

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) (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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OPERATOR

Company: Hoffman, Chris dba CK Oil Company
 Address: 410 B Street
 PO Box 531
 Claflin, Kansas 67525

Contact Geologist: Jim Musgrove
 Contact Phone Nbr: 620-786-0839

Well Name: Riemann B #4
 Location: 10-17s-11w SE-NW-SW-SW
 API: 15-009-26321-00-00

Pool:
 State: Kansas

Field: Kraft Prusa
 Country: USA

Scale 1:240 Imperial

Well Name: Riemann B #4
 Surface Location: 10-17s-11w SE-NW-SW-SW
 Bottom Location:
 API: 15-009-26321-00-00
 License Number: 31561
 Spud Date: 11/11/2021 Time: 12:00 AM
 Region: Barton
 Drilling Completed: 11/17/2021 Time: 12:00 AM
 Surface Coordinates: 750' FSL & 550' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1842.00ft
 K.B. Elevation: 1852.00ft
 Logged Interval: 2700.00ft To: 3277.00ft
 Total Depth: 0.00ft
 Formation: Arbuckle
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 750' FSL
 E/W Co-ord: 550' FWL

LOGGED BY

Company: James C Musgrove Petroleum LLC
 Address: 212 Main Street/PO Box 215
 Claflin, KS 67525

Phone Nbr: 620-588-4250 620-786-0839
 Logged By: KLG #307 Name: James C Musgrove

CONTRACTOR

Contractor: Southwind Drilling
 Rig #: 1
 Rig Type: mud rotary
 Spud Date: 11/11/2021 Time: 12:00 AM
 TD Date: 11/17/2021 Time: 12:00 AM
 Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1852.00ft Ground Elevation: 1842.00ft
 K.B. to Ground: 10.00ft

NOTES

5 1/2" casing was set and cemented on the C&K Oil Company, Riemann 'B' #4.

Respectfully submitted,

well comparison sheet

RIEMANN 'B' #4					RIEMANN #1			
C&K OIL COMPANY					SIERRA PETROLEUM CO.			
SE-NW-SW-SW					SW-SW-SW-			
10-17S-11W					10-17s-11w			
1852 KB					1842 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Anhydrite			680	1172	679	1163		9
Base Anhydrite			708	1144				
Heebner			2893	-1041	2885	-1043		2
Toronto			2909	-1057	2903	-1061		4
Douglas			2921	-1069	2914	-1072		3
Brown Lime			2992	-1140	2987	-1145		5
Lansing			3006	-1154	3001	-1159		5
Base Kansas City			3243	-1391	3240	-1398		7
Conglomerate			3260	-1408				
Arbuckle			3268	-1416	3266	-1424		8
Rotary Total Depth			3277	-1425	3275	-1433		8



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 1
Elevation: 1843 Sur
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Test Complete

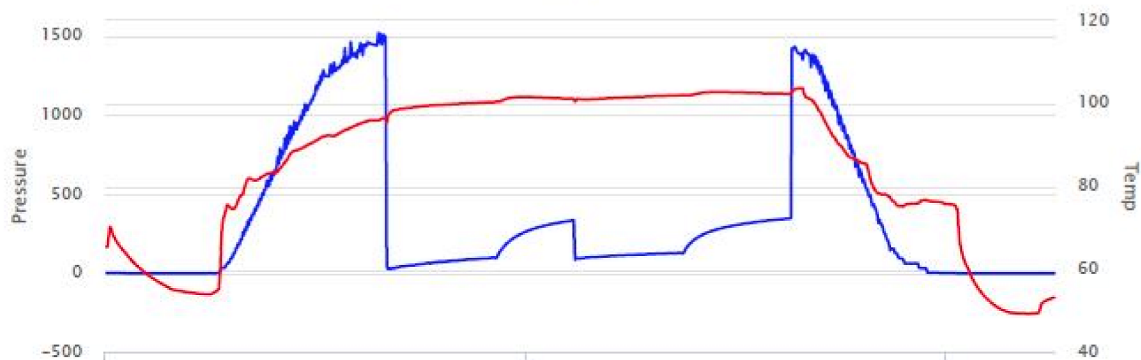
DATE
November
16
2021

DST #1 Formation: Lans A/F Test Interval: 2996 - 3091' Total Depth: 3091'
Time On: 02:31 11/16 Time Off: 09:06 11/16
Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Electronic Volume Estimate:
2787'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 45	Minutes: 30	Minutes: 45	Minutes: 45
Current Reading:	Current Reading:	Current Reading:	Current Reading:
313" at 45 min	5.3" at 30 min	238" at 45 min	3.9" at 45 min
Max Reading: 313"	Max Reading: 5.3"	Max Reading: 238"	Max Reading: 3.9"

Inside Recorder



0 hr

3 hr

Time (Hrs)

6 hr

— Press(Psig) — Temp(F)



Company: C & K Oil Company Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 1
Elevation: 1843 Sur
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Test Complete

DATE
November
16
2021

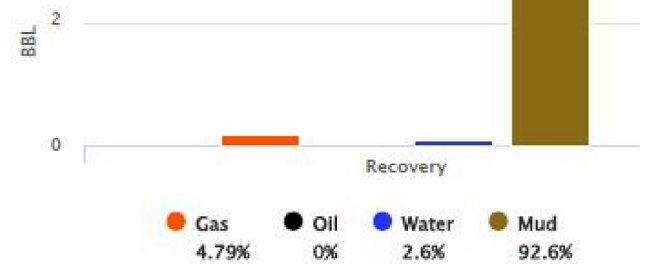
DST #1 Formation: Lans A/F Test Interval: 2996 - 3091' Total Depth: 3091'
Time On: 02:31 11/16 Time Off: 09:06 11/16
Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
116	1.65068	SLGCM	10	0	0	90
126	1.79298	SLWCM	0	0	5	95

