160
Gel.	8
Calcium	15
Hulls	
Salt	
Flowseal	100#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	424
Mileage	
8⅝ FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Rubber Plug	
Head + Manifold	
Pumptrk Charge	Long Surface
Mileage	31
Tax	
Discount	
Total Charge	

X Signature

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 5196
Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-16-11	1	22	17	Pawnee	Ks		5:15 AM

Lease Woods Trust Well No. 1-1 Location Larned, Ks - 1W on 56 Hwy to Rd L

Contractor Sterling #2
Type Job Plug
Hole Size 7 7/8" T.D. 4030'
Csg. 4½" D.P. Depth 3870'
Tbg. Size Depth
Tool Depth
Cement Left in Csg. Shoe Joint
Meas Line Displace 42bbl / mud

Owner K W, N/Indo
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Charge To Shelby Resources/Captiva II
Street
City State
The above was done to satisfaction and supervision of owner agent or contractor.
Cement Amount Ordered 220 Sx. 60/40 4% Gel ¼# F.S.

EQUIPMENT

Pumptrk 1 No. Cementer Helper Cisco
Bulktrk 8 No. Driver Driver Brett
Bulktrk pick up No. Driver Driver Rick

JOB SERVICES & REMARKS

Remarks: Cement did Circulate.
Rat Hole
Mouse Hole
Centralizers
Baskets
D/V or Port Collar
3870' - 50 SX
1650' - 50 SX
540' - 50 SX
60' - 20 SX
Rathole - 30 SX
Mousehole - 20 SX
220 SX 60/40-4% Gel ¼# Flo-Seal

Common	132 ACCT
Poz. Mix	& PROPERTY #
Gel.	& LFE #
Calcium	
Hulls	USED FOR
Salt	APPROVAL
Flowseal	50#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	225
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	APPROVED
AFU Inserts	CHRIS ZOTTOLI
Float Shoe	OCT 25 REC'D
Latch Down	

Pumptrk Charge	plug
Mileage 31	
Tax	
Discount	
Total Charge	

X Signature

1

Scale 1:240 Imperial

Well Name:	# 1-1 Woods Trust		
Surface Location:	555' FSL, 705' FEL, Sec 1, T22S, R17W		
Bottom Location:			
API:	15-145-21653-00-00		
License Number:			
Spud Date:	10/8/2011	Time:	5:00 PM
Region:			
Drilling Completed:	10/14/2011	Time:	11:48 PM
Surface Coordinates:	544863 & 1817741		
Bottom Hole Coordinates:			
Ground Elevation:	2013.00ft		
K.B. Elevation:	2024.00ft		
Logged Interval:	2800.00ft	To:	4030.00ft
Total Depth:	4030.00ft		
Formation:	Arbuckle		
Drilling Fluid Type:	Chemical/Fresh Water Gel		

OPERATOR

Company:	Captiva II		
Address:	445 Union Blvd., Suite 208 Lakewood, CO 80228		
Contact Geologist:	Janine Sturdavant		
Contact Phone Nbr:	303-907-2209/720-274-4682		
Well Name:	# 1-1 Woods Trust		
Location:	555' FSL, 705' FEL, Sec 1, T22S, R17W	API:	15-145-21653-00-00
Pool:		Field:	
State:	Kansas	Country:	USA

LOGGED BY

Company:	Charlie Sturdavant Consulting		
Address:	920 12th Street Golden, CO 80401		
Phone Nbr:	303-907-2295----303-384-9481		
Logged By:	Geologist	Name:	Charlie Sturdavant

NOTES

The Captiva II # 1-1 Woods Trust well was drilled to a LTD of 4029', bottoming in the Arbuckle. A TookeDAQ gas detector was employed during the drilling of all prospective formations, but there were no indications of gas. The only shows of oil were spotty dead oil staining in the upper part of the Arbuckle, but the low structural position precluded testing.

After log analysis, it was determined by all parties involved that the well should be plugged and abandoned.

One problem was detected at a depth of 3554'. The formation tops were running much lower than expected, so we strapped out of the hole and discovered that we were short to the tally board by 33.56'. The gelolgraph was reset to the actual depth before the Brown Lime. The ROP curve was laboriously shifted to the proper footage, foot by foot, above the Brown Lime. The current formation tops have been corrected to the revised ROP curve.

The dry samples were saved and will be available for review at the Kansas Geological Survey well sample library, located in Wichita, Kansas.

