

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 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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Company: Double G Petro, LLC

Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
 County: RUSH
 State: Kansas
 Drilling Contractor: Discovery Drilling Company, Inc. - Rig 2
 Elevation: 2098 EGL
 Field Name: Roland
 Pool: Infield
 Job Number: 708
 API #: 15-165-22184

Operation:
 Uploading recovery & pressures

DATE
 November
21
 2023

DST #1 **Formation: Lansing C** **Test Interval: 3476 - 3502'** **Total Depth: 3502'**
 Time On: 12:24 11/21 Time Off: 16:57 11/21
 Time On Bottom: 14:12 11/21 Time Off Bottom: 15:22 11/21

Electronic Volume Estimate:
 0'

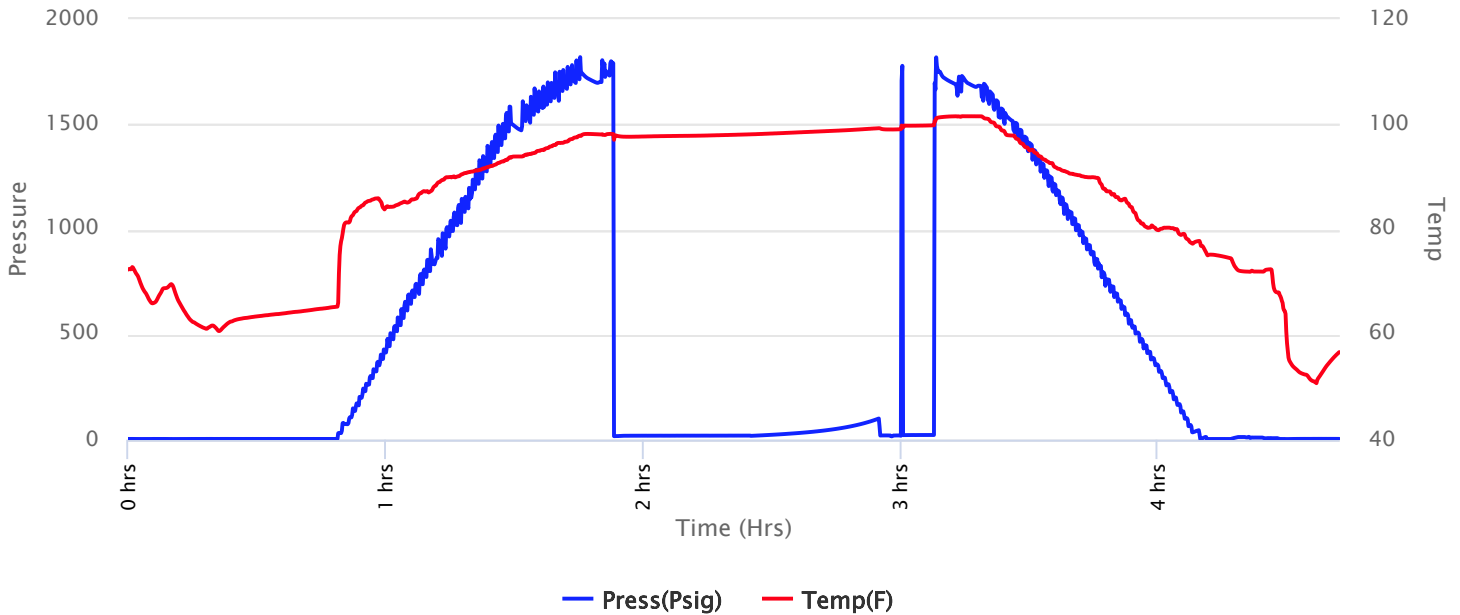
1st Open
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: 0"

1st Close
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 10
 Current Reading:
 0" at 10 min
 Max Reading: 0"

2nd Close
 N/A

Inside Recorder





Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
 County: RUSH
 State: Kansas
 Drilling Contractor: Discovery Drilling Company, Inc. - Rig 2
 Elevation: 2098 EGL
 Field Name: Roland
 Pool: Infield
 Job Number: 708
 API #: 15-165-22184

Operation:
 Uploading recovery & pressures

DATE
 November
21
 2023

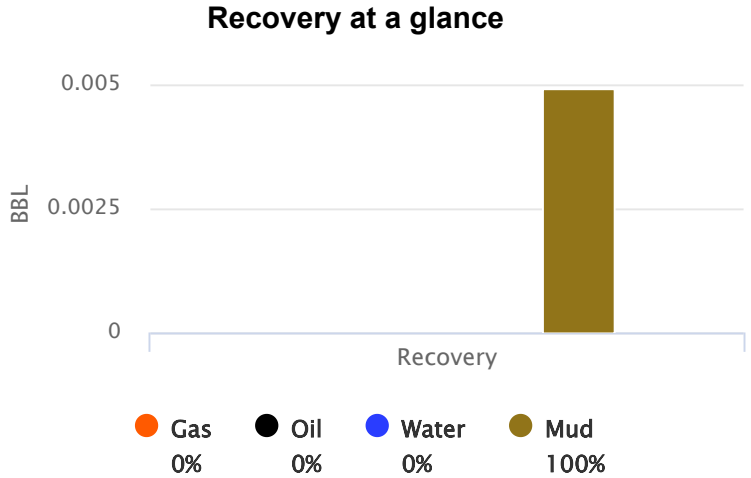
DST #1 **Formation: Lansing C** **Test Interval: 3476 - 3502'** **Total Depth: 3502'**
 Time On: 12:24 11/21 Time Off: 16:57 11/21
 Time On Bottom: 14:12 11/21 Time Off Bottom: 15:22 11/21

