KOLAR Document ID: 1377525

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

Name:	
Feet from North / South Li	
City: State: Zip:	∃ast
Contact Person:	ne of Section
Phone: () NE NW SE SW CONTRACTOR: License #	ne of Section
CONTRACTOR: License #	
Name:	
Name:	
Wellsite Geologist:	xxx.xxxxx)
Purchaser:	
Designate Type of Completion:	_
New Well Re-Entry Workover Field Name:	
Producing Formation:	
Gas DH EOR	
OG GSW Total Vertical Depth: Plug Back Total Depth:	
CM (Coal Bed Methane) Amount of Surface Pipe Set and Cemented at:	Feet
☐ Cathodic ☐ Other (Core, Expl., etc.): Multiple Stage Cementing Collar Used? ☐ Yes ☐ No	
If Workover/Re-entry: Old Well Info as follows:	Feet
Operator: If Alternate II completion, cement circulated from:	
Well Name: feet depth to:w/	sx cmt.
Original Comp. Date: Original Total Depth:	
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD ☐ Drilling Fluid Management Plan	
Plug Back Liner Conv. to GSW Conv. to Producer (Data must be collected from the Reserve Pit)	
Chloride content:ppm Fluid volume:	bbls
Commingled Permit #: Dewatering method used:	
SWD Permit #: Location of fluid disposal if hauled offsite:	
EOR Permit #:	
GSW Permit #: Operator Name:	
Lease Name: License #:	
Spud Date or Date Reached TD Completion Date or Quarter Sec. Twp. S. R	East West
Recompletion Date Recompletion Date Countv: 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:

KOLAR Document ID: 1377525

Page Two

Operator Name: _				Lease Name:			Well #:		
Sec Twp.	S. R.	E	ast West	County:					
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,	
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log	
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample	
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum	
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No						
		B	CASING eport all strings set-c		New Used	ion, etc.			
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD				
Purpose:		epth T Bottom	ype of Cement	# Sacks Used	ed Type and Percent Additives				
Perforate Protect Casi Plug Back T									
Plug Off Zor									
Did you perform a Does the volume Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,	
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)			
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity	
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom	
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT	
,	,			B.11 B1					
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record	
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:					
TODING RECORD:	. 3126.	Set	n.	i donei Al.					

Form	ACO1 - Well Completion
Operator	RJM Company
Well Name	RIEDL 4
Doc ID	1377525

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	20	558	Common		60/40 4%cc 2%gel
Production	7.875	5.50	15.50	3528	Common	180	10%salt 5%gilsonit e



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 19 2017 DST #1 Formation: Lans "A- Test Interval: 3216 - Total Depth: 3274'

Time On: 07:38 11/19 Time Off: 13:59 11/19

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19





Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE
November
19
2017

DST #1 Formation: Lans "A- Test Interval: 3216 - Total Depth: 3274'

Time On: 07:38 11/19 Time Off: 13:59 11/19

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19

Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	Gas %	<u>Oil %</u>	Water %	<u>Mud %</u>
63	0.89649	G	100	0	0	0
10	0.1423	SLWCOCM	0	20	5	75
126	1.79298	SLGCSLOCSLWCM	3	5	15	77

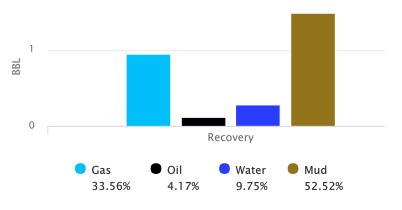
Total Recovered: 199 ft

Total Barrels Recovered: 2.83177

Reversed Out
NO

		NO
Initial Hydrostatic Pressure	1546	PSI
Initial Flow	11 to 45	PSI
Initial Closed in Pressure	544	PSI
Final Flow Pressure	47 to 71	PSI
Final Closed in Pressure	536	PSI
Final Hydrostatic Pressure	1547	PSI
Temperature	96	°F
Pressure Change Initial	1.5	%
Close / Final Close		

Recovery at a glance





Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November

19 2017

DST #1 Formation: Lans "A- Test Interval: 3216 - Total Depth: 3274'

Time On: 07:38 11/19 Time Off: 13:59 11/19

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19

REMARKS:

Initial Flow: 1/2 in. blow. BOB in 36 mins.

Initial Shut-in: 3 3/4 in. blow back.

Final Flow: Weak, surface blow. BOB in 26 mins.

