

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

**APPLICATION OF MEWBOURNE OIL  
COMPANY FOR COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**Case No. 20500**

**SELF-AFFIRMED STATEMENT OF  
MITCH ROBB**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.
2. I am a landman for Mewbourne Oil Company ("Mewbourne"). I have had direct involvement with Mewbourne's development of the 400-acre standard horizontal spacing unit ("HSU") that is the subject of Mewbourne's application in this case.
3. A Midland Map with the HSU highlighted is attached hereto as Exhibit A. The HSU is comprised of the S/2 S/2 of Section 3, the S/2 S/2 of Section 4, and the S/2 SE/4 of Section 5, Township 20 South, Range 30 East in Eddy County.
4. Mewbourne seeks to pool all uncommitted interests in the Bone Spring formation underlying the HSU. A listing of the uncommitted interests and their respective working interests is attached hereto as Exhibit B. 79.835971% of the working interests are committed to the proposed well.
5. The HSU will be dedicated to the Caballo Loco 3/5 B2PO Fed Com #1H well, which will be horizontally drilled from a surface location in Unit M in Section 2 to a bottom hole location in Unit O in Section 5, Township 20 South, Range 30 East. The completed interval for the well will be orthodox.

Case No. 20500

**MEWBOURNE OIL  
Exhibit #1**

6. There are no depth exceptions in the Bone Spring formation.

7. I sent well proposal letters to Devon Energy Production Company, LP and ConocoPhillips Company on September 18, 2018 and to G.P.C. Oil and Gas Corporation on March 5, 2019. They all received the letter. Subsequently, I had follow-up communications with them. A sample of my well proposal letter and a summary of my follow-up contacts with the three uncommitted interests are attached hereto as Exhibit C.

8. In my opinion, Mewbourne has made a good faith effort to obtain the voluntary joinder of uncommitted interests in the proposed well.

9. Notice of Mewbourne's application and the Division hearing was provided to the uncommitted interests by certified mail. A sample of the notice letter and the associated green cards are attached hereto as Exhibit D.

10. Mewbourne has the right to pool the overriding royalty owners in the HSU.

11. The AFE for the proposed well is attached hereto as Exhibit E. The estimated cost of the well is fair and reasonable, and is comparable to the cost of other wells of similar depth and length drilled in Eddy County.

12. Mewbourne requests overhead and administrative rates of \$8,000 per month while the well is being drilled and \$800 per month while the well is producing. These rates are fair, and are comparable to the rates charged by Mewbourne and by other operators in the vicinity. They are also the rates set forth in the Joint Operating Agreement for the HSU. Mewbourne further requests that the rates be adjusted periodically in accordance with the COPAS Accounting Procedure.

13. Mewbourne requests that it be designated the operator of the well.

14. Mewbourne also requests that a 200% risk charge be assessed against the uncommitted interests if they are non-consenting working interest owners.

15. The exhibits attached hereto were either prepared by me or under my supervision, or were compiled from company business records.

16. In my opinion, the granting of Mewbourne's application would serve the interests of conservation and the prevention of waste.

17. 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 16 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.

  
Mitch Robb

06/11/2019  
Date



**Tract Ownership**  
**Caballo Loco 3/5 B2PO Fed Com #1H**  
**S/2S/2 of Section 3, S/2S/2 of Section 4 & S/2SE/4 of Section 5**  
**T20S, R30E**  
**Eddy County, New Mexico**

**Owners**

**Ownership:**

Mewbourne Oil Company, Operator, and CL&F Operating LLC, et al, as Non-Operators	79.835971%
*Devon Energy Production Company, LP	10.000000%
*ConocoPhillips Company	10.000000%
*G.P.C. Oil and Gas Corporation	0.164029%
<b>TOTAL</b>	<b>100.000000%</b>

**Total Interest being force pooled: 20.164029%**

\* Denotes an interest that is being force pooled.

MEWBOURNE OIL COMPANY

FASKEN CENTER  
500 WEST TEXAS, SUITE 1020  
MIDLAND, TX 79701

TELEPHONE (432) 682-3715

September 18, 2018

Via Certified Mail

Devon Energy Production Company, L.P.  
333 West Sheridan Avenue  
Oklahoma City, OK 73102  
Attn: Katie Dean

Re: Caballo Loco 3/5 B2PO Fed Com #1H  
110' FSL & 436' FWL (SL) (Section 2)  
500' FSL & 2540' FEL (BHL) (Section 5)

Caballo Loco 3/5 B2IJ Fed Com #2H  
119' FSL & 465' FWL (SL) (Section 2)  
1927' FSL & 2540' FEL (BHL) (Section 5)

Caballo Loco 5/3 B2GH Fed Com #4H  
430' FNL & 2135' FEL (SL) (Section 5)  
1927' FNL & 100' FEL (BHL) (Section 3)

Caballo Loco 5/3 B2BA Fed Com #3H  
400' FNL & 2135' FEL (SL) (Section 5)  
500' FNL & 100' FEL (BHL) (Section 3)

All in Sections 3, 4, 5, T20S, R30E  
Eddy County, New Mexico

Ladies and Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 1598.54 acre Working Interest Unit ("WIU") covering All of the captioned Sections 3 & 4 and the E/2 of Section 5 for oil and gas production.