Total Recovered: 242 ft
Total Barrels Recovered: 3.44366

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	1443	PSI
Initial Flow	28 to 94	PSI
Initial Closed in Pressure	336	PSI
Final Flow Pressure	86 to 129	PSI
Final Closed in Pressure	349	PSI
Final Hydrostatic Pressure	1434	PSI
Temperature	103	°F
Pressure Change Initial Close / Final Close	0.0	%

GIP cubic foot volume: 0.92677



Company: C & K Oil Company Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 1
Elevation: 1843 GL
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery & pressures

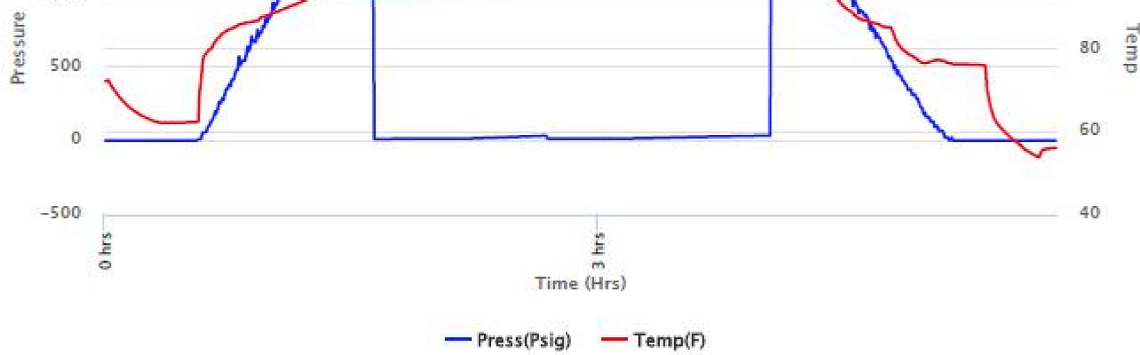
DATE
November
16
2021

DST #2 Formation: Lans H-J-K Test Interval: 3160 - 3195' Total Depth: 3195'
Time On: 18:41 11/16 Time Off: 22:43 11/16
Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Electronic Volume Estimate:	1st Open	1st Close	2nd Open	2nd Close
2'	Minutes: 30	Minutes: 30	Minutes: 30	Minutes: 45
	Current Reading: .25" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 45 min
	Max Reading: .25"	Max Reading: 0"	Max Reading: 0"	Max Reading: 0"

Inside Recorder





Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
16
 2021

DST #2 Formation: Lans H-J-K Test Interval: 3160 - 3195' Total Depth: 3195'
 Time On: 18:41 11/16 Time Off: 22:43 11/16
 Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

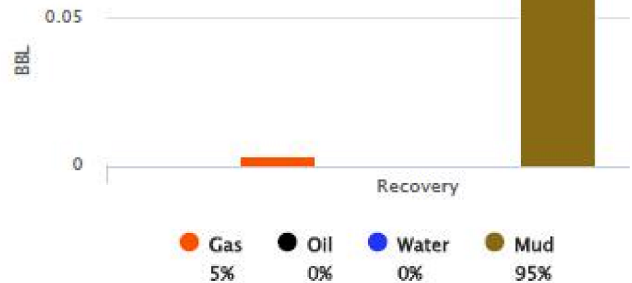
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
5	0.07115	SLGCM	5	0	0	95

Total Recovered: 5 ft
 Total Barrels Recovered: 0.07115

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1530	PSI
Initial Flow	9 to 11	PSI
Initial Closed in Pressure	32	PSI
Final Flow Pressure	11 to 12	PSI
Final Closed in Pressure	32	PSI
Final Hydrostatic Pressure	1526	PSI
Temperature	100	°F
Pressure Change Initial Close / Final Close	2.1	%

GIP cubic foot volume: 0.01997



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
17
 2021

DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'
 Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Electronic Volume Estimate:
 3173'

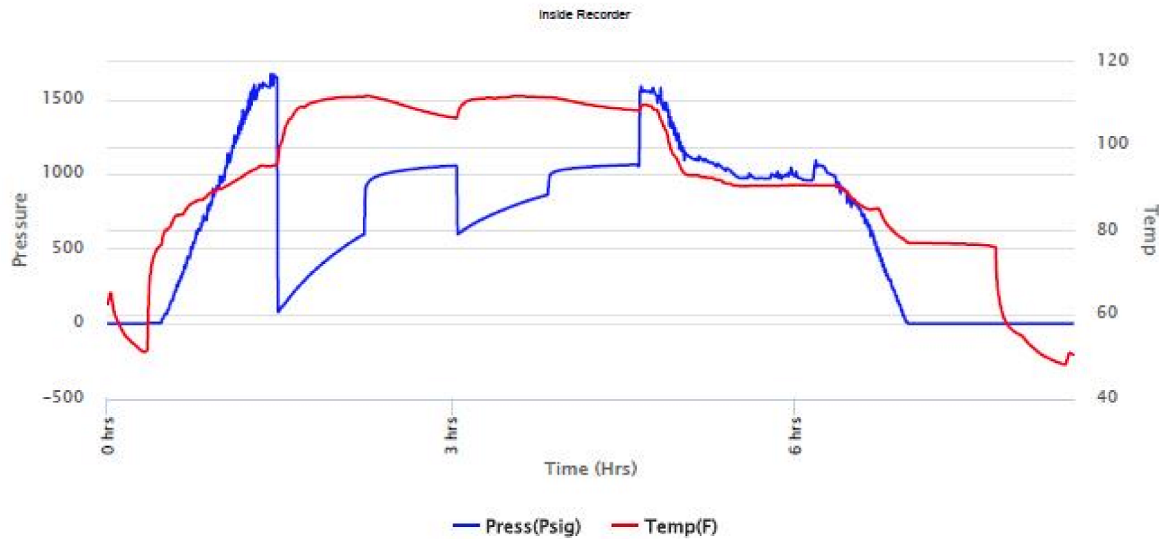
1st Open
 Minutes: 45
 Current Reading:

1st Close
 Minutes: 45
 Current Reading:

