

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

**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF MEWBOURNE OIL COMPANY
FOR A NONSTANDARD SPACING AND PRORATION
UNIT AND COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.**

Case No. 16312

VERIFIED STATEMENT OF JOSH ANDERSON

Josh Anderson, being duly sworn upon his oath, deposes and states:

1. I am a landman for Mewbourne Oil Company ("Mewbourne"), and have personal knowledge of the matters stated herein. I have been qualified by the Division as an expert petroleum landman.

2. Pursuant to NMAC 19.15.4.12.A(1), the following information is submitted in support of the compulsory pooling application filed herein:

(a) The purpose of this application is to force pool working interest owners into the Wolfcamp horizontal spacing unit described below, and in wells to be drilled in the unit.

(b) No opposition is expected because the interest owners being pooled have been contacted regarding the proposed well, but have simply failed or refused to voluntarily commit their interests to the wells.

(c) A plat outlining the unit being pooled is attached hereto as Attachment A. Mewbourne seeks an order approving a 480 acre horizontal spacing unit in the Wolfcamp formation comprised of the SW/4 of Section 21 and the W/2 of Section 28, Township 24 South, Range 28 East, NMPM, and pooling all mineral interests in the Wolfcamp formation underlying the unit. The unit will be dedicated to (i) the Kansas 21/28 W01M Fed. Well No. 2H, and (ii) the Kansas 21/28 W21M Fed. Well No. 1H. Both wells are horizontal wells with surface locations in the NW/4SW/4 of Section 21, and last take points in the SW/4SW/4 of Section 28

(d) The parties being pooled and their interests are set forth in Attachment B. Their current and correct addresses are also set forth.

EXHIBIT


1

- (c) Attachment C contains a summary of contacts with the interest owners, together with copies of the proposal letters sent to the interest owners.
- (f) Mewbourne has made a good faith effort to obtain the voluntary joinder of the working interest owners in the proposed wells.
- (g) Mewbourne has the right to pool the overriding royalty owners in the well unit.
- (h) Attachment D contains the Authorizations for Expenditure for the proposed wells. The estimated costs of the wells set forth therein are fair and reasonable, and comparable to the costs of other wells of similar depth and length drilled in this area of Eddy County.
- (i) Mewbourne requests overhead and administrative rates of \$8000/month for a drilling well and \$800/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 portion of Eddy County. They are also the rates set forth in the Joint Operating Agreement for the well unit. Mewbourne requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.
- (j) Mewbourne requests that the maximum cost plus 200% risk charge be assessed against non-consenting working interest owners.
- (k) Mewbourne requests that it be designated operator of the wells.
- (l) The attachments to this affidavit were prepared by me, or compiled from Company business records.
- (m) The granting of this application is in the interests of conservation and the prevention of waste.

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

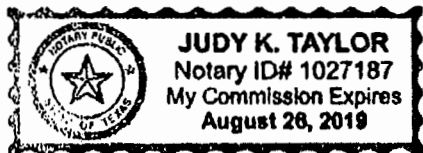
Josh Anderson, being duly sworn upon his oath, deposes and states that: He is a landman for Mewbourne Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.


Josh Anderson

SUBSCRIBED AND SWORN TO before me this 25th day of July, 2018 by Josh Anderson.

My Commission Expires: 8-26-19

May K. Lior
Notary Public



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

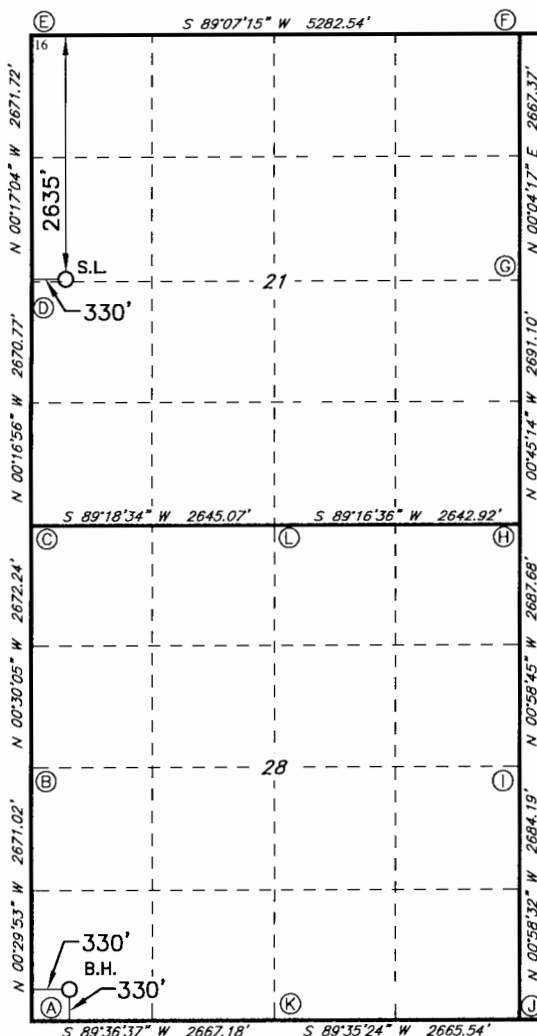
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name					
4 Property Code		5 Property Name KANSAS 21/28 W2LM FEDERAL						6 Well Number 1H	
7 OGRID NO.		8 Operator Name MEWBOURNE OIL COMPANY						9 Elevation 3031'	
10 Surface Location									
UL or lot no. E	Section 21	Township 24S	Range 28E	Lot Idn	Feet from the 2635	North/South line NORTH	Feet From the 330	East/West line WEST	County EDDY
11 Bottom Hole Location If Different From Surface									
UL or lot no. M	Section 28	Township 24S	Range 28E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 330	East/West line WEST	County EDDY
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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



GEODETTIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION
N: 437784.6 - E: 613465.2
LAT: 32.2033319° N
LONG: 104.1001387° W

BOTTOM HOLE
N: 430062.9 - E: 613522.2
LAT: 32.1821055° N
LONG: 104.1000083° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND BRASS CAP "1942"
N: 429730.8 - E: 613195.2

B: FOUND BRASS CAP "1942"
N: 432401.1 - E: 613172.0

C: FOUND BRASS CAP "1942"
N: 435072.6 - E: 613148.6

D: FOUND BRASS CAP "1942"
N: 437742.8 - E: 613135.4

E: CALCULATED CORNER
N: 440413.8 - E: 613122.2

F: CALCULATED CORNER
N: 440494.9 - E: 618402.9

G: FOUND BRASS CAP "1942"
N: 437828.1 - E: 618399.6

H: FOUND BRASS CAP "1942"
N: 435137.9 - E: 618435.0

I: FOUND BRASS CAP "1942"
N: 432451.2 - E: 618480.9

J: FOUND BRASS CAP "1942"
N: 429768.0 - E: 618526.6

K: FOUND BRASS CAP "1942"
N: 429748.9 - E: 615861.7

L: FOUND BRASS CAP "1942"
N: 435104.5 - E: 615792.9

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____
Printed Name _____
E-mail Address _____

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

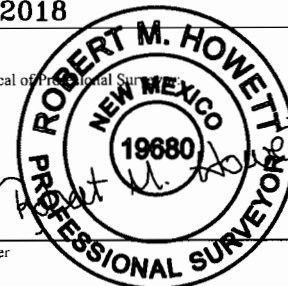
4-05-2018

Date of Survey

Signature and Seal of Professional Surveyor

19680

Certificate Number



RRC - Job No.: LS1804445

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

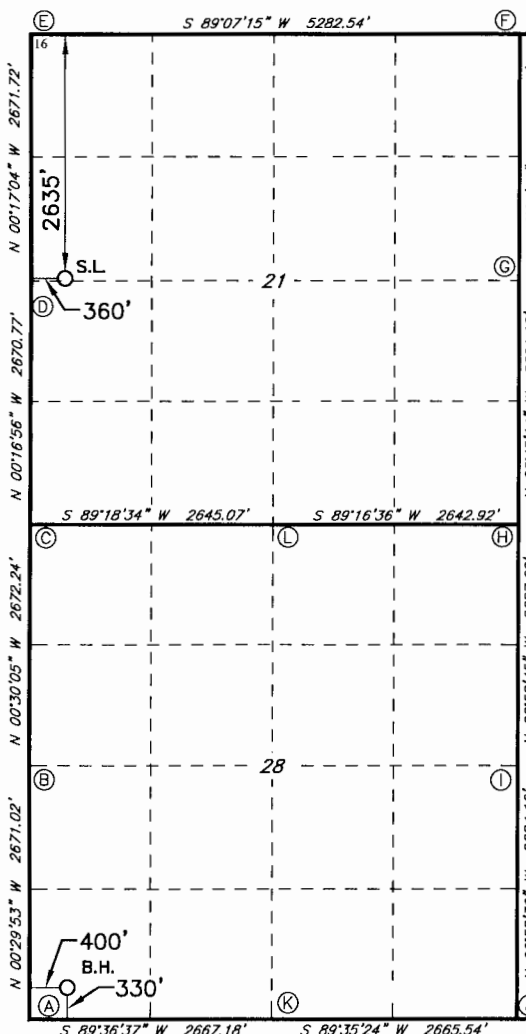
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name					
⁴ Property Code		⁵ Property Name KANSAS 21/28 WOLM FEDERAL						⁶ Well Number 2H	
⁷ OGRID NO.		⁸ Operator Name MEWBOURNE OIL COMPANY						⁹ Elevation 3031'	
¹⁰ Surface Location									
UL or lot no. E	Section 21	Township 24S	Range 28E	Lot Idn	Feet from the 2635	North/South line NORTH	Feet From the 360	East/West line WEST	County EDDY
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. M	Section 28	Township 24S	Range 28E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 400	East/West line WEST	County EDDY
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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



GEODETIC DATA
NAD 83 GRID - NM EAST
SURFACE LOCATION
N: 437785.1 - E: 613495.1
LAT: 32.2033330° N
LONG: 104.1000417° W
BOTTOM HOLE
N: 430063.4 - E: 613592.2
LAT: 32.1821064° N
LONG: 104.0997821° W

CORNER DATA
NAD 83 GRID - NM EAST
A: FOUND BRASS CAP "1942"
N 429730.8 - E 613195.2
B: FOUND BRASS CAP "1942"
N 432401.1 - E 613172.0
C: FOUND BRASS CAP "1942"
N 435072.6 - E 613148.6
D: FOUND BRASS CAP "1942"
N: 437742.8 - E: 613135.4
E: CALCULATED CORNER
N: 440413.8 - E: 613122.2
F: CALCULATED CORNER
N: 440494.9 - E: 618402.9
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N: 437828.1 - E: 618399.6
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N 432451.2 - E 618480.9
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K: FOUND BRASS CAP "1942"
N 429748.9 - E 615861.7
L: FOUND BRASS CAP "1942"
N 435104.5 - E 615792.9

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____
Printed Name _____
E-mail Address _____

18 SURVEYOR CERTIFICATION

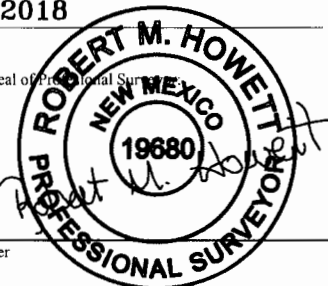
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

4-05-2018

Date of Survey _____
Signature and Seal of Professional Surveyor _____

19680

Certificate Number

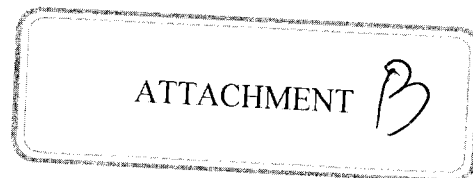


TRACT OWNERHSIP
Kansas "21/28" W2LM Fed No. 1H
Kansas "21/28" W0LM Fed No. 2H
W/2 of Section 28 & SW/4 of Section 21
Township 24 South, Range 28 East
Eddy County, New Mexico

W/2 of Section 28 & SW/4 of Section 21:
Wolfcamp formation:

	<u>% Leasehold Interest</u>
Mewbourne Oil Company	46.22341%
*COG Operating LLC	44.14038%
Marshall & Winston, Inc.	6.25000%
*Crown Oil Partners V, LP	0.70049%
*Crump Energy Partners II, LLC	0.70049%
Fasken Land and Minerals, Ltd.	0.63030%
*Nadel and Gussman Delaware, LLC	0.44242%
KCK Energy, LLC	0.27293%
*T.I.G. Properties, L.P.	0.20833%
Jane B. Ramsland Oil and Gas Partnership Ltd.	0.12500%
*Marathon Oil Permian LLC	0.07918%
Bahnhof Holdings, L.P.	0.06458%
Elizabeth R. Robinson	0.06458%
Claudia R. Burch	0.06458%
Dinero Energy Corporation	<u>0.03333%</u>
	100.00000%

*** Total interest being pooled: 46.27129%**



COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701
Attn: Outside Operated Properties

Crown Oil Partners V, L.P.;
Crump Energy Partners II, LLC;
Nadel and Gussman Delaware, LLC
P.O. Box 50820
Midland, Texas 79710
Attn: Brian Arnold

Fasken Land and Minerals, Ltd.
6101 Holiday Hill Road
Midland, Texas 79707
Attn: Ms. Linda Hicks

T.I.G. Properties, L.P.
P.O. Box 1343
Midland, Texas 79702

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Attn: Mr. Matt Brown

Josh Anderson

From: Josh Anderson
Sent: Friday, April 13, 2018 3:49 PM
To: 'Brown, Matthew D. (MRO)'
Subject: RE: Kansas 21-28 Prospect, T24S-R28E, Eddy Co., NM

Thanks Matt!

From: Brown, Matthew D. (MRO) [<mailto:mbrown3@marathonoil.com>]
Sent: Friday, April 13, 2018 3:29 PM
To: Josh Anderson
Subject: RE: Kansas 21-28 Prospect, T24S-R28E, Eddy Co., NM

Josh,

I reviewed the PSA and it appears we acquired a very small interest (~1.5 net acres) in NMNM-36975 in Section 21-24S-28E only. It's possible that BC assigned their interest to another company prior to our acquisition or inadvertently omitted the tract from the PSA.

Thanks,

Matt Brown, CPL
Marathon Oil Corporation
Land – Permian
Ph# 713.296.3408 / Cell# 281.468.8833
5555 San Felipe St. / Houston, TX 77056

From: Josh Anderson <janderson@Mewbourne.com>
Sent: Friday, April 13, 2018 2:55 PM
To: Brown, Matthew D. (MRO) <mbrown3@marathonoil.com>
Subject: [External] Kansas 21-28 Prospect, T24S-R28E, Eddy Co., NM

Beware of links/attachments.

Matt,

We're showing Devon conveying an interest in OGL USA NMNM-36975 to Crown Oil Partners V, LP, Crump Energy Partners II, LLC, & Nadel and Gussman Delaware, LLC in the W/2 of Sec. 28-24S-28E, Eddy Co., NM, but can't find that subsequently conveyed to Marathon.

Is it possible that it was in the PSA but accidently left of any Assignments to you guys?

Thanks,

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982

Josh Anderson

From: Josh Anderson
Sent: Monday, May 14, 2018 11:38 AM
To: 'Gorman, Jessica (MRO)'
Subject: RE: Kansas Federal 1H and 2H

Jessica,

Any update on the Kansas wells? Anything I can help with?

Thanks,

Josh Anderson

Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Josh Anderson
Sent: Thursday, February 22, 2018 10:53 AM
To: 'Gorman, Jessica (MRO)'
Subject: RE: Kansas Federal 1H and 2H

We do not have a Title Opinion yet, but will be getting started on it soon.

Right now, it's looking like early 4th quarter, but as always, it's subject to change depending on how fast we can get them ready.

If you have any other questions, don't hesitate to ask.

Thanks,

Josh Anderson

Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Gorman, Jessica (MRO) [<mailto:jgorman1@marathonoil.com>]
Sent: Thursday, February 22, 2018 10:11 AM
To: Josh Anderson
Subject: Kansas Federal 1H and 2H

Josh,

I am in receipt of the 2 well proposals for the Kansas Federal 1H and 2H, I was wondering if you guys have a Title Opinion for these sections?

Also what time frame are you guys planning to spud these wells?

Respectfully,

Jessica Gorman



Marathon Oil

Advanced Land Specialist – Permian

Telephone: 713-296-3024

5555 San Felipe St.

Houston, Texas 77056

Josh Anderson

From: Josh Anderson
Sent: Thursday, June 07, 2018 4:30 PM
To: 'Gorman, Jessica (MRO)'
Subject: Kansas 21/28 Fed Com #1H & #2H, & Kansas 21/28 Federal #1H & #2H

Jessica,

Just touching base to see where we are at on these and if there is anything I can help with.

If you have any questions, let me know.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

Josh Anderson

From: Josh Anderson
Sent: Wednesday, June 20, 2018 4:21 PM
To: 'Brown, Matthew D. (MRO)'
Cc: 'Gorman, Jessica (MRO)'
Subject: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"
Attachments: Kansas 21-28 West Unit JOA Exhibit A.pdf

Matt,

Attached is the Exhibit "A" for the JOA captioned above.

Please add this to your file, and if you have any questions or concerns, please advise.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

Josh Anderson

From: Josh Anderson
Sent: Tuesday, July 17, 2018 4:20 PM
To: 'Brown, Matthew D. (MRO)'
Subject: Kansas 21/28 W/2 JOA Replacement Pages
Attachments: Kansas 21-28 W2 JOA Changes.pdf; MRO Cover Letter Kansas 21-28 W2 JOA Changes.pdf

Matt,

Attached are the JOA replacement pages and corresponding cover letters, for the above captioned prospect.

If you have any questions, don't hesitate to ask.

Thanks,

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701
Attn: Scott Tomlinson

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Scott:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently COG Operating LLC ("COG") owns 32.421125% interest in the SW/4 of the captioned Section 21 (160.00 gross acres) & COG owns 50.000000% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, COG would own 44.14038% working interest in the proposed WIU ($(32.421125\% \text{ interest} \times 160.00 \text{ gross acres} = 51.8738 \text{ net acres} + 50.000000\% \text{ interest} \times 320.00 \text{ gross acres} = 160.00 \text{ net acres}) / 480.00 \text{ gross acres} = 44.14038\% \text{ interest in the WIU}$).


Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701
Attn: Scott Tomlinson

Re: Kansas "21/28" WOLM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Scott:

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Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

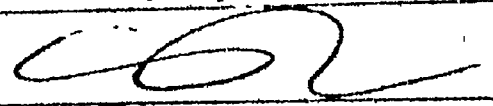


Date: April 17, 2018

Simple Certified:

The following is in response to your April 17, 2018 request for delivery information on your Certified Mail™/RRE item number 9414810699945030691338. The delivery record shows that this item was delivered on April 17, 2018 at 12:21 pm in MIDLAND, TX 79701. The scanned image of the recipient information is provided below.

