

OCD Case No. 20092

MEWBORNE OIL
Exhibit #1

**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 TO CONSIDER:**

**CASE NO. 16279
ORDER NO. R-20046**

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

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on August 23, 2018, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 15th day of October, 2018, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT

(1) Due public notice has been given and the Division has jurisdiction of this case and the subject matter.

(2) Mewbourne Oil Company (the "Applicant") seeks approval of a 200-acre (more or less) non-standard horizontal spacing unit (the "Unit") for oil and gas production from the Bone Spring formation, Turkey Track; Bone Spring Pool (Pool code 60660), comprising the SE/4 SW/4 and S/2 SE/4 of Section 11 and the S/2 SW/4 of Section 12, all in Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico. Applicant further seeks an order pooling all uncommitted interests in the Unit for the Bone Spring formation.

(3) The Unit will be dedicated to the following "proposed well" to be completed at a standard well location:

Sapphire 11 12 B2NN State Com Well No. 1H, API No. 30-015-44053

SHL: 500 feet from the South line and 1500 feet from the West line,
(Unit N) of Section 11, Township 19 South, Range 29 East, NMPM.
BHL: 330 feet from the South line and 2310 feet from the West line

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MEWBOURNE OIL
Exhibit #2

(Unit N) of Section 12, Township 19 South, Range 29 East, NMPM.

(4) The proposed well will be drilled horizontally and completed in the Bone Spring formation [Turkey Track; Bone Spring Pool]. Said pool is subject to Division Rule 19.15.15.9(A) NMAC, which provides for standard 40-acre spacing and proration units each comprising a governmental quarter-quarter section.

(5) Cimarex Energy Co. and COG Operating LLC entered an appearance and were each represented by counsel at the hearing but did not oppose. No other party appeared or otherwise opposed this application.

(6) Applicant appeared through counsel and presented the following land and technical evidence by affidavit:

- (a) The Bone Spring formation in this area is suitable for development by horizontal drilling.
- (b) There are no depth severances; however, Applicant had agreed with Cimarex and Devon to not drill wells in the 3rd Bone Spring Sand in this Unit.
- (c) The proposed orientation of the horizontal well or wells from west to east is appropriate for the Unit.
- (d) Notice by certified mail was provided to all uncommitted interest owners in the Unit whose interests were evidenced by a conveyance instrument, either of record or known to Applicant when the Application was filed, and to heirs known to Applicant of deceased persons who appear as owners in such instruments.

The Division Concludes That

(7) The original application was filed prior to the June 26, 2018 date in which the horizontal rule amendments became effective (see Order No. R-14689) and asked for two Proposed Wells, one to be in the 3rd Bone Spring Sand. The amended application in this case removed the 3rd Bone Spring Proposed Well and retained the current Proposed Well to be in the 2nd Bone Spring Sand interval.

(8) The proposed unit is standard and the Proposed Well has been permitted for drilling; therefore, under the new rules, the Unit has already been approved by the Division. The portion of the case asking for a non-standard horizontal spacing unit should be dismissed.

(9) Two or more separately owned tracts are embraced within the Unit, and/or there are royalty interests and/or undivided interests in oil and gas minerals in one or more tracts included in the Unit that are separately owned.

(10) Applicant is owner of an oil and gas working interest within the Unit. Applicant has the right to drill and proposes to drill the proposed well to a common source of supply within the Unit at the described location.

(11) There are interest owners in the Unit that have not agreed to pool their interests.

(12) To avoid the drilling of unnecessary wells, protect correlative rights, prevent waste and afford to the owner of each interest in the Unit the opportunity to recover or receive without unnecessary expense a just and fair share of hydrocarbons, this application should be approved by pooling all uncommitted interests, whatever they may be, in the oil and gas within the Unit.

(13) Mewbourne Oil Company (OGRID 14744) should be designated the operator of the proposed well and the Unit.

(14) Infill wells within the Unit should be subject to Division Rules 19.15.13.9 NMAC through 19.15.13.10 NMAC, and to the terms and conditions of this order.

(15) Any pooled working interest owner who does not pay its share of estimated well costs of any well should have withheld from production from such well its share of reasonable well costs plus an additional 200% thereof as a reasonable charge for the risk involved in drilling the proposed well.

(16) Reasonable charges for supervision (combined fixed rates) should be fixed at \$8000 per month, per well, while drilling and \$800 per month, per well, while producing, provided that these rates should be adjusted annually pursuant to the overhead adjustment provision of the COPAS form titled "*Accounting Procedure-Joint Operations*."

IT IS THEREFORE ORDERED THAT

(1) All uncommitted interests, whatever they may be, in the oil and gas in the Bone Spring formation underlying a 200-acre (more or less) standard Horizontal Oil Spacing Unit (the "Unit") in the Turkey Track; Bone Spring Pool (Pool code 60660), comprising the SE/4 SW/4 and S/2 SE/4 of Section 11 and the S/2 SW/4 of Section 12, all in Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico, are hereby pooled.

(2) The portion of the case asking for approval of a non-standard horizontal spacing unit is hereby dismissed.

(3) The Unit shall be dedicated to the following "proposed well" to be completed at a standard location:

Sapphire 11 12 B2NN State Com Well No. 1H, API No. 30-015-44053
SHL: 500 feet from the South line and 1500 feet from the West line,

(Unit N) of Section 11, Township 19 South, Range 29 East, NMPM.
BHL: 330 feet from the South line and 2310 feet from the West line
(Unit N) of Section 12, Township 19 South, Range 29 East, NMPM.

(4) Mewbourne Oil Company (OGRID 14744) is hereby designated the operator of the proposed well and the Unit.

(5) The operator of the Unit shall commence drilling the proposed well on or before October 31, 2019 and shall thereafter continue drilling the proposed well with due diligence to test the Bone Spring formation.

(6) In the event the operator does not commence drilling on or before October 31, 2019 Ordering Paragraph (1) shall be of no effect, unless the operator obtains a time extension from the Division Director for good cause demonstrated by satisfactory evidence.

(7) The proposed well must be completed within 120 days after commencement of drilling, else Ordering Paragraph (1) shall be of no further effect, unless the operator requests in writing an extension of the time for completion of the proposed well or well for good cause shown by satisfactory evidence and the Division issues written approval.

(8) Upon final plugging and abandonment of the proposed well and any other well drilled on the Unit pursuant to Division Rule 19.15.13.9 NMAC, the pooled Unit shall terminate, unless this Order has been amended to authorize further operations.

(9) Infill wells within the Unit shall be subject to the terms and conditions of this order.

(10) After pooling, uncommitted working interest owners are referred to as pooled working interest owners. ("Pooled working interest owners" are owners of working interests in the Unit, including unleased mineral interests, who are not parties to an operating agreement governing the Unit.) After the effective date of this order, the operator shall furnish the Division and each known pooled working interest owner in the Unit a separate itemized schedule of estimated costs of drilling, completing and equipping the proposed well ("well costs").

(11) Within 30 days from its receipt of the schedule of estimated well costs for any well, any pooled working interest owner shall have the right to pay its share of estimated well costs of such well to the operator in lieu of paying its share of reasonable well costs out of production as hereinafter provided, and any such owner who pays its share of estimated well costs as provided above for any well shall remain liable for operating costs but shall not be liable for risk charges for such well. Pooled working interest owners who elect not to pay their share of estimated well costs as provided in this paragraph shall thereafter be referred to as "non-consenting working interest owners."

(12) The operator shall furnish the Division and each known pooled working interest owner (including non-consenting working interest owners) an itemized schedule of actual well costs of each well within 90 days following completion of the proposed well. If no objection to the actual well costs is received by the Division, and the Division has not objected, within 45 days following receipt of the schedule, the actual well costs shall be deemed to be the reasonable well costs. If there is an objection to actual well costs within the 45-day period, the Division will determine reasonable well costs after public notice and hearing.

(13) Within 60 days following determination of reasonable well costs for any well, any pooled working interest owner who has paid its share of estimated costs of such well or wells in advance as provided above shall pay to the operator its share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator the amount, if any, that the estimated well costs it has paid exceed its share of reasonable well costs.

(14) The operator is hereby authorized to withhold the following costs and charges from each non-consenting working interest owner's share of production from each well:

- (a) The proportionate share of reasonable well costs attributable to such interest; and
- (b) As a charge for the risk involved in drilling the well, 200% of the above costs.