2nd Open
 Minutes: 45
 Current Reading:

2nd Close
 Minutes: 45
 Current Reading:

356" at 45 min 2.8" at 45 min 271" at 45 min 0" at 45 min
 Max Reading: 356" Max Reading: 5" Max Reading: 271" Max Reading: 0"



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
17
 2021

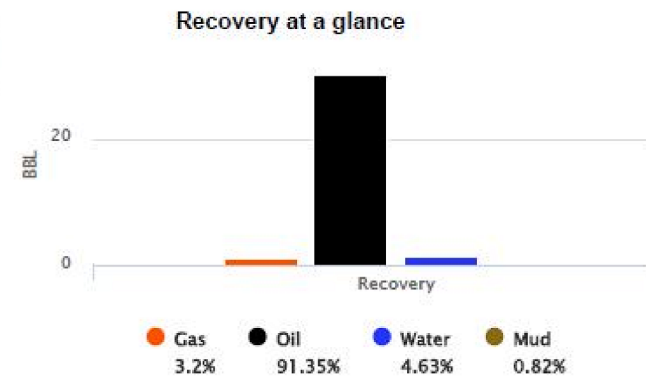
DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'
 Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
74	1.05302	G	100	0	0	0
2111	30.03953	O	0	100	0	0
126	1.79298	SLMCW	0	0	85	15

Total Recovered: 2311 ft
 Total Barrels Recovered: 32.88553

Reversed Out
 YES

Initial Hydrostatic Pressure	1580	PSI
Initial Flow	78 to 596	PSI
Initial Closed in Pressure	1057	PSI
Final Flow Pressure	599 to 861	PSI
Final Closed in Pressure	1064	PSI
Final Hydrostatic Pressure	1566	PSI
Temperature	112	°F
Pressure Change Initial Close / Final Close	0.0	%



GIP cubic foot volume: 5.91218

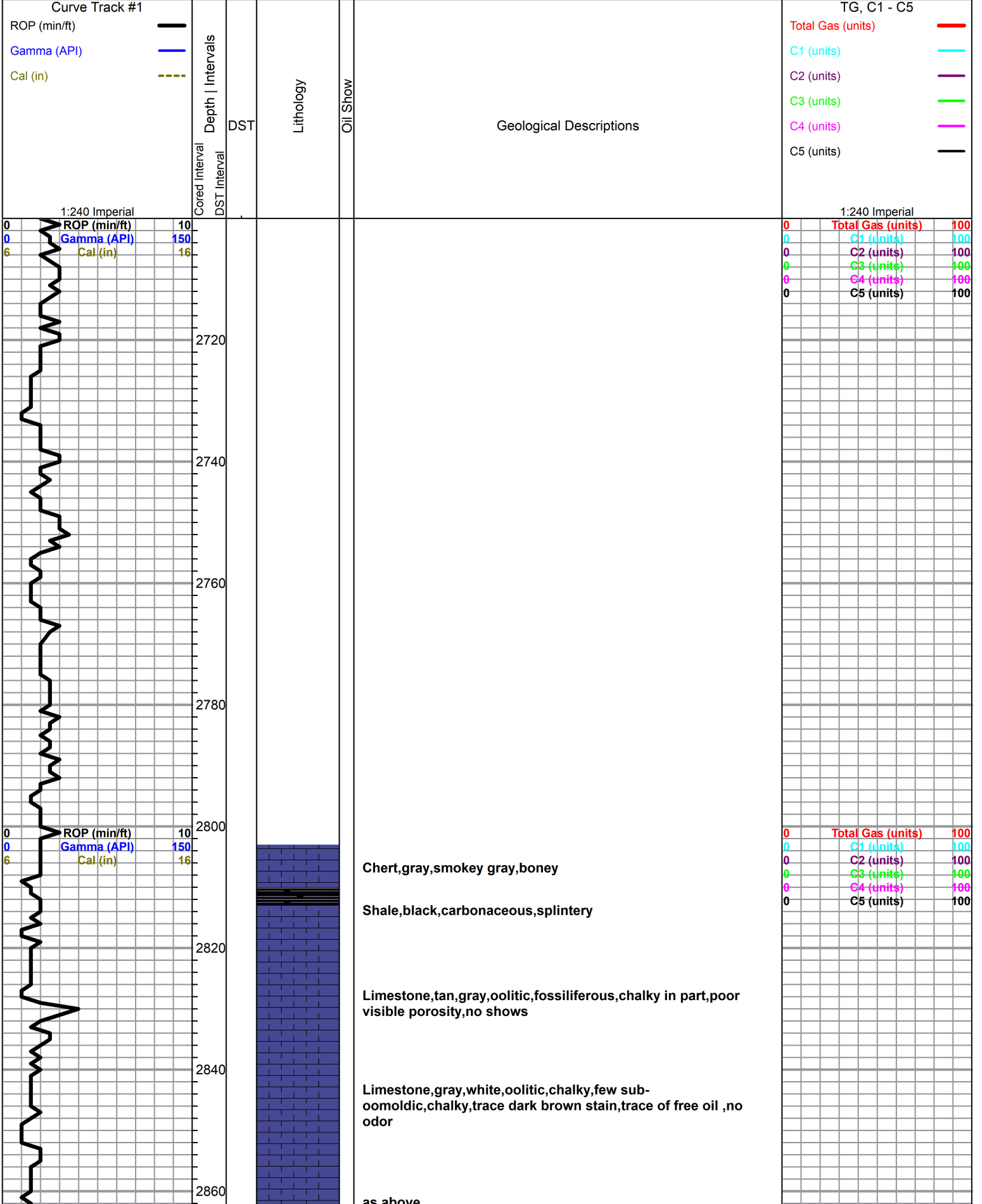
ROCK TYPES

	Congl		Lmst fw<7 shale, grn		Carbon Sh		Slst
	Chtcong		shale, gry		shale, red		Shcol
	Dolprim						

