



APPLICATION FOR COMMINGLING OF PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a) *Commingling ID # _____*

OPERATOR: License # _____ API No. 15 - _____
Name: _____ Spot Description: _____
Address 1: _____ - - - - - Sec. _____ Twp. _____ S. R. _____ East West
Address 2: _____ Feet from North / South Line of Section
City: _____ State: _____ Zip: _____ + _____ Feet from East / West Line of Section
Contact Person: _____ County: _____
Phone: (_____) _____ Lease Name: _____ Well #: _____

1. Name and upper and lower limit of each production interval to be commingled:
Formation: _____ (Perfs): _____
Formation: _____ (Perfs): _____
Formation: _____ (Perfs): _____
Formation: _____ (Perfs): _____
Formation: _____ (Perfs): _____

2. Estimated amount of fluid production to be commingled from each interval:
Formation: _____ BOPD: _____ MCFPD: _____ BWPD: _____
Formation: _____ BOPD: _____ MCFPD: _____ BWPD: _____
Formation: _____ BOPD: _____ MCFPD: _____ BWPD: _____
Formation: _____ BOPD: _____ MCFPD: _____ BWPD: _____
Formation: _____ BOPD: _____ MCFPD: _____ BWPD: _____

3. Plat map showing the location of the subject well, all other wells on the subject lease, and all wells on offsetting leases within a 1/2 mile radius of the subject well, and for each well the names and addresses of the lessee of record or operator.

4. Signed certificate showing service of the application and affidavit of publication as required in K.A.R. 82-3-135a.

For Commingling of PRODUCTION ONLY, include the following:

- 5. Wireline log of subject well. Previously Filed with ACO-1: Yes No
- 6. Complete Form ACO-1 (*Well Completion form*) for the subject well.

For Commingling of FLUIDS ONLY, include the following:

- 7. Well construction diagram of subject well.
- 8. Any available water chemistry data demonstrating the compatibility of the fluids to be commingled.

AFFIDAVIT: I am the affiant and hereby certify that to the best of my current information, knowledge and personal belief, this request for commingling is true and proper and I have no information or knowledge, which is inconsistent with the information supplied in this application.

Submitted Electronically

KCC Office Use Only
 Denied Approved
15-Day Periods Ends: _____
Approved By: _____ Date: _____

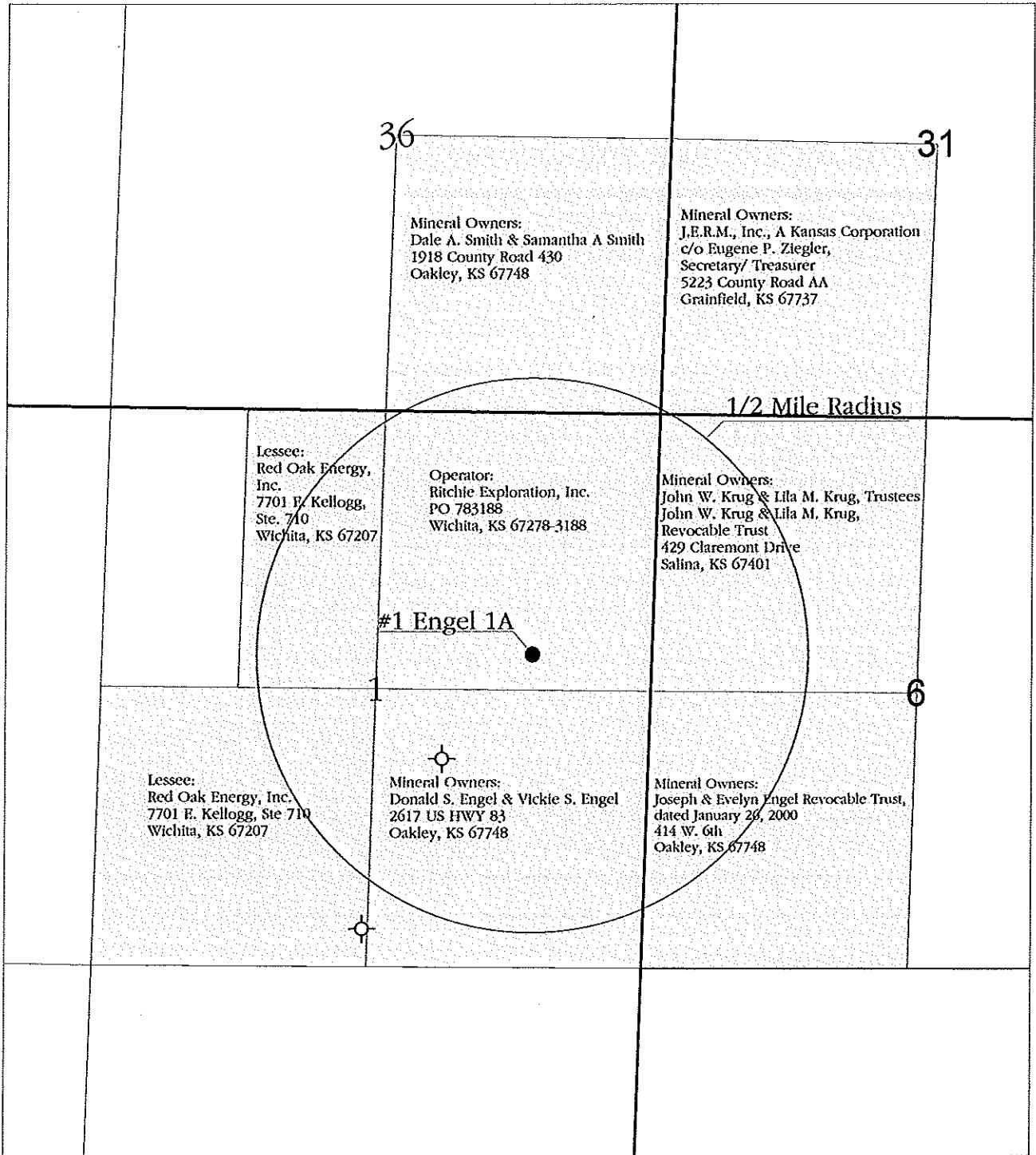
Protests may be filed by any party having a valid interest in the application. Protests must be in writing and comply with K.A.R. 82-3-135b and must be filed within 15 days of publication of the notice of application.