Signature of Recipient :

Delivery Record	
Signature	
Printed Name	F. Rubalcado

Address of Recipient :

Delivery Address	600 W Illinois
------------------	----------------

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

COG Operating LLC
attn: Scott Tomilson
600 W ILLINOIS AVE
ONE CONCHO CENTER
MIDLAND, TX 79701
Reference #: Kansas "21/28" W2LM FED NO. 1H JA
Item ID: Kansas 21 28 W2LM NO 1

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701
Attn: Scott Tomlinson

Re: Working Interest Unit
Mewbourne's Kansas 21/28 Prospect
Section 21/28, T24S, R28E
Eddy County, New Mexico

Scott:

Enclosed for your further handling regarding the captioned prospect and lands is our Operating Agreement dated April 15, 2018, along with an extra set of signature pages. The Operating Agreement is to coincide with the well proposal/AFE I sent by letter dated April 13, 2018.

Regarding the above, please have the AFE, Operating Agreement and extra set of signature pages executed and return only the extra set of signature pages and AFE to me whereby you will retain the Operating Agreement for your file.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman



Date: April 20, 2018

Simple Certified:

The following is in response to your April 20, 2018 request for delivery information on your Certified Mail™/RRE item number 9402810699945030791590. The delivery record shows that this item was delivered on April 20, 2018 at 1:28 pm in MIDLAND, TX 79701. The scanned image of the recipient information is provided below.

Signature of Recipient :

A handwritten signature in black ink, appearing to be "S. J. S.", written over a horizontal line.

Address of Recipient :

A handwritten address in black ink, appearing to be "600 W ILLINOIS AVE", written over a horizontal line.

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

Attn: Scott Tomlinson
COG Operating LLC
600 W ILLINOIS AVE
MIDLAND, TX 79701
Reference #: Kansas 21/28 Prospect JA
Item ID: Kansas 21 28 Prospect

Josh Anderson

From: Scott Tomlinson <stomlinson@concho.com>
Sent: Tuesday, April 24, 2018 8:10 AM
To: Josh Anderson
Subject: Kansas

Good Morning Josh,

I tried calling but no one answered. Can you give me a call when you have a minute?

Scott Tomlinson

Scott S. Tomlinson, CPL
Senior Staff Landman, Outside Operated Properties
COG OPERATING LLC
One Concho Center, Room 556
600 W. Illinois Avenue
Midland, Texas 79701
Direct 432.818.2234



NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Further, any contract terms proposed or purportedly accepted in this email are not binding and are subject to management's final approval as memorialized in a separate written instrument, excluding electronic correspondence, executed by an authorized representative of COG Operating LLC or its affiliates.

Josh Anderson

From: Scott Tomlinson <stomlinson@concho.com>
Sent: Monday, June 18, 2018 4:40 PM
To: Josh Anderson
Subject: RE: Kansas West

OK

Scott S. Tomlinson, CPL
Senior Staff Landman, Outside Operated Properties

COG OPERATING LLC
One Concho Center, Room 556
600 W. Illinois Avenue
Midland, Texas 79701
Direct 432.818.2234



From: Josh Anderson [<mailto:janderson@Mewbourne.com>]
Sent: Monday, June 18, 2018 4:38 PM
To: Scott Tomlinson
Subject: [External] RE: Kansas West

**** External email. Use caution. ****
Not yet, getting title.

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Scott Tomlinson [<mailto:stomlinson@concho.com>]
Sent: Monday, June 18, 2018 4:09 PM
To: Josh Anderson
Subject: Kansas West

There is no Ex A??

Scott S. Tomlinson, CPL
Senior Staff Landman, Outside Operated Properties
COG OPERATING LLC
One Concho Center, Room 556
600 W. Illinois Avenue
Midland, Texas 79701
Direct 432.818.2234



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Josh Anderson

From: Drew Robison
Sent: Tuesday, June 19, 2018 12:59 PM
To: Travis Cude; Josh Anderson; Tyler Jolly
Subject: FW: Sledgehammer Well Proposals
Attachments: Well Prop to Mewb - Sledgehammer 701H, 801H, 811H, 711H.PDF; Well Prop to Mewb - Sledgehammer 802H, 702H, 803H, 812H.PDF; Well Prop to Mewb - Sledgehammer 804H, 703H, 805H, 813H.PDF; Well Prop to Mewb - Sledgehammer 806H, 704H, 807H, 815H.pdf

From: Mitch Robb
Sent: Tuesday, June 19, 2018 12:58 PM
To: Drew Robison; Corey Mitchell
Subject: Fw: Sledgehammer Well Proposals

FYI... COG's proposed wells on our Kansas 28 prospect.

From: Ashley Roush <ARoush@concho.com>
Sent: Tuesday, June 19, 2018 12:30 PM
To: Mitch Robb
Subject: Sledgehammer Well Proposals

Mitch,

Attached are the well proposals for the Sledgehammer wells in the SW of Section 21 and W2 of Section 28 & 33, 24S-28E. Originals were put in the mail yesterday.

Thank you,

Ashley Roush, RPL
Landman
COG OPERATING LLC
One Concho Center
600 W. Illinois Ave
Midland, Texas 79701
(432) 818-2358



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instrument, excluding electronic correspondence, executed by an authorized representative of COG Operating LLC or its affiliates.



June 18, 2018

Via CMRRR No. 91 7199 9991 7038 7697 2227
Mewbourne Oil Company
500 W. Texas, Suite 1020
Midland, TX 79701

Re: **Sledgehammer Fed Com #701H, #801H, #811H, #711H**
SW/4 of Section 21 and W/2 Sections 28 & 33, T24S-R28E
Eddy County, New Mexico

Dear Sir or Madam:

COG Operating, LLC ("COG") hereby proposes the drilling of the following horizontal wells with productive laterals located in the SW/4 of Section 21 and W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The surface pad locations will be located in the NE/4 SW/4 of Section 21, T24S-R28E (subject to change).

- **Sledgehammer Fed Com #701H**, to be drilled to a depth sufficient to test the WFMP A Shale formation at a total measured depth of 22,600'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$11,900,000, as shown on the attached Authority for Expenditure ("AFE").
- **Sledgehammer Fed Com #801H**, to be drilled to a depth sufficient to test the WFMP D formation at a total measured depth of 23,700'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached AFE.
- **Sledgehammer Fed Com #811H**, to be drilled to a depth sufficient to test the WFMP C formation at a total measured depth of 23,200'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached AFE.
- **Sledgehammer Fed Com #711H**, to be drilled to a depth sufficient to test the WFMP B formation at a total measured depth of 22,900'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$11,900,000, as shown on the attached AFE.

COG is proposing this well under the terms of a new Operating Agreement which will follow under separate cover.

If we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well.

June 18, 2018 – Page 2

Sledgehammer Fed Com #701, #801H, #811H, #711H

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to aroush@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.2358.

Sincerely,

COG Operating LLC



Ashley Roush, RPL
Landman

AR:bh

Enc

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #701H.

_____ I/We hereby elect **not** to participate in the drilling and completion of the
Sledgehammer Fed Com #701H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #801H.

_____ I/We hereby elect **not** to participate in the drilling and completion of the
Sledgehammer Fed Com #801H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #811H.

_____ I/We hereby elect **not** to participate in the drilling and completion of the
Sledgehammer Fed Com #811H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #711H.

_____ I/We hereby elect **not** to participate in the drilling and completion of the
Sledgehammer Fed Com #711H.

By: _____

Name: _____

Title: _____

Date: _____

Summary of Communications
Kansas 21/28 W2LM Fed No. 1H &
Kansas 21/28 W0LM Fed No. 2H

Marathon Oil Permian LLC

4/13/18 – Mailed Kansas W2LM Fed #1H & W0LM Fed #2H well proposal letters with AFEs via certified mail dated 4/13/18.

4/23/18 – Received green card signed by Richard ?.

4/18/18 - Mailed Kansas 21/28 W/2 JOA with cover letter via certified mail dated 4/18/18.

4/23/18 – Received green card signed by Richard ?.

4/13/18 – Emailed Matthew Brown to follow up with Marathon's interest and discuss title issues.

5/1/18 – Received phone call from Marathon to discuss prospect.

5/14/18 – Emailed Jessica Gorman to follow up on all Kansas Prospects, received no response.

5/21/2018 – Received 10 Well Proposals and corresponding AFEs from Marathon in the E/2 of Section 16 & Section 21, T24S, R28E.

6/7/18 – Emailed Jessica Gorman to follow up on all Kansas Prospects, received no response.

6/19/18 – Received a letter Marathon retracting the 10 Well Proposals, citing that Mewbourne Oil Company does not own a Working Interest in the lands and/or depths covered by these wells.

6/20/18 – Emailed an updated JOA Exhibit "A", showing the interests of all the Working Interest Parties.

7/17/18 – Emailed changes to the W/2 JOA to Marathon.

2/22/18-7/17/18 – Various email correspondence with Marathon.

ATTACHMENT C

COG Operating LLC

4/13/18 – Mailed Kansas W2LM Fed #1H & W0LM Fed #2H well proposal letters with AFEs via certified mail dated 4/13/18.

4/17/18 – Received green card signed by E. Rubalcado.

4/18/18 - Mailed Kansas 21/28 W/2 JOA with cover letter via certified mail dated 4/18/18.

4/20/18 – Received green card signed by illegible name.

4/24/18 – Received email from Scott Tomlinson about the Kansas Prospect, followed up with multiple phone calls to discuss the Prospect.

5/21/18 – Called Scott and followed up and to discuss the Prospect.

6/18/18 – Received email from Scott Tomlinson asking for an Exhibit "A" for the W/2 JOA, explained that we were waiting on title.

6/19/2018 – Received 16 Well Proposals and corresponding AFEs from Concho covering the S/2 of Section 21, and all of Sections 28 & 33, T24S, R28E.

6/20/18 – Emailed an updated JOA Exhibit “A”, showing the interests of all the Working Interest Parties.

6/26/18 – Met with Concho to discuss potential trade proposals.

6/29/18 – Received potential trade offer from Concho.

7/13/18 – Sent potential trade offer to Concho.

7/17/18 – Emailed changes to the W/2 JOA to Concho.

4/24/18-7/17/18 – Various email correspondence with Concho.

Crown Oil Partners V, LP, Crump Energy Partners II, LLC, & Nadel and Gussman Delaware, LLC

4/18/18 – Mailed Kansas W2LM Fed #1H & W0LM Fed #2H well proposal letters with AFEs and JOA via certified mail dated 4/18/18.

4/20/18 – Received green card signed by Rachel ?.

6/20/18 – Emailed an updated JOA Exhibit “A”, showing the interests of all the Working Interest Parties.

6/21/18 - Called Brian Arnold to discuss prospect, no answer, and left message.

6/29/18 – Called Brian Arnold and discussed the Prospect, said they would execute everything and hoped to wrap it up soon.

7/16/18 – Received email from Brian Arnold discussing potential title issue, addressed it in an email response.

7/17/18 – Emailed changes to the W/2 JOA to Crown, Crump, & Nadel.

7/18/18 – Called Brian Arnold to discuss prospect, no answer, left message.

6/20/18-7/23/18 – Various email correspondence with Crown, Crump, & Nadel.

T.I.G. Properties, LP

3/28/18 – Called Pam Burke to discuss the Prospect, no answer, left message.

4/5/18 – Called Pam Burke to discuss the Prospect, no answer, left message

4/11/18 – Called Pam Burke to discuss the Prospect, no answer, left message

4/13/18 – Mailed Kansas W2LM Fed #1H & W0LM Fed #2H well proposal letters with AFEs and JOA via certified mail dated 4/18/18.

5/2/18 – Received green card signed by Pam Burke.

4/18/18 - Mailed Kansas 21/28 W/2 JOA with cover letter via certified mail dated 4/18/18.

4/18/18 – Received green card signed by Pam Burke.

4/25/18 – Talked to Pam Burke, discussed prospect.

6/7/18 – Called Pam Burke to follow up, no answer, left message

6/20/18 – Emailed an updated JOA Exhibit “A”, showing the interests of all the Working Interest Parties.

7/16/18 – Received phone call from Andy Iverson, says they are going to participate.

7/17/18 – Mailed changes to the W/2 JOA to T.I.G. Properties, LP.

7/17/18 – Received executed AFEs from T.I.G. Properties, LP.

4/25/18-7/17/18 – Various email correspondence with T.I.G. Properties, LP.

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Attn: Mr. Matt Brown

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Marathon Oil Permian LLC ("MRO") owns 0.23755% interest in the SW/4 of the captioned Section 21 (160.00 gross acres). Accordingly, MRO would own 0.07918% working interest in the proposed WIU ($0.23755\% \text{ interest} \times 160.00 \text{ gross acres} = 0.38008 \text{ net acres} / 480.00 \text{ gross acres} = 0.07918\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Attn: Mr. Matt Brown

Re: Kansas "21/28" W0LM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Marathon Oil Permian LLC ("MRO") owns 0.23755% interest in the SW/4 of the captioned Section 21 (160.00 gross acres). Accordingly, MRO would own 0.07918% working interest in the proposed WIU ($0.23755\% \text{ interest} \times 160.00 \text{ gross acres} = 0.38008 \text{ net acres} / 480.00 \text{ gross acres} = 0.07918\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman



Date: April 23, 2018

Simple Certified:

The following is in response to your April 23, 2018 request for delivery information on your Certified Mail™/RRE item number 9414810699945030691642. The delivery record shows that this item was delivered on April 23, 2018 at 2:59 pm in HOUSTON, TX 77056. The scanned image of the recipient information is provided below.

Signature of Recipient :

A handwritten signature in black ink, appearing to read "Matt Brown".

Address of Recipient :

A handwritten address in black ink, reading "5555 San Felipe" on the first line and "B112" on the second line.

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

Attn: Mr. Matt Brown
Marathon Oil Permian LLC
5555 SAN FELIPE ST
HOUSTON, TX 77056
Reference #: Kansas "21/28" W2LM FED NO. 1H JA
Item ID: Kansas 21 28 W2LM NO 1

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Attn: Mr. Matt Brown

Re: Working Interest Unit
Mewbourne's Kansas 21/28 Prospect
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Enclosed for your further handling regarding the captioned prospect and lands is our Operating Agreement dated April 15, 2018, along with an extra set of signature pages. The Operating Agreement is to coincide with the well proposal/AFE I sent by letter dated April 13, 2018.

Regarding the above, please have the AFE, Operating Agreement and extra set of signature pages executed and return only the extra set of signature pages and AFE to me whereby you will retain the Operating Agreement for your file.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman



Date: April 23, 2018

Simple Certified:

The following is in response to your April 23, 2018 request for delivery information on your Certified Mail™/RRE item number 9402810699945030792412. The delivery record shows that this item was delivered on April 23, 2018 at 2:59 pm in HOUSTON, TX 77056. The scanned image of the recipient information is provided below.

Signature of Recipient :

A handwritten signature in black ink, appearing to read "Matt Brown".

Address of Recipient :

A handwritten address in black ink, reading "5555 San Felipe" on the first line and "B112" on the second line.

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

Attn: Mr. Matt Brown
Marathon Oil Permian LLC
5555 SAN FELIPE ST
HOUSTON, TX 77056
Reference #: Kansas Prospect 21/28 JA
Item ID: Kansas Prospect 21 28

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 701H		Prospect	Tomshawk 2428	
SHL 2450 FSL, 2380 FWL or UNIT K SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
BHL 200 FSL, 2310 FWL or UNIT K SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp A Shale		Depth	22,600	
Legal 21, 28, 33, 24S-28E		TVD	9,636	
AFE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$378,000.00	\$0.00	\$378,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wethead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wethead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trn/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pckrs/Anchors/Hgns	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	518	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Compressors/Emission	528	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wethead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,834,800.00	\$0.00	\$1,834,800.00
Intangible Costs				
PS-Ties/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/State Lctn	204	\$8,000.00	\$0.00	\$8,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	208	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$650,000.00	\$0.00	\$650,000.00
D-Directional Drng Services	210	\$270,000.00	\$0.00	\$270,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$245,000.00	\$0.00	\$245,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Flow Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Svrn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Svrn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subarfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$44,000.00	\$0.00	\$44,000.00
D-Envrnmnt/Cldd Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,432,000.00	\$0.00	\$1,432,000.00
C-Frac Chemicals	308	\$776,000.00	\$0.00	\$776,000.00
C-Frac Proppant	309	\$1,150,000.00	\$0.00	\$1,150,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$630,000.00	\$0.00	\$630,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Svrn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Svrn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$500,000.00	\$0.00	\$500,000.00
C-Simulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$286,000.00	\$0.00	\$286,000.00
C-Rentals-Subarfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cldd Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$435,000.00	\$0.00	\$435,000.00
C-Coil Tubing	348	\$422,000.00	\$0.00	\$422,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	378	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trkg/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,655,200.00	\$0.00	\$10,655,200.00
Total Gross Cost		\$11,990,000.00	\$0.00	\$11,990,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared: _____

COG Operating LLC

We approve
% Working Interest

By _____

Company:
By _____

Printed Name _____
Title _____
Date _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 801H		Prospect	Tomahawk 2428	
SHL 2450 FSL, 2350 FWL or UNIT K, SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
BHL 290 FSL, 2310 FWL or UNIT N, SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp D		Depth	23,700	
Legal 21, 28, 33, 245-28E		TVD	10,530	
APE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermediate Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Roosts	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Htr Trn/Separ	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pckrs/Anchors/Hgrs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combustors/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00		\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pts/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$870,000.00	\$0.00	\$870,000.00
D-Directional Drtg Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermediate	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Floor Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Crg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Supervsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Supervsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tstlg Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Part/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Environmnt/Clad Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pts/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Supervsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Supervsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tstlg Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Part/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Environmnt/Clad Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Coil Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pts/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trkg/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By: _____
 We approve: _____
 _____ % Working Interest
 Company: _____
 By: _____
 Printed Name: _____
 Title: _____
 Date: _____

Date Prepared: _____
 COG Operating LLC
 By: _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete

Well Name SLEDGEHAMMER FED COM 811H
 SHL 2450, 2330 FWL or UNIT K SECTION 21
 SHL 200 FWL, 2310 FWL or UNIT N SECTION 33
 Formation Wolfcamp C
 Legal 21, 28, 33, 24S-28E
 AFE Numbers

Prospect
 State & County
 Objective
 Depth
 TVD

Tomahawk 2426
 NEW MEXICO, EDOY COUNTY
 Drill & Complete
 21,200
 10,245

Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$378,000.00	\$0.00	\$378,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$58,000.00	\$0.00	\$58,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trl/Sapir	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$68,000.00	\$0.00	\$68,000.00
C-Pkts/Anchors/Hngs	514	\$68,000.00	\$0.00	\$68,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$60,000.00	\$0.00	\$60,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combusters/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,834,800.00	\$0.00	\$1,834,800.00
Intangible Costs				
PS-Tel/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drig Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod/2nd Int Cms	219	\$105,000.00	\$0.00	\$105,000.00
D-Frac Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Sprvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Sprvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tstg Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envrnmnt/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
D-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$788,000.00	\$0.00	\$788,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Sprvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Sprvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tstg Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Compression Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$298,000.00	\$0.00	\$298,000.00
C-Rentals-Subsfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$80,000.00	\$0.00	\$80,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Coil Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trkg/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared: _____

We approve:

 % Working Interest

COG Operating LLC

By _____

Company

By _____

Printed Name:

Title: _____

Date: _____

The AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 711H		Prospect	Tomahawk 2428	
SHL 2450 FSL, 2290 FWL, or UNIT K SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
SHL 200 FSL, 1890 FWL, or UNIT N SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp B		Depth	22,900	
Legal 21, 28, 33, 24S-28E		TVD	9,822	
AFE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$378,000.00	\$0.00	\$378,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEO-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEO-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hvy Trt/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$38,000.00	\$0.00	\$38,000.00
C-Pkrs/Anchors/Hgrs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$30,000.00	\$0.00	\$30,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combusters/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEO-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEO-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEO-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEO-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEO-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEO-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEO-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$650,000.00	\$0.00	\$650,000.00
D-Directional Drtg Services	210	\$270,000.00	\$0.00	\$270,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$245,000.00	\$0.00	\$245,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$60,000.00	\$0.00	\$60,000.00
D-Prod-2nd Int Cml	219	\$105,000.00	\$0.00	\$105,000.00
D-Floot Equipment & Contractors	221	\$40,000.00	\$0.00	\$40,000.00
D-Crg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$8,500.00	\$0.00	\$8,500.00
D-Company Srvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Srvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$44,000.00	\$0.00	\$44,000.00
D-Envrnmnt/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pts/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,432,000.00	\$0.00	\$1,432,000.00
C-Frac Chemicals	308	\$776,000.00	\$0.00	\$776,000.00
C-Frac Proppant	309	\$1,150,000.00	\$0.00	\$1,150,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$930,000.00	\$0.00	\$930,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Srvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Srvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$500,000.00	\$0.00	\$500,000.00
C-Simulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$288,000.00	\$0.00	\$288,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$80,000.00	\$0.00	\$80,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$435,000.00	\$0.00	\$435,000.00
C-Coil Tubing	346	\$422,000.00	\$0.00	\$422,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEO-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEO-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEO-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEO-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEO-Trkg/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,655,200.00	\$0.00	\$10,655,200.00
Total Gross Cost		\$11,990,000.00	\$0.00	\$11,990,000.00
Note: The above costs are estimates only. Actual costs will be billed as incurred.				