Mewbourne as Operator hereby proposes to drill the captioned Caballo Loco 3/5 B2PO Fed Com #1H at the above referenced surface location (SL) to the referenced bottom hole location (BHL). The proposed well will be drilled to an approximate true vertical depth (TVD) of 8,440 feet subsurface to evaluate the Bone Spring Formation. The proposed well will have a measured depth (MD) of approximately 21,490 feet. The S/2S/2 of the captioned Sections 3 & 4 and the S/2SE/4 of Section 5 will be dedicated to the well as the proration unit.

In addition, Mewbourne as Operator hereby proposes to drill the captioned Caballo Loco 3/5 B2IJ Fed Com #2H at the above referenced surface location (SL) to the referenced bottom hole location (BHL). The proposed well will be drilled to an approximate true vertical depth (TVD) of 8,436 feet subsurface to evaluate the Bone Spring Formation. The proposed well will have a measured depth (MD) of approximately 21,715 feet. The N/2S/2 of the captioned Sections 3 & 4 and the N/2SE/4 of Section 5 will be dedicated to the well as the proration unit.

Exhibit

C

In addition, Mewbourne as Operator hereby proposes to drill the captioned Caballo Loco 5/3 B2GH Fed Com #4H at the above referenced surface location (SL) to the referenced bottom hole location (BHL). The proposed well will be drilled to an approximate true vertical depth (TVD) of 8,425 feet subsurface to evaluate the Bone Spring Formation. The proposed well will have a measured depth (MD) of approximately 21,700 feet. The S/2N/2 of the captioned Sections 3 & 4 and the S/2NE/4 of Section 5 will be dedicated to the well as the proration unit.

Finally, Mewbourne as Operator hereby proposes to drill the captioned Caballo Loco 5/3 B2BA Fed Com #3H at the above referenced surface location (SL) to the referenced bottom hole location (BHL). The proposed well will be drilled to an approximate true vertical depth (TVD) of 8,415 feet subsurface to evaluate the Bone Spring Formation. The proposed well will have a measured depth (MD) of approximately 21,465 feet. The N/2N/2 of the captioned Sections 3 & 4 and the N/2NE/4 of Section 5 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling are our AFEs dated September 13, 2018 for the captioned proposed wells. Please sign and return said AFEs at your earliest convenience if you elect to participate in the captioned wells and WIU and return to me within thirty (30) days.

A copy of our Joint Operating Agreement ("JOA") will follow under a separate cover letter for your further handling and review in the near future.

Should you have any questions regarding the above, please email me at [mrobb@mewbourne.com](mailto:mrobb@mewbourne.com) or call me at (432) 682-3715.

Sincerely,

MEWBOURNE OIL COMPANY



Mitch Robb  
Landman

**Summary of Communications**  
**Caballo Loco 3/5 B2PO Fed Com #1H Well**  
**S/2S/2 of Section 3, S/2S/2 of Section 4 & S/2SE/4 of Section 5**  
**T20S, R30E**  
**Eddy County, New Mexico**

**Devon Energy Production Company, LP:**

09/18/2018: Mailed a Working Interest Unit and Well Proposal to the above listed party.

03/05/2019: Mailed Joint Operating Agreement to the above listed party.

05/09/2019: Email correspondence with Stephen Hoch regarding Working Interest Unit and Well Proposal.

**ConocoPhillips Company:**

09/18/2018: Mailed a Working Interest Unit and Well Proposal to the above listed party.

10/16/2018: Spoke with Stewart O'Neal regarding Working Interest Unit and Well Proposal.

10/29/2018: Received signed AFE from above listed party.

03/05/2019: Mailed Joint Operating Agreement to the above listed party.

4/26/2019: Called Stewart O'Neal and left voicemail.

05/30/2019: Spoke with Stewart O'Neal regarding Working Interest Unit and Well Proposal.

**G.P.C. Oil and Gas Corporation:**

03/05/2019: Mailed a Working Interest Unit, Well Proposal, and Joint Operating Agreement to the above listed party.

04/03/2019: Received signed AFE from above listed party.

04/04/2019: Attempted to contact owner by phone but could not find a viable phone number.





**HINKLE SHANOR LLP**  
ATTORNEYS AT LAW  
PO BOX 2088  
SANTA FE, NEW MEXICO 87504  
505-982-4554 (FAX) 505-982-8623

WRITER  
Gary W. Larson,  
Partner  
glarson@hinklelawfirm.com

May 23, 2019

VIA CERTIFIED MAIL

Devon Energy Production Company, L.P.  
Attn: Katie Dean  
333 West Sheridan Avenue  
Oklahoma City, OK 73102

Re: Mewbourne Oil Company NMOCD Application

Dear Ms. Dean:

Enclosed is a copy of an application for compulsory pooling that Mewbourne Oil Company ("Mewbourne") has filed with the New Mexico Oil Conservation Division ("the Division"). Mewbourne's application requests the pooling of all uncommitted mineral interests in the Bone Spring formation in a standard 400-acre horizontal spacing unit comprised of the S/2 S/2 of Section 3, the S/2 S/2 of Section 4, and the S/2 SE/4 of Section 5, Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico.

