

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

**APPLICATION OF CATENA RESOURCES
OPERATING FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO.**

CASE NO. 22631

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Compulsory Pooling Checklist for Case No. 22631

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COMPULSORY POOLING APPLICATION CHECKLIST

ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case No.:	22631
Hearing Date:	5/5/2021
Applicant	Catena Resources Operating, LLC
Designated Operator & OGRID	328449
Applicant's Counsel	Hinkle Shanor LLP
Case Title	Application of Catena Resources Operating, LLC for Compulsory Pooling, Lea County, New Mexico
Entries of Appearance/Intervenors	COG Operating LLC
Well Family	Rocky E2W2 05 08 W1
Formation/Pool	
Formation Name(s) or Vertical Extent	Scharb; Wolfcamp (55640)
Primary Product (Oil or Gas)	Oil
Pooling this vertical extent	Scharb; Wolfcamp (55640)
Pool Name and Pool Code	Scharb; Wolfcamp (55640)
Well Location Setback Rules	Standard
Spacing Unit Size	320
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320
Building Blocks	quarter
Orientation	North/South
Description: TRS/County	E2W2 of Sections 5 and 8, Township 19 South, Range 35 East, Lea County, NM
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	No
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Rocly E2W2 05 08 W1 1H (API # pending) SHL: 300' FSL & 1650' FWL, Unit N, Section 32, T18S-R35E BHL: 100' FSL & 2260' FWL, Unit N, Section 8, T19S-R35E Completion Target: Wolfcamp (Approx. 10,870' TVD) Well Orientation: South to North
Horizontal Well First and Last Take Points	Exhibit A-2
Completion Target (Formation, TVD and MD)	Exhibit A-2
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,500.00
Production Supervision/Month \$	\$850.00
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit A-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit C
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit C-3
Ownership Determination	
Land Ownership Schematic or Spacing Unit	Exhibit A-3

Tract List (including lease numbers & owners)	Exhibit A-3
Pooled Parties (including ownership type)	Exhibit A-3
Unlocatable Parties to be Pooled	None
Ownership Depth Severance (including percentage above & below)	None
Joinder	
Sample Copy of Proposal Letter	Exhibit A-4
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-3
Chronology of Contact with Non-Joined Working Interests	Exhibit A-5
Overhead Rates In Proposal Letter	N/A
Cost Estimate to Drill and Complete	Exhibit A-4
Cost Estimate to Equip Well	Exhibit A-4
Cost Estimate for Production Facilities	Exhibit A-4
Geology	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit B-2
Gross Isopach	Exhibit B-5
Well Orientation (with rationale)	Exhibit B
Target Formation	Exhibit B
HSU Cross Section	Exhibit B-4
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit A-2
Tracts	Exhibit A-3
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-3
General Location Map (including basin)	Exhibit B-2
Well Bore Location Map	Exhibit B-2
Structure Contour Map - Subsea Depth	Exhibit B-3
Cross Section Location Map (including wells)	Exhibit B-3
Cross Section (including Landing Zone)	Exhibit B-4
Additional Information	
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	Dana S. Hardy
Signed Name (Attorney or Party Representative):	/s/ Dana S. Hardy
Date:	5/3/2022

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

**APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO**

CASE NO. 22631

**SELF-AFFIRMED STATEMENT
OF CATO CLARK**

1. I am the Vice President of Land at Catena Resources Operating, LLC ("Catena") and am over 18 years of age. I have personal knowledge of the matters addressed herein and am competent to provide this Self-Affirmed Statement. I have previously testified before the New Mexico Oil Conservation Division ("Division") and my credentials as an expert in petroleum land matters were accepted and made a matter of record.

2. I am familiar with the land matters involved in the above-referenced case. Copies of the application and hearing notice are attached hereto as **Exhibit A-1**.

3. None of the parties proposed to be pooled in this case indicated opposition to this matter proceeding by affidavit, therefore I do not expect any opposition at hearing.

4. Catena seeks an order pooling all uncommitted mineral interests in the Wolfcamp formation in a 320-acre, more or less, standard horizontal spacing unit ("Unit") comprised of the E/2 W/2 of Section 5, Township 19 South, Range 35 East and the E/2 W/2 of Section 8, Township 19 South, Range 35 East, Lea County, New Mexico.

5. The Unit will be dedicated to the **Rocky E2W2 05 08 W1 1H** well ("Well"), which will be horizontally drilled from a surface location in the SE/4 SW/4 (Unit N) of Section 32 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8.

6. The completed interval of the Well will be orthodox.


7. The Well is located in the Scharb; Wolfcamp (Pool Code 55640).
8. With respect to well setback requirements, this pool is subject to the statewide horizontal well rules set out in NMAC 19.15.16.15.
9. **Exhibit A-2** contains the C-102 for the Well.
10. **Exhibit A-3** contains a plat identifying ownership by tract in the Unit. This exhibit also includes any applicable lease numbers, a unit recapitulation, and the interests Catena seeks to pool.
11. **Exhibit A-4** contains a sample well proposal letter and AFE sent to working interest owners for the Well. The estimated costs reflected on the AFE are fair and reasonable and comparable to the cost of other wells of similar depth and length drilled in the subject formation in the area.
12. Catena has conducted a diligent search of all public records in Lea County, including phone directories and computer databases.
13. All interest owners Catena seeks to pool are locatable.
14. In my opinion, Catena made a good-faith effort to reach voluntary joinder of uncommitted interests in the Well as indicated by the chronology of contact described in **Exhibit A-5**.
15. Catena requests overhead and administrative rates of \$8,000 per month while the Well is being drilled and \$800 per month while the Well is producing. These rates are fair and are comparable to the rates charged by Catena and other operators in the vicinity.
16. The exhibits attached hereto were either prepared by me or under my supervision or were compiled from company business records.

17. In my opinion, the granting of Catena's application will serve the interests of conservation, the protection of correlative rights, and the prevention of waste.

18. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 17 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.



Cato Clark



Date

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

**APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO**

Case No. 22631

APPLICATION

Pursuant to NMSA § 70-2-17, Catena Resources Operating, LLC ("Applicant") applies for an order pooling all uncommitted mineral interests in the Wolfcamp formation underlying a 320-acre, more or less, standard horizontal spacing unit ("Unit") comprised of the E/2 W/2 of Section 5, Township 19 South, Range 35 East and the E/2 W/2 of Section 8, Township 19 South, Range 35 East, Lea County, New Mexico. In support of its application, Applicant states:

1. Applicant (OGRID No. 328449) is a working interest owner in the Unit and has the right to drill wells thereon.
2. The Unit will be dedicated to the **Rocky E2W2 05 08 W1 1H** well ("Well"), which will be horizontally drilled from a surface location in the SE/4 SW/4 (Unit N) of Section 32 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8.
3. The completed interval of the Well will be orthodox.
4. Applicant has undertaken diligent, good-faith efforts to obtain voluntary agreements from all mineral interest owners to participate in the drilling of the Well but has been unable to obtain voluntary agreements from all of the mineral interest owners.
5. The pooling of uncommitted mineral interests will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

Catena Resources Operating, LLC
Case No. 22631
Exhibit A-1

6. In order to allow Applicant to obtain its just and fair share of the oil and gas underlying the subject lands, all uncommitted mineral interests in the Unit should be pooled and Applicant should be designated the operator of the Well and Unit.

