



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas 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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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ALLIED CEMENTING CO., INC.

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

LIBERAL KS

KB
27255

DATE 2-24-13	SEC. 27	TWP. 29	RANGE 39W	CALLED OUT	ON LOCATION	JOB START 5:00 AM	JOB FINISH 7:00 PM
LEASE GORFZEU	WELL # A-27	LOCATION Big Bow Grade 45			COUNTY STANTON	STATE KS	
OLD OR NEW (Circle one) <u>NEW</u>				to add 17 K.W. Sals Loc			

CONTRACTOR DUKE #6
 TYPE OF JOB 8" SURFACE
 HOLE SIZE 12 1/4 T.D. 1754'
 CASING SIZE 8 1/2 DEPTH 1754'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX 500 PSI MINIMUM 0
 MEAS. LINE SHOE JOINT 4413'
 CEMENT LEFT IN CSG. 4413'
 PERFS. N/A
 DISPLACEMENT 10K BBL
 EQUIPMENT

OWNER SAME
 CEMENT
 AMOUNT ORDERED 425 3/4 CC 24 A-45
24 GYP SEAL 14 FOS 20L
150 C 24 CC
 COMMON 150 "C" @ 2440 3660
 POZMIX @
 GEL @
 CHLORIDE 19 SK DC @ 6400 1235 00
 ASC @
425 'A' @ 1790 7607 80
C-45 800 LB @ 342 2776 00
GYP SEAL FOS 20L 165 @ 37 60/SK 601 60
FOS SEAL 106 # @ 272 108 97
 @
 @
 @
 @
 @
 HANDLING 630 @ 245 852 00
 MILEAGE 28.66 X 50 X 2.60 3725 80
 TOTAL 28566 87

PUMP TRUCK CEMENTER RILYAN
 #589/530 HELPER A TAPIA
 BULK TRUCK
 #470-528 DRIVER A GARICA
 BULK TRUCK
 #477-467 DRIVER J. TORRES

REMARKS:

Thank You
CITE Approx 60 BBL TO PIT

SERVICE

DEPTH OF JOB 1754'
 PUMP TRUCK CHARGE 1000-2000 2213 75
 EXTRA FOOTAGE @
 MILEAGE 50 mi @ 720 385 00
 MANIFOLD + HEAD @ 275 00
 T UEL no SD @ 440 220 00
 @
 TOTAL 309375

CHARGE TO: DNR OIL & GAS
 STREET 12741 E CALEY #142
 CITY ENGLEWOOD STATE CO ZIP 80111

PLUG & FLOAT EQUIPMENT

8 1/2
 1- SW Plug @ 131 84
 1- AFU @ 418 94
 1- Guide Sha @ 460 98
 3- Cen Malams @ 74 55 559 26
 1- Basket @ 224 00
 TOTAL 1828 93

To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____
 TOTAL CHARGE 25485 55
 DISCOUNT 8919 95 IF PAID IN 30 DAYS
16565 60
 SIGNATURE Mark Hollis
 PRINTED NAME MARK HOLLIS

Pressure Chart on Computer



CEMENTING LOG

STAGE NO.

Date 2-24-13 District LIBERTY Ticket No. 27254
 Company DNR OIL & GAS Rig _____
 Lease GOERTZEN Well No. A-27
 County Jackson State KS
 Location Big Ben 45 & Rd 17 Field W
13.68 300 low

CEMENT DATA:
 Spacer Type: H₂O
 Amt. 10 Skys Yield _____ ft³/sk Density 8.3 PPG _____

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 8 7/8 Type _____ Weight 24 Collar _____

LEAD: Pump Time _____ hrs. Type A
3:00 2/19/15 2' Gap 3' Rose Excess 100%
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG _____

Casing Depths: Top 0 Bottom 1754

TAIL: Pump Time _____ hrs. Type C
2:00 Excess _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG _____

WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 519/550
 Bulk Equip. 470-528
172-457

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

Float Equip. Manufacturer WEST
 Shoe Type REG G.S Depth _____
 Float Type RTU Depth _____

CAPACITY FACTORS:
 Casing: Bbbls/Lin. ft. 0.636 Lin. ft./Bbl. _____
 Open Holes: Bbbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbbls/Lin. ft. 0.235 Lin. ft./Bbl. _____
 Perforations: From N/A ft. to _____ ft. Amt. _____

