

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING SEPTEMBER 24, 2020**

CASE No. 21354

ALPHA 183533 2H WELL

LEA COUNTY, NEW MEXICO



**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 NOS. 21354


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COMPULSORY POOLING APPLICATION CHECKLIST

ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case: 21354	APPLICANT'S RESPONSE
Date: September 24, 2020	
Applicant	Catena Resources Operating, LLC
Designated Operator & OGRID (affiliation if applicable)	Catena Resources Operating, LLC (OGRID No. 328449)
Applicant's Counsel:	Holland & Hart LLP
Case Title:	APPLICATION OF CATENA RESOURCES OPERATING, LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.
Entries of Appearance/Intervenors:	Marathon Oil Permian, LLC
Well Family	Alpha 183533 2H
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring Formation
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring Formation
Pool Name and Pool Code:	Scharb; Bone Spring (55610)
Well Location Setback Rules:	Statewide horizontal oil well rules
Spacing Unit Size:	480-acres, more or less
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal well spacing unit
Size (Acres)	480 acres, more or less
Building Blocks:	quarter-quarter sections
Orientation:	North to South
Description: TRS/County	SW/4 of Section 33, T-18-S, R-35-E and W/2 of Section 4, T-19-S, R-35-E, NMPM, Lea County, New Mexico.
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	None
Proximity Tracts: If yes, description	E/2 SW/4 of Section 33 ad E/2 W/2 of Section 4
Proximity Defining Well: if yes, description	Alpha 183533 2H
Applicant's Ownership in Each Tract	Exhibit A-3
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	Alpha 183533 2H (API # Pending) SHL: 2450' FSL & 1370' FWL (Unit K), Sec. 33, T18S, R35E BHL: 100' FSL & 1270' FWL (Unit M), Sec. 4, T19S, R35E Completion target: Bone Spring Well orientation: North to South Completion location: expected to be standard
Horizontal Well First and Last Take Points	See Exhibit A-1
Completion Target (Formation, TVD and MD)	See Exhibit B
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800

Justification for Supervision Costs	See Exhibit A
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit C
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit C
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit D
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit A-3
Tract List (including lease numbers and owners)	Exhibit A-3
Pooled Parties (including ownership type)	Exhibit A-3
Unlocatable Parties to be Pooled	Exhibit D
Ownership Depth Severance (including percentage above & below)	N/A
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	Exhibit A-4
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 A-2
Gunbarrel/Lateral Trajectory Schematic	Exhibit A-2
Well Orientation (with rationale)	Exhibit B-1
Target Formation	Exhibit B
HSU Cross Section	Exhibit B-2
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit A-1
Tracts	Exhibit A-3
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-3
General Location Map (including basin)	Exhibit A-2
Well Bore Location Map	Exhibit A-2
Structure Contour Map - Subsea Depth	Exhibit B-1
Cross Section Location Map (including wells)	Exhibit B-1
Cross Section (including Landing Zone)	Exhibit B-2
Additional Information	
Special Provisions/Stipulations	None
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	Kaitlyn A. Luck
Signed Name (Attorney or Party Representative):	
Date:	21-Sep-20

**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. 21354

APPLICATION

Catena Resources Operating, LLC (“Applicant”) (OGRID No. 328449), through its undersigned attorneys, hereby files this application with the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-17, for an order pooling all uncommitted interests in the Bone Spring formation underlying a standard 480-acre, more or less, horizontal spacing unit comprised of the SW/4 of Section 33, Township 18 South, Range 35 East, and the W/2 of Section 4, Township 19 South, Range 35 East, NMPM, Lea County, New Mexico. In support Applicant states:

1. Applicant is a working interest owner in the proposed horizontal spacing unit and has the right to drill thereon.
2. Applicant seeks to initially dedicate the above-referenced spacing unit to the proposed **Alpha 183533 2H Well** to be horizontally drilled from a surface location in the NE/4 SW/4 (Unit K) of Section 33 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 4.
3. The completed interval for the proposed well will remain within 330 feet of the E/2 SW/4 of Section 33 and E/2 W/2 of Section 4 to include this offsetting acreage in a standard horizontal well spacing unit.
4. Applicant has sought and been unable to obtain voluntary agreement for the development of these lands from all interest owners in the subject spacing unit.

5. The pooling of interests will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

6. In order to permit Applicant to obtain its just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this horizontal spacing unit should be pooled, and Applicant should be designated the operator of the proposed well and horizontal spacing unit.

WHEREFORE, Applicant requests that this application be set for hearing before an Examiner of the Oil Conservation Division on July 23, 2020, and, after notice and hearing as required by law, the Division enter an order:

- A. Pooling all uncommitted interests in the horizontal spacing unit and approving the initial well thereon;
- B. Designating Applicant as operator of the horizontal spacing unit and the horizontal wells to be drilled thereon;
- C. Authorizing Applicant to recover its costs of drilling, equipping, and completing the well;
- D. 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
- E. Imposing a 200% charge 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,

HOLLAND & HART LLP

By: 

Michael H. Feldewert

Adam G. Rankin

Julia Broggi

Kaitlyn A. Luck

Post Office Box 2208

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ATTORNEYS FOR

CATENA RESOURCES OPERATING, LLC

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

**APPLICATION OF CATENA RESOURCES
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POOLING, LEA COUNTY, NEW MEXICO**

CASE NOS. 21354

AFFIDAVIT OF ROBERT SWANN

Robert Swann, of lawful age and being first duly sworn, declares as follows:

1. My name is Robert Swann. I am a Land Manager with Catena Resources Operating, LLC ("Catena").
2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum land matters. My credentials as a petroleum land manager have been accepted by the Division and made a matter of record.
3. I am familiar with the application filed by Catena in this case, and I am familiar with the status of the lands in the subject area.
4. The uncommitted parties have not indicated any opposition to this pooling application, and therefore I do not expect any opposition at the hearing
5. Catena seek an order pooling all uncommitted interests in the Bone Spring formation [55610, Scharb; Bone Spring] underlying a standard 479.40-acre horizontal spacing unit comprised of the comprised of the SW/4 of Section 33, Township 18 South, Range 35 East, and the W/2 of Section 4, Township 19 South, Range 35 East, NMPM, Lea County, New Mexico.
6. Catena seeks to initially dedicate this spacing unit to the proposed **Alpha 183533 2H Well** to be horizontally drilled from a surface location in the NE/4 SW/4 (Unit K) of Section 33 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 4. The completed interval for

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

the proposed well will remain within 330 feet of the E/2 SW/4 of Section 33 and E/2 W/2 of Section 4 to include this offsetting acreage in a standard horizontal well spacing unit.