WHEREFORE, Applicant requests this application be set for hearing on April 7, 2022 and that, after notice and hearing, the Division enter an order:

- A. Pooling all uncommitted interests in the Unit;
- B. Approving the Well in the Unit;
- C. Designating Applicant as operator of the Unit and the Well to be drilled thereon;
- D. Authorizing Applicant to recover its costs of drilling, equipping and completing the Well;
- E. Approving the actual operating charges and costs of supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% penalty for the risk assumed by Applicant in drilling and completing the Well against any working interest owner who does not voluntarily participate in the drilling of the Well.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy

Michael Rodriguez

Jaclyn M. McLean

P.O. Box 2068

Santa Fe, NM 87504-2068

Phone: (505) 982-4554

Facsimile: (505) 982-8623

dhardy@hinklelawfirm.com

mrodriguez@hinklelawfirm.com

jmclean@hinklelawfirm.com

Counsel for Catena Resources Operating, LLC

Application of Catena Resources Operating, LLC for Compulsory Pooling, Lea County, New Mexico. Applicant applies for an order pooling all uncommitted mineral interests in the Wolfcamp formation underlying a 320-acre, more or less, standard horizontal spacing unit ("Unit") comprised of the E/2W/2 of Section 5, Township 19 South, Range 35 East and the E/2W/2 of Section 8, Township 19 South, Range 35 East, Lea County, New Mexico. The Unit will be dedicated to the **Rocky E2W2 05 08 W1 1H** well ("Well"), which will be horizontally drilled from a surface location in the SE/4 SW/4 (Unit N) of Section 32 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost, the designation of Applicant as the operator of the well, and a 200% charge for the risk involved in drilling and completing the well. The well is located approximately 20 miles West of Hobbs, New Mexico.

District I1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720District II811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720District III1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170District IV1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 55640	³ Pool Name Scharb: Wolfcamp
⁴ Property Code	⁵ Property Name Rocky E2W2 05 08 W1 State Com	⁶ Well Number 1H
⁷ OGRID No. 328449	⁸ Operator Name Catena Resources Operating, LLC	⁹ Elevation

¹⁰ 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	32	18-S	35-E	C	300	South	1650	West	LEA

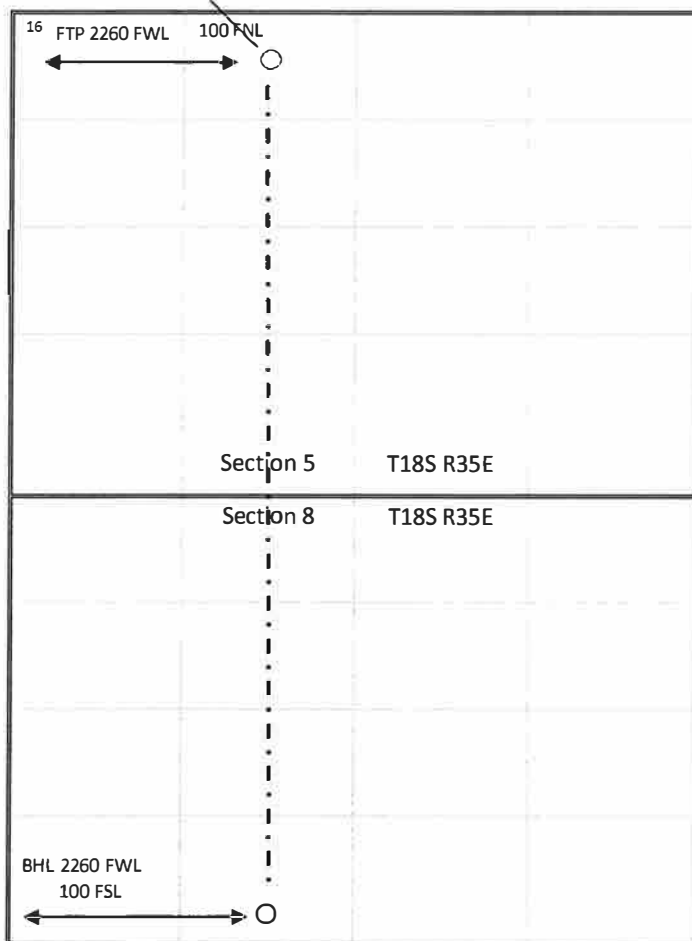
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	19-S	35-E	N	100	South	2260	West	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

☐ S.L. 1650' FWL - 300' FSL SEC 32 T18S R35E

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling agreement entered by the division.

4-28-22

Signature

Date

Cato Clark, VP Land

Printed Name

clark@catenares.com

E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

Catena Resources Operating, LLC
Case No. 22631
Exhibit A-2

EXHIBIT A-3
Rocky E2W2 05 08 W1 1H
Proposed Wolfcamp Spacing Unit
Lea County, New Mexico
E2W2 Section 5 & 8 - T19S - R35E