(15) The operator shall distribute the costs and charges withheld from production, proportionately, to the parties who advanced the well costs.

(16) Reasonable charges for supervision (combined fixed rates) are hereby fixed at \$8000 per month, per well, while drilling and \$800 per month, per well, while producing, provided that these rates may, at the election of the operator, be adjusted annually pursuant to the overhead adjustment provisions of the COPAS form titled "*Accounting Procedure-Joint Operations*." The operator is authorized to withhold from each pooled working interest owner's share of production from each well the proportionate share of both the supervision charges and the actual expenditures required for operating such well, not more than what are reasonable.

(17) During the cost recovery period, the operator shall furnish to the Division and to each known non-consenting pooled working interest owner, annually, and within 90 days after payout occurs, a schedule of all revenues attributable to each proposed well, and all charges for supervision and operating costs charged against such revenues. Operating costs shall include all reasonable costs incurred for the maintenance and operation of the well, except for "well costs" reported pursuant to requirements herein, that are properly chargeable to the joint account pursuant to COPAS procedures. If no objection to the operating costs is received by the Division, and the Division has not objected, within 45

days following receipt of any schedule, the costs shall be deemed to be the reasonable operating costs. If there is an objection to the accuracy or reasonableness of operating costs reported within the 45-day period, the Division will determine reasonable operating costs after public notice and hearing.

(18) Except as provided above, all proceeds of production from the proposed well that are not disbursed for any reason shall be held for the account of the person or persons entitled thereto pursuant to the Oil and Gas Proceeds Payment Act (NMSA 1978 Sections 70-10-1 through 70-10-6, as amended). If not disbursed, such proceeds shall be turned over to the appropriate authority as and when required by the Uniform Unclaimed Property Act (NMSA 1978 Sections 7-8A-1 through 7-8A-31, as amended).

(19) Any unleased mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for allocating costs and charges under this Order. Any costs that are to be paid out of production shall be withheld only from the working interests' share of production, and no costs shall be withheld from production attributable to royalty interests.

(20) Should all the parties to this compulsory pooling order reach voluntary agreement after entry of this order, this order shall thereafter be of no further effect.

(21) The operator of the well and the Unit shall notify the Division in writing of the subsequent voluntary agreement of any party subject to the compulsory pooling provisions of this order.

(22) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


HEATHER RILEY
Director

EXHIBIT "A"

Attached to and made a part of that certain Operating Agreement dated April 1, 2018, by and between MEWBOURNE OIL COMPANY as Operator and RIDGE RUNNER RESOURCES OPERATING, LLC, et al as Non-Operators.

1. LANDS SUBJECT TO THIS AGREEMENT:Contract Area A:

Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico

Section 11: E/2W/2 and E/2

Section 12: W/2;

containing 800.00 acres, more or less.

(Note: This Contract Area is for oil and gas production from the Second Bone Spring Sand interval in the Bone Spring formation).

Contract Area B:

Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico

Section 11: ALL

Section 12: W/2;

containing 960.00 acres, more or less

(Note: This Contract Area is for oil and gas production from the First and Third Bone Spring Sand intervals in the Bone Spring formation).

2. DEPTH RESTRICTIONS AND EXCLUSIONS:Contract Area A:

The top of the 2nd Bone Spring Sand formation is the stratigraphic equivalent of 7,700 feet as referenced in the Dual Laterolog/Micro Laterolog for the State HL 11 #1 Well bearing API#30-015-22956 located in Section 11N, T19S, R29E, Eddy County, New Mexico. The base of the 2nd Bone Spring Sand formation is the stratigraphic equivalent of 8,166 feet as referenced in the Dual Laterolog/ Micro Laterolog for the State HL 11 #1 Well bearing API# 30-015-22956 in Section 11N, T19S, R29E, Eddy County, New Mexico.

Contract Area B:

The top of the Bone Spring formation is the stratigraphic equivalent of 4,816 feet as referenced by the Dual Laterolog/ Micro Laterolog for the State HL 11 #1 well bearing API#30-015-22956 located in Section 11N, T19S, R29E, Eddy County, New Mexico. The base of the Bone Spring formation is the stratigraphic equivalent of 9,072 feet as referenced in the Dual Laterolog/ Micro Laterolog for the State HL 11 #1 well bearing API#30-015-22956 in Section 11N, T19S, R29E, Eddy County, New Mexico.

3. ADDRESSES OF THE PARTIES:

Mewbourne Oil Company
500 West Texas, Suite 1020
Midland, Texas 79701
Attn: Land Department
Phone: (432) 682-3715
Fax: (432) 685-4170

Marathon Oil Permian, LLC
5555 San Felipe
Houston, Texas 77056-2701
Phone: (713) 814-5301

Chisos, Ltd.
1331 Lamar St., Suite 1077
Houston, Texas 77056-2701

Ridge Runner Resources Operating, LLC
1004 North Big Spring Street, Suite 325
Midland, Texas 79701

COG Operating LLC
600 W. Illinois
Midland, Texas 79701
Attn: Outside Operated Properties
Phone: (432) 683-7443
Email: oboland@concho.com

Alpha Permian Resources, LLC
P.O.Box 52107
Midland, Texas 79702

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MEWBOURNE OIL
Exhibit #3

Joel R. Miller Energy, LP
P.O. Box 3003
Midland, Texas 79702

Cimarex Energy Co.
600 N. Marienfeld, Suite 600
Midland, Texas 79701
Phone: (432) 571-7800
Fax: (432) 571-7832

BEXP I, LP
5914 W. Courtyard Drive, Suite 200
Austin, Texas 78730
Phone: (512) 220-1200

4. PERCENTAGES OF THE PARTIES:

Contract Area A:

Initial, Substitute and Subsequent Wells

Mewbourne Oil Company	34.25000%
Ridge Runner Resources Operating, LLC	23.7500%
Marathon Oil Permian, LLC	19.5000%
COG Operating LLC	10.0000%
BEXP I, LP	6.82500%
Chisos, Ltd.	5.0000%
Joel R. Miller Energy, LP	0.33750%
Alpha Permian Resources, LLC	0.33750%
	<hr/>
	100.000000%

Contract Area B:

Initial, Substitute and Subsequent Wells

Mewbourne Oil Company	28.54167%
Ridge Runner Resources Operating, LLC	23.43750%
Marathon Oil Permian, LLC	16.25000%
Cimarex Energy Co.	10.10417%
COG Operating LLC	8.33333%
BEXP I, LP	7.58333%
Chisos, Ltd.	5.00000%
Joel R. Miller Energy, LP	0.37500%
Alpha Permian Resources, LLC	0.37500%
	<hr/>
	100.000000%

5. OIL AND GAS LEASES SUBJECT TO THIS AGREEMENT:

Lease No. 1:

Lease Serial No.: B - 9739
Dated: July 10, 1942.
Lessor: State of New Mexico, acting by and through its Commissioner of Public Lands.
Lessee: Bernice R. Piatt.
Recorded: Book 964, page 764, Eddy County Records.
Lands: Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico
Section 11: ALL
Section 12: NE/4NE/4 containing 680.00 acres, more or less, among other lands not covered hereby.

Lease No. 2:

Lease Serial No.: B - 7717.
Dated: April 10, 1938.
Lessor: State of New Mexico, acting by and through its Commissioner of Public Lands.
Lessee: Humble Oil & Refining Company.
Recorded: Book 964, page 761, Eddy County Records.
Lands: Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico
Section 12: N/2NW/4, SE/4NW/4 and S/2SW/4, containing 200 acres, more or less among other lands not covered hereby.

Lease No. 3:

Lease Serial No.: L - 2634.
Dated: March 18, 1969.
Lessor: State of New Mexico, acting by and through its Commissioner of Public Lands.
Lessee: James A. O'Neill.
Recorded: Book 67, page 376, Miscellaneous Records.
Lands: Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico
Section 12: N/2SW/4 and SW/4NW/4, containing 120 acres more or less, among other lands not covered hereby.

6. BURDENS ON PRODUCTION:

Burdens of Record.

