

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-4
Form must be typed
March 2009

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:

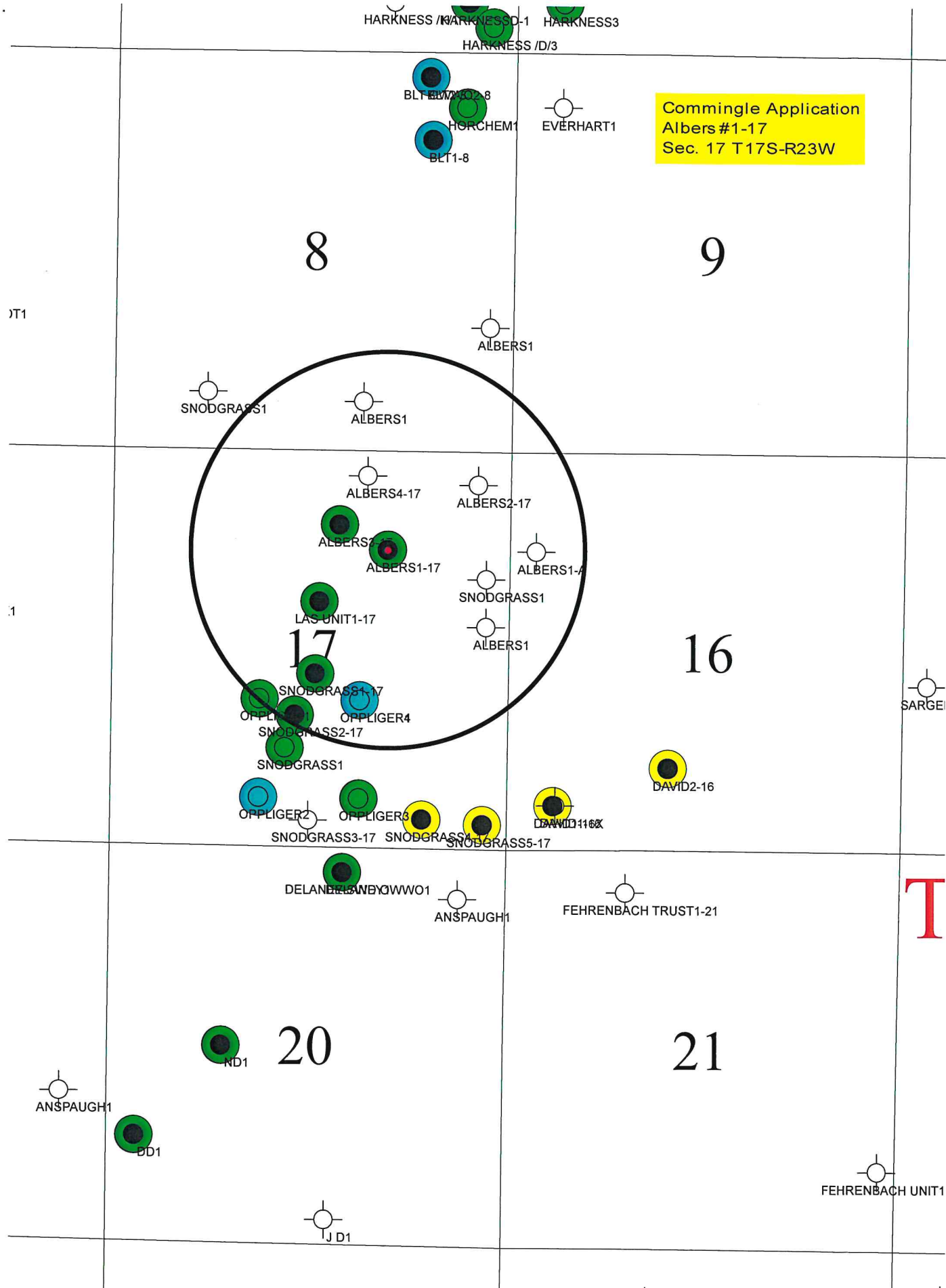
- 7. Well construction diagram of subject well.
- 8. Any available water chemistry data demonstrating the compatibility of the fluids to be commingled.

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.



