

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

**APPLICATION OF MEWBOURNE OIL COMPANY
FOR COMPULSORY POOLING AND VACATING
ORDER NO. R-22924, LEA COUNTY, NEW MEXICO.**

CASE NO. 24657

EXHIBIT INDEX

Compulsory Pooling Checklist

Exhibit A	Self-Affirmed Statement of Adriana Salgado
A-1	Application & Proposed Notice of Hearing
A-2	C-102s
A-3	Plat of Tracts, Tract Ownership, Applicable Lease Numbers, Pooled Parties
A-4	Sample Well Proposal Letter and AFE
A-5	Chronology of Contact
A-6	Order No. R-22924
Exhibit B	Self-Affirmed Statement of Tyler Hill
B-1	Location Map
B-2	Subsea Structure Maps
B-3	Stratigraphic Cross Sections
B-4	Directional Drilling Plans
Exhibit C	Self-Affirmed Statement of Dana S. Hardy
C-1	Sample Notice Letter to Interested Party
C-2	Copies of Certified Mail Receipt and Return
C-3	Affidavit of Publication for July 10, 2024

COMPULSORY POOLING APPLICATION CHECKLIST	
ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS	
Case: 24657	APPLICANT'S RESPONSE
Hearing Date: August 22, 2024	
Applicant	Mewbourne Oil Company
Designated Operator & OGRID (affiliation if applicable)	14744
Applicant's Counsel:	Hinkle Shanor LLP & James Bruce
Case Title:	Application of Mewbourne Oil Company for Compulsory Pooling and Vacating Order No. R-22924, Lea County, New Mexico.
Entries of Appearance/Intervenors:	None.
Well Family	Lobo 33/28 Fed Com
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring
Pool Name and Pool Code:	Billbrey Basin; Bone Spring pool (Code 5695)
Well Location Setback Rules:	Statewide
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	640-acres
Building Blocks:	quarter-quarter
Orientation:	South to North
Description: TRS/County	E/2 of Section 33 and E/2 of Section 28, Township 21 South, Range 32 East, Lea County.
Standard Horizontal Well Spacing Unit (Y/N), If No, describe and is approval of non-standard unit requested in this application?	No. Mewbourne has received administrative approval of a non-standard horizontal spacing unit.
Other Situations	
Depth Severance: Y/N. If yes, description	No.
Proximity Tracts: If yes, description	No.
Proximity Defining Well: if yes, description	N/A
Applicant's Ownership in Each Tract	Exhibit A-3
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Lobo 33/28 Fed Com 406H (API # pending) SHL: 150' FSL & 1780' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 1650' FEL (Unit B), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 9,876' TVD)
Well #2	Lobo 33/28 Fed Com 586H (API # pending) SHL: 150' FSL & 1800' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 1700' FEL (Unit B), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 11,375' TVD)
Well #3	Lobo 33/28 Fed Com 625H (API # pending) SHL: 150' FSL & 1820' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 1980' FEL (Unit B), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 11,858' TVD)
Well #4	Lobo 33/28 Fed Com 408H (API # pending) SHL: 150' FSL & 1720' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 500' FEL (Unit A), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 9,876' TVD)
Well #5	Lobo 33/28 Fed Com 568H (API # pending) SHL: 150' FSL & 1740' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 500' FEL (Unit A), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 11,215' TVD)

Well #6	Lobo 33/28 Fed Com 628H (API # pending) SHL: 150' FSL & 1700' FEL (Unit O), Section 33, T21S-R32E BHL: 100' FNL & 440' FEL (Unit A), Section 28, T21S-R32E Completion Target: Bone Spring (Approx. 11,857' TVD)
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit A-4
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit A-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibits C-1, C-2
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit C-3
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit A-3
Tract List (including lease numbers and owners)	Exhibit A-3
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to notice requirements.	N/A
Pooled Parties (including ownership type)	Exhibit A-3
Unlocatable Parties to be Pooled	N/A
Ownership Depth Severance (including percentage above & below)	N/A
Joinder	
Sample Copy of Proposal Letter	Exhibit A-4
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-3
Chronology of Contact with Non-Joined Working Interests	Exhibit A-5
Overhead Rates In Proposal Letter	Exhibit A-4
Cost Estimate to Drill and Complete	Exhibit A-4
Cost Estimate to Equip Well	Exhibit A-4
Cost Estimate for Production Facilities	Exhibit A-4
Geology	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit B-1
Gunbarrel/Lateral Trajectory Schematic	N/A
Well Orientation (with rationale)	Exhibit B
Target Formation	Exhibit B
HSU Cross Section	Exhibit B-3
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit A-2
Tracts	Exhibit A-3
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-3
General Location Map (including basin)	Exhibit B-1
Well Bore Location Map	Exhibit B-2
Structure Contour Map - Subsea Depth	Exhibit B-2
Cross Section Location Map (including wells)	Exhibit B-2
Cross Section (including Landing Zone)	Exhibit B-3
Additional Information	
Special Provisions/Stipulations	N/A
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	Dana S. Hardy
Signed Name (Attorney or Party Representative):	/s/ Dana S. Hardy
Date:	8/19/2024

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
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**APPLICATION OF MEWBOURNE OIL COMPANY
FOR COMPULSORY POOLING AND VACATING
ORDER NO. R-22924, LEA COUNTY, NEW MEXICO.**

Case No. 24657

**SELF-AFFIRMED STATEMENT
OF ADRIANA SALGADO**

1. I am employed by Mewbourne Oil Company (“Mewbourne”) as a landman. I am over 18 years of age, have personal knowledge of the matters addressed herein and am competent to provide this Self-Affirmed Statement. I have previously testified before the New Mexico Oil Conservation Division (“Division”) and my credentials as an expert in petroleum land matters were accepted and made a matter of record.

2. I am familiar with the land matters involved in the above-referenced case. Copies of Mewbourne’s Application and proposed hearing notice are attached as **Exhibit A-1**.

3. None of the parties proposed to be pooled in this case indicated opposition to this matter proceeding by affidavit, therefore I do not expect any opposition at hearing.

4. Mewbourne applies for an order pooling all uncommitted interests in the Bone Spring formation underlying a 640-acre, more or less, non-standard horizontal spacing unit comprised of the E/2 of Section 33 and the E/2 of Section 28, Township 21 South, Range 32 East, Lea County, New Mexico (“Unit”).

5. Mewbourne seeks to dedicate the Unit to the following wells (“Wells”):

- a. The **Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, and 625H**, to be drilled from a surface hole location in the SW/4 SE/4 (Unit O) of Section 33 to a bottom hole location in the NW/4 NE/4 (Unit B) of Section 28; and

**Mewbourne Oil Company
Case No. 24657
Exhibit A**

- b. The **Lobo 33/28 Fed. Com. Well Nos. 408H, 568H, and 628H**, to be drilled from a surface hole location in the SE/4 SE/4 (Unit P) of Section 33 to a bottom hole location in the NE/4 NE/4 (Unit A) of Section 28.
6. The Wells will be completed in the Bilbrey Basin; Bone Spring pool (Code 5695).
7. The completed interval of the Wells will be orthodox.
8. **Exhibit A-2** contains the C-102s for the Wells.
9. **Exhibit A-3** contains a plat that identifies ownership by tract in the Unit. This exhibit also includes any applicable lease numbers and the interests Mewbourne seeks to pool highlighted in yellow.
10. Mewbourne has requested administrative approval of a non-standard spacing unit, which has been approved by the Division.
11. **Exhibit A-4** contains a sample well proposal letter and AFE sent to the working interest owners for the Wells. The estimated costs reflected on the AFE are fair and reasonable and comparable to the cost of other wells of similar depth and length drilled in the subject formation in the area.
12. Mewbourne has conducted a diligent search of all county public records, including telephone directories and computer databases, to locate the interest owners in the Unit. Mewbourne has located all of the parties it seeks to pool.
13. In my opinion, Mewbourne made a good-faith effort to reach voluntary joinder of uncommitted interests in the Wells as indicated by the chronology of contact described in **Exhibit A-5**.

14. Mewbourne requests overhead and administrative rates of \$8,000 per month while the Wells are being drilled and \$800 per month while the Wells are producing. These rates are fair and are comparable to the rates charged by Mewbourne and other operators in the vicinity.

15. Mewbourne also requests that Order No. R-22924, which covers the subject acreage, be vacated. A copy of Order No. R-22924 is attached as **Exhibit A-6**. Order No. R-22924 was entered on October 20, 2023, and designated Mewbourne as operator. Mewbourne requests that the Order be dismissed due to changes in drilling plans.

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

17. In my opinion, the granting of Mewbourne's application for compulsory pooling would serve the interests of conservation, the protection of correlative rights, and the prevention of waste.

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

Adriana Salgado
Adriana Salgado

8/16/24
Date

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

**APPLICATION OF MEWBOURNE OIL COMPANY
FOR COMPULSORY POOLING AND VACATING
ORDER NO. R-22924, LEA COUNTY, NEW MEXICO.**

Case No. _____

APPLICATION

Mewbourne Oil Company applies for an order pooling all uncommitted mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the E/2 of Section 33 and the E/2 of Section 28, Township 21 South, Range 32 East, N.M.P.M., Lea County, New Mexico, and in support thereof, states:

1. Applicant is an interest owner in the E/2 of Section 33 and the E/2 of Section 28 (containing 640 acres), and has the right to drill a well or wells thereon.

2. Applicant proposes to drill the following wells to depths sufficient to test the Bone Spring formation: (a) the Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, and 625H, with first take points in the SW/4SE/4 of 33 and last take points in the NW/4NE/4 of Section 28; and (b) the Lobo 33/28 Fed. Com. Well Nos. 408H, 568H, and 628H, with first take points in the SE/4SE/4 of 33 and last take points in the NE/4NE/4 of Section 28.

3. Applicant has in good faith sought to obtain the voluntary joinder of all other mineral interest owners in the E/2 of Section 33 and the E/2 of Section 28 for the purposes set forth herein.

4. Although applicant attempted to obtain voluntary agreements from all mineral interest owners to participate in the drilling of the wells or to otherwise commit their interests to the wells, certain interest owners have failed or refused to join in dedicating their interests. Therefore, applicant seeks an order pooling all uncommitted mineral interest owners in the Bone

**Mewbourne Oil Company
Case No. 24657
Exhibit A-1**

Spring formation underlying the E/2 of Section 33 and the E/2 of Section 28, pursuant to NMSA 1978 §70-2-17.

5. The pooling of all uncommitted mineral interest owners in the Bone Spring formation underlying the E/2 of Section 33 and the E/2 of Section 28 will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

6. Applicant also requests that Order No. R-22924, which covers the subject acreage, be vacated. Applicant is operator under that order, and requests that it be vacated due to a change in drilling plans.

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

- A. Pooling all uncommitted mineral interest owners in the Bone Spring formation (Bilbrey Basin; Bone Spring/Pool Code 5695) underlying the E/2 of Section 33 and the E/2 of Section 28;
- B. Designating applicant as operator of the wells;
- C. Considering the cost of drilling, completing, equipping, and testing the wells, and allocating the cost among the wells' working interest owners;
- D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;
- E. Setting a 200% charge for the risk involved in drilling, completing, equipping, and testing the wells in the event a working interest owner elects not to participate in the wells; and
- F. Vacating Order No. R-22924.

Respectfully submitted,



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

Attorney for Mewbourne Oil Company

65.	24654 Uncontested Hearing	Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Mewbourne Oil Company seeks an order pooling all uncommitted mineral interest (Record Title) owners in the Bone Spring formation underlying a horizontal spacing unit comprised of the S/2S/2 of Section 12 and the S/2S/2 of Section 11, Township 18 South, Range 30 East, NMPM. The unit will be dedicated to the Sandbox 12/11 Fed. Com. Well No. 528H, a horizontal well with a first take point in the SE/4SE/4 of Section 12 and a last take point in the SW/4SW/4 of Section 11. Also to be considered will be the designation of applicant as operator of the well. The unit is located approximately 6 miles southeast of Loco Hills, New Mexico.
66.	24655 Uncontested Hearing	Application of Mewbourne Oil Company for compulsory pooling, Lea County, New Mexico. Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well Nos. 402H, 521H, and 582H, with first take points in the SW/4SW/4 of 33 and last take points in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well Nos. 474H, 523H, 564H, and 623H, with first take points in the SE/4SW/4 of 33 and last take points in the NE/4SW/4 of Section 28. Also to be considered will be the cost of drilling, completing, equipping, and testing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a 200% charge for the risk involved in drilling, completing, equipping, and testing the wells. The unit is located approximately 8 miles south-southeast of Halfway, New Mexico.
67.	24656 Uncontested Hearing	Application of Mewbourne Oil Company for compulsory pooling, Lea County, New Mexico. Mewbourne Oil Company seeks an order pooling all mineral interest owners in the upper Wolfcamp formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well No. 701H, with a first take point in the SW/4SE/4 of Section 33 and a last take point in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well No. 704H with a first take point in the SE/4SE/4 of Section 33 and a last take point in the NE/4SW/4 of Section 28. Also to be considered will be the cost of drilling, completing, equipping, and testing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a 200% charge for the risk involved in drilling, completing, equipping, and testing the wells. The unit is located approximately 8 miles south-southeast of Halfway, New Mexico.
68.	24657 Uncontested Hearing	Application of Mewbourne Oil Company for compulsory pooling and vacating Order No. R-22924, Lea County, New Mexico. Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a proximity tract horizontal spacing unit comprised of the E/2 of Section 28 and the E/2 of Section 33, Township 21 South, Range 32 East, NMPM. The unit will be dedicated (a) the Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, and 625H, with first take points in the SW/4SE/4 of 33 and last take points in the NW/4NE/4 of Section 28; and (b) the Lobo 33/28 Fed. Com. Well Nos. 408H, 568H, and 628H, with first take points in the SE/4SE/4 of 33 and last take points in the NE/4NE/4 of Section 28. Also to be considered will be the cost of drilling, completing, equipping, and testing the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a 200% charge for the risk involved in drilling, completing, equipping, and testing the wells. Applicant also requests that Order No. R-22924, which covers the subject acreage, be vacated. The unit is located approximately 8 miles south-southeast of Halfway, New Mexico.
69.	24658 Uncontested Hearing	Application of Mewbourne Oil Company for compulsory pooling and vacating Order Nos. R-22925 and R-22926, Lea County, New Mexico. Mewbourne Oil Company seeks an order pooling all mineral interest owners in the upper Wolfcamp formation underlying a proximity tract horizontal spacing unit comprised of the E/2 of Section 33 and the E/2 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to the Lobo 33/28 Fed. Com. Well No. 706H with a first take point in the SW/4SE/4 (1330 feet FEL) of Section 33 and a last take point in the NW/4NE/4 (1330 feet FEL) of Section 28. Also to be considered will be the cost of drilling, completing, equipping, and testing the well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant

Case No. 24657

Exhibit A-2

Form C-102

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

Revised 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 5695	³ Pool Name Bilbrey Basin; Bone Spring
⁴ Property Code	⁵ Property Name LOBO 33/28 FED COM		⁶ Well Number 628H
⁷ OGRID NO.	⁸ Operator Name MEWBOURNE OIL COMPANY		⁹ Elevation 3799'

¹⁰ Surface Location

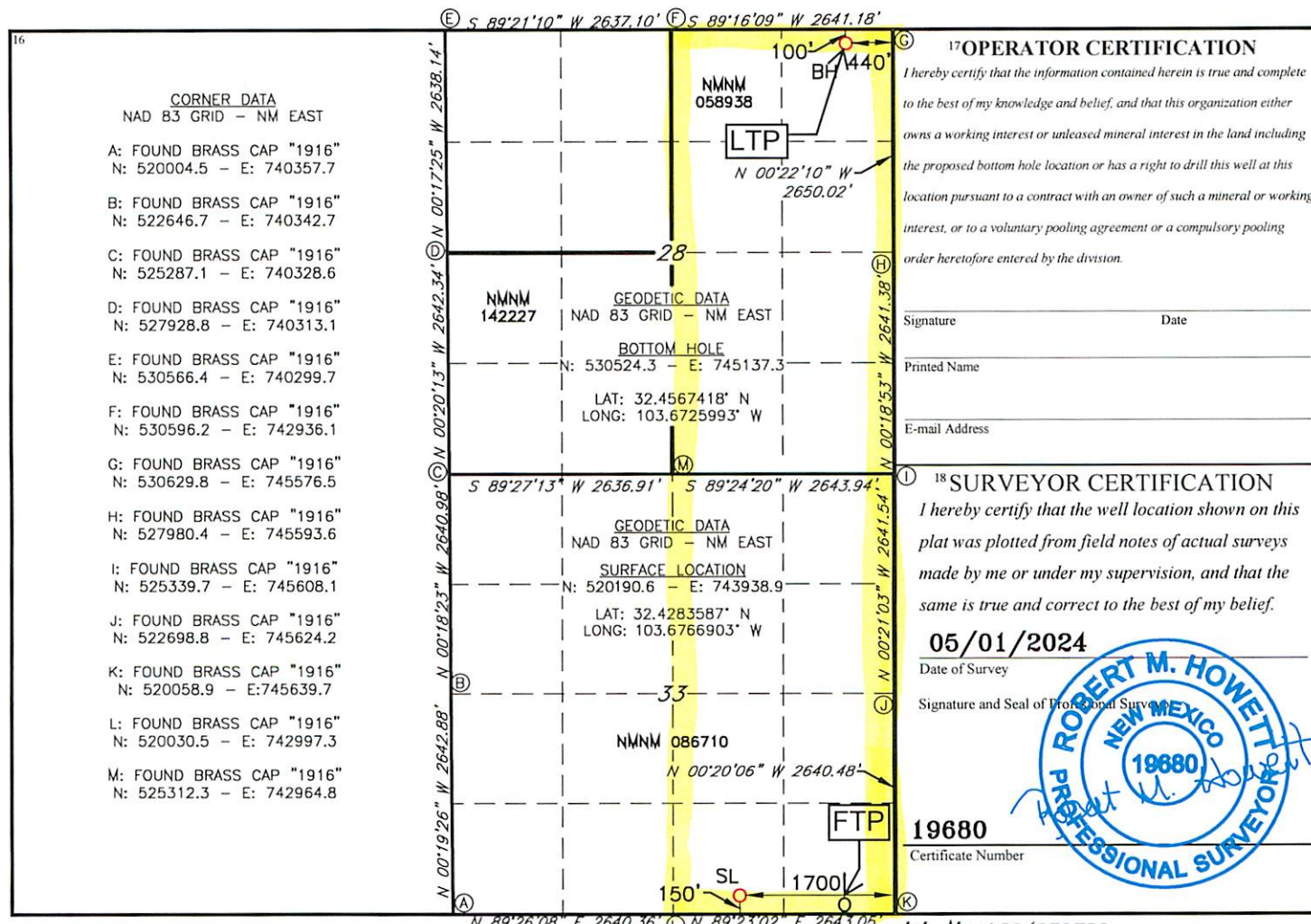
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1700	EAST	LEA

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
A	28	21S	32E		100	NORTH	440	EAST	LEA

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest has been consolidated or a non-standard unit has been approved by the division.



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Form C-102
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 5695		³ Pool Name BILBREY BASIN; BONE SPRING	
⁴ Property Code		⁵ Property Name LOBO 33/28 FED COM			⁶ Well Number 568H
⁷ GRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3800'

¹⁰ Surface Location

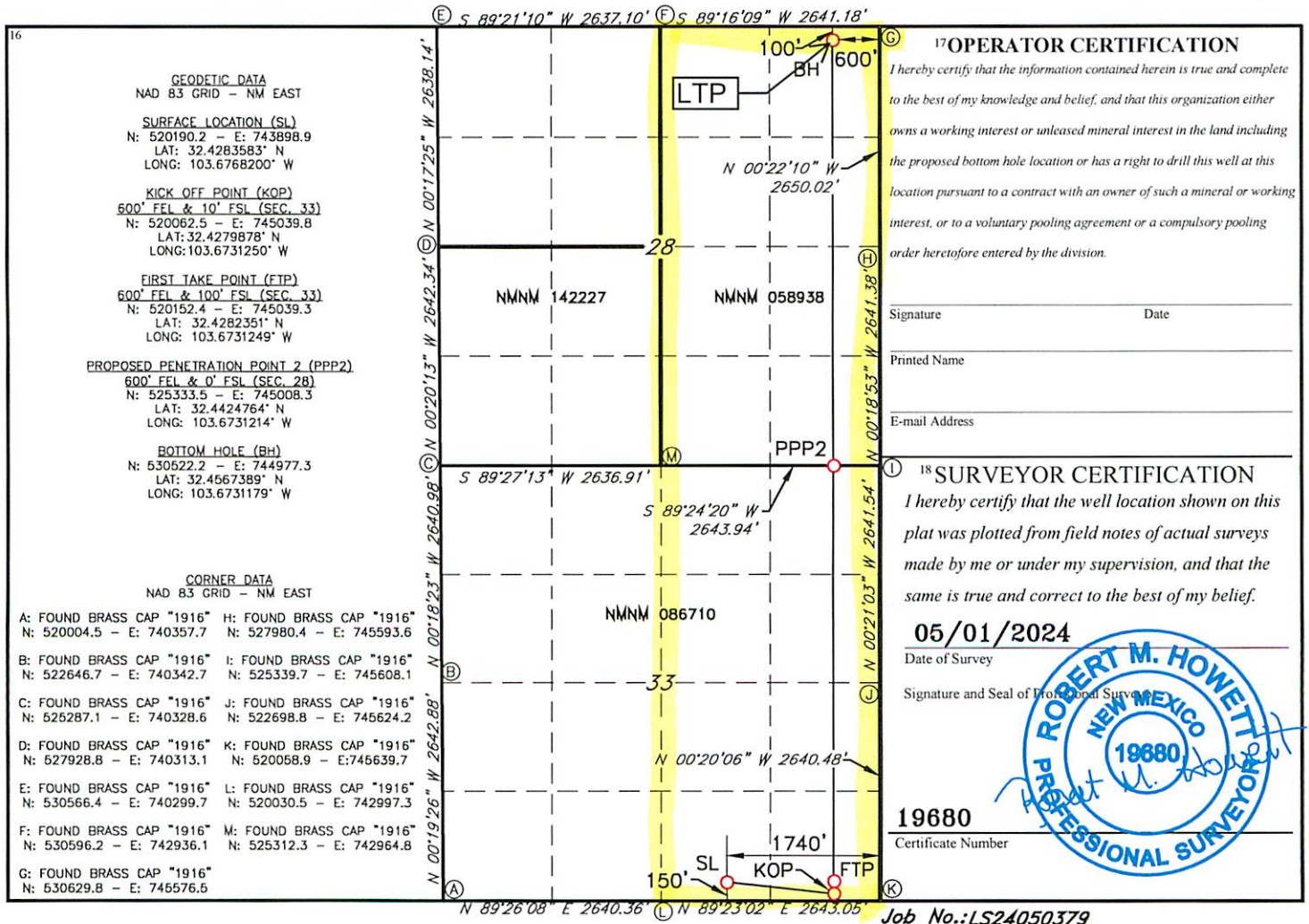
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1740	EAST	LEA

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
A	28	21S	32E		100	NORTH	600	EAST	LEA

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 5695		³ Pool Name BILBREY BAŞIN; BONE SPRING	
⁴ Property Code		⁵ Property Name LOBO 33/28 FED COM			⁶ Well Number 408H
⁷ OGRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3799'

¹⁰ Surface Location

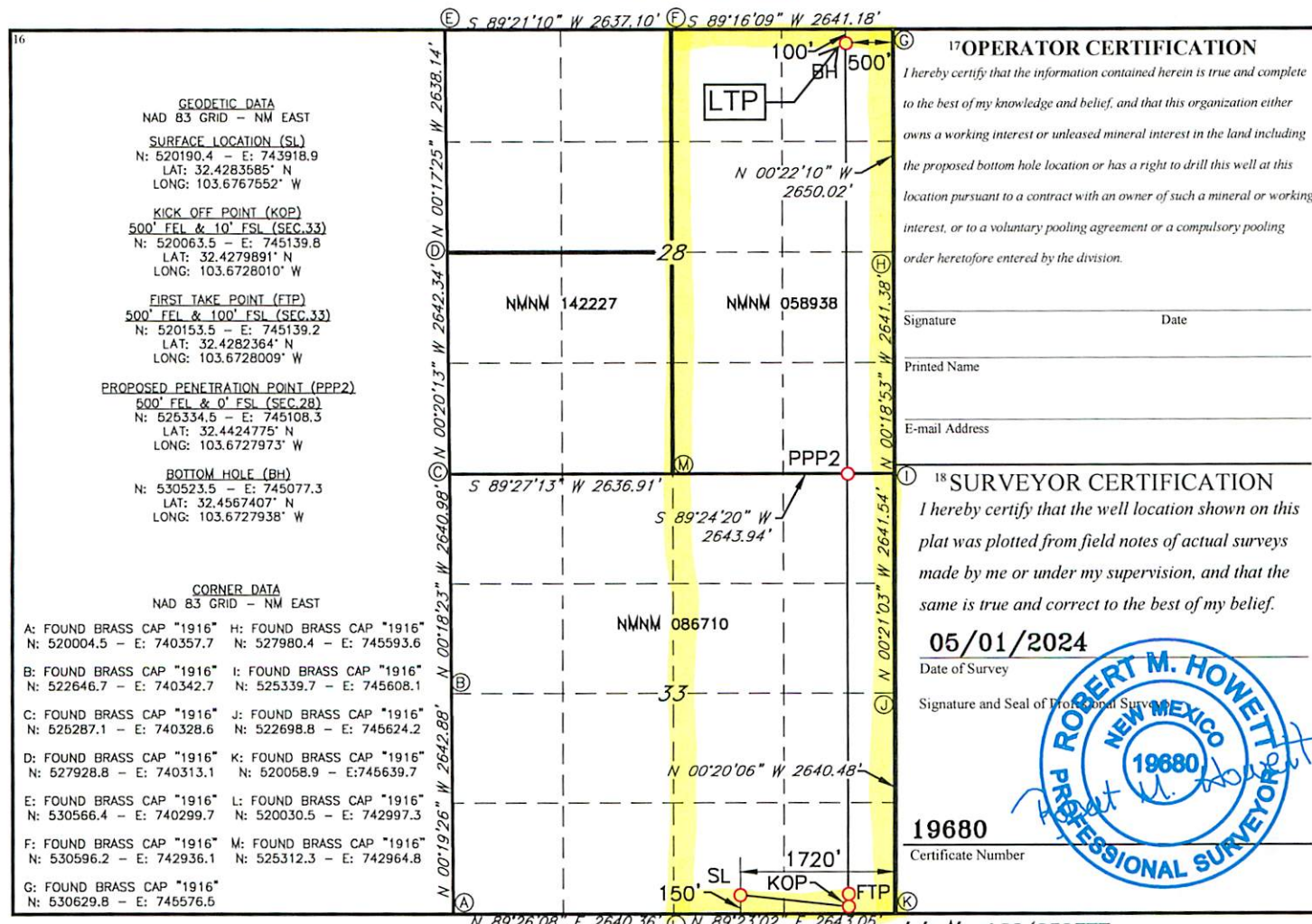
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1720	EAST	LEA

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
A	28	21S	32E		100	NORTH	500	EAST	LEA

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 5695		³ Pool Name Bilbrey Basin; Bone Spring	
⁴ Property Code		⁵ Property Name LOBO 33/28 FED COM			⁶ Well Number 625H
⁷ GRID NO.		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3800'

¹⁰ Surface Location

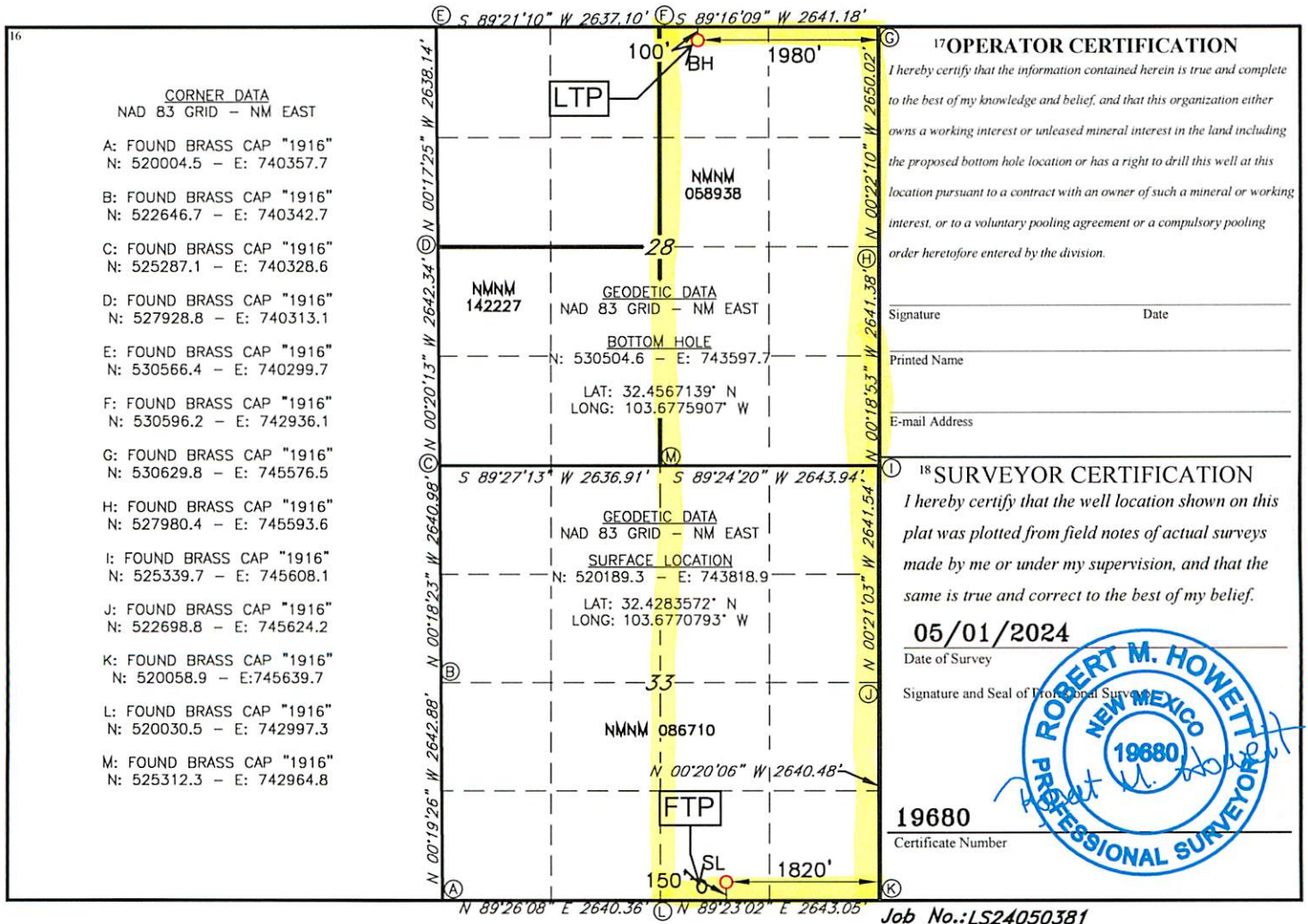
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1820	EAST	LEA

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
B	28	21S	32E		100	NORTH	1980	EAST	LEA

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



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Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 5695		³ Pool Name BILBREY BASIN; BONE SPRING	
⁴ Property Code		⁵ Property Name LOBO 33/28 FED COM			⁶ Well Number 586H
⁷ GRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3800'

¹⁰ Surface Location

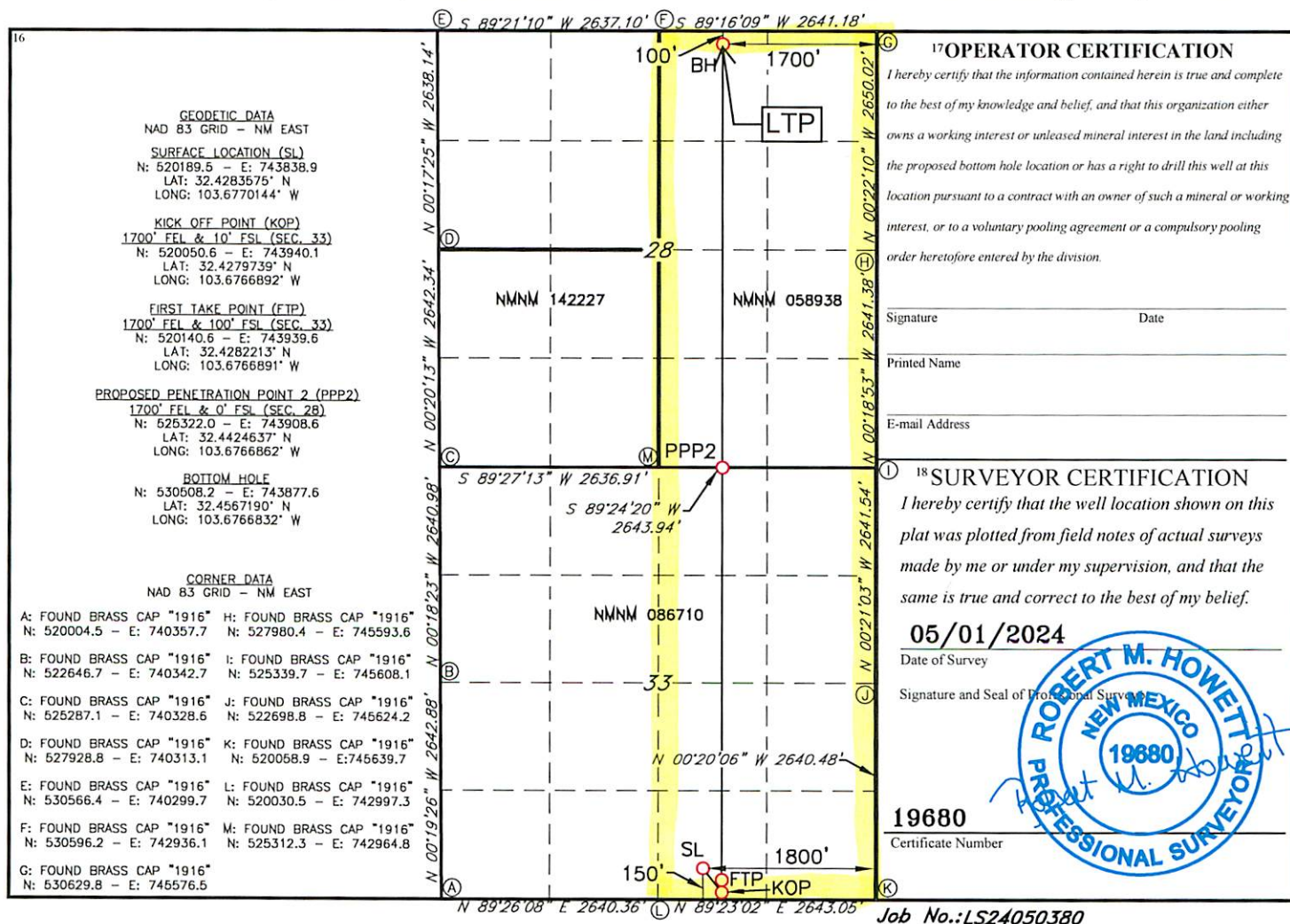
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1800	EAST	LEA

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
B	28	21S	32E		100	NORTH	1700	EAST	LEA

¹² Dedicated Acres 640	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.



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 5695		³ Pool Name BILBREY BASIN; BONE SPRING	
⁴ Property Code		⁵ Property Name LOBO 33/28 FED COM			⁶ Well Number 406H
⁷ GRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY			⁹ Elevation 3800'

¹⁰ Surface Location

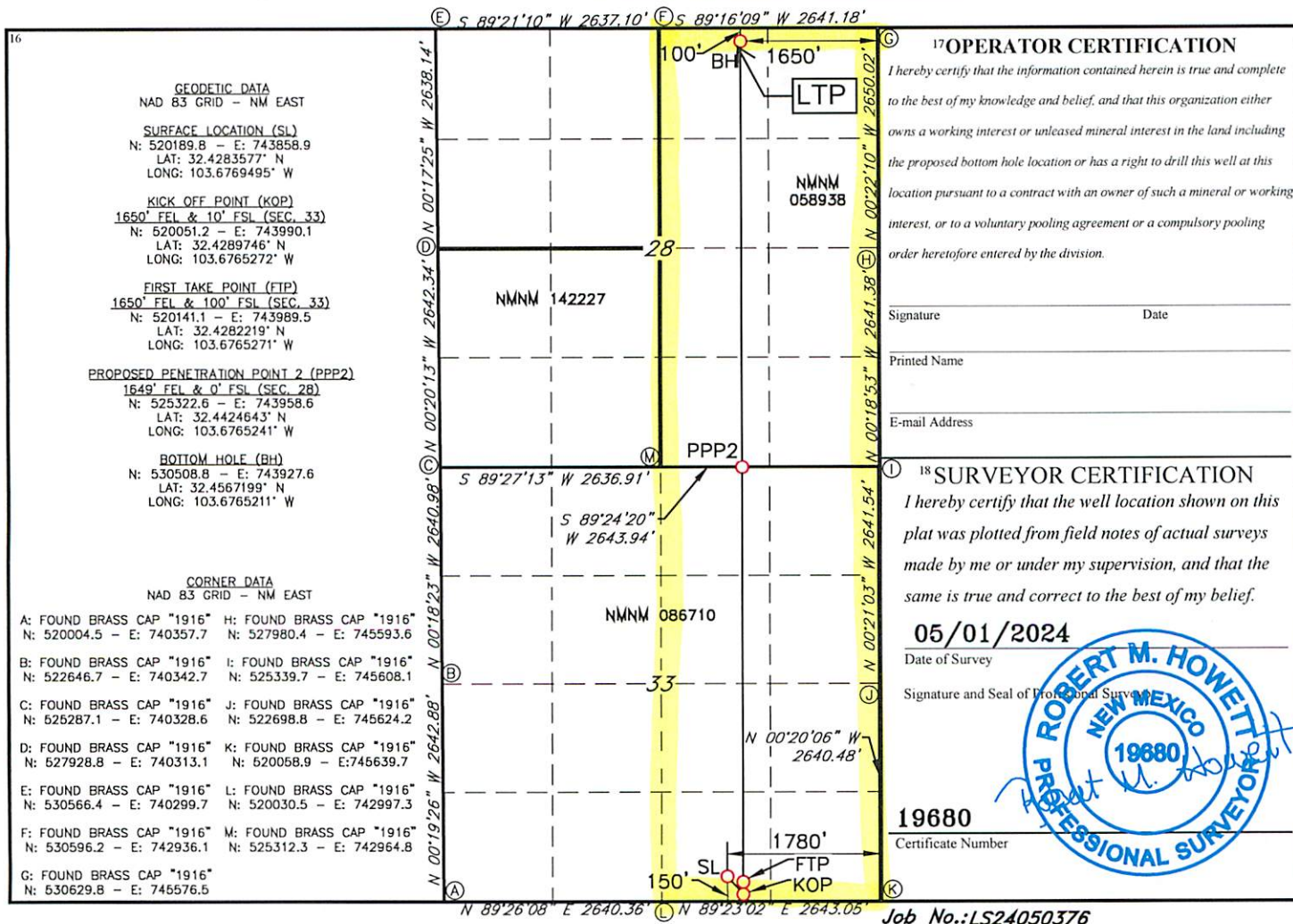
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	33	21S	32E		150	SOUTH	1780	EAST	LEA

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
B	28	21S	32E		100	NORTH	1650	EAST	LEA

¹² Dedicated Acres 640	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.



Section Plat

Lobo 33/28 Fed Com #406H (B1OB)

Lobo 33/28 Fed Com #408H (B1PA)

Lobo 33/28 Fed Com #568H (H3PA)

Lobo 33/28 Fed Com #586H (H3OB)

Lobo 33/28 Fed Com #625H (B3OB)

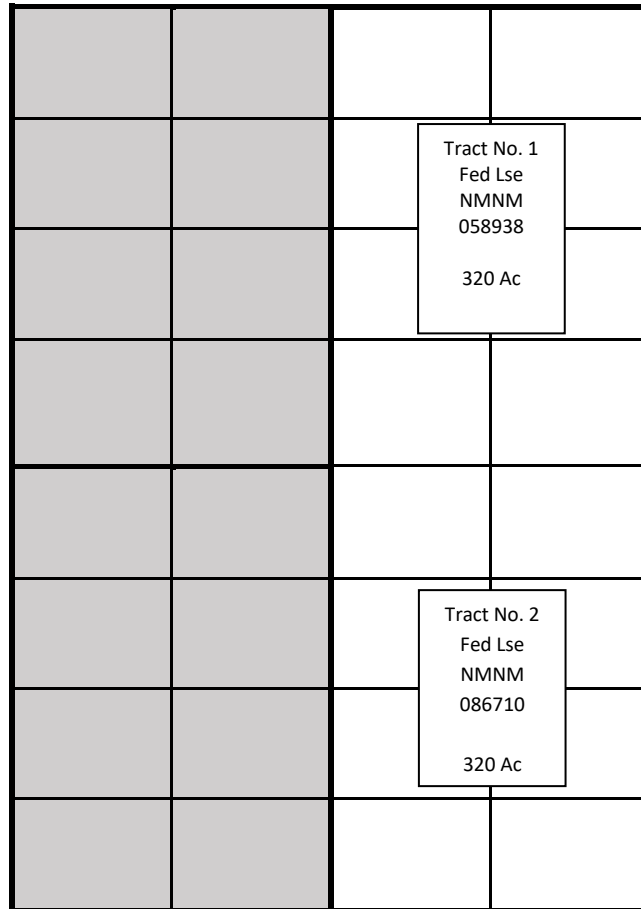
Lobo 33/28 Fed Com #628H (B3PA)

E2 of Section 28 & E2 of Section 33

T21S-R32E, Lea County, NM

Section 28 →

Section 33 →



Tract 1: E2 of Section 28 – Federal Lse. NMNM 058938

Mewbourne Oil Company
 ConocoPhillips Company
 MRC Permian Company
 Magnum Hunter Production, Inc.
 OXY USA, Inc.
 Fasken Acquisitions '02, Ltd.
 Foran Oil Company
 Permian Resources
 Contango ERA II Sunrise WI LLC
 128 Holdings, LLC
 Penroc Oil Corporation
 Desert Production, Inc.
 Crescent Conventional LLC

*Indicates parties being pooled.

Tract 2: E2 of Section 33 – Federal Lse. NMNM 086710

Mewbourne Oil Company
 ConocoPhillips Company
 MRC Permian Company
 Magnum Hunter Production, Inc.
 OXY USA, Inc.
 Fasken Acquisitions '02, Ltd.
 Foran Oil Company
 Permian Resources
 Contango ERA II Sunrise WI LLC
 128 Holdings, LLC
 Penroc Oil Corporation
 Desert Production, Inc.
 Crescent Conventional
 *BP America Production Company

Mewbourne Oil Company
Case No. 24657
Exhibit A-3

TRACT OWNERSHIP
Lobo 33/28 Fed Com #406H (B1OB)
Lobo 33/28 Fed Com #408H (B1PA)
Lobo 33/28 Fed Com #568H (H3PA)
Lobo 33/28 Fed Com #586H (H3OB)
Lobo 33/28 Fed Com #625H (B3OB)
Lobo 33/28 Fed Com #628H (B3PA)
E/2 of Section 28 & E/2 of Section 33,
Township 21 South, Range 32 East
Lea County, New Mexico

Bone Spring Formation, save and except the 2nd Bone Spring Formation:

	<u>% Leasehold Interest</u>
Mewbourne Oil Company 500 West Texas, Ste. 1020 Midland, Texas 79701	45.672071%
ConocoPhillips Company 600 W. Illinois Ave. Midland, Texas 79701	14.854935%
MRC Permian Company 5400 LBJ Freeway, Suite 1500 Dallas, Texas 75240	14.285714%
OXY USA, Inc. 5 Greenway Plaza, Suite 110 Houston, Texas 77046-0521	10.250166%
Magnum Hunter Production, Inc. 6001 Deauville Blvd., Ste. 300N Midland, Texas 79706	2.500164%
Foran Oil Company 5400 LBJ Freeway, Suite 1500 Dallas, Texas 75240	5.000328%
*BP America Production Company 501 Westlake Park Blvd. Houston, Texas 77079-2696	3.134543%

*Parties to be pooled are highlighted in yellow.

Fasken Acquisitions 02, Ltd., a Texas Limited Partnership c/o Fasken Management, LLC, its General Partner 6101 Holiday Hill Road Midland, Texas 79707	2.699189%
Permian Resources 300 N. Marienfeld Street, Suite 1000 Midland, Texas 79701	0.714768%
Contango ERA Sunrise II WI LLC 600 Travis Street, Suite 7200 Houston, Texas 77002	0.379919%
128 Holdings, LLC P.O. Box 54584 Oklahoma City, Oklahoma 73154	0.246701%
Crescent Conventional, LLC 600 Travis Street, Suite 7200 Houston, Texas 77002	0.113482%
Penroc Oil Corporation P.O. Box 2769 Hobbs, New Mexico 88241	0.074010%
Desert Production, Inc. P.O. Box 351 Midland, Texas 79702	0.074010%
Total	100.00000%

***Total interest being pooled: 3.134543%**

*Parties to be pooled are highlighted in yellow.

MEWBOURNE OIL COMPANY

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

TELEPHONE (432) 682-3715
FACSIMILE (432) 685-4170

May 20, 2024

Via Certified Mail & Email

BP America Production Company
501 Westlake Park Blvd.
Houston, Texas 77079-2604
Attn: Ms. Stephanie Sullivan

Re: Lobo 33/28 wells – 16 new proposals
Section 33: All & Section 28: SW & E2
T21S, R32E, Lea County, New Mexico

Dear Sir or Madam:

Mewbourne Oil Company hereby proposes to drill the referenced horizontal Bone Spring and Wolfcamp wells. The referenced wells will be drilled as stated below:

West Half Wells (1.5 miles)	East Half Wells (2 miles)
Lobo 33/28 Fed Com #521H (B2ML)	Lobo 33/28 Fed Com #625H (B3OB)
Lobo 33/28 Fed Com #523H (B2NK)	Lobo 33/28 Fed Com #628H (B3PA)
Lobo 33/28 Fed Com #623H (B3NK)	Lobo 33/28 Fed Com #586H (H3OB)
Lobo 33/28 Fed Com #582H (H3ML)	Lobo 33/28 Fed Com #568H (H3PA)
Lobo 33/28 Fed Com #564H (H3NK)	Lobo 33/28 Fed Com #406H (B1OB)
Lobo 33/28 Fed Com #402H (B1ML)	Lobo 33/28 Fed Com #408H (B1PA)
Lobo 33/28 Fed Com #474H (B1NK)	Lobo 33/28 Fed Com #706H (W0OB)
Lobo 33/28 Fed Com #701H (W0ML)	
Lobo 33/28 Fed Com #704H (W0NK)	

Enclosed are Mewbourne's AFEs for the wells. To make your election to participate in the proposed wells, properly execute and return the AFEs within 30 days of receipt of same. Mewbourne's AFEs provide all participants the opportunity to opt out of the "Extra Expense Well Control Insurance" that Mewbourne purchases for each well it drills. If you do opt out, you must provide evidence that you have adequate "Well Control Insurance". ***If you'd like to discuss other options for your interest in this area, please let me know. We are always willing to talk about other options.***

Feel free to contact me if you have any questions. I can be reached by phone at (432) 682-3715 or via email at asalgado@mewbourne.com.