End of Exhibit "A"

MEWBOURNE OIL
Exhibit #4Revised August 1, 2011
Submit one copy to appropriate
District Office☐ AMENDED REPORT

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name SAPPHIRE 11/12 B2KK STATE COM	⁶ Well Number 1H
⁷ OGRID NO.	⁸ Operator Name MEWBOURNE OIL COMPANY	⁹ Elevation 3377'

¹⁰ Surface Location

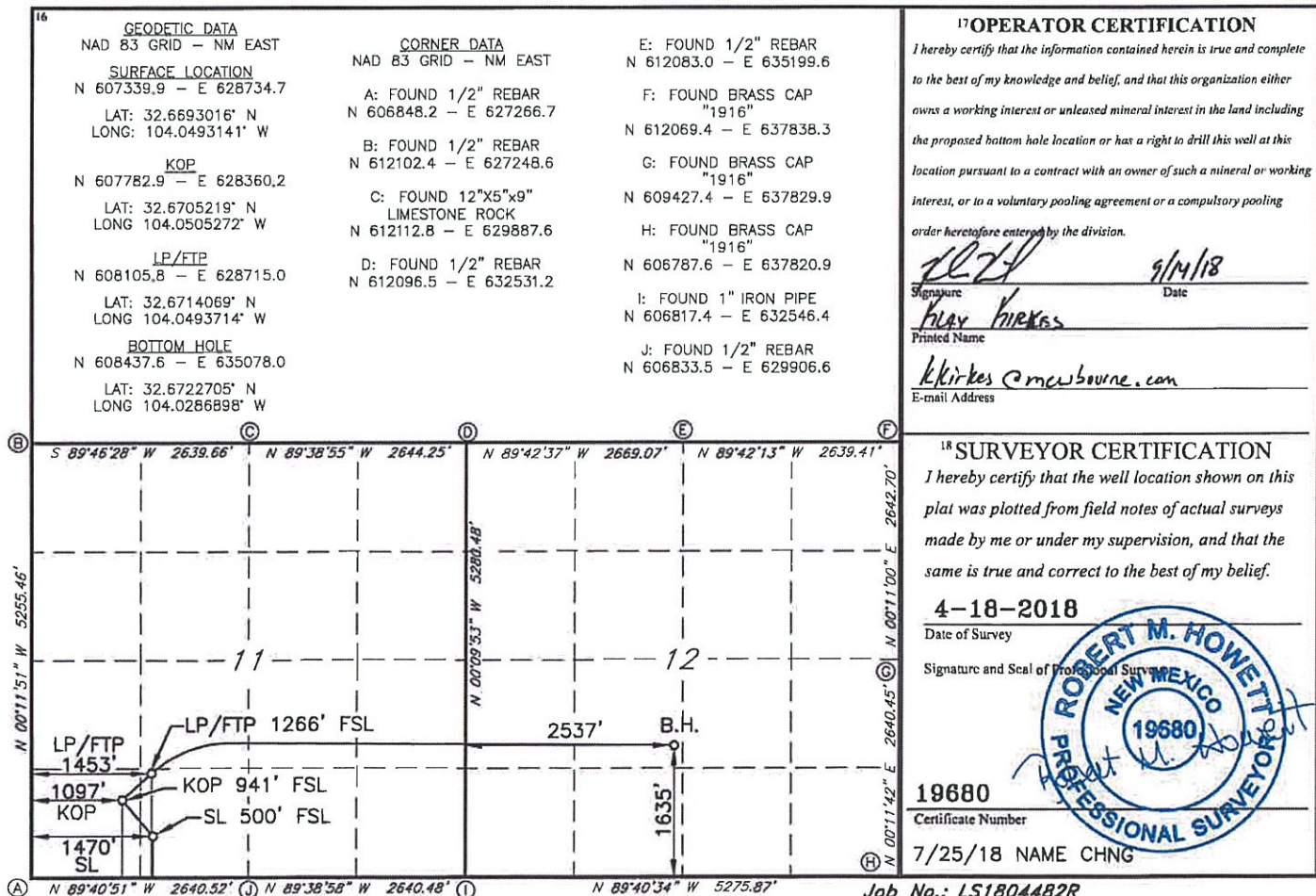
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
N	11	19S	29E		500	SOUTH	1470	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	12	19S	29E		1635	SOUTH	2537	WEST	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.



Case No. 20092

TRACT OWNERSHIP

Sapphire 11/12 B2KK State Com #1H
NE/4SW/4 and N/2SE/4 of Section 11 and
N/2SW/4 of Section 12, T19S, R29E
Eddy County, New Mexico; containing
200.00 acres more or less

NE/4SW/4 of Section 11:

Ridge Runner Resources Operating LLC	43.7500%
Marathon Oil Permian LLC	38.7500%
BEXP I, LP	11.3750%
Chisos, Ltd.	5.0000%
Alpha Permian Resources, LLC	0.5625%
Joel R. Miller Energy, LP	0.5625%

N/2SE/4 of Section 11:

Mewbourne Oil Company	48.7500%
Ridge Runner Resources Operating, LLC	21.8750%
Marathon Oil Permian, LLC	16.8750%
BEXP I, LP	11.3750%
Alpha Permian Resources, LLC	0.5625%
Joel R. Miller Energy, LP	0.5625%

N/2SW/4 of Section 12:

COG Operating LLC	100.00%
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Ownership in Project Area:

COG Operating LLC	40.00%
Mewbourne Oil Company	19.5000%
Ridge Runner Resources Operating, LLC	17.5000%
*Marathon Oil Permian, LLC	14.5000%
BEXP I, LP	6.8250%
Chisos, Ltd.	1.0000%
Alpha Permian Resources, LLC	0.3375%
Joel R. Miller Energy, LP	00.90%
	<hr/> 100.0000%

*Note: This is the uncommitted owners.

OCD Case No. 20092

MEWBOURNE OIL
Exhibit #5

CASE NO. 20092

Summary of Communications:
Sapphire 11/12 B2KK State Com #1H
NE/4SW/4 and N/2SE/4 of Section 11 and
N/2SW/4 of Section 12, T19S, R29E
Eddy County, New Mexico

Contact: **Marathon Oil Permian LLC**
Matthew D. Brown – Land Manager
(713) 296-3408; mbrown3@marathonoil.com

05-17-2018: Mailed well proposal letter with separate AFEs for several Sapphire 11/12 wells with our proposed Operating Agreement for the proposed Working Interest Unit (WIU) via overnight mail.

07-09-2018: Emailed Matt a copy of our previous proposal letter dated 5-17-2108 enquiring of the status of Marathon joining in our proposed WIU and wells. Advised him the pooling hearing was scheduled for July 12, 2018.

07-10-2018: Received email from Matt advising me that they would not be able to review our proposals prior to the hearing date. They will review upon receipt of the Pooling Orders.

09-24-2018: Sent overnight package to Marathon with some revised pages to the JOA including revised Exhibit "A" of the JOA adding Contract Area A providing for an 800 acre unit for the 2nd Bone Spring Sand wells and Contract Area B providing for a 960 acre unit for 1st and 3rd Bone Spring Sand horizontal wells with the respective ownership for each Contract Area.

09-25-2018: Marathon received our package.

10-01-2018: Emailed Marathon our revised AFEs for the Sapphire 11/12 B2NN St. Com #1H and Sapphire 11/12 B2KK St. Com #1H wells whereby the surface locations were revised.

10-15-2018: Mitch Robb of this office was advised by Marathon that they would elect to be pooled in all well proposals, they had other priorities.

10-24-2018: Emailed Marathon our Pooling Order R-20046 for the Sapphire 11/12 B2NN St. Com #1H well and requested the status of Marathon joining in our proposed wells.

OCD Case No. 20092

MEWBOURNE OIL
Exhibit #6



HINKLE SHANOR LLP

ATTORNEYS AT LAW

PO BOX 268

SANTA FE, NEW MEXICO 87504

505-982-4554 (FAX) 505-982-8623

WRITER

Gary W. Larson,
Partner

glarson@hinklelawfirm.com

October 16, 2018

VIA CERTIFIED MAIL

Marathon Oil Permian, LLC
Attn: Matthew D. Brown
5555 San Felipe
Houston, TX 77056-2701

Re: Mewbourne Oil Company NMOCD Application

Dear Mr. Brown:

Enclosed is a copy of an application that Mewbourne Oil Company ("Mewbourne") has filed with the New Mexico Oil Conservation Division ("the Division"). Mewbourne's application requests an order (i) approving a 200-acre non-standard horizontal spacing unit in the Second Bone Spring Sand zone of the Bone Spring formation comprised of the NE/4 SW/4 and N/2 SE/4 of Section 11 and the N/2 SW/4 of Section 12, Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico, and (ii) pooling all uncommitted mineral interests in the Second Bone Spring Sand zone underlying the proposed horizontal spacing unit.