Final Shut-in: 1 in. blow back.

Diesel in bucket.

Tool Sample: 3% oil, 77% water, 20% mud

RW: .19 @ 54 degrees F

Chlorides: 50,000 ppm



Inc

Lease: Riedl #4

DST #1

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

5/8"

DATE
November
19

2017

Formation: Lans "A- Test Interval: 3216 - Total Depth: 3274'

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19

Down Hole Makeup

Heads Up: 11.67 FT **Packer 1:** 3211.16 FT

Drill Pipe: 3202.67 FT **Packer 2:** 3216.16 FT

ID-3 1/2 **Top Recorder:** 3203.16 FT

Weight Pipe: 0 FT Bottom Recorder: 3254 FT

ID-2 7/8

Collars: 0 FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

Test Tool: 26.16 FT **Bottom Choke:** *ID-3 1/2-FH*

Total Anchor: 57.84

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: .5 FT

Drill Pipe: (in anchor): 31.34 FT

ID-3 1/2

Change Over: 1 FT

Perforations: (below): 21 FT

4 1/2-FH



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November

19 2017

DST #1 Formation: Lans "A- Test Interval: 3216 - Total Depth: 3274'

Time On: 07:38 11/19 Time Off: 13:59 11/19

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19

Mud Properties

Mud Type: Chemical Weight: 9.2 Viscosity: 58 Filtrate: 9.0 Chlorides: 8,000 ppm



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

Total Depth: 3274'

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 19 2017

DST #1 Formation: Lans "A-Test Interval: 3216 -

3274'

Time Off: 13:59 11/19 Time On: 07:38 11/19

Time On Bottom: 09:20 11/19 Time Off Bottom: 12:20 11/19

Gas Volume Report

1st Open 2nd Open

Time Orifice PSI MCF/D	Time	Orifice	PSI	MCF/D
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Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 19 2017 DST #2 Formation: Lans "G" Test Interval: 3281 - Total Depth: 3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

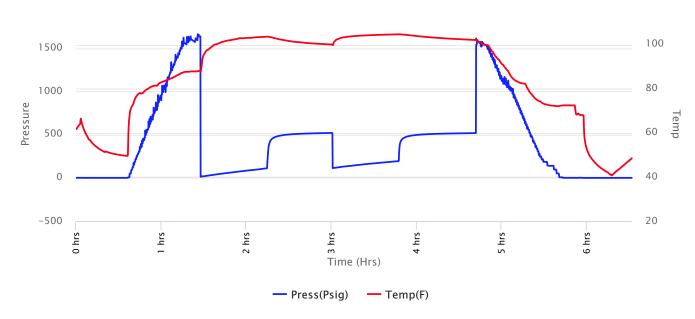








2nd Close Minutes: 6.9 45" at 6.9 min





Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE
November
19
2017

DST #2 Formation: Lans "G" Test Interval: 3281 - Total Depth: 3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	<u>Gas %</u>	<u>Oil %</u>	Water %	<u>Mud %</u>
2	0.02846	0	0	100	0	0
386	5.49278	SLMCW	0	0	84	16

Total Recovered: 388 ft

Total Barrels Recovered: 5.52124

Reversed Out
NO

Recovery Gas Oil Water Mud

83.57%

15.92%

Recovery at a glance

0.52%

0%

Initial Hydrostatic Pressure	1571	PSI
Initial Flow	14 to 112	PSI
Initial Closed in Pressure	519	PSI
Final Flow Pressure	114 to 194	PSI
Final Closed in Pressure	518	PSI
Final Hydrostatic Pressure	1573	PSI
Temperature	105	°F
Pressure Change Initial	0.2	%
Close / Final Close		



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 19

2017

DST #2 Formation: Lans "G" Test Interval: 3281 -

Total Depth: 3299'

3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

REMARKS:

Initial Flow: 1/2 in. blow. BOB in 15 mins.

Initial Shut-in: 4 1/2 in. blow back.

Final Flow: Weak, surface blow. BOB in 20 mins.

Final Shut-in: 6 3/4 in. blow back.

Diesel in bucket.