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared _____

We approve _____

% Working Interest _____

COG Operating LLC

By _____

Company: _____

By _____

Printed Name _____

Title _____

Date _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.



June 18, 2018

Via CMRRR No. 91 7199 9991 7038 7697 2227

Mewbourne Oil Company
500 W. Texas, Suite 1020
Midland, TX 79701

Re: **Sledgehammer Fed Com #802H, #702H, #803H, #812H**
SW/4 of Section 21 and W/2 Sections 28 & 33, T24S-R28E
Eddy County, New Mexico

Dear Sir or Madam:

COG Operating, LLC ("COG") hereby proposes the drilling of the following horizontal wells with productive laterals located in the SW/4 of Section 21 and W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The surface pad locations will be located in the NE/4 SW/4 of Section 21, T24S-R28E (subject to change).

- **Sledgehammer Fed Com #802H**, to be drilled to a depth sufficient to test the WFMP D formation at a total measured depth of 23,400'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached Authority for Expenditure ("AFE").
- **Sledgehammer Fed Com #702H**, to be drilled to a depth sufficient to test the WFMP A Sand formation at a total measured depth of 22,400'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$11,900,000, as shown on the attached AFE.
- **Sledgehammer Fed Com #803H**, to be drilled to a depth sufficient to test the WFMP D formation at a total measured depth of 23,700'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached AFE.
- **Sledgehammer Fed Com #812H**, to be drilled to a depth sufficient to test the WFMP C formation at a total measured depth of 23,200'. The surface location for this well is proposed at a legal location in Unit K of Section 21, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached AFE.

COG is proposing this well under the terms of a new Operating Agreement which will follow under separate cover.

If we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well.

June 18, 2018 – Page 2

Sledgehammer Fed Com #802, #702H, #803H, #812H

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to aroush@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.2358.

Sincerely,

COG Operating LLC



Ashley Roush, RPL
Landman

AR:bh

Enc

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #802H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #802H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #702H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #702H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #803H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #803H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #812H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #812H.

By: _____

Name: _____

Title: _____

Date: _____

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 802H		Prospect	Tomahawk 2428	
SHL 2450 FSL, 1720 FWL or UNIT K SECTION 31		State & County	NEW MEXICO, EDDY COUNTY	
BHL 200 FSL, 1980 FWL or UNIT N SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp D		Depth	23,400	
Legal 21, 28, 33, 245-28E		TVD	10,365	
APE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trn/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Picks/Anchors/Higs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combustors/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drig Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Floor Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Cag Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Sprvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Sprvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tstg Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rtg Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envrntmt/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pes/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$75,000.00	\$0.00	\$75,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Sprvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Sprvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tstg Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rtg Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrntmt/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Cool Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pes/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trng/Forklift/Rtg Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared _____

COG Operating LLC

We approve _____
% Working Interest

By _____

Company _____
By _____

Printed Name _____
Title _____
Date _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 702H		Prospect	Tomahawk 2426	
SHL 2450 FSL, 1630 FWL or UNIT K SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
BHL 200 FSL, 1850 FWL or UNIT N SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp A Sand		Depth	22,400	
Legal 21, 28, 33, 245-28E		TVD	9,445	
AFE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$375,000.00	\$0.00	\$375,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Htr Titr/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$58,000.00	\$0.00	\$58,000.00
C-Pckrs/Anchors/Hgns	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$60,000.00	\$0.00	\$60,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Locks	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combusters/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Tidel/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/State Letin	204	\$6,000.00	\$0.00	\$6,000.00
D-LcIn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$650,000.00	\$0.00	\$650,000.00
D-Directional Drig Services	210	\$270,000.00	\$0.00	\$270,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$245,000.00	\$0.00	\$245,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Float Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
C-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Spvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Spvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tsg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Part/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$44,000.00	\$0.00	\$44,000.00
D-Envrnmnt/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-LcIn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,432,000.00	\$0.00	\$1,432,000.00
C-Frac Chemicals	308	\$776,000.00	\$0.00	\$776,000.00
C-Frac Proppant	309	\$1,150,000.00	\$0.00	\$1,150,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$930,000.00	\$0.00	\$930,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Spvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Spvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tsg	328	\$5,000.00	\$0.00	\$5,000.00
C-Part/Wireline Svc	331	\$500,000.00	\$0.00	\$500,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$286,000.00	\$0.00	\$286,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$435,000.00	\$0.00	\$435,000.00
C-Coil Tubing	346	\$422,000.00	\$0.00	\$422,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trkg/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,055,200.00	\$0.00	\$10,055,200.00
Total Gross Cost		\$11,990,000.00	\$0.00	\$11,990,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By: _____

Date Prepared: _____

COG Operating LLC

We approve
% Working Interest

By: _____

Company
By: _____

Printed Name
Title
Date

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 803H		Prospect	Tomahawk 2428	
SHL 2450 FSL, 1650 FWL or UNIT K SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
BHL 200 FSL, 1650 FWL or UNIT N SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp D		Depth	23,700	
Legal 21, 28, 33, 24S-26E		TVD	10,530	
AFE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trn/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$58,000.00	\$0.00	\$58,000.00
C-Pckrs/Anchors/Hggs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	518	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lucis	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combusters/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drig Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Float Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Sprvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Sprvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Part/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsric	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rtg Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envmntl/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Sprvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Sprvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Part/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsric	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rtg Moo	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envmntl/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$458,000.00	\$0.00	\$458,000.00
C-Coil Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tsig/Forklift/Rtg Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____
 We approve: _____
 % Working Interest
 Company _____
 By _____
 Printed Name _____
 Title _____
 Date _____

Date Prepared _____
 COG Operating LLC
 By _____
 This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM #12H
SHL 2450 FSL 1630 FWL or UNIT K SECTION 21
BHL 200 FSL 1850 FWL or UNIT N SECTION 33
Formation Wolfcamp C
Legal 21, 28, 33, 245-28E
AFE Numbers

Prospect
State & County
Objective
Depth
TVD
Tomahawk 2428
NEW MEXICO, EDDY COUNTY
Drill & Complete
23,200
10,245

Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermediate Casing	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trn/Septr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pckrs/Anchors/Hgrs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	518	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Locks	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combustors/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/State Lot	204	\$6,000.00	\$0.00	\$6,000.00
D-Lein/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drng Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermediate	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmi	219	\$105,000.00	\$0.00	\$105,000.00
D-Fleet Equipment & Contractors	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Superv	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Superv	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Part/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Ford/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Environmt/Ctd Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lein/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Superv	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Superv	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Part/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Simulation/Trailing	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Ford/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Environmt/Ctd Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Coil Tubing	348	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	358	\$69,000.00	\$0.00	\$69,000.00
PEQ-Contract Labor	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Superv	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Completion Unit	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Rentals-Surface	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Subsfc	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trng/Ford/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared _____

COG Operating LLC

We approve _____

Working Interest

By _____

Company _____

By _____

Printed Name _____

Title _____

Date _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.



June 18, 2018

Via CMRRR No. 91 7199 9991 7038 7697 2227

Mewbourne Oil Company
500 W. Texas, Suite 1020
Midland, TX 79701

Re: **Sledgehammer Fed Com #804H, #703H, #805H, #813H**
SW/4 of Section 21 and W/2 of Sections 28, & 33, T24S-R28E
Eddy County, New Mexico

Dear Sir or Madam:

COG Operating, LLC ("COG") hereby proposes the drilling of the following horizontal wells with productive laterals located in the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The surface pad locations will be located in the NW/4 SW/4 of Section 21, T24S-R28E (subject to change).

- **Sledgehammer Fed Com #804H**, to be drilled to a depth sufficient to test the WFMP D formation at a total measured depth of 23,400'. The surface location for this well is proposed at a legal location in Unit L of Section 21, and a bottom hole location at a legal location in Unit M of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached Authority for Expenditure ("AFE").
- **Sledgehammer Fed Com #703H**, to be drilled to a depth sufficient to test the WFMP A Shale formation at a total measured depth of 22,600'. The surface location for this well is proposed at a legal location in Unit L of Section 21, and a bottom hole location at a legal location in Unit M of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$11,990,000, as shown on the attached Authority for Expenditure ("AFE").
- **Sledgehammer Fed Com #805H**, to be drilled to a depth sufficient to test the WFMP D formation at a total measured depth of 23,700'. The surface location for this well is proposed at a legal location in Unit L of Section 21, and a bottom hole location at a legal location in Unit M of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached Authority for Expenditure ("AFE").
- **Sledgehammer Fed Com #813H**, to be drilled to a depth sufficient to test the WFMP C formation at a total measured depth of 23,200'. The surface location for this well is proposed at a legal location in Unit L of Section 21, and a bottom hole location at a legal location in Unit M of Section 33. The dedicated project area will be the SW/4 of Section 21 and the W/2 of Sections 28 & 33, T24S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$12,140,000, as shown on the attached Authority for Expenditure ("AFE").

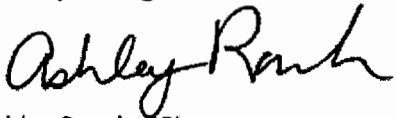
COG is proposing this well under the terms of a new Operating Agreement which will follow under separate cover.

If we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well.

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to aroush@concho.com. Should you have any questions, please do not hesitate to contact me at 432.818.2358.

Sincerely,

COG Operating LLC



Ashley Roush, RPL
Landman

AR:bh
Enc

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #804H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #804H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #703H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #703H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #805H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #805H.

_____ I/We hereby elect to participate in the drilling and completion of the
Sledgehammer Fed Com #813H.

_____ I/We hereby elect not to participate in the drilling and completion of the
Sledgehammer Fed Com #813H.

By: _____
Name: _____
Title: _____
Date: _____

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 804H		Prospect	Tomahawk 2428	
SHL 2450 FSL, 1020 FWL or UNIT L SECTION 21		State & County	NEW MEXICO, EDDY COUNTY	
BHL 200 FSL, 1310 FWL or UNIT M SECTION 33		Objective	Drill & Complete	
Formation Wolfcamp D		Depth	23,400	
Legal 21, 28, 33, 245-28E		TVD	10,365	
AFE Numbers				
Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Mtr Trlr/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$68,000.00	\$0.00	\$68,000.00
C-Pckrs/Anchors/Hngs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combustors/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,834,800.00	\$0.00	\$1,834,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drng Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Float Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Spvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Spvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rtg Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envrnmnt/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Spvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Spvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rtg Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Coil Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	358	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tsig/Forklift/Rtg Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,205,200.00	\$0.00	\$10,205,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared _____

COG Operating LLC

We approve:

% Working Interest

By _____

Company

By _____

Printed Name

Title

Date

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name SLEDGEHAMMER FED COM 703H	Prospect Tomahawk 2428
SHL 2430 FSL, 890 FWL or UNIT L SECTION 21	State & County NEW MEXICO, EDDY COUNTY
BHL 200 FSL, 890 FWL or UNIT M SECTION 33	Drill & Complete
Formation Wolfcamp A Shale	Depth 22,600
Legal 21, 28, 33, 24S-28E	TVD 9,635
AFE Numbers	

Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermed Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Htz Trt/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pckrs/Anchors/Hngs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fthgs/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combusters/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Titles/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Guide Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$650,000.00	\$0.00	\$650,000.00
D-Directional Drig Services	210	\$270,000.00	\$0.00	\$270,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$245,000.00	\$0.00	\$245,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermed	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Float Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Spvsn	226	\$75,000.00	\$0.00	\$75,000.00
D-Contract Spvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rtg Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$44,000.00	\$0.00	\$44,000.00
D-Envmntl/Cld Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,432,000.00	\$0.00	\$1,432,000.00
C-Frac Chemicals	308	\$776,000.00	\$0.00	\$776,000.00
C-Frac Proppant	309	\$1,150,000.00	\$0.00	\$1,150,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$930,000.00	\$0.00	\$930,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Spvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Spvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$500,000.00	\$0.00	\$500,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$286,000.00	\$0.00	\$286,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rtg Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envmntl/Cld Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$435,000.00	\$0.00	\$435,000.00
C-Coil Tubing	346	\$422,000.00	\$0.00	\$422,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trkg/Forklift/Rtg Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,955,200.00	\$0.00	\$10,955,200.00
Total Gross Cost		\$11,890,000.00	\$0.00	\$11,890,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared: _____

COG Operating LLC

We approve:
% Working Interest

By _____

Company:
By _____

Printed Name:
Title:
Date: _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete

Well Name SLEDGEHAMMER FED COM 805H
 SHL 2450 FSL, 960 FWL or UNIT L SECTION 31
 BHL 200 FSL, 980 FWL or UNIT M SECTION 33
 Formation Wolfcamp D
 Legal 21, 28, 33, 245-28E
 AFE Numbers

Prospect
 State & County Tomahawk 2428
 NEW MEXICO EDDY COUNTY
 Objective Drill & Complete
 Depth 23,700
 TVD 18,530

Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Intermediate Csg	402	\$376,000.00	\$0.00	\$376,000.00
D-Production Casing/Liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$58,000.00	\$0.00	\$58,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hr Trn/Seprtr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pdcs/Anchors/Hgns	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	518	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	519	\$80,000.00	\$0.00	\$80,000.00
TB-Pumps-Surface	521	\$18,000.00	\$0.00	\$18,000.00
TB-Meters/Lacts	525	\$32,000.00	\$0.00	\$32,000.00
TB-Flares/Combustors/Emission	526	\$31,000.00	\$0.00	\$31,000.00
C-Gas Lift/Compression	527	\$15,000.00	\$0.00	\$15,000.00
PEQ-Instrumentation/SCADA/POC	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Tubing	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Wellhead Equipment	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Pumps	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Electrical System	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Packers/Anchors/Hangers	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Miscellaneous	535	\$3,000.00	\$0.00	\$3,000.00
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lcns	204	\$6,000.00	\$0.00	\$6,000.00
D-Lcns/Pdcs/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drig Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Intermediate	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Float Equipment & Centralizers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Sprvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Sprvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tstg Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rtg Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envrnmntl/Cstd Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lcns/Pdcs/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$8,200.00	\$0.00	\$8,200.00
C-Company Sprvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Sprvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tstg Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rtg Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmntl/Cstd Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Flowback Crews & Equip	347	\$435,000.00	\$0.00	\$435,000.00
TB-Location/Pdcs/Roads	353	\$48,000.00	\$0.00	\$48,000.00
TB-Contract Labor	358	\$73,000.00	\$0.00	\$73,000.00
TB-Water Disposal	362	\$69,000.00	\$0.00	\$69,000.00
PEQ-Contract Labor	374	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Supervision	376	\$6,500.00	\$0.00	\$6,500.00
PEQ-Completion Unit	381	\$5,000.00	\$0.00	\$5,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trng/Forklift/Rtg Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,295,200.00	\$0.00	\$10,295,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By _____

Date Prepared: _____

COG Operating LLC

We approve:

 % Working Interest

By _____

Company
 By _____

Printed Name
 Title
 Date: _____

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
Drill & Complete**

Well Name **SLEDGEHAMMER FED COM #13H**
 SHL 2450 FSL, 930 FWL or UNIT L SECTION 21
 BHL 200 FSL, 990 FWL or UNIT M SECTION 33
 Formation Wellcamp C
 Legal 21, 28, 33, 248-28E
 AFE Numbers