This matter is scheduled for hearing at 8:15 a.m. on Thursday, June 13, 2019 in Porter Hall at the Division's offices located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Devon Energy Production Company, L.P. ("Devon") is not required to attend this hearing, but as an owner of an interest that may be affected by Mewbourne's application, it may appear at the hearing and present testimony. If Devon does not appear at that time and become a party of record, it will be precluded from contesting the matter at a later date.

A party appearing in a Division case is required by the Division's Rules to file a Pre-Hearing Statement, which in this matter must be filed no later than Thursday, June 6, 2019. The Pre-Hearing Statement must be filed with the Division's Santa Fe office at the address above, and should include: the name of the party and the party's attorney; a concise statement of the case; the name(s) of the witness(es) the party will call to testify at the hearing; the approximate amount of time the party will need to present the party's case; and an identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to me.

Thank you for your attention to this matter.

Very truly yours,

  
Gary W. Larson

GWL:smi  
Enclosure

PO BOX 10  
ROSWELL, NEW MEXICO 88202  
575-622-6510  
(FAX) 575-623-9337

PO BOX 1720  
ARTESIA, NEW MEXICO 88211  
575-622-6510  
(FAX) 575-746-6316

PO BOX 2088  
SANTA FE, NEW MEXICO 87504  
505-982-4554  
(FAX) 505-982-8623

7601 JEFFERSON ST NE • SUITE 180  
ALBUQUERQUE, NEW MEXICO 87109  
505-858-8320  
(FAX) 505-858-8321

**Exhibit  
D**

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>		<p>A. Signature <i>[Signature]</i> Agent <input type="checkbox"/> Addressee <input type="checkbox"/></p>	
<p>1. Article Addressed to:</p> <p>Devon Energy Production Co. Attn: Katie Dean 333 West Sheridan Avenue Oklahoma City, OK 73102</p>		<p>B. Received by (Printed Name)</p> <p>C. Date of Delivery</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7018 2290 0000 3423 8625</p>		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail®</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery</p>		<p><input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Signature Confirmation Restricted Delivery</p>	
<p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p>		<p>Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>		<p>A. Signature <i>[Signature]</i> Agent <input type="checkbox"/> Addressee <input type="checkbox"/></p>	
<p>1. Article Addressed to:</p> <p>ConocoPhillips Company Attn: Stewart O'Neal P.O. Box 2197 Houston, TX 77252</p>		<p>B. Received by (Printed Name)</p> <p>C. Date of Delivery <i>05/29/19</i></p>	
<p>2. Article Number (Transfer from service label)</p> <p>7018 2290 0000 3423 8434</p>		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail®</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery</p>		<p><input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Signature Confirmation Restricted Delivery</p>	
<p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p>		<p>Domestic Return Receipt</p>	

**AUTHORIZATION FOR EXPENDITURE**

## Exhibit E

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

**APPLICATION OF MEWBOURNE OIL  
COMPANY FOR COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**Case No. 20500**

**SELF-AFFIRMED STATEMENT OF  
CHARLES CROSBY**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.
2. I am a geologist at Mewbourne Oil Company ("Mewbourne"). I am familiar with the geological matters that pertain to Mewbourne's application.
3. Attached hereto as Exhibit A is a structure map of the base of the Bone Spring formation. The map shows that the structure dips gently to the East-Southeast. It also shows a line of cross section and the horizontal spacing unit ("HSU") for the proposed Caballo Loco 3/5 B2PO Fed Com #1H well.
4. Attached hereto as Exhibit B is a gross sand isopach map of the Lower 2<sup>nd</sup> Bone Spring Sand formation, which is the target zone for the proposed well. It shows that the sand across the HSU has a uniform thickness of about 80 feet.
5. Attached hereto as Exhibit C is a west to east cross section. The well logs on the cross section provide a representative sample of the Bone Spring formation in the area. The target zone for the proposed well is continuous across the HSU.
6. Based on the information contained in Exhibits A, B and C, I am able to conclude that:
  - a) The HSU is justified from a geologic standpoint;

**Case No. 20500  
MEWBOURNE OIL  
Exhibit #2**

b) There is no faulting or other geologic impediment that could adversely affect the drilling of the proposed well; and

c) Each quarter-quarter section in the HSU will contribute more or less equally to production.


7. Attached hereto as Exhibit D is a table containing information from other wells drilled in the vicinity. The preference is for laydown wells (west to east or east to west), and the completed wells in the area (recent completions) apparently are commercial.


8. Attached hereto as Exhibit E is the Survey Calculation Report for the proposed well. The well's producing interval will be orthodox.

9. In my opinion, the granting of Mewbourne's application will serve the interests of conservation and the prevention of waste.

