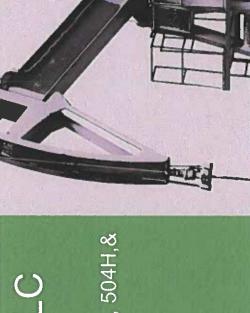




Admiral Fed Com 501H, 502H, 503H, 504H,& 505H

Section 28 & 21 - T25S-29E

Eddy County, New Mexico



STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

**CASE NO. 20836** 

AFFIDAVIT OF MONICA BEAL

Monica Beal, of lawful age and being first duly sworn, declares as follows:

1. My name is Monica Beal, and I am a Landman with COG Operating LLC ("COG").

2. I have not testified before the New Mexico Oil Conservation Division ("Division")

as an expert witness in petroleum land matters.

3. I graduated from the University of Oklahoma with a Bachelor of Business

Administration in Energy Management in December 2016. In January 2017, I began working for

COG as a Lease Analyst. Since October 2017, I have been working as a Landman, including in

the Permian Basin. I am a member of the following professional organizations: Permian Basin

Landmen's Association (PBLA) and American Association of Professional Landmen (AAPL).

4. I am familiar with the application filed by COG in this case and familiar with the

status of the lands in the subject area.

5. None of the parties proposed to be pooled in this case have indicated opposition to

this proceeding, therefore I do not expect any opposition at the hearing.

6. COG seeks an order pooling all uncommitted interests in the Bone Spring

formation, Willow Lake; Bone Spring Pool (Pool code 96217), underlying a standard 1280-acre,

more or less, horizontal spacing unit comprised of all of Sections 21 and 28, Township 25 South,

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico
Case No. 20836 Exhibit No. A

Submitted by:
COG OPERATING LLC

Hearing Date: November 14, 2019

Range 29 East, NMPM, Eddy County, New Mexico. This horizontal spacing unit will be dedicated to following proposed initial wells:

- Admiral Fed Com 501H well to be horizontally drilled from a surface hole location in the SW/4SW/4 (Unit M) of Section 28 to a bottom hole location in the NW/4NW/4 (Unit D) of Section 21,
- Admiral Fed Com 502H well to be horizontally drilled from a surface hole location
  in the SW/4SW/4 (Unit M) of Section 28 to a bottom hole location in the NE/4NW/4
  (Unit C) of Section 21,
- Admiral Fed Com 503H well to be horizontally drilled from a surface hole location in the SE/4SW/4 (Unit N) of Section 28 to a bottom hole location in the NE/4NW/4 (Unit C) of Section 21,
- Admiral Fed Com 504H well to be horizontally drilled from a surface hole location in the SE/4SE/4 (Unit P) of Section 28 to a bottom hole location in the NW/4NE/4 (Unit B) of Section 21,
- Admiral Fed Com 505H well to be horizontally drilled from a surface hole location in the SE/4SE/4 (Unit P) of Section 28 to a bottom hole location in the NE/4NE/4 (Unit A) of Section 21.
- 7. The completed interval for the Admiral Fed Com 502H well will be within 330 feet of the line separating the W/2W/2 and E2/W2 of Sections 21 and 28. The completed interval for the Admiral Fed Com 503H well will be within 330 feet of the line separating the E/2W/2 and W2/E2 of Sections 21 and 28. The completed interval for the Admiral Fed Com 504H well will be within 330 feet of the line separating the W/2E/2 and the E2/E2 of Sections 21 and 28. Therefore, the Admiral Fed Com 502H, the Admiral Fed Com 503H well, and the Admiral Fed

Com 504H well allow for the incorporation of each well's respective proximity acreage into a standard 1280-acre horizontal spacing unit comprised of all of Sections 21 and 28. As such, these wells will comply with the Division's setback requirements.

- 8. **COG Exhibit No. A-1** contains a draft Form C-102 for the proposed wells.
- 9. **COG Exhibit No. A-2** identifies the tracts of land comprising the proposed spacing unit in this case, which includes federal lands. This exhibit also identifies the interest ownership by tract. COG is seeking to pool both the working interest owners and overriding royalty interest owners highlighted on the exhibit.
- 10. All interest owners that COG seeks to pool are locatable. COG has conducted a diligent search of all public records in Eddy County, including phone directories and computer databases.
- 11. **COG Exhibit No. A-3** contains a sample well proposal letter along with the AFEs provided to the working interest owners COG is seeking to pool. In addition to this letter, COG has made a diligent effort to reach agreement with the parties it is seeking to pool.
- 12. The costs reflected on each AFE contained in Exhibit No. A-3 are consistent with what other operators have incurred for drilling similar horizontal wells in the area.
- 13. In my opinion, COG has made a good faith effort to obtain voluntary joinder of the parties it is seeking to pool. If COG reaches an agreement with any of the proposed pool parties before the Division enters an order, I will inform the Division that COG is no longer seeking to pool those parties.
- 14. No ownership depth severances exist within this proposed spacing unit, and there are no unleased mineral interests in the subject acreage.

- 15. COG has estimated the overhead and administrative costs for drilling and producing the proposed wells at \$7,000 per month while drilling and \$700 per month while producing. These costs are consistent with what other operators are charging in this area for similar wells.
- 16. I have provided COG's legal counsel a list of names and addresses of the owners COG seeks to pool and instructed that they be notified of this hearing. Additionally, notice of this hearing was timely published in the Carlsbad Current Argus, a newspaper of general circulation in Eddy County, New Mexico.
- 17. Exhibit Nos. A-1 through A-3 were either prepared by me or compiled under my direction and supervision.

THIS CONCLUDES AFFIANT'S STATEMENT.

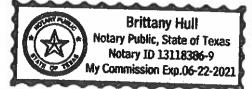
	VMM	cal Dell
	Affiant	
)		

STATE OF Texas

COUNTY OF Midland

SUBSCRIBED and SWORN to before me this 12 day of November, by

Monica Beal



NOTARY PUBLIC

My Commission Expires:

6.22.21

State of New Mexico DISTRICT 1

1025 N. FRENCH DR., HOBBS, NM 88240
FROM: (676) 589-6151 FAI: (676) 589-0720

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Pax: (575) 748-9720 DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-8178 Fax: (505) 334-8170

1220 SOUTH ST. FRANCIS DR. Santa Fe. New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT IV 1220 S. ST. FRANCIS BR., SANTA FE, NM 87605 Phone: (505) 476-3460 Fax: (505) 476-3462

□ AMENDED REPORT

71010. (000) 410-0400 711. (000) 410-0400	WELL LOCATION AND	ACREAGE DEDICATION	PLAT
API Number	Pool Code		Pool Name
Property Code	Proj	erty Name	Well Number
	ADMIRAL	FEDERAL COM	501H
OGRID No.		rator Name	Elevation 2983.3'
			2300.0

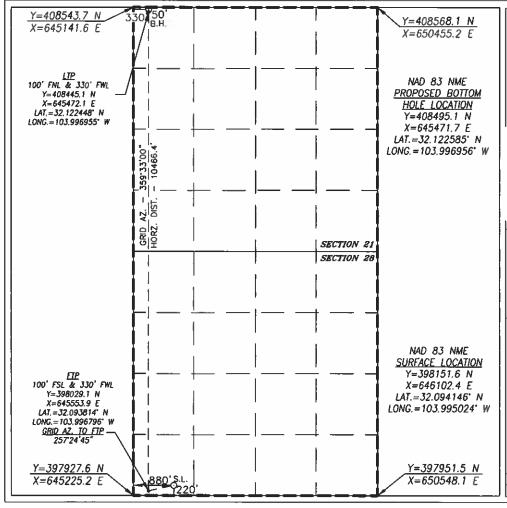
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
М	28	25 <b>-</b> S	29-E		220	SOUTH	880	WEST	EDDY

#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	25-S	29-E		50	NORTH	330	WEST	EDDY
Dedicated Acres	Joint of	r Infill Co	nsolidation (	Code Ore	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



#### OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organisation either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

#### BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico Case No. 20836 Exhibit No. A-1 Submitted by:

**COG OPERATING LLC** Hearing Date: November 14, 2019

SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of ectual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. AUGUST 23, 2019 Date of Survey Signature & Seal of Professional Surveyor CHADL. HARCROS



DRAWN BY: AM

W.O. #19-1519

DISTRICT I DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (676) 748-1283 Fax: (576) 748-8720

State of New Mexico 1825 N. FRENCH DR. HOBBS. NM 88240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6176 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

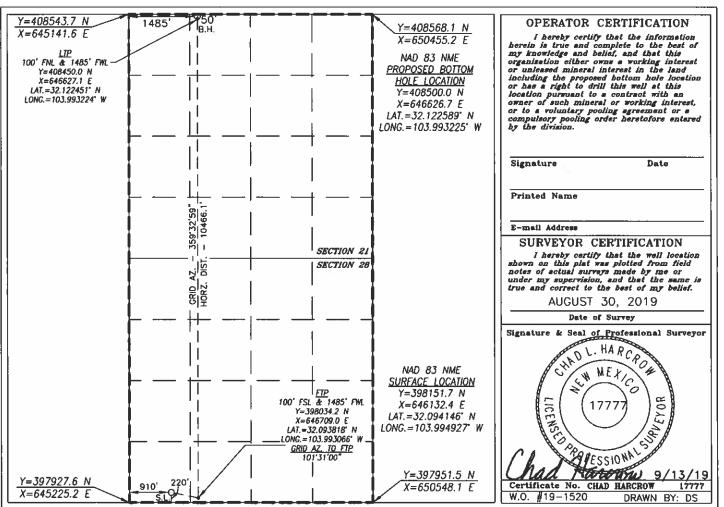
☐ AMENDED REPORT

DISTRICT IV

API	Number			Pool Code	AND A	CREAGE	DEDICATIO	Pool Name		
Property	Code			ADM	Proper IRAL FI	ty Name EDERAL	COM		Well Num	
OGRID N	0.			COC	Operate G OPER	or Name ATING,	LLC		Elevation 2982	
					Surface	e Locatio	n			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	n the No	rth/South line	Feet from the	East/West line	County
М	28	25-S	29-E		220	o	SOUTH	910	WEST	EDDY
			Bottom	Hole Loc	ation If	Differer	nt From Surf	ace		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	n the No	rth/South line	Feet from the	East/West line	County

25-S 29-E C 21 50 NORTH 1485 WEST **EDDY** Dedicated Acres Joint or Infill Consolidation Code Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Faz: (575) 748-9720

State of New Mexico 1025 N. FRENCH DR. HOBBS, NM 68240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (606) 334-6178 Fex: (506) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87805 Phone: (605) 478-3480 Fax: (505) 478-3462

□ AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDIC	ATION PLAT
API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
	ADMIRAL FEDERAL COM	503Н
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 2986.2'
· · · · · · · · · · · · · · · · · · ·		•

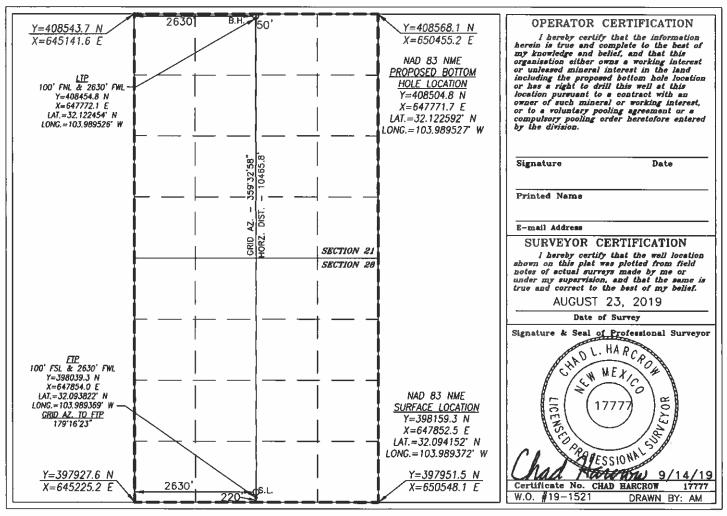
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	25 <b>-</b> S	29-E		220	SOUTH	2630	WEST	EDDY

#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	21	25-S	29-E		50	NORTH	2630	WEST	EDDY
Dedicated Acres	Joint o	r Infili Co	nsolidation (	Code Or	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I DISTRICT II 511 S. FIRST ST., ARTESIA, NM 58210 Phone: (575) 748-1283 Fax: (575) 748-9720

State of New Mexico 1025 N. FRENCH DR., HOBBS, NM 58240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

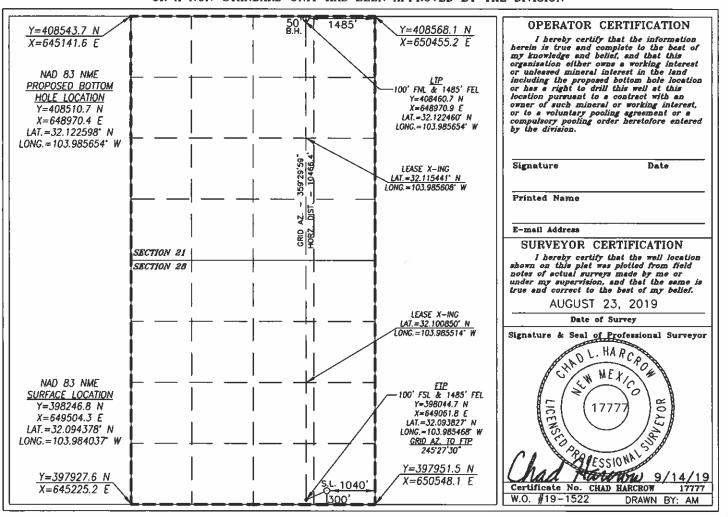
DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (605) 334-6176 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT IV 1220 S. ST. FRANCIS D Phone: (505) 476-346	R., SANTA FE,	NM 87806						□ AMEND	ED REPORT
FBBB8: (000) 470-340	O FEX: (505)	10-3402	WELL LO	CATION	AND ACRE	AGE DEDICATI	ON PLAT		
API 1	Number		1	Pool Code	·		Pool Name		
Property C	ode				Property Na			Well Nun	
				ADM	IRAL FEDE	RAL COM		50	4H
OGRID No	•			COC	Operator Na G OPERATI			Elevation 2980	_
					Surface Lo	cation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	25-S	29-E		300	SOUTH	1040	EAST	EDDY
			Bottom	Hole Loc	eation If Dif	erent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	21	25-S	29-E		50	NORTH	1485	EAST	EDDY
Dedicated Acres	Joint of	r Infill Co	nsolidation (	Code Or	der No.	•	į.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I
1825 N. FRENCH DR., HOEBS, NM 88240
FRAME: (675) 383-0181 Fax: (675) 383-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Fhom: (676) 746-1283 Fax: (675) 748-0720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