Prospect
 State & County
 Objective
 Depth
 TVD

Tomahawk 2428
 NEW MEXICO, EDDY COUNTY
 Drt & Complete
 23,200
 10,245

Cost Description	Code	Cost	Revision	Total
Tangible Costs				
D-Surface Casing	401	\$48,000.00	\$0.00	\$48,000.00
D-Interior Csg	402	\$378,000.00	\$0.00	\$378,000.00
D-Production Casing/liner	403	\$405,000.00	\$0.00	\$405,000.00
D-Wellhead Equip	405	\$40,000.00	\$0.00	\$40,000.00
C-Tubing	504	\$47,300.00	\$0.00	\$47,300.00
C-Wellhead Equip	505	\$27,500.00	\$0.00	\$27,500.00
PEQ-Pumping Unit	506	\$96,000.00	\$0.00	\$96,000.00
PEQ-Rods	508	\$35,000.00	\$0.00	\$35,000.00
TB-Tanks	510	\$56,000.00	\$0.00	\$56,000.00
TB-Flowlines/Pipelines	511	\$117,000.00	\$0.00	\$117,000.00
TB-Hlr Tru/Septr	512	\$117,000.00	\$0.00	\$117,000.00
TB-Electrical System/Equipment	513	\$88,000.00	\$0.00	\$88,000.00
C-Pkts/Anchors/Hgrs	514	\$66,000.00	\$0.00	\$66,000.00
TB-Couplings/Fittings/Valves	515	\$165,000.00	\$0.00	\$165,000.00
TB-Gas Lift/Compression	516	\$35,000.00	\$0.00	\$35,000.00
C-Miscellaneous	521	\$18,000.00	\$0.00	\$18,000.00
TB-Pumps-Surface	525	\$32,000.00	\$0.00	\$32,000.00
TB-Mixers/Lacts	526	\$31,000.00	\$0.00	\$31,000.00
TB-Flares/Combustors/Emission	527	\$15,000.00	\$0.00	\$15,000.00
C-Gas Lift/Compression	529	\$7,000.00	\$0.00	\$7,000.00
PEQ-Instrumentation/SCADA/POC	530	\$5,000.00	\$0.00	\$5,000.00
PEQ-Tubing	531	\$3,000.00	\$0.00	\$3,000.00
PEQ-Wellhead Equipment	532	\$5,000.00	\$0.00	\$5,000.00
PEQ-Pumps	533	\$15,000.00	\$0.00	\$15,000.00
PEQ-Electrical System	534	\$2,000.00	\$0.00	\$2,000.00
PEQ-Packers/Anchors/Hangers	535	\$3,000.00	\$0.00	\$3,000.00
PEQ-Miscellaneous				
Total Tangible Costs		\$1,934,800.00	\$0.00	\$1,934,800.00
Intangible Costs				
PS-Title/Permits	201	\$11,000.00	\$0.00	\$11,000.00
D-Insurance	202	\$4,000.00	\$0.00	\$4,000.00
PS-Damages/ROW	203	\$5,000.00	\$0.00	\$5,000.00
PS-Survey/Stake Lctn	204	\$6,000.00	\$0.00	\$6,000.00
D-Lctn/Pits/Roads	205	\$112,000.00	\$0.00	\$112,000.00
D-Drilling Overhead	206	\$9,000.00	\$0.00	\$9,000.00
D-Daywork Contract	209	\$670,000.00	\$0.00	\$670,000.00
D-Directional Drig Services	210	\$275,000.00	\$0.00	\$275,000.00
D-Fuel & Power	211	\$150,000.00	\$0.00	\$150,000.00
D-Water	212	\$55,000.00	\$0.00	\$55,000.00
D-Bits	213	\$104,000.00	\$0.00	\$104,000.00
D-Mud & Chemicals	214	\$250,000.00	\$0.00	\$250,000.00
D-Cement Surface	217	\$30,000.00	\$0.00	\$30,000.00
D-Cement Interior	218	\$80,000.00	\$0.00	\$80,000.00
D-Prod-2nd Int Cmt	219	\$105,000.00	\$0.00	\$105,000.00
D-Floor Equipment & Centrifugers	221	\$40,000.00	\$0.00	\$40,000.00
D-Csg Crews & Equip	222	\$50,000.00	\$0.00	\$50,000.00
D-Contract Labor	225	\$6,500.00	\$0.00	\$6,500.00
D-Company Spvsn	226	\$72,000.00	\$0.00	\$72,000.00
D-Contract Spvsn	227	\$110,000.00	\$0.00	\$110,000.00
D-Tsig Csg/Tbg	228	\$30,000.00	\$0.00	\$30,000.00
D-Mud Logging Unit	229	\$40,000.00	\$0.00	\$40,000.00
D-Perf/Wireline Svc	231	\$4,000.00	\$0.00	\$4,000.00
D-Rentals-Surface	235	\$150,000.00	\$0.00	\$150,000.00
D-Rentals-Subsrfc	236	\$150,000.00	\$0.00	\$150,000.00
D-Trucking/Forklift/Rig Mob	237	\$140,000.00	\$0.00	\$140,000.00
D-Welding Services	238	\$3,500.00	\$0.00	\$3,500.00
D-Contingency	243	\$49,000.00	\$0.00	\$49,000.00
D-Envrnmnt/Cstd Loop	244	\$255,000.00	\$0.00	\$255,000.00
C-Lctn/Pits/Roads	305	\$10,000.00	\$0.00	\$10,000.00
C-Frac Equipment	307	\$1,472,000.00	\$0.00	\$1,472,000.00
C-Frac Chemicals	308	\$786,000.00	\$0.00	\$786,000.00
C-Frac Proppant	309	\$1,159,000.00	\$0.00	\$1,159,000.00
C-Frac Proppant Transportation	310	\$148,000.00	\$0.00	\$148,000.00
C-Fuel & Power	311	\$5,000.00	\$0.00	\$5,000.00
C-Water	312	\$935,000.00	\$0.00	\$935,000.00
C-Bits	313	\$9,000.00	\$0.00	\$9,000.00
C-Mud & Chemicals	314	\$25,000.00	\$0.00	\$25,000.00
C-Contract Labor	325	\$3,200.00	\$0.00	\$3,200.00
C-Company Spvsn	326	\$15,000.00	\$0.00	\$15,000.00
C-Contract Spvsn	327	\$134,000.00	\$0.00	\$134,000.00
C-Tsig Csg/Tbg	328	\$5,000.00	\$0.00	\$5,000.00
C-Perf/Wireline Svc	331	\$508,000.00	\$0.00	\$508,000.00
C-Stimulation/Treating	332	\$12,000.00	\$0.00	\$12,000.00
C-Completion Unit	333	\$60,000.00	\$0.00	\$60,000.00
C-Rentals-Surface	335	\$296,000.00	\$0.00	\$296,000.00
C-Rentals-Subsrfc	336	\$65,000.00	\$0.00	\$65,000.00
C-Trucking/Forklift/Rig Mob	337	\$22,500.00	\$0.00	\$22,500.00
C-Welding Services	338	\$5,000.00	\$0.00	\$5,000.00
C-Water Disposal	339	\$60,000.00	\$0.00	\$60,000.00
C-Contingency	343	\$250,000.00	\$0.00	\$250,000.00
C-Envrnmnt/Cstd Loop	344	\$5,000.00	\$0.00	\$5,000.00
C-Dyed Diesel	345	\$455,000.00	\$0.00	\$455,000.00
C-Cat Tubing	346	\$435,000.00	\$0.00	\$435,000.00
C-Flowback Crews & Equip	347	\$48,000.00	\$0.00	\$48,000.00
TB-Location/Pits/Roads	353	\$73,000.00	\$0.00	\$73,000.00
TB-Contract Labor	356	\$69,000.00	\$0.00	\$69,000.00
TB-Water Disposal	362	\$135,000.00	\$0.00	\$135,000.00
PEQ-Contract Labor	374	\$6,500.00	\$0.00	\$6,500.00
PEQ-Contract Supervision	376	\$5,000.00	\$0.00	\$5,000.00
PEQ-Completion Unit	381	\$8,000.00	\$0.00	\$8,000.00
PEQ-Rentals-Surface	383	\$7,000.00	\$0.00	\$7,000.00
PEQ-Trng/Forklift/Rig Mobilization	385	\$3,000.00	\$0.00	\$3,000.00
Total Intangible Costs		\$10,295,200.00	\$0.00	\$10,295,200.00
Total Gross Cost		\$12,140,000.00	\$0.00	\$12,140,000.00

Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LLC

By:

Date Prepared:

We approve:

% Working Interest

COG Operating LLC

By:

Company:

By:

Printed Name:

Title:

Date:

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

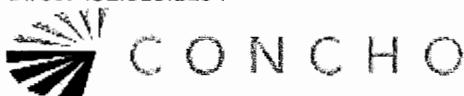
Josh Anderson

From: Scott Tomlinson <stomlinson@concho.com>
Sent: Wednesday, June 20, 2018 4:44 PM
To: Josh Anderson
Cc: Mollie McAuliffe
Subject: RE: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Thank you, Josh.

Scott S. Tomlinson, CPL
Senior Staff Landman, Outside Operated Properties

COG OPERATING LLC
One Concho Center, Room 556
600 W. Illinois Avenue
Midland, Texas 79701
Direct 432.818.2234



From: Josh Anderson [<mailto:janderson@Mewbourne.com>]
Sent: Wednesday, June 20, 2018 4:29 PM
To: Scott Tomlinson
Cc: Mollie McAuliffe
Subject: [External] W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

**** External email. Use caution. ****

Scott,

Attached is the Exhibit "A" for the JOA captioned above.

Please add this to your file, and if you have any questions or concerns, please advise.

Thanks,

Josh Anderson

Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Further, any contract terms proposed or purportedly accepted in this email are not binding and are subject to management's final approval as memorialized in a separate written instrument, excluding electronic correspondence, executed by an authorized representative of COG Operating LLC or its affiliates.

Josh Anderson

From: Josh Anderson
Sent: Tuesday, July 17, 2018 4:18 PM
To: 'Scott Tomlinson'
Subject: Kansas 21/28 W/2 JOA Replacement Pages
Attachments: COG Cover Letter Kansas 21-28 W2 JOA Changes .pdf; Kansas 21-28 W2 JOA Changes.pdf

Scott,

Attached are the JOA replacement pages and corresponding cover letters, for the above captioned prospect.

If you have any questions, don't hesitate to ask.

Thanks,

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Crown Oil Partners V, LP
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Crown Oil Partners V, LP ("Crown") owns 1.05074% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Crown would own 0.70049% working interest in the proposed WIU ($1.05074\% \text{ interest} \times 320.00 \text{ gross acres} = 3.36237 \text{ net acres} / 480.00 \text{ gross acres} = 0.70049\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Crown Oil Partners V, LP
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" W0LM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Crown Oil Partners V, LP ("Crown") owns 1.05074% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Crown would own 0.70049% working interest in the proposed WIU ($1.05074\% \text{ interest} \times 320.00 \text{ gross acres} = 3.36237 \text{ net acres} / 480.00 \text{ gross acres} = 0.70049\% \text{ interest in the WIU}$).


Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Crump Energy Partners II, LLC
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Crump Energy Partners II, LLC ("Crump") owns 1.05074% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Crump would own 0.70049% working interest in the proposed WIU ($1.05074\% \text{ interest} \times 320.00 \text{ gross acres} = 3.36237 \text{ net acres} / 480.00 \text{ gross acres} = 0.70049\% \text{ interest in the WIU}$).


Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Crump Energy Partners II, LLC
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" W0LM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Crump Energy Partners II, LLC ("Crump") owns 1.05074% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Crump would own 0.70049% working interest in the proposed WIU ($1.05074\% \text{ interest} \times 320.00 \text{ gross acres} = 3.36237 \text{ net acres} / 480.00 \text{ gross acres} = 0.70049\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Nadel and Gussman Delaware, LLC
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Nadel and Gussman Delaware, LLC ("Nadel") owns 0.66363% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Nadel would own 0.44242% working interest in the proposed WIU ($0.66363\% \text{ interest} \times 320.00 \text{ gross acres} = 2.12362 \text{ net acres} / 480.00 \text{ gross acres} = 0.44242\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

Nadel and Gussman Delaware, LLC
P.O. Box 50820
Midland, Texas
Attn: Brian Arnold

Re: Kansas "21/28" WOLM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently Nadel and Gussman Delaware, LLC ("Nadel") owns 0.66363% interest in the W/2 of the captioned Section 28 (320.00 gross acres). Accordingly, Nadel would own 0.44242% working interest in the proposed WIU ($0.66363\% \text{ interest} \times 320.00 \text{ gross acres} = 2.12362 \text{ net acres} / 480.00 \text{ gross acres} = 0.44242\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement is enclosed.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman



Date: April 20, 2018

Simple Certified:

The following is in response to your April 20, 2018 request for delivery information on your Certified Mail™/RRE item number 9402810699945030802029. The delivery record shows that this item was delivered on April 20, 2018 at 10:24 am in MIDLAND, TX 79705. The scanned image of the recipient information is provided below.

Signature of Recipient :

Rachul Ganga

Address of Recipient :

50820
79710

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

Attn: Brian Arnold
Crown Oil Partners V,LP
PO BOX 50820
MIDLAND, TX 79710
Reference #: Kansas Prospect 21/28 JA
Item ID: Kansas Prospect 21 28



Date: April 20, 2018

Simple Certified:

The following is in response to your April 20, 2018 request for delivery information on your Certified Mail™/RRE item number 9402810699945030801862. The delivery record shows that this item was delivered on April 20, 2018 at 10:24 am in MIDLAND, TX 79705. The scanned image of the recipient information is provided below.

Signature of Recipient :

Rachul Ganas

Address of Recipient :

50820
79710

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

Attn: Brian Arnold
Nadel and Gussman Delaware, LLC
PO BOX 50820
MIDLAND, TX 79710
Reference #: Kansas Prospect 21/28 JA
Item ID: Kansas Prospect 21 28

Josh Anderson

From: Josh Anderson
Sent: Tuesday, July 17, 2018 4:20 PM
To: 'Brian Arnold'
Subject: Kansas 21/28 W/2 JOA Replacement Pages
Attachments: BC Cover Letter Kansas 21-28 W2 JOA Changes .pdf; Kansas 21-28 W2 JOA Changes.pdf

Brian,

Attached are the JOA replacement pages and corresponding cover letters, for the above captioned prospect.

If you have any questions, don't hesitate to ask.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

Josh Anderson

From: Josh Anderson
Sent: Monday, July 23, 2018 11:18 AM
To: 'Brian Arnold'
Subject: RE: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Brian,

We did, but when it was prepared, Devon was still in title. We are having Federal abstracts being prepared currently that should be here any day. When those get in, I will let you know.

Thanks,

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Brian Arnold [<mailto:barnold@bcoperating.com>]
Sent: Thursday, July 19, 2018 2:58 PM
To: Josh Anderson
Subject: RE: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Josh,

One more question on this deal and hopefully I can get this put to bed, has MOC conducted title at the Federal level on NMNM-36975 as it pertains to the W/2 of Section 28? And if so does that title reflect ownership in Crown V, Crump III and N&G?

Thank you,

Brian Arnold, Jr.

From: Josh Anderson <janderson@Mewbourne.com>
Sent: Tuesday, July 17, 2018 8:43 AM
To: Brian Arnold <barnold@bcoperating.com>
Subject: RE: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Brian,

We show that interest going to MRO as well. We actually show you guys owning an interest in the W/2 of Section 28, that was derived from Devon.

We're showing Devon conveying an interest in OGL USA NMNM-36975 to Crown Oil Partners V, LP, Crump Energy Partners II, LLC, & Nadel and Gussman Delaware, LLC in the W/2 of Sec. 28-24S-28E, Eddy Co., NM, but can't find that subsequently conveyed to Marathon.

I also asked Matt Brown at MRO about it, and he said that it wasn't in the PSA either.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Brian Arnold [<mailto:barnold@bcoperating.com>]

Sent: Monday, July 16, 2018 4:29 PM

To: Josh Anderson

Subject: RE: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Good Afternoon Josh – I am still working on this proposal, the interest that you show as owned by Crown V, Crump II and N&G is in the SW/4 of Section 21, T24S-R28E correct?

I have attached a curative assignment from BC et al to MRO for the leases in Section 21, let me know if this does not clear up the interest.

Thank you,

Brian Arnold, Jr.

From: Josh Anderson <janderson@Mewbourne.com>

Sent: Wednesday, June 20, 2018 4:27 PM

To: Brian Arnold <barnold@bcoperating.com>

Subject: W/2 Kansas 21/28 JOA dated 4/15/18, Eddy Co., NM, Exhibit "A"

Brian,

Attached is the Exhibit "A" for the JOA captioned above.

Please add this to your file, and if you have any questions or concerns, please advise.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

T.I.G. Properties, L.P.
P.O. Box 10508
Midland, TX 79702

Re: Kansas "21/28" W2LM Federal No. 1H
2435' FSL & 330' FWL (SL) (Sec. 21)
330' FSL & 330' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently T.I.G. Properties L.P. ("TIG") owns 0.62500% interest in the SW/4 of the captioned Section 21 (160.00 gross acres). Accordingly, TIG would own 0.20833% working interest in the proposed WIU ($0.62500\% \text{ interest} \times 160.00 \text{ gross acres} = 1.00000 \text{ net acres} / 480.00 \text{ gross acres} = 0.20833\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 10,515 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 17,760 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 13, 2018

Via Certified Mail

T.I.G. Properties, L.P.
P.O. Box 10508
Midland, TX 79702

Re: Kansas "21/28" WOLM Federal No. 2H
2435' FSL & 380' FWL (SL) (Sec. 21)
330' FSL & 400' FWL (BHL) (Sec. 28)
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company ("Mewbourne") as Operator hereby proposes to form a 480.00 acre Working Interest Unit ("WIU") covering the SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 for oil and gas production. The targeted interval for the proposed unit is the Wolfcamp formation. Apparently T.I.G. Properties L.P. ("TIG") owns 0.62500% interest in the SW/4 of the captioned Section 21 (160.00 gross acres). Accordingly, TIG would own 0.20833% working interest in the proposed WIU ($0.62500\% \text{ interest} \times 160.00 \text{ gross acres} = 1.00000 \text{ net acres} / 480.00 \text{ gross acres} = 0.20833\% \text{ interest in the WIU}$).

Mewbourne as Operator hereby proposes to drill the captioned well 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 9,475 feet subsurface to evaluate the Wolfcamp Formation. The proposed well will have a measured depth (MD) of approximately 16,765 feet. The SW/4 of the captioned Section 21 and the W/2 of the captioned Section 28 will be dedicated to the well as the proration unit.

Regarding the above, enclosed for your further handling is our AFE dated March 19, 2018 for the captioned proposed well. In the event your firm elects to participate in the proposed well, please execute the enclosed AFE and return to me within thirty (30) days. Our Joint Operating Agreement to follow.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman



Date: May 2, 2018

Simple Certified:

The following is in response to your May 2, 2018 request for delivery information on your Certified Mail™/RRE item number 9414810699945030693776. The delivery record shows that this item was delivered on May 2, 2018 at 10:07 am in MIDLAND, TX 79701. The scanned image of the recipient information is provided below.

Signature of Recipient :

Dawn Burke
P A M B U R K E

Address of Recipient :

PO Box 208
1343
10508

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

T.I.G Properties, L.P.
PO Box 10508
Midland, TX 79702
Reference #: Kansas "21/28" W2LM FED NO. 1H JA
Item ID: Kansas 21 28 W2LM NO 1

MEWBOURNE OIL COMPANY

500 WEST TEXAS AVENUE, SUITE 1020
MIDLAND, TEXAS 79701-4279

TELEPHONE (432) 682-3715

FACSIMILE (432) 685-4170

April 18, 2018

Via Certified Mail

T.I.G. Properties, L.P.
P.O. Box 10508
Midland, TX 79702

Re: Working Interest Unit
Mewbourne's Kansas 21/28 Prospect
Section 21/28, T24S, R28E
Eddy County, New Mexico

Gentlemen:

Enclosed for your further handling regarding the captioned prospect and lands is our Operating Agreement dated April 15, 2018, along with an extra set of signature pages. The Operating Agreement is to coincide with the well proposal/AFE I sent by letter dated April 13, 2018.