7. **Exhibit A-1** contains the Form C-102 for the proposed well.

8. **Exhibit A-2** is a general location map outlining the acreage being pooled and the lateral trajectory of the proposed well. The acreage is comprised of state lands.

9. **Exhibit A-3** identifies the tracts of land comprising the proposed spacing unit, the working interest ownership in each tract and their respective interest in the horizontal spacing unit. The mineral owners that remain to be pooled are highlighted on Exhibit A-3.

10. No ownership depth severances exist within in the Bone Spring formation underlying the subject acreage.

11. Catena has conducted a diligent search of company records, county records, telephone directories and conducted computer searches to locate contact information for each of the mineral owners that it seeks to pool.

12. **Exhibit A-4** contains a sample of the letter and AFE for the proposed well sent to the working interest owners that Catena has been able to locate. The costs reflected on the AFE are consistent with what Catena and other operators have incurred for drilling similar horizontal wells in the area in this formation.

13. **Exhibit A-5** contains a chronology of the contacts with the uncommitted mineral owners Catena was able to locate. Catena has made a good faith effort to obtain voluntary joinder of these owners in the proposed wells.

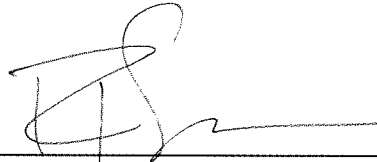
14. **Exhibit A-6** is Catena's notice of the overlapping spacing unit in this case, pursuant to 19.15.16.15.B(9) NMAC, which reflects that all affected working interest owners were provided notice of the overlapping spacing unit. No objection was received within the 20-day time period.

15. Catena requests overhead and administrative rates of \$8,000 per month for drilling and \$800 per month for a producing well. These rates are consistent with the rates charged by Catena and other operators for similar wells in this area.

16. I have provided the law firm of Holland and Hart, LLP, with the names and addresses (where available) of the mineral owners that Catena seeks to pool and instructed that they be notified of this hearing.

17. Exhibits A-1 through A-6 were prepared by me or compiled under my direction from company business records.

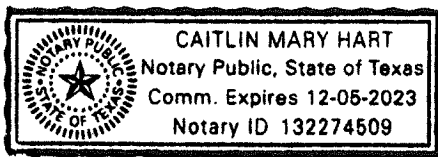
FURTHER AFFIANT SAYETH NAUGHT




ROBERT SWANN

STATE OF TEXAS)
)
COUNTY OF BEXAR)

SUBSCRIBED and SWORN to before me this 22 day of September 2020 by Robert Swann.




NOTARY PUBLIC

My Commission Expires:

12/05/2023

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

¹ API Number	² Pool Code 55610	³ Pool Name Scharb; Bone Spring
⁴ Property Code	⁵ Property Name Alpha 183533	⁶ Well Number 2H
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
K	33	18S	35E		2450'	FSL	1370'	FWL	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
M	4	19S	35E		100'	FSL	1270'	FWL	Lea

¹² Dedicated Acres 479.40	¹³ Joint or Infill	¹⁴ Consolidation Code COM	¹⁵ Order No.
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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.

SENE	SWNE	Alpha 183533 2H 2450' FSL 1370' FWL 33 18S 35E	SWNW	SENE	SWNE	SENE	¹⁷ OPERATOR CERTIFICATION <i>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 work interest, or to a voluntary pooling agreement or compulsory pooling order heretofore entered by the division.</i> Signature _____ Date _____ Printed Name _____ E-mail Address _____	
NESW	NWSE		32	NWSW	NESW	NWSE		NESE
SESW	SWSE		18S 35E	SWSW	SESW	SWSE		SESE
L 3	L 2	L 1	L 4	L 3	L 2	L 1		
SENE	SWNE	05	SWNW	SENE	SWNE	SENE		¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey _____ Signature and Seal of Professional Surveyor: _____
NESW	NWSE		04	NWSW	NESW	NWSE		
SESW	SWSE		2H BHL & LTP 100' FSL 1270' FWL 4 19S 35E	SWSW	SESW	SWSE	SESE	
NENW	NWNE	NENE	NWNW	NENW	NWNE	NENE		

