

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

**APPLICATION OF AVANT OPERATING, LLC  
FOR COMPULSORY POOLING AND  
OVERLAPPING SPACING UNIT,  
LEA COUNTY, NEW MEXICO.**

**CASE NO. 22895**

**APPLICATION OF AVANT OPERATING, LLC  
FOR COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO.**

**CASE NO. 22896**

**NOTICE OF SUPPLEMENTAL EXHIBITS**

In accordance with the Division's request at the August 18, 2022 hearing in this matter, Avant Operating, LLC is providing the following supplemental exhibits: (1) Self-Affirmed Statement of Braden Harris (Exhibit D); and (2) Supplemental Self-Affirmed Statement of Shelly Albrecht (Exhibit E).

Respectfully submitted,

HINKLE SHANOR, LLP

/s/ Dana S. Hardy

Dana S. Hardy

Jaclyn McLean

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jmclean@hinklelawfirm.com

*Counsel for Avant Operating, LLC*

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing pleading was sent by electronic mail to the following counsel of record on this 30<sup>th</sup> day of August, 2022.

Jennifer Bradfute  
Marathon Oil Permian LLC  
990 Town & Country Blvd.  
Houston, TX 77024  
Phone: (505) 264-8740  
[jbradfute@marathonoil.com](mailto:jbradfute@marathonoil.com)

/s/ Dana S. Hardy

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**SELF-AFFIRMED STATEMENT  
OF BRADEN HARRIS**

1. I am the Senior Vice President of Operations at Avant Operating, LLC (“Avant”). I am over 18 years of age and have personal knowledge of the facts herein. I have previously testified before the New Mexico Oil Conservation Division (“Division”), and my qualifications as an expert in petroleum engineering were accepted as a matter of record.

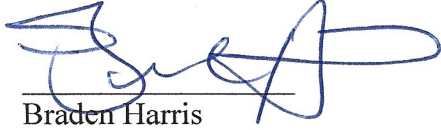
2. At the August 18, 2022 hearing, the Division requested that Avant provide information regarding the well design for the Cutbow 36 1 Fed Com wells to address concerns regarding the Capitan Reef and the Potash Area. Accordingly, copies of the wellbore diagrams for the Cutbow 36 1 Fed Com #601H, #602H, and #603H wells are attached as Exhibit D-1. The same casing design will be used for the Cutbow 36 1 Fed Com #604H, #605H, and #606H wells.

3. In accordance with Bureau of Land Management requirements, the wellbore design includes four strings of casing to avoid impacts to potash. Potash and salt are isolated with the 1<sup>st</sup> intermediate casing, and the Capitan Reef is isolated by the 2<sup>nd</sup> intermediate casing.

4. Avant’s AFE’s for the wells have been previously submitted as Exhibit A-4 in each case, and they account for the additional strings of casing.

Avant Operating, LLC  
Case Nos. 22895 and 22896  
Exhibit D

5. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony 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.

  
\_\_\_\_\_  
Braden Harris

08-29-2022  
Date

API:  
REGULATORY: BLM  
PERMIT #



# Cutbow 36 1 Federal Com 603H

## Bone Springs

Lea County, NM

RIG:  
KB: 3602  
GL: 3577

AFE:

SHL:

Sec. 36, T-19S, R-32E; 300 FNL, 1455 FWL

Lat: , Long: (NAD83)