Regarding the above, please have the AFE, Operating Agreement and extra set of signature pages executed and return only the extra set of signature pages and AFE to me whereby you will retain the Operating Agreement for your file.

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

Sincerely,

MEWBOURNE OIL COMPANY



Josh Anderson
Landman




Date: April 23, 2018

Simple Certified:

The following is in response to your April 23, 2018 request for delivery information on your Certified Mail™/RRE item number 9402810699945030795932. The delivery record shows that this item was delivered on April 23, 2018 at 12:11 pm in MIDLAND, TX 79701. The scanned image of the recipient information is provided below.

Signature of Recipient :


PAM BURKE

Address of Recipient :

PO BOX 10508

Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,
United States Postal Service

T.I.G Properties, L.P.
PO Box 10508
Midland, TX 79702
Reference #: Kansas 21/28 Prospect JA
Item ID: Kansas 21 28 Prospect

Josh Anderson

From: Josh Anderson
Sent: Tuesday, June 26, 2018 10:38 AM
To: Pam Burke
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Sounds good, thanks Pam!

-Josh

From: Pam Burke [<mailto:pam@iversongroup.net>]
Sent: Tuesday, June 26, 2018 10:01 AM
To: Josh Anderson
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Josh

Andy has been in and out of the office. I will shoot him an email to see if the Iverson's have come to any conclusions on TIG Properties participating, or not, on all of the Mewbourne wells.

Pam

From: Josh Anderson [<mailto:janderson@Mewbourne.com>]
Sent: Thursday, June 21, 2018 3:57 PM
To: Pam Burke <pam@iversongroup.net>
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Pam,

Just following up to see if you guys are close to executing the AFEs and JOA.

Thanks,

Josh Anderson
Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Josh Anderson
Sent: Wednesday, April 25, 2018 4:21 PM
To: pam@iversongroup.net
Subject: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Pam,

Per our conversation, attached are the corresponding AFEs for all four of the wells to be drilled, and signature pages for the E/2 JOA for the above captioned prospect.

If you have any questions or comments, please don't hesitate to ask.

Sorry again for the mix up.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

Josh Anderson

From: Josh Anderson
Sent: Tuesday, July 17, 2018 10:49 AM
To: 'Pam Burke'
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Pam,

Thanks for all of those. Yes, I still need your signature pages for the W/2 Kansas JOA that is dated April 15, 2018.

Also, if you would go ahead and mail us the originals, I'd appreciate it!

Thanks,

Josh Anderson

Petroleum Landman
500 West Texas Ave., Suite 1020
Midland, TX 79701
Phone: (432) 682-3715 | Fax: (432) 685-4170
Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Pam Burke [<mailto:pam@iversongroup.net>]
Sent: Tuesday, July 17, 2018 10:30 AM
To: Josh Anderson
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Josh,

I apologize for taking so long in getting the AFEs and JOA signature pages back to you on the four wells in the Kansas 21/28 Prospect. We have received a total of 30 AFEs under TIG Properties ownership under Section 21, this includes the 8 Mewbourne proposed wells. Thus, it has taken a while to evaluate and figure out just what is going on with all the wells proposed (by three different companies). I guess the NMOCD is the determining factor in who gets the drilling permits, etc.?

Attached are the four AFEs for the Kansas wells, along with signature pages from the Joint Operating Agreements. Please go over the signature pages, as I am not sure that these cover both the JOA's. Let me know if there are other pages that need to be signed and I can pull them out of the complete JOA for Andrew to sign.

Pam

From: Josh Anderson [<mailto:janderson@Mewbourne.com>]
Sent: Thursday, June 21, 2018 3:57 PM
To: Pam Burke <pam@iversongroup.net>
Subject: RE: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Pam,

Just following up to see if you guys are close to executing the AFEs and JOA.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

From: Josh Anderson

Sent: Wednesday, April 25, 2018 4:21 PM

To: pam@iversongroup.net

Subject: Kansas 28/21 Prospect, Sec. 28 & 21-24S-28E, Eddy Co., NM

Pam,

Per our conversation, attached are the corresponding AFEs for all four of the wells to be drilled, and signature pages for the E/2 JOA for the above captioned prospect.

If you have any questions or comments, please don't hesitate to ask.

Sorry again for the mix up.

Thanks,

Josh Anderson

Petroleum Landman

500 West Texas Ave., Suite 1020

Midland, TX 79701

Phone: (432) 682-3715 | Fax: (432) 685-4170

Cell: (405) 406-8982



MEWBOURNE
OIL COMPANY

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name:	Kansas 21/28 W2LM Fed #1H	Prospect:	Wolfcamp D Shale										
Location:	SL: 2435' FSL & 330' FWL (21); BHL: 330' FSL & 330' FWL (28)	County:	Eddy	ST:	NM								
Sec.	21/28	Blk:		Survey:		TWP:	24S	RNG:	28E	Prop. TVD:	10515	TMD:	17760

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$75,000	0180-0205	\$25,000
Location / Restoration		0180-0106	\$200,000	0180-0206	\$30,000
Daywork / Turnkey / Footage Drilling	34 days drlg / 4 days comp @ \$19000/d	0180-0110	\$727,000	0180-0210	\$85,400
Fuel	1500 gal/day @ 2.40/gal	0180-0114	\$162,700	0180-0214	\$217,000
Mud, Chemical & Additives		0180-0120	\$225,000	0180-0220	
Horizontal Drillout Services	Coil Tbg Drillout			0180-0222	\$160,000
Cementing		0180-0125	\$95,000	0180-0225	\$30,000
Logging & Wireline Services		0180-0130	\$2,000	0180-0230	\$360,000
Casing / Tubing / Snubbing Service		0180-0134	\$20,000	0180-0234	\$80,000
Mud Logging		0180-0137	\$20,000		
Stimulation	45 Stg 18.0 MM gal / 18.0 MM lb			0180-0241	\$2,710,000
Stimulation Rentals & Other				0180-0242	\$150,000
Water & Other		0180-0145	\$50,000	0180-0245	\$540,000
Bits		0180-0148	\$81,000	0180-0248	\$4,000
Inspection & Repair Services		0180-0150	\$40,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$15,000	0180-0258	\$30,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$120,000		
Transportation		0180-0165	\$20,000	0180-0265	\$20,000
Welding Services		0180-0168	\$5,000	0180-0268	\$15,000
Contract Services & Supervision		0180-0170	\$55,500	0180-0270	\$33,000
Directional Services	Includes Vertical Control	0180-0175	\$300,000		
Equipment Rental		0180-0180	\$262,800	0180-0280	\$30,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,500	0180-0285	
Intangible Supplies		0180-0188	\$8,000	0180-0288	\$10,000
Damages		0180-0190	\$5,000	0180-0290	
ROW & Easements		0180-0192		0180-0292	\$1,000
Pipeline Interconnect				0180-0293	
Company Supervision		0180-0195	\$177,600	0180-0295	\$105,600
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Well Abandonment		0180-0198		0180-0298	
Contingencies	10% (TCP) 10% (CC)	0180-0199	\$270,700	0180-0299	\$468,200
TOTAL			\$2,977,800		\$5,149,700

TANGIBLE COSTS 0181					
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0")	450' - 13 3/8" 54.5# J-55 ST&C @ \$35.90/ft	0181-0794	\$17,300		
Casing (8.1" - 10.0")	2500' - 9 5/8" 40# N-80 LT&C @ \$27.61/ft	0181-0795	\$73,800		
Casing (6.1" - 8.0")	10940' - 7" 26# P-110 LT&C @ \$27.76/ft	0181-0796	\$324,400		
Casing (4.1" - 6.0")	8000' - 4 1/2" 13.5# P-110 LTC @ \$13.66/ft			0181-0797	\$116,800
Tubing (2" - 4")				0181-0798	
Drilling Head		0181-0860	\$40,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools	Completion Liner Hanger			0181-0871	\$70,000
Sucker Rods				0181-0875	
Subsurface Equipment				0181-0880	
Artificial Lift Systems				0181-0884	
Pumping Unit				0181-0885	
Surface Pumps & Prime Movers	1/2 VRU/SWD Pump/Circ Pump			0181-0886	\$35,000
Tanks - Oil	3 - 750 bbl			0181-0890	\$55,000
Tanks - Water	3 - 750 bbl			0181-0891	\$60,000
Separation / Treating Equipment	30"x10"x1k# 3 ph/36"x15"x1k# Hor 3ph/Gun bbl			0181-0895	\$45,000
Heater Treaters, Line Heaters	8'x20'x75# HT			0181-0897	\$23,000
Metering Equipment				0181-0898	\$14,000
Line Pipe & Valves - Gathering	1/4 Mile Gas & 12" Wtr			0181-0900	\$60,000
Fittings / Valves & Accessories				0181-0906	\$60,000
Cathodic Protection				0181-0908	\$8,000
Electrical Installation				0181-0909	\$50,000
Equipment Installation				0181-0910	\$40,000
Pipeline Construction	1/4 Mile Steel & Poly			0181-0920	\$50,000
TOTAL			\$455,500		\$716,800
SUBTOTAL			\$3,433,300		\$5,866,500
TOTAL WELL COST			\$9,299,800		

Extra Expense Insurance

☐

I elect to be covered by Operator's Extra Expense Insurance and pay my proportionate share of the premium.

Operator has secured Extra Expense Insurance covering costs of well control, clean up and redrilling as estimated in Line Item 0180-0185.

☐

I elect to purchase my own well control insurance policy.

If neither box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.

Prepared by: T. Cude Date: 3/19/2018

Company Approval: *m. whitte* Date: 3/19/2018

Joint Owner Interest: Amount:

Joint Owner Name: Signature:

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: Kansas 21/28 W0LM Fed #2H		Prospect: Wolfcamp Sand	
Location: SL: 2435' FSL & 380' FWL (21); BHL: 330' FSL & 400' FWL (28)		County: Eddy	ST: NM
Sec. 21/28	Blk:	Survey:	TWP: 24S RNG: 28E Prop. TVD: 9475 TMD: 16765

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$75,000	0180-0205	\$25,000
Location / Restoration		0180-0106	\$200,000	0180-0206	\$30,000
Daywork / Turnkey / Footage Drilling	28 days drlg / 4 days comp @ \$19000/d	0180-0110	\$599,000	0180-0210	\$85,400
Fuel	1500 gal/day @ 2.40/gal	0180-0114	\$137,400	0180-0214	\$217,000
Mud, Chemical & Additives		0180-0120	\$225,000	0180-0220	
Horizontal Drillout Services	Coil Tbg Drillout			0180-0222	\$160,000
Cementing		0180-0125	\$95,000	0180-0225	\$30,000
Logging & Wireline Services		0180-0130	\$2,000	0180-0230	\$360,000
Casing / Tubing / Snubbing Service		0180-0134	\$20,000	0180-0234	\$80,000
Mud Logging		0180-0137	\$20,000		
Stimulation	45 Stg 18.0 MM gal / 18.0 MM lb			0180-0241	\$2,710,000
Stimulation Rentals & Other				0180-0242	\$150,000
Water & Other		0180-0145	\$50,000	0180-0245	\$540,000
Bits		0180-0148	\$81,000	0180-0248	\$4,000
Inspection & Repair Services		0180-0150	\$40,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$15,000	0180-0258	\$30,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$120,000		
Transportation		0180-0165	\$20,000	0180-0265	\$20,000
Welding Services		0180-0168	\$5,000	0180-0268	\$15,000
Contract Services & Supervision		0180-0170	\$46,500	0180-0270	\$33,000
Directional Services	Includes Vertical Control	0180-0175	\$240,000		
Equipment Rental		0180-0180	\$224,300	0180-0280	\$30,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,200	0180-0285	
Intangible Supplies		0180-0188	\$8,000	0180-0288	\$10,000
Damages		0180-0190	\$5,000	0180-0290	
ROW & Easements		0180-0192		0180-0292	\$1,000
Pipeline Interconnect				0180-0293	
Company Supervision		0180-0195	\$148,800	0180-0295	\$105,600
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Well Abandonment		0180-0198		0180-0298	
Contingencies	10% (TCP) 10% (CC)	0180-0199	\$241,700	0180-0299	\$468,200
TOTAL			\$2,658,900		\$5,149,700
TANGIBLE COSTS 0181					
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0")	450' - 13 3/8" 54.5# J-55 ST&C @ \$35.90/ft	0181-0794	\$17,300		
Casing (8.1" - 10.0")	2500' - 9 5/8" 40# N-80 LT&C @ \$27.61/ft	0181-0795	\$73,800		
Casing (6.1" - 8.0")	9900' - 7" 26# P-110 LT&C @ \$27.76/ft	0181-0796	\$293,600		
Casing (4.1" - 6.0")	8000' - 4 1/2" 13.5# P-110 LTC @ \$13.66/ft			0181-0797	\$116,800
Tubing (2" - 4")	9010' - 2 7/8" 6.5# L-80 EUE 8rd @ \$4.74/ft			0181-0798	\$45,700
Drilling Head		0181-0860	\$40,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools	Completion Liner Hanger			0181-0871	\$70,000
Sucker Rods				0181-0875	
Subsurface Equipment				0181-0880	
Artificial Lift Systems	Gas Lift Valves			0181-0884	\$15,000
Pumping Unit				0181-0885	
Surface Pumps & Prime Movers	1/2 VRU/SWD Pump/Circ Pump			0181-0886	\$35,000
Tanks - Oil	3 - 750 bbl			0181-0890	\$55,000
Tanks - Water	3 - 750 bbl			0181-0891	\$60,000
Separation / Treating Equipment	30"x10"x1k# 3 ph/36"x15"x1k# Hor 3ph/Gun bbl			0181-0895	\$45,000
Heater Treaters, Line Heaters	8'x20'x75# HT			0181-0897	\$23,000
Metering Equipment				0181-0898	\$14,000
Line Pipe & Valves - Gathering	1/4 Mile Gas & 12" Wtr			0181-0900	\$60,000
Fittings / Valves & Accessories				0181-0906	\$60,000
Cathodic Protection				0181-0908	\$8,000
Electrical Installation				0181-0909	\$50,000
Equipment Installation				0181-0910	\$40,000
Pipeline Construction	1/4 Mile Steel & Poly			0181-0920	\$50,000
TOTAL			\$424,700		\$777,500
SUBTOTAL			\$3,083,600		\$5,927,200
TOTAL WELL COST			\$9,010,800		

Extra Expense Insurance <input type="checkbox"/> I elect to be covered by Operator's Extra Expense Insurance and pay my proportionate share of the premium. Operator has secured Extra Expense Insurance covering costs of well control, clean up and redrilling as estimated in Line Item 0180-0185. <input type="checkbox"/> I elect to purchase my own well control insurance policy.	
If neither box is checked above, non-operating working interest owner elects to be covered by Operator's well control insurance.	
Prepared by: _____ T. Cude Company Approval: <i>m. white</i>	Date: <u>3/19/2018</u> Date: <u>3/19/2018</u>
Joint Owner Interest: _____ Amount: _____ Joint Owner Name: _____	Signature: _____

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

APPLICATION OF MEWBOURNE OIL COMPANY
FOR A NON-STANDARD SPACING AND
PRORATION UNIT AND COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

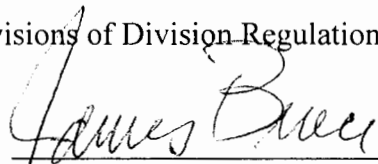
Case No. 16312

AFFIDAVIT OF NOTICE

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

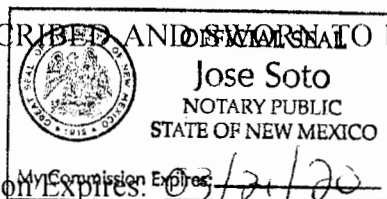
James Bruce, being duly sworn upon his oath, deposes and states:

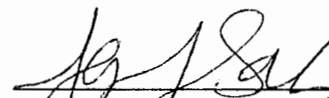
1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am an attorney for Mewbourne Oil Company.
3. Mewbourne Oil Company has conducted a good faith, diligent effort to find the names and correct addresses of the interest owners entitled to receive notice of the application filed herein.
4. Notice of the application 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 Regulations.



James Bruce

SUBSCRIBED AND SWORN TO before me this 25 day of July, 2018 by James Bruce.


My Commission Expires: 03/21/20



Notary Public

EXHIBIT **2**

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)

jamesbruce@aol.com

July 2, 2018

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

To: Persons on Exhibit A

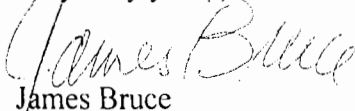
Ladies and gentlemen:

Enclosed is a copy of an application for compulsory pooling, filed with the New Mexico Oil Conservation Division by Mewbourne Oil Company, regarding Wolfcamp wells in the SW/4 of Section 21 and the W/2 of Section 28, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico.

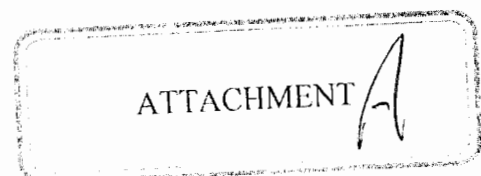
This matter is scheduled for hearing at 8:15 a.m. on Thursday, July 26, 2018, in Porter Hall at the Division's offices at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest who may be affected by the application, you may 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 Thursday, July 19, 2018. 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 his or her 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

Very truly yours,


James Bruce

Attorney for Mewbourne Oil Company



EXHIBIT

A

COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701
Attn: Outside Operated Properties

Crown Oil Partners V, LP;
Crump Energy Partners II, LLC;
Nadel and Gussman Delaware, LLC
P.O. Box 50820
Midland, Texas 79710
Attn: Brian Arnold

Fasken Land and Minerals, Ltd.
6101 Holiday Hill Road
Midland, Texas 79707
Attn: Ms. Linda Hicks

T.I.G. Properties, L.P.
P.O. Box 1343
Midland, Texas 79702

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Attn: Mr. Matt Brown

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:

Crown Oil Partners V, L.P.
Crown Energy Partners II, L.L.C.
Nadel and Grossman Delaware, LLC
P.O. Box 50820
Midland, Texas 79710



9590 9402 3452 7275 9588 12

2. Article Addressed to:

7018 0360 0000 2187 5066

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

Domestic Return Receipt

M-Ken

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT

Domestic Mail Only

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

MIDLAND, TX 79710

Certified Mail Fee \$3.45 \$2.75 0500 19

Extra Services & Fees (check box, and fee)
☐ Return Receipt (hardcopy) \$0.00
☐ Return Receipt (electronic) \$0.00
☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.71 07/02/2018

Total Postage and Fees \$4.16

Sent To Crown Oil Partners V, L.P.

Crown Energy Partners II, L.L.C.