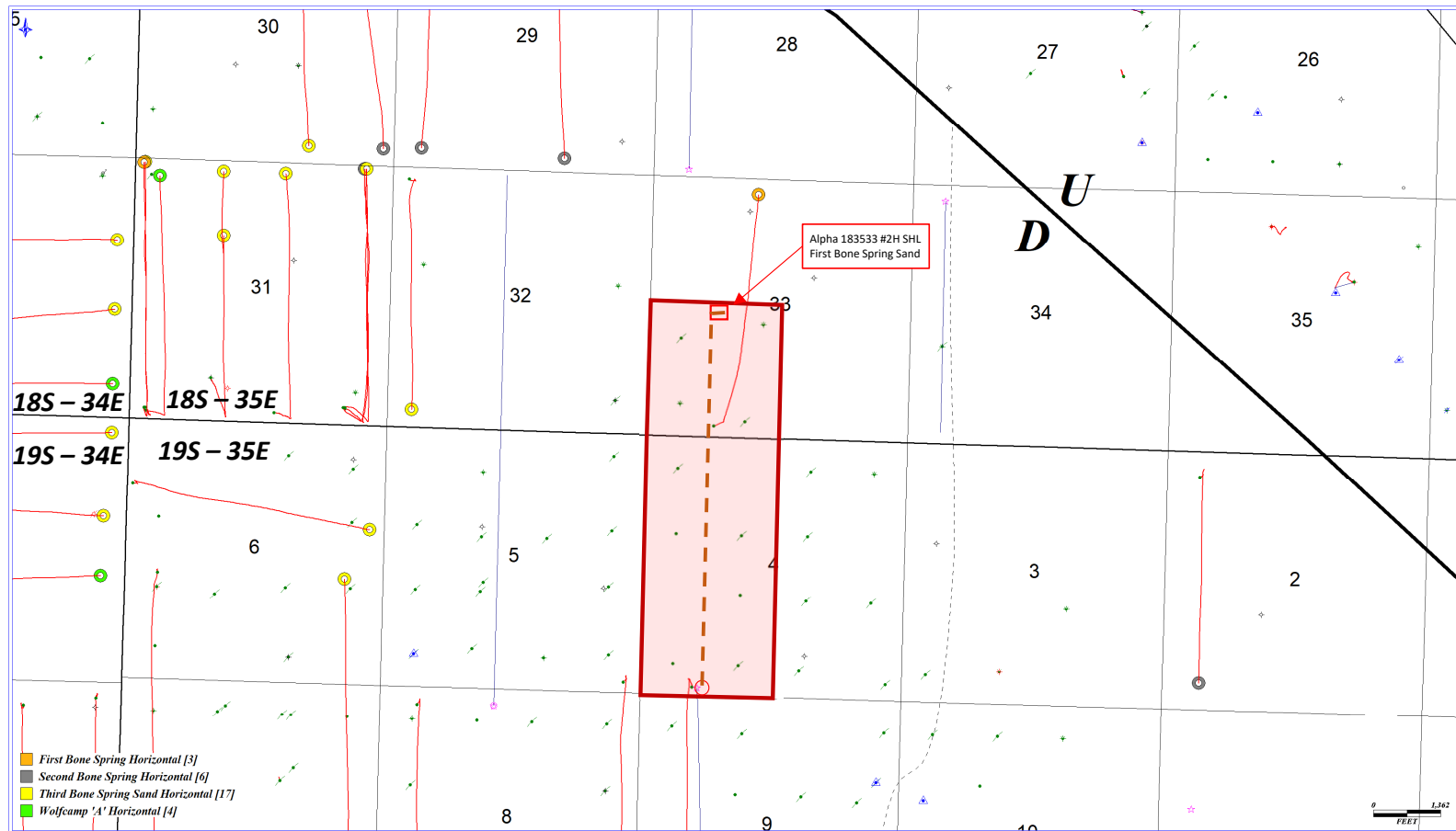
BEFORE THE OIL CONSERVATION DIVISION

Certificate Number **Santa Fe, New Mexico**
Exhibit No. A1

Submitted by: Catena Resources Operating, LLC
Hearing Date: September 24, 2020
Case No. 21354

Alpha 183533 #2H

Locator Map



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A2

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

Unit Size	Alpha 183533 2H - Bone Spring - Case No. 21354			
479.4				
WI Owner	Tract No	Tract Gross	Tract WI	Tract NMA
Catena Resources Operating	1	160	93.75%	150.000
Catena Resources Operating	3	40	100.00%	40.000
Catena Resources Operating	8	40	100.00%	40.000
T.H. McElvain Oil & Gas, LLLP	1	160	6.25%	10.000
Marathon Oil Permian LLC	2	79.4	100.00%	79.400
Marathon Oil Permian LLC	6	40	100.00%	40.000
Maynard Oil Company	4	40	30.00%	12.000
Linn Energy Holdings, LLC	4	40	70.00%	28.000
Maynard Oil Company	5	40	60.00%	24.000
Linn Energy Holdings, LLC	5	40	40.00%	16.000
Maynard Oil Company	7	40	60.00%	24.000
Linn Energy Holdings, LLC	7	40	40.00%	16.000
Tract Totals				479.400

WI Owner	Unit WI	Unit NMA
Catena Resources Operating	47.98%	230.000
T.H. McElvain Oil & Gas, LLLP	2.09%	10.000
Marathon Oil Permian LLC	24.91%	119.400
Maynard Oil Company	12.52%	60.000
Linn Energy Holdings, LLC	12.52%	60.000
Unit Totals	100.00%	479.400