Tool Sample: 20% gas, 10% oil, 50% water, 20% mud

Ph: 7

RW: .2 @ 43 degrees F

Chlorides: 70,000 ppm



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

1"

Surface Choke:

DATE November 19

2017

DST #2 Formation: Lans "G" Test Interval: 3281 - Total Depth: 3299'

3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

Down Hole Makeup

Heads Up: 9.17 FT Packer 1: 3276 FT

Drill Pipe: 3265.01 FT **Packer 2:** 3281 FT

ID-3 1/2 Top Recorder: 3268 FT

Weight Pipe: 0 FT Bottom Recorder: 3286 FT

ID-2 7/8 Well Bore Size: 7 7/8

Collars: 0 FT Well Bore Size: 7 7/8

Test Tool: 26.16 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Total Anchor: 18

ID-2 1/4

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: 0 FT

Drill Pipe: (in anchor): 0 FT

ID-3 1/2

Change Over: 0 FT

Perforations: (below): 14 FT

4 1/2-FH



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

Total Depth: 3299'

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November

19 2017 DST #2 Formation: Lans "G" Test Interval: 3281 -

3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

Mud Properties

Mud Type: Chemical Weight: 9.2 Viscosity: 58 Filtrate: 9.2 Chlorides: 8,000 ppm



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 19

2017

Formation: Lans "G" **DST #2** Test Interval: 3281 - Total Depth: 3299'

3299'

Time On: 20:27 11/19 Time Off: 02:47 11/20

Time On Bottom: 21:52 11/19 Time Off Bottom: 12:52 11/20

Gas Volume Report

1st Open 2nd Open

Time Orifice PSI MCF/D	Time	Orifice	PSI MCF/D
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Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 20 2017 DST #3 Formation: Lans "H- Test Interval: 3349 - Total Depth: 3410'

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20





Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3

Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE
November
20
2017

DST #3 Formation: Lans "H- Test Interval: 3349 - Total Depth: 3410'

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20

Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid	Gas %	<u>Oil %</u>	Water %	Mud %
273	3.88479	G	100	0	0	0
42	0.59766	SLGCOCM	15	25	0	60

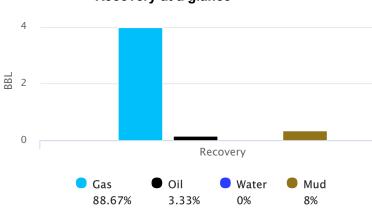
Total Recovered: 315 ft

Total Barrels Recovered: 4.48245

	Reversed Out
ı	NO

Initial Hydrostatic Pressure	1621	PSI
Initial Flow	11 to 18	PSI
Initial Closed in Pressure	553	PSI
Final Flow Pressure	21 to 26	PSI
Final Closed in Pressure	648	PSI
Final Hydrostatic Pressure	1630	PSI
Temperature	96	°F
Pressure Change Initial	0.0	%
Close / Final Close		

Recovery at a glance





Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November

20 2017

DST #3 Formation: Lans "H- Test Interval: 3349 - Total Depth: 3410'

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20

REMARKS:

Initial Flow: 1/4 in. blow. BOB in 44 mins.

Initial Shut-in: 1 in. blow back.

Final Flow: 4 1/2 in blow. BOB in 15 1/2 mins.

Final Shut-in: No blow back.

Diesel in bucket.

Tool Sample: 15% gas, 38% oil, 47% mud



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

3387 FT

DATE November 20

2017

DST #3 Formation: Lans "H-Test Interval: 3349 -Total Depth: 3410'

3410'

Bottom Recorder:

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20

Down Hole Makeup

Heads Up: 35.82 FT Packer 1: 3343.8 FT

Drill Pipe: 3359.46 FT Packer 2: 3348.8 FT

ID-3 1/2 Top Recorder: 3335.8 FT

Weight Pipe: 0 FT

ID-2 7/8 Well Bore Size: 7 7/8

Collars: 0 FT **Surface Choke:** 1" ID-2 1/4

Test Tool: 26.16 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

Total Anchor: 61.2

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor): 31.20 FT

ID-3 1/2

Change Over: 1FT

Perforations: (below): 24 FT

4 1/2-FH



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE November 20

2017

DST #3 Formation: Lans "H-

Test Interval: 3349 -

Total Depth: 3410'

3410'

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20

Mud Properties

Mud Type: Chemical Weight: 9.2 Viscosity: 59 Filtrate: 8 Chlorides: 8,000 ppm



Inc

Lease: Riedl #4

SEC: 10 TWN: 17S RNG: 14W

Total Depth: 3410'