10. Exhibits A through E were either prepared by me or compiled from company records.

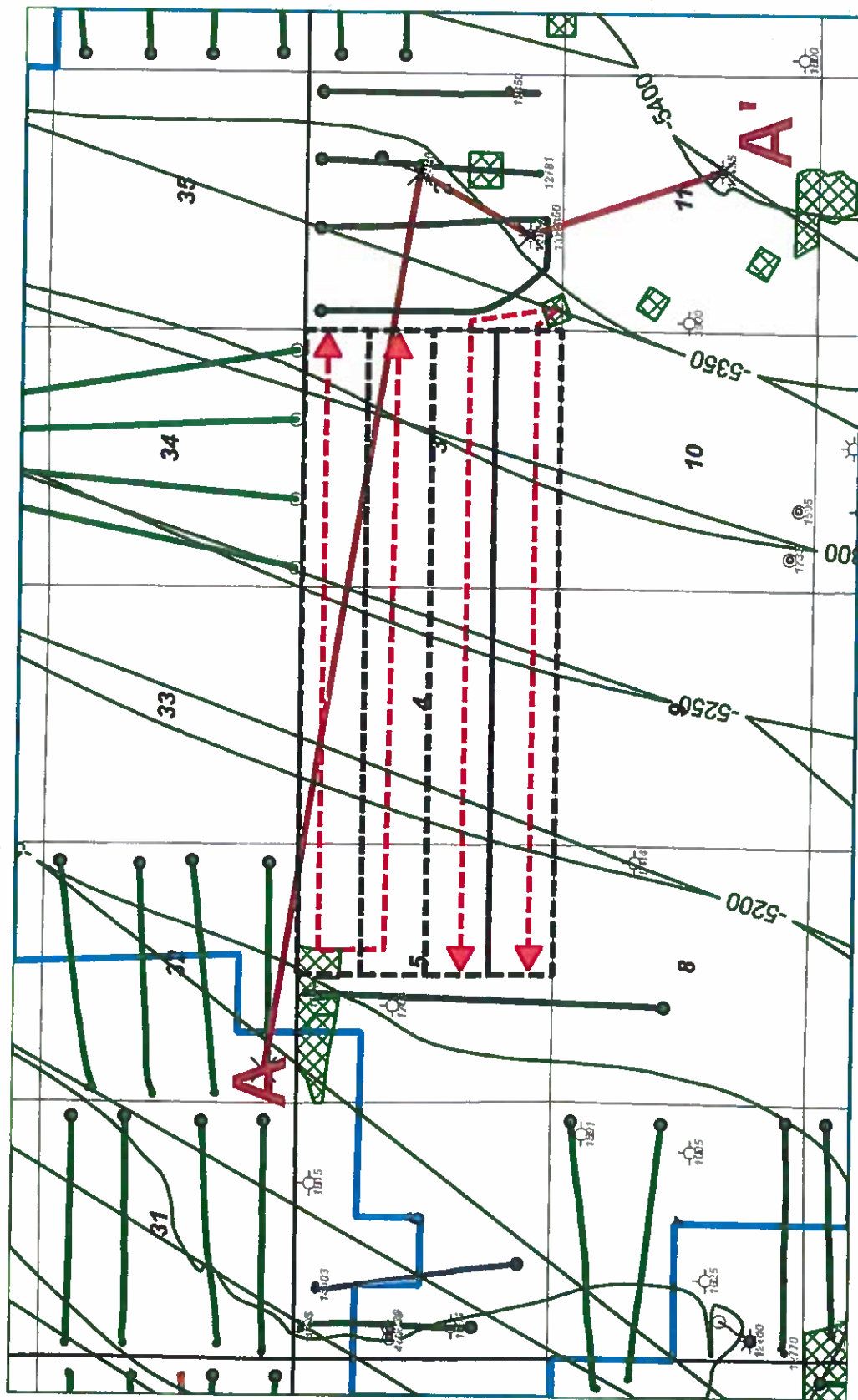
11. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 10 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

  
\_\_\_\_\_  
Charles Crosby

  
\_\_\_\_\_  
Date



# Exhibit A



**Mewbourne Oil Company**

Caballo Lake SD B2H Fed Com 311  
 Caballo Lake SD B2H Fed Com 411  
 Caballo Lake SD B2H Fed Com 211  
 Caballo Lake SD B2H Fed Com 111  
 Bureau of Land Management  
 BLM 24187PG and Derivatives (CJ 1817)

