

**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 APPLICATION CHECKLIST****ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS**

<b>Case No.:</b>	<b>22631</b>
<b>Hearing Date:</b>	<b>5/5/2021</b>
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
<b>Formation/Pool</b>	
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
<b>Spacing Unit</b>	
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
<b>Other Situations</b>	
Depth Severance: Y/N. If yes, description	No
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
<b>Well(s)</b>	
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
<b>AFE Capex and Operating Costs</b>	
Drilling Supervision/Month \$	\$8,500.00
Production Supervision/Month \$	\$850.00
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%
<b>Notice of Hearing</b>	
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
<b>Ownership Determination</b>	
Land Ownership Schematic of 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
<b>Joinder</b>	
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
<b>Geology</b>	
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
<b>Forms, Figures and Tables</b>	
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
<b>Additional Information</b>	
<b>CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.</b>	
<b>Printed Name</b> (Attorney or Party Representative):	Dana S. Hardy
<b>Signed Name</b> (Attorney or Party Representative):	/s/ Dana S. Hardy
<b>Date:</b>	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

4-26-22

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 I**  
 1625 N French Dr., Hobbs, NM 88240  
 Phone: (575) 393-6161 Fax: (575) 393-0720  
**District II**  
 811 S First St., Artesia, NM 88210  
 Phone: (575) 748-1283 Fax: (575) 748-9720  
**District III**  
 1000 Rio Brazos Road, Aztec, NM 87410  
 Phone: (505) 334-6178 Fax: (505) 334-6170  
**District IV**  
 1220 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**

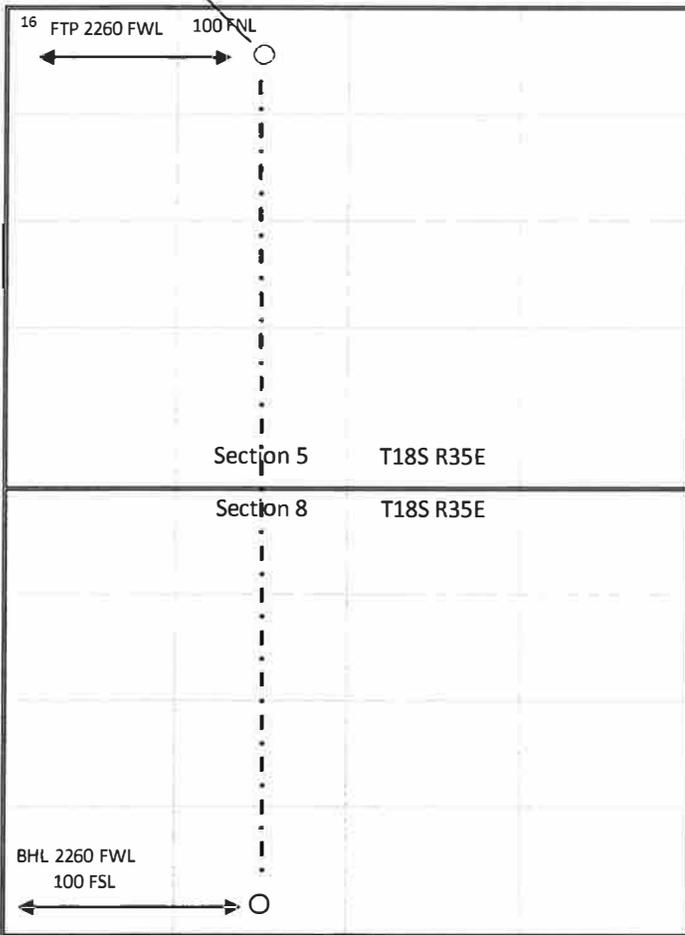
<sup>1</sup> API Number	<sup>2</sup> Pool Code <b>55640</b>	<sup>3</sup> Pool Name <b>Scharb: Wolfcamp</b>
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>Rocky E2W2 05 08 W1 State Com</b>	
<sup>7</sup> OGRID No. <b>328449</b>	<sup>8</sup> Operator Name <b>Catena Resources Operating, LLC</b>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

<sup>10</sup> Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>N</b>	<b>32</b>	<b>18-S</b>	<b>35-E</b>	<b>C</b>	<b>300</b>	<b>South</b>	<b>1650</b>	<b>West</b>	<b>LEA</b>

<sup>11</sup> 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
<b>N</b>	<b>8</b>	<b>19-S</b>	<b>35-E</b>	<b>N</b>	<b>100</b>	<b>South</b>	<b>2260</b>	<b>West</b>	<b>LEA</b>