| HOLE SIZE   | MD     | FORMATION            | TVD    | MUD         | CASING                          | CEMENT                                | SPECIAL INSTRUCTIONS  |
|---|--------|----------------------|--------|-------------|---------------------------------|---------------------------------------|---|
| 24"   | 120    | 30" Conductor        | 120    | SPUD MW     | 20 "                            | Top of Lead: Surface<br>50% Excess    | Circ cmt to surface is a regulatory requirement<br><br>Casing must be set 25' into the Rustler<br><br>MUD: Fresh water only |
|   | 1,150  | Rustler              | 1,150  | 8.4 PPG     | 94# J-55 BTC                    | Top of Tail: 1440'<br>20% Excess      |   |
|   | 1,800  | SURF CSG PT          | 1,800  | FRESH TD MW | +/- 13.7 Bowsprings             |                                       |   |
|   |        |                      |        | 10.0 ppg    | 1 joint shoe track              |                                       |   |
| 17.5"   | 1,300  | Top of Salt          | 1,300  | DRLOUT MW   | 13 3/8 "                        | Top of Lead: Surface<br>50% OH Excess | Circ cmt to surface is a regulatory requirement   |
|   | 2,900  | Base of Salt         | 2,900  | 10.0 ppg    | 68# L-80 HC BTC                 | Top of Tail: 2880'<br>20% Excess      |   |
|   | 3,000  | Yates                | 3,000  | BRINE TD MW | +/- 24.4 Bowsprings             |                                       |   |
|   | 3,300  | Capitan Reef         | 3,300  | 10.5 ppg    | 1 joint shoe track              |                                       |   |
| 12.25"  | 4,500  | Base of Capitan Reef | 4,500  | DRILLOUT MW | SPLIT STRING (GRADE)<br>9 5/8 " | Top of Lead: Surface<br>50% OH Excess | Circ cmt to surface is a regulatory requirement   |
|   | 5,000  | Cherry Canyon        | 5,000  | 8.4 ppg     | 0' - 4000'<br>40# J-55 LTC      | Top of Tail: 4480'<br>20% Excess      |   |
|   | 5,600  | INTRM2 CSG PT        | 5,600  | FRESH TD MW | +/- 15 Bowsprings               |                                       |   |
|   |        |                      |        | 8.4 ppg     | 1 joint shoe track              |                                       |   |
| VERT<br>8.75"   | 6,251  | Brushy Canyon        | 6,250  | DRLOUT MW   | 5 1/2 "                         |                                       |   |
|   | 7,826  | Bone Spring          | 7,800  | 9.2 ppg     | CUT BRINE 20# P-110 HC GBCD     |                                       |   |
|   | 8,895  | 1st Bone Spring      | 8,850  | KOP MW      |                                 |                                       |   |
|   | 9,557  | 2nd Bone Spring      | 9,500  | 9.5 ppg     |                                 |                                       |   |
| CRV<br>8.75"  | 10,566 | 3rd Bone Spring      | 10,500 | CUT EOC MW  |                                 | TD MW                                 | 21,576 MD   |
|   | 10,888 | KOP                  | 10,823 | 9.5 ppg     | OBM                             | 9.8 ppg                               |   |
| LAT<br>8.5"   | 11,638 | EOC                  | 11,300 |             |                                 |                                       | 10,191 VS   |
|   |        |                      |        |             |                                 |                                       | 11,300 TVD  |
| <p>12° / 100' Lateral/VS Azimuth: 179.85° Est. BHST = 178°, Est. BHCT = 161°</p> <p>BHL: 100' FSL, 2178' FWL</p> <p>FLOTATION COLLAR @ +/- KOP</p> <p>+/- 34 Singlebows 5,500 - 10,688</p> <p>+/- 27 Doublebows 10,688 - 11,838</p> <p>+/- 118 Solid bodies 11,838 - 21,576</p> <p>TOE SLEEVE</p> <p>1 joint shoe track</p> <p>Top of Lead: Surface 50% OH Excess</p> <p>Top of Tail: 10888' (KOP) 20% Excess</p> |        |                      |        |             |                                 |                                       |   |

DIRECTIONS TO LOCAITON:

Avant Operating, LLC  
Case Nos. 22895 and 22896  
Exhibit D-1

API:  
 REGULATORY: BLM  
 PERMIT #  
 RIG:  
 KB: 3607  
 GL: 3581



# Cutbow 36 1 Federal Com 602H

## Bone Springs

Lea County, NM

AFE:

SHL:

Sec. 36, T-19S, R-32E; 300 FNL, 1422 FWL

Lat: , Long: (NAD83)

