

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

**APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**Case No. 20321**

**Tap Rock Operating, LLC**

**(Delirium State Com #201H & #215H)**

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## **Tab 1: Application**

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

**APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

Case No. \_\_\_\_\_

**APPLICATION**

Tap Rock Operating, LLC ("Tap Rock"), 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 (1) creating a standard 320-acre, more or less, horizontal spacing and proration unit comprised of the W/2 of Section 13, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico, and (2) pooling all uncommitted interests in the Wolfcamp formation (Purple Sage-Wolfcamp; Pool code [98220]) underlying the standard unit. In support of its application, Tap Rock states:

1. Tap Rock is a working interest owner in the proposed standard horizontal spacing unit ("HSU") and has the right to drill thereon.
2. Tap Rock proposes to dedicate the above-referenced standard horizontal spacing and proration unit for its proposed **Delirium State Com #201H well**, to be horizontally drilled from an approximate surface location 334' FSL and 826' FWL of Section 13 to a bottom hole location 200' FNL and 330' FWL of Section 13. This is the "defining well" for this unit.
3. Also to be drilled is the following infill well: **Delirium State Com #215H well**, to be horizontally drilled from an approximate surface location 334' FSL and 851' FWL of Section 13 to a bottom hole location 200' FNL and 990' FWL of Section 13.

4. The completed intervals and first and last take points for the **Delirium State Com #201H well** and the **Delirium State Com #215H well** are within the setbacks required by the Purple Sage-Wolfcamp Pool rules.

5. Tap Rock has in good faith sought and been unable to obtain voluntary agreement for the development of these lands from all of the mineral interest owners in the subject HSU.

6. Approval of the standard HSU and the pooling of all mineral interest owners in the Wolfcamp formation underlying the HSU will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

7. In order to permit Tap Rock to obtain its just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this HSU should be pooled and Tap Rock should be designated the operator of the proposed HSU.

WHEREFORE, Tap Rock requests that this application be set for hearing before an Examiner of the Oil Conservation Division on April 4, 2019, and, after notice and hearing as required by law, the Division enter an order:

A. Creating a 320-acre, more or less, horizontal spacing and proration unit comprised of the W/2 of Section 13, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico;

B. Pooling all uncommitted interests in the standard HSU;

C. Designating the **Delirium State Com #201H well** as the defining well for the standard HSU and allowing the drilling of the **Delirium State Com #215H well** as an infill well;

D. Designating Tap Rock as operator of this standard HSU and the wells to be drilled thereon;

E. Authorizing Tap Rock to recover its costs of drilling, equipping and completing the wells;

F. 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

G. Imposing a 200% penalty for the risk assumed by Tap Rock in drilling and completing the well against any interest owner who does not voluntarily participate in the drilling of the wells.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

/s/ Kaitlyn A. Luck

Seth C. McMillan

Kaitlyn A. Luck

Post Office Box 2307

Santa Fe, NM 87504-2307

(505) 982-3873

[smcmillan@montand.com](mailto:smcmillan@montand.com)

[kluck@montand.com](mailto:kluck@montand.com)

*Attorneys for Tap Rock Operating, LLC*

Case No. \_\_\_\_\_ : *Application of Tap Rock Operating, LLC for a Standard Horizontal Spacing and Proration Unit and Compulsory Pooling, Eddy County, New Mexico.* Applicant in the above-styled cause seeks an order from the Division: (1) creating a standard 320-acre, more or less, horizontal spacing and proration unit comprised of the W/2 of Section 13, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico, and (2) pooling all uncommitted interests in the Wolfcamp formation (Purple Sage-Wolfcamp; Pool code 98220) underlying the standard unit. Said horizontal spacing unit is to be assigned to the proposed initial **Delirium State Com #201H well**, to be horizontally drilled from an approximate surface location 334' FSL and 826' FWL of Section 13 to a bottom hole location 200' FNL and 330' FWL of Section 13. This is the "defining well" for this unit. Also to be drilled is the following infill well: **Delirium State Com #215H well**, to be horizontally drilled from an approximate surface location 334' FSL and 851' FWL of Section 13 to a bottom hole location 200' FNL and 990' FWL of Section 13. The completed intervals and first and last take points for these wells are within the setbacks required by the Purple Sage-Wolfcamp pool rules. Also to be considered will be the cost of drilling and completing the wells and the allocation of the cost, the designation of Applicant as Operator of the well, and a 200% charge for the risk involved in drilling and completing the wells. The wells and lands are located approximately 7 miles Southwest of Malaga, New Mexico.

## **Tab 2: Prehearing Statement**



MAY 23 2017

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

**APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**Case No. 20321**

**PRE-HEARING STATEMENT**

Tap Rock Operating, LLC provides this Pre-Hearing Statement as required by the rules of the Division.

**APPEARANCES**

**APPLICANT**

Tap Rock Operating, LLC

**APPLICANT'S ATTORNEYS**

Sharon T. Shaheen  
Seth C. McMillan  
Montgomery & Andrews, P.A.  
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Santa Fe, NM 87504-2307  
(505) 982-3873  
[sshaheen@montand.com](mailto:sshaheen@montand.com)  
[smcmillan@montand.com](mailto:smcmillan@montand.com)

Dana Arnold  
Tap Rock Resources, LLC  
602 Park Point Drive, Suite 200  
Golden, CO 80401  
[darnold@taprk.com](mailto:darnold@taprk.com)

**OPPONENT**

None

**OPPONENT'S ATTORNEYS**

n/a

**STATEMENT OF THE CASE**

In this case, Applicant seeks an order from the Division (1) creating a standard 320-acre, more or less, horizontal spacing and proration unit ("HSU") comprised of the W/2 of Section 13, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico, and (2) pooling all

uncommitted interests in the Wolfcamp formation (Purple Sage-Wolfcamp; Pool code [98220]) underlying the standard unit. The HSU is to be dedicated to the proposed **Delirium State Com #201H well**, to be horizontally drilled from an approximate surface location 334' FSL and 826' FWL of Section 13 to a bottom hole location 200' FNL and 330' FWL of Section 13. This is the "defining well" for this unit. Also to be drilled as an infill well is the **Delirium State Com #215H well**, to be horizontally drilled from an approximate surface location 334' FSL and 851' FWL of Section 13 to a bottom hole location 200' FNL and 990' FWL of Section 13.

The completed intervals and first and last take points for both wells are within the setbacks required by the Purple Sage-Wolfcamp Pool rules. The wells and lands are located approximately 7 miles Southwest of Malaga, New Mexico.

Also to be considered will be the costs of drilling and completing the wells and the allocation of the costs, the designation of Applicant as Operator of the well, and a 200% charge for the risk involved in drilling and completing the wells.

#### **PROPOSED EVIDENCE**

<u>APPLICANT'S WITNESSES</u>	<u>EST. TIME</u>	<u>EXHIBITS</u>
Matt Phillips, Land	20 min.	6
Adam Smith, Geologist	20 min.	4

#### **PROCEDURAL MATTERS**

This matter may be consolidated with Case No. 20320 for purposes of hearing. Assuming no opposition by time of hearing, Tap Rock will present these matters by affidavit.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

/s/ Sharon T. Shaheen

Seth C. McMillan

Sharon T. Shaheen

Post Office Box 2307

Santa Fe, NM 87504-2307

(505) 982-3873

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Dana Arnold

Tap Rock Resources, LLC

602 Park Point Drive, Suite 200

Golden, CO 80401

[darnold@taprk.com](mailto:darnold@taprk.com)

*Attorneys for Tap Rock Operating, LLC*

## **Tab 3: Landman Affidavit**

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

**APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**Case No. 20321**

**AFFIDAVIT OF MATT PHILLIPS**

I, being duly sworn on oath, state the following:

1. I am over the age of eighteen years and have the capacity to execute this Affidavit, which is based on my personal knowledge.
2. I am employed as a Senior Landman with Tap Rock Operating, LLC ("Tap Rock"), and I am familiar with the subject application and the lands involved.
3. This affidavit is submitted in connection with the filing by Tap Rock of the above-referenced compulsory pooling application pursuant to 19.15.4.12.A(1) NMAC.
4. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum land matters. My credentials as a petroleum landman have been accepted by the Division and made a matter of record.
5. The purpose of this application is to force pool working interest owners and uncommitted mineral interest owners into the horizontal spacing and proration unit ("HSU") described below, and in the wells to be drilled in the unit.
6. No opposition is expected. The interest owners being pooled have been contacted regarding the proposed well, but have failed or refused to voluntarily commit their interests in the wells. They have, however, otherwise represented to me that they do not oppose this pooling application.

7. Tap Rock seeks an order pooling all uncommitted mineral interests and uncommitted working interests in the Wolfcamp formation (Purple Sage-Wolfcamp; Pool code [98220]) HSU underlying the W/2 of Section 13, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico, creating a standard 320-acre, more or less, HSU. This proposed HSU will be dedicated to the **Delirium State Com #201H well**, which will be the defining well for the unit. Also, the **Delirium State Com #215H well** will be drilled as an infill well.

8. Proposed C-102s are attached as **Exhibit 1**. The wells will develop the Wolfcamp formation (Purple Sage-Wolfcamp; Pool code [98220]), which is a gas pool.

9. A plat outlining the unit is attached hereto as **Exhibit 2** and shows that the unit will be comprised of State and fee acreage.

10. The parties being pooled and the nature of their interests are found in **Exhibit 3** attached hereto. **Exhibit 3** includes information regarding working interest owners and overriding royalty interest owners. Devon Energy Production Company owns 100% of the fee minerals located in the SE/4NW/4 Section 13. Devon and COG entered into a JOA dated 4/15/15 which laid out the contractual working interest on the tract as follows: DVN 90.63% and COG 9.37%. It is Tap Rock and Devon's opinion, which will be verified by title attorney's final review, that this JOA no longer covers the SE/4NW/4 Section 13 therefore Devon is contributing an uncommitted mineral interest in the SE/4NW/4 Section 13.

11. There are no depth severances in the Wolfcamp formation.

12. The proposed surface hole location of the **Delirium State Com #201H well** is approximately 334' FSL and 826' FWL of Section 13. The proposed bottom hole location is approximately 200' FNL and 330' FWL of Section 13. The proposed total vertical depth is 9,061'.

The first take point will be located at approximately 330' FSL and 330' FWL of Section 13 and the last take point will be located at approximately 330' FNL and 330' FWL of Section 13.

13. The proposed surface hole location of the **Delirium State Com #215H well** is approximately 334' FSL and 851' FWL of Section 13. The proposed bottom hole location is approximately 200' FNL and 990' FWL of Section 13. The proposed total vertical depth is 9,248'. The first take point will be located at approximately 330' FSL and 990' FWL of Section 13 and the last take point will be located at approximately 330' FNL and 990' FWL of Section 13.

14. I have conducted a diligent search of the public records in Eddy County, New Mexico, where the wells will be located, and conducted phone directory and computer searches to obtain contact information for parties entitled to notification. I mailed all parties well proposals, including an Authorization for Expenditure ("AFE").

15. Tap Rock has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed well.

16. **Exhibit 4** is a sample proposal letter and the AFE for the proposed wells. The estimated cost of the wells set forth in the AFE is fair, reasonable, and comparable to the costs of other wells of similar depths and lengths drilled in this area of New Mexico.

17. Tap Rock requests overhead and administrative rates of \$7000/month for drilling a well and \$700/month for a producing well. These rates are fair and comparable to the rates charged by other operators for wells of this type in this area of southeastern New Mexico. Tap Rock requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.

18. Tap Rock requests the maximum cost, plus 200% risk charge be assessed against non-consenting working interest owners.