6/2/2019

2449 County

North Dakota

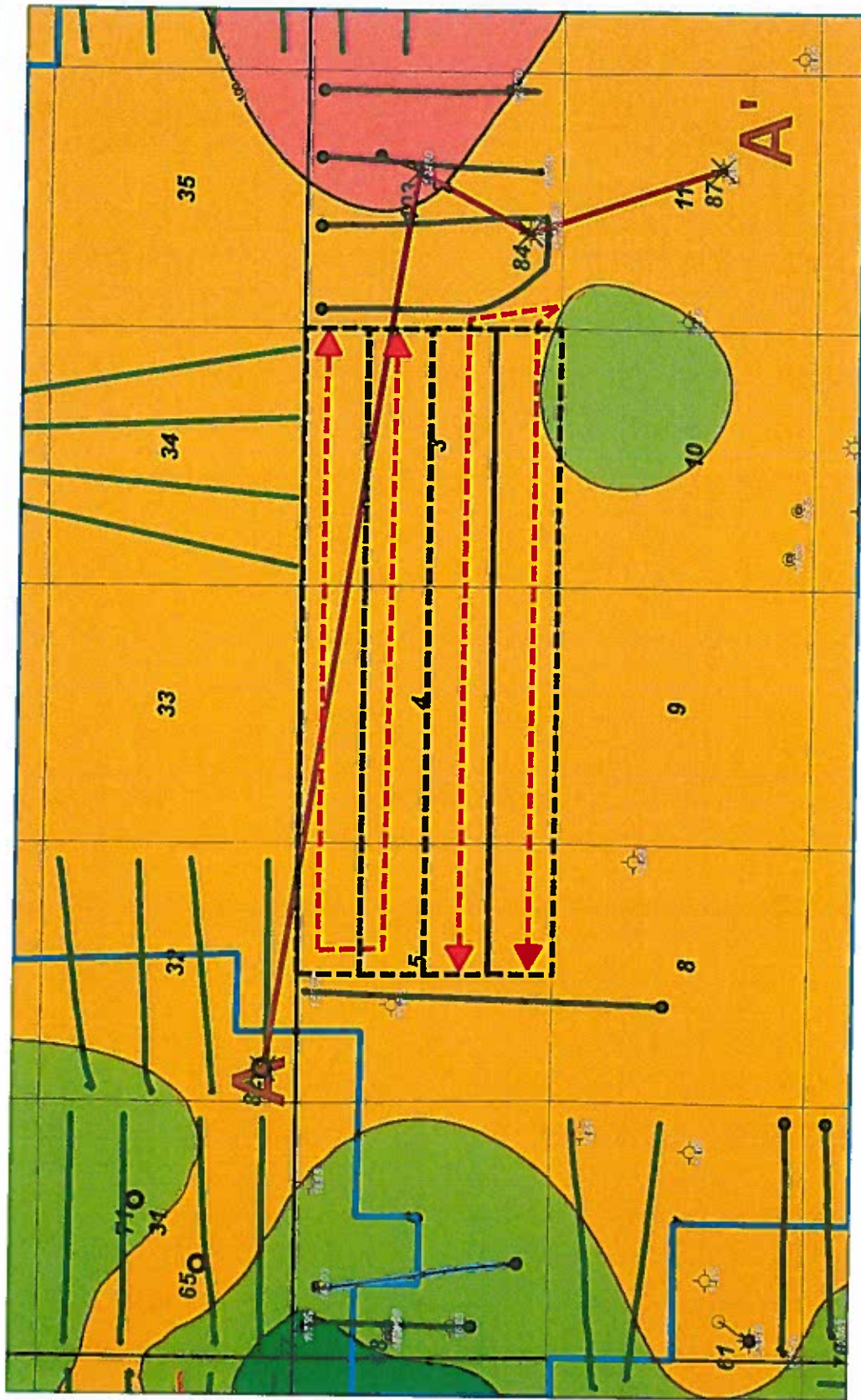
Quadrant: C

Check by

2nd BSPG SD Horizontal

1:38000

2350 0 7050 us ft



**Mewbourne Oil Company**

Calisto Lane SD B2BA Prod Com 1H  
 Calisto Lane SD B2BA Prod Com 1H  
 Calisto Lane SD B2BA Prod Com 1H  
 Calisto Lane SD B2BA Prod Com 1H  
 Lower 2nd BSPG SD Gross Thickness (C.S. 317)

10/2019 Edit Change New Monitor Grid 1" Display

**1:38000**

2350 0 2350 4700 7050 US FT

**2nd BSPG SD Horizontal**

Lower 2nd BSPG SD Gross Thickness

2nd BSPG C Gross SD Isopach (C.S. 321)  
 Color Filled Contour

Feet

0 20 40 60 80 100

Blue Green Yellow Red

**Exhibit  
B**







**Caballo Loco Area 2nd BSPG SD Production Table**

Well Name	Operator	API	Location	Completion Date	Cum Oil (Mbo)	Cum Gas (Bcf)	Cum Water (Mbw)	NS/EW	Production Zone
Buena Vista 2 State Com 3H	COG	30015392450000	2N-20S-30E	10/29/2011	189.5	0.5	288	NS	2nd BSPG SD
Shoeless Joe 32 State Com 1H	COG	30015405860100	32D-19S-30E	11/30/2012	140.2	0.26	327.1	EW	2nd BSPG SD
Buena Vista 2 State 1H	COG	30015407890000	2P-20S-30E	4/3/2013	198.6	0.6	250.2	NS	2nd BSPG SD
Shoeless Joe 32 State Com 3H	COG	30015410280000	32L-19S-30E	4/10/2013	162	0.5	535.8	EW	2nd BSPG SD
Shoeless Joe 32 State Com 2H	COG	30015412380000	32E-19S-30E	6/21/2014	143.8	0.5	465.6	EW	2nd BSPG SD
Shoeless Joe 32 State Com 4H	COG	30015412420100	32M-19S-30E	11/3/2013	151.6	0.3	463.9	EW	2nd BSPG SD
Buena Vista 2 State Com 2H	COG	30015412900000	2O-20S-30E	6/25/2013	143.5	0.3	203.3	NS	2nd BSPG SD
Buena Vista 2 State 4H	COG	30015418290000	2N-20S-30E	7/1/2014	253.6	0.7	236.3	NS	2nd BSPG SD
Solution Federal Com 3H	COG	30015432270000	5C-20S-30E	10/4/2015	105	0.3	353.8	NS	2nd BSPG SD