Centralizers: Quantity 3 Plugs Top 1 SW Bim. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type H₂O Amt. _____ Bbbls. Weight _____ PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE MARK HOLLIS

CEMENTER R. Ryan

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
						ON LOC + SAFETY MEETING
						Rig up
5:15				10		BREAK CIRC + Pump 10 BBL H ₂ O
5:30		200		2328	6	Mix 425 SK LEAD
5:49		200		31.5	6	Mix 150 SK TAIL
6:25					0	SHUT DOWN + Pump Plug
6:30					6	Disp CSN
6:50		400		100	3	SLOW TO 3 BPM
7:00		800		108	3	LAND Plug + RELEASE PSI
7:00						Float Holding
						Circ cut to SURFACE
						App 60 BBL

FINAL DISP. PRESS. 400 PSI BUMP PLUG TO 800 PSI BLEEDBACK 1/2 BBLs. THANK YOU

ALLIED OIL & GAS SERVICES, LLC

KB
053336

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

DATE <u>3-2-13</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>12:00</u>	JOB FINISH <u>1:00</u>
LEASE <u>Goertzen</u>	WELL # <u>31A-27</u>		LOCATION <u>Vec Big Bone</u>			COUNTY <u>Stanton</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR Duke Drilling

TYPE OF JOB 2 Stage

HOLE SIZE 7 7/8 T.D. 5998

CASING SIZE 5 1/2 DEPTH 5005

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT 1st 139 1 2nd @ 3 1/4

OWNER

CEMENT 1st

AMOUNT ORDERED 200 ASC, 2% gel, 14% defoamer
5% FL100 10% salt S# Kolsel 2nd 26 @ 5.25 6%
1/4 flo seal SO Class A Neat

COMMON	<u>SO</u>	@	<u>17.90</u>	<u>895.00</u>
POZMIX		@		
GEL		@		
CHLORIDE		@		
ASC	<u>200</u>	@	<u>20.90</u>	<u>4180.00</u>
Allied H Weight	<u>425</u>	@	<u>16.50</u>	<u>7012.50</u>
Gilsonite	<u>1000#</u>	@	<u>.78</u>	<u>980.00</u>
FL-100	<u>99#</u>	@	<u>18.90</u>	<u>1,776.60</u>
Flo seal	<u>106#</u>	@	<u>2.97</u>	<u>314.82</u>
Super Flush	<u>1266</u>	@	<u>58.70</u>	<u>704.40</u>
Powdered De foamer	<u>28#</u>	@	<u>9.80</u>	<u>274.40</u>
		@		
		@		
HANDLING	<u>700.10</u>	@	<u>2.48</u>	<u>1,934.65</u>
MILEAGE	<u>1665.00</u>	@	<u>2.00</u>	<u>4,329.00</u>
				TOTAL <u>22,401.37</u>

EQUIPMENT

PUMP TRUCK CEMENTER Lenny Boers

530-484 HELPER Visente Torre Z

BULK TRUCK

472-467 DRIVER Angle G.

BULK TRUCK

562-554 DRIVER Aldo E.

REMARKS:

20 barrels of cement to surface

Thank you

SERVICE

DEPTH OF JOB	<u>5001-10000</u>	1 @	<u>3,099.25</u>
PUMP TRUCK CHARGE		1 @	<u>2,400.25</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>SO</u>	@	<u>7.70</u>
MANIFOLD	<u>1</u>	@	<u>275.00</u>
Light Vehicle	<u>SO</u>	@	<u>4.40</u>
TOTAL <u>6385.50</u>			

CHARGE TO: DNR O:1/Gas

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

AFU Float shoe	<u>1</u>	@	<u>408.33</u>	<u>408.33</u>
Stage Collar	<u>1</u>	@	<u>5,335.26</u>	<u>5335.26</u>
Centralizer	<u>6</u>	@	<u>57.33</u>	<u>343.98</u>
Cement Basket	<u>3</u>	@	<u>394.29</u>	<u>1182.87</u>
Latchdown Plug	<u>1</u>	@	<u>324.09</u>	<u>324.09</u>
TOTAL <u>7594.53</u>				