Nadel and Grossman Delaware, LLC

P.O. Box 50820

Midland, Texas 79710

City, State, ZIP+4[®]

PS Form 3811, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent ☐ Addressee
- B. Received by (Printed Name) Rachet Lang C. Date of Delivery 7-10-18
- D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
- ☐ Priority Mail Express[®]
 - ☐ Adult Signature
 - ☐ Registered MailTM
 - ☐ Registered Mail Restricted Delivery
 - ☐ Certified Mail[®]
 - ☐ Certified Mail Restricted Delivery
 - ☐ Return Receipt for Merchandise
 - ☐ Collect on Delivery
 - ☐ Collect on Delivery Restricted Delivery
 - ☐ Signature ConfirmationTM
 - ☐ Signature Confirmation 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:

COG Operating LLC
600 W. Illinois Avenue
Midland, Texas 79701



9590 9402 3452 7275 9588 29

2. Article Number (Transfer from service label)

7018 0360 0000 2187 5073

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

Domestic Return Receipt

M-Ken

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT

Domestic Mail Only

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

MIDLAND, TX 79710

Certified Mail Fee \$3.45 \$2.75 0500 19

Extra Services & Fees (check box, and fee)
☐ Return Receipt (hardcopy) \$0.00
☐ Return Receipt (electronic) \$0.00
☐ Certified Mail Restricted Delivery \$0.00
☐ Adult Signature Required \$0.00
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.71 07/02/2018

Total Postage and Fees \$4.16

Sent To COG Operating LLC

600 W. Illinois Avenue

Midland, Texas 79701

City, State, ZIP+4[®]

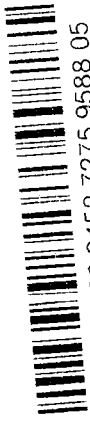
PS Form 3811, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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:

Larkin Land and Minerals, Ltd.
6101 Holiday Hill Road
Midland, Texas 79707



9590 9402 3452 7275 9588 05

Article Number (Transfer from envelope label)

7018 0360 0000 2187 5059

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

Domestic Return Receipt

M-Kun

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☐ Agent ☒ Addressee

Received by (Printed Name) Cynthia Moreno Date of Delivery 07/02/2018

D. Is delivery address different from item 1? ☐ Yes ☐ No

If YES, enter delivery address below:

3. Service Type
- ☐ Priority Mail Express®
 - ☐ Registered Mail™
 - ☐ Registered Mail Restricted Delivery
 - ☐ Adult Signature Restricted Delivery
 - ☐ Certified Mail®
 - ☐ Certified Mail Restricted Delivery
 - ☐ Signature Confirmation™
 - ☐ Collect on Delivery
 - ☐ Collect on Delivery Restricted Delivery
 - ☐ Collect on Delivery Restricted Delivery

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

MIDLAND, TX 79707

Certified Mail Fee \$3.45

Extra Services & Fees (check box, add fee)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.71

Total Postage and Fees \$0.71

Sent To Larkin Land and Minerals, Ltd.

Street and Apt. No. (or Rm.) 6101 Holiday Hill Road

City, State ZIP+4 Midland, Texas 79707

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

U.S. Postal Service™

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

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

HOUSTON, TX 77056

Certified Mail Fee \$3.45

Extra Services & Fees (check box, add fee)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.71

Total Postage and Fees \$0.71

Sent To Marathon Oil Permian LLC

Street and Apt. No. (or Rm.) 5555 San Felipe Street

City, State, ZIP+4 Houston, Texas 77056

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

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:

Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056



9590 9402 3452 7275 9587 82

Article Number (Transfer from envelope label)

7018 0360 0000 2187 5035

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee

Received by (Printed Name) D. Kuhn Date of Delivery 07/02/2018

D. Is delivery address different from item 1? ☐ Yes ☐ No

If YES, enter delivery address below:

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

Restricted Delivery (over \$500)

Domestic Return Receipt

M-Kun

7018 0360 0000 2187 5042

U.S. Postal ServiceTM
CERTIFIED MAIL[®] RECEIPT
Domestic Mail Only

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

HENDERIX 7/9/02

Certified Mail Fee	\$3.45	Postmark Here	0500
Extra Services & Fees (check box, add fee)	\$2.75		
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00		
<input type="checkbox"/> Return Receipt (electronic)	\$0.00		
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00		
<input type="checkbox"/> Adult Signature Required	\$0.00		
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00		
Postage	\$0.71		
Total Postage and Fees	\$6.91		

Sent to: **FLG Properties, L.P.**
P.O. Box 1341
Midland, Texas 79702

Street and Apt. No., or P.O. Box No.
City, State, ZIP+4[®]

PS Form 3811, July 2015 PSN 7530-02-000-9053 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:
FLG Properties, L.P.
P.O. Box 1341
Midland, Texas 79702

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
Pin Bulo

B. Received by (Printed Name) *PA-M Burke* C. Date of Delivery *7-17-15*

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

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

strict Delivery

Article Number (Transfer from service label)
9590 9402 3452 7275 9587 99

7018 0360 0000 2187 5042

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

M-Kan Domestic Return Receipt

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

APPLICATION OF MEWBOURNE OIL COMPANY
FOR A NON-STANDARD SPACING AND
PRORATION UNIT AND COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

Case No. 16312

VERIFIED STATEMENT OF CHARLES CROSBY

COUNTY OF MIDLAND)
) ss.
STATE OF TEXAS)

Charles Crosby, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.

2. I am a geologist for Mewbourne Oil Company ("Mewbourne"), and I am familiar with the geological matters involved in this case. I have been qualified by the Division as an expert petroleum geologist.

3. The following geological plats are attached hereto:

(a) Attachment A is a structure map on the top of the Wolfcamp formation. It shows that structure dips gently to the east. It also shows Wolfcamp wells in the area, and a line of cross-section.

(b) Attachment B is a north-south cross section. The well logs on the cross-section give a representative sample of the Wolfcamp formation in this area. The target zone for the Kansas 21/28 W0LM Fed. Well No. 2H is the upper Wolfcamp sand, and for the Kansas 21/28 W2LM Fed. Well No. 1H it is a lower Wolfcamp shale. Both zones are continuous and uniformly thick across the well unit.

4. I conclude from the maps that:

(a) The horizontal spacing unit is justified from a geologic standpoint.

(b) Each quarter section in the unit, whether in the Wolfcamp sand well or the Wolfcamp shale well, will contribute more or less equally to production.

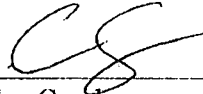
(c) There is no faulting or other geologic impediment on the area which will affect the drilling of the subject wells.

EXHIBIT

3

5. Attachment C contains information from other Wolfcamp wells drilled in this area. There are both standup and laydown wells in this area, and Mewbourne sees no difference in production whether wells are standup or laydown.

6. Attachment D contains the horizontal drilling plans for the two proposed wells. The producing interval each proposed well will be orthodox.

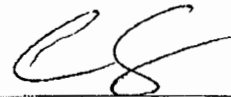


Charles Crosby

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

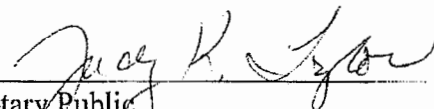
Charles Crosby, being duly sworn upon his oath, deposes and states that: He is a geologist for Mewbourne Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.



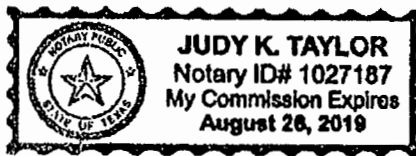
Charles Crosby

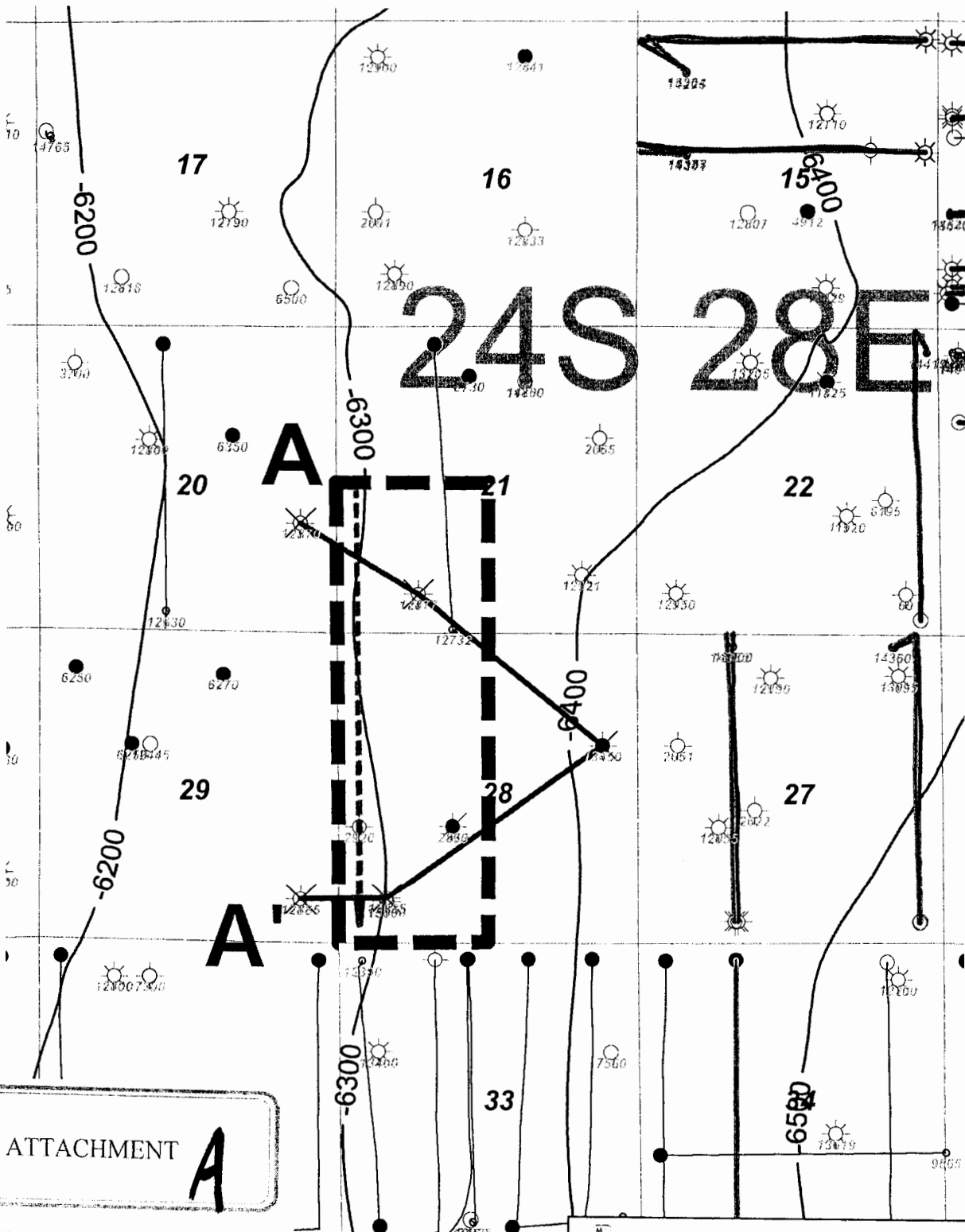
SUBSCRIBED AND SWORN TO before me this 25th day of July, 2018 by Charles Crosby.

My Commission Expires: 8-26-19

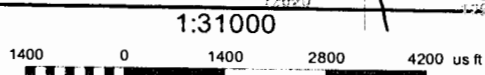


Notary Public



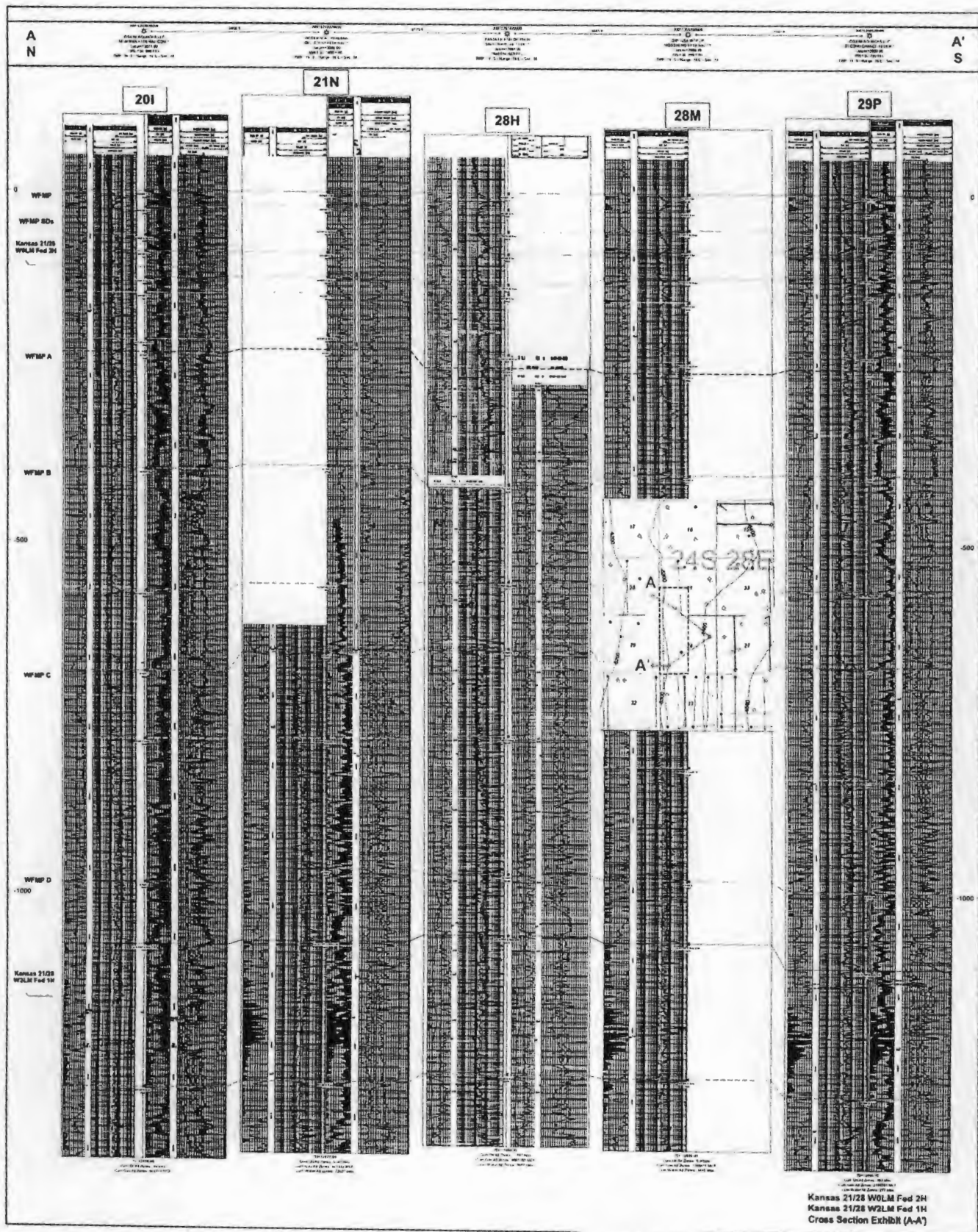


ATTACHMENT **A**



Horizontal Activity Color Code
 ————— Wolfcamp Sand
 ————— Wolfcamp Shale

Mewbourne Oil Company		
Kansas 21/28 W0LM Fed 2H Kansas 21/28 W2LM Fed 1H Horizontal Activity Map Structure Top of WFMP (C.I. 100')		
7/24/2018	Eddy County	New Mexico
		Geol. C. Crosby



ATTACHMENT **B**

Kansas 21/28 Area WFMP Production Table

Well Name	Operator	API	Location	WFMP Comp Date	Cum Oil (Mbo)	Cum Gas (BCF)	Cum Water (mbw)	NS/EW	WFMP Zone
Chicken Fry Federal Com 1H	Marathon	30015428820000	22A/24S/28E		Pending			NS	WFMP Sand
Rock Spur 27 W2CN State Com 1H	Mewbourne	30015432120000	27C/24S/28E	6/30/2017	152.2	1.6	489.1	NS	WFMP D Shale
Kyle 34 Federal Com 3H	Marathon	30015434050000	34N/24S/28E	1/9/2018		Pending		NS	WFMP Sand
Anne Com 15 24S 28E RB 221H	Matador	30015438990000	15D/24S/28E	11/21/2016	105	1.2	455.6	EW	WFMP D Shale
Rock Spur 27 W0CN State Com 2H	Mewbourne	30015440640000	27C/24S/28E	6/30/2017	235.3	0.6	621.8	NS	WFMP Sand
Rock Spur 27 W2AP State 1H	Mewbourne	30015440920000	27A/24S/28E		Pending			NS	WFMP D Shale
Rock Spur 27 W0AP State 2H	Mewbourne	30015440930000	27A/24S/28E		Pending			NS	WFMP Sand
Anne Com 15 24S 28E RB 201H	Matador	30015442100000	15D/24S/28E	10/6/2017	127.8	0.3	342.9	EW	WFMP Sand
Anne Com 15 24S 28E RB 202H	Matador	30015444170000	15E/24S/28E	1/7/2018	119.8	0.3	343.9	EW	WFMP Sand
Anne Com 15 24S 28E RB 222H	Matador	30015444210000	15E/24S/28E	12/23/2017	47.8	0.7	203.4	EW	WFMP D Shale

ATTACHMENT

C

Mewbourne Oil Company

Eddy County, New Mexico NAD 83

Kansas 21/28 W0LM Fed #2H

Sec 21, T24S, R28E

SL: 2635' FNL & 360' FWL, Sec 21

BHL: 330' FSL & 400' FWL, Sec 28

Plan: Design #1

Standard Planning Report

27 April, 2018

ATTACHMENT

D

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Kansas 21/28 WOLM Fed #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3058.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3058.0usft (Original Well Elev)
Site:	Kansas 21/28 WOLM Fed #2H	North Reference:	Grid
Well:	Sec 21, T24S, R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 400' FWL, Sec 28		
Design:	Design #1		

Project	Eddy County, New Mexico NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Kansas 21/28 WOLM Fed #2H				
Site Position:		Northing:	437,785.00 usft	Latitude:	32.2033329
From:	Map	Easting:	613,495.00 usft	Longitude:	-104.1000422
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.12 °

Well	Sec 21, T24S, R28E					
Well Position	+N/-S	0.0 usft	Northing:	437,785.00 usft	Latitude:	32.2033329
	+E/-W	0.0 usft	Easting:	613,495.00 usft	Longitude:	-104.1000422
Position Uncertainty	0.0 usft		Wellhead Elevation:	3,058.0 usft	Ground Level:	3,031.0 usft

Wellbore BHL: 330' FSL & 400' FWL, Sec 28

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	4/26/2018	6.98	59.91	47,866

Design Design #1

Audit Notes:	
Version:	Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	179.28