**Exhibit  
D**

# Mewbourne Oil Company

## SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator Mewbourne Oil Company  
Lease Name Caballo Loco 3/5 B2PO Fed Com IH  
KOP 8074 54  
SL 110 FSL & 436 FWL Sec 2-20S-30E  
PBHL 500 FSL & 2540 FEL Sec 5-20S-30E

Target KBTVD 8,552 Feet 8552.00  
Target Angle 90.71 Degrees 90.71  
Section Plane 271.85 Degrees  
Declination Corrected to True North 6.63 Degrees  
Bit to Survey Offset 44 Feet

Survey No	Measured Depth-ft	Dnft (Deg)	Azimuth (Deg)	Course Length	TVD (Feet)	Vertical Section	+N/S (Feet)	+E/W (Feet)	Closure Distance	Closure Direction	BUR	DLS	KBTVD	+Above -Below Target	DRIFT (RADIAN)	AZIMUTH (RADIAN)
7/1	8074.54	0.00	271.85	N/A	8074.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8074.5	477.5	1E-12	4.74 #VALUE!
1	8150.13	9.07	271.85	75.592	8149.8	6.0	0.2	-6.0	6.0	271.9	12.0	12.0	8149.9	402.1	0.1583193	4.74 0.158319
2	8225.72	18.14	271.85	75.592	8223.2	23.7	0.8	-23.7	23.7	271.9	12.0	12.0	8223.5	328.5	0.3166385	4.74 0.158319
3	8301.31	27.21	271.85	75.592	8292.9	52.8	1.7	-52.8	52.8	271.9	12.0	12.0	8293.5	258.5	0.4749578	4.74 0.158319
4	8376.90	36.28	271.85	75.592	8357.1	92.6	3.0	-92.5	92.6	271.9	12.0	12.0	8358.2	193.8	0.6332771	4.74 0.158319
5	8452.48	45.30	271.85	75.592	8414.2	141.9	4.6	-141.9	141.9	271.9	12.0	12.0	8416.0	136.0	0.7915963	4.74 0.158319
6	8528.08	54.43	271.85	75.592	8462.9	199.7	6.5	-199.6	199.7	271.9	12.0	12.0	8465.4	86.6	0.9499156	4.74 0.158319
7	8603.68	63.50	271.85	75.592	8501.8	264.4	8.6	-264.3	264.4	271.9	12.0	12.0	8505.1	46.9	1.1082348	4.74 0.158319
8	8679.27	72.57	271.85	75.592	8530.1	334.4	10.8	-334.3	334.4	271.9	12.0	12.0	8534.2	17.8	1.2663544	4.74 0.158319
9	8754.86	81.64	271.85	75.592	8546.9	408.0	13.2	-407.8	408.0	271.9	12.0	12.0	8552.0	0.0	1.4248734	4.74 0.158319
10	8830.45	90.71	271.85	75.592	8552.0	483.4	15.6	-483.1	483.4	271.9	12.0	12.0	8558.0	-6.0	1.5831926	4.74 0.158319
11	8900.00	90.71	271.85	69.546	8551.1	552.9	17.9	-552.6	552.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
12	9000.00	90.71	271.85	100	8549.9	652.9	21.1	-652.6	652.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
13	9100.00	90.71	271.85	100	8548.6	752.9	24.4	-752.5	752.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
14	9200.00	90.71	271.85	100	8547.4	852.9	27.6	-852.5	852.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
15	9300.00	90.71	271.85	100	8546.1	952.9	30.8	-952.4	952.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
16	9400.00	90.71	271.85	100	8544.9	1052.9	34.1	-1052.3	1052.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
17	9500.00	90.71	271.85	100	8543.7	1152.9	37.3	-1152.3	1152.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
18	9600.00	90.71	271.85	100	8542.4	1252.9	40.6	-1252.2	1252.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
19	9700.00	90.71	271.85	100	8541.2	1352.9	43.8	-1352.2	1352.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
20	9800.00	90.71	271.85	100	8539.9	1452.9	47.0	-1452.1	1452.9	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
21	9900.00	90.71	271.85	100	8538.7	1552.8	50.3	-1552.0	1552.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
22	10000.00	90.71	271.85	100	8537.5	1652.8	53.5	-1652.0	1652.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
23	10100.00	90.71	271.85	100	8536.2	1752.8	56.7	-1751.9	1752.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
24	10200.00	90.71	271.85	100	8535.0	1852.8	60.0	-1851.9	1852.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
25	10300.00	90.71	271.85	100	8533.7	1952.8	63.2	-1951.8	1952.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