Respectfully submitted,
Charlie Sturdavant
Consulting Geologist

Well Comparison Sheet

Charlie Sturdavant Consulting

WELL COMPARISON SHEET

	DRILLING WELL Captiva II ##1-1 Woods Trust 5550' FSL & 705' FEL Sec. 1, T22S R17W				DRILLING WELL Captiva II F-F Unit # 1 254' FNL & 350' FWL Sec. 7, T22S R16W				COMPARISON WELL Captiva II #3-7 Eakin Unit 1238' FNL & 1780' FEL Sec. 7, T22S R16W			
	2024 KB				2021 KB		Structural Relationship		2017 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Sample	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Anhydrite	1023	1001	1024	1000	1019	1005	-4	-5	1006	1011	-10	-11
Topeka	3140	-1116	3148	-1124	3141	-1117	1	-7	3140	-1123	7	-1
Queen Hill	3325	-1301	3326	-1302	3314	-1290	-11	-12	3318	-1301	0	-1
Heebner	3434	-1410	3433	-1409	3424	-1400	-10	-9	3426	-1409	-1	0
Toronto	3451	-1427	3454	-1430	3437	-1413	-14	-17	3442	-1425	-2	-5
Douglas	3467	-1443	3465	-1441	3462	-1438	-5	-3	3461	-1444	1	3
Brown Lime	3535	-1511	3534	-1510	3523	-1499	-12	-11	3526	-1509	-2	-1
Lansing	3543	-1519	3543	-1519	3532	-1508	-11	-11	3534	-1517	-2	-2
Muncie Creek	3667	-1643	3663	-1639	3656	-1632	-11	-7	3659	-1642	-1	3
Stark Shale	3742	-1718	3740	-1716	3725	-1701	-17	-15	3731	-1714	-4	-2
Base KC	3796	-1772	3800	-1776	3785	-1761	-11	-15	3786	-1769	-3	-7
Marmaton	3817	-1793	3810	-1786	3800	-1776	-17	-10	3800	-1783	-10	-3
Conglomerate	3869	-1845	3868	-1842	3844	-1820	-25	-22	3820	-1803	-42	-39
Arbuckle	3935	-1911	3942	-1918	3882	-1858	-53	-60	3866	-1849	-62	-69
Total Depth	4030	-2006	4029	-2005	3985	-1961	-45	-44	4000	-1983	-23	-22

Daily Drilling Report

Charlie Sturdavant Consulting

DAILY DRILLING REPORT

Company: Charlie Sturdavant Consulting
920 12th Street
Golden, CO 80401

Well: #1-1 Woods Trust
Location: 555' FSL & 705' FEL
Sec. 1 T22S R17W
Pawnee County, KS

Captiva II Office: 303-274-4682
Jim Waechter Cell: 303-478-3388

Wellsite Geologist: Charlie Sturdavant
Cell: (303) 907-2295
Office: (303) 384-9481

Elevation: 2024' KB 2013' GL
Field: Wildcat
API No.: 15-145-21653-0000
Surface Casing: 8 5/8" set @ 1023' KB

Drilling Contractor: Sterling Drilling Rig #2 620-388-5651, Tool Pusher: Shane Downs, cell: 620-388-3474

DATE	7:00 AM DEPTH	REMARKS
10/3/2011	0 ft	Spudded today at 1700 hrs

10/8/2011	0 ft.	Spudded today at 1700 hrs.
10/9/2011	826 ft.	Drilling ahead.
10/10/2011	1027 ft.	WOC. About to drill out.
10/11/2011	2021 ft.	Drilling ahead.
10/12/2011	2907 ft.	Drilling ahead.
10/13/2011	3508 ft.	Drilling ahead.
10/14/2011	3831 ft.	Drilling ahead.
10/15/2011	4030 ft.	Reached TD @ 2348 hrs 10/14/2011. Tried to log, but couldn't reach bottom. Tripping back in to recondition and attempt to log again. Logging operations completed @ 1715 hrs, 10/15/2011.

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:		Latitude:	
N/S Co-ord:	544863		
E/W Co-ord:	1817741		

CONTRACTOR

Contractor:	Sterling Drilling		
Rig #:	2		
Rig Type:	mud rotary		
Spud Date:	10/8/2011	Time:	5:00 PM
TD Date:	10/14/2011	Time:	11:48 PM
Rig Release:		Time:	

ELEVATIONS

K.B. Elevation:	2024.00ft	Ground Elevation:	2013.00ft
K.B. to Ground:	11.00ft		

ROCK TYPES

Dolsec, Lmst fw<7, Lmst fw7>, shale, grn, Shgy, shale, gry, Carbon Sh, shale, red, Shcol