Catena Resources Operating (CRO) 96.87%

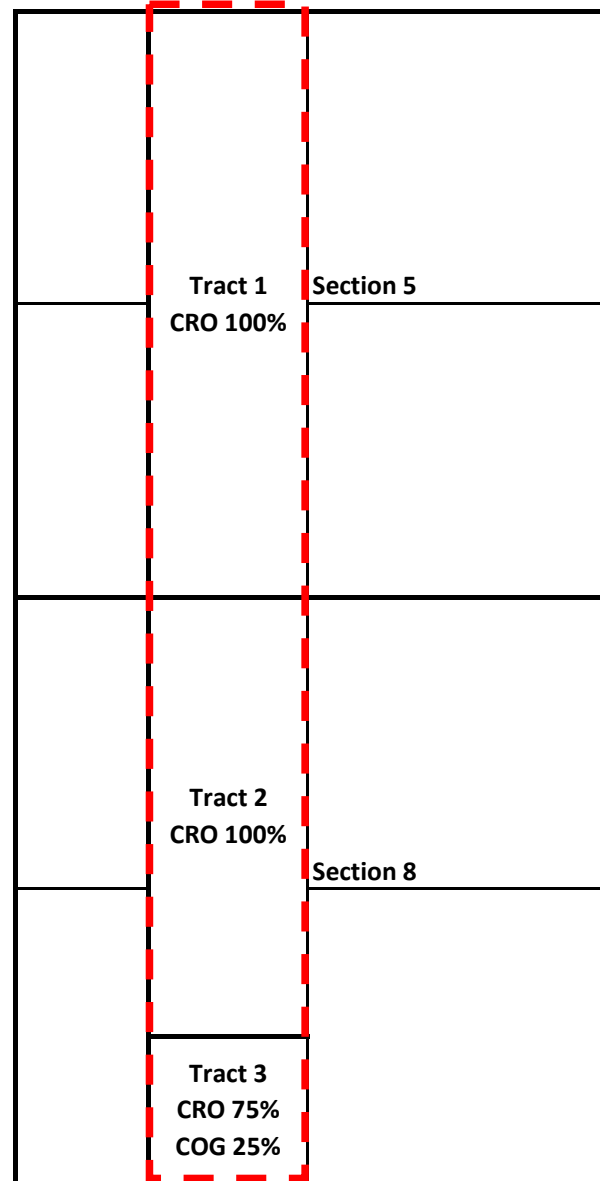
Parties to be Pooled

COG Operating, LLC (COG) 3.13%

Total **100.00%**

Tracts

Tract 1	E/2 W/2	Section 5
Tract 2	E/2 NW/4 & NE/4 SW/4	Section 8
Tract 3	SE/4 SW/4	Section 8



Catena Resources Operating, LLC
Case No. 22631
Exhibit A-3



1/10/2021

Via Certified Mail: 9314869904300090082829

ConocoPhillips
Attn: Baylor Mitchell
600 W. Illinois Ave.
Midland, TX 79701

RE: Rocky E2W2 05 08 W1 1H
E/2 W/2 Section 5 T19S R35E,
E/2 W/2 Section 8 T19S R35E
Lea County, NM

Dear Working Interest Owner,

Catena Resources Operating, LLC ("Catena") as Operator hereby proposes to drill and operate the captioned horizontal well, as further described in the enclosed AFE, (hereinafter, the "Well"):

Well Name	SHL	BHL	Target Formation	Proposed TVD	Proposed TMD
Rocky E2W2 05 08 W1 1H	300' FSL, 1650' FWL, 32-19S-35E	100' FSL, 2260' FWL, 8-19S-35E	Wolfcamp A	10,870'	22,000'

The Estimated Well Costs for the Well are \$8,694,255.00.

As an alternative to your participation, Catena proposes to acquire your interest via term assignment, subject to due diligence and title verification satisfactory to Catena, should you so elect.

In any event, Catena respectfully requests you (i) indicate your election by initialing next to one of the three (3) options on the following page, (ii) execute one copy of this letter, and (iii) in the event you elect to participate in the drilling and completion of the Well, execute one copy of the enclosed AFE, and return scans of all of same to the undersigned at the email address reflected below within 30 days of your receipt hereof. In the event of your participation, Catena will furnish a proposed joint operating agreement upon request.

Should you have any questions regarding the foregoing, please feel free to contact the undersigned at any of the points indicated below.

Best regards,

A handwritten signature in blue ink, appearing to read 'Cato Clark'.

Cato Clark, CPL
Vice President, Land
Catena Resources Operating, LLC
1001 Fannin Street, 22nd Floor
Houston, TX 77002
Direct: 346.200.7894
Clark@catenares.com

1001 Fannin St.
22nd Floor
Houston, TX 77002



713-429-5229
www.catenares.com
info@catenares.com

BY ITS INITIALS & EXECUTION IN THE SPACE PROVIDED BELOW, THE UNDERSIGNED:

_____ CONSENTS TO PARTICIPATE TO THE FULL EXTENT OF ITS INTEREST IN THE PROPOSED OPERATION(S) AND BEAR ITS PROPORTIONATE SHARE OF ALL COSTS AND EXPENSES ASSOCIATED THEREWITH

OR

_____ DOES NOT CONSENT TO PARTICIPATE IN THE PROPOSED OPERATION(S)

OR

_____ REQUESTS CATENA DELIVER A TERM ASSIGNMENT FOR REVIEW AND EXECUTION

ConocoPhillips

By: _____

Title: _____

Date: _____

1001 Fannin St.
22nd Floor
Houston, TX 77002



713-429-5229
www.catenares.com
info@catenares.com

WELL NAME:
FIELD NAME:
LOCATION:
COUNTY / ST:
OBJECTIVE:

Rocky E2W2 05 08 W1 1H
Section 32-T16S-R35E
Lea County, NM
Drill 10,000' lateral, Zipper Frac 51 stages and POL with ESP and Building Facility

DATE:
START DATE:
COMPLETE DATE:
ORIGINAL:
SUPPLEMENT:

1/7/2022

A/E NO.
P2115B

INTANGIBLE COSTS				ACCT	DRILLING	ACCT CODE	COMPLETION	ACCT	FACILITIES	TOTAL
Legal Fees & Title Opinions				9250	\$100,000	9400		9501		\$100,000
Survey/Staking/Permits/Bonds				9251	\$25,000	9401	\$10,000	9502		\$35,000
Row / Surface Damages				9252	\$25,000	9402		9512		\$25,000
Loc Rsvr PK Construction				9253	\$100,000	9403		9510		\$100,000
Rd & Loc Rsvr PK Reclamation				9254		9404				\$0
Frac Pond				9255		9405	\$25,000			\$25,000
Gate Guard				9256		9406				\$0
Mouse/Rathole/Conductor				9257	\$25,000					\$25,000
Mobilization / Demobilization				9258	\$135,000	9407				\$135,000
Drilling - Daywork				9259	\$600,000					\$600,000
Drilling - Footage				9260						\$0
Drilling - Turnkey				9261						\$0
Completion/ Snubbing / Wo Unit				9262		9408	\$20,000			\$20,000
Trailer House / Communications				9263	\$15,000	9409				\$15,000
Drill Bits				9264	\$60,000	9410				\$60,000
Directional Equip/Gyro Surveys				9265	\$250,000	9411				\$250,000
Downhole Tool / Stabil Rental				9266	\$38,000	9412	\$85,000			\$100,000
Mud / Chemicals				9267	\$163,000	9413	\$5,000			\$170,000
Fuel / Power				9268	\$150,000	9414	\$40,692			\$190,692
Water Supply Well Equipment				9269		9415				\$0
Water / Water Hauling				9270		9416	\$468,286			\$468,286
Offsite Water/Cutting Disposal				9271	\$80,000	9417	\$45,000			\$125,000
Transportation / Hauling				9272	\$40,000	9418		9509		\$40,000
Inspection/Tubular Testing				9273	\$25,000	9419				\$25,000
Laydown Machine/Cast Crew/Tong				9274	\$25,000	9420				\$25,000
Cement Float Equip & Services				9275	\$150,000	9421				\$150,000
Mud Logging				9276	\$40,000					\$40,000
Logging - Open Hole				9277		9422				#VALUE!
Logging - Cased Hole				9278		9423				\$0
Coring/Analysis Drill Stem Tst				9279						\$0
Perforating				9280		9424				\$0
Wireline / Stickline Services				9281		9425	\$285,500			\$285,500
Equipment Rental				9282	\$160,000	9426	\$223,980	9511		\$383,980
Pumping Services / Rental				9283		9427	\$57,500			\$57,500
Acidizing & Fracturing				9284		9428	\$2,500,000			\$2,500,000
Coil Tubing Unit				9285		9429	\$412,600			\$412,500
Flow Testing Swabbing				9286		9430	\$73,038			\$73,038
Fishing/Sidetrack Services				9287		9431				\$0
Nipple Up / Bope Testing				9288	\$20,000	9432				\$20,000
Overhead				9289		9433				\$0
Wellsite Consult Serv/Supervis				9290	\$105,000	9434	\$93,557	9603		\$198,557
Eng/Geo/Lab Trace Diagnostics				9291	\$50,000	9435		9515		\$50,000
Roustabout / Contract Labor				9292	\$120,000	9438	\$20,000	9504		\$140,000
Welding Services				9293	\$15,000	9437				\$15,000
Insurance				9294		9438		9505		\$0
Miscellaneous				9295		9439	\$100,000	9506		\$100,000
P&A Costs				9296		9440				\$0
Safety / Eh&S				9297		9441		9507		\$0
Contingency				9298		9442	\$133,202	9514		\$133,202
Non-Op Drilling Intangible				9299		9443		9513		\$0
Pipeline Install/ Interconnect				9300		9444		9508		\$0
Facility Installation							\$175,000			\$175,000
TBD										\$0
TBD										\$0
TBD										\$0
TBD										\$0
TBD										\$0
TOTAL INTANGIBLE COSTS					\$2,515,000		\$4,753,255		\$0	\$7,268,255

TANGIBLE COSTS				ACCT	DRILLING	ACCT CODE	COMPLETION	ACCT	FACILITIES	TOTAL
Conductor	Size	Feet	\$/Ft	9350						\$0
Surface Casing	13-3/8"	2,000	\$56.00	9351	\$112,000					\$112,000
1st Intermediate Casing / Liner	9-5/8"	4,000	\$39.00	9352	\$156,000					\$156,000
2nd Intermediate Casing / Liner				9353						\$0
Production Casing / Liner	5-1/2"	21,000	\$22.00		\$462,000	9451				\$462,000
Casing Tie Back						9452				\$0
Liner Hanger Assembly						9453				\$0
Tubing						9454	\$60,000			\$60,000
Casing Equipment - OHMS / Etc.					\$15,000	9455				\$15,000
Wellhead Equipment				9354	\$65,000	9456				\$65,000
Pumping Unit / Prime Mover / Base						9457		9521		\$0
Rods / Pony Rods / Sinker Bars						9458		9522		\$0
Artificial Lift Other - ESP						9459	\$50,000	9523		\$50,000
Wellhead Equipment Completions - Production Tree						9460		9524		\$0
Tanks / Tank Steps / Stairs						9461	\$200,000	9525		\$200,000
Gas Treating / Dehydration Equipment						9462		9526		\$0
Separation Equipment, Heater Treater						9463	\$100,000	9527		\$100,000
Surface Pumps						9464		9528		\$0
Filters						9465		9529		\$0
Buildings						9466		9530		\$0
Interconnect Piping / Manifolds / Headers						9467		9531		\$0
Flowlines / Connections / Valves						9468	\$25,000	9532		\$25,000
Automation / Instruments / Controls / Analyzers						9469	\$50,000	9533		\$50,000
Electrical Equipment / Generators						9470		9534		\$0
Compressor & Related Equipment						9471		9535		\$0
Metering Equipment, LACT Unit						9472		9536		\$0
Chemical Equipment / Cathodic Protection						9473		9537		\$0
Subsurface Equipment - Packer, Plugs, TAC						9474		9538		\$0
Safety / EH&S Equipment						9475		9539		\$0
NON-OP Drilling Intangible						9476		9540		\$0
Transfer/SWD Pumps & Equipment						9477	\$25,000	9541		\$25,000
TBD						9478		9542		\$0
Miscellaneous				9355		9479	\$108,000	9543		\$108,000
Contingency Costs				9356		9480		9544		\$0
TOTAL TANGIBLE COSTS					\$810,000		\$618,000		\$0	\$1,428,000
TOTAL WELL COSTS					\$3,325,000		\$5,369,255		\$0	\$8,694,255

Prepared by _____

Title: _____

Date: _____

This A/E is only an estimate. By returning one signed copy, you agree to pay your share of the actual costs incurred.

Extra Expense Insurance

☐ I elect to be covered by Operator's Extra Expense insurance and pay my proportionate share of the premium.

☐ I elect to purchase my own well control insurance policy.

Other box is checked above, non-operating working interest owner elects to be covered by Operator's well control insura

Joint Owner Interest: _____ Amount: _____

Joint Owner Name: _____ Signature: _____

Released to Imaging: 5/3/2022 11:15:35 AM

Exhibit A-5

Catena Resources Operating, LLC – Rocky E2W2 05 08 W1 State Com 1H Discussion Timeline

COG Operating, LLC

Catena Resources Operating, LLC sent original well proposals on January 10, 2022. At such time, Catena and COG Operating, LLC were already engaged in discussions regarding the proposed well. Catena and COG Operating, LLC are in ongoing discussions on the well proposal.

Catena Resources Operating, LLC
Case No. 22631
Exhibit A-5

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

APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO

CASE NO. 22631

SELF-AFFIRMED STATEMENT
OF CATHERINE HENRY

1. I am a geologist at Catena Resources Operating, LLC ("Catena") and am over 18 years of age. I have personal knowledge of the matters addressed herein and am competent to provide this Self-Affirmed Statement. I have not previously testified before the New Mexico Oil Conservation Division ("Division").

2. I have a MS in Geology and 5 years of experience in the petroleum industry. My experience has focused on well planning, well log analysis, resource development, resource mapping, and resource evaluation for horizontal development programs primarily in the Delaware, Permian, and Williston Basins. A copy of my resume is attached as **Exhibit B-1**.

3. I am familiar with the geological matters that pertain to the above-referenced case.

4. **Exhibit B-2** is a project location map that shows the location of the proposed horizontal well spacing unit.