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
1	0.00492	HMCO	0	Tr	0	100

Total Recovered: 1 ft
 Total Barrels Recovered: 0.00492

Reversed Out
 NO

Initial Hydrostatic Pressure	1791	PSI
Initial Flow	19 to 20	PSI
Initial Closed in Pressure	64	PSI
Final Flow Pressure	21 to 23	PSI
Final Closed in Pressure	0	PSI
Final Hydrostatic Pressure	1777	PSI
Temperature	102	°F
Pressure Change Initial Close / Final Close	0.0	%



GIP cubic foot volume: 0



Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
County: RUSH
State: Kansas
Drilling Contractor: Discovery Drilling
Company, Inc. - Rig 2
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:
Uploading recovery &
pressures

DATE
November
21
2023

DST #1	Formation: Lansing	Test Interval: 3476 -	Total Depth: 3502'
	C	3502'	
	Time On: 12:24 11/21	Time Off: 16:57 11/21	
	Time On Bottom: 14:12 11/21	Time Off Bottom: 15:22 11/21	

BUCKET MEASUREMENT:

1st Open: Intermittent wsb died in 17 min
1st Close: No blow back
2nd Open: No blow, reset tool, dying surface blow, pulled tool

REMARKS:

Tool Sample: 0% Gas Tr% Oil 0% Water 100% Mud



Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
County: RUSH
State: Kansas
Drilling Contractor: Discovery Drilling Company, Inc. - Rig 2
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:
Uploading recovery &
pressures

DATE
November
21
2023

DST #1	Formation: Lansing	Test Interval: 3476 -	Total Depth: 3502'
	C	3502'	
	Time On: 12:24 11/21	Time Off: 16:57 11/21	
	Time On Bottom: 14:12 11/21	Time Off Bottom: 15:22 11/21	

Down Hole Makeup

Heads Up: 24.16 FT	Packer 1: 3471 FT
Drill Pipe: 3445 FT	Packer 2: 3476 FT
<i>ID-3 1/2</i>	Top Recorder: 3463 FT
Weight Pipe: FT	Bottom Recorder: 1 FT
<i>ID-2 7/8</i>	Well Bore Size: 7 7/8
Collars: 30 FT	Surface Choke: 1"
<i>ID-2 1/4</i>	Bottom Choke: 5/8"
Test Tool: 26.16 FT	
<i>ID-3 1/2-FH</i>	
Total Anchor: 26	
<u>Anchor Makeup</u>	
Packer Sub: 1 FT	
Perforations: (top): 25 FT	
<i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT	
<i>ID-3 1/2</i>	
Change Over: FT	



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Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
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Company, Inc. - Rig 2
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:
Uploading recovery &
pressures

DATE
November
21
2023

DST #1 **Formation: Lansing** **Test Interval: 3476 -** **Total Depth: 3502'**
 C **3502'**
Time On: 12:24 11/21 Time Off: 16:57 11/21
Time On Bottom: 14:12 11/21 Time Off Bottom: 15:22 11/21

Gas Volume Report

1st Open

Time	Orifice	PSI	MCF/D
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2nd Open

Time	Orifice	PSI	MCF/D
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Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
 County: RUSH
 State: Kansas
 Drilling Contractor: Discovery Drilling Company, Inc. - Rig 4
 Elevation: 2098 EGL
 Field Name: Roland
 Pool: Infield
 Job Number: 708
 API #: 15-165-22184