ACCESSORIES

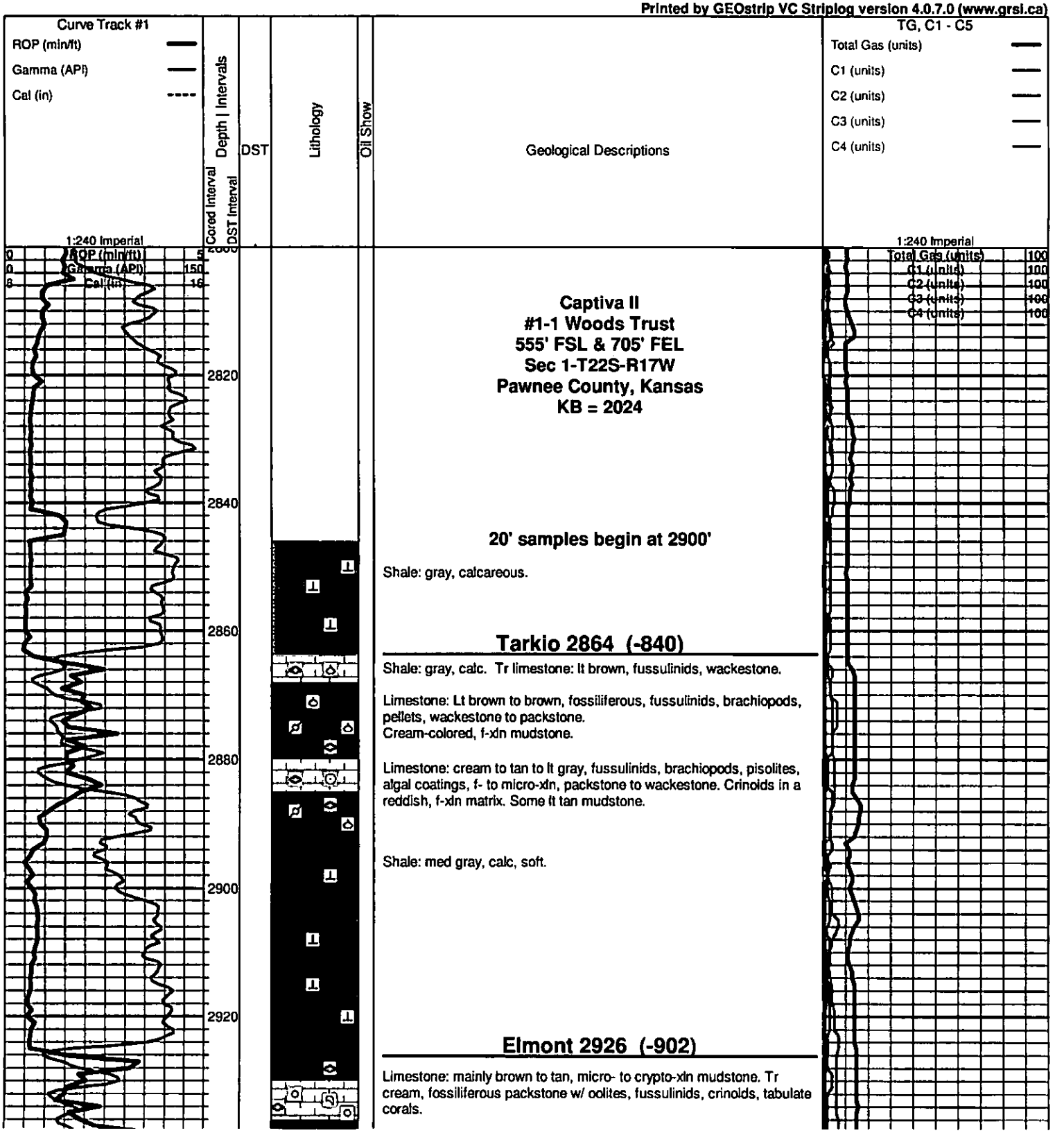
MINERAL	FOSSIL	STRAT./SED. STRUCTS	STRINGER
⊥ Calcareous	⌒ Bioclastic or Fragmental	Stylolite	Chert
◇ Chert White	◇ Brachiopod		Shale

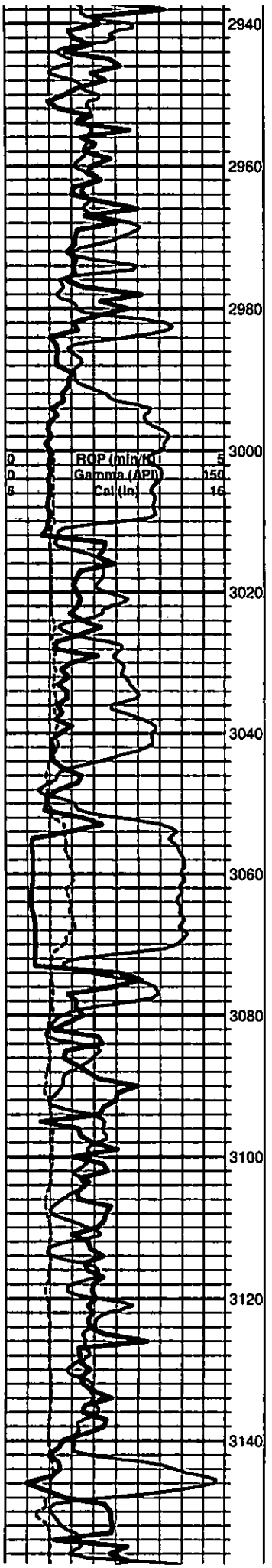
- Chert, dark
- Glauconite
- Pyrite
- Coral
- Crinoids
- Fossils < 20%
- Fussilinid
- Oolites
- Oomoldic
- Pellets
- Pelloids
- Spicules
- green shale

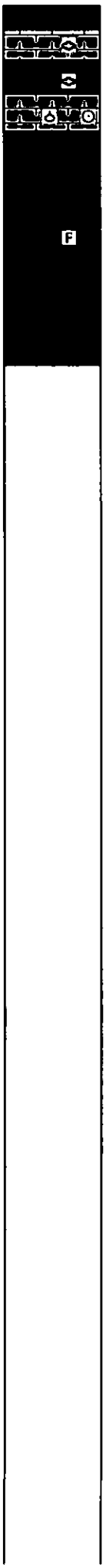
OTHER SYMBOLS

DST
- DST Int
- DST alt

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







Limestone: gray-brown to tan to lt brown, fossil debris, crinoids, fussulinids, brachiopods, packstone to wackestone set in a f- to micro-xln matrix. Some mudstone, some lt gray, calc shale laminations.