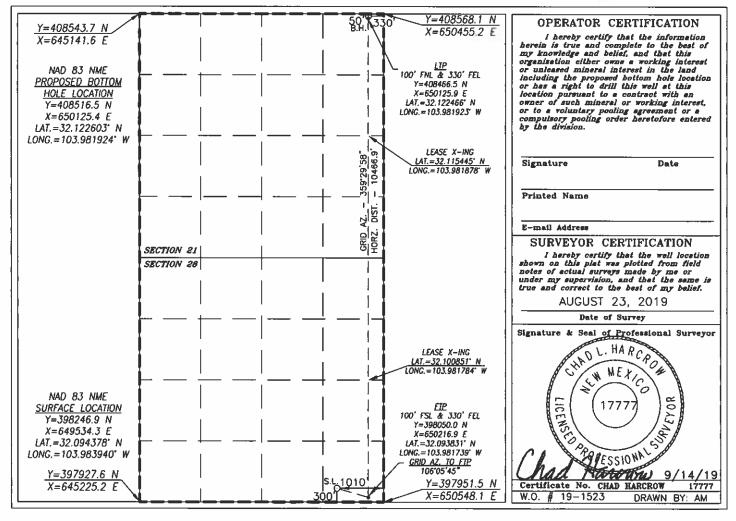
1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

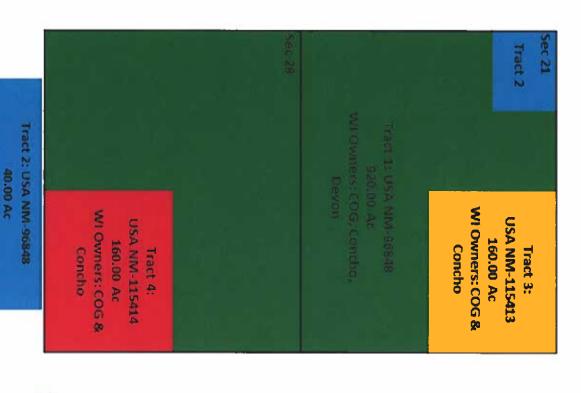
DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (605) 334-8178 Fax: (506) 334-8170

API	Number			Pool Code	AND ACKER	GE DEDICATION	Pool Name	<u>.</u> .	
Property	Code			ADM	Property Nam IRAL FEDER			Well Num	
OGRID N	<b>.</b>			COC	Operator Nam G OPERATIN			Elevation 2980	_
					Surface Loc	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Р	28	25-S	29-E		300	SOUTH	1010	EAST	EDDY
			Bottom	Hole Loc	ation If Diffe	rent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	21	25-S	29-E		50	NORTH	330	EAST	EDDY
Dedicated Acre	Joint o	or Infill Co	nsolidation (	Code Or	der No.	1.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Str



Admiral Fed Com Spacing

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 20836 Exhibit No. A-2
Submitted by:
COG OPERATING LLC
Hearing Date: November 14, 2019

## Admiral Federal Com 501H, 502H, 503H, 504H, 505H - Compulsory Pooling Info Section 21: All, Section 28: All, T25S-R29E

Sent	Sent	Sent	
Proposal	JOA	СОМ	

ORRI Parties:	
Crown Rock Minerals, L.P.	Ratified COM
George Vaught, Jr.	Ratified COM
Jareed Partners, Ltd.	Ratified COM
John D. Bergman, Trustee of the Penwell Energy Royalty	
Pool	Ratified COM
John Kyle Thoma, Trustee of the Cornerstone Family	
Trust	Ratified COM
Kimbell Royalty Holdings, LLC	
Kingdom Investments, Limited	
Paul R. Barwis and wife, Dianne Barwis	Ratified COM
Philip L. White	
Rachel E. White	Ratified COM
Rave Energy, Inc.	
Rave Energy, Inc. d/b/a GEP III	
Rusk Capital Management LLC	
Salt Fork Limited	
Santa Elena Minerals IV, LP	Ratified COM
The Taurus Royalty, LLC	Ratified COM
William R. Golden	Ratified COM

## WI Parties:

×	×	Signed COM
COG Operating LLC	Concho Oil & Gas LLC	Devon Energy Production Company, L.P.

## Pooling

		Leasehold WI	
	900	Concho	Devon
Tract 1 - Sec 21: NENW, S2NW, S2			
Sec 28: SW, N2	0.6707	0.0353	0.294
Tract 2 - Sec 21: NWNW	0.95	0.05	0
Tract 3 - Sec 21: NE	0.95	0.05	D
Tract 4 - Sec 28: SE	0.95	0.05	D

Unit Recapitulation	
Owner	<b>Working Interest</b>
COG Operating LLC	74.925312%
Concho Oil & Gas LLC	3.943438%
Devon Energy Production Company, L.P.	21.131250%
Total	100.000000%



August 20, 2019

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 20836 Exhibit No. A-3
Submitted by:

COG OPERATING LLC
Hearing Date: November 14, 2019

Via E-CM No. 9414 8149 0246 9822 0239 10

Devon Energy Production Company LP

333 W Sheridan Ave.

Oklahoma City, OK 73102

Attn: Land Department

Re: Reproposal - Admiral Fed Com 501H, 502H, 503H, 504H, 505H

All of Sections 21 & 28 1280 Ac – Bone Spring Formation Eddy County, New Mexico

Dear Sir or Madam:

COG Operating, LLC ("COG") previously proposed the above-referenced wells on June 14, 2019. COG is now rescinding those previous well proposals and reproposing the drilling of the following horizontal wells with productive laterals located on all of Sections 21 and 28, T25S-R29E, Eddy County, New Mexico. The surface pad locations will be located in Units M, N, and P of Section 28, T25S-R29E (Subject to Change).

- Admiral Fed Com 501H, to be drilled to a depth sufficient to test the 2<sup>nd</sup> Bone Spring formation at a total vertical depth of 8,685'. The surface location for this well is proposed at a legal location in Unit M of Section 28, and a bottom hole location at a legal location in Unit D of Section 21. The dedicated horizontal spacing unit will be all of Sections 28 and 21, T25S-R29E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,140,200.00, as shown on the attached Authority for Expenditure ("AFE").
- Admiral Fed Com 502H, to be drilled to a depth sufficient to test the 2<sup>nd</sup> Bone Spring formation at a total vertical depth of 8,685'. The surface location for this well is proposed at a legal location in Unit M of Section 28, and a bottom hole location at a legal location in Unit C of Section 21. The dedicated horizontal spacing unit will be all of Sections 28 and 21, T25S-R29E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,140,200.00, as shown on the attached AFE.
- Admiral Fed Com 503H, to be drilled to a depth sufficient to test the 2<sup>nd</sup> Bone Spring formation at a total vertical depth of 8,685'. The surface location for this well is proposed at a legal location in Unit N of Section 28, and a bottom hole location at a legal location in Unit C of Section 21. The dedicated horizontal spacing unit will be all of Sections 28 and 21, T25S-R29E, Eddy County, New Mexico, and this will be the defining well. The total estimated cost to drill and complete said well is \$9,140,200.00, as shown on the attached AFE.
- Admiral Fed Com 504H, to be drilled to a depth sufficient to test the 2<sup>nd</sup> Bone Spring formation at a total vertical depth of 8,685'. The surface location for this well is proposed at a legal location in Unit P of Section 28, and a bottom hole location at a legal location in Unit B of Section 21. The dedicated horizontal spacing unit will be all of Sections 28 and 21, T25S-R29E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,140,200.00, as shown on the attached AFE.

August 20, 2019 – Page 2 Reproposal - Admiral Fed Com 501H, 502H, 503H, 504H, 505H

Admiral Fed Com 505H, to be drilled to a depth sufficient to test the 2<sup>nd</sup> Bone Spring formation at a total vertical depth of 8,685'. The surface location for this well is proposed at a legal location in Unit P of Section 28, and a bottom hole location at a legal location in Unit A of Section 21. The dedicated horizontal spacing unit will be all of Sections 28 and 21, T25S-R29E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,140,200.00, as shown on the attached AFE.

COG is proposing these wells under the terms of the Operating Agreement dated and previously sent on July 16, 2019, covering all of Sections 21 and 28, T25S-R29E, Eddy County, New Mexico, as to all depths.

If we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed wells.

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to mbeal@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.2310.

COG Operating LLC	
Monica Beal Landman	
CM:	

Sincerely,

August 20, 2019 – Page 3 Reproposal - Admiral Fed Com 501H, 502H, 503H, 504H, 505H

	I/We hereby elect to participate in the drilling and completion of the Admiral Fed Com 501H.
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the <b>Admiral Fed Com 501H.</b>
	I/We hereby elect to participate in the drilling and completion of the Admiral Fed Com 502H.
	I/We hereby elect <u>not</u> to participate in the drilling and completion of the Admiral Fed Com 502H.
	I/We hereby elect to participate in the drilling and completion of the Admiral Fed Com 503H.
	I/We hereby elect <b>not</b> to participate in the drilling and completion of the <b>Admiral Fed Com 503H.</b>
	I/We hereby elect to participate in the drilling and completion of the Admiral Fed Com 504H.
<del></del>	I/We hereby elect <u>not</u> to participate in the drilling and completion of the <b>Admiral Fed Com 504H</b> .
	I/We hereby elect to participate in the drilling and completion of the Admiral Fed Com 505H.
<u> </u>	I/We hereby elect <u>not</u> to participate in the drilling and completion of the <b>Admiral Fed Com 505H.</b>
By:	
Title:	<u> </u>
Date:	

#### COG OPERATING LLC AUTHORITY FOR EXPENDITURE **Drill & Complete**

Well Name SHL BHL Formation Legal AFE Numbers Admiral Federal Com 501H Sec 28: 400' FSL 1650' FWL OR Unit N Sec 21: 50' FNL 330' FWL OR Unit D BONE SPRING W2W2 of Sections 21 and 28 of T25S-R29E

