

CASE NO. 21062

**APPLICATION OF TAP ROCK RESOURCES, LLC FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO**

EXHIBITS

- A. Landman's Affidavit
- B. Geologist's Affidavit
- C. Affidavit of Notice
- D. Affidavit of Publication
- E. Application and Proposed Ad
- F. Pooling Checklist

**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,
LEA COUNTY, NEW MEXICO**

Case Nos. 21062

AFFIDAVIT OF ERICA HIXSON

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 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 applications 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 into the horizontal spacing unit ("HSU") described below, and in the wells to be drilled in the units.
6. No opposition is expected. EOG Resources, Inc. ("EOG") was contacted regarding the proposed well. Tap Rock continues to work toward a voluntary agreement with EOG.
7. Tap Rock seeks an order pooling all mineral interests in the [96674] Triple X; Bone Spring, West pool underlying the W/2 of Section 4 and W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The proposed 640-acre spacing unit will be

dedicated to the **Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H**, as the defining wells for the units.

8. A proposed C-102 for each well is attached as **Exhibit 1**. The wells will develop the [96674] Triple X; Bone Spring, West pool, which is an oil pool.

9. The proposed surface hole, bottom hole, and first take point for each well can be found in the attached **Exhibit 1**. The proposed total vertical depth for each well can be found in the attached **Exhibit 5**.

10. A tract map containing the composition of the HSU is attached hereto as **Exhibit 2** and shows that the HSU is comprised of three State leases.

11. The parties being pooled and the nature of their interest are found in **Exhibit 4** attached hereto. **Exhibit 4** also includes information regarding working interest owners and overriding royalty interest owners.

12. There are no depth severances in the Bone Spring formation in the proposed HSU.

13. I have conducted a diligent search of the public records in Lea 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").

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

15. **Exhibit 5** is a sample proposal letter and an AFE for each of the proposed wells. The estimated cost of each 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.

16. 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.

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

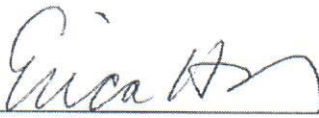
18. Tap Rock requests that it be designated operator of the wells.

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

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

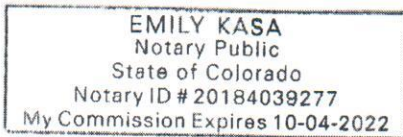
21. The foregoing is correct and complete to the best of my knowledge and belief.

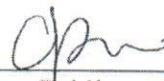
FURTHER AFFIANT SAYETH NAUGHT


Erica Hixson

STATE OF COLORADO)
)ss
COUNTY OF JEFFERSON)

Subscribed to and sworn before me this 3rd day of January, 2020.




Notary Public

My Commission expires 10-4-2022.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-6170
District II
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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

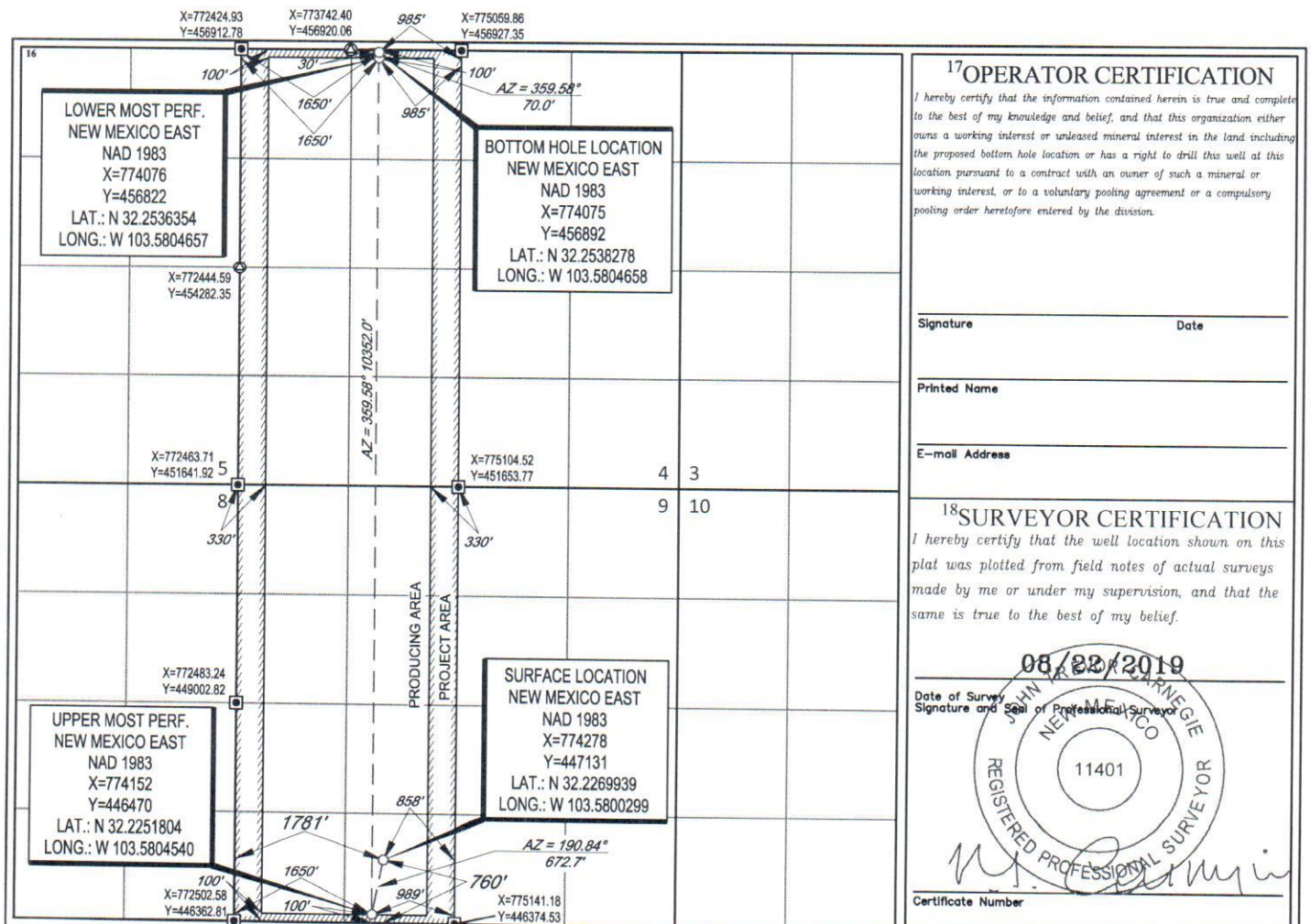
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674		³ Pool Name Triple X; Bone Spring, West	
⁴ Property Code		⁵ Property Name POSEIDON STATE COM			⁶ Well Number 102H
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3601'
¹⁰ Surface Location					
UL or lot no. N	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 760'
				North/South line SOUTH	Feet from the 1781'
				East/West line WEST	County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. C	Section 4	Township 24-S	Range 33-E	Lot Idn -	Feet from the 30'
				North/South line NORTH	Feet from the 1650'
				East/West line WEST	County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷OPERATOR 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 undivided 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 _____

¹⁸SURVEYOR 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.

Date of Survey _____ Signature and Seal of Professional Surveyor _____

08/22/2019
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
11401
Certificate Number _____

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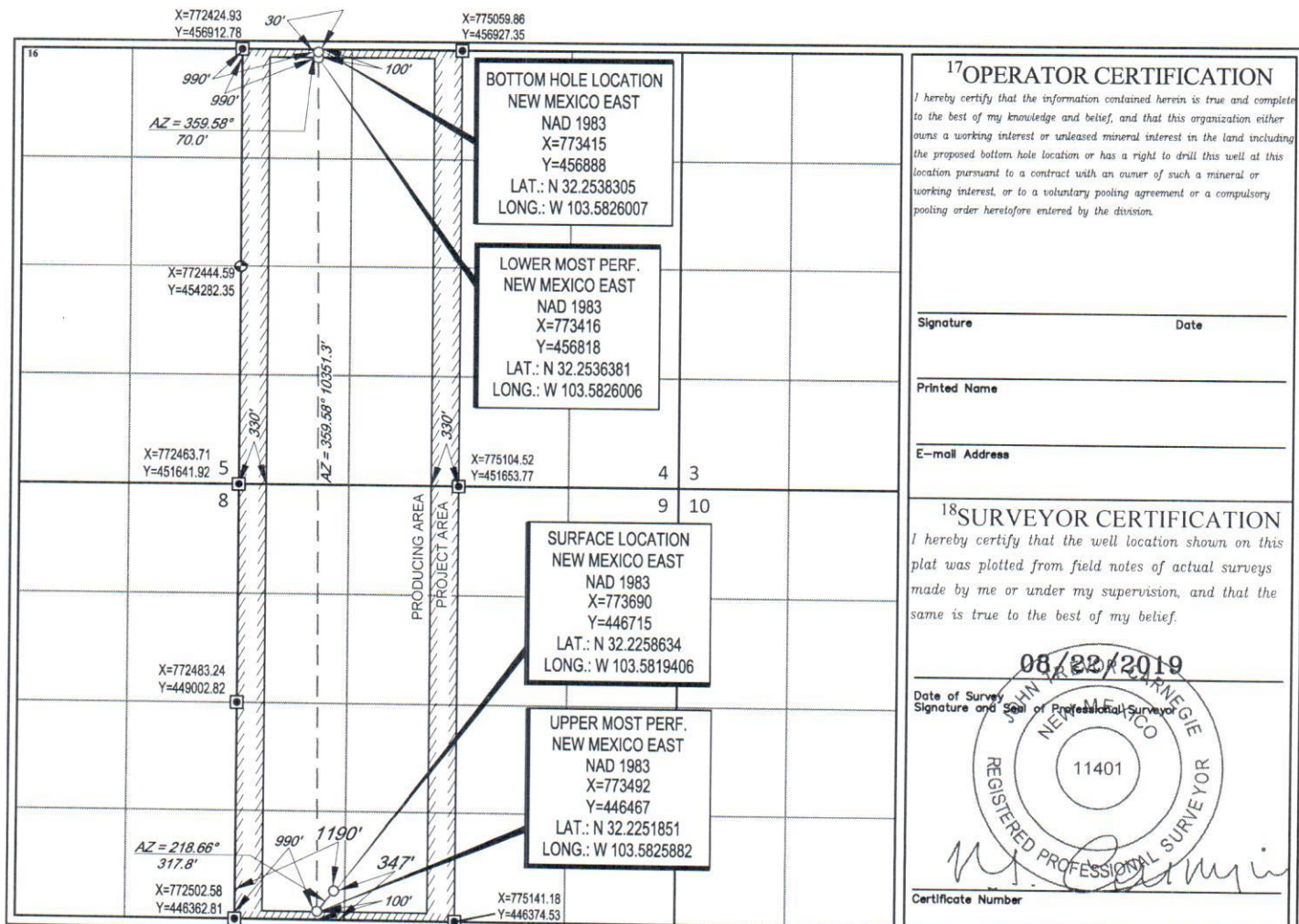
District Office

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674		³ Pool Name Triple X; Bone Spring, West	
⁴ Property Code		⁵ Property Name POSEIDON STATE COM			⁶ Well Number 105H
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3609'
¹⁰ Surface Location					
UL or lot no. M	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 347'
					North/South line SOUTH
					Feet from the 1190'
					East/West line WEST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. D	Section 4	Township 24-S	Range 33-E	Lot Idn -	Feet from the 30'
					North/South line NORTH
					Feet from the 990'
					East/West line WEST
					County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674	³ Pool Name Triple X; Bone Spring, West
⁴ Property Code	⁵ Property Name POSEIDON STATE COM		⁶ Well Number 107H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.		⁹ Elevation 3599

¹⁰Surface Location

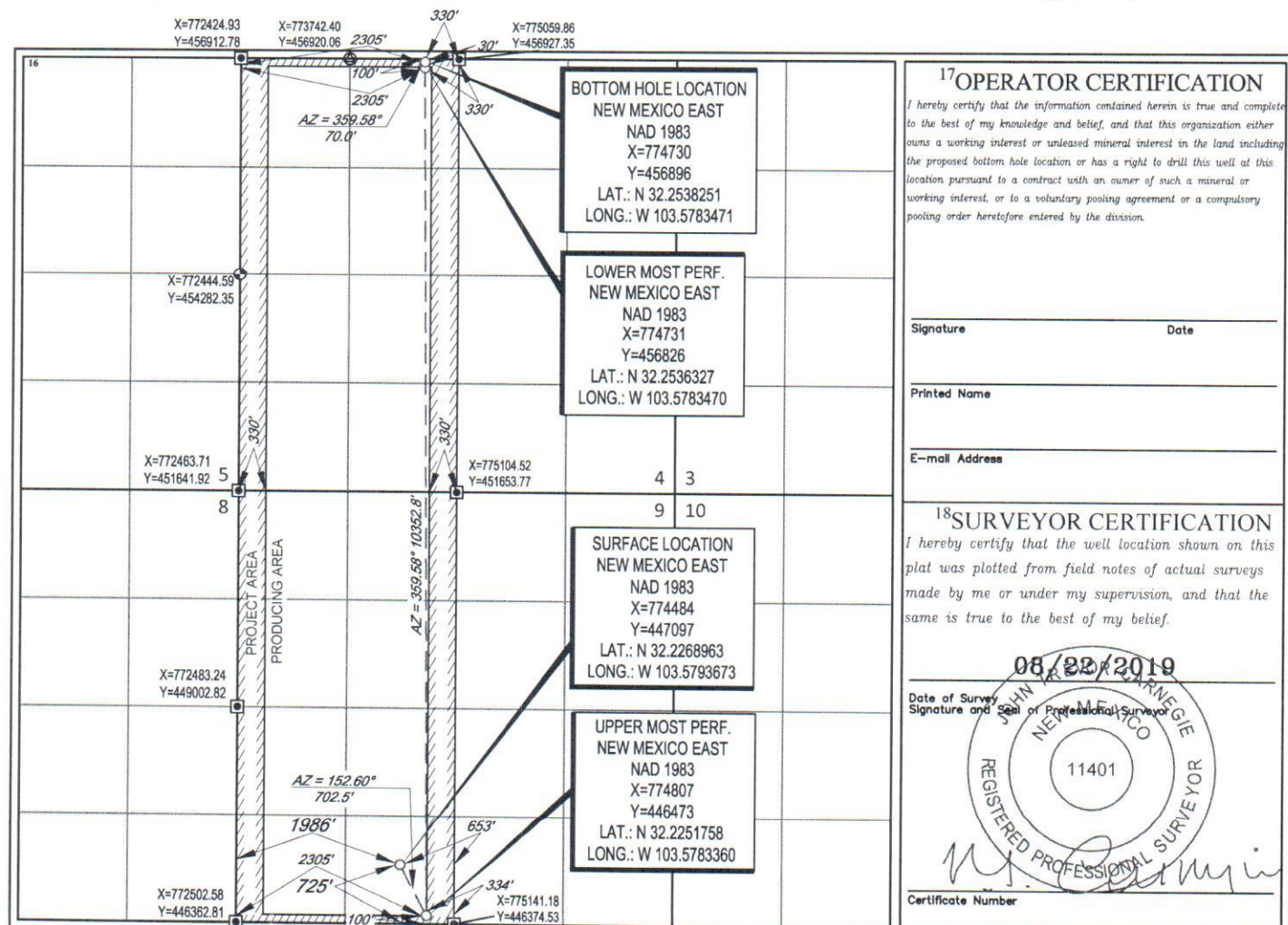
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	24-S	33-E	-	725'	SOUTH	1986'	WEST	LEA

¹¹Bottom 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
C	4	24-S	33-E	-	30'	NORTH	2305'	WEST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674	³ Pool Name Triple X; Bone Spring, West
⁴ Property Code	⁵ Property Name POSEIDON STATE COM		⁶ Well Number 171H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.		⁹ Elevation 3609'

¹⁰Surface Location

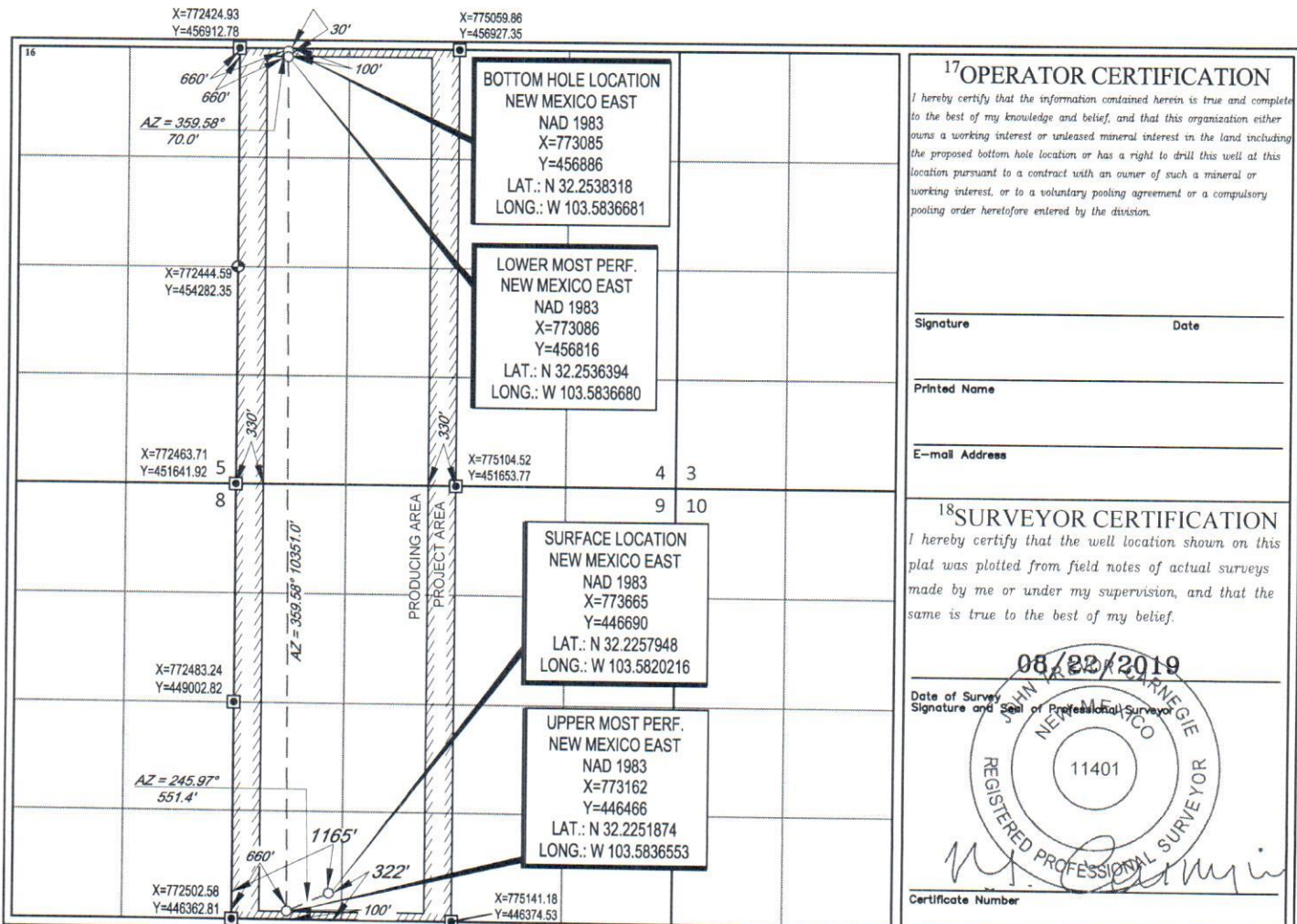
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	9	24-S	33-E	-	322'	SOUTH	1165'	WEST	LEA