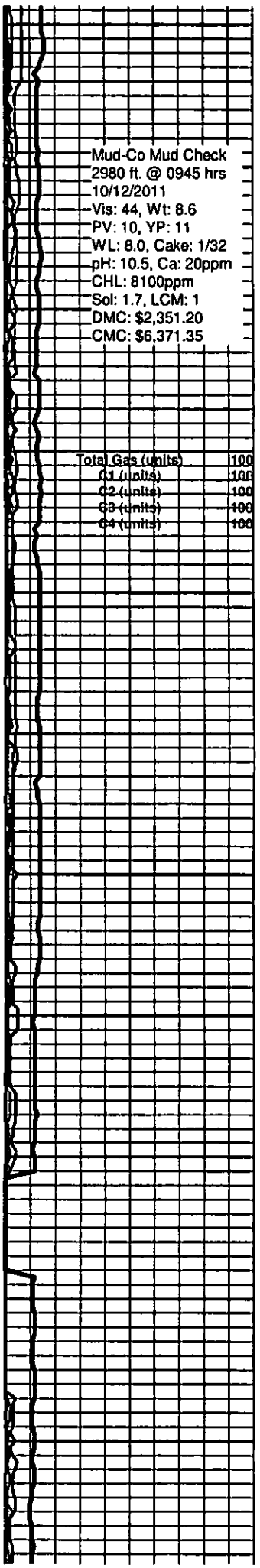
Limestone: lt gray, finely-succrosic, f-xln, mudstone, Brown, micro- to crypto-xln, sli fossiliferous wackestone to mudstone. Tight, no shows.

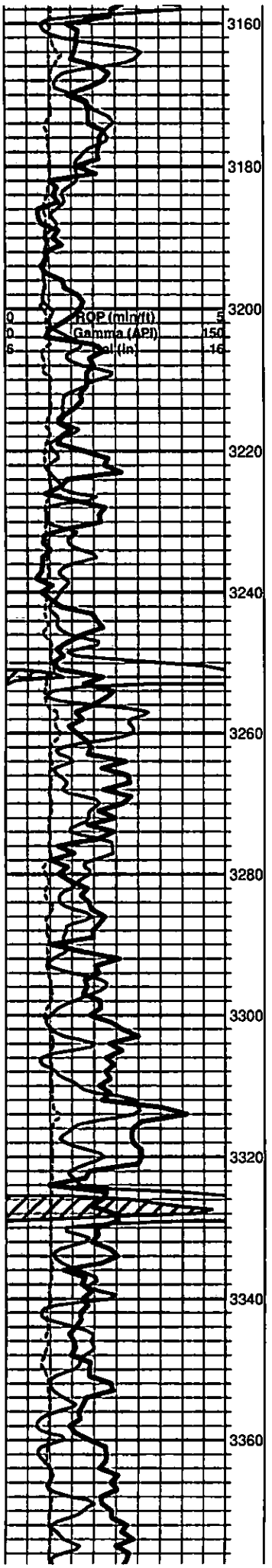
Howard 3073 (-1049)

Topeka 3140 (-1116)

Log top 3148

Mud-Co Mud Check
2980 ft. @ 0945 hrs
10/12/2011
Vis: 44, Wt: 8.6
PV: 10, YP: 11
WL: 8.0, Cake: 1/32
pH: 10.5, Ca: 20ppm
CHL: 8100ppm
Sol: 1.7, LCM: 1
DMC: $2,351.20
CMC: $6,371.35





Limestone: Mottled gray and tan to lt gray, fossiliferous, fussulinids, some local thin brown shale laminations, wackestone to mudstone, tr black to gray fussulinid-bearing vitreous chert.

King Hill Shale 3251 (-1227)

Shale: black, carbonaceous, calcareous.

Limestone: lt tan to lt gray, fossiliferous, fussulinids, oolites, pellets, f-xln w/ poor porosity, packstone.

Limestone: brown to tan, thin shale laminations, sli foss, pellets, oolites, crin., wackestone.

Limestone: lt tan to lt gray, sli fossiliferous, spicules, brach, tr isolated oolites, wackestone to crypto-xln micrite.

Limestone: tan, f-xln matrix w/ fussulinids, spicules, packstone.
Limestone: gray, micrite, tight.

Limestone: lt tan to lt gray, fusslinids and oolites in a f-xln matrix, wackestone.