County: BARTON State: Kansas

Drilling Contractor: Southwind Drilling,

Inc - Rig 3 Elevation: 1977 GL Field Name: Larkin Pool: Infield Job Number: 81

DATE
November
20
2017

DST #3 Formation: Lans "H- Test Interval: 3349 -

3410'

Time On: 12:14 11/20 Time Off: 18:38 11/20

Time On Bottom: 13:45 11/20 Time Off Bottom: 17:00 11/20

Gas Volume Report

1st Open 2nd Open

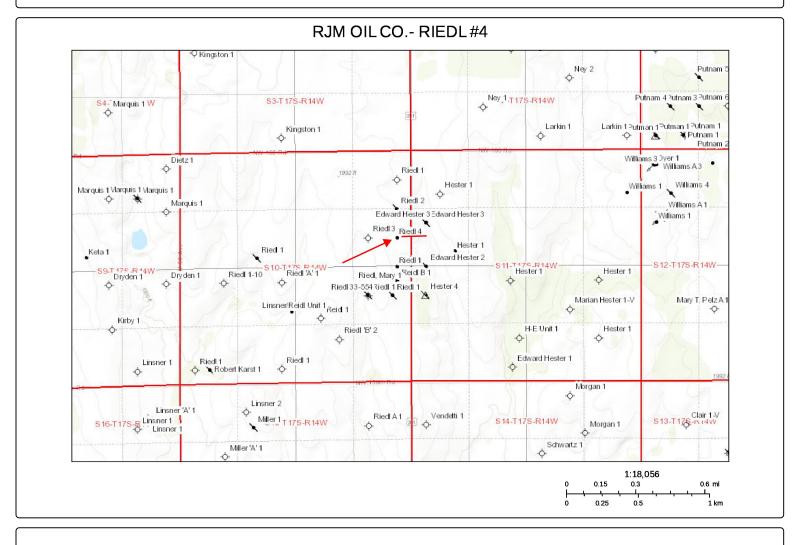
Time Orifice PSI MCF/D Time Orifice PSI MCF/D



GEOLOGIST'S REPORT

8	DRILLING TIME	AND SAMPLE	LUG		
COMPANY RJM COMP	. [ELEVATI	ONS		
LEASE RIEDL #4	VD 109	26'			
FIELD LARKIN					
LOCATION E2-SE-NE					
SEC10TWS				6	A A
COUNTY_BARTON					Are All
CONTRACTOR Southw	ind Drilling, Inc. (F	Rig #3)		CASIN	G @ 558'
SPUD 11/15/2017	COMP 11/21/201	7			<u>@ 3528'</u>
RTD3550'	LTD <u>3552'</u>				SURVEYS
MUD UP 2595' TYPE MUD Chemical				r Energy EL, DCP	Serv. D, BHCS
SAMPLES SAVED FRO	,				
DRILLING TIME KER					
SAMPLES EXAMINED					
GEOLOGICAL SUPERV					
GEOLOGIST ON WELL					
FORMATION TOPS	LOG	SAMPLES			
ANHYDRITE	952 (+1034)				
B. ANHYDRITE	979 (+1007)				
HEEBNER	3135 (-1145)	3135 (-1149)			
TORONTO	3149 (-1163)	3151 (-1165)			
DOUGLAS BROWN LIME	3160 (-1174) 3204 (-1218)	3162 (-1176) 3203 (-1217)		10-	
LANSING	3213 (-1227)	3213 (-1227)			
PACE VC	2427 (1441)	2422 (1427)			

