

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs 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 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No 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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 836

Date	6-5-78	Sec.	31	Twp.	13	Range	19	County	Ellis	State	KS	On Location		Finish	8 ⁰⁰ AM
Lease								Location							
Ritdel								Klemente Hwy 40 23 Victoria Rd 2W							
Well No.				2-31				Owner							
Contractor				Discovery #1				TOP STAGE				To Quality Oilwell Cementing, Inc.			
Type Job				DV-50D								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size				7 7/8				T.D.				3980			
Csg.				5 1/2				Depth				3961			
Tbg. Size								Depth							
Tool				DV Tool				Depth				1586			
Cement Left in Csg.								Shoe Joint							
Meas Line				Displace				37 3/4 BBL				Charge To			
												American Oil			
												Street			
												City			
												State			
												The above was done to satisfaction and supervision of owner agent or contractor.			
												Cement Amount Ordered			
												340 80/20 QmDC 1/4 #110			
												Common			
												340 80/20 QmDC			
												Poz. Mix			
												Gel.			
												Calcium			
												Hulls			
												Salt			
												Flowseal			
												85#			
												Kol-Seal			
												Mud CLR 48			
												CFL-117 or CD110 CAF 38			
												Sand			
												Handling			
												340			
												Mileage			
												15			
												prod string			
												Top Stage			
												Tax			
												Discount			
												Total Charge			
Signature				Ann Weaverly											

Thanks

Plug Rathole & mouse hole.
Cement 5 1/2 with 2955K
Displace Plug
Cement Circulated

Pumptrk Charge
Mileage

Top Stage

Tax
Discount
Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 835

Date	6-5-18	Sec.	31	Twp.	13	Range	19	County	Ellis	State	KS	On Location		Finish	5:00 AM
Location								Yucca & Hwy 40 25 Victoria Rd							
Lease	Riedel			Well No.	2-31			Owner							
Contractor								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.							
Type Job								DU JOB							
Hole Size				7 7/8				T.D.				3980			
Csg.				5 1/2 15.50				Depth				3961			
Tbg. Size								Depth							
Tool								DU Tool							
Cement Left in Csg.				22'				Shoe Joint				22'			
Meas Line								Displace							
EQUIPMENT								50 gal mud flush 200 BCL							
Pumptrk								5 No. Cementer							
Bulktrk								No. Driver							
Bulktrk								14 No. Driver							
JOB SERVICES & REMARKS								Common 150							
Remarks:								Salt 13							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal 750 lb							
Centralizers								Mud CLR 48 500 gal							
Baskets								CFL-117 or CD110 CAF 38							
DV or Port Collar								Sand							
5 1/2 x 3961 Insert @ 3939.								Handling 170							
Est. Circulation. Pump 50 gal mud								Mileage							
10 BL KCL Mix 150 gal & Displace								FLOAT EQUIPMENT							
121 10 BL KCL Displace 54 BL water								Guide Shoe							
30 BL mud & 4 BL water to land plug.								Centralizer 8							
Plug land @ 1200 ft.								Baskets 3							
Dring Dant & Open DV Tool.								AFU Inserts DV Tool							
Circ 2 HRS								Float Shoe 1							
								Latch Down 1							
Thanks								Pumptrk Charge							
								Mileage 15							
								prod string							
								Bottom Stage							
								Tax							
								Discount							
								Total Charge							
Signature								Ann Weasberry							

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 331

Date	5-31-18	Sec.	31	Twp.	13	Range	19	County	Ellis	State	KS	On Location		Finish	12:45pm				
Lease								Well No.		Owner									
Riedel								2-31		To Quality Oilwell Cementing, Inc.									
Contractor								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.											
Discovery #1																			
Type Job								Charge To											
Surface								American Oil											
Hole Size				T.D.				Street				City				State			
12 1/4				221															
Csg.				Depth				Street				City				State			
8 5/8				220															
Tbg. Size				Depth				City				State							
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.											
Cement Left in Csg.				Shoe Joint				Cement Amount Ordered											
10'								150 89/20 3/4 2/1-002											
Meas Line				Displace															
				13BK															
EQUIPMENT												Common				120			
Pumptrk		No.		Cementor		Helper		Poz. Mix				30							
20				C. M. G.															
Bulktrk		No.		Driver		Driver		Gel.				3							
				D. P. T.															
Bulktrk		No.		Driver		Driver		Calcium				6							
14				Jordan															
JOB SERVICES & REMARKS												Hulls							
Remarks:												Salt							
Rat Hole												Flowseal							
Mouse Hole												Kol-Seal							
Centralizers												Mud CLR 48							
Baskets												CFL-117 or CD110 CAF 38							
D/V or Port Collar												Sand							
8 5/8 on bottom - EST + Circulation												Handling				159			
Mix 150 SICG Displace												Mileage							
Cement Circulated!												FLOAT EQUIPMENT							
												Guide Shoe							
												Centralizer							
												Baskets							
												AFU Inserts							
												Float Shoe							
												Latch Down							
												Pumptrk Charge				Surface			
												Mileage				15			
												Tax							
												Discount							
												Total Charge							
X Signature																			
[Signature]																			

Thanks

Geological Report

Riedel #2-31

344' FSL & 893' FEL

Sec. 31 T13s R19w

Ellis County, Kansas



American Oil, LLC.