| HOLE SIZE | MD     | FORMATION            | TVD      | MUD                       | CASING                                  | CEMENT                                  | SPECIAL INSTRUCTIONS                                   |
|-----------|--------|----------------------|----------|---------------------------|---|---|--|
|           | 120    | 30" Conductor        | 120      | SPUD MW                   | 20 "                                    |   |  |
| 24"       | 1,150  | Rustler              | 1,150    | 8.4 PPG                   | 94# J-55 BTC                            | Top of Lead: Surface<br>50% Excess      | <b>Circ cmt to surface is a regulatory requirement</b> |
|           | 1,800  | SURF CSG PT          | 1,800    | <b>FRESH</b>              |   | Top of Tail: 1440'<br>20% Excess        | Casing must be set 25' into the Rustler                |
|           |        |                      |          | TD MW +/- 13.7 Bowsprings |   |   | <b>MUD:</b> Fresh water only                           |
|           |        |                      |          | 10.0 ppg                  | 1 joint shoe track                      |   |  |
| 17.5"     | 1,300  | Top of Salt          | 1,300    | DRLOUT MW                 | 13 3/8 "                                | Top of Lead: Surface<br>50% OH Excess   | <b>Circ cmt to surface is a regulatory requirement</b> |
|           | 2,900  | Base of Salt         | 2,900    | 10.0 ppg                  | 68# L-80 HC BTC                         | Top of Tail: 2880'<br>20% Excess        |  |
|           | 3,000  | Yates                | 3,000    | <b>BRINE</b>              |   |   |  |
|           | 3,300  | Capitan Reef         | 3,300    | TD MW +/- 24.4 Bowsprings |   |   |  |
|           | 3,600  | INTRM1 CSG PT        | 3,600    | 10.5 ppg                  | 1 joint shoe track                      |   |  |
| 12.25"    | 4,500  | Base of Capitan Reef | 4,500    | DRILLOUT MW               | <b>SPLIT STRING (GRADE)</b><br>9 5/8 "  | Top of Lead: Surface<br>50% OH Excess   | <b>Circ cmt to surface is a regulatory requirement</b> |
|           | 5,000  | Cherry Canyon        | 5,000    | 8.4 ppg                   | 0' - 4000'<br>40# J-55 LTC              | Top of Tail: 4480'<br>20% Excess        |  |
|           |        |                      |          | <b>FRESH</b>              | 4000' - 5600'<br>40# L-80 HC LTC        |   |  |
|           |        |                      |          | TD MW +/- 15 Bowsprings   |   |   |  |
|           | 5,600  | INTRM2 CSG PT        | 5,600    | 8.4 ppg                   | 1 joint shoe track                      |   |  |
| VERT      | 6,251  | Brushy Canyon        | 6,250    | DRLOUT MW                 | 5 1/2 "                                 |   |  |
|           | 7,804  | Bone Spring          | 7,800    | 9.2 ppg                   | 20# P-110 HC GBCD                       |   |  |
|           | 8,856  | 1st Bone Spring      | 8,850    | <b>CUT BRINE</b>          |   |   |  |
|           | 9,507  | 2nd Bone Spring      | 9,500    | KOP MW                    |   |   |  |
|           |        |                      |          | 9.5 ppg                   |   |   |  |
| CRV       | 10,509 | 3rd Bone Spring      | 10,500   | EOC MW                    |   |   |  |
|           | 10,832 | KOP                  | 10,823   | 9.5 ppg                   | <b>CUT BRINE</b>                        | <b>OBM</b>                              |  |
|           |        |                      |          |                           |   | TD MW 9.8 ppg                           |  |
| 8.75"     |        |                      |          |                           |   |   | 21,523 MD  |
|           |        |                      |          |                           |   |   | 10,170 VS  |
| LAT       |        |                      |          |                           |   |   | 11,300 TVD   |
|           | 11,582 | EOC                  | 11,300   |                           |   |   | BHL: 100' FSL, 1254' FWL                               |
|           |        |                      | VS: 230' |                           | Lateral/VS Azimuth: 179.85°             | Est. BHST = 178°, Est. BHCT = 161°      |  |
|           |        |                      |          |                           | <b>FLOTATION COLLAR</b><br>@ +/- KOP    | Top of Lead: Surface<br>50% OH Excess   |  |
|           |        |                      |          |                           | +/- 34 Singlebows<br>5,500 - 10,632     | Top of Tail: 10832' (KOP)<br>20% Excess |  |
|           |        |                      |          |                           | +/- 27 Doublebows<br>10,632 - 11,782    |   |  |
|           |        |                      |          |                           | +/- 118 Solid bodies<br>11,782 - 21,523 |   |  |
|           |        |                      |          |                           | <b>TOE SLEEVE</b>                       |   |  |
|           |        |                      |          |                           | 1 joint shoe track                      |   |  |

DIRECTIONS TO LOCAITON:

API:  
REGULATORY: BLM  
PERMIT #



# Cutbow 36 1 Federal Com 601H

## Bone Springs

Lea County, NM

RIG:  
KB: 3607  
GL: 3582

AFE:

SHL:

Sec. 36, T-19S, R-32E; 300 FNL, 1389 FWL

Lat: , Long: (NAD83)