Prospect State & County Objective Depth TVD

Atlas 2529 NEW MEXICO, EDDY DRILL & COMPLETE 19,060 8,700

Cost Description	Code	PreSpud (PS)	Drilling (DR)	Completions (C)	Tank Bity Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Tota
Tangible Costs D-Surface Casing	401		\$15,900.00				\$0.00	\$15,900.00
D-Intermed Csg	402		\$87,800.00				\$0.00	\$87,800.00
D-Production Casing/Liner	403		\$265,800.00				\$0.00	\$265,800.00
D-Wellhead Equip	405		\$42,600.00	40.000			\$0.00	\$42,600.0
C-Tubing C-Wellhead Equip	504 505			\$24,300.00 \$13,900.00			\$0.00	\$24,300.0
PEQ-Pumping Unit	506			\$13,900.00		\$44,600.00	\$0.00	\$13,900.00 \$44,600.00
PEQ-Rods	508					\$23,300.00	\$0.00	\$23,300.0
TB-Tanks	510				\$84,300.00		\$0.00	\$84,300.0
TB-Flowlines/Pipelines	511				\$77,200.00		\$0.00	\$77,200.0
TB-Htr Trtr/Seprtr	512				\$189,600.00		\$0.00	\$189,600.0
TB-Electrical System/Equipment C-Pckrs/Anchors/Hgrs	513 514			\$34,000.00	\$126,400.00		\$0.00 \$0.00	\$126,400.00 \$34,000.00
TB-Couplings/Fittings/Valves	515			357,000.00	\$189,600.00		\$0.00	\$189,600.00
TB-Gas Lift/Compression	516				\$133,400.00		\$0.00	\$133,400.00
TB-Pumps-Surface	521				\$19,700.00		\$0.00	\$19,700.0
TB-Meters/Lacts TB-Flares/Combusters/Emission	525 526				\$24,600.00		\$0.00	\$24,600.0
C-Gas Lift/Compression	527			\$8,300.00	\$24,600.00		\$0.00 \$0.00	\$24,600.0 \$8,300.0
PEQ-Instrumentation/SCADA/PO	529			40,000.00		\$3,600.00	\$0.00	\$3,600.0
PEQ-Tubing	530					\$2,600.00	\$0.00	\$2,600.0
PEQ-Wellhead Equipment	531					\$1,600.00	\$0.00	\$1,600.00
PEQ-Pumps	532					\$2,600.00	\$0.00	\$2,600.00
PEQ-Electrical System PEQ-Packers/Anchors/Hangers	533 534					\$7,800.00 \$36,300.00	\$0.00 \$0.00	\$7,800.0
PEQ-Miscellaneous	535					\$1,600.00	\$0.00	\$36,300.00 \$1,600.00
Total Tangible Costs	1759-16-1671	\$0.00	\$412,100.00	\$80,500.00	\$869,400.00	\$124,000.00	\$0.00	\$1,486,000.00
Intangible Costs								
PS-Title/Permits	201	\$5,700.00			200	T I	\$0.00	\$5,700.00
D-Insurance	202	\$1,600.00					\$0.00	\$1,600.00
PS-Damages/ROW	203	\$9,500.00					\$0.00	\$9,500.00
PS-Survey/Stake Lctn	204	\$600.00	800.000.00				\$0.00	\$600.00
D-Lctn/Pits/Roads D-Drilling Overhead	205		\$82,000.00 \$4,800.00				\$0.00 \$0.00	\$82,000.00 \$4,800.00
D-Daywork Contract	209		\$550,100.00				\$0.00	\$550,100.00
D-Directional Drlg Services	210		\$233,400.00				\$0.00	\$233,400.00
D-Fuel & Power	211		\$131,600.00				\$0.00	\$131,600.00
D-Water	212		\$30,500.00				\$0.00	\$30,500.00
D-Bits D-Mud & Chemicals	213		\$61,700.00 \$147,500.00				\$0.00 \$0.00	\$61,700.00 \$147,500.00
D-Cement Surface	217		\$12,100.00				\$0.00	\$12,100.00
D-Cement Intermed	218		\$56,600.00				\$0.00	\$56,600.00
D-Prod-2nd Int Cmt	219		\$61,700.00				\$0.00	\$61,700.00
D-Float Equipment & Centralizers	221		\$47,700.00				\$0.00	\$47,700.00
D-Csg Crews & Equip D-Contract Labor	222 225		\$31,200.00 \$9,500.00			-	\$0.00	\$31,200.00
D-Company Sprvsn	225		\$38,200.00				\$0.00 \$0.00	\$9,500.00 \$38,200.00
D-Contract Sprvsn	227		\$61,700.00				\$0.00	\$61,700.00
D-Tstg Csg/Tbg	228		\$31,200.00				\$0.00	\$31,200.00
D-Mud Logging Unit	229		\$20,400.00				\$0.00	\$20,400.00
D-Perf/Wireline Svc D-Rentals-Surface	231		\$2,500.00				\$0.00	\$2,500.00
D-Rentals-Subsrfc	235 236		\$164,100.00 \$141,200.00				\$0.00 \$0.00	\$164,100.00 \$141,200.00
D-Trucking/Forklift/Rig Mob	237		\$107,500.00				\$0.00	\$107,500.00
D-Welding Services	238		\$3,200.00				\$0.00	\$3,200.00
D-Contingency	243		\$39,400.00				\$0.00	\$39,400.00
D-Envmmtl/Clsd Loop	244		\$220,700.00	0.000.00			\$0.00	\$220,700.00
C-Lctn/Pits/Roads C-Frac Equipment	305			\$4,900.00 \$895,900.00			\$0.00 \$0.00	\$4,900.00 \$895,900.00
C-Frac Chemicals	308			\$545,800.00			\$0.00	\$545,800.00
C-Frac Proppant	309			\$849,300.00			\$0.00	\$849,300.00
C-Frac Proppant Transportation	310			\$132,600.00			\$0.00	\$132,600.00
C-Fuel & Power	311			\$8,300.00			\$0.00	\$8,300.00
C-Water C-Bits	312 313			\$643,100.00			\$0.00	\$643,100.00
C-Mud & Chemicals	313			\$9,700.00 \$18,100.00			\$0.00	\$9,700.00 \$18,100.00
C-Contract Labor	325			\$9,700.00			\$0.00	\$9,700.00
C-Company Sprvsn	326			\$15,300.00			\$0.00	\$15,300.00
C-Contract Sprvsn	327			\$209,700.00			\$0.00	\$209,700.00
C-Tstg Csg/Tbg	328			\$2,800.00			\$0.00	\$2,800.00
C-Perf/Wireline Svc C-Stimulation/Treating	331 332			\$359,700.00 \$6,300.00			\$0.00	\$359,700.00 \$6,300.00
C-Completion Unit	333			\$31,300.00			\$0.00	\$6,300.00 \$31,300.00
C-Rentals-Surface	335			\$239,600.00			\$0.00	\$239,600.00
C-Rentals-Subsrfc	336			\$34,000.00			\$0.00	\$34,000.00
C-Trucking/Forklift/Rig Mob	337			\$11,100.00			\$0.00	\$11,100.00
C-Welding Services	338		-	\$2,800.00			\$0.00	\$2,800.00
C-Water Disposal C-Contingency	339 343			\$31,300.00 \$202,100.00			\$0.00	\$31,300.00 \$202,100.00
C-Envrnmtl/Clsd Loop	344			\$2,800.00			\$0.00	\$2,800.00
C-Dyed Diesel	345			\$334,000.00			\$0.00	\$334,000.00
C-Coil Tubing	346			\$317,400.00			\$0.00	\$317,400.00
C-Flowback Crews & Equip	347			\$31,900.00			\$0.00	\$31,900.00
B-Location/Pits/Roads	353			150	\$78,700.00		\$0.00	\$78,700.00
FB-Contract Labor FB-Water Disposal	356 362		-		\$189,600.00 \$112,400.00		\$0.00 \$0.00	\$189,600.00 \$112,400.00
PEQ-Contract Labor	374		-		3112,400.00	\$2,900.00	\$0.00	\$112,400.00 \$2,900.00
PEQ-Contract Supervision	376					\$2,600.00	\$0.00	\$2,600.00
EQ-Completion Unit	381					\$5,400.00	\$0.00	\$5,400.00
PEQ-Rentals-Surface	383					\$3,600.00	\$0.00	\$3,600.00
EQ-Trkg/Forklift/Rig Mobilization	385					\$1,600.00	\$0.00	\$1,600.00
		\$17,400.00	\$2,290,500.00	\$4,949,500.00	\$380,700.00	\$16,100.00	\$0.00	\$7,654,200.00
otal Intangible Costs	The Black of	911,100.00	delma alacasa a	4-10-101000100 1	\$300,100.00	\$10,100.00	40.00	41,00-1200.00

TOTAL GLOSS COST	# 11,400.00   #2,102,000.00	\$5,030,000.00	\$1,230,100.00	\$140,100.00 }	\$0.00	43,140,200.00
Note: The above costs are estimates only.	Actual costs will be billed as incurred.		***		•	
COG Operating LLC						
Ву:				Date Prepared		
144				COG Operating LLC		
We approve:  % Working Interest				Ву:		
Company: By:						
Printed Name:				This AFF is only an estimat	e. By signing you a	nree to nev

#### COG OPERATING LLC AUTHORITY FOR EXPENDITURE **Drill & Complete**

Well Name SHL BHL Formation Legal AFE Number

Admiral Federal Com 502H Sec 28: 400' FSL 1680' FWL OR Unit N Sec 21: 50' FNL 1485' FWL OR Unit C BONE SPRING E2W2 of Sections 21 and 28 of T25S-R29E

Prospect State & County Objective Depth TVD

Atlas 2529 NEW MEXICO, EDDY DRILL & COMPLETE 19,060 8,700

Cost Description	Code	PreSpud (PS)	Drilling (DR)	Completions (C)	Tank Bitty Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Tot
angible Costs	40.4	M. Sales				C-341(45) 27		Take I to the last year
D-Surface Casing D-Intermed Csg	401 402		\$15,900.00 \$87,800.00				\$0.00 \$0.00	\$15,900.0
D-Production Casing/Liner	403		\$265,800.00				\$0.00	\$87,800.0 \$265,800.0
D-Wellhead Equip	405		\$42,600.00				\$0.00	\$42,600.0
2-Tubing	504			\$24,300.00			\$0.00	\$24,300.0
>Wellhead Equip PEQ-Pumping Unit	505 506			\$13,900.00		\$44 COD DO	\$0.00	\$13,900.0
PEQ-Rods	508					\$44,600.00 \$23,300.00	\$0.00 \$0.00	\$44,600.0 \$23,300.0
B-Tanks	510				\$84,300.00	\$20,000.00	\$0.00	\$84,300.0
B-Flowlines/Pipelines	511				\$77,200.00		\$0.00	\$77,200.0
B-Htr Trtr/Seprtr	512				\$189,600.00		\$0.00	\$189,600.0
B-Electrical System/Equipment -Pckrs/Anchors/Hgrs	513 514			£24.000.00	\$126,400.00		\$0.00	\$126,400.0
B-Couplings/Fittings/Valves	515			\$34,000.00	\$189,600.00		\$0.00 \$0.00	\$34,000.0 \$189,600.0
B-Gas Lift/Compression	516				\$133,400.00		\$0.00	\$133,400.0
B-Pumps-Surface	521				\$19,700.00		\$0.00	\$19,700.0
B-Meters/Lacts	525				\$24,600.00		\$0.00	\$24,600.0
B-Flares/Combusters/Emission	526			\$0.000.00	\$24,600.00		\$0.00	\$24,600.0
Gas Lift/Compression EQ-Instrumentation/SCADA/PO	527 529			\$8,300.00		\$3,600.00	\$0.00 \$0.00	\$8,300.0 \$3,600.0
PEQ-Tubing	530				+	\$2,600.00	\$0.00	\$2,600.0
EQ-Wellhead Equipment	531			<u> </u>	***	\$1,600.00	\$0.00	\$1,600.0
EQ-Pumps	532					\$2,600.00	\$0.00	\$2,600.00
EQ-Electrical System	533					\$7,800.00	\$0.00	\$7,800.00
EQ-Packers/Anchors/Hangers	534					\$36,300.00	\$0.00	\$36,300.00
EQ-Miscellaneous otal Tangible Costs	535	\$0.00	\$412 400 00	\$80,500.00	2000 100 00	\$1,600.00	\$0.00	\$1,600.0
THE PROPERTY OF THE PARTY OF TH	1000	\$0.00	\$412,100.00	\$60,500.00	\$869,400.00	\$124,000.00	\$0.00	\$1,486,000.0
stangible Costs		A STATE OF THE PARTY OF THE PAR		THE STATE OF				HALLMAN AND RESERVE
S-Title/Permits	201	\$5,700.00					\$0.00	\$5,700.0
-Insurance	202	\$1,600.00					\$0.00	\$1,600.0
S-Damages/ROW	203	\$9,500.00			'		\$0.00	\$9,500.0
S-Survey/Stake Lctn -Lctn/Pits/Roads	204	\$600.00	\$82,000.00				\$0.00	\$600.0
-Drilling Overhead	206		\$4,800.00				\$0.00 \$0.00	\$82,000.00 \$4,800.00
-Daywork Contract	209		\$550,100.00				\$0.00	\$550,100.00
D-Directional Drlg Services	210		\$233,400.00				\$0.00	\$233,400.0
-Fuel & Power	211		\$131,600.00				\$0.00	\$131,600.00
0-Water	212		\$30,500.00				\$0.00	\$30,500.00
P-Bits P-Mud & Chemicals	214		\$61,700.00 \$147,500.00				\$0.00 \$0.00	\$61,700.00 \$147,500.00
-Cement Surface	217		\$12,100.00				\$0.00	\$12,100.00
-Cement Intermed	218		\$56,600.00				\$0.00	\$56,600.00
-Prod-2nd Int Cmt	219		\$61,700.00				\$0.00	\$61,700.00
-Float Equipment & Centralizers	221		\$47,700.00	Ţ		- "	\$0.00	\$47,700.00
-Csg Crews & Equip -Contract Labor	222		\$31,200.00				\$0.00	\$31,200.00
-Company Sprvsn	225		\$9,500.00 \$38,200.00				\$0.00	\$9,500.00 \$38,200.00
-Contract Sprvsn	227		\$61,700.00				\$0.00	\$61,700.00
-Tstg Csg/Tbg	228		\$31,200.00				\$0.00	\$31,200.00
-Mud Logging Unit	229		\$20,400.00				\$0.00	\$20,400.00
-Perf/Wireline Svc	231		\$2,500.00				\$0.00	\$2,500.00
-Rentals-Surface -Rentals-Subsrfc	235 236		\$164,100.00 \$141,200.00				\$0.00 \$0.00	\$164,100.00
-Trucking/Forklift/Rig Mob	237		\$107,500.00				\$0.00	\$141,200.00 \$107,500.00
-Welding Services	238		\$3,200.00				\$0.00	\$3,200.00
-Contingency	243		\$39,400.00				\$0.00	\$39,400.00
-Envrnmtl/Clsd Loop	244		\$220,700.00				\$0.00	\$220,700.00
-Lctn/Pits/Roads -Frac Equipment	305 307			\$4,900.00 \$895,900.00			\$0.00	\$4,900.00 \$895,900.00
-Frac Chemicals	308			\$545,800.00			\$0.00	\$545,800.00
-Frac Proppant	309			\$849,300.00			\$0.00	\$849,300.00
-Frac Proppant Transportation	310			\$132,600.00			\$0.00	\$132,600.00
Fuel & Power	311			\$8,300.00			\$0.00	\$8,300.00
-Water	312			\$643,100.00			\$0.00	\$643,100.00
-Bits -Mud & Chemicals	313			\$9,700.00 \$18,100.00			\$0.00	\$9,700.00
-Contract Labor	325		-	\$9,700.00			\$0.00 \$0.00	\$18,100.00 \$9,7 <b>0</b> 0.00
-Company Sprvsn	326			\$15,300.00			\$0.00	\$15,300.00
-Contract Sprvsn	327			\$209,700.00			\$0.00	\$209,700.00
-Tstg Csg/Tbg	328			\$2,800.00		/	\$0.00	\$2,800.00
-Perf/Wireline Svc -Stimulation/Treating	331 332			\$359,700.00 \$6,300.00			\$0.00	\$359,700.00
-Sumulation/Treating -Completion Unit	333			\$31,300.00		-	\$0.00 \$0.00	\$6,300.00 \$31,300.00
Rentals-Surface	335			\$239,600.00			\$0.00	\$239,600.00
-Rentals-Subsrfc	336			\$34,000.00			\$0.00	\$34,000.00
-Trucking/Forklift/Rig Mob	337			\$11,100.00			\$0.00	\$11,100.00
Welding Services	338			\$2,800.00			\$0.00	\$2,800.00
-Water Disposal -Contingency	339			\$31,300.00 \$202,100.00			\$0.00 \$0.00	\$31,300.00
-Environti/Cisd Loop	344		-	\$2,800.00			\$0.00	\$202,100.00 \$2,800.00
Dyed Diesel	345			\$334,000.00			\$0.00	\$334,000.00
Coil Tubing	346			\$317,400.00			\$0.00	\$317,400.00
Flowback Crews & Equip	347			\$31,900.00			\$0.00	\$31,900.00
3-Location/Pits/Roads	353				\$78,700.00		\$0.00	\$78,700.00
3-Contract Labor 3-Water Disposal	356 362	<del></del>			\$189,600.00		\$0.00	\$189,600.00
EQ-Contract Labor	374			+	\$112,400.00	\$2,900.00	\$0.00	\$112,400.00 \$2,900.00
EQ-Contract Supervision	376			-		\$2,600.00	\$0.00	\$2,900.00
EQ-Completion Unit	381					\$5,400.00	\$0.00	\$5,400.00
	383					\$3,600.00	\$0.00	\$3,600.00
EQ-Rentals-Surface						\$1,600.00	\$0.00	\$1,600.00
EQ-Trkg/Forklift/Rig Mobilization	385							
	385	\$17,400.00	\$2,290,500.00	\$4,949,500.00	\$380,700.00	\$16,100.00	\$0.00	
Q-Trkg/Forklift/Rig Mobilization	385		\$2,290,500.00 \$2,702,600.00	\$4,949,500.00 \$5,030,000.00	\$380,700.00			\$7,654,200.00 \$9,140,200.00

COG Operating LLC	
Ву:	Date Prepared:
We approve:	COG Operating LLC  By:
Company: By:	
Printed Name: Title:	This AFE is only an e