<sup>12</sup> Dedicated Acres <b>320</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



**<sup>17</sup> 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.*

*[Signature]*      **4-28-22**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Cato Clark, VP Land  
 Printed Name: \_\_\_\_\_  
 clark@catenares.com  
 E-mail Address: \_\_\_\_\_

**<sup>18</sup> 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: \_\_\_\_\_

**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%

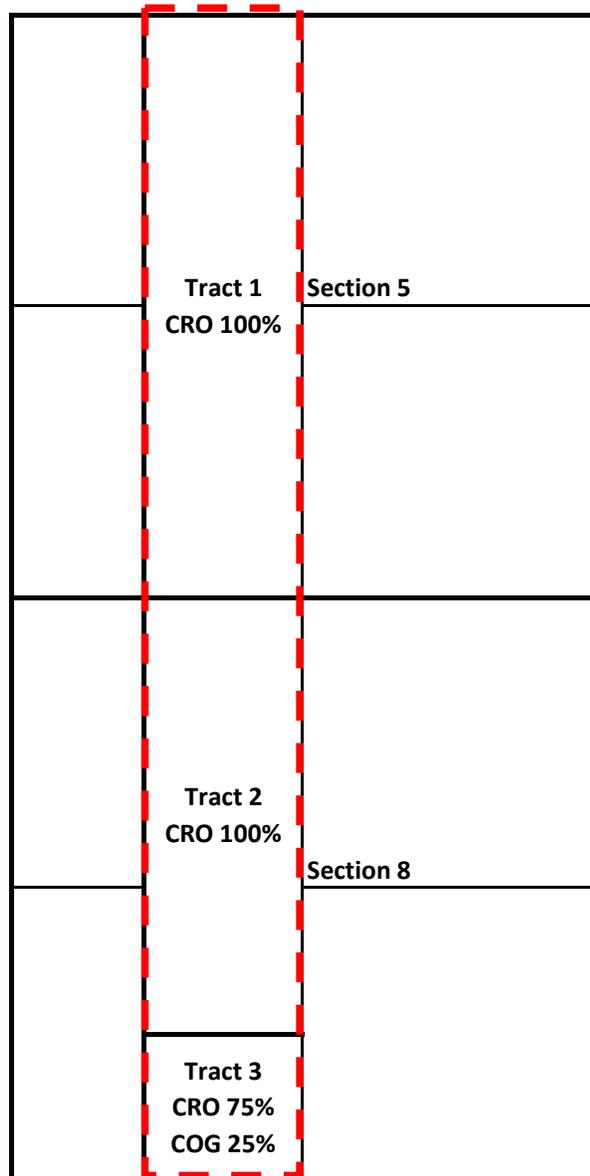
**Parties to be Pooled**

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,

Cato Clark, CPL  
Vice President, Land  
Catena Resources Operating, LLC  
1001 Fannin Street, 22<sup>nd</sup> Floor  
Houston, TX 77002  
Direct: 346.200.7894  
[Clark@catenares.com](mailto:Clark@catenares.com)

1001 Fannin St.  
22<sup>nd</sup> Floor  
Houston, TX 77002



713-429-5229  
[www.catenares.com](http://www.catenares.com)  
[info@catenares.com](mailto:info@catenares.com)

Catena Resources Operating, LLC  
Case No. 22631  
Exhibit A-4

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.  
22<sup>nd</sup> Floor  
Houston, TX 77002



713-429-5229  
[www.catenares.com](http://www.catenares.com)  
[info@catenares.com](mailto:info@catenares.com)



**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.

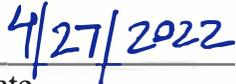
10. Based on my geologic study, the Wolfcamp formation underlying the subject area is suitable for development by horizontal wells and the acreage comprising the proposed spacing unit will be productive and contribute proportionately to the production from the well.