R 32 W

R 31 W

T
11
S

T
12
S



- Legend**
- Oil Well
 - ⊕ Dry and Abandoned Well



**Application for
Commencing of
Production or Fluids**

Applicant Well: #1 Engel 1A
All Wells on Offsetting Leases within 1/2 Mile Radius
Name and Address of Lease of Record or Operator
On Offsetting Leases

Logan/Gove County, Kansas

Scale: 1 : 17,500	Date: November 29, 2016
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APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

**Operator, Lessee or Unleased Mineral Owner
Within a ½ mile radius of Ritchie Exploration, Inc.'s**

**#1 Engel 1A
2298' FNL & 1140' FEL
Section 1-12S-32W
Logan Co., KS**

**Township 11 South, Range 32 West
*Logan County***

Sec. 36:	SE/4	Dale A. Smith & Samantha A. Smith 1918 County Road 430 Oakley, KS 67748	Mineral Owners
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**Township 12 South, Range 32 West
*Logan County***

Sec. 1:	NE/4	Ritchie Exploration, Inc. P.O. Box 783188 Wichita, KS 67278-3188	Operator: #1 Engel 1A
	E/2NW/4, SW/4	Red Oak Energy, Inc. 7701 E. Kellogg, Ste. 710 Wichita, KS 67207	Lessee
	SE/4	Donald S. Engel & Vickie S. Engel 2617 US HWY 83 Oakley, KS 67748	Mineral Owners

**Township 11 South, Range 31 West
*Gove County***

Sec. 31:	SW/4	J.E.R.M., Inc., a Kansas Corporation c/o Eugene P. Ziegler, Secretary/Treasurer 5223 County Road AA Grainfield, KS 67737	Mineral Owners
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Township 12 South, Range 31 West

Gove County

Sec. 6: NW/4 John W. Krug & Lila M. Krug, Trustees Mineral Owners
 John W. Krug & Lila M. Krug Revocable Trust
 429 Claremont Drive
 Salina, KS 67401

 SW/4 Joseph & Evelyn Engel Revocable Trust, Mineral Owners
 dated January 26, 2000
 414 W. 6th
 Oakley, KS 67748

AFFIDAVIT

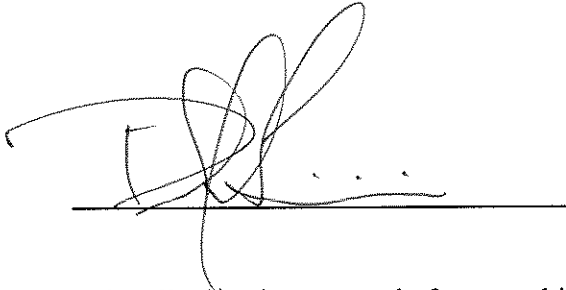
STATE OF KANSAS)
 - SS.
County of Sedgwick)

Peter Fiorini, of lawful age, being first duly sworn, deposeth and saith: That he is Production Manager of Ritchie Exploration, County of Sedgwick, State of Kansas, and that notice was given to all lessee of record or operator within ½ mile radius of the Engel 1A #1 well located in the County of Logan (see attached plat map). This notice included a letter regarding the Commingle Application. All notices were mailed on December 13, 2016.

made as aforesaid on the 13th of

December A.D. 2016

And affiant further says that he has personal knowledge of the statements above set forth and that they are true.