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

#### COG OPERATING LLC AUTHORITY FOR EXPENDITURE **Drill & Complete**

Well Name SHL BHL Formation Legal AFE Numbers Admiral Federal Com 503H
Sec 28: 400' FSL 1710' FWL OR Unit N
Sec 21: 50' FNL 2630' FWL OR Unit C OR Unit B
BONE SPRING
E2W2 OR W2E2 of Sections 21 and 28 of T25S-R29E

Atlas 2529 NEW MEXICO, EDDY DRILL & COMPLETE 19,060 8,700 Prospect State & County Objective Depth TVD

angible Costs	Code	PreSpud (PS)	Drilling (DR)	completions (C)	Tank Bitty Constrctn(TB)	rmpq Equip (PEQ	) Revision	i) To
)-Surface Casing	401		\$15,900.00	<u> </u>			\$0.00	
Intermed Csg	402		\$87,800.00				\$0.00	
P-Production Casing/Liner P-Wellhead Equip	403 405		\$265,800.00 \$42,600.00				\$0.00 \$0.00	\$265,800.0 \$42,600.0
-Tubing	504			\$24,300.00			\$0.00	\$24,300.0
-Wellhead Equip	505			\$13,900.00		******	\$0.00	\$13,900.0
EQ-Pumping Unit EQ-Rods	506 508					\$44,600.00 \$23,300.00	\$0.00 \$0.00	\$44,600.0 \$23,300.0
B-Tanks	510				\$84,300.00	<b>\$20,000.00</b>	\$0.00	\$84,300.0
B-Flowlines/Pipelines	511				\$77,200.00		\$0.00	\$77,200.0
B-Htr Trtr/Seprtr B-Electrical System/Equipment	512 513				\$189,600.00		\$0.00	\$189,600.0
-Pckrs/Anchors/Hgrs	513	<u></u>		\$34,000.00	\$126,400.00		\$0.00	\$126,400.0 \$34,000.0
B-Couplings/Fittings/Valves	515				\$189,600.00		\$0.00	\$189,600.0
B-Gas Lift/Compression	516				\$133,400.00		\$0.00	\$133,400.0
B-Pumps-Surface B-Meters/Lacts	521 525				\$19,700.00 \$24,600.00		\$0.00 \$0.00	\$19,700.0 \$24,600.0
B-Flares/Combusters/Emission	526				\$24,600.00		\$0.00	\$24,600.0
-Gas Lift/Compression	527			\$8,300.00			\$0.00	\$8,300.0
EQ-Instrumentation/SCADA/PO	529					\$3,600.00		\$3,600.
EQ-Tubing EQ-Wellhead Equipment	530 531					\$2,600.00 \$1,600.00	\$0.00 \$0.00	\$2,600.0 \$1,600.0
EQ-Pumps	532					\$2,600.00	\$0.00	\$2,600.0
EQ-Electrical System	533					\$7,800.00	\$0.00	\$7,800.0
EQ-Packers/Anchors/Hangers	534					\$36,300.00	\$0.00	\$36,300.0
EQ-Miscellaneous otal Tangible Costs	535	\$0.00	\$412,100.00	\$80,500.00	\$869,400.00	\$1,600.00 \$124,000.00	\$0.00 \$0.00	\$1,600.0 \$1,486,000.1
		\$0.00	4412,100.00	400,000.00	***************************************	\$124,000.00	1 30.00	\$1,400,000.0
tangible Costs S-Title/Permits	201	\$5,700.00					\$0.00	\$6.700.0
-Insurance	201	\$1,600.00					\$0.00	\$5,700.0 \$1,600.0
S-Damages/ROW	203	\$9,500.00					\$0.00	\$9,500.0
S-Survey/Stake Lctn	204	\$600.00	<b>#</b> ## ***				\$0.00	\$600.0
-Lctn/Pits/Roads -Drilling Overhead	205 206		\$82,000.00 \$4,800.00				\$0.00 \$0.00	\$82,000.0 \$4,800.0
-Daywork Contract	209		\$550,100.00				\$0.00	\$4,800.0 \$550,100.0
-Directional Drlg Services	210		\$233,400.00				\$0.00	\$233,400.0
-Fuel & Power -Water	211		\$131,600.00				\$0.00	\$131,600.0
-vvater -Bits	212 213		\$30,500.00 \$61,700.00			<del></del>	\$0.00	\$30,500.0 \$61,700.0
-Mud & Chemicals	214		\$147,500.00				\$0.00	\$147,500.0
-Cement Surface	217		\$12,100.00				\$0.00	\$12,100.0
-Cement Intermed	218		\$56,600.00			·····	\$0.00	\$56,600.0
-Prod-2nd Int Cmt -Float Equipment & Centralizers	219 221		\$61,700.00 \$47,700.00				\$0.00 \$0.00	\$61,700.0 \$47,700.0
-Csg Crews & Equip	222		\$31,200.00				\$0.00	\$31,200.0
-Contract Labor	225		\$9,500.00				\$0.00	\$9,500.0
-Company Sprvsn	226		\$38,200.00				\$0.00	\$38,200.0
-Contract Sprvsn -Tstg Csg/Tbg	227 228		\$61,700.00 \$31,200.00				\$0.00	\$61,700.0 \$31,200.0
-Mud Logging Unit	229		\$20,400.00				\$0.00	\$20,400.0
-Perf/Wireline Svc	231		\$2,500.00				\$0.00	\$2,500.0
-Rentals-Surface	235		\$164,100.00				\$0.00	\$164,100.0
-Rentals-Subsrfc -Trucking/Forklift/Rig Mob	236 237		\$141,200.00 \$107,500.00		<del></del>		\$0.00	\$141,200.0 \$107,500.0
-Welding Services	238		\$3,200.00				\$0.00	\$3,200.0
-Contingency	243		\$39,400.00				\$0.00	\$39,400.0
-Envrnmtl/Cisd Loop	244		\$220,700.00	******			\$0.00	\$220,700.0
-Lctn/Pits/Roads -Frac Equipment	305 307			\$4,900.00 \$895,900.00			\$0.00 \$0.00	\$4,900.0 \$895,900.0
-Frac Chemicals	308			\$545,800.00			\$0.00	\$545,800.0
-Frac Proppant	309			\$849,300.00			\$0.00	\$849,300.0
-Frac Proppant Transportation -Fuel & Power	310 311			\$132,600.00 \$8,300.00			\$0.00	\$132,600.0 \$8,300.0
-Water	312			\$643,100.00			\$0.00	\$643,100.0
-Bits	313			\$9,700.00		<u></u>	\$0.00	\$9,700.0
Mud & Chemicals	314			\$18,100.00			\$0.00	\$18,100.0
Contract Labor Company Sprvsn	325 326			\$9,700.00 \$15,300.00			\$0.00 \$0.00	\$9,700.0 \$15,300.0
Contract Sprvsn	327			\$209,700.00	<del></del>		\$0.00	\$209,700.0
Tstg Csg/Tbg	328			\$2,800.00			\$0.00	\$2,800.0
Perf/Wireline Svc	331			\$359,700.00			\$0.00	\$359,700.0
Stimulation/Treating Completion Unit	332			\$6,300.00 \$31,300.00			\$0.00 \$0.00	\$6,300.0 \$31,300.0
Rentals-Surface	335			\$239,600.00			\$0.00	\$239,600.0
Rentals-Subsrfc	336			\$34,000.00			\$0.00	\$34,000.0
Trucking/Forklift/Rig Mob Welding Services	337			\$11,100.00			\$0.00	\$11,100.0
Water Disposal	338			\$2,800.00 \$31,300.00			\$0.00 \$0.00	\$2,800.0 \$31,300.0
Contingency	343			\$202,100.00			\$0.00	\$202,100.0
Envmmtl/Clsd Loop	344			\$2,800.00			\$0.00	\$2,800.0
Dyed Diesel Coil Tubing	345			\$334,000.00			\$0.00	\$334,000.0
Coil Tubing Flowback Crews & Equip	346			\$317,400.00 \$31,900.00			\$0.00 \$0.00	\$317,400.0 \$31,900.0
3-Location/Pits/Roads	353			Q01,300.00	\$78,700.00		\$0.00	\$78,700.0
3-Contract Labor	356				\$189,600.00		\$0.00	\$189,600.0
3-Water Disposal	362				\$112,400.00	******	\$0.00	\$112,400.0
EQ-Contract Labor EQ-Contract Supervision	374 376					\$2,900.00 \$2,600.00	\$0.00	\$2,900.0
EQ-Completion Unit	381		-		<del></del>	\$2,600.00	\$0.00 \$0.00	\$2,600.0 \$5,400.0
Q-Rentals-Surface	383					\$3,600.00	\$0.00	\$3,600.0
Q-Trkg/Forklift/Rig Mobilization	385					\$1,600.00	\$0.00	\$1,600.0
		\$17,400,00	\$2,290,500.00	\$4,949,500.00	\$380,700.00	\$16,100.00	\$0.00	\$7,654,200.0
otal Intangible Costs	2004	411,100.00	V-	. , , ,			74.44	41,004,2000

317,400.00 32,702,600.00 35,030,0	00.00   \$1,200,100.00   \$140,700.00   \$0.00   \$9,140,200.00
Note: The above costs are estimates only. Actual costs will be billed as incurred.	
COG Operating LLC	
<u>By:</u>	Date Prepared:
We conside	COG Operating LLC
We approve:  % Working Interest	Ву:
Company: By:	
Printed Name:	

#### **COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete**

Well Na SHL BHL

Formation

Date

Admiral Federal Com 504H Sec 28: 320' FSL 1330' FWL OR Unit O OR Unit P Sec 21: 50' FNL 1485' FWL OR Unit B BONE SPRING

W2E2 of Sections 21 and 28 of T25S-R29F

Prospect State & County Objective Depth TVN

Atlas 2529 NEW MEXICO, EDDY DRILL & COMPLETE 19,060

AFF Numbers Cost Description Tangible Costs Code PreSoud (PS) Drilling (DR) Completions (C) Tank Bity Constrctn(TB) Pmpq Equip (PEQ) Revision Total D-Surface Casing
D-Intermed Csg
D-Production Casing/Line
D-Wellhead Equip
C-Tubing \$15,900.00 \$87,800.00 \$265,800.00 \$42,600.00 \$15,900.00 \$87,800.00 265,800.00 \$42,600.00 402 403 405 504 506 508 510 \$24,300.00 \$13,900.00 \$24,300.00 \$13,900.00 \$44,600.00 \$23,300.00 C-Tubing
C-Wellhead Equip
PEQ-Pumping Unit
PEQ-Rods
TB-Tanks \$84,300.00 \$77,200.00 \$189,600.00 \$126,400.00 \$4,300.00 \$17,200.00 \$189,600.00 \$189,600.00 \$34,000.00 \$189,600.00 \$19,700.00 \$24,600.00 \$24,600.00 \$3,300.00 \$2,600.00 \$1,600.00 \$1,600.00 \$1,600.00 \$1,600.00 TB-Flowlines/Pipelines TB-Flowines/Pipelines
TB-Htr Trtr/Seprtr
TB-Electrical System/Equipment
C-Pckrs/Anchors/Hgrs
TB-Couplings/Fittings/Valves
TB-Gas Lift/Compression
TB-Pumps-Surface
TB-Meters/Lacts
TB-Flares/Combusters/Emission
C-Gas Lift/Compression
C-Gas Lift/Compression
PEQ-Instrumentation/SCADA/PO
PEQ-Tubing \$34,000.00 \$189,600.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$133,400.00 \$19,700.00 \$24,600.00 \$24,600.00 525 526 527 529 530 \$8,300.00 Q-Tubing Q-Wellhead Equipment PEQ-Electrical System
PEQ-Packers/Anchors/Hangers
PEQ-Miscellaneous \$1,486,000.00 \$0.00 \$412,100.00 \$869,400.00 **Total Tangible Costs** \$80,500.00 \$124,000.00 \$0.00 Intangible Costs S-Title/Permits -Insurance \$5,700.00 \$1,600.00 \$9,500.00 \$600.00 \$4,800.00 \$4,800.00 \$550,100.00 \$233,400.00 \$131,600.00 \$61,700.00 \$1,600.00 \$9,500.00 \$600.00 \$0.00 \$0.00 \$0.00 \$0.00 D-Insurance PS-Damages/ROW PS-Survey/Stake Lctn D-Lctn/Pits/Roads D-Drilling Overhead \$82,000.00 \$4,800.00 \$550,100.00 \$233,400.00 \$131,600.00 \$30,500.00 \$61,700.00 D-Daywork Contrac 209 210 D-Directional Drlg Services D-Fuel & Power D-Water \$30,500.00 \$61,700.00 \$147,500.00 \$147,500.00 \$12,100.00 \$56,600.00 \$47,700.00 \$31,200.00 \$9,500.00 \$31,200.00 \$31,200.00 \$31,200.00 \$31,200.00 \$1,700.00 \$20,400.00 \$2,500.00 \$164,100.00 \$141,200.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 -Mud & Chemicals \$12,100.00 \$56,600.00 \$61,700.00 \$47,700.00 D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cmt -Float Equipment & Centralizer: \$0.00 D-Float Equipment & C)
D-Csg Crews & Equip
D-Contract Labor
D-Company Sprvsn
D-Contract Sprvsn
D-Tstg Csg/Tbg
D-Mud Logging Unit
D-Perf/Wireline Svc
D-Rentals-Surface
D-Rentals-Subsrfc \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$2,500.00 \$164,100.00 \$141,200.00 \$107,500.00 \$3,200.00 \$39,400.00 Rentals-Subsrfi \$141,200.9 \$107,500.9 Trucking/Forklift/Rig Mob D-Welding Services
D-Contingency
D-Envmmtl/Clsd Loop
C-Lctn/Pits/Roads \$0.00 \$0.00 \$0.00 \$4,900.00 -Frac Equipment
-Frac Proppant
-Frac Proppant
-Frac Proppant Transportation
-Fuel & Power \$0.00 \$0.00 \$0.00 \$132,600.00 \$8,300.00 \$643,100.00 \$9,700.00 \$18,100.00 \$9,700.00 \$15,300.00 \$209,700.00 \$2,800.00 \$359,700.00 312 Mud & Chemicals Contract Labor Company Sprvsn Contract Sprvsn
-Tstg Csg/Tbg
-Perf/Wireline Svc
-Stimulation/Treating \$6,300.00 \$31,300.00 \$239,600.00 \$34,000.00 \$11,100.00 Completion Unit \$11,100.00 \$2,800.00 \$31,300.00 \$202,100.00 \$2,800.00 \$334,000.00 \$317,400.00 \$78,700.00 \$189,600.00 \$112,400.00 \$31,300.00 -Water Disposal
-Contingency
-Envmmtl/Clsd Loop
-Dived Diesel
-Coil Tubing
-Flowback Crews & Equip
-B-Location/Pits/Roads
-B-Contract Labor
-E-Water Disposal 344 345 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 346 347 \$31,900.00 \$78,700.00 \$189,600.00 \$112,400.00 353 356 362 374 \$2,900.00 \$0.00 \$0.00 \$0.00 EQ-Contract Labor PEQ-Contract Supervision
PEQ-Completion Unit
PEQ-Rentals-Surface
PEQ-Trkg/Forklift/Rig Mobi