26	10400.00	90.71	271.85	100	8532.5	2052.8	66.4	-2051.7	2052.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
27	10500.00	90.71	271.85	100	8531.3	2152.8	69.7	-2151.7	2152.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
28	10600.00	90.71	271.85	100	8530.0	2252.8	72.9	-2251.6	2252.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
29	10700.00	90.71	271.85	100	8528.8	2352.8	76.2	-2351.6	2352.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
30	10800.00	90.71	271.85	100	8527.5	2452.8	79.4	-2451.5	2452.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
31	10900.00	90.71	271.85	100	8526.3	2552.8	82.6	-2551.4	2552.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
32	11000.00	90.71	271.85	100	8525.1	2652.8	85.9	-2651.4	2652.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
33	11100.00	90.71	271.85	100	8523.8	2752.8	89.1	-2751.3	2752.8	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
34	11200.00	90.71	271.85	100	8522.6	2852.7	92.3	-2851.3	2852.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
35	11300.00	90.71	271.85	100	8521.4	2952.7	95.6	-2951.2	2952.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
36	11400.00	90.71	271.85	100	8520.1	3052.7	98.8	-3051.1	3052.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
37	11500.00	90.71	271.85	100	8518.9	3152.7	102.0	-3151.1	3152.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
38	11600.00	90.71	271.85	100	8517.6	3252.7	105.3	-3251.0	3252.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
39	11700.00	90.71	271.85	100	8516.4	3352.7	108.5	-3351.0	3352.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
40	11800.00	90.71	271.85	100	8515.2	3452.7	111.8	-3450.9	3452.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
41	11900.00	90.71	271.85	100	8513.9	3552.7	115.0	-3550.8	3552.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
42	12000.00	90.71	271.85	100	8512.7	3652.7	118.2	-3650.8	3652.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
43	12100.00	90.71	271.85	100	8511.4	3752.7	121.5	-3750.7	3752.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
44	12200.00	90.71	271.85	100	8510.2	3852.7	124.7	-3850.7	3852.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
45	12300.00	90.71	271.85	100	8509.0	3952.7	127.9	-3950.6	3952.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
46	12400.00	90.71	271.85	100	8507.7	4052.7	131.2	-4050.5	4052.7	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
47	12500.00	90.71	271.85	100	8506.5	4152.6	134.4	-4150.5	4152.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
48	12600.00	90.71	271.85	100	8505.2	4252.6	137.6	-4250.4	4252.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
49	12700.00	90.71	271.85	100	8504.0	4352.6	140.9	-4350.4	4352.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
50	12800.00	90.71	271.85	100	8502.8	4452.6	144.1	-4450.3	4452.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
51	12900.00	90.71	271.85	100	8501.5	4552.6	147.4	-4550.2	4552.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
52	13000.00	90.71	271.85	100	8500.3	4652.6	150.6	-4650.2	4652.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
53	13100.00	90.71	271.85	100	8499.0	4752.6	153.8	-4750.1	4752.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
54	13200.00	90.71	271.85	100	8497.8	4852.6	157.1	-4850.1	4852.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
55	13300.00	90.71	271.85	100	8496.6	4952.6	160.3	-4950.0	4952.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10
56	13400.00	90.71	271.85	100	8495.3	5052.6	163.5	-5049.9	5052.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74 1E-10