Subscribed and sworn to before me this

13th day of December 2016


Notary Public Sedgwick County, Kansas



Proof of Public

You, and each of you,
are hereby notified that

State of Kansas,
County of Logan, ss:

of lawful age, being duly sworn upon oath states that he/she
is the editor of **THE OAKLEY GRAPHIC**.

THAT said newspaper has been published at least weekly 50
times a year and has been so published for at least five years
prior to the first publication of the attached notice.

THAT said newspaper was entered as second class matter at
the post office of its publication;

THAT said newspaper has a general paid circulation on a dai-
ly, weekly, monthly, or yearly basis in LOGAN County, Kan-
sas and is NOT a trade, religious or fraternal publication and
has been printed and published in LOGAN County, Kansas.

THE ATTACHED was published on the following dates in a
regular issue of said newspaper:

- 1st Publication was made on the 22 day of March, 20 17
- 2nd Publication was made on the ___ day of ___, 20 ___
- 3rd Publication was made on the ___ day of ___, 20 ___
- 4th Publication was made on the ___ day of ___, 20 ___
- 5th Publication was made on the ___ day of ___, 20 ___
- 6th Publication was made on the ___ day of ___, 20 ___

Publication fee \$ 52.20
 Affidavit, Notary's Fees \$ _____
 Additional Copies @ _____ \$ _____
 Total Publication Fee \$ 52.20

Dawn Wendel
(Signed)

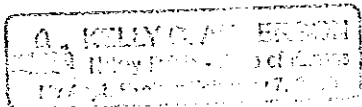
Witness my hand this 22 day of March, 20 17

SUBSCRIBED and SWORN to before me this 22

day of March, 20 17.

Kelly C Anderson
(Notary Public)

My commission expires 2.7.2018



Ritchie Exploration, Inc. has filed an application to commence the commingling of production from the Lansing/Kansas City and Johnson sources of supply for the #1 Engel 1A well located approx. SW SE NE of Section 1-12S-32W, Logan County, Kansas.

Any persons who object to or protest this application shall be required to file their objections or protests with the Conservation Division, of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of the publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why the grant of the application may cause waste, violate correlative rights or pollute the natural resources of the state of Kansas.

If no protests are received, this application may be granted through a summary proceeding. If valid protests are received, this matter will be set for hearing.

All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly.

**RITCHIE
EXPLORATION, INC.**
P.O. Box 783188
Wichita, KS 67278-3188
(316) 691-9500



LEGAL PROOF OF PUBLICATION

Account #	Ad Number	Identification	PO	Amount	Cols	Lines
453699	0002842269	Published in the Wichita Eagle December 22, 2016		\$139.20	1	38

Attention: karen hopper

RITCHIE EXPLORATION INC
P O BOX 783188
WICHITA, KS 672783188

In The STATE OF KANSAS
In and for the County of Sedgwick
AFFIDAVIT OF PUBLICATION

1 Insertions

Beginning issue of: 12/22/2016

Ending issue of: 12/22/2016

STATE OF KANSAS)

.SS

County of Sedgwick)

LEGAL PUBLICATION
Published in the Wichita Eagle
December 22, 2016 (12/22/16)

LEGAL NOTICE
You, and each of you, are hereby notified that Ritchie Exploration, Inc. has filed an application to commence the commencing of production from the Lansing/ Kansas City and Johnson sources of supply for the #1 Eagle 1A well located approx. SW SE NE of Section 1-123-37W, Logan County, Kansas.
Any persons who object to or protest this application shall be required to file their objections or protests with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of the publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why the grant of the application may cause waste, violate correlative rights or pollute the natural resources of the state of Kansas. If no protests are received, this application may be granted through a summary proceeding. If valid protests are received, this matter will be set for hearing.
All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly.

RITCHIE EXPLORATION, INC.
P.O. Box 783188
Wichita, KS 67278-3188
(316) 691-9500

Dale Seiwert, of lawful age, being first duly sworn, deposeseth and saith: That he is Record Clerk of The Wichita Eagle, a daily newspaper published in the City of Wichita, County of Sedgwick, State of Kansas, and having a general paid circulation on a daily basis in said County, which said newspaper has been continuously and uninterruptedly published in said County for more than one year prior to the first publication of the notice hereinafter mentioned, and which said newspaper has been entered as second class mail matter at the United States Post Office in Wichita, Kansas, and which said newspaper is not a trade, religious or fraternal publication and that a notice of a true copy is hereto attached was published in the regular and entire Morning issue of said The Wichita Eagle from 12/22/2016 to 12/22/2016.