5. Catena is targeting the Wolfcamp formation. **Exhibit B-3** is a subsea structure map that I prepared for this interval with 100-foot contours. The proposed horizontal well spacing unit is highlighted in red and the initial well is depicted with a green dashed line. Existing producing wells in the Wolfcamp formation are represented by solid orange lines. The structure map shows the Wolfcamp formation dipping to the South. The structure appears consistent across the proposed

spacing unit and I do not observe any faulting, pinch outs, or other geologic impediments to drilling horizontal wells in this area.

6. **Exhibit B-3** also shows a cross-section line in dashed red running North to South reflecting three wells penetrating the Wolfcamp formation that I used to construct a stratigraphic cross-section from A to A'. These wells contain good logs and I consider them representative of the geology in the subject area.

7. **Exhibit B-4** is a stratigraphic cross-section that I prepared using the logs from the three wells noted on Exhibit B-3. Each well in the cross-section contains the gamma ray in the first track, and resistivity in the second track. The initial target interval is labeled and marked. The cross-section demonstrates that the targeted interval is continuous across the proposed spacing unit.

8. **Exhibit B-5** is a Gross Isopach map of the Wolfcamp formation. The proposed horizontal well spacing unit is highlighted in red and the initial well is depicted with a green dashed line. Existing producing wells in the Wolfcamp formation are represented by solid orange lines. The anticipated gross thickness of the Wolfcamp formation interval is 500 to 600 ft. The gross isopach map demonstrates that the Wolfcamp formation is present across the proposed spacing unit. The location of the previous cross-section from A-A' in Exhibit B-4 is also shown as a dashed red line on this map.

9. In my opinion the stand-up orientation of the proposed well is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.

10. Based on my geologic study, the Wolfcamp formation underlying the subject area is suitable for development by horizontal wells and the acreage comprising the proposed spacing unit will be productive and contribute proportionately to the production from the well.

11. In my opinion, the granting of Catena's application will serve the interests of conservation, the protection of correlative rights, and the prevention of waste.

12. The exhibits attached hereto were either prepared by me or under my supervision or were compiled from company business records.

13. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm my testimony in paragraphs 1 through 12 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date identified next to my signature below.


Catherine Henry

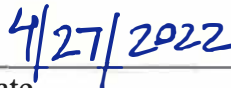

Date

Exhibit B-1**Catherine Elizabeth Henry**

5+ year petroleum industry career, conventionally and unconventionally trained geologist with experience working in with both upstream and midstream businesses.

PROFESSIONAL EXPERIENCE**PERCUSSION PETROLEUM II, LLC & CATENA RESOURCES OPERATING, LLC – Houston, TX****12/2021-Present****Geologist II**

- Responsible for providing geological support for horizontal drilling program
- Utilizing subsurface technical analysis to plan pad locations and development pattern well layouts for multi-bench development
- Providing subsurface analysis and guidance on SWD well locations and interval of interest

GULF COAST SEQUESTRATION – Houston, TX**9/2021 - 11/2021****Geologist – Contract**

- Collaborated with geoscience team to accomplish near-term business needs. This included collecting and interpreting historic production data from DrillingInfo, maintaining ArcGIS project, and digitizing raster logs in Petra.
- Contributed to and analyzed the permitting process with the EPA, shallow onshore Gulf Coast geology, and the full cycle CCUS process.

OASIS PETROLEUM – Houston, TX**2017 - 2021****Geologist II****1/2020 - 3/2021**

- Utilized SWD geologist role to de-risk inventory by identifying drill risk in core acreage areas and assisting with new casing design. This yielded program management accomplishments with significant business impact:
 - Planned and took on geological responsibilities for a 12 well drilling program
 - Successfully managed ideas across different functional groups; implemented new working standard for the organization on drilling operations through over-pressured corridors.
- Portfolio Management: risk ranked core acreage (404k net acres) at the DSU level and assigned cost with each risk tier. Resulted in capital inputs for project economics for every DSU to support corporate planning group.

Geologist I**7/2017 - 1/2020**

- Redesigned saltwater disposal (SWD) geologist role that successfully impacted both upstream and midstream businesses.
 - Developed geologic interpretation of complex fluvial/deltaic Inyan Kara stratigraphy across Williston Basin that significantly impacted well planning and operations.
 - Collaborated with cross-functional team of reservoir and facility engineers to characterize conventional reservoir.
 - Spearheaded successful material balance and decline curve analysis to achieve pore volume of reservoir and tie back to reservoir pressure. Completed analysis of pressure fall-off tests of 10+ wells used to predict EUI of saltwater disposal wells in sand tank.
 - Responsible for scouting new SWD permits; incorporate pipeline/infrastructure and state regulations with new locations; geosteering new SWDs; assisted BD group with third party business opportunities; monitored OBO activity in the basin.
- Operations Geologist (7/2017 – 7/2018)
 - Drilled 15+ wells to completion while demonstrating ability to stay in target zone in both Bakken and Three Forks formations.
 - Generated structure and isopach maps of target formations; produced geopros for permitting.
 - Proactively communicated with drilling/execution team as well as field personnel on geohazards and target changes.
 - Partnered with completions engineers on frac recommendation design; identified geohazards in the area (Lodgepole, Pronghorn thick, offset Mission Canyon production); utilized microseismic data.

CENTERPOINT ENERGY – Houston, TX**8/2016 - 7/2017****Project Lead – Infrastructure Data Specialist**

- Data Specialist: responsible for locating work orders for natural gas pipeline installation in the Houston area using SAP. Duties included validating pipeline attributes in ArcMap and meeting time restraints of the project.

Catena Resources Operating, LLC
Case No. 22631
Exhibit B-1

Exhibit B-1**EDUCATION**

MBA Candidate, Class of 2023 Texas A&M University Houston, TX	MS in Geology, 2016 University of Mississippi Oxford, MS	BS in Geology, 2014 Graduated with Honor Millsaps College, Jackson, MS
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RELATED EXPERIENCE

UNIVERSITY OF MISSISSIPPI- Oxford, MS **8/2014 - 5/2016**

Teaching Assistant- Courses: *ArcGIS* and *Intro to Geology*

ENERVEST, LTD. – Houston, TX **Summer 2015; Winter 2014 - 2015**

Geoscience Intern

- Completed multiple geologic projects in the Fort Worth Basin, Texas. Results yielded structure maps for the Atoka, Bend, and Marble Falls Formations, net pay maps, and cross-sections.
- Used 2D and 3D seismic profile mapping and well log correlation on IHS Kingdom (SMT) to focus on recompletion opportunities up-hole of the Barnett Shale. Project concluded production to be associated with stratigraphic traps rather than structural, with several legacy wells as recompletion candidates.