Operation:
 Test Complete

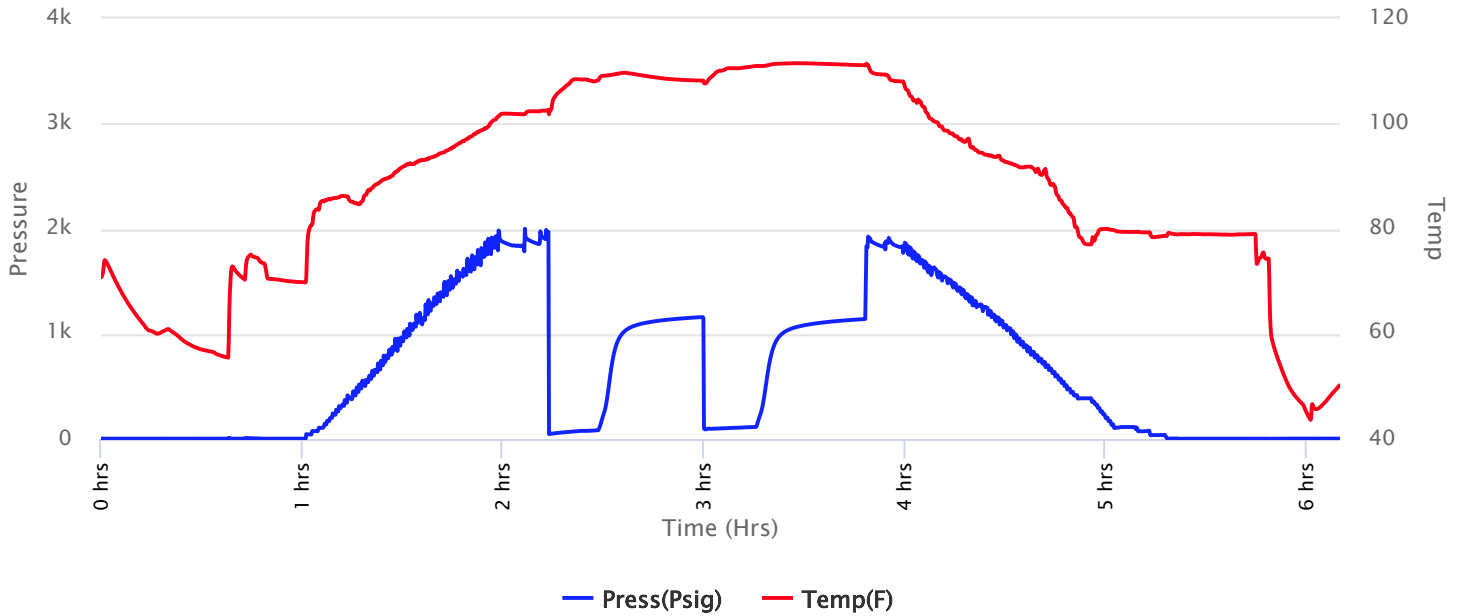
DATE
 November
22
 2023

DST #2 Formation: Arbuckle Test Interval: 3798 - 3835' Total Depth: 3835'
 Time On: 18:06 11/22 Time Off: 00:00 01/01
 Time On Bottom: 20:16 11/22 Time Off Bottom: 21:46 11/22

Electronic Volume Estimate:
 346'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 15	Minutes: 30	Minutes: 15	Minutes: 30
Current Reading: 17.6" at 15 min	Current Reading: 0" at 30 min	Current Reading: 15.8" at 15 min	Current Reading: 0" at 30 min
Max Reading: 17.6"	Max Reading: 0"	Max Reading: 15.8"	Max Reading: 0"

Inside Recorder





Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
 County: RUSH
 State: Kansas
 Drilling Contractor: Discovery Drilling Company, Inc. - Rig 4
 Elevation: 2098 EGL
 Field Name: Roland
 Pool: Infield
 Job Number: 708
 API #: 15-165-22184

Operation:
 Test Complete

DATE
 November
22
 2023

DST #2 Formation: Arbuckle Test Interval: 3798 - 3835' Total Depth: 3835'
 Time On: 18:06 11/22 Time Off: 00:00 01/01
 Time On Bottom: 20:16 11/22 Time Off Bottom: 21:46 11/22

Recovered

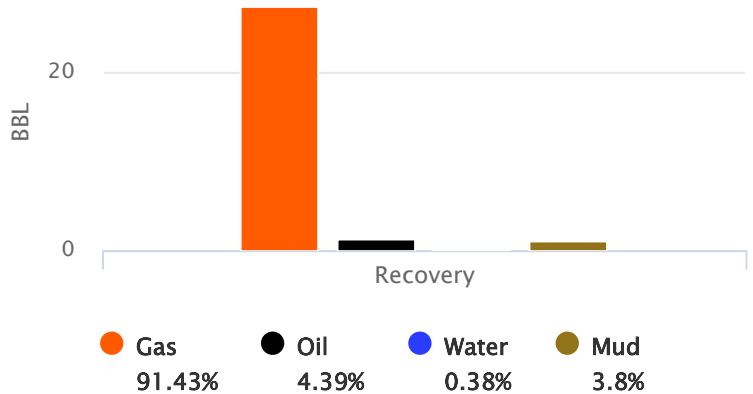
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
30	0.4269	SLGCO	5	95	0	0
1920	27.3216	G	100	0	0	0
180	2.2821	SLGCSLWCHOCM	5	40	5	50

Total Recovered: 2130 ft
 Total Barrels Recovered: 30.0306

Reversed Out
 NO

Initial Hydrostatic Pressure	1936	PSI
Initial Flow	53 to 83	PSI
Initial Closed in Pressure	1158	PSI
Final Flow Pressure	95 to 114	PSI
Final Closed in Pressure	1138	PSI
Final Hydrostatic Pressure	1907	PSI
Temperature	112	°F
Pressure Change Initial Close / Final Close	1.7	%