¹¹Bottom 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	4	24-S	33-E	-	30'	NORTH	660'	WEST	LEA

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

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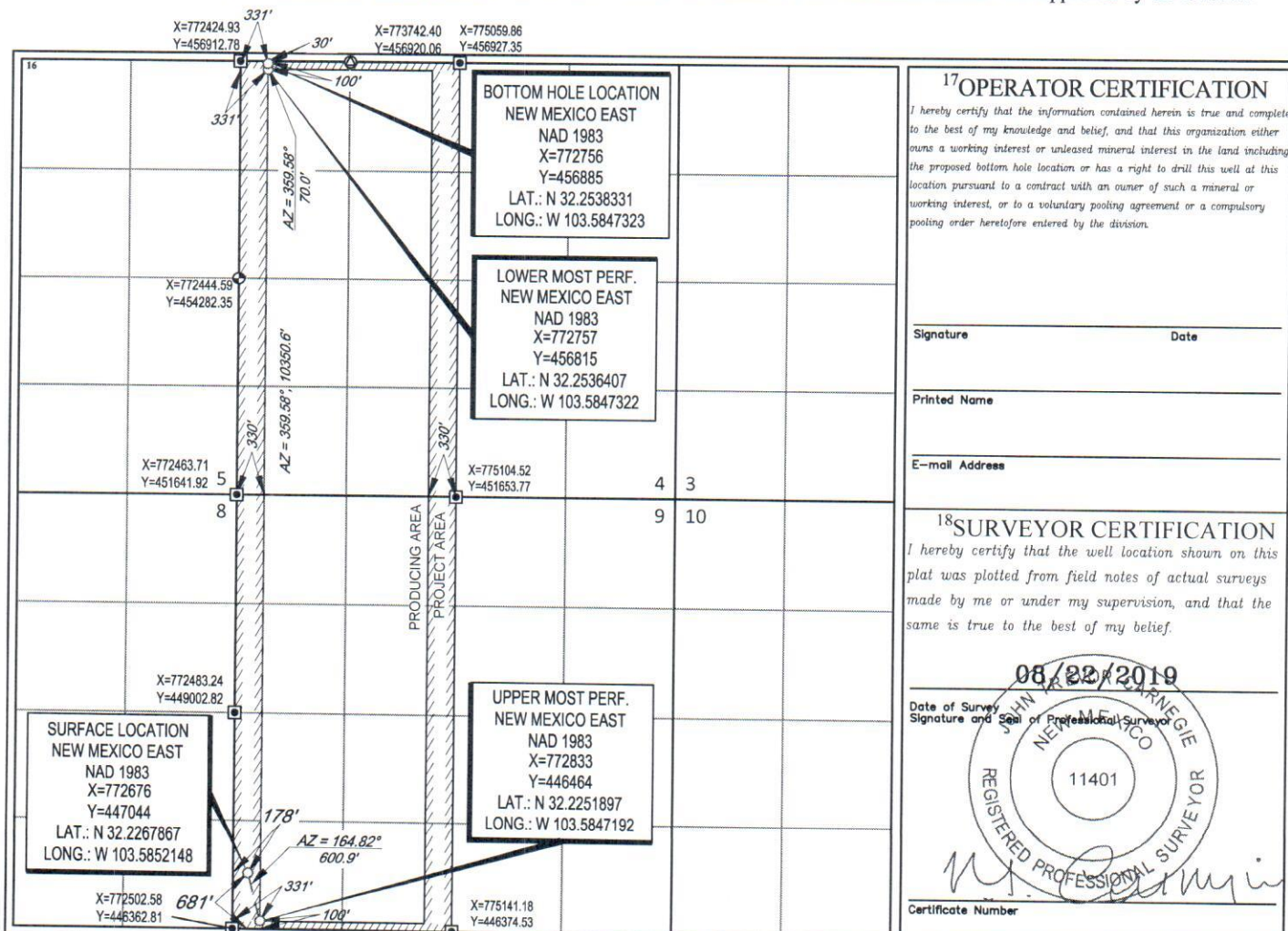
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674		³ Pool Name Triple X; Bone Spring, West	
⁴ Property Code		⁵ Property Name POSEIDON STATE COM			⁶ Well Number #181H
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3608'
¹⁰ Surface Location					
UL or lot no. M	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 681'
					North/South line SOUTH
					Feet from the 178'
					East/West line WEST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. D	Section 4	Township 24-S	Range 33-E	Lot Idn -	Feet from the 30'
					North/South line NORTH
					Feet from the 331'
					East/West line WEST
					County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 96674	³ Pool Name Triple X; Bone Spring, West
⁴ Property Code	⁵ Property Name POSEIDON STATE COM	⁶ Well Number 182H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 3601'

¹⁰Surface Location

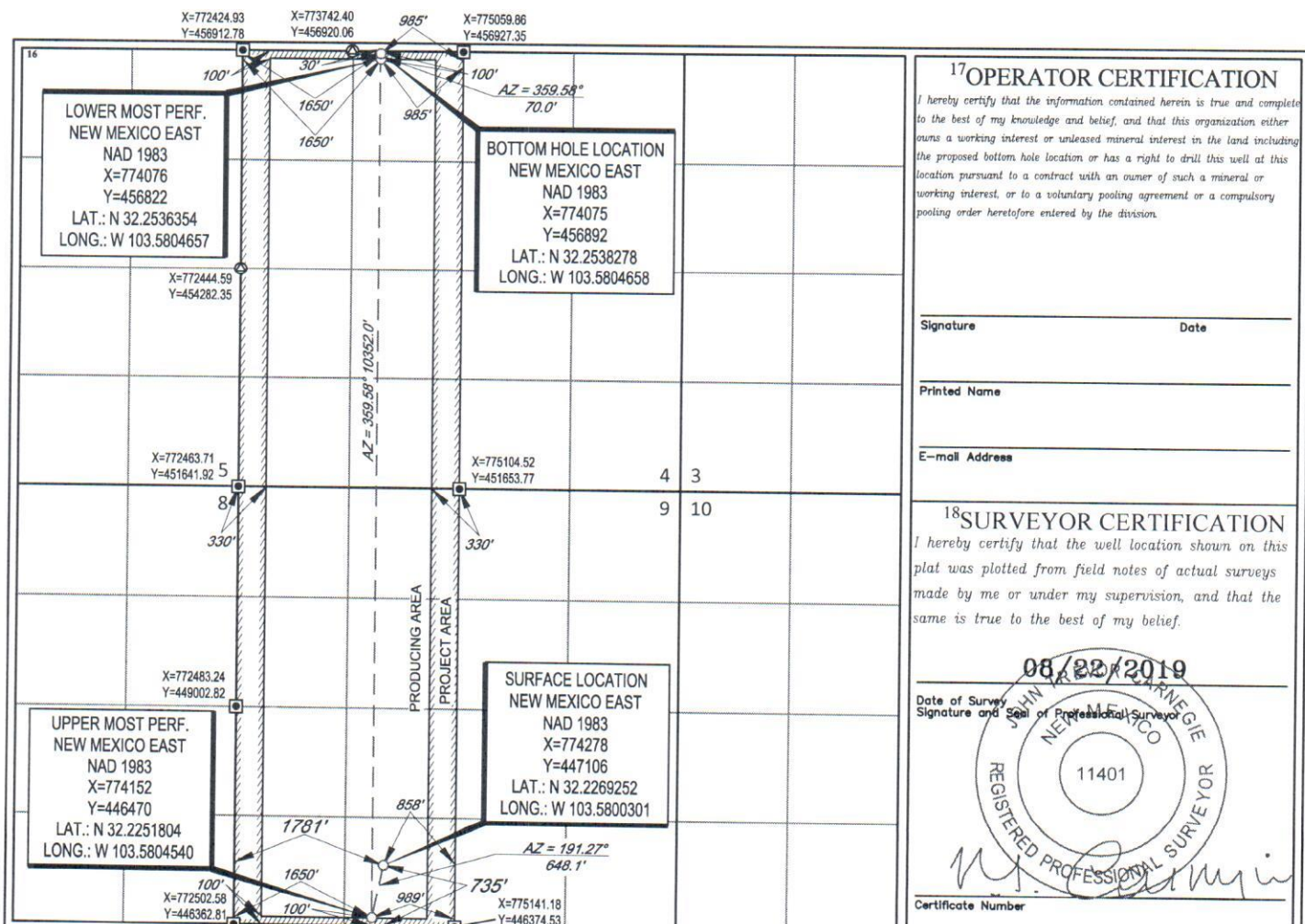
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	9	24-S	33-E	-	735'	SOUTH	1781'	WEST	LEA

¹¹Bottom 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
C	4	24-S	33-E	-	30'	NORTH	1650'	WEST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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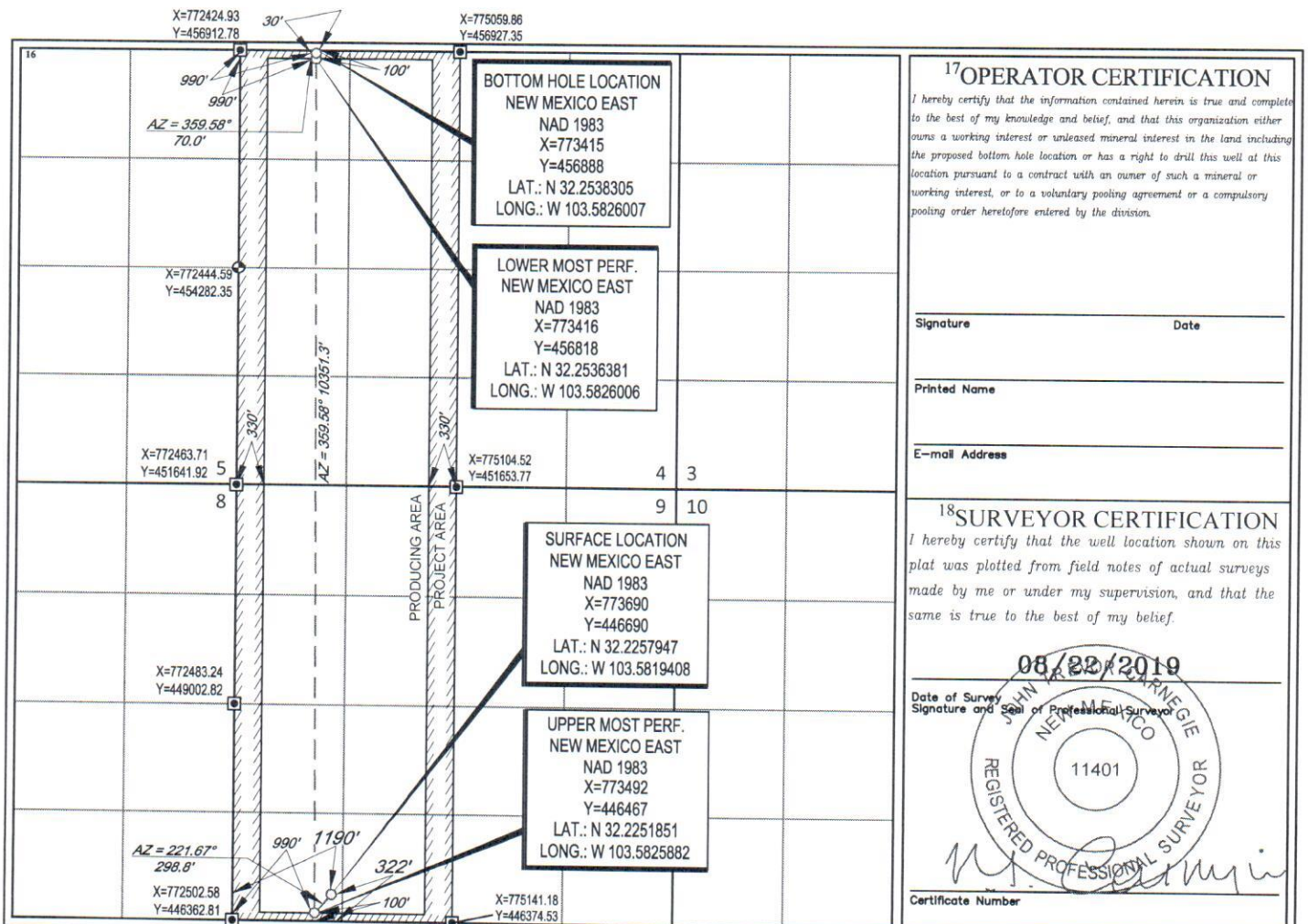
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674		³ Pool Name Triple X; Bone Spring, West	
⁴ Property Code		⁵ Property Name POSEIDON STATE COM			⁶ Well Number 185H
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3609'
¹⁰ Surface Location					
UL or lot no. M	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 322'
					North/South line SOUTH
					Feet from the 1190'
					East/West line WEST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. D	Section 4	Township 24-S	Range 33-E	Lot Idn -	Feet from the 30'
					North/South line NORTH
					Feet from the 990'
					East/West line WEST
					County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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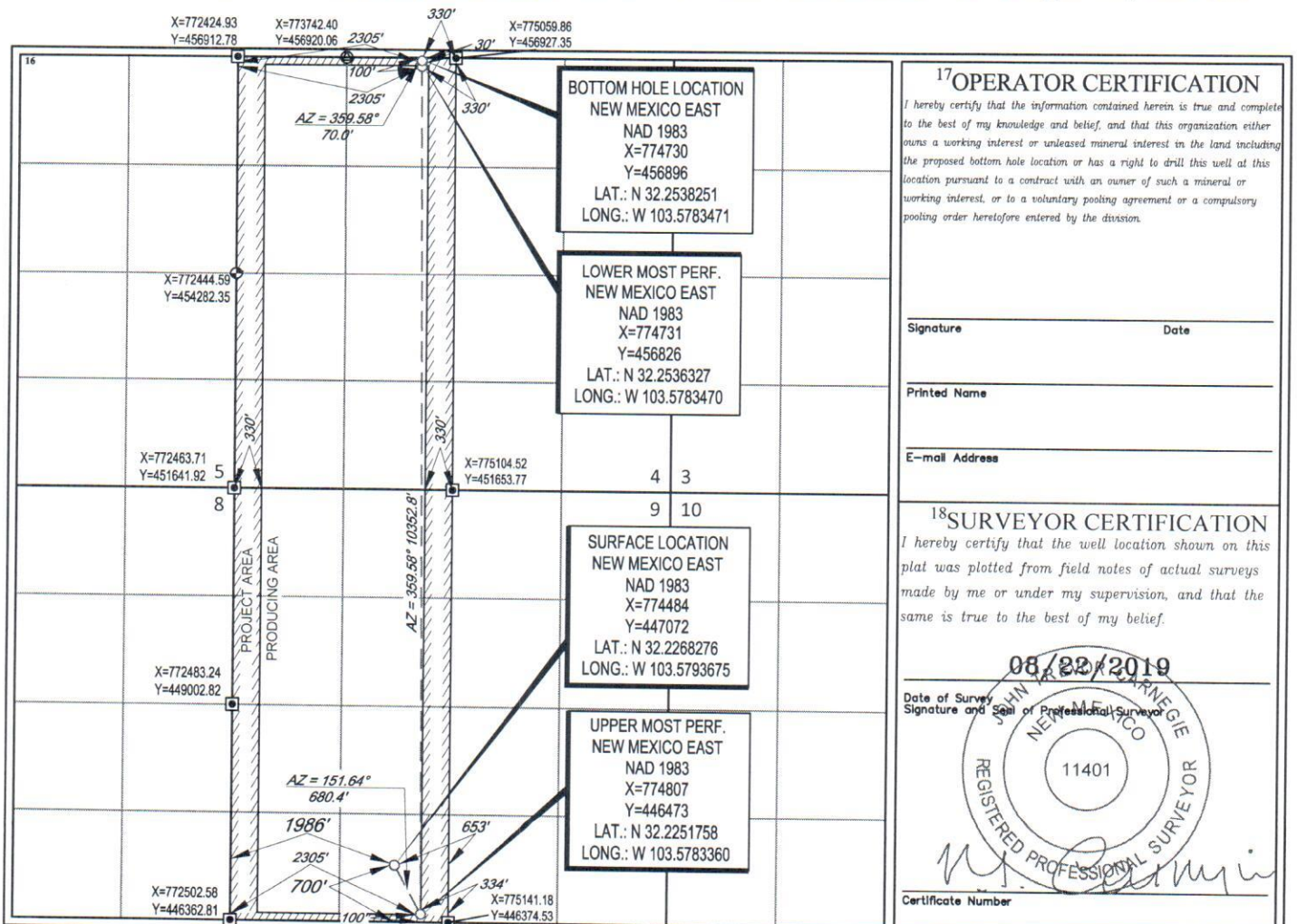
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 96674		³ Pool Name Triple X; Bone Spring, West	
⁴ Property Code		⁵ Property Name POSEIDON STATE COM			⁶ Well Number 187H
⁷ OGRID No. 372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 3600'
¹⁰ Surface Location					
UL or lot no. N	Section 9	Township 24-S	Range 33-E	Lot Idn -	Feet from the 700'
					North/South line SOUTH
					Feet from the 1986'
					East/West line WEST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. C	Section 4	Township 24-S	Range 33-E	Lot Idn -	Feet from the 30'
					North/South line NORTH
					Feet from the 2305'
					East/West line WEST
					County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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¹⁷OPERATOR 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 _____

¹⁸SURVEYOR 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.

Date of Survey _____ Signature _____

Seal of Professional Surveyor


11401

REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

Tract Map

Township 24 South, Range 33 East, Lea County New Mexico							
Tract One State Lease LG3175		Section 4					
Tract Two State Lease V04396		Section 9					
Tract Three State Lease V04096							


 State Lease



 Poseidon
Horizontal
Spacing Unit



EXHIBIT 2

Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 2
Case No. 21062

Tract List



Tract #	Legal	Mineral Ownership Type	Lease Number	Owner
1	W/2 of Section 4, T24S R33E	State	LG3175	Murchison Oil and Gas, Inc. Committed Working Interest
2	NW/4 & N/2SW/4 of Section 9, T24S R33E	State	V04396	EOG Resources, Inc. Murchison Oil and Gas, Inc. Committed Working Interest
3	S/2SW/4 of Section 9, T24S R33E	State	V04096	Murchison Oil and Gas, Inc. Committed Working Interest

EXHIBIT

3

*final interest subject to division order title verification

Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 3
Case No. 21062

Unit Interest Breakdown*



Entity	Interest Type	Approximate Percentage
Tap Rock Resources, LLC	Working Interest	74.873533%
Voluntary Joinder	Working Interest	2.849976%
Murchison Oil and Gas, Inc.	Uncommitted Working Interest	5.599924%
EOG Resources, Inc.	Uncommitted Working Interest	16.676567%

Overriding Royalty Interest
EOG Resources Assets, LLC
Devon Energy Production Company LP
Murchison Oil and Gas, Inc.
JD Murchison Interests, Inc.