Total Intangible Costs	\$17,400.00 \$2,290,500.	00 \$4,949,500.00	\$380,700.00	\$16,100.00	\$0.00	\$7,654,200.00
Total Gross Cost	\$17,400.00 \$2,702,600.	00 \$5,030,000.00	\$1,250,100.00	\$140,100.00	\$0.00	\$9,140,200.00
Note: The above costs are estimates only						
COG Operating LLC						
Ву:				Date Prepared:		
				COG Operating LLC		
We approve: <u>% Working Interest</u>				Ву:	<del></del> .	
Company: By:						
Printed Name:				This AFF is only an actima	do Busienias ver	anna ta anu

## COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete

Well Name SHL, BHL Formation Legal AFE Numbers Admiral Federal Com 505H
Sec 28: 320' FSL 1300' FWL OR Unit P
Sec 21: 50' FNL 330' FWL OR Unit A
BONE SPRING
E2E2 of Sections 21 and 28 of T25S-R29E

Prospect State & County Objective Depth TVD

Atlas 2529 NEW MEXICO, EDDY DRILL & COMPLETE 19,060 8,700

Cost Description Tangible Costs	Code	PreSpud (PS)	Drilling (DR)	Completions (C) T	ank Bity Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Total
D-Surface Casing	401	T T	\$15,900.00				\$0.00	£45,000,00
D-Intermed Csq	402	<del>                                     </del>	\$87,800.00	<del>                                     </del>			\$0.00	\$15,900.00 \$87,800.00
D-Production Casing/Liner	403		\$265,800.00	-	·	-	\$0.00	\$265,800.00
D-Wellhead Equip	405		\$42,600.00				\$0.00	\$42,600.00
C-Tubing	504			\$24,300.00			\$0.00	\$24,300.00
C-Wellhead Equip	505			\$13,900.00			\$0.00	\$13,900.00
PEQ-Pumping Unit	506		<u> </u>			\$44,600.00	\$0.00	\$44,600.00
PEQ-Rods TB-Tanks	508 510					\$23,300.00	\$0.00	\$23,300.00
TB-Flowlines/Pipelines	511				\$84,300.00		\$0.00	\$84,300.00
TB-Htr Trtr/Seprir	512		1		\$77,200.00		\$0.00	\$77,200.00
TB-Electrical System/Equipment	513				\$189,600.00 \$126,400.00		\$0.00	\$189,600.00
C-Pckrs/Anchors/Hgrs	514			\$34,000.00	\$126,400.00		\$0.00	\$126,400.00
TB-Couplings/Fittings/Valves	515		-	\$34,000.00	\$189,600.00		\$0.00	\$34,000.00
TB-Gas Lift/Compression	516			-	\$133,400.00		\$0.00 \$0.00	\$189,600.00 \$133,400.00
TB-Pumps-Surface	521				\$19,700.00		\$0.00	\$19,700.00
TB-Meters/Lacts	525				\$24,600.00		\$0.00	\$24,600.00
TB-Flares/Combusters/Emission	526				\$24,600.00	-	\$0.00	\$24,600.00
C-Gas Lift/Compression	527			\$8,300.00			\$0.00	\$8,300.00
PEQ-Instrumentation/SCADA/PO	529					\$3,600.00	\$0.00	\$3,600.00
PEQ-Tubing	530		ļ			\$2,600.00	\$0.00	\$2,600.00
PEQ-Wellhead Equipment	531					\$1,600.00	\$0.00	\$1,600.00
PEQ-Pumps	532					\$2,600.00	\$0.00	\$2,600.00
PEQ-Electrical System	533					\$7,800.00	\$0.00	\$7,800.00
PEQ-Packers/Anchors/Hangers	534		-	<u> </u>		\$36,300.00	\$0.00	\$36,300.00
PEQ-Miscellaneous Total Tangible Costs	535	An an	9440 400 00	\$60 PAC AC		\$1,600.00	\$0.00	\$1,600.00
Total Tangible Costs		\$0.00	\$412,100.00	\$80,500.00	\$869,400.00	\$124,000.00	\$0.00	\$1,486,000.00
Intangible Costs	40 may 1 may	· · · · · · · · · · · · · · · · · · ·			a seef and found to be seen to be			
PS-Title/Permits	201	\$5,700.00					\$0.00	\$5,700.00
D-Insurance	202	\$1,600.00	<del>                                     </del>	<del>                                     </del>	<del></del>		\$0.00	\$5,700.00
PS-Damages/ROW	203	\$9,500.00		<del></del>			\$0.00	\$9,500.00
PS-Survey/Stake Lctn	204	\$600.00			-		\$0.00	\$600.00
D-Lctn/Pits/Roads	205		\$82,000.00				\$0.00	\$82,000.00
D-Drilling Overhead	206		\$4,800.00				\$0.00	\$4,800.00
D-Daywork Contract	209		\$550,100.00				\$0.00	\$550,100.00
D-Directional Drig Services	210		\$233,400.00				\$0.00	\$233,400.00
D-Fuel & Power	211		\$131,600.00				\$0.00	\$131,600.00
D-Water	212		\$30,500.00				\$0.00	\$30,500.00
D-Bits D-Mud & Chemicals	213 214		\$61,700.00 \$147,500.00	-			\$0.00	\$61,700.00
D-Cement Surface	217		\$12,100.00	<del></del>			\$0.00 \$0.00	\$147,500.00
D-Cement Intermed	218		\$56,600.00			-	\$0.00	\$12,100.00 \$56,600.00
D-Prod-2nd Int Cmt	219		\$61,700.00		<del></del>		\$0.00	\$61,700.00
D-Float Equipment & Centralizers	221		\$47,700.00				\$0.00	\$47,700.00
D-Csq Crews & Equip	222		\$31,200.00				\$0.00	\$31,200.00
D-Contract Labor	225		\$9,500.00				\$0.00	\$9,500.00
D-Company Sprvsn	226		\$38,200.00				\$0.00	\$38,200.00
D-Contract Sprvsn	227		\$61,700.00				\$0.00	\$61,700.00
D-Tstg Csg/Tbg	228		\$31,200.00				\$0.00	\$31,200.00
D-Mud Logging Unit	229		\$20,400.00				\$0.00	\$20,400.00
D-Perf/Wireline Svc	231		\$2,500.00				\$0.00	\$2,500.00
D-Rentals-Surface D-Rentals-Subsrfc	235		\$164,100.00				\$0.00	\$164,100.00
D-Trucking/Forklift/Rig Mob	236		\$141,200.00 \$107,500.00				\$0.00	\$141,200.00
D-Welding Services	238		\$3,200.00				\$0.00	\$107,500.00
D-Contingency	243		\$39,400.00				\$0.00	\$3,200.00 \$39,400.00
D-Envrnmtl/Clsd Loop	244		\$220,700.00				\$0.00	\$220,700.00
C-Lctn/Pits/Roads	305			\$4,900.00			\$0.00	\$4,900.00
C-Frac Equipment	307			\$895,900.00			\$0.00	\$895,900.00
C-Frac Chemicals	308			\$545,800.00			\$0.00	\$545,800.00
C-Frac Proppant	309			\$849,300.00			\$0.00	\$849,300.00
C-Frac Proppant Transportation	310			\$132,600.00			\$0.00	\$132,600.00
C-Fuel & Power	311			\$8,300.00			\$0.00	\$8,300.00
C-Water	312			\$643,100.00			\$0.00	\$643,100.00
C-Bits C-Mud & Chemicals	313 314		<del></del>	\$9,700.00			\$0.00	\$9,700.00
C-Contract Labor	325			\$18,100.00 \$9,700.00			\$0.00	\$18,100.00
C-Company Sprvsn	326	· · · · · · · · · · · · · · · · · · ·		\$15,300.00			\$0.00	\$9,700.00 \$15,300.00
C-Contract Sprvsn	327			\$209,700.00			\$0.00	\$209,700.00
C-Tstg Csg/Tbg	328			\$2,800.00			\$0.00	\$2,800.00
C-Perf/Wireline Svc	331			\$359,700.00			\$0.00	\$359,700.00
C-Stimulation/Treating	332			\$6,300.00			\$0.00	\$6,300.00
C-Completion Unit	333			\$31,300.00			\$0.00	\$31,300.00
C-Rentals-Surface	335			\$239,600.00			\$0.00	\$239,600.00
C-Rentals-Subsrfc	336			\$34,000.00			\$0.00	\$34,000.00
C-Trucking/Forklift/Rig Mob	337			\$11,100.00			\$0.00	\$11,100.00
C-Welding Services	338		<b></b> _	\$2,800.00			\$0.00	\$2,800.00
C-Water Disposal	339			\$31,300.00			\$0.00	\$31,300.00
C-Contingency C-Envrnmtl/Clsd Loop	343 344			\$202,100.00			\$0.00	\$202,100.00
C-Environti/Cisa Loop C-Dyed Diesel	344			\$2,800.00 \$334,000.00			\$0.00	\$2,800.00
C-Coil Tubing	345		<del>                                     </del>	\$317,400.00			\$0.00 \$0.00	\$334,000.00
C-Flowback Crews & Equip	347			\$31,900.00			\$0.00	\$317,400.00 \$31,900.00
	353			43,1003,00	\$78,700.00		\$0.00	\$78,700.00
TB-Location/Pits/Roads	356				\$189,600.00		\$0.00	\$189,600.00
TB-Contract Labor					\$112,400.00		\$0.00	\$112,400.00
	362					\$2,900.00	\$0.00	\$2,900.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor	374					\$2,600.00	\$0.00	\$2,600.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision	374 376						40.00	
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision PEQ-Completion Unit	374 376 381					\$5,400.00	\$0.00	\$5,400.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision PEQ-Completion Unit PEQ-Rentals-Surface	374 376 381 383					\$5,400.00 \$3,600.00	\$0.00 \$0.00	\$5,400.00 \$3,600.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision PEQ-Completion Unit PEQ-Rentals-Surface PEQ-Trkg/Forklift/Rig Mobilization	374 376 381					\$5,400.00 \$3,600.00 \$1,600.00	\$0.00 \$0.00 \$0.00	\$5,400.00 \$3,600.00 \$1,600.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision	374 376 381 383	\$17,400.00	\$2,290,500.00	\$4,949,500.00	\$380,700.00	\$5,400.00 \$3,600.00	\$0.00 \$0.00	\$5,400.00 \$3,600.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision PEQ-Completion Unit PEQ-Rentals-Surface PEQ-Trkg/Forklift/Rig Mobilization Total Intangible Costs	374 376 381 383					\$5,400.00 \$3,600.00 \$1,600.00 \$16,100.00	\$0.00 \$0.00 \$0.00 \$0.00	\$5,400.00 \$3,600.00 \$1,600.00 \$7,654,200.00
TB-Contract Labor TB-Water Disposal PEQ-Contract Labor PEQ-Contract Supervision PEQ-Completion Unit PEQ-Rentals-Surface PEQ-Trkg/Forklift/Rig Mobilization Total Intangible Costs  Total Gross Cost	374 376 381 383 385	\$17,400.00	\$2,702,600.00	\$5,030,000.00	\$380,700.00 \$1,250,100.00	\$5,400.00 \$3,600.00 \$1,600.00	\$0.00 \$0.00 \$0.00	\$5,400.00 \$3,600.00 \$1,600.00
[B-Contract Labor  [B-Water Disposal  PEQ-Contract Labor  PEQ-Completion Unit  PEQ-Rentals-Surface  PEQ-Trkg/Forklift/Rig Mobilization  Total Intangible Costs	374 376 381 383 385	\$17,400.00	\$2,702,600.00	\$5,030,000.00		\$5,400.00 \$3,600.00 \$1,600.00 \$16,100.00	\$0.00 \$0.00 \$0.00 \$0.00	\$5,400.00 \$3,600.00 \$1,600.00 \$7,854,200.00

COG Operating LLC	***
Ву:	Date Prepared:
We approve: <u>% Working Interest</u>	COG Operating LLC  By:
Company: By:	
Printed Name: Title:	This AFE is only an estimate. By signir
0.11	

#### **Monica Beal**

Concho Resources Inc. • 432-818-2310 • mbeal@concho.com

**EXPERIENCE** 

Concho Resources Inc., Midland, TX

October 2017 – Present

<u>Landman I</u>

Concho Resources Inc., Midland, TX

**January 2017 – October 2017** 

**Lease Analyst** 

Concho Resources Inc., Midland, TX

Summer 2016

December 2016

<u>Land Intern</u>

**EDUCATION** 

University of Oklahoma, Norman, OK

Bachelor of Business Administration

Major: Energy Management

Minor: Finance **GPA: 3.59** 

**ORGANIZATIONS AND MEMBERSHIPS** 

American Association of Professional Landmen (AAPL)

Member

Permian Basin Landmen's Association (PBLA)

Member

Hearing Date: November 14, 2019

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC

FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

**CASE NO. 20836** 

**AFFIDAVIT OF TRAVIS SPARKS** 

Travis Sparks, of lawful age and being first duly sworn, declares as follows:

1. My name is Travis Sparks, and I am a Geologist with COG Operating LLC

("COG").

2. I have previously testified before the New Mexico Oil Conservation Division

("Division") as an expert witness in petroleum land matters, and my credentials have been accepted

and made a matter of public record.

3. I am familiar with the application filed by COG in this case and I have conducted

a geologic study of the targeted 2<sup>nd</sup> Bone Spring formation underlying the subject acreage.