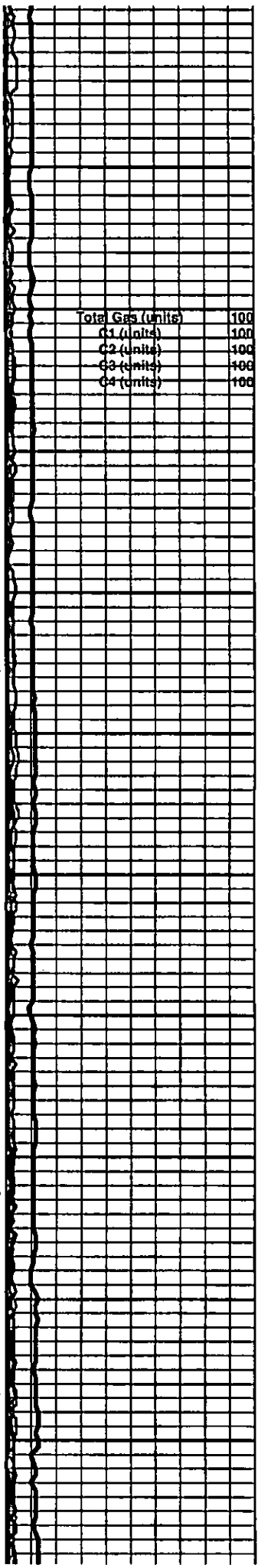
Queen Hill Shale 3325 (-1301)

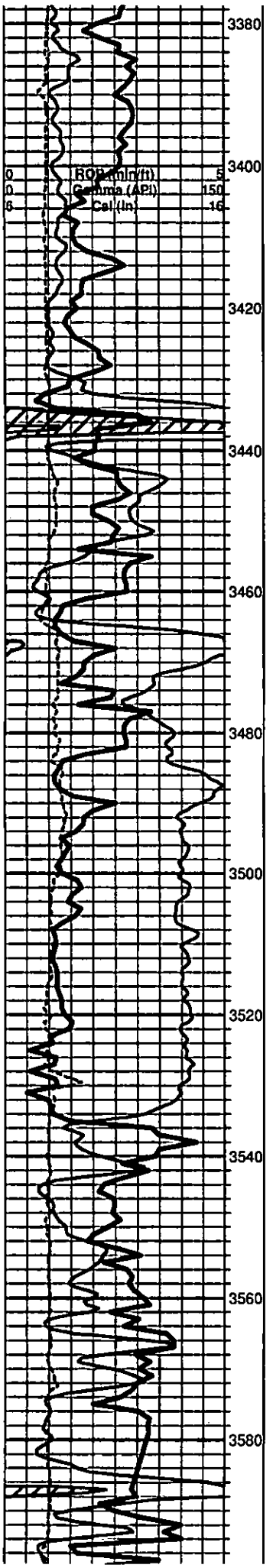
Shale: black, carbonaceous, dolomitic.

Limestone: lt gray, sli mottled w/ brown spots and streaks, fossil debris w/ fuss. suspended in a vf-xln matrix, wackestone. Tr lt gray, fossiliferous, vitreous chert.

Limestone: lt gray to lt tan, some is mottled w/ brown spots, fossil debris, fussulinids set in a f- to vf-xln matrix, wackestone. Chert: cream to tan to lt gray to brown, spicular, fossiliferous, vitreous. Becomes more f-xln w/ depth, mudstone to micrite.

Limestone: cream, micro- to crypto-xln, tr foss frags, mudstone to micrite, stylolitic.





Limestone as above w/ tr crin, tr fuss.

Limestone: cream to brown, crypto-xln, stylolitic micrite, tight, no shows.

Heebner Shale 3434 (-1410)

Shale: black, carbonaceous, dolomitic.

Shale: gray, calcareous.

Toronto 3451 (-1427)

Limestone: lt gray to tan, tr fossiliferous, fuss, brach, micro-xln matrix, pyritic. Tr pyritic, dark shale.

Limestone: cream, micro- to vf-xln, mudstone, tr sparry calcite. 20' thick.

Douglas 3467 (-1443)

Shale: vari-colored, maroon, brown, tan, lt brown, gray, dolomitic.

Brown Lime 3535 (-1511)

Limestone: brown, micro- to crypto-xln, mudstone.

Lanasing 3543 (-1519)

Limestone: white to cream, tr fossiliferous in parts, but mostly micro- to crypto-xln, mudstone to micrite, tight, no shows. Tr cream, spicular, vitreous chert.

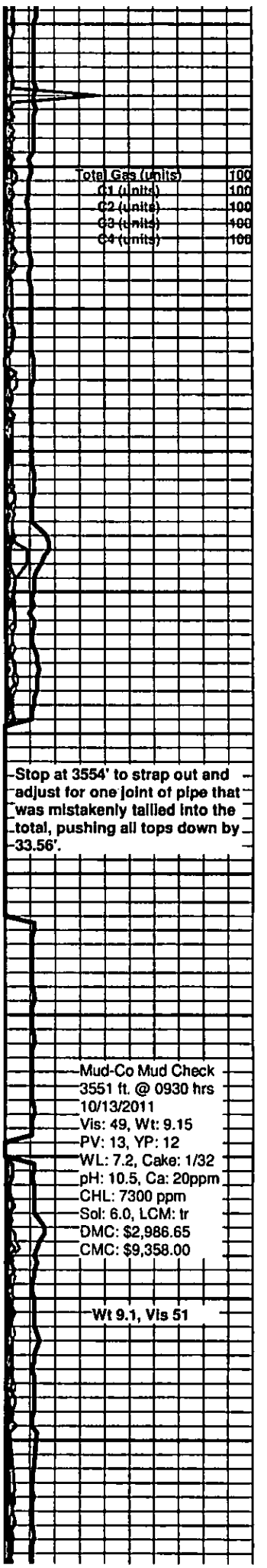
Limestone as above w/ some tan micrite.