OTHER SYMBOLS

	Good Show		DST Int
	Fair Show		DST alt

- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas
- DST air
- Core
- tail pipe



as above

Limestone,gray,white, chalky,poor porosity,no shows

Chert,gray,boney with Limestone as above

HEEBNER 2893(-1041)

Shale,black,carbonaceous

Limestone,tan,dense

Shale,gray,grayish green,brown,soft

TORONTO 2909(-1057)

Limestone,white,gray,fossiliferous,chalky,trace brown spotted stain,no free oil no odor

DOUGLAS 2921(-1069)

Shale,gray,grayish green,silty,soft to splintery

as above with Sand,vey fine grained,silty ,micaeous

ditto as above

Shale,gray,grayish green,silty

BROWN LIME 2992(-1140)

Limestone,tan,brown,slightly cherty,dense

Shale,gray,soft

LANSING 3006(-1154)

Limestone,white,cream,fine crystalline,fossiliferous,scattered pin point type porosity,golden brown stain,trace of free oil and no odor

Limestone,gray,white,finely crystalline, fossiliferous, poor visible porosity,trace light brown spotted stain,no free oil and questionable odor

Limestone,gray,fossiliferous,chalky,trace spotty stain,no show of free oil and no odor

Limestone,tan,oolitic,chalky,few cherty(dense)

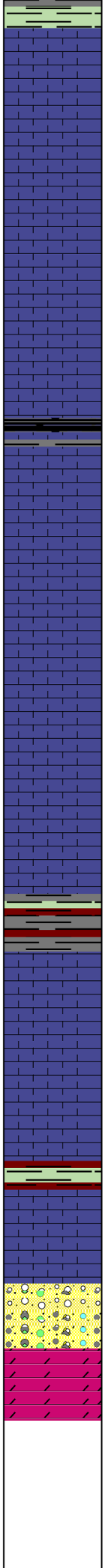
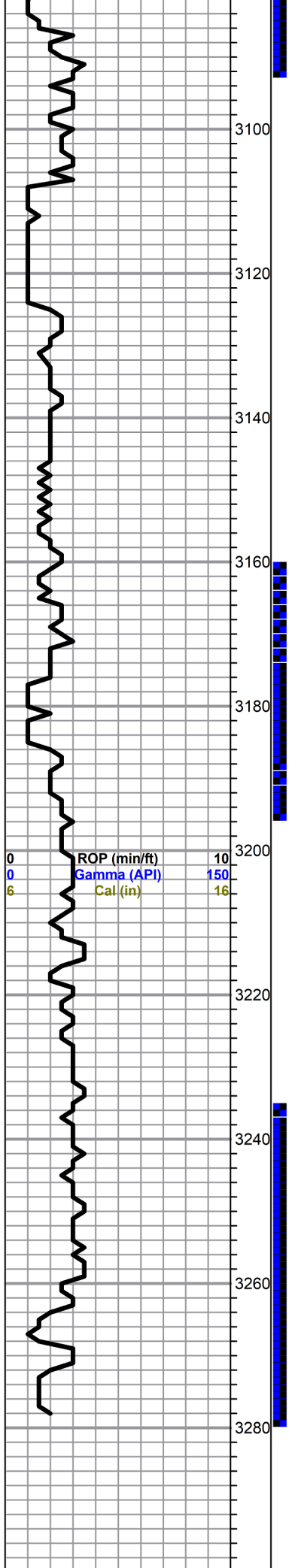
Limestone,gray,tan,highly oolitic,chalky, poor porosity

2880
2900
2920
2940
2960
2980
3000
3020
3040
3060
3080

0 ROP (min/ft) 10
0 Gamma (API) 150
6 Cal (in) 16

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100
0 C5 (units) 100

DST#1 2996-3091
45-30-45-45
Blow;Strong(bob 1 1/2 mins)
2nd opening; Strong (45 secs)
Recovery
116'Slightly gas cut mud
126'watery mud(5% water,95%mud0
Pressures



Shale,gray,green,grayish green

Limestone,gray,tan,fossiliferous,poor visible porosity,trace brown spotted stain,no free oil and questionable odor

Limestone,tan,gray,oolitic,oomoldic,fair to good oomoldic porosity,no shows

as above

Limestone,white,gray,few fossiliferous,chalky,poor porosity

Shale,black,coffee brown

Limestone,white and gray,fossiliferous,few suboomoldic,chalky,poor visible porosity

Limestone,white,tan,oolitic,poorly developed porosity,spotty brown stain,no free oil and questionable odor

Limestone,white,cream,oomoldic,fair oomoldic porosity fair brown stain and spotted saturation,show of free oil and faint odor

Limestone,white,tan,chalky ,few cherty(dense)

Shale,varied colored,soft

Limestone,gray,dark gray,slightly cherty,poor porosity

as above

BASE KANSAS CITY 3243(-1391)
Shale,gray,green,maroon

Limestone,tan,gray,fossiliferous in part,slightly cherty,dense

CONGLOMERATE 3260(-1408)
Chert,white,gray,boney

ARBUCKLE 3268(-1416)
Dolomite,cream,white and light gray,medium crystalline,good intercrystalline porosity, fair to good dark brown and light brown stain and saturation, good show of free oil and fair odor

ROTARY TOTAL DEPTH 3277(-1425)

ISIP 336psi
FSIP 349 psi
IFP 28-94psi
FFP 349psi
HSH 1443-1434psi

DST#2 3160-3195
30-30-30-30
Blow,weak(1/4 inch)
2nd Opening(no Recovery
5' mud
Pressures
ISIP 32psi
FSIP 32psi
IFP 9-11psi
FFP 11-12 psi
HSH 1530-1526 psi

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

DST#3 3234-3277
45-45-45-45
Blow,Strong(bob 1 1/2 mins)
Recovery
74' Gas in pipe
2111' Clean Oil
126' Muddy
(85%water, 15% mud)
Pressures
ISIP 1057 psi
FSIP 1064 psi
IFP 78-596 psi
FFP 599-861psi
HSH 1580-1566 psi



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 Sur
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