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Mark Hollis

SIGNATURE Mark Hollis

SALES TAX (If Any) _____

TOTAL CHARGES \$ 36,381.40

DISCOUNT _____ IF PAID IN 30 DAYS

Net \$23,647.91

Date 3-2-13 District Liberal Ticket No. 53338
 Company DNR Rig Duke drilling
 Lease Goetzten Well No. 31A-27
 County Stanton State KS
 Location Big Bow KS Field _____

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5/8 Type _____ Weight 15.5 Collar _____

Casing Depths: Top 0 Bottom 5885

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 0770 T.D. 5978 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 0.0238 Lin. ft./Bbl. 42.01
 Open Holes: Bbls/Lin. ft. 0.0602 Lin. ft./Bbl. 16.59
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. 0.0309 Lin. ft./Bbl. 32.406
 Bbls/Lin. ft. 0.0343 Lin. ft./Bbl. 29.15
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: Super Flush
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
10 barrels

LEAD: Pump Time _____ hrs. Type ASC 210 gel
14% deframer 10% FL160 10% salt S# 102 seal
 Amt. 200 Sks Yield 1.57 ft³/sk Density _____ PPG

TAIL: Pump Time _____ hrs. Type CA 35 010 gel
14% 102 seal Excess _____
 Amt. 375 Sks Yield 1.97 ft³/sk Density 12.4 PPG
 WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 530-484
 Bulk Equip. 472-467-562-554

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG
 Mud Type _____ Weight _____ PPG

COMPANY REPRESENTATIVE Mark Hollis CEMENTER _____

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS	
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period		RATE Bbls Min.
11:01		3000	-	-	-	-	Pressure test 3000 psi
11:25		200	-	12	-	2	12 barrels of super flush
11:35		400	-	55.9	-	5 1/2	55 barrels of cement at 14.4
11:54		0	0	-	-	0	End of cement washing to pit
12:00		100	-	50	-	5	50 barrels of water
12:10		300	-	90	-	7	90 barrels of mud
12:30		2000	-	-	-	0	landed plug 2000
12:31		0	-	-	-	-	Dropped tool wait 15 mins
12:50		1000	-	-	-	-2	Tool opened circulate 4 hours
5:30		0	-	-	-	2	plugged Rat and Mouse Holes
5:35		300	-	131	-	7	Pumping to well 131 bbl of lead
5:55		300	-	10	-	4	pumping 10 barrels of tail
6:00		0	0	-	-	-	Washing to pit
6:02		1000	-	83	-	5	Displacement @ 3 barrels
6:30		2,000	-	-	-	-	landed plug 2,000 Tool. closed
							THANK YOU

FINAL DISP. PRESS: 1,000 PSI BUMP PLUG TO 2,000 PSI BLEEDBACK 1 1/2 BBLs. THANK YOU

DNR Oil & Gas Inc.
Goertzen 31a-27
API#15-187-21210-00-00
Sec. 27-T29S-R39W
Stanton County, KS

Log Tops	
Base Anhydrite	1750 +1448
Heebner	3781 - 583
Lansing	3877 - 676
KC A porosity	4242 - 1044
KC B porosity	4284 - 1086
Marmaton	4474 - 1276
Marmaton porosity	4514 - 1316
Cherokee	4719 - 1521
Atoka	4845 - 1647
Morrow	5185 - 1957
Lower Morrow	5453 - 2255
Chester	5530 - 2332
St. Gen.	5597 - 2399
St. Louis	5710 - 2512
B porosity	5718 - 2520
C porosity	5810 - 2612
RTD 5900 LTD 5898	



WESLEY D. HANSEN Consulting Petroleum Geologist

212 N. Market, Suite 257, Wichita, KS 67202
Office: 316-267-7313 Cellular ; 316-772-6188

**KGS
AAPG
Kansas License #418**

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: DNR Oil & Gas, Inc. Goertzen #31A-27
Location: 690' FNL, 2309' FEL of Section 27-29s-39w
License Number: API: 15-187-21210
Spud Date: 2-23-2013
Surface Coordinates: 690' FNL, 2309' FEL of 27-29s-39w
Region: Stanton County, Kansas
Drilling Completed: 3-1-2013