JURA-SEACH, INC. – Jackson, MS **Fall 2012 - Summer 2014**

Geoscience Intern

- Completed multiple projects in Little Cedar Creek Field, southwest AL. Project responsibilities included 2D seismic profile mapping on Kingdom (IHS), well log correlation, core analysis, and building geological structure and stratigraphic cross-sections of the Smackover and Norphlet Formations.

SKILLS & TRAINING

Software: IHS Kingdom · Petra · ArcGIS · Spotfire · StarSteer · LatNav · DrillingInfo · Adobe Illustrator · Microsoft Office

Nautilus Training:

- Practical Subsurface Mapping
- Formation Evaluation: Principles and Practices
- Geophysics for Subsurface Professionals
- Low Resistivity Pay Evaluation
- Reservoir Engineering for Non-Reservoir Engineers

In-house training: Reservoir Engineering for Non-Reservoir Engineers

2019

Short Course: ExxonMobil – “Integrated Basin and Play Analysis” (IBA): AAPG/SEG Student Expo

2015

In-house Franklin-Covey trainings: Social Styles & Seven Habits of Highly Effective People

2017; 2018

HONORS, AWARDS & AFFILIATIONS

Mississippi Geological Society- Boland Scholarship Recipient **2014**

Awarded to one student from each institution in Mississippi for hard work and dedication to the geosciences and community.

Mississippi Academy of Science **2014**

Best oral presentation in Geology and Geography division at the Mississippi Academy of Science Annual Meeting.

Honorable mention in the Millsaps-HHMI Undergraduate Scholars Symposium poster presentation.

Wendell B. Johnson Memorial Award **2013**

Awarded to a junior geology major at Millsaps College with an outstanding record of scholarship, research, and service

Dudley Hughes Exploration Internship **2012; 2013**

Endowment funds internships that focus on oil and gas exploration; funded internship at Jura-Search, Inc.

American Association of Petroleum Geologists - Member

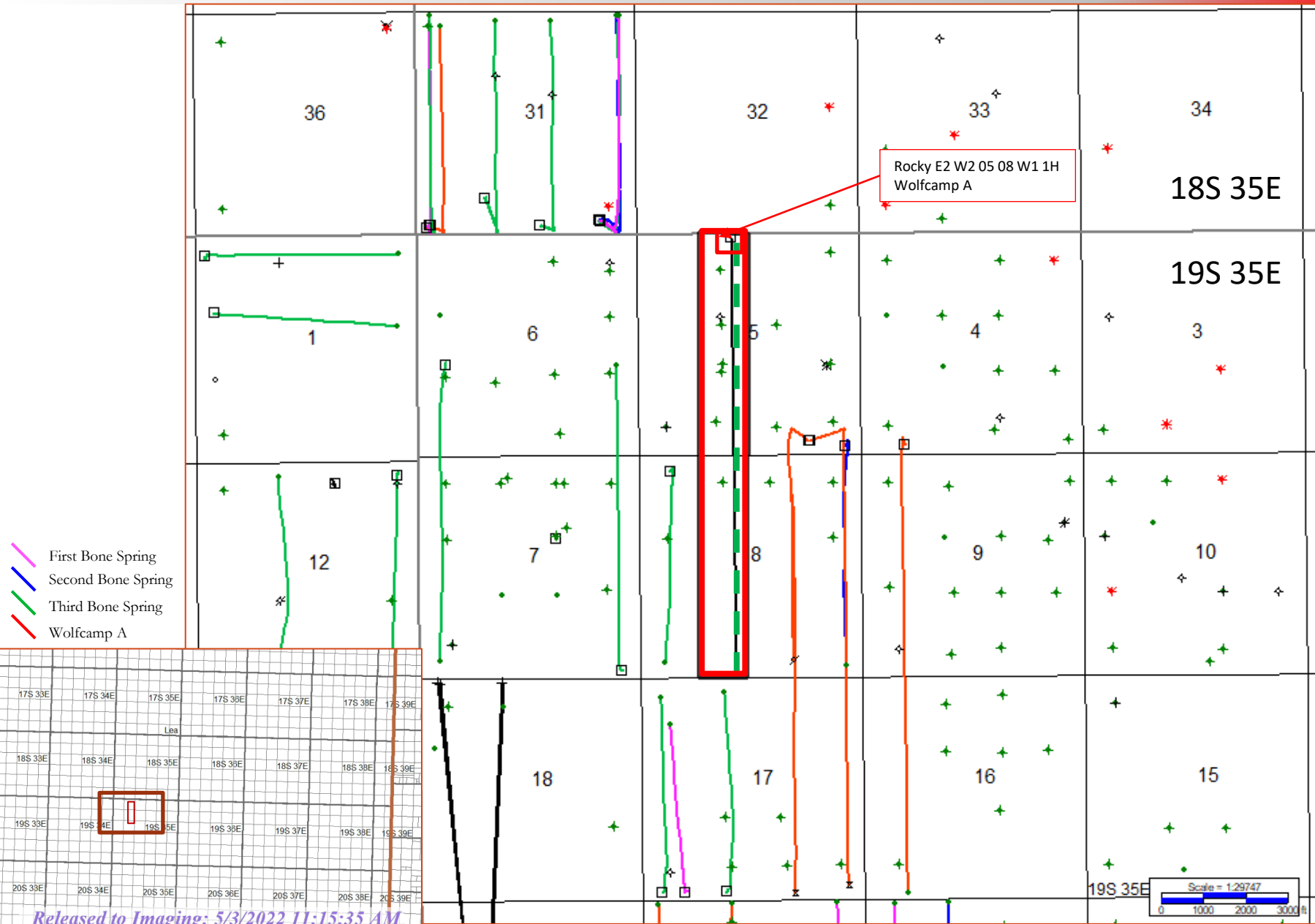
Saint Cecilia Catholic Church – Parishioner and LifeTeen