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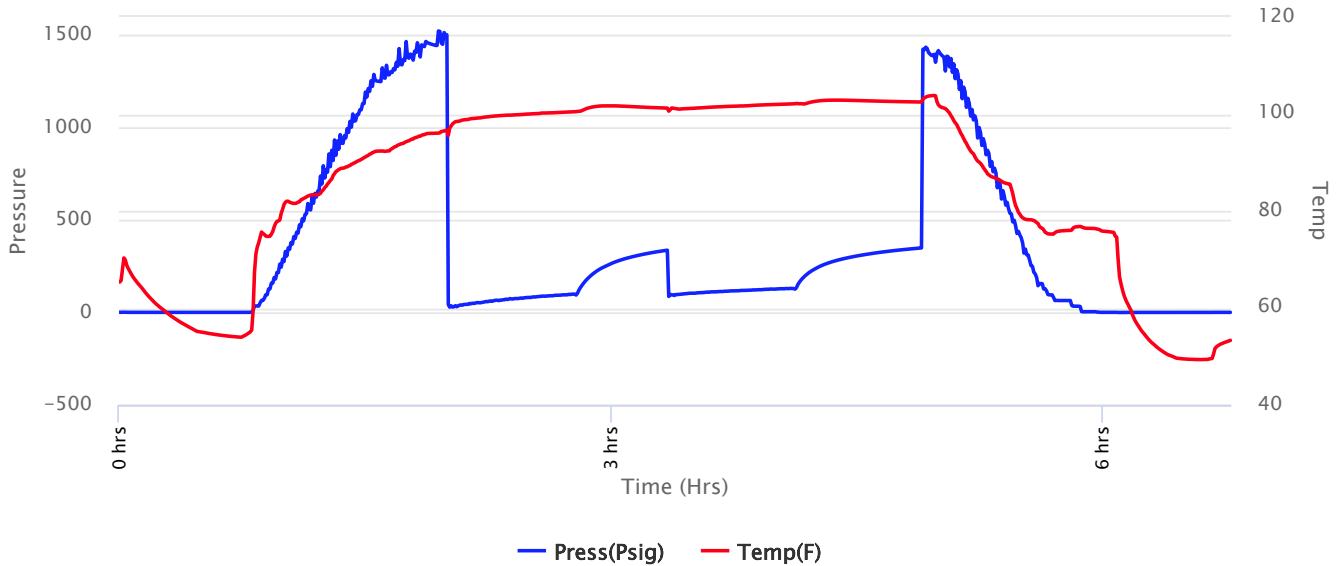
DST #1 Formation: Lans A/F Test Interval: 2996 - 3091' Total Depth: 3091'

Time On: 02:31 11/16 Time Off: 09:06 11/16
 Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Electronic Volume Estimate:
 2787'

<u>1st Open</u>	<u>1st Close</u>	<u>2nd Open</u>	<u>2nd Close</u>
Minutes: 45	Minutes: 30	Minutes: 45	Minutes: 30
Current Reading: 313" at 45 min	Current Reading: 5.3" at 30 min	Current Reading: 238" at 45 min	Current Reading: 3.9" at 30 min
Max Reading: 313"	Max Reading: 5.3"	Max Reading: 238"	Max Reading: 3.9"

Inside Recorder





Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
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DST #1 **Formation: Lans A/F** **Test Interval: 2996 - 3091'** **Total Depth: 3091'**
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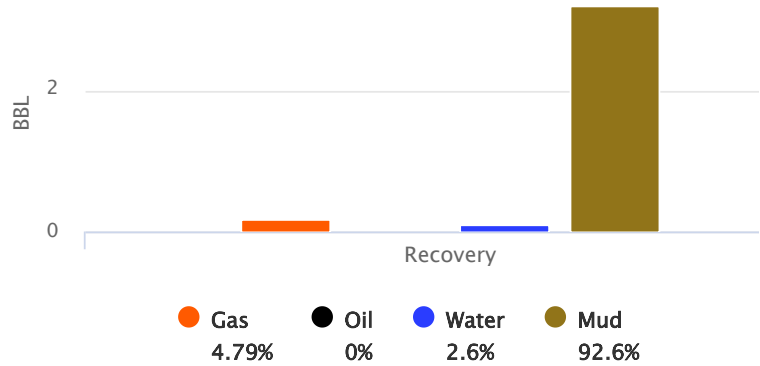
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
116	1.65068	SLGCM	10	0	0	90
126	1.79298	SLWCM	0	0	5	95

Total Recovered: 242 ft
 Total Barrels Recovered: 3.44366

Reversed Out
 NO

Initial Hydrostatic Pressure	1443	PSI
Initial Flow	28 to 94	PSI
Initial Closed in Pressure	336	PSI
Final Flow Pressure	86 to 129	PSI
Final Closed in Pressure	349	PSI
Final Hydrostatic Pressure	1434	PSI
Temperature	103	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



GIP cubic foot volume: 0.92677



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 Sur
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

DATE
November
16
2021

DST #1 Formation: Lans A/F Test Interval: 2996 - Total Depth: 3091'
3091'
Time On: 02:31 11/16 Time Off: 09:06 11/16
Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

BUCKET MEASUREMENT:

1st Open: 1" Blow. BOB in 1 1/2 minutes
1st Close: 5 1/4" Blow Back
2nd Open: 7" Blow. BOB in 45 seconds
2nd Close: 3 3/4 inch Blow Back

REMARKS:

The Gas in the pipe we could not detect it.