Bottom Hole Vertical hole
Coordinates:
Ground Elevation (ft): 3186' K.B. Elevation (ft): 3198'
Logged Interval (ft): 5100' To: RTD Total Depth (ft): 5900'
Formation: Mississippian St. Louis at RTD
Type of Drilling Fluid: Chemical

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

OPERATOR

Company: DNR Oil and Gas, Inc.
Address: 12741 E. Cayley
Unit 142
Centennial, CO 80111

GEOLOGIST

Name: Wesley D. Hansen
Company: Wesley D. Hansen - Consulting Petroleum Geologist
Address: 212 N. Market, Suite 257
Wichita, KS 67202
Office: 316-263-7313 Cellular: 316-772-6188

COMMENTS

Contractor: Duke Drilling Company Rig #6
 Pusher: Rick Schollenbarger

Surface Casing: 8 5/8" set at 1754' w/575 sx
 Production Casing: 5 1/2" set at 5890' w/200sx 1st stage and 175sx 2nd stage

Mud by: MudCo - Tony Maestas was the engineer

DST's by: No DST's

Logs by: Nabors (DIL, CDL-CNL-PE, MEL) - Jeff Luebbers was the engineer

Deviation Surveys: 1/4 deg. @ 997'; 1/4 deg. @ 1754'; 1/2 deg. @ 2405'; 1/2 deg. @ 3003'; 1/2 deg. @ 4001'; 1 deg. @ 5900'

Bit #	Size	MFG	Type	Depth Out	Footage Cut	Hours on bit
1	12 1/4"	JZ		1754'	1754'	27 1/4
2	7 7/8"	Smith	M616	5900'	4146'	75 3/4

FOFSAMPLE TOPS AND STRUCTURAL COMPARISON

FORMATION	FOFSAMPLE TOPS AND STRUCTURAL COMPARISON		LOG TOPS		COMPARISON WELL	
	Depth	Datum	Depth	Datum	Harris O&G Goertzen 1-27 N2S2NE	
	no picks with PDC bit					
Anhydrite			1648'	+1550		
B/Anhydrite			1750'	+1448		
Heebner Shale			3781'	-583	3784'	-583
Lansing			3877'	-676	3876'	-675
Kansas City A por.			4242'	-1044	4234'	-1033
Kansas City B por.			4284'	-1086	4280'	-1079
Marmaton			4474'	-1276	4489'	-1288
Marmaton por.			4514'	-1316	4524'	-1323
Cherokee Shale			4719'	-1521	4731'	-1530
Atoka			4845'	-1647	4858'	-1657
Morrow			5185'	-1957	5196'	-1995
Lower Morrow			5453'	-2255	5473'	-2272
Chester			5530'	-2332	5554'	-2353
St. Genevieve			5623'	-2425	5613'	-2412
St. Louis			5710'	-2512	5710'	-2509
St. Louis "B" por.			5718'	-2520	5718'	-2517
St. Louis "C" por.			5810'	-2612	NP	
RTD	5900'	-2702				
LTD			5898'	-2700		