4. COG Exhibit No. B-1 is a project locator map that reflects COG's acreage in

yellow. The paths of the proposed wells are depicted by dashed orange lines. Existing producing

wells in the 2<sup>nd</sup> Bone Spring interval are represented by solid orange lines.

5. COG is targeting the 2<sup>nd</sup> Bone Spring formation with its proposed Admiral Fed

Com 501H, Admiral Fed Com 502H, Admiral Fed Com 503H, Admiral Fed Com 504H, and

Admiral Fed Com 505H wells. COG Exhibit No. B-2 is a subsea structure map that I prepared

for the top of the 2<sup>nd</sup> Bone Spring interval that is representative of the targeted interval within the

Bone Spring formation. The structure map shows that the formation is gently dipping to the east

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Case No. 20836 Exhibit No. B Submitted by: in this area. I do not observe any faulting, pinch-outs, or other geologic impediments to developing the targeted 2<sup>nd</sup> Bone Spring interval with horizontal wells in this area.

- 6. **COG Exhibit No. B-3** overlays a cross-section line in red consisting of three wells penetrating the Bone Spring formation that I used to construct a stratigraphic cross-section from A to A'. I consider these well logs are representative of the geology in the area.
- 7. **COG Exhibit No. B-4** is a stratigraphic cross-section using the representative wells depicted on Exhibit B-3. Each well in the cross-section contains gamma ray, resistivity, and porosity logs. The proposed target intervals in the Bone Spring formation are labeled on the exhibit. The cross-section demonstrates that the targeted interval is continuous across the proposed spacing unit.
- 8. In my opinion, the stand-up orientation of the proposed wells is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.
- 9. Based on my geologic study, the targeted interval underlying the subject area is suitable for development by horizontal wells, and the acreage comprising the proposed spacing unit will contribute, more-or-less, equally to the production from the wellbores.
- 10. In my opinion, the granting of COG's application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.
- 11. COG Exhibit Nos. B-1 through B-4 were either prepared by me or compiled under my direction and supervision.

#### THIS CONCLUDES AFFIANT'S STATEMENT.

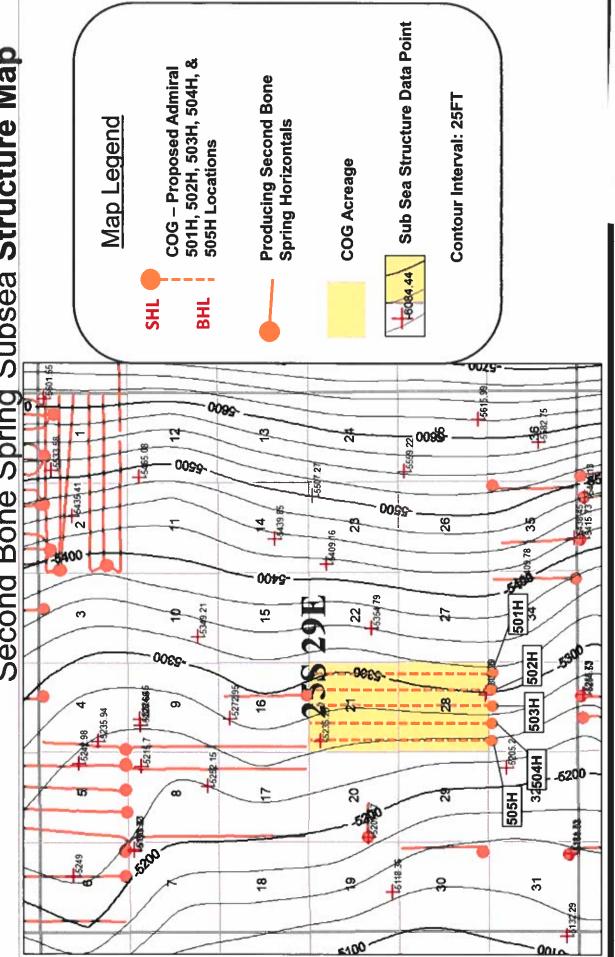
	Travis Sparts Affiant
STATE OF TEXAS  COUNTY OF Midland	
SUBSCRIBED and SWORN to before re	me this 12+4 day of November, by  Makes Hules  NOTARY PUBLIC
My Commission Expires:	Mickde J Allen  Notary Public, State of Texas  Notary ID 13190616-6  My Commission Eqs. 02-26-2023



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 20836 Exhibit No. B -1
Submitted by:
COG OPERATING LLC
Hearing Date: November 14, 2019

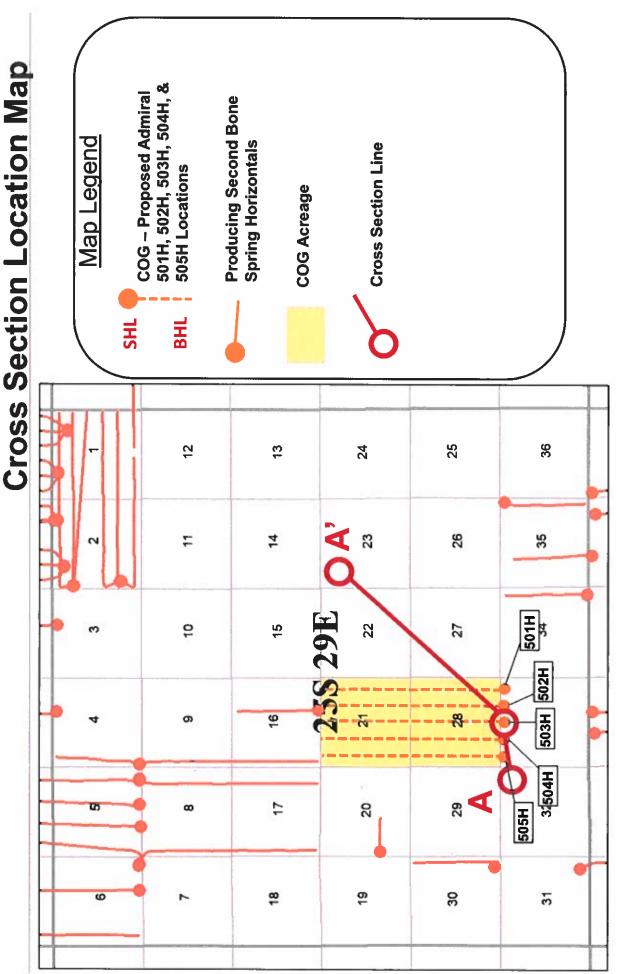
**Bone Spring Pool** 

Second Bone Spring Subsea Structure Map





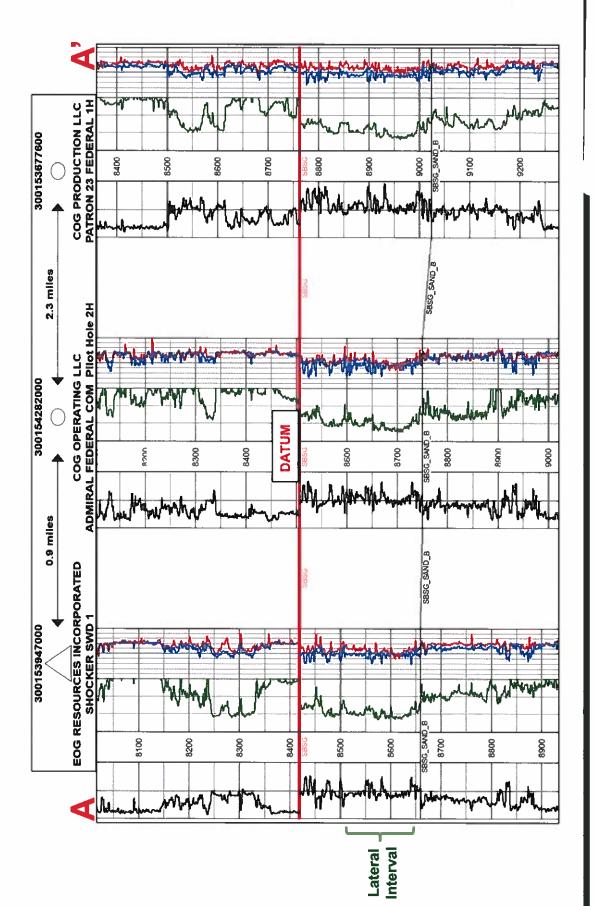
BEFORE THE OIL CONSERVATION DIVISION Submitted by:
COG OPERATING LLC
Hearing Date: November 14, 2019 Santa Fe, New Mexico Case No. 20836 Exhibit No.





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 20836 Exhibit No. B-3
Submitted by:
COG OPERATING LLC
Hearing Date: November 14, 2019

# Stratigraphic Cross Section A – A'





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 20836 Exhibit No. B-4
Submitted by:
COG OPERATING LLC
Hearing Date: November 14, 2019

## STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

**CASE NO. 20836** 

#### **AFFIDAVIT**

STATE OF NEW MEXICO	)
	) ss
COUNTY OF SANTA FE	)

Michael Rodriguez, attorney and authorized representative of COG Operating LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under the notice letter and proof of receipt attached hereto.

Michael Rodriguez

SUBSCRIBED AND SWORN to before me this 13th day of November 2019 by Michael

Rodriguez.



Notary Miblic



October 25, 2019

#### VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

#### TO ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Case No. 20836: Application of COG Operating, LLC for compulsory pooling, Eddy County, New Mexico.

To Whom It May Concern:

This letter is to advise you that COG Operating LLC has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on November 14, 2019, and the status of the hearing can be monitored through the Division's website at http://www.emnrd.state.nm.us/ocd/. Division hearings will commence at 8:15 a.m. in Porter Hall at the Oil Conservation Division's Santa Fe offices located at 1200 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Pursuant to Division Rule 19.135.4.13.B, parties appearing in a case are required to file a Prehearing Statement at least four business days in advance of a scheduled hearing, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date. The statement must be filed at the Division's Santa Fe office at the above-specified address and should include: the names of the parties and their attorneys, a concise statement of the case, the names of all witnesses the party will call to testify at the hearing, the approximate time the party will need to present its case, and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Monica Beal at (432) 818-2310 or mbeal@concho.com.

Sincerely,

#### WI Owner

#### **Devon Energy Production Company LP** 333 W Sheridan Ave. Oklahoma City, OK 73102

#### **ORRI Owners**

#### Nestegg Energy Corporation 2308 Sierra Vista RD Artesia, NM 88210

#### Paul R. Barwis and wife, Dianne Barwis c/o Dutton, Harris & Assoc. P.O. Box 230 Midland, TX 79702

#### Jareed Partners, Ltd. P.O. Box 51451 Midland, TX 79710

#### Kingdom Investments, Limited 2102 Cedar Springs Rd, Suite 600 Dallas, TX 75201

#### Kimbell Royalty Holdings, LLC c/o Duncan Management LLC, Agent P.O. Box 671099 Dallas, TX 75367 OR 777 Taylor St, Suite 810 Ft. Worth, TX 76102

#### John D. Bergman, Trustee of the Penwell Energy Royalty Pool 200 N. Loraine Street #1550 Midland, TX 79701

#### **Devon Energy Production Company** 333 W. Sheridan Ave Oklahoma City, OK 73102

#### John Kyle Thoma, Trustee of the Cornerstone Family Trust P.O. Box 558 Peyton, CO 80831

#### CrownRock Minerals, L.P. P.O. Box 51933 Midland, TX 79710

#### Rave Energy, Inc. d/b/a GEP III

P.O. Box 3087 Houston, TX 77253

#### **Rusk Capital Management LLC**

7600 W. Tidwell Road, Suite 800 Houston, TX 77040

#### The Taurus Royalty, LLC

c/o Robert B. Payne Jr. P.O. Box 1477 Little Elm, TX 75068

#### Rave Energy, Inc.

P.O. Box 3087 Houston, TX 77253

#### George Vaught, Jr.

P.O. Box 13557 Denver, CO 80201

#### **Salt Fork Limited**

P.O. Box 911 Breckenridge, TX 76424

#### William R. Golden

P.O. Box 97 Roswell, NM 88202

#### Philip L. White

P.O. Box 25968 Albuquerque, NM 87125

#### Santa Elena Minerals IV, LP

P.O. Box 2063 Midland, TX 79702

#### Rachel E. White

709 Los Arboles NW Albuquerque, NM 87107

#### 4742 3658 3090 0001 7018 3090 7018 0007 4742 3641 Certified Mail Fee Certified Mail Fee PS Form 3800, April 2015 PSN 7530 02-000-9047 ostage Return Receipt (hardcopy) otra Services & Fees (check box, add fee ay sport U.S. Postal Service Extra Services & Fees (check box, edd/fee as appropriate) [] Return Receipt (hardcopy) Certified Mail Restricted Delivery Return Receipt (electronic) Adult Signature Required Return Receipt (electronic) Adult Signature Restricted Delivery \$ . Adult Signature Required CERTIFIED MAIL® RECEIPT Adult Signature Restricted Delivery \$ ☐ Certified Mail Restricted Delivery For delivery information, visit our website at www.usps.com Domestic Mail Only For delivery information, visit our website at www.usps.com Artesia, NM 88210 Oklahoma City, OK 73102 2308 Sierra Vista RD Domestic Mail Only CERTIFIED MAIL® RECEIPT U.S. Postal Service 333 W Sheridan Ave. Devon Energy Production Company Nestegg Energy Corporation MAIN RO FOR OPE 大学の国名 دي See Reverse for Instructions OFFICE F 09187