Tool Sample: 5% Gas 0% Oil 0% Water 95% Mud



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 Sur
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
16
 2021

DST #1 Formation: Lans A/F Test Interval: 2996 - 3091' Total Depth: 3091'
 Time On: 02:31 11/16 Time Off: 09:06 11/16
 Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Down Hole Makeup

Heads Up: 8.44 FT	Packer 1: 2991.09 FT
Drill Pipe: 2979.37 FT <i>ID-3 1/2</i>	Packer 2: 2996.09 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 2983.09 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3064 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 94.91	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 1 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 62.91 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 28 FT <i>4 1/2-FH</i>	



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 Sur
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

DATE
November
16
2021

DST #1 Formation: Lans A/F Test Interval: 2996 - Total Depth: 3091'
3091'

Time On: 02:31 11/16 Time Off: 09:06 11/16
Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Mud Properties

Mud Type: Chem **Weight:** 8.8 **Viscosity:** 60 **Filtrate:** 7.6 **Chlorides:** 4000 ppm



Company: C & K Oil Company
Lease: Riemann B #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 Sur
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
16
 2021

DST #1 Formation: Lans A/F Test Interval: 2996 - 3091' Total Depth: 3091'
 Time On: 02:31 11/16 Time Off: 09:06 11/16
 Time On Bottom: 04:28 11/16 Time Off Bottom: 07:13 11/16

Gas Volume Report

1st Open

2nd Open

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



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

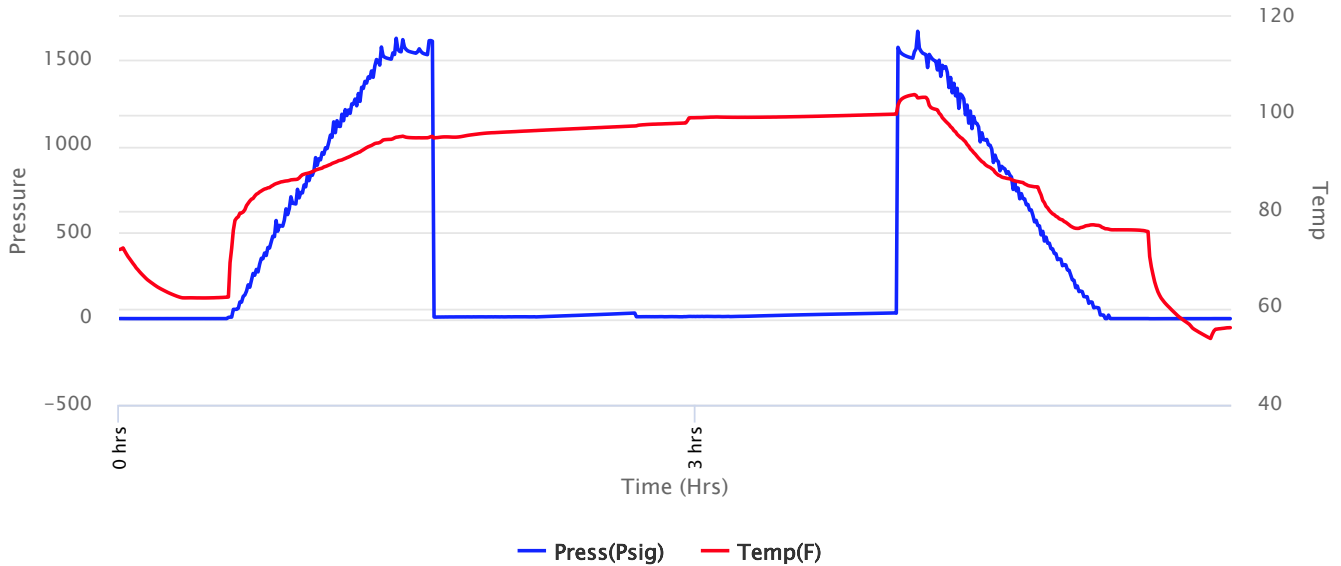
DATE
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DST #2 **Formation: Lans H-J-K** **Test Interval: 3160 - 3195'** **Total Depth: 3195'**
 Time On: 18:41 11/16 Time Off: 22:43 11/16
 Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Electronic Volume Estimate:
 2'

<u>1st Open</u>	1st Close	<u>2nd Open</u>	2nd Close
Minutes: 30	Minutes: 30	Minutes: 30	Minutes: 45
Current Reading: .25" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 30 min	Current Reading: 0" at 45 min
Max Reading: .25"	Max Reading: 0"	Max Reading: 0"	Max Reading: 0"

Inside Recorder





Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
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DST #2 **Formation: Lans H-J-K** **Test Interval: 3160 - 3195'** **Total Depth: 3195'**
 Time On: 18:41 11/16 Time Off: 22:43 11/16
 Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Recovered

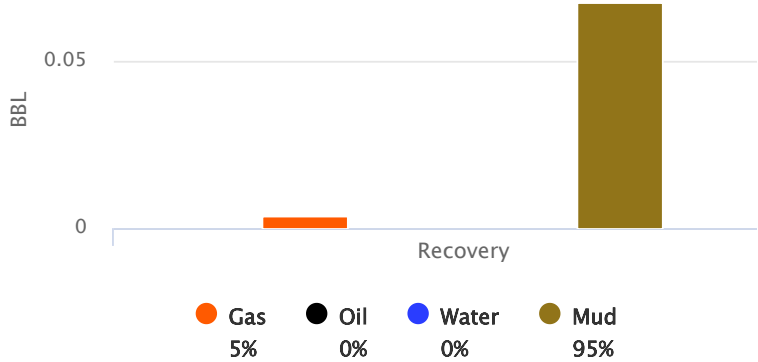
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
5	0.07115	SLGCM	5	0	0	95

Total Recovered: 5 ft
 Total Barrels Recovered: 0.07115

Reversed Out
 NO

Initial Hydrostatic Pressure	1530	PSI
Initial Flow	9 to 11	PSI
Initial Closed in Pressure	32	PSI
Final Flow Pressure	11 to 12	PSI
Final Closed in Pressure	32	PSI
Final Hydrostatic Pressure	1526	PSI
Temperature	100	°F
Pressure Change Initial Close / Final Close	2.1	%

Recovery at a glance



GIP cubic foot volume: 0.01997



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 GL
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

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DST #2 **Formation: Lans H-
J-K** **Test Interval: 3160 -
3195'** **Total Depth: 3195'**
Time On: 18:41 11/16 Time Off: 22:43 11/16
Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