19. Tap Rock requests that it be designated operator of the wells.

20. The Exhibits to this Affidavit were prepared by me, or compiled from Tap Rock's company business records.

21. The granting of this Application is in the interests of conservation, the prevention of waste, and the protection of correlative rights.

22. The foregoing is correct and complete to the best of my knowledge and belief.



FURTHER AFFIANT SAYETH NAUGHT

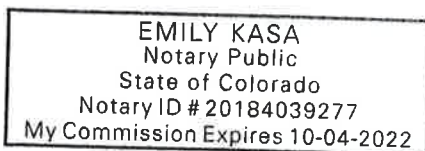
  
\_\_\_\_\_  
Matt Phillips

STATE OF COLORADO     )  
  )ss  
COUNTY OF Jefferson )

Subscribed to and sworn before me this 3<sup>rd</sup> day of April, 2019.

  
\_\_\_\_\_  
Notary Public

My Commission expires 10-4-2022.



## **Tab 4: Geologist Affidavit**

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

**APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
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EDDY COUNTY, NEW MEXICO**

**Case No. 20321**

**AFFIDAVIT OF ADAM SMITH**

I, being duly sworn on oath, state the following:

1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
2. I am employed as a petroleum geologist for Tap Rock Operating, LLC ("Tap Rock"), and I am familiar with the subject application and the geology involved.
3. This affidavit is submitted in connection with the filing by Tap Rock of the above-referenced compulsory pooling application pursuant to 19.15.4.12.A(1) NMAC.
4. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum geology matters. My credentials as a petroleum geologist have been accepted by the Division and made a matter of record.
  - a. I hold a Bachelor's degree in Geology from Northern Illinois University, and a Master's of Science in Geology from Northern Illinois University. I completed my education in 2009.
  - b. I have been employed as a petroleum geologist since 2009. I have worked in New Mexico since 2016.
5. **Exhibit 6** is a project locator map that shows the location of the HSU within the Delaware Basin.

6. **Exhibit 7** is a Wolfcamp structure map for the 201H. The proposed standard horizontal spacing and proration unit (“HSU”) is depicted by a red rectangle. The map is the top of the Wolfcamp A Structure in sub-sea vertical depth with the location of the surface and bottom hole for the Delirium State Com 201H. The contour intervals are 25 ft each. There is a monoclinial dip down to the east. The orientation of the Delirium State Com 201H will be approximately along strike. There is an existing horizontal Wolfcamp producer approximately 2 miles to the east of the subject well. This well is located with the brown highlight on the map. The vertical wells controlling the structure map have the sub-sea vertical depth posted. The subsequent cross-section from A-A’ is also identified to locate our closest control on the reservoir properties for the Delirium State Com 201H. I do not observe any faulting, pinch-outs, or other geologic impediments or hazards to developing this targeted interval with a horizontal well.

7. **Exhibit 8** is a Wolfcamp stratigraphic cross-section for the 201H. Each well is a triple combo log. Track 1 is gamma ray log with interpreted color fill for lithology and scaled from 0 to 200 api units. The blue colors indicate carbonate, yellow to orange are sandstone/siltstones, and the darker browns are shale facies. In track 2 is the deep resistivity log from 0.2 ohmm to 2000 ohmm. The shading cutoff is less than 50 ohmm to help identify the more siliciclastic rocks. Track 3 is the porosity track with neutron porosity identified by the red curve scaled from 30% to -10%. The pink shading on this curve is anything greater than 15% to identify zones with increased clay content. The density porosity curve is the blue curve from 30% to -10%. The green shading is a cutoff of anything greater than 10% porosity. This cutoff indicates the best rock properties for reservoir evaluation. The cross-section identifies the key tops used to evaluate reservoirs and landing targets for the Delirium State Com 201H. A simplified well-bore for the Delirium State Com 201H is on the cross-section showing the landing target interval in the green

shaded box and the horizontal well schematic within the green box. The landing target is below the target interval for the Delirium State 131H. With the proximity to the 3<sup>rd</sup> Bone Spring W Sand and the hypothesis of the stimulated rock volume created when completing horizontal wells, Tap Rock believes that the Upper Wolfcamp sands and lower 3<sup>rd</sup> Bone Spring W sands need to be co-developed. The reservoir in the Wolfcamp A has constant thickness and reservoir facies through the Delirium DSU.

8. **Exhibit 9** is a Gross Isopach map of the Wolfcamp A interval for the 201H. This map shows the location of the Delirium State Com 201H spacing unit outlined by the red box and the surface/bottom hole location of the Delirium State Com 201H well. The anticipated gross thickness of the interval is 350 ft through the entire Horizontal Spacing Unit. There is a horizontal well that has targeted this interval in the vicinity and is approximately 2 miles to the east and highlighted with a brown circle. The location of the previous cross-section from A-A' is also shown on this map.

9. Based on my geologic study of the area, I conclude the following:
- a. The horizontal spacing and proration unit is justified from a geologic standpoint.
  - b. There are no structural impediments or faulting that will interfere with horizontal development.
  - c. Each quarter-quarter section in the unit will contribute more or less equally to production.
  - d. The preferred well orientation in this area is south-north. This is because the inferred orientation of the maximum horizontal stress is roughly northwest-southeast.

10. **Exhibit 10** is a simplified wellbore diagram that shows that the first and last take point for the 201H will be standard.

11. **Exhibit 11** is a Wolfcamp structure map for the 215H. The proposed standard horizontal spacing and proration unit (“HSU”) is depicted by a red rectangle. The map is the top of the Wolfcamp A Structure in sub-sea vertical depth with the location of the surface and bottom hole for the Delirium State Com 215H. The contour intervals are 25 ft each. There is a monoclinial dip down to the east. The orientation of the Delirium State Com 215H will be approximately along strike. There is an existing horizontal Wolfcamp producer approximately 2 miles to the east of the subject well. This well is located with the brown highlight on the map. The vertical wells controlling the structure map have the sub-sea vertical depth posted. The subsequent cross-section from A-A’ is also identified to locate our closest control on the reservoir properties for the Delirium State Com 215H. I do not observe any faulting, pinch-outs, or other geologic impediments or hazards to developing this targeted interval with a horizontal well.

12. **Exhibit 12** is a Wolfcamp stratigraphic cross-section for the 215H. Each well is a triple combo log. Track 1 is gamma ray log with interpreted color fill for lithology and scaled from 0 to 200 api units. The blue colors indicate carbonate, yellow to orange are sandstone/siltstones, and the darker browns are shale facies. In track 2 is the deep resistivity log from 0.2 ohmm to 2000 ohmm. The shading cutoff is less than 50 ohmm to help identify the more siliciclastic rocks. Track 3 is the porosity track with neutron porosity identified by the red curve scaled from 30% to -10%. The pink shading on this curve is anything greater than 15% to identify zones with increased clay content. The density porosity curve is the blue curve from 30% to -10%. The green shading is a cutoff of anything greater than 10% porosity. This cutoff indicates the best rock properties for reservoir evaluation. The cross-section identifies the key tops used to evaluate

reservoirs and landing targets for the Delirium State Com 215H. A simplified well-bore for the Delirium State com 215H is on the cross-section showing the landing target interval in the green shaded box and the horizontal well schematic within the green box. The landing target is below the target interval for the Delirium State 201H. With the proximity to the Upper Wolfcamp A sands and the hypothesis of the stimulated rock volume created when completing horizontal wells, Tap Rock believes that the Lower Wolfcamp A and Upper Wolfcamp A sands need to be co-developed. The reservoir in the Wolfcamp A has constant thickness and reservoir facies through the Delirium DSU.

13. **Exhibit 13** is a Gross Isopach map of the Wolfcamp A interval for the 215H. This map shows the location of the Delirium State Com 215H spacing unit outlined by the red box and the surface/bottom hole location of the Delirium State Com 215H well. The anticipated gross thickness of the interval is 350 ft through the entire DSU. There is a horizontal well that has targeted this interval in the vicinity and is approximately 2 miles to the east and highlighted with a brown circle. The location of the previous cross-section from A-A' is also shown on this map.

14. Based on my geologic study of the area, I conclude the following:

- a. The horizontal spacing and proration unit is justified from a geologic standpoint.
- b. There are no structural impediments or faulting that will interfere with horizontal development.
- c. Each quarter-quarter section in the unit will contribute more or less equally to production.
- d. The preferred well orientation in this area is south-north. This is because the inferred orientation of the maximum horizontal stress is roughly northwest-southeast.


15. **Exhibit 14** is a simplified wellbore diagram that shows that the first and last take point for the 215H will be standard.

16. The Exhibits to this Affidavit were prepared by me, or compiled from Tap Rock's company business records.

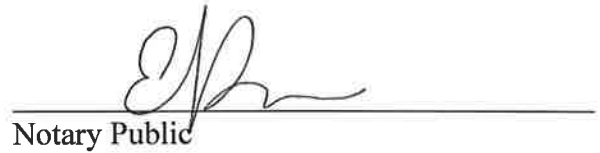
17. The granting of this Application is in the interests of conservation and the prevention of waste.

18. The foregoing is correct and complete to the best of my knowledge and belief.



  
ADAM SMITH

Subscribed to and sworn before me this 3<sup>rd</sup> day of April, 2019.



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## **Tab 5: Exhibits**



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# Delirium State Com #201H & #215H

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Case No. 20321

April 4, 2019

# Table of Contents

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1. C-102s
2. Tract Map
3. Unit Interest
4. Well Proposal and AFE
5. Affidavit of Notice
6. Locator Map
7. Subsea Structure Map #201H
8. Stratigraphic Cross Section #201H
9. Isopach Map #201H
10. Simplified Wellbore Diagram #201H
11. Subsea Structure Map #215H
12. Stratigraphic Cross Section #215H
13. Isopach Map #215H
14. Simplified Wellbore Diagram #215H

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		<sup>3</sup> Pool Name			
<sup>4</sup> Property Code		<sup>5</sup> Property Name DELIRIUM STATE COM				<sup>6</sup> Well Number 201H	
<sup>7</sup> OGRID No.		<sup>8</sup> Operator Name TAP ROCK OPERATING, LLC.				<sup>9</sup> Elevation 3057'	