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**

<b>MBA Candidate, Class of 2023</b> Texas A&M University Houston, TX	<b>MS in Geology, 2016</b> University of Mississippi Oxford, MS	<b>BS in Geology, 2014</b> Graduated with Honor Millsaps College, Jackson, MS
----------------------------------------------------------------------------	-----------------------------------------------------------------------	-------------------------------------------------------------------------------------

**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-2

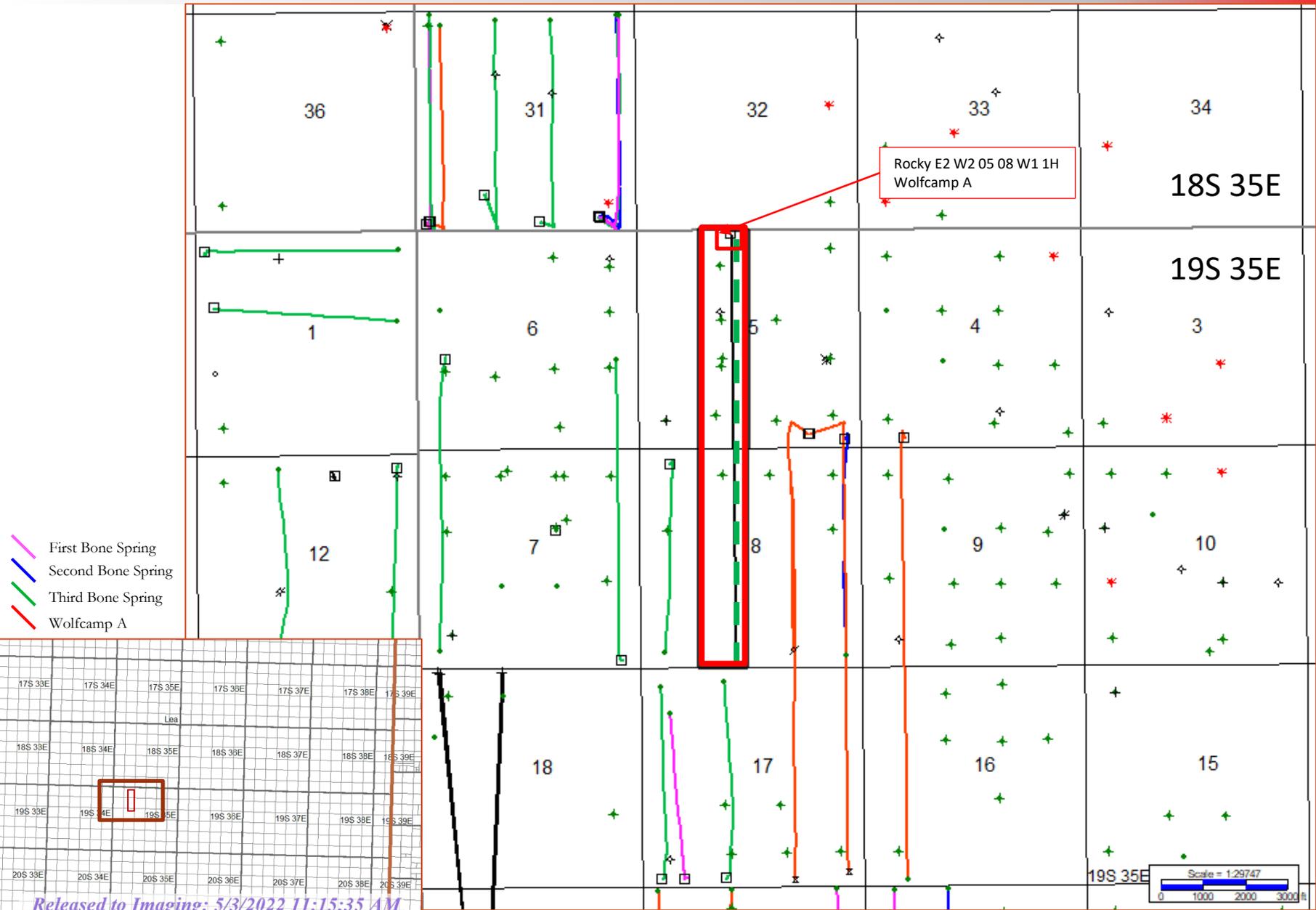
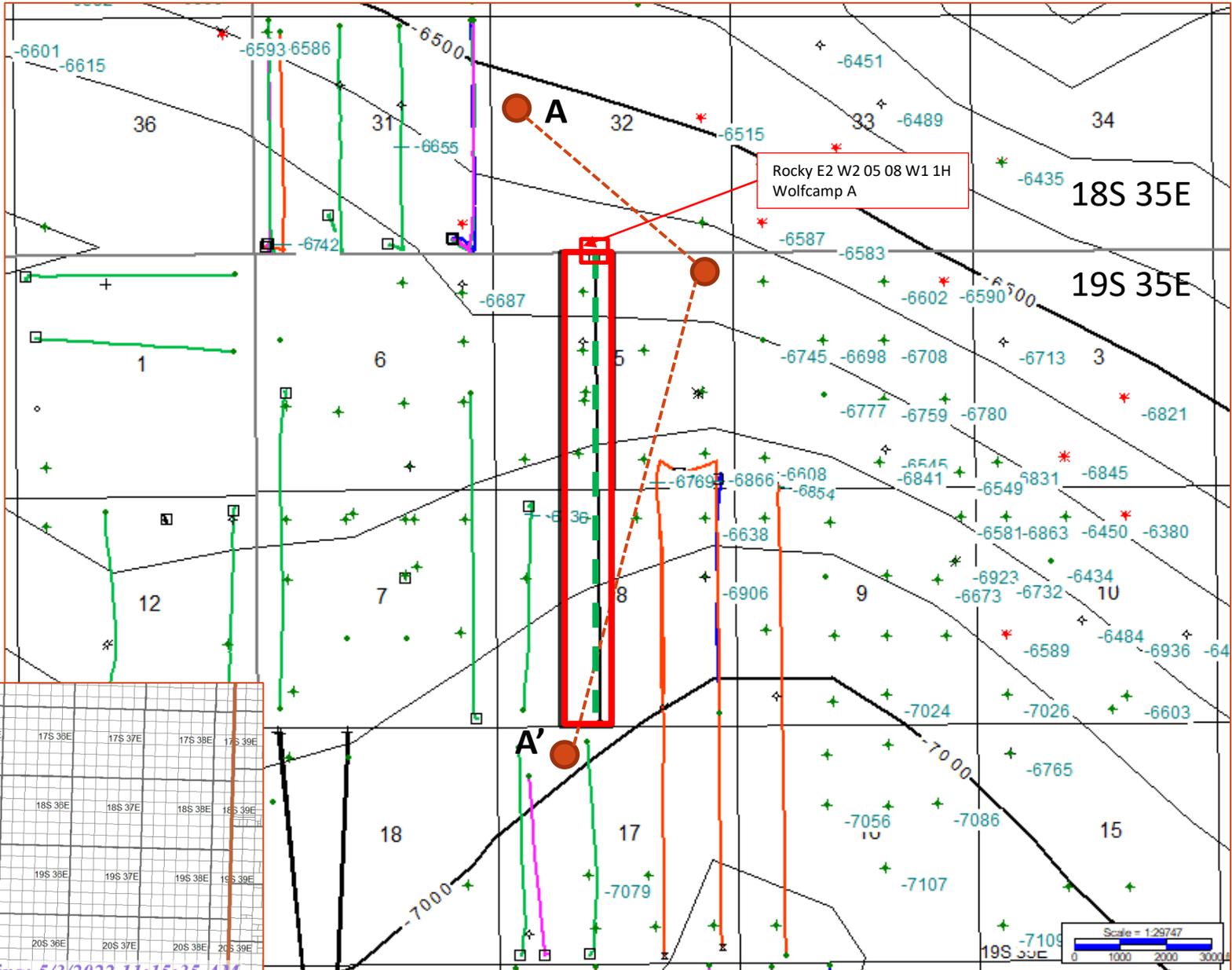