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

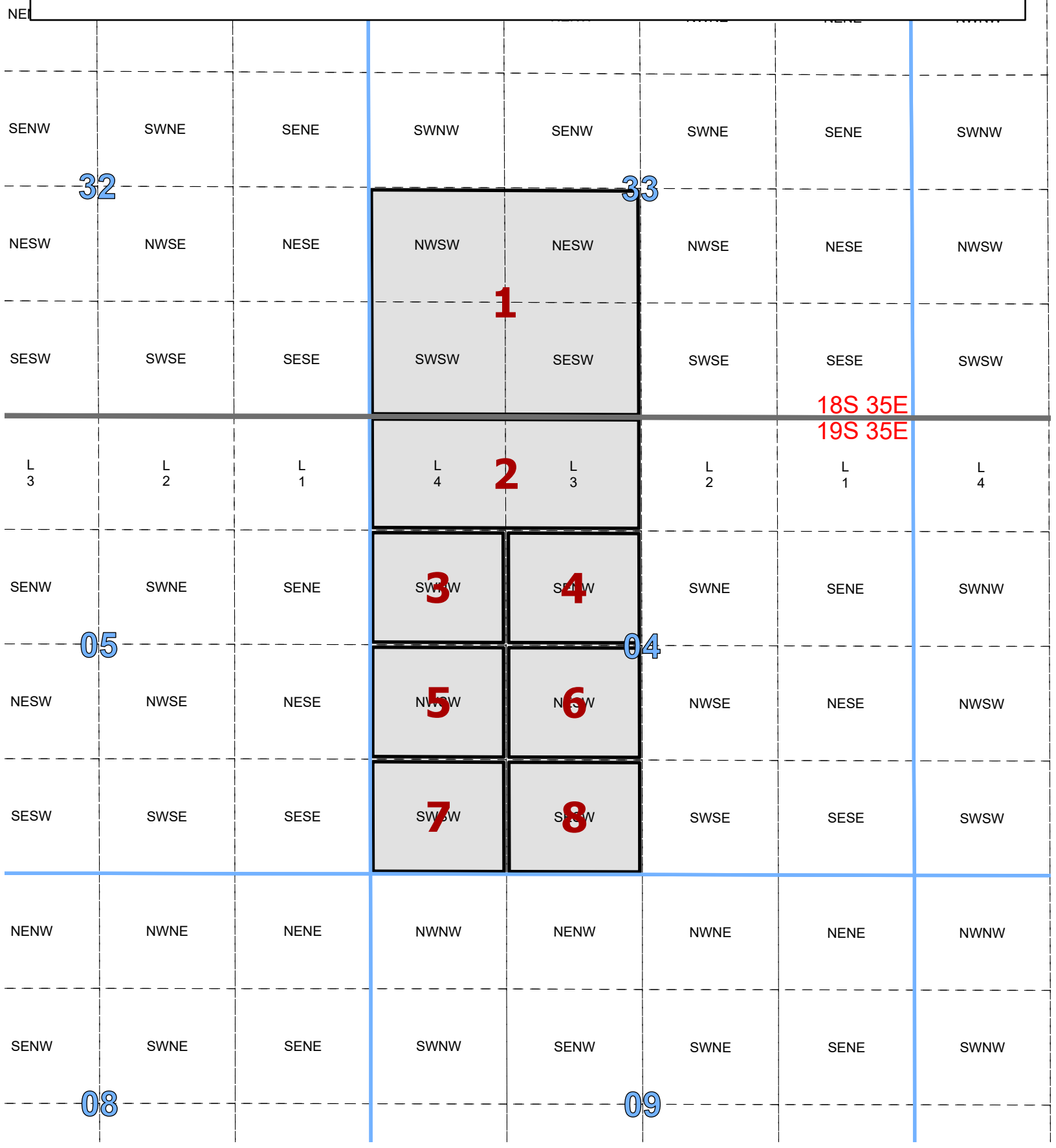
Exhibit No. A3

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

Catena Resources Operating, LLC
Alpha 183533 2H - Bone Spring
Case No. 21354





June 10, 2020
Via Certified Mail

Marathon Oil Company
P.O. Box 2069
Houston, TX 77252
713-629-6600

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A4

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

Re: **Alpha 183533 1H Well Proposal**
Wolfcamp Formation
SW/4 of Section 33 T18S, 35E, and W/2 of Section 4, T19S, R35E
Lea County, New Mexico

Alpha 183533 2H Well Proposal
Bone Spring Formation
SW/4 of Section 33 T18S, 35E, and W/2 of Section 4, T19S, R35E
Lea County, New Mexico

Ladies and Gentlemen,

Catena Resources Operating, LLC ("Catena") as Operator hereby proposes to drill the following wells to a depth sufficient to test the Wolfcamp and Bone Spring formations:

Well Name	SHL Section 33	BHL Section 4	Spacing Unit 480 Acres	Target TVD	Estimated TMD
Alpha 183533 1H Wolfcamp Formation	FSL: 2450' FWL: 1270'	FSL: 100' FWL: 1270'	SW/4 of Section 33, T18S, 35E and W/2 of Section 4, T19S, R35E	10,590'	18,246'
Alpha 183533 2H Bone Spring Formation	FSL: 2450' FWL: 1370'	FSL: 100' FEL: 1270'	SW/4 of Section 33, T18S, 35E and W/2 of Section 4, T19S, R35E	9,180'	16,836'

These proposed locations and target depths are subject to change depending on any surface or subsurface concerns encountered.

Regarding the above, enclosed for your further handling are our AFE's dated April 16, 2020 for the proposed wells. The AFE's represent an estimate of the costs that will be incurred to drill and complete the wells, but those electing to participate in the wells are responsible for their proportionate share of the actual costs incurred. In the event you elect to participate in the proposed wells, please execute the enclosed AFE's and return to me. We are happy to furnish you with a proposed Joint Operating Agreement upon request. Please respond within 30 days of receiving this notice. If you do not wish to participate, Catena proposes to acquire your interest via term assignment subject to due diligence and title verification satisfactory to Catena.

Should you have any questions regarding the above, please email me at rswann@catenares.com or call me at (210) 775-6993.