ROCK TYPES

- Anhy
- Cht
- Coal
- Congl
- Dol
- Gyp
- Lmst

- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Carb sh

- Dol
- Dtd
- Gry sh
- Sandylms
- Shale
- Sltstn
- Shlyslts

- Sltysch
- Sdy dolo
- Silty dolo
- Shy dolo
- Shaly ls

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite

- Plant
- Strom
- Fuss
- Oomold

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr

- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

EVENTS

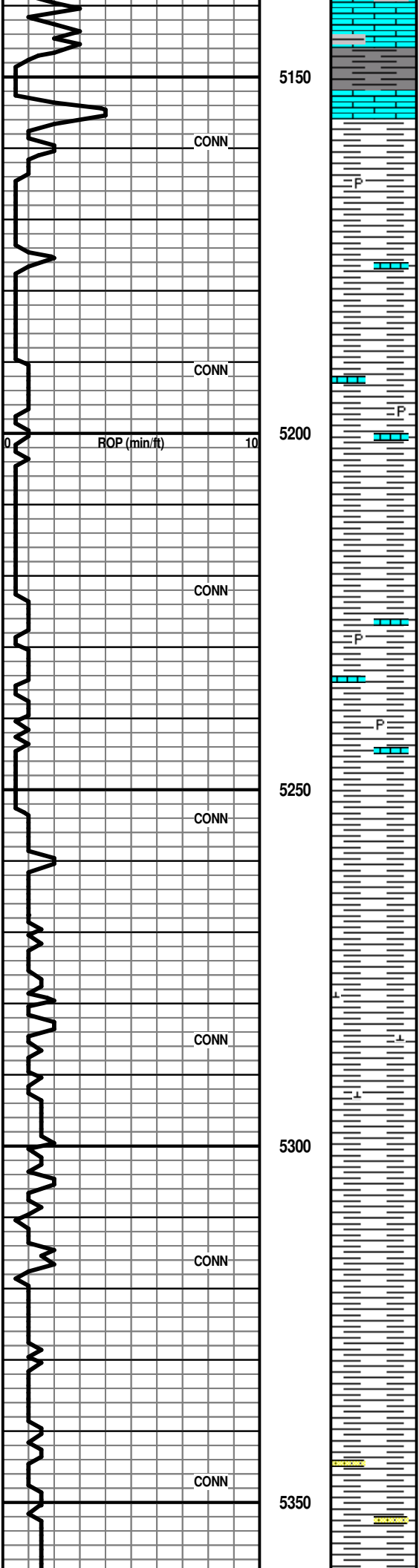
- Rft
- Dst top/base

OIL SHOWS

- Even
- Spotted
- Quest.

- Trace
- Dead
- Gas show

Curve Track 1 ROP (min/ft)	Depth	Lithology	Oil Shows	Geological Descriptions	Remarks
	5100			<p>Ls: various brn, gray, tan vf-cryptoxln, hard, occ foss., NVP, N.S.; interbedded with dark gray to black shales</p>	<p>Report Depth & Activity</p> <p>2-23-2013 Spud at 10:00 AM 2-24 Drlg. @ 1270' 2-25 Drlg. plug @ 1754' 2-26 Drlg. @ 3500' 2-27 Drlg. @ 4635' 2-28 Drlg. @ 5720' 3-1 RTD @ 5900' (short trip up to surface casing - CTCH - hit bridge at 2740' on first logging attempt - trip back in to drill out bridge - lost returns at 2900' - mix mud - tripped in hole - CTCH - trip out for logs - logs went to bottom - logging complete - final prints at 6:45 PM)</p>



5150

CONN

Sh: med to dark gray, some green, trace red, silty and micac. IP; occ pyrite; thin Ls stringers

CONN

Sh: AA

5200

ROP (min/ft)

CONN

Sh: predom. med to dark gray, lesser gray-green, micac. and silty IP; occ pyrite and thin Ls stringers

5250

CONN

CONN

Sh: med to dark gray, firm to fissile, sli calcar.; micac. IP

5300

CONN

Sh: AA

CONN

5350

Sh: AA; scatt. Sst: offwhite, lt gray vf-fg, hard, NVP, N.S.

Sh: med to dark gray, soft to firm, calcar.; rare brn, tan cryptoxln Ls

Sh: AA

Sh: AA; scatt. tan, brn dense Ls; trace pyrite

70' spl - Sh: AA, trace pyritic; incr. Ls: tan, med to dark brn vf-cryptoxln; occ mottled gray-brn fn granular

80' spl - Ls: good influx of mottled brn/tan/gray/offwhite mic-coarse xln, sl glauc. and sandy IP; N.S.

90' spl - Ls: AA; scatt. very coarse qtz grains, N.S.

5500' spl - decr. Ls AA; Sh: influx med to dark gray very firm, limy

Sh: AA, limy; some Sst: lt gray vfg, glauc. with Ls fragments

Ls/Sst: mottled brn/gray/tan granular, very sandy, fairly glauc.