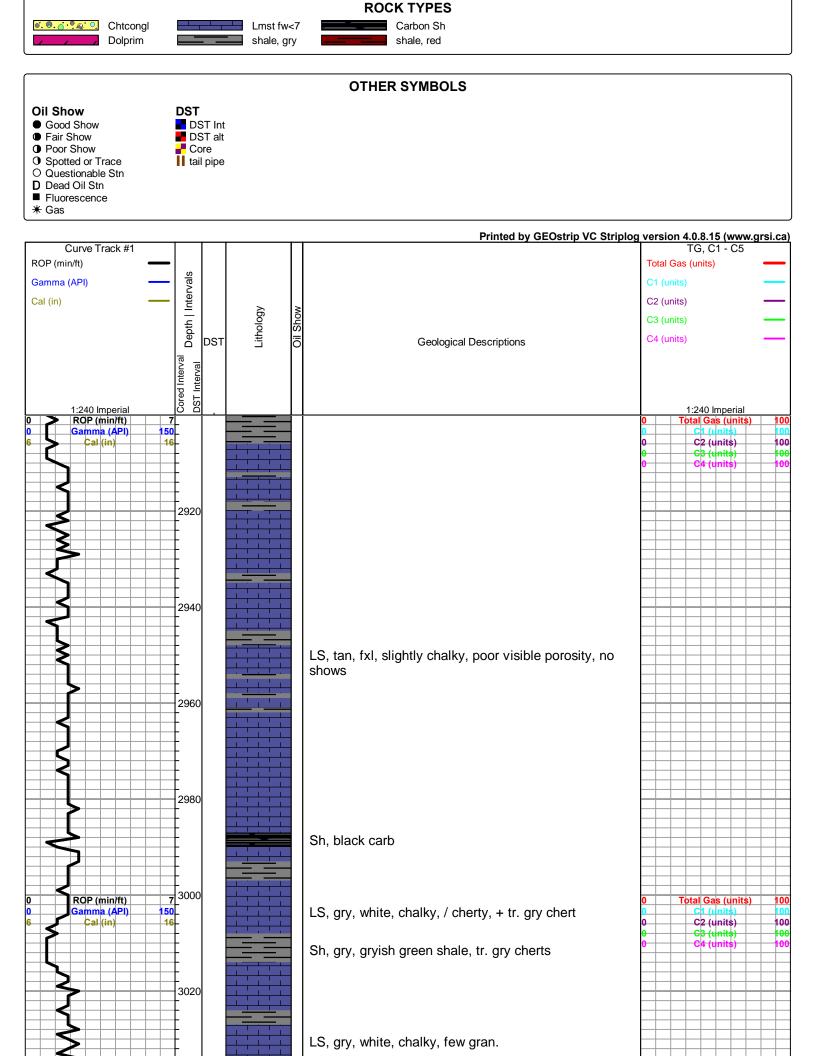
DASE NO	3427 (-1441)	3423 (-1437)	_
CONGLOMERATE	3432 (-1446)	3428 (-1442)	_ '
ARBUCKLE	3489 (-1503)	3488 (-1502)	
RTD	3552 (-1566)	-3550 (-1564)	