<sup>10</sup>Surface Location

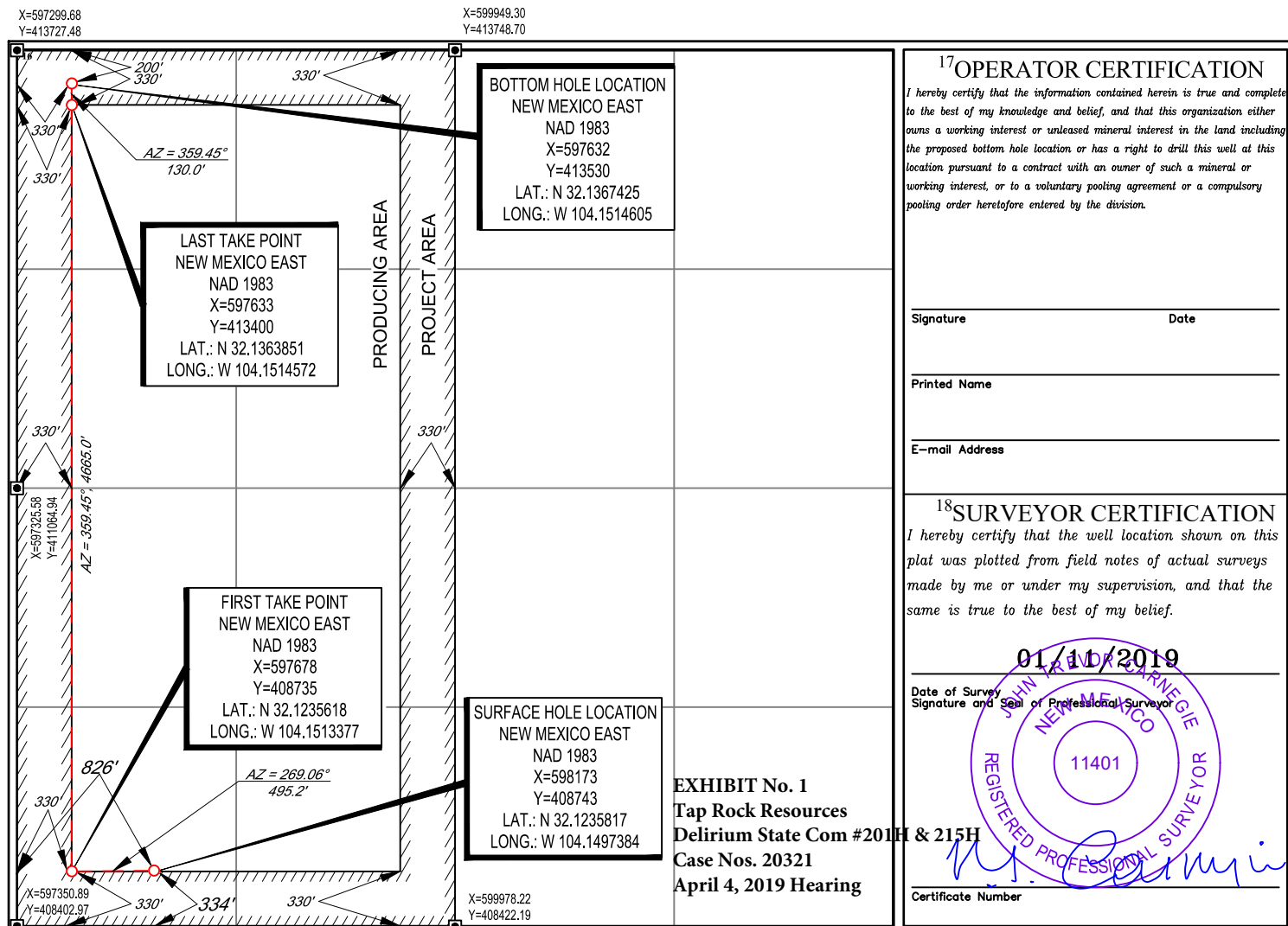
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	25-S	27-E	-	334'	SOUTH	826'	WEST	EDDY

<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
D	13	25-S	27-E	-	200'	NORTH	330'	WEST	EDDY

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



<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 order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

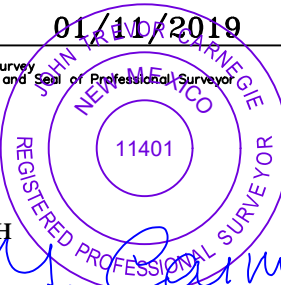
E-mail Address \_\_\_\_\_

<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 to the best of my belief.

01/11/2019

Date of Survey \_\_\_\_\_ Signature and Seal of Professional Surveyor \_\_\_\_\_



Certificate Number \_\_\_\_\_

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		<sup>3</sup> Pool Name	
<sup>4</sup> Property Code		<sup>5</sup> Property Name DELIRIUM STATE COM			<sup>6</sup> Well Number 215H
<sup>7</sup> OGRID No.		<sup>8</sup> Operator Name TAP ROCK OPERATING, LLC.			<sup>9</sup> Elevation 3057'

<sup>10</sup>Surface Location

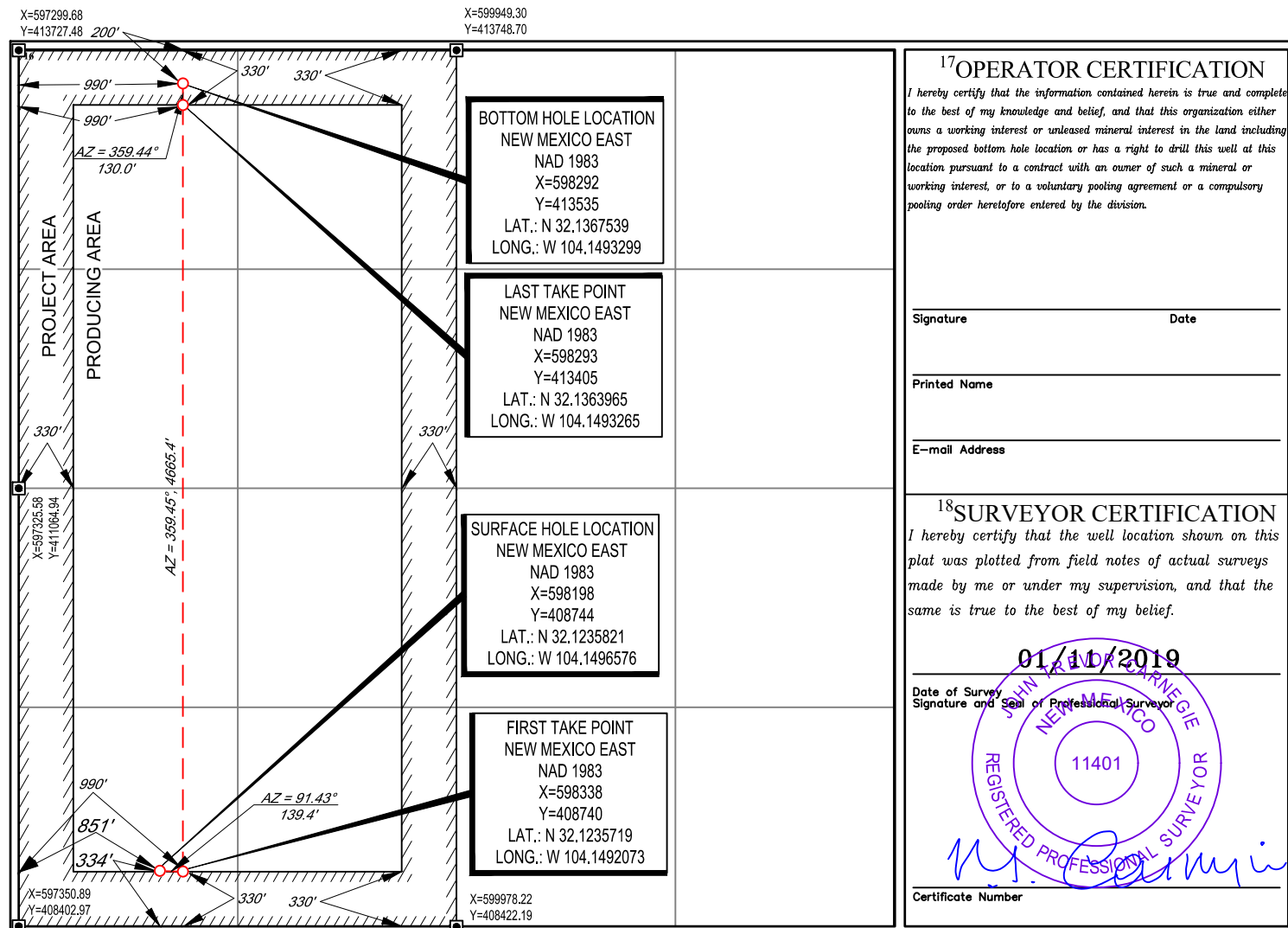
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	25-S	27-E	-	334'	SOUTH	851'	WEST	EDDY

<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
D	13	25-S	27-E	-	200'	NORTH	990'	WEST	EDDY

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



<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 order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

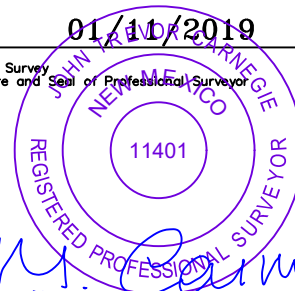
E-mail Address \_\_\_\_\_

<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 to the best of my belief.

01/11/2019

Date of Survey \_\_\_\_\_ Signature and Seal of Professional Surveyor \_\_\_\_\_



Certificate Number \_\_\_\_\_

# Tract Map

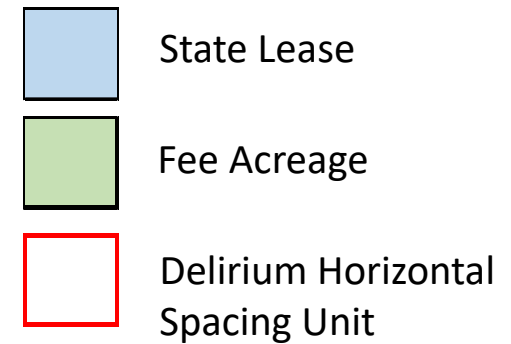
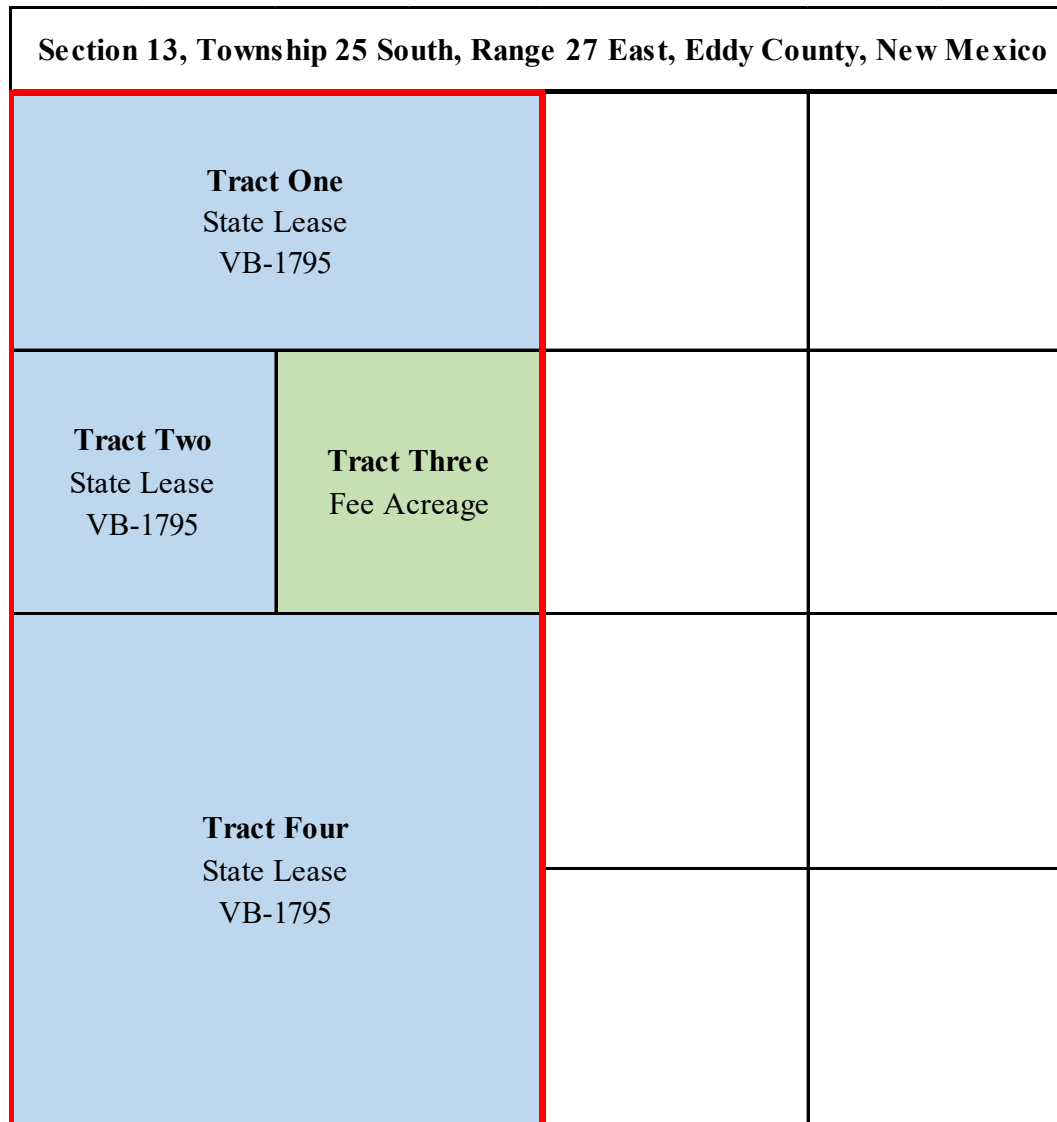