PS Form 3800, April 2015 PSN 7530-02-000-9047

ee Heverso for Instructions

PS Form 3811, July 2015 PSN 7530-02-000-9053

Adicia Number Transfer from service label

7016

2424 TOOO 060E

TH9E

Restricted Delivery

☐ Signature Confirmation
☐ Signature Confirmation
Restricted Delivery

☐ Return Receipt for Merchandise

Domestic Return Receipt

3. Service Type

C Adult Signature

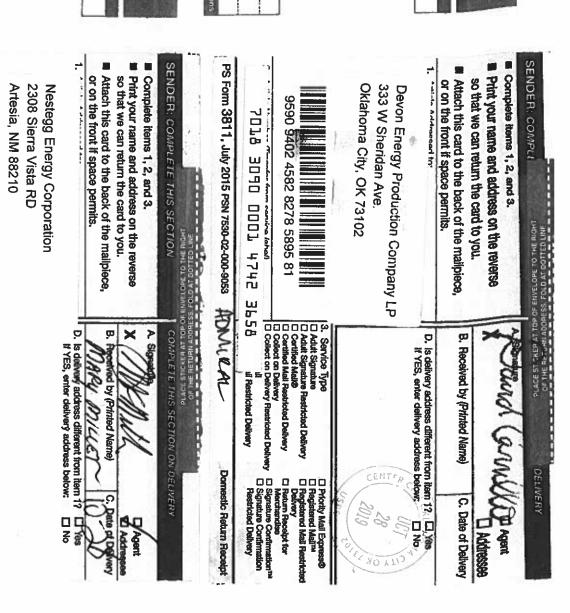
C Adult Signature Restricted Delivery

C Certified Mail Restricted Delivery

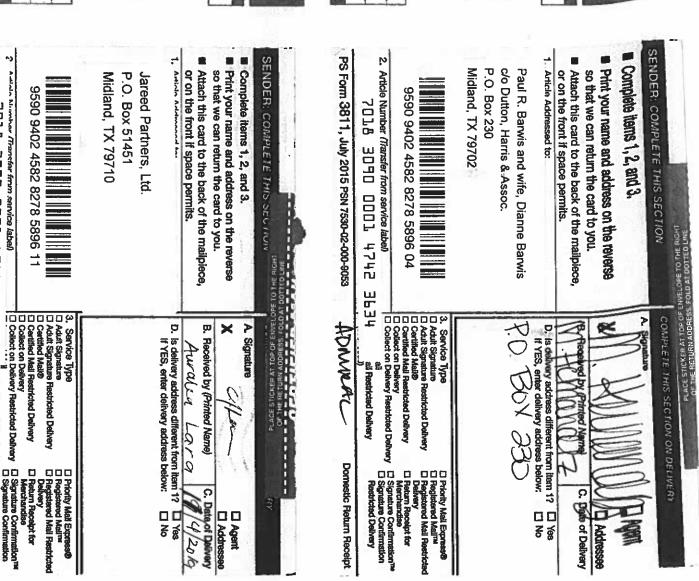
C Cellect on Delivery Restricted Delivery

C Collect on Delivery Restricted Delivery

☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted
Delivery



#### 7018 3090 0007 4742 3627 7018 3090 0001 4742 3634 Certified Mail Fee Certified Mail Fee PS Form 3800, April 2015 PSN 7530-02-000-9047 Extra Services & Fees (check box, add fee as appropriate Return Receipt (hardcopy) Adult Signature Restricted Delivery \$ Adult Signature Required Certified Mail Restricted Delivery ☐ Return Receipt (electronic) ☐ Return Receipt (hardcopy) xim Services & Fees (check box, add fee as appropriate) Adult Signature Restricted Delivery \$ Adult Signature Required Cortified Mail Restricted Delivery Return Receipt (electronic) Paul R. Barwis and wife, Dianne Barwis Stock U.S. Postal Service P.O. Box 230 c/o Dutton, Harris & Assoc. For delivery information, visit our website at www.usps.com P.O. Box 51451 For delivery information, visit our website at www.usps.com\* Domestic Mail Only Midland, TX 79702 Domestic Mail Only CERTIFIED MAIL® RECEIPT CERTIFIED MAIL® RECEIPT U.S. Postal Service Midland, TX 79710 Jareed Partners, Ltd. NAM No See Reverse for Instructions 8 33 10918



9.C02

T000 060E efar fmm service label)

5474

19E

Restricted Delivery

PS Form 3800, April 2015 PSN 7500-02-000-8047

See Reverse for Instruction

☐ Signature Confirmation™
☐ Signature Confirmation
Restricted Delivery

7018 3090 0001 4742 3597 7018 3090 0001 4742 3670 Postage PS Form 3800, April 2015 PSN 7530-02-000-5047 Ft. Worth, TX 76102 c/o Duncan Management LLC, Agent Extra Services & Fees (check box, add fee as appropriate) 777 Taylor St, Suite 810 Kimbell Royalty Holdings, LLCN POS Return Receipt (electronic) Certified Mail Fee Adult Signature Restricted Delivery \$ Aduit Signature Required Certified Mail Restricted Delivery Return Receipt (hardcopy) For delivery information, visit our website at www.usps.com PS Form 3800, April 2015 PSN 7530-02-000-9047 Domestic Mail Only ostage Certified Mail Restricted Delivery
Adult Signature Required Return Receipt (hardcopy) CERTIFIED MAIL® RECEIPT U.S. Postal Service<sup>™</sup> Adult Signature Restricted Delivery \$ Extra Services & Fees (check box, add fee as appropriate) Certified Mail Fee Dallas, TX 75201 2102 Cedar Springs Rd, Suite 600 Kingdom Investments, Limited For delivery information, visit our website at 12wix.usps.com Domestic Mail Only U.S. Postal Service"
CERTIFIED MAIL® RECEIPT MAIN POS See Reverse for Instructions 2019 Postmark See Reverse for Instructions 10918 109L8

■ Complete items 1, 2, and 3. SENDER: COMPLETE THIS SECTION Ft. Worth, TX 76102 c/o Duncan Management LLC, Agent 777 Taylor St, Suite 810 Kimbell Royalty Holdings, LLC Article Alternhar Transfor from contino lahall Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mallpiece, or on the front if space permits. 9590 9462-4582 8278 5896 42 7018 3090 0001 5474 PLACE STICKER AT TOP OF EHVELOPE TO TH OF THE RETURN ADDRESS, FOLD AT DOTH 3597 3. Service Type

Adult Signature
Adult Signature Restricted Delivery
Certified Mail@
Certified Mail@
Collect on Delivery
Collect on Delivery Restricted Delivery
Restricted Delivery
Signature Confirmation\*
Restricted Delivery
Restricted Delivery
Restricted Delivery
Restricted Delivery
Restricted Delivery If YES, enter delivery address below: A OW DEFINEUS ☐ Agent☐ Addressee Date of Delivery ₩ ₩ ₩

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

2000 0001 3603 7018 4742 4742 3580 7018 3090 0007 Certified Mail Fee Adult Signature Required Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy)

\$ Certified Mail Fee Dallas, TX 75367 Adult Signature Restricted Delivery \$. Adult Signature Required Return Receipt (electronic) P.O. Box 671099 c/o Duncan Management LLC, Agent For delivery information, visit our website at www.usps.com Midland, TX 79701 200 N. Loraine Street #1550 Adult Signature Restricted Delivery \$. Certified Mail Restricted Delivery For delivery information, visit our website at www.usps.com Kimbell Royalty Holdings, LLC Penwell Energy Royalty Pool Domestic Mail Only CERTIFIED MAIL® RECEIPT U.S. Postal Service" CERTIFIED MAIL® RECEIPT John D. Bergman, Trustee of the Domestic Mail Only U.S. Postal Service Form 3800, April 2015 98N TOWNER OF THE PROPERTY OF T AIN POST See Reverse for Instructions Reverse for Instructions MAIN 1357 Article Number (Transfer from service label) SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Midland, TX 79701 200 N. Loraine Street #1550 Penwell Energy Royalty Pool John D. Bergman, Trustee of the Attach this card to the back of the mailpiece, Print your name and address on the reverse so that we can return the card to you. or on the front if space permits. 9590 9402 4582 8278 5896 59 7018

#### PS Form 3811, July 2015 PSN 7530-02-000-9053 SENDER: COMPLETE THIS SECTION ■ Complete items 1, 2, and 3. Article Number (Transfer from service label) Article Addressed to: Attach this card to the back of the mailpiece, Print your name and address on the reverse Dallas, TX 75367 P.O. Box 671099 c/o Duncan Management LLC, Agent Kimbell Royalty Holdings, LLC so that we can return the card to you. or on the front if space permits. 9590 9402 4582 8278 5896 35 2424 TOOO OBOE 8TO2 **E09** THE PROPERTY OF THE PARTY OF TH 3. Service Type | Adult Signature | Restricted Delivery | Registered Mail™ | | Certified Mail® | Restricted Delivery | Certified Mail Restricted Delivery | Certified Mail Restricted Delivery | Collect on Delivery | Signature Confirmation™ | Signature Confirmation™ | Restricted Delivery | Restricted Delive Ö œ s de Is delivery address different from item 1? If YES, enter delivery address below: Domestic Return Receipt C. Days of De □ <del>8</del> Addy

PS Form 3811, July 2015 PSN 7530-02-000-9053

3090 0001 4742

ш

1580

Restricted Delivery

3. Service Type

| Adult Signature
| Adult Signature
| Cartified Mail®
| Certified Mail®
| Certified Mail®
| Collect on Delivery Restricted Delivery
| Collect on Delivery Restricted Delivery

☐ Priority Mail Express®
☐ Registered Mail™s
☐ Registered Mail Restricted
Delivery

B. Received by (Printed Name)

C. Date of Delivery

☐ Agent Addressee

Ö

Is delivery address different from Item 1? If YES, enter delivery address below:

□ <del>₹</del>

COMPLETE THIS SECTION ON DELIVERY
PLACE STOCK

A. Signature

Domestic Return Receipt.

☐ Signature Confirmation™
☐ Signature Confirmation ☐ Return Receipt for Merchandise

stricted Delivery

3090 0001 4742 3573 7018 3090 0001 4742 3566 7018 P.O. Box 558 Certified Mail Fee Peyton, CO 80831 Cornerstone Family Trust John Kyle Thoma, Trustee of the AIN Extra Services & Fees (check box, add (se as appropriate)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

\$ 25 Form 3800, April 2015 PSN 7530-02-000-904 For delivery information, visit our website at www Postage Certifled Mail Fee Domestic Mail Only Adult Signature Required U.S. Postal Service"
CERTIFIED MAIL® PS Form 3800, April 2015 PSN 7520-02-000-9047 Adult Signature Restricted Delivery \$ For delivery information, visit our website st www. CrownRock Minerals, L.P. Domestic Mail Only Midland, TX 79710 P.O. Box 51933 CERTIFIED MAIL® RECEIP U.S. Postal Service RECEIP AIN POST 5 5

9590 9402 4582 8278 5896 73 9590 9402 4582 8278 5896 73	M.P.O	Complete items 1, 2, and 3.  Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece or on the front if space permits.	S Form 3811, July 2015 PSN 7530-02-000-9053	9590 9402 4582 8278 5896 66  2. Article Number Thansfor from service Jehan 7018 3090 001 474		■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the malipiece or on the front if space permits.
278 5896 73 GG			E TO THE 6 000TED L	66 577		averse uipiece,
3. Service Type  [] Adult Signature  [] Certified Maile  [] Certified Maile  [] Collect on Delivery  [] Collect on Delivery  [] Hastricted Delivery  [] Hastricted Delivery  [] Hastricted Delivery	D. Is delivery address different fromflam 1? If YES, enter delivery address below:	A Signature  X  B. Received by (Printed Name)  ATTISTY SMITH		3. Service Type  Adult Signature  Adult Signature Restricted Delivery  Certified Mail®  Certified Mail®  Collect on Delivery  Collect on Delivery Restricted Delivery  I Collect on Delivery Restricted Delivery  J au  I Restricted Delivery  J over \$500)	if YES, enter delivery address below:	A. Signatury  X  B. Proceived by (Primed Name)  To Collings arithmen (fifteen firm)
Priority Mail Express®     Registered Mail™     Registered Mail Restricted     Pelivery     Return Receipt for     Merchandise     Signature Confirmation™     Restricted Delivery	below: C3 No	2 0	Domestic Return Receipt	□ Priority Mail Express® □ Registered Mail™ □ Registered Mail Restricted Delivery □ Return Receipt for Merchandise □ Signature Confirmation™ □ Signature Confirmation Restricted Delivery		C. Date of Delivery

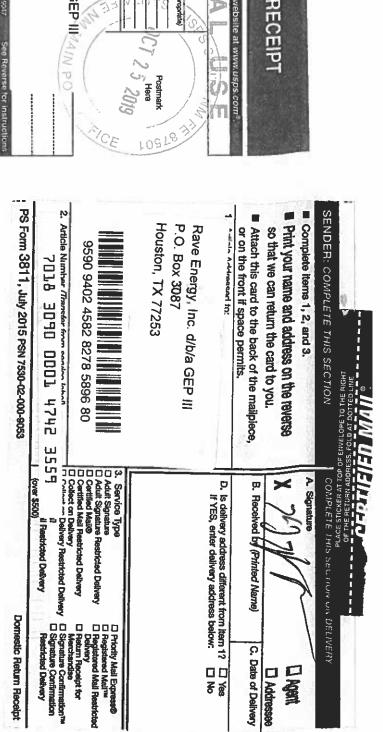
PS Form 3811, July 2015 PSN 7530-02-000-9053

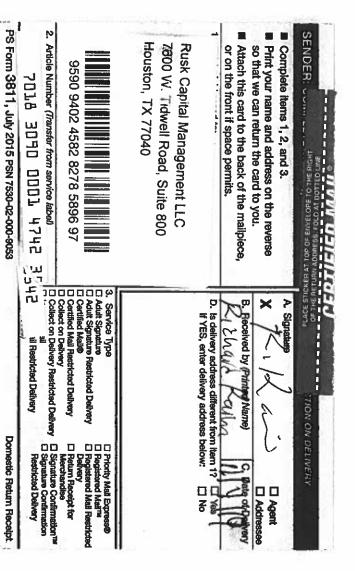
(over \$500)

il Restricted Delivery

Domestic Return Receipt

4742 3559 7018 1000 0P0E 7018 3090 0007 4742 3542 Contried Mail Fee PS Form 3800, April 2015 PSN 7530-02-000-9047 Return Receipt (hardcopy) Certifled Mail Fee Adult Signature Restricted Delivery \$\_ Adult Signature Required Return Receipt (electronic) Extra Services & Fees (check box, add fee as appropriate Beaum Receipt (hardcopy) \$ Certified Mail Restricted Delivery xtra Services & Fees (check box, add fee as appropriate) U.S. Postal Service Adult Signature Restricted Delivery Adult Signature Required Certified Mail Restricted Delivery ☐ Return Receipt (electronic) For delivery information, visit our website at www.usps.com\* Houston, TX 77253 P.O. Box 3087 For delivery information, visit our website at www.usps.com® Rave Energy, Inc. d/b/a GEP III Domestic Mail Only CERTIFIED MAIL® RECEIPT Houston, TX 77040 Rusk Capital Management LLC 7600 W. Tidwell Road, Suite 800 Domestic Mail Only CERTIFIED MAIL® RECEIPT U.S. Postal Service T T 33 A NTA NAZZ MAIN See Reverse for instructions POS Here PO Postmark 9 Postmark 33 10918