Recovery at a glance



GIP cubic foot volume: 154.15761



Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
County: RUSH
State: Kansas
Drilling Contractor: Discovery Drilling
Company, Inc. - Rig 4
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:

Test Complete

DATE

November

22

2023

DST #2	Formation: Arbuckle	Test Interval: 3798 - 3835'	Total Depth: 3835'
	Time On: 18:06 11/22	Time Off: 00:00 01/01	
	Time On Bottom: 20:16 11/22	Time Off Bottom: 21:46 11/22	

BUCKET MEASUREMENT:

1st Open: Strong blow built to bob in 5 minutes

1st Close: No blow back

2nd Open: Strong blow built to bob in 8 minutes

2nd Close: No blow back

REMARKS:

Tool Sample: 5% Gas 45% Oil 5% Water 45% Mud



Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
County: RUSH
State: Kansas
Drilling Contractor: Discovery Drilling
Company, Inc. - Rig 4
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:
Test Complete

DATE
November
22
2023

DST #2 Formation: Arbuckle Test Interval: 3798 - 3835' Total Depth: 3835'
Time On: 18:06 11/22 Time Off: 00:00 01/01
Time On Bottom: 20:16 11/22 Time Off Bottom: 21:46 11/22

Down Hole Makeup

Heads Up: 15.16 FT	Packer 1: 3793 FT
Drill Pipe: 3758 FT <i>ID-3 1/2</i>	Packer 2: 3798 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3785 FT
Collars: 30 FT <i>ID-2 1/4</i>	Bottom Recorder: 1 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 37	Surface Choke: 1"
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 36 FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/2</i>	
Change Over: FT	

Perforations: (below): FT

4 1/2-FH



Company: Double G Petro, LLC
Lease: Cottonwood #1

SEC: 24 TWN: 16S RNG: 20W
County: RUSH
State: Kansas
Drilling Contractor: Discovery Drilling
Company, Inc. - Rig 4
Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:

Test Complete

DATE

November
22
2023

DST #2 Formation: Arbuckle Test Interval: 3798 - Total Depth: 3835'
3835'

Time On: 18:06 11/22 Time Off: 00:00 01/01
Time On Bottom: 20:16 11/22 Time Off Bottom: 21:46 11/22

Mud Properties

Mud Type: Chem

Weight: 9.3

Viscosity: 55

Filtrate: 7.2

Chlorides: 5800 ppm



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Elevation: 2098 EGL
Field Name: Roland
Pool: Infield
Job Number: 708
API #: 15-165-22184

Operation:
Test Complete

DATE
November
22
2023

DST #2 Formation: Arbuckle Test Interval: 3798 - Total Depth: 3835'
3835'
Time On: 18:06 11/22 Time Off: 00:00 01/01
Time On Bottom: 20:16 11/22 Time Off Bottom: 21:46 11/22

Gas Volume Report

1st Open

Time	Orifice	PSI	MCF/D
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2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

AUSTIN B. KLAUS

Cell 785.650.3629
Work 785.483.3145
Ext 225

PO BOX 352
Russell, KS 67665
austin.klaus@johnofarmer.com

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

Well Name: Cottonwood #1
API: 15-165-22184-00-00
Location: Rush County
License Number:
Spud Date: 11/17/2023
Surface Coordinates: Section 24 - Township 16 South - Range 20 West
550' FSL & 1400' FEL
Bottom Hole Coordinates: Vertical well w/ minimal deviation, same as above
Ground Elevation (ft): 2,097 **K.B. Elevation (ft):** 2,105
Logged Interval (ft): 3,100 **To:** 3,899 **Total Depth (ft):** 3,900
Formation: TOPEKA - ARBUCKLE
Type of Drilling Fluid: Chemical (Mud Co. / Service Mud)

Region: Kansas
Drilling Completed: 11/23/2023

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

OPERATOR

Company: Double G Petro, LLC
Address: PO Box 4
Rozel, KS 67574

Comments

The Cottonwood #1 was drilled by Discovery Drilling Rig #4 (Tool Pusher: Ryan Gaschler).

The location for the Cottonwood #1 was discovered via 3D seismic survey. Drill time was recorded, and rock samples were gathered and evaluated from 3,100' - 3,900'.

The Heebner and Lansing-Kansas City tops came in 3' low to the comparison well, the Hart #1 drilled by Castle Resources Inc. (2001) and located 750' north/northwest.

An oil show was encountered in the Lansing-Kansas City C zone (see sample description below). This is a primary producing zone in the area, so the decision was made to further evaluate this zone via bottom-hole drill stem test. The test yielded negative results (see full results below) and indicated the zone was not developed.


Fair-good drilling breaks occurred in the Lansing-Kansas City H & J zones. Fair-good porosity was observed in the rocks, but due to insufficient show of free oil and low structural position, the decision was made not to conduct a drill stem test.