Sincerely,

Catena Resources Operating, LLC



Robert Swann

Land Manager

<div></div>	WELL COST ESTIMATE							AFE NO.		
	WELL NAME: Alpha 183533 2H		DATE: 16-Apr-20							
	FIELD NAME:		START DATE:							
	LOCATION: 1.5 sec. lateral,		COMPLETE DATE:							
COUNTY / ST: Lea County, NM		ORIGINAL: x								
OBJECTIVE: Bone Spring		SUPPLEMENT:								
INTANGIBLE COSTS				ACCT CODE	DRILLING - 310XX	ACCT CODE	COMPLETION - 320XX	ACCT CODE	FACILITIES - 330XX	TOTAL
Legal Fees / Title Opinion				31001	\$50,000	32001	\$0	33001	\$0	\$50,000
Surveys / Staking / Permits / Bonds / Regulatory				31002	\$25,700	32002	\$0	33002	\$0	\$25,700
ROW / Surface Damages				31003	\$60,000	32003	\$0		\$0	\$60,000
Roads & Location / Reserve Pit - Construction				31004	\$90,000	32004	\$0		\$0	\$90,000
Roads & Location / Reserve Pit - Reclamation				31005		32005	\$0		\$0	\$0
Frac Pond				31006		32006	\$0		\$0	
Gate Guard				31007		32007	\$0		\$0	\$0
Mouse / Rathole / Conductor				31008	\$19,000		\$0		\$0	\$19,000
Mobilization / Demobilization				31009	\$230,675	32008	\$0		\$0	\$230,675
Drilling - Daywork				31010	\$475,000		\$0		\$0	\$475,000
Drilling - Footage				31011			\$0		\$0	\$0
Drilling - Turnkey				31012			\$0		\$0	\$0
Completion / Snubbing / Workover Unit				31013		32009	\$40,000		\$0	\$40,000
Trailer House / Communications				31014	\$43,572	32010	\$24,200		\$0	\$67,772
Drill Bits				31015	\$85,000	32011	\$0		\$0	\$85,000
Directional Equipment / Gyro Surveys				31016	\$225,000	32012	\$0		\$0	\$225,000
Downhole Tool / Stabilization Rental				31017	\$57,075	32013	\$34,000		\$0	\$91,075
Mud / Chemicals				31018	\$200,000	32014	\$601,500		\$0	\$801,500
Fuel / Power				31019	\$104,500	32015	\$471,800		\$0	\$576,300
Water Supply Well, equipment				31020	\$3,603	32016	\$0		\$0	
Water / Water Hauling				31021		32017	\$816,550		\$0	\$816,550
Offsite Water & Cuttings Disposal				31022	\$243,056	32018	\$30,500		\$0	\$273,556
Transportation / Hauling				31023	\$31,000	32019	\$0	33009	\$15,000	\$46,000
Inspection / Tubular Testing				31024	\$95,654	32020	\$0		\$0	\$95,654
Laydown Machine / Casing Crew / Tongs				31025	\$58,245	32021	\$0		\$0	\$58,245
Cementing, Float Equipment & Services				31026	\$62,458	32022	\$0		\$0	\$62,458
Mud Logging				31027	\$35,343		\$0		\$0	\$35,343
Logging - Open Hole				31028		32023	\$0		\$0	\$0
Logging - Cased Hole				31029		32024	\$13,000		\$0	\$13,000
Coring & Analysis, Drill Stem Test				31030			\$0		\$0	\$0
Perforating				31031		32025	\$421,200		\$0	\$421,200
Wireline / Slickline Services				31032		32026	\$15,000		\$0	\$15,000
Equipment Rental				31033	\$149,580	32027	\$236,000		\$0	\$385,580
Pumping Services/Rental				31034		32028	\$21,000		\$0	
Acidizing & Fracturing				31035		32029	\$2,175,000		\$0	\$2,175,000
Coil Tubing Unit				31036		32030	\$120,000		\$0	\$120,000
Flow Testing, Swabbing				31037		32031	\$95,875		\$0	\$95,875
Fishing / Sidetrack Services				31038		32032	\$0		\$0	\$0
Nipple Up / BOPE Testing				31039	\$6,400	32033	\$23,000		\$0	\$29,400
Overhead				31040	\$8,000	32034	\$19,500		\$0	\$27,500
Wellsite Consulting Services/Supervision				31041	\$159,861	32035	\$153,950	33003	\$20,000	\$333,811
Engineering / Geological / Lab Service Tracers and diagnostics				31042	\$25,000	32036	\$35,500		\$15,000	\$75,500
Roustabout / Contract Labor				31043	\$8,480	32037	\$0	33004	\$160,000	\$168,480
Welding Services				31044	\$5,120	32038	\$0		\$0	\$5,120
Insurance				31045	\$10,000	32039	\$0	33005	\$0	\$10,000
Miscellaneous				31046		32040	\$0	33006	\$0	\$0
P&A Costs				31047		32041	\$0		\$0	
Safety / EH&S				31048		32042	\$6,610	33007	\$0	\$6,610
5.5% Contingency (8% Taxes on Casing included in casing cost)				31049	\$141,202	32043	\$311,200		\$10,500	\$462,902
NON-Op Drilling Intangible				31050		32044	\$0		\$0	
Pipeline Installation / Interconnect				31051		32045	\$0	33008	\$0	\$0
TOTAL INTANGIBLE COSTS					\$2,708,524		\$5,665,385		\$220,500	\$8,594,409
TANGIBLE COSTS				ACCT CODE	DRILLING - 311XX	ACCT CODE	COMPLETION - 321XX	ACCT CODE	FACILITIES - 331XX	TOTAL
Conductor				31101						
Surface Casing				31102	\$68,600					\$68,600
1st Intermediate Casing / Liner				31103	\$113,200					\$113,200
2nd Intermediate Casing / Liner				31104						\$0
Production Casing / Liner						32101	\$373,500			\$373,500
Casing Tie Back						32102				
Liner Hanger Assembly						32103				
Tubing						32104	\$58,500			\$58,500
Casing Equipment - OHMS / Etc.						32105	\$31,200			\$31,200
Wellhead Equipment				31105	\$26,750	32106	\$27,000			\$53,750
Pumping Unit / Prime Mover / Base						32107	\$0	33101	\$0	\$0
Rods / Pony Rods / Sinker Bars						32108	\$0	33102	\$0	\$0
Artificial Lift Other - Gas Lift						32109	\$14,000	33103	\$0	\$14,000
Wellhead Equipment Completions - Production Tree						32110	\$42,000	33104	\$0	\$42,000
Tanks / Tank Steps / Stairs						32111	\$0	33105	\$66,000	\$66,000
Gas Treating / Dehydration Equipment						32112	\$0	33106	\$0	\$0
Separation Equipment, Heater Treater						32113	\$0	33107	\$68,200	\$68,200
Surface Pumps						32114	\$0	33108	\$3,000	\$3,000
Filters						32115	\$0	33109	\$0	\$0
Buildings						32116	\$0	33110	\$0	\$0
Interconnect Piping / Manifolds / Headers						32117	\$0	33111	\$60,000	\$60,000
Flowlines / Connections / Valves						32118	\$0	33112	\$46,960	\$46,960
Automation / Instruments / Controls / Analyzers						32119	\$0	33113	\$16,000	\$16,000
Electrical Equipment / Generators						32120	\$0	33114	\$52,000	\$52,000
Compressor & Related Equipment						32121	\$0	33115	\$0	\$0
Metering Equipment, LACT Unit						32122	\$0	33116	\$104,000	\$104,000
Chemical Equipment / Cathodic Protection						32123	\$0	33117	\$0	\$0
Subsurface Equipment - Packer, Plugs, TAC						32124	\$11,000	33118	\$0	\$11,000
Safety / EH&S Equipment						32125	\$4,000	33119	\$18,000	\$22,000
NON-OP Drilling Intangible						32126	\$0	33120	\$0	\$0
Transfer/SWD Pumps & Equipment						32127	\$0	33121	\$19,060	
Flare / Combustor						32128	\$0	33122	\$16,000	\$0
Miscellaneous				31106		32129	\$24,410	33123	\$0	\$24,410
Contingency Costs				31107	\$11,690	32130	\$28,060	33124	\$0	\$39,750
TOTAL TANGIBLE COSTS					\$220,240		\$613,670		\$469,220	\$1,303,130
TOTAL WELL COSTS					\$2,928,764		\$6,279,055		\$689,720	\$9,897,539
Prepared by Travis Salinas Title: Engineer										
This AFE is only an estimate. By returning one signed copy, you agree to pay your share of the actual costs incurred.										
Extra Expense Insurance										
<input type="checkbox"/> I elect to be covered by Operator's Extra Expense Insurance and pay my proportionate share of the premium.										
<input type="checkbox"/> I elect to purchase my own well control insurance policy.										
Either box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.										
Joint Owner Interest: Amount:										
Joint Owner Name: Signature:										

Catena Resources Operating, LLC – Discussion Timeline

Wells

Alpha 183533 2H

Catena's conversations with Marathon began on December 6, 2019. From that time on, multiple emails, phone calls, proposals and letters were exchanged. The main contact at Marathon is Jeff Broussard and as of August 3, 2020, dealings with Marathon are ongoing.