EXHIBIT

7

*final interest subject to division order title verification

Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 4
Case No. 21062

Summary of Communication



Murchison Oil and Gas, Inc.	10/25/19 - Sent well proposals. 11/4/19 – Murchison acknowledges receipt of proposals, asks general questions. Tap Rock provides answers.
EOG Resources, Inc.	5/8/19 to Present, parties agree to work together on trade deal. 10/25/19 - Sent well proposals. 1/31/20 – Parties agree to trade, working towards executing a Letter Agreement.

EXHIBIT

5A

Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 6
Case No. 21062



October 24, 2019

Via Certified Mail

Murchison Oil & Gas, Inc.
Attn: Land Department
7250 Dallas Parkway, Suite 1400
Plano, TX 75024

**Re: Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H Well Proposals
Township 24 South, Range 33 East, W/2 of Sections 4 & 9
Lea County, New Mexico (the "Wells")**

Tap Rock Operating, LLC (TRO), as successor Operator, hereby proposes to drill the following Wells under that certain Operating Agreement dated April 1, 1979 by and between Getty Oil Company, as Operator and Gulf Oil Corporation et. al. as Non-Operators (the "1979 OA") and that certain Operating Agreement dated December 1, 1992 (the "1992 OA") by and between Enron Oil and Gas Company, as Operator, and Santa Fe Energy Resources, Inc., as Non-Operator. Accordingly, enclosed are AFEs dated August 29, 2019 for the following Wells:

Well Name	Surface Hole Location (SHL)	Bottom Hole Location (BHL)	Formation	True Vertical Depth	Measured Depth
Poseidon State Com #101H	706' FSL & 178' FWL of Section 9	30' FNL & 331' FWL of Section 4	Avalon	9,522'	20,182'
Poseidon State Com #102H	760' FSL & 1,781' FWL of Section 9	30' FNL & 1,650' FWL of Section 4	Avalon	9,499'	20,159'
Poseidon State Com #105H	347' FSL & 1,190' FWL of Section 9	30' FNL & 990' FWL of Section 4	Avalon	9,522'	20,182'
Poseidon State Com #107H	725' FSL & 1,986' FWL of Section 9	30' FNL & 2,305' FWL of Section 4	Avalon	9,475'	20,135'
Poseidon State Com #171H	322' FSL & 1,165' FWL of Section 9	30' FNL & 660' FWL of Section 4	Avalon	9,802'	20,462'
Poseidon State Com #172H	700' FSL & 1,961' FWL of Section 9	30' FNL & 1,780' FWL of Section 4	Avalon	9,785'	20,445'
Poseidon State Com #175H	760' FSL & 1,756' FWL of Section 9	30' FNL & 1,320' FWL of Section 4	Avalon	9,794'	20,454'
Poseidon State Com #181H	681' FSL & 178' FWL of Section 9	30' FNL & 331' FWL of Section 4	Avalon	10,104'	20,764'
Poseidon State Com #182H	735' FSL & 1,781' FWL of Section 9	30' FNL & 1,650' FWL of Section 4	Avalon	10,073'	20,733'
Poseidon State Com #185H	322' FSL & 1,190' FWL of Section 9	30' FNL & 990' FWL of Section 4	Avalon	10,104'	20,764'
Poseidon State Com #187H	700' FSL & 1,986' FWL of Section 9	30' FNL & 2,305' FWL of Section 4	Avalon	10,041'	20,701'



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. A separate AFE for facility costs is forthcoming. Your election to participate in the drilling and completion of the proposed wells will also be considered an election to participate in the construction of the production facility.

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 1979 OA and the 1992 OA. However, to simplify the records pertaining to the Wells, TRO submits the enclosed superseding AAPL Form 610-1989 Operating Agreement to cover all future development related to the W/2 of Sections 4 & 9, Township 24 South, Range 33 East, Lea County, New Mexico.

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

Sincerely,

TAP ROCK OPERATING, LLC

Erica Hixson

Erica Hixson

Landman

Office: 720-460-3316

ehixson@taprk.com



Murchison Oil & Gas, Inc. hereby elects to:

_____ participate in the Poseidon State Com #101H

_____ non-consent the Poseidon State Com #101H

_____ participate in the Poseidon State Com #102H

_____ non-consent the Poseidon State Com #102H

_____ participate in the Poseidon State Com #105H

_____ non-consent the Poseidon State Com #105H

_____ participate in the Poseidon State Com #107H

_____ non-consent the Poseidon State Com #107H

_____ participate in the Poseidon State Com #171H

_____ non-consent the Poseidon State Com #171H

_____ participate in the Poseidon State Com #172H

_____ non-consent the Poseidon State Com #172H

_____ participate in the Poseidon State Com #175H

_____ non-consent the Poseidon State Com #175H

_____ participate in the Poseidon State Com #181H

_____ non-consent the Poseidon State Com #181H

_____ participate in the Poseidon State Com #182H

_____ non-consent the Poseidon State Com #182H

_____ participate in the Poseidon State Com #185H

_____ non-consent the Poseidon State Com #185H

_____ participate in the Poseidon State Com #187H

_____ non-consent the Poseidon State Com #187H

By: _____

Name: _____

Title: _____

Date: _____

TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 101H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20182 / 9522
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot lateral.

INTANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
1 1	Land - Legal	10,000
1 2	Land - Regulatory	5,000
1 3	Land - Surface Damages	20,000
1 4	Land - Survey	10,000
1 5	Location/Pit Construction	140,000
1 6	Remedial Dirtwork	0
1 7	Reserve/Frac Pit Closing	0
1 8	Drilling - Contractor	470,775
1 9	Mob/Rig Up - Contractor/Trucking	123,250
1 10	Cementing Services	0
1 11	Cementing Equipment	0
1 12	Bits/Drill Out Assemblies	0
1 13	Fluid Circulation Equipment/Services	82,123
1 14	Fluids/Chemicals	50,000
1 15	WBM Cuttings/Wastewater Disposal	275,670
1 16	OBM Cuttings/Chemical Disposal	0
1 17	Fuel/Power	120,492
1 18	Water	0
1 19	Directional Drilling	200,533
1 20	Mud Logging	18,328
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	108,443
1 26	Freight/Transportation	20,000
1 27	Labor	0
1 28	Supplies - Surface	2,500
1 29	Supplies - Living Quarters	1,000
1 30	Rentals - Surface	51,566
1 31	Rentals - Living Quarters	27,713
1 32	Rentals - Downhole	0
1 33	Rentals - Pipe & Handling Tools	0
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	9,549
1 54	Insurance	36,328
1 55	Contingency	89,163
TOTAL INTANGIBLE DRILLING COSTS:		\$1,872,432

INTANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
2 1	Land - Legal	0
2 2	Land - Regulatory	0
2 3	Land - Surface Damages	0
2 4	Land - Survey	0
2 5	Location/Pit Construction	0
2 6	Remedial Dirtwork	0
2 7	Reserve/Frac Pit Closing	0
2 8	Drilling - Contractor	0
2 9	Mob/Rig Up - Contractor/Trucking	0
2 10	Cementing Services	0
2 11	Cementing Equipment	0
2 12	Bits/Drill Out Assemblies	140,586
2 13	Fluid Circulation Equipment/Services	0
2 14	Fluids/Chemicals	114,278
2 15	WBM Cuttings/Wastewater Disposal	0
2 16	OBM Cuttings/Chemical Disposal	0
2 17	Fuel/Power	662,500
2 18	Water	1,058,090
2 19	Directional Drilling	0
2 20	Mud Logging	0
2 21	Open/Cased/Production Hole Logs	10,550
2 22	Coring	0
2 23	Geologic Supervision	0
2 24	Engineering Supervision	0
2 25	Consultant Supervision	156,000
2 26	Freight/Transportation	4,110
2 27	Labor	22,190
2 28	Supplies - Surface	4,110
2 29	Supplies - Living Quarters	4,110
2 30	Rentals - Surface	50,030
2 31	Rentals - Living Quarters	42,490
2 32	Rentals - Downhole	0
2 33	Rentals - Pipe & Handling Tools	0
2 34	Rentals - Frac Stack	150,095
2 35	Rentals - Frac Tanks	95,800
2 36	Coil Tubing Unit/Workover Rig	309,444
2 37	Wireline/Slickline/Perforating	501,550
2 38	Temporary Packers/Plugs	78,000
2 39	High Pressure Pump Truck	152,200
2 40	Stimulation	3,155,274
2 41	Rentals - Pressure Control	0
2 42	Flowback Services	130,225
2 43	Water Transfer Services	172,125
2 44	Flowback Water Trucking & Disposal	141,788
2 45	Permanent Equipment Installation	0
2 46	Pipeline Tapping Services	0
2 47	Plugging & Abandonment	0
2 53	Overhead	31,650
2 54	Insurance	0
2 55	Contingency	560,956
TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151

INTANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
3 1	Land - Legal	0
3 2	Land - Regulatory	0
3 3	Land - Surface Damages	0
3 4	Land - Survey	0
3 5	Location/Pit Construction	5,000
3 6	Remedial Dirtwork	0
3 7	Reserve/Frac Pit Closing	0
3 8	Drilling - Contractor	0
3 9	Mob/Rig Up - Contractor/Trucking	0
3 10	Cementing Services	0
3 11	Cementing Equipment	0
3 12	Bits/Drill Out Assemblies	0
3 13	Fluid Circulation Equipment/Services	0
3 14	Fluids/Chemicals	0
3 15	WBM Cuttings/Wastewater Disposal	0
3 16	OBM Cuttings/Chemical Disposal	0
3 17	Fuel/Power	0
3 18	Water	0
3 19	Directional Drilling	0
3 20	Mud Logging	0
3 21	Open/Cased/Production Hole Logs	0
3 22	Coring	0
3 23	Geologic Supervision	0
3 24	Engineering Supervision	0
3 25	Consultant Supervision	20,000
3 26	Freight/Transportation	10,000
3 27	Labor	85,000
3 28	Supplies - Surface	0
3 29	Supplies - Living Quarters	0
3 30	Rentals - Surface	0
3 31	Rentals - Living Quarters	0
3 32	Rentals - Downhole	0
3 33	Rentals - Pipe & Handling Tools	0
3 34	Rentals - Frac Stack	0
3 35	Rentals - Frac Tanks	0
3 36	Coil Tubing Unit/Workover Rig	70,000
3 37	Wireline/Slickline/Perforating	0
3 38	Temporary Packers/Plugs	0
3 39	High Pressure Pump Truck	0
3 40	Stimulation	0
3 41	Rentals - Pressure Control	0
3 42	Flowback Services	0
3 43	Water Transfer Services	0
3 44	Flowback Water Trucking & Disposal	0
3 45	Permanent Equipment Installation	0
3 46	Pipeline Tapping Services	0
3 47	Plugging & Abandonment	0
3 53	Overhead	5,000
3 54	Insurance	0
3 55	Contingency	19,500
TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

TANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
4 60	Conductor Casing	0
4 61	Surface Casing	56,106
4 62	1st Intermediate Casing	155,550
4 63	2nd Intermediate Casing	0
4 64	Production Casing	378,413
4 65	Tubing	0
4 66	Wellhead	0
4 67	Permanent Packers/Hangers/Plugs	0
4 68	Tanks	0
4 69	Production Vessels	0
4 70	Compressors	0
4 71	Surface Flowlines	0
4 72	Gathering Lines	0
4 73	Valves & Controllers	0
4 74	Artificial Lift Equipment	0
4 75	Instrumentation & Measurement	0
4 76	Electrical Grounding/Safety Equipment	0
4 77	Permanent Equipment Installation	0
4 80	Other - Surface	0
4 81	Other - Downhole	0
TOTAL TANGIBLE DRILLING COSTS:		\$590,069
TOTAL DRILLING COSTS:		\$2,462,500

TANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
5 60	Conductor Casing	0
5 61	Surface Casing	0
5 62	1st Intermediate Casing	0
5 63	2nd Intermediate Casing	0
5 64	Production Casing	22,500
5 65	Tubing	0
5 66	Wellhead	40,000
5 67	Permanent Packers/Hangers/Plugs	0
5 68	Tanks	0
5 69	Production Vessels	0
5 70	Compressors	0
5 71	Surface Flowlines	0
5 72	Gathering Lines	0
5 73	Valves & Controllers	0
5 74	Artificial Lift Equipment	0
5 75	Instrumentation & Measurement	0
5 76	Electrical Grounding/Safety Equipment	0
5 77	Permanent Equipment Installation	0
5 80	Other - Surface	0
5 81	Other - Downhole	0
TOTAL TANGIBLE COMPLETION COSTS:		\$62,500
TOTAL COMPLETION COSTS:		\$7,810,651

TANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
6 60	Conductor Casing	0
6 61	Surface Casing	0
6 62	1st Intermediate Casing	0
6 63	2nd Intermediate Casing	0
6 64	Production Casing	0
6 65	Tubing	60,000
6 66	Wellhead	43,500
6 67	Permanent Packers/Hangers/Plugs	5,000
6 68	Tanks	0
6 69	Production Vessels	82,000
6 70	Compressors	0
6 71	Surface Flowlines	50,000
6 72	Gathering Lines	10,000
6 73	Valves & Controllers	0
6 74	Artificial Lift Equipment	35,000
6 75	Instrumentation & Measurement	0
6 76	Electrical Grounding/Safety Equipment	0
6 77	Permanent Equipment Installation	0
6 80	Other - Surface	0
6 81	Other - Downhole	0
TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL PRODUCTION COSTS:		\$500,000

TOTAL WELL COST: \$10,773,151

TAP ROCK RESOURCES COMPANY APPROVAL:

CEO _____ VP - EXPLORATION _____
CFO _____ VP - OPERATIONS _____
VP - LAND & LEGAL _____ SENIOR GEOLOGIST _____

N "FRAT" "ARTNER APPROVAL:

WO EXHIBIT

5B

TAP ROCK OPERATING, LLC

602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 102H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20159 / 9499
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	470,979	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	0	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	82,159	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	120,533	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	200,620	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,339	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	108,480	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,588	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,723	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack		2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks		2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig		2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating		2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs		2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck		2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation		2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control		2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services		2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services		2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal		2 44	Flowback Water Trucking & Disposal	141,788	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	9,553	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	36,286	2 54	Insurance		3 54	Insurance	
1 55	Contingency	89,184	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS:		\$1,872,863	TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151	TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	377,981	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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:		\$589,637	TOTAL TANGIBLE COMPLETION COSTS:		\$62,500	TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL DRILLING COSTS:		\$2,462,500	TOTAL COMPLETION COSTS:		\$7,810,651	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$10,773,151

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 (N): _____ DATE: _____
TAX ID: _____ APPROVAL: _____

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TAP ROCK OPERATING, LLC

602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 105H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20182 / 9522
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot lateral.

INTANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
1 1	Land - Legal	10,000
1 2	Land - Regulatory	5,000
1 3	Land - Surface Damages	20,000
1 4	Land - Survey	10,000
1 5	Location/Pit Construction	140,000
1 6	Remedial Dirtwork	0
1 7	Reserve/Frac Pit Closing	0
1 8	Drilling - Contractor	470,775
1 9	Mob/Rig Up - Contractor/Trucking	123,250
1 10	Cementing Services	0
1 11	Cementing Equipment	0
1 12	Bits/Drill Out Assemblies	0
1 13	Fluid Circulation Equipment/Services	82,123
1 14	Fluids/Chemicals	50,000
1 15	WBM Cuttings/Wastewater Disposal	275,670
1 16	OBM Cuttings/Chemical Disposal	0
1 17	Fuel/Power	120,492
1 18	Water	0
1 19	Directional Drilling	200,533
1 20	Mud Logging	18,328
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	108,443
1 26	Freight/Transportation	20,000
1 27	Labor	0
1 28	Supplies - Surface	2,500
1 29	Supplies - Living Quarters	1,000
1 30	Rentals - Surface	51,566
1 31	Rentals - Living Quarters	27,713
1 32	Rentals - Downhole	0
1 33	Rentals - Pipe & Handling Tools	0
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	9,549
1 54	Insurance	36,328
1 55	Contingency	89,163

TOTAL INTANGIBLE DRILLING COSTS: \$1,872,432

INTANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
2 1	Land - Legal	0
2 2	Land - Regulatory	0
2 3	Land - Surface Damages	0
2 4	Land - Survey	0
2 5	Location/Pit Construction	0
2 6	Remedial Dirtwork	0
2 7	Reserve/Frac Pit Closing	0
2 8	Drilling - Contractor	0
2 9	Mob/Rig Up - Contractor/Trucking	0
2 10	Cementing Services	0
2 11	Cementing Equipment	0
2 12	Bits/Drill Out Assemblies	140,586
2 13	Fluid Circulation Equipment/Services	0
2 14	Fluids/Chemicals	114,278
2 15	WBM Cuttings/Wastewater Disposal	0
2 16	OBM Cuttings/Chemical Disposal	0
2 17	Fuel/Power	662,500
2 18	Water	1,058,090
2 19	Directional Drilling	0
2 20	Mud Logging	0
2 21	Open/Cased/Production Hole Logs	10,550
2 22	Coring	0
2 23	Geologic Supervision	0
2 24	Engineering Supervision	0
2 25	Consultant Supervision	156,000
2 26	Freight/Transportation	4,110
2 27	Labor	22,190
2 28	Supplies - Surface	4,110
2 29	Supplies - Living Quarters	4,110
2 30	Rentals - Surface	50,030
2 31	Rentals - Living Quarters	42,490
2 32	Rentals - Downhole	0
2 33	Rentals - Pipe & Handling Tools	0
2 34	Rentals - Frac Stack	150,095
2 35	Rentals - Frac Tanks	95,800
2 36	Coil Tubing Unit/Workover Rig	309,444
2 37	Wireline/Slickline/Perforating	501,550
2 38	Temporary Packers/Plugs	78,000
2 39	High Pressure Pump Truck	152,200
2 40	Stimulation	3,155,274
2 41	Rentals - Pressure Control	0
2 42	Flowback Services	130,225
2 43	Water Transfer Services	172,125
2 44	Flowback Water Trucking & Disposal	141,788
2 45	Permanent Equipment Installation	0
2 46	Pipeline Tapping Services	0
2 47	Plugging & Abandonment	0
2 53	Overhead	31,650
2 54	Insurance	0
2 55	Contingency	560,956

TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151

INTANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
3 1	Land - Legal	0
3 2	Land - Regulatory	0
3 3	Land - Surface Damages	0
3 4	Land - Survey	0
3 5	Location/Pit Construction	5,000
3 6	Remedial Dirtwork	0
3 7	Reserve/Frac Pit Closing	0
3 8	Drilling - Contractor	0
3 9	Mob/Rig Up - Contractor/Trucking	0
3 10	Cementing Services	0
3 11	Cementing Equipment	0
3 12	Bits/Drill Out Assemblies	0
3 13	Fluid Circulation Equipment/Services	0
3 14	Fluids/Chemicals	0
3 15	WBM Cuttings/Wastewater Disposal	0
3 16	OBM Cuttings/Chemical Disposal	0
3 17	Fuel/Power	0
3 18	Water	0
3 19	Directional Drilling	0
3 20	Mud Logging	0
3 21	Open/Cased/Production Hole Logs	0
3 22	Coring	0
3 23	Geologic Supervision	0
3 24	Engineering Supervision	0
3 25	Consultant Supervision	20,000
3 26	Freight/Transportation	10,000
3 27	Labor	85,000
3 28	Supplies - Surface	0
3 29	Supplies - Living Quarters	0
3 30	Rentals - Surface	0
3 31	Rentals - Living Quarters	0
3 32	Rentals - Downhole	0
3 33	Rentals - Pipe & Handling Tools	0
3 34	Rentals - Frac Stack	0
3 35	Rentals - Frac Tanks	0
3 36	Coil Tubing Unit/Workover Rig	70,000
3 37	Wireline/Slickline/Perforating	0
3 38	Temporary Packers/Plugs	0
3 39	High Pressure Pump Truck	0
3 40	Stimulation	0
3 41	Rentals - Pressure Control	0
3 42	Flowback Services	0
3 43	Water Transfer Services	0
3 44	Flowback Water Trucking & Disposal	0
3 45	Permanent Equipment Installation	0
3 46	Pipeline Tapping Services	0
3 47	Plugging & Abandonment	0
3 53	Overhead	5,000
3 54	Insurance	0
3 55	Contingency	19,500

TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500

TANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
4 60	Conductor Casing	0
4 61	Surface Casing	56,106
4 62	1st Intermediate Casing	155,550
4 63	2nd Intermediate Casing	0
4 64	Production Casing	378,413
4 65	Tubing	0
4 66	Wellhead	0
4 67	Permanent Packers/Hangers/Plugs	0
4 68	Tanks	0
4 69	Production Vessels	0
4 70	Compressors	0
4 71	Surface Flowlines	0
4 72	Gathering Lines	0
4 73	Valves & Controllers	0
4 74	Artificial Lift Equipment	0
4 75	Instrumentation & Measurement	0
4 76	Electrical Grounding/Safety Equipment	0
4 77	Permanent Equipment Installation	0
4 80	Other - Surface	0
4 81	Other - Downhole	0

TOTAL TANGIBLE DRILLING COSTS: \$590,069

TOTAL DRILLING COSTS: \$2,462,500

TANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
5 60	Conductor Casing	0
5 61	Surface Casing	0
5 62	1st Intermediate Casing	0
5 63	2nd Intermediate Casing	0
5 64	Production Casing	22,500
5 65	Tubing	0
5 66	Wellhead	40,000
5 67	Permanent Packers/Hangers/Plugs	0
5 68	Tanks	0
5 69	Production Vessels	0
5 70	Compressors	0
5 71	Surface Flowlines	0
5 72	Gathering Lines	0
5 73	Valves & Controllers	0
5 74	Artificial Lift Equipment	0
5 75	Instrumentation & Measurement	0
5 76	Electrical Grounding/Safety Equipment	0
5 77	Permanent Equipment Installation	0
5 80	Other - Surface	0
5 81	Other - Downhole	0

TOTAL TANGIBLE COMPLETION COSTS: \$62,500

TOTAL COMPLETION COSTS: \$7,810,651

TANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
6 60	Conductor Casing	0
6 61	Surface Casing	0
6 62	1st Intermediate Casing	0
6 63	2nd Intermediate Casing	0
6 64	Production Casing	0
6 65	Tubing	60,000
6 66	Wellhead	43,500
6 67	Permanent Packers/Hangers/Plugs	5,000
6 68	Tanks	0
6 69	Production Vessels	82,000
6 70	Compressors	0
6 71	Surface Flowlines	50,000
6 72	Gathering Lines	10,000
6 73	Valves & Controllers	0
6 74	Artificial Lift Equipment	35,000
6 75	Instrumentation & Measurement	0
6 76	Electrical Grounding/Safety Equipment	0
6 77	Permanent Equipment Installation	0
6 80	Other - Surface	0
6 81	Other - Downhole	0

TOTAL TANGIBLE PRODUCTION COSTS: \$285,500

TOTAL PRODUCTION COSTS: \$500,000

TOTAL WELL COST: \$10,773,151

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: _____

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TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 107H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20135 / 9475
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot lateral.

INTANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
1 1	Land - Legal	10,000
1 2	Land - Regulatory	5,000
1 3	Land - Surface Damages	20,000
1 4	Land - Survey	10,000
1 5	Location/Pit Construction	140,000
1 6	Remedial Dirtwork	0
1 7	Reserve/Frac Pit Closing	0
1 8	Drilling - Contractor	471,192
1 9	Mob/Rig Up - Contractor/Trucking	123,250
1 10	Cementing Services	0
1 11	Cementing Equipment	0
1 12	Bits/Drill Out Assemblies	0
1 13	Fluid Circulation Equipment/Services	82,196
1 14	Fluids/Chemicals	50,000
1 15	WBM Cuttings/Wastewater Disposal	275,670
1 16	OBM Cuttings/Chemical Disposal	0
1 17	Fuel/Power	120,576
1 18	Water	0
1 19	Directional Drilling	200,710
1 20	Mud Logging	18,350
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	108,519
1 26	Freight/Transportation	20,000
1 27	Labor	0
1 28	Supplies - Surface	2,500
1 29	Supplies - Living Quarters	1,000
1 30	Rentals - Surface	51,611
1 31	Rentals - Living Quarters	27,733
1 32	Rentals - Downhole	0
1 33	Rentals - Pipe & Handling Tools	0
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	9,558
1 54	Insurance	36,243
1 55	Contingency	89,205

TOTAL INTANGIBLE DRILLING COSTS: \$1,873,313

INTANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
2 1	Land - Legal	0
2 2	Land - Regulatory	0
2 3	Land - Surface Damages	0
2 4	Land - Survey	0
2 5	Location/Pit Construction	0
2 6	Remedial Dirtwork	0
2 7	Reserve/Frac Pit Closing	0
2 8	Drilling - Contractor	0
2 9	Mob/Rig Up - Contractor/Trucking	0
2 10	Cementing Services	0
2 11	Cementing Equipment	0
2 12	Bits/Drill Out Assemblies	140,586
2 13	Fluid Circulation Equipment/Services	0
2 14	Fluids/Chemicals	114,278
2 15	WBM Cuttings/Wastewater Disposal	0
2 16	OBM Cuttings/Chemical Disposal	0
2 17	Fuel/Power	662,500
2 18	Water	1,058,090
2 19	Directional Drilling	0
2 20	Mud Logging	0
2 21	Open/Cased/Production Hole Logs	10,550
2 22	Coring	0
2 23	Geologic Supervision	0
2 24	Engineering Supervision	0
2 25	Consultant Supervision	156,000
2 26	Freight/Transportation	4,110
2 27	Labor	22,190
2 28	Supplies - Surface	4,110
2 29	Supplies - Living Quarters	4,110
2 30	Rentals - Surface	50,030
2 31	Rentals - Living Quarters	42,490
2 32	Rentals - Downhole	0
2 33	Rentals - Pipe & Handling Tools	0
2 34	Rentals - Frac Stack	150,095
2 35	Rentals - Frac Tanks	95,800
2 36	Coil Tubing Unit/Workover Rig	309,444
2 37	Wireline/Slickline/Perforating	501,550
2 38	Temporary Packers/Plugs	78,000
2 39	High Pressure Pump Truck	152,200
2 40	Stimulation	3,155,274
2 41	Rentals - Pressure Control	0
2 42	Flowback Services	130,225
2 43	Water Transfer Services	172,125
2 44	Flowback Water Trucking & Disposal	141,788
2 45	Permanent Equipment Installation	0
2 46	Pipeline Tapping Services	0
2 47	Plugging & Abandonment	0
2 53	Overhead	31,650
2 54	Insurance	0
2 55	Contingency	560,956

TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151

INTANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
3 1	Land - Legal	0
3 2	Land - Regulatory	0
3 3	Land - Surface Damages	0
3 4	Land - Survey	0
3 5	Location/Pit Construction	5,000
3 6	Remedial Dirtwork	0
3 7	Reserve/Frac Pit Closing	0
3 8	Drilling - Contractor	0
3 9	Mob/Rig Up - Contractor/Trucking	0
3 10	Cementing Services	0
3 11	Cementing Equipment	0
3 12	Bits/Drill Out Assemblies	0
3 13	Fluid Circulation Equipment/Services	0
3 14	Fluids/Chemicals	0
3 15	WBM Cuttings/Wastewater Disposal	0
3 16	OBM Cuttings/Chemical Disposal	0
3 17	Fuel/Power	0
3 18	Water	0
3 19	Directional Drilling	0
3 20	Mud Logging	0
3 21	Open/Cased/Production Hole Logs	0
3 22	Coring	0
3 23	Geologic Supervision	0
3 24	Engineering Supervision	0
3 25	Consultant Supervision	20,000
3 26	Freight/Transportation	10,000
3 27	Labor	85,000
3 28	Supplies - Surface	0
3 29	Supplies - Living Quarters	0
3 30	Rentals - Surface	0
3 31	Rentals - Living Quarters	0
3 32	Rentals - Downhole	0
3 33	Rentals - Pipe & Handling Tools	0
3 34	Rentals - Frac Stack	0
3 35	Rentals - Frac Tanks	0
3 36	Coil Tubing Unit/Workover Rig	70,000
3 37	Wireline/Slickline/Perforating	0
3 38	Temporary Packers/Plugs	0
3 39	High Pressure Pump Truck	0
3 40	Stimulation	0
3 41	Rentals - Pressure Control	0
3 42	Flowback Services	0
3 43	Water Transfer Services	0
3 44	Flowback Water Trucking & Disposal	0
3 45	Permanent Equipment Installation	0
3 46	Pipeline Tapping Services	0
3 47	Plugging & Abandonment	0
3 53	Overhead	5,000
3 54	Insurance	0
3 55	Contingency	19,500

TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500

TANGIBLE DRILLING COSTS		
COST CODES	DESCRIPTION	AMOUNT
4 60	Conductor Casing	0
4 61	Surface Casing	56,106
4 62	1st Intermediate Casing	155,550
4 63	2nd Intermediate Casing	0
4 64	Production Casing	377,531
4 65	Tubing	0
4 66	Wellhead	0
4 67	Permanent Packers/Hangers/Plugs	0
4 68	Tanks	0
4 69	Production Vessels	0
4 70	Compressors	0
4 71	Surface Flowlines	0
4 72	Gathering Lines	0
4 73	Valves & Controllers	0
4 74	Artificial Lift Equipment	0
4 75	Instrumentation & Measurement	0
4 76	Electrical Grounding/Safety Equipment	0
4 77	Permanent Equipment Installation	0
4 80	Other - Surface	0
4 81	Other - Downhole	0

TOTAL TANGIBLE DRILLING COSTS: \$589,187

TOTAL DRILLING COSTS: \$2,462,500

TANGIBLE COMPLETION COSTS		
COST CODES	DESCRIPTION	AMOUNT
5 60	Conductor Casing	0
5 61	Surface Casing	0
5 62	1st Intermediate Casing	0
5 63	2nd Intermediate Casing	0
5 64	Production Casing	22,500
5 65	Tubing	0
5 66	Wellhead	40,000
5 67	Permanent Packers/Hangers/Plugs	0
5 68	Tanks	0
5 69	Production Vessels	0
5 70	Compressors	0
5 71	Surface Flowlines	0
5 72	Gathering Lines	0
5 73	Valves & Controllers	0
5 74	Artificial Lift Equipment	0
5 75	Instrumentation & Measurement	0
5 76	Electrical Grounding/Safety Equipment	0
5 77	Permanent Equipment Installation	0
5 80	Other - Surface	0
5 81	Other - Downhole	0

TOTAL TANGIBLE COMPLETION COSTS: \$62,500

TOTAL COMPLETION COSTS: \$7,810,651

TANGIBLE PRODUCTION COSTS		
COST CODES	DESCRIPTION	AMOUNT
6 60	Conductor Casing	0
6 61	Surface Casing	0
6 62	1st Intermediate Casing	0
6 63	2nd Intermediate Casing	0
6 64	Production Casing	0
6 65	Tubing	60,000
6 66	Wellhead	43,500
6 67	Permanent Packers/Hangers/Plugs	5,000
6 68	Tanks	0
6 69	Production Vessels	82,000
6 70	Compressors	0
6 71	Surface Flowlines	50,000
6 72	Gathering Lines	10,000
6 73	Valves & Controllers	0
6 74	Artificial Lift Equipment	35,000
6 75	Instrumentation & Measurement	0
6 76	Electrical Grounding/Safety Equipment	0
6 77	Permanent Equipment Installation	0
6 80	Other - Surface	0
6 81	Other - Downhole	0

TOTAL TANGIBLE PRODUCTION COSTS: \$285,500

TOTAL PRODUCTION COSTS: \$500,000

TOTAL WELL COST: \$10,773,151

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: _____

TAP ROCK OPERATING, LLC

602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 171H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20462 / 9802
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	468,290	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	0	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,689	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	119,988	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	199,474	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,197	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	107,989	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,293	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,597	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack		2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks		2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig		2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating		2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs		2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck		2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation		2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control		2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services		2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services		2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal		2 44	Flowback Water Trucking & Disposal	141,788	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	9,499	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	36,832	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,913	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS:		\$1,867,182	TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151	TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	383,663	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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:		\$595,319	TOTAL TANGIBLE COMPLETION COSTS:		\$62,500	TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL DRILLING COSTS:		\$2,462,500	TOTAL COMPLETION COSTS:		\$7,810,651	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$10,773,151

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 (N): _____ DATE: _____
TAX ID: _____ APPROVAL: _____

TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 172H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20445 / 9785
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	468,441	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	0	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,716	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	120,018	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	199,539	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,205	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	108,017	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,310	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,604	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack	0	2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks	0	2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig	0	2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating	0	2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs	0	2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck	0	2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation	0	2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control	0	2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services	0	2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services	0	2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal	0	2 44	Flowback Water Trucking & Disposal	141,788	3 44	Flowback Water Trucking & Disposal	
1 45	Permanent Equipment Installation	0	2 45	Permanent Equipment Installation		3 45	Permanent Equipment Installation	
1 46	Pipeline Tapping Services	0	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	9,502	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	36,801	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,929	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS: \$1,867,500			TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151			TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500		

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	383,344	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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: \$595,000			TOTAL TANGIBLE COMPLETION COSTS: \$62,500			TOTAL TANGIBLE PRODUCTION COSTS: \$285,500		
TOTAL DRILLING COSTS: \$2,462,500			TOTAL COMPLETION COSTS: \$7,810,651			TOTAL PRODUCTION COSTS: \$500,000		
TOTAL WELL COST: \$10,773,151								

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: _____

TAP ROCK OPERATING, LLC

602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 175H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20454 / 9794
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	468,361	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services		2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,702	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	120,002	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	199,505	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,201	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	108,002	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,301	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,601	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack		2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks		2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig		2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating		2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs		2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck		2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation		2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control		2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services		2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services		2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal		2 44	Flowback Water Trucking & Disposal	141,788	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	9,500	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	36,817	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,921	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS: \$1,867,332			TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151			TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500		

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	383,513	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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: \$595,169			TOTAL TANGIBLE COMPLETION COSTS: \$62,500			TOTAL TANGIBLE PRODUCTION COSTS: \$285,500		
TOTAL DRILLING COSTS: \$2,462,500			TOTAL COMPLETION COSTS: \$7,810,651			TOTAL PRODUCTION COSTS: \$500,000		
						TOTAL WELL COST: \$10,773,151		

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: _____

TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 181H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20764 / 10104
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot lateral.

INTANGIBLE DRILLING COSTS

COST CODES	DESCRIPTION	AMOUNT
1 1	Land - Legal	10,000
1 2	Land - Regulatory	5,000
1 3	Land - Surface Damages	20,000
1 4	Land - Survey	10,000
1 5	Location/Pit Construction	140,000
1 6	Remedial Dirtwork	0
1 7	Reserve/Frac Pit Closing	0
1 8	Drilling - Contractor	465,610
1 9	Mob/Rig Up - Contractor/Trucking	123,250
1 10	Cementing Services	0
1 11	Cementing Equipment	0
1 12	Bits/Drill Out Assemblies	0
1 13	Fluid Circulation Equipment/Services	81,222
1 14	Fluids/Chemicals	50,000
1 15	WBM Cuttings/Wastewater Disposal	275,670
1 16	OBM Cuttings/Chemical Disposal	0
1 17	Fuel/Power	119,444
1 18	Water	0
1 19	Directional Drilling	198,333
1 20	Mud Logging	18,055
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	107,500
1 26	Freight/Transportation	20,000
1 27	Labor	0
1 28	Supplies - Surface	2,500
1 29	Supplies - Living Quarters	1,000
1 30	Rentals - Surface	51,000
1 31	Rentals - Living Quarters	27,472
1 32	Rentals - Downhole	0
1 33	Rentals - Pipe & Handling Tools	0
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	9,444
1 54	Insurance	37,375
1 55	Contingency	88,644

TOTAL INTANGIBLE DRILLING COSTS: \$1,861,519

INTANGIBLE COMPLETION COSTS

COST CODES	DESCRIPTION	AMOUNT
2 1	Land - Legal	0
2 2	Land - Regulatory	0
2 3	Land - Surface Damages	0
2 4	Land - Survey	0
2 5	Location/Pit Construction	0
2 6	Remedial Dirtwork	0
2 7	Reserve/Frac Pit Closing	0
2 8	Drilling - Contractor	0
2 9	Mob/Rig Up - Contractor/Trucking	0
2 10	Cementing Services	0
2 11	Cementing Equipment	0
2 12	Bits/Drill Out Assemblies	140,586
2 13	Fluid Circulation Equipment/Services	0
2 14	Fluids/Chemicals	114,278
2 15	WBM Cuttings/Wastewater Disposal	0
2 16	OBM Cuttings/Chemical Disposal	0
2 17	Fuel/Power	662,500
2 18	Water	1,058,090
2 19	Directional Drilling	0
2 20	Mud Logging	0
2 21	Open/Cased/Production Hole Logs	10,550
2 22	Coring	0
2 23	Geologic Supervision	0
2 24	Engineering Supervision	0
2 25	Consultant Supervision	156,000
2 26	Freight/Transportation	4,110
2 27	Labor	22,190
2 28	Supplies - Surface	4,110
2 29	Supplies - Living Quarters	4,110
2 30	Rentals - Surface	50,030
2 31	Rentals - Living Quarters	42,490
2 32	Rentals - Downhole	0
2 33	Rentals - Pipe & Handling Tools	0
2 34	Rentals - Frac Stack	150,095
2 35	Rentals - Frac Tanks	95,800
2 36	Coil Tubing Unit/Workover Rig	309,444
2 37	Wireline/Slickline/Perforating	501,550
2 38	Temporary Packers/Plugs	78,000
2 39	High Pressure Pump Truck	152,200
2 40	Stimulation	3,155,274
2 41	Rentals - Pressure Control	0
2 42	Flowback Services	130,225
2 43	Water Transfer Services	172,125
2 44	Flowback Water Trucking & Disposal	141,788
2 45	Permanent Equipment Installation	0
2 46	Pipeline Tapping Services	0
2 47	Plugging & Abandonment	0
2 53	Overhead	31,650
2 54	Insurance	0
2 55	Contingency	560,956