EXHIBIT No. 2  
 Tap Rock Resources  
 Delirium State Com #201H & 215H  
 Case Nos. 20321  
 April 4, 2019 Hearing

# Wolfcamp Unit Interest\*

Entity	Interest Type	Approximate Percentage
Tap Rock Resources, LLC	Working Interest	50.00%
Devon Energy Production Company**	Uncommitted Mineral Interest	0.00%/12.50%
Devon Energy Production Company**	Uncommitted Working Interest	48.82875%/37.50%
COG Operating, LLC	Uncommitted Working Interest	1.17125%/0.00%

Entity	Interest Type
Tap Rock Minerals, LP	Overriding Royalty Interest
Devon Energy Production Company	Overriding Royalty Interest

\*final interest subject to division order title verification

\*\*contractual interest possibly subject to JOA dated 4/15/15; please refer to affidavit for additional information

EXHIBIT No. 3  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing





January 31, 2019

Devon Energy Production Company, LP  
Attn: Land Department  
333 W. Sheridan Ave.  
Oklahoma City, OK 73102-5015

**RE: Delirium State Com #131H, #201H & #215H Well Proposals  
W/2 Section 13, Township 25 South, Range 27 East  
Eddy County, New Mexico (the "Wells")**

Via Certified Mail

Ladies and Gentlemen:

Tap Rock Operating, LLC (TRO), as Operator, previously proposed the Delirium 25S27E1313 #201H and #211H by letter dated September 21, 2018. As our development strategy for this unit has changed, TRO hereby withdraws the previously sent AFEs and replaces them with the following:

- Delirium State Com #131H to be drilled from a surface hole location (SHL) of 334' FSL and 876' FWL of Section 13-T25S-R27E to a bottom hole location (BHL) of 5' FNL and 990' FWL of Section 13-T25S-R27E. The proposed well will be drilled to an approximate true vertical depth (TVD) of 8,948' subsurface in the Bone Spring Formation. The proposed well will have a measured depth (MD) of approximately 14,250'.
- Delirium State Com #201H to be drilled from a surface hole location (SHL) of 334' FSL and 826' FWL of Section 13-T25S-R27E to a bottom hole location (BHL) of 200' FNL and 330' FWL of Section 13-T25S-R27E. The proposed well will be drilled to an approximate true vertical depth (TVD) of 9,061' subsurface in the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 14,350'.
- Delirium State Com #215H to be drilled from a surface hole location (SHL) of 334' FSL and 851' FWL of Section 13-T25S-R27E to a bottom hole location (BHL) of 200' FNL and 990' FWL of Section 13-T25S-R27E. The proposed well will be drilled to an approximate true vertical depth (TVD) of 9,248' subsurface in the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 14,530'.

The proposed locations and drilling plans described above are subject to change depending on surface or subsurface issues that may be encountered. TRO will advise you of any such modifications.

In the event you elect to participate in the proposed Wells, please execute the enclosed AFEs and return to me within 30 days. TRO is proposing to drill these wells under the terms of the

**EXHIBIT No. 4  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing**



previously sent AAPL Form 610-1989 Operating Agreement covering the W/2 of Section 13, Township 25 South, Range 27 East, Eddy County, New Mexico.

If you do not wish to participate in the Operation, TRO would like to offer the following terms:

- 3 year primary term, Term Assignment
- Royalty equal to the difference between existing burdens and 20%
- \$1,500 per net acre bonus consideration

The Term Assignment offer is subject to the approval of TRO's board and verification of title.

Additionally, TRO is open to discuss possible trades or other deal structures related to your interest in the proposed wells. If an agreement cannot be reached within 30 days of the date of this letter, TRO will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed wells if uncommitted at such time to allow TRO to move forward with planning and drilling the subject wells.

Should you have any questions regarding the above, please contact the undersigned.

Sincerely,

**TAP ROCK OPERATING, LLC**

*Matt Phillips*

**Matt Phillips**

Senior Landman

Office: 720-459-3724

[mphillips@taprk.com](mailto:mphillips@taprk.com)



Devon Energy Production Company, LP hereby elects to:

\_\_\_\_\_ participate in the drilling of the Delirium State Com #131H

\_\_\_\_\_ non-consent the drilling of the Delirium State Com #131H

\_\_\_\_\_ participate in the drilling of the Delirium State Com #201H

\_\_\_\_\_ non-consent the drilling of the Delirium State Com #201H

\_\_\_\_\_ participate in the drilling of the Delirium State Com #215H

\_\_\_\_\_ non-consent the drilling of the Delirium State Com #215H

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

TAP ROCK OPERATING, LLC

602 Park Point Dr, Golden, Colorado 80401

Authorization For Expenditure

Name:

Delirium State Com #201H

AFE #:

0

County:

Eddy

State:

New Mexico

Date: January 22, 2019

MD/TVD: 14350 / 9061

Lateral Length: 4500

Geologic Target: Wolfcamp A Y sand

Well Description:

Drill and complete a horizontal Wolfcamp A Y well with a one mile lateral.

INTANGIBLE DRILLING COSTS			INTANGIBLE COMPLETION COSTS			INTANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT	COST CODES	DESCRIPTION	AMOUNT	COST CODES	DESCRIPTION	AMOUNT
1 1	Land - Legal	10,000	2 1	Land - Legal		3 1	Land - Legal	
1 2	Land - Regulatory	7,500	2 2	Land - Regulatory		3 2	Land - Regulatory	
1 3	Land - Surface Damages	20,000	2 3	Land - Surface Damages		3 3	Land - Surface Damages	
1 4	Land - Survey	5,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	90,000	2 5	Location/Pit Construction		3 5	Location/Pit Construction	5,000
1 6	Remedial Dirtwork	0	2 6	Remedial Dirtwork		3 6	Remedial Dirtwork	
1 7	Reserve/Frac Pit Closing	0	2 7	Reserve/Frac Pit Closing		3 7	Reserve/Frac Pit Closing	
1 8	Drilling - Contractor	403,570	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	73,950	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	185,000	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	35,000	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	61,875	2 12	Bits/Drill Out Assemblies	31,292	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	69,527	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	96,169	2 14	Fluids/Chemicals	24,844	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	90,000	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	90,000	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	95,846	2 17	Fuel/Power	287,500	3 17	Fuel/Power	
1 18	Water	22,500	2 18	Water	438,340	3 18	Water	
1 19	Directional Drilling	169,776	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	14,520	2 20	Mud Logging		3 20	Mud Logging	
1 21	Open/Cased/Production Hole Logs	0	2 21	Open/Cased/Production Hole Logs	10,550	3 21	Open/Cased/Production Hole Logs	
1 22	Coring	0	2 22	Coring		3 22	Coring	
1 23	Geologic Supervision	0	2 23	Geologic Supervision		3 23	Geologic Supervision	
1 24	Engineering Supervision	0	2 24	Engineering Supervision		3 24	Engineering Supervision	
1 25	Consultant Supervision	86,261	2 25	Consultant Supervision	63,745	3 25	Consultant Supervision	3,600
1 26	Freight/Transportation	25,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	17,190	3 27	Labor	25,000
1 28	Supplies - Surface	0	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	0	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	56,592	2 30	Rentals - Surface	32,560	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	22,045	2 31	Rentals - Living Quarters	22,500	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	3,500	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	30,000	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack		2 34	Rentals - Frac Stack	41,200	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks		2 35	Rentals - Frac Tanks	9,930	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig		2 36	Coil Tubing Unit/Workover Rig	78,070	3 36	Coil Tubing Unit/Workover Rig	17,127
1 37	Wireline/Slickline/Perforating		2 37	Wireline/Slickline/Perforating	199,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs		2 38	Temporary Packers/Plugs	33,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck		2 39	High Pressure Pump Truck	110,760	3 39	High Pressure Pump Truck	
1 40	Stimulation		2 40	Stimulation	1,479,793	3 40	Stimulation	
1 41	Rentals - Pressure Control		2 41	Rentals - Pressure Control	24,165	3 41	Rentals - Pressure Control	
1 42	Flowback Services		2 42	Flowback Services	101,750	3 42	Flowback Services	
1 43	Water Transfer Services		2 43	Water Transfer Services	91,100	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal		2 44	Flowback Water Trucking & Disposal	12,660	3 44	Flowback Water Trucking & Disposal	
1 45	Permanent Equipment Installation		2 45	Permanent Equipment Installation		3 45	Permanent Equipment Installation	
1 46	Pipeline Tapping Services		2 46	Pipeline Tapping Services		3 46	Pipeline Tapping Services	
1 47	Plugging & Abandonment	0	2 47	Plugging & Abandonment		3 47	Plugging & Abandonment	
1 53	Overhead	0	2 53	Overhead	23,880	3 53	Overhead	5,000
1 54	Insurance	0	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,182	2 55	Contingency	240,682	3 55	Contingency	6,573
TOTAL INTANGIBLE DRILLING COSTS:		\$1,851,813	TOTAL INTANGIBLE COMPLETION COSTS:		\$3,387,390	TOTAL INTANGIBLE PRODUCTION COSTS:		\$72,300

TANGIBLE DRILLING COSTS			TANGIBLE COMPLETION COSTS			TANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT	COST CODES	DESCRIPTION	AMOUNT	COST CODES	DESCRIPTION	AMOUNT
4 60	Conductor Casing	0	5 60	Conductor Casing		6 60	Conductor Casing	
4 61	Surface Casing	15,585	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	106,750	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	282,545	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	265,808	5 64	Production Casing		6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	50,000
4 66	Wellhead	75,000	5 66	Wellhead		6 66	Wellhead	27,000
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	4,500
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	81,200
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	25,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	5,000
4 73	Valves & Controllers		5 73	Valves & Controllers		6 73	Valves & Controllers	
4 74	Artificial Lift Equipment		5 74	Artificial Lift Equipment		6 74	Artificial Lift Equipment	235,000
4 75	Instrumentation & Measurement		5 75	Instrumentation & Measurement		6 75	Instrumentation & Measurement	
4 76	Electrical Grounding/Safety Equipment		5 76	Electrical Grounding/Safety Equipment		6 76	Electrical Grounding/Safety Equipment	
4 77	Permanent Equipment Installation		5 77	Permanent Equipment Installation		6 77	Permanent Equipment Installation	
4 80	Other - Surface		5 80	Other - Surface		6 80	Other - Surface	
4 81	Other - Downhole		5 81	Other - Downhole		6 81	Other - Downhole	
TOTAL TANGIBLE DRILLING COSTS:		\$745,688	TOTAL TANGIBLE COMPLETION COSTS:		\$0	TOTAL TANGIBLE PRODUCTION COSTS:		\$427,700
TOTAL DRILLING COSTS:		\$2,597,500	TOTAL COMPLETION COSTS:		\$3,387,390	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$6,484,890

TAP ROCK RESOURCES COMPANY APPROVAL:

CEO \_\_\_\_\_ VP - EXPLORATION \_\_\_\_\_

CFO \_\_\_\_\_ VP - OPERATIONS \_\_\_\_\_

VP - LAND & LEGAL \_\_\_\_\_ SENIOR GEOLOGIST \_\_\_\_\_

NON OPERATING PARTNER APPROVAL:

COMPANY NAME: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_

WORKING INTEREST (%): \_\_\_\_\_ DATE: \_\_\_\_\_

TAX ID: \_\_\_\_\_ APPROVAL: \_\_\_\_\_

AFE is an estimate only. By signing this AFE, you agree to pay your proportionate share of the actual costs.