This matter is scheduled for hearing at 8:15 a.m. on Thursday, November 15, 2018 in Porter Hall at the Division's offices located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Marathon Oil Permian, LLC ("Marathon") is not required to attend this hearing, but as an owner of an interest that may be affected by Mewbourne's application, it may appear at the hearing and present testimony. If Marathon does not appear at that time and become a party of record, it will be precluded from contesting the matter at a later date.

A party appearing in a Division case is required by the Division's Rules to file a Pre-Hearing Statement, which in this matter must be filed no later than Thursday, November 8, 2018. The Pre-Hearing Statement must be filed with the Division's Santa Fe office at the address above, and should include: the name of the party and the party's attorney; a concise statement of the case; the name(s) of the witness(es) the party will call to testify at the hearing; the approximate amount of time the party will need to present the party's case; and an identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to me.

Thank you for your attention to this matter.

Very truly yours,

Gary W. Larson

OCD Case No. 20092

MEWBOURNE OIL
Exhibit #7

GWL:sm
Enclosure

PO BOX 10
ROSWELL, NEW MEXICO 88202
575-622-6510
(FAX) 575-623-9332

PO BOX 1720
ARTESIA, NEW MEXICO 88210
575-622-6510
(FAX) 575-746-6316

PO BOX 268
SANTA FE, NEW MEXICO 87504
505-982-4554
(FAX) 505-982-8623

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
Attn: Matthew D. Brown
5555 San Felipe
Houston, TX 77056-2701



9590 9402 3019 7124 7228 15

2. Article Number (Transfer from service label)

7018 0040 0000 4364 0313

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

Marcos Camacho

☐ Agent☐ Addressee

B. Received by (Printed Name)

Marcos Camacho

C. Date of Delivery

10-22-18

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

3. Service Type

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

Restricted Delivery

Domestic Return Receipt

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: Sapphire 11/12 B2KK State Com #1H		Prospect: Bone Spring	
Location: SL: 500' FSL & 1470' FWL (11); BHL: 1750' FSL & 2310' FWL (12)		County: Eddy	ST: NM
Sec. 11	Blk: 	Survey: 	TWP: 19S RNG: 29E Prop. TVD: 8148 TMD: 14586

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$10,000	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 19 days drlg / 3 days comp @ \$20,000/d		0180-0110	\$406,000	0180-0210	\$64,100
Fuel 1500 gal/day @ 2.63/gal		0180-0114	\$95,200	0180-0214	\$260,000
Mud, Chemical & Additives		0180-0120	\$225,000	0180-0220	
Horizontal Drillout Services				0180-0222	\$150,000
Cementing		0180-0125	\$90,000	0180-0225	\$30,000
Logging & Wireline Services		0180-0130	\$2,000	0180-0230	\$260,000
Casing / Tubing / Snubbing Service		0180-0134	\$20,000	0180-0234	\$80,000
Mud Logging		0180-0137	\$20,000		
Stimulation 33 Stg 12.7 MM gal / 12.7 MM lb				0180-0241	\$2,000,000
Stimulation Rentals & Other				0180-0242	\$125,000
Water & Other		0180-0145	\$40,000	0180-0245	\$420,000
Bits		0180-0148	\$63,000	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	\$33,000	0180-0270	\$25,500
Directional Services Includes Vertical Control		0180-0175	\$150,000		
Equipment Rental		0180-0180	\$160,200	0180-0280	\$30,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$4,600	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	\$105,600	0180-0295	\$81,600
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Well Abandonment		0180-0198		0180-0298	
Contingencies 10% (TCP) 10% (CC)		0180-0199	\$192,800	0180-0299	\$370,700
TOTAL			\$2,120,400		\$4,077,400

TANGIBLE COSTS 0181		CODE	TCP	CODE	CC
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0") 300' - 13 3/8" 54.5# J-55 ST&C @ \$35.90/ft		0181-0794	\$11,600		
Casing (8.1" - 10.0") 1130' - 9 5/8" 40# N-80 LT&C @ \$27.61/ft		0181-0795	\$33,400		
Casing (6.1" - 8.0") 8330' - 7" 26# P-110 LT&C @ \$21.99/ft		0181-0796	\$195,700		
Casing (4.1" - 6.0") 7020' - 4 1/2" 13.5# P-110 LTC @ \$13.66/ft				0181-0797	\$154,500
Tubing 7580' - 2 7/8" 6.5# L-80 EUE 8rd @ \$4.74/ft				0181-0798	\$35,600
Drilling Head		0181-0860	\$40,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger				0181-0871	\$30,000
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 0.9 Mile Gas & 1.2 Mile 4" Wtr				0181-0900	\$70,000
Fittings / Valves & Accessories				0181-0906	\$60,000
Cathodic Protection				0181-0908	\$8,000
Electrical Installation				0181-0909	\$50,000
Equipment Installation				0181-0910	\$35,000
Pipeline Construction 0.9 Mile Steel & 1.2 Mile Poly				0181-0920	\$90,000
TOTAL			\$280,700		\$810,100
SUBTOTAL			\$2,401,100		\$4,887,500
TOTAL WELL COST		\$7,288,600			

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: B. Talley	Date: 3/6/2018
Company Approval: <i>M. White</i>	Date: 3/7/2018
Joint Owner Interest: _____ Amount: _____	Signature: _____
Joint Owner Name: _____	

OCD Case No. 20092

MEWBOURNE OIL
Exhibit #8

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

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

Case No. 20092

**SELF-AFFIRMED STATEMENT OF
CHARLES CROSBY**

1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein.
2. I am a geologist at Mewbourne Oil Company ("Mewbourne"). I am familiar with the geological matters that pertain to Mewbourne's application.
3. Attached hereto as Exhibit A is a structure map on the base of the Bone Spring Sand. The map shows that the structure in the formation dips gently to the east. It also shows Second and Third Bone Spring wells in the vicinity of the proposed Sapphire 11/12 B2NN State Com Well #1H and a line of cross section.
4. Attached hereto as Exhibit B is a lower Second Bone Spring Sand gross isopach map, which demonstrates that the Second Bone Spring Sand is uniform across the 200-acre horizontal spacing unit ("HSU").
5. Attached hereto as Exhibit C is a west to east cross section. The well logs included in the cross section provide a representative sample of the Second Bone Spring Sand formation in the area. The target interval for the proposed Sapphire 11/12 B2NN State Com Well #1H well is continuous across the HSU.

OCD Case No. 20092

MEWBOURNE OIL
Exhibit #9

6. Based on the information contained in Exhibits A, B and C, I am able to conclude that:

a) The HSU is justified from a geologic standpoint;

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

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

7. Attached hereto as Exhibit D is a table containing information from other wells drilled in the vicinity. Production for wells with similar completions and similar time online seems to show a preference for laydown orientation, and the recently completed wells apparently are commercial.