Exhibit B-3: Wolfcamp Top SSTVD

Exhibit B-3

Contour Interval = 100'





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

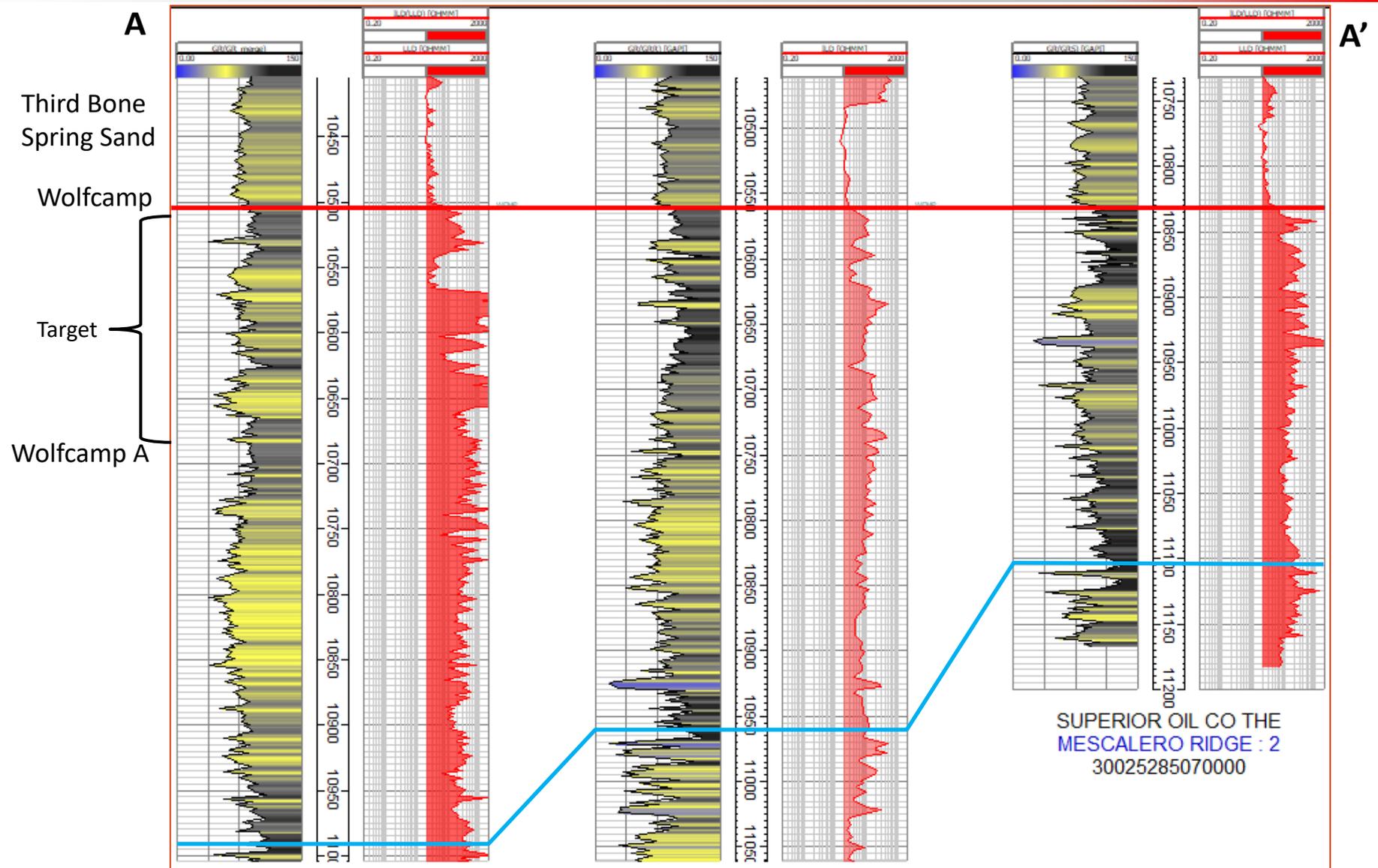
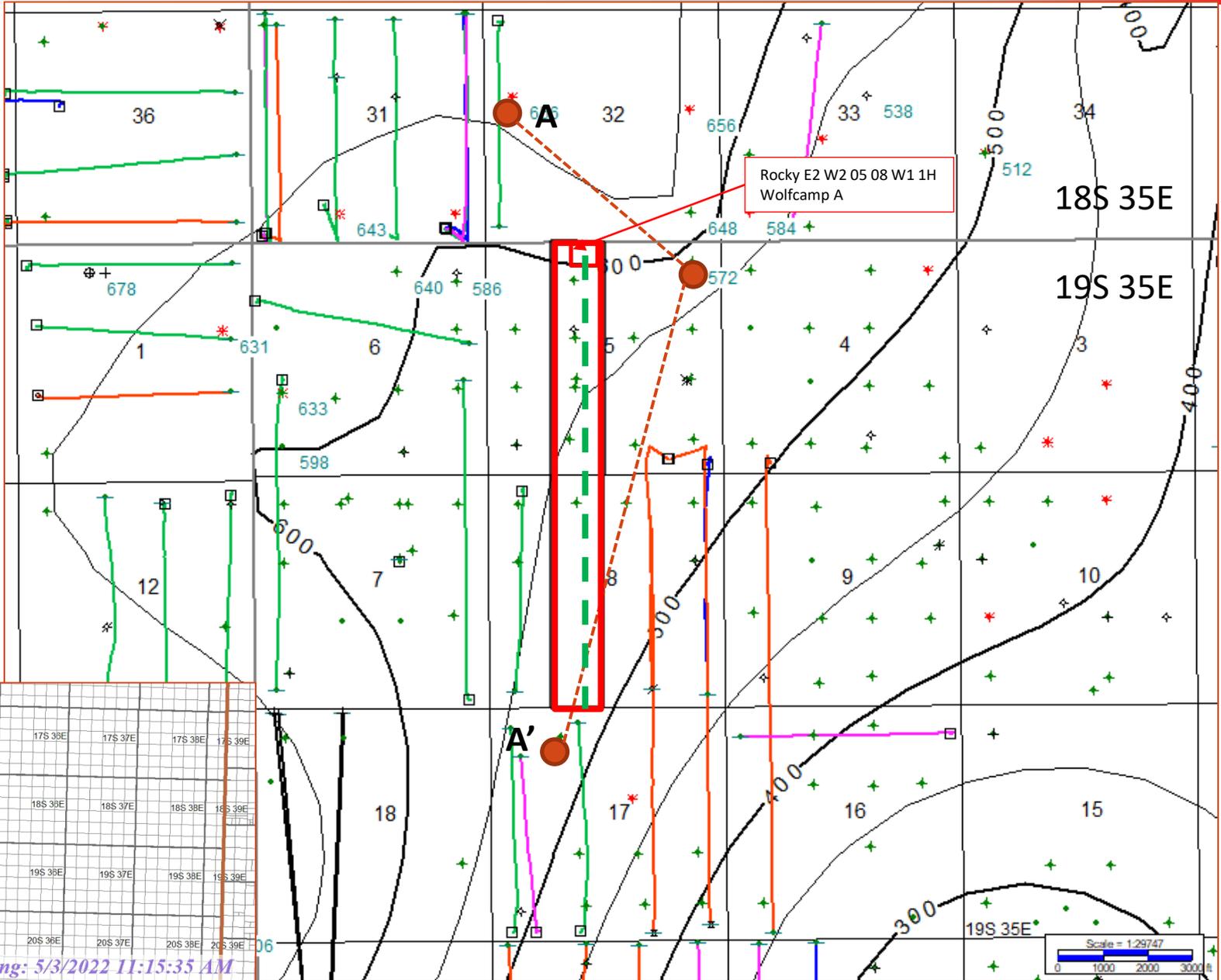