Commingle Application
 Albers #1-17
 Sec. 17 T17S-R23W

8

9

16

17

21

20

T

HARKNESS /HARKNESSD-1 HARKNESS3

HARKNESS /D/3

BLT1-8

HORCHEM1

BLT1-8

EVERHART1

SNODGRASS1

ALBERS1

ALBERS1

ALBERS4-17

ALBERS2-17

ALBERS1

ALBERS1-17

ALBERS1-17

LAS UNIT1-17

SNODGRASS1

ALBERS1

SNODGRASS1-17

OPFLIGER1

OPFLIGER4

SNODGRASS2-17

SNODGRASS1

OPFLIGER2

OPFLIGER3

SNODGRASS3-17

SNODGRASS4-17

SNODGRASS5-17

DELANEY/BYQWWO1

ANSPAUGH1

FEHRENBACH TRUST1-21

SARGE1

DAVID2-16

DAVID116X

ANSPAUGH1

ND1

DD1

J D1

FEHRENBACH UNIT1



DRILLING COMPANY, INC.
WICHITA, KANSAS

**ATTACHMENT TO ACO-4
APPLICATION FOR COMMINGLING OF PRODUCTION**

Signed Certificate of Notice to Offset Operators and Unleased Mineral Holders

Mull Drilling Company, Inc.

Albers #1-17

NW/4 NE/4 Section 17-17S-23W

Ness County, Kansas

API No. 15-135-24823-00-00

Names and addresses of each operator or lessee of record and each unleased mineral owner within one half mile of the subject well:

Sec 8: SE/4

Sec 9: SW/4

Sec 16: NW/4

Wilbur L. Albers Living Trust dated December 26, 2001
c/o David L. Albers
30077 240 Road
Brownell, Kansas 67521

David L. Albers a/k/a David Lyl Albers
30077 240 Road
Brownell, Kansas 67521

Steven L. Albers a/k/a Steven Lance Albers
14931 E. 63rd St.
Derby, Kansas 67037

Randy L. Albers Supplemental Needs Trust, dated September 19,
2016

c/o Reni Jo Potter-Wood
301 Avila Court
Winter Springs, Florida 32708

Reni Jo Potter-Wood
301 Avila Court
Winter Springs, Florida 32708

Copy of the ACO-4 was mailed to the above listed companies/individuals on November 7, 2019.

Signed this 7th day of November, 2019.

MULL DRILLING COMPANY, INC.



Risa Carter

Production Technician

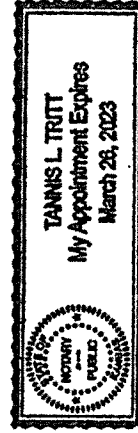
STATE OF KANSAS

COUNTY OF SEDGWICK

ACKNOWLEDGEMENT FOR INDIVIDUAL

Before me, the undersigned, a Notary Public, within and for said county and state, on this 7th day of November, 2019, personally appeared Risa Carter, Production Technician of Mull Drilling Company, Inc., to me personally known to be the identical person who executed the within and foregoing Certificate of Service Form and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.





Tannis L. Tritt, Notary Public

My commission expires: 3.26.2023



LEGAL PROOF OF PUBLICATION

Account #	Ad Number	Identification	PO	Amount	Cols	Lines
453877	0004439539	BEFORE THE STATE CORPORATION COMMIS	Albers #1-17	\$241.80	1	40

Attention: Risa Carter

MULL DRILLING COMPANY, INC.
1700 N. WATERFRONT PKWY, BUILDING 1200
WICHITA, KS 67206

**BEFORE THE STATE CORPORATION
COMMISSION OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION**

Re: Mull Drilling Company, Inc. - Application for order to permit commingling of production of the Albers #1-17, located in Ness County, Kansas.

To: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons whosever concerned.

You, and each of you, are hereby notified that Mull Drilling Company, Inc. has filed an application to commingle production of the LKC and Mississippi formation on the Albers #1-17, located NW/4 NE/4 17-17S-23W, Ness 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 files 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.
Mull Drilling Company, Inc.
1700 N. Waterfront Parkway,
Building 1200
Wichita, KS 67206
316-264-6366

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

1 Insertions

Beginning issue of: 10/30/2019

Ending issue of: 10/30/2019

STATE OF KANSAS)

.SS

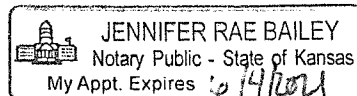
County of Sedgwick)

Dale Seiwert, of lawful age, being first duly sworn, deposeth 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 10/30/2019 to 10/30/2019.

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

(Signature of Principal Clerk)

DATED: 10/30/2019



Notary Public Sedgwick County, Kansas

AFFIDAVIT OF PUBLICATION: ---Ness County News

Notice of filing application

First published in the Ness County News, Thursday, October 31 2019. -11

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS NOTICE OF FILING APPLICATION

Re: Mull Drilling Company, Inc. - Application for order to permit commingling of production of the Albers #1-17, located in Ness County, Kansas.