Sincerely,
MEWBOURNE OIL COMPANY

Asalgado

Adriana Salgado

Mewbourne Oil Company
Case No. 24657
Exhibit A-4

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: **LOBO 33/28 FED COM #628H (B3PA)** Prospect: **LOBO 33**
 Location: **SL: 150 FSL & 1700 FEL (33); BHL: 100 FNL & 440 FEL (28)** County: **Lea** ST: **NM**
 Sec. **33** Blk: Survey: TWP: **21S** RNG: **32E** Prop. TVD: **11857** TMD: **22000**

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration		0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling 17 days drlg / 3 days comp @ \$28000/d		0180-0110	\$508,400	0180-0210	\$89,700
Fuel 1700 gal/day @ \$3.9/gal		0180-0114	\$120,400	0180-0214	\$169,000
Alternate Fuels		0180-0115		0180-0215	\$89,000
Mud, Chemical & Additives		0180-0120	\$60,000	0180-0220	
Mud - Specialized		0180-0121	\$240,000	0180-0221	
Horizontal Drillout Services				0180-0222	\$160,000
Stimulation Toe Preparation				0180-0223	\$35,700
Cementing		0180-0125	\$135,000	0180-0225	\$55,000
Logging & Wireline Services		0180-0130	\$34,000	0180-0230	\$303,000
Casing / Tubing / Snubbing Services		0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging		0180-0137	\$15,000		
Stimulation 51 Stg 20.2 MM gal / 20.2 MM lb				0180-0241	\$2,229,000
Stimulation Rentals & Other				0180-0242	\$217,000
Water & Other 90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl		0180-0145	\$35,000	0180-0245	\$78,000
Bits		0180-0148	\$64,100	0180-0248	
Inspection & Repair Services		0180-0150	\$50,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$12,000	0180-0258	\$24,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$150,000		
Transportation		0180-0165	\$30,000	0180-0265	\$65,000
Welding, Construction & Maint. Services		0180-0168	\$4,000	0180-0268	\$16,500
Contract Services & Supervision		0180-0170	\$114,000	0180-0270	\$60,000
Directional Services Includes Vertical Control		0180-0175	\$350,000		
Equipment Rental		0180-0180	\$125,300	0180-0280	\$40,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,700	0180-0285	
Intangible Supplies		0180-0188	\$7,000	0180-0288	\$1,000
Damages		0180-0190	\$10,000	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements		0180-0192		0180-0292	\$5,000
Company Supervision		0180-0195	\$72,000	0180-0295	\$32,400
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Contingencies 5% (TCP) 5% (CC)		0180-0199	\$123,100	0180-0299	\$192,200
TOTAL			\$2,585,000		\$4,037,000

TANGIBLE COSTS 0181		CODE	TCP	CODE	CC
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0") 790' - 13 3/8" 54.5# J-55 ST&C @ \$47.92/ft		0181-0794	\$40,400		
Casing (8.1" - 10.0") 4650' - 9 5/8" 40# HCL80 LT&C @ \$38.51/ft		0181-0795	\$191,200		
Casing (6.1" - 8.0") 11400' - 7" 29# HPP110 BT&C @ \$34.18/ft		0181-0796	\$416,100		
Casing (4.1" - 6.0") 10800' - 4 1/2" 13.5# HCP-110 CDC-HTQ @ \$19.44/ft				0181-0797	\$224,200
Tubing 11150' - 3 1/2" 9.2# L-80 IPC Tbg @ \$13.75/ft				0181-0798	\$163,700
Drilling Head		0181-0860	\$50,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger				0181-0871	\$75,000
Subsurface Equip. & Artificial Lift				0181-0880	\$25,000
Service Pumps (1/16) TP/CP/Circ pump				0181-0886	\$5,000
Storage Tanks (1/16) (12)OT/(8)WT/(2)GB				0181-0890	\$45,000
Emissions Control Equipment (1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR				0181-0892	\$54,000
Separation / Treating Equipment (1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)				0181-0895	\$43,000
Automation Metering Equipment				0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc				0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc				0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc				0181-0906	\$63,000
Wellhead Flowlines - Construction				0181-0907	\$102,000
Cathodic Protection				0181-0908	
Electrical Installation				0181-0909	\$126,000
Equipment Installation				0181-0910	\$32,000
Oil/Gas Pipeline - Construction				0181-0920	\$11,000
Water Pipeline - Construction				0181-0921	\$35,000
TOTAL			\$697,700		\$1,120,900
SUBTOTAL			\$3,282,700		\$5,157,900

TOTAL WELL COST		\$8,440,600	
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Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: Ryan McDaniel Date: 5/15/2024
 Company Approval: *M. Whittier* Date: 5/16/2024

Joint Owner Interest: 3.13454300% Amount: \$264,574.24
 Joint Owner Name: BP America Production Company Signature: _____

MEWBOURNE OIL COMPANY AUTHORIZATION FOR EXPENDITURE

Well Name: LOBO 33/28 FED COM #568H (H3PA)		Prospect: LOBO 33	
Location: SL: 150 FSL & 1740 FEL (33); BHL: 100 FNL & 600 FEL (28)		County: Lea	ST: NM
Sec.: 33	Blk.:	Survey:	TWP: 21S
RNG: 32E	Prop. TVD: 11215	TMD: 21200	

INTANGIBLE COSTS 0180	CODE	TCP	CODE	CC
Regulatory Permits & Surveys	0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation	0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration	0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling 18 days drlg / 3 days comp @ \$28000/d	0180-0110	\$538,300	0180-0210	\$89,700
Fuel 1700 gal/day @ \$3.9/gal	0180-0114	\$127,500	0180-0214	\$211,000
Alternate Fuels	0180-0115		0180-0215	\$112,000
Mud, Chemical & Additives	0180-0120	\$50,000	0180-0220	
Mud - Specialized	0180-0121	\$240,000	0180-0221	
Horizontal Drillout Services			0180-0222	\$200,000
Stimulation Toe Preparation			0180-0223	\$30,200
Cementing	0180-0125	\$145,000	0180-0225	\$60,000
Logging & Wireline Services	0180-0130	\$34,000	0180-0230	\$367,000
Casing / Tubing / Snubbing Services	0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging	0180-0137	\$15,000		
Stimulation 61 Stg 25.3 MM gal / 25.3 MM lb			0180-0241	\$2,813,000
Stimulation Rentals & Other			0180-0242	\$257,000
Water & Other 90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl	0180-0145	\$35,000	0180-0245	\$97,000
Bits	0180-0148	\$64,100	0180-0248	
Inspection & Repair Services	0180-0150	\$50,000	0180-0250	\$5,000
Misc. Air & Pumping Services	0180-0154		0180-0254	\$10,000
Testing & Flowback Services	0180-0158	\$12,000	0180-0258	\$24,000
Completion / Workover Rig			0180-0260	\$10,500
Rig Mobilization	0180-0164	\$150,000		
Transportation	0180-0165	\$30,000	0180-0265	\$65,000
Welding, Construction & Maint. Services	0180-0168	\$4,000	0180-0268	\$16,500
Contract Services & Supervision	0180-0170	\$119,700	0180-0270	\$70,000
Directional Services Includes Vertical Control	0180-0175	\$350,000		
Equipment Rental	0180-0180	\$130,700	0180-0280	\$120,000
Well / Lease Legal	0180-0184	\$5,000	0180-0284	
Well / Lease Insurance	0180-0185	\$5,500	0180-0285	
Intangible Supplies	0180-0188	\$7,000	0180-0288	\$1,000
Damages	0180-0190	\$10,000	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements	0180-0192		0180-0292	\$5,000
Company Supervision	0180-0195	\$75,600	0180-0295	\$39,600
Overhead Fixed Rate	0180-0196	\$10,000	0180-0296	\$20,000
Contingencies 5% (TCP) 5% (CC)	0180-0199	\$125,700	0180-0299	\$237,700
TOTAL		\$2,639,100		\$4,991,200

TANGIBLE COSTS 0181	CODE	TCP	CODE	CC
Casing (19.1" - 30")	0181-0793			
Casing (10.1" - 19.0") 790' - 13 3/8" 54.5# J-55 ST&C @ \$47.92/ft	0181-0794	\$40,400		
Casing (8.1" - 10.0") 4650' - 9 5/8" 40# HCL80 LT&C @ \$38.51/ft	0181-0795	\$191,200		
Casing (6.1" - 8.0") 10650' - 7" 29# HPP110 BT&C @ \$34.18/ft	0181-0796	\$388,800		
Casing (4.1" - 6.0") 10750' - 4 1/2" 13.5# HCP-110 CDC-HTQ @ \$19.44/ft			0181-0797	\$223,200
Tubing 10400' - 2 7/8" 6.5# L-80 IPC Tbg @ \$10.5/ft			0181-0798	\$116,600
Drilling Head	0181-0860	\$50,000		
Tubing Head & Upper Section			0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger			0181-0871	\$75,000
Subsurface Equip. & Artificial Lift			0181-0880	\$25,000
Service Pumps (1/16) TP/CP/Circ pump			0181-0886	\$5,000
Storage Tanks (1/16) (12)OT/(8)WT/(2)GB			0181-0890	\$45,000
Emissions Control Equipment (1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR			0181-0892	\$54,000
Separation / Treating Equipment (1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)METERING			0181-0895	\$43,000
Automation Metering Equipment			0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc			0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc			0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc			0181-0906	\$63,000
Wellhead Flowlines - Construction			0181-0907	\$102,000
Cathodic Protection			0181-0908	
Electrical Installation			0181-0909	\$126,000
Equipment Installation			0181-0910	\$32,000
Oil/Gas Pipeline - Construction			0181-0920	\$11,000
Water Pipeline - Construction			0181-0921	\$35,000
TOTAL		\$670,400		\$1,072,800
SUBTOTAL		\$3,309,500		\$6,064,000

TOTAL WELL COST \$9,373,500

Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: <u>Ryan McDaniel</u>	Date: <u>5/16/2024</u>
Company Approval: <u><i>M. Whittier</i></u>	Date: <u>5/16/2024</u>

Joint Owner Interest: <u>3.13454300%</u> Amount: <u>\$293,816.39</u>	Signature: _____
Joint Owner Name: <u>BP AMERICA PRODUCTION COMPANY</u>	

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: **LOBO 33/28 FED COM #408H (B1PA)** Prospect: **LOBO 33**
 Location: **SL: 150 FSL & 1720 FEL (33); BHL: 100 FNL & 500 FEL (28)** County: **Lea** ST: **NM**
 Sec. **33** Blk: Survey: TWP: **21S** RNG: **32E** Prop. TVD: **9876** TMD: **20250**

INTANGIBLE COSTS 0180		CODE	TCP	CODE	CC
Regulatory Permits & Surveys		0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation		0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration		0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling 16 days drlg / 3 days comp @ \$28000/d		0180-0110	\$478,500	0180-0210	\$89,700
Fuel 1700 gal/day @ \$3.9/gal		0180-0114	\$113,300	0180-0214	\$169,000
Alternate Fuels		0180-0115		0180-0215	\$89,000
Mud, Chemical & Additives		0180-0120	\$40,000	0180-0220	
Mud - Specialized		0180-0121	\$230,000	0180-0221	
Horizontal Drillout Services				0180-0222	\$200,000
Stimulation Toe Preparation				0180-0223	\$30,200
Cementing		0180-0125	\$140,000	0180-0225	\$60,000
Logging & Wireline Services		0180-0130	\$34,000	0180-0230	\$303,000
Casing / Tubing / Snubbing Services		0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging		0180-0137	\$15,000		
Stimulation 51 Stg 20.2 MM gal / 20.2 MM lb				0180-0241	\$2,229,000
Stimulation Rentals & Other				0180-0242	\$217,000
Water & Other 90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl		0180-0145	\$35,000	0180-0245	\$78,000
Bits		0180-0148	\$53,400	0180-0248	
Inspection & Repair Services		0180-0150	\$50,000	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154		0180-0254	\$10,000
Testing & Flowback Services		0180-0158	\$12,000	0180-0258	\$24,000
Completion / Workover Rig				0180-0260	\$10,500
Rig Mobilization		0180-0164	\$150,000		
Transportation		0180-0165	\$30,000	0180-0265	\$65,000
Welding, Construction & Maint. Services		0180-0168	\$4,000	0180-0268	\$16,500
Contract Services & Supervision		0180-0170	\$108,300	0180-0270	\$60,000
Directional Services Includes Vertical Control		0180-0175	\$350,000		
Equipment Rental		0180-0180	\$119,800	0180-0280	\$120,000
Well / Lease Legal		0180-0184	\$5,000	0180-0284	
Well / Lease Insurance		0180-0185	\$5,200	0180-0285	
Intangible Supplies		0180-0188	\$7,000	0180-0288	\$1,000
Damages		0180-0190	\$10,000	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements		0180-0192		0180-0292	\$5,000
Company Supervision		0180-0195	\$68,400	0180-0295	\$32,400
Overhead Fixed Rate		0180-0196	\$10,000	0180-0296	\$20,000
Contingencies 5% (TCP) 5% (CC)		0180-0199	\$118,700	0180-0299	\$198,200
TOTAL			\$2,492,600		\$4,162,500

TANGIBLE COSTS 0181		CODE	TCP	CODE	CC
Casing (19.1" - 30")		0181-0793			
Casing (10.1" - 19.0") 790' - 13 3/8" 54.5# J-55 ST&C @ \$47.92/ft		0181-0794	\$40,400		
Casing (8.1" - 10.0") 4650' - 9 5/8" 40# HCL80 LT&C @ \$38.51/ft		0181-0795	\$191,200		
Casing (6.1" - 8.0") 9500' - 7" 29# HPP110 BT&C @ \$34.18/ft		0181-0796	\$346,800		
Casing (4.1" - 6.0") 10950' - 4 1/2" 13.5# HCP-110 CDC-HTQ @ \$19.44/ft				0181-0797	\$227,300
Tubing 9250' - 2 7/8" 6.5# L-80 IPC Tbg @ \$10.5/ft				0181-0798	\$103,700
Drilling Head		0181-0860	\$50,000		
Tubing Head & Upper Section				0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger				0181-0871	\$75,000
Subsurface Equip. & Artificial Lift				0181-0880	\$25,000
Service Pumps (1/16) TP/CP/Circ pump				0181-0886	\$5,000
Storage Tanks (1/16) (12)OT/(8)WT/(2)GB				0181-0890	\$45,000
Emissions Control Equipment (1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR				0181-0892	\$54,000
Separation / Treating Equipment (1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)				0181-0895	\$43,000
Automation Metering Equipment				0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc				0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc				0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc				0181-0906	\$63,000
Wellhead Flowlines - Construction				0181-0907	\$102,000
Cathodic Protection				0181-0908	
Electrical Installation				0181-0909	\$126,000
Equipment Installation				0181-0910	\$32,000
Oil/Gas Pipeline - Construction				0181-0920	\$11,000
Water Pipeline - Construction				0181-0921	\$35,000
TOTAL			\$628,400		\$1,064,000
SUBTOTAL			\$3,121,000		\$5,226,500

TOTAL WELL COST		\$8,347,500	
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Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: Ryan McDaniel Date: 5/14/2024
 Company Approval: *M. Whittier* Date: 5/16/2024

Joint Owner Interest: 3.13454300% Amount: \$261,655.98
 Joint Owner Name: BP AMERICA PRODUCTION COMPANY Signature: _____

MEWBOURNE OIL COMPANY AUTHORIZATION FOR EXPENDITURE

Well Name: LOBO 33/28 FED COM #625H (B3OB)		Prospect: LOBO 33	
Location: SL: 150 FSL & 1820 FEL (33); BHL: 100 FNL & 1980 FEL (28)		County: Lea	ST: NM
Sec. 33	Blk:	Survey:	TWP: 21S
		RNG: 32E	Prop. TVD: 11858
			TMD: 22000

INTANGIBLE COSTS 0180	CODE	TCP	CODE	CC
Regulatory Permits & Surveys	0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation	0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration	0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling 17 days drlg / 3 days comp @ \$28000/d	0180-0110	\$508,400	0180-0210	\$89,700
Fuel 1700 gal/day @ \$3.9/gal	0180-0114	\$120,400	0180-0214	\$169,000
Alternate Fuels	0180-0115		0180-0215	\$89,000
Mud, Chemical & Additives	0180-0120	\$50,000	0180-0220	
Mud - Specialized	0180-0121	\$240,000	0180-0221	
Horizontal Drillout Services			0180-0222	\$200,000
Stimulation Toe Preparation			0180-0223	\$30,200
Cementing	0180-0125	\$145,000	0180-0225	\$60,000
Logging & Wireline Services	0180-0130	\$34,000	0180-0230	\$303,000
Casing / Tubing / Snubbing Services	0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging	0180-0137	\$15,000		
Stimulation 51 Stg 20.2 MM gal / 20.2 MM lb			0180-0241	\$2,229,000
Stimulation Rentals & Other			0180-0242	\$217,000
Water & Other 90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl	0180-0145	\$35,000	0180-0245	\$78,000
Bits	0180-0148	\$64,100	0180-0248	
Inspection & Repair Services	0180-0150	\$50,000	0180-0250	\$5,000
Misc. Air & Pumping Services	0180-0154		0180-0254	\$10,000
Testing & Flowback Services	0180-0158	\$12,000	0180-0258	\$24,000
Completion / Workover Rig			0180-0260	\$10,500
Rig Mobilization	0180-0164	\$150,000		
Transportation	0180-0165	\$30,000	0180-0265	\$65,000
Welding, Construction & Maint. Services	0180-0168	\$4,000	0180-0268	\$16,500
Contract Services & Supervision	0180-0170	\$114,000	0180-0270	\$60,000
Directional Services Includes Vertical Control	0180-0175	\$350,000		
Equipment Rental	0180-0180	\$125,300	0180-0280	\$40,000
Well / Lease Legal	0180-0184	\$5,000	0180-0284	
Well / Lease Insurance	0180-0185	\$5,700	0180-0285	
Intangible Supplies	0180-0188	\$7,000	0180-0288	\$1,000
Damages	0180-0190	\$10,000	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements	0180-0192		0180-0292	\$5,000
Company Supervision	0180-0195	\$72,000	0180-0295	\$32,400
Overhead Fixed Rate	0180-0196	\$10,000	0180-0296	\$20,000
Contingencies 5% (TCP) 5% (CC)	0180-0199	\$123,100	0180-0299	\$194,200
TOTAL		\$2,585,000		\$4,078,500

TANGIBLE COSTS 0181	CODE	TCP	CODE	CC
Casing (19.1" - 30")	0181-0793			
Casing (10.1" - 19.0") 790' - 13 3/8" 54.5# J-55 ST&C @ \$47.92/ft	0181-0794	\$40,400		
Casing (8.1" - 10.0") 4650' - 9 5/8" 40# HCL80 LT&C @ \$38.51/ft	0181-0795	\$191,200		
Casing (6.1" - 8.0") 11400' - 7" 29# HPP110 BT&C @ \$34.18/ft	0181-0796	\$416,100		
Casing (4.1" - 6.0") 10800' - 4 1/2" 13.5# HCP-110 CDC-HTQ @ \$19.44/ft			0181-0797	\$224,200
Tubing 11150' - 3 1/2" 9.2# L-80 IPC Tbg @ \$13.75/ft			0181-0798	\$163,700
Drilling Head	0181-0860	\$50,000		
Tubing Head & Upper Section			0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger			0181-0871	\$75,000
Subsurface Equip. & Artificial Lift			0181-0880	\$25,000
Service Pumps (1/16) TP/CP/Circ pump			0181-0886	\$5,000
Storage Tanks (1/16) (12)OT/(8)WT/(2)GB			0181-0890	\$45,000
Emissions Control Equipment (1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR			0181-0892	\$54,000
Separation / Treating Equipment (1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)			0181-0895	\$43,000
Automation Metering Equipment			0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc			0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc			0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc			0181-0906	\$63,000
Wellhead Flowlines - Construction			0181-0907	\$102,000
Cathodic Protection			0181-0908	
Electrical Installation			0181-0909	\$126,000
Equipment Installation			0181-0910	\$32,000
Oil/Gas Pipeline - Construction			0181-0920	\$11,000
Water Pipeline - Construction			0181-0921	\$35,000
TOTAL		\$697,700		\$1,120,900

SUBTOTAL		\$3,282,700		\$5,199,400
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TOTAL WELL COST		\$8,482,100		
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Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: <u>Ryan McDaniel</u>	Date: <u>5/15/2024</u>
Company Approval: <u><i>M. Whittier</i></u>	Date: <u>5/16/2024</u>

Joint Owner Interest: <u>3.13454300%</u> Amount: <u>\$265,875.07</u>	Signature: _____
Joint Owner Name: <u>BP America Production Company</u>	

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name: LOBO 33/28 FED COM #586H (H3OB)		Prospect: LOBO 33	
Location: SL: 150 FSL & 1800 FEL (33); BHL: 100 FNL & 1700 FEL (28)		County: Lea	ST: NM
Sec. 33	Blk:	Survey:	TWP: 21S RNG: 32E Prop. TVD: 11375 TMD: 21300

INTANGIBLE COSTS 0180	CODE	TCP	CODE	CC
Regulatory Permits & Surveys	0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation	0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration	0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling 18 days drlg / 3 days comp @ \$28000/d	0180-0110	\$538,300	0180-0210	\$89,700
Fuel 1700 gal/day @ \$3.9/gal	0180-0114	\$127,500	0180-0214	\$211,000
Alternate Fuels	0180-0115		0180-0215	\$112,000
Mud, Chemical & Additives	0180-0120	\$50,000	0180-0220	
Mud - Specialized	0180-0121	\$240,000	0180-0221	
Horizontal Drillout Services			0180-0222	\$200,000
Stimulation Toe Preparation			0180-0223	\$30,200
Cementing	0180-0125	\$145,000	0180-0225	\$60,000
Logging & Wireline Services	0180-0130	\$34,000	0180-0230	\$367,000
Casing / Tubing / Snubbing Services	0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging	0180-0137	\$15,000		
Stimulation 61 Stg 25.3 MM gal / 25.3 MM lb			0180-0241	\$2,813,000
Stimulation Rentals & Other			0180-0242	\$257,000
Water & Other 90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl	0180-0145	\$35,000	0180-0245	\$97,000
Bits	0180-0148	\$64,100	0180-0248	
Inspection & Repair Services	0180-0150	\$50,000	0180-0250	\$5,000
Misc. Air & Pumping Services	0180-0154		0180-0254	\$10,000
Testing & Flowback Services	0180-0158	\$12,000	0180-0258	\$24,000
Completion / Workover Rig			0180-0260	\$10,500
Rig Mobilization	0180-0164	\$150,000		
Transportation	0180-0165	\$30,000	0180-0265	\$65,000
Welding, Construction & Maint. Services	0180-0168	\$4,000	0180-0268	\$16,500
Contract Services & Supervision	0180-0170	\$119,700	0180-0270	\$70,000
Directional Services Includes Vertical Control	0180-0175	\$350,000		
Equipment Rental	0180-0180	\$130,700	0180-0280	\$120,000
Well / Lease Legal	0180-0184	\$5,000	0180-0284	
Well / Lease Insurance	0180-0185	\$5,500	0180-0285	
Intangible Supplies	0180-0188	\$7,000	0180-0288	\$1,000
Damages	0180-0190	\$10,000	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements	0180-0192		0180-0292	\$5,000
Company Supervision	0180-0195	\$75,600	0180-0295	\$39,600
Overhead Fixed Rate	0180-0196	\$10,000	0180-0296	\$20,000
Contingencies 5% (TCP) 5% (CC)	0180-0199	\$125,700	0180-0299	\$237,700
TOTAL		\$2,639,100		\$4,991,200

TANGIBLE COSTS 0181	CODE	TCP	CODE	CC
Casing (19.1" - 30")	0181-0793			
Casing (10.1" - 19.0") 790' - 13 3/8" 54.5# J-55 ST&C @ \$47.92/ft	0181-0794	\$40,400		
Casing (8.1" - 10.0") 4650' - 9 5/8" 40# HCL80 LT&C @ \$38.51/ft	0181-0795	\$191,200		
Casing (6.1" - 8.0") 10850' - 7" 29# HPP110 BT&C @ \$34.18/ft	0181-0796	\$396,100		
Casing (4.1" - 6.0") 10650' - 4 1/2" 13.5# HCP-110 CDC-HTQ @ \$19.44/ft			0181-0797	\$221,100
Tubing 10600' - 2 7/8" 6.5# L-80 IPC Tbg @ \$10.5/ft			0181-0798	\$118,900
Drilling Head	0181-0860	\$50,000		
Tubing Head & Upper Section			0181-0870	\$30,000
Horizontal Completion Tools Completion Liner Hanger			0181-0871	\$75,000
Subsurface Equip. & Artificial Lift			0181-0880	\$25,000
Service Pumps (1/16) TP/CP/Circ pump			0181-0886	\$5,000
Storage Tanks (1/16) (12)OT/(8)WT/(2)GB			0181-0890	\$45,000
Emissions Control Equipment (1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR			0181-0892	\$54,000
Separation / Treating Equipment (1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)			0181-0895	\$43,000
Automation Metering Equipment			0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc			0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc			0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc			0181-0906	\$63,000
Wellhead Flowlines - Construction			0181-0907	\$102,000
Cathodic Protection			0181-0908	
Electrical Installation			0181-0909	\$126,000
Equipment Installation			0181-0910	\$32,000
Oil/Gas Pipeline - Construction			0181-0920	\$11,000
Water Pipeline - Construction			0181-0921	\$35,000
TOTAL		\$677,700		\$1,073,000

SUBTOTAL		\$3,316,800		\$6,064,200
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TOTAL WELL COST		\$9,381,000		
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Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: <u>Ryan McDaniel</u>	Date: <u>5/16/2024</u>
Company Approval: <u><i>M. Whittier</i></u>	Date: <u>5/16/2024</u>

Joint Owner Interest: <u>3.13454300%</u> Amount: <u>\$294,051.48</u>	Signature: _____
Joint Owner Name: <u>BP AMERICA PRODUCTION COMPANY</u>	

MEWBOURNE OIL COMPANY

AUTHORIZATION FOR EXPENDITURE

Well Name:	LOBO 33/28 FED COM #406H (B10B)	Prospect:	LOBO 33
Location:	SL: 150 FSL & 1780 FEL (33); BHL: 100 FNL & 1650 FEL (28)	County:	Lea
ST:	NM	Sec.:	33
Blk.:		Survey:	
TWP:	21S	RNG:	32E
Prop. TVD:	9876	TMD:	20250

INTANGIBLE COSTS 0180	CODE	TCP	CODE	CC
Regulatory Permits & Surveys	0180-0100	\$20,000	0180-0200	
Location / Road / Site / Preparation	0180-0105	\$40,000	0180-0205	\$35,000
Location / Restoration	0180-0106	\$200,000	0180-0206	\$70,000
Daywork / Turnkey / Footage Drilling	0180-0110	\$478,500	0180-0210	\$89,700
Fuel	0180-0114	\$113,300	0180-0214	\$169,000
Alternate Fuels	0180-0115		0180-0215	\$89,000
Mud, Chemical & Additives	0180-0120	\$40,000	0180-0220	
Mud - Specialized	0180-0121	\$230,000	0180-0221	
Horizontal Drillout Services			0180-0222	\$200,000
Stimulation Toe Preparation			0180-0223	\$30,200
Cementing	0180-0125	\$140,000	0180-0225	\$60,000
Logging & Wireline Services	0180-0130	\$34,000	0180-0230	\$303,000
Casing / Tubing / Snubbing Services	0180-0134	\$45,000	0180-0234	\$15,000
Mud Logging	0180-0137	\$15,000		
Stimulation	51 Stg 20.2 MM gal / 20.2 MM lb		0180-0241	\$2,229,000
Stimulation Rentals & Other			0180-0242	\$217,000
Water & Other	90% PW @ \$0.05/bbl & 10% FW @ \$1.05/bbl	0180-0145	0180-0245	\$78,000
Bits		0180-0148	0180-0248	
Inspection & Repair Services		0180-0150	0180-0250	\$5,000
Misc. Air & Pumping Services		0180-0154	0180-0254	\$10,000
Testing & Flowback Services		0180-0158	0180-0258	\$24,000
Completion / Workover Rig			0180-0260	\$10,500
Rig Mobilization		0180-0164		
Transportation		0180-0165	0180-0265	\$65,000
Welding, Construction & Maint. Services		0180-0168	0180-0268	\$16,500
Contract Services & Supervision		0180-0170	0180-0270	\$60,000
Directional Services	Includes Vertical Control	0180-0175		
Equipment Rental		0180-0180	0180-0280	\$120,000
Well / Lease Legal		0180-0184	0180-0284	
Well / Lease Insurance		0180-0185	0180-0285	
Intangible Supplies		0180-0188	0180-0288	\$1,000
Damages		0180-0190	0180-0290	\$10,000
Pipeline Interconnect, ROW Easements		0180-0192	0180-0292	\$5,000
Company Supervision		0180-0195	0180-0295	\$32,400
Overhead Fixed Rate		0180-0196	0180-0296	\$20,000
Contingencies	5% (TCP) 5% (CC)	0180-0199	0180-0299	\$198,200
TOTAL		\$2,489,900		\$4,162,500

TANGIBLE COSTS 0181	CODE	TCP	CODE	CC
Casing (19.1" - 30")	0181-0793			
Casing (10.1" - 19.0")	0181-0794	\$40,400		
Casing (8.1" - 10.0")	0181-0795	\$191,200		
Casing (6.1" - 8.0")	0181-0796	\$346,800		
Casing (4.1" - 6.0")			0181-0797	\$227,300
Tubing			0181-0798	\$103,700
Drilling Head	0181-0860	\$50,000		
Tubing Head & Upper Section			0181-0870	\$30,000
Horizontal Completion Tools	Completion Liner Hanger		0181-0871	\$75,000
Subsurface Equip. & Artificial Lift			0181-0880	\$25,000
Service Pumps	(1/16) TP/CP/Circ pump		0181-0886	\$5,000
Storage Tanks	(1/16) (12)OT/(8)WT/(2)GB		0181-0890	\$45,000
Emissions Control Equipment	(1/16) (8)VRT/(3)VRU/(1)FLARE/(3)KO/(1)AIR		0181-0892	\$54,000
Separation / Treating Equipment	(1/16) (2)BULK H SEP/(6)TEST H SEP 500#/(2)V SEP 500#/(6)		0181-0895	\$43,000
Automation Metering Equipment			0181-0898	\$47,000
Oil/Gas Pipeline-Pipe/Valves&Misc			0181-0900	\$11,000
Water Pipeline-Pipe/Valves & Misc			0181-0901	\$29,000
On-site Valves/Fittings/Lines&Misc			0181-0906	\$63,000
Wellhead Flowlines - Construction			0181-0907	\$102,000
Cathodic Protection			0181-0908	
Electrical Installation			0181-0909	\$126,000
Equipment Installation			0181-0910	\$32,000
Oil/Gas Pipeline - Construction			0181-0920	\$11,000
Water Pipeline - Construction			0181-0921	\$35,000
TOTAL		\$628,400		\$1,064,000

SUBTOTAL		\$3,118,300		\$5,226,500
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TOTAL WELL COST		\$8,344,800		
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Insurance procured for the Joint Account by Operator

Opt-in. I elect to be covered by Operator's Extra Expense, Commercial General Liability, Pollution Legal Liability, and Excess/Umbrella Insurance Policies, and will pay my proportionate share of the premiums associated with these insurance coverages through joint account billings.

Opt-out. I elect to purchase my own policies for well control and other insurance requirements, or to self-insure (if applicable). By opting-out, I recognize I will be responsible for my own coverage and will not be afforded protection under operator's policies.

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

Joint owner agrees that item 0180-0245 will be provided by operator, if available, at the specified rate. Operator reserves the right to adjust the rate due to a change in market conditions.

Prepared by: <u>Ryan McDaniel</u>	Date: <u>5/16/2024</u>
Company Approval: <u><i>M. Whittier</i></u>	Date: <u>5/16/2024</u>

Joint Owner Interest: <u>3.13454300%</u> Amount: <u>\$261,571.34</u>	Signature: _____
Joint Owner Name: <u>BP AMERICA PRODUCTION COMPANY</u>	

Summary of Communications for the following wells:

Lobo 33/28 Fed Com #521H (B2ML)
 Lobo 33/28 Fed Com #523H (B2NK)
 Lobo 33/28 Fed Com #623H (B3NK)
 Lobo 33/28 Fed Com #582H (H3ML)
 Lobo 33/28 Fed Com #564H (H3NK)
 Lobo 33/28 Fed Com #402H (B1ML)
 Lobo 33/28 Fed Com #474H (B1NK)
 Lobo 33/28 Fed Com #701H (W0ML)

Lobo 33/28 Fed Com #625H (B3OB)
 Lobo 33/28 Fed Com #628H (B3PA)
 Lobo 33/28 Fed Com #586H (H3OB)
 Lobo 33/28 Fed Com #568H (H3PA)
 Lobo 33/28 Fed Com #406H (B1OB)
 Lobo 33/28 Fed Com #408H (B1PA)
 Lobo 33/28 Fed Com #706H (W0OB)
 Lobo 33/28 Fed Com #704H (W0NK)

Company Name: BP America Production Company		
Date:	Communicated with:	Comments/Actions:
5/20/2024	Stephanie Sullivan	Mailed and emailed well proposals via certified mail dated 5/20/2024.
5/20/2024	Stephanie Sullivan	Emailed Receipt shows the proposal email was opened at 4:04 PM.
5/22/2024	Bret Fugate	Bret emailed me asking me for title information on these wells.
5/22/2024	Bret Fugate	I emailed Bret with information he asked for.
5/30/2024	Stephanie Sullivan	Certified Mail packet was received by confirmation of an email Stephanie sent to me. She told me there was a new contact for this area named Bret Fugate.
5/31/2024	Bret Fugate	I emailed Bret regarding proposals.
6/10/2024	Bret Fugate	I emailed Bret asking about making a deal with us on their interest.
6/17/2024	Bret Fugate/Stephanie Sullivan	I sent a follow-up email regarding my previous email and their elections.
6/17/2024	Bret Fugate	Bret emailed me stating he was working on them and asked me for some more title information.
6/17/2024	Bret Fugate	I emailed Bret sending him what he asked for.

Mewbourne Oil Company
Case No. 24657
Exhibit A-5

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

**IN THE MATTER OF APPLICATION FOR
COMPULSORY POOLING SUBMITTED BY
MEWBOURNE OIL COMPANY**

**CASE NO. 23765
ORDER NO. R-22924**

ORDER

The Director of the New Mexico Oil Conservation Division (“OCD”), having heard this matter through a Hearing Examiner on September 21, 2023, and after considering the testimony, evidence, and recommendation of the Hearing Examiner, issues the following Order.

FINDINGS OF FACT

1. Mewbourne Oil Company (“Operator”) submitted an application (“Application”) to compulsory pool the uncommitted oil and gas interests within the spacing unit (“Unit”) described in Exhibit A. Operator seeks to be designated the operator of the Unit.
2. Operator will dedicate the well(s) described in Exhibit A (“Well(s)”) to the Unit.
3. Operator proposes the supervision and risk charges for the Well(s) described in Exhibit A.
4. Operator identified the owners of uncommitted interests in oil and gas minerals in the Unit and provided evidence that notice was given.
5. The Application was heard by the Hearing Examiner on the date specified above, during which Operator presented evidence through affidavits in support of the Application. No other party presented evidence at the hearing.

CONCLUSIONS OF LAW

6. OCD has jurisdiction to issue this Order pursuant to NMSA 1978, Section 70-2-17.
7. Operator is the owner of an oil and gas working interest within the Unit.
8. Operator satisfied the notice requirements for the Application and the hearing as required by 19.15.4.12 NMAC.
9. OCD satisfied the notice requirements for the hearing as required by 19.15.4.9 NMAC.
10. Operator has the right to drill the Well(s) to a common source of supply at the depth(s) and location(s) in the Unit described in Exhibit A.

**Mewbourne Oil Company
Case No. 24657
Exhibit A-6**

11. The Unit contains separately owned uncommitted interests in oil and gas minerals.
12. Some of the owners of the uncommitted interests have not agreed to commit their interests to the Unit.
13. The pooling of uncommitted interests in the Unit will prevent waste and protect correlative rights, including the drilling of unnecessary wells.
14. This Order affords to the owner of an uncommitted interest the opportunity to produce his just and equitable share of the oil or gas in the pool.

ORDER

15. The uncommitted interests in the Unit are pooled as set forth in Exhibit A.
16. The Unit shall be dedicated to the Well(s) set forth in Exhibit A.
17. Operator is designated as operator of the Unit and the Well(s).
18. If the location of a well will be unorthodox under the spacing rules in effect at the time of completion, Operator shall obtain the OCD's approval for a non-standard location in accordance with 19.15.16.15(C) NMAC.
19. If the Unit is a non-standard horizontal spacing unit which has not been approved under this Order, Operator shall obtain the OCD's approval for a non-standard horizontal spacing unit in accordance with 19.15.16.15(B)(5) NMAC.
20. The Operator shall commence drilling the Well(s) within one year after the date of this Order, and complete each Well no later than one (1) year after the commencement of drilling the Well.
21. This Order shall terminate automatically if Operator fails to comply with Paragraph 20 unless Operator obtains an extension by amending this Order for good cause shown.
22. The infill well requirements in 19.15.13.9 NMAC through 19.15.13.12 NMAC shall be applicable.
23. Operator shall submit each owner of an uncommitted working interest in the pool ("Pooled Working Interest") an itemized schedule of estimated costs to drill, complete, and equip the well ("Estimated Well Costs").
24. No later than thirty (30) days after Operator submits the Estimated Well Costs, the owner of a Pooled Working Interest shall elect whether to pay its share of the Estimated Well Costs or its share of the actual costs to drill, complete and equip the well ("Actual Well Costs") out of production from the well. An owner of a Pooled

CASE NO. 23765
ORDER NO. R-22924

Page 2 of 8

Working Interest who elects to pay its share of the Estimated Well Costs shall render payment to Operator no later than thirty (30) days after the expiration of the election period, and shall be liable for operating costs, but not risk charges, for the well. An owner of a Pooled Working Interest who fails to pay its share of the Estimated Well Costs or who elects to pay its share of the Actual Well Costs out of production from the well shall be considered to be a "Non-Consenting Pooled Working Interest."

25. No later than one hundred eighty (180) days after Operator submits a Form C-105 for a well, Operator shall submit to each owner of a Pooled Working Interest an itemized schedule of the Actual Well Costs. The Actual Well Costs shall be considered to be the Reasonable Well Costs unless an owner of a Pooled Working Interest files a written objection no later than forty-five (45) days after receipt of the schedule. If an owner of a Pooled Working Interest files a timely written objection, OCD shall determine the Reasonable Well Costs after public notice and hearing.
26. No later than sixty (60) days after the expiration of the period to file a written objection to the Actual Well Costs or OCD's order determining the Reasonable Well Costs, whichever is later, each owner of a Pooled Working Interest who paid its share of the Estimated Well Costs shall pay to Operator its share of the Reasonable Well Costs that exceed the Estimated Well Costs, or Operator shall pay to each owner of a Pooled Working Interest who paid its share of the Estimated Well Costs its share of the Estimated Well Costs that exceed the Reasonable Well Costs.
27. The reasonable charges for supervision to drill and produce a well ("Supervision Charges") shall not exceed the rates specified in Exhibit A, provided however that the rates shall be adjusted annually pursuant to the COPAS form entitled "Accounting Procedure-Joint Operations."
28. No later than within ninety (90) days after Operator submits a Form C-105 for a well, Operator shall submit to each owner of a Pooled Working Interest an itemized schedule of the reasonable charges for operating and maintaining the well ("Operating Charges"), provided however that Operating Charges shall not include the Reasonable Well Costs or Supervision Charges. The Operating Charges shall be considered final unless an owner of a Pooled Working Interest files a written objection no later than forty-five (45) days after receipt of the schedule. If an owner of a Pooled Working Interest files a timely written objection, OCD shall determine the Operating Charges after public notice and hearing.
29. Operator may withhold the following costs and charges from the share of production due to each owner of a Pooled Working Interest who paid its share of the Estimated Well Costs: (a) the proportionate share of the Supervision Charges; and (b) the proportionate share of the Operating Charges.

- 30. Operator may withhold the following costs and charges from the share of production due to each owner of a Non-Consenting Pooled Working Interest: (a) the proportionate share of the Reasonable Well Costs; (b) the proportionate share of the Supervision and Operating Charges; and (c) the percentage of the Reasonable Well Costs specified as the charge for risk described in Exhibit A.
- 31. Operator shall distribute a proportionate share of the costs and charges withheld pursuant to paragraph 29 to each Pooled Working Interest that paid its share of the Estimated Well Costs.
- 32. Each year on the anniversary of this Order, and no later than ninety (90) days after each payout, Operator shall provide to each owner of a Non-Consenting Pooled Working Interest a schedule of the revenue attributable to a well and the Supervision and Operating Costs charged against that revenue.
- 33. Any cost or charge that is paid out of production shall be withheld only from the share due to an owner of a Pooled Working Interest. No cost or charge shall be withheld from the share due to an owner of a royalty interests. For the purpose of this Order, an unleased mineral interest shall consist of a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest.
- 34. Except as provided above, Operator shall hold the revenue attributable to a well that is not disbursed for any reason for the account of the person(s) entitled to the revenue as provided in the Oil and Gas Proceeds Payment Act, NMSA 1978, Sections 70-10-1 *et seq.*, and relinquish such revenue as provided in the Uniform Unclaimed Property Act, NMSA 1978, Sections 7-8A-1 *et seq.*
- 35. The Unit shall terminate if (a) the owners of all Pooled Working Interests reach a voluntary agreement; or (b) the well(s) drilled on the Unit are plugged and abandoned in accordance with the applicable rules. Operator shall inform OCD no later than thirty (30) days after such occurrence.
- 36. OCD retains jurisdiction of this matter for the entry of such orders as may be deemed necessary.

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**



DYLAN MEUGE
DIRECTOR
DMF/hat

Date: 10/20/2023

CASE NO. 23765
ORDER NO. R-22924

Exhibit A

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COMPULSORY POOLING APPLICATION CHECKLIST	
ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS	
Case: 23765	APPLICANT'S RESPONSE
Date: September 7, 2023	
Applicant	Mewbourne Oil Company
Designated Operator & OGRID (affiliation if applicable)	Mewbourne Oil Company/OGRID 14744
Applicant's Counsel:	James Bruce
Case Title:	Application of Mewbourne Oil Company for Compulsory Pooling, Lea County, New Mexico
Entries of Appearance/Intervenors:	
Well Family	Lobo Bone Spring wells
Formation/Pool	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Entire Bone Spring formation
Pool Name and Pool Code:	Bilbrey Basin; Bone Spring/Pool Code 5695
Well Location Setback Rules:	Statewide Rules for horizontal wells – 330' and 100' setbacks
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	640 acres
Building Blocks:	40 acres
Orientation:	South-North
Description: TRS/County	E/2 §33 and E/2 §28, Township 21 South, Range 32 East, NMPM, Lea County
Standard Horizontal Well Spacing Unit (Y/N), If No, describe and is approval of non-standard unit requested in this application?	Yes EXHIBIT 7
Other Situations	
Depth Severance: Y/N. If yes, description	N
Proximity Tracts: If yes, description	Yes. See below.

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ORDER NO. R-22924

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Proximity Defining Well: if yes, description	
Applicant's Ownership in Each Tract	Exhibit 2-B
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Lobo 33/28 Fed. Com. Well No. 626H API No. 30-025-Pending SHL: 150 FSL & 1780 FEL §33 BHL: 100 FNL & 1330 FEL §28 FTP: 100 FSL & 1330 FEL §33 LTP: 100 FNL & 1330 FEL §28 Third Bone Spring/TVD 11860 feet/MD 22130 feet
Well #2	
Horizontal Well First and Last Take Points	See above
Completion Target (Formation, TVD and MD)	See above
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit 2, page 2
Requested Risk Charge	Cost plus 200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit 1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit 4
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit 6
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit 2-B
Tract List (including lease numbers and owners)	Exhibit 2-B
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to	EXHIBIT 7

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notice requirements.	
Pooled Parties (including ownership type)	Exhibit 2-B; Working Interest Owners
Unlocatable Parties to be Pooled	Yes
Ownership Depth Severance (including percentage above & below)	No Depth Severance
Joinder	
Sample Copy of Proposal Letter	Exhibit 2-C
List of Interest Owners (i.e. Exhibit A of JOA)	Exhibit 2-B
Chronology of Contact with Non-Joined Working Interests	Exhibit 2-C
Overhead Rates In Proposal Letter	
Cost Estimate to Drill and Complete	Exhibit 2-D
Cost Estimate to Equip Well	Exhibit 2-D
Cost Estimate for Production Facilities	Exhibit 2-D
Geology	
Summary (including special considerations)	Exhibit 3
Spacing Unit Schematic	Exhibits 2-A and 3-A
Gunbarrel/Lateral Trajectory Schematic	Exhibit 3-B
Well Orientation (with rationale)	South-North; Exhibits 3, 3-A, and 3-C
Target Formation	Third Bone Spring Sand
HSU Cross Section	Exhibit 3-B
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit 2-A
Tracts	Exhibit 2-B
Summary of Interests, Unit Recapitulation (Tracts)	Exhibits 2-B
General Location Map (including basin)	Exhibit 3-A
Well Bore Location Map	Exhibit 2-A
Structure Contour Map - Subsea Depth	Exhibit 3-A

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Cross Section Location Map (including wells)	Exhibit 3-A
Cross Section (including Landing Zone)	Exhibit 3-B
Additional Information	
Special Provisions/Stipulations	
CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.	
Printed Name (Attorney or Party Representative):	James Bruce
Signed Name (Attorney or Party Representative):	<i>James Bruce</i>
Date:	September 7, 2023

effective

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CASE NO. 23765
ORDER NO. R-22924

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

**APPLICATION OF MEWBOURNE OIL COMPANY
FOR COMPULSORY POOLING AND VACATING
ORDER NO. R-22924, LEA COUNTY, NEW MEXICO.**

Case No. 24657

**SELF-AFFIRMED STATEMENT
OF TYLER HILL**

1. I am employed by Mewbourne Oil Company (“Mewbourne”) as a geologist. I am over 18 years of age, have personal knowledge of the matters addressed herein, and am competent to provide this Self-Affirmed Statement. I have previously testified before the New Mexico Oil Conservation Division (“Division”), and my credentials as an expert in petroleum geology matters were accepted and made a matter of record.

2. I am familiar with the geological matters that pertain to the above-referenced case.

3. **Exhibit B-1** is a location map that depicts the Lobo spacing unit in the Bone Spring formation.

4. **Exhibit B-2** is a subsea structure map. The approximate wellbore paths for the Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, 625H, 408H, 568H, and 628H (“Wells”) are depicted by dashed lines on **Exhibit B-2**. I do not observe any faulting, pinch-outs, or geologic impediments to developing the targeted intervals with horizontal wells. Exhibit B-2 also shows a line of cross-section from A to A’. I used these well logs because they penetrate the targeted intervals, are of good quality, and are representative of the geology in the area.

5. **Exhibit B-3** is a stratigraphic cross-section that I prepared using the logs from the representative wells shown on Exhibit B-2. Each well log on the cross-section contains gamma ray, resistivity and porosity. The proposed landing zones for the wells are labeled on the exhibit. This cross-section demonstrates that the target interval is continuous across the Units.

**Mewbourne Oil Company
Case No. 24657
Exhibit B**

6. **Exhibit B-4** contains the Directional Drilling plans for the Wells. The producing intervals of the proposed wells will be orthodox.

7. In my opinion, a standup orientation for the proposed wells is appropriate to properly develop the subject acreage because of an established directional pattern and the known fracture orientation in this portion of the trend.

8. Based on my geologic study of the area, the targeted interval underlying the Units is suitable for development by horizontal wells and the tracts comprising the Units will contribute more or less equally to the production of the Wells.


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

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

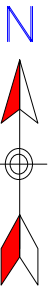
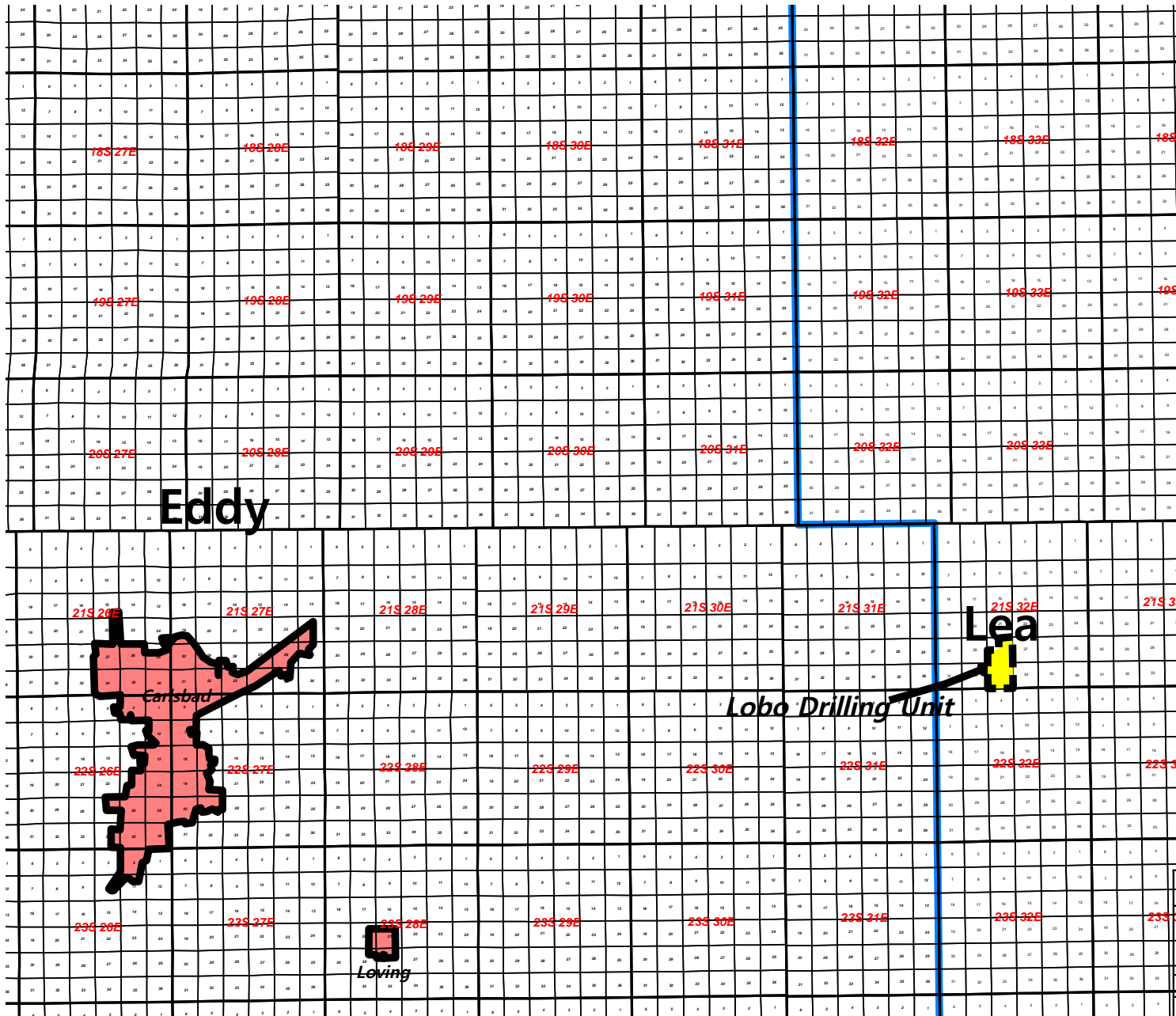
11. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm my testimony above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date identified next to my signature below.