The Base of the Kansas City came in 4' low to the comparison well. However, structural thinning occurred just above the Arbuckle allowing the Arbuckle top to come in 3' high to the Hart #1.

A second bottom-hole drill stem test was conducted over the top 14' of the Arbuckle to further evaluate this zone for commercial quantities of oil. The drill stem test yielded positive fluid recovery (see full results below) with very good bottom-hole pressures.

Upon completion of the drilling operation, electric logs were run to further evaluate the Cottonwood #1. After comprehensive evaluation of oil shows, structural position, drill stem test results, and electric logs, the decision was made to run 5-1/2" production casing to further evaluate the Cottonwood #1 on November 23, 2023.

ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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OTHER SYMBOLS

POROSITY <input type="checkbox"/> Earthy <input type="checkbox"/> Fenest <input type="checkbox"/> Fracture <input type="checkbox"/> Inter <input type="checkbox"/> Moldic <input type="checkbox"/> Organic <input type="checkbox"/> Pinpoint	<input checked="" type="checkbox"/> Vuggy SORTING <input type="checkbox"/> Well <input type="checkbox"/> Moderate <input type="checkbox"/> Poor	ROUNDING <input type="checkbox"/> Rounded <input type="checkbox"/> Subrnd <input type="checkbox"/> Subang <input type="checkbox"/> Angular OIL SHOW <input checked="" type="checkbox"/> Even	<input type="checkbox"/> Spotted <input type="checkbox"/> Ques <input type="checkbox"/> Dead INTERVAL <input type="checkbox"/> Core <input type="checkbox"/> Dst	EVENT <input type="checkbox"/> Rft <input type="checkbox"/> Sidewall
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Curve Track 1				
ROP (min/ft) ——— Gas (units) - - - - - Gamma (API) ———	MD	Lithology	Oil Shows	Geological Descriptions
ROP (min/ft) 5 Gas (units) 500 Gamma (API) 150 DAILY ACTIVITY: 11/17/2023: Spud @ 10:45am	3000			DST/Mud/Survey Mud Engineer: Gary Schmidtberger Tester: Kevin Webster
				The open-hole logging was performed by Mr. Dan Schmidt with Midwest Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron, Dual Induction, and Microresistivity.

11/18/23:
520', drilling

11/19/23:
2141', drilling

11/20/23:
2773', drilling

11/21/23:
3485', drilling

11/22/23:
3715', drilling

11/23/23:
3900, trip out for logs

3050

3100

3150

3200 MD

0
0
0

NOI (min/ft)
Gas (units)
Gamma (API)

500
150

Formation tops and datums from the open-hole logs include the following:

Formation	E-Log	Datum
Anhydrite	1331	774
Topeka	3126	-1021
Heebner	3419	-1314
Toronto	3445	-1340
Lansing	3465	-1360
B/KC	3722	-1617
Arbuckle	3821	-1716
LTD	3899	-1794

Ls: tan-gry, fn-sub xln, DNS

Sh: lt-drk gry

Topeka 3130' (-1025)

Ls: tan-lt gry, fn-sub xln, DNS, scat foss

Ls: ala

Ls: tan-lt gry, fn xln, scat int xln porosity, mostly DNS, scat foss

Sh: lt-drk gry, scat sft

Ls: tan-gry, fn-sub xln, mostly DNS, scat foss

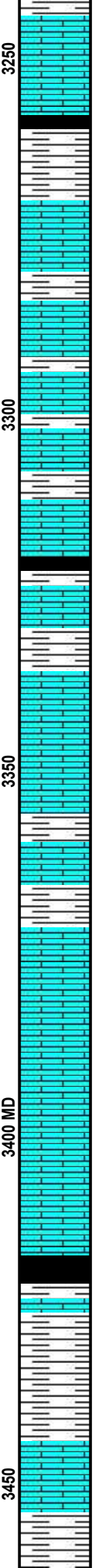
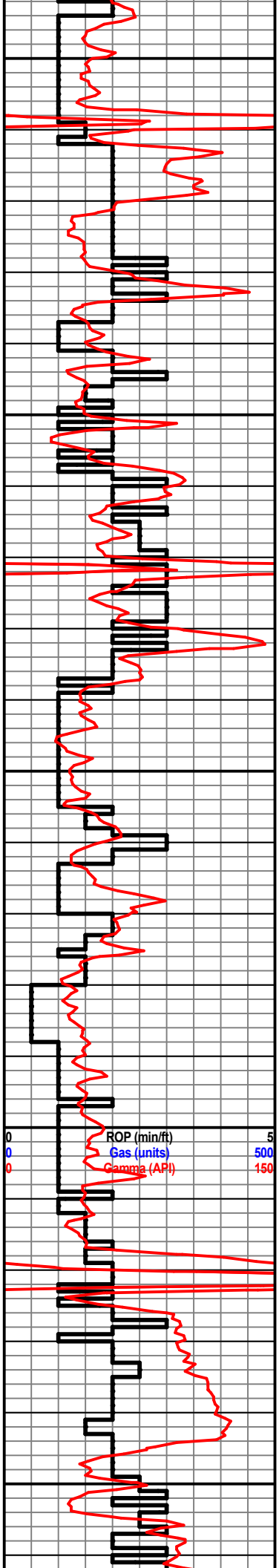
Ls: ala