To: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all

STATE OF KANSAS, COUNTY OF NESS, ss:

Jerry Clarke, being first duly sworn, Deposes and says: that he is Publisher of Ness County News, a weekly newspaper, published and printed in Ness City, State of Kansas, and published in and of general circulation in Ness County, Kansas, with a general paid circulation on a weekly basis in Ness County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is a weekly published at least 50 times a year; has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Ness City, in said County as second class mail matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 consecutive weeks, the first publication thereof being made as aforesaid on the 31st day of _____, 20____, with subsequent publications being made on the following dates:

_____, 20____, _____, 20____
_____, 20____, _____, 20____
_____, 20____, _____, 20____

Jerry Clarke, Jerry Clarke, editor

scribed and sworn to before me this 31st day of October, 2019



Janice Pfannenstiel, Notary Public.

persons whosoever concerned.

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Mull Drilling Company, Inc. 1700 N. Waterfront Parkway, Building 1200 Wichita, KS 67206 316-264-6366

Publication Fee \$ 37.05
Additional Copies @ 10 \$
Total Publication Fees \$ 37.05

ed this _____ day of _____, 20____.
ached Proof Of Publication approved this _____ day of _____, 20____

District Magistrate Judge
ed this _____ day of _____, 20____.

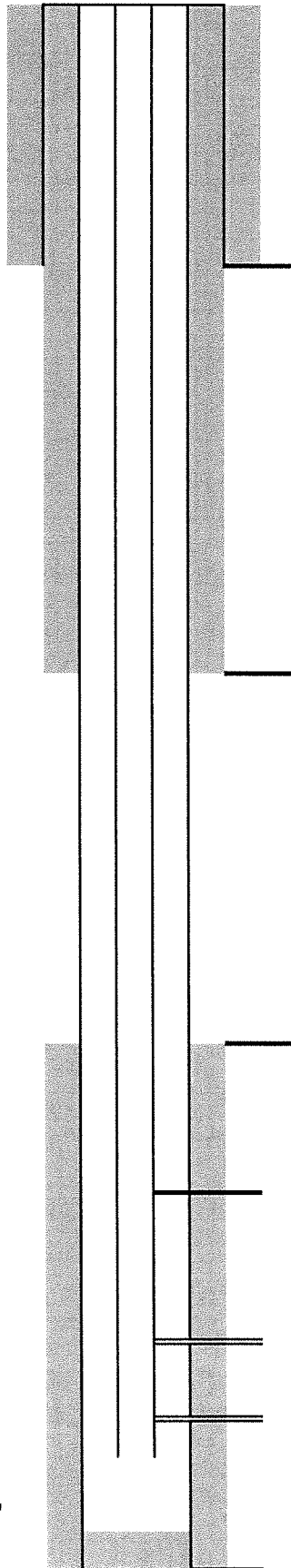
Clerk of the District Court.
Attached Proof Of Publication approved this _____ day of _____, 20____

Judge Twenty-fourth Judicial District.



DRILLING COMPANY, INC.
WICHITA, KANSAS

Proposed Wellbore Configuration



Date:	10/15/2019
Well Name:	Albers #1-17
Location:	1299' FNL & 1614' FEL
	Section 17-T16S-R23W
County:	Ness
State:	KS
API:	15-135-24823
KB:	2440'
GL:	2435'
Spud Date:	7/23/2008

8-5/8" Surface Casing
Set at 208'. Cmt to
Surface w/150 sks.

Port Collar at 1762'
Cmt to surface with 200 sks. SMD

TOC @ 3816' (CBL 8/20/08)

2-7/8" tubing set at 4443'

Proposed Lansing-Kansas City Perfs @ 4042'-4048'

Existing Mississippi Perfs @ 4418'-4434'

5-1/2", 14# casing set at 4538'.
Cmt with 160 sks. 50/50 Pozmix

PBTD: 4474'
RTD: 4540'



DownHole SAT(tm)

FORMATION WATER CHEMISTRY INPUT

Mull Drilling
Albers 1-17
Wellhead

Pro-Stim Chemicals
Troy Pelton

Report Date: 06-14-2018 Sampled: 06-07-2018 at 0823
Sample #: 4247 Sample ID: WBaten

CATIONS

Calcium (as Ca)	1680
Magnesium (as Mg)	389.00
Barium (as Ba)	0.00
Strontium (as Sr)	0.00
Sodium (as Na)	11627
Potassium (as K)	0.00
Lithium (as Li)	0.00
Ammonia (as NH ₃)	0.00
Aluminum (as Al)	0.00
Iron (as Fe)	9.00
Manganese (as Mn)	0.01000
Zinc (as Zn)	0.00
Lead (as Pb)	0.00