15429893_v1

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. A5

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

**TO ALL WORKING INTEREST OWNERS IN THE ACREAGE AFFECTED BY PROPOSED
OVERLAPPING SPACING UNIT**

Re: Notice of Overlapping Spacing
Bone Spring Formation
480 Acres, SW/4 Section 33, 18S,35E & W/2 Section 4, 19S,35E
Lea County, New Mexico

To Whom It May Concern:

This letter is to advise you that Catena Resources Operating, LLC has proposed to drill the following well in the Bone Springs formation:

Alpha 183533 2H
1st Bone Spring Sand Interval
Approximate Depth: 9,180'
SHL: 2450' FSL, 1370' FWL, Sec. 33, 18S, 35E
BHL: 100' FSL, 1270' FWL, Sec. 4, 19S, 35E

This well will be dedicated to a 480-acre spacing unit comprised of the following acreage: SW/4 Section 33, 18S, 35E & W/2 Section 4, 19S, 35E, Lea County, New Mexico.

This proposed 480-acre spacing unit will overlap the following spacing unit(s) containing the listed existing wells:

Spacing Unit	Section	T-R	Well	Well No.	API	Pool	Depth
E2W2	33	18S 35E	Ironhouse 33NC	01H	30-025-40868	Scharb; Bone Spring	9,111'

Pursuant to NMAC 19.15.16.15.B(9) and 19.15.15.12.B, you have a right to object this overlapping spacing unit by delivering a written statement of objection to our office within twenty (20) days of the mailing of this notice. If no objection is received within this 20-day period, we will proceed with drilling the initial wells within this overlapping spacing unit.

If you have any questions about this matter, please contact my office.

Sincerely,

Robert Swann
Land Manager
18402 Hwy 281, Suite 258
San Antonio, Texas 78259
Direct: (210) 775-6993
rswann@catenares.com

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. A6
Submitted by: Catena Resources Operating, LLC
Hearing Date: September 24, 2020
Case No. 21354

**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 NOS. 21354

AFFIDAVIT OF VINCE SMITH

Vince Smith, of lawful age and being first duly sworn, declares as follows:

1. My name is Vince Smith. I work for Catena Resources Operating, LLC (“Catena”) as a Geologist.
2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum geology. My credentials as a petroleum geologist have been accepted by the Division and made a matter of record.
3. I am familiar with the application filed by Catena in this matter and I have conducted a geologic study of the lands in the subject area.
4. Catena is initially targeting the First Bone Spring Sand interval of the Bone Spring formation. **Exhibit B-1** is a subsea structure map that I prepared for this interval with 25-foot contours. The proposed horizontal well spacing unit is highlighted in red and the initial well is depicted with a dashed line. The structure map shows the Bone Spring formation dipping gently to the south. The dark line between the notations “D” and “U” represents a deeper structure that caused the shallower formations to sit high. The notations “D” and “U” refer to “downthrown” and “upthrown” side of the deep structure faulting. 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.

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

5. Exhibit B-1 also shows a cross-section line in red running north to south reflecting four wells penetrating the Bone Spring 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.

6. **Exhibit B-2** is a stratigraphic cross-section that I prepared using the logs from the wells noted on Exhibit B-1. Each well in the cross-section contains the gamma ray in the first track, resistivity in the second track and porosity curves in the third track. The initial target interval is labeled and marked. The cross-section demonstrates that the targeted interval is continuous across the proposed spacing unit.

7. Based on my geologic study, the Bone Spring 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.

8. **Exhibit B-1** also shows the orientation of the wells drilled in the Bone Spring formation in the surrounding area. 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.

9. In my opinion, the granting of Catena's application is in the best interest of conservation, the prevention of waste, and protection of correlative rights.

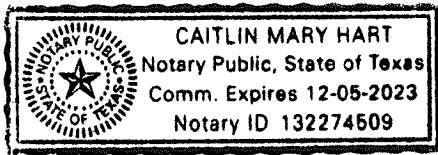
10. **Exhibits B-1** through **B-2** were either prepared by me or compiled under my direction and supervision.

FURTHER AFFIANT SAYETH NOT.

Vince Smith
VINCE SMITH

STATE OF TEXAS)
)
COUNTY OF BEXAR)

SUBSCRIBED and SWORN to before me this 22 day of September 2020 by Vince Smith.