TYLER HILL

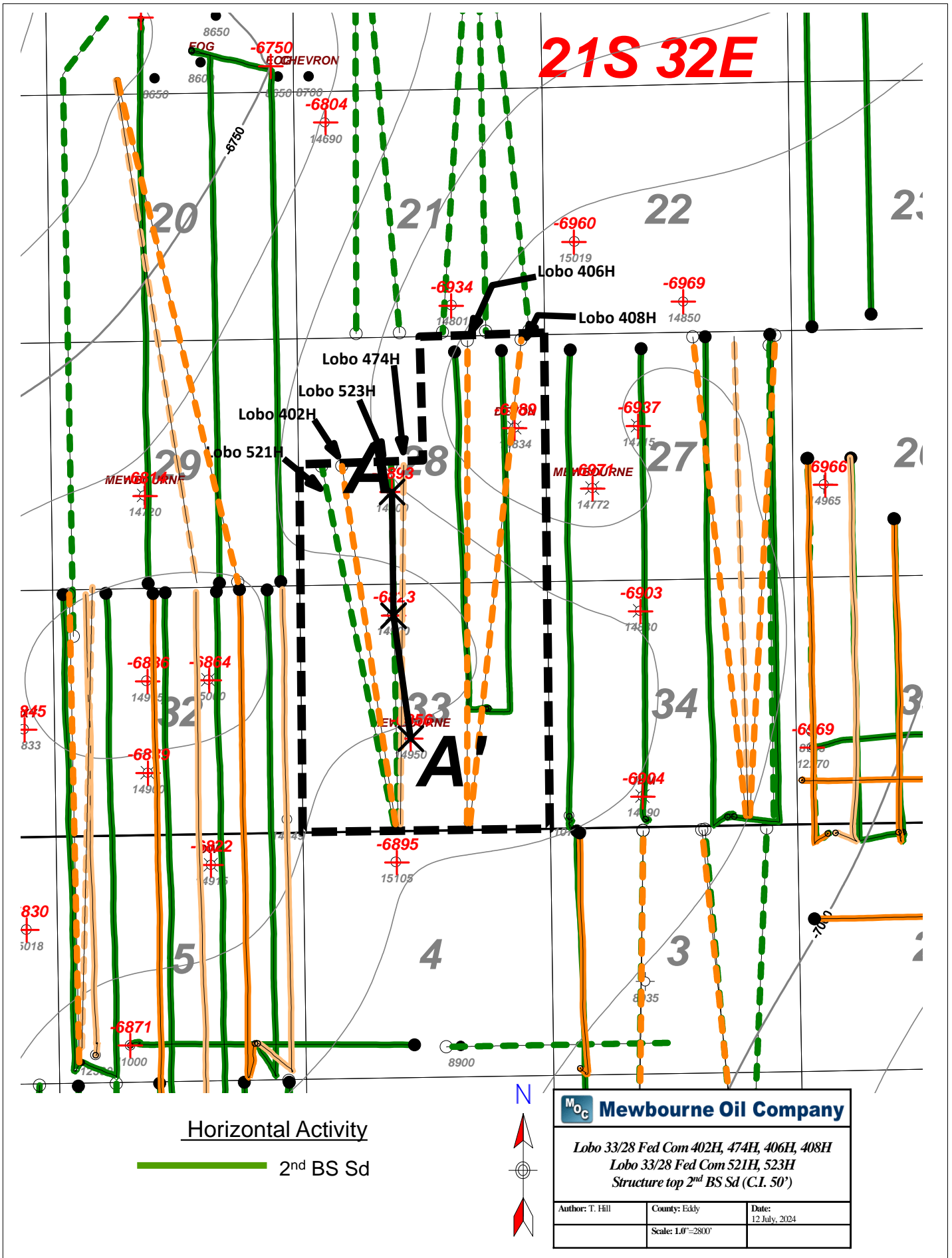


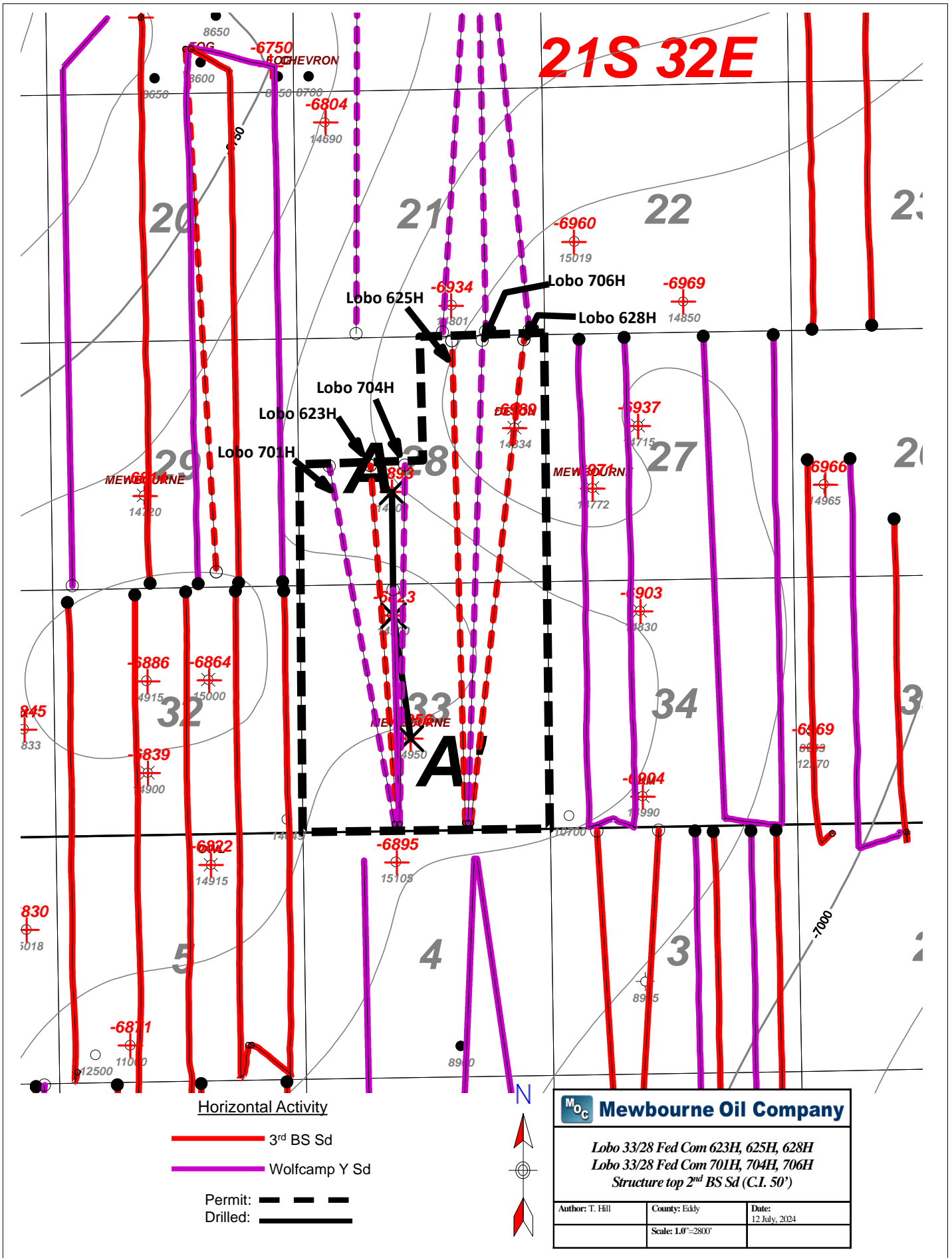
Date



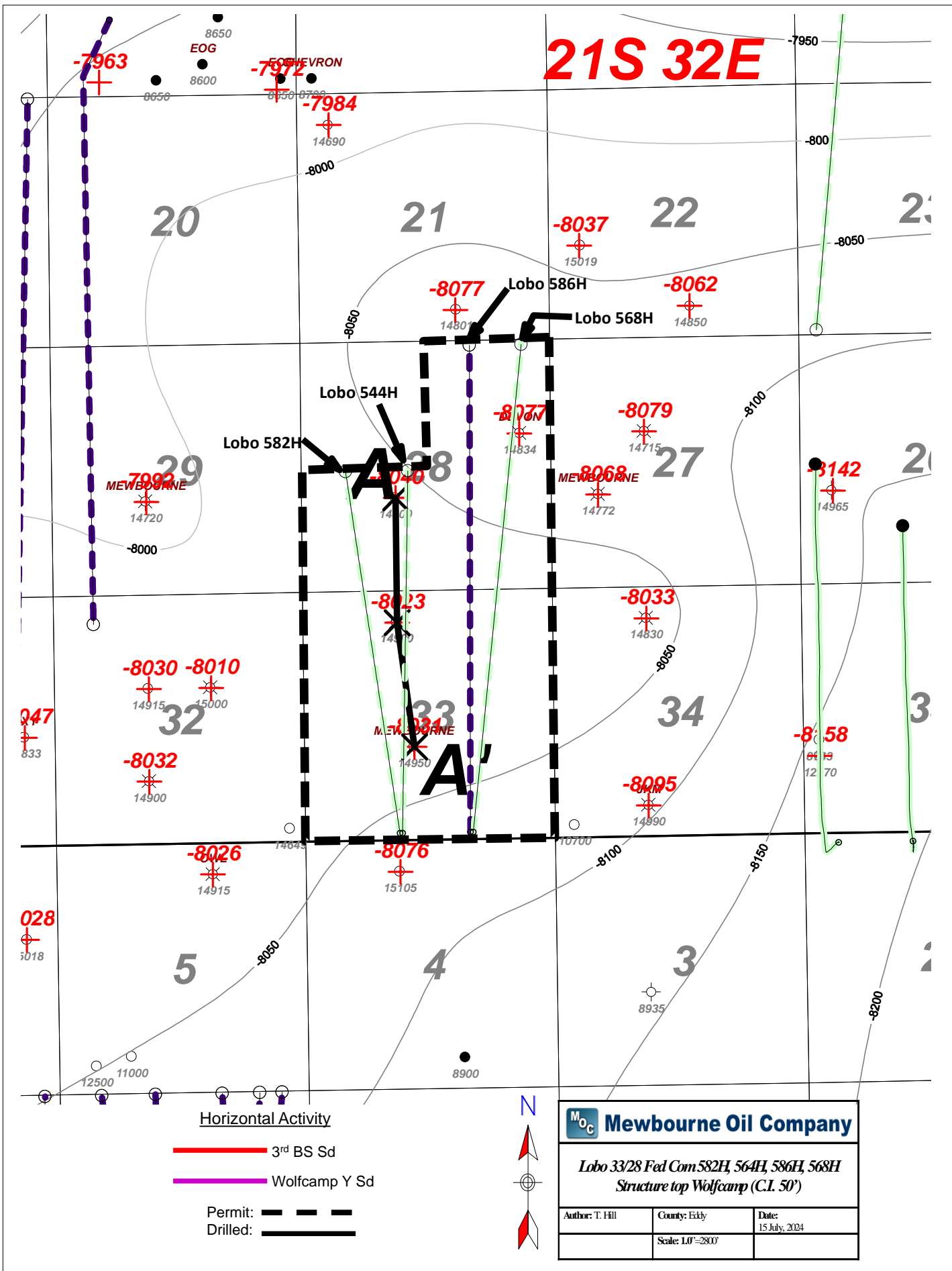
 Mewbourne Oil Company		
Lobo 33/28 Locator Map		
Author: T. Hill	NM	Date: 12 July, 2024
Scale: 1.0"=34868'		

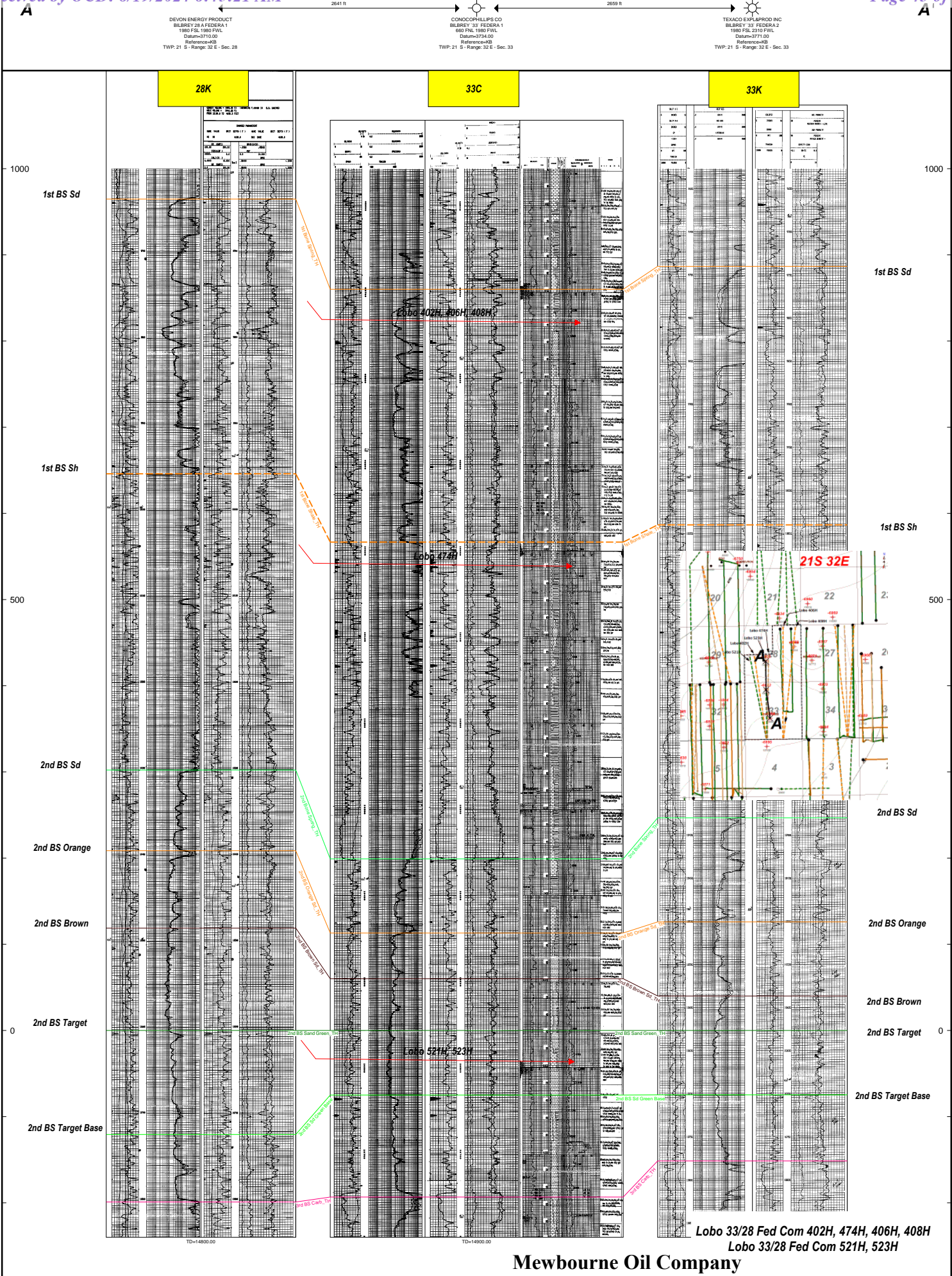
Mewbourne Oil Company
Case No. 24657
Exhibit B-1





21S 32E





Lobo 3rd BS Sd/Wolfcamp

A

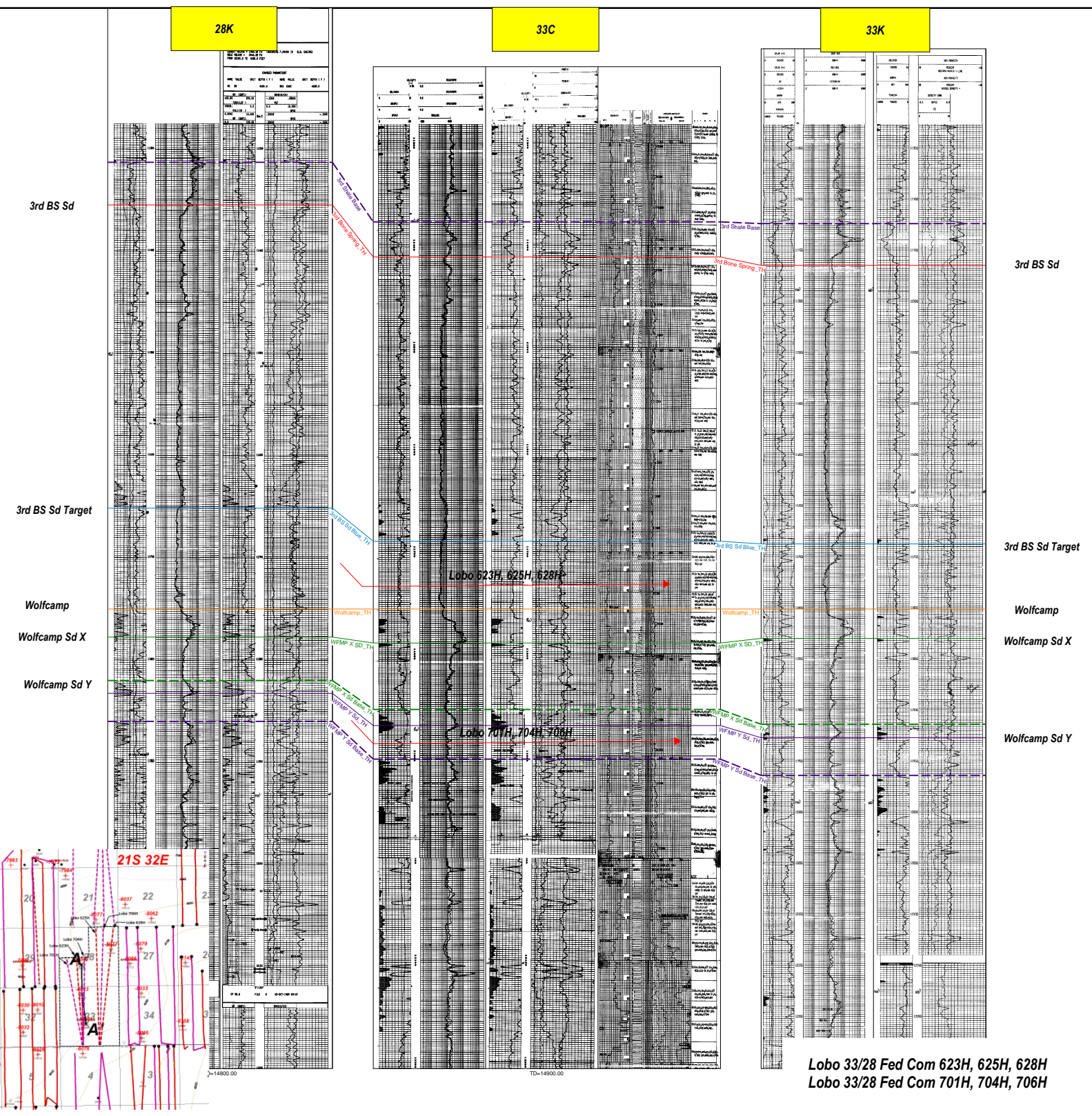
A'

300253066400 ← 2641 ft 300253078100 2659 ft 300253286300

DEVON ENERGY PRODUCT
BILBREY 28 A FEDERA 1
1980 FSL 1980 FVL
Datum=3710.00
Reference=03
TWP: 21 S - Range: 32 E - Sec: 28

CONOCO PHILLIPS CO
BILBREY 33 FEDERA 1
1980 FSL 1980 FVL
Datum=3734.00
Reference=03
TWP: 21 S - Range: 32 E - Sec: 33

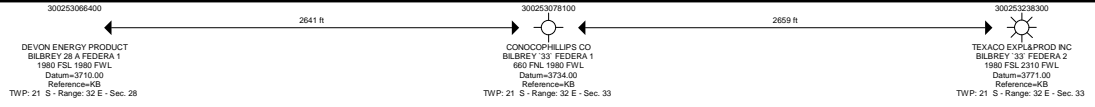
TEXACO EXPLORAD INC
BILBREY 33 FEDERA 2
1980 FSL 2310 FVL
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Reference=03
TWP: 21 S - Range: 32 E - Sec: 33



Lobo Harkey Sd/Sh

A

A'

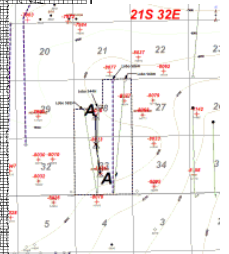
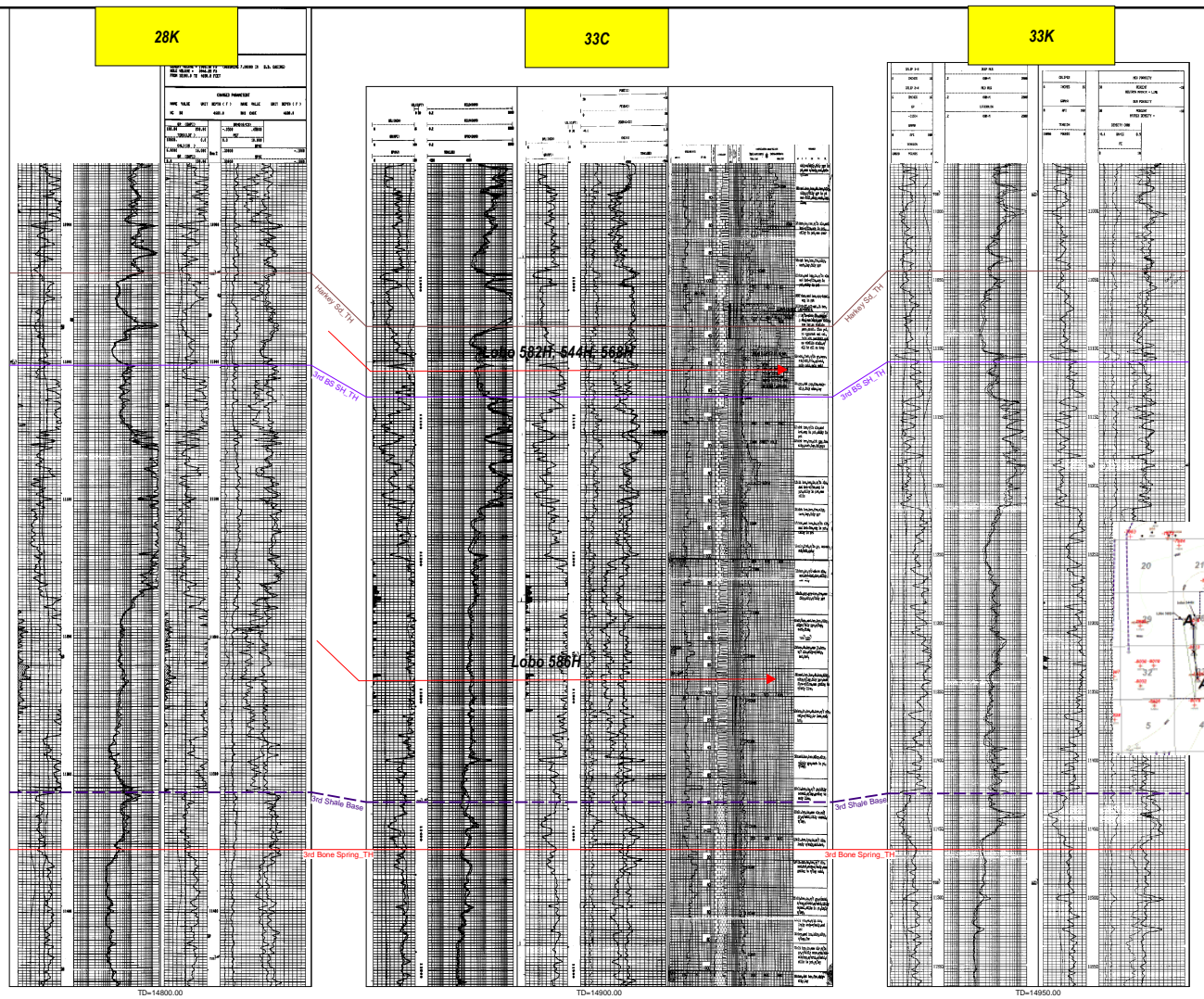


500

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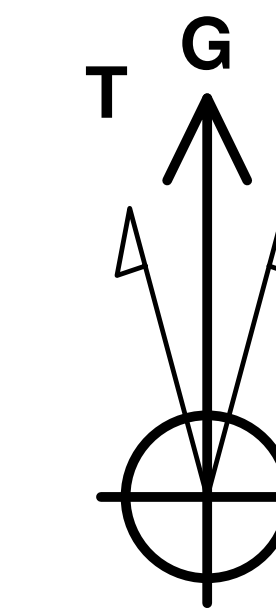
Lobo 33/28 Fed Com 582H, 544H, 586H, 568H



Mewbourne Oil Company
Case No. 24657
Exhibit B-4

Project: Lea County, NM (NAD83)
Site: Lobo 33-28
Well: Lobo 33-28 Fed Com 586H
Wellbore: OH
Design: Plan 1
Rig: Patterson 260

Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone

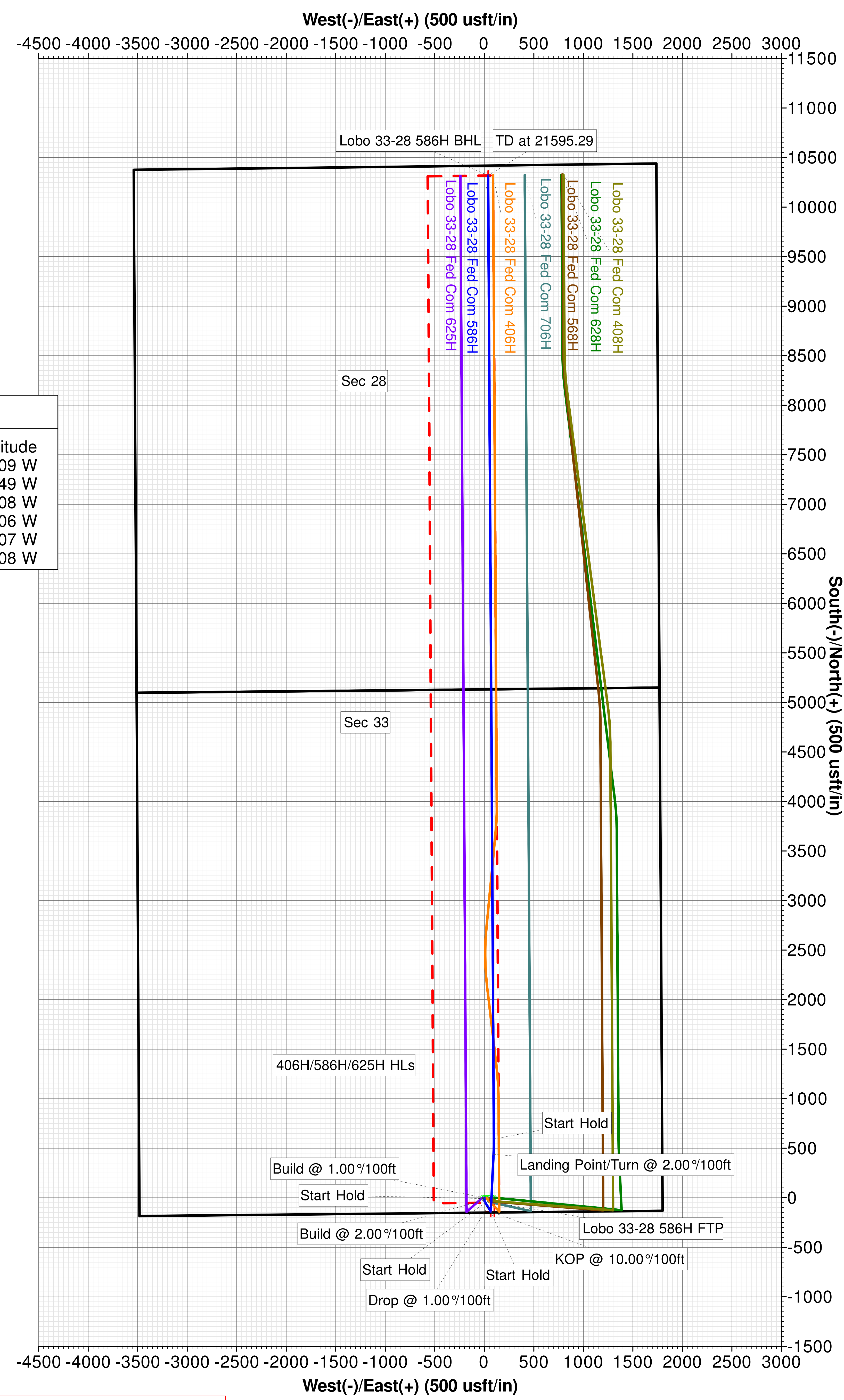
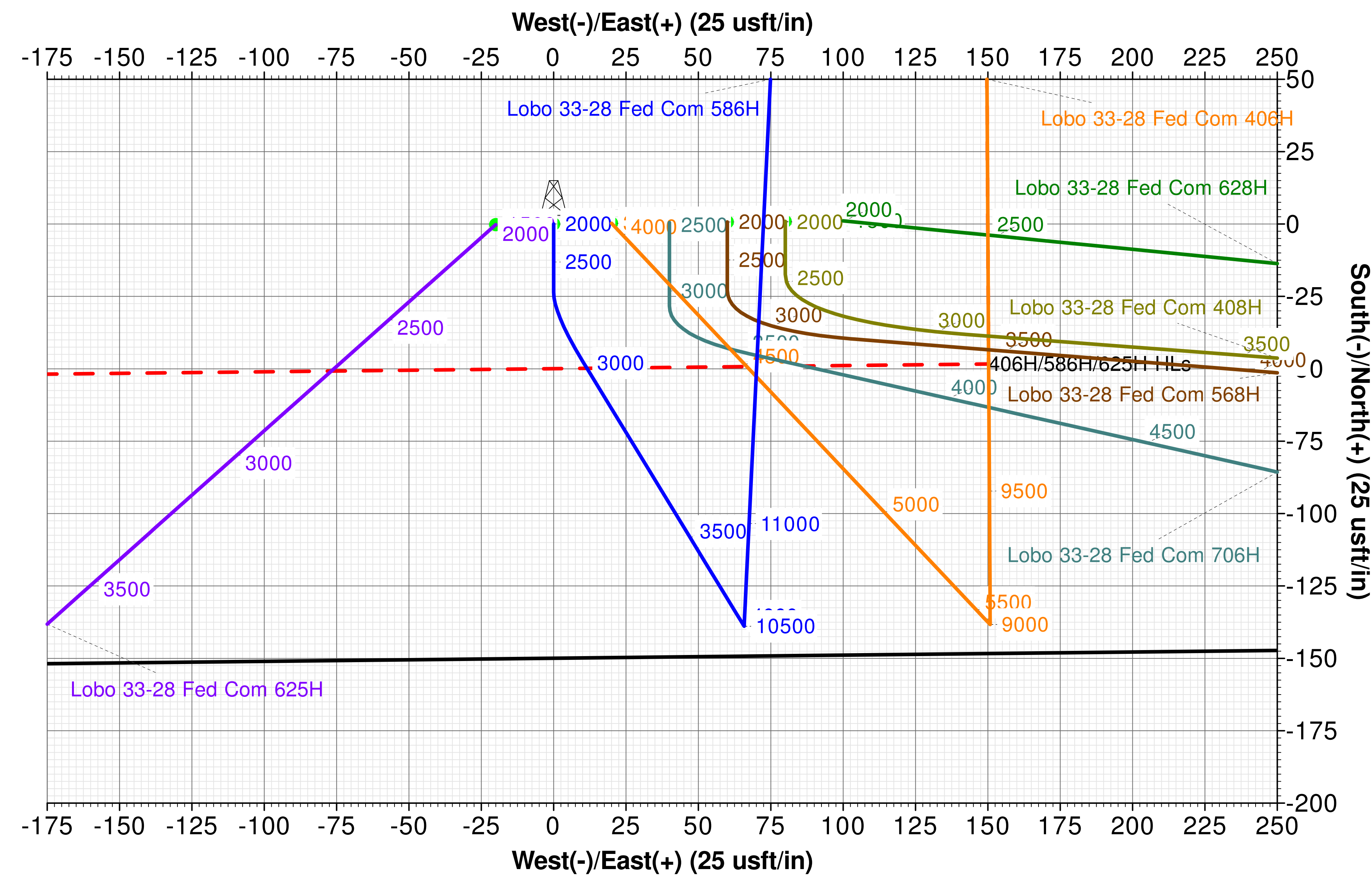
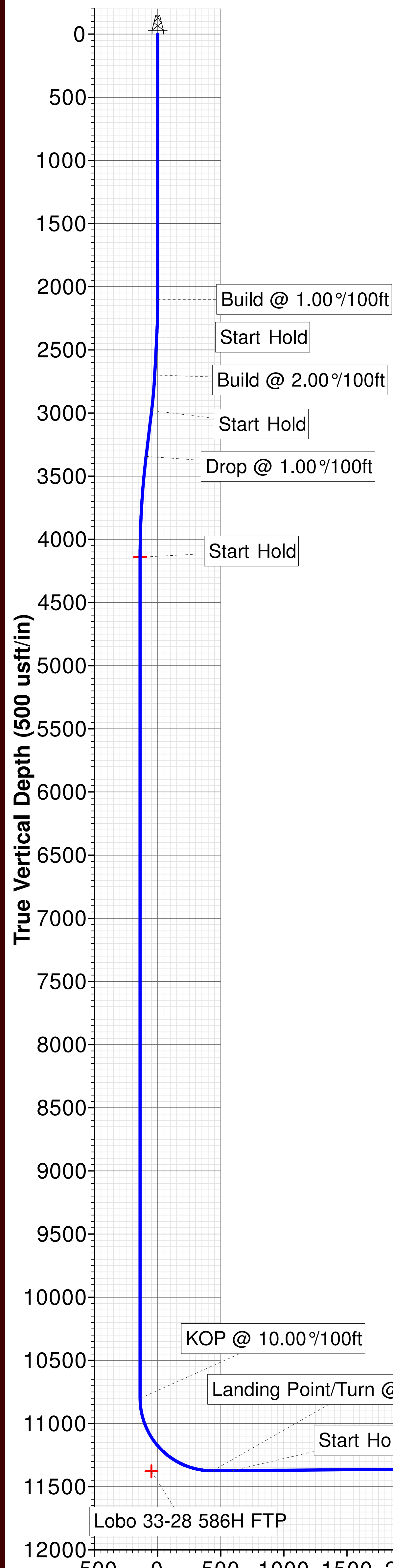


Azimuths to Grid North
True North: -0.35°
Magnetic North: 6.15°
Magnetic Field
Strength: 47493.3nT
Dip Angle: 60.12°
Date: 7/15/2024
Model: BGGM2024

WELL DETAILS						
+N/-S	+E/-W	GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)	Northing	Easting	Latitude	Longitude
0.00	0.00		520189.50	743838.90	32° 25' 42.09 N	103° 40' 37.25 W

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	Build @ 1.00%/100ft	
2400.00	3.00	180.00	2399.86	-7.85	0.00	1.00	180.00	-7.85	Start Hold	
2700.00	3.00	180.00	2699.45	-23.55	0.00	0.00	0.00	-23.55	Build @ 2.00%/100ft	
2982.86	8.00	148.63	2980.97	-47.78	10.26	2.00	-47.31	-47.84	Start Hold	
3349.04	8.00	148.63	3343.58	-91.29	36.79	0.00	0.00	-91.51	Drop @ 1.00%/100ft	
4149.05	0.00	0.00	4141.00	-138.90	65.82	1.00	180.00	-139.29	Start Hold	
10809.44	0.00	0.00	10801.39	-138.90	65.82	0.00	0.00	-139.29	KOP @ 10.00%/100ft	
11714.04	90.46	2.75	11374.33	437.99	93.53	10.00	2.75	437.43	Landing Point/Turn @ 2.00%/100ft	
11868.64	90.46	359.66	11373.09	592.53	96.78	2.00	-89.99	591.95	Start Hold	
21595.29	90.46	359.66	11295.00	10318.70	38.70	0.00	0.00	10318.29	TD at 21595.29	

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
Lobo 33-28 586H VT	4141.00	-138.90	100.82	520050.60	743939.72	32° 25' 40.71 N	103° 40' 36.09 W		
Lobo 33-28 586H VTr1	4141.00	-138.90	65.82	520050.60	743904.72	32° 25' 40.71 N	103° 40' 36.49 W		
Lobo 33-28 586H KOP	4141.23	-138.90	101.20	520050.60	743940.10	32° 25' 40.71 N	103° 40' 36.08 W		
Lobo 33-28 586H BHL	11295.00	10318.70	38.70	530508.20	743877.60	32° 27' 24.19 N	103° 40' 36.06 W		
Lobo 33-28 586H PPP2	11336.64	5132.50	69.70	525322.00	743908.60	32° 26' 32.87 N	103° 40' 36.07 W		
Lobo 33-28 586H FTP	11378.00	-48.90	100.70	520140.60	743939.60	32° 25' 41.60 N	103° 40' 36.08 W		



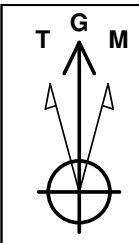
Hardlines
North/South: 100' FNL & 100' FSL
East/West: 330' FW 1/2SL & 330' FE 1/4SL

Created By: Bo Siwoniku
Date: 14:17, June 25 2024





Lobo 33-28

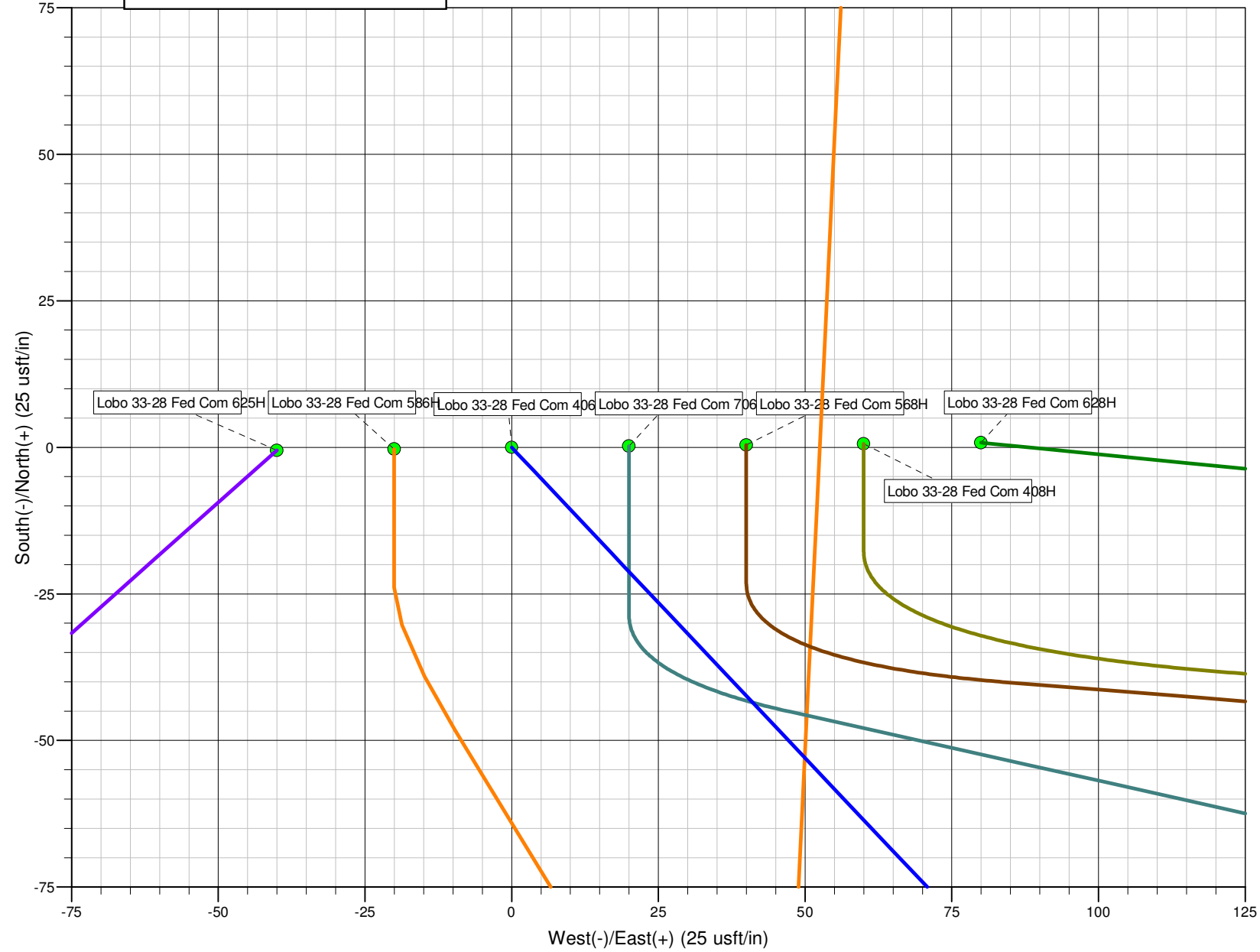


Azimuths to Grid North
True North: -0.35°
Magnetic North: 6.15°

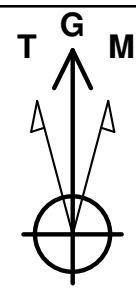
Magnetic Field
Strength: 47493.3nT
Dip Angle: 60.12°
Date: 7/15/2024
Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SITE DETAILS: Lobo 33-28
Site Centre Northing: 520189.80
Easting: 743858.90
Positional Uncertainty: 5.00
Convergence: 0.35
Local North: Grid



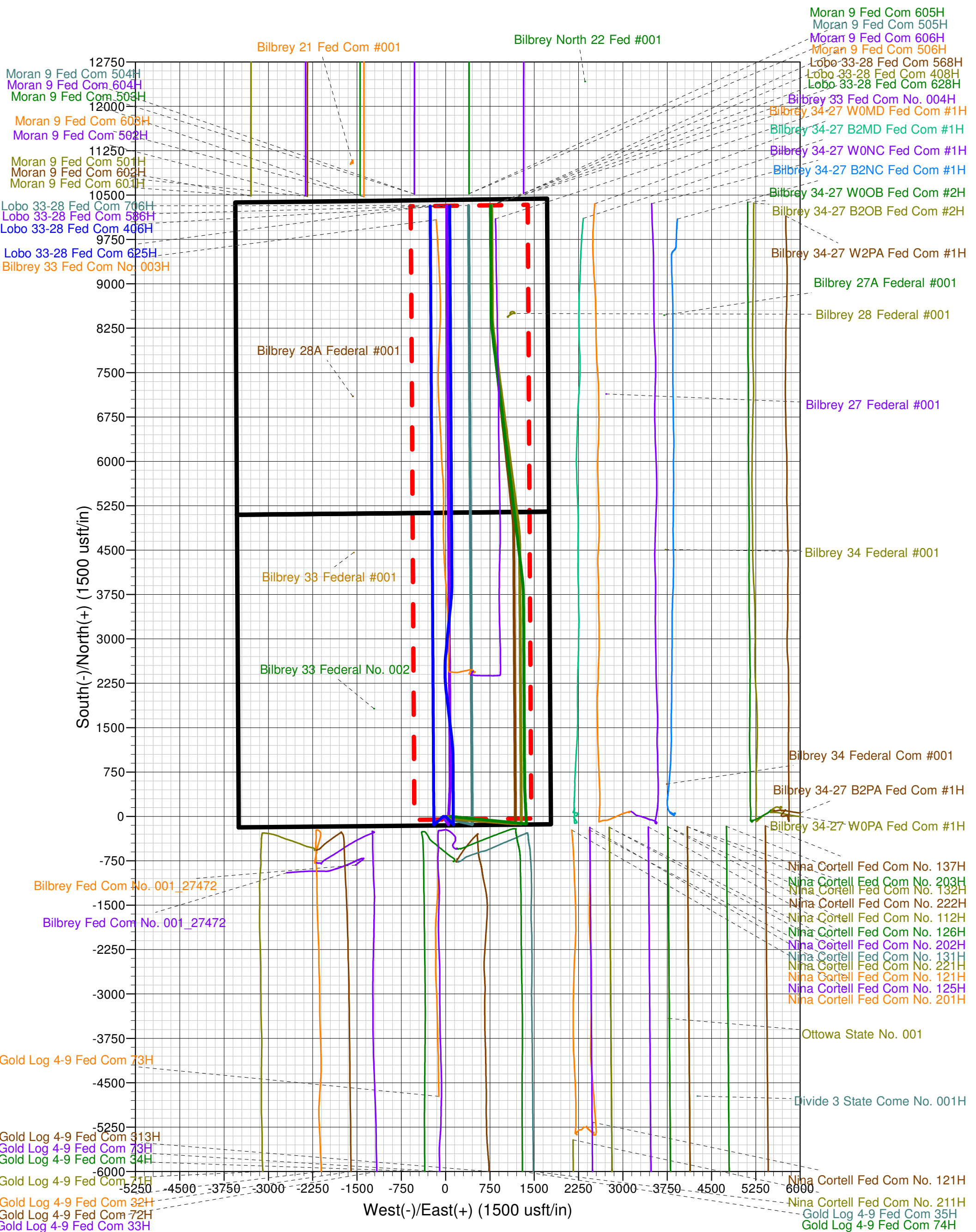
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 586H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 37.25 W

North American Datum 1983
New Mexico Eastern Zone
520,189.50 N
743,838.90 E

Ground Level: 3,800.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 586H

Viewing Datum:

GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

HALLIBURTON

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
770.00	0.00	0.00	770.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	13 3/8"
1,095.00	0.00	0.00	1,095.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	Salt Top
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
1,935.00	0.00	0.00	1,935.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	Marker Bed 126
2,000.00	0.00	0.00	2,000.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00 N	0.00 E	520,189.50	743,838.90	0.00	0.00	0.00	Build @ 1.00°/100ft
2,200.00	1.00	180.00	2,199.99	0.87 S	0.00 E	520,188.63	743,838.90	1.00	-0.87	180.00	
2,300.00	2.00	180.00	2,299.96	3.49 S	0.00 E	520,186.01	743,838.90	1.00	-3.49	0.00	
2,400.00	3.00	180.00	2,399.86	7.85 S	0.00 E	520,181.65	743,838.90	1.00	-7.85	0.00	Start Hold
2,500.00	3.00	180.00	2,499.73	13.09 S	0.00 E	520,176.41	743,838.90	0.00	-13.09	0.00	
2,600.00	3.00	180.00	2,599.59	18.32 S	0.00 E	520,171.18	743,838.90	0.00	-18.32	0.00	
2,700.00	3.00	180.00	2,699.45	23.55 S	0.00 E	520,165.95	743,838.90	0.00	-23.55	0.00	Build @ 2.00°/100ft
2,800.00	4.60	161.33	2,799.23	29.97 S	1.28 E	520,159.53	743,840.18	2.00	-29.97	-47.31	
2,900.00	6.42	152.72	2,898.77	38.74 S	5.13 E	520,150.76	743,844.03	2.00	-38.77	-28.68	
2,982.86	8.00	148.63	2,980.97	47.78 S	10.26 E	520,141.72	743,849.16	2.00	-47.84	-20.11	Start Hold
3,000.00	8.00	148.63	2,997.94	49.82 S	11.50 E	520,139.68	743,850.40	0.00	-49.88	0.00	
3,100.00	8.00	148.63	3,096.97	61.70 S	18.74 E	520,127.80	743,857.64	0.00	-61.81	0.00	



Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
3,200.00	8.00	148.63	3,196.00	73.58 S	25.99 E	520,115.92	743,864.89	0.00	-73.73	0.00	
3,300.00	8.00	148.63	3,295.02	85.46 S	33.24 E	520,104.04	743,872.14	0.00	-85.66	0.00	
3,349.04	8.00	148.63	3,343.58	91.29 S	36.79 E	520,098.21	743,875.69	0.00	-91.51	0.00	Drop @ 1.00°/100ft
3,400.00	7.49	148.63	3,394.08	97.16 S	40.36 E	520,092.34	743,879.26	1.00	-97.39	180.00	
3,500.00	6.49	148.63	3,493.34	107.55 S	46.70 E	520,081.95	743,885.60	1.00	-107.82	180.00	
3,600.00	5.49	148.63	3,592.79	116.46 S	52.13 E	520,073.04	743,891.03	1.00	-116.76	180.00	
3,700.00	4.49	148.63	3,692.41	123.88 S	56.66 E	520,065.62	743,895.56	1.00	-124.22	180.00	
3,800.00	3.49	148.63	3,792.17	129.83 S	60.29 E	520,059.67	743,899.19	1.00	-130.18	180.00	
3,900.00	2.49	148.63	3,892.03	134.28 S	63.00 E	520,055.22	743,901.90	1.00	-134.65	180.00	
4,000.00	1.49	148.63	3,991.97	137.24 S	64.81 E	520,052.26	743,903.71	1.00	-137.63	180.00	
4,100.00	0.49	148.63	4,091.95	138.72 S	65.71 E	520,050.78	743,904.61	1.00	-139.11	180.00	
4,149.05	0.00	0.00	4,141.00	138.90 S	65.82 E	520,050.60	743,904.72	1.00	-139.29	-180.00	Start Hold
4,200.00	0.00	0.00	4,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,300.00	0.00	0.00	4,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,378.05	0.00	0.00	4,370.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Salt Base - Fletcher Anhydrite
4,400.00	0.00	0.00	4,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,500.00	0.00	0.00	4,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,600.00	0.00	0.00	4,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,700.00	0.00	0.00	4,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,800.00	0.00	0.00	4,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,843.05	0.00	0.00	4,835.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Delaware (Lamar)
4,900.00	0.00	0.00	4,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
4,958.05	0.00	0.00	4,950.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Bell Canyon
5,000.00	0.00	0.00	4,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,100.00	0.00	0.00	5,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,200.00	0.00	0.00	5,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,300.00	0.00	0.00	5,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,400.00	0.00	0.00	5,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,500.00	0.00	0.00	5,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,600.00	0.00	0.00	5,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,700.00	0.00	0.00	5,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,800.00	0.00	0.00	5,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
5,900.00	0.00	0.00	5,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,000.00	0.00	0.00	5,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,003.05	0.00	0.00	5,995.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Manzanita Marker
6,100.00	0.00	0.00	6,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,200.00	0.00	0.00	6,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	



Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
6,300.00	0.00	0.00	6,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,400.00	0.00	0.00	6,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,500.00	0.00	0.00	6,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,600.00	0.00	0.00	6,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,700.00	0.00	0.00	6,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,800.00	0.00	0.00	6,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
6,900.00	0.00	0.00	6,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,000.00	0.00	0.00	6,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,100.00	0.00	0.00	7,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,200.00	0.00	0.00	7,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,300.00	0.00	0.00	7,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,400.00	0.00	0.00	7,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,500.00	0.00	0.00	7,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,600.00	0.00	0.00	7,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,700.00	0.00	0.00	7,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,800.00	0.00	0.00	7,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
7,900.00	0.00	0.00	7,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,000.00	0.00	0.00	7,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,100.00	0.00	0.00	8,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,200.00	0.00	0.00	8,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,300.00	0.00	0.00	8,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,400.00	0.00	0.00	8,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,500.00	0.00	0.00	8,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,518.05	0.00	0.00	8,510.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Basal Brushy Canyon
8,600.00	0.00	0.00	8,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,700.00	0.00	0.00	8,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,800.00	0.00	0.00	8,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
8,803.05	0.00	0.00	8,795.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	Bone Spring
8,900.00	0.00	0.00	8,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,000.00	0.00	0.00	8,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,100.00	0.00	0.00	9,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,200.00	0.00	0.00	9,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,300.00	0.00	0.00	9,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,400.00	0.00	0.00	9,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,500.00	0.00	0.00	9,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,600.00	0.00	0.00	9,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,700.00	0.00	0.00	9,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	



Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,800.00	0.00	0.00	9,791.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
9,823.05	0.00	0.00	9,815.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	1st Bone Spring Sand
9,900.00	0.00	0.00	9,891.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,000.00	0.00	0.00	9,991.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,100.00	0.00	0.00	10,091.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,200.00	0.00	0.00	10,191.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,300.00	0.00	0.00	10,291.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,400.00	0.00	0.00	10,391.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,483.05	0.00	0.00	10,475.00	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	2nd Bone Spring Sand
10,500.00	0.00	0.00	10,491.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,600.00	0.00	0.00	10,591.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,700.00	0.00	0.00	10,691.95	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	
10,809.44	0.00	0.00	10,801.39	138.90 S	65.82 E	520,050.60	743,904.72	0.00	-139.29	0.00	KOP @ 10.00°/100ft - 7"
10,850.00	4.06	2.75	10,841.92	137.47 S	65.89 E	520,052.03	743,904.79	10.00	-137.86	2.75	
10,900.00	9.06	2.75	10,891.57	131.77 S	66.16 E	520,057.73	743,905.06	10.00	-132.16	0.00	
10,950.00	14.06	2.75	10,940.54	121.76 S	66.64 E	520,067.74	743,905.54	10.00	-122.16	0.00	
10,985.82	17.64	2.75	10,975.00	112.00 S	67.11 E	520,077.50	743,906.01	10.00	-112.39	0.00	3rd Bone Spring Carbonate
11,000.00	19.06	2.75	10,988.46	107.54 S	67.33 E	520,081.96	743,906.23	10.00	-107.94	0.00	
11,050.00	24.06	2.75	11,034.94	89.19 S	68.21 E	520,100.31	743,907.11	10.00	-89.60	0.00	
11,100.00	29.06	2.75	11,079.65	66.87 S	69.28 E	520,122.63	743,908.18	10.00	-67.28	0.00	
11,150.00	34.06	2.75	11,122.25	40.75 S	70.53 E	520,148.75	743,909.43	10.00	-41.16	0.00	
11,200.00	39.06	2.75	11,162.40	11.01 S	71.96 E	520,178.49	743,910.86	10.00	-11.44	0.00	
11,250.00	44.06	2.75	11,199.80	22.11 N	73.55 E	520,211.61	743,912.45	10.00	21.67	0.00	
11,300.00	49.06	2.75	11,234.17	58.36 N	75.30 E	520,247.86	743,914.20	10.00	57.91	0.00	
11,350.00	54.06	2.75	11,265.25	97.46 N	77.17 E	520,286.96	743,916.07	10.00	97.00	0.00	
11,400.00	59.06	2.75	11,292.80	139.12 N	79.17 E	520,328.62	743,918.07	10.00	138.65	0.00	
11,450.00	64.06	2.75	11,316.61	183.02 N	81.28 E	520,372.52	743,920.18	10.00	182.54	0.00	
11,500.00	69.06	2.75	11,336.49	228.83 N	83.48 E	520,418.33	743,922.38	10.00	228.33	0.00	
11,550.00	74.06	2.75	11,352.31	276.19 N	85.76 E	520,465.69	743,924.66	10.00	275.68	0.00	
11,600.00	79.06	2.75	11,363.93	324.75 N	88.09 E	520,514.25	743,926.99	10.00	324.22	0.00	
11,650.00	84.06	2.75	11,371.27	374.13 N	90.46 E	520,563.63	743,929.36	10.00	373.59	0.00	
11,700.00	89.06	2.75	11,374.27	423.97 N	92.86 E	520,613.47	743,931.76	10.00	423.41	0.00	
11,714.04	90.46	2.75	11,374.33	437.99 N	93.53 E	520,627.49	743,932.43	10.00	437.43	0.00	Landing Point/Turn @ 2.00°/100ft
11,800.00	90.46	1.03	11,373.64	523.90 N	96.37 E	520,713.40	743,935.27	2.00	523.32	-89.99	
11,868.64	90.46	359.66	11,373.09	592.53 N	96.78 E	520,782.03	743,935.68	2.00	591.95	-90.00	Start Hold
11,900.00	90.46	359.66	11,372.83	623.89 N	96.59 E	520,813.39	743,935.49	0.00	623.31	0.00	



Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
12,000.00	90.46	359.66	11,372.03	723.89 N	95.99 E	520,913.39	743,934.89	0.00	723.31	0.00	
12,100.00	90.46	359.66	11,371.23	823.88 N	95.40 E	521,013.38	743,934.30	0.00	823.30	0.00	
12,200.00	90.46	359.66	11,370.43	923.88 N	94.80 E	521,113.38	743,933.70	0.00	923.30	0.00	
12,300.00	90.46	359.66	11,369.62	1,023.87 N	94.20 E	521,213.37	743,933.10	0.00	1,023.30	0.00	
12,400.00	90.46	359.66	11,368.82	1,123.87 N	93.61 E	521,313.37	743,932.51	0.00	1,123.29	0.00	
12,500.00	90.46	359.66	11,368.02	1,223.86 N	93.01 E	521,413.36	743,931.91	0.00	1,223.29	0.00	
12,600.00	90.46	359.66	11,367.22	1,323.86 N	92.41 E	521,513.36	743,931.31	0.00	1,323.29	0.00	
12,700.00	90.46	359.66	11,366.41	1,423.85 N	91.81 E	521,613.35	743,930.71	0.00	1,423.28	0.00	
12,800.00	90.46	359.66	11,365.61	1,523.85 N	91.22 E	521,713.35	743,930.12	0.00	1,523.28	0.00	
12,900.00	90.46	359.66	11,364.81	1,623.84 N	90.62 E	521,813.34	743,929.52	0.00	1,623.28	0.00	
13,000.00	90.46	359.66	11,364.00	1,723.84 N	90.02 E	521,913.34	743,928.92	0.00	1,723.27	0.00	
13,100.00	90.46	359.66	11,363.20	1,823.83 N	89.43 E	522,013.33	743,928.33	0.00	1,823.27	0.00	
13,200.00	90.46	359.66	11,362.40	1,923.83 N	88.83 E	522,113.33	743,927.73	0.00	1,923.27	0.00	
13,300.00	90.46	359.66	11,361.60	2,023.82 N	88.23 E	522,213.32	743,927.13	0.00	2,023.26	0.00	
13,400.00	90.46	359.66	11,360.79	2,123.82 N	87.63 E	522,313.32	743,926.53	0.00	2,123.26	0.00	
13,500.00	90.46	359.66	11,359.99	2,223.81 N	87.04 E	522,413.31	743,925.94	0.00	2,223.26	0.00	
13,600.00	90.46	359.66	11,359.19	2,323.81 N	86.44 E	522,513.31	743,925.34	0.00	2,323.25	0.00	
13,700.00	90.46	359.66	11,358.38	2,423.80 N	85.84 E	522,613.30	743,924.74	0.00	2,423.25	0.00	
13,800.00	90.46	359.66	11,357.58	2,523.80 N	85.25 E	522,713.30	743,924.15	0.00	2,523.25	0.00	
13,900.00	90.46	359.66	11,356.78	2,623.79 N	84.65 E	522,813.29	743,923.55	0.00	2,623.24	0.00	
14,000.00	90.46	359.66	11,355.98	2,723.79 N	84.05 E	522,913.29	743,922.95	0.00	2,723.24	0.00	
14,100.00	90.46	359.66	11,355.17	2,823.78 N	83.45 E	523,013.28	743,922.35	0.00	2,823.24	0.00	
14,200.00	90.46	359.66	11,354.37	2,923.78 N	82.86 E	523,113.28	743,921.76	0.00	2,923.24	0.00	
14,300.00	90.46	359.66	11,353.57	3,023.77 N	82.26 E	523,213.27	743,921.16	0.00	3,023.23	0.00	
14,400.00	90.46	359.66	11,352.76	3,123.77 N	81.66 E	523,313.27	743,920.56	0.00	3,123.23	0.00	
14,500.00	90.46	359.66	11,351.96	3,223.76 N	81.07 E	523,413.26	743,919.97	0.00	3,223.23	0.00	
14,600.00	90.46	359.66	11,351.16	3,323.76 N	80.47 E	523,513.26	743,919.37	0.00	3,323.22	0.00	
14,700.00	90.46	359.66	11,350.36	3,423.75 N	79.87 E	523,613.25	743,918.77	0.00	3,423.22	0.00	
14,800.00	90.46	359.66	11,349.55	3,523.75 N	79.27 E	523,713.25	743,918.17	0.00	3,523.22	0.00	
14,900.00	90.46	359.66	11,348.75	3,623.74 N	78.68 E	523,813.24	743,917.58	0.00	3,623.21	0.00	
15,000.00	90.46	359.66	11,347.95	3,723.74 N	78.08 E	523,913.24	743,916.98	0.00	3,723.21	0.00	
15,100.00	90.46	359.66	11,347.14	3,823.73 N	77.48 E	524,013.23	743,916.38	0.00	3,823.21	0.00	
15,200.00	90.46	359.66	11,346.34	3,923.73 N	76.89 E	524,113.23	743,915.79	0.00	3,923.20	0.00	
15,300.00	90.46	359.66	11,345.54	4,023.72 N	76.29 E	524,213.22	743,915.19	0.00	4,023.20	0.00	
15,400.00	90.46	359.66	11,344.74	4,123.72 N	75.69 E	524,313.22	743,914.59	0.00	4,123.20	0.00	
15,500.00	90.46	359.66	11,343.93	4,223.71 N	75.10 E	524,413.21	743,914.00	0.00	4,223.19	0.00	
15,600.00	90.46	359.66	11,343.13	4,323.71 N	74.50 E	524,513.21	743,913.40	0.00	4,323.19	0.00	



Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
15,700.00	90.46	359.66	11,342.33	4,423.70 N	73.90 E	524,613.20	743,912.80	0.00	4,423.19	0.00	
15,800.00	90.46	359.66	11,341.53	4,523.70 N	73.30 E	524,713.20	743,912.20	0.00	4,523.18	0.00	
15,900.00	90.46	359.66	11,340.72	4,623.69 N	72.71 E	524,813.19	743,911.61	0.00	4,623.18	0.00	
16,000.00	90.46	359.66	11,339.92	4,723.69 N	72.11 E	524,913.19	743,911.01	0.00	4,723.18	0.00	
16,100.00	90.46	359.66	11,339.12	4,823.68 N	71.51 E	525,013.18	743,910.41	0.00	4,823.17	0.00	
16,200.00	90.46	359.66	11,338.31	4,923.68 N	70.92 E	525,113.18	743,909.82	0.00	4,923.17	0.00	
16,300.00	90.46	359.66	11,337.51	5,023.67 N	70.32 E	525,213.17	743,909.22	0.00	5,023.17	0.00	
16,400.00	90.46	359.66	11,336.71	5,123.67 N	69.72 E	525,313.17	743,908.62	0.00	5,123.16	0.00	
16,500.00	90.46	359.66	11,335.91	5,223.66 N	69.12 E	525,413.16	743,908.02	0.00	5,223.16	0.00	
16,600.00	90.46	359.66	11,335.10	5,323.66 N	68.53 E	525,513.16	743,907.43	0.00	5,323.16	0.00	
16,700.00	90.46	359.66	11,334.30	5,423.65 N	67.93 E	525,613.15	743,906.83	0.00	5,423.15	0.00	
16,800.00	90.46	359.66	11,333.50	5,523.65 N	67.33 E	525,713.15	743,906.23	0.00	5,523.15	0.00	
16,900.00	90.46	359.66	11,332.69	5,623.64 N	66.74 E	525,813.14	743,905.64	0.00	5,623.15	0.00	
17,000.00	90.46	359.66	11,331.89	5,723.64 N	66.14 E	525,913.14	743,905.04	0.00	5,723.14	0.00	
17,100.00	90.46	359.66	11,331.09	5,823.63 N	65.54 E	526,013.13	743,904.44	0.00	5,823.14	0.00	
17,200.00	90.46	359.66	11,330.29	5,923.63 N	64.94 E	526,113.13	743,903.84	0.00	5,923.14	0.00	
17,300.00	90.46	359.66	11,329.48	6,023.62 N	64.35 E	526,213.12	743,903.25	0.00	6,023.14	0.00	
17,400.00	90.46	359.66	11,328.68	6,123.62 N	63.75 E	526,313.12	743,902.65	0.00	6,123.13	0.00	
17,500.00	90.46	359.66	11,327.88	6,223.61 N	63.15 E	526,413.11	743,902.05	0.00	6,223.13	0.00	
17,600.00	90.46	359.66	11,327.07	6,323.61 N	62.56 E	526,513.11	743,901.46	0.00	6,323.13	0.00	
17,700.00	90.46	359.66	11,326.27	6,423.60 N	61.96 E	526,613.10	743,900.86	0.00	6,423.12	0.00	
17,800.00	90.46	359.66	11,325.47	6,523.60 N	61.36 E	526,713.10	743,900.26	0.00	6,523.12	0.00	
17,900.00	90.46	359.66	11,324.67	6,623.59 N	60.76 E	526,813.09	743,899.66	0.00	6,623.12	0.00	
18,000.00	90.46	359.66	11,323.86	6,723.59 N	60.17 E	526,913.09	743,899.07	0.00	6,723.11	0.00	
18,100.00	90.46	359.66	11,323.06	6,823.58 N	59.57 E	527,013.08	743,898.47	0.00	6,823.11	0.00	
18,200.00	90.46	359.66	11,322.26	6,923.58 N	58.97 E	527,113.08	743,897.87	0.00	6,923.11	0.00	
18,300.00	90.46	359.66	11,321.45	7,023.57 N	58.38 E	527,213.07	743,897.28	0.00	7,023.10	0.00	
18,400.00	90.46	359.66	11,320.65	7,123.57 N	57.78 E	527,313.07	743,896.68	0.00	7,123.10	0.00	
18,500.00	90.46	359.66	11,319.85	7,223.56 N	57.18 E	527,413.06	743,896.08	0.00	7,223.10	0.00	
18,600.00	90.46	359.66	11,319.05	7,323.56 N	56.58 E	527,513.06	743,895.48	0.00	7,323.09	0.00	
18,700.00	90.46	359.66	11,318.24	7,423.55 N	55.99 E	527,613.05	743,894.89	0.00	7,423.09	0.00	
18,800.00	90.46	359.66	11,317.44	7,523.55 N	55.39 E	527,713.05	743,894.29	0.00	7,523.09	0.00	
18,900.00	90.46	359.66	11,316.64	7,623.54 N	54.79 E	527,813.04	743,893.69	0.00	7,623.08	0.00	
19,000.00	90.46	359.66	11,315.84	7,723.54 N	54.20 E	527,913.04	743,893.10	0.00	7,723.08	0.00	
19,100.00	90.46	359.66	11,315.03	7,823.53 N	53.60 E	528,013.03	743,892.50	0.00	7,823.08	0.00	
19,200.00	90.46	359.66	11,314.23	7,923.53 N	53.00 E	528,113.03	743,891.90	0.00	7,923.07	0.00	
19,300.00	90.46	359.66	11,313.43	8,023.52 N	52.41 E	528,213.02	743,891.31	0.00	8,023.07	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
19,400.00	90.46	359.66	11,312.62	8,123.52 N	51.81 E	528,313.02	743,890.71	0.00	8,123.07	0.00	
19,500.00	90.46	359.66	11,311.82	8,223.51 N	51.21 E	528,413.01	743,890.11	0.00	8,223.06	0.00	
19,600.00	90.46	359.66	11,311.02	8,323.51 N	50.61 E	528,513.01	743,889.51	0.00	8,323.06	0.00	
19,700.00	90.46	359.66	11,310.22	8,423.50 N	50.02 E	528,613.00	743,888.92	0.00	8,423.06	0.00	
19,800.00	90.46	359.66	11,309.41	8,523.50 N	49.42 E	528,713.00	743,888.32	0.00	8,523.05	0.00	
19,900.00	90.46	359.66	11,308.61	8,623.49 N	48.82 E	528,812.99	743,887.72	0.00	8,623.05	0.00	
20,000.00	90.46	359.66	11,307.81	8,723.49 N	48.23 E	528,912.99	743,887.13	0.00	8,723.05	0.00	
20,100.00	90.46	359.66	11,307.00	8,823.48 N	47.63 E	529,012.98	743,886.53	0.00	8,823.04	0.00	
20,200.00	90.46	359.66	11,306.20	8,923.48 N	47.03 E	529,112.98	743,885.93	0.00	8,923.04	0.00	
20,300.00	90.46	359.66	11,305.40	9,023.47 N	46.43 E	529,212.97	743,885.33	0.00	9,023.04	0.00	
20,400.00	90.46	359.66	11,304.60	9,123.47 N	45.84 E	529,312.97	743,884.74	0.00	9,123.04	0.00	
20,500.00	90.46	359.66	11,303.79	9,223.46 N	45.24 E	529,412.96	743,884.14	0.00	9,223.03	0.00	
20,600.00	90.46	359.66	11,302.99	9,323.46 N	44.64 E	529,512.96	743,883.54	0.00	9,323.03	0.00	
20,700.00	90.46	359.66	11,302.19	9,423.45 N	44.05 E	529,612.95	743,882.95	0.00	9,423.03	0.00	
20,800.00	90.46	359.66	11,301.38	9,523.45 N	43.45 E	529,712.95	743,882.35	0.00	9,523.02	0.00	
20,900.00	90.46	359.66	11,300.58	9,623.44 N	42.85 E	529,812.94	743,881.75	0.00	9,623.02	0.00	
21,000.00	90.46	359.66	11,299.78	9,723.44 N	42.25 E	529,912.94	743,881.15	0.00	9,723.02	0.00	
21,100.00	90.46	359.66	11,298.98	9,823.43 N	41.66 E	530,012.93	743,880.56	0.00	9,823.01	0.00	
21,200.00	90.46	359.66	11,298.17	9,923.43 N	41.06 E	530,112.93	743,879.96	0.00	9,923.01	0.00	
21,300.00	90.46	359.66	11,297.37	10,023.42 N	40.46 E	530,212.92	743,879.36	0.00	10,023.01	0.00	
21,400.00	90.46	359.66	11,296.57	10,123.42 N	39.87 E	530,312.92	743,878.77	0.00	10,123.00	0.00	
21,500.00	90.46	359.66	11,295.77	10,223.41 N	39.27 E	530,412.91	743,878.17	0.00	10,223.00	0.00	
21,595.29	90.46	359.66	11,295.00	10,318.70 N	38.70 E	530,508.20	743,877.60	0.00	10,318.29	0.00	TD at 21595.29 - 4 1/2"

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Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,100.00	2,100.00	0.00	0.00	Build @ 1.00°/100ft
2,400.00	2,399.86	-7.85	0.00	Start Hold
2,700.00	2,699.45	-23.55	0.00	Build @ 2.00°/100ft
2,982.86	2,980.97	-47.78	10.26	Start Hold
3,349.04	3,343.58	-91.29	36.79	Drop @ 1.00°/100ft
4,149.05	4,141.00	-138.90	65.82	Start Hold
10,809.44	10,801.39	-138.90	65.82	KOP @ 10.00°/100ft
11,714.04	11,374.33	437.99	93.53	Landing Point/Turn @ 2.00°/100ft
11,868.64	11,373.09	592.53	96.78	Start Hold
21,595.29	11,295.00	10,318.70	38.70	TD at 21595.29

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	10,809.00	Plan 1	3_MWD+HRGM
10,809.00	21,595.29	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
10,809.44	10,801.39	7"	7.000	8.750
21,595.29	11,295.00	4 1/2"	4.500	6.125

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Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
770.00	770.00	-3,058.00	Rustler			
1,095.00	1,095.00	-2,733.00	Salt Top			
1,935.00	1,935.00	-1,893.00	Marker Bed 126			
4,378.05	4,370.00	542.00	Salt Base			
4,378.05	4,370.00	542.00	Fletcher Anhydrite			
4,843.05	4,835.00	1,007.00	Delaware (Lamar)			
4,958.05	4,950.00	1,122.00	Bell Canyon			
6,003.05	5,995.00	2,167.00	Manzanita Marker			
8,518.05	8,510.00	4,682.00	Basal Brushy Canyon			
8,803.05	8,795.00	4,967.00	Bone Spring			
9,823.05	9,815.00	5,987.00	1st Bone Spring Sand			
10,483.05	10,475.00	6,647.00	2nd Bone Spring Sand			
10,985.82	10,975.00	7,147.00	3rd Bone Spring Carbonate			

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Plan Report for Lobo 33-28 Fed Com 586H - Plan 1

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
Lobo 33-28 586H VT ()	0.00	0.00	4,141.00	-138.90	100.82	520,050.60	743,939.72	32° 25' 40.71 N	103° 40' 36.09 W
- plan misses target center by 35.00usft at 4149.05usft MD (4141.00 TVD, -138.90 N, 65.82 E)									
- Point									
Lobo 33-28 586H VTr1 ()	0.00	0.00	4,141.00	-138.90	65.82	520,050.60	743,904.72	32° 25' 40.71 N	103° 40' 36.49 W
- plan hits target center									
- Point									
Lobo 33-28 586H KOP ()	0.00	0.00	4,141.23	-138.90	101.20	520,050.60	743,940.10	32° 25' 40.71 N	103° 40' 36.08 W
- plan misses target center by 35.38usft at 4149.28usft MD (4141.23 TVD, -138.90 N, 65.82 E)									
- Point									
Lobo 33-28 586H BHL ()	0.00	0.00	11,295.00	10,318.70	38.70	530,508.20	743,877.60	32° 27' 24.19 N	103° 40' 36.06 W
- plan hits target center									
- Point									
Lobo 33-28 586H PPP2 ()	0.00	0.00	11,336.64	5,132.50	69.70	525,322.00	743,908.60	32° 26' 32.87 N	103° 40' 36.07 W
- plan misses target center by 0.03usft at 16408.83usft MD (11336.64 TVD, 5132.50 N, 69.67 E)									
- Point									
Lobo 33-28 586H FTP ()	0.00	0.00	11,378.00	-48.90	100.70	520,140.60	743,939.60	32° 25' 41.60 N	103° 40' 36.08 W
- plan misses target center by 180.85usft at 11306.47usft MD (11238.39 TVD, 63.26 N, 75.53 E)									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	0.51 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 11,714.04 usft
Net Tortousity applicable to Plans:	0.51 °/100ft	Directional Difficulty Index:	6.618

Audit Info

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North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 586H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 586H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995605

Grid Coordinates of Well: 520,189.50 usft N, 743,838.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 37.25 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 21,595.29usft the Bottom Hole Displacement is 10,318.77usft in the Direction of 0.21° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)

Magnetic Model: BGGM2024
 Date: 15-Jul-24
 Declination: 6.50°
 Inclination/Dip: 60.12°
 Field Strength: 47493.32474131nT

Grid North is 0.35° East of True North (Grid Convergence)
 Magnetic North is 6.50° East of True North (Magnetic Declination)
 Magnetic North is 6.15° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.35°
 To convert a Magnetic Direction to a True Direction, Add 6.50° East
 To convert a Magnetic Direction to a Grid Direction, Add 6.15°



Project: Lea County, NM (NAD83)
 Site: Lobo 33-28
 Well: Lobo 33-28 Fed Com 628H
 Wellbore: OH
 Design: Plan 1
 Rig: Patterson 260

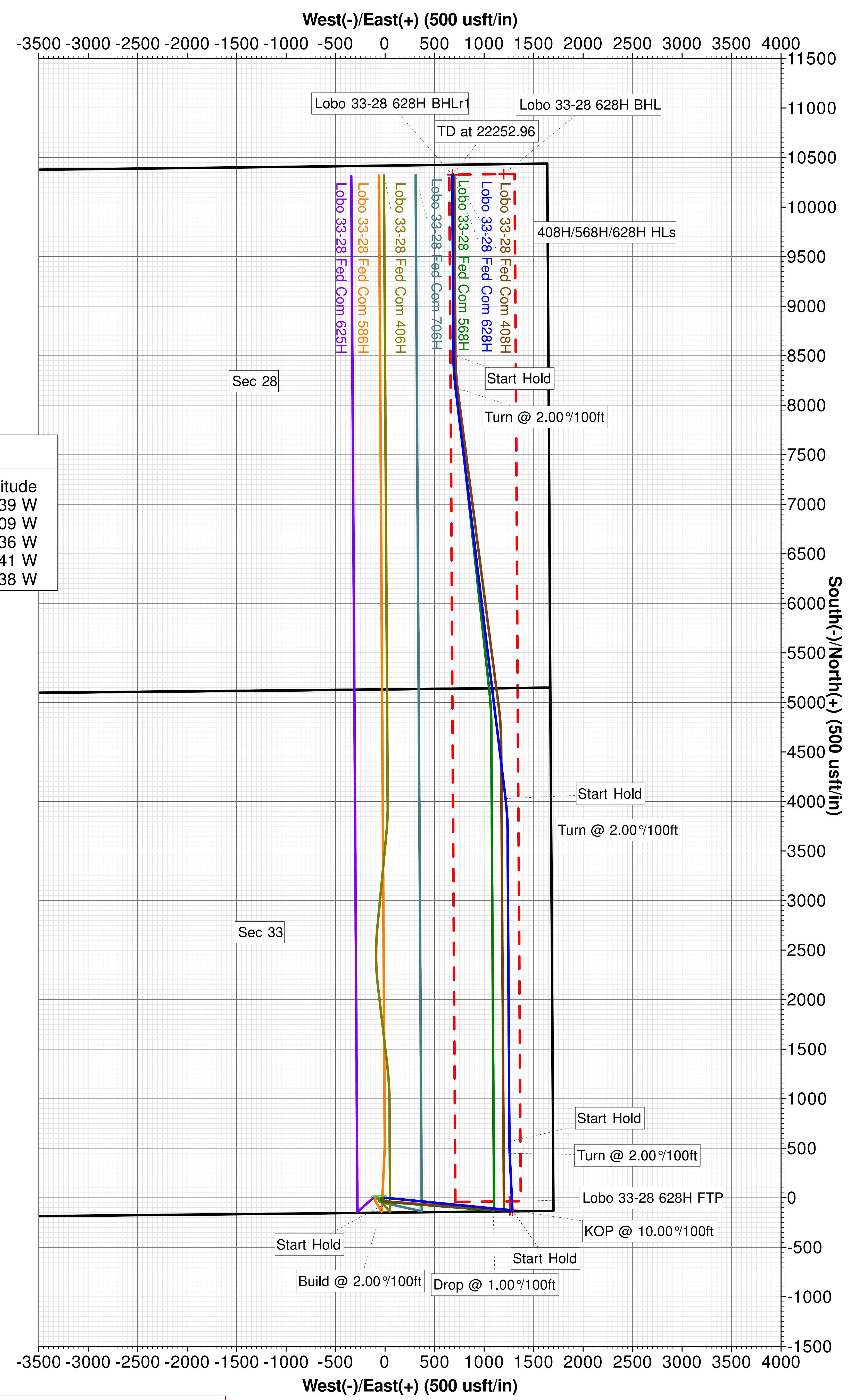
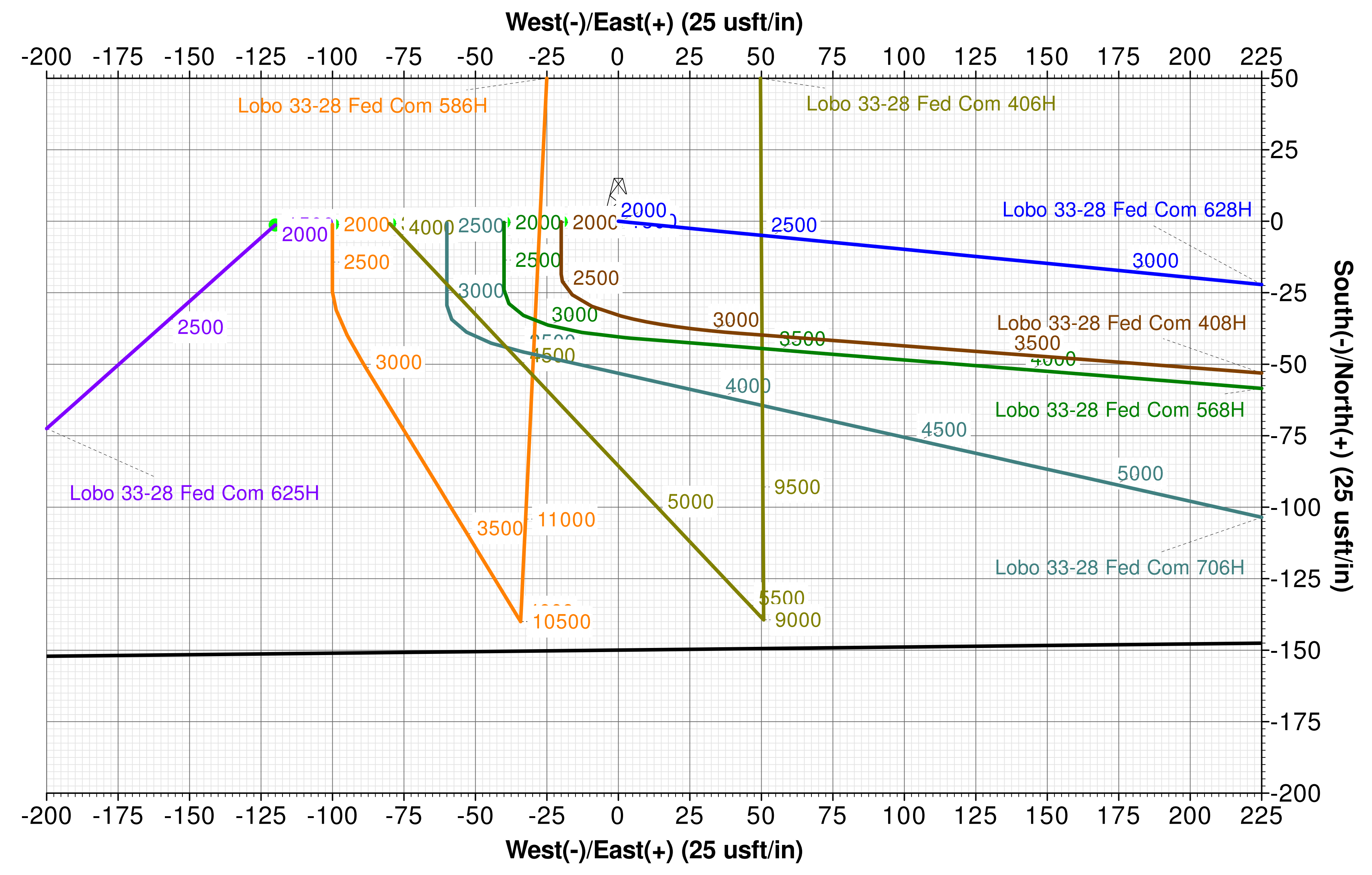
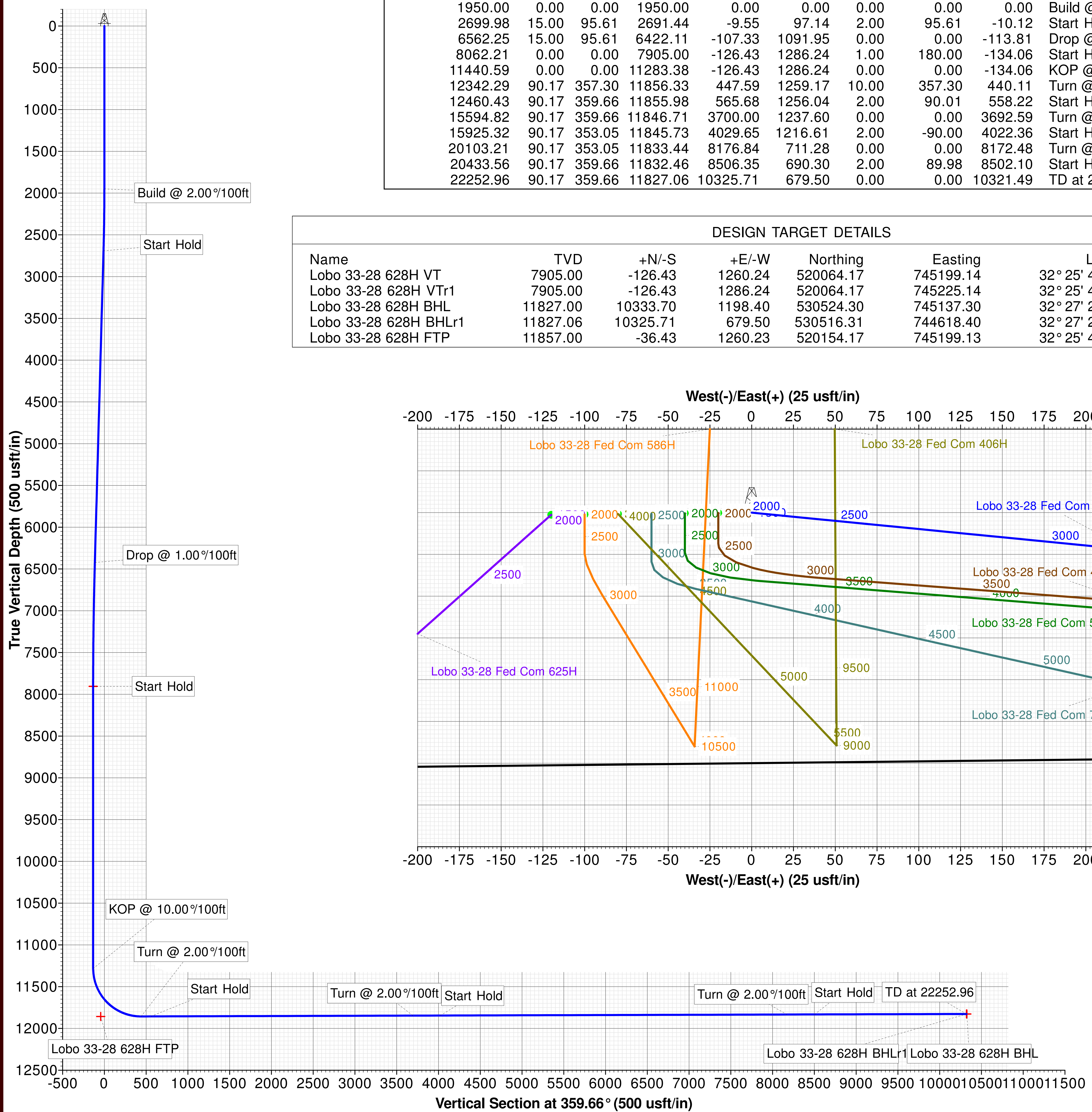
Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

North
 T G M
 Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.4nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

WELL DETAILS						
GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	520190.60	743938.90	32° 25' 42.09 N	103° 40' 36.08 W	

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1950.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00	Build @ 2.00%/100ft	
2699.98	15.00	95.61	2691.44	-9.55	97.14	2.00	95.61	-10.12	Start Hold	
6562.25	15.00	95.61	6422.11	-107.33	1091.95	0.00	0.00	-113.81	Drop @ 1.00%/100ft	
8062.21	0.00	0.00	7905.00	-126.43	1286.24	1.00	180.00	-134.06	Start Hold	
11440.59	0.00	0.00	11283.38	-126.43	1286.24	0.00	0.00	-134.06	KOP @ 10.00%/100ft	
12342.29	90.17	357.30	11856.33	447.59	1259.17	10.00	357.30	440.11	Turn @ 2.00%/100ft	
12460.43	90.17	359.66	11855.98	565.68	1256.04	2.00	90.01	558.22	Start Hold	
15594.82	90.17	359.66	11846.71	3700.00	1237.60	0.00	0.00	3692.59	Turn @ 2.00%/100ft	
15925.32	90.17	353.05	11845.73	4029.65	1216.61	2.00	-90.00	4022.36	Start Hold	
20103.21	90.17	353.05	11833.44	8176.84	711.28	0.00	0.00	8172.48	Turn @ 2.00%/100ft	
20433.56	90.17	359.66	11832.46	8506.35	690.30	2.00	89.98	8502.10	Start Hold	
22252.96	90.17	359.66	11827.06	10325.71	679.50	0.00	0.00	10321.49	TD at 22252.96	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lobo 33-28 628H VT	7905.00	-126.43	1260.24	520064.17	745199.14	32° 25' 40.76 N	103° 40' 21.39 W
Lobo 33-28 628H VTr1	7905.00	-126.43	1286.24	520064.17	745225.14	32° 25' 40.76 N	103° 40' 21.09 W
Lobo 33-28 628H BHL	11827.00	10333.70	1198.40	530524.30	745137.30	32° 27' 24.27 N	103° 40' 21.36 W
Lobo 33-28 628H BHLr1	11827.06	10325.71	679.50	530516.31	744618.40	32° 27' 24.22 N	103° 40' 27.41 W
Lobo 33-28 628H FTP	11857.00	-36.43	1260.23	520154.17	745199.13	32° 25' 41.65 N	103° 40' 21.38 W



Hardlines
 North/South: 100' FNL & 100' FSL
 East/West: 330' FW 1/4SL & 330' FEL

Created By: Bo Siwoniku
 Date: 14:13, June 25 2024





Lobo 33-28

PROJECT DETAILS: Lea County, NM (NAD83)

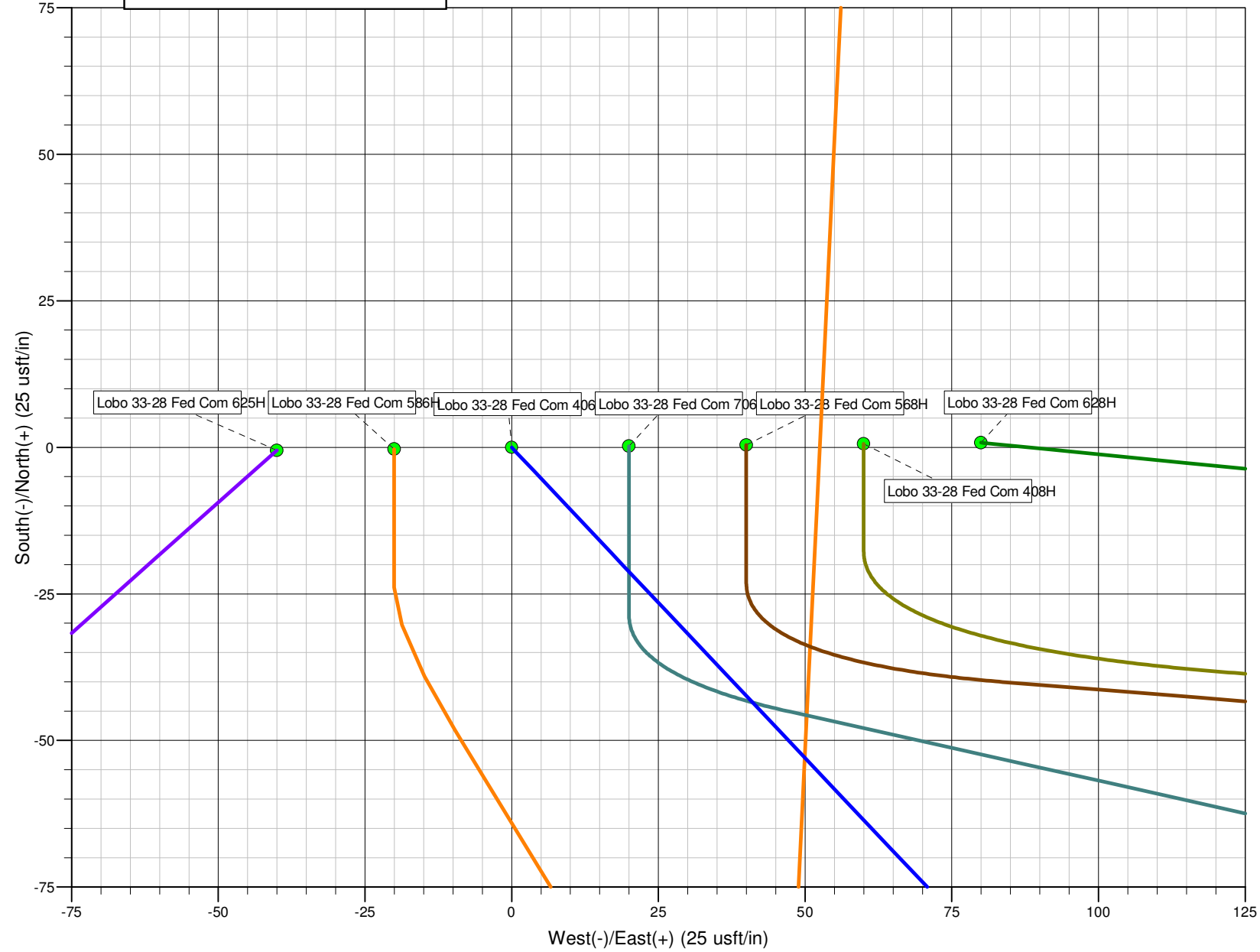
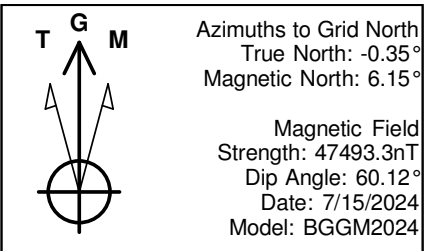
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 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

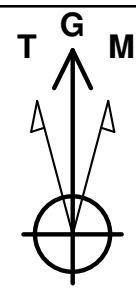
SITE DETAILS: Lobo 33-28

Site Centre Northing: 520189.80
 Easting: 743858.90

Positional Uncertainty: 5.00
 Convergence: 0.35
 Local North: Grid



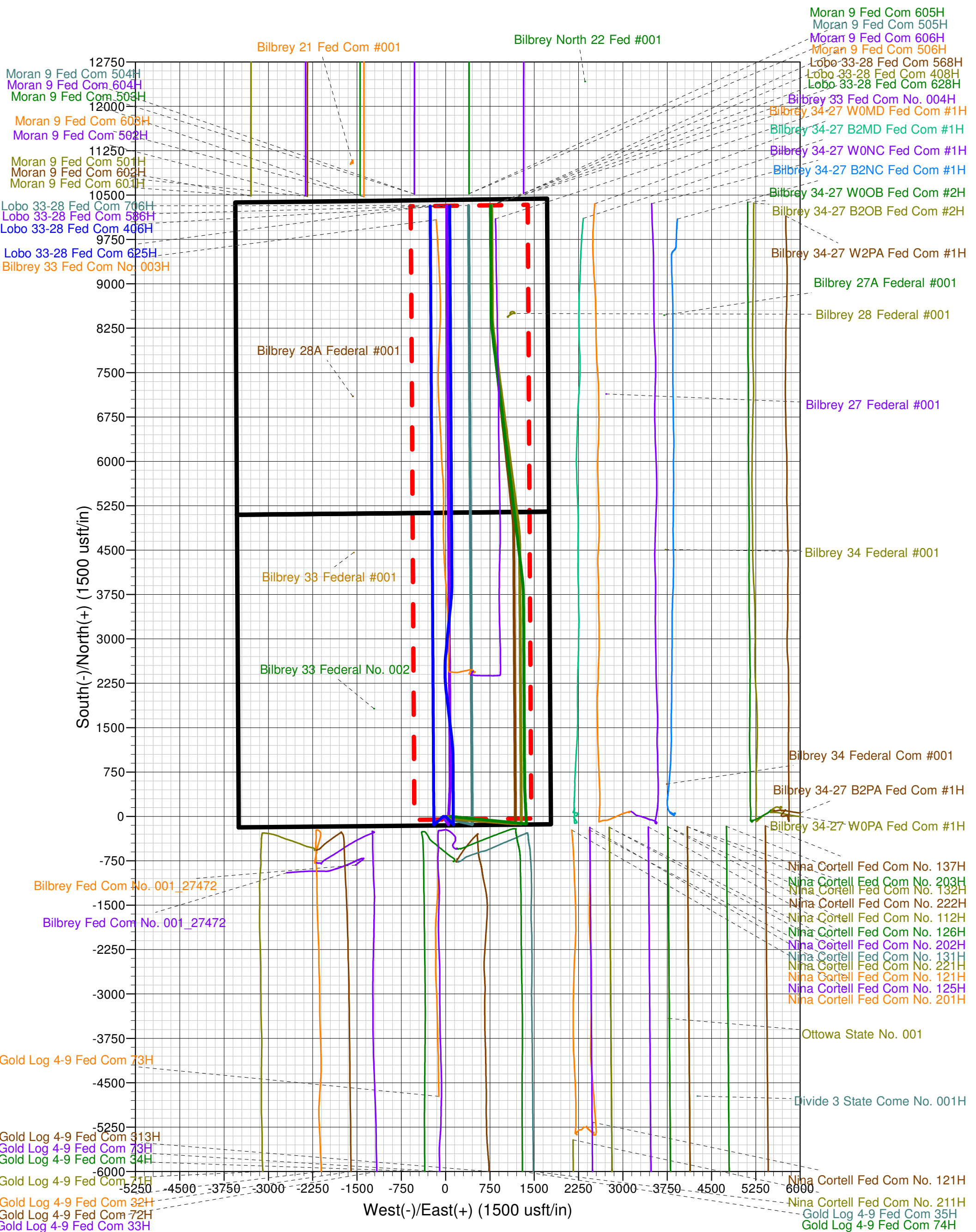
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 628H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 36.08 W

North American Datum 1983
New Mexico Eastern Zone
520,190.60 N
743,938.90 E

Ground Level: 3,799.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 628H

Viewing Datum:

GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

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Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
753.00	0.00	0.00	753.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
839.00	0.00	0.00	839.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	Salt Top
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	13 3/8"
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	
1,950.00	0.00	0.00	1,950.00	0.00 N	0.00 E	520,190.60	743,938.90	0.00	0.00	0.00	Build @ 2.00°/100ft
1,994.00	0.88	95.61	1,994.00	0.03 S	0.34 E	520,190.57	743,939.24	2.00	-0.04	95.61	Salt Base
2,000.00	1.00	95.61	2,000.00	0.04 S	0.43 E	520,190.56	743,939.33	2.00	-0.05	0.00	
2,100.00	3.00	95.61	2,099.93	0.38 S	3.91 E	520,190.22	743,942.81	2.00	-0.41	0.00	
2,200.00	5.00	95.61	2,199.68	1.07 S	10.85 E	520,189.53	743,949.75	2.00	-1.13	0.00	
2,300.00	7.00	95.61	2,299.13	2.09 S	21.25 E	520,188.51	743,960.15	2.00	-2.21	0.00	
2,400.00	9.00	95.61	2,398.15	3.45 S	35.10 E	520,187.15	743,974.00	2.00	-3.66	0.00	
2,500.00	11.00	95.61	2,496.63	5.15 S	52.38 E	520,185.45	743,991.28	2.00	-5.46	0.00	
2,600.00	13.00	95.61	2,594.44	7.18 S	73.07 E	520,183.42	744,011.97	2.00	-7.62	0.00	
2,699.98	15.00	95.61	2,691.44	9.55 S	97.14 E	520,181.05	744,036.04	2.00	-10.12	0.00	Start Hold
2,800.00	15.00	95.61	2,788.05	12.08 S	122.90 E	520,178.52	744,061.80	0.00	-12.81	0.00	
2,900.00	15.00	95.61	2,884.65	14.61 S	148.66 E	520,175.99	744,087.56	0.00	-15.49	0.00	
3,000.00	15.00	95.61	2,981.24	17.14 S	174.42 E	520,173.46	744,113.32	0.00	-18.18	0.00	
3,100.00	15.00	95.61	3,077.83	19.68 S	200.18 E	520,170.92	744,139.08	0.00	-20.86	0.00	

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Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,200.00	15.00	95.61	3,174.43	22.21 S	225.93 E	520,168.39	744,164.83	0.00	-23.55	0.00	
3,300.00	15.00	95.61	3,271.02	24.74 S	251.69 E	520,165.86	744,190.59	0.00	-26.23	0.00	
3,400.00	15.00	95.61	3,367.61	27.27 S	277.45 E	520,163.33	744,216.35	0.00	-28.92	0.00	
3,500.00	15.00	95.61	3,464.20	29.80 S	303.21 E	520,160.80	744,242.11	0.00	-31.60	0.00	
3,600.00	15.00	95.61	3,560.80	32.34 S	328.96 E	520,158.26	744,267.86	0.00	-34.29	0.00	
3,700.00	15.00	95.61	3,657.39	34.87 S	354.72 E	520,155.73	744,293.62	0.00	-36.97	0.00	
3,800.00	15.00	95.61	3,753.98	37.40 S	380.48 E	520,153.20	744,319.38	0.00	-39.66	0.00	
3,900.00	15.00	95.61	3,850.57	39.93 S	406.23 E	520,150.67	744,345.13	0.00	-42.34	0.00	
4,000.00	15.00	95.61	3,947.17	42.46 S	431.99 E	520,148.14	744,370.89	0.00	-45.02	0.00	
4,100.00	15.00	95.61	4,043.76	44.99 S	457.75 E	520,145.61	744,396.65	0.00	-47.71	0.00	
4,200.00	15.00	95.61	4,140.35	47.53 S	483.51 E	520,143.07	744,422.41	0.00	-50.39	0.00	
4,300.00	15.00	95.61	4,236.95	50.06 S	509.26 E	520,140.54	744,448.16	0.00	-53.08	0.00	
4,400.00	15.00	95.61	4,333.54	52.59 S	535.02 E	520,138.01	744,473.92	0.00	-55.76	0.00	
4,500.00	15.00	95.61	4,430.13	55.12 S	560.78 E	520,135.48	744,499.68	0.00	-58.45	0.00	
4,600.00	15.00	95.61	4,526.72	57.65 S	586.53 E	520,132.95	744,525.43	0.00	-61.13	0.00	
4,700.00	15.00	95.61	4,623.32	60.18 S	612.29 E	520,130.42	744,551.19	0.00	-63.82	0.00	
4,800.00	15.00	95.61	4,719.91	62.72 S	638.05 E	520,127.88	744,576.95	0.00	-66.50	0.00	
4,822.87	15.00	95.61	4,742.00	63.30 S	643.94 E	520,127.30	744,582.84	0.00	-67.12	0.00	Delaware (Lamar)
4,854.96	15.00	95.61	4,773.00	64.11 S	652.21 E	520,126.49	744,591.11	0.00	-67.98	0.00	Bell Canyon
4,900.00	15.00	95.61	4,816.50	65.25 S	663.81 E	520,125.35	744,602.71	0.00	-69.19	0.00	
5,000.00	15.00	95.61	4,913.09	67.78 S	689.56 E	520,122.82	744,628.46	0.00	-71.87	0.00	
5,100.00	15.00	95.61	5,009.69	70.31 S	715.32 E	520,120.29	744,654.22	0.00	-74.56	0.00	
5,200.00	15.00	95.61	5,106.28	72.84 S	741.08 E	520,117.76	744,679.98	0.00	-77.24	0.00	
5,300.00	15.00	95.61	5,202.87	75.38 S	766.84 E	520,115.22	744,705.74	0.00	-79.92	0.00	
5,400.00	15.00	95.61	5,299.47	77.91 S	792.59 E	520,112.69	744,731.49	0.00	-82.61	0.00	
5,500.00	15.00	95.61	5,396.06	80.44 S	818.35 E	520,110.16	744,757.25	0.00	-85.29	0.00	
5,600.00	15.00	95.61	5,492.65	82.97 S	844.11 E	520,107.63	744,783.01	0.00	-87.98	0.00	
5,700.00	15.00	95.61	5,589.24	85.50 S	869.86 E	520,105.10	744,808.76	0.00	-90.66	0.00	
5,800.00	15.00	95.61	5,685.84	88.03 S	895.62 E	520,102.57	744,834.52	0.00	-93.35	0.00	
5,900.00	15.00	95.61	5,782.43	90.57 S	921.38 E	520,100.03	744,860.28	0.00	-96.03	0.00	
5,970.99	15.00	95.61	5,851.00	92.36 S	939.66 E	520,098.24	744,878.56	0.00	-97.94	0.00	Cherry Canyon
6,000.00	15.00	95.61	5,879.02	93.10 S	947.14 E	520,097.50	744,886.04	0.00	-98.72	0.00	
6,100.00	15.00	95.61	5,975.61	95.63 S	972.89 E	520,094.97	744,911.79	0.00	-101.40	0.00	
6,138.70	15.00	95.61	6,013.00	96.61 S	982.86 E	520,093.99	744,921.76	0.00	-102.44	0.00	Manzanita Marker
6,200.00	15.00	95.61	6,072.21	98.16 S	998.65 E	520,092.44	744,937.55	0.00	-104.09	0.00	
6,300.00	15.00	95.61	6,168.80	100.69 S	1,024.41 E	520,089.91	744,963.31	0.00	-106.77	0.00	
6,400.00	15.00	95.61	6,265.39	103.23 S	1,050.16 E	520,087.37	744,989.06	0.00	-109.46	0.00	



Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
6,500.00	15.00	95.61	6,361.99	105.76 S	1,075.92 E	520,084.84	745,014.82	0.00	-112.14	0.00	
6,562.25	15.00	95.61	6,422.11	107.33 S	1,091.95 E	520,083.27	745,030.85	0.00	-113.81	0.00	Drop @ 1.00°/100ft
6,600.00	14.62	95.61	6,458.61	108.28 S	1,101.56 E	520,082.32	745,040.46	1.00	-114.81	180.00	
6,700.00	13.62	95.61	6,555.59	110.66 S	1,125.84 E	520,079.94	745,064.74	1.00	-117.34	180.00	
6,800.00	12.62	95.61	6,652.97	112.88 S	1,148.43 E	520,077.72	745,087.33	1.00	-119.70	180.00	
6,900.00	11.62	95.61	6,750.74	114.94 S	1,169.33 E	520,075.66	745,108.23	1.00	-121.88	180.00	
7,000.00	10.62	95.61	6,848.86	116.83 S	1,188.53 E	520,073.77	745,127.43	1.00	-123.88	180.00	
7,100.00	9.62	95.61	6,947.31	118.54 S	1,206.02 E	520,072.06	745,144.92	1.00	-125.70	180.00	
7,200.00	8.62	95.61	7,046.04	120.10 S	1,221.80 E	520,070.50	745,160.70	1.00	-127.34	180.00	
7,300.00	7.62	95.61	7,145.04	121.48 S	1,235.86 E	520,069.12	745,174.76	1.00	-128.81	180.00	
7,400.00	6.62	95.61	7,244.26	122.69 S	1,248.20 E	520,067.91	745,187.10	1.00	-130.10	180.00	
7,500.00	5.62	95.61	7,343.69	123.73 S	1,258.81 E	520,066.87	745,197.71	1.00	-131.20	180.00	
7,600.00	4.62	95.61	7,443.29	124.61 S	1,267.70 E	520,065.99	745,206.60	1.00	-132.13	180.00	
7,700.00	3.62	95.61	7,543.03	125.31 S	1,274.85 E	520,065.29	745,213.75	1.00	-132.87	180.00	
7,800.00	2.62	95.61	7,642.88	125.84 S	1,280.27 E	520,064.76	745,219.17	1.00	-133.44	180.00	
7,900.00	1.62	95.61	7,742.81	126.21 S	1,283.95 E	520,064.39	745,222.85	1.00	-133.82	180.00	
8,000.00	0.62	95.61	7,842.79	126.40 S	1,285.90 E	520,064.20	745,224.80	1.00	-134.03	180.00	
8,062.21	0.00	0.00	7,905.00	126.43 S	1,286.24 E	520,064.17	745,225.14	1.00	-134.06	-180.00	Start Hold
8,100.00	0.00	0.00	7,942.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,200.00	0.00	0.00	8,042.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,300.00	0.00	0.00	8,142.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,400.00	0.00	0.00	8,242.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,500.00	0.00	0.00	8,342.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,600.00	0.00	0.00	8,442.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,700.00	0.00	0.00	8,542.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,800.00	0.00	0.00	8,642.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,900.00	0.00	0.00	8,742.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
8,935.21	0.00	0.00	8,778.00	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	Bone Spring
9,000.00	0.00	0.00	8,842.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,100.00	0.00	0.00	8,942.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,200.00	0.00	0.00	9,042.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,300.00	0.00	0.00	9,142.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,400.00	0.00	0.00	9,242.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,500.00	0.00	0.00	9,342.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,600.00	0.00	0.00	9,442.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,700.00	0.00	0.00	9,542.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,800.00	0.00	0.00	9,642.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,900.00	0.00	0.00	9,742.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
9,990.21	0.00	0.00	9,833.00	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	1st Bone Spring Sand
10,000.00	0.00	0.00	9,842.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,100.00	0.00	0.00	9,942.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,200.00	0.00	0.00	10,042.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,300.00	0.00	0.00	10,142.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,400.00	0.00	0.00	10,242.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,500.00	0.00	0.00	10,342.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,600.00	0.00	0.00	10,442.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,605.21	0.00	0.00	10,448.00	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	2nd Bone Spring Sand
10,700.00	0.00	0.00	10,542.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,800.00	0.00	0.00	10,642.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
10,900.00	0.00	0.00	10,742.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,000.00	0.00	0.00	10,842.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,100.00	0.00	0.00	10,942.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,200.00	0.00	0.00	11,042.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,300.00	0.00	0.00	11,142.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,400.00	0.00	0.00	11,242.79	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	
11,440.59	0.00	0.00	11,283.38	126.43 S	1,286.24 E	520,064.17	745,225.14	0.00	-134.06	0.00	KOP @ 10.00°/100ft - 7"
11,450.00	0.94	357.30	11,292.79	126.35 S	1,286.24 E	520,064.25	745,225.14	10.00	-133.98	357.30	
11,500.00	5.94	357.30	11,342.68	123.36 S	1,286.10 E	520,067.24	745,225.00	10.00	-130.99	0.00	
11,550.00	10.94	357.30	11,392.13	116.03 S	1,285.75 E	520,074.57	745,224.65	10.00	-123.65	0.00	
11,600.00	15.94	357.30	11,440.74	104.42 S	1,285.20 E	520,086.18	745,224.10	10.00	-112.05	0.00	
11,650.00	20.94	357.30	11,488.16	88.63 S	1,284.46 E	520,101.97	745,223.36	10.00	-96.25	0.00	
11,662.73	22.21	357.30	11,500.00	83.95 S	1,284.24 E	520,106.65	745,223.14	10.00	-91.57	0.00	3rd Bone Spring Sand
11,700.00	25.94	357.30	11,534.02	68.77 S	1,283.52 E	520,121.83	745,222.42	10.00	-76.38	0.00	
11,750.00	30.94	357.30	11,577.97	44.99 S	1,282.40 E	520,145.61	745,221.30	10.00	-52.60	0.00	
11,800.00	35.94	357.30	11,619.68	17.47 S	1,281.10 E	520,173.13	745,220.00	10.00	-25.07	0.00	
11,850.00	40.94	357.30	11,658.83	13.57 N	1,279.64 E	520,204.17	745,218.54	10.00	5.98	0.00	
11,900.00	45.94	357.30	11,695.12	47.90 N	1,278.02 E	520,238.50	745,216.92	10.00	40.32	0.00	
11,950.00	50.94	357.30	11,728.28	85.26 N	1,276.26 E	520,275.86	745,215.16	10.00	77.69	0.00	
12,000.00	55.94	357.30	11,758.05	125.37 N	1,274.37 E	520,315.97	745,213.27	10.00	117.80	0.00	
12,050.00	60.94	357.30	11,784.21	167.91 N	1,272.36 E	520,358.51	745,211.26	10.00	160.36	0.00	
12,100.00	65.94	357.30	11,806.56	212.57 N	1,270.25 E	520,403.17	745,209.15	10.00	205.03	0.00	
12,150.00	70.94	357.30	11,824.93	259.01 N	1,268.06 E	520,449.61	745,206.96	10.00	251.48	0.00	
12,200.00	75.94	357.30	11,839.17	306.86 N	1,265.81 E	520,497.46	745,204.71	10.00	299.35	0.00	



Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
12,250.00	80.94	357.30	11,849.19	355.78 N	1,263.50 E	520,546.38	745,202.40	10.00	348.28	0.00	
12,300.00	85.94	357.30	11,854.90	405.38 N	1,261.16 E	520,595.98	745,200.06	10.00	397.89	0.00	
12,342.29	90.17	357.30	11,856.33	447.59 N	1,259.17 E	520,638.19	745,198.07	10.00	440.11	0.00	Turn @ 2.00°/100ft
12,400.00	90.17	358.45	11,856.16	505.26 N	1,257.03 E	520,695.86	745,195.93	2.00	497.79	90.01	
12,460.43	90.17	359.66	11,855.98	565.68 N	1,256.04 E	520,756.28	745,194.94	2.00	558.22	90.01	Start Hold
12,500.00	90.17	359.66	11,855.87	605.25 N	1,255.81 E	520,795.85	745,194.71	0.00	597.79	95.08	
12,600.00	90.17	359.66	11,855.57	705.25 N	1,255.22 E	520,895.85	745,194.12	0.00	697.79	0.00	
12,700.00	90.17	359.66	11,855.28	805.24 N	1,254.63 E	520,995.84	745,193.53	0.00	797.79	0.00	
12,800.00	90.17	359.66	11,854.98	905.24 N	1,254.04 E	521,095.84	745,192.94	0.00	897.79	0.00	
12,900.00	90.17	359.66	11,854.68	1,005.24 N	1,253.45 E	521,195.84	745,192.35	0.00	997.78	0.00	
13,000.00	90.17	359.66	11,854.39	1,105.24 N	1,252.86 E	521,295.84	745,191.76	0.00	1,097.78	0.00	
13,100.00	90.17	359.66	11,854.09	1,205.24 N	1,252.28 E	521,395.84	745,191.18	0.00	1,197.78	0.00	
13,200.00	90.17	359.66	11,853.80	1,305.23 N	1,251.69 E	521,495.83	745,190.59	0.00	1,297.78	0.00	
13,300.00	90.17	359.66	11,853.50	1,405.23 N	1,251.10 E	521,595.83	745,190.00	0.00	1,397.78	0.00	
13,400.00	90.17	359.66	11,853.20	1,505.23 N	1,250.51 E	521,695.83	745,189.41	0.00	1,497.78	0.00	
13,500.00	90.17	359.66	11,852.91	1,605.23 N	1,249.92 E	521,795.83	745,188.82	0.00	1,597.78	0.00	
13,600.00	90.17	359.66	11,852.61	1,705.23 N	1,249.33 E	521,895.83	745,188.23	0.00	1,697.78	0.00	
13,700.00	90.17	359.66	11,852.32	1,805.22 N	1,248.75 E	521,995.82	745,187.65	0.00	1,797.78	0.00	
13,800.00	90.17	359.66	11,852.02	1,905.22 N	1,248.16 E	522,095.82	745,187.06	0.00	1,897.78	0.00	
13,900.00	90.17	359.66	11,851.72	2,005.22 N	1,247.57 E	522,195.82	745,186.47	0.00	1,997.78	0.00	
14,000.00	90.17	359.66	11,851.43	2,105.22 N	1,246.98 E	522,295.82	745,185.88	0.00	2,097.78	0.00	
14,100.00	90.17	359.66	11,851.13	2,205.21 N	1,246.39 E	522,395.81	745,185.29	0.00	2,197.78	0.00	
14,200.00	90.17	359.66	11,850.84	2,305.21 N	1,245.80 E	522,495.81	745,184.70	0.00	2,297.78	0.00	
14,300.00	90.17	359.66	11,850.54	2,405.21 N	1,245.22 E	522,595.81	745,184.12	0.00	2,397.78	0.00	
14,400.00	90.17	359.66	11,850.25	2,505.21 N	1,244.63 E	522,695.81	745,183.53	0.00	2,497.78	0.00	
14,500.00	90.17	359.66	11,849.95	2,605.21 N	1,244.04 E	522,795.81	745,182.94	0.00	2,597.78	0.00	
14,600.00	90.17	359.66	11,849.65	2,705.20 N	1,243.45 E	522,895.80	745,182.35	0.00	2,697.78	0.00	
14,700.00	90.17	359.66	11,849.36	2,805.20 N	1,242.86 E	522,995.80	745,181.76	0.00	2,797.78	0.00	
14,800.00	90.17	359.66	11,849.06	2,905.20 N	1,242.27 E	523,095.80	745,181.17	0.00	2,897.78	0.00	
14,900.00	90.17	359.66	11,848.77	3,005.20 N	1,241.69 E	523,195.80	745,180.59	0.00	2,997.78	0.00	
15,000.00	90.17	359.66	11,848.47	3,105.19 N	1,241.10 E	523,295.79	745,180.00	0.00	3,097.78	0.00	
15,100.00	90.17	359.66	11,848.17	3,205.19 N	1,240.51 E	523,395.79	745,179.41	0.00	3,197.77	0.00	
15,200.00	90.17	359.66	11,847.88	3,305.19 N	1,239.92 E	523,495.79	745,178.82	0.00	3,297.77	0.00	
15,300.00	90.17	359.66	11,847.58	3,405.19 N	1,239.33 E	523,595.79	745,178.23	0.00	3,397.77	0.00	
15,400.00	90.17	359.66	11,847.29	3,505.19 N	1,238.74 E	523,695.79	745,177.64	0.00	3,497.77	0.00	
15,500.00	90.17	359.66	11,846.99	3,605.18 N	1,238.16 E	523,795.78	745,177.06	0.00	3,597.77	0.00	
15,594.82	90.17	359.66	11,846.71	3,700.00 N	1,237.60 E	523,890.60	745,176.50	0.00	3,692.59	0.00	Turn @ 2.00°/100ft



Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
15,600.00	90.17	359.56	11,846.69	3,705.18 N	1,237.56 E	523,895.78	745,176.46	2.00	3,697.77	-90.00	
15,700.00	90.17	357.56	11,846.40	3,805.14 N	1,235.05 E	523,995.74	745,173.95	2.00	3,797.75	-90.00	
15,800.00	90.17	355.56	11,846.10	3,904.96 N	1,229.05 E	524,095.56	745,167.95	2.00	3,897.60	-90.00	
15,900.00	90.17	353.56	11,845.81	4,004.50 N	1,219.57 E	524,195.10	745,158.47	2.00	3,997.20	-90.01	
15,925.32	90.17	353.05	11,845.73	4,029.65 N	1,216.61 E	524,220.25	745,155.51	2.00	4,022.36	-90.02	Start Hold
16,000.00	90.17	353.05	11,845.51	4,103.78 N	1,207.58 E	524,294.38	745,146.48	0.00	4,096.54	-157.01	
16,100.00	90.17	353.05	11,845.22	4,203.05 N	1,195.49 E	524,393.65	745,134.39	0.00	4,195.88	0.00	
16,200.00	90.17	353.05	11,844.92	4,302.31 N	1,183.39 E	524,492.91	745,122.29	0.00	4,295.21	0.00	
16,300.00	90.17	353.05	11,844.63	4,401.58 N	1,171.29 E	524,592.18	745,110.19	0.00	4,394.55	0.00	
16,400.00	90.17	353.05	11,844.34	4,500.84 N	1,159.20 E	524,691.44	745,098.10	0.00	4,493.88	0.00	
16,500.00	90.17	353.05	11,844.04	4,600.11 N	1,147.10 E	524,790.71	745,086.00	0.00	4,593.22	0.00	
16,600.00	90.17	353.05	11,843.75	4,699.37 N	1,135.01 E	524,889.97	745,073.91	0.00	4,692.56	0.00	
16,700.00	90.17	353.05	11,843.45	4,798.64 N	1,122.91 E	524,989.24	745,061.81	0.00	4,791.89	0.00	
16,800.00	90.17	353.05	11,843.16	4,897.90 N	1,110.82 E	525,088.50	745,049.72	0.00	4,891.23	0.00	
16,900.00	90.17	353.05	11,842.86	4,997.17 N	1,098.72 E	525,187.77	745,037.62	0.00	4,990.56	0.00	
17,000.00	90.17	353.05	11,842.57	5,096.44 N	1,086.63 E	525,287.04	745,025.53	0.00	5,089.90	0.00	
17,100.00	90.17	353.05	11,842.28	5,195.70 N	1,074.53 E	525,386.30	745,013.43	0.00	5,189.23	0.00	
17,200.00	90.17	353.05	11,841.98	5,294.97 N	1,062.44 E	525,485.57	745,001.34	0.00	5,288.57	0.00	
17,300.00	90.17	353.05	11,841.69	5,394.23 N	1,050.34 E	525,584.83	744,989.24	0.00	5,387.90	0.00	
17,400.00	90.17	353.05	11,841.39	5,493.50 N	1,038.25 E	525,684.10	744,977.15	0.00	5,487.24	0.00	
17,500.00	90.17	353.05	11,841.10	5,592.76 N	1,026.15 E	525,783.36	744,965.05	0.00	5,586.57	0.00	
17,600.00	90.17	353.05	11,840.80	5,692.03 N	1,014.05 E	525,882.63	744,952.95	0.00	5,685.91	0.00	
17,700.00	90.17	353.05	11,840.51	5,791.29 N	1,001.96 E	525,981.89	744,940.86	0.00	5,785.25	0.00	
17,800.00	90.17	353.05	11,840.22	5,890.56 N	989.86 E	526,081.16	744,928.76	0.00	5,884.58	0.00	
17,900.00	90.17	353.05	11,839.92	5,989.82 N	977.77 E	526,180.42	744,916.67	0.00	5,983.92	0.00	
18,000.00	90.17	353.05	11,839.63	6,089.09 N	965.67 E	526,279.69	744,904.57	0.00	6,083.25	0.00	
18,100.00	90.17	353.05	11,839.33	6,188.35 N	953.58 E	526,378.95	744,892.48	0.00	6,182.59	0.00	
18,200.00	90.17	353.05	11,839.04	6,287.62 N	941.48 E	526,478.22	744,880.38	0.00	6,281.92	0.00	
18,300.00	90.17	353.05	11,838.74	6,386.89 N	929.39 E	526,577.49	744,868.29	0.00	6,381.26	0.00	
18,400.00	90.17	353.05	11,838.45	6,486.15 N	917.29 E	526,676.75	744,856.19	0.00	6,480.59	0.00	
18,500.00	90.17	353.05	11,838.16	6,585.42 N	905.20 E	526,776.02	744,844.10	0.00	6,579.93	0.00	
18,600.00	90.17	353.05	11,837.86	6,684.68 N	893.10 E	526,875.28	744,832.00	0.00	6,679.26	0.00	
18,700.00	90.17	353.05	11,837.57	6,783.95 N	881.01 E	526,974.55	744,819.91	0.00	6,778.60	0.00	
18,800.00	90.17	353.05	11,837.27	6,883.21 N	868.91 E	527,073.81	744,807.81	0.00	6,877.93	0.00	
18,900.00	90.17	353.05	11,836.98	6,982.48 N	856.81 E	527,173.08	744,795.71	0.00	6,977.27	0.00	
19,000.00	90.17	353.05	11,836.68	7,081.74 N	844.72 E	527,272.34	744,783.62	0.00	7,076.61	0.00	
19,100.00	90.17	353.05	11,836.39	7,181.01 N	832.62 E	527,371.61	744,771.52	0.00	7,175.94	0.00	

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Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
19,200.00	90.17	353.05	11,836.10	7,280.27 N	820.53 E	527,470.87	744,759.43	0.00	7,275.28	0.00	
19,300.00	90.17	353.05	11,835.80	7,379.54 N	808.43 E	527,570.14	744,747.33	0.00	7,374.61	0.00	
19,400.00	90.17	353.05	11,835.51	7,478.80 N	796.34 E	527,669.40	744,735.24	0.00	7,473.95	0.00	
19,500.00	90.17	353.05	11,835.21	7,578.07 N	784.24 E	527,768.67	744,723.14	0.00	7,573.28	0.00	
19,600.00	90.17	353.05	11,834.92	7,677.34 N	772.15 E	527,867.94	744,711.05	0.00	7,672.62	0.00	
19,700.00	90.17	353.05	11,834.62	7,776.60 N	760.05 E	527,967.20	744,698.95	0.00	7,771.95	0.00	
19,800.00	90.17	353.05	11,834.33	7,875.87 N	747.96 E	528,066.47	744,686.86	0.00	7,871.29	0.00	
19,900.00	90.17	353.05	11,834.04	7,975.13 N	735.86 E	528,165.73	744,674.76	0.00	7,970.62	0.00	
20,000.00	90.17	353.05	11,833.74	8,074.40 N	723.77 E	528,265.00	744,662.67	0.00	8,069.96	0.00	
20,103.21	90.17	353.05	11,833.44	8,176.84 N	711.28 E	528,367.44	744,650.18	0.00	8,172.48	0.00	Turn @ 2.00°/100ft
20,200.00	90.17	354.99	11,833.15	8,273.11 N	701.20 E	528,463.71	744,640.10	2.00	8,268.80	89.98	
20,300.00	90.17	356.99	11,832.86	8,372.86 N	694.21 E	528,563.46	744,633.11	2.00	8,368.59	89.98	
20,400.00	90.17	358.99	11,832.56	8,472.79 N	690.70 E	528,663.39	744,629.60	2.00	8,468.54	89.99	
20,433.56	90.17	359.66	11,832.46	8,506.35 N	690.30 E	528,696.95	744,629.20	2.00	8,502.10	90.00	Start Hold
20,500.00	90.17	359.66	11,832.26	8,572.78 N	689.91 E	528,763.38	744,628.81	0.00	8,568.54	0.00	
20,600.00	90.17	359.66	11,831.97	8,672.78 N	689.31 E	528,863.38	744,628.21	0.00	8,668.54	0.00	
20,700.00	90.17	359.66	11,831.67	8,772.78 N	688.72 E	528,963.38	744,627.62	0.00	8,768.54	0.00	
20,800.00	90.17	359.66	11,831.37	8,872.78 N	688.13 E	529,063.38	744,627.03	0.00	8,868.54	0.00	
20,900.00	90.17	359.66	11,831.08	8,972.78 N	687.53 E	529,163.38	744,626.43	0.00	8,968.54	0.00	
21,000.00	90.17	359.66	11,830.78	9,072.77 N	686.94 E	529,263.37	744,625.84	0.00	9,068.54	0.00	
21,100.00	90.17	359.66	11,830.48	9,172.77 N	686.35 E	529,363.37	744,625.25	0.00	9,168.54	0.00	
21,200.00	90.17	359.66	11,830.19	9,272.77 N	685.75 E	529,463.37	744,624.65	0.00	9,268.54	0.00	
21,300.00	90.17	359.66	11,829.89	9,372.77 N	685.16 E	529,563.37	744,624.06	0.00	9,368.54	0.00	
21,400.00	90.17	359.66	11,829.59	9,472.77 N	684.57 E	529,663.37	744,623.47	0.00	9,468.54	0.00	
21,500.00	90.17	359.66	11,829.30	9,572.76 N	683.97 E	529,763.36	744,622.87	0.00	9,568.54	0.00	
21,600.00	90.17	359.66	11,829.00	9,672.76 N	683.38 E	529,863.36	744,622.28	0.00	9,668.54	0.00	
21,700.00	90.17	359.66	11,828.70	9,772.76 N	682.78 E	529,963.36	744,621.68	0.00	9,768.53	0.00	
21,800.00	90.17	359.66	11,828.41	9,872.76 N	682.19 E	530,063.36	744,621.09	0.00	9,868.53	0.00	
21,900.00	90.17	359.66	11,828.11	9,972.75 N	681.60 E	530,163.35	744,620.50	0.00	9,968.53	0.00	
22,000.00	90.17	359.66	11,827.81	10,072.75 N	681.00 E	530,263.35	744,619.90	0.00	10,068.53	0.00	
22,100.00	90.17	359.66	11,827.52	10,172.75 N	680.41 E	530,363.35	744,619.31	0.00	10,168.53	0.00	
22,200.00	90.17	359.66	11,827.22	10,272.75 N	679.82 E	530,463.35	744,618.72	0.00	10,268.53	0.00	
22,252.96	90.17	359.66	11,827.06	10,325.71 N	679.50 E	530,516.31	744,618.40	0.00	10,321.49	0.00	TD at 22252.96 - 4 1/2"

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Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,950.00	1,950.00	0.00	0.00	Build @ 2.00°/100ft
2,699.98	2,691.44	-9.55	97.14	Start Hold
6,562.25	6,422.11	-107.33	1,091.95	Drop @ 1.00°/100ft
8,062.21	7,905.00	-126.43	1,286.24	Start Hold
11,440.59	11,283.38	-126.43	1,286.24	KOP @ 10.00°/100ft
12,342.29	11,856.33	447.59	1,259.17	Turn @ 2.00°/100ft
12,460.43	11,855.98	565.68	1,256.04	Start Hold
15,594.82	11,846.71	3,700.00	1,237.60	Turn @ 2.00°/100ft
15,925.32	11,845.73	4,029.65	1,216.61	Start Hold
20,103.21	11,833.44	8,176.84	711.28	Turn @ 2.00°/100ft
20,433.56	11,832.46	8,506.35	690.30	Start Hold
22,252.96	11,827.06	10,325.71	679.50	TD at 22252.96

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	11,440.00	Plan 1	3_MWD+HRGM
11,440.00	22,252.96	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
11,440.59	11,283.38	7"	7.000	8.750
22,252.96	11,827.06	4 1/2"	4.500	6.125

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
753.00	753.00	-3,074.00	Rustler			
839.00	839.00	-2,988.00	Salt Top			
1,994.00	1,994.00	-1,833.00	Salt Base			
4,822.87	4,742.00	915.00	Delaware (Lamar)			
4,854.96	4,773.00	946.00	Bell Canyon			
5,970.99	5,851.00	2,024.00	Cherry Canyon			
6,138.70	6,013.00	2,186.00	Manzanita Marker			
8,935.21	8,778.00	4,951.00	Bone Spring			
9,990.21	9,833.00	6,006.00	1st Bone Spring Sand			
10,605.21	10,448.00	6,621.00	2nd Bone Spring Sand			
11,662.73	11,500.00	7,673.00	3rd Bone Spring Sand			

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lobo 33-28 628H VTr1 ()									
- hit/miss target	0.00	0.00	7,905.00	-126.43	1,286.24	520,064.17	745,225.14	32° 25' 40.76 N	103° 40' 21.09 W
- Shape									
- plan hits target center									
- Point									
Lobo 33-28 628H VT ()									
- plan misses target center by 26.00usft at 8062.07usft MD (7904.86 TVD, -126.43 N, 1286.24 E)	0.00	0.00	7,905.00	-126.43	1,260.24	520,064.17	745,199.14	32° 25' 40.76 N	103° 40' 21.39 W
- Point									
Lobo 33-28 628H BHL ()									
- plan misses target center by 518.96usft at 22252.96usft MD (11827.06 TVD, 10325.71 N, 679.50 E)	0.00	0.00	11,827.00	10,333.70	1,198.40	530,524.30	745,137.30	32° 27' 24.27 N	103° 40' 21.36 W
- Point									
Lobo 33-28 628H BHLr1 ()									
- plan hits target center	0.00	0.00	11,827.06	10,325.71	679.50	530,516.31	744,618.40	32° 27' 24.22 N	103° 40' 27.41 W
- Point									
Lobo 33-28 628H FTP ()									
- plan misses target center by 177.59usft at 11945.00usft MD (11725.11 TVD, 81.39 N, 1276.44 E)	0.00	0.00	11,857.00	-36.43	1,260.23	520,154.17	745,199.13	32° 25' 41.65 N	103° 40' 21.38 W
- Point									

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 628H - Plan 1

Directional Difficulty Index

Average Dogleg over Survey:	0.61 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 12,342.29 usft
Net Tortosity applicable to Plans:	0.61 °/100ft	Directional Difficulty Index:	6.659

Audit Info

HALLIBURTON

North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 628H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 628H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995610

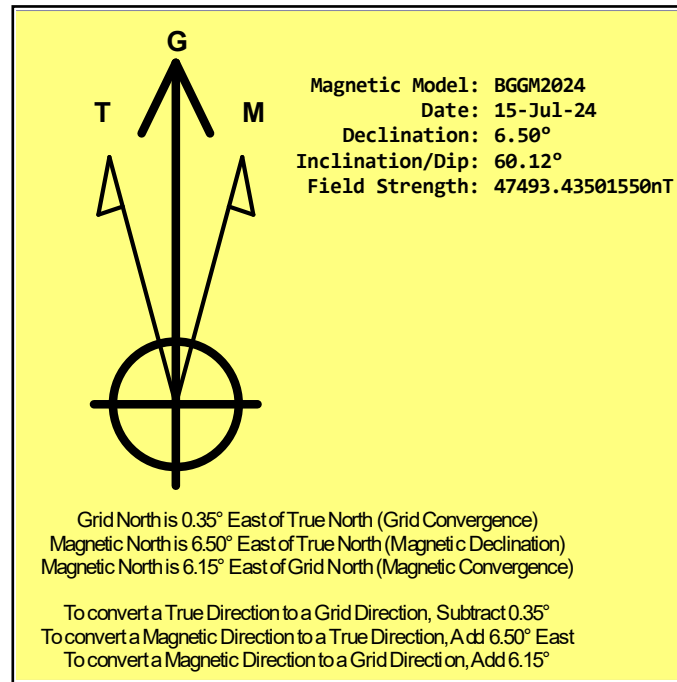
Grid Coordinates of Well: 520,190.60 usft N, 743,938.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 36.08 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 22,252.96usft the Bottom Hole Displacement is 10,348.04usft in the Direction of 3.77° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)





Project: Lea County, NM (NAD83)
 Site: Lobo 33-28
 Well: Lobo 33-28 Fed Com 568H
 Wellbore: OH
 Design: Plan 1
 Rig: Patterson 260

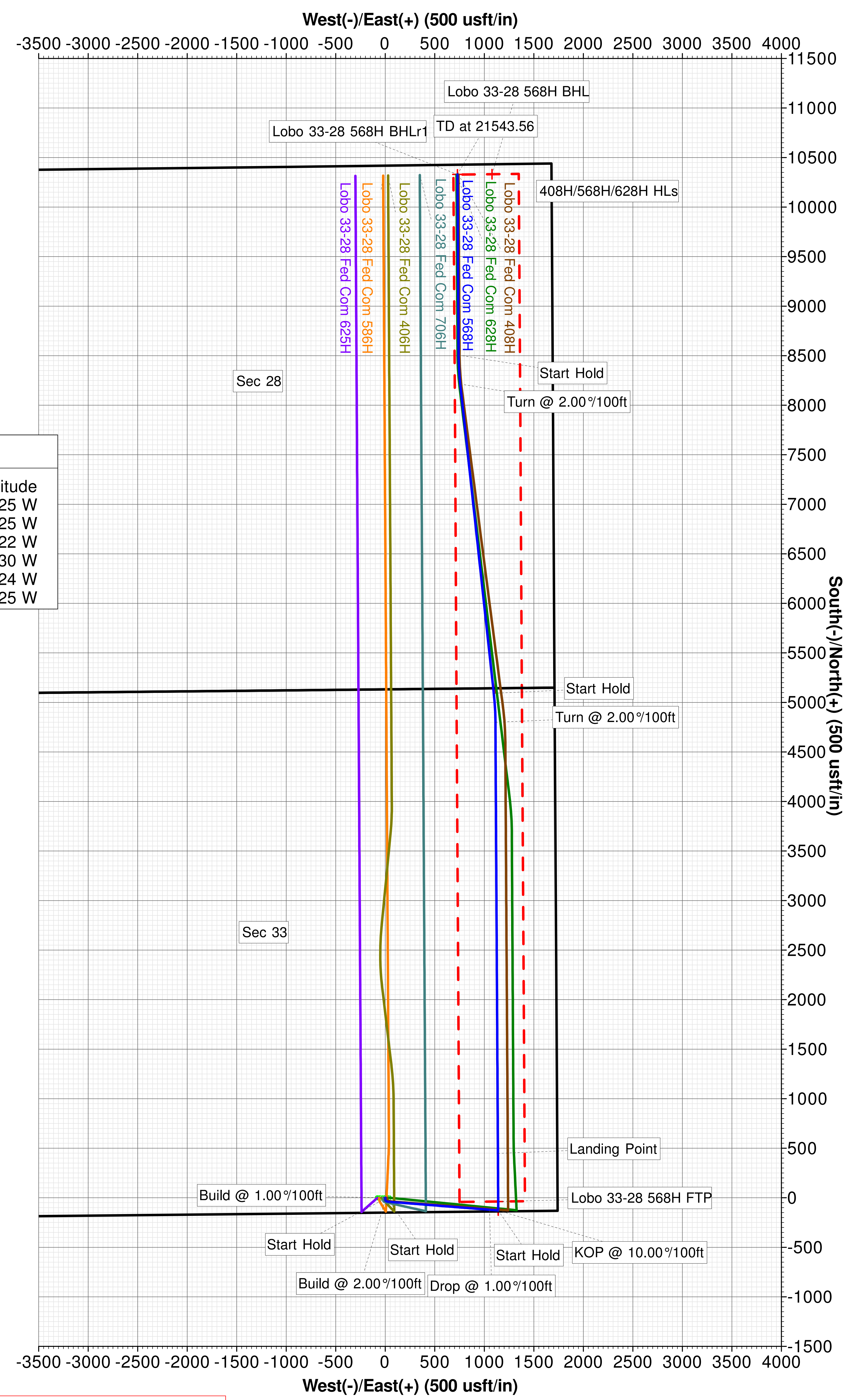
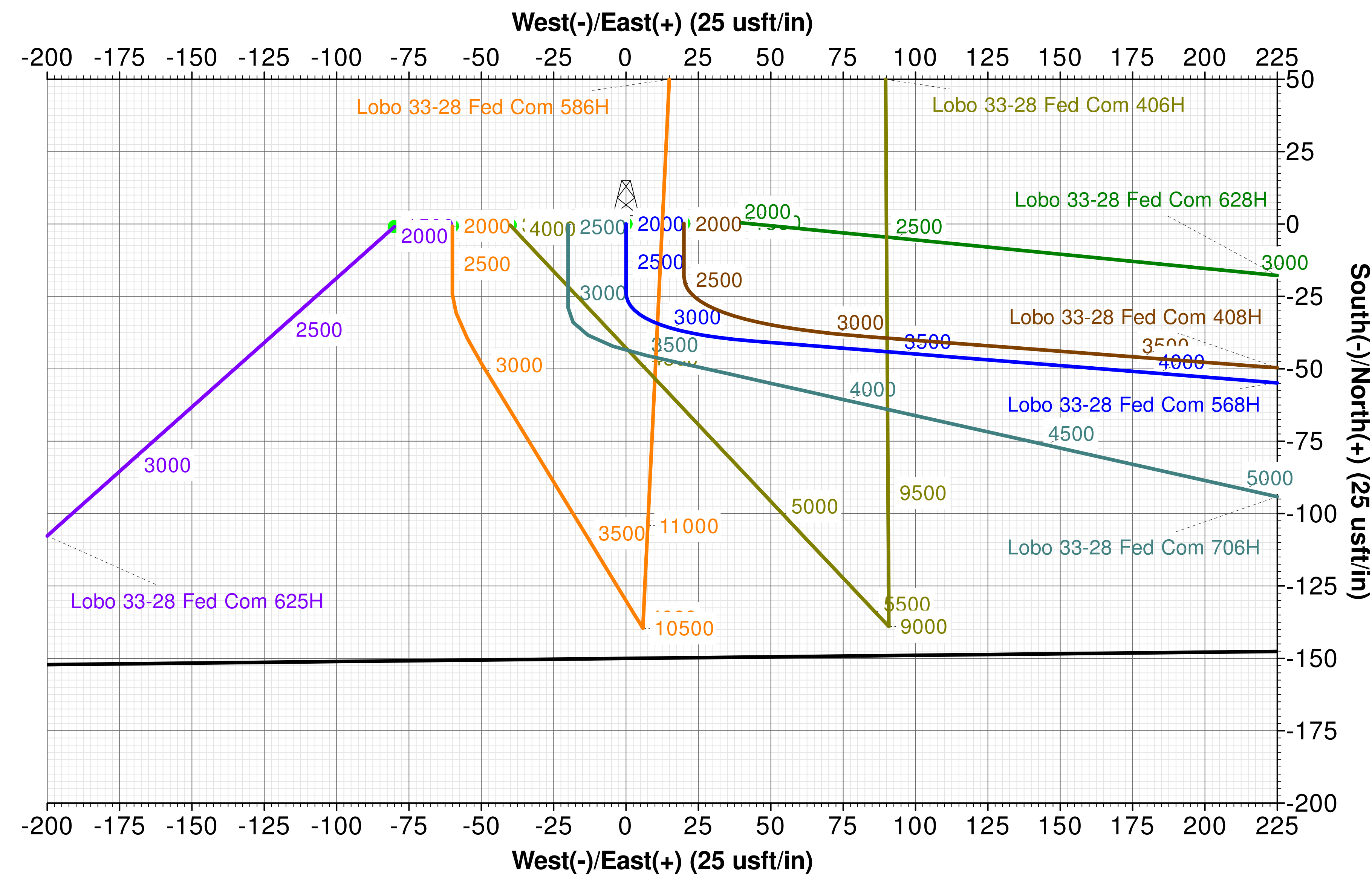
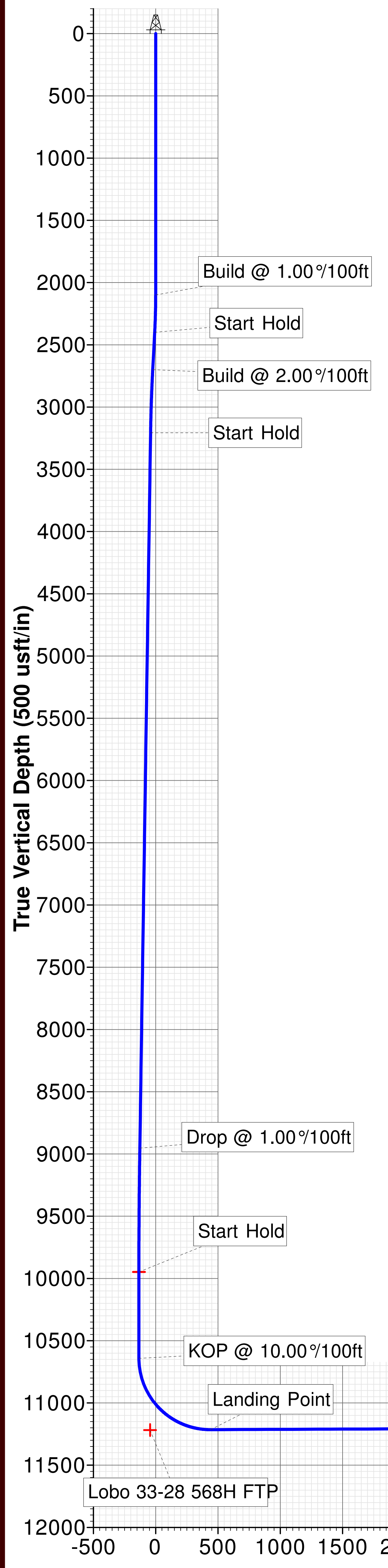
Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

North
 T G M
 Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.4nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

WELL DETAILS						
GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	520190.20	743898.90	32° 25' 42.09 N	103° 40' 36.55 W	

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	Build @ 1.00%/100ft	
2400.00	3.00	180.00	2399.86	-7.85	0.00	1.00	180.00	-7.85	Start Hold	
2700.00	3.00	180.00	2699.45	-23.55	0.00	0.00	0.00	-23.55	Build @ 2.00%/100ft	
3210.13	10.00	94.55	3206.70	-40.46	44.26	2.00	-102.32	-40.72	Start Hold	
9045.39	10.00	94.55	8953.36	-120.80	1054.05	0.00	0.00	-127.05	Drop @ 1.00%/100ft	
10045.09	0.00	0.00	9948.00	-127.70	1140.77	1.00	180.00	-134.47	Start Hold	
10739.13	0.00	0.00	10642.04	-127.70	1140.77	0.00	0.00	-134.47	KOP @ 10.00%/100ft	
11641.63	90.25	359.67	11214.99	447.75	1137.48	10.00	359.67	440.99	Landing Point	
15994.00	90.25	359.67	11196.00	4800.00	1112.58	0.00	0.00	4793.31	Turn @ 2.00%/100ft	
16287.44	90.25	353.80	11194.73	5092.84	1095.89	2.00	-90.03	5086.25	Start Hold	
19427.10	90.25	353.80	11181.27	8214.12	756.99	0.00	0.00	8209.49	Turn @ 2.00%/100ft	
19719.93	90.25	359.66	11180.00	8506.35	740.30	2.00	89.94	8501.81	Start Hold	
21543.56	90.25	359.66	11172.04	10329.93	729.48	0.00	0.00	10325.42	TD at 21543.56	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lobo 33-28 568H VT	9948.00	-127.70	1140.77	520062.50	745039.67	32° 25' 40.76 N	103° 40' 23.25 W
Lobo 33-28 568H KOP	9948.05	-127.70	1140.90	520062.50	745039.80	32° 25' 40.76 N	103° 40' 23.25 W
Lobo 33-28 568H BHL	11172.00	10332.00	1078.40	530522.20	744977.30	32° 27' 24.26 N	103° 40' 23.22 W
Lobo 33-28 568H BHLr1	11172.04	10329.93	729.48	530520.13	744628.38	32° 27' 24.26 N	103° 40' 27.30 W
Lobo 33-28 568H PPP2	11194.51	5143.30	1109.40	525333.50	745008.30	32° 26' 32.92 N	103° 40' 23.24 W
Lobo 33-28 568H FTP	11218.00	-37.80	1140.40	520152.40	745039.30	32° 25' 41.65 N	103° 40' 23.25 W



Hardlines
 North/South: 100' FNL & 100' FSL
 East/West: 330' FW 1/4SL & 330' FEL

Created By: Bo Siwoniku
 Date: 14:18, June 25 2024





Lobo 33-28

PROJECT DETAILS: Lea County, NM (NAD83)

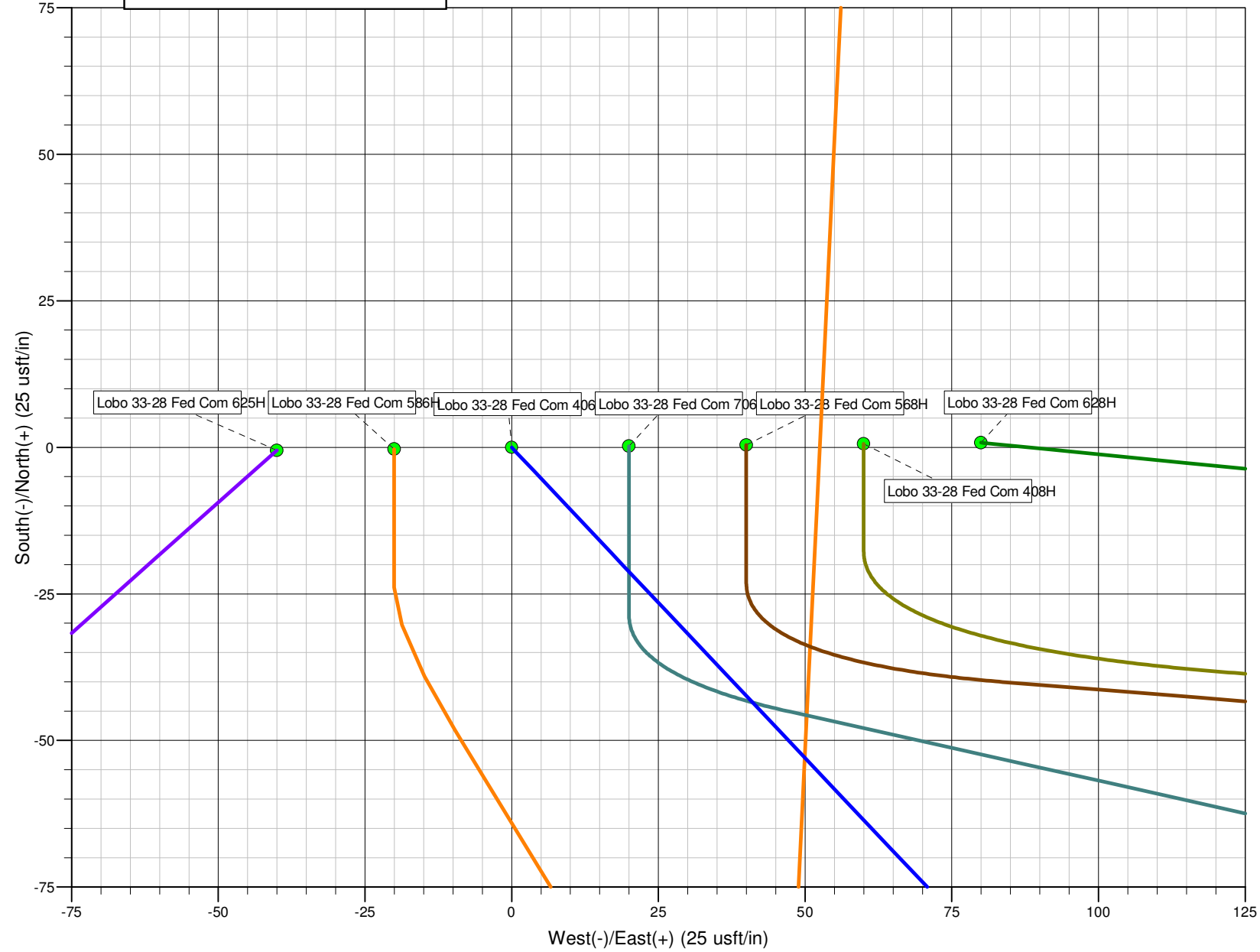
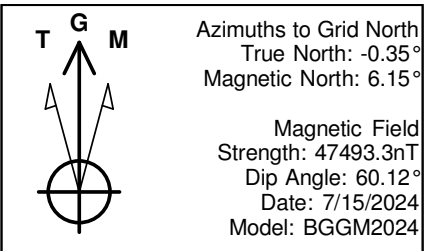
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

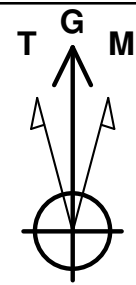
SITE DETAILS: Lobo 33-28

Site Centre Northing: 520189.80
 Easting: 743858.90

Positional Uncertainty: 5.00
 Convergence: 0.35
 Local North: Grid



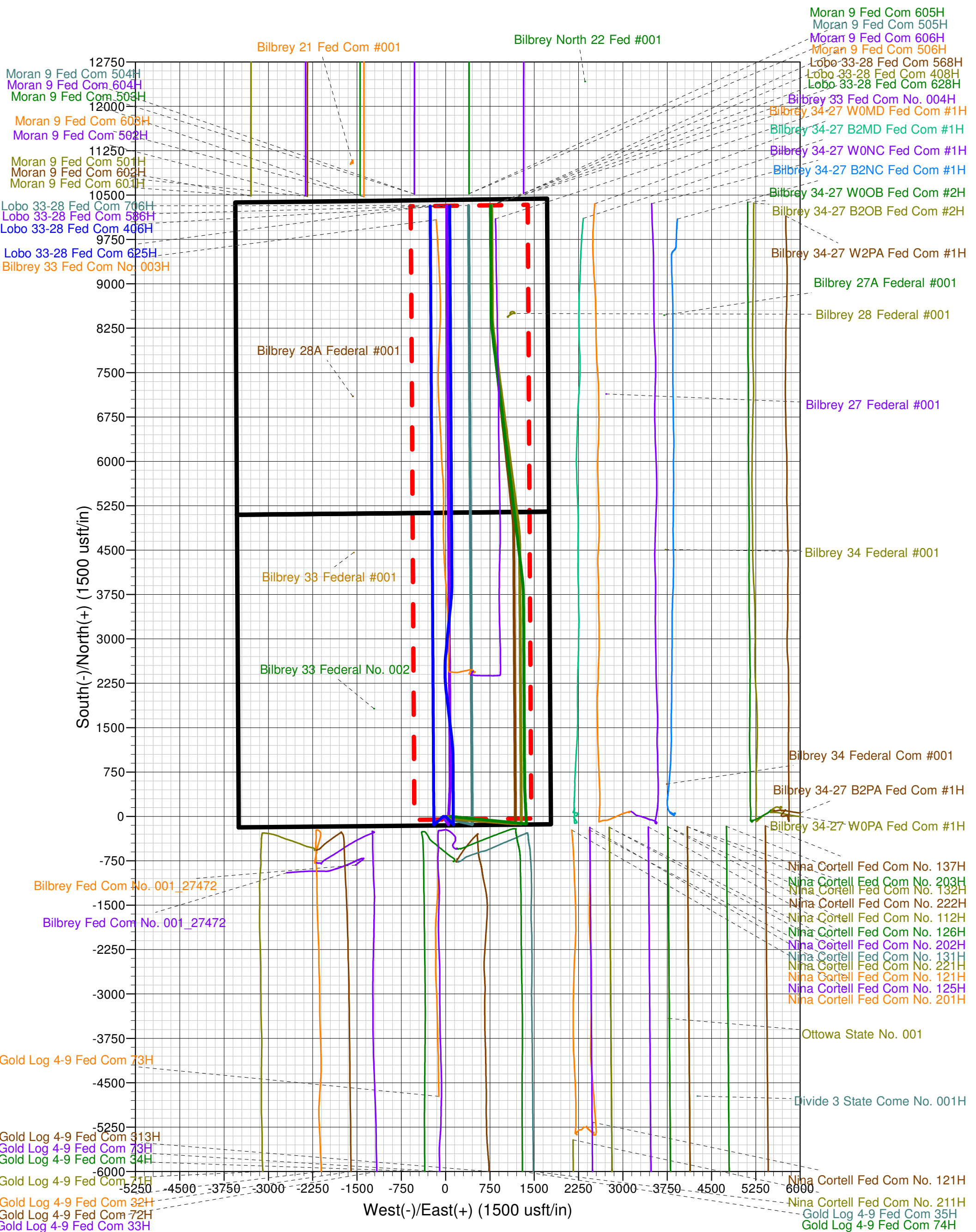
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 568H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 36.55 W

North American Datum 1983
New Mexico Eastern Zone
520,190.20 N
743,898.90 E

Ground Level: 3,800.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 568H

Viewing Datum:

GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

HALLIBURTON



Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
770.00	0.00	0.00	770.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	13 3/8"
1,095.00	0.00	0.00	1,095.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	Salt Top
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
1,935.00	0.00	0.00	1,935.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	Marker Bed 126
2,000.00	0.00	0.00	2,000.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00 N	0.00 E	520,190.20	743,898.90	0.00	0.00	0.00	Build @ 1.00°/100ft
2,200.00	1.00	180.00	2,199.99	0.87 S	0.00 E	520,189.33	743,898.90	1.00	-0.87	180.00	
2,300.00	2.00	180.00	2,299.96	3.49 S	0.00 E	520,186.71	743,898.90	1.00	-3.49	0.00	
2,400.00	3.00	180.00	2,399.86	7.85 S	0.00 E	520,182.35	743,898.90	1.00	-7.85	0.00	Start Hold
2,500.00	3.00	180.00	2,499.73	13.09 S	0.00 E	520,177.11	743,898.90	0.00	-13.09	0.00	
2,600.00	3.00	180.00	2,599.59	18.32 S	0.00 E	520,171.88	743,898.90	0.00	-18.32	0.00	
2,700.00	3.00	180.00	2,699.45	23.55 S	0.00 E	520,166.65	743,898.90	0.00	-23.55	0.00	Build @ 2.00°/100ft
2,800.00	3.23	142.77	2,799.31	28.41 S	1.70 E	520,161.79	743,900.60	2.00	-28.42	-102.32	
2,900.00	4.46	118.72	2,899.09	32.52 S	6.82 E	520,157.68	743,905.72	2.00	-32.56	-65.14	
3,000.00	6.11	106.26	2,998.67	35.88 S	15.33 E	520,154.32	743,914.23	2.00	-35.97	-41.14	
3,100.00	7.92	99.26	3,097.92	38.48 S	27.24 E	520,151.72	743,926.14	2.00	-38.64	-28.73	
3,200.00	9.80	94.90	3,196.72	40.32 S	42.52 E	520,149.88	743,941.42	2.00	-40.57	-21.79	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
3,210.13	10.00	94.55	3,206.70	40.46 S	44.26 E	520,149.74	743,943.16	2.00	-40.72	-17.47	Start Hold
3,300.00	10.00	94.55	3,295.21	41.70 S	59.81 E	520,148.50	743,958.71	0.00	-42.05	0.00	
3,400.00	10.00	94.55	3,393.69	43.07 S	77.11 E	520,147.13	743,976.01	0.00	-43.53	0.00	
3,500.00	10.00	94.55	3,492.17	44.45 S	94.42 E	520,145.75	743,993.32	0.00	-45.01	0.00	
3,600.00	10.00	94.55	3,590.65	45.83 S	111.72 E	520,144.37	744,010.62	0.00	-46.49	0.00	
3,700.00	10.00	94.55	3,689.13	47.20 S	129.03 E	520,143.00	744,027.93	0.00	-47.97	0.00	
3,800.00	10.00	94.55	3,787.61	48.58 S	146.33 E	520,141.62	744,045.23	0.00	-49.45	0.00	
3,900.00	10.00	94.55	3,886.10	49.96 S	163.64 E	520,140.24	744,062.54	0.00	-50.93	0.00	
4,000.00	10.00	94.55	3,984.58	51.33 S	180.94 E	520,138.87	744,079.84	0.00	-52.41	0.00	
4,100.00	10.00	94.55	4,083.06	52.71 S	198.25 E	520,137.49	744,097.15	0.00	-53.89	0.00	
4,200.00	10.00	94.55	4,181.54	54.09 S	215.55 E	520,136.11	744,114.45	0.00	-55.37	0.00	
4,300.00	10.00	94.55	4,280.02	55.46 S	232.86 E	520,134.74	744,131.76	0.00	-56.85	0.00	
4,391.36	10.00	94.55	4,370.00	56.72 S	248.67 E	520,133.48	744,147.57	0.00	-58.20	0.00	Salt Base - Fletcher Anhydrite
4,400.00	10.00	94.55	4,378.50	56.84 S	250.16 E	520,133.36	744,149.06	0.00	-58.32	0.00	
4,500.00	10.00	94.55	4,476.99	58.22 S	267.47 E	520,131.98	744,166.37	0.00	-59.80	0.00	
4,600.00	10.00	94.55	4,575.47	59.59 S	284.77 E	520,130.61	744,183.67	0.00	-61.28	0.00	
4,700.00	10.00	94.55	4,673.95	60.97 S	302.08 E	520,129.23	744,200.98	0.00	-62.76	0.00	
4,800.00	10.00	94.55	4,772.43	62.35 S	319.38 E	520,127.85	744,218.28	0.00	-64.24	0.00	
4,863.53	10.00	94.55	4,835.00	63.22 S	330.38 E	520,126.98	744,229.28	0.00	-65.18	0.00	Delaware (Lamar)
4,900.00	10.00	94.55	4,870.91	63.73 S	336.69 E	520,126.47	744,235.59	0.00	-65.72	0.00	
4,980.31	10.00	94.55	4,950.00	64.83 S	350.59 E	520,125.37	744,249.49	0.00	-66.91	0.00	Bell Canyon
5,000.00	10.00	94.55	4,969.39	65.10 S	353.99 E	520,125.10	744,252.89	0.00	-67.20	0.00	
5,100.00	10.00	94.55	5,067.88	66.48 S	371.30 E	520,123.72	744,270.20	0.00	-68.68	0.00	
5,200.00	10.00	94.55	5,166.36	67.86 S	388.60 E	520,122.34	744,287.50	0.00	-70.16	0.00	
5,300.00	10.00	94.55	5,264.84	69.23 S	405.91 E	520,120.97	744,304.81	0.00	-71.64	0.00	
5,400.00	10.00	94.55	5,363.32	70.61 S	423.21 E	520,119.59	744,322.11	0.00	-73.12	0.00	
5,500.00	10.00	94.55	5,461.80	71.99 S	440.52 E	520,118.21	744,339.42	0.00	-74.60	0.00	
5,600.00	10.00	94.55	5,560.28	73.36 S	457.82 E	520,116.84	744,356.72	0.00	-76.08	0.00	
5,700.00	10.00	94.55	5,658.77	74.74 S	475.13 E	520,115.46	744,374.03	0.00	-77.56	0.00	
5,800.00	10.00	94.55	5,757.25	76.12 S	492.43 E	520,114.08	744,391.33	0.00	-79.04	0.00	
5,900.00	10.00	94.55	5,855.73	77.49 S	509.74 E	520,112.71	744,408.64	0.00	-80.52	0.00	
6,000.00	10.00	94.55	5,954.21	78.87 S	527.04 E	520,111.33	744,425.94	0.00	-82.00	0.00	
6,041.42	10.00	94.55	5,995.00	79.44 S	534.21 E	520,110.76	744,433.11	0.00	-82.61	0.00	Manzanita Marker
6,100.00	10.00	94.55	6,052.69	80.25 S	544.35 E	520,109.95	744,443.25	0.00	-83.48	0.00	
6,200.00	10.00	94.55	6,151.17	81.62 S	561.65 E	520,108.58	744,460.55	0.00	-84.96	0.00	
6,300.00	10.00	94.55	6,249.66	83.00 S	578.96 E	520,107.20	744,477.86	0.00	-86.44	0.00	
6,400.00	10.00	94.55	6,348.14	84.38 S	596.26 E	520,105.82	744,495.16	0.00	-87.91	0.00	



Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
6,500.00	10.00	94.55	6,446.62	85.75 S	613.57 E	520,104.45	744,512.47	0.00	-89.39	0.00	
6,600.00	10.00	94.55	6,545.10	87.13 S	630.87 E	520,103.07	744,529.77	0.00	-90.87	0.00	
6,700.00	10.00	94.55	6,643.58	88.51 S	648.18 E	520,101.69	744,547.08	0.00	-92.35	0.00	
6,800.00	10.00	94.55	6,742.06	89.89 S	665.48 E	520,100.31	744,564.38	0.00	-93.83	0.00	
6,900.00	10.00	94.55	6,840.55	91.26 S	682.79 E	520,098.94	744,581.69	0.00	-95.31	0.00	
7,000.00	10.00	94.55	6,939.03	92.64 S	700.09 E	520,097.56	744,598.99	0.00	-96.79	0.00	
7,100.00	10.00	94.55	7,037.51	94.02 S	717.40 E	520,096.18	744,616.30	0.00	-98.27	0.00	
7,200.00	10.00	94.55	7,135.99	95.39 S	734.70 E	520,094.81	744,633.60	0.00	-99.75	0.00	
7,300.00	10.00	94.55	7,234.47	96.77 S	752.01 E	520,093.43	744,650.91	0.00	-101.23	0.00	
7,400.00	10.00	94.55	7,332.95	98.15 S	769.31 E	520,092.05	744,668.21	0.00	-102.71	0.00	
7,500.00	10.00	94.55	7,431.44	99.52 S	786.62 E	520,090.68	744,685.52	0.00	-104.19	0.00	
7,600.00	10.00	94.55	7,529.92	100.90 S	803.92 E	520,089.30	744,702.82	0.00	-105.67	0.00	
7,700.00	10.00	94.55	7,628.40	102.28 S	821.23 E	520,087.92	744,720.13	0.00	-107.15	0.00	
7,800.00	10.00	94.55	7,726.88	103.65 S	838.53 E	520,086.55	744,737.43	0.00	-108.63	0.00	
7,900.00	10.00	94.55	7,825.36	105.03 S	855.84 E	520,085.17	744,754.74	0.00	-110.11	0.00	
8,000.00	10.00	94.55	7,923.84	106.41 S	873.14 E	520,083.79	744,772.04	0.00	-111.59	0.00	
8,100.00	10.00	94.55	8,022.33	107.78 S	890.45 E	520,082.42	744,789.35	0.00	-113.07	0.00	
8,200.00	10.00	94.55	8,120.81	109.16 S	907.75 E	520,081.04	744,806.65	0.00	-114.55	0.00	
8,300.00	10.00	94.55	8,219.29	110.54 S	925.06 E	520,079.66	744,823.96	0.00	-116.03	0.00	
8,400.00	10.00	94.55	8,317.77	111.91 S	942.36 E	520,078.29	744,841.26	0.00	-117.50	0.00	
8,500.00	10.00	94.55	8,416.25	113.29 S	959.67 E	520,076.91	744,858.57	0.00	-118.98	0.00	
8,595.19	10.00	94.55	8,510.00	114.60 S	976.14 E	520,075.60	744,875.04	0.00	-120.39	0.00	Basal Brushy Canyon
8,600.00	10.00	94.55	8,514.73	114.67 S	976.97 E	520,075.53	744,875.87	0.00	-120.46	0.00	
8,700.00	10.00	94.55	8,613.22	116.04 S	994.28 E	520,074.16	744,893.18	0.00	-121.94	0.00	
8,800.00	10.00	94.55	8,711.70	117.42 S	1,011.58 E	520,072.78	744,910.48	0.00	-123.42	0.00	
8,884.59	10.00	94.55	8,795.00	118.59 S	1,026.22 E	520,071.61	744,925.12	0.00	-124.67	0.00	Bone Spring
8,900.00	10.00	94.55	8,810.18	118.80 S	1,028.89 E	520,071.40	744,927.79	0.00	-124.90	0.00	
9,000.00	10.00	94.55	8,908.66	120.18 S	1,046.19 E	520,070.02	744,945.09	0.00	-126.38	0.00	
9,045.39	10.00	94.55	8,953.36	120.80 S	1,054.05 E	520,069.40	744,952.95	0.00	-127.05	0.00	Drop @ 1.00°/100ft
9,100.00	9.45	94.55	9,007.19	121.53 S	1,063.24 E	520,068.67	744,962.14	1.00	-127.84	180.00	
9,200.00	8.45	94.55	9,105.97	122.77 S	1,078.75 E	520,067.43	744,977.65	1.00	-129.17	180.00	
9,300.00	7.45	94.55	9,205.01	123.86 S	1,092.54 E	520,066.34	744,991.44	1.00	-130.34	180.00	
9,400.00	6.45	94.55	9,304.27	124.82 S	1,104.61 E	520,065.38	745,003.51	1.00	-131.38	180.00	
9,500.00	5.45	94.55	9,403.73	125.65 S	1,114.94 E	520,064.55	745,013.84	1.00	-132.26	180.00	
9,600.00	4.45	94.55	9,503.36	126.33 S	1,123.54 E	520,063.87	745,022.44	1.00	-132.99	180.00	
9,700.00	3.45	94.55	9,603.12	126.88 S	1,130.41 E	520,063.32	745,029.31	1.00	-133.58	180.00	
9,800.00	2.45	94.55	9,702.98	127.28 S	1,135.54 E	520,062.92	745,034.44	1.00	-134.02	180.00	



Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,900.00	1.45	94.55	9,802.92	127.55 S	1,138.94 E	520,062.65	745,037.84	1.00	-134.31	180.00	
9,912.08	1.33	94.55	9,815.00	127.58 S	1,139.23 E	520,062.62	745,038.13	1.00	-134.34	-180.00	1st Bone Spring Sand
10,000.00	0.45	94.55	9,902.91	127.69 S	1,140.59 E	520,062.51	745,039.49	1.00	-134.45	180.00	
10,045.09	0.00	0.00	9,948.00	127.70 S	1,140.77 E	520,062.50	745,039.67	1.00	-134.47	-180.00	Start Hold
10,100.00	0.00	0.00	10,002.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,200.00	0.00	0.00	10,102.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,300.00	0.00	0.00	10,202.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,400.00	0.00	0.00	10,302.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,500.00	0.00	0.00	10,402.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,572.09	0.00	0.00	10,475.00	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	2nd Bone Spring Sand
10,600.00	0.00	0.00	10,502.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,700.00	0.00	0.00	10,602.91	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	
10,739.13	0.00	0.00	10,642.04	127.70 S	1,140.77 E	520,062.50	745,039.67	0.00	-134.47	0.00	KOP @ 10.00°/100ft - 7"
10,750.00	1.09	359.67	10,652.91	127.60 S	1,140.77 E	520,062.60	745,039.67	10.00	-134.36	359.67	
10,800.00	6.09	359.67	10,702.79	124.47 S	1,140.75 E	520,065.73	745,039.65	10.00	-131.24	0.00	
10,850.00	11.09	359.67	10,752.22	117.01 S	1,140.71 E	520,073.19	745,039.61	10.00	-123.77	0.00	
10,900.00	16.09	359.67	10,800.80	105.26 S	1,140.64 E	520,084.94	745,039.54	10.00	-112.03	0.00	
10,950.00	21.09	359.67	10,848.18	89.33 S	1,140.55 E	520,100.87	745,039.45	10.00	-96.10	0.00	
11,000.00	26.09	359.67	10,893.99	69.33 S	1,140.43 E	520,120.87	745,039.33	10.00	-76.10	0.00	
11,050.00	31.09	359.67	10,937.88	45.42 S	1,140.30 E	520,144.78	745,039.20	10.00	-52.18	0.00	
11,094.43	35.53	359.67	10,975.00	21.02 S	1,140.16 E	520,169.18	745,039.06	10.00	-27.79	0.00	3rd Bone Spring Carbonate
11,100.00	36.09	359.67	10,979.52	17.77 S	1,140.14 E	520,172.43	745,039.04	10.00	-24.53	0.00	
11,150.00	41.09	359.67	11,018.59	13.41 N	1,139.96 E	520,203.61	745,038.86	10.00	6.64	0.00	
11,200.00	46.09	359.67	11,054.79	47.87 N	1,139.76 E	520,238.07	745,038.66	10.00	41.11	0.00	
11,250.00	51.09	359.67	11,087.86	85.36 N	1,139.55 E	520,275.56	745,038.45	10.00	78.59	0.00	
11,300.00	56.09	359.67	11,117.53	125.58 N	1,139.32 E	520,315.78	745,038.22	10.00	118.82	0.00	
11,350.00	61.09	359.67	11,143.58	168.24 N	1,139.08 E	520,358.44	745,037.98	10.00	161.48	0.00	
11,400.00	66.09	359.67	11,165.81	213.00 N	1,138.82 E	520,403.20	745,037.72	10.00	206.24	0.00	
11,450.00	71.09	359.67	11,184.06	259.54 N	1,138.55 E	520,449.74	745,037.45	10.00	252.78	0.00	
11,500.00	76.09	359.67	11,198.19	307.48 N	1,138.28 E	520,497.68	745,037.18	10.00	300.72	0.00	
11,550.00	81.09	359.67	11,208.08	356.48 N	1,138.00 E	520,546.68	745,036.90	10.00	349.72	0.00	
11,600.00	86.09	359.67	11,213.66	406.15 N	1,137.71 E	520,596.35	745,036.61	10.00	399.39	0.00	
11,641.63	90.25	359.67	11,214.99	447.75 N	1,137.48 E	520,637.95	745,036.38	10.00	440.99	0.00	Landing Point
11,700.00	90.25	359.67	11,214.74	506.12 N	1,137.14 E	520,696.32	745,036.04	0.00	499.36	0.00	
11,800.00	90.25	359.67	11,214.30	606.11 N	1,136.57 E	520,796.31	745,035.47	0.00	599.36	0.00	
11,900.00	90.25	359.67	11,213.86	706.11 N	1,136.00 E	520,896.31	745,034.90	0.00	699.36	0.00	

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
12,000.00	90.25	359.67	11,213.43	806.11 N	1,135.43 E	520,996.31	745,034.33	0.00	799.36	0.00	
12,100.00	90.25	359.67	11,212.99	906.11 N	1,134.85 E	521,096.31	745,033.75	0.00	899.36	0.00	
12,200.00	90.25	359.67	11,212.55	1,006.10 N	1,134.28 E	521,196.30	745,033.18	0.00	999.35	0.00	
12,300.00	90.25	359.67	11,212.12	1,106.10 N	1,133.71 E	521,296.30	745,032.61	0.00	1,099.35	0.00	
12,400.00	90.25	359.67	11,211.68	1,206.10 N	1,133.14 E	521,396.30	745,032.04	0.00	1,199.35	0.00	
12,500.00	90.25	359.67	11,211.25	1,306.09 N	1,132.57 E	521,496.29	745,031.47	0.00	1,299.35	0.00	
12,600.00	90.25	359.67	11,210.81	1,406.09 N	1,131.99 E	521,596.29	745,030.89	0.00	1,399.35	0.00	
12,700.00	90.25	359.67	11,210.37	1,506.09 N	1,131.42 E	521,696.29	745,030.32	0.00	1,499.35	0.00	
12,800.00	90.25	359.67	11,209.94	1,606.09 N	1,130.85 E	521,796.29	745,029.75	0.00	1,599.35	0.00	
12,900.00	90.25	359.67	11,209.50	1,706.08 N	1,130.28 E	521,896.28	745,029.18	0.00	1,699.35	0.00	
13,000.00	90.25	359.67	11,209.06	1,806.08 N	1,129.71 E	521,996.28	745,028.61	0.00	1,799.35	0.00	
13,100.00	90.25	359.67	11,208.63	1,906.08 N	1,129.13 E	522,096.28	745,028.03	0.00	1,899.35	0.00	
13,200.00	90.25	359.67	11,208.19	2,006.08 N	1,128.56 E	522,196.28	745,027.46	0.00	1,999.34	0.00	
13,300.00	90.25	359.67	11,207.75	2,106.07 N	1,127.99 E	522,296.27	745,026.89	0.00	2,099.34	0.00	
13,400.00	90.25	359.67	11,207.32	2,206.07 N	1,127.42 E	522,396.27	745,026.32	0.00	2,199.34	0.00	
13,500.00	90.25	359.67	11,206.88	2,306.07 N	1,126.85 E	522,496.27	745,025.75	0.00	2,299.34	0.00	
13,600.00	90.25	359.67	11,206.45	2,406.07 N	1,126.27 E	522,596.27	745,025.17	0.00	2,399.34	0.00	
13,700.00	90.25	359.67	11,206.01	2,506.06 N	1,125.70 E	522,696.26	745,024.60	0.00	2,499.34	0.00	
13,800.00	90.25	359.67	11,205.57	2,606.06 N	1,125.13 E	522,796.26	745,024.03	0.00	2,599.34	0.00	
13,900.00	90.25	359.67	11,205.14	2,706.06 N	1,124.56 E	522,896.26	745,023.46	0.00	2,699.34	0.00	
14,000.00	90.25	359.67	11,204.70	2,806.06 N	1,123.99 E	522,996.26	745,022.89	0.00	2,799.34	0.00	
14,100.00	90.25	359.67	11,204.26	2,906.05 N	1,123.41 E	523,096.25	745,022.31	0.00	2,899.34	0.00	
14,200.00	90.25	359.67	11,203.83	3,006.05 N	1,122.84 E	523,196.25	745,021.74	0.00	2,999.34	0.00	
14,300.00	90.25	359.67	11,203.39	3,106.05 N	1,122.27 E	523,296.25	745,021.17	0.00	3,099.33	0.00	
14,400.00	90.25	359.67	11,202.96	3,206.05 N	1,121.70 E	523,396.25	745,020.60	0.00	3,199.33	0.00	
14,500.00	90.25	359.67	11,202.52	3,306.04 N	1,121.13 E	523,496.24	745,020.03	0.00	3,299.33	0.00	
14,600.00	90.25	359.67	11,202.08	3,406.04 N	1,120.55 E	523,596.24	745,019.45	0.00	3,399.33	0.00	
14,700.00	90.25	359.67	11,201.65	3,506.04 N	1,119.98 E	523,696.24	745,018.88	0.00	3,499.33	0.00	
14,800.00	90.25	359.67	11,201.21	3,606.04 N	1,119.41 E	523,796.24	745,018.31	0.00	3,599.33	0.00	
14,900.00	90.25	359.67	11,200.77	3,706.03 N	1,118.84 E	523,896.23	745,017.74	0.00	3,699.33	0.00	
15,000.00	90.25	359.67	11,200.34	3,806.03 N	1,118.26 E	523,996.23	745,017.16	0.00	3,799.33	0.00	
15,100.00	90.25	359.67	11,199.90	3,906.03 N	1,117.69 E	524,096.23	745,016.59	0.00	3,899.33	0.00	
15,200.00	90.25	359.67	11,199.46	4,006.03 N	1,117.12 E	524,196.23	745,016.02	0.00	3,999.33	0.00	
15,300.00	90.25	359.67	11,199.03	4,106.02 N	1,116.55 E	524,296.22	745,015.45	0.00	4,099.32	0.00	
15,400.00	90.25	359.67	11,198.59	4,206.02 N	1,115.98 E	524,396.22	745,014.88	0.00	4,199.32	0.00	
15,500.00	90.25	359.67	11,198.16	4,306.02 N	1,115.40 E	524,496.22	745,014.30	0.00	4,299.32	0.00	
15,600.00	90.25	359.67	11,197.72	4,406.01 N	1,114.83 E	524,596.21	745,013.73	0.00	4,399.32	0.00	



Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
15,700.00	90.25	359.67	11,197.28	4,506.01 N	1,114.26 E	524,696.21	745,013.16	0.00	4,499.32	0.00	
15,800.00	90.25	359.67	11,196.85	4,606.01 N	1,113.69 E	524,796.21	745,012.59	0.00	4,599.32	0.00	
15,900.00	90.25	359.67	11,196.41	4,706.01 N	1,113.12 E	524,896.21	745,012.02	0.00	4,699.32	0.00	
15,994.00	90.25	359.67	11,196.00	4,800.00 N	1,112.58 E	524,990.20	745,011.48	0.00	4,793.31	0.00	Turn @ 2.00°/100ft
16,000.00	90.25	359.55	11,195.97	4,806.00 N	1,112.54 E	524,996.20	745,011.44	2.00	4,799.32	-90.03	
16,100.00	90.25	357.55	11,195.54	4,905.97 N	1,110.01 E	525,096.17	745,008.91	2.00	4,899.29	-90.03	
16,200.00	90.25	355.55	11,195.11	5,005.78 N	1,104.00 E	525,195.98	745,002.90	2.00	4,999.14	-90.04	
16,287.44	90.25	353.80	11,194.73	5,092.84 N	1,095.89 E	525,283.04	744,994.79	2.00	5,086.25	-90.05	Start Hold
16,300.00	90.25	353.80	11,194.68	5,105.32 N	1,094.53 E	525,295.52	744,993.43	0.00	5,098.74	0.00	
16,400.00	90.25	353.80	11,194.25	5,204.74 N	1,083.74 E	525,394.94	744,982.64	0.00	5,198.22	0.00	
16,500.00	90.25	353.80	11,193.82	5,304.15 N	1,072.94 E	525,494.35	744,971.84	0.00	5,297.69	0.00	
16,600.00	90.25	353.80	11,193.39	5,403.57 N	1,062.15 E	525,593.77	744,961.05	0.00	5,397.17	0.00	
16,700.00	90.25	353.80	11,192.96	5,502.98 N	1,051.35 E	525,693.18	744,950.25	0.00	5,496.65	0.00	
16,800.00	90.25	353.80	11,192.53	5,602.40 N	1,040.56 E	525,792.60	744,939.46	0.00	5,596.13	0.00	
16,900.00	90.25	353.80	11,192.10	5,701.81 N	1,029.77 E	525,892.01	744,928.67	0.00	5,695.60	0.00	
17,000.00	90.25	353.80	11,191.67	5,801.23 N	1,018.97 E	525,991.43	744,917.87	0.00	5,795.08	0.00	
17,100.00	90.25	353.80	11,191.25	5,900.64 N	1,008.18 E	526,090.84	744,907.08	0.00	5,894.56	0.00	
17,200.00	90.25	353.80	11,190.82	6,000.06 N	997.38 E	526,190.26	744,896.28	0.00	5,994.03	0.00	
17,300.00	90.25	353.80	11,190.39	6,099.47 N	986.59 E	526,289.67	744,885.49	0.00	6,093.51	0.00	
17,400.00	90.25	353.80	11,189.96	6,198.89 N	975.80 E	526,389.09	744,874.70	0.00	6,192.99	0.00	
17,500.00	90.25	353.80	11,189.53	6,298.30 N	965.00 E	526,488.50	744,863.90	0.00	6,292.47	0.00	
17,600.00	90.25	353.80	11,189.10	6,397.72 N	954.21 E	526,587.92	744,853.11	0.00	6,391.94	0.00	
17,700.00	90.25	353.80	11,188.67	6,497.13 N	943.41 E	526,687.33	744,842.31	0.00	6,491.42	0.00	
17,800.00	90.25	353.80	11,188.24	6,596.55 N	932.62 E	526,786.75	744,831.52	0.00	6,590.90	0.00	
17,900.00	90.25	353.80	11,187.82	6,695.96 N	921.83 E	526,886.16	744,820.73	0.00	6,690.37	0.00	
18,000.00	90.25	353.80	11,187.39	6,795.38 N	911.03 E	526,985.58	744,809.93	0.00	6,789.85	0.00	
18,100.00	90.25	353.80	11,186.96	6,894.79 N	900.24 E	527,084.99	744,799.14	0.00	6,889.33	0.00	
18,200.00	90.25	353.80	11,186.53	6,994.21 N	889.44 E	527,184.41	744,788.34	0.00	6,988.80	0.00	
18,300.00	90.25	353.80	11,186.10	7,093.62 N	878.65 E	527,283.82	744,777.55	0.00	7,088.28	0.00	
18,400.00	90.25	353.80	11,185.67	7,193.04 N	867.85 E	527,383.24	744,766.75	0.00	7,187.76	0.00	
18,500.00	90.25	353.80	11,185.24	7,292.45 N	857.06 E	527,482.65	744,755.96	0.00	7,287.24	0.00	
18,600.00	90.25	353.80	11,184.81	7,391.87 N	846.27 E	527,582.07	744,745.17	0.00	7,386.71	0.00	
18,700.00	90.25	353.80	11,184.39	7,491.28 N	835.47 E	527,681.48	744,734.37	0.00	7,486.19	0.00	
18,800.00	90.25	353.80	11,183.96	7,590.69 N	824.68 E	527,780.89	744,723.58	0.00	7,585.67	0.00	
18,900.00	90.25	353.80	11,183.53	7,690.11 N	813.88 E	527,880.31	744,712.78	0.00	7,685.14	0.00	
19,000.00	90.25	353.80	11,183.10	7,789.52 N	803.09 E	527,979.72	744,701.99	0.00	7,784.62	0.00	
19,100.00	90.25	353.80	11,182.67	7,888.94 N	792.30 E	528,079.14	744,691.20	0.00	7,884.10	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
19,200.00	90.25	353.80	11,182.24	7,988.35 N	781.50 E	528,178.55	744,680.40	0.00	7,983.58	0.00	
19,300.00	90.25	353.80	11,181.81	8,087.77 N	770.71 E	528,277.97	744,669.61	0.00	8,083.05	0.00	
19,400.00	90.25	353.80	11,181.38	8,187.18 N	759.91 E	528,377.38	744,658.81	0.00	8,182.53	0.00	
19,427.10	90.25	353.80	11,181.27	8,214.12 N	756.99 E	528,404.32	744,655.89	0.00	8,209.49	0.00	Turn @ 2.00°/100ft
19,500.00	90.25	355.26	11,180.95	8,286.69 N	750.04 E	528,476.89	744,648.94	2.00	8,282.09	89.94	
19,600.00	90.25	357.26	11,180.52	8,386.47 N	743.52 E	528,576.67	744,642.42	2.00	8,381.91	89.95	
19,700.00	90.25	359.26	11,180.09	8,486.42 N	740.49 E	528,676.62	744,639.39	2.00	8,481.88	89.96	
19,719.93	90.25	359.66	11,180.00	8,506.35 N	740.30 E	528,696.55	744,639.20	2.00	8,501.81	89.97	Start Hold
19,800.00	90.25	359.66	11,179.65	8,586.42 N	739.82 E	528,776.62	744,638.72	0.00	8,581.88	0.00	
19,900.00	90.25	359.66	11,179.21	8,686.41 N	739.23 E	528,876.61	744,638.13	0.00	8,681.87	0.00	
20,000.00	90.25	359.66	11,178.78	8,786.41 N	738.64 E	528,976.61	744,637.54	0.00	8,781.87	0.00	
20,100.00	90.25	359.66	11,178.34	8,886.41 N	738.04 E	529,076.61	744,636.94	0.00	8,881.87	0.00	
20,200.00	90.25	359.66	11,177.91	8,986.41 N	737.45 E	529,176.61	744,636.35	0.00	8,981.87	0.00	
20,300.00	90.25	359.66	11,177.47	9,086.40 N	736.86 E	529,276.60	744,635.76	0.00	9,081.87	0.00	
20,400.00	90.25	359.66	11,177.03	9,186.40 N	736.26 E	529,376.60	744,635.16	0.00	9,181.87	0.00	
20,500.00	90.25	359.66	11,176.60	9,286.40 N	735.67 E	529,476.60	744,634.57	0.00	9,281.87	0.00	
20,600.00	90.25	359.66	11,176.16	9,386.39 N	735.08 E	529,576.59	744,633.98	0.00	9,381.87	0.00	
20,700.00	90.25	359.66	11,175.72	9,486.39 N	734.48 E	529,676.59	744,633.38	0.00	9,481.87	0.00	
20,800.00	90.25	359.66	11,175.29	9,586.39 N	733.89 E	529,776.59	744,632.79	0.00	9,581.87	0.00	
20,900.00	90.25	359.66	11,174.85	9,686.39 N	733.30 E	529,876.59	744,632.20	0.00	9,681.86	0.00	
21,000.00	90.25	359.66	11,174.41	9,786.38 N	732.70 E	529,976.58	744,631.60	0.00	9,781.86	0.00	
21,100.00	90.25	359.66	11,173.98	9,886.38 N	732.11 E	530,076.58	744,631.01	0.00	9,881.86	0.00	
21,200.00	90.25	359.66	11,173.54	9,986.38 N	731.52 E	530,176.58	744,630.42	0.00	9,981.86	0.00	
21,300.00	90.25	359.66	11,173.11	10,086.38 N	730.92 E	530,276.58	744,629.82	0.00	10,081.86	0.00	
21,400.00	90.25	359.66	11,172.67	10,186.37 N	730.33 E	530,376.57	744,629.23	0.00	10,181.86	0.00	
21,500.00	90.25	359.66	11,172.23	10,286.37 N	729.74 E	530,476.57	744,628.64	0.00	10,281.86	0.00	
21,543.56	90.25	359.66	11,172.04	10,329.93 N	729.48 E	530,520.13	744,628.38	0.00	10,325.42	0.00	TD at 21543.56 - 4 1/2"

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Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,100.00	2,100.00	0.00	0.00	Build @ 1.00°/100ft
2,400.00	2,399.86	-7.85	0.00	Start Hold
2,700.00	2,699.45	-23.55	0.00	Build @ 2.00°/100ft
3,210.13	3,206.70	-40.46	44.26	Start Hold
9,045.39	8,953.36	-120.80	1,054.05	Drop @ 1.00°/100ft
10,045.09	9,948.00	-127.70	1,140.77	Start Hold
10,739.13	10,642.04	-127.70	1,140.77	KOP @ 10.00°/100ft
11,641.63	11,214.99	447.75	1,137.48	Landing Point
15,994.00	11,196.00	4,800.00	1,112.58	Turn @ 2.00°/100ft
16,287.44	11,194.73	5,092.84	1,095.89	Start Hold
19,427.10	11,181.27	8,214.12	756.99	Turn @ 2.00°/100ft
19,719.93	11,180.00	8,506.35	740.30	Start Hold
21,543.56	11,172.04	10,329.93	729.48	TD at 21543.56

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	10,739.00	Plan 1	3_MWD+HRGM
10,739.00	21,543.56	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
10,739.13	10,642.04	7"	7.000	8.750
21,543.56	11,172.04	4 1/2"	4.500	6.125

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
770.00	770.00	-3,058.00	Rustler			
1,095.00	1,095.00	-2,733.00	Salt Top			
1,935.00	1,935.00	-1,893.00	Marker Bed 126			
4,391.36	4,370.00	542.00	Salt Base			
4,391.36	4,370.00	542.00	Fletcher Anhydrite			
4,863.53	4,835.00	1,007.00	Delaware (Lamar)			
4,980.31	4,950.00	1,122.00	Bell Canyon			
6,041.42	5,995.00	2,167.00	Manzanita Marker			
8,595.19	8,510.00	4,682.00	Basal Brushy Canyon			
8,884.59	8,795.00	4,967.00	Bone Spring			
9,912.08	9,815.00	5,987.00	1st Bone Spring Sand			
10,572.09	10,475.00	6,647.00	2nd Bone Spring Sand			
11,094.43	10,975.00	7,147.00	3rd Bone Spring Carbonate			

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Plan Report for Lobo 33-28 Fed Com 568H - Plan 1

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
Lobo 33-28 568H VT () - plan hits target center - Point	0.00	0.00	9,948.00	-127.70	1,140.77	520,062.50	745,039.67	32° 25' 40.76 N	103° 40' 23.25 W
Lobo 33-28 568H KOP () - plan misses target center by 0.13usft at 10045.14usft MD (9948.05 TVD, -127.70 N, 1140.77 E) - Point	0.00	0.00	9,948.05	-127.70	1,140.90	520,062.50	745,039.80	32° 25' 40.76 N	103° 40' 23.25 W
Lobo 33-28 568H BHL () - plan misses target center by 348.93usft at 21543.56usft MD (11172.04 TVD, 10329.93 N, 729.48 E) - Point	0.00	0.00	11,172.00	10,332.00	1,078.40	530,522.20	744,977.30	32° 27' 24.26 N	103° 40' 23.22 W
Lobo 33-28 568H BHLr1 () - plan hits target center - Point	0.00	0.00	11,172.04	10,329.93	729.48	530,520.13	744,628.38	32° 27' 24.26 N	103° 40' 27.30 W
Lobo 33-28 568H PPP2 () - plan misses target center by 18.88usft at 16336.15usft MD (11194.52 TVD, 5141.26 N, 1090.63 E) - Point	0.00	0.00	11,194.51	5,143.30	1,109.40	525,333.50	745,008.30	32° 26' 32.92 N	103° 40' 23.24 W
Lobo 33-28 568H FTP () - plan misses target center by 178.83usft at 11243.72usft MD (11083.89 TVD, 80.49 N, 1139.58 E) - Point	0.00	0.00	11,218.00	-37.80	1,140.40	520,152.40	745,039.30	32° 25' 41.65 N	103° 40' 23.25 W

Directional Difficulty Index

Average Dogleg over Survey:	0.58 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 11,641.63 usft
Net Tortosity applicable to Plans:	0.58 °/100ft	Directional Difficulty Index:	6.685

Audit Info

HALLIBURTON

North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 568H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 568H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995608

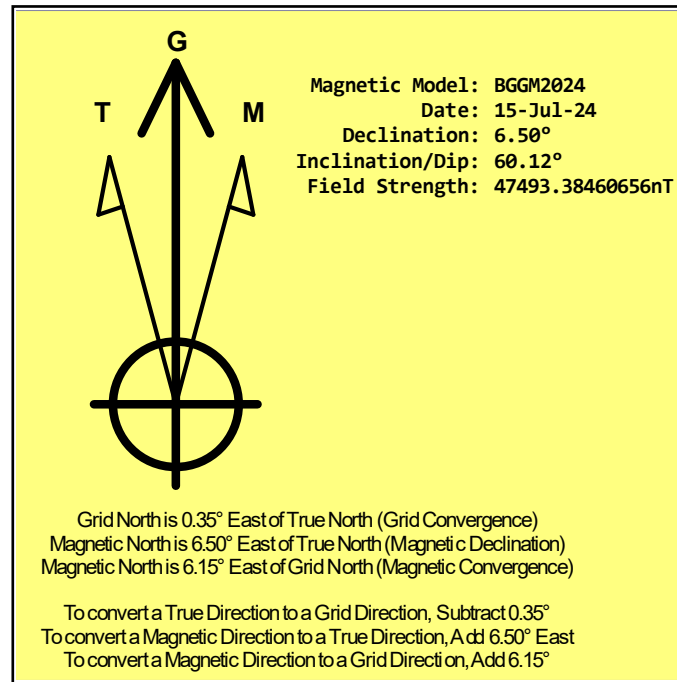
Grid Coordinates of Well: 520,190.20 usft N, 743,898.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 36.55 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 21,543.56usft the Bottom Hole Displacement is 10,355.65usft in the Direction of 4.04° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)





Project: Lea County, NM (NAD83)
 Site: Lobo 33-28
 Well: Lobo 33-28 Fed Com 408H
 Wellbore: OH
 Design: Plan 1
 Rig: Patterson 260

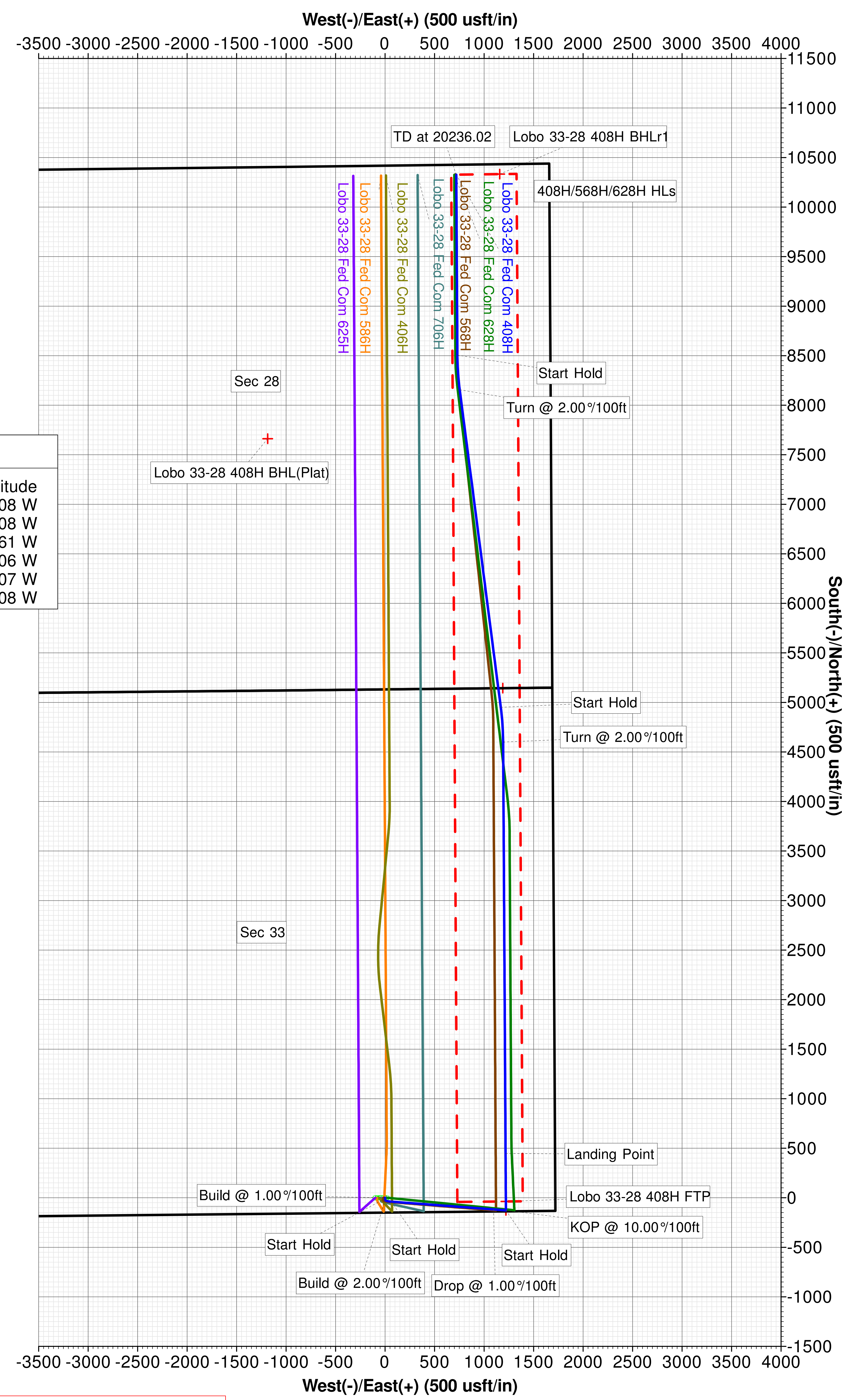
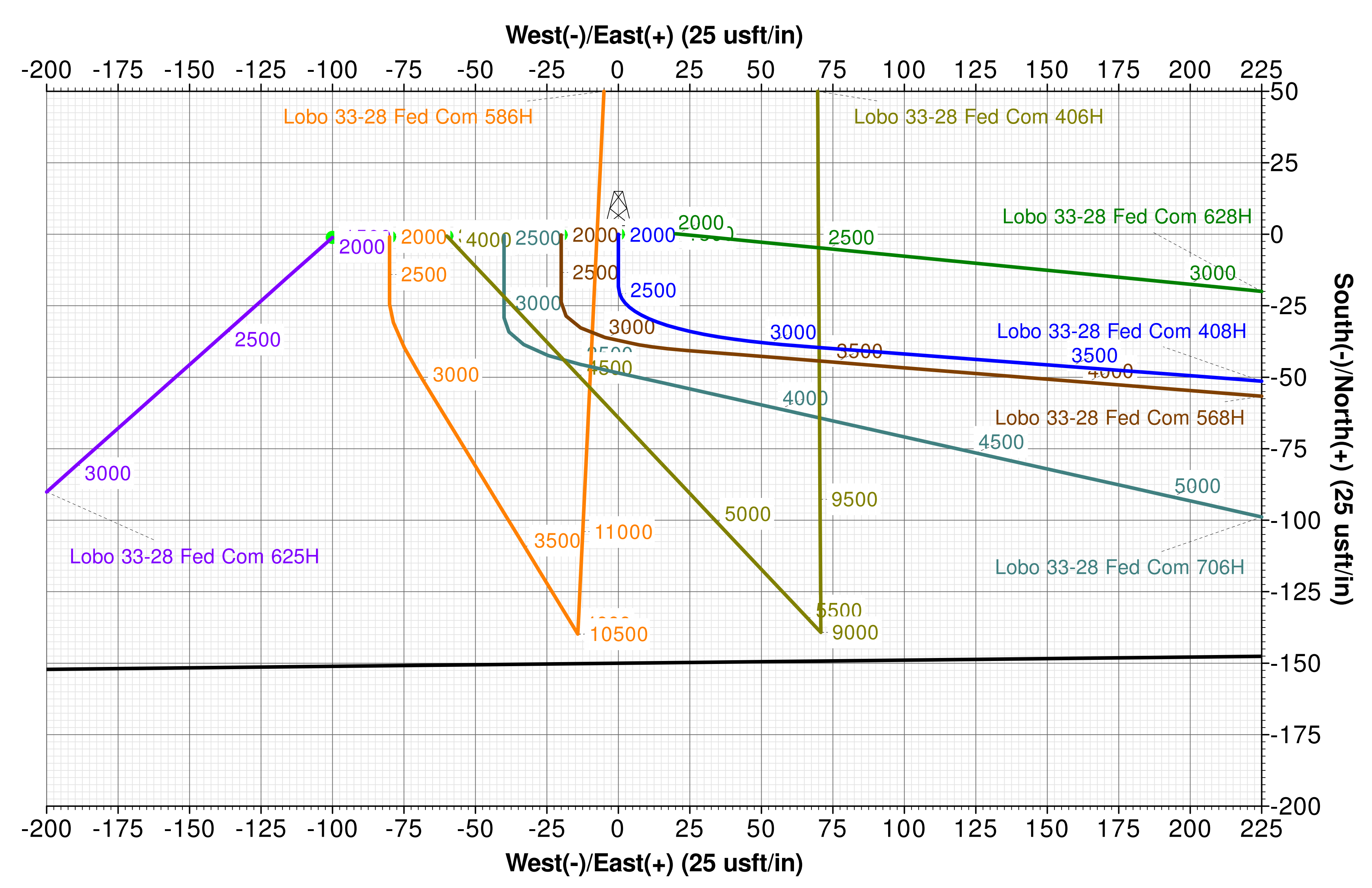
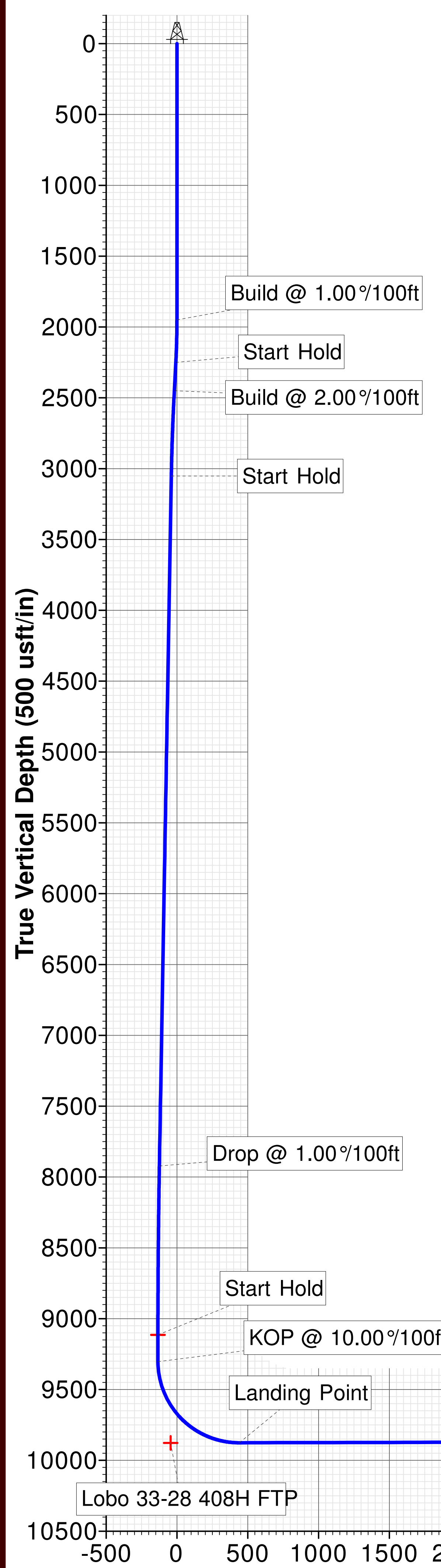
Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

North
 T G M
 Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.4nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

WELL DETAILS						
GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	520190.40	743918.90	32° 25' 42.09 N	103° 40' 36.32 W	

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1950.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00	Build @ 1.00%/100ft	
2250.00	3.00	180.00	2249.86	-7.85	0.00	1.00	180.00	-7.85	Start Hold	
2450.00	3.00	180.00	2449.59	-18.32	0.00	0.00	0.00	-18.32	Build @ 2.00%/100ft	
3057.29	12.00	94.34	3052.08	-39.07	63.21	2.00	-99.71	-39.44	Start Hold	
8036.43	12.00	94.34	7922.33	-117.42	1095.83	0.00	0.00	-123.92	Drop @ 1.00%/100ft	
9236.86	0.00	0.00	9114.00	-126.90	1220.76	1.00	180.00	-134.14	Start Hold	
9426.06	0.00	0.00	9303.20	-126.90	1220.76	0.00	0.00	-134.14	KOP @ 10.00%/100ft	
10327.46	90.14	359.66	9876.16	447.45	1217.33	10.00	359.66	440.21	Landing Point	
14480.10	90.14	359.66	9866.01	4600.00	1192.53	0.00	0.00	4592.84	Turn @ 2.00%/100ft	
14831.82	90.14	352.62	9865.15	4950.70	1168.87	2.00	-90.00	4943.68	Start Hold	
18063.41	90.14	352.62	9857.32	8155.54	753.96	0.00	0.00	8150.92	Turn @ 2.00%/100ft	
18415.24	90.14	359.66	9856.46	8506.35	730.30	2.00	89.98	8501.87	Start Hold	
20236.02	90.14	359.66	9852.01	10327.09	719.50	0.00	0.00	10322.64	TD at 20236.02	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lobo 33-28 408H VT	9114.00	-126.90	1220.76	520063.50	745139.66	32° 25' 40.76 N	103° 40' 22.08 W
Lobo 33-28 408H KOP	9114.08	-126.90	1220.90	520063.50	745139.80	32° 25' 40.76 N	103° 40' 22.08 W
Lobo 33-28 408H BHL(Plat)	9852.00	7662.10	-1185.90	527852.50	742733.00	32° 26' 57.98 N	103° 40' 49.61 W
Lobo 33-28 408H BHLr1	9852.00	10333.04	1158.28	530523.44	745077.18	32° 27' 24.27 N	103° 40' 22.06 W
Lobo 33-28 408H PPP2	9864.75	5144.10	1189.40	525334.50	745108.30	32° 26' 32.92 N	103° 40' 22.07 W
Lobo 33-28 408H FTP	9877.00	-36.90	1220.30	520153.50	745139.20	32° 25' 41.65 N	103° 40' 22.08 W



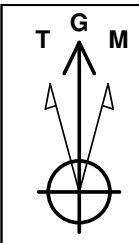
Hardlines
 North/South: 100' FNL & 100' FSL
 East/West: 330' FW 1/4SL & 330' FEL

Created By: Bo Siwoniku
 Date: 14:19, June 25 2024





Lobo 33-28

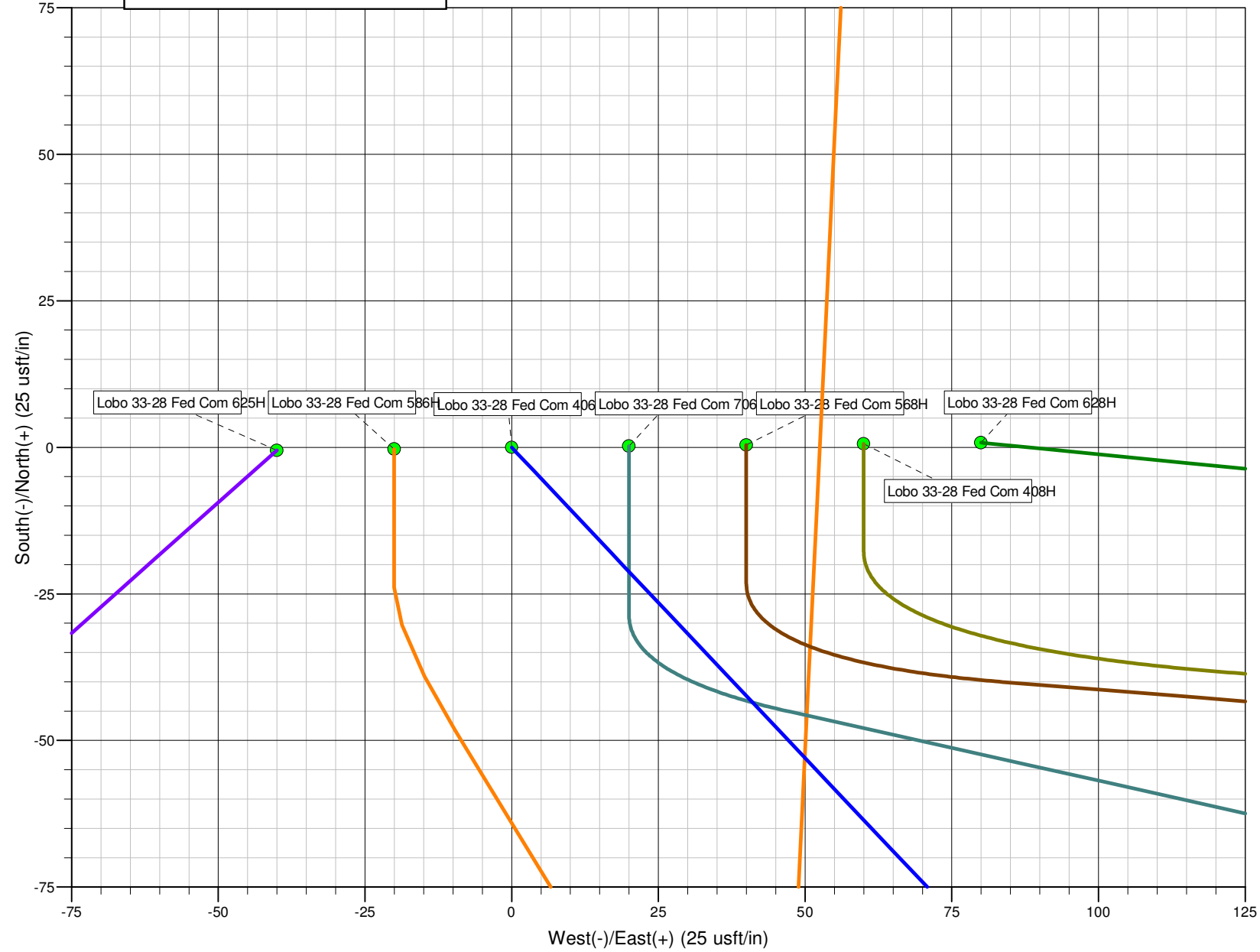


Azimuths to Grid North
True North: -0.35°
Magnetic North: 6.15°

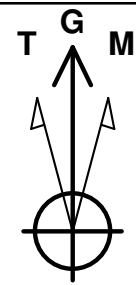
Magnetic Field
Strength: 47493.3nT
Dip Angle: 60.12°
Date: 7/15/2024
Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SITE DETAILS: Lobo 33-28
Site Centre Northing: 520189.80
Easting: 743858.90
Positional Uncertainty: 5.00
Convergence: 0.35
Local North: Grid



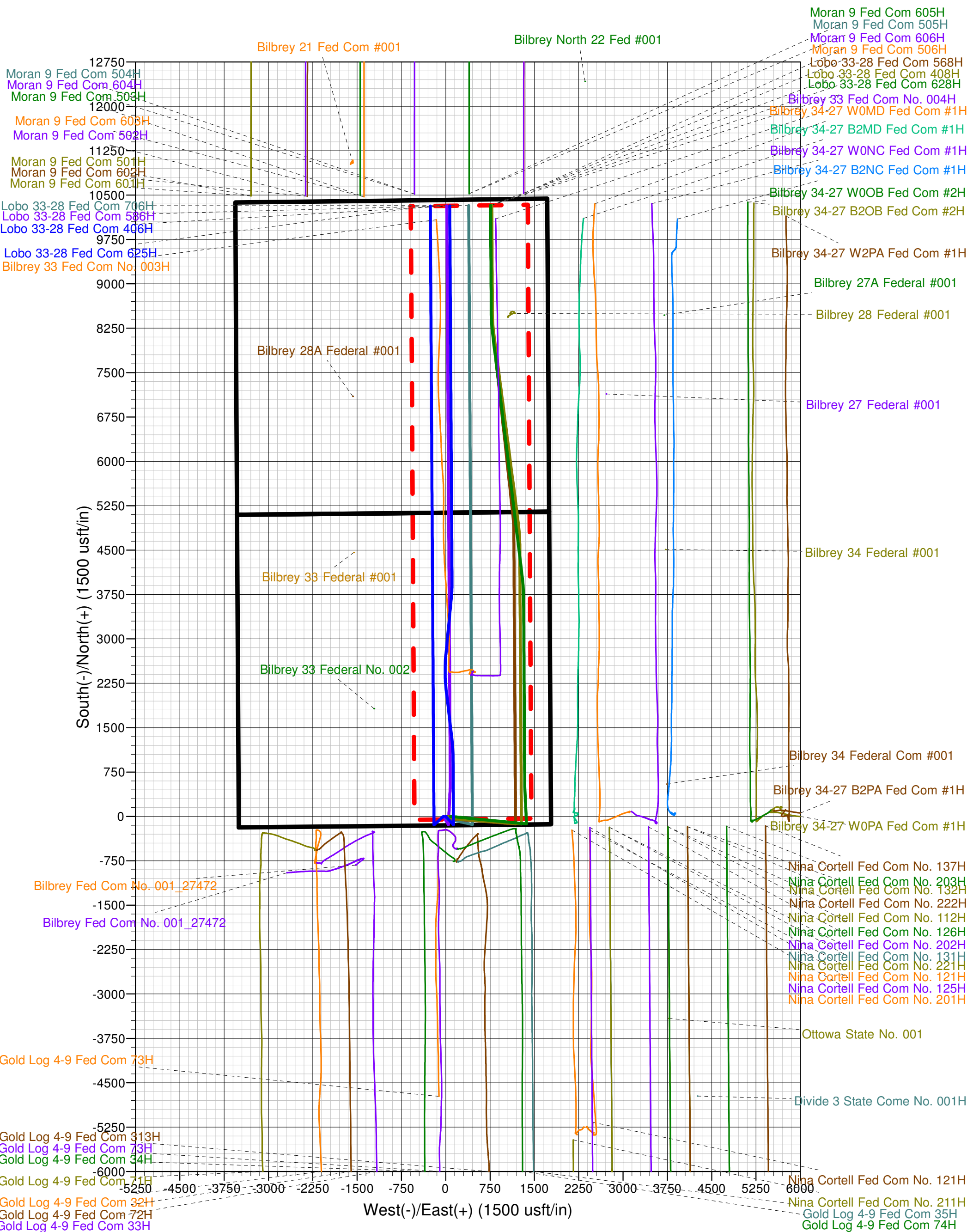
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 408H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 36.32 W

North American Datum 1983
New Mexico Eastern Zone
520,190.40 N
743,918.90 E

Ground Level: 3,799.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 408H

Viewing Datum:

GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

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Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
770.00	0.00	0.00	770.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	13 3/8"
1,095.00	0.00	0.00	1,095.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	Salt Top
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	
1,935.00	0.00	0.00	1,935.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	Marker Bed 126
1,950.00	0.00	0.00	1,950.00	0.00 N	0.00 E	520,190.40	743,918.90	0.00	0.00	0.00	Build @ 1.00°/100ft
2,000.00	0.50	180.00	2,000.00	0.22 S	0.00 E	520,190.18	743,918.90	1.00	-0.22	180.00	
2,100.00	1.50	180.00	2,099.98	1.96 S	0.00 E	520,188.44	743,918.90	1.00	-1.96	0.00	
2,200.00	2.50	180.00	2,199.92	5.45 S	0.00 E	520,184.95	743,918.90	1.00	-5.45	0.00	
2,250.00	3.00	180.00	2,249.86	7.85 S	0.00 E	520,182.55	743,918.90	1.00	-7.85	0.00	Start Hold
2,300.00	3.00	180.00	2,299.79	10.47 S	0.00 E	520,179.93	743,918.90	0.00	-10.47	0.00	
2,400.00	3.00	180.00	2,399.66	15.70 S	0.00 E	520,174.70	743,918.90	0.00	-15.70	0.00	
2,450.00	3.00	180.00	2,449.59	18.32 S	0.00 E	520,172.08	743,918.90	0.00	-18.32	0.00	Build @ 2.00°/100ft
2,500.00	3.00	160.80	2,499.52	20.86 S	0.43 E	520,169.54	743,919.33	2.00	-20.86	-99.71	
2,600.00	3.87	130.11	2,599.35	25.51 S	3.87 E	520,164.89	743,922.77	2.00	-25.53	-80.53	
2,700.00	5.38	113.56	2,699.03	29.55 S	10.75 E	520,160.85	743,929.65	2.00	-29.61	-49.89	
2,800.00	7.13	104.66	2,798.43	33.00 S	21.05 E	520,157.40	743,939.95	2.00	-33.12	-33.40	
2,900.00	8.99	99.34	2,897.44	35.83 S	34.77 E	520,154.57	743,953.67	2.00	-36.04	-24.55	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,000.00	10.90	95.84	2,995.93	38.06 S	51.88 E	520,152.34	743,970.78	2.00	-38.37	-19.28	
3,057.29	12.00	94.34	3,052.08	39.07 S	63.21 E	520,151.33	743,982.11	2.00	-39.44	-15.83	Start Hold
3,100.00	12.00	94.34	3,093.86	39.74 S	72.07 E	520,150.66	743,990.97	0.00	-40.17	0.00	
3,200.00	12.00	94.34	3,191.67	41.31 S	92.81 E	520,149.09	744,011.71	0.00	-41.86	0.00	
3,300.00	12.00	94.34	3,289.48	42.89 S	113.54 E	520,147.51	744,032.44	0.00	-43.56	0.00	
3,400.00	12.00	94.34	3,387.30	44.46 S	134.28 E	520,145.94	744,053.18	0.00	-45.26	0.00	
3,500.00	12.00	94.34	3,485.11	46.03 S	155.02 E	520,144.37	744,073.92	0.00	-46.95	0.00	
3,600.00	12.00	94.34	3,582.92	47.61 S	175.76 E	520,142.79	744,094.66	0.00	-48.65	0.00	
3,700.00	12.00	94.34	3,680.74	49.18 S	196.50 E	520,141.22	744,115.40	0.00	-50.35	0.00	
3,800.00	12.00	94.34	3,778.55	50.75 S	217.24 E	520,139.65	744,136.14	0.00	-52.04	0.00	
3,900.00	12.00	94.34	3,876.36	52.33 S	237.98 E	520,138.07	744,156.88	0.00	-53.74	0.00	
4,000.00	12.00	94.34	3,974.18	53.90 S	258.72 E	520,136.50	744,177.62	0.00	-55.44	0.00	
4,100.00	12.00	94.34	4,071.99	55.48 S	279.46 E	520,134.92	744,198.36	0.00	-57.13	0.00	
4,200.00	12.00	94.34	4,169.80	57.05 S	300.20 E	520,133.35	744,219.10	0.00	-58.83	0.00	
4,300.00	12.00	94.34	4,267.61	58.62 S	320.93 E	520,131.78	744,239.83	0.00	-60.53	0.00	
4,400.00	12.00	94.34	4,365.43	60.20 S	341.67 E	520,130.20	744,260.57	0.00	-62.22	0.00	
4,404.67	12.00	94.34	4,370.00	60.27 S	342.64 E	520,130.13	744,261.54	0.00	-62.30	0.00	Salt Base - Fletcher Anhydrite
4,500.00	12.00	94.34	4,463.24	61.77 S	362.41 E	520,128.63	744,281.31	0.00	-63.92	0.00	
4,600.00	12.00	94.34	4,561.05	63.34 S	383.15 E	520,127.06	744,302.05	0.00	-65.62	0.00	
4,700.00	12.00	94.34	4,658.87	64.92 S	403.89 E	520,125.48	744,322.79	0.00	-67.31	0.00	
4,800.00	12.00	94.34	4,756.68	66.49 S	424.63 E	520,123.91	744,343.53	0.00	-69.01	0.00	
4,880.07	12.00	94.34	4,835.00	67.75 S	441.23 E	520,122.65	744,360.13	0.00	-70.37	0.00	Delaware (Lamar)
4,900.00	12.00	94.34	4,854.49	68.06 S	445.37 E	520,122.34	744,364.27	0.00	-70.71	0.00	
4,997.64	12.00	94.34	4,950.00	69.60 S	465.62 E	520,120.80	744,384.52	0.00	-72.36	0.00	Bell Canyon
5,000.00	12.00	94.34	4,952.31	69.64 S	466.11 E	520,120.76	744,385.01	0.00	-72.40	0.00	
5,100.00	12.00	94.34	5,050.12	71.21 S	486.85 E	520,119.19	744,405.75	0.00	-74.10	0.00	
5,200.00	12.00	94.34	5,147.93	72.79 S	507.58 E	520,117.61	744,426.48	0.00	-75.80	0.00	
5,300.00	12.00	94.34	5,245.75	74.36 S	528.32 E	520,116.04	744,447.22	0.00	-77.49	0.00	
5,400.00	12.00	94.34	5,343.56	75.93 S	549.06 E	520,114.47	744,467.96	0.00	-79.19	0.00	
5,500.00	12.00	94.34	5,441.37	77.51 S	569.80 E	520,112.89	744,488.70	0.00	-80.89	0.00	
5,600.00	12.00	94.34	5,539.19	79.08 S	590.54 E	520,111.32	744,509.44	0.00	-82.58	0.00	
5,700.00	12.00	94.34	5,637.00	80.65 S	611.28 E	520,109.75	744,530.18	0.00	-84.28	0.00	
5,800.00	12.00	94.34	5,734.81	82.23 S	632.02 E	520,108.17	744,550.92	0.00	-85.98	0.00	
5,900.00	12.00	94.34	5,832.63	83.80 S	652.76 E	520,106.60	744,571.66	0.00	-87.67	0.00	
6,000.00	12.00	94.34	5,930.44	85.37 S	673.50 E	520,105.03	744,592.40	0.00	-89.37	0.00	
6,066.00	12.00	94.34	5,995.00	86.41 S	687.18 E	520,103.99	744,606.08	0.00	-90.49	0.00	Manzanita Marker
6,100.00	12.00	94.34	6,028.25	86.95 S	694.23 E	520,103.45	744,613.13	0.00	-91.07	0.00	



Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
6,200.00	12.00	94.34	6,126.07	88.52 S	714.97 E	520,101.88	744,633.87	0.00	-92.76	0.00	
6,300.00	12.00	94.34	6,223.88	90.10 S	735.71 E	520,100.30	744,654.61	0.00	-94.46	0.00	
6,400.00	12.00	94.34	6,321.69	91.67 S	756.45 E	520,098.73	744,675.35	0.00	-96.16	0.00	
6,500.00	12.00	94.34	6,419.51	93.24 S	777.19 E	520,097.16	744,696.09	0.00	-97.85	0.00	
6,600.00	12.00	94.34	6,517.32	94.82 S	797.93 E	520,095.58	744,716.83	0.00	-99.55	0.00	
6,700.00	12.00	94.34	6,615.13	96.39 S	818.67 E	520,094.01	744,737.57	0.00	-101.25	0.00	
6,800.00	12.00	94.34	6,712.94	97.96 S	839.41 E	520,092.44	744,758.31	0.00	-102.94	0.00	
6,900.00	12.00	94.34	6,810.76	99.54 S	860.15 E	520,090.86	744,779.05	0.00	-104.64	0.00	
7,000.00	12.00	94.34	6,908.57	101.11 S	880.88 E	520,089.29	744,799.78	0.00	-106.34	0.00	
7,100.00	12.00	94.34	7,006.38	102.68 S	901.62 E	520,087.72	744,820.52	0.00	-108.03	0.00	
7,200.00	12.00	94.34	7,104.20	104.26 S	922.36 E	520,086.14	744,841.26	0.00	-109.73	0.00	
7,300.00	12.00	94.34	7,202.01	105.83 S	943.10 E	520,084.57	744,862.00	0.00	-111.43	0.00	
7,400.00	12.00	94.34	7,299.82	107.41 S	963.84 E	520,082.99	744,882.74	0.00	-113.12	0.00	
7,500.00	12.00	94.34	7,397.64	108.98 S	984.58 E	520,081.42	744,903.48	0.00	-114.82	0.00	
7,600.00	12.00	94.34	7,495.45	110.55 S	1,005.32 E	520,079.85	744,924.22	0.00	-116.52	0.00	
7,700.00	12.00	94.34	7,593.26	112.13 S	1,026.06 E	520,078.27	744,944.96	0.00	-118.21	0.00	
7,800.00	12.00	94.34	7,691.08	113.70 S	1,046.80 E	520,076.70	744,965.70	0.00	-119.91	0.00	
7,900.00	12.00	94.34	7,788.89	115.27 S	1,067.54 E	520,075.13	744,986.44	0.00	-121.61	0.00	
8,000.00	12.00	94.34	7,886.70	116.85 S	1,088.27 E	520,073.55	745,007.17	0.00	-123.30	0.00	
8,036.43	12.00	94.34	7,922.33	117.42 S	1,095.83 E	520,072.98	745,014.73	0.00	-123.92	0.00	Drop @ 1.00°/100ft
8,100.00	11.37	94.34	7,984.59	118.39 S	1,108.67 E	520,072.01	745,027.57	1.00	-124.97	180.00	
8,200.00	10.37	94.34	8,082.79	119.82 S	1,127.47 E	520,070.58	745,046.37	1.00	-126.51	180.00	
8,300.00	9.37	94.34	8,181.31	121.12 S	1,144.56 E	520,069.28	745,063.46	1.00	-127.91	180.00	
8,400.00	8.37	94.34	8,280.12	122.28 S	1,159.93 E	520,068.12	745,078.83	1.00	-129.17	180.00	
8,500.00	7.37	94.34	8,379.17	123.32 S	1,173.58 E	520,067.08	745,092.48	1.00	-130.28	180.00	
8,600.00	6.37	94.34	8,478.45	124.22 S	1,185.51 E	520,066.18	745,104.41	1.00	-131.26	180.00	
8,631.73	6.05	94.34	8,510.00	124.48 S	1,188.93 E	520,065.92	745,107.83	1.00	-131.54	180.00	Basal Brushy Canyon
8,700.00	5.37	94.34	8,577.93	125.00 S	1,195.70 E	520,065.40	745,114.60	1.00	-132.09	-180.00	
8,800.00	4.37	94.34	8,677.57	125.64 S	1,204.17 E	520,064.76	745,123.07	1.00	-132.78	180.00	
8,900.00	3.37	94.34	8,777.34	126.15 S	1,210.89 E	520,064.25	745,129.79	1.00	-133.33	180.00	
8,917.69	3.19	94.34	8,795.00	126.23 S	1,211.90 E	520,064.17	745,130.80	1.00	-133.42	180.00	Bone Spring
9,000.00	2.37	94.34	8,877.21	126.53 S	1,215.88 E	520,063.87	745,134.78	1.00	-133.74	-180.00	
9,100.00	1.37	94.34	8,977.16	126.78 S	1,219.13 E	520,063.62	745,138.03	1.00	-134.01	180.00	
9,200.00	0.37	94.34	9,077.14	126.89 S	1,220.65 E	520,063.51	745,139.55	1.00	-134.13	180.00	
9,236.86	0.00	0.00	9,114.00	126.90 S	1,220.76 E	520,063.50	745,139.66	1.00	-134.14	-180.00	Start Hold
9,300.00	0.00	0.00	9,177.14	126.90 S	1,220.76 E	520,063.50	745,139.66	0.00	-134.14	0.00	
9,400.00	0.00	0.00	9,277.14	126.90 S	1,220.76 E	520,063.50	745,139.66	0.00	-134.14	0.00	



Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,426.06	0.00	0.00	9,303.20	126.90 S	1,220.76 E	520,063.50	745,139.66	0.00	-134.14	0.00	KOP @ 10.00°/100ft - 7"
9,450.00	2.39	359.66	9,327.14	126.40 S	1,220.76 E	520,064.00	745,139.66	10.00	-133.64	359.66	
9,500.00	7.39	359.66	9,376.94	122.14 S	1,220.74 E	520,068.26	745,139.64	10.00	-129.38	0.00	
9,550.00	12.39	359.66	9,426.18	113.55 S	1,220.68 E	520,076.85	745,139.58	10.00	-120.79	0.00	
9,600.00	17.39	359.66	9,474.48	100.70 S	1,220.61 E	520,089.70	745,139.51	10.00	-107.94	0.00	
9,650.00	22.39	359.66	9,521.48	83.69 S	1,220.51 E	520,106.71	745,139.41	10.00	-90.93	0.00	
9,700.00	27.39	359.66	9,566.82	62.65 S	1,220.38 E	520,127.75	745,139.28	10.00	-69.89	0.00	
9,750.00	32.39	359.66	9,610.16	37.74 S	1,220.23 E	520,152.66	745,139.13	10.00	-44.98	0.00	
9,800.00	37.39	359.66	9,651.16	9.15 S	1,220.06 E	520,181.25	745,138.96	10.00	-16.39	0.00	
9,850.00	42.39	359.66	9,689.51	22.91 N	1,219.87 E	520,213.31	745,138.77	10.00	15.67	0.00	
9,900.00	47.39	359.66	9,724.91	58.19 N	1,219.66 E	520,248.59	745,138.56	10.00	50.95	0.00	
9,950.00	52.39	359.66	9,757.11	96.42 N	1,219.43 E	520,286.82	745,138.33	10.00	89.18	0.00	
10,000.00	57.39	359.66	9,785.86	137.31 N	1,219.19 E	520,327.71	745,138.09	10.00	130.07	0.00	
10,050.00	62.39	359.66	9,810.93	180.55 N	1,218.93 E	520,370.95	745,137.83	10.00	173.32	0.00	
10,058.91	63.29	359.66	9,815.00	188.48 N	1,218.88 E	520,378.88	745,137.78	10.00	181.25	0.00	1st Bone Spring Sand
10,100.00	67.39	359.66	9,832.14	225.81 N	1,218.66 E	520,416.21	745,137.56	10.00	218.58	0.00	
10,150.00	72.39	359.66	9,849.32	272.75 N	1,218.38 E	520,463.15	745,137.28	10.00	265.52	0.00	
10,200.00	77.39	359.66	9,862.35	321.01 N	1,218.09 E	520,511.41	745,136.99	10.00	313.77	0.00	
10,250.00	82.39	359.66	9,871.12	370.21 N	1,217.79 E	520,560.61	745,136.69	10.00	362.98	0.00	
10,300.00	87.39	359.66	9,875.57	420.00 N	1,217.50 E	520,610.40	745,136.40	10.00	412.77	0.00	
10,327.46	90.14	359.66	9,876.16	447.45 N	1,217.33 E	520,637.85	745,136.23	10.00	440.21	0.00	Landing Point
10,400.00	90.14	359.66	9,875.98	519.99 N	1,216.90 E	520,710.39	745,135.80	0.00	512.76	0.00	
10,500.00	90.14	359.66	9,875.74	619.99 N	1,216.30 E	520,810.39	745,135.20	0.00	612.76	0.00	
10,600.00	90.14	359.66	9,875.49	719.98 N	1,215.71 E	520,910.38	745,134.61	0.00	712.76	0.00	
10,700.00	90.14	359.66	9,875.25	819.98 N	1,215.11 E	521,010.38	745,134.01	0.00	812.76	0.00	
10,800.00	90.14	359.66	9,875.00	919.98 N	1,214.51 E	521,110.38	745,133.41	0.00	912.76	0.00	
10,900.00	90.14	359.66	9,874.76	1,019.98 N	1,213.91 E	521,210.38	745,132.81	0.00	1,012.76	0.00	
11,000.00	90.14	359.66	9,874.51	1,119.98 N	1,213.32 E	521,310.38	745,132.22	0.00	1,112.76	0.00	
11,100.00	90.14	359.66	9,874.27	1,219.97 N	1,212.72 E	521,410.37	745,131.62	0.00	1,212.76	0.00	
11,200.00	90.14	359.66	9,874.02	1,319.97 N	1,212.12 E	521,510.37	745,131.02	0.00	1,312.76	0.00	
11,300.00	90.14	359.66	9,873.78	1,419.97 N	1,211.52 E	521,610.37	745,130.42	0.00	1,412.76	0.00	
11,400.00	90.14	359.66	9,873.54	1,519.97 N	1,210.93 E	521,710.37	745,129.83	0.00	1,512.75	0.00	
11,500.00	90.14	359.66	9,873.29	1,619.97 N	1,210.33 E	521,810.37	745,129.23	0.00	1,612.75	0.00	
11,600.00	90.14	359.66	9,873.05	1,719.96 N	1,209.73 E	521,910.36	745,128.63	0.00	1,712.75	0.00	
11,700.00	90.14	359.66	9,872.80	1,819.96 N	1,209.14 E	522,010.36	745,128.04	0.00	1,812.75	0.00	
11,800.00	90.14	359.66	9,872.56	1,919.96 N	1,208.54 E	522,110.36	745,127.44	0.00	1,912.75	0.00	



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				Northing	Easting	Northing	Easting				
11,900.00	90.14	359.66	9,872.31	2,019.96 N	1,207.94 E	522,210.36	745,126.84	0.00	2,012.75	0.00	
12,000.00	90.14	359.66	9,872.07	2,119.95 N	1,207.34 E	522,310.35	745,126.24	0.00	2,112.75	0.00	
12,100.00	90.14	359.66	9,871.83	2,219.95 N	1,206.75 E	522,410.35	745,125.65	0.00	2,212.75	0.00	
12,200.00	90.14	359.66	9,871.58	2,319.95 N	1,206.15 E	522,510.35	745,125.05	0.00	2,312.75	0.00	
12,300.00	90.14	359.66	9,871.34	2,419.95 N	1,205.55 E	522,610.35	745,124.45	0.00	2,412.75	0.00	
12,400.00	90.14	359.66	9,871.09	2,519.95 N	1,204.95 E	522,710.35	745,123.85	0.00	2,512.75	0.00	
12,500.00	90.14	359.66	9,870.85	2,619.94 N	1,204.36 E	522,810.34	745,123.26	0.00	2,612.75	0.00	
12,600.00	90.14	359.66	9,870.60	2,719.94 N	1,203.76 E	522,910.34	745,122.66	0.00	2,712.75	0.00	
12,700.00	90.14	359.66	9,870.36	2,819.94 N	1,203.16 E	523,010.34	745,122.06	0.00	2,812.75	0.00	
12,800.00	90.14	359.66	9,870.12	2,919.94 N	1,202.57 E	523,110.34	745,121.47	0.00	2,912.75	0.00	
12,900.00	90.14	359.66	9,869.87	3,019.94 N	1,201.97 E	523,210.34	745,120.87	0.00	3,012.75	0.00	
13,000.00	90.14	359.66	9,869.63	3,119.93 N	1,201.37 E	523,310.33	745,120.27	0.00	3,112.75	0.00	
13,100.00	90.14	359.66	9,869.38	3,219.93 N	1,200.77 E	523,410.33	745,119.67	0.00	3,212.75	0.00	
13,200.00	90.14	359.66	9,869.14	3,319.93 N	1,200.18 E	523,510.33	745,119.08	0.00	3,312.75	0.00	
13,300.00	90.14	359.66	9,868.89	3,419.93 N	1,199.58 E	523,610.33	745,118.48	0.00	3,412.75	0.00	
13,400.00	90.14	359.66	9,868.65	3,519.93 N	1,198.98 E	523,710.33	745,117.88	0.00	3,512.75	0.00	
13,500.00	90.14	359.66	9,868.40	3,619.92 N	1,198.38 E	523,810.32	745,117.28	0.00	3,612.75	0.00	
13,600.00	90.14	359.66	9,868.16	3,719.92 N	1,197.79 E	523,910.32	745,116.69	0.00	3,712.75	0.00	
13,700.00	90.14	359.66	9,867.92	3,819.92 N	1,197.19 E	524,010.32	745,116.09	0.00	3,812.75	0.00	
13,800.00	90.14	359.66	9,867.67	3,919.92 N	1,196.59 E	524,110.32	745,115.49	0.00	3,912.75	0.00	
13,900.00	90.14	359.66	9,867.43	4,019.92 N	1,195.99 E	524,210.32	745,114.89	0.00	4,012.75	0.00	
14,000.00	90.14	359.66	9,867.18	4,119.91 N	1,195.40 E	524,310.31	745,114.30	0.00	4,112.75	0.00	
14,100.00	90.14	359.66	9,866.94	4,219.91 N	1,194.80 E	524,410.31	745,113.70	0.00	4,212.75	0.00	
14,200.00	90.14	359.66	9,866.69	4,319.91 N	1,194.20 E	524,510.31	745,113.10	0.00	4,312.75	0.00	
14,300.00	90.14	359.66	9,866.45	4,419.91 N	1,193.61 E	524,610.31	745,112.51	0.00	4,412.75	0.00	
14,400.00	90.14	359.66	9,866.21	4,519.90 N	1,193.01 E	524,710.30	745,111.91	0.00	4,512.75	0.00	
14,480.10	90.14	359.66	9,866.01	4,600.00 N	1,192.53 E	524,790.40	745,111.43	0.00	4,592.84	0.00	Turn @ 2.00°/100ft
14,500.00	90.14	359.26	9,865.96	4,619.90 N	1,192.34 E	524,810.30	745,111.24	2.00	4,612.75	-90.00	
14,600.00	90.14	357.26	9,865.72	4,719.85 N	1,189.31 E	524,910.25	745,108.21	2.00	4,712.71	-90.00	
14,700.00	90.14	355.26	9,865.47	4,819.63 N	1,182.78 E	525,010.03	745,101.68	2.00	4,812.53	-90.01	
14,800.00	90.14	353.26	9,865.23	4,919.13 N	1,172.78 E	525,109.53	745,091.68	2.00	4,912.08	-90.01	
14,831.82	90.14	352.62	9,865.15	4,950.70 N	1,168.87 E	525,141.10	745,087.77	2.00	4,943.68	-90.02	Start Hold
14,900.00	90.14	352.62	9,864.99	5,018.32 N	1,160.12 E	525,208.72	745,079.02	0.00	5,011.35	0.00	
15,000.00	90.14	352.62	9,864.75	5,117.49 N	1,147.28 E	525,307.89	745,066.18	0.00	5,110.59	0.00	
15,100.00	90.14	352.62	9,864.50	5,216.66 N	1,134.44 E	525,407.06	745,053.34	0.00	5,209.84	0.00	
15,200.00	90.14	352.62	9,864.26	5,315.84 N	1,121.60 E	525,506.24	745,040.50	0.00	5,309.09	0.00	
15,300.00	90.14	352.62	9,864.02	5,415.01 N	1,108.76 E	525,605.41	745,027.66	0.00	5,408.33	0.00	



Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
15,400.00	90.14	352.62	9,863.78	5,514.18 N	1,095.92 E	525,704.58	745,014.82	0.00	5,507.58	0.00	
15,500.00	90.14	352.62	9,863.53	5,613.35 N	1,083.08 E	525,803.75	745,001.98	0.00	5,606.83	0.00	
15,600.00	90.14	352.62	9,863.29	5,712.52 N	1,070.24 E	525,902.92	744,989.14	0.00	5,706.07	0.00	
15,700.00	90.14	352.62	9,863.05	5,811.70 N	1,057.40 E	526,002.10	744,976.30	0.00	5,805.32	0.00	
15,800.00	90.14	352.62	9,862.81	5,910.87 N	1,044.56 E	526,101.27	744,963.46	0.00	5,904.57	0.00	
15,900.00	90.14	352.62	9,862.56	6,010.04 N	1,031.72 E	526,200.44	744,950.62	0.00	6,003.81	0.00	
16,000.00	90.14	352.62	9,862.32	6,109.21 N	1,018.89 E	526,299.61	744,937.79	0.00	6,103.06	0.00	
16,100.00	90.14	352.62	9,862.08	6,208.38 N	1,006.05 E	526,398.78	744,924.95	0.00	6,202.30	0.00	
16,200.00	90.14	352.62	9,861.84	6,307.56 N	993.21 E	526,497.96	744,912.11	0.00	6,301.55	0.00	
16,300.00	90.14	352.62	9,861.59	6,406.73 N	980.37 E	526,597.13	744,899.27	0.00	6,400.80	0.00	
16,400.00	90.14	352.62	9,861.35	6,505.90 N	967.53 E	526,696.30	744,886.43	0.00	6,500.04	0.00	
16,500.00	90.14	352.62	9,861.11	6,605.07 N	954.69 E	526,795.47	744,873.59	0.00	6,599.29	0.00	
16,600.00	90.14	352.62	9,860.87	6,704.24 N	941.85 E	526,894.64	744,860.75	0.00	6,698.54	0.00	
16,700.00	90.14	352.62	9,860.62	6,803.42 N	929.01 E	526,993.82	744,847.91	0.00	6,797.78	0.00	
16,800.00	90.14	352.62	9,860.38	6,902.59 N	916.17 E	527,092.99	744,835.07	0.00	6,897.03	0.00	
16,900.00	90.14	352.62	9,860.14	7,001.76 N	903.33 E	527,192.16	744,822.23	0.00	6,996.28	0.00	
17,000.00	90.14	352.62	9,859.90	7,100.93 N	890.49 E	527,291.33	744,809.39	0.00	7,095.52	0.00	
17,100.00	90.14	352.62	9,859.65	7,200.10 N	877.65 E	527,390.50	744,796.55	0.00	7,194.77	0.00	
17,200.00	90.14	352.62	9,859.41	7,299.28 N	864.81 E	527,489.68	744,783.71	0.00	7,294.02	0.00	
17,300.00	90.14	352.62	9,859.17	7,398.45 N	851.98 E	527,588.85	744,770.88	0.00	7,393.26	0.00	
17,400.00	90.14	352.62	9,858.93	7,497.62 N	839.14 E	527,688.02	744,758.04	0.00	7,492.51	0.00	
17,500.00	90.14	352.62	9,858.68	7,596.79 N	826.30 E	527,787.19	744,745.20	0.00	7,591.76	0.00	
17,600.00	90.14	352.62	9,858.44	7,695.96 N	813.46 E	527,886.36	744,732.36	0.00	7,691.00	0.00	
17,700.00	90.14	352.62	9,858.20	7,795.14 N	800.62 E	527,985.54	744,719.52	0.00	7,790.25	0.00	
17,800.00	90.14	352.62	9,857.96	7,894.31 N	787.78 E	528,084.71	744,706.68	0.00	7,889.50	0.00	
17,900.00	90.14	352.62	9,857.71	7,993.48 N	774.94 E	528,183.88	744,693.84	0.00	7,988.74	0.00	
18,000.00	90.14	352.62	9,857.47	8,092.65 N	762.10 E	528,283.05	744,681.00	0.00	8,087.99	0.00	
18,063.41	90.14	352.62	9,857.32	8,155.54 N	753.96 E	528,345.94	744,672.86	0.00	8,150.92	0.00	Turn @ 2.00°/100ft
18,100.00	90.14	353.36	9,857.23	8,191.85 N	749.49 E	528,382.25	744,668.39	2.00	8,187.26	89.98	
18,200.00	90.14	355.36	9,856.99	8,291.36 N	739.66 E	528,481.76	744,658.56	2.00	8,286.83	89.98	
18,300.00	90.14	357.36	9,856.74	8,391.16 N	733.30 E	528,581.56	744,652.20	2.00	8,386.66	89.99	
18,400.00	90.14	359.36	9,856.50	8,491.11 N	730.43 E	528,681.51	744,649.33	2.00	8,486.63	89.99	
18,415.24	90.14	359.66	9,856.46	8,506.35 N	730.30 E	528,696.75	744,649.20	2.00	8,501.87	90.00	Start Hold
18,500.00	90.14	359.66	9,856.25	8,591.11 N	729.80 E	528,781.51	744,648.70	0.00	8,586.63	161.40	
18,600.00	90.14	359.66	9,856.01	8,691.11 N	729.20 E	528,881.51	744,648.10	0.00	8,686.63	0.00	
18,700.00	90.14	359.66	9,855.76	8,791.10 N	728.61 E	528,981.50	744,647.51	0.00	8,786.62	0.00	
18,800.00	90.14	359.66	9,855.52	8,891.10 N	728.02 E	529,081.50	744,646.92	0.00	8,886.62	0.00	

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Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
18,900.00	90.14	359.66	9,855.28	8,991.10 N	727.42 E	529,181.50	744,646.32	0.00	8,986.62	0.00	
19,000.00	90.14	359.66	9,855.03	9,091.10 N	726.83 E	529,281.50	744,645.73	0.00	9,086.62	0.00	
19,100.00	90.14	359.66	9,854.79	9,191.09 N	726.24 E	529,381.49	744,645.14	0.00	9,186.62	0.00	
19,200.00	90.14	359.66	9,854.54	9,291.09 N	725.64 E	529,481.49	744,644.54	0.00	9,286.62	0.00	
19,300.00	90.14	359.66	9,854.30	9,391.09 N	725.05 E	529,581.49	744,643.95	0.00	9,386.62	0.00	
19,400.00	90.14	359.66	9,854.05	9,491.09 N	724.46 E	529,681.49	744,643.36	0.00	9,486.62	0.00	
19,500.00	90.14	359.66	9,853.81	9,591.09 N	723.86 E	529,781.49	744,642.76	0.00	9,586.62	0.00	
19,600.00	90.14	359.66	9,853.57	9,691.08 N	723.27 E	529,881.48	744,642.17	0.00	9,686.62	0.00	
19,700.00	90.14	359.66	9,853.32	9,791.08 N	722.68 E	529,981.48	744,641.58	0.00	9,786.62	0.00	
19,800.00	90.14	359.66	9,853.08	9,891.08 N	722.08 E	530,081.48	744,640.98	0.00	9,886.62	0.00	
19,900.00	90.14	359.66	9,852.83	9,991.08 N	721.49 E	530,181.48	744,640.39	0.00	9,986.62	0.00	
20,000.00	90.14	359.66	9,852.59	10,091.08 N	720.90 E	530,281.48	744,639.80	0.00	10,086.62	0.00	
20,100.00	90.14	359.66	9,852.34	10,191.07 N	720.30 E	530,381.47	744,639.20	0.00	10,186.62	0.00	
20,200.00	90.14	359.66	9,852.10	10,291.07 N	719.71 E	530,481.47	744,638.61	0.00	10,286.62	0.00	
20,236.02	90.14	359.66	9,852.01	10,327.09 N	719.50 E	530,517.49	744,638.40	0.00	10,322.64	0.00	TD at 20236.02

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,950.00	1,950.00	0.00	0.00	Build @ 1.00°/100ft
2,250.00	2,249.86	-7.85	0.00	Start Hold
2,450.00	2,449.59	-18.32	0.00	Build @ 2.00°/100ft
3,057.29	3,052.08	-39.07	63.21	Start Hold
8,036.43	7,922.33	-117.42	1,095.83	Drop @ 1.00°/100ft
9,236.86	9,114.00	-126.90	1,220.76	Start Hold
9,426.06	9,303.20	-126.90	1,220.76	KOP @ 10.00°/100ft
10,327.46	9,876.16	447.45	1,217.33	Landing Point
14,480.10	9,866.01	4,600.00	1,192.53	Turn @ 2.00°/100ft
14,831.82	9,865.15	4,950.70	1,168.87	Start Hold
18,063.41	9,857.32	8,155.54	753.96	Turn @ 2.00°/100ft
18,415.24	9,856.46	8,506.35	730.30	Start Hold
20,236.02	9,852.01	10,327.09	719.50	TD at 20236.02

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Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	9,426.00	Plan 1	3_MWD+HRGM
9,426.00	20,236.02	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
9,426.06	9,303.20	7"	7.000	8.750
20,236.02	9,852.01	4 1/2"	4.500	6.125

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
770.00	770.00	-3,057.00	Rustler		0.00	
1,095.00	1,095.00	-2,732.00	Salt Top		0.00	
1,935.00	1,935.00	-1,892.00	Marker Bed 126		0.00	
4,404.67	4,370.00	543.00	Salt Base		0.00	
4,404.67	4,370.00	543.00	Fletcher Anhydrite		0.00	
4,880.07	4,835.00	1,008.00	Delaware (Lamar)		0.00	
4,997.64	4,950.00	1,123.00	Bell Canyon		0.00	
6,066.00	5,995.00	2,168.00	Manzanita Marker		0.00	
8,631.73	8,510.00	4,683.00	Basal Brushy Canyon		0.00	
8,917.69	8,795.00	4,968.00	Bone Spring		0.00	
10,058.91	9,815.00	5,988.00	1st Bone Spring Sand		0.00	

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 408H - Plan 1

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
Lobo 33-28 408H VT () - plan hits target center - Point	0.00	0.00	9,114.00	-126.90	1,220.76	520,063.50	745,139.66	32° 25' 40.76 N	103° 40' 22.08 W
Lobo 33-28 408H KOP () - plan misses target center by 0.14usft at 9236.94usft MD (9114.08 TVD, -126.90 N, 1220.76 E) - Point	0.00	0.00	9,114.08	-126.90	1,220.90	520,063.50	745,139.80	32° 25' 40.76 N	103° 40' 22.08 W
Lobo 33-28 408H BHL(Plat) () - plan misses target center by 1987.17usft at 17823.13usft MD (9857.90 TVD, 7917.25 N, 784.81 E) - Point	0.00	0.00	9,852.00	7,662.10	-1,185.90	527,852.50	742,733.00	32° 26' 57.98 N	103° 40' 49.61 W
Lobo 33-28 408H BHLr1 () - plan misses target center by 438.82usft at 20236.02usft MD (9852.01 TVD, 10327.09 N, 719.50 E) - Point	0.00	0.00	9,852.00	10,333.04	1,158.28	530,523.44	745,077.18	32° 27' 24.27 N	103° 40' 22.06 W
Lobo 33-28 408H PPP2 () - plan misses target center by 45.19usft at 15020.98usft MD (9864.69 TVD, 5138.30 N, 1144.58 E) - Point	0.00	0.00	9,864.75	5,144.10	1,189.40	525,334.50	745,108.30	32° 26' 32.92 N	103° 40' 22.07 W
Lobo 33-28 408H FTP () - plan misses target center by 177.04usft at 9925.25usft MD (9741.59 TVD, 77.14 N, 1219.55 E) - Point	0.00	0.00	9,877.00	-36.90	1,220.30	520,153.50	745,139.20	32° 25' 41.65 N	103° 40' 22.08 W

Directional Difficulty Index

Average Dogleg over Survey:	0.65 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 10,327.46 usft
Net Tortousity applicable to Plans:	0.65 °/100ft	Directional Difficulty Index:	6.711

Audit Info

HALLIBURTON

North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 408H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3799ft + RKB 28ft @ 3827.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 408H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995609

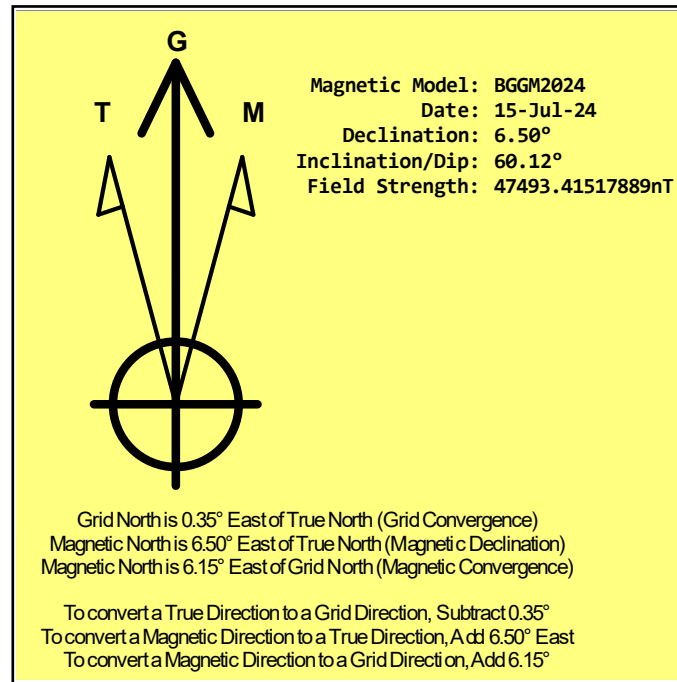
Grid Coordinates of Well: 520,190.40 usft N, 743,918.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 36.32 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 20,236.02usft the Bottom Hole Displacement is 10,352.12usft in the Direction of 3.99° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)





Project: Lea County, NM (NAD83)
 Site: Lobo 33-28
 Well: Lobo 33-28 Fed Com 625H
 Wellbore: OH
 Design: Plan 1
 Rig: Patterson 260

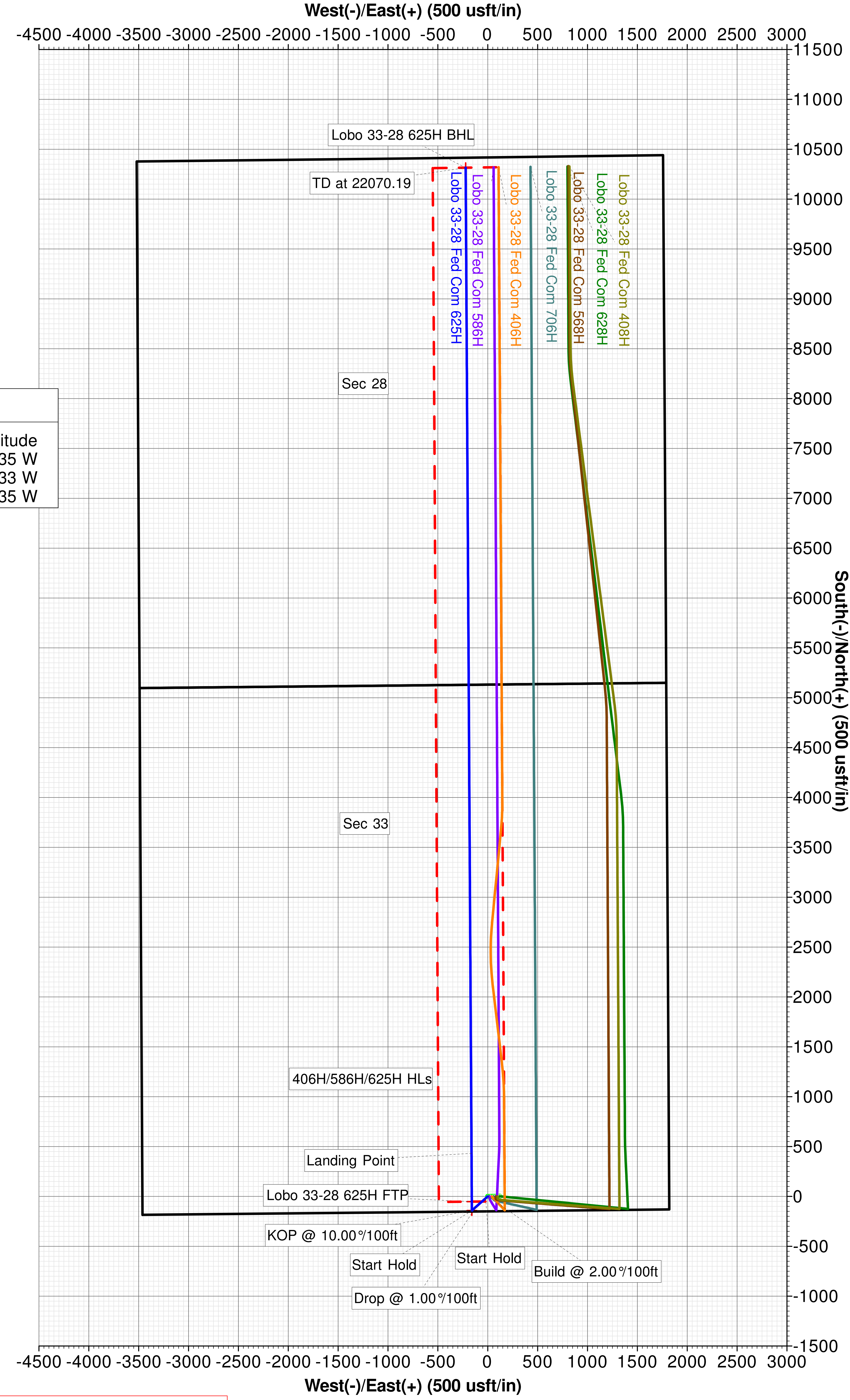
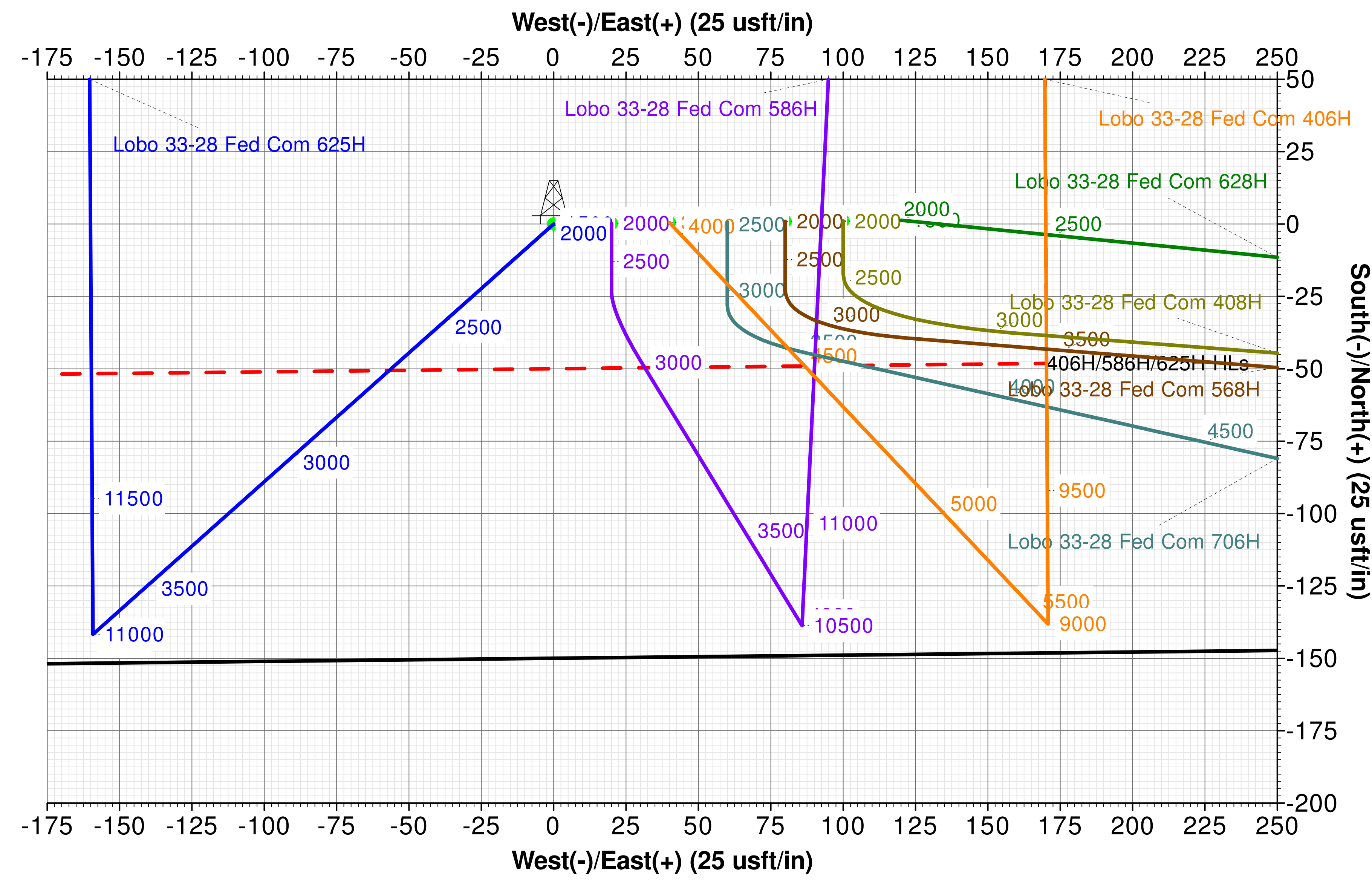
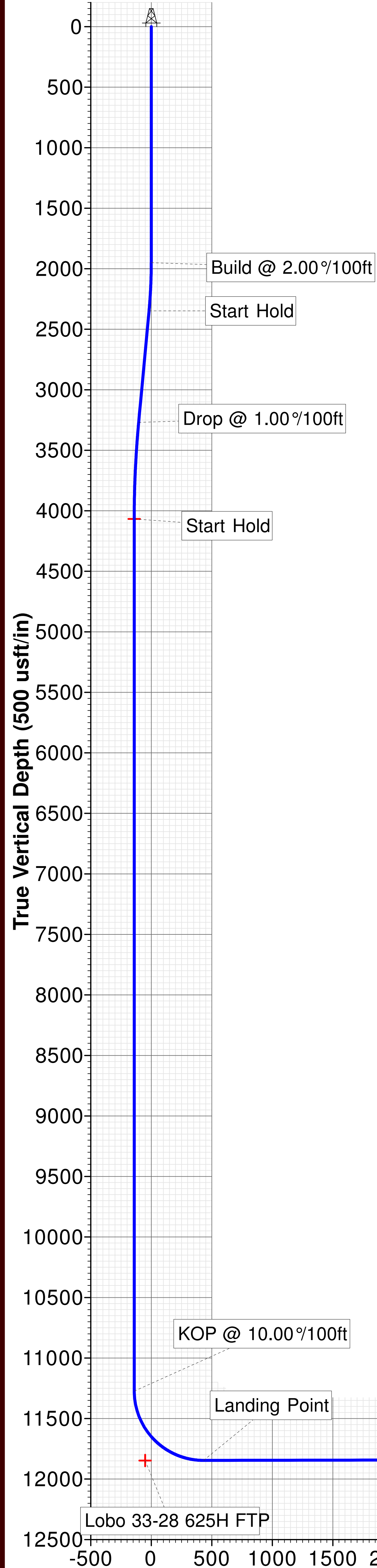
Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

WELL DETAILS						
+N/-S	+E/-W	GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)			Longitude	
		Northing	Easting	Latitude		
0.00	0.00	520189.30	743818.90	32° 25' 42.09 N	103° 40' 37.48 W	

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1950.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00	Build @ 2.00%/100ft	
2350.08	8.00	228.33	2348.78	-18.54	-20.83	2.00	228.33	-18.42	Start Hold	
3279.79	8.00	228.33	3269.44	-104.59	-117.50	0.00	0.00	-103.89	Drop @ 1.00%/100ft	
4079.95	0.00	0.00	4067.00	-141.68	-159.17	1.00	180.00	-140.73	Start Hold	
11285.97	0.00	0.00	11273.02	-141.68	-159.17	0.00	0.00	-140.73	KOP @ 10.00%/100ft	
12187.07	90.11	359.66	11845.97	432.37	-162.57	10.00	359.66	433.32	Landing Point	
22070.19	90.11	359.66	11827.00	10315.30	-221.20	0.00	0.00	10316.43	TD at 22070.19	

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
Lobo 33-28 625H VT	4067.00	-141.68	-159.17	520047.62	743659.73	32° 25' 40.69 N	103° 40' 39.35 W	
Lobo 33-28 625H BHL	11827.00	10315.30	-221.20	530504.60	743597.70	32° 27' 24.17 N	103° 40' 39.33 W	
Lobo 33-28 625H FTP	11847.00	-51.68	-159.70	520137.62	743659.20	32° 25' 41.58 N	103° 40' 39.35 W	



Hardlines
 North/South: 100' FNL & 100' FSL
 East/West: 330' FW 1/2SL & 330' FE 1/4SL

Created By: Bo Siwoniku
 Date: 14:15, June 25 2024





Lobo 33-28

PROJECT DETAILS: Lea County, NM (NAD83)

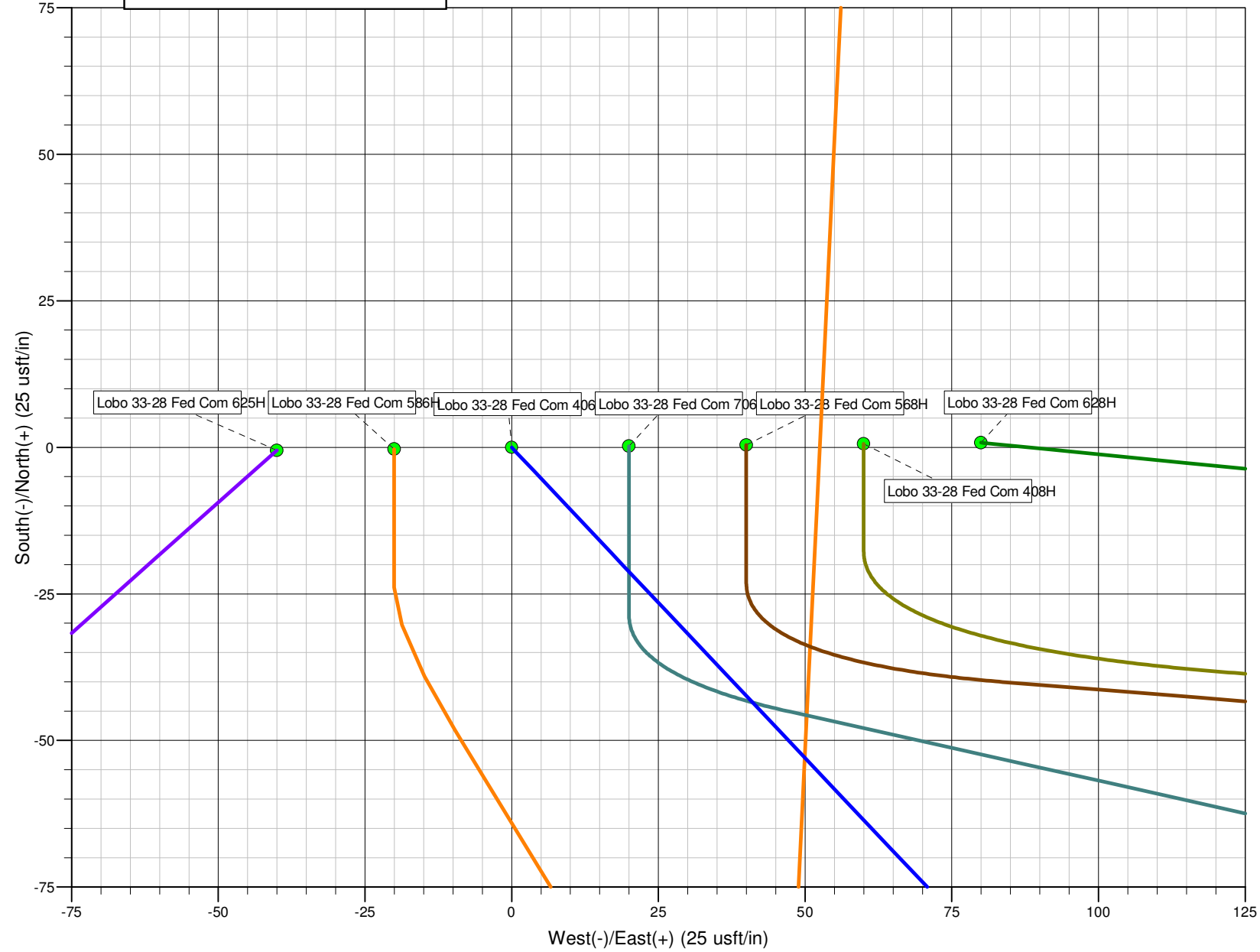
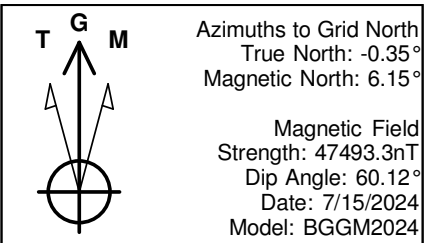
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

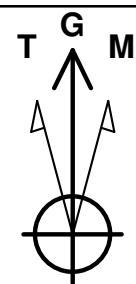
SITE DETAILS: Lobo 33-28

Site Centre Northing: 520189.80
 Easting: 743858.90

Positional Uncertainty: 5.00
 Convergence: 0.35
 Local North: Grid



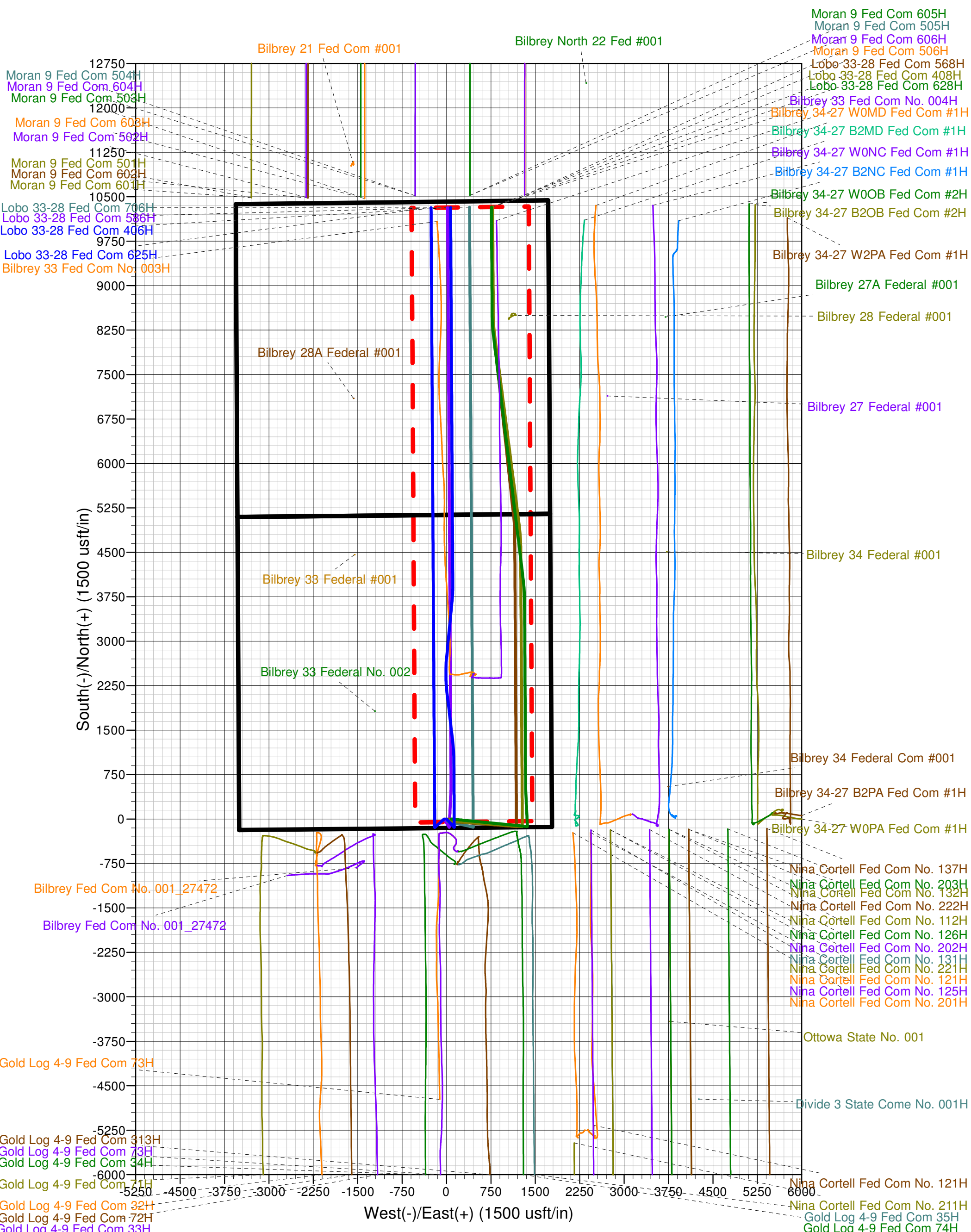
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 625H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 37.48 W