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


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

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

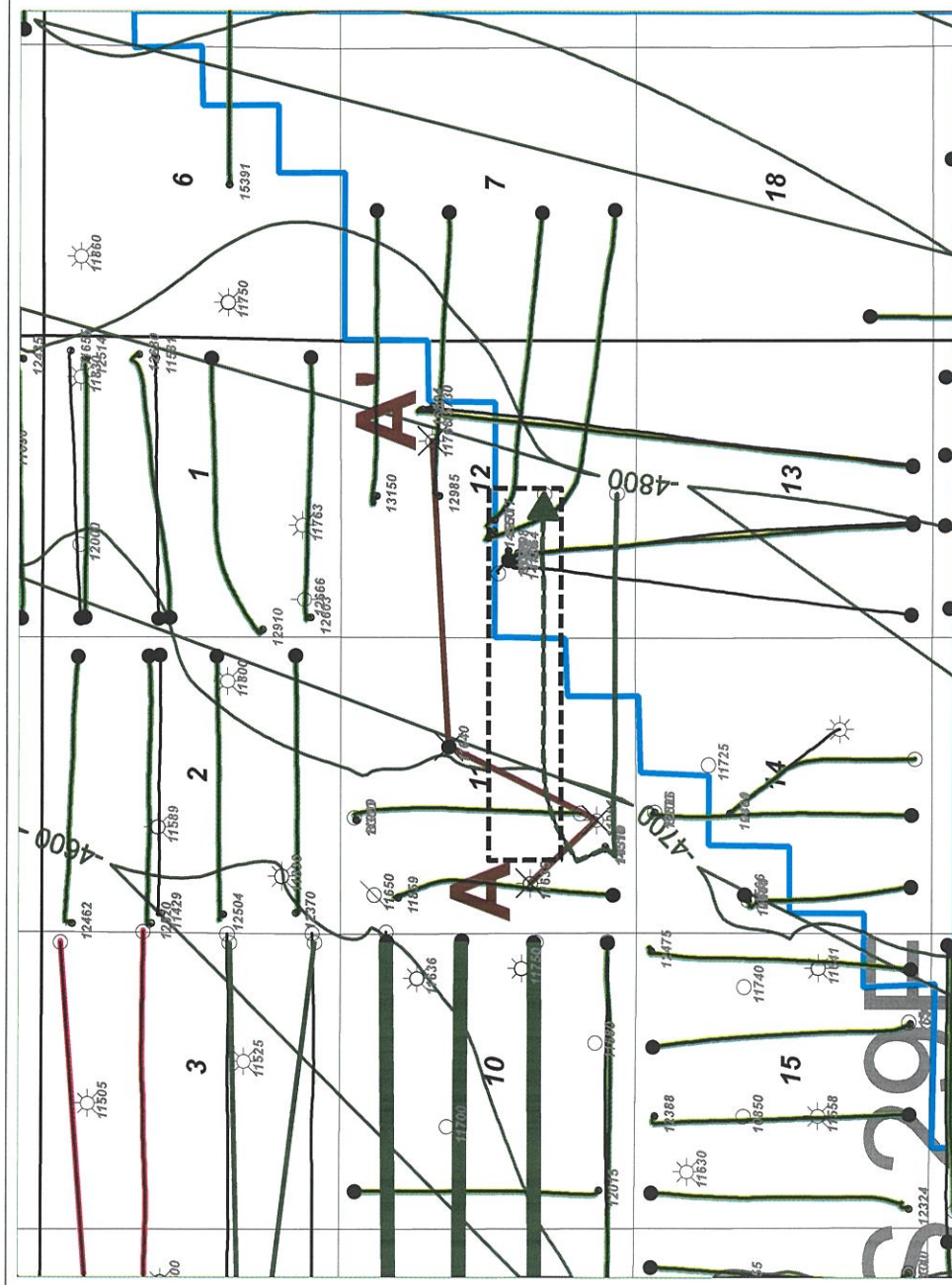
11. I understand that this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 10 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten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



Charles Crosby



Date



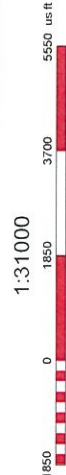
Mewbourne Oil Company

Sapphire 11/12 B2KK State Com 1H
Horizontal Activity Map
Base 2nd Bone Spring Sand Structure (C.L. 100')
Wells TD > 8000'

11/12/2018	Eddy County	New Mexico
		Geol. C. Crosby

**Exhibit
A**

**Exhibit
B**



2nd Bone Spring Sand



Lower 2nd BSPG
Gros Thickness

TD



NEWBOURN
OIL COMPANY

Mewbourne Oil Company

Sapphire 11/12 B2KK State Com 1H

Horizontal Activity Map

**Lower 2nd BSPG Sd Gross Thickness (C.I. 20')
Wells TD > 8000'**

11/12/2018

Eddy County

2

Ciccol C. Crosby

Sapphire Area 2nd BSPG Production Table

Well Name	Operator	API	Location	Completion Date	Cum Oil (Mbo)	Cum Gas (Bcf)	Cum Water (Mbw)	NS/EW	WFMP Zone
State 14 Com 2	Cimarex	3001531791	14E/19S/29E	1/1/2010	83.7	0.5	56.3	NS	Lower 2nd BSPG SD
State 14 A Com 2	Cimarex	3001534604	14F/19S/29E	8/16/2009	45.3	0.2	59.1	NS	Middle 2nd BSPG SD
Parkway State Com 3	Cimarex	3001537376	15M/19S/29E	3/3/2010	146.8	0.6	74.5	NS	Lower 2nd BSPG SD
Parkway State Com 4	Cimarex	3001537504	15O/19S/29E	5/7/2010	74.6	0.3	74.3	NS	Lower 2nd BSPG SD
Magnum 16 State 3	Cimarex	3001537632	16P/19S/29E	6/9/2010	97.2	0.5	56.1	NS	Lower 2nd BSPG SD
State 14 Com 3	Cimarex	3001537719	14C/19S/29E	8/12/2010	65.9	0.2	76.4	NS	Lower 2nd BSPG SD
Parkway 11 State Com 2H	Cimarex	3001537874	11C/19S/29E	1/23/2011	14	0.03	29.7	NS	Lower 2nd BSPG SD
Parkway State Com 6H	Cimarex	3001537970	15A/19S/29E	7/5/2011	78.4	0.2	104.5	NS	Lower 2nd BSPG SD
Parkway 11 State 1H	Cimarex	3001538065	11D/19S/29E	1/11/2011	68.6	0.2	65.7	NS	Lower 2nd BSPG SD
Parkway State Com 5Y	Cimarex	3001538499	15C/19S/29E	6/8/2011	139.1	0.6	83.3	NS	Lower 2nd BSPG SD
Conoco 10 State 2H	OXY	3001539112	10M/19S/29E	4/7/2012	27.7	0.07	26.5	NS	Lower 2nd BSPG SD
Zircon 2 State Com 1H	Mewbourne	3001539117	2M/19S/29E	1/13/2012	137.1	0.3	185.2	EW	Lower 2nd BSPG SD
Zircon 1 State 1H	Mewbourne	3001539198	1M/19S/19E	9/16/2012	185.3	0.3	269.6	EW	Lower 2nd BSPG SD
Zircon 1 State 2H	Mewbourne	3001539833	1A/19S/29E	4/24/2012	175.8	0.5	152.9	EW	Lower 2nd BSPG SD
Zircon 2 LI State 1H	Mewbourne	3001539929	2L/19S/29E	5/29/2012	118.1	0.2	126.9	EW	Lower 2nd BSPG SD
Zircon 2 EH State 1H	Mewbourne	3001540572	2E/19S/29E	1/12/2013	79.6	0.2	110.8	EW	Lower 2nd BSPG SD
Peridot 13 State 2H	Devon	3001540777	12K/19S/29E	11/16/2013	48.1	0.1	96.3	NS	Lower 2nd BSPG SD
Peridot 13 State 3H	Devon	3001540778	12H/19S/29E	9/30/2013	43.4	0.1	95.9	NS	Lower 2nd BSPG SD
Zircon 2 DA State 1H	Mewbourne	3001541133	2D/19S/29E	5/10/2013	102.7	0.2	105.5	EW	Lower 2nd BSPG SD
Zircon 1 LI State 1H	Mewbourne	3001541307	1L/19S/29E	8/17/2013	117.6	0.3	130.7	EW	Lower 2nd BSPG SD
Zircon 12-7 BC Federal Com 1H	Mewbourne	3001541717	12C/19S/29E	11/25/2013	140.1	0.4	166.6	EW	Lower 2nd BSPG SD
Zircon 1 HE State 2H	Mewbourne	3001541731	1H/19S/29E	1/28/2014	81.1	0.2	119.2	EW	Lower 2nd BSPG SD
Zircon 12-7 GF Federal Com 1H	Mewbourne	3001542207	12F/19S/29E	5/25/2014	130.8	0.3	175.3	EW	Lower 2nd BSPG SD
Zircon 12-7 B2JK Federal Com 1H	Mewbourne	3001542713	12K/19S/29E	1/11/2015	104.1	0.2	188.3	EW	Lower 2nd BSPG SD
Zircon 12-7 B2ON Federal Com 1H	Mewbourne	3001543122	12K/19S/29E	2/23/2016	93.6	0.2	184.3	EW	Lower 2nd BSPG SD
Turkey Track 9-10 State 21H	OXY	3001544117	8H/19S/29E	11/22/2017	302	0.6	78.9	EW	Lower 2nd BSPG SD
Turkey Track 9-10 State 22H	OXY	3001544122	8H/19S/29E	11/30/2017	224.2	0.4	77.8	EW	Lower 2nd BSPG SD
Turkey Track 9-10 State 23H	OXY	3001544154	8P/19S/29E	1/31/2018	195.5	0.4	144.4	EW	Lower 2nd BSPG SD
Turkey Track 9-10 State 24H	OXY	3001544156	8P/19S/29E	2/2/2018	185.6	0.3	93.9	EW	Lower 2nd BSPG SD
Turkey Track 4-3 State 23H	OXY	3001544517	4L/19S/29E	Pending					
Turkey Track 4-3 State 24H	OXY	3001544518	4L/19S/29E	Pending					