TOTAL INTANGIBLE COMPLETION COSTS: \$7,748,151

INTANGIBLE PRODUCTION COSTS

COST CODES	DESCRIPTION	AMOUNT
3 1	Land - Legal	0
3 2	Land - Regulatory	0
3 3	Land - Surface Damages	0
3 4	Land - Survey	0
3 5	Location/Pit Construction	5,000
3 6	Remedial Dirtwork	0
3 7	Reserve/Frac Pit Closing	0
3 8	Drilling - Contractor	0
3 9	Mob/Rig Up - Contractor/Trucking	0
3 10	Cementing Services	0
3 11	Cementing Equipment	0
3 12	Bits/Drill Out Assemblies	0
3 13	Fluid Circulation Equipment/Services	0
3 14	Fluids/Chemicals	0
3 15	WBM Cuttings/Wastewater Disposal	0
3 16	OBM Cuttings/Chemical Disposal	0
3 17	Fuel/Power	0
3 18	Water	0
3 19	Directional Drilling	0
3 20	Mud Logging	0
3 21	Open/Cased/Production Hole Logs	0
3 22	Coring	0
3 23	Geologic Supervision	0
3 24	Engineering Supervision	0
3 25	Consultant Supervision	20,000
3 26	Freight/Transportation	0
3 27	Labor	85,000
3 28	Supplies - Surface	0
3 29	Supplies - Living Quarters	0
3 30	Rentals - Surface	0
3 31	Rentals - Living Quarters	0
3 32	Rentals - Downhole	0
3 33	Rentals - Pipe & Handling Tools	0
3 34	Rentals - Frac Stack	0
3 35	Rentals - Frac Tanks	0
3 36	Coil Tubing Unit/Workover Rig	70,000
3 37	Wireline/Slickline/Perforating	0
3 38	Temporary Packers/Plugs	0
3 39	High Pressure Pump Truck	0
3 40	Stimulation	0
3 41	Rentals - Pressure Control	0
3 42	Flowback Services	0
3 43	Water Transfer Services	0
3 44	Flowback Water Trucking & Disposal	0
3 45	Permanent Equipment Installation	0
3 46	Pipeline Tapping Services	0
3 47	Plugging & Abandonment	0
3 53	Overhead	5,000
3 54	Insurance	0
3 55	Contingency	19,500

TOTAL INTANGIBLE PRODUCTION COSTS: \$214,500

TANGIBLE DRILLING COSTS

COST CODES	DESCRIPTION	AMOUNT
4 60	Conductor Casing	0
4 61	Surface Casing	56,106
4 62	1st Intermediate Casing	155,550
4 63	2nd Intermediate Casing	0
4 64	Production Casing	389,325
4 65	Tubing	0
4 66	Wellhead	0
4 67	Permanent Packers/Hangers/Plugs	0
4 68	Tanks	0
4 69	Production Vessels	0
4 70	Compressors	0
4 71	Surface Flowlines	0
4 72	Gathering Lines	0
4 73	Valves & Controllers	0
4 74	Artificial Lift Equipment	0
4 75	Instrumentation & Measurement	0
4 76	Electrical Grounding/Safety Equipment	0
4 77	Permanent Equipment Installation	0
4 80	Other - Surface	0
4 81	Other - Downhole	0

TOTAL TANGIBLE DRILLING COSTS: \$600,981

TOTAL DRILLING COSTS: \$2,462,500

TANGIBLE COMPLETION COSTS

COST CODES	DESCRIPTION	AMOUNT
5 60	Conductor Casing	0
5 61	Surface Casing	0
5 62	1st Intermediate Casing	0
5 63	2nd Intermediate Casing	0
5 64	Production Casing	22,500
5 65	Tubing	0
5 66	Wellhead	40,000
5 67	Permanent Packers/Hangers/Plugs	0
5 68	Tanks	0
5 69	Production Vessels	0
5 70	Compressors	0
5 71	Surface Flowlines	0
5 72	Gathering Lines	0
5 73	Valves & Controllers	0
5 74	Artificial Lift Equipment	0
5 75	Instrumentation & Measurement	0
5 76	Electrical Grounding/Safety Equipment	0
5 77	Permanent Equipment Installation	0
5 80	Other - Surface	0
5 81	Other - Downhole	0

TOTAL TANGIBLE COMPLETION COSTS: \$62,500

TOTAL COMPLETION COSTS: \$7,810,651

TANGIBLE PRODUCTION COSTS

COST CODES	DESCRIPTION	AMOUNT
6 60	Conductor Casing	0
6 61	Surface Casing	0
6 62	1st Intermediate Casing	0
6 63	2nd Intermediate Casing	0
6 64	Production Casing	0
6 65	Tubing	60,000
6 66	Wellhead	43,500
6 67	Permanent Packers/Hangers/Plugs	5,000
6 68	Tanks	0
6 69	Production Vessels	82,000
6 70	Compressors	0
6 71	Surface Flowlines	50,000
6 72	Gathering Lines	10,000
6 73	Valves & Controllers	0
6 74	Artificial Lift Equipment	35,000
6 75	Instrumentation & Measurement	0
6 76	Electrical Grounding/Safety Equipment	0
6 77	Permanent Equipment Installation	0
6 80	Other - Surface	0
6 81	Other - Downhole	0

TOTAL TANGIBLE PRODUCTION COSTS: \$285,500

TOTAL PRODUCTION COSTS: \$500,000

TOTAL WELL COST: \$10,773,151

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: _____

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TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 182H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20733 / 10073
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	465,885	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	0	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,270	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	119,500	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	198,450	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,070	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	107,550	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,030	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,485	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack	0	2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks	0	2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig	0	2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating	0	2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs	0	2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck	0	2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation	0	2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control	0	2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services	0	2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services	0	2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal	0	2 44	Flowback Water Trucking & Disposal	141,788	3 44	Flowback Water Trucking & Disposal	
1 45	Permanent Equipment Installation	0	2 45	Permanent Equipment Installation		3 45	Permanent Equipment Installation	
1 46	Pipeline Tapping Services	0	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	9,450	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	37,319	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,671	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS:		\$1,862,100	TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151	TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	388,744	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing	0	5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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:		\$600,400	TOTAL TANGIBLE COMPLETION COSTS:		\$62,500	TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL DRILLING COSTS:		\$2,462,500	TOTAL COMPLETION COSTS:		\$7,810,651	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$10,773,151

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: _____

TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 185H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20764 / 10104
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	465,610	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services		2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,222	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	119,444	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	198,333	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,055	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	107,500	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,000	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,472	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack		2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks		2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig		2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating		2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs		2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck		2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation		2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control		2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services		2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services		2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal		2 44	Flowback Water Trucking & Disposal	141,788	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	9,444	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	37,375	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,644	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS:		\$1,861,519	TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151	TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	389,325	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing		5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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:		\$600,981	TOTAL TANGIBLE COMPLETION COSTS:		\$62,500	TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL DRILLING COSTS:		\$2,462,500	TOTAL COMPLETION COSTS:		\$7,810,651	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$10,773,151

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 (N): _____ DATE: _____
TAX ID: _____ APPROVAL: _____

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TAP ROCK OPERATING, LLC
602 Park Point Dr, Golden, Colorado 80401
Authorization For Expenditure

Name: Poseidon 187H
AFE #: 0
County: Lea
State: NM

Date: August 29, 2019
MD/TVD: 20701 / 10041
Lateral Length: 10210
Geologic Target: Avalon

Well Description: Drill, complete, and equip a horizontal Avalon well with a 10210 foot 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	5,000	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	10,000	2 4	Land - Survey		3 4	Land - Survey	
1 5	Location/Pit Construction	140,000	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	466,169	2 8	Drilling - Contractor		3 8	Drilling - Contractor	
1 9	Mob/Rig Up - Contractor/Trucking	123,250	2 9	Mob/Rig Up - Contractor/Trucking		3 9	Mob/Rig Up - Contractor/Trucking	
1 10	Cementing Services	0	2 10	Cementing Services		3 10	Cementing Services	
1 11	Cementing Equipment	0	2 11	Cementing Equipment		3 11	Cementing Equipment	
1 12	Bits/Drill Out Assemblies	0	2 12	Bits/Drill Out Assemblies	140,586	3 12	Bits/Drill Out Assemblies	
1 13	Fluid Circulation Equipment/Services	81,319	2 13	Fluid Circulation Equipment/Services		3 13	Fluid Circulation Equipment/Services	
1 14	Fluids/Chemicals	50,000	2 14	Fluids/Chemicals	114,278	3 14	Fluids/Chemicals	
1 15	WBM Cuttings/Wastewater Disposal	275,670	2 15	WBM Cuttings/Wastewater Disposal		3 15	WBM Cuttings/Wastewater Disposal	
1 16	OBM Cuttings/Chemical Disposal	0	2 16	OBM Cuttings/Chemical Disposal		3 16	OBM Cuttings/Chemical Disposal	
1 17	Fuel/Power	119,558	2 17	Fuel/Power	662,500	3 17	Fuel/Power	
1 18	Water	0	2 18	Water	1,058,090	3 18	Water	
1 19	Directional Drilling	198,571	2 19	Directional Drilling		3 19	Directional Drilling	
1 20	Mud Logging	18,085	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	107,602	2 25	Consultant Supervision	156,000	3 25	Consultant Supervision	20,000
1 26	Freight/Transportation	20,000	2 26	Freight/Transportation	4,110	3 26	Freight/Transportation	10,000
1 27	Labor	0	2 27	Labor	22,190	3 27	Labor	85,000
1 28	Supplies - Surface	2,500	2 28	Supplies - Surface	4,110	3 28	Supplies - Surface	
1 29	Supplies - Living Quarters	1,000	2 29	Supplies - Living Quarters	4,110	3 29	Supplies - Living Quarters	
1 30	Rentals - Surface	51,061	2 30	Rentals - Surface	50,030	3 30	Rentals - Surface	
1 31	Rentals - Living Quarters	27,498	2 31	Rentals - Living Quarters	42,490	3 31	Rentals - Living Quarters	
1 32	Rentals - Downhole	0	2 32	Rentals - Downhole	0	3 32	Rentals - Downhole	
1 33	Rentals - Pipe & Handling Tools	0	2 33	Rentals - Pipe & Handling Tools	0	3 33	Rentals - Pipe & Handling Tools	
1 34	Rentals - Frac Stack	0	2 34	Rentals - Frac Stack	150,095	3 34	Rentals - Frac Stack	
1 35	Rentals - Frac Tanks	0	2 35	Rentals - Frac Tanks	95,800	3 35	Rentals - Frac Tanks	
1 36	Coil Tubing Unit/Workover Rig	0	2 36	Coil Tubing Unit/Workover Rig	309,444	3 36	Coil Tubing Unit/Workover Rig	70,000
1 37	Wireline/Slickline/Perforating	0	2 37	Wireline/Slickline/Perforating	501,550	3 37	Wireline/Slickline/Perforating	
1 38	Temporary Packers/Plugs	0	2 38	Temporary Packers/Plugs	78,000	3 38	Temporary Packers/Plugs	
1 39	High Pressure Pump Truck	0	2 39	High Pressure Pump Truck	152,200	3 39	High Pressure Pump Truck	
1 40	Stimulation	0	2 40	Stimulation	3,155,274	3 40	Stimulation	
1 41	Rentals - Pressure Control	0	2 41	Rentals - Pressure Control		3 41	Rentals - Pressure Control	
1 42	Flowback Services	0	2 42	Flowback Services	130,225	3 42	Flowback Services	
1 43	Water Transfer Services	0	2 43	Water Transfer Services	172,125	3 43	Water Transfer Services	
1 44	Flowback Water Trucking & Disposal	0	2 44	Flowback Water Trucking & Disposal	141,788	3 44	Flowback Water Trucking & Disposal	
1 45	Permanent Equipment Installation	0	2 45	Permanent Equipment Installation		3 45	Permanent Equipment Installation	
1 46	Pipeline Tapping Services	0	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	9,456	2 53	Overhead	31,650	3 53	Overhead	5,000
1 54	Insurance	37,262	2 54	Insurance		3 54	Insurance	
1 55	Contingency	88,700	2 55	Contingency	560,956	3 55	Contingency	19,500
TOTAL INTANGIBLE DRILLING COSTS:		\$1,862,700	TOTAL INTANGIBLE COMPLETION COSTS:		\$7,748,151	TOTAL INTANGIBLE PRODUCTION COSTS:		\$214,500

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	56,106	5 61	Surface Casing		6 61	Surface Casing	
4 62	1st Intermediate Casing	155,550	5 62	1st Intermediate Casing		6 62	1st Intermediate Casing	
4 63	2nd Intermediate Casing	0	5 63	2nd Intermediate Casing		6 63	2nd Intermediate Casing	
4 64	Production Casing	388,144	5 64	Production Casing	22,500	6 64	Production Casing	
4 65	Tubing	0	5 65	Tubing		6 65	Tubing	60,000
4 66	Wellhead	0	5 66	Wellhead	40,000	6 66	Wellhead	43,500
4 67	Permanent Packers/Hangers/Plugs		5 67	Permanent Packers/Hangers/Plugs		6 67	Permanent Packers/Hangers/Plugs	5,000
4 68	Tanks		5 68	Tanks		6 68	Tanks	
4 69	Production Vessels		5 69	Production Vessels		6 69	Production Vessels	82,000
4 70	Compressors		5 70	Compressors		6 70	Compressors	
4 71	Surface Flowlines		5 71	Surface Flowlines		6 71	Surface Flowlines	50,000
4 72	Gathering Lines		5 72	Gathering Lines		6 72	Gathering Lines	10,000
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	35,000
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:		\$599,800	TOTAL TANGIBLE COMPLETION COSTS:		\$62,500	TOTAL TANGIBLE PRODUCTION COSTS:		\$285,500
TOTAL DRILLING COSTS:		\$2,462,500	TOTAL COMPLETION COSTS:		\$7,810,651	TOTAL PRODUCTION COSTS:		\$500,000
						TOTAL WELL COST:		\$10,773,151

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: _____

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,
LEA COUNTY, NEW MEXICO

Case No. 21062

AFFIDAVIT OF EMILY LANGE

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 applications and the geology involved.
3. This affidavit is submitted in connection with the filing by Tap Rock of the above-referenced compulsory pooling applications 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 the University of Southern California, which I completed in 2012. I am currently working towards a Master's degree in Geology at Southern Methodist University.
 - b. I have been employed as a petroleum geologist since 2013. I have worked in New Mexico since 2015.
5. **Exhibit 1** is a Project Locator Map depicting the location of the Horizontal Spacing Unit ("HSU") within the Delaware Basin. Within Sections 4 & 9 of 24S 33E, are the Poseidon

State Com 101H, 102H, 105H, 107H, 171H, 172H, 175H, 181H, 182H, 185H, 187H Wells (the "Wells").

6. **Exhibit ²9** is a Gun Barrel Diagram showing the planned Avalon horizontal spacing for the Wells. This diagram shows the projected development of the 11 Avalon Wells, spaced 660' away from the nearest well in the same zone, represented by beige circles. A nearby type log has been included (for log descriptions, see exhibit 11 below) to show approximate depths and reservoir quality of the selected landing zones. Also displayed are the nearby previously drilled wells, represented by green circles.

7. **Exhibit ³10** is a Bone Spring Structure Map. This map shows the location of the Poseidon HSU outlined by the red box. The surface/bottom hole location of the Wells are shown, zoomed in, to the right. The map is the top of the Bone Spring formation in sub-sea vertical depth. The contour intervals are 25 ft each. There is a monoclinial dip down to the south. The orientation of the Poseidon Wells will each be approximately along dip. There are 3 horizontal wells to the east that have targeted similar intervals. All the horizontal wells marked with green circles are Avalon producers. The vertical & horizontal wells controlling the structure map have the sub-sea vertical depth posted in pink. The subsequent cross-section from A-A' is also identified to locate our closest control on the reservoir properties for the Poseidon Wells. I do not observe any faulting, pinch-outs, or other geologic impediments or hazards to developing this targeted interval with a horizontal well.

8. **Exhibit ⁴11** is an Avalon Stratigraphic Cross-Section (flattened on the Bone Spring surface). All displayed type logs have a triple combo log (except for the 4th well on the far right, which doesn't have resistivity coverage across this interval). Track 1 has a gamma ray log with interpreted color fill for lithology and scaled from 0 to 200 api units and a caliper log scaled from

0 to 16. For gamma ray, the blue colors indicate carbonate, yellow to orange are sandstone/siltstones, and the darker browns are shale facies. For caliper, higher values indicate irregularities in hole diameter. Track 2 has the deep resistivity log, scaled from 0.2 ohmm to 2000 ohmm. The blue shading cutoff is at 50 ohmm or less to help identify the more siliciclastic rocks. Track 3 is the porosity track and contains the red neutron porosity curve and the blue density porosity curve, both scaled from 30% to -10%. The pink shading on the neutron porosity curve highlights anything greater than 15% to identify zones with increased clay content. The green shading on the density porosity curve highlights 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 Poseidon Wells. Simplified wellbores for the Poseidon Wells are on the cross-section showing the landing target intervals in the green shaded box. The targeted reservoir has a constant thickness of approximately 1000' and exhibits constant reservoir facies throughout the HSU.

9. **Exhibit ³/₂** is an Isopach map of the Gross Avalon interval. This map shows the location of the Poseidon HSU outlined by the red box. The surface/bottom hole location of the Poseidon Wells are shown, zoomed in, to the right. The anticipated gross thickness of the interval is 1000 ft throughout the HSU. The contour intervals are 25'. There are 3 horizontal wells to the east that have targeted similar intervals. All the horizontal wells marked with green circles are Avalon producers. The location of the previous cross-section from A-A' is also shown on this map.

10. 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.
11. **Exhibit ⁶~~13~~** shows a Simplified Wellbore Diagram for each of the Wells in the HSU and demonstrate that the first and last take points for each well will be standard.
12. The Exhibits to this Affidavit were prepared by me, or compiled from Tap Rock's company business records.
13. The granting of this Application is in the interests of conservation and the prevention of waste.
14. The foregoing is correct and complete to the best of my knowledge and belief.

FURTHER AFFIANT SAYETH NAUGHT

Emily Lange
EMILY LANGE

STATE OF COLORADO)
)ss
COUNTY OF JEFFERSON)

Subscribed to and sworn before me this 31st day of January, 2020.