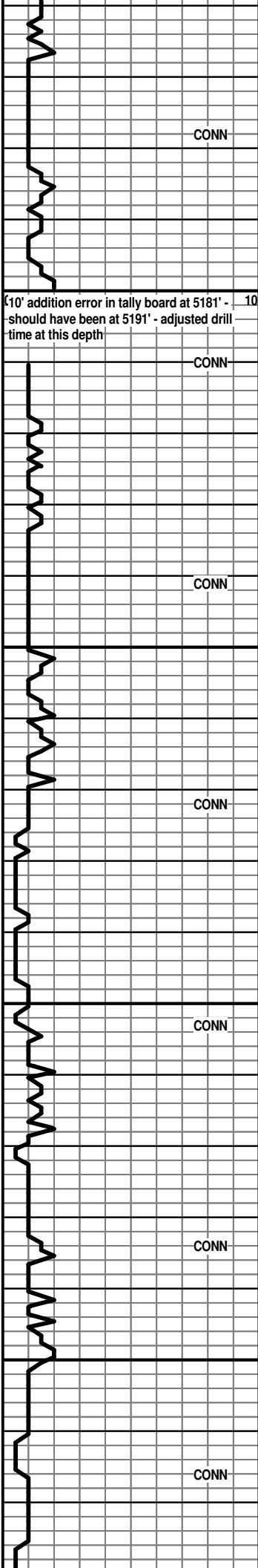
Sh: strong influx dark gray to black, dolomitic

mix offwhite, cream finely sandy Ls and med to dark gray glauc. Sst and quartzite; Sh: pale gray, pale green

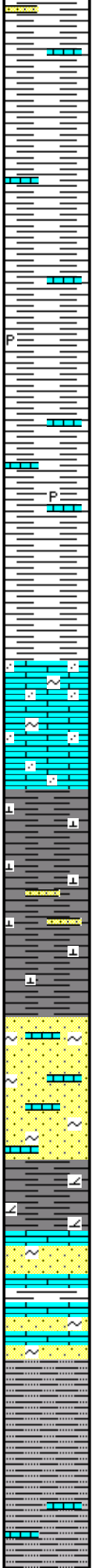
becoming predom. med to dark gray glauc. Sst and quartzite; influx Siltst and sandy shale

5600' spl - flood brick red shale and shaly siltst, washes red

Siltst: lt red, lt brn with sl incr. Ls: lt brn, lt red-brn vf-cryptoxln



5400
5450
5500
5550



30' spl - Siltst/Shale/Ls mix AA with fair influx It gray, tan finely sandy Ls (reworked St. Gen.?)

finely sandy Ls with abund. brick red and red-brn siltst; lesser dark gray shale

70' spl - becoming predom. Ls: offwhite, lt gray, some tan, finely sandy

Ls: mix finely sandy AA; some lt brn sl granular

Ls: predom. AA with some offwhite, cream mic-vfxln sl sandy

Ls: tan, lt brn finely sandy; lesser offwhite sandy with micxln matrix

Ls: tan finely sandy to fine granular with offwhite micxln to subchalky matrix

Ls: tan, offwhite fn granular with micxln to subchalky matrix sl sandy IP

CFS 5730' 30" spl - Ls: AA; scatt. chips lt gray granular with inter-particle por. and tan granular, sl chalky with pp fluor., fair odor, sl sfo; some lt gray and tan loose oolites in spl tray; 60" spl - Ls: mix AA with some shows AA; influx lt gray and brn vf-cryptoxln, NVP

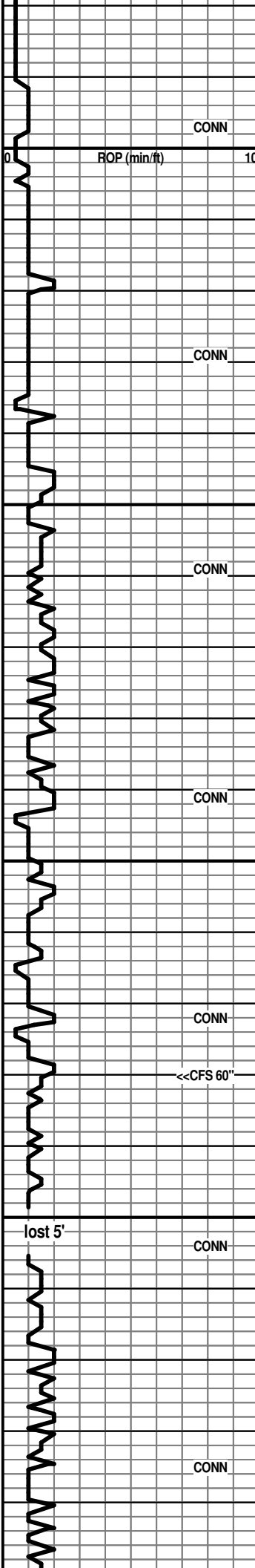
Ls: tan, lt brn, offwhite fn granular with micxln matrix, rarely pyritic

Ls: mix AA; trace tiny asphaltic specks

Ls: various granular AA, becoming more med granular, trace glauc.