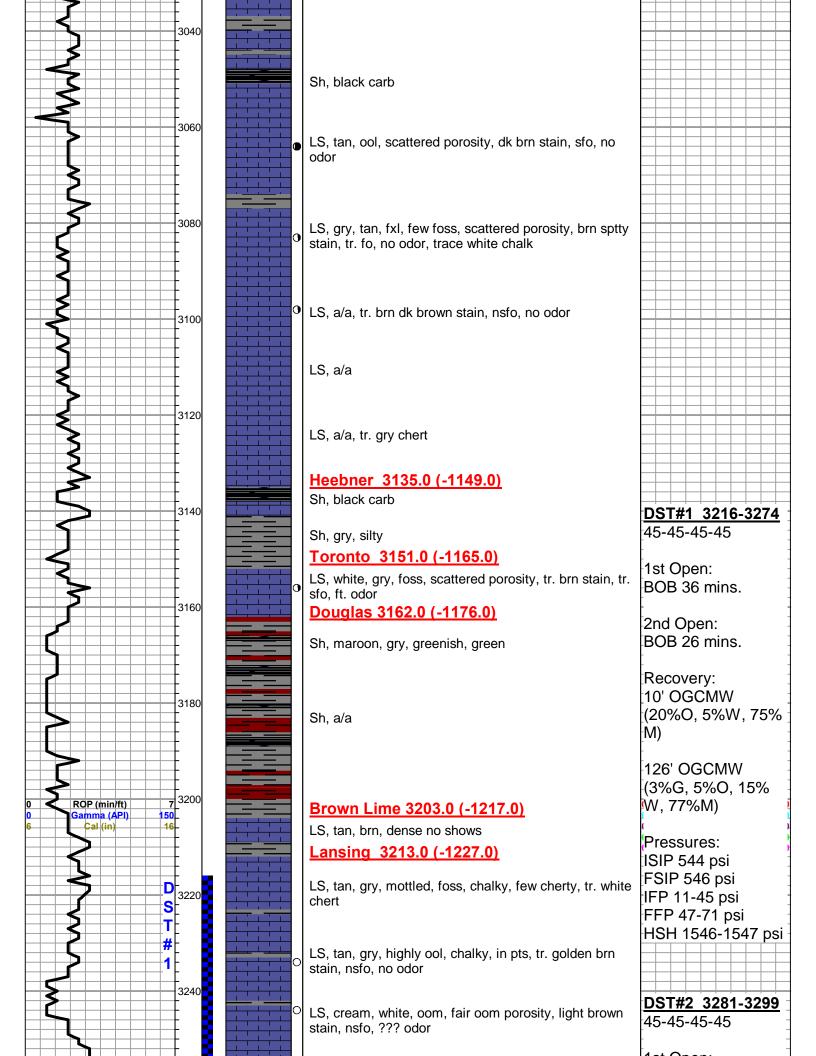


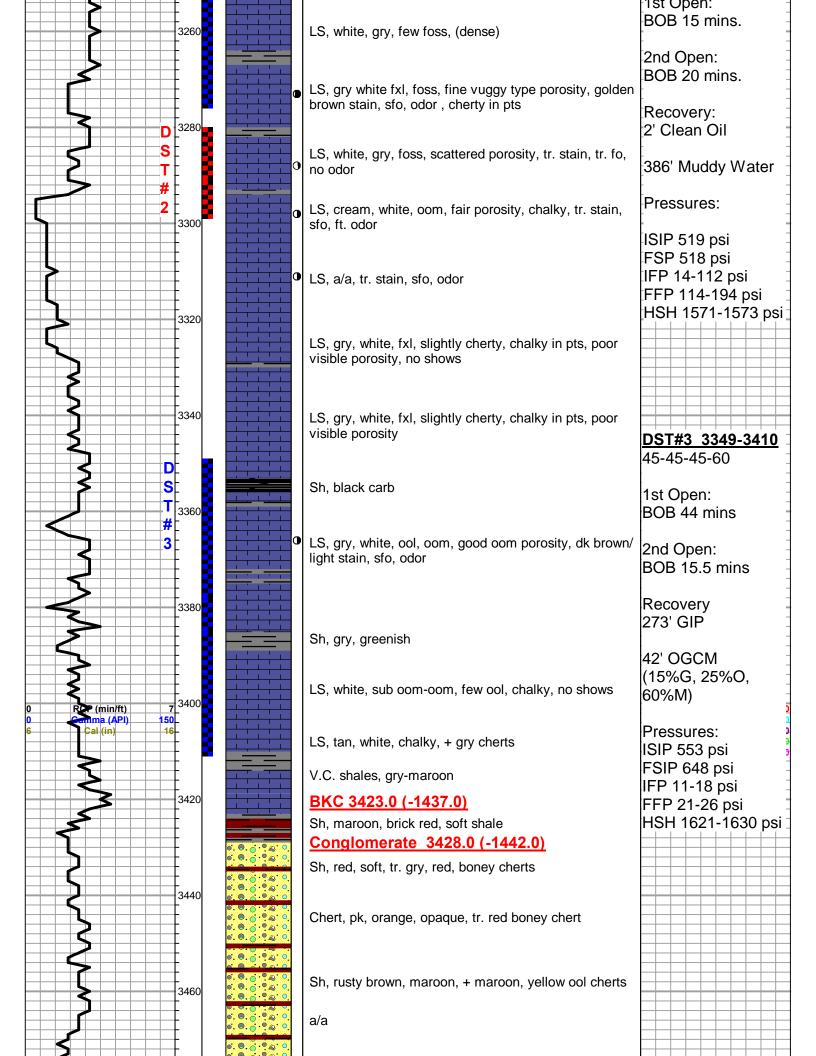
RJM Oil Company, Inc.