Exhibit

D



Mewbourne Oil Company

Eddy County, New Mexico (Nad 83)

Sec 11, T19S, R29E

Sapphire 11/12 B2KK State Com #1H

Wellbore #1

Plan: Design #2

QES Well Planning Report

17 September, 2018

**Exhibit
E**





Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Company
Project: Eddy County, New Mexico (Nad 83)
Site: Sec 11, T19S, R29E
Well: Sapphire 11/12 B2KK State Com #1H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Sapphire 11/12 B2KK State Com #1H
TVD Reference: WELL @ 3404.0usft (Patterson #230)
MD Reference: WELL @ 3404.0usft (Patterson #230)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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 Sec 11, T19S, R29E

Site Position:	Northing:	607,339.87 usft	Latitude:	32° 40' 9.484 N
From: Map	Easting:	628,765.02 usft	Longitude:	104° 2' 57.176 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.15 °

Well	Sapphire 11/12 B2KK State Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	607,339.90 usft	Latitude:	32° 40' 9.486 N
	+E/-W	-30.3 usft	Easting:	628,734.70 usft	Longitude:	104° 2' 57.530 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,377.0 usft	

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/14/2018	7.08	60.38	48,022.86138783

Design Design #2

Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	0.0
-----------------	---------------	------	----------------------	-----

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	80.18

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
749.9	5.00	335.08	749.6	9.9	-4.6	2.00	2.00	0.00	335.08	
7,351.4	5.00	335.08	7,326.0	531.5	-247.0	0.00	0.00	0.00	0.00	
7,601.3	0.00	0.00	7,575.6	541.4	-251.6	2.00	-2.00	0.00	180.00	VP Sapphire B2KK
8,344.1	89.13	61.08	8,053.0	768.8	160.0	12.00	12.00	0.00	61.08	
9,806.5	89.13	90.33	8,075.7	1,125.9	1,561.7	2.00	0.00	2.00	90.22	
14,589.5	89.13	90.33	8,148.0	1,098.2	6,344.0	0.00	0.00	0.00	0.00	PBHL Sapphire 11/



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Company
Project: Eddy County, New Mexico (Nad 83)
Site: Sec 11, T19S, R29E
Well: Sapphire 11/12 B2KK State Com #1H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Sapphire 11/12 B2KK State Com #1H
TVD Reference: WELL @ 3404.0usft (Patterson #230)
MD Reference: WELL @ 3404.0usft (Patterson #230)
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
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
Build 2°/100'									
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	2.00	335.08	600.0	1.6	-0.7	-0.5	2.00	2.00	0.00
700.0	4.00	335.08	699.8	6.3	-2.9	-1.8	2.00	2.00	0.00
EOB @ 5° Inc / 335.08° Azm									
749.9	5.00	335.08	749.6	9.9	-4.6	-2.8	2.00	2.00	0.00
800.0	5.00	335.08	799.5	13.8	-6.4	-4.0	0.00	0.00	0.00
900.0	5.00	335.08	899.1	21.7	-10.1	-6.2	0.00	0.00	0.00
1,000.0	5.00	335.08	998.7	29.6	-13.8	-8.5	0.00	0.00	0.00
1,100.0	5.00	335.08	1,098.4	37.5	-17.4	-10.8	0.00	0.00	0.00
1,200.0	5.00	335.08	1,198.0	45.4	-21.1	-13.1	0.00	0.00	0.00
1,300.0	5.00	335.08	1,297.6	53.3	-24.8	-15.3	0.00	0.00	0.00
1,400.0	5.00	335.08	1,397.2	61.3	-28.5	-17.6	0.00	0.00	0.00
1,500.0	5.00	335.08	1,496.8	69.2	-32.1	-19.9	0.00	0.00	0.00
1,600.0	5.00	335.08	1,596.4	77.1	-35.8	-22.1	0.00	0.00	0.00
1,700.0	5.00	335.08	1,696.1	85.0	-39.5	-24.4	0.00	0.00	0.00
1,800.0	5.00	335.08	1,795.7	92.9	-43.1	-26.7	0.00	0.00	0.00
1,900.0	5.00	335.08	1,895.3	100.8	-46.8	-28.9	0.00	0.00	0.00
2,000.0	5.00	335.08	1,994.9	108.7	-50.5	-31.2	0.00	0.00	0.00
2,100.0	5.00	335.08	2,094.5	116.6	-54.2	-33.5	0.00	0.00	0.00
2,200.0	5.00	335.08	2,194.2	124.5	-57.8	-35.8	0.00	0.00	0.00
2,300.0	5.00	335.08	2,293.8	132.4	-61.5	-38.0	0.00	0.00	0.00
2,400.0	5.00	335.08	2,393.4	140.3	-65.2	-40.3	0.00	0.00	0.00
2,500.0	5.00	335.08	2,493.0	148.2	-68.8	-42.6	0.00	0.00	0.00
2,600.0	5.00	335.08	2,592.6	156.1	-72.5	-44.8	0.00	0.00	0.00
2,700.0	5.00	335.08	2,692.3	164.0	-76.2	-47.1	0.00	0.00	0.00
2,800.0	5.00	335.08	2,791.9	171.9	-79.9	-49.4	0.00	0.00	0.00
2,900.0	5.00	335.08	2,891.5	179.8	-83.5	-51.6	0.00	0.00	0.00
3,000.0	5.00	335.08	2,991.1	187.7	-87.2	-53.9	0.00	0.00	0.00
3,100.0	5.00	335.08	3,090.7	195.6	-90.9	-56.2	0.00	0.00	0.00
3,200.0	5.00	335.08	3,190.4	203.5	-94.5	-58.4	0.00	0.00	0.00
3,300.0	5.00	335.08	3,290.0	211.4	-98.2	-60.7	0.00	0.00	0.00
3,400.0	5.00	335.08	3,389.6	219.3	-101.9	-63.0	0.00	0.00	0.00
3,500.0	5.00	335.08	3,489.2	227.2	-105.6	-65.3	0.00	0.00	0.00
3,600.0	5.00	335.08	3,588.8	235.1	-109.2	-67.5	0.00	0.00	0.00
3,700.0	5.00	335.08	3,688.5	243.0	-112.9	-69.8	0.00	0.00	0.00
3,800.0	5.00	335.08	3,788.1	250.9	-116.6	-72.1	0.00	0.00	0.00
3,900.0	5.00	335.08	3,887.7	258.8	-120.2	-74.3	0.00	0.00	0.00
4,000.0	5.00	335.08	3,987.3	266.7	-123.9	-76.6	0.00	0.00	0.00
4,100.0	5.00	335.08	4,086.9	274.6	-127.6	-78.9	0.00	0.00	0.00
4,200.0	5.00	335.08	4,186.6	282.5	-131.3	-81.1	0.00	0.00	0.00
4,300.0	5.00	335.08	4,286.2	290.4	-134.9	-83.4	0.00	0.00	0.00
4,400.0	5.00	335.08	4,385.8	298.3	-138.6	-85.7	0.00	0.00	0.00
4,500.0	5.00	335.08	4,485.4	306.2	-142.3	-88.0	0.00	0.00	0.00
4,600.0	5.00	335.08	4,585.0	314.1	-145.9	-90.2	0.00	0.00	0.00
4,700.0	5.00	335.08	4,684.7	322.0	-149.6	-92.5	0.00	0.00	0.00
4,800.0	5.00	335.08	4,784.3	329.9	-153.3	-94.8	0.00	0.00	0.00
4,900.0	5.00	335.08	4,883.9	337.8	-157.0	-97.0	0.00	0.00	0.00
5,000.0	5.00	335.08	4,983.5	345.7	-160.6	-99.3	0.00	0.00	0.00



Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Company
Project: Eddy County, New Mexico (Nad 83)
Site: Sec 11, T19S, R29E
Well: Sapphire 11/12 B2KK State Com #1H
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Sapphire 11/12 B2KK State Com #1H
TVD Reference: WELL @ 3404.0usft (Patterson #230)
MD Reference: WELL @ 3404.0usft (Patterson #230)
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)
5,100.0	5.00	335.08	5,083.1	353.6	-164.3	-101.6	0.00	0.00	0.00
5,200.0	5.00	335.08	5,182.8	361.5	-168.0	-103.8	0.00	0.00	0.00
5,300.0	5.00	335.08	5,282.4	369.4	-171.6	-106.1	0.00	0.00	0.00
5,400.0	5.00	335.08	5,382.0	377.3	-175.3	-108.4	0.00	0.00	0.00
5,500.0	5.00	335.08	5,481.6	385.2	-179.0	-110.7	0.00	0.00	0.00
5,600.0	5.00	335.08	5,581.2	393.1	-182.7	-112.9	0.00	0.00	0.00
5,700.0	5.00	335.08	5,680.9	401.0	-186.3	-115.2	0.00	0.00	0.00
5,800.0	5.00	335.08	5,780.5	408.9	-190.0	-117.5	0.00	0.00	0.00
5,900.0	5.00	335.08	5,880.1	416.8	-193.7	-119.7	0.00	0.00	0.00
6,000.0	5.00	335.08	5,979.7	424.8	-197.3	-122.0	0.00	0.00	0.00
6,100.0	5.00	335.08	6,079.3	432.7	-201.0	-124.3	0.00	0.00	0.00
6,200.0	5.00	335.08	6,179.0	440.6	-204.7	-126.5	0.00	0.00	0.00
6,300.0	5.00	335.08	6,278.6	448.5	-208.4	-128.8	0.00	0.00	0.00
6,400.0	5.00	335.08	6,378.2	456.4	-212.0	-131.1	0.00	0.00	0.00
6,500.0	5.00	335.08	6,477.8	464.3	-215.7	-133.3	0.00	0.00	0.00
6,600.0	5.00	335.08	6,577.4	472.2	-219.4	-135.6	0.00	0.00	0.00
6,700.0	5.00	335.08	6,677.1	480.1	-223.0	-137.9	0.00	0.00	0.00
6,800.0	5.00	335.08	6,776.7	488.0	-226.7	-140.2	0.00	0.00	0.00
6,900.0	5.00	335.08	6,876.3	495.9	-230.4	-142.4	0.00	0.00	0.00
7,000.0	5.00	335.08	6,975.9	503.8	-234.1	-144.7	0.00	0.00	0.00
7,100.0	5.00	335.08	7,075.5	511.7	-237.7	-147.0	0.00	0.00	0.00
7,200.0	5.00	335.08	7,175.2	519.6	-241.4	-149.2	0.00	0.00	0.00
7,300.0	5.00	335.08	7,274.8	527.5	-245.1	-151.5	0.00	0.00	0.00
Drop 2°/100'									
7,351.4	5.00	335.08	7,326.0	531.5	-247.0	-152.7	0.00	0.00	0.00
7,400.0	4.03	335.08	7,374.4	535.0	-248.6	-153.7	2.00	-2.00	0.00
7,500.0	2.03	335.08	7,474.3	539.8	-250.8	-155.0	2.00	-2.00	0.00
EOD @ Vert / Build 12°/100'									
7,601.3	0.00	335.08	7,575.6	541.4	-251.6	-155.5	2.00	-2.00	0.00
7,625.0	2.84	61.08	7,599.2	541.7	-251.0	-155.0	11.98	11.98	362.87
7,650.0	5.84	61.08	7,624.2	542.6	-249.4	-153.2	12.00	12.00	0.00
7,675.0	8.84	61.08	7,649.0	544.2	-246.6	-150.2	12.00	12.00	0.00
7,700.0	11.84	61.08	7,673.6	546.3	-242.7	-145.9	12.00	12.00	0.00
7,725.0	14.84	61.08	7,697.9	549.1	-237.6	-140.5	12.00	12.00	0.00
7,750.0	17.84	61.08	7,721.9	552.5	-231.5	-133.8	12.00	12.00	0.00
7,775.0	20.84	61.08	7,745.5	556.5	-224.2	-126.0	12.00	12.00	0.00
7,800.0	23.84	61.08	7,768.6	561.1	-215.9	-117.0	12.00	12.00	0.00
7,825.0	26.84	61.08	7,791.2	566.3	-206.5	-106.9	12.00	12.00	0.00
7,850.0	29.84	61.08	7,813.2	572.0	-196.1	-95.7	12.00	12.00	0.00
7,875.0	32.84	61.08	7,834.5	578.3	-184.8	-83.4	12.00	12.00	0.00
7,900.0	35.84	61.08	7,855.2	585.1	-172.4	-70.1	12.00	12.00	0.00
7,925.0	38.84	61.08	7,875.0	592.5	-159.2	-55.8	12.00	12.00	0.00
7,950.0	41.84	61.08	7,894.1	600.3	-145.0	-40.5	12.00	12.00	0.00
7,975.0	44.84	61.08	7,912.3	608.6	-130.0	-24.3	12.00	12.00	0.00
8,000.0	47.84	61.08	7,929.5	617.3	-114.1	-7.2	12.00	12.00	0.00
8,025.0	50.84	61.08	7,945.8	626.5	-97.5	10.7	12.00	12.00	0.00
8,050.0	53.84	61.08	7,961.1	636.1	-80.2	29.4	12.00	12.00	0.00
8,075.0	56.84	61.08	7,975.3	646.0	-62.2	48.9	12.00	12.00	0.00
8,100.0	59.84	61.08	7,988.4	656.3	-43.6	69.0	12.00	12.00	0.00
8,125.0	62.84	61.08	8,000.4	666.9	-24.4	89.7	12.00	12.00	0.00
8,150.0	65.84	61.08	8,011.2	677.8	-4.7	111.0	12.00	12.00	0.00
8,175.0	68.84	61.08	8,020.9	689.0	15.5	132.8	12.00	12.00	0.00
8,200.0	71.84	61.08	8,029.3	700.4	36.1	155.0	12.00	12.00	0.00
8,225.0	74.84	61.08	8,036.4	711.9	57.1	177.7	12.00	12.00	0.00