Ls: tan-lt gry-brn, fn xln, mostly DNS, scat chert: off wh

Ls: off wh-tan-lt gry, fn xln, scat fair int xln porosity, barren, scat chert: off wh

Mud Properties

Vis: 50
Wt: 9.2



Ls: tan-lt gry, fn xln, DNS

Sh: lt gry, soft

Ls: tan-lt gry-bm, fn xln, poor int xln porosity, scat chert: off wh

Ls: ala

Sh: lt-drk gry, scat soft

Sh: ala

Ls: tan-bm, fn-sub xln, mostly DNS, scat chert: off wh

Ls: tan-lt gry, fn xln, scat foss, fair int xln porosity, barren

Ls: ala

Sh: lt-drk gry

Ls: off wh-tan-lt gry, fn xln, scat fair int xln porosity, barren, chalky

Ls: ala

Ls: off wh-tan-bm, fn xln, poor-fair int xln porosity, barren, scat foss, chalky

Heebner 3421' (-1316)

Sh: drk gry-blk

Sh: lt-drk gry

Toronto 3443' (-1338)

Ls: off wh-tan, fn xln, poor int xln & scat int part porosity, barren, chalky

Sh: lt-drk gry-bm

Leppin 3471' (-1360)

Mud Properties

Vis: 60

Wt: 9.2

DST #1 3476'-3502' (LKC 'C')

30"-30"-10"-pull

IF: weak surface blow

FF: no blow

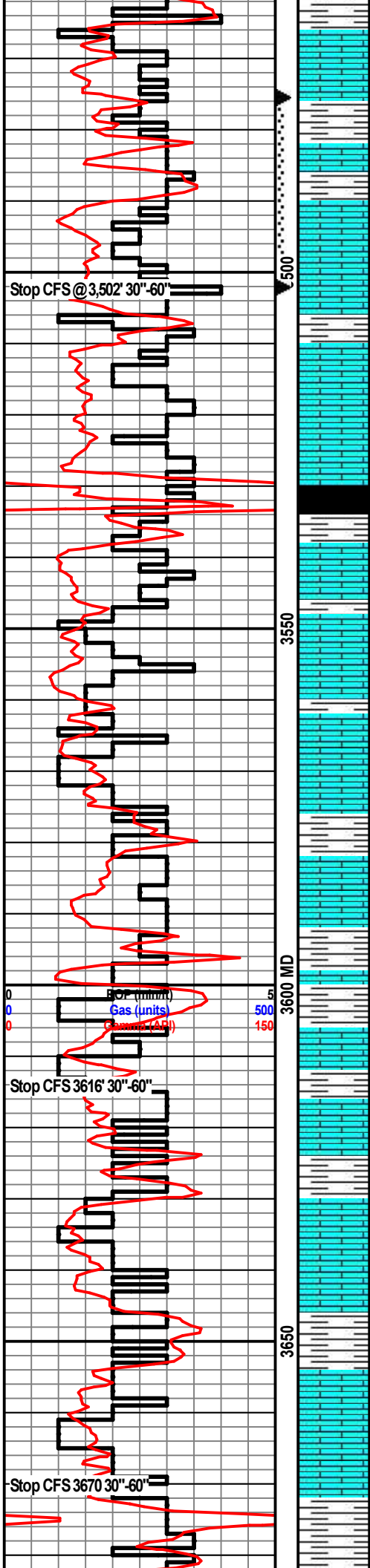
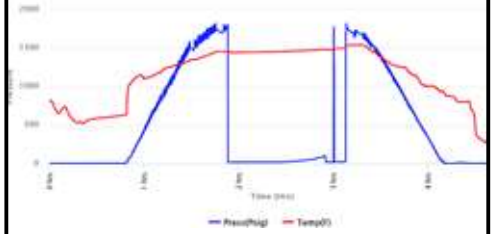
Rec: 1' Mud w/ show of oil

FP: 21-23, N/A

SIP: 64-0#

HP: 1,791-1,777#

BHT: 102



Ls: off wh-tan, fn xln, scat foss, poor int xln porosity, barren

Ls: off wh-tan, fn xln, no visble porosity, barren, chalky

Ls: off wh-tan, fn xln, ool, fair ool porosity, fair-good oil stn, fair sat in few rxs, SFO in cup, fair-good odor

Stop CFS @ 3,502' 30"-60"

Sh: lt-drk gry

Ls: off wh-tan, fn xln, mostly DNS, barren, chalky, scat chert: off wh

Ls: off wh-tan, fn xln, poor int xln porosity, barren, chalky, scat chert: off wh