Houston Geological Society – Member

Core Team Volunteer

Association for Women Geoscientists -Member

Exhibit B-2: Locator Map



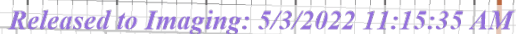


Exhibit B-4: Stratigraphic Cross section A-A' – Wolfcamp Datum

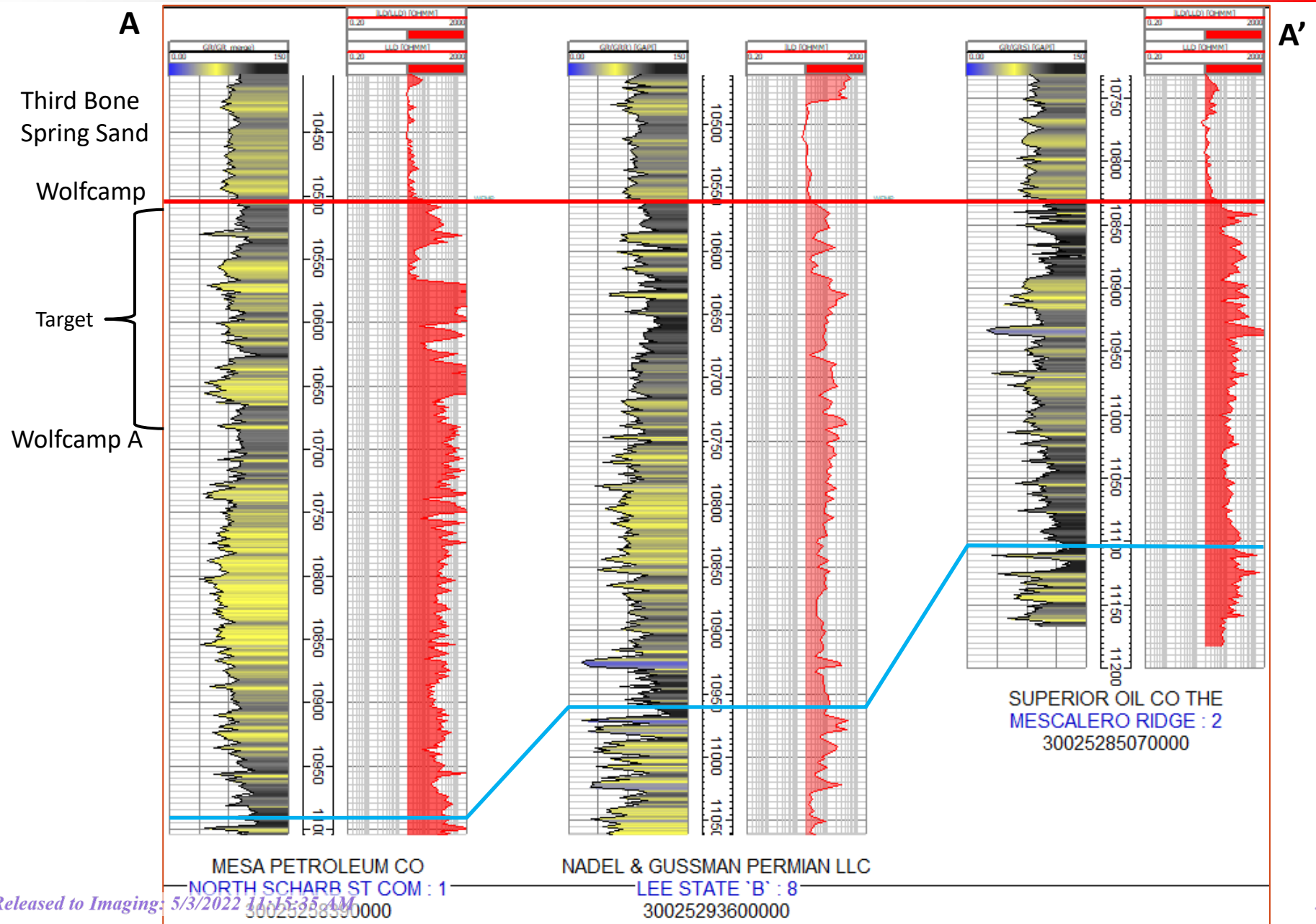
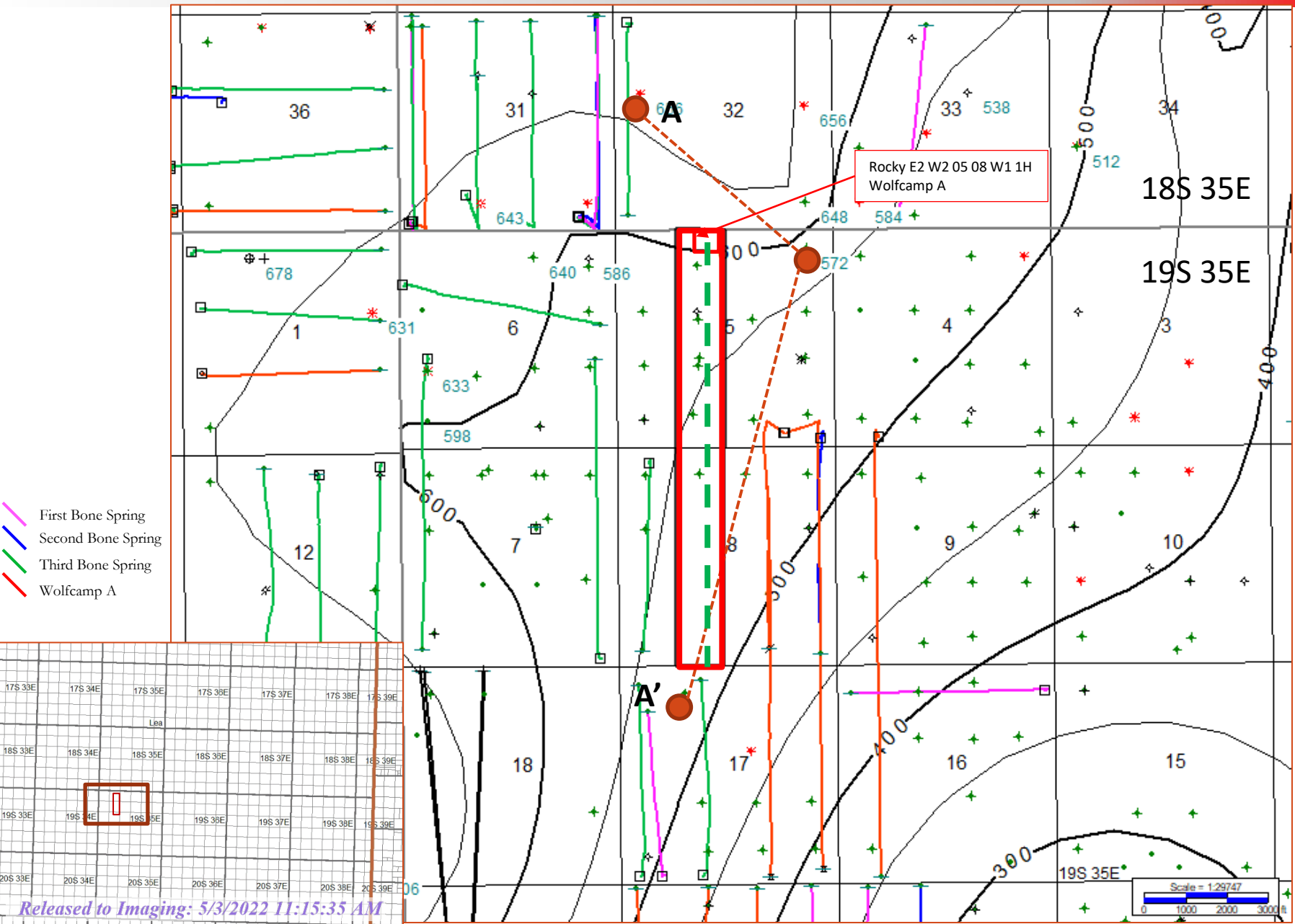


Exhibit B-5: Wolfcamp Gross TVT

Contour Interval = 50'



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

**APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO**

CASE NO. 22631

**SELF-AFFIRMED STATEMENT
OF DANA S. HARDY**

1. I am the attorney in fact and authorized representative of Catena Resources Operating, LLC, the Applicant herein.

2. I am familiar with the Notice Letter sent to all Interested Parties and attached as **Exhibit C-1**. I caused the Notice Letters to all Interested Parties to be sent to the parties set out in the chart attached as **Exhibit C-2**.