General Data

Well Data: American Oil, LLC.
Riedel #2-31
344' FSL & 893' FEL
Sec. 31 T13s R19w
Ellis County, Kansas
API # 15-051-26914-0000

Drilling Contractor: Discovery Drilling, Inc. Rig #1

Geologist: Jason T Alm

Spud Date: May 31, 2018

Completion Date: June 5, 2018

Elevation: 2287' Ground Level
2295' Kelly Bushing

Directions: Yocemento KS, South 3 mi to Victoria Rd. West 3
¼ mi. North into location.

Casing: 221' 8 5/8" surface casing
3982' 5 1/2" production casing

Samples: 10' wet and dry, 3250' to RTD

Drilling Time: 3150' to RTD

Electric Logs: Gemini Wireline "Casey Patterson"
CNL/CDL, DIL

Drillstem Tests: None

Problems: None

Remarks: Lost a little fluid when first cutting Arbuckle, mixed
hulls.

Formation Tops

	American Oil, LLC. Riedel #2-31 Sec. 31 T13s R19w 344' FSL & 893' FEL
Formation	
Anhydrite	1665' +730
Base	1611' +684
Topeka	3288' -993
Heebner	3532' -1237
Toronto	3552' -1257
Lansing	3574' -1279
BKC	3816' -1521
Arbuckle	3867' -1572
LTD	3983' -1688
RTD	3980' -1685

Sample Zone Descriptions

Topeka 30'	(3318' -1023): Not Tested Ls – Fine crystalline with good inter-crystalline and vuggy porosity, light to fair oil stain with light spotted saturation in part, slight show of free oil when broken, light odor, very dull yellow-green fluorescents.
Plattsmouth	(3490' -1195): Not Tested Ls – Fine crystalline, oolitic packstone with good oomoldic porosity, light brown oil stain in porosity with light saturation, slight show of free oil, good odor, bright yellow fluorescents.
LKC “C” zone	(3600' -1305): Not Tested Ls – Fine crystalline, oolitic with poor to fair inter-crystalline and oolitic porosity, light to fair oil stain with light spotted saturation, slight show of free when broken, light odor, dull yellow fluorescents.
LKC “E” zone	(3644' -1349): Not Tested Ls – Fine to sub-crystalline, oolitic in part, few pieces with poor oolitic porosity, light to good oil stain in porosity, slight show of free oil, very light odor.
LKC “F” zone	(3654' -1359): Not Tested Ls – Fine crystalline, oolitic with poor to fair oomoldic and inter-crystalline porosity, light to fair oil stain in part, slight show of free oil when broken, dull yellow-green fluorescents, very light odor.

LKC “J” zone (3748’ -1453): Not Tested
 Ls – Fine crystalline, oolitic packstone in part with fair to good oomoldic porosity, light to good oil stain in porosity, fair show of free when broken, light odor, many gas bubbles, bright yellow fluorescents.

LKC “L” zone (3800’ -1505): Not Tested
 Ls – Fine crystalline, oolitic packstone with poor oolitic and oomoldic porosity, light spotted oil stain in porosity, light spotted oil stain in porosity, very slight show of free oil when broken, no odor, very dull spotted yellow fluorescents, mostly dense.

Arbuckle (3867’ -1572): Not Tested
 Dolo – Fine to coarse rhombic crystalline with fair to good inter-crystalline and scattered vuggy porosity, light to good brown oil stain with light to fair spotted saturation, fair show of free oil when broken, good odor, light to fair spotted yellow-green fluorescents.

Structural Comparison

	American Oil, LLC. Riedel #2-31 Sec. 31 T13s R19w 344' FSL & 893' FEL	Texas Company Gus Riedel #7 Sec. 31 T13s R19w SW SE SE		Murfin Drilling Co. Riedel #15 Sec. 31 T13s R19w 330' FSL & 330' FEL	
Formation					
Anhydrite	1665' +730	1566' +724	(+6)	1570' +720	(+10)
Base	1611' +684	NA	NA	NA	NA
Topeka	3288' -993	3290' -1000	(+7)	3281' -991	(-2)
Heebner	3532' -1237	3531' -1241	(+6)	3533' -1243	(+6)
Toronto	3552' -1257	3531' -1263	(+6)	NA	NA
Lansing	3574' -1279	3574' -1284	(+4)	3576' -1286	(+7)
BKC	3816' -1521	3818' -1528	(+7)	3820' -1530	(+9)
Arbuckle	3867' -1572	3872' -1582	(+10)	3886' -1596	(+24)

Summary

The location for the Riedel #2-31 was found via sub-surface study. The new well ran structurally as expected via the survey. No Drill Stem Tests were conducted. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Riedel #2-31 well.

Recommended Perforations

Primary:

Arbuckle	3868' – 3872'	Not Tested
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Secondary:

LKC J zone	3752' – 3758'	Not Tested
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LKC C zone	3603' – 3609'	Not Tested
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Before Abandonment:

LKC F zone	3655' – 3662'	Not Tested
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LKC E zone	3645' – 3648'	Not Tested
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Plattsmouth	3496' – 3504'	Not Tested
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Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.