Ls: tan, lt brn fn to med granular with micxln matrix, occ sl oolitic, some finely sandy, rare glauc.

Ls: predom. lt brn med granular, sl oolitic, sl sandy



5600

5650

5700

5750

5800

CONN
ROP (min/ft) 10

CONN

CONN

CONN

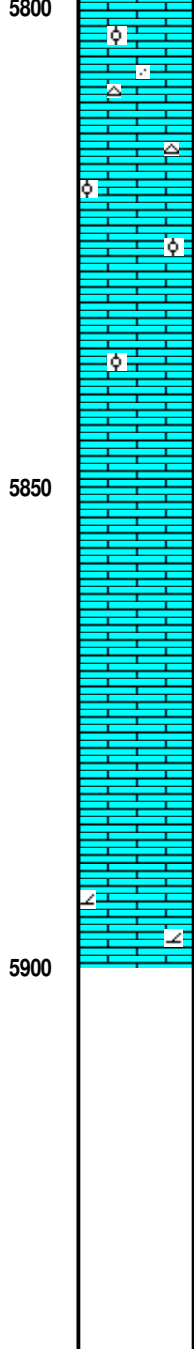
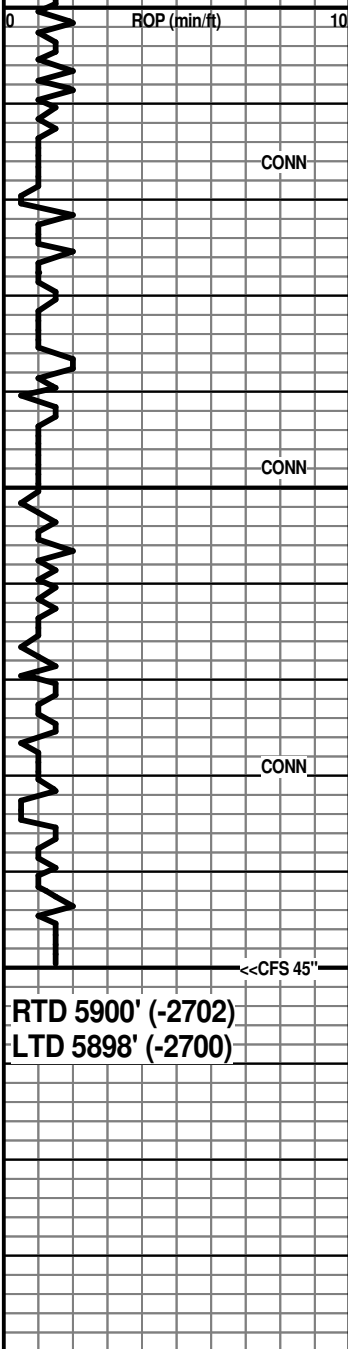
CONN

<<CFS 60"

CONN

CONN

lost 5'



Ls: mix AA; some med brn vf-cryptoxln; scatt. offwhite, lt gray chert

60' spl - Ls: influx lt to med brn, med granular; lesser vf-cryptoxln; occ lt brn oolite clusters with poor inter-oolitic por., N.S.

AA

90' spl - Ls: influx lt to med brn vf-cryptoxln, NVP; some tan vfxln dense with mnrl fluor.

Ls: becoming predom. lt to med brn vf-cryptoxln

CFS 5900' 20" spl - Ls: various lt to med brn, some dark brn vf-cryptoxln, NVP; occ tan vfxln dolomite, N.S.; 45" spl - Ls: med to dark brn cryptoxln to mottled IP, NVP

After review of sample shows in the St. Louis "B" and open hole log evaluation, the decision was made to run 5 1/2" casing for further testing through perforations.

Respectfully submitted,

Wesley D. Hansen
Petroleum Geologist
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