BUCKET MEASUREMENT:

1st Open: WSB. Built to 1/4 inch in 30 minutes

1st Close: NOBB

2nd Open: No Blow

2nd Close: NOBB

REMARKS:

Flush Tool 15 minutes into final Flow. Good Flush

Tool Sample: 0% Gas 0% Oil 5% Water 95% Mud



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling,
 Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery &
 pressures

DATE
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 2021

DST #2 **Formation: Lans H-
J-K** **Test Interval: 3160 -
3195'** **Total Depth: 3195'**
 Time On: 18:41 11/16 Time Off: 22:43 11/16
 Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Down Hole Makeup

Heads Up: 2.25999999999999 FT	Packer 1: 3155 FT
Drill Pipe: 3137.1 FT <i>ID-3 1/2</i>	Packer 2: 3160 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3147 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3162 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 35	Surface Choke: 1"
Anchor Makeup	
Packer Sub: 1 FT	Bottom Choke: 5/8"
Perforations: (top): 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): 34 FT <i>4 1/2-FH</i>	



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 GL
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

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DST #2 **Formation: Lans H-
J-K** **Test Interval: 3160 -
3195'** **Total Depth: 3195'**

Time On: 18:41 11/16 Time Off: 22:43 11/16
Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 56 **Filtrate:** 8.8 **Chlorides:** 4500 ppm



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
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DST #2 **Formation: Lans H-J-K** **Test Interval: 3160 - 3195'** **Total Depth: 3195'**
 Time On: 18:41 11/16 Time Off: 22:43 11/16
 Time On Bottom: 18:41 11/16 Time Off Bottom: 20:56 11/16

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
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Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
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 2021

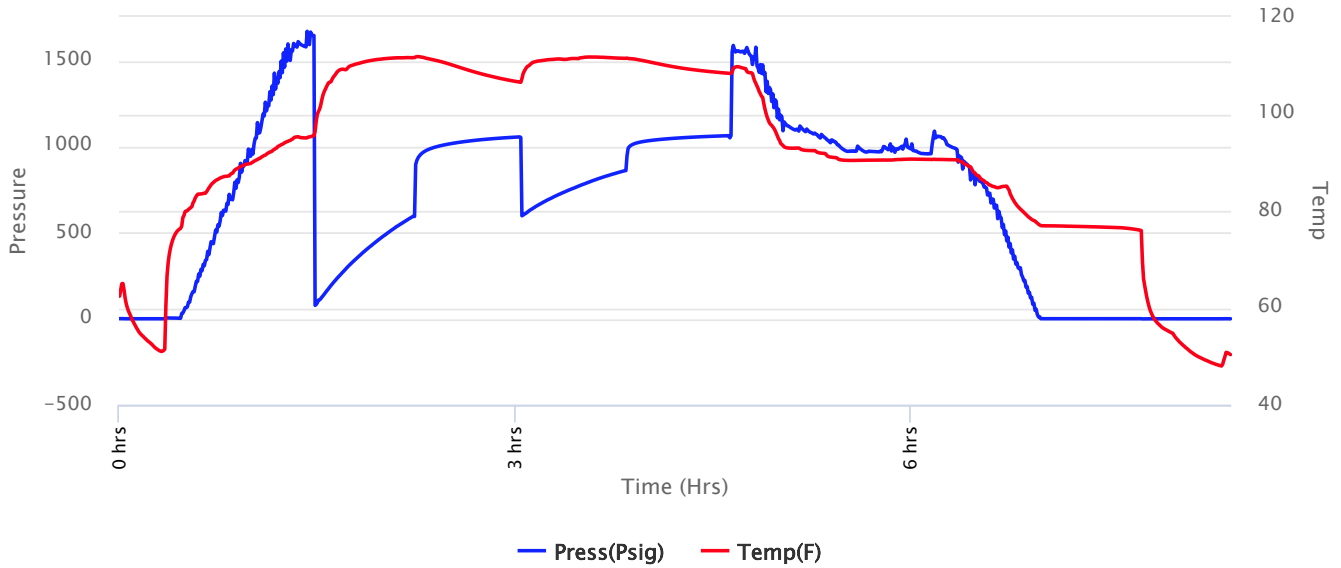
DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'

Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Electronic Volume Estimate:
 3173'

<u>1st Open</u>	1st Close	<u>2nd Open</u>	2nd Close
Minutes: 45	Minutes: 45	Minutes: 45	Minutes: 45
Current Reading: 356" at 45 min	Current Reading: 2.8" at 45 min	Current Reading: 271" at 45 min	Current Reading: 0" at 45 min
Max Reading: 356"	Max Reading: 5"	Max Reading: 271"	Max Reading: 0"

Inside Recorder





Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
17
 2021

DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'

Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Recovered

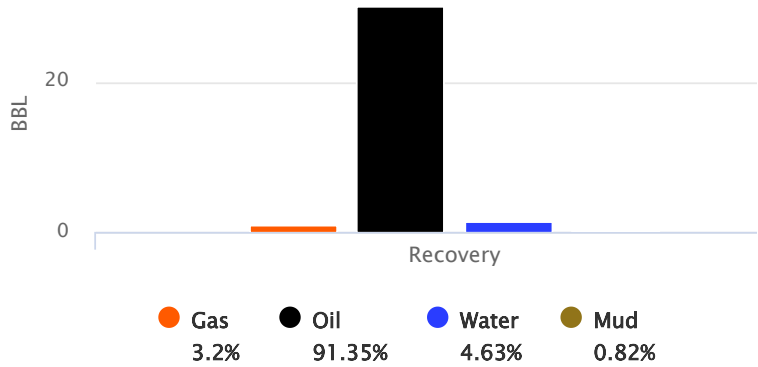
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
74	1.05302	G	100	0	0	0
2111	30.03953	O	0	100	0	0
126	1.79298	SLMCW	0	0	85	15