## Authorization For Expenditure

State: New Mexico

**Geologic Target: Wolfcamp A Lower**

**Well Description:** Drill and complete a horizontal lower Wolfcamp A well with a one mile lateral.

INTANGIBLE DRILLING COSTS			
COST CODES		DESCRIPTION	AMOUNT
1	1	Land - Legal	10,000
1	2	Land - Regulatory	7,500
1	3	Land - Surface Damages	20,000
1	4	Land - Survey	5,000
1	5	Location/Pit Construction	90,000
1	6	Remedial Dirtwork	0
1	7	Reserve/Frac Pit Closing	0
1	8	Drilling - Contractor	402,175
1	9	Mob/Rig Up - Contractor/Trucking	73,950
1	10	Cementing Services	185,000
1	11	Cementing Equipment	35,000
1	12	Bits/Drill Out Assemblies	61,875
1	13	Fluid Circulation Equipment/Services	69,284
1	14	Fluids/Chemicals	96,113
1	15	WBM Cuttings/Wastewater Disposal	90,000
1	16	OBM Cuttings/Chemical Disposal	90,000
1	17	Fuel/Power	95,563
1	18	Water	22,500
1	19	Directional Drilling	169,182
1	20	Mud Logging	14,446
1	21	Open/Cased/Production Hole Logs	0
1	22	Coring	0
1	23	Geologic Supervision	0
1	24	Engineering Supervision	0
1	25	Consultant Supervision	86,007
1	26	Freight/Transportation	25,000
1	27	Labor	0
1	28	Supplies - Surface	0
1	29	Supplies - Living Quarters	0
1	30	Rentals - Surface	56,394
1	31	Rentals - Living Quarters	21,979
1	32	Rentals - Downhole	3,500
1	33	Rentals - Pipe & Handling Tools	30,000
1	34	Rentals - Frac Stack	0
1	35	Rentals - Frac Tanks	0
1	36	Coil Tubing Unit/Workover Rig	0
1	37	Wireline/Slickline/Perforating	0
1	38	Temporary Packers/Plugs	0
1	39	High Pressure Pump Truck	0
1	40	Stimulation	0
1	41	Rentals - Pressure Control	0
1	42	Flowback Services	0
1	43	Water Transfer Services	0
1	44	Flowback Water Trucking & Disposal	0
1	45	Permanent Equipment Installation	0
1	46	Pipeline Tapping Services	0
1	47	Plugging & Abandonment	0
1	53	Overhead	0
1	54	Insurance	0
1	55	Contingency	88,023

**TOTAL INTANGIBLE DRILLING COSTS: \$1,848,492**

INTANGIBLE COMPLETION COSTS			
COST CODES		DESCRIPTION	AMOUNT
2	1	Land - Legal	
2	2	Land - Regulatory	
2	3	Land - Surface Damages	
2	4	Land - Survey	
2	5	Location/Pit Construction	
2	6	Remedial Dirtwork	
2	7	Reserve/Frac Pit Closing	
2	8	Drilling - Contractor	
2	9	Mob/Rig Up - Contractor/Trucking	
2	10	Cementing Services	
2	11	Cementing Equipment	
2	12	Bits/Drill Out Assemblies	31,292
2	13	Fluid Circulation Equipment/Services	
2	14	Fluids/Chemicals	24,844
2	15	WBM Cuttings/Wastewater Disposal	
2	16	OBM Cuttings/Chemical Disposal	
2	17	Fuel/Power	287,500
2	18	Water	438,340
2	19	Directional Drilling	
2	20	Mud Logging	
2	21	Open/Cased/Production Hole Logs	10,550
2	22	Coring	
2	23	Geologic Supervision	
2	24	Engineering Supervision	
2	25	Consultant Supervision	63,745
2	26	Freight/Transportation	4,110
2	27	Labor	17,190
2	28	Supplies - Surface	4,110
2	29	Supplies - Living Quarters	4,110
2	30	Rentals - Surface	32,560
2	31	Rentals - Living Quarters	22,500
2	32	Rentals - Downhole	0
2	33	Rentals - Pipe & Handling Tools	0
2	34	Rentals - Frac Stack	41,200
2	35	Rentals - Frac Tanks	9,930
2	36	Coil Tubing Unit/Workover Rig	78,070
2	37	Wireline/Slickline/Perforating	199,550
2	38	Temporary Packers/Plugs	33,000
2	39	High Pressure Pump Truck	110,760
2	40	Stimulation	1,479,793
2	41	Rentals - Pressure Control	24,165
2	42	Flowback Services	101,750
2	43	Water Transfer Services	91,100
2	44	Flowback Water Trucking & Disposal	12,660
2	45	Permanent Equipment Installation	
2	46	Pipeline Tapping Services	
2	47	Plugging & Abandonment	
2	53	Overhead	23,880
2	54	Insurance	
2	55	Contingency	240,682

**TOTAL INTANGIBLE COMPLETION COSTS: \$3,387,390**

INTANGIBLE PRODUCTION COSTS			
COST CODES		DESCRIPTION	AMOUNT
3	1	Land - Legal	
3	2	Land - Regulatory	
3	3	Land - Surface Damages	
3	4	Land - Survey	
3	5	Location/Pit Construction	5,000
3	6	Remedial Dirtwork	
3	7	Reserve/Frac Pit Closing	
3	8	Drilling - Contractor	
3	9	Mob/Rig Up - Contractor/Trucking	
3	10	Cementing Services	
3	11	Cementing Equipment	
3	12	Bits/Drill Out Assemblies	
3	13	Fluid Circulation Equipment/Services	
3	14	Fluids/Chemicals	
3	15	WBM Cuttings/Wastewater Disposal	
3	16	OBM Cuttings/Chemical Disposal	
3	17	Fuel/Power	
3	18	Water	
3	19	Directional Drilling	
3	20	Mud Logging	
3	21	Open/Cased/Production Hole Logs	
3	22	Coring	
3	23	Geologic Supervision	
3	24	Engineering Supervision	
3	25	Consultant Supervision	3,600
3	26	Freight/Transportation	10,000
3	27	Labor	25,000
3	28	Supplies - Surface	
3	29	Supplies - Living Quarters	
3	30	Rentals - Surface	
3	31	Rentals - Living Quarters	
3	32	Rentals - Downhole	
3	33	Rentals - Pipe & Handling Tools	
3	34	Rentals - Frac Stack	
3	35	Rentals - Frac Tanks	
3	36	Coil Tubing Unit/Workover Rig	17,127
3	37	Wireline/Slickline/Perforating	
3	38	Temporary Packers/Plugs	
3	39	High Pressure Pump Truck	
3	40	Stimulation	
3	41	Rentals - Pressure Control	
3	42	Flowback Services	
3	43	Water Transfer Services	
3	44	Flowback Water Trucking & Disposal	
3	45	Permanent Equipment Installation	
3	46	Pipeline Tapping Services	
3	47	Plugging & Abandonment	
3	53	Overhead	5,000
3	54	Insurance	
3	55	Contingency	6,573

**TOTAL INTANGIBLE PRODUCTION COSTS: \$72,300**

TANGIBLE DRILLING COSTS			
COST CODES		DESCRIPTION	AMOUNT
4	60	Conductor Casing	0
4	61	Surface Casing	15,585
4	62	1st Intermediate Casing	106,750
4	63	2nd Intermediate Casing	282,545
4	64	Production Casing	269,129
4	65	Tubing	
4	66	Wellhead	75,000
4	67	Permanent Packers/Hangers/Plugs	
4	68	Tanks	
4	69	Production Vessels	
4	70	Compressors	
4	71	Surface Flowlines	
4	72	Gathering Lines	
4	73	Valves & Controllers	
4	74	Artificial Lift Equipment	
4	75	Instrumentation & Measurement	
4	76	Electrical Grounding/Safety Equipment	
4	77	Permanent Equipment Installation	
4	80	Other - Surface	
4	81	Other - Downhole	

**TOTAL TANGIBLE DRILLING COSTS: \$749,009**

TANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
5 60	Conductor Casing	
5 61	Surface Casing	
5 62	1st Intermediate Casing	
5 63	2nd Intermediate Casing	
5 64	Production Casing	
5 65	Tubing	
5 66	Wellhead	
5 67	Permanent Packers/Hangers/Plugs	
5 68	Tanks	
5 69	Production Vessels	
5 70	Compressors	
5 71	Surface Flowlines	
5 72	Gathering Lines	
5 73	Valves & Controllers	
5 74	Artificial Lift Equipment	
5 75	Instrumentation & Measurement	
5 76	Electrical Grounding/Safety Equipment	
5 77	Permanent Equipment Installation	
5 80	Other - Surface	
5 81	Other - Downhole	

**TOTAL TANGIBLE COMPLETION COSTS:** \$0

TANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
6 60	Conductor Casing	
6 61	Surface Casing	
6 62	1st Intermediate Casing	
6 63	2nd Intermediate Casing	
6 64	Production Casing	
6 65	Tubing	50,000
6 66	Wellhead	27,000
6 67	Permanent Packers/Hangers/Plugs	4,500
6 68	Tanks	
6 69	Production Vessels	81,200
6 70	Compressors	
6 71	Surface Flowlines	25,000
6 72	Gathering Lines	5,000
6 73	Valves & Controllers	
6 74	Artificial Lift Equipment	235,000
6 75	Instrumentation & Measurement	
6 76	Electrical Grounding/Safety Equipment	
6 77	Permanent Equipment Installation	
6 80	Other - Surface	
6 81	Other - Downhole	

**TOTAL TANGIBLE PRODUCTION COSTS: \$427,700**

**TAP ROCK RESOURCES COMPANY APPROVAL:**

CEO \_\_\_\_\_ VP - EXPLORATION \_\_\_\_\_

CFO \_\_\_\_\_ VP - OPERATIONS \_\_\_\_\_

VP - LAND &amp; LEGAL SENIOR GEOLOGIST

**NON OPERATING PARTNER APPROVAL:**

SIGNED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_

WORKING INTEREST (%): \_\_\_\_\_ DATE: \_\_\_\_\_

TAX ID: \_\_\_\_\_ APPROVAL: \_\_\_\_\_

**AFE is an estimate only. By signing this AFE, you agree to pay your proportionate share of the actual costs.**





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

APPLICATION OF TAP ROCK OPERATING, LLC  
FOR A STANDARD HORIZONTAL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO

Case No. 20321


AFFIDAVIT OF NOTICE

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

I, Sharon T. Shaheen, attorney in fact and authorized representative of Tap Rock Operating, LLC, the Applicant in the above-captioned matters, being first duly sworn, upon oath state that I sent copies of the Application in this matter to the parties as specified on the attached **Exhibit A**. Proof of receipt is attached hereto. Tap Rock has conducted a good faith, diligent effort to find the names and correct addresses for the interest owners entitled to receive notice of the Application filed herein and has determined that the only parties entitled to notice are those identified on Exhibit A.

  
SHARON T. SHAHEEN

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of April, 2019.