Limestone: as above, tr tan chert, micrite w/ tr crinoids. Tr brown, pelletal wackestone.

Limestone: brown, mottled, pelletal, fossiliferous packstone, crin, spicules, tr chert, tr sparry calcite.

Shale: black, carbonaceous, hydrocarbon aroma, dolomitic.

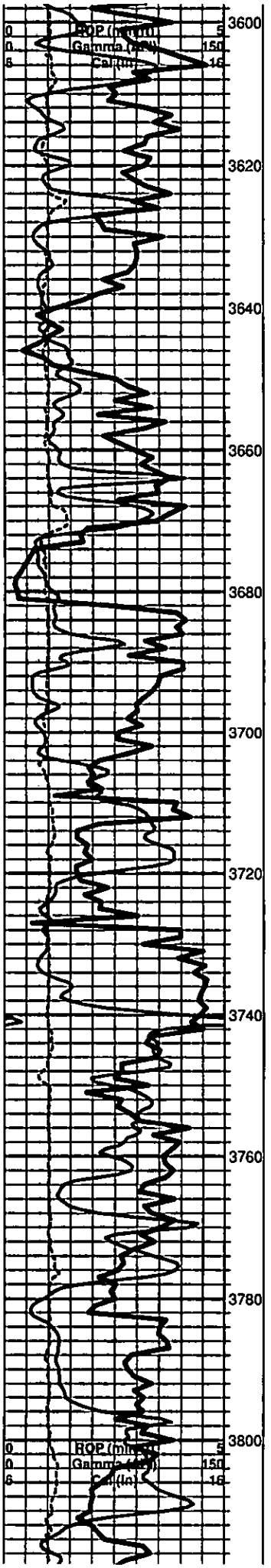
Limestone: cream to tan, f- to crypto-xln matrix, pellets, fossil debris, tr crin, tr fussulinids, packstone to mudstone, variable texture. Fair spotty,

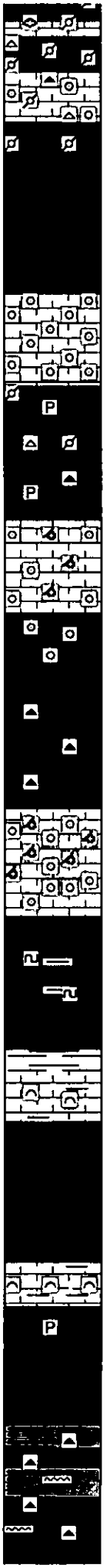


Stop at 3554' to strap out and adjust for one joint of pipe that was mistakenly tallied into the total, pushing all tops down by -33.56'.

Mud-Co Mud Check
3551 ft. @ 0930 hrs
10/13/2011
Vis: 49, Wt: 9.15
PV: 13, YP: 12
WL: 7.2, Cake: 1/32
pH: 10.5, Ca: 20ppm
CHL: 7300 ppm
Sol: 6.0, LCM: tr
DMC: $2,986.65
CMC: $9,358.00

Wt 9.1, Vis 51





inter-xln por to tight. No shows.

Limestone: tan to lt brown, pelletal packstone to very well-cemented oolite grainstone. Tight, no shows. Tr dark to cream vitreous chert.

Limestone: cream, micro- to crypto-xln, mudstone to micrite.

Lansing "G" Zone Porosity 3638 (-1614)

Limestone: cream to lt tan, oolitic grainstone w/ good oomoldic porosity, no odor, no shows.

Limestone: cream to lt tan, micro- to crypto-xln matrix, mudstone to micrite, tr pyrite, tr cream to dark brown, vitreous, sli fossiliferous (gastropods) chert, tr pellets.

Muncie Creek 3667 (-1643)

Shale: black, carbonaceous, dolomitic.

Llimestone: lt tan, oolitic grainstone w/ excellent oomoldic porosity, vf-xln cement w/ little porosity. No shows. Becomes tight with depth, more well-cemented.

Llimestone: cream to tan, micro- to crypto-xln matrix w/ no porosity, mudstone/micrite. No shows.

Limestone: cream to tan, f-xln, mudstone. Tr tan to dark brown vitreous chert.

Limestone: lt tan, oolitic grainstone w/ fossil debris, vf-xln cement, good oomoldic porosity, no shows. Tr black, carbonaceous, dolomitic shale.

Limestone: cream to lt tan, micro-xln to crypto-xln, micrite, tight, no shows, tr green, glauconitic shale inclusions.

Stark Shale 3742 (-1718)

Shale: black, carbonaceous, dolomitic, and greenish-gray, mottled w/ dark streaks and irregular spots, waxy, soft.
Limestone: tan, bioclastic/pelletal/shaley wackestone and cream micrite.

Limestone: cream to tan to lt gray, micro- to crypto-xln, mudstone to micrite, tr sparry calcite (lithographic).

Tr black, carbonaceous shale.