Total Recovered: 2311 ft
 Total Barrels Recovered: 32.88553

Reversed Out
 YES

Initial Hydrostatic Pressure	1580	PSI
Initial Flow	78 to 596	PSI
Initial Closed in Pressure	1057	PSI
Final Flow Pressure	599 to 861	PSI
Final Closed in Pressure	1064	PSI
Final Hydrostatic Pressure	1566	PSI
Temperature	112	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



GIP cubic foot volume: 5.91218



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 GL
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

DATE
November
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2021

DST #3 Formation: Arbuckle Test Interval: 3234 - Total Depth: 3277'
3277'

Time On: 09:41 11/17 Time Off: 17:53 11/17
Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

BUCKET MEASUREMENT:

1st Open: 1" Blow. BOB in 1 1/4 minutes
1st Close: 5 inch Blow Back
2nd Open: 1" Blow. BOB in 1 minute
2nd Close: NOBB

REMARKS:

Dumped 288 ft of Fluid before reversing out.

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

Gravity: 42 @ 60 °F

Ph: 7

Measured RW: 28 @ 42 degrees °F

RW at Formation Temp: 11.498 @ 112 °F

Chlorides: 140000 ppm



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
17
 2021

DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'
 Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Down Hole Makeup

Heads Up: 23.02 FT	Packer 1: 3229 FT
Drill Pipe: 3231.86 FT <i>ID-3 1/2</i>	Packer 2: 3234 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3221 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3236 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 43	Surface Choke: 1"
<u>Anchor Makeup</u>	
Packer Sub: 1 FT	Bottom Choke: 5/8"
Perforations: (top): 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): 42 FT <i>4 1/2-FH</i>	



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 1
Elevation: 1843 GL
Field Name: Kraft-Prusa
Pool: Infield
Job Number: 533
API #: 15-009-26321-00-00

Operation:
Uploading recovery &
pressures

DATE
November
17
2021

DST #3 Formation: Arbuckle Test Interval: 3234 - Total Depth: 3277'
3277'

Time On: 09:41 11/17 Time Off: 17:53 11/17
Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Mud Properties

Mud Type: Chem **Weight:** 9.2 **Viscosity:** 56 **Filtrate:** 8.8 **Chlorides:** 4500 ppm



Company: C & K Oil Company
Lease: Riemann "B" #4

SEC: 10 TWN: 17S RNG: 11W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 1
 Elevation: 1843 GL
 Field Name: Kraft-Prusa
 Pool: Infield
 Job Number: 533
 API #: 15-009-26321-00-00

Operation:
 Uploading recovery & pressures

DATE
 November
17
 2021

DST #3 Formation: Arbuckle Test Interval: 3234 - 3277' Total Depth: 3277'
 Time On: 09:41 11/17 Time Off: 17:53 11/17
 Time On Bottom: 11:08 11/17 Time Off Bottom: 14:08 11/17

Gas Volume Report

1st Open

Time	Orifice	PSI	MCF/D
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2nd Open

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

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. 2478

Date	11/13/21	Sec.	10	Twp.	17	Range	11	County	Barton	State	Kansas	On Location		Finish	1:00 AM
								Location							
								Clafin 4N to 150 1/4 E N, N10							

Lease	Riemann B	Well No.	4	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	Southwind Drilling			Charge To	C & K Oil
Type Job	Surface			Street	
Hole Size	12 1/4	T.D.	384	City	
Csg.	8 5/8	Depth	383	State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered	200% 40 4% cc 2% gel
Cement Left in Csg.	20'	Shoe Joint	20'		
Meas Line		Displace	23		

EQUIPMENT				Common	120
Pumptrk	16	No.	Cementer Helper Rick	Poz. Mix	80
Bulktrk	1	No.	Driver Jordan	Gel.	4
Bulktrk	PH	No.	Driver David	Calcium	9

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
	Ran 8 5/8 and est. circulation Cemented with 200 sks	Handling 2/3
		Mileage

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

	Pumptrk Charge	Surface
	Mileage	31

X Signature *Frank J. Rose*

THANKS

Tax	
Discount	
Total Charge	

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. 2612

Date	11-18-21	Sec.	10	Twp.	17	Range	11	County	Barton	State	Ks	On Location		Finish	5:00 AM	
Lease	Riemann							Well No.	B #4		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	Southwind #1							The above was done to satisfaction and supervision of owner agent or contractor.								
Type Job	Longstring							Charge To	C+K oil							
Hole Size	7 7/8"		T.D.	3277'		Depth	3271.63'									
Csg.	5 1/2"		Depth													
Tbg. Size			Depth													
Tool			Depth													
Cement Left in Csg.	20'		Shoe Joint	20'		Cement Amount Ordered	180 Com 10% Salt 5%									
Meas Line			Displace	77 1/2 BW		Gilsonite	500 gal mud Clear									
EQUIPMENT																
Pumptrk	16	No.	Cementer Helper		David		Common 180									
Bulktrk	9	No.	Driver		Jordan		Poz. Mix									
Bulktrk	p.u.	No.	Driver		Rick		Gel.									
JOB SERVICES & REMARKS																
Remarks:	Hulls															
Rat Hole	30 5x		Salt 15													
Mouse Hole	15 5x		Flowseal													
Centralizers	1-9		Kol-Seal 800 #													
Baskets	2+6		Mud CLR 48 500 gal													
D/V or Port Collar	CFL-117 or CD110 CAF 38															
Pipe on bottom, break																
Circulation, pump 500 gal mud Clear, plug Rat + Mouse holes. Hook to 5 1/2" casing + mix 135 5x Cement. Shut down wash pump + lines																
Released plug + Displaced w/ 77 1/2 BW of H2O. Released + held.																
FLOAT EQUIPMENT																
Guide Shoe																
Centralizer 9 turbos																
Baskets 2																
AFU Inserts																
Float Shoe 1																
Latch Down 1																
Rotating head																
Pumptrk Charge proel string																
Mileage 31																
Thanks																
Signature: <i>Frank Paul</i>																
Tax																
Discount																
Total Charge																