Sh: lt-drk gry, blk

Ls: off wh-tan, fn xln, scat poor int xln porosity, barren, scat chert: off wh

Ls: off wh-tan, fn xln, ool, fair ool porosity, barren, scat chalk

Ls: off wh-tan, fn xln, ool, fair-good ool porosity, barren

Ls: off wh-tan, fn xln, mostly DNS, barren

Sh: drk gry

Ls: off wh-tan, fn xln, ool, scat foss, fair int foss porosity, barren, scat chert: off wh

Ls: off wh-tan, fn xln, mostly DNS, chalky, scat chert, barren

Sh: lt-drk gry

Ls: off wh-tan, fn xln, ool, scat foss, fair ool porosity, barren, scat chert: off wh

Sh: lt-drk gry

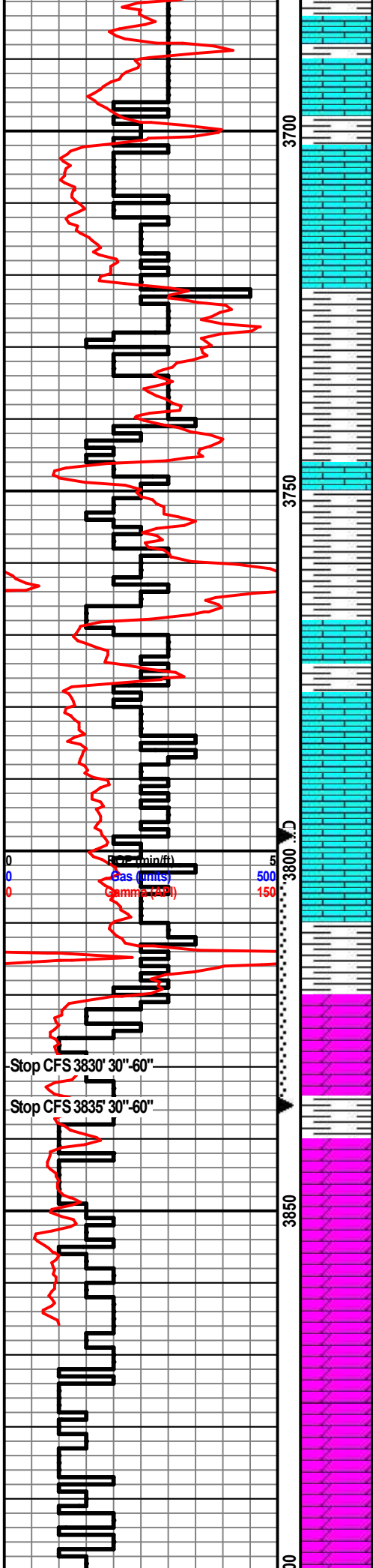
Ls: off wh-tan, fn xln, ool, fair ool porosity, scat foss, scat oil stn, NSFO, no odor

Stop CFS 3670 30"-60"

Sh: lt-drk gry

Mud Properties

Vis: 55



Ls: off wh-tan, fn xln, mostly DNS, no visible porosity, barren, chalky

Ls: off wh-tan, fn xln, mostly DNS, barren, chalky, scat chert: off wh

Sh: lt-drk gry

Ls: off wh-tan, fn xln, scat fair int xln porosity, barren, chalky, scat chert: off wh

B/KC 3723' (-1618)

Sh: lt-drk gry, scat bm

Sh: ala

Ls: off wh-tan-gry, fn xln, poor int xln porosity, barren, scat chert: off wh

Sh: lt-drk gry

Ls: off wh-tan-lt gry, fn xln, poor int xln porosity, scat foss, chert: off wh-orange, DNS

Ls: tan-lt gry-bm, fn xln, poor int xln porosity, scat foss, chert: off wh-orange, scat sh: drk gry

Ls: ala

Ls: off wh-tan-gry, fn-sub xln, DNS, scat foss, hvy chert: off wh-orange

Sh: lt-drk gry

Arbuckle 3826' (-1721)

Dolo: off wh-tan, fn xln, fair-good int xln porosity, fair sat, few rx, w/ good sat, F-GSFO when brkn, fair-good odor

Sh: lt-drk gry-bm

Dolo: off wh-tan, fn xln, fair-good int xln porosity, fair oil sat in few rx, SFFO, fair odor, scat chert: off wh

Dolo: off wh-tan, fn xln, fair int xln porosity, scat oil str, NSFO, hvy chert: off wh

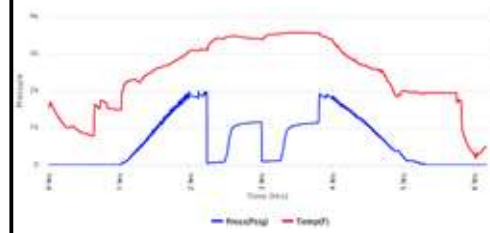
Dolo: off wh-tan, fn xln, poor int xln porosity, NSFO, hvy chert: off wh