  
Notary Public

My Commission Expires:

April 30, 2022

EXHIBIT No.5  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing



## **EXHIBIT A**

Devon Energy Production Company, LP  
333 West Sheridan Avenue  
Oklahoma City, OK 73102-5015

COG Operating, LLC  
600 West Illinois Avenue  
Midland, Texas 79701

**U.S. Postal Service™**  
**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  
 \$ 3.45

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

☒ Return Receipt (hardcopy) \$ 2.75

☐ Return Receipt (electronic) \$

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage  
 \$ 1.42


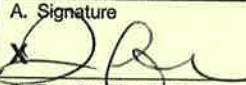
Total Postage and Fees  
 \$ 7.62

Sent To  
 Street and Ap  
 City, State, Zi

COG Operating, LLC  
 600 W. Illinois Ave.  
 Midland, TX 79701

Postmark  
 Here  
**SANTA FE NM**  
**MAR 13 2019**  
**USPO 87504**

PS Form 38

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            600 W. Illinois Ave.            Midland, TX 79701</p> <p>            9590 9403 0913 5223 4536 80</p> <p>2. Article Number (Transfer from service label)            7015 1730 0000 9813 4061</p>		<p>A. Signature  </p> <p><input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)            Jennifer Wohlewy</p> <p>C. Date of Delivery            3/18/19</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> <p><input type="checkbox"/> Adult Signature</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail®</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery</p> <p><input type="checkbox"/> Insured Mail</p> <p><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p> <p><input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input checked="" type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Signature Confirmation Restricted Delivery</p>	

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

Domestic Return Receipt

7015 1730 0000 9813 4078

**U.S. Postal Service™**  
**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	\$ 3.45
Extra Services & Fees (check box, add fee as appropriate)	
<input checked="" type="checkbox"/> Return Receipt (hardcopy)	\$ 2.75
<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	\$ 1.42
Total Postage and Fees	\$ 7.62

Postmark  
Here

SANTA FE NM  
MAR 13 2019  
USPO 87504

Sent To

Street and Apt. N

City, State, ZIP+4

PS Form 3800

Devon Energy Production Company, LP  
333 West Sheridan Ave.  
Oklahoma City, OK 73102-5015

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Devon Energy Production Company, LP  
333 West Sheridan Ave.  
Oklahoma City, OK 73102-5015



9590 9403 0913 5223 4536 97

2. Article Number (Transfer from service label)

7015 1730 0000 9813 4078

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

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No



3. Service Type

☐ Adult Signature

☐ Adult Signature Restricted Delivery

☒ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Insured Mail

☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

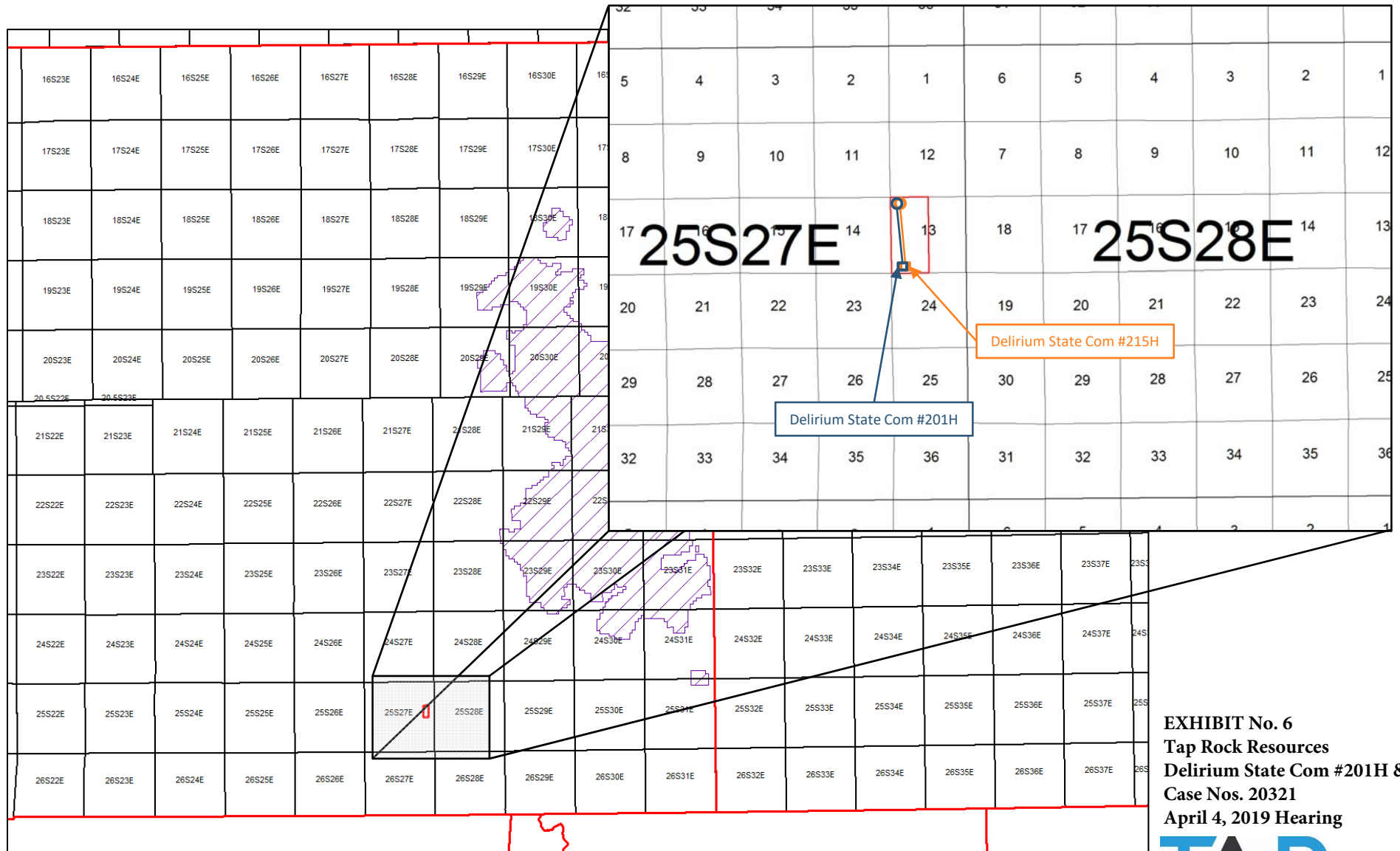
☒ Return Receipt for Merchandise

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

# Project Locator Map



**EXHIBIT No. 6**  
**Tap Rock Resources**  
**Delirium State Com #201H & 215H**  
**Case Nos. 20321**  
**April 4, 2019 Hearing**