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Dale Seiwert

(Signature of Principal Clerk)

DATED: 12/22/2016

Jennifer Rae Bailey
Notary Public Sedgwick County, Kansas

JENNIFER RAE BAILEY
Notary Public - State of Kansas
My Appt. Expires 01/4/2017



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1239719
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: 8100 E 22ND ST N # 700
Address 2: BOX 783188
City: WICHITA State: KS Zip: 67278 + 3188
Contact Person: Pete Fiorini
Phone: (316) 691-9500
CONTRACTOR: License # 34082
Name: Alliance Well Service Inc.
Wellsite Geologist: Pete Fiorini
Purchaser: NCRA

Designate Type of Completion:

- New Well Re-Entry Workover
 Oil WSW SWD SLOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 CM (Coal Bed Methane)
 Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: Ritchie Exploration, Inc.

Well Name: Engel 1A

Original Comp. Date: 12/5/2011 Original Total Depth: 4770

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Plug Back Conv. to GSW Conv. to Producer

 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

11/21/2014 11/21/2014 12/1/2014
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-109-21047-00-01

Spot Description: 12'N & 150'W of SWSENE

SW SE NE Sec. 1 Twp. 12 S. R. 32 East West

2298 Feet from North / South Line of Section

1140 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: Logan

Lease Name: Engel 1A Well #: 1

Field Name: _____

Producing Formation: LKC & Johnson

Elevation: Ground: 2989 Kelly Bushing: 2999

Total Vertical Depth: 4770 Plug Back Total Depth: 4736

Amount of Surface Pipe Set and Cemented at: 228 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: 2523 Feet

If Alternate II completion, cement circulated from: 376

feet depth to: 2523 w/ 550 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: 01/19/2015
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: NAOMI JAMES Date: 01/21/2015



1239719

Operator Name: Ritchie Exploration, Inc. Lease Name: Engel 1A Well #: 1
 Sec. 1 Twp. 12 S. R. 32 East West County: Logan

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 checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Attached Top Attached Datum Attached
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CASING RECORD <input checked="" 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
Surface	12.25	8.625	23	228	common	175	3%cc,2%gel
Production	7.875	4.5	10.5	4763	ASC	225	10%saft,2%gel,5%sx g2sonite

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	-			

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
4	4302-4304, 4271-4275	750 Gals, 15% NE Acid	

TUBING RECORD:	Size: <u>2.375</u>	Set At: <u>4698</u>	Packer At: <u> </u>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. <u>12/1/2014</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls. <u>5.01</u>	Gas Mcf <u> </u>	Water Bbls. <u>13</u>	Gas-Oil Ratio <u> </u>	Gravity <u>22</u>

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-1B.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input checked="" type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Ritchie Exploration, Inc.
Well Name	Engel 1A 1
Doc ID	1239719

Tops

Name	Top	Datum
Anhydrite	2530	+469
B/Anhydrite	2554	+445
Heebner	4021	-1022
Toronto	4049	-1050
Lansing	4068	-1069
Muncie Shale	4201	-1202
Stark Shale	4288	-1289
Hush.	4324	-1325
BKC	4356	-1357
Marmaton	4380	-1381
Altamont	4403	-1404
Pawnee	4479	-1480
Myrick	4518	-1519
Fort Scott	4536	-1537
Cherokee Shale	4563	-1564
Johnson	4608	-1609
Morrow Sand	4626	-1627
Mississippian	4650	-1651

Conservation Division
266 N. Main St., Ste. 220
Wichita, KS 67202-1513



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Pat Apple, Chairman
Shari Feist Albrecht, Commissioner
Jay Scott Emler, Commissioner

Sam Brownback, Governor

April 6, 2017

Peter Fiorini
Ritchie Exploration, Inc.
P.O. Box 783188
Wichita, KS 67278-3188

RE: Approved Commingling CO031705
Engel 1A 1
API No. 15-109-21047-00-01

Dear Mr. Fiorini:

Your Application for Commingling (ACO-4) for the above described well has been reviewed and approved by the Kansas Corporation Commission (KCC) per K.A.R. 82-3-123. Notice was examined and found to be proper per K.A.R. 82-3-135a. No protest had been filed within the 15-day protest period.

Based upon the depth of the Johnson formation perforations, total oil production shall not exceed 200 BOPD and total gas production shall not exceed 50% of the absolute open flow (AOF).

Sincerely,

Rick Hestermann
Production Department