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,523.6	0.35	90.00	2,523.6	0.0	0.1	1.50	1.50	0.00	90.00	
8,969.0	0.35	90.00	8,968.9	0.0	39.9	0.00	0.00	0.00	0.00	
8,992.7	0.00	0.00	8,992.5	0.0	40.0	1.50	-1.50	0.00	180.00	KOP @ 8993'
9,743.5	90.10	179.58	9,470.0	-478.3	43.5	12.00	12.00	0.00	179.58	
16,987.4	90.10	179.58	9,457.0	-7,722.0	97.0	0.00	0.00	0.00	0.00	BHL: 330' FSL & 400'

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Eddy County, New Mexico NAD 83
 Site: Kansas 21/28 WOLM Fed #2H
 Well: Sec 21, T24S, R28E
 Wellbore: BHL: 330' FSL & 400' FWL, Sec 28
 Design: Design #1

Local Co-ordinate Reference: Site Kansas 21/28 WOLM Fed #2H
 TVD Reference: WELL @ 3058.0usft (Original Well Elev)
 MD Reference: WELL @ 3058.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 2635' FNL & 360' FWL, Sec 21									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,523.6	0.35	90.00	2,523.6	0.0	0.1	0.0	1.50	1.50	0.00
2,600.0	0.35	90.00	2,600.0	0.0	0.5	0.0	0.00	0.00	0.00
2,700.0	0.35	90.00	2,700.0	0.0	1.2	0.0	0.00	0.00	0.00
2,800.0	0.35	90.00	2,800.0	0.0	1.8	0.0	0.00	0.00	0.00
2,900.0	0.35	90.00	2,900.0	0.0	2.4	0.0	0.00	0.00	0.00
3,000.0	0.35	90.00	3,000.0	0.0	3.0	0.0	0.00	0.00	0.00
3,100.0	0.35	90.00	3,100.0	0.0	3.6	0.0	0.00	0.00	0.00
3,200.0	0.35	90.00	3,200.0	0.0	4.3	0.1	0.00	0.00	0.00
3,300.0	0.35	90.00	3,300.0	0.0	4.9	0.1	0.00	0.00	0.00
3,400.0	0.35	90.00	3,400.0	0.0	5.5	0.1	0.00	0.00	0.00
3,500.0	0.35	90.00	3,500.0	0.0	6.1	0.1	0.00	0.00	0.00
3,600.0	0.35	90.00	3,600.0	0.0	6.7	0.1	0.00	0.00	0.00
3,700.0	0.35	90.00	3,700.0	0.0	7.3	0.1	0.00	0.00	0.00
3,800.0	0.35	90.00	3,800.0	0.0	8.0	0.1	0.00	0.00	0.00
3,900.0	0.35	90.00	3,900.0	0.0	8.6	0.1	0.00	0.00	0.00
4,000.0	0.35	90.00	4,000.0	0.0	9.2	0.1	0.00	0.00	0.00
4,100.0	0.35	90.00	4,100.0	0.0	9.8	0.1	0.00	0.00	0.00
4,200.0	0.35	90.00	4,200.0	0.0	10.4	0.1	0.00	0.00	0.00
4,300.0	0.35	90.00	4,300.0	0.0	11.1	0.1	0.00	0.00	0.00
4,400.0	0.35	90.00	4,400.0	0.0	11.7	0.1	0.00	0.00	0.00
4,500.0	0.35	90.00	4,500.0	0.0	12.3	0.2	0.00	0.00	0.00
4,600.0	0.35	90.00	4,600.0	0.0	12.9	0.2	0.00	0.00	0.00
4,700.0	0.35	90.00	4,700.0	0.0	13.5	0.2	0.00	0.00	0.00
4,800.0	0.35	90.00	4,800.0	0.0	14.1	0.2	0.00	0.00	0.00
4,900.0	0.35	90.00	4,900.0	0.0	14.8	0.2	0.00	0.00	0.00
5,000.0	0.35	90.00	5,000.0	0.0	15.4	0.2	0.00	0.00	0.00
5,100.0	0.35	90.00	5,100.0	0.0	16.0	0.2	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Kansas 21/28 W0LM Fed #2H
Well: Sec 21, T24S, R28E
Wellbore: BHL: 330' FSL & 400' FWL, Sec 28
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Kansas 21/28 W0LM Fed #2H
 WELL @ 3058.0usft (Original Well Elev)
 WELL @ 3058.0usft (Original Well Elev)
 Grid
 Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	0.35	90.00	5,199.9	0.0	16.6	0.2	0.00	0.00	0.00
5,300.0	0.35	90.00	5,299.9	0.0	17.2	0.2	0.00	0.00	0.00
5,400.0	0.35	90.00	5,399.9	0.0	17.9	0.2	0.00	0.00	0.00
5,500.0	0.35	90.00	5,499.9	0.0	18.5	0.2	0.00	0.00	0.00
5,600.0	0.35	90.00	5,599.9	0.0	19.1	0.2	0.00	0.00	0.00
5,700.0	0.35	90.00	5,699.9	0.0	19.7	0.2	0.00	0.00	0.00
5,800.0	0.35	90.00	5,799.9	0.0	20.3	0.3	0.00	0.00	0.00
5,900.0	0.35	90.00	5,899.9	0.0	21.0	0.3	0.00	0.00	0.00
6,000.0	0.35	90.00	5,999.9	0.0	21.6	0.3	0.00	0.00	0.00
6,100.0	0.35	90.00	6,099.9	0.0	22.2	0.3	0.00	0.00	0.00
6,200.0	0.35	90.00	6,199.9	0.0	22.8	0.3	0.00	0.00	0.00
6,300.0	0.35	90.00	6,299.9	0.0	23.4	0.3	0.00	0.00	0.00
6,400.0	0.35	90.00	6,399.9	0.0	24.0	0.3	0.00	0.00	0.00
6,500.0	0.35	90.00	6,499.9	0.0	24.7	0.3	0.00	0.00	0.00
6,600.0	0.35	90.00	6,599.9	0.0	25.3	0.3	0.00	0.00	0.00
6,700.0	0.35	90.00	6,699.9	0.0	25.9	0.3	0.00	0.00	0.00
6,800.0	0.35	90.00	6,799.9	0.0	26.5	0.3	0.00	0.00	0.00
6,900.0	0.35	90.00	6,899.9	0.0	27.1	0.3	0.00	0.00	0.00
7,000.0	0.35	90.00	6,999.9	0.0	27.8	0.3	0.00	0.00	0.00
7,100.0	0.35	90.00	7,099.9	0.0	28.4	0.4	0.00	0.00	0.00
7,200.0	0.35	90.00	7,199.9	0.0	29.0	0.4	0.00	0.00	0.00
7,300.0	0.35	90.00	7,299.9	0.0	29.6	0.4	0.00	0.00	0.00
7,400.0	0.35	90.00	7,399.9	0.0	30.2	0.4	0.00	0.00	0.00
7,500.0	0.35	90.00	7,499.9	0.0	30.8	0.4	0.00	0.00	0.00
7,600.0	0.35	90.00	7,599.9	0.0	31.5	0.4	0.00	0.00	0.00
7,700.0	0.35	90.00	7,699.9	0.0	32.1	0.4	0.00	0.00	0.00
7,800.0	0.35	90.00	7,799.9	0.0	32.7	0.4	0.00	0.00	0.00
7,900.0	0.35	90.00	7,899.9	0.0	33.3	0.4	0.00	0.00	0.00
8,000.0	0.35	90.00	7,999.9	0.0	33.9	0.4	0.00	0.00	0.00
8,100.0	0.35	90.00	8,099.9	0.0	34.6	0.4	0.00	0.00	0.00
8,200.0	0.35	90.00	8,199.9	0.0	35.2	0.4	0.00	0.00	0.00
8,300.0	0.35	90.00	8,299.9	0.0	35.8	0.4	0.00	0.00	0.00
8,400.0	0.35	90.00	8,399.9	0.0	36.4	0.5	0.00	0.00	0.00
8,500.0	0.35	90.00	8,499.9	0.0	37.0	0.5	0.00	0.00	0.00
8,600.0	0.35	90.00	8,599.9	0.0	37.6	0.5	0.00	0.00	0.00
8,700.0	0.35	90.00	8,699.9	0.0	38.3	0.5	0.00	0.00	0.00
8,800.0	0.35	90.00	8,799.9	0.0	38.9	0.5	0.00	0.00	0.00
8,900.0	0.35	90.00	8,899.9	0.0	39.5	0.5	0.00	0.00	0.00
8,969.0	0.35	90.00	8,968.9	0.0	39.9	0.5	0.00	0.00	0.00
8,992.7	0.00	0.00	8,992.5	0.0	40.0	0.5	1.50	-1.50	0.00
KOP @ 8993'									
9,000.0	0.88	179.58	8,999.9	-0.1	40.0	0.6	12.00	12.00	0.00
9,100.0	12.88	179.58	9,099.0	-12.0	40.1	12.5	12.00	12.00	0.00
9,200.0	24.88	179.58	9,193.4	-44.3	40.3	44.8	12.00	12.00	0.00
9,300.0	36.88	179.58	9,279.1	-95.5	40.7	96.0	12.00	12.00	0.00
9,400.0	48.88	179.58	9,352.2	-163.5	41.2	164.0	12.00	12.00	0.00
9,500.0	60.88	179.58	9,409.7	-245.1	41.8	245.6	12.00	12.00	0.00
9,600.0	72.88	179.58	9,448.8	-336.9	42.5	337.4	12.00	12.00	0.00
9,630.1	76.50	179.58	9,456.8	-366.0	42.7	366.5	12.00	12.00	0.00
FTP: 2341' FSL & 400' FWL, Sec 28									
9,700.0	84.88	179.58	9,468.1	-434.8	43.2	435.4	12.00	12.00	0.00
9,743.5	90.10	179.58	9,470.0	-478.3	43.5	478.8	12.00	12.00	0.00
LP: 2229' FSL & 400' FWL, Sec 21									

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Eddy County, New Mexico NAD 83
 Site: Kansas 21/28 WOLM Fed #2H
 Well: Sec 21, T24S, R28E
 Wellbore: BHL: 330' FSL & 400' FWL, Sec 28
 Design: Design #1

Local Co-ordinate Reference: Site Kansas 21/28 WOLM Fed #2H
 TVD Reference: WELL @ 3058.0usft (Original Well Elev)
 MD Reference: WELL @ 3058.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,800.0	90.10	179.58	9,469.9	-534.8	43.9	535.3	0.00	0.00	0.00
9,900.0	90.10	179.58	9,469.7	-634.8	44.7	635.3	0.00	0.00	0.00
10,000.0	90.10	179.58	9,469.5	-734.8	45.4	735.3	0.00	0.00	0.00
10,100.0	90.10	179.58	9,469.4	-834.8	46.2	835.3	0.00	0.00	0.00
10,200.0	90.10	179.58	9,469.2	-934.8	46.9	935.3	0.00	0.00	0.00
10,300.0	90.10	179.58	9,469.0	-1,034.8	47.6	1,035.3	0.00	0.00	0.00
10,400.0	90.10	179.58	9,468.8	-1,134.8	48.4	1,135.3	0.00	0.00	0.00
10,500.0	90.10	179.58	9,468.6	-1,234.8	49.1	1,235.3	0.00	0.00	0.00
10,600.0	90.10	179.58	9,468.5	-1,334.8	49.9	1,335.3	0.00	0.00	0.00
10,700.0	90.10	179.58	9,468.3	-1,434.8	50.6	1,435.3	0.00	0.00	0.00
10,800.0	90.10	179.58	9,468.1	-1,534.8	51.3	1,535.3	0.00	0.00	0.00
10,900.0	90.10	179.58	9,467.9	-1,634.8	52.1	1,635.3	0.00	0.00	0.00
11,000.0	90.10	179.58	9,467.7	-1,734.8	52.8	1,735.3	0.00	0.00	0.00
11,100.0	90.10	179.58	9,467.6	-1,834.8	53.5	1,835.3	0.00	0.00	0.00
11,200.0	90.10	179.58	9,467.4	-1,934.7	54.3	1,935.3	0.00	0.00	0.00
11,300.0	90.10	179.58	9,467.2	-2,034.7	55.0	2,035.3	0.00	0.00	0.00
11,400.0	90.10	179.58	9,467.0	-2,134.7	55.8	2,135.3	0.00	0.00	0.00
11,500.0	90.10	179.58	9,466.8	-2,234.7	56.5	2,235.3	0.00	0.00	0.00
11,600.0	90.10	179.58	9,466.7	-2,334.7	57.2	2,335.3	0.00	0.00	0.00
11,700.0	90.10	179.58	9,466.5	-2,434.7	58.0	2,435.3	0.00	0.00	0.00
11,800.0	90.10	179.58	9,466.3	-2,534.7	58.7	2,535.3	0.00	0.00	0.00
11,900.0	90.10	179.58	9,466.1	-2,634.7	59.4	2,635.3	0.00	0.00	0.00
12,000.0	90.10	179.58	9,466.0	-2,734.7	60.2	2,735.3	0.00	0.00	0.00
12,100.0	90.10	179.58	9,465.8	-2,834.7	60.9	2,835.3	0.00	0.00	0.00
12,200.0	90.10	179.58	9,465.6	-2,934.7	61.7	2,935.3	0.00	0.00	0.00
12,300.0	90.10	179.58	9,465.4	-3,034.7	62.4	3,035.3	0.00	0.00	0.00
12,400.0	90.10	179.58	9,465.2	-3,134.7	63.1	3,135.3	0.00	0.00	0.00
12,500.0	90.10	179.58	9,465.1	-3,234.7	63.9	3,235.3	0.00	0.00	0.00
12,600.0	90.10	179.58	9,464.9	-3,334.7	64.6	3,335.3	0.00	0.00	0.00
12,700.0	90.10	179.58	9,464.7	-3,434.7	65.4	3,435.3	0.00	0.00	0.00
12,800.0	90.10	179.58	9,464.5	-3,534.7	66.1	3,535.3	0.00	0.00	0.00
12,900.0	90.10	179.58	9,464.3	-3,634.7	66.8	3,635.3	0.00	0.00	0.00
13,000.0	90.10	179.58	9,464.2	-3,734.7	67.6	3,735.3	0.00	0.00	0.00
13,100.0	90.10	179.58	9,464.0	-3,834.7	68.3	3,835.2	0.00	0.00	0.00
13,200.0	90.10	179.58	9,463.8	-3,934.7	69.0	3,935.2	0.00	0.00	0.00
13,300.0	90.10	179.58	9,463.6	-4,034.7	69.8	4,035.2	0.00	0.00	0.00
13,400.0	90.10	179.58	9,463.4	-4,134.7	70.5	4,135.2	0.00	0.00	0.00
13,500.0	90.10	179.58	9,463.3	-4,234.7	71.3	4,235.2	0.00	0.00	0.00
13,600.0	90.10	179.58	9,463.1	-4,334.7	72.0	4,335.2	0.00	0.00	0.00
13,700.0	90.10	179.58	9,462.9	-4,434.7	72.7	4,435.2	0.00	0.00	0.00
13,800.0	90.10	179.58	9,462.7	-4,534.7	73.5	4,535.2	0.00	0.00	0.00
13,900.0	90.10	179.58	9,462.5	-4,634.7	74.2	4,635.2	0.00	0.00	0.00
14,000.0	90.10	179.58	9,462.4	-4,734.7	74.9	4,735.2	0.00	0.00	0.00
14,100.0	90.10	179.58	9,462.2	-4,834.7	75.7	4,835.2	0.00	0.00	0.00
14,200.0	90.10	179.58	9,462.0	-4,934.7	76.4	4,935.2	0.00	0.00	0.00
14,300.0	90.10	179.58	9,461.8	-5,034.7	77.2	5,035.2	0.00	0.00	0.00
14,400.0	90.10	179.58	9,461.6	-5,134.7	77.9	5,135.2	0.00	0.00	0.00
14,500.0	90.10	179.58	9,461.5	-5,234.7	78.6	5,235.2	0.00	0.00	0.00
14,600.0	90.10	179.58	9,461.3	-5,334.7	79.4	5,335.2	0.00	0.00	0.00
14,700.0	90.10	179.58	9,461.1	-5,434.6	80.1	5,435.2	0.00	0.00	0.00
14,800.0	90.10	179.58	9,460.9	-5,534.6	80.9	5,535.2	0.00	0.00	0.00
14,900.0	90.10	179.58	9,460.7	-5,634.6	81.6	5,635.2	0.00	0.00	0.00
15,000.0	90.10	179.58	9,460.6	-5,734.6	82.3	5,735.2	0.00	0.00	0.00
15,100.0	90.10	179.58	9,460.4	-5,834.6	83.1	5,835.2	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Kansas 21/28 W0LM Fed #2H
Well: Sec 21, T24S, R28E
Wellbore: BHL: 330' FSL & 400' FWL, Sec 28
Design: Design #1

Local Co-ordinate Reference: Site Kansas 21/28 W0LM Fed #2H
TVD Reference: WELL @ 3058.0usft (Original Well Elev)
MD Reference: WELL @ 3058.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