ERICA ROCHELLE HIXSON
Notary Public
State of Colorado
Notary ID # 20174044145
My Commission Expires 10-24-2021

Erica Hixson
Notary Public

My Commission expires 10-24-2021.

Project Locator Map



Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 8
Case No. 21062

Gun Barrel - Bone Spring Target Zone Development



Poseidon Unit (W/2 Sec 9/4) Zeus Unit (E/2 Sec 9)

EOG RESOURCES INCORPORATED
JACKSON 10 STATE COM

30026347240000

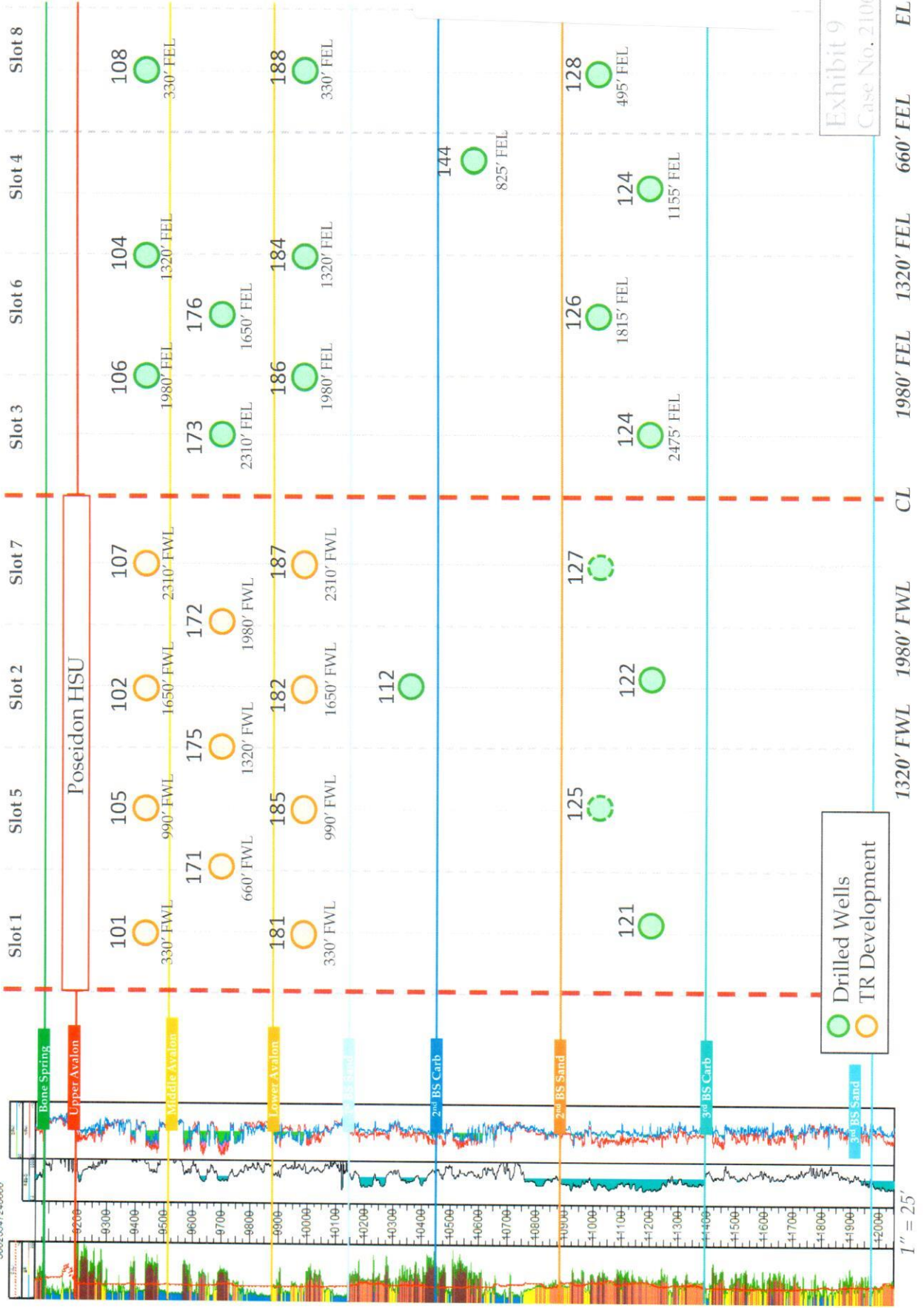


EXHIBIT 2

Exhibit 9
Case No. 21062

Subsea Structure Map (Top Bone Spring)

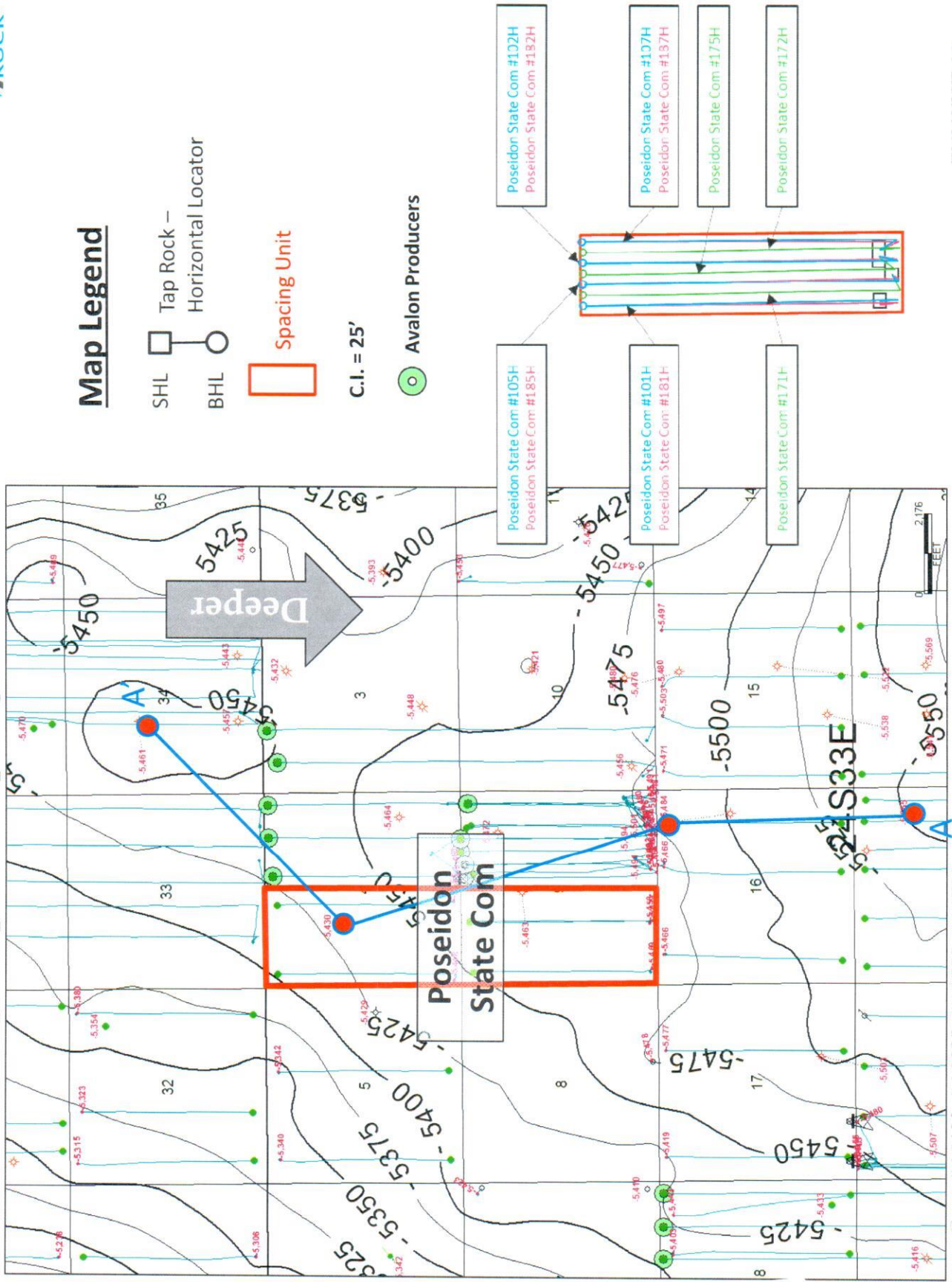


EXHIBIT 3

Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 10
Case No. 21062

Stratigraphic Cross-Section – A-A'

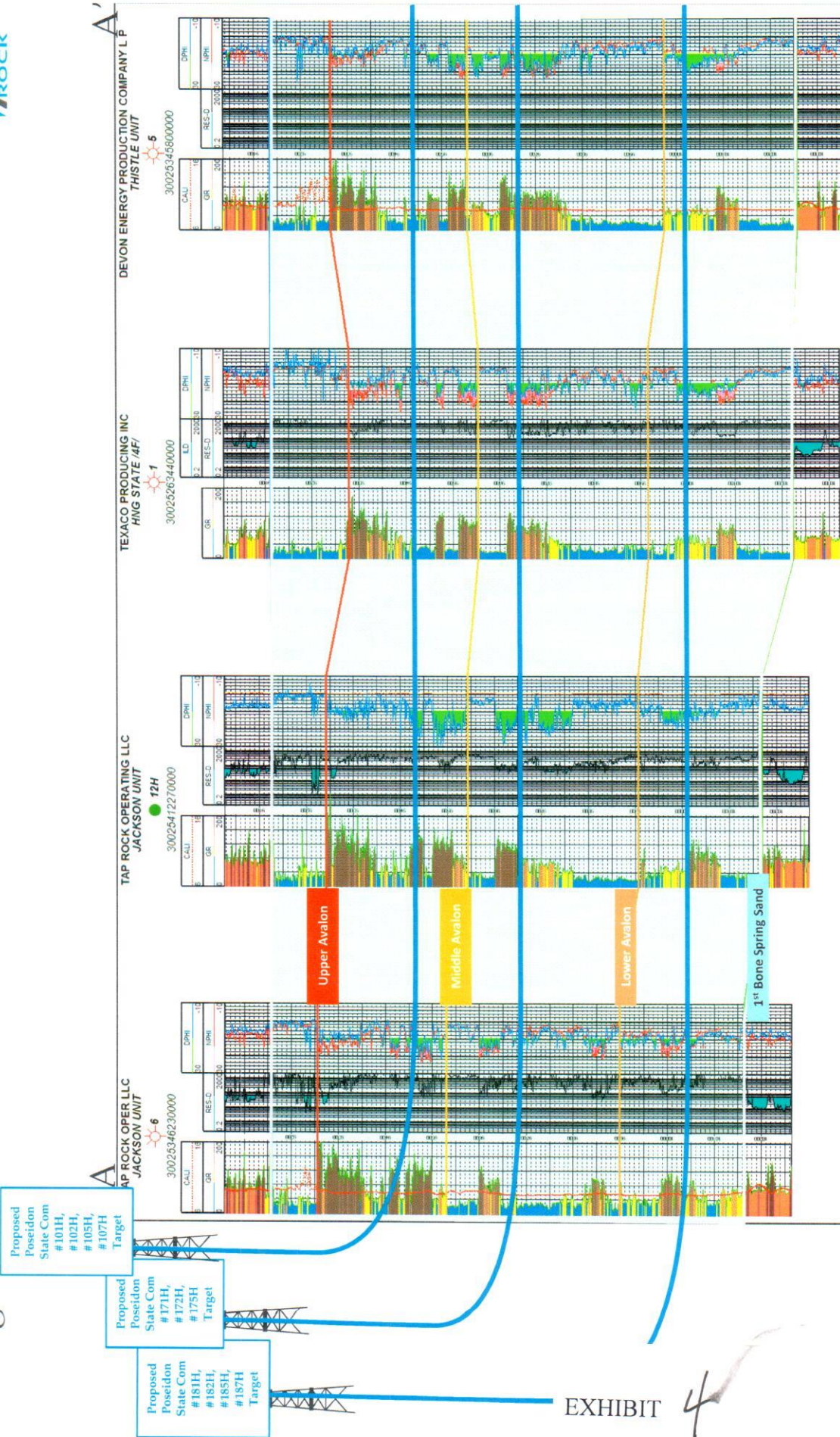


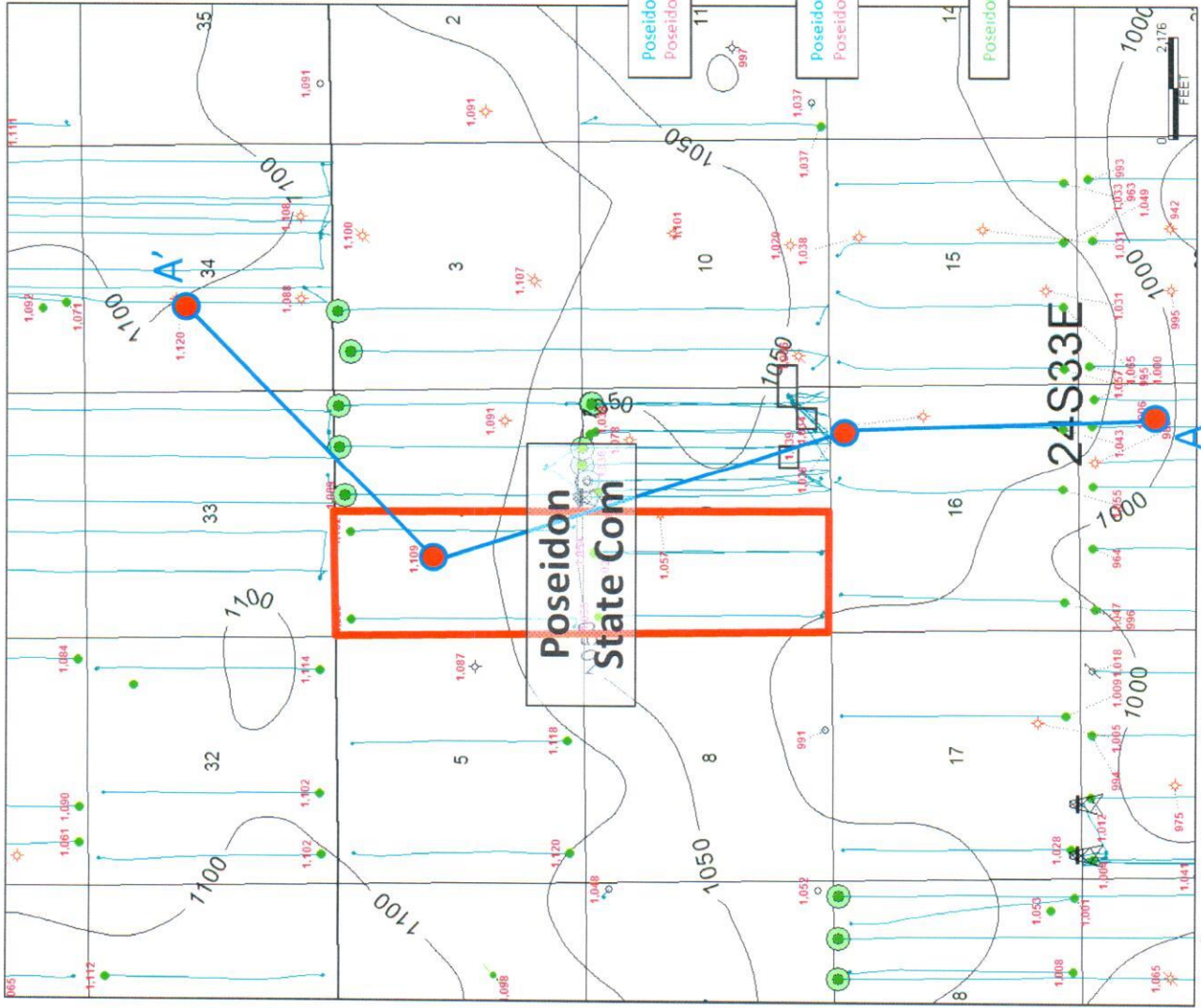
EXHIBIT 4

1" = 15'

Poseidon State Com #101H, #102H, #105H, #107H, #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 11
Case No. 21062

Isopach map (Gross Avalon Interval)



Map Legend

SHL Tap Rock –
Horizontal Locator
BHL

Spacing Unit

C.I. = 25'

Avalon Producers

Poseidon State Com #105H
Poseidon State Com #185H

Poseidon State Com #101H
Poseidon State Com #181H

Poseidon State Com #171H

Poseidon State Com #102H
Poseidon State Com #182H

Poseidon State Com #137H
Poseidon State Com #137H

Poseidon State Com #175H

Poseidon State Com #172H

EXHIBIT 5

Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 12
Case No. 21062

Poseidon State Com #101H (2 mile S-N Lateral)