3. The above-referenced Application was provided, along with the Notice Letter, to the recipient listed in Exhibit C-2. Exhibit C-2 also includes the certified mail receipts.

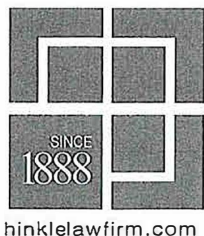
4. On March 13, 2022, I caused a notice to be published to all interested parties in the Carlsbad Current Argus. An Affidavit of Publication from the Legal Clerk of the Carlsbad Current Argus, along with a copy of the notice publication, is attached as **Exhibit C-3**.

5. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 14 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

/s/ Dana S. Hardy
Dana S. Hardy

May 3, 2022
Date

Catena Resources Operating, LLC
Case No. 22631
Exhibit C

**HINKLE SHANOR LLP**

ATTORNEYS AT LAW

PO BOX 2068

SANTA FE, NEW MEXICO 87504

505-982-4554 (FAX) 505-982-8623

WRITER:

Dana S. Hardy, Partner
dhardy@hinklelawfirm.com

March 9, 2022

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED**TO ALL INTERESTED PARTIES SUBJECT TO NOTICE****Re: Case No. 22631 - Application of Catena Resources Operating, LLC for Compulsory Pooling, Lea County, New Mexico.**

To whom it may concern:

This letter is to advise you that the enclosed application was filed with the New Mexico Oil Conservation Division. The hearing will be conducted on **April 7, 2022** beginning at 8:15 a.m.

During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website: <https://www.emnrd.nm.gov/ocd/hearing-info/>. 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 19.15.4.13.B, a party who intends to present evidence at the hearing shall file a pre-hearing statement and serve copies on other parties, or the attorneys of parties who are represented by counsel, 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 or submitted through the OCD E-Permitting system (<https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/>) 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.

Please do not hesitate to contact me if you have any questions about this matter.

Sincerely,

/s/ Dana S. Hardy

Dana S. Hardy

Enclosure

Catena Resources Operating, LLC
Case No. 22631
Exhibit C-1PO BOX 10
ROSWELL, NEW MEXICO 88202
575-622-6510
(FAX) 575-623-9332PO BOX 1720
ARTESIA, NEW MEXICO 88210
575-622-6510
(FAX) 575-746-6316PO BOX 2068
SANTA FE, NEW MEXICO 87504
505-982-4554
(FAX) 505-982-8623

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

APPLICATION OF CATENA RESOURCES
OPERATING, LLC FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO

Case No. 22631

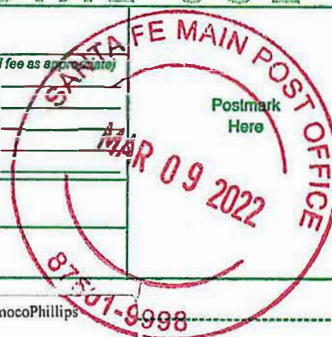
NOTICE LETTERS

PARTY	NOTICE LETTER SENT	RETURN RECEIVED
COG Operating, LLC 600 W. Illinois Avenue Midland, TX 79701	03/09/22	03/16/22

Catena Resources Operating, LLC
Case No. 22631
Exhibit C-2

7021 0950 0002 0365 6910

CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$
Sent To	
Street	COG Operating LLC c/o ConocoPhillips
Attn	Attn: Baylor Mitchell
City, St	600 W. Illinois Avenue
	Midland, TX 79701
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY		
<p>■ Complete items 1, 2, and 3.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p> <p>1. Article Addressed to:</p> <p>COG Operating LLC c/o ConocoPhillips Attn: Baylor Mitchell 600 W. Illinois Ave. Midland, TX 79701</p> <p>2. Article Number (Transfer from service label) 7021 0950 0002 0365 6910</p>	<p>A. Signature X </p> <p><input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) STEPHEN K. McCall</p> <p>C. Date of Delivery 3-14-22</p> <p>D. Is delivery address different from Item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type</p> <table border="0"> <tr> <td> <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) </td> <td> <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery </td> </tr> </table>	<input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	<input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery		

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

Domestic Return Receipt

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
March 13, 2022
and ending with the issue dated
March 13, 2022.


Publisher

Sworn and subscribed to before me this
13th day of March 2022.


Business Manager

My commission expires
January 29, 2023
(Seal)

GUSSIE BLACK
Notary Public - State of New Mexico
Commission # 1087526
My Comm. Expires Jan 29, 2023

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE March 13, 2022

This is to notify all interested parties, including COG Operating LLC c/o ConocoPhillips and their successors and assigns, that the New Mexico Oil Conservation Division will conduct a hearing on an application submitted by Catena Resources Operating, LLC (Case No. 22631). During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. The hearing will be conducted on April 7, 2022, beginning at 8:15 a.m. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website for that date: <http://www.emnrd.state.nm.us/OCD/hearings.html>. Applicant applies for an order pooling all uncommitted mineral interests in the Wolfcamp formation underlying a 320-acre, more or less, standard horizontal spacing unit ("Unit") comprised of the E/2W/2 of Section 5, Township 19 South, Range 35 East and the E/2W/2 of Section 8, Township 19 South, Range 35 East, Lea County, New Mexico. The Unit will be dedicated to the Rocky E2W2 05 08 W1 1H well ("Well"), which will be horizontally drilled from a surface location in the SE/4 SW/4 (Unit N) of Section 32 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8. Also to be considered will be the cost of drilling and completing the well and the allocation of the cost, the designation of Applicant as the operator of the well, and a 200% charge for the risk involved in drilling and completing the well. The well is located approximately 20 miles West of Hobbs, New Mexico. #37418

02107475

GILBERT
HINKLE, SHANOR LLP
PO BOX 2068
SANTA FE, NM 87504

00264573

Catena Resources Operating, LLC
Case No. 22631
Exhibit C-3