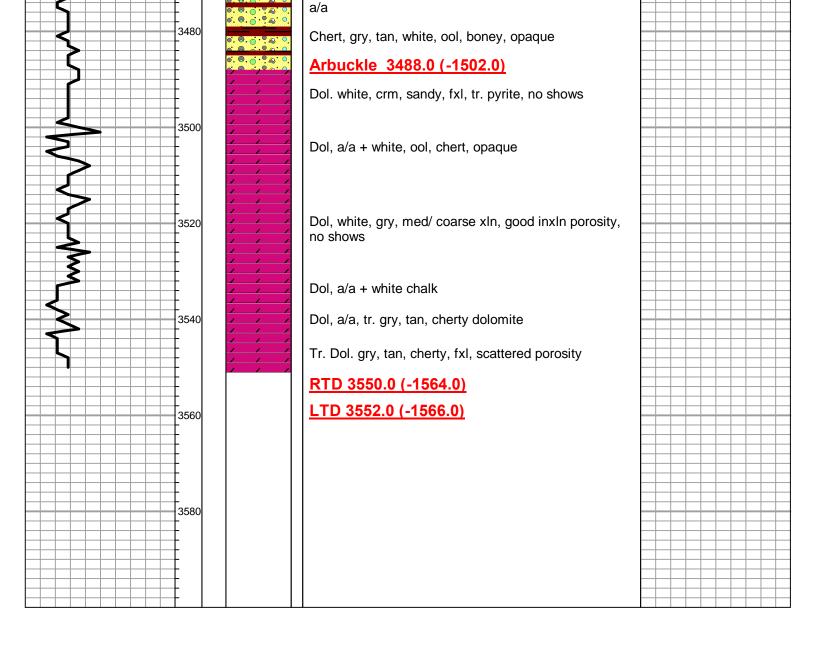
	DRILLING WELL				COMPARISON WELL			COMPARISON WELL				
	RJM OIL CO- RIEDL #4			ANSCHUTZ DRLG- RIEDL #1			ANSCHUTZ DRLG- RIEDL #3			#3		
	E/2-SE-NE					E2-E2-E2			W2-SE-NE			
		10-17S-14	W			10-17S-14	1W		V	10-17s-1	1W	
	oil				oil		Struct	ural	dry hole		Struct	ural
	1986	KB			1985	KB	Relatio	nship	1987	KB	Relatio	nship
Formation	Log	Sub-Sea	Sample	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Anhydrite	952	1034			950	1035	1					
B. Anhydrite	979	1007										
Heebner	3135	-1149	3135	-1149	3131	-1146	3	-3	3138	-1151	2	2
Toronto	3149	-1163	3151	-1165					3150	-1163	0	-2
Douglas	3160	-1174	3162	-1176					3163	-1176	2	0
Brown Lime	3204	-1218	3203	-1217	3202	-1217	-1	0	3209	-1222	4	5
Lansing	3213	-1227	3213	-1227	3212	-1227	0	0	3217	-1230	3	3
BKC	3427	-1441	3423	-1437								
Conglomerate	3432	-1446	3428	-1442	3435	-1450	4	8				
Arbuckle	3489	-1503	3488	-1502	3459	-1474	-29	-28	3487	-1500	-3	-2
RTD	3550	-1564	3550	-1564	3480	-1495	-69	-69	3494	-1507	-57	-57
LTD	3552	-1566	3552	-1566								

DRILLSTEM TESTS					
No	Interval	Formation			
1	3216 -3274	Lansing A-F			
2	3281-3299	Lansing G			
3	3349-3410	Lansing H-J			









QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Cell 785-324-1041

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665

No. 603

Date 11-21-17 Sec. 10	Twp. F	Range	County	State	On Location	Finish 30pm
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Contractor Southward 73	enteact false,	o lagot mum		well Cementing, Inc		nt and furnish
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GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

- TERMS: Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwith-standing the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.
- ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover_all expenses, including, but not limit to, a reasonable sum as and attorney's fees.
- PRICES AND TAXES: All merchandise listed in "QUALITY'S" current price shall schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.
- TOWING CHARGES: QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.
- PREPARATION CHARGES: If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.
- DEADHAUL, CHARGES: Unless otherwise specified on the front of this Contract, a deadhaul charges as set forth in QUALITY'S
 current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.
- SERVICE CONDITIONS AND LIABILITIES: 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:
- (A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:
- (B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.
- 2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.
- QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.
- WARRANTIES: 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation
 under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE-WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE,
 EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR
 FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall
 be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential,
 special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.
 - 2. More specifically:
- (A) Nothing in this contract shall be constructed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.
- (B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

LWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107 No. 450 Home Office P.O. Box 32 Russell, KS 67665 Phone 785-483-2025 Cell 785-324-1041 Finish County State On Location Sec. Twp. Range Bacton 2:00 AM 10 17 14

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Lease Kied	Well No. # 4	Owner WI5	giteris, manteco
Contractor Southwird	. A 3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment an	nd furnish
Type Job Surface		cementer and helper to assist owner or contractor to do w	ork as listed.
Hole Size 121/411	T.D. 5581	Charge RJM Company	Almari Un
Csg. 85/811	Depth 5581	Street	fice share on
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