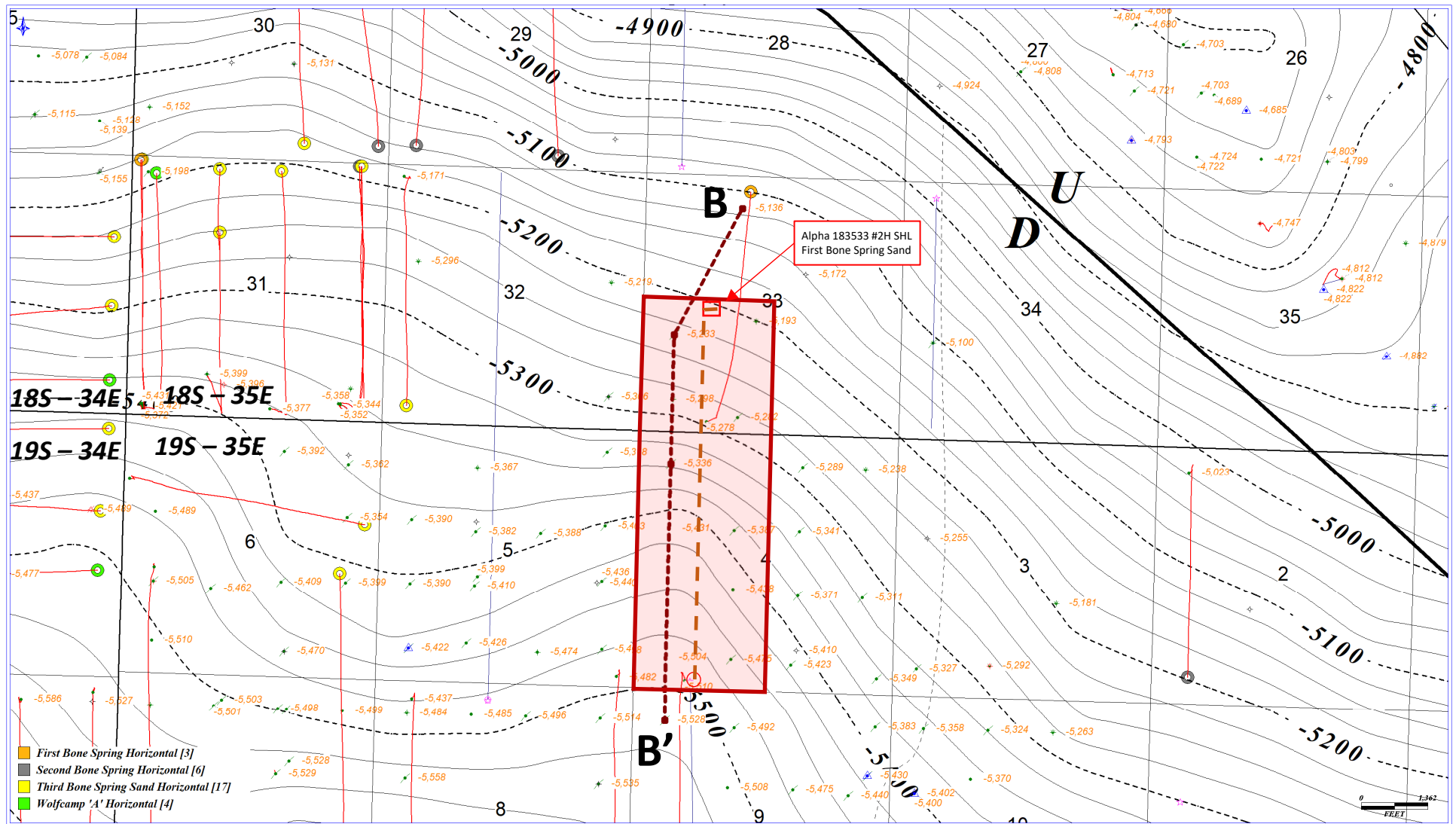
Caitlin Mary Hart
NOTARY PUBLIC

My Commission Expires:

12/05/2023

First Bone Spring Sand

Subsea Structure



Contour Interval = 25'

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B1

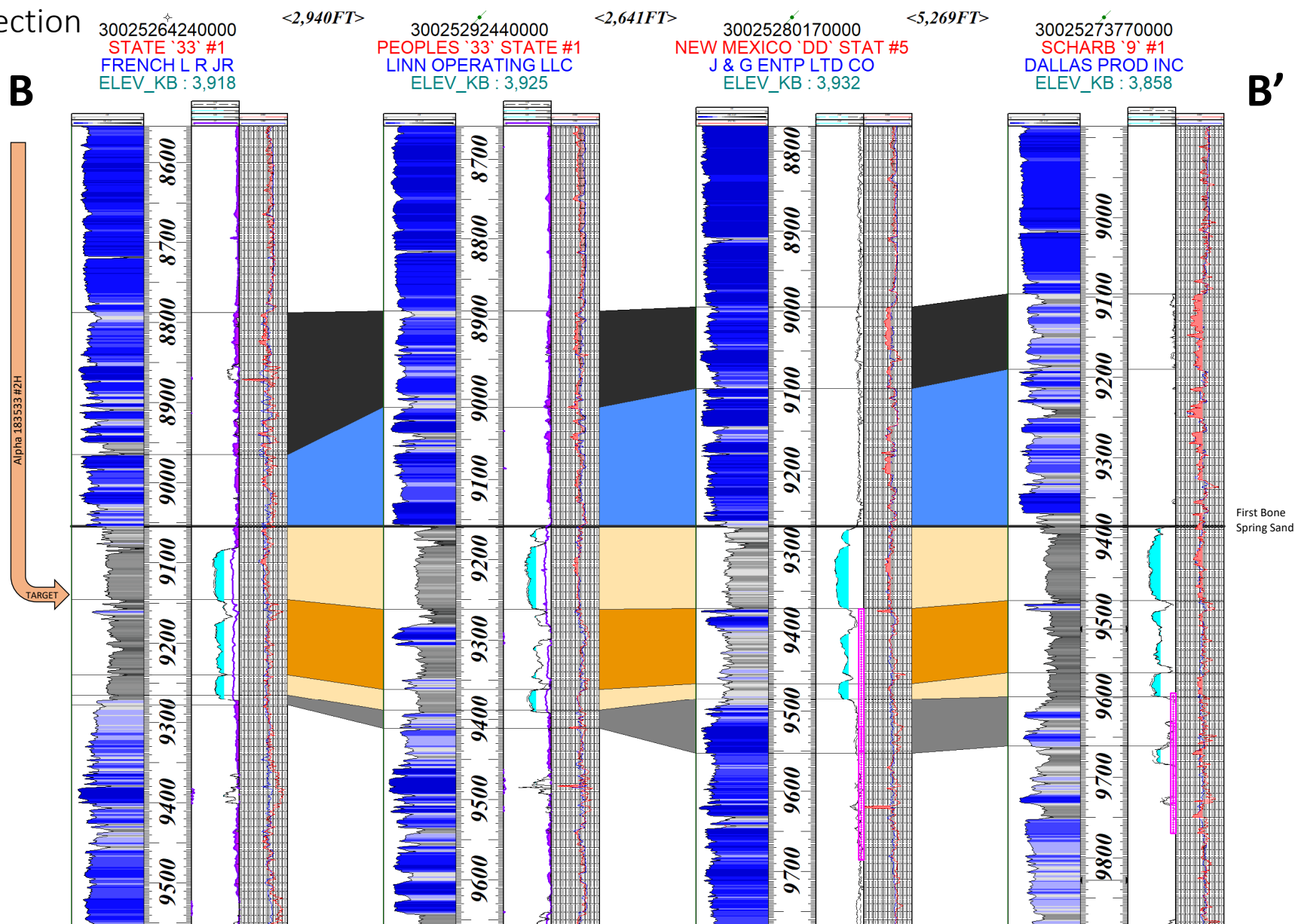
Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

First Bone Spring Sand Datum

Cross Section



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. B2

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354

**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. 21354

AFFIDAVIT

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

Kaitlyn A. Luck, attorney in fact and authorized representative of Catena Resources Operating, LLC the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application has been provided under the notice letters and proof of receipts attached hereto.



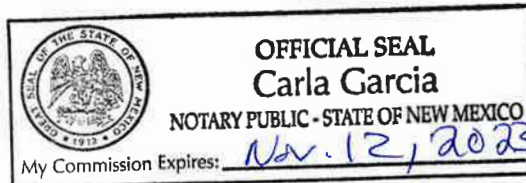
Kaitlyn A. Luck

SUBSCRIBED AND SWORN to before me this 22nd day of September, 2020 by Kaitlyn A. Luck.