Exhibit B-5: Wolfcamp Gross TWT

Exhibit B-5

Contour Interval = 50'



- First Bone Spring
- Second Bone Spring
- Third Bone Spring
- Wolfcamp A



**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.

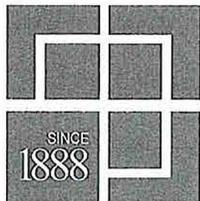
4. On March 13, 2022, I caused a notice to be published to all interested parties in the Carlsbad Current Argus. An Affidavit of Publication from the Legal Clerk of the Carlsbad Current Argus, along with a copy of the notice publication, is attached as **Exhibit C-3**.

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



hinklelawfirm.com

**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-1

PO BOX 10  
ROSWELL, NEW MEXICO 88202  
575-622-6510  
(FAX) 575-623-9332

PO BOX 1720  
ARTESIA, NEW MEXICO 88210  
575-622-6510  
(FAX) 575-746-6316

PO 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

<b>PARTY</b>	<b>NOTICE LETTER SENT</b>	<b>RETURN RECEIVED</b>
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

**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

OFFICIAL USE

Certified Mail Fee \$ \_\_\_\_\_

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

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

**Total Postage and Fees** \$ \_\_\_\_\_

Sent To \_\_\_\_\_

Street a COG Operating LLC c/o ConocoPhillips

Attn: Baylor Mitchell

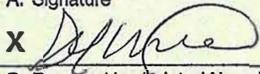
600 W. Illinois Avenue

City, St Midland, TX 79701

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 0950 0002 0365 6910



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> <div style="text-align: center;">             9590 9402 5760 0003 2711 22         </div> <p>2. Article Number (Transfer from service label) 7021 0950 0002 0365 6910</p>	<p>A. Signature <b>X</b>  <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery STEVANIK rec'd 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 style="width: 100%;"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input checked="" type="checkbox"/> Return Receipt for Merchandise</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>	<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®	<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™	<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery	<input type="checkbox"/> Certified Mail Restricted Delivery	<input checked="" type="checkbox"/> Return Receipt for Merchandise	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®																
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™																
<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery																
<input type="checkbox"/> Certified Mail Restricted Delivery	<input checked="" type="checkbox"/> Return Receipt for Merchandise																
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™																
<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery																
<input type="checkbox"/> Insured Mail																	
<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)																	
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