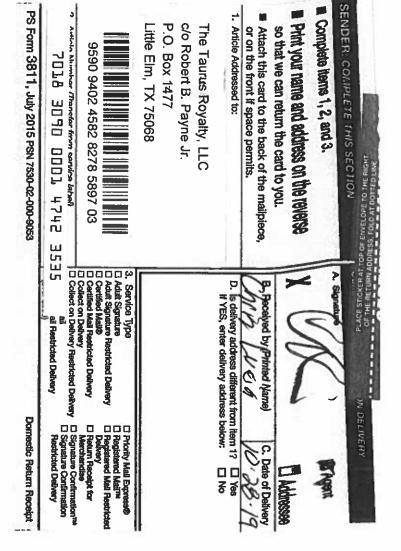




for Instructions

### 7018 3090 0001 4742 3535 Certified Mail Fee For delivery information, visit our website at www.usps.com\* OFFICE A SERVICE U.S. Postal Service Domestic Mail Only CERTIFIED MAIL® RECEIPT

George Vaught, Jr. P.O. Box 13557 Denver, CO 80201	U.S. Postal Service  CERTIFIED MAIL® RECEIPT  Domestic Mail Only  For delivery information, visit our website at www.  Certified Mail Fees (shock box, add fee as appropriate)  Certified Mail Restricted Delivery  Adult Signature Restricted Delivery  Postage  Postage  A Mail Fees (shock box)  A Mail Restricted Delivery  Security Signature Restricted Delivery  Mail Mail Restricted Delivery	Extra Services & Fees (check box, add fee as appropriate)    Return Receipt (hardcopy)
	MAIN P 35	Postmark Here  7 Here  7 Here

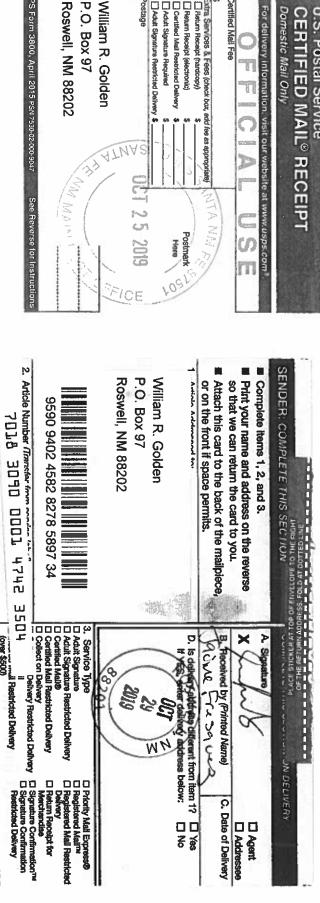


Domestic Return Receipt	To the second se	PS Form 3811, July 2015 PSN 7530-02-000-9053
Signature Confirmation     Signature Confirmation     Restricted Delivery	☐ Collect on Delivery Restricted Delivery ☐ B all Restricted Delivery	2016 3090 0001 4742 3528
Priority Mail Express®     Registered Mail**     Registered Mail**     Registered Mail Restricted     Delivey.     Electure Receipt for Merchandise	3. Service Type  Adult Signature  Adult Signature Restricted Delivery  Certified Mail®  Certified Mail®  Certified Collect on Delivery  Collect on Delivery	9590 9402 4582 8278 5897 10
		George Vaught, Jr. P.O. Box 13557 Denver, CO 80201
mitern 1? ☐ Yes below: ☐ No	If YES, enter delivery address below: ☐ No	1. Article Addressed to:
C. Date of Delivery	A. Signature  X Malestra Nollin   Agent Addresse  B. Received by (Printed Name)   C. Date of Deliver    Malestra 4066105   15-31-19	<ul> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>
DELIVERY	COMPLETE THIS SECTION ON DELIVERY THE BRIDGE	NOTICE STICKER AT TOP OF ENVELOPE TO THE BIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

7018 3090 0001 4742 3528

#### 3511 4742 3504 3090 2007 4742 7018 Postage Adult Signature Required Return Receipt (electronic) Extra Services & Fees (check box, add fee as a Certified Mail Fee U.S. Postal Service™ S Form 3800, April 2015 PSN 7530-02-00 Breckenridge, TX 76424 P.O. Box 911 Salt Fork Limited Certified Mail Restricted Delivery Return Receipt (hardcopy) CERTIFIED MAIL® Adult Signature Restricted Delivery \$ \_\_\_ For delivery information, visit or Domestic Mail Only U.S. Postal Service Domestic Mail Only CERTIFIED MAIL® RECEIPT

See Reverse for Instructions	AIZ	Postmark 2 5 2019 GE	RECEIPT  website at www.usps.com*  A LATALAS E	
TTSE 2424 TOOO 060E 9TO2	9590 9402 4582 8278 5897 27	Salt Fork Limited P.O. Box 911  Breckenridge, TX 76424	<ul> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> <li>Article Artifessed to:</li> </ul>	SENDER: COMPLETE THIS SECTION
Collect on Delivery Restricted Delivery all all Restricted Delivery	3. Service Type  Adult Signature Adult Signature Restricted Delivery Certified Maire Certified Maire Collect on Delivery Collect on Delivery		B. Received by (Printed Name)  C. I  D. Is delivery address different from item 1?  If YES, enter delivery address below:	
Signature Confirmation     Signature Confirmation     Restricted Delivery	□ Priority Mail Express® □ Registered Mail™ □ Registered Mail Restricted □ Pellwery □ Return Receipt for Merchandise		C. Date of Delivery	OH COLUMN



7018

P.O. Box 97

William R. Golden

Roswell, NM 88202

PS Form 3800, April 2015 PSN 7530-02-000-9047

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt.

9018

1000 0606

4742

3504

3090

Postage

Adult Signature Restricted Delivery \$\_

Adult Signature Required

0007

Return Receipt (electronic)
 Centified Mail Restricted Delivery

Return Receipt (hardcopy)

dra Services & Fees (check box, add fee as appropriate)

Certified Mail Fee

3090 0001 4742 3481 3498 7018 3090 0001 4742 Postage Certifled Mail Fee Extra Services & Fees (check box, add fee as spreps

| Return Receipt (hardcopy)
| Return Receipt (electronic)
| Certified Mail Restricted Delivery \$ |
| Adult Signature Required \$ | ☐ Adult Signature Restricted Delivery \$ \_\_\_\_ Postage Santa Elena Minerals IV, LPIN MAIN PC Por delivery information, visit our website at www.usps.com\* U.S. Postal Service" Midland, TX 79702 ertified Mail Fee PS Farm 3800, April 2015 PSK 7530-02-000-9047 For delivery information, visit our webs CERTIFIED MAIL® RE Domestic Mail Only CERTIFIED MAIL® RECEIPT Domestic Mail Only U.S. Postal Service" P.O. Box 25968 Philip L. White Albuquerque, NM 87125 ATV WTA NAM 10918 AM Ċ7 2019

PS Form 38	2	9590	Philip L. White P.O. Box 25968 Albuquerque, NI	■ Complete items 1, 2 ■ Print your name an so that we can return the at www.usps.com ■ Attach this card to or on the front if sy a name and the foot if sy the card to or on the front if sy the card to or	SENDER: C
PS Form 3811, July 2015 PSN 7530-02-000-9053	Ψ	9590 9402 4582 8278 5897 41	Philip L. White P.O. Box 25968 Albuquerque, NM 87125	Print your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the malipiece, or on the front if space permits.	SECTION
Domestic Return Receipt	Cover \$500)   Restricted Delivery   Cover \$500)   Cover \$500   Cover	3. Service Type    Adult Signature   Restricted Delivery   Registered Majirn     Adult Signature Restricted Delivery   Registered Majirn     Certified Majirn   Restricted Delivery   Delivery     Certified Majirn   Restricted Delivery   Registered Majirn     Certified Majirn   Restricted Delivery   Registered Majirn     Certified Majirn   Restricted Delivery   Registered Majirn		B. Rejerved by Rytinga Name)  C. Date of Delivery  D. Is delivery address different from item 1?   No  No	COMPLETE INTO SECULOR OF JELIVERY

10 May 10	over \$500)	DS Econ 2811 hit 2015 Devi 2000 to con core
Signature Confirmation     Restricted Delivery	Delivery Restricted Delivery نا با Restricted Delivery	2. Article Number Marisfer from security for 1742 3481
□ Priority Mall Digness® □ Registered Meline □ Registered Meline □ Registered Meline □ Restricted Delivery □ Return Receipt for Merchandise	- 1	9590 9402 4582 8278 5897 58
a		P.O. Box 2063 Midland, TX 79702
		Santa Elena Minerals IV, LP
n item 1? 🔲 Yes 'below: 🕱 🗘 No	D. Is delivery address different from item 1? These if YES, enter delivery address below: 35.00	1. Article Addressed to:
C. Date of Delivery	A. Signature  X. MANA (A. S. L. L.)  B. Received by (Printed Name)  21 (C. 1.2) S. 1+C.S.	<ul> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>
DELIVERY	NOTE AND NO NOLLOGS SITE IF TOP OF ENVELOPE TO THE RIGHT OF THE RESURN AND RESS, FOLD AT DOTTEE LINE OF THE RESURN ADDRESS, FOLD AT DOTTEE LINE	SENDER: COMPLETE THIS SECTION SENDER: COMPLETE THIS SECTION

7018 3090 0001 4742 4266

	, 0.20	20.70		1 H	176	1600
PS Form 3800, April 2015 PSN 7530-02-000-0047 See Reverse for Instructions	Rachel E. White 709 Los Arboles NW Albuquerque, NM 87107	Postage NAM MANA	Certified Mail Restricted Dailvery \$	\$  Extra Services & Fees (check box, and fee as appropriate)  Return Receipt (hardcopy)  Return Receipt (electronic)  Return Receipt (electronic)  Return Receipt (electronic)	Centified Mail Fee	U.S. Postal Service"  CERTIFIED MAIL® RECEIPT  Domestic Mail Only  For delivery information, visit our website at www.usps.com®



#### Affidavit of Publication Ad # 0003869315

**CONCHO** 1048 PASEO DE PERALTA

SANTA FE, NM 87501

I, a legal clerk of the Carlsbad Current Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

October 29, 2019

Legal Clerk

Subscribed and sworn before me this October 29, 2019:

> State of WI, County of Brown MÓTARY PUBLIC

My commission expires

SHELLY HORA Notary Public State of Wisconsin

Ad # 0003869315 PO#: Admiral # of Affidavits: 1

#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

The State of New Mexico through its Oil Conservation Division hereby gives notice pursuant to law and the Rules and Regulations of the
Division of the following public hearing to be held at 8:15 A.M. on
November 14, 2019, in the Oil Conservation Division Hearing Room
at 1220 South St. Francis, Santa Fe, New Mexico, before an examiner
duly appointed for the hearing. If you are an individual with a disability who is in need or a reader, amplifier, qualified sign language
interpreter, or any other form of auxiliary aid or service to attend or
participate in the hearing, please contact Florene Davidson at 505476-3458 or through the New Mexico Relay Network, 1-800-659-1779
by November 5, 2019. Public documents including the agenda and
minutes can be provided in various accessible forms. Please contact
Florene Davidson if a summary or other type of accessible form is
needed.

STATE OF NEW MEXICO

All named parties and persons
Having any right, title, interest
or claim in the following cases
and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

To: All Overriding Royalty Interest Owners, Non-Participating Royalty Interest Owners, Pooled Parties, Working Interest Owners; Devon Energy Production Company LP; Nestegg Energy Corporation; Paul R. Barwis and wife, Dianne Barwis, his and her successorsor assigns; Jareed Partners, Ltd.; Kingdom Investments, Limited; Kimbell Royalty Holdings, LLC; John D. Bergman, Trustee of the Cornerstone Family Pool; John Kyle Thoma, Trustee of the Cornerstone Family Trust; CrownRock Minerals, L.P.; Rave Energy, Inc. d/b/a GEFIII; Rusk Capital Management LLC; The Taurus Royalty, LLC; Rave Energy, Inc.; George Vaught, Jr., his successorsor assigns; Salt Fork Limited; William R. Golden, his successorsor assigns; Philip L. White, his successors or assigns; Santa Elena Minerals IV, LP; Rachel E. White, her successors or assigns;

Case No. 20836: Application of COG Operating LLCfor compulsory pooling, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order from the division pooling all uncommitted interest owners in the Bone Spring formation underlying a standard 1280-acre, more or less, horizontal spacing unit comprised of all of Sections 21 and 28, Township 25 South, Range 29 East, NMPM, Eddy County, New Mexico. COG Operating LLC seeks to dedicate the above-referenced horizontal spacing unit to the following proposed wells:

The Admiral Fed Com 501H well to be horizontally drilled from a surface hole location in the SW/4SW/4 (Unit M) of Section 28 to a bottom hole location in the NW/4NW/4 (Unit D) of Section 21,

The Admiral Fed Com 502H well to be horizontally drilled from a surface hole location in the SW/4SW/4 (Unit M) of Section 28 to a bottom hole location in the NE/4NW/4 (Unit C) of Section 21,

The Admiral Fed Com 503H well to be horizontally drilled from a surface hole location in the SE/4SW/4(Unit N) of Section 28 to a bottom hole location in the NE/4NW/4 (Unit C) of Section 21,

The Admiral Fed Com 504H well to be horizontally drilled from a surface hole location in the SE/4SE/4(Unit P) of Section 28 to a bottom hole location in the NW/4NE/4 (Unit B) of Section 21,

The Admiral Fed Com 505H well to be horizontally drilled from a surface hole location in the SE/4SE/4(Unit P) of Section 28 to a bottom hole location in the NE/4NE/4 (Unit A) of Section 21.

The completed interval for the proposed Admirat Fed Com 503H will be within 330' of the quarter-quarter. Ine separating the W2E/2 and the E/2W/2 of Sections 21 and 28, which allows inclusion of this acreage into a standard 1280-acre, more or less, horizontal spacing unit. Also, to be considered will be the timing of the drilling and completing of said wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of COG Operating LLC as operator of the wells, and the imposition of 200% charge for risk involved in drilling and completing said wells. Said area is located approximately 8 miles southeast of Malaga, New Mexico. #3869315 Current- Argus Oct. 29, 2019