



DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
KRKR1DST4

Company Richlan Drilling Lease & Well No. Kroeker No. 1
Elevation 2031 EGL Formation Arbuckle Effective Pay Ft. Ticket No. M747
Date 1-21-15 Sec. 30 Twp. 20S Range 15W County Barton State Kansas
Test Approved By Robert A. (Bob) Schreiber Diamond Representative Mike Cochran

Formation Test No. 4 Interval Tested from 3,817 ft. to 3,828 ft. Total Depth 3,828 ft.
Packer Depth 3,812 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3,817 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set ft.

Top Recorder Depth (Inside) 3,804 ft. Recorder Number 0063 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 3,819 ft. Recorder Number 5448 Cap. 5,000 psi.
Below Straddle Recorder Depth ft. Recorder Number Cap. psi.

Drilling Contractor Southwind Drilling, Inc. - Rig 3 Drill Collar Length ft I.D. in.
Mud Type Chemical Viscosity 47 Weight Pipe Length ft I.D. in.
Weight 9.2 Water Loss 10.0 cc. Drill Pipe Length 3,790 ft I.D. 3 1/2 in.
Chlorides 7,000 P.P.M. Test Tool Length 27 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 11 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong blow increasing. Off bottom of bucket immediately. Gas to surface. Gas burned nicely. Bottom of bucket blow back during shut-in.
2nd Open: Strong blow increasing. Off bottom of bucket in 30 secs. Gas gauged at 2.74 MCF/D. Weak blow back during shut-in. (SEE GAS VOLUME REPORT)

Recovered 205 ft. of oil specked, gas cut muddy water = 2.917150 bbls. (Grind out: 12%-gas; 5%-oil; 43%-water; 40%-mud)

Recovered 1,770 ft. of gas cut water = 25.187100 bbls. (Grind out: 4%-gas; 96%-water)

Recovered 1,975 ft. of TOTAL FLUID = 28.104250 bbls.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks Tool Sample Grind Out: 100%-water w/a thin scum of oil (Chlorides: 30,000 Ppm PH: 7.0 RW: .28 @ 70°)

Time Set Packer(s) <u>6:25 P.M.</u>	Time Started off Bottom <u>8:30 P.M.</u>	Maximum Temperature <u>119°</u>
Initial Hydrostatic Pressure.....(A) <u>1870</u> P.S.I.		
Initial Flow Period.....Minutes <u>20</u> (B) <u>163</u> P.S.I.	to (C) <u>497</u> P.S.I.	
Initial Closed In Period.....Minutes <u>30</u> (D) <u>1209</u> P.S.I.		
Final Flow Period.....Minutes <u>30</u> (E) <u>523</u> P.S.I.	to (F) <u>875</u> P.S.I.	
Final Closed In Period.....Minutes <u>45</u> (G) <u>1213</u> P.S.I.		
Final Hydrostatic Pressure.....(H) <u>1798</u> P.S.I.		

DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RICHLAN DRILLING, A GENERAL PARTNERSHIP	Job Number	M747
Well Name	KROEKER #1	Representative	MIKE COCHRAN
Unique Well ID	DST #4 ARBUCKLE 3817-3828	Well Operator	RICHLAN DRILLING, A GENERAL PARTNERSHIP
Surface Location	SEC 30-20S-15W BARTON CO. KS.	Report Date	2015/01/21
Field	ASH CREEK	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	BOB SCHREIBER
		Test Unit	NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST #4 ARBUCKLE 3817-3828		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2015/01/21	Start Test Time	16:40:00
Final Test Date	2015/01/21	Final Test Time	23:00:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:

205' OSGCMW 12% GAS, 5% OIL, 43% WTR, 40% MUD
1770' GCW 4% GAS, 96% WTR
1975' TOTAL FLUID

CHLOR: 30,000 PPM
PH: 7.0
RW: .28 @ 70 DEG

TOOL SAMPLE: ~100% WTR W/ A THIN SCUM OF OIL



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Company Richlan Drilling Lease & Well No. Kroeker No. 1
 Date 1-21-15 Sec 30 Twp 20 S Rge 15 W Location 1780' FSL & 1240' FWL, SEC County Barton State Kansas
 Drilling Contractor Southwind Drilling, Inc. - Rig 3 Formation Arbuckle DST No. 4
 Remarks: 1st Open: Gas to surface. Gas burned nicely.

INITIAL FLOW

Time O' Clock	Orifice Size	Gauge	MCF/D

Open Tool: 7:15 p.m. **FINAL FLOW**

Time O' Clock	Orifice Size	Gauge	MCF/D
7:20 p.m.	1/8 in.	5 in.	1.18
7:25 p.m.	1/8 in.	11 in.	1.75
7:30 p.m.	1/8 in.	21 in.	2.42
7:35 p.m.	1/8 in.	23 in.	2.54
7:40 p.m.	1/8 in.	25 in.	2.64
* 7:45 p.m.	1/8 in.	27 in.	2.74

*

* Sample Taken.

RICHLAN DRILLING, A GENERAL PARTNERSHIP
DST #4 ARBUCKLE 3817-3828
Start Test Date: 2015/01/21
Final Test Date: 2015/01/21

KROEKER #1
Formation: DST #4 ARBUCKLE 3817-3828
Pool: WILDCAT
Job Number: M747

KROEKER #1