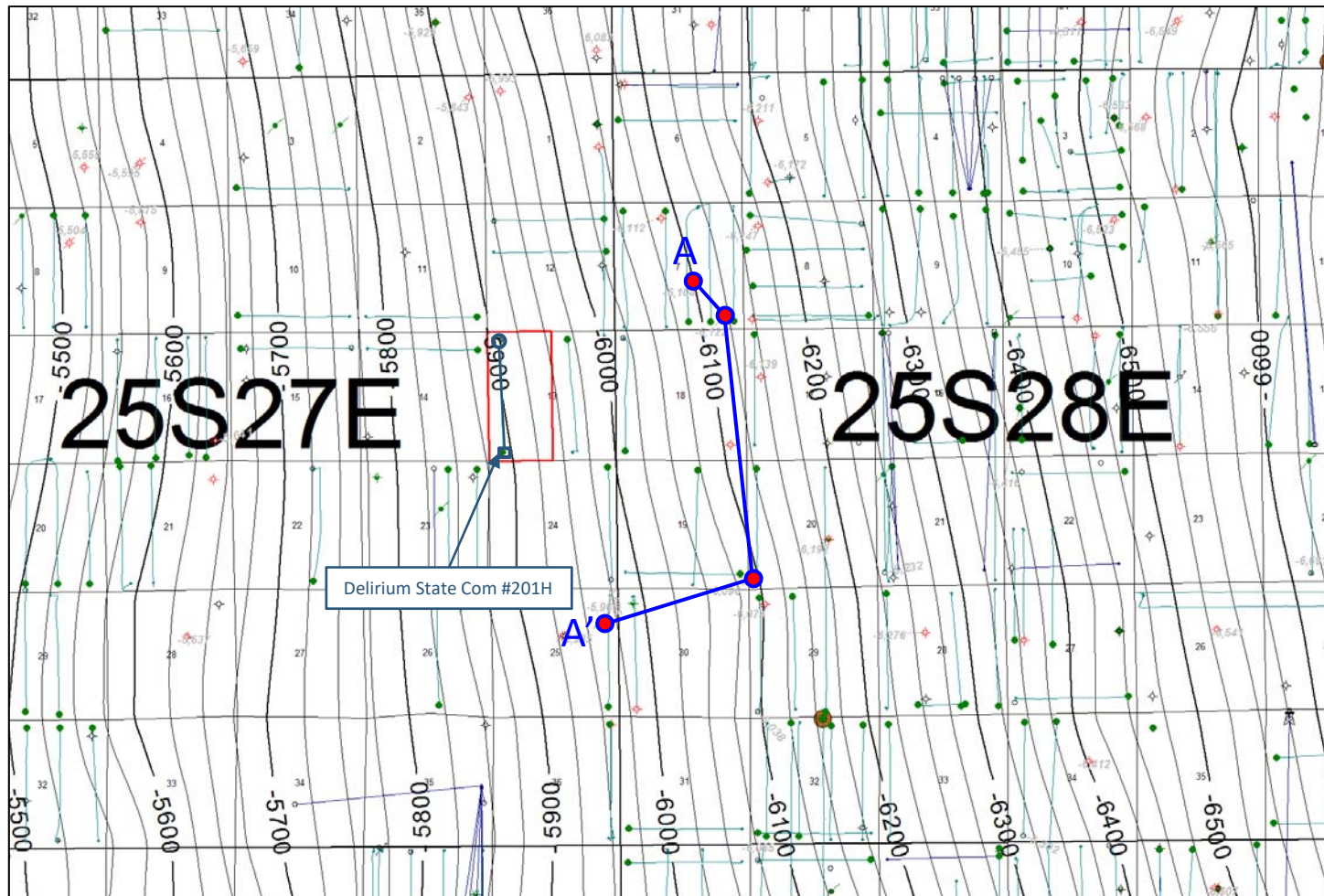


Delirium State Com #201H & #215H

Case No. 20321



# Subsea Structure Map (Top Wolfcamp A)

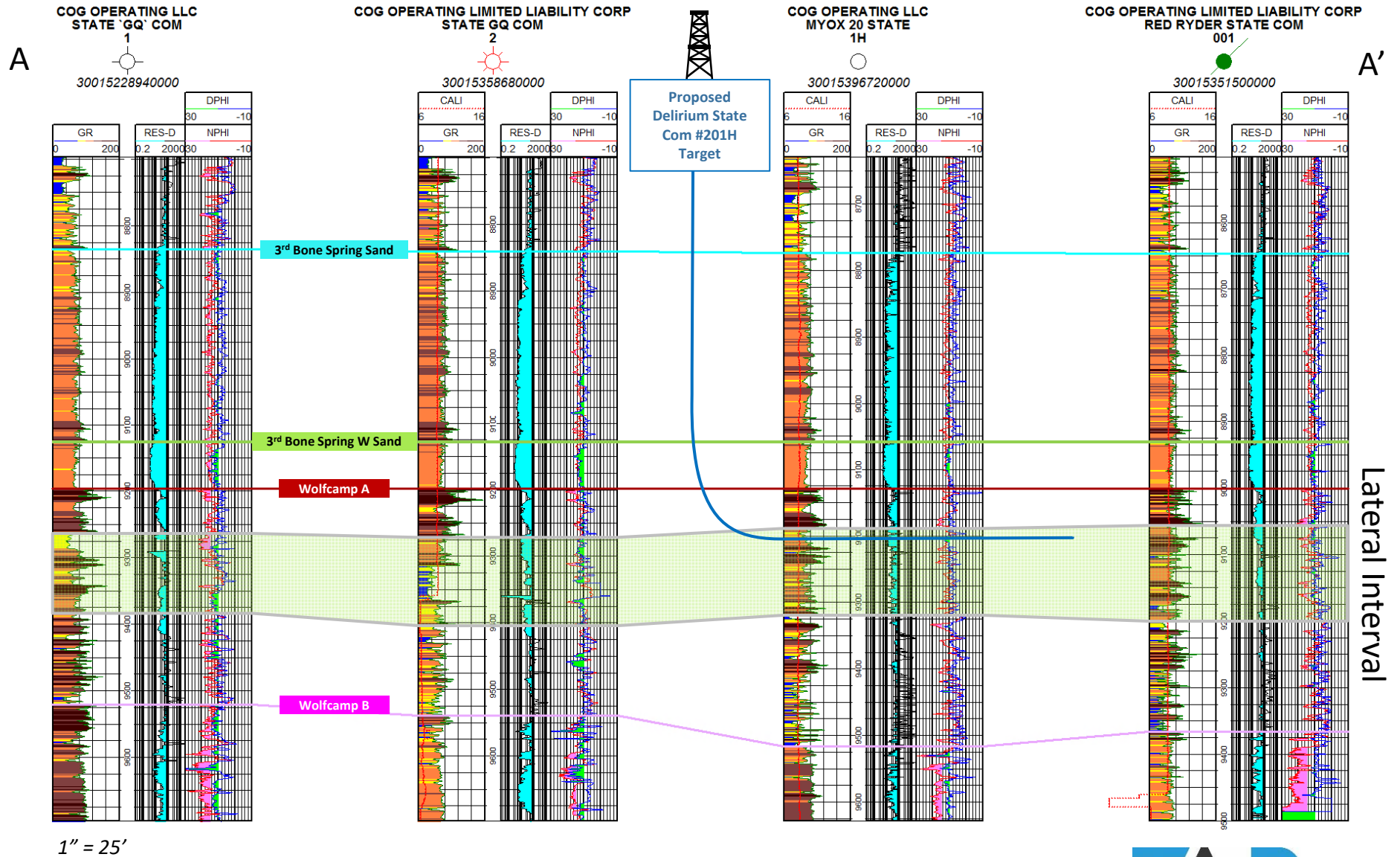


## Map Legend

- SHL □ Tap Rock – Horizontal Locator
- BHL ○
- Spacing Unit
- C.I. = 25'
- Wolfcamp A Target

EXHIBIT No. 7  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing

# Stratigraphic Cross-Section - A-A'



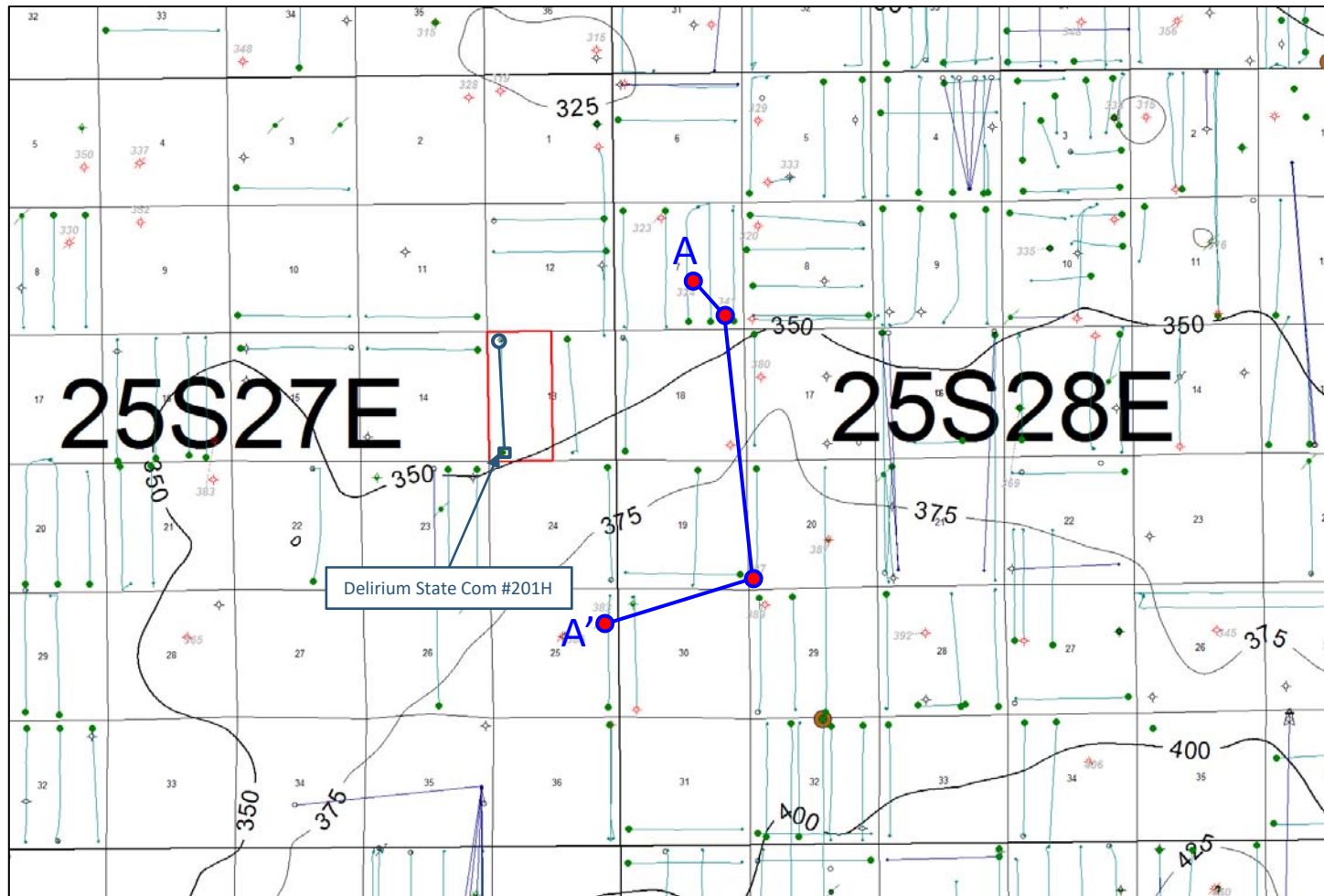
Delirium State Com #201H & #215H

Case No. 20321

EXHIBIT No. 8  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing



# Isopach Map (Wolfcamp A to Wolfcamp B)



## Map Legend

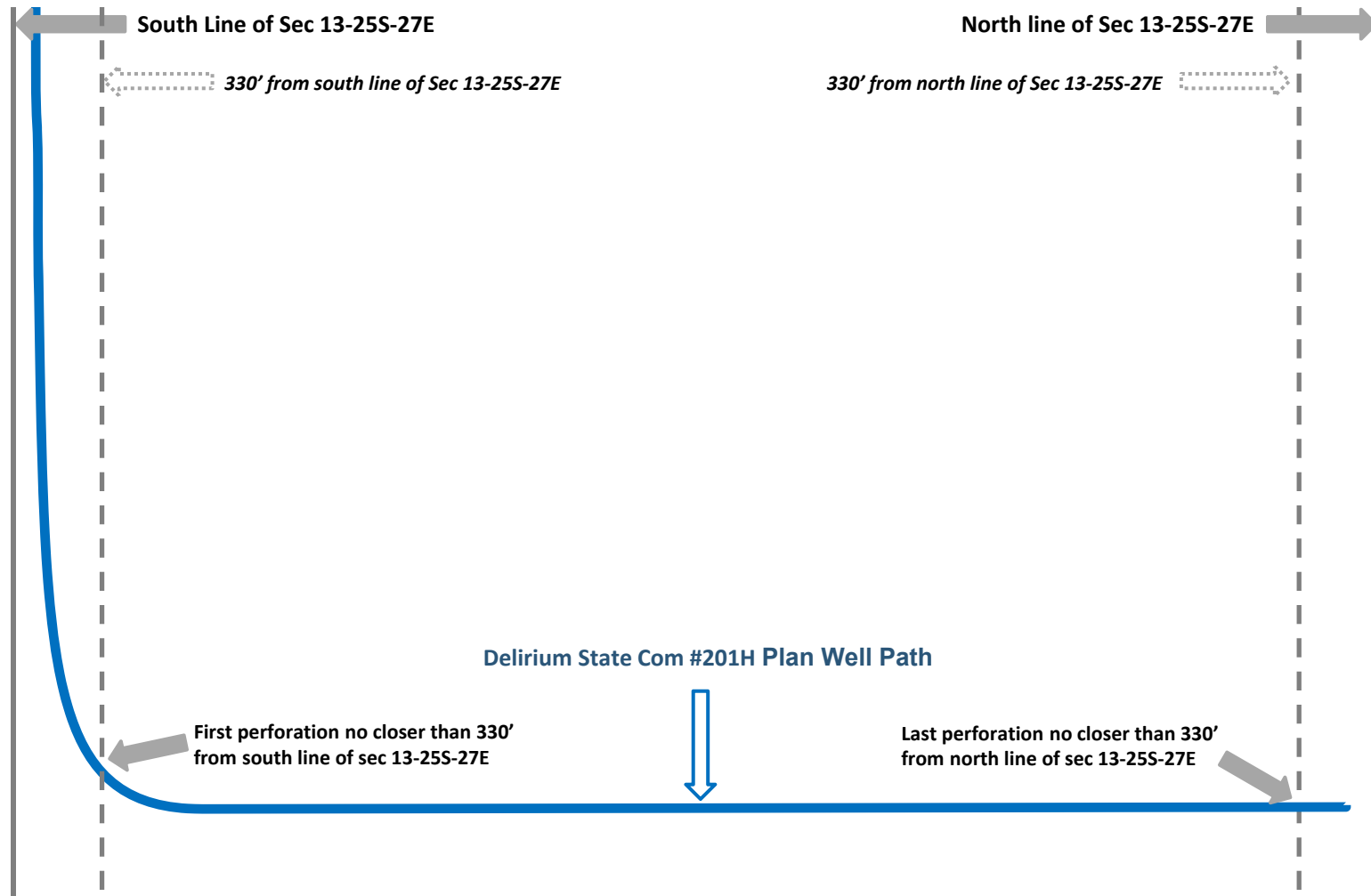
- SHL □ Tap Rock – Horizontal Locator
- BHL ○
- Spacing Unit
- C.I. = 25'
- Wolfcamp A Target