Well Planning Report



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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)
8,250.0	77.84	61.08	8,042.4	723.7	78.3	200.6	12.00	12.00	0.00
8,275.0	80.84	61.08	8,047.0	735.6	99.8	223.8	12.00	12.00	0.00
8,300.0	83.84	61.08	8,050.3	747.5	121.5	247.2	12.00	12.00	0.00
8,325.0	86.84	61.08	8,052.3	759.6	143.3	270.8	12.00	12.00	0.00
EOB @ 89.13° Inc / 61.08° Azm / 8053' TVD / Turn 2°/100'									
8,344.1	89.13	61.08	8,053.0	768.8	160.0	288.8	12.00	12.00	0.00
8,400.0	89.13	62.20	8,053.9	795.4	209.2	341.8	2.00	-0.01	2.00
8,500.0	89.12	64.20	8,055.4	840.5	298.5	437.4	2.00	-0.01	2.00
8,600.0	89.11	66.20	8,056.9	882.4	389.2	534.0	2.00	-0.01	2.00
8,700.0	89.11	68.20	8,058.5	921.1	481.4	631.5	2.00	0.00	2.00
8,800.0	89.11	70.20	8,060.0	956.6	574.9	729.6	2.00	0.00	2.00
8,900.0	89.10	72.20	8,061.6	988.9	669.5	828.4	2.00	0.00	2.00
9,000.0	89.10	74.20	8,063.2	1,017.8	765.2	927.6	2.00	0.00	2.00
9,100.0	89.10	76.20	8,064.7	1,043.3	861.9	1,027.2	2.00	0.00	2.00
9,200.0	89.10	78.20	8,066.3	1,065.5	959.4	1,127.1	2.00	0.00	2.00
9,300.0	89.11	80.20	8,067.9	1,084.2	1,057.6	1,227.0	2.00	0.00	2.00
9,400.0	89.11	82.20	8,069.4	1,099.5	1,156.4	1,327.0	2.00	0.00	2.00
9,500.0	89.11	84.20	8,071.0	1,111.3	1,255.7	1,426.8	2.00	0.00	2.00
9,600.0	89.12	86.20	8,072.5	1,119.7	1,355.3	1,526.4	2.00	0.01	2.00
9,700.0	89.13	88.20	8,074.0	1,124.6	1,455.2	1,625.7	2.00	0.01	2.00
EOT @ 90.33° Azm									
9,806.5	89.13	90.33	8,075.7	1,125.9	1,561.6	1,730.8	2.00	0.01	2.00
9,900.0	89.13	90.33	8,077.1	1,125.4	1,655.1	1,822.8	0.00	0.00	0.00
10,000.0	89.13	90.33	8,078.6	1,124.8	1,755.1	1,921.3	0.00	0.00	0.00
10,100.0	89.13	90.33	8,080.1	1,124.2	1,855.1	2,019.7	0.00	0.00	0.00
10,200.0	89.13	90.33	8,081.6	1,123.7	1,955.1	2,118.1	0.00	0.00	0.00
10,300.0	89.13	90.33	8,083.1	1,123.1	2,055.1	2,216.5	0.00	0.00	0.00
10,400.0	89.13	90.33	8,084.6	1,122.5	2,155.1	2,315.0	0.00	0.00	0.00
10,500.0	89.13	90.33	8,086.2	1,121.9	2,255.1	2,413.4	0.00	0.00	0.00
10,600.0	89.13	90.33	8,087.7	1,121.3	2,355.0	2,511.8	0.00	0.00	0.00
10,700.0	89.13	90.33	8,089.2	1,120.8	2,455.0	2,610.2	0.00	0.00	0.00
10,800.0	89.13	90.33	8,090.7	1,120.2	2,555.0	2,708.6	0.00	0.00	0.00
10,900.0	89.13	90.33	8,092.2	1,119.6	2,655.0	2,807.1	0.00	0.00	0.00
11,000.0	89.13	90.33	8,093.7	1,119.0	2,755.0	2,905.5	0.00	0.00	0.00
11,100.0	89.13	90.33	8,095.2	1,118.4	2,855.0	3,003.9	0.00	0.00	0.00
11,200.0	89.13	90.33	8,096.7	1,117.9	2,955.0	3,102.3	0.00	0.00	0.00
11,300.0	89.13	90.33	8,098.3	1,117.3	3,055.0	3,200.8	0.00	0.00	0.00
11,400.0	89.13	90.33	8,099.8	1,116.7	3,154.9	3,299.2	0.00	0.00	0.00
11,500.0	89.13	90.33	8,101.3	1,116.1	3,254.9	3,397.6	0.00	0.00	0.00
11,600.0	89.13	90.33	8,102.8	1,115.5	3,354.9	3,496.0	0.00	0.00	0.00
11,700.0	89.13	90.33	8,104.3	1,115.0	3,454.9	3,594.5	0.00	0.00	0.00
11,800.0	89.13	90.33	8,105.8	1,114.4	3,554.9	3,692.9	0.00	0.00	0.00
11,900.0	89.13	90.33	8,107.3	1,113.8	3,654.9	3,791.3	0.00	0.00	0.00
12,000.0	89.13	90.33	8,108.8	1,113.2	3,754.9	3,889.7	0.00	0.00	0.00
12,100.0	89.13	90.33	8,110.3	1,112.6	3,854.8	3,988.1	0.00	0.00	0.00
12,200.0	89.13	90.33	8,111.9	1,112.1	3,954.8	4,086.6	0.00	0.00	0.00
12,300.0	89.13	90.33	8,113.4	1,111.5	4,054.8	4,185.0	0.00	0.00	0.00
12,400.0	89.13	90.33	8,114.9	1,110.9	4,154.8	4,283.4	0.00	0.00	0.00
12,500.0	89.13	90.33	8,116.4	1,110.3	4,254.8	4,381.8	0.00	0.00	0.00
12,600.0	89.13	90.33	8,117.9	1,109.7	4,354.8	4,480.3	0.00	0.00	0.00
12,700.0	89.13	90.33	8,119.4	1,109.2	4,454.8	4,578.7	0.00	0.00	0.00
12,800.0	89.13	90.33	8,120.9	1,108.6	4,554.8	4,677.1	0.00	0.00	0.00
12,900.0	89.13	90.33	8,122.4	1,108.0	4,654.7	4,775.5	0.00	0.00	0.00

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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)
13,000.0	89.13	90.33	8,124.0	1,107.4	4,754.7	4,873.9	0.00	0.00	0.00
13,100.0	89.13	90.33	8,125.5	1,106.8	4,854.7	4,972.4	0.00	0.00	0.00
13,200.0	89.13	90.33	8,127.0	1,106.3	4,954.7	5,070.8	0.00	0.00	0.00
13,300.0	89.13	90.33	8,128.5	1,105.7	5,054.7	5,169.2	0.00	0.00	0.00
13,400.0	89.13	90.33	8,130.0	1,105.1	5,154.7	5,267.6	0.00	0.00	0.00
13,500.0	89.13	90.33	8,131.5	1,104.5	5,254.7	5,366.1	0.00	0.00	0.00
13,600.0	89.13	90.33	8,133.0	1,104.0	5,354.7	5,464.5	0.00	0.00	0.00
13,700.0	89.13	90.33	8,134.5	1,103.4	5,454.6	5,562.9	0.00	0.00	0.00
13,800.0	89.13	90.33	8,136.1	1,102.8	5,554.6	5,661.3	0.00	0.00	0.00
13,900.0	89.13	90.33	8,137.6	1,102.2	5,654.6	5,759.8	0.00	0.00	0.00
14,000.0	89.13	90.33	8,139.1	1,101.6	5,754.6	5,858.2	0.00	0.00	0.00
14,100.0	89.13	90.33	8,140.6	1,101.1	5,854.6	5,956.6	0.00	0.00	0.00
14,200.0	89.13	90.33	8,142.1	1,100.5	5,954.6	6,055.0	0.00	0.00	0.00
14,300.0	89.13	90.33	8,143.6	1,099.9	6,054.6	6,153.4	0.00	0.00	0.00
14,400.0	89.13	90.33	8,145.1	1,099.3	6,154.5	6,251.9	0.00	0.00	0.00
14,500.0	89.13	90.33	8,146.6	1,098.7	6,254.5	6,350.3	0.00	0.00	0.00
TD @ 14590' MD / 8148' TVD									
14,589.5	89.13	90.33	8,148.0	1,098.2	6,344.0	6,438.4	0.00	0.00	0.00

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
VP Sapphire B2KK 1H - plan hits target center - Point	0.00	0.01	7,575.6	541.4	-251.6	607,881.33	628,483.15	32° 40' 14.850 N	104° 3' 0.456 W
PBHL Sapphire 11/12 - plan hits target center - Point	0.00	0.00	8,148.0	1,098.2	6,344.0	608,438.12	635,078.75	32° 40' 20.179 N	104° 1' 43.275 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.0	500.0	0.0	0.0	Build 2°/100'
749.9	749.6	9.9	-4.6	EOB @ 5° Inc / 335.08° Azm
7,351.4	7,326.0	531.5	-247.0	Drop 2°/100'
7,601.3	7,575.6	541.4	-251.6	EOD @ Vert / Build 12°/100'
8,344.1	8,053.0	768.8	160.0	EOB @ 89.13° Inc / 61.08° Azm / 8053' TVD / Turn 2°/100'
9,806.5	8,075.7	1,125.9	1,561.6	EOT @ 90.33° Azm
14,589.5	8,148.0	1,098.2	6,344.0	TD @ 14590' MD / 8148' TVD