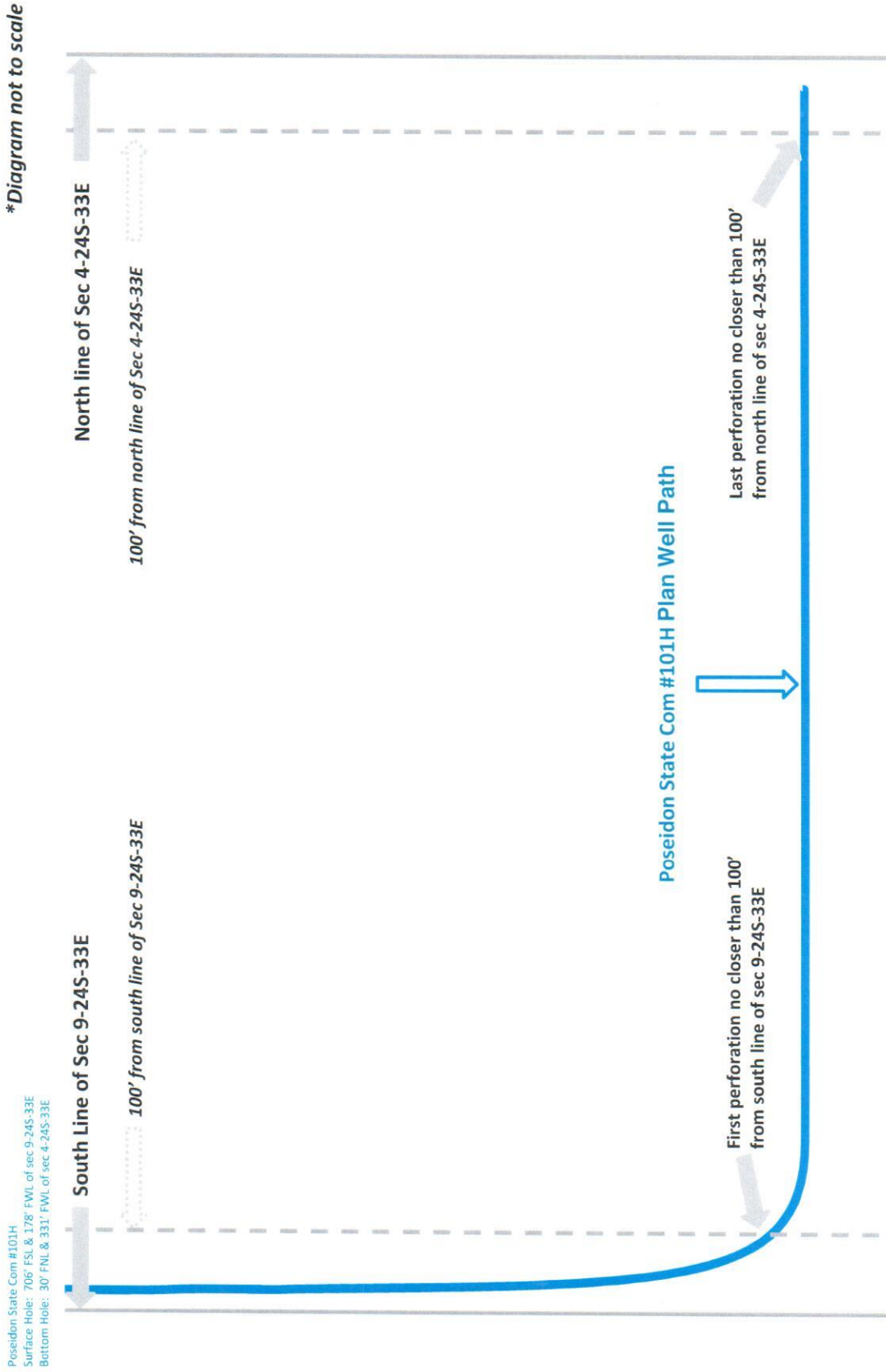


EXHIBIT 6

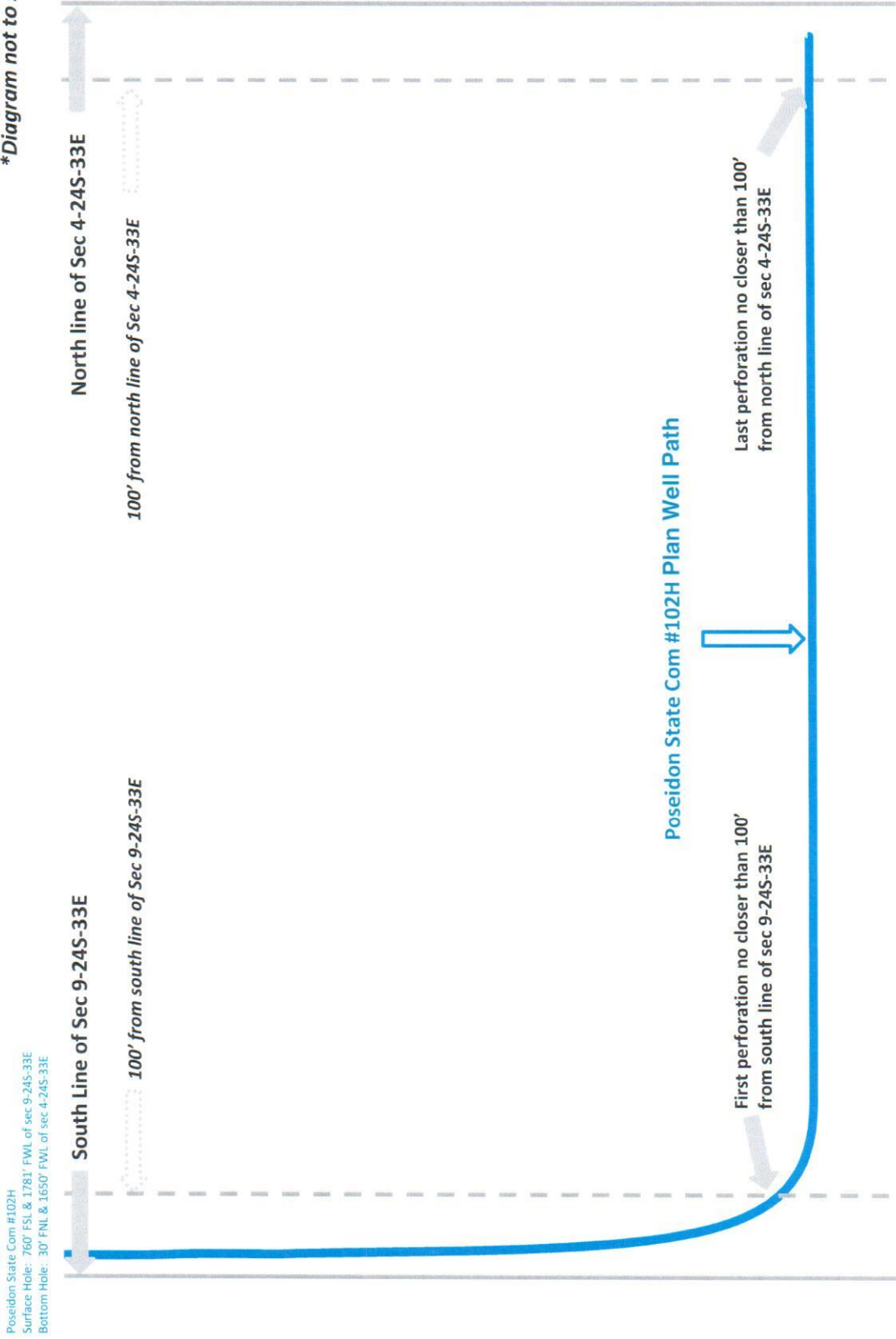
Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 13A
Case No. 21062

Poseidon State Com #102H (2 mile S-N Lateral)



**Diagram not to scale*



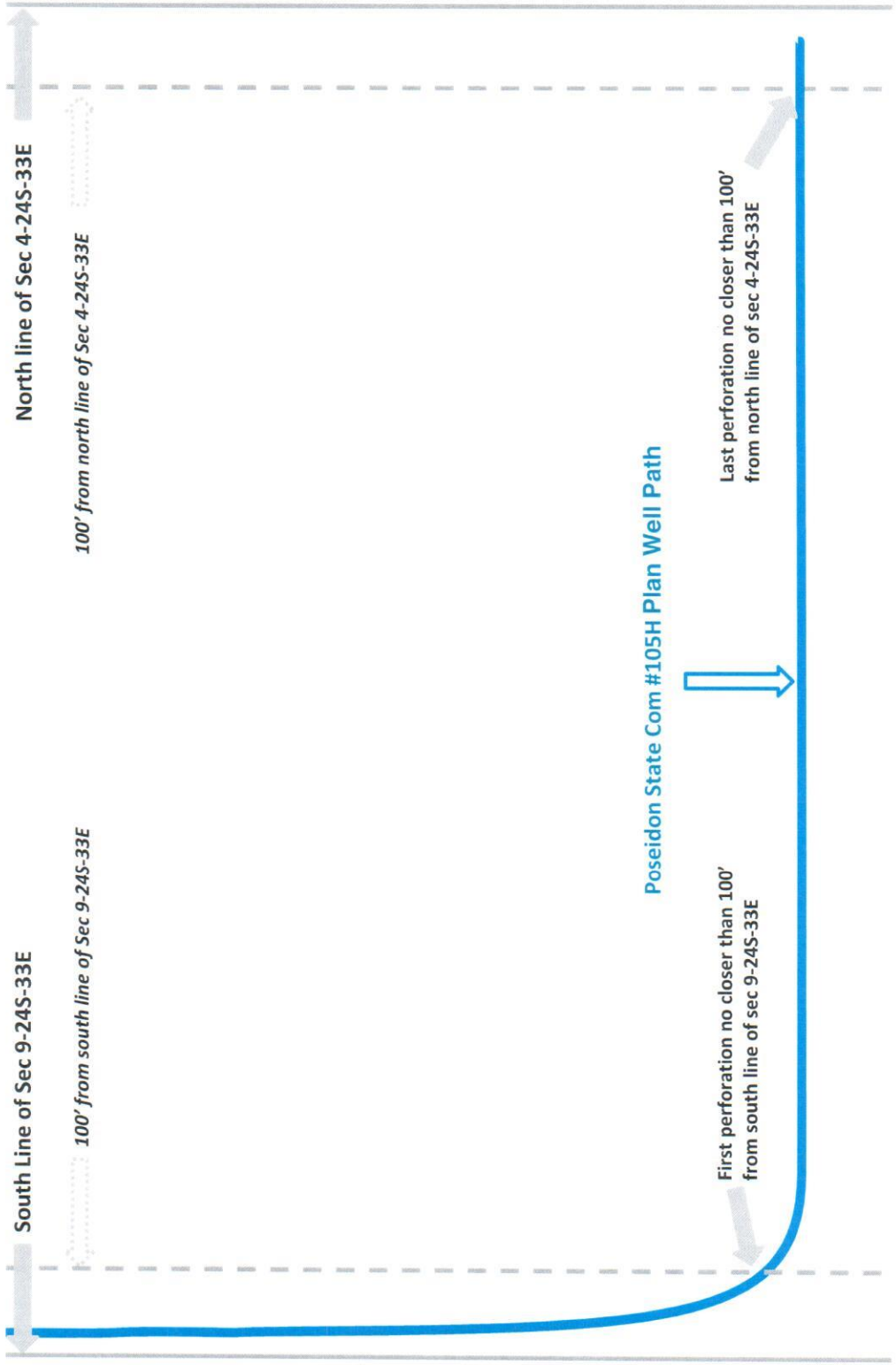
Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 13B
Case No. 21062

Poseidon State Com #105H (2 mile S-N Lateral)



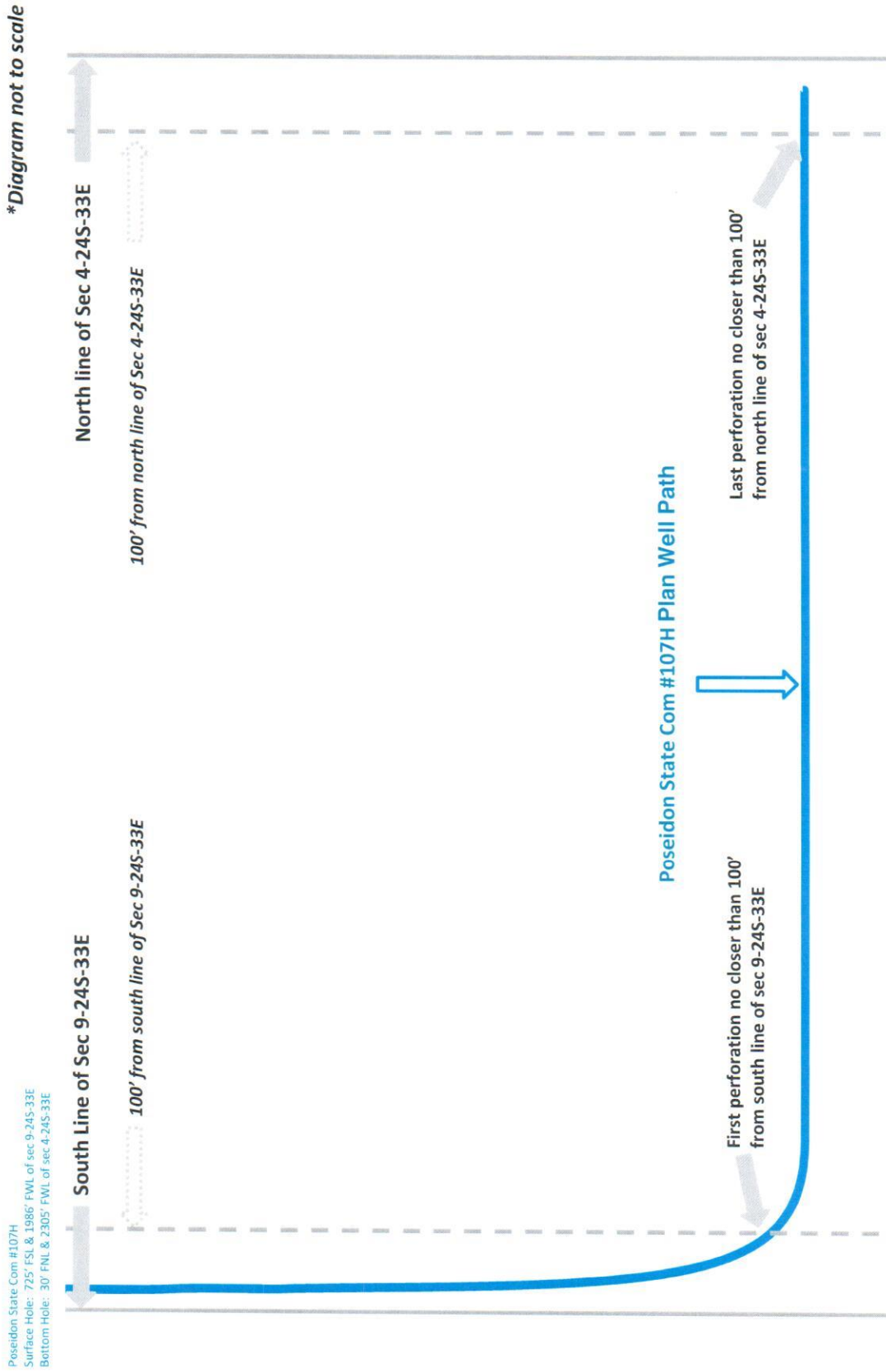
Poseidon State Com #105H
 Surface Hole: 347' FSL & 1190' FWL of sec 9-24S-33E
 Bottom Hole: 307' FNL & 990' FWL of sec 4-24S-33E



Poseidon State Com #101H, #102H, #105H, #107H,
 #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 13C
 Case No. 21062

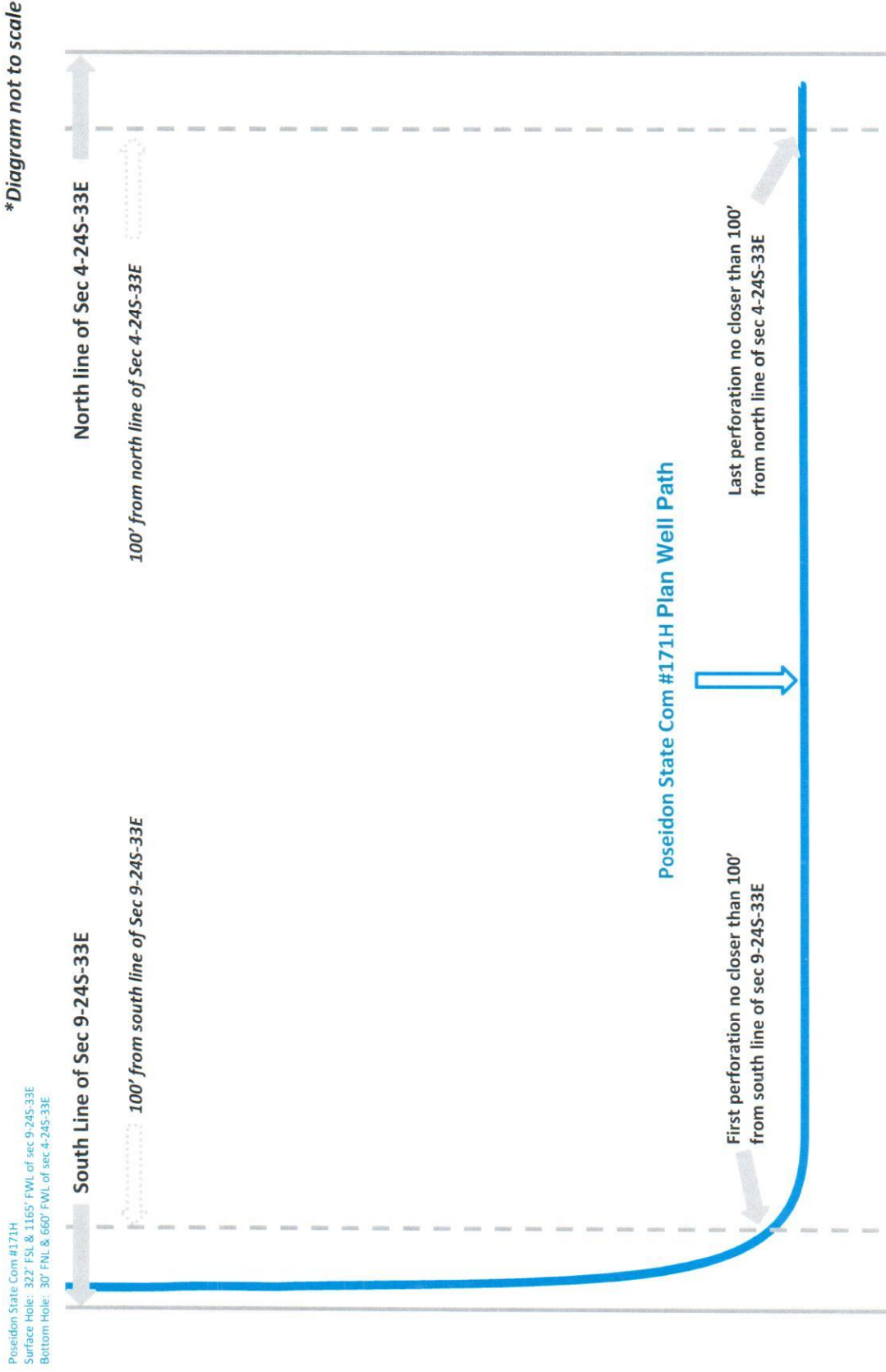
Poseidon State Com #107H (2 mile S-N Lateral)



Poseidon State Com #101H, #102H, #105H, #107H,
#171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 13D
Case No. 21062

Poseidon State Com #171H (2 mile S-N Lateral)



Poseidon State Com #101H, #102H, #105H, #107H,
 #171H, #172H, #175H, #181H, #182H, #185H, #187H

EXHIBIT 13E
 Case No. 21062

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(505) 982-2151 (Fax)

jamesbruc@aol.com

January 16, 2020

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

To: Persons on Exhibit A

Ladies and gentlemen:

Enclosed is an application for compulsory pooling, filed with the New Mexico Oil Conservation Division by Tap Rock Resources, LLC, regarding Bone Spring wells in the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico.

This case is scheduled for hearing at 8:15 a.m. on Thursday, February 6, 2020, in Porter Hall at the Division's offices at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an interest owner 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 contesting this matter at a later date.

A party appearing in a Division case is required by Division Rules to file a Pre-Hearing Statement no later than Wednesday, January 30, 2020. This statement must be filed with the Division's Santa Fe office at the above address, and should include: The names of the party and its attorney; a concise statement of the case; the names of the 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 need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to the undersigned.