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57	13500.00	90.71	271.85	100	8494.1	5152.6	166.8	-5149.9	5152.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
58	13600.00	90.71	271.85	100	8492.8	5252.6	170.0	-5249.8	5252.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
59	13700.00	90.71	271.85	100	8491.6	5352.6	173.2	-5349.8	5352.6	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
60	13800.00	90.71	271.85	100	8490.4	5452.5	176.5	-5449.7	5452.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
61	13900.00	90.71	271.85	100	8489.1	5552.5	179.7	-5549.6	5552.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
62	14000.00	90.71	271.85	100	8487.9	5652.5	183.0	-5649.6	5652.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
63	14100.00	90.71	271.85	100	8486.6	5752.5	186.2	-5749.5	5752.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
64	14200.00	90.71	271.85	100	8485.4	5852.5	189.4	-5849.5	5852.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
65	14300.00	90.71	271.85	100	8484.2	5952.5	192.7	-5949.4	5952.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
66	14400.00	90.71	271.85	100	8482.9	6052.5	195.9	-6049.3	6052.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
67	14500.00	90.71	271.85	100	8481.7	6152.5	199.1	-6149.3	6152.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
68	14600.00	90.71	271.85	100	8480.4	6252.5	202.4	-6249.2	6252.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
69	14700.00	90.71	271.85	100	8479.2	6352.5	205.6	-6349.2	6352.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
70	14800.00	90.71	271.85	100	8478.0	6452.5	208.8	-6449.1	6452.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
71	14900.00	90.71	271.85	100	8476.7	6552.5	212.1	-6549.0	6552.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
72	15000.00	90.71	271.85	100	8475.5	6652.5	215.3	-6649.0	6652.5	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
73	15100.00	90.71	271.85	100	8474.2	6752.4	218.6	-6748.9	6752.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
74	15200.00	90.71	271.85	100	8473.0	6852.4	221.8	-6848.8	6852.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
75	15300.00	90.71	271.85	100	8471.8	6952.4	225.0	-6948.8	6952.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
76	15400.00	90.71	271.85	100	8470.5	7052.4	228.3	-7048.7	7052.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
77	15500.00	90.71	271.85	100	8469.3	7152.4	231.5	-7148.7	7152.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
78	15600.00	90.71	271.85	100	8468.0	7252.4	234.7	-7248.6	7252.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
79	15700.00	90.71	271.85	100	8466.8	7352.4	238.0	-7348.5	7352.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
80	15800.00	90.71	271.85	100	8465.6	7452.4	241.2	-7448.5	7452.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
81	15900.00	90.71	271.85	100	8464.3	7552.4	244.4	-7548.4	7552.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
82	16000.00	90.71	271.85	100	8463.1	7652.4	247.7	-7648.4	7652.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
83	16100.00	90.71	271.85	100	8461.9	7752.4	250.9	-7748.3	7752.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
84	16200.00	90.71	271.85	100	8460.6	7852.4	254.2	-7848.2	7852.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
85	16300.00	90.71	271.85	100	8459.4	7952.4	257.4	-7948.2	7952.4	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
86	16400.00	90.71	271.85	100	8458.1	8052.3	260.6	-8048.1	8052.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
87	16500.00	90.71	271.85	100	8456.9	8152.3	263.9	-8148.1	8152.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
88	16600.00	90.71	271.85	100	8455.7	8252.3	267.1	-8248.0	8252.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
89	16700.00	90.71	271.85	100	8454.4	8352.3	270.3	-8347.9	8352.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
90	16800.00	90.71	271.85	100	8453.2	8452.3	273.6	-8447.9	8452.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
91	16900.00	90.71	271.85	100	8451.9	8552.3	276.8	-8547.8	8552.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
92	17000.00	90.71	271.85	100	8450.7	8652.3	280.0	-8647.8	8652.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
93	17100.00	90.71	271.85	100	8449.5	8752.3	283.3	-8747.7	8752.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
94	17200.00	90.71	271.85	100	8448.2	8852.3	286.5	-8847.6	8852.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
95	17300.00	90.71	271.85	100	8447.0	8952.3	289.8	-8947.6	8952.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
96	17400.00	90.71	271.85	100	8445.7	9052.3	293.0	-9047.5	9052.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
97	17500.00	90.71	271.85	100	8444.5	9152.3	296.2	-9147.5	9152.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
98	17600.00	90.71	271.85	100	8443.3	9252.3	299.5	-9247.4	9252.3	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
99	17700.00	90.71	271.85	100	8442.0	9352.2	302.7	-9347.3	9352.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
100	17800.00	90.71	271.85	100	8440.8	9452.2	305.9	-9447.3	9452.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
101	17900.00	90.71	271.85	100	8439.5	9552.2	309.2	-9547.2	9552.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
102	18000.00	90.71	271.85	100	8438.3	9652.2	312.4	-9647.2	9652.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
103	18100.00	90.71	271.85	100	8437.1	9752.2	315.6	-9747.1	9752.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
104	18200.00	90.71	271.85	100	8435.8	9852.2	318.9	-9847.0	9852.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
105	18300.00	90.71	271.85	100	8434.6	9952.2	322.1	-9947.0	9952.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
106	18400.00	90.71	271.85	100	8433.3	10052.2	325.4	-10046.9	10052.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
107	18500.00	90.71	271.85	100	8432.1	10152.2	328.6	-10146.9	10152.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
108	18600.00	90.71	271.85	100	8430.9	10252.2	331.8	-10246.8	10252.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
109	18700.00	90.71	271.85	100	8429.6	10352.2	335.1	-10346.7	10352.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
110	18800.00	90.71	271.85	100	8428.4	10452.2	338.3	-10446.7	10452.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
111	18900.00	90.71	271.85	100	8427.1	10552.2	341.5	-10546.6	10552.2	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
112	19000.00	90.71	271.85	100	8425.9	10652.1	344.8	-10646.6	10652.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
113	19100.00	90.71	271.85	100	8424.7	10752.1	348.0	-10746.5	10752.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
114	19200.00	90.71	271.85	100	8423.4	10852.1	351.2	-10846.4	10852.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
115	19300.00	90.71	271.85	100	8422.2	10952.1	354.5	-10946.4	10952.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
116	19400.00	90.71	271.85	100	8420.9	11052.1	357.7	-11046.3	11052.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
117	19500.00	90.71	271.85	100	8419.7	11152.1	361.0	-11146.3	11152.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10
118	19600.00	90.71	271.85	100	8418.5	11252.1	364.2	-11246.2	11252.1	271.9	0.0	0.0	8558.0	-6.0	1.5831926	4.74	1E-10