ANIONS

Chloride (as Cl)	20100
Sulfate (as SO ₄)	2850
Bromine (as Br)	0.00
Dissolved CO ₂ (as CO ₂)	130.00
Bicarbonate (as HCO ₃)	320.00
Carbonate (as CO ₃)	0.00
Oxalic acid (as C ₂ O ₄)	0.00
Silica (as SiO ₂)	0.00
Phosphate(as PO ₄)	0.00
H ₂ S (as H ₂ S)	30.00
Fluoride (as F)	0.00
Nitrate (as NO ₃)	0.00
Boron (as B)	0.00

PARAMETERS

Calculated T.D.S.	36806
Molar Conductivity	47314
Resistivity	21.14
Sp.Gr.(g/mL)	1.02
Pressure(psia)	14.70
pCO ₂ (psia)	0.0171
pH ₂ S(atm)	0.00511
Temperature (°F)	71.00
pH	7.12

CORROSION RATE PREDICTION

CO ₂ - H ₂ S Rate(mpy)	0.00415
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COMMENTS All anions & cations are in mg/l

FRENCH CREEK SOFTWARE, INC.
1220 VALLEY FORGE ROAD, SUITE 21, VALLEY FORGE, PA 19460



DownHole SAT(tm)

FORMATION WATER DEPOSITION POTENTIAL INDICATORS

Mull Drilling
Albers 1-17
Wellhead

Pro-Stim Chemicals
Troy Pelton

Report Date: 06-14-2018 Sampled: 06-07-2018 at 0823
Sample #: 4247 Sample ID: WBaten

SATURATION LEVEL

Calcite (CaCO ₃)	3.13
Aragonite (CaCO ₃)	2.93
Witherite (BaCO ₃)	0.00
Strontianite (SrCO ₃)	0.00
Calcium oxalate (CaC ₂ O ₄)	0.00
Magnesite (MgCO ₃)	0.601
Anhydrite (CaSO ₄)	0.694
Gypsum (CaSO ₄ *2H ₂ O)	1.14
Barite (BaSO ₄)	0.00
Celestite (SrSO ₄)	0.00
Fluorite (CaF ₂)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO ₂)	0.00
Brucite (Mg(OH) ₂)	< 0.001
Magnesium silicate	0.00
Iron hydroxide (Fe(OH) ₃)	< 0.001
Strengite (FePO ₄ *2H ₂ O)	0.00
Siderite (FeCO ₃)	25.99
Halite (NaCl)	0.00344
Thenardite (Na ₂ SO ₄)	< 0.001
Iron sulfide (FeS)	115.13

FREE ION MOMENTARY EXCESS (ppm)

Calcite (CaCO ₃)	0.503
Aragonite (CaCO ₃)	0.487
Witherite (BaCO ₃)	-49.41
Strontianite (SrCO ₃)	-15.92
Calcium oxalate (CaC ₂ O ₄)	-0.114
Magnesite (MgCO ₃)	-0.414
Anhydrite (CaSO ₄)	-671.22
Gypsum (CaSO ₄ *2H ₂ O)	232.38
Barite (BaSO ₄)	-0.0326
Celestite (SrSO ₄)	-60.94
Fluorite (CaF ₂)	-19.42
Calcium phosphate	>-0.001
Hydroxyapatite	-927.37
Silica (SiO ₂)	-104.60
Brucite (Mg(OH) ₂)	0.00875
Magnesium silicate	-286.96
Iron hydroxide (Fe(OH) ₃)	< 0.001
Strengite (FePO ₄ *2H ₂ O)	>-0.001
Siderite (FeCO ₃)	0.822
Halite (NaCl)	-497558
Thenardite (Na ₂ SO ₄)	-185866
Iron sulfide (FeS)	2.86

SIMPLE INDICES

Langelier	0.689
Ryznar	5.74
Puckorius	4.80
Larson-Skold Index	120.42
Stiff Davis Index	0.145
Oddo-Tomson	0.0114

BOUND IONS

Calcium	1680
Barium	0.00
Carbonate	3.36
Phosphate	0.00
Sulfate	2850

TOTAL

FREE

OPERATING CONDITIONS

Temperature (°F) 71.00
Time(mins) 3.00

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



Phone: 316-337-6200
Fax: 346-337-6211
<http://kcc.ks.gov/>

Dwight D. Keen, Chair
Shari Feist Albrecht, Commissioner
Susan K. Duffy, Commissioner

Laura Kelly, Governor

November 27, 2019

Mark Shreve
Mull Drilling Co., Inc.
1700 N Waterfront Pkwy, Bldg 1200
Wichita, KS 67206

RE: Approved Commingling CO111904
Albers 1-17
API No. 15-135-24823-00-00

Dear Mr. Shreve:

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

File form ACO-1 upon re-completion of the well to commingle.

Sincerely,

Rick Hestermann
Production Department