Very truly yours,


James Bruce

Attorney for Tap Rock Resources, LLC

ATTACHMENT 

EXHIBIT A

Murchison Oil & Gas, Inc.
JD Murchison Interests, Inc.
Legacy Tower One
Suite 1400
7250 Dallas Parkway
Plano, Texas 75024

MEC Petroleum Corp.
P.O. Box 11265
Midland, Texas 79702

EOG Resources, Inc.
5509 Champions Drive
Midland, Texas 79706

Fulfer Oil & Cattle Company, LLC
P.O. Box 1224
Jal, New Mexico 88252

Mesa Southwest Energy, LLC
Suite 260W
8117 Preston Road
Dallas, Texas 75225

Devon Energy Production Company, L.P.
333 West Sheridan
Oklahoma City, Oklahoma 73102

5960 0027 0000 0497 6702

Domestic Mail Only
For delivery information, visit our website at www.usps.com

OFFICIAL USE

Domestic Mail Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
B. Received by (Printed Name) Randy Smith C. Date of Delivery 1-27-2020
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

1. Article Addressed to:
Devon Energy Production Company, L.P.
333 West Sheridan
Oklahoma City, Oklahoma 73102

2. Article Number 7019 1640 0000 1700
PS Form 3811, July 2015 PSN 7530-02-000-9053

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

4. Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage
\$
Total Postage and Fees
\$
Sent To
Fulfer Oil & Cattle Company, LLC
P.O. Box 1224
Jal, New Mexico 88252
City, State, ZIP+4
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

5960 0027 0000 0497 6702

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COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
B. Received by (Printed Name) Randy Smith C. Date of Delivery 1-27-2020
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

1. Article Addressed to:
Devon Energy Production Company, L.P.
333 West Sheridan
Oklahoma City, Oklahoma 73102

2. Article Number 7019 1640 0000 1700
PS Form 3811, July 2015 PSN 7530-02-000-9053

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

4. Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage
\$
Total Postage and Fees
\$
Sent To
Fulfer Oil & Cattle Company, LLC
P.O. Box 1224
Jal, New Mexico 88252
City, State, ZIP+4
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

5960 0027 0000 0497 6702

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COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
B. Received by (Printed Name) Jenny Edwards C. Date of Delivery 1-27-20
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

1. Article Addressed to:
Fulfer Oil & Cattle Company, LLC
P.O. Box 1224
Jal, New Mexico 88252

2. Article Number 7019 1640 0000 1700
PS Form 3811, July 2015 PSN 7530-02-000-9053

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

4. Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage
\$
Total Postage and Fees
\$
Sent To
Devon Energy Production Company, L.P.
333 West Sheridan
Oklahoma City, Oklahoma 73102
City, State, ZIP+4
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

5960 0027 0000 0497 6702

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Domestic Mail Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
B. Received by (Printed Name) Jenny Edwards C. Date of Delivery 1-27-20
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

1. Article Addressed to:
Fulfer Oil & Cattle Company, LLC
P.O. Box 1224
Jal, New Mexico 88252

2. Article Number 7019 1640 0000 1700
PS Form 3811, July 2015 PSN 7530-02-000-9053

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

4. Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage
\$
Total Postage and Fees
\$
Sent To
Devon Energy Production Company, L.P.
333 West Sheridan
Oklahoma City, Oklahoma 73102
City, State, ZIP+4
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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:

Murchison Oil & Gas, Inc.
JD Murchison Interests, Inc.
Legacy Tower One
Suite 1400
7250 Dallas Parkway
Plano, Texas 75024



9590 9402 4582 8278 6168 81

2. Art 7019 1640 0000 1700 8934

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

TR 803

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent
B. Received by (Printed Name) ☒ Addressee
C. Date of Delivery 7-31-10
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
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only**

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postage

Postmark
Here

Total Postage and Fees

Sent To MEC Petroleum Corp.
P.O. Box 11265
Midland, Texas 79702
Street and Apt. No., or P.O. Box
City, State, ZIP+4®

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

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:

MEC Petroleum Corp.
P.O. Box 11265
Midland, Texas 79702



9590 9402 4582 8278 6168 36

2. Article Number (Transfer from previous label)

7019 1640 0000 1700 8989

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

TR 803

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent
B. Received by (Printed Name) ☒ Addressee
C. Date of Delivery 7-31-10
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

803 11265

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☐ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Restricted Delivery

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Required \$
☐ Adult Signature Restricted Delivery \$

Postmark
Here

Murchison Oil & Gas, Inc.
JD Murchison Interests, Inc.
Legacy Tower One
Suite 1400
7250 Dallas Parkway
Plano, Texas 75024
Street and Apt. No., or P.O. Box
City, State, ZIP+4®

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

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:

EOG Resources, Inc.
5509 Champions Drive
Midland, Texas 79706



9590 9402 4582 8278 6168 43

2. Article (attach this card to the back of the mailpiece, or on the front if space permits)

7019 1640 0000 1700 8972

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

Domestic Return Receipt

TR pos

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only**

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Restricted \$
☐ Adult Signature Restricted Delivery \$
Postage \$

Total Postage and Fees \$

Sent To EOG Resources, Inc.
5509 Champions Drive
Midland, Texas 79706
Street and Apt. No., PO Box
City, State, ZIP+4®

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
X *Gina Aduddell*
B. Received by (Printed Name) *Gina Aduddell*
C. Date of Delivery *1/24/20*
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Priority Mail Express®
☐ Registered Mail™
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery
Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Restricted Delivery

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:

Mesa Southwest Energy, LLC
Suite 260W
8117 Preston Road
Dallas, Texas 75225



9590 9402 4582 8278 6168 67

2. Article Number (transfer from reverse) 7019 1640 0000 1700 8958

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

Domestic Return Receipt

TR pos

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only**

For delivery information, visit our website at www.usps.com

Certified Mail Fee \$
Extra Services & Fees (check box, add fee as appropriate)
☐ Return Receipt (hardcopy) \$
☐ Return Receipt (electronic) \$
☐ Certified Mail Restricted Delivery \$
☐ Adult Signature Restricted \$
☐ Adult Signature Restricted Delivery \$
Postage \$

Total Postage and Fees \$

Sent To Mesa Southwest Energy, LLC
Suite 260W
8117 Preston Road
Dallas, Texas 75225
Street and Apt. No., PO Box
City, State, ZIP+4®

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

See Reverse for Instructions

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
X *Gina Aduddell*
B. Received by (Printed Name) *Gina Aduddell*
C. Date of Delivery *2-4-2020*
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Priority Mail Express®
☐ Registered Mail™
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery
Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Restricted Delivery

(over \$500)

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

APPLICATIONS OF TAP ROCK RESOURCES,
LLC FOR COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.

Case No. 21062

SELF-AFFIRMED STATEMENT OF NOTICE

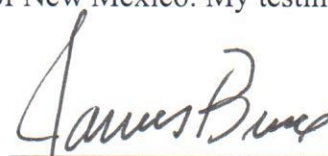
COUNTY OF SANTA FE)
) ss.
STATE OF NEW MEXICO)

James Bruce deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am an attorney for Tap Rock Resources, LLC.
3. Tap Rock Resources, LLC has conducted a good faith, diligent effort to find the names and correct addresses of the interest owners entitled to receive notice of the applications filed herein.
4. Notice of the applications was provided to the interest owners, at their last known addresses, by certified mail. Copies of the notice letter and certified return receipts are attached hereto as Attachment A.
5. Applicant has complied with the notice provisions of Division Rules.
6. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 5 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Date:

2/6/20



James Bruce

EXHIBIT

C

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Todd Bailey, Editor 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
January 26, 2020
and ending with the issue dated
January 26, 2020.

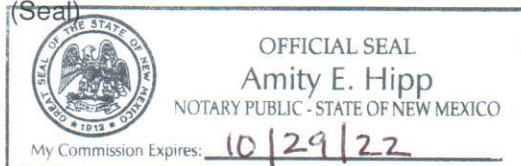

Editor

Sworn and subscribed to before me this
26th day of January 2020.


Circulation Clerk

My commission expires
October 29, 2022

(Seal)



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

LEGAL

LEGAL NOTICE JANUARY 26, 2020

To: Murchison Oil & Gas, Inc., JD Murchison Interests, Inc., MEC Petroleum Corp., EOG Resources, Inc., Fuller Oil & Cattle Company, LLC, Mesa Southwest Energy, LLC, and Devon Energy Production Company, L.P., or your successors or assigns: Tap Rock Resources, LLC seeks an order pooling all mineral interests in the Wolfcamp formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The unit will be dedicated to (a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and (b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4. Also to be considered will be the cost of drilling and completing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of Tap Rock Operating, LLC as operator of the wells, and a 200% charge for the risk involved in drilling and completing the wells. The application is scheduled to be heard at 8:15 a.m. on Thursday, February 6, 2020 at the Division's offices at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. As an interest owner to the well unit you have the right to enter an appearance and participate in the case. Failure to appear will preclude you from contesting this matter at a later date. The attorney for applicant is James Bruce, P.O. Box 1056, Santa Fe, New Mexico 87504. The unit is located approximately 24 miles west-northwest of Jal, New Mexico.
#35110

EXHIBIT

D

01101711

00238691

JAMES BRUCE
JAMES BRUCE, ATTORNEY AT LAW
P.O. BOX 1056
SANTA FE, NM 87504

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

**APPLICATION OF TAP ROCK RESOURCES,
LLC FOR COMPULSORY POOLING, LEA
COUNTY, NEW MEXICO.**

Case No. _____

APPLICATION

Tap Rock Resources, LLC applies for an order pooling all uncommitted mineral interests in the Bone Spring formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico, and in support thereof, states:

1. Applicant is a working interest owner in the W/2 of Section 4 and the W/2 of Section 9, and has the right to drill a well thereon.

2. Applicant proposes to drill the following wells to a depth sufficient to test the Bone Spring formation:

(a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and

(b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4.

The W/2 of Section 4 and the W/2 of Section 9 will be dedicated to the wells.

3. Applicant has in good faith sought to obtain voluntary joinder of all other mineral interest owners in the W/2 of Section 4 and the W/2 of Section 9.

EXHIBIT

E

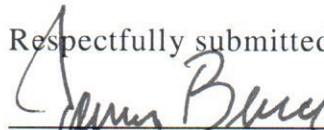
4. Although applicant attempted to obtain to obtain voluntary agreements from all mineral interest owners to participate in the drilling of the wells or to otherwise commit their interests to the wells., certain interest owners have failed or refused to join in dedicating their interests. Therefore, applicant seeks an order pooling all mineral interest owners in the Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9, pursuant to NMSA 1978 §70-2-17.

5. The pooling of mineral interests in the Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9 will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

WHEREFORE, applicant requests that, after notice and hearing, the Division enter its order:

- A. Pooling all uncommitted mineral interests in Bone Spring formation underlying the W/2 of Section 4 and the W/2 of Section 9;
- B. Designating Tap Rock Operating, LLC as operator of the well;
- C. Considering the cost of drilling and completing the wells, and allocating the costs thereof among the wells' working interest owners;
- D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure; and
- E. Setting a 200% charge for the risk assumed by applicant in drilling and completing the wells in the event a working interest owner elects not to participate in the wells.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James Bruce", is written over a horizontal line.

James Bruce
Post Office Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

jamesbruc@aol.com

Attorney for Tap Rock Resources, LLC

PROPOSED ADVERTISEMENT

Case No. _____:

Application of Tap Rock Resources, LLC for a compulsory pooling, Lea County, New Mexico.

Tap Rock Resources, LLC seeks an order pooling all mineral interests in the Bone Spring formation underlying a (proximity tract) horizontal spacing unit comprised of the W/2 of Section 4 and the W/2 of Section 9, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The unit will be dedicated to (a) the Poseidon State Com. Well Nos. 101H, 105H, 171H, 181H, and 185H, with first take points in the SW/4SW/4 of Section 9 and last take points in the NW/4NW/4 of Section 4; and (b) the Poseidon State Com. Well Nos. 102H, 107H, 172H, 175H, 182H, and 187H, with first take points in the SE/4SW/4 of Section 9 and last take points in the NE/4NW/4 of Section 4. Also to be considered will be the cost of drilling and completing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of Tap Rock Operating, LLC as operator of the wells, and a 200% charge for the risk involved in drilling and completing the wells. The unit is located approximately 24 miles west-northwest of Jal, New Mexico.

COMPULSORY POOLING APPLICATION CHECKLIST

ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case:	21062
Date	February 20, 2020
Applicant	Tap Rock Resources, LLC
Designated Operator & OGRID (affiliation if applicable)	Tap Rock Operating, LLC/OGRID No. 372043 The operator is the operating entity for applicant
Applicant's Counsel:	James Bruce
Case Title:	Application of Tap Rock Resources, LLC for Compulsory Pooling, Lea County, New Mexico
Entries of Appearance/Intervenors:	EOG Resources, Inc./Holland & Hart, LP
Well Family	Poseidon State Com. Well Nos. 101H, 102H, 105H, 107H, 171H, 172H, 175H, 181H, 182H, 185H, and 187H
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring formation
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Entire Bone Spring formation
Pool Name and Pool Code:	Triple X; Bone Spring, West/96674
Well Location Setback Rules:	Statewide rules and current horizontal well rules
Spacing Unit Size:	Quarter-quarter Sections/40 acres
Spacing Unit	
Type (Horizontal/Vertical)	Vertical
Size (Acres)	640 acres
Building Blocks:	40 acres
Orientation:	South-North
Description: TRS/County	W/2 §4 and W/2 §9-24S-33E, NMPM, Lea County
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	No
Proximity Tracts: If yes, description	Yes. See above
Proximity Defining Well: if yes, description	Poseidon State Com. Well Nos. 175H
Applicant's Ownership in Each Tract	Exhibits A-3 and A-4
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Poseidon State Com. Well Nos. 101H/API No. 30-025-PENDING SHL: 706 FSL & 178 FWL §9 BHL: 30 FNL & 331 FWL §4 FTP: 100 FSL & 331 FWL §9 LTP: 100 FNL & 331 FWL §4 Avalon Bone Spring/TVD 9522 feet/MD 20182 feet

EXHIBIT

F

Poseidon State Com. Well Nos. 102H/API No. 30-025-PENDING
SHL: 760 FSL & 1781 FWL §9
BHL: 30 FNL & 1650 FWL §4
FTP: 100 FSL & 1650 FWL §9
LTP: 100 FNL & 1650 FWL §4
Avalon Bone Spring/TVD 9499 feet/MD 20159 feet

Poseidon State Com. Well Nos. 105H/API No. 30-025-PENDING
SHL: 347 FSL & 1190 FWL §9
BHL: 30 FNL & 990 FWL §4
FTP: 100 FSL & 990 FWL §9
LTP: 100 FNL & 990 FWL §4
Avalon Bone Spring/TVD 9522 feet/MD 20182 feet

Poseidon State Com. Well Nos. 107H/API No. 30-025-PENDING
SHL: 725 FSL & 1986 FWL §9
BHL: 30 FNL & 2305 FWL §4
FTP: 100 FSL & 2305 FWL §9
LTP: 100 FNL & 2305 FWL §4
Avalon Bone Spring/TVD 9475 feet/MD 20135 feet

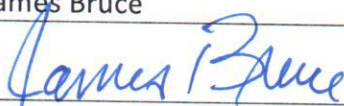
Poseidon State Com. Well Nos. 171H/API No. 30-025-PENDING
SHL: 322 FSL & 1165 FWL §9
BHL: 30 FNL & 660 FWL §4
FTP: 100 FSL & 660 FWL §9
LTP: 100 FNL & 660 FWL §4
Avalon Bone Spring/TVD 9802 feet/MD 20462 feet

Poseidon State Com. Well Nos. 172H/API No. 30-025-PENDING
SHL: 700 FSL & 1961 FWL §9
BHL: 30 FNL & 1780 FWL §4
FTP: 100 FSL & 1780 FWL §9
LTP: 100 FNL & 1780 FWL §4
Avalon Bone Spring/TVD 9785 feet/MD 20445 feet

Poseidon State Com. Well Nos. 175H/API No. 30-025-PENDING
SHL: 760 FSL & 1756 FWL §9
BHL: 30 FNL & 1320 FWL §4
FTP: 100 FSL & 1320 FWL §9
LTP: 100 FNL & 1320 FWL §4
Avalon Bone Spring/TVD 9755 feet/MD 20454 feet

Poseidon State Com. Well Nos. 181H/API No. 30-025-PENDING
SHL: 681 FSL & 178 FWL §9
BHL: 30 FNL & 331 FWL §4
FTP: 100 FSL & 331 FWL §9
LTP: 100 FNL & 331 FWL §4
Avalon Bone Spring/TVD 10104 feet/MD 20764 feet

	<p>Poseidon State Com. Well Nos. 182H/API No. 30-025-PENDING SHL: 735 FSL & 1781 FWL \$9 BHL: 30 FNL & 1650 FWL \$4 FTP: 100 FSL & 1650 FWL \$9 LTP: 100 FNL & 1650 FWL \$4 Avalon Bone Spring/TVD 10073 feet/MD 20733 feet</p> <p>Poseidon State Com. Well Nos. 185H/API No. 30-025-PENDING SHL: 322 FSL & 1190 FWL \$9 BHL: 30 FNL & 990 FWL \$4 FTP: 100 FSL & 990 FWL \$9 LTP: 100 FNL & 990 FWL \$4 Avalon Bone Spring/TVD 10104 feet/MD 20764 feet</p> <p>Poseidon State Com. Well Nos. 187H/API No. 30-025-PENDING SHL: 700 FSL & 1986 FWL \$9 BHL: 30 FNL & 2305 FWL \$4 FTP: 100 FSL & 2305 FWL \$9 LTP: 100 FNL & 2305 FWL \$4 Avalon Bone Spring/TVD 10041 feet/MD 20701 feet</p> <p>All completion locations expected to be standard</p>
Horizontal Well First and Last Take Points	See above
Completion Target (Formation, TVD and MD)	See above
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$7000
Production Supervision/Month \$	\$700
Justification for Supervision Costs	Exhibit A, page 3
Requested Risk Charge	Cost + 200%/Exhibit A, page 3
Notice of Hearing	
Proposed Notice of Hearing	Exhibit E
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	Exhibits A-2 and A-3
Tract List (including lease numbers and owners)	Exhibits A-2 and A-3
Pooled Parties (including ownership type)	Exhibit A-4
Unlocatable Parties to be Pooled	Not applicable
Ownership Depth Severance (including percentage above & below)	None
Joinder	
Sample Copy of Proposal Letter	Exhibit A-5A
List of Interest Owners (i.e. Exhibit A of	Exhibits A-2, A-3, and A-4

JOA)	
Chronology of Contact with Non-Joined Working Interests	Exhibit A-5A
Overhead Rates In Proposal Letter	Exhibit A, page 3
Cost Estimate to Drill and Complete	Exhibit A-5B
Cost Estimate to Equip Well	Exhibit A-5B
Cost Estimate for Production Facilities	Exhibit A-5B
Geology	
Summary (including special considerations)	Exhibit B pages 2-4
Spacing Unit Schematic	Exhibit B-1
Gunbarrel/Lateral Trajectory Schematic	Exhibit B-2
Well Orientation (with rationale)	Standup/Exhibit B-1
Target Formation	Avalon Bone Spring
HSU Cross Section	Exhibit B-4
Depth Severance Discussion	Not Applicable
Forms, Figures and Tables	
C-102	Exhibit A-1
Tracts	Exhibit A-2
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-4
General Location Map (including basin)	Exhibit B-1
Well Bore Location Map	Exhibits B-1, B-2, and B-4
Structure Contour Map - Subsea Depth	Exhibit B-3
Cross Section Location Map (including wells)	Exhibit B-4
Cross Section (including Landing Zone)	Exhibit B-4
Additional Information	
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	James Bruce
Signed Name (Attorney or Party Representative):	
Date:	February 19, 2020