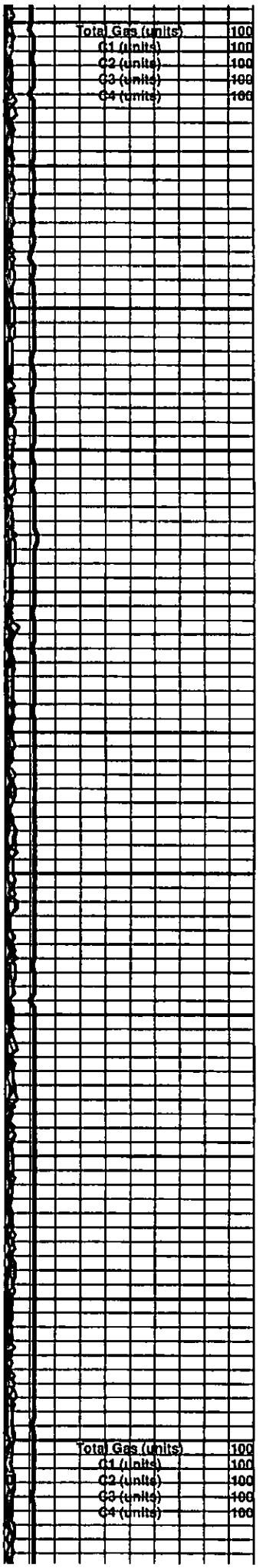
Limestone: lt gray mottled w/ brown, bioclastic packstone, thin, irregular streaks of green, earthy shale.

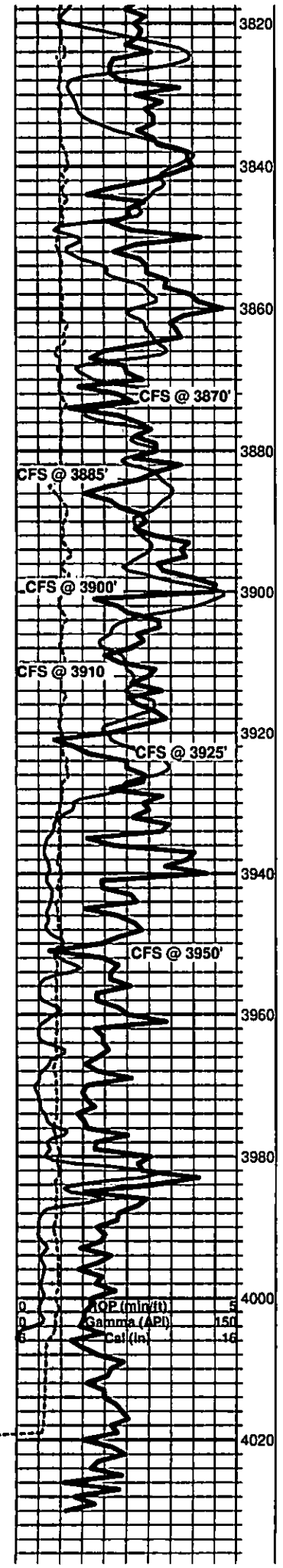
Limestone: cream to lt gray, micro- to crypto-xln, mudstone to micrite, tr pyrite.

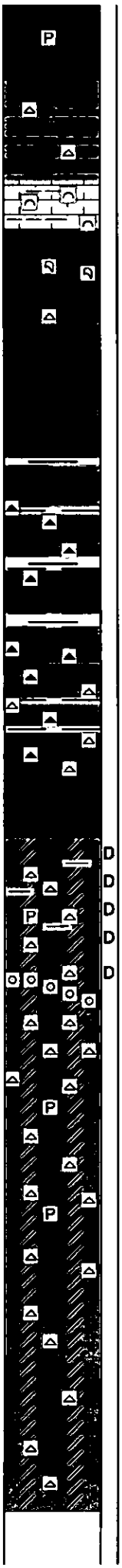
Base Kansas City 3796 (-1772)

Shale: gray, lt gray, maroon, orange chert,

Marmaton 3817 (-1793)







Limestone: cream to tan to lt gray, tr foss. frags, tr pyrite, vf- to crypto-xln mudstone to wackestone, dense, no shows.

Shale: vari-colored, gray, maroon, greenish-gray, tr orange chert.

Limestone: tan, bioclastic grainstone to packstone w/ green shale coating and orange chert inclusions..

Limestone: tan w/ green inclusions, vf-xln mudstone to micritic. Tabulate coral (favisites?), white.

Shale: vari-colored, green, lt greenish-gray, gray, lt gray, maroon. Amber to tan vitreous chert.

Shaley conglomerate: vari-colored shales, mainly maroon.

Shaley conglomerate w/ vari-colored shales and chert: maroon, reddish-brown, brown, light gray, greenish-gray. Reddish-rust limestone frags.

Chert increases in frequency with depth.

Some well-rounded, med gr sand grains in red shale. Simpson?

Sample washes red. Some yellow ochre-colored detrital chert.

Chert seems to be increasing in frequency.

Hydrocarbon odor in 3930-3940' sample. Cherty, shaley conglomerate

Arbuckle 3935 (-1911)

Hydrocarbon odor in 3940-3950' sample. Finally have finely succrosic dolomite w/ spotty dead oil stain. No fluor. No cut. Tr pyrite. A few thin, green shale patches and irregular laminations.