| HOLE SIZE | MD  | FORMATION     | TVD                  | MUD         | CASING                                | CEMENT                                | SPECIAL INSTRUCTIONS                            |
|-----------|-----|---------------|----------------------|-------------|---------------------------------------|---------------------------------------|---|
|           | 120 | 30" Conductor | 120                  |             |                                       |                                       |   |
| 24"       |     |               |                      | SPUD MW     | 20 "                                  | Top of Lead: Surface<br>50% Excess    | Circ cmt to surface is a regulatory requirement |
|           |     |               |                      | 8.4 PPG     | 94# J-55 BTC                          | Top of Tail: 1440'<br>20% Excess      |   |
|           |     | 1,150         | Rustler              | 1,150       | FRESH                                 |                                       | Casing must be set 25' into the Rustler         |
|           |     | 1,800         | SURF CSG PT          | 1,800       | TD MW +/- 13.7 Bowsprings<br>10.0 ppg | 1 joint shoe track                    | MUD: Fresh water only                           |
| 17.5"     |     |               |                      | DRLOUT MW   | 13 3/8 "                              | Top of Lead: Surface<br>50% OH Excess | Circ cmt to surface is a regulatory requirement |
|           |     | 1,300         | Top of Salt          | 1,300       | 10.0 ppg                              | Top of Tail: 2880'<br>20% Excess      |   |
|           |     | 2,900         | Base of Salt         | 2,900       | BRINE                                 |                                       |   |
|           |     | 3,000         | Yates                | 3,000       | TD MW +/- 24.4 Bowsprings<br>10.5 ppg | 1 joint shoe track                    |   |
| 12.25"    |     |               |                      | DRILLOUT MW | SPLIT STRING (GRADE)<br>9 5/8 "       | Top of Lead: Surface<br>50% OH Excess | Circ cmt to surface is a regulatory requirement |
|           |     | 4,500         | Base of Capitan Reef | 4,500       | 8.4 ppg                               | Top of Tail: 4480'<br>20% Excess      |   |
|           |     | 5,000         | Cherry Canyon        | 5,000       | FRESH                                 |                                       |   |
|           |     | 5,600         | INTRM2 CSG PT        | 5,600       | TD MW +/- 15 Bowsprings<br>8.4 ppg    | 1 joint shoe track                    |   |
| VERT      |     |               |                      | DRLOUT MW   | 5 1/2 "                               |                                       |   |
|           |     | 6,251         | Brushy Canyon        | 6,250       | 9.2 ppg                               |                                       |   |
|           |     | 7,852         | Bone Spring          | 7,800       | CUT BRINE                             | 20# P-110 HC GBCD                     |   |
|           |     | 8,961         | 1st Bone Spring      | 8,850       | KOP MW                                |                                       |   |
| CRV       |     |               |                      |             |                                       |                                       |   |
|           |     | 10,646        | 3rd Bone Spring      | 10,500      | 9.5 ppg                               |                                       |   |
| 8.75"     |     | 10,968        | KOP                  | 10,823      | CUT BRINE                             | EOC MW                                | 21,663 MD                                       |
|           |     |               |                      |             |                                       | TD MW 9.8 ppg                         | 10,226 VS                                       |
| LAT       |     |               |                      |             |                                       |                                       |   |
|           |     | 11,718        | EOC                  | 11,300      |                                       |                                       | 11,300 TVD                                      |
| 8.5"      |     |               |                      |             |                                       |                                       |   |
|           |     |               |                      |             |                                       |                                       |   |
|           |     |               |                      |             |                                       |                                       |   |
|           |     |               |                      |             |                                       |                                       |   |

12° / 100'

Lateral/VS Azimuth: 179.85° Est. BHST = 178°, Est. BHCT = 161°

BHL: 100' FSL, 330' FWL

**FLOTATION COLLAR**  
@ +/- KOP  
+/- 35 Singlebows  
5,500 - 10,768  
+/- 27 Doublebows  
10,768 - 11,918  
+/- 118 Solid bodies  
11,918 - 21,663  
**TOE SLEEVE**  
1 joint shoe track

Top of Lead: Surface  
50% OH Excess  
Top of Tail: 10968' (KOP)  
20% Excess

DIRECTIONS TO LOCAITON:

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

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OVERLAPPING SPACING UNIT,  
LEA COUNTY, NEW MEXICO.**

**CASE NO. 22895**

**APPLICATION OF AVANT OPERATING, LLC  
FOR COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO.**

**CASE NO. 22896**

**SUPPLEMENTAL SELF-AFFIRMED STATEMENT  
OF SHELLY ALBRECHT**

1. I am the Vice President of Land at Avant Operating, LLC (“Avant”).
2. I previously submitted self-affirmed statements in these matters, which were marked in each case as Avant Exhibit A.
3. At the August 18, 2022 hearing, the New Mexico Oil Conservation Division requested that Avant explain the basis for its requested overhead rates of \$10,000 per month during drilling and \$1,000 per month during production. These requested overhead rates are based on the estimated overhead costs that Avant actually expects to incur. Costs have increased significantly over the past two years due to inflation, which has resulted in increased service company costs and increased labor costs. Service company costs have also increased due to demand in the Permian Basin. As a result, these amounts are the same as those included in the Joint Operating Agreement for these units. Based on these facts, it is my opinion that these rates are fair and are comparable to the rates charged by Avant and other operators in the vicinity.
4. I understand this Supplemental Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony above is true and correct and is made under

Avant Operating, LLC  
Case Nos. 22895 and 22896  
Exhibit E



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.

  
Shelly Albrecht

8/29/2022  
Date