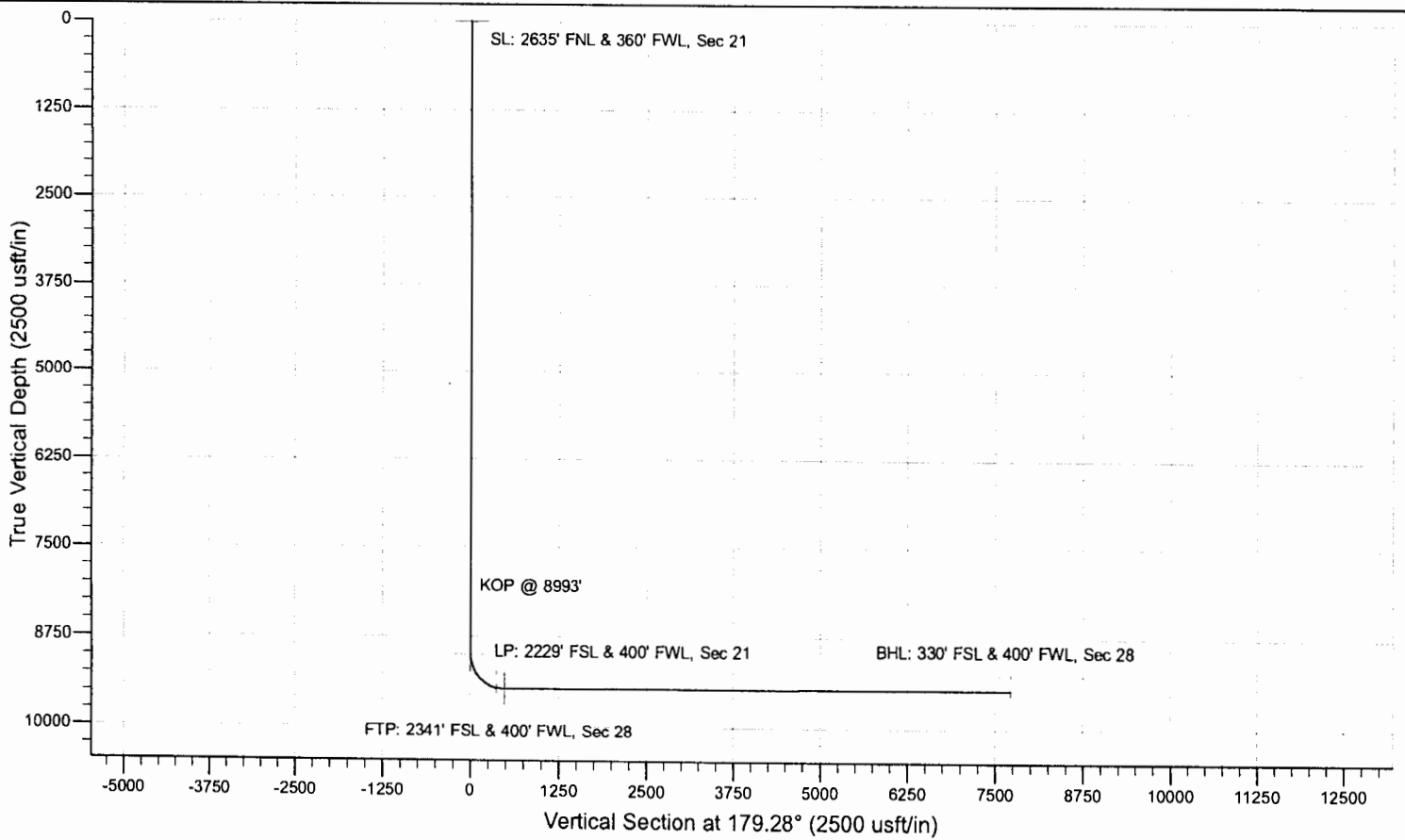
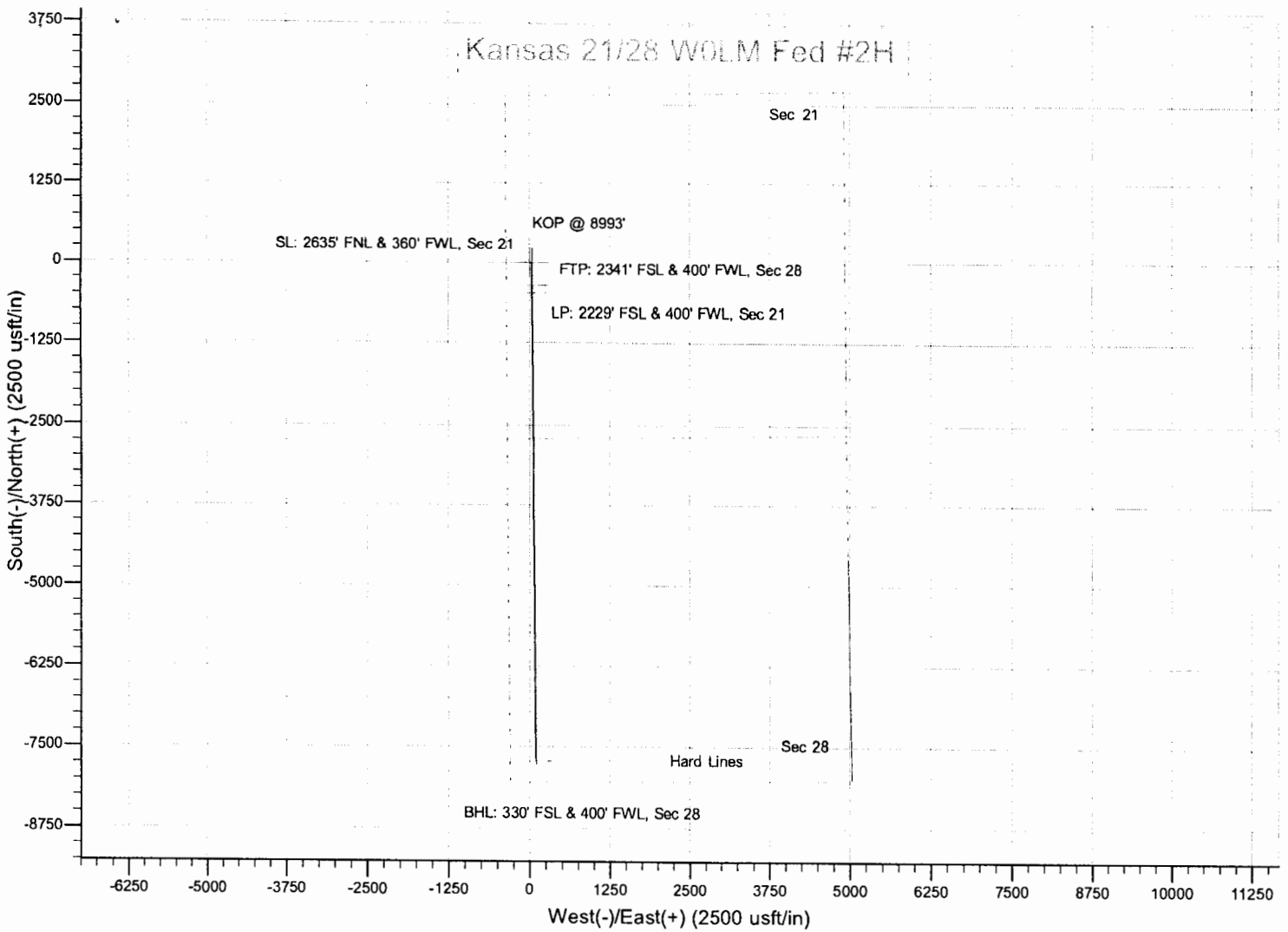
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,200.0	90.10	179.58	9,460.2	-5,934.6	83.8	5,935.2	0.00	0.00	0.00
15,300.0	90.10	179.58	9,460.0	-6,034.6	84.5	6,035.2	0.00	0.00	0.00
15,400.0	90.10	179.58	9,459.8	-6,134.6	85.3	6,135.2	0.00	0.00	0.00
15,500.0	90.10	179.58	9,459.7	-6,234.6	86.0	6,235.2	0.00	0.00	0.00
15,600.0	90.10	179.58	9,459.5	-6,334.6	86.8	6,335.2	0.00	0.00	0.00
15,700.0	90.10	179.58	9,459.3	-6,434.6	87.5	6,435.2	0.00	0.00	0.00
15,800.0	90.10	179.58	9,459.1	-6,534.6	88.2	6,535.2	0.00	0.00	0.00
15,900.0	90.10	179.58	9,459.0	-6,634.6	89.0	6,635.2	0.00	0.00	0.00
16,000.0	90.10	179.58	9,458.8	-6,734.6	89.7	6,735.2	0.00	0.00	0.00
16,100.0	90.10	179.58	9,458.6	-6,834.6	90.4	6,835.2	0.00	0.00	0.00
16,200.0	90.10	179.58	9,458.4	-6,934.6	91.2	6,935.2	0.00	0.00	0.00
16,300.0	90.10	179.58	9,458.2	-7,034.6	91.9	7,035.2	0.00	0.00	0.00
16,400.0	90.10	179.58	9,458.1	-7,134.6	92.7	7,135.2	0.00	0.00	0.00
16,500.0	90.10	179.58	9,457.9	-7,234.6	93.4	7,235.2	0.00	0.00	0.00
16,600.0	90.10	179.58	9,457.7	-7,334.6	94.1	7,335.2	0.00	0.00	0.00
16,700.0	90.10	179.58	9,457.5	-7,434.6	94.9	7,435.2	0.00	0.00	0.00
16,800.0	90.10	179.58	9,457.3	-7,534.6	95.6	7,535.2	0.00	0.00	0.00
16,900.0	90.10	179.58	9,457.2	-7,634.6	96.4	7,635.2	0.00	0.00	0.00
16,987.4	90.10	179.58	9,457.0	-7,722.0	97.0	7,722.6	0.00	0.00	0.00

BHL: 330' FSL & 400' FWL, Sec 28

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 2635' FNL & 360' FV - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	437,785.00	613,495.00	32.2033329	-104.1000422
KOP @ 8993' - plan hits target center - Point	0.00	0.00	8,992.5	0.0	40.0	437,785.00	613,535.00	32.2033326	-104.0999129
FTP: 2341' FSL & 400' F - plan hits target center - Point	0.00	0.00	9,456.8	-366.0	42.7	437,419.00	613,537.71	32.2023265	-104.0999067
BHL: 330' FSL & 400' FV - plan hits target center - Point	0.00	0.00	9,457.0	-7,722.0	97.0	430,063.00	613,592.00	32.1821053	-104.0997828
LP: 2229' FSL & 400' FV - plan hits target center - Point	0.00	0.00	9,470.0	-478.3	43.5	437,306.70	613,538.50	32.2020178	-104.0999049

Kansas 21/28 WOLM Fed #2H



Mewbourne Oil Company

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Kansas 21/28 W2LM Fed 1H
KOP 9929.04
SL: 2635 FNL & 330 FWL Sec 21-24S-28E
BHL: 330 FSL & 330 FWL Sec 28-24S-28E

Target KBTVD: 10,502 Feet 10502.00
Target Angle: 89.94 Degrees 89.94
Section Plane: 179.68 Degrees
Declination Corrected to True North: 6.63 Degrees
Bit to Survey Offset: 44 Feet

Survey No.	Measured Depth-ft	Drift (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 (RADIANS)	AZIMUTH (RADIANS)
T/1	9929.04	0.00	179.68	N/A	9929.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	9929.0	573.0	1E-12	3.14 #VALUE!
1	10018.99	8.99	179.68	89.94428	10018.6	7.0	-7.0	0.0	7.0	179.7	10.0	10.0	10018.6	483.4	0.15698238	3.14 0.15698238
2	10108.93	17.99	179.68	89.94428	10106.0	28.0	-28.0	0.2	28.0	179.7	10.0	10.0	10106.0	396.0	0.31396477	3.14 0.15698238
3	10198.88	26.98	179.68	89.94428	10189.0	62.4	-62.4	0.3	62.4	179.7	10.0	10.0	10188.9	313.1	0.47094715	3.14 0.15698238
4	10288.82	35.98	179.68	89.94428	10265.6	109.3	-109.3	0.6	109.3	179.7	10.0	10.0	10265.5	236.5	0.62792953	3.14 0.15698238
5	10378.76	44.97	179.68	89.94428	10334.0	167.6	-167.6	0.9	167.6	179.7	10.0	10.0	10333.8	168.2	0.78491191	3.14 0.15698238
6	10468.71	53.97	179.68	89.94428	10392.4	235.9	-235.9	1.3	235.9	179.7	10.0	10.0	10392.1	109.9	0.9418943	3.14 0.15698238
7	10558.65	62.96	179.68	89.94428	10439.4	312.5	-312.5	1.7	312.5	179.7	10.0	10.0	10439.1	62.9	1.09887668	3.14 0.15698238
8	10648.60	71.96	179.68	89.94428	10473.8	395.5	-395.5	2.2	395.5	179.7	10.0	10.0	10473.4	28.6	1.25585906	3.14 0.15698238
9	10738.54	80.95	179.68	89.94428	10494.9	482.8	-482.8	2.7	482.8	179.7	10.0	10.0	10494.4	7.6	1.41284145	3.14 0.15698238
10	10828.49	89.94	179.68	89.94428	10502.0	572.4	-572.4	3.2	572.4	179.7	10.0	10.0	10501.4	0.6	1.56982383	3.14 0.15698238
11	10900.00	89.94	179.68	71.514996	10502.1	643.9	-643.9	3.6	643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
12	11000.00	89.94	179.68	100	10502.2	743.9	-743.9	4.1	743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
13	11100.00	89.94	179.68	100	10502.3	843.9	-843.9	4.7	843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
14	11200.00	89.94	179.68	100	10502.4	943.9	-943.9	5.2	943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
15	11300.00	89.94	179.68	100	10502.5	1043.9	-1043.9	5.8	1043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
16	11400.00	89.94	179.68	100	10502.6	1143.9	-1143.9	6.3	1143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
17	11500.00	89.94	179.68	100	10502.7	1243.9	-1243.9	6.9	1243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
18	11600.00	89.94	179.68	100	10502.8	1343.9	-1343.9	7.4	1343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
19	11700.00	89.94	179.68	100	10502.8	1443.9	-1443.9	8.0	1443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
20	11800.00	89.94	179.68	100	10502.9	1543.9	-1543.9	8.5	1543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
21	11900.00	89.94	179.68	100	10503.0	1643.9	-1643.9	9.1	1643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
22	12000.00	89.94	179.68	100	10503.1	1743.9	-1743.9	9.7	1743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
23	12100.00	89.94	179.68	100	10503.2	1843.9	-1843.9	10.2	1843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
24	12200.00	89.94	179.68	100	10503.3	1943.9	-1943.9	10.8	1943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
25	12300.00	89.94	179.68	100	10503.4	2043.9	-2043.9	11.3	2043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
26	12400.00	89.94	179.68	100	10503.5	2143.9	-2143.9	11.9	2143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
27	12500.00	89.94	179.68	100	10503.6	2243.9	-2243.9	12.4	2243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
28	12600.00	89.94	179.68	100	10503.7	2343.9	-2343.9	13.0	2343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
29	12700.00	89.94	179.68	100	10503.8	2443.9	-2443.9	13.5	2443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
30	12800.00	89.94	179.68	100	10503.9	2543.9	-2543.9	14.1	2543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
31	12900.00	89.94	179.68	100	10504.0	2643.9	-2643.9	14.6	2643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
32	13000.00	89.94	179.68	100	10504.1	2743.9	-2743.9	15.2	2743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
33	13100.00	89.94	179.68	100	10504.2	2843.9	-2843.9	15.7	2843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
34	13200.00	89.94	179.68	100	10504.3	2943.9	-2943.9	16.3	2943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
35	13300.00	89.94	179.68	100	10504.4	3043.9	-3043.9	16.8	3043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
36	13400.00	89.94	179.68	100	10504.5	3143.9	-3143.9	17.4	3143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
37	13500.00	89.94	179.68	100	10504.6	3243.9	-3243.9	18.0	3243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
38	13600.00	89.94	179.68	100	10504.7	3343.9	-3343.9	18.5	3343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
39	13700.00	89.94	179.68	100	10504.8	3443.9	-3443.9	19.1	3443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
40	13800.00	89.94	179.68	100	10504.9	3543.9	-3543.9	19.6	3543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
41	13900.00	89.94	179.68	100	10505.0	3643.9	-3643.9	20.2	3643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
42	14000.00	89.94	179.68	100	10505.1	3743.9	-3743.9	20.7	3743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
43	14100.00	89.94	179.68	100	10505.2	3843.9	-3843.9	21.3	3843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
44	14200.00	89.94	179.68	100	10505.3	3943.9	-3943.9	21.8	3943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
45	14300.00	89.94	179.68	100	10505.4	4043.9	-4043.9	22.4	4043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
46	14400.00	89.94	179.68	100	10505.5	4143.9	-4143.9	22.9	4143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
47	14500.00	89.94	179.68	100	10505.6	4243.9	-4243.8	23.5	4243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
48	14600.00	89.94	179.68	100	10505.7	4343.9	-4343.8	24.0	4343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
49	14700.00	89.94	179.68	100	10505.8	4443.9	-4443.8	24.6	4443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
50	14800.00	89.94	179.68	100	10505.9	4543.9	-4543.8	25.1	4543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
51	14900.00	89.94	179.68	100	10506.0	4643.9	-4643.8	25.7	4643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
52	15000.00	89.94	179.68	100	10506.1	4743.9	-4743.8	26.3	4743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
53	15100.00	89.94	179.68	100	10506.2	4843.9	-4843.8	26.8	4843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
54	15200.00	89.94	179.68	100	10506.3	4943.9	-4943.8	27.4	4943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
55	15300.00	89.94	179.68	100	10506.3	5043.9	-5043.8	27.9	5043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10
56	15400.00	89.94	179.68	100	10506.4	5143.9	-5143.8	28.5	5143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14 1E-10

57	15500.00	89.94	179.68	100	10506.5	5243.9	-5243.8	29.0	5243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
58	15600.00	89.94	179.68	100	10506.6	5343.9	-5343.8	29.6	5343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
59	15700.00	89.94	179.68	100	10506.7	5443.9	-5443.8	30.1	5443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
60	15800.00	89.94	179.68	100	10506.8	5543.9	-5543.8	30.7	5543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
61	15900.00	89.94	179.68	100	10506.9	5643.9	-5643.8	31.2	5643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
62	16000.00	89.94	179.68	100	10507.0	5743.9	-5743.8	31.8	5743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
63	16100.00	89.94	179.68	100	10507.1	5843.9	-5843.8	32.3	5843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
64	16200.00	89.94	179.68	100	10507.2	5943.9	-5943.8	32.9	5943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
65	16300.00	89.94	179.68	100	10507.3	6043.9	-6043.8	33.5	6043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
66	16400.00	89.94	179.68	100	10507.4	6143.9	-6143.8	34.0	6143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
67	16500.00	89.94	179.68	100	10507.5	6243.9	-6243.8	34.6	6243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
68	16600.00	89.94	179.68	100	10507.6	6343.9	-6343.8	35.1	6343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
69	16700.00	89.94	179.68	100	10507.7	6443.9	-6443.8	35.7	6443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
70	16800.00	89.94	179.68	100	10507.8	6543.9	-6543.8	36.2	6543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
71	16900.00	89.94	179.68	100	10507.9	6643.9	-6643.8	36.8	6643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
72	17000.00	89.94	179.68	100	10508.0	6743.9	-6743.8	37.3	6743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
73	17100.00	89.94	179.68	100	10508.1	6843.9	-6843.8	37.9	6843.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
74	17200.00	89.94	179.68	100	10508.2	6943.9	-6943.8	38.4	6943.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
75	17300.00	89.94	179.68	100	10508.3	7043.9	-7043.8	39.0	7043.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
76	17400.00	89.94	179.68	100	10508.4	7143.9	-7143.8	39.5	7143.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
77	17500.00	89.94	179.68	100	10508.5	7243.9	-7243.8	40.1	7243.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
78	17600.00	89.94	179.68	100	10508.6	7343.9	-7343.8	40.6	7343.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
79	17700.00	89.94	179.68	100	10508.7	7443.9	-7443.8	41.2	7443.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
80	17800.00	89.94	179.68	100	10508.8	7543.9	-7543.8	41.8	7543.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
81	17900.00	89.94	179.68	100	10508.9	7643.9	-7643.8	42.3	7643.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
82	18000.00	89.94	179.68	100	10509.0	7743.9	-7743.8	42.9	7743.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
83	18026.99	89.94	179.68	26.993435	10509.0	7770.9	-7770.8	43.0	7770.9	179.7	0.0	0.0	10501.4	0.6	1.56982383	3.14	1E-10
84	18026.99	89.94	179.68	0	10509.0	7770.9	-7770.8	43.0	7770.9	179.7	#DIV/0!	#DIV/0!	10501.4	0.6	1.56982383	3.14	1E-10