Notary Public

My Commission Expires:

Nov. 12, 2023



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. C

Submitted by: Catena Resources Operating, LLC

Hearing Date: September 24, 2020

Case No. 21354



Michael H. Feldewert
Phone (505) 988-4421
Fax (505) 983-6043
mfeldewert@hollanhart.com

July 17, 2020

VIA CERTIFIED MAIL
CERTIFIED RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of Catena Resources Operating, LLC for Compulsory Pooling, Lea County, New Mexico.
Alpha 183533 2H Well

Ladies & Gentlemen:

This letter is to advise you that COG Operating Inc. has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on August 6, 2020, and the status of the hearing can be monitored through the Division's website at <http://www.emnrd.state.nm.us/ocd/>. 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 subsequently challenging this matter.

During the COVID-19 Pubic 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 Oil Conservation Division "OCD Hearings" website at <http://www.emnrd.state.nm.us/OCD/announcements.html>.

Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This 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 Robert Swann at (210) 775-6993 or at rswann@catenares.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael H. Feldewert".

Michael H. Feldewert
ATTORNEY FOR CATENA RESOURCES OPERATING,
LLC

Catena - Alpha 1H-2H
Case No. 21354 - Postal Delivery Report


9414811898765825959704	Marathon Oil Permian LLC	P.O. Box 2069	Houston	TX	77252	Your item was delivered at Jul 22 in HOUSTON,TX 77210.
9414811898765825959797	Loy G. Fletcher	P.O. Box 852	Artesia	NM	88211	Reminder to Schedule Redelivery of your item at Jul 24 in , .
9414811898765825959742	Exxon Corporation	5959 Las Colinas Blvd	Irving	TX	75039	In Transit, Arriving Late at Jul 26 in , .
9414811898765825959780	Linn Energy Holdings, LLC	600 Travis Street, Suite 5100	Houston	TX	77002	Your item was delivered at Jul 21 in HOUSTON,TX 77002.
9414811898765825959735	Maynard Oil Company	8080 N. Central Expressway, Suite 660	Dallas	TX	75206	Awaiting Delivery Scan at Jul 23 in , .

Affidavit of Publication

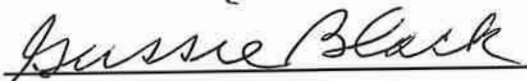
STATE OF NEW MEXICO
COUNTY OF LEA

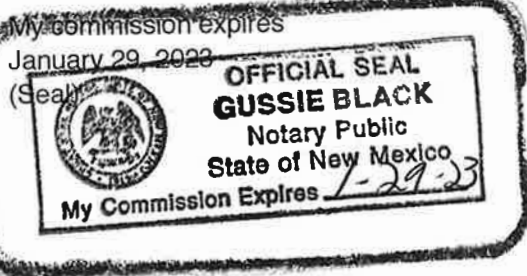
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
July 21, 2020
and ending with the issue dated
July 21, 2020.


Publisher

Sworn and subscribed to before me this
21st day of July 2020.


Business Manager



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 July 21, 2020

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

The State of New Mexico, Energy Minerals and Natural Resources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearings before a hearing examiner on the following case. During the COVID-19 Public Health Emergency, state buildings are closed to the public and Division hearings will be conducted remotely. The remote electronic public hearing will be conducted remotely on the following case. The hearing will be conducted on **Thursday, August 6, 2020, beginning at 8:15 a.m.** To participate in the electronic hearing, see the instructions posted below. The docket may be viewed at <http://www.emnrd.state.nm.us/OCD/hearings.html> or obtained from Marlene Salvidrez, at Marlene.Salvidrez@state.nm.us. Documents filed in the case may be viewed at <http://ocdimage.emnrd.state.nm.us/imaging/CaseFileCriteria.aspx>. If you are an individual with a disability who needs a reader, amplifier, qualified sign language interpreter, or other form of auxiliary aid or service to attend or participate in a hearing, contact Marlene Salvidrez at Marlene.Salvidrez@state.nm.us, or the New Mexico Relay Network at 1-800-659-1779, no later than **Monday, July 27, 2020**.

Persons may view and participate in the hearings through the following link and as indicated below:

Meeting number: 968 329 152
Password: YQe6KZBe3n6
<https://nmemnrd.webex.com/nmemnrd/j.php?MTID=mb3ddb90721ccc17207709b8c71dc2ac1>

Join by video system
Dial 968329152@nmemnrd.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

Join by phone
+1-408-418-9388 United States Toll
Access code: 968 329 152

STATE OF NEW MEXICO TO:
All named parties and persons
having any right, title, interest
or claim in the following case
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 and pooled parties, including: Marathon Oil Permian LLC; Loy G. Fletcher, his heirs and devisees; Exxon Corporation; Linn Energy Holdings, LLC; Maynard Oil Company; and Paul Butts, Jr., his heirs and devisees.

Case No. 21354: Application of Catena Resources Operating, LLC for compulsory pooling, Lea County, New Mexico. Applicant in the above-styled cause seeks an order pooling all uncommitted interests in the Bone Spring formation underlying a standard 480-acre, more or less, horizontal spacing unit comprised of the SW/4 of Section 33, Township 18 South, Range 35 East, and the W/2 of Section 4, Township 19 South, Range 35 East, NMPM, Lea County, New Mexico. Said horizontal spacing unit is to be initially dedicated to the proposed **Alpha 183533 2H Well** to be horizontally drilled from a surface location in the NE/4 SW/4 (Unit K) of Section 33 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 4. The completed interval for the proposed well will remain within 330 feet of the E/2 SW/4 of Section 33 and E/2 W/2 of Section 4 to include this offsetting acreage in a standard horizontal well spacing unit. Also, to be considered will be the cost of drilling and completing the well and the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of applicant as operator of the well and the proposed horizontal spacing unit, and a 200% charge for risk involved in drilling said well. Said area is located approximately 20 miles West of Hobbs, New Mexico.
#35661

67100754

00244551

HOLLAND & HART LLC
PO BOX 2208
SANTA FE, NM 87504-2208

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D

Submitted by: Catena Resources Operating, LLC
Hearing Date: September 24, 2020
Case No. 21354