EXHIBIT No. 9  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing

# Delirium State Com #201H (1 mile S-N Lateral)

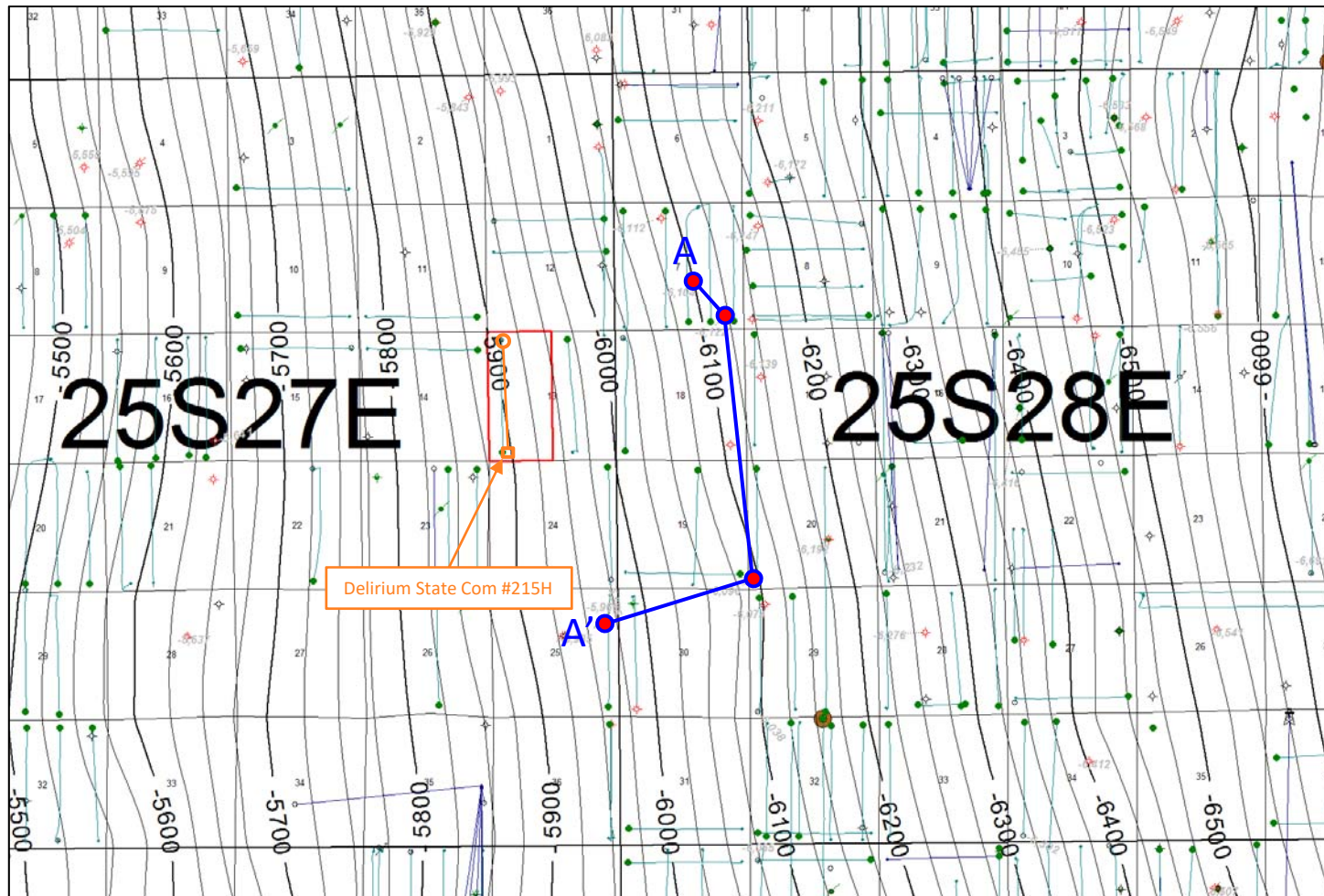
Delirium State Com #201H  
Surface Hole: 334' FSL & 826' FWL of sec 13-25S-27E  
Bottom Hole: 200' FNL & 330' FWL of sec 13-25S-27E

*\*Diagram not to scale*





# Subsea Structure Map (Top Wolfcamp A)



## Map Legend





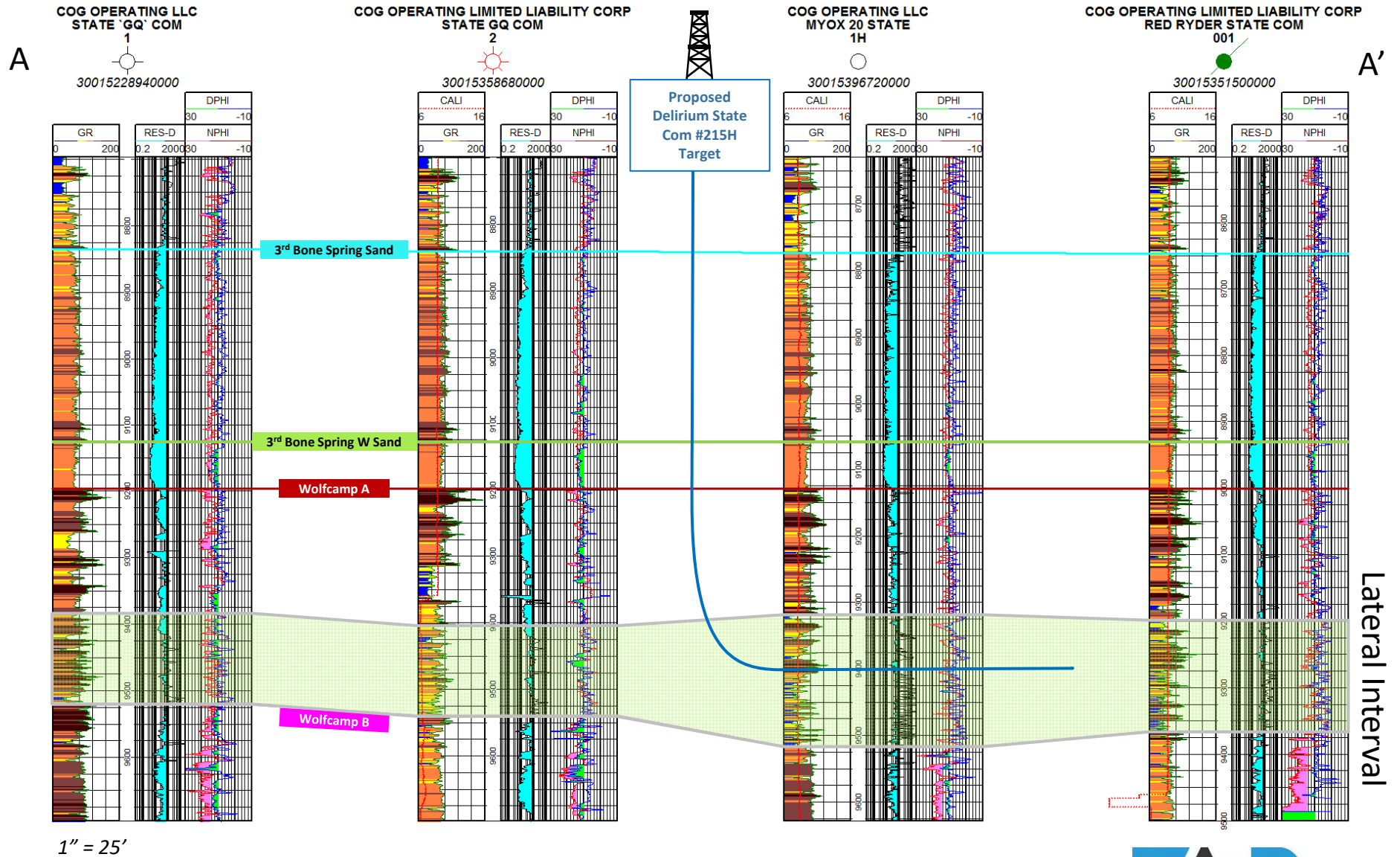
- SHL  Tap Rock – Horizontal Locator
- BHL 
-  Spacing Unit
- C.I. = 25'
-  Wolfcamp A Target

EXHIBIT No. 11  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing

# Stratigraphic Cross-Section - A-A'



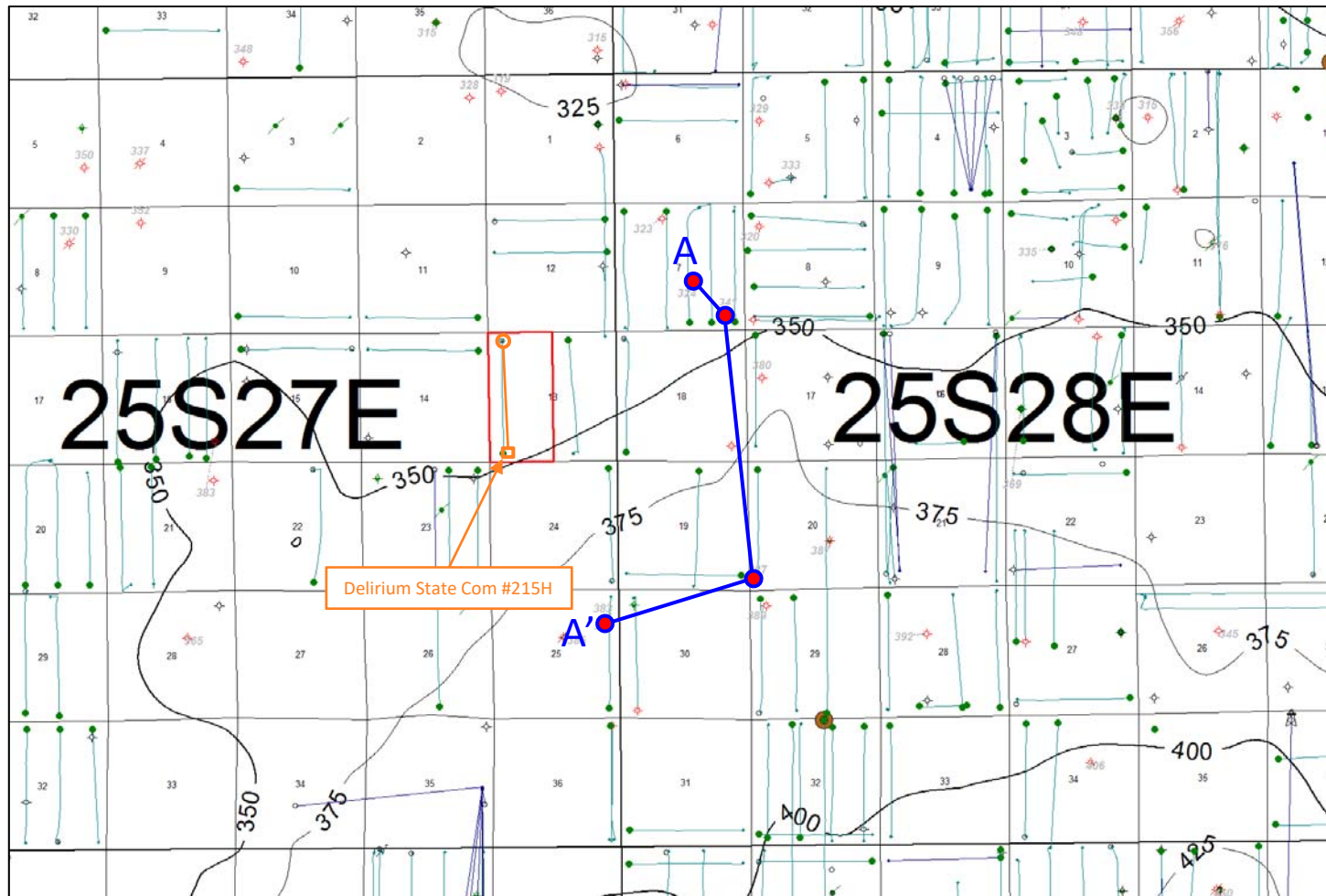
Delirium State Com #201H & #215H

Case No. 20321

EXHIBIT No. 12  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing



# Isopach Map (Wolfcamp A to Wolfcamp B)



## Map Legend

- SHL □ Tap Rock – Horizontal Locator
- BHL ○
- Spacing Unit
- C.I. = 25'
- Wolfcamp A Target

EXHIBIT No. 13  
Tap Rock Resources  
Delirium State Com #201H & 215H  
Case Nos. 20321  
April 4, 2019 Hearing

# Delirium State Com #215H (1 mile S-N Lateral)

Delirium State Com #215H  
Surface Hole: 334' FSL & 851' FWL of sec 13-25S-27E  
Bottom Hole: 200' FNL & 990' FWL of sec 13-25S-27E

*\*Diagram not to scale*