Dolo: ala

Dolo: off wh-tan, fn xln, fair int xln porosity, NSFO, hvy chert: off wh

Wt: 9.3

DST #2 3,798 - 3,835' (Arbuckle Top 14')
 15"-30"-15"-30"
 IF: BOB in 5 min, no blow back
 FF: BOB in 8 min, no blow back
Rec: 1920' GIP, 30' SGCO (95%O, 5%G)
180' SGWOCM (5%G, 40%O, 50%M, 5%W)
 FP: 53-83, 95-114#
 SIP: 1158-1138#
 HP: 1936-1907#
 BHT: 112



Mud Properties
 Vis: 60+
 Wt: 9.5

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. **3987**

Date 08-17-23	Sec. 24	Twp. 16	Range 20W	County Rush	State Ks	On Location	Finish 5:30pm
				Location Lichtenhal SW			

Lease Cottonwood	Well No. 1	Owner
Contractor Discovery #4		To Quality Oilwell Cementing, Inc.
Type Job SURFACE		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 12 1/2	T.D. 263	Charge To Double G Petro LLC
Csg. 8 5/8	Depth	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 15	Shoe Joint	Cement Amount Ordered 175x 80/20 3-2

Meas Line	Displace 15.7	
EQUIPMENT		
Pumptrk 17	No. Cementer Bill	Common 140
	Helper	Poz. Mix 35
Bulktrk	No. Driver Nick	Gel. 3
	Driver	Calcium 7
Bulktrk	No. Driver Cory	
	Driver	

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
Set e 262		Handling 185
Cemt w/ 175		Mileage
Pump plug w/ 15.7 bbls		
Cemt Did Circ		

FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge Surface	
Mileage 52	
	Tax
	Discount
	Total Charge

X Signature **Ryan Jacobs**

Thanks

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. 4000

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-13-23				Rush	Ks		

Location Liebenthal N^WSW

Lease	Well No.	Owner
Cottonwood	1	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.
Contractor		Charge To
Outlaw		Double G Petro LLC
Type Job		Street
Port collar		City
Hole Size	T.D.	State
Csg.	Depth	
27		
Tbg. Size	Depth	
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
		300# QMDC 1/4" FLO

Meas Line	Displace	
		12 1/2 Gal
EQUIPMENT		
Pumptrk	No.	Cement Helper
17		Bill
Bulktrk	No.	Driver
		Nick
Bulktrk	No.	Driver
19		Joe
		Common
		185
		Poz. Mix
		Gel
		5
		Calcium

JOB SERVICES & REMARKS	
Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	75#
Baskets	Kol-Seal
D/V or Port Collar	Mud CLR 48
	CFL-117 or CD110 CAF 38
	Sand
	Handling
	300
	Mileage
	FLOAT EQUIPMENT
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Used	Pumptrk Charge	
185#	Mileage	52
500# Gel		port collar job
		Tax
		Discount
		Total Charge

X Signature *Terry W. Preisher*

Thanks

5/16/23

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. **3442**

Date	11/23/23	Sec.	24	Twp.	16	Range	20	County	Rush	State	KS	On Location		Finish	11:30
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Location *Lebenthal blacktop 8 west*

Lease	<i>Cottonwood</i>	Well No.	<i>1</i>	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.
Contractor	<i>Discovery</i>				
Type Job	<i>Pipe Job</i>				
Hole Size		T.D.	<i>3896</i>	Charge To	<i>Double G Petro</i>
Csg. <i>5 1/2</i>		Depth		Street	
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 <i>200 QproC 10% salt 5% gel</i>	
Meas Line		Displace	<i>95.06</i>		

EQUIPMENT

Pumptrk <i>16</i>	No.	Cementer	<i>Tim</i>	Common	<i>200 Q pro</i>
		Helper		Poz. Mix	
Bulktrk <i>20</i>	No.	Driver	<i>Joe</i>	Gel.	
		Driver		Calcium	
Bulktrk <i>PU</i>	No.	Driver	<i>Nick</i>		
		Driver			

JOB SERVICES & REMARKS

Remarks:	Salt <i>15</i>
Rat Hole	Flowseal
Mouse Hole	Kol-Seal <i>800#</i>
Centralizers	Mud CLR 48 <i>500 gal</i>
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
<i>eli-Plugged Rat + mouse hole</i>	Handling <i>223</i>
<i>hooked up to casing pumped cement</i>	Mileage
<i>displaced bbl water</i>	
<i>landed plug at 1500</i>	
<i>lift pressure 700psi</i>	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	<i>5</i>
Baskets	<i>2</i>
AFU Inserts	
Float Shoe	<i>1</i>
Latch Down	<i>1</i>
Port Collar	<i>1</i>

Pumptrk Charge	<i>Prod String</i>
Mileage	<i>52</i>

Tax	
Discount	
Total Charge	

X Signature *Ryan J. Soble*

Thanks