Chert: cream to tan, vitreous, some w/ sli dead oil staining on fractured surfaces.

60 min sample has finely succrosic dolo w/ fewer stained frags. Tr oolitic grainstone dolo. Color is tan, porosity is minimal.

Dolomite: lt tan, finely succrosic to micritic, scattered vuggy porosity, mostly tight. Hydrocarbon aroma. Still carrying spotty dead oil staining w/o fluor or cut. Some fragments with algal layering, some with oolites. Chert: tan to cream, vitreous, some white w/ oolites, some spotty staining on fractured surfaces.

Hydrocarbon aroma is gone by the 3980'-3990' sample.

Dolomite: as above w/ chert, some fragments of coarsely-xln succrosic dolo w/ xls up to 0.5mm in width. Tr pyrite.

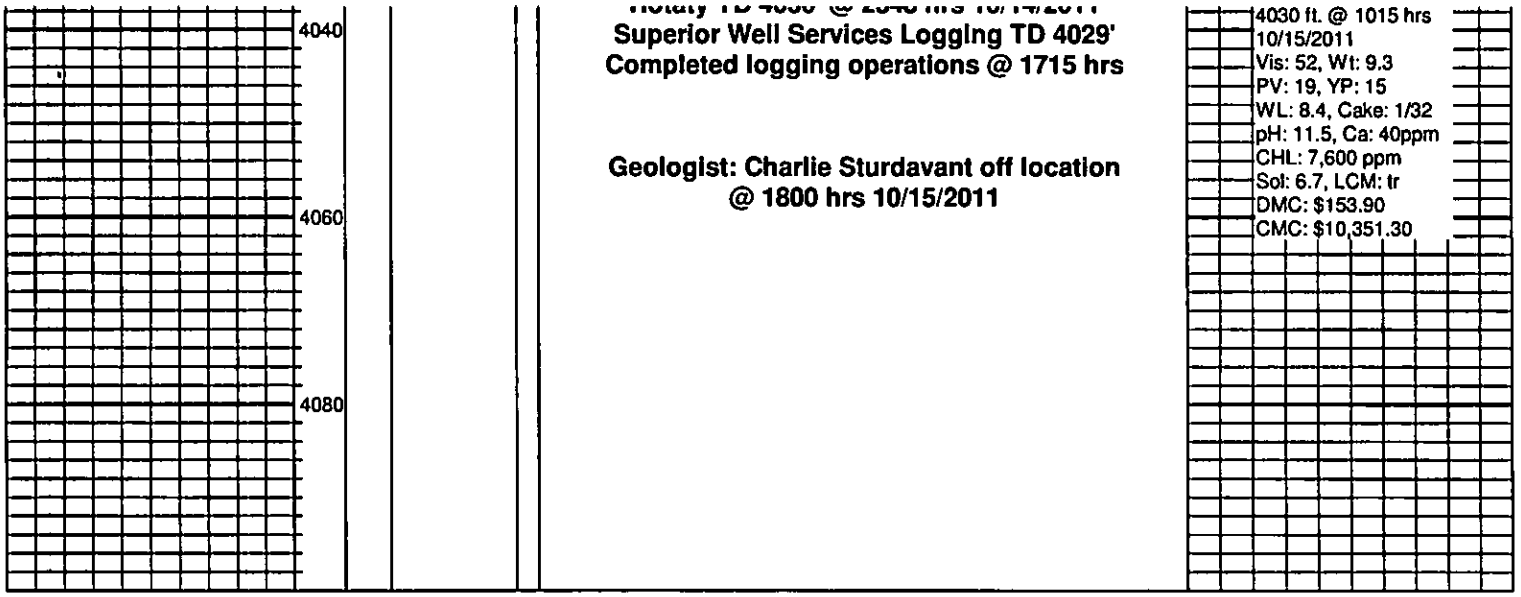
Dolomite as above w/ oolitic chert, white to tan, vitreous.

Rotaty TD 4030' @ 2348 hrs 10/14/2011

Mud-Co Mud Check
3832 ft. @ 0700 hrs
10/14/2011
Vis: 53, Wt: 9.3
PV: 18, YP: 16
WL: 8.0, Cake: 1/32
pH: 11.5, Ca: 40ppm
CHL: 7,000 ppm
Sol: 6.7, LCM: tr
DMC: $839.40
CMC: $10,197.40

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100

2330 hrs. 10/14/11,
Vis: 48, Wt: 9.5
1000 hrs, 10/15/11,
Vis: 60, Wt: 9.0
Mud-Co Mud Check


4040
4060
4080
Rotary TD 4030 @ 2040 hrs 10/14/2011
Superior Well Services Logging TD 4029'
Completed logging operations @ 1715 hrs
Geologist: Charlie Sturdavant off location
@ 1800 hrs 10/15/2011
4030 ft. @ 1015 hrs
10/15/2011
Vis: 52, Wt: 9.3
PV: 19, YP: 15
WL: 8.4, Cake: 1/32
pH: 11.5, Ca: 40ppm
CHL: 7,600 ppm
Sol: 6.7, LCM: tr
DMC: $153.90
CMC: $10,351.30