North American Datum 1983
New Mexico Eastern Zone
520,189.30 N
743,818.90 E

Ground Level: 3,800.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 625H

Viewing Datum:

GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

HALLIBURTON

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
753.00	0.00	0.00	753.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
839.00	0.00	0.00	839.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	Salt Top
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	13 3/8"
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	
1,950.00	0.00	0.00	1,950.00	0.00 N	0.00 E	520,189.30	743,818.90	0.00	0.00	0.00	Build @ 2.00°/100ft
1,994.00	0.88	228.33	1,994.00	0.22 S	0.25 W	520,189.08	743,818.65	2.00	-0.22	228.33	Salt Base
2,000.00	1.00	228.33	2,000.00	0.29 S	0.33 W	520,189.01	743,818.57	2.00	-0.29	0.00	
2,100.00	3.00	228.33	2,099.93	2.61 S	2.93 W	520,186.69	743,815.97	2.00	-2.59	0.00	
2,200.00	5.00	228.33	2,199.68	7.25 S	8.14 W	520,182.05	743,810.76	2.00	-7.20	0.00	
2,300.00	7.00	228.33	2,299.13	14.20 S	15.95 W	520,175.10	743,802.95	2.00	-14.10	0.00	
2,350.08	8.00	228.33	2,348.78	18.54 S	20.83 W	520,170.76	743,798.07	2.00	-18.42	0.00	Start Hold
2,400.00	8.00	228.33	2,398.21	23.16 S	26.02 W	520,166.14	743,792.88	0.00	-23.01	0.00	
2,500.00	8.00	228.33	2,497.24	32.42 S	36.42 W	520,156.88	743,782.48	0.00	-32.20	0.00	
2,600.00	8.00	228.33	2,596.27	41.68 S	46.82 W	520,147.62	743,772.08	0.00	-41.40	0.00	
2,700.00	8.00	228.33	2,695.29	50.93 S	57.22 W	520,138.37	743,761.68	0.00	-50.59	0.00	
2,800.00	8.00	228.33	2,794.32	60.19 S	67.61 W	520,129.11	743,751.29	0.00	-59.78	0.00	
2,900.00	8.00	228.33	2,893.35	69.44 S	78.01 W	520,119.86	743,740.89	0.00	-68.98	0.00	
3,000.00	8.00	228.33	2,992.37	78.70 S	88.41 W	520,110.60	743,730.49	0.00	-78.17	0.00	

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Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,100.00	8.00	228.33	3,091.40	87.95 S	98.81 W	520,101.35	743,720.09	0.00	-87.36	0.00	
3,200.00	8.00	228.33	3,190.43	97.21 S	109.20 W	520,092.09	743,709.70	0.00	-96.56	0.00	
3,279.79	8.00	228.33	3,269.44	104.59 S	117.50 W	520,084.71	743,701.40	0.00	-103.89	0.00	Drop @ 1.00°/100ft
3,300.00	7.80	228.33	3,289.46	106.44 S	119.57 W	520,082.86	743,699.33	1.00	-105.73	-180.00	
3,400.00	6.80	228.33	3,388.65	114.89 S	129.06 W	520,074.41	743,689.84	1.00	-114.12	180.00	
3,500.00	5.80	228.33	3,488.04	122.18 S	137.26 W	520,067.12	743,681.64	1.00	-121.36	180.00	
3,600.00	4.80	228.33	3,587.61	128.32 S	144.16 W	520,060.98	743,674.74	1.00	-127.46	180.00	
3,700.00	3.80	228.33	3,687.33	133.31 S	149.76 W	520,055.99	743,669.14	1.00	-132.42	180.00	
3,800.00	2.80	228.33	3,787.16	137.13 S	154.06 W	520,052.17	743,664.84	1.00	-136.22	180.00	
3,900.00	1.80	228.33	3,887.08	139.80 S	157.06 W	520,049.50	743,661.84	1.00	-138.87	180.00	
4,000.00	0.80	228.33	3,987.05	141.31 S	158.75 W	520,047.99	743,660.15	1.00	-140.36	180.00	
4,079.95	0.00	0.00	4,067.00	141.68 S	159.17 W	520,047.62	743,659.73	1.00	-140.73	180.00	Start Hold
4,100.00	0.00	0.00	4,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,200.00	0.00	0.00	4,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,300.00	0.00	0.00	4,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,400.00	0.00	0.00	4,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,500.00	0.00	0.00	4,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,600.00	0.00	0.00	4,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,700.00	0.00	0.00	4,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,754.95	0.00	0.00	4,742.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	Delaware (Lamar)
4,785.95	0.00	0.00	4,773.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	Bell Canyon
4,800.00	0.00	0.00	4,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
4,900.00	0.00	0.00	4,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,000.00	0.00	0.00	4,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,100.00	0.00	0.00	5,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,200.00	0.00	0.00	5,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,300.00	0.00	0.00	5,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,400.00	0.00	0.00	5,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,500.00	0.00	0.00	5,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,600.00	0.00	0.00	5,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,700.00	0.00	0.00	5,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,800.00	0.00	0.00	5,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
5,863.95	0.00	0.00	5,851.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	Cherry Canyon
5,900.00	0.00	0.00	5,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,000.00	0.00	0.00	5,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,025.95	0.00	0.00	6,013.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	Manzanita Marker
6,100.00	0.00	0.00	6,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
6,200.00	0.00	0.00	6,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,300.00	0.00	0.00	6,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,400.00	0.00	0.00	6,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,500.00	0.00	0.00	6,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,600.00	0.00	0.00	6,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,700.00	0.00	0.00	6,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,800.00	0.00	0.00	6,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
6,900.00	0.00	0.00	6,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,000.00	0.00	0.00	6,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,100.00	0.00	0.00	7,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,200.00	0.00	0.00	7,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,300.00	0.00	0.00	7,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,400.00	0.00	0.00	7,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,500.00	0.00	0.00	7,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,600.00	0.00	0.00	7,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,700.00	0.00	0.00	7,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,800.00	0.00	0.00	7,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
7,900.00	0.00	0.00	7,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,000.00	0.00	0.00	7,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,100.00	0.00	0.00	8,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,200.00	0.00	0.00	8,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,300.00	0.00	0.00	8,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,400.00	0.00	0.00	8,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,500.00	0.00	0.00	8,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,600.00	0.00	0.00	8,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,700.00	0.00	0.00	8,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,790.95	0.00	0.00	8,778.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	Bone Spring
8,800.00	0.00	0.00	8,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
8,900.00	0.00	0.00	8,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,000.00	0.00	0.00	8,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,100.00	0.00	0.00	9,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,200.00	0.00	0.00	9,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,300.00	0.00	0.00	9,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,400.00	0.00	0.00	9,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,500.00	0.00	0.00	9,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,600.00	0.00	0.00	9,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,700.00	0.00	0.00	9,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	



Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,800.00	0.00	0.00	9,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
9,845.95	0.00	0.00	9,833.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	1st Bone Spring Sand
9,900.00	0.00	0.00	9,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,000.00	0.00	0.00	9,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,100.00	0.00	0.00	10,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,200.00	0.00	0.00	10,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,300.00	0.00	0.00	10,287.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,400.00	0.00	0.00	10,387.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,460.95	0.00	0.00	10,448.00	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	2nd Bone Spring Sand
10,500.00	0.00	0.00	10,487.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,600.00	0.00	0.00	10,587.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,700.00	0.00	0.00	10,687.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,800.00	0.00	0.00	10,787.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
10,900.00	0.00	0.00	10,887.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
11,000.00	0.00	0.00	10,987.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
11,100.00	0.00	0.00	11,087.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
11,200.00	0.00	0.00	11,187.05	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	
11,285.97	0.00	0.00	11,273.02	141.68 S	159.17 W	520,047.62	743,659.73	0.00	-140.73	0.00	KOP @ 10.00°/100ft - 7"
11,300.00	1.40	359.66	11,287.05	141.51 S	159.17 W	520,047.79	743,659.73	10.00	-140.56	359.66	
11,350.00	6.40	359.66	11,336.92	138.11 S	159.19 W	520,051.19	743,659.71	10.00	-137.16	0.00	
11,400.00	11.40	359.66	11,386.30	130.37 S	159.23 W	520,058.93	743,659.67	10.00	-129.42	0.00	
11,450.00	16.40	359.66	11,434.82	118.36 S	159.30 W	520,070.94	743,659.60	10.00	-117.41	0.00	
11,500.00	21.40	359.66	11,482.11	102.17 S	159.40 W	520,087.13	743,659.50	10.00	-101.22	0.00	
11,519.35	23.34	359.66	11,500.00	94.80 S	159.44 W	520,094.50	743,659.46	10.00	-93.85	0.00	3rd Bone Spring Sand
11,550.00	26.40	359.66	11,527.80	81.91 S	159.52 W	520,107.39	743,659.38	10.00	-80.97	0.00	
11,600.00	31.40	359.66	11,571.56	57.76 S	159.66 W	520,131.54	743,659.24	10.00	-56.81	0.00	
11,650.00	36.40	359.66	11,613.05	29.87 S	159.83 W	520,159.43	743,659.07	10.00	-28.93	0.00	
11,700.00	41.40	359.66	11,651.95	1.52 N	160.02 W	520,190.82	743,658.88	10.00	2.46	0.00	
11,750.00	46.40	359.66	11,687.96	36.18 N	160.22 W	520,225.48	743,658.68	10.00	37.13	0.00	
11,800.00	51.40	359.66	11,720.82	73.84 N	160.44 W	520,263.14	743,658.46	10.00	74.79	0.00	
11,850.00	56.40	359.66	11,750.26	114.23 N	160.68 W	520,303.53	743,658.22	10.00	115.18	0.00	
11,900.00	61.40	359.66	11,776.08	157.03 N	160.94 W	520,346.33	743,657.96	10.00	157.98	0.00	
11,950.00	66.40	359.66	11,798.07	201.92 N	161.20 W	520,391.22	743,657.70	10.00	202.87	0.00	
12,000.00	71.40	359.66	11,816.06	248.55 N	161.48 W	520,437.85	743,657.42	10.00	249.51	0.00	
12,050.00	76.40	359.66	11,829.92	296.58 N	161.77 W	520,485.88	743,657.13	10.00	297.53	0.00	
12,100.00	81.40	359.66	11,839.54	345.62 N	162.06 W	520,534.92	743,656.84	10.00	346.58	0.00	



Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
12,150.00	86.40	359.66	11,844.85	395.33 N	162.35 W	520,584.63	743,656.55	10.00	396.28	0.00	
12,187.07	90.11	359.66	11,845.97	432.37 N	162.57 W	520,621.67	743,656.33	10.00	433.32	0.00	Landing Point
12,200.00	90.11	359.66	11,845.95	445.30 N	162.65 W	520,634.60	743,656.25	0.00	446.26	0.00	
12,300.00	90.11	359.66	11,845.76	545.30 N	163.24 W	520,734.60	743,655.66	0.00	546.26	0.00	
12,400.00	90.11	359.66	11,845.57	645.30 N	163.83 W	520,834.60	743,655.07	0.00	646.26	0.00	
12,500.00	90.11	359.66	11,845.37	745.29 N	164.43 W	520,934.59	743,654.47	0.00	746.26	0.00	
12,600.00	90.11	359.66	11,845.18	845.29 N	165.02 W	521,034.59	743,653.88	0.00	846.26	0.00	
12,700.00	90.11	359.66	11,844.99	945.29 N	165.61 W	521,134.59	743,653.29	0.00	946.26	0.00	
12,800.00	90.11	359.66	11,844.80	1,045.29 N	166.21 W	521,234.59	743,652.69	0.00	1,046.26	0.00	
12,900.00	90.11	359.66	11,844.61	1,145.29 N	166.80 W	521,334.59	743,652.10	0.00	1,146.26	0.00	
13,000.00	90.11	359.66	11,844.41	1,245.29 N	167.39 W	521,434.59	743,651.51	0.00	1,246.26	0.00	
13,100.00	90.11	359.66	11,844.22	1,345.28 N	167.99 W	521,534.58	743,650.91	0.00	1,346.26	0.00	
13,200.00	90.11	359.66	11,844.03	1,445.28 N	168.58 W	521,634.58	743,650.32	0.00	1,446.26	0.00	
13,300.00	90.11	359.66	11,843.84	1,545.28 N	169.17 W	521,734.58	743,649.73	0.00	1,546.26	0.00	
13,400.00	90.11	359.66	11,843.65	1,645.28 N	169.77 W	521,834.58	743,649.13	0.00	1,646.26	0.00	
13,500.00	90.11	359.66	11,843.45	1,745.28 N	170.36 W	521,934.58	743,648.54	0.00	1,746.26	0.00	
13,600.00	90.11	359.66	11,843.26	1,845.27 N	170.95 W	522,034.57	743,647.95	0.00	1,846.26	0.00	
13,700.00	90.11	359.66	11,843.07	1,945.27 N	171.55 W	522,134.57	743,647.35	0.00	1,946.26	0.00	
13,800.00	90.11	359.66	11,842.88	2,045.27 N	172.14 W	522,234.57	743,646.76	0.00	2,046.26	0.00	
13,900.00	90.11	359.66	11,842.69	2,145.27 N	172.73 W	522,334.57	743,646.17	0.00	2,146.25	0.00	
14,000.00	90.11	359.66	11,842.49	2,245.27 N	173.33 W	522,434.57	743,645.57	0.00	2,246.25	0.00	
14,100.00	90.11	359.66	11,842.30	2,345.26 N	173.92 W	522,534.56	743,644.98	0.00	2,346.25	0.00	
14,200.00	90.11	359.66	11,842.11	2,445.26 N	174.51 W	522,634.56	743,644.39	0.00	2,446.25	0.00	
14,300.00	90.11	359.66	11,841.92	2,545.26 N	175.11 W	522,734.56	743,643.79	0.00	2,546.25	0.00	
14,400.00	90.11	359.66	11,841.73	2,645.26 N	175.70 W	522,834.56	743,643.20	0.00	2,646.25	0.00	
14,500.00	90.11	359.66	11,841.53	2,745.26 N	176.29 W	522,934.56	743,642.61	0.00	2,746.25	0.00	
14,600.00	90.11	359.66	11,841.34	2,845.25 N	176.89 W	523,034.55	743,642.01	0.00	2,846.25	0.00	
14,700.00	90.11	359.66	11,841.15	2,945.25 N	177.48 W	523,134.55	743,641.42	0.00	2,946.25	0.00	
14,800.00	90.11	359.66	11,840.96	3,045.25 N	178.07 W	523,234.55	743,640.83	0.00	3,046.25	0.00	
14,900.00	90.11	359.66	11,840.77	3,145.25 N	178.66 W	523,334.55	743,640.24	0.00	3,146.25	0.00	
15,000.00	90.11	359.66	11,840.57	3,245.25 N	179.26 W	523,434.55	743,639.64	0.00	3,246.25	0.00	
15,100.00	90.11	359.66	11,840.38	3,345.24 N	179.85 W	523,534.54	743,639.05	0.00	3,346.25	0.00	
15,200.00	90.11	359.66	11,840.19	3,445.24 N	180.44 W	523,634.54	743,638.46	0.00	3,446.25	0.00	
15,300.00	90.11	359.66	11,840.00	3,545.24 N	181.04 W	523,734.54	743,637.86	0.00	3,546.25	0.00	
15,400.00	90.11	359.66	11,839.81	3,645.24 N	181.63 W	523,834.54	743,637.27	0.00	3,646.25	0.00	
15,500.00	90.11	359.66	11,839.61	3,745.24 N	182.22 W	523,934.54	743,636.68	0.00	3,746.25	0.00	
15,600.00	90.11	359.66	11,839.42	3,845.23 N	182.82 W	524,034.53	743,636.08	0.00	3,846.25	0.00	



Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
15,700.00	90.11	359.66	11,839.23	3,945.23 N	183.41 W	524,134.53	743,635.49	0.00	3,946.25	0.00	
15,800.00	90.11	359.66	11,839.04	4,045.23 N	184.00 W	524,234.53	743,634.90	0.00	4,046.25	0.00	
15,900.00	90.11	359.66	11,838.85	4,145.23 N	184.60 W	524,334.53	743,634.30	0.00	4,146.25	0.00	
16,000.00	90.11	359.66	11,838.65	4,245.23 N	185.19 W	524,434.53	743,633.71	0.00	4,246.25	0.00	
16,100.00	90.11	359.66	11,838.46	4,345.22 N	185.78 W	524,534.52	743,633.12	0.00	4,346.25	0.00	
16,200.00	90.11	359.66	11,838.27	4,445.22 N	186.38 W	524,634.52	743,632.52	0.00	4,446.25	0.00	
16,300.00	90.11	359.66	11,838.08	4,545.22 N	186.97 W	524,734.52	743,631.93	0.00	4,546.25	0.00	
16,400.00	90.11	359.66	11,837.89	4,645.22 N	187.56 W	524,834.52	743,631.34	0.00	4,646.25	0.00	
16,500.00	90.11	359.66	11,837.69	4,745.22 N	188.16 W	524,934.52	743,630.74	0.00	4,746.25	0.00	
16,600.00	90.11	359.66	11,837.50	4,845.22 N	188.75 W	525,034.52	743,630.15	0.00	4,846.25	0.00	
16,700.00	90.11	359.66	11,837.31	4,945.21 N	189.34 W	525,134.51	743,629.56	0.00	4,946.25	0.00	
16,800.00	90.11	359.66	11,837.12	5,045.21 N	189.94 W	525,234.51	743,628.96	0.00	5,046.25	0.00	
16,900.00	90.11	359.66	11,836.93	5,145.21 N	190.53 W	525,334.51	743,628.37	0.00	5,146.25	0.00	
17,000.00	90.11	359.66	11,836.73	5,245.21 N	191.12 W	525,434.51	743,627.78	0.00	5,246.25	0.00	
17,100.00	90.11	359.66	11,836.54	5,345.21 N	191.72 W	525,534.51	743,627.18	0.00	5,346.25	0.00	
17,200.00	90.11	359.66	11,836.35	5,445.20 N	192.31 W	525,634.50	743,626.59	0.00	5,446.25	0.00	
17,300.00	90.11	359.66	11,836.16	5,545.20 N	192.90 W	525,734.50	743,626.00	0.00	5,546.25	0.00	
17,400.00	90.11	359.66	11,835.97	5,645.20 N	193.50 W	525,834.50	743,625.40	0.00	5,646.25	0.00	
17,500.00	90.11	359.66	11,835.77	5,745.20 N	194.09 W	525,934.50	743,624.81	0.00	5,746.25	0.00	
17,600.00	90.11	359.66	11,835.58	5,845.20 N	194.68 W	526,034.50	743,624.22	0.00	5,846.25	0.00	
17,700.00	90.11	359.66	11,835.39	5,945.19 N	195.28 W	526,134.49	743,623.62	0.00	5,946.25	0.00	
17,800.00	90.11	359.66	11,835.20	6,045.19 N	195.87 W	526,234.49	743,623.03	0.00	6,046.25	0.00	
17,900.00	90.11	359.66	11,835.01	6,145.19 N	196.46 W	526,334.49	743,622.44	0.00	6,146.25	0.00	
18,000.00	90.11	359.66	11,834.81	6,245.19 N	197.05 W	526,434.49	743,621.85	0.00	6,246.25	0.00	
18,100.00	90.11	359.66	11,834.62	6,345.19 N	197.65 W	526,534.49	743,621.25	0.00	6,346.25	0.00	
18,200.00	90.11	359.66	11,834.43	6,445.18 N	198.24 W	526,634.48	743,620.66	0.00	6,446.25	0.00	
18,300.00	90.11	359.66	11,834.24	6,545.18 N	198.83 W	526,734.48	743,620.07	0.00	6,546.25	0.00	
18,400.00	90.11	359.66	11,834.05	6,645.18 N	199.43 W	526,834.48	743,619.47	0.00	6,646.25	0.00	
18,500.00	90.11	359.66	11,833.85	6,745.18 N	200.02 W	526,934.48	743,618.88	0.00	6,746.25	0.00	
18,600.00	90.11	359.66	11,833.66	6,845.18 N	200.61 W	527,034.48	743,618.29	0.00	6,846.25	0.00	
18,700.00	90.11	359.66	11,833.47	6,945.17 N	201.21 W	527,134.47	743,617.69	0.00	6,946.25	0.00	
18,800.00	90.11	359.66	11,833.28	7,045.17 N	201.80 W	527,234.47	743,617.10	0.00	7,046.25	0.00	
18,900.00	90.11	359.66	11,833.09	7,145.17 N	202.39 W	527,334.47	743,616.51	0.00	7,146.25	0.00	
19,000.00	90.11	359.66	11,832.89	7,245.17 N	202.99 W	527,434.47	743,615.91	0.00	7,246.25	0.00	
19,100.00	90.11	359.66	11,832.70	7,345.17 N	203.58 W	527,534.47	743,615.32	0.00	7,346.25	0.00	
19,200.00	90.11	359.66	11,832.51	7,445.16 N	204.17 W	527,634.46	743,614.73	0.00	7,446.25	0.00	
19,300.00	90.11	359.66	11,832.32	7,545.16 N	204.77 W	527,734.46	743,614.13	0.00	7,546.24	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
19,400.00	90.11	359.66	11,832.13	7,645.16 N	205.36 W	527,834.46	743,613.54	0.00	7,646.24	0.00	
19,500.00	90.11	359.66	11,831.93	7,745.16 N	205.95 W	527,934.46	743,612.95	0.00	7,746.24	0.00	
19,600.00	90.11	359.66	11,831.74	7,845.16 N	206.55 W	528,034.46	743,612.35	0.00	7,846.24	0.00	
19,700.00	90.11	359.66	11,831.55	7,945.15 N	207.14 W	528,134.45	743,611.76	0.00	7,946.24	0.00	
19,800.00	90.11	359.66	11,831.36	8,045.15 N	207.73 W	528,234.45	743,611.17	0.00	8,046.24	0.00	
19,900.00	90.11	359.66	11,831.17	8,145.15 N	208.33 W	528,334.45	743,610.57	0.00	8,146.24	0.00	
20,000.00	90.11	359.66	11,830.97	8,245.15 N	208.92 W	528,434.45	743,609.98	0.00	8,246.24	0.00	
20,100.00	90.11	359.66	11,830.78	8,345.15 N	209.51 W	528,534.45	743,609.39	0.00	8,346.24	0.00	
20,200.00	90.11	359.66	11,830.59	8,445.15 N	210.11 W	528,634.45	743,608.79	0.00	8,446.24	0.00	
20,300.00	90.11	359.66	11,830.40	8,545.14 N	210.70 W	528,734.44	743,608.20	0.00	8,546.24	0.00	
20,400.00	90.11	359.66	11,830.21	8,645.14 N	211.29 W	528,834.44	743,607.61	0.00	8,646.24	0.00	
20,500.00	90.11	359.66	11,830.01	8,745.14 N	211.89 W	528,934.44	743,607.01	0.00	8,746.24	0.00	
20,600.00	90.11	359.66	11,829.82	8,845.14 N	212.48 W	529,034.44	743,606.42	0.00	8,846.24	0.00	
20,700.00	90.11	359.66	11,829.63	8,945.14 N	213.07 W	529,134.44	743,605.83	0.00	8,946.24	0.00	
20,800.00	90.11	359.66	11,829.44	9,045.13 N	213.66 W	529,234.43	743,605.24	0.00	9,046.24	0.00	
20,900.00	90.11	359.66	11,829.25	9,145.13 N	214.26 W	529,334.43	743,604.64	0.00	9,146.24	0.00	
21,000.00	90.11	359.66	11,829.05	9,245.13 N	214.85 W	529,434.43	743,604.05	0.00	9,246.24	0.00	
21,100.00	90.11	359.66	11,828.86	9,345.13 N	215.44 W	529,534.43	743,603.46	0.00	9,346.24	0.00	
21,200.00	90.11	359.66	11,828.67	9,445.13 N	216.04 W	529,634.43	743,602.86	0.00	9,446.24	0.00	
21,300.00	90.11	359.66	11,828.48	9,545.12 N	216.63 W	529,734.42	743,602.27	0.00	9,546.24	0.00	
21,400.00	90.11	359.66	11,828.29	9,645.12 N	217.22 W	529,834.42	743,601.68	0.00	9,646.24	0.00	
21,500.00	90.11	359.66	11,828.09	9,745.12 N	217.82 W	529,934.42	743,601.08	0.00	9,746.24	0.00	
21,600.00	90.11	359.66	11,827.90	9,845.12 N	218.41 W	530,034.42	743,600.49	0.00	9,846.24	0.00	
21,700.00	90.11	359.66	11,827.71	9,945.12 N	219.00 W	530,134.42	743,599.90	0.00	9,946.24	0.00	
21,800.00	90.11	359.66	11,827.52	10,045.11 N	219.60 W	530,234.41	743,599.30	0.00	10,046.24	0.00	
21,900.00	90.11	359.66	11,827.33	10,145.11 N	220.19 W	530,334.41	743,598.71	0.00	10,146.24	0.00	
22,000.00	90.11	359.66	11,827.13	10,245.11 N	220.78 W	530,434.41	743,598.12	0.00	10,246.24	0.00	
22,070.19	90.11	359.66	11,827.00	10,315.30 N	221.20 W	530,504.60	743,597.70	0.00	10,316.43	0.00	TD at 22070.19 - 4 1/2"

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Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,950.00	1,950.00	0.00	0.00	Build @ 2.00°/100ft
2,350.08	2,348.78	-18.54	-20.83	Start Hold
3,279.79	3,269.44	-104.59	-117.50	Drop @ 1.00°/100ft
4,079.95	4,067.00	-141.68	-159.17	Start Hold
11,285.97	11,273.02	-141.68	-159.17	KOP @ 10.00°/100ft
12,187.07	11,845.97	432.37	-162.57	Landing Point
22,070.19	11,827.00	10,315.30	-221.20	TD at 22070.19

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/-S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	11,285.00	Plan 1	3_MWD+HRGM
11,285.00	22,070.19	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
11,285.97	11,273.02	7"	7.000	8.750
22,070.19	11,827.00	4 1/2"	4.500	6.125

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
753.00	753.00	-3,075.00	Rustler			
839.00	839.00	-2,989.00	Salt Top			
1,994.00	1,994.00	-1,834.00	Salt Base			
4,754.95	4,742.00	914.00	Delaware (Lamar)			
4,785.95	4,773.00	945.00	Bell Canyon			
5,863.95	5,851.00	2,023.00	Cherry Canyon			
6,025.95	6,013.00	2,185.00	Manzanita Marker			
8,790.95	8,778.00	4,950.00	Bone Spring			
9,845.95	9,833.00	6,005.00	1st Bone Spring Sand			
10,460.95	10,448.00	6,620.00	2nd Bone Spring Sand			
11,519.35	11,500.00	7,672.00	3rd Bone Spring Sand			

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
Lobo 33-28 625H VT () - plan hits target center - Point	0.00	0.00	4,067.00	-141.68	-159.17	520,047.62	743,659.73	32° 25' 40.69 N	103° 40' 39.35 W
Lobo 33-28 625H BHL () - plan hits target center - Point	0.00	0.00	11,827.00	10,315.30	-221.20	530,504.60	743,597.70	32° 27' 24.17 N	103° 40' 39.33 W
Lobo 33-28 625H FTP () - plan misses target center by 177.21usft at 11788.34usft MD (11713.45 TVD, 64.81 N, -160.39 E) - Point	0.00	0.00	11,847.00	-51.68	-159.70	520,137.62	743,659.20	32° 25' 41.58 N	103° 40' 39.35 W

Directional Difficulty Index

Average Dogleg over Survey:	0.48 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 12,187.07 usft
Net Tortousity applicable to Plans:	0.48 °/100ft	Directional Difficulty Index:	6.612

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Plan Report for Lobo 33-28 Fed Com 625H - Plan 1

Audit Info

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North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 625H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 625H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995604

Grid Coordinates of Well: 520,189.30 usft N, 743,818.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 37.48 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 22,070.19usft

the Bottom Hole Displacement is 10,317.67usft in the Direction of 358.77° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)

Magnetic Model: BGGM2024
 Date: 15-Jul-24
 Declination: 6.50°
 Inclination/Dip: 60.12°
 Field Strength: 47493.30477519nT

Grid North is 0.35° East of True North (Grid Convergence)
 Magnetic North is 6.50° East of True North (Magnetic Declination)
 Magnetic North is 6.15° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.35°
 To convert a Magnetic Direction to a True Direction, Add 6.50° East
 To convert a Magnetic Direction to a Grid Direction, Add 6.15°



Project: Lea County, NM (NAD83)
 Site: Lobo 33-28
 Well: Lobo 33-28 Fed Com 406H
 Wellbore: OH
 Design: Plan 1
 Rig: Patterson 260

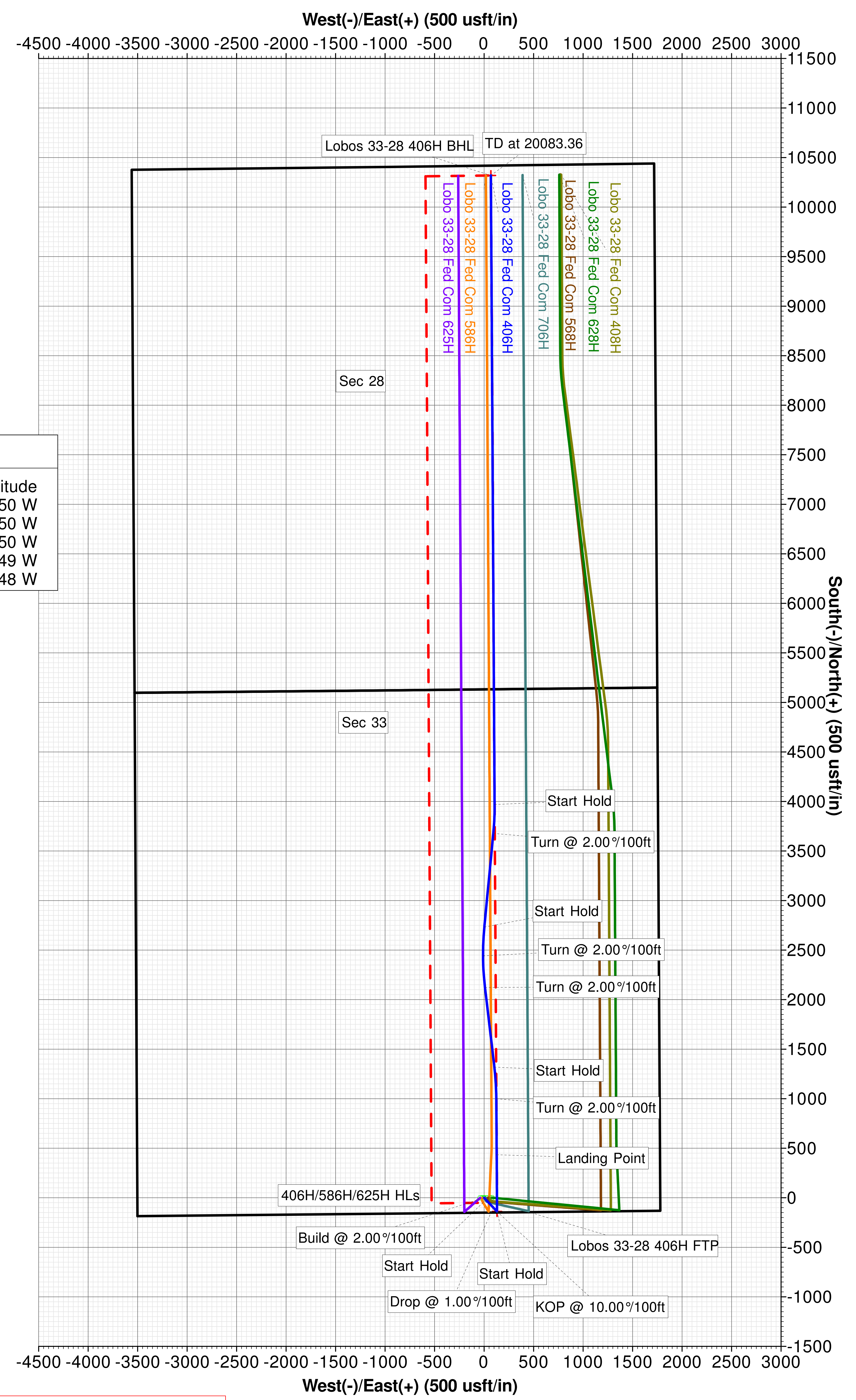
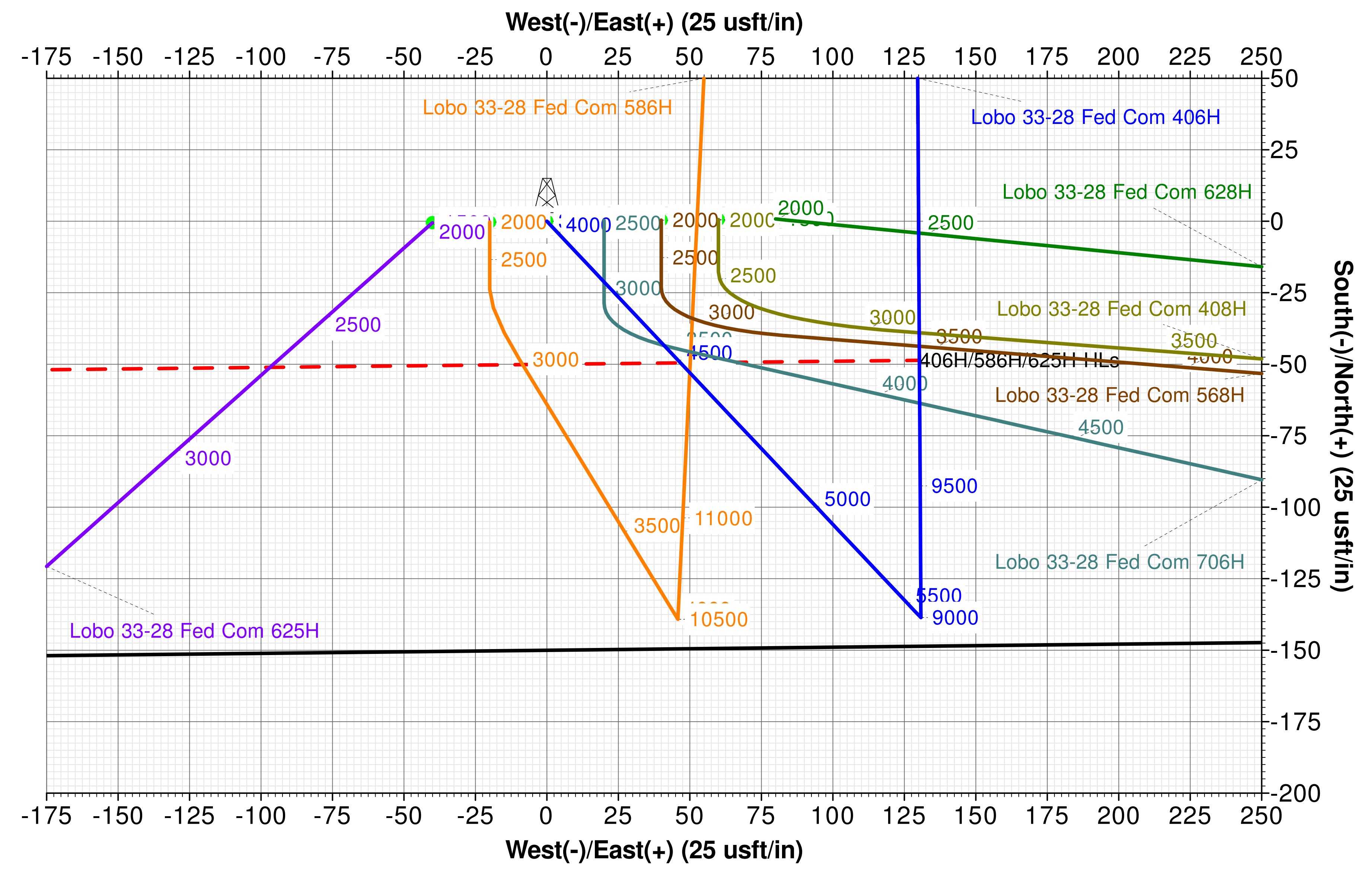
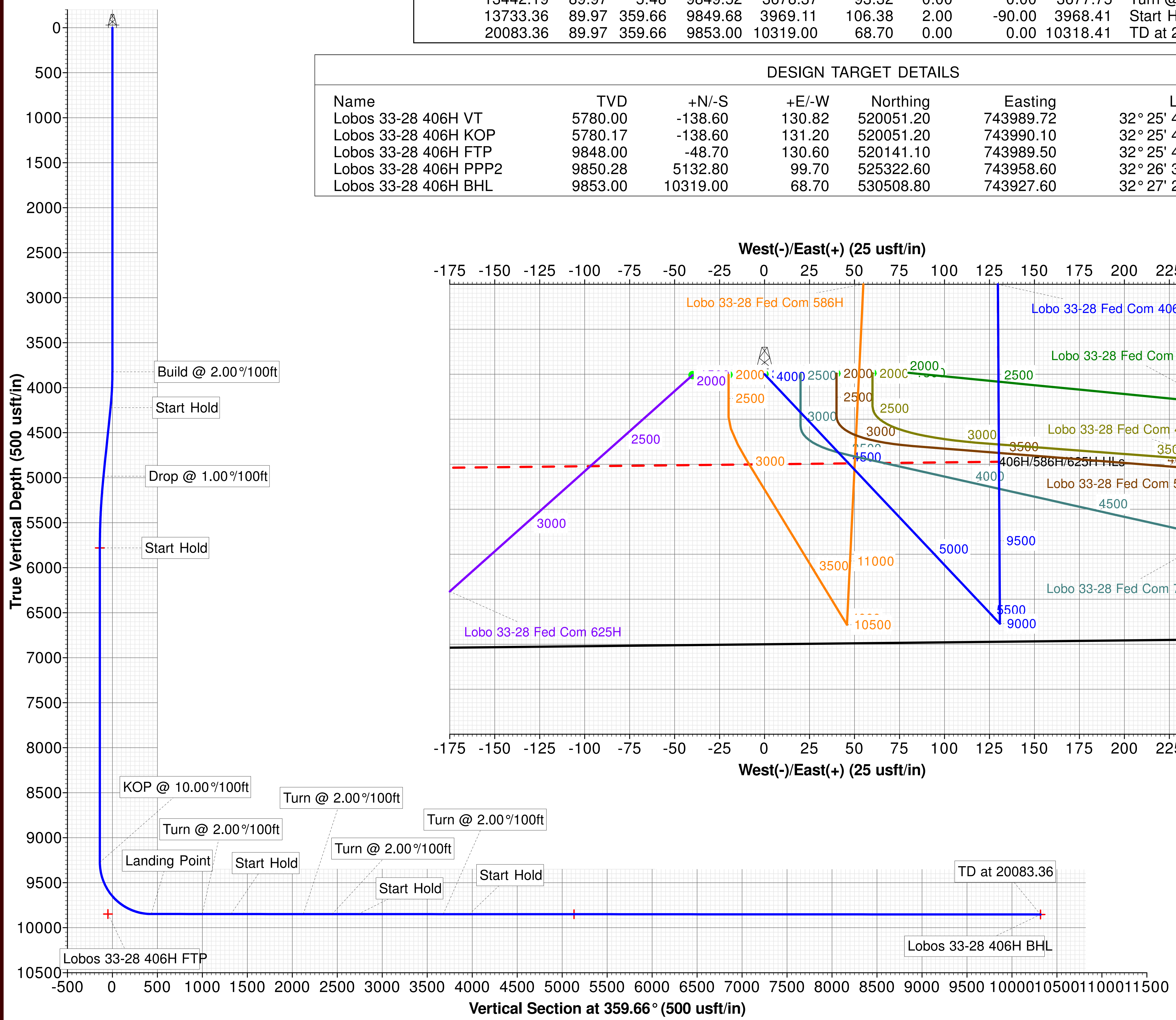
Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

North
 T G M
 Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

WELL DETAILS					
GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	520189.80	743858.90	32° 25' 42.09 N	103° 40' 37.02 W

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3823.00	0.00	0.00	3823.00	0.00	0.00	0.00	0.00	0.00	Build @ 2.00%/100ft	
4223.03	8.00	136.65	4221.73	-20.28	19.14	2.00	136.65	-20.39	Start Hold	
4991.31	8.00	136.65	4982.53	-98.04	92.54	0.00	0.00	-98.59	Drop @ 1.00%/100ft	
5791.37	0.00	0.00	5780.00	-138.60	130.82	1.00	180.00	-139.37	Start Hold	
9286.24	0.00	0.00	9274.87	-138.60	130.82	0.00	0.00	-139.37	KOP @ 10.00%/100ft	
10185.94	89.97	359.66	9847.82	434.05	127.42	10.00	359.66	433.28	Landing Point	
10751.90	89.97	359.66	9848.12	1000.00	124.05	0.00	0.00	999.25	Turn @ 2.00%/100ft	
11072.16	89.97	353.25	9848.29	1319.48	104.27	2.00	-90.00	1318.84	Start Hold	
11880.88	89.97	353.25	9848.71	2122.60	9.28	0.00	0.00	2122.51	Turn @ 2.00%/100ft	
12201.16	89.97	359.66	9848.88	2442.10	-10.50	2.00	90.00	2442.12	Turn @ 2.00%/100ft	
12492.32	89.97	5.48	9849.03	2732.84	2.56	2.00	90.00	2732.78	Start Hold	
13442.19	89.97	5.48	9849.52	3678.37	93.32	0.00	0.00	3677.75	Turn @ 2.00%/100ft	
13733.36	89.97	359.66	9849.68	3969.11	106.38	2.00	-90.00	3968.41	Start Hold	
20083.36	89.97	359.66	9853.00	10319.00	68.70	0.00	0.00	10318.41	TD at 20083.36	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lobos 33-28 406H VT	5780.00	-138.60	130.82	520051.20	743989.72	32° 25' 40.71 N	103° 40' 35.50 W
Lobos 33-28 406H KOP	5780.17	-138.60	131.20	520051.20	743990.10	32° 25' 40.71 N	103° 40' 35.50 W
Lobos 33-28 406H FTP	9848.00	-48.70	130.60	520141.10	743989.50	32° 25' 41.60 N	103° 40' 35.50 W
Lobos 33-28 406H PPP2	9850.28	5132.80	99.70	525322.60	743958.60	32° 26' 32.87 N	103° 40' 35.49 W
Lobos 33-28 406H BHL	9853.00	10319.00	68.70	530508.80	743927.60	32° 27' 24.19 N	103° 40' 35.48 W



Hardlines
 North/South: 100' FNL & 100' FSL
 East/West: 330' FW 1/2SL & 330' FE 1/4SL

Created By: Bo Siwoniku
 Date: 14:20, June 25 2024





Lobo 33-28

PROJECT DETAILS: Lea County, NM (NAD83)

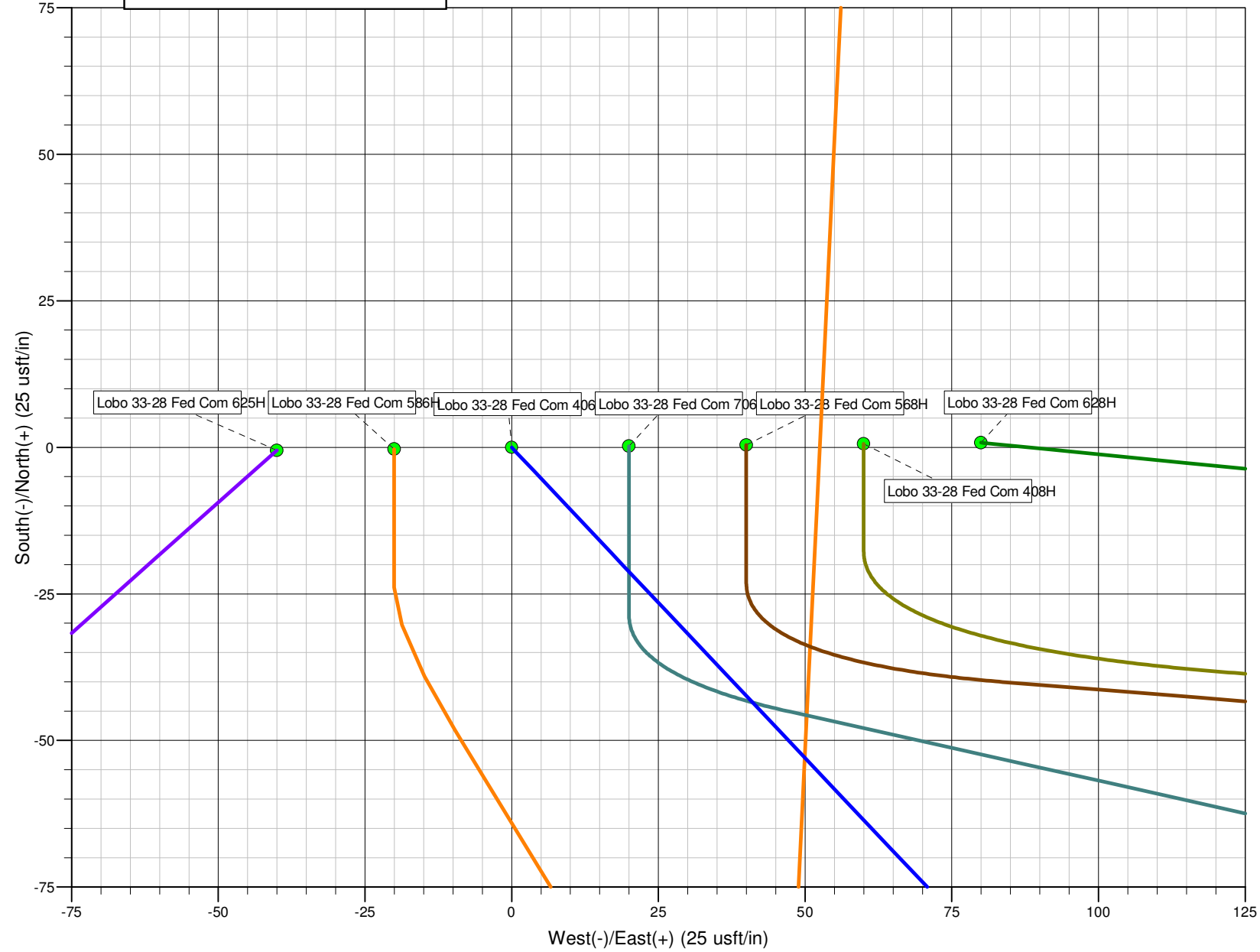
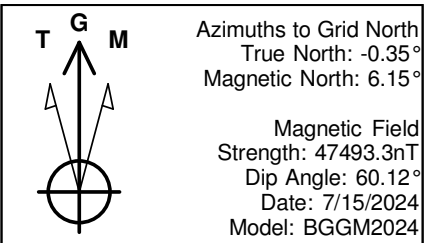
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 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

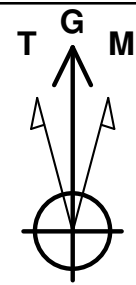
SITE DETAILS: Lobo 33-28

Site Centre Northing: 520189.80
 Easting: 743858.90

Positional Uncertainty: 5.00
 Convergence: 0.35
 Local North: Grid



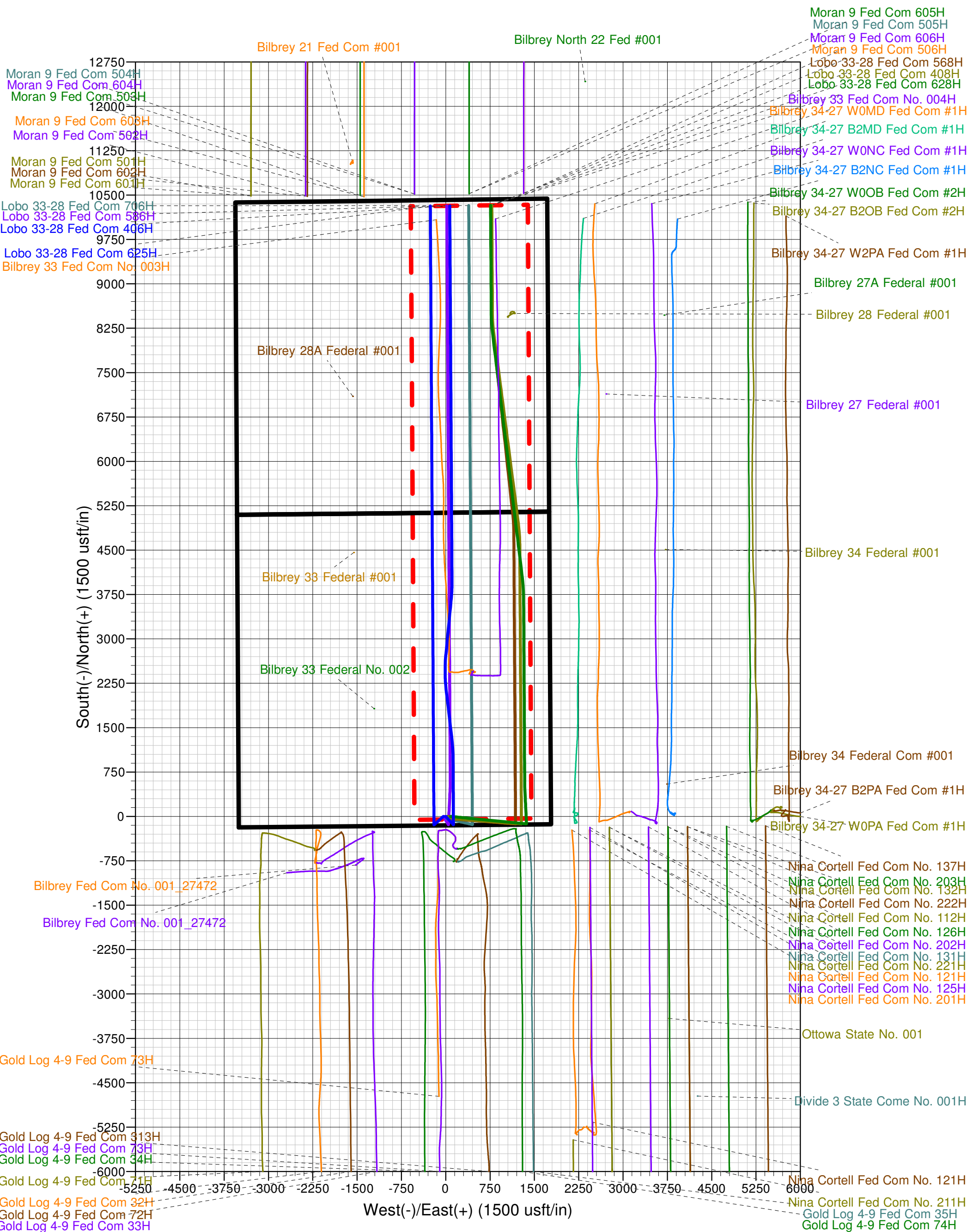
Lobo 33-28



Azimuths to Grid North
 True North: -0.35°
 Magnetic North: 6.15°
 Magnetic Field
 Strength: 47493.3nT
 Dip Angle: 60.12°
 Date: 7/15/2024
 Model: BGGM2024

PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level



Patterson 260

Mewbourne Oil Company

Lea County, NM (NAD83) Lobo 33-28

API#

Lobo 33-28 Fed Com 406H

OH

Plan: Plan 1

Sperry Drilling Services

Combo Report

25 June, 2024

Well Coordinates: 32° 25' 42.09 N
103° 40' 37.02 W

North American Datum 1983
New Mexico Eastern Zone
520,189.80 N
743,858.90 E

Ground Level: 3,800.00 usft

Local Coordinate Origin:

Centered on Well Lobo 33-28 Fed Com 406H

Viewing Datum:

GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.17 Build:

Report Version: Midcon Combo v1.15

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Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
770.00	0.00	0.00	770.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	Rustler
800.00	0.00	0.00	800.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	13 3/8"
1,095.00	0.00	0.00	1,095.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	Salt Top
1,100.00	0.00	0.00	1,100.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
1,935.00	0.00	0.00	1,935.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	Marker Bed 126
2,000.00	0.00	0.00	2,000.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
2,900.00	0.00	0.00	2,900.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	



Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
3,300.00	0.00	0.00	3,300.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,600.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,700.00	0.00	0.00	3,700.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,800.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	
3,823.00	0.00	0.00	3,823.00	0.00 N	0.00 E	520,189.80	743,858.90	0.00	0.00	0.00	Build @ 2.00°/100ft
3,900.00	1.54	136.65	3,899.99	0.75 S	0.71 E	520,189.05	743,859.61	2.00	-0.76	136.65	
4,000.00	3.54	136.65	3,999.89	3.98 S	3.75 E	520,185.82	743,862.65	2.00	-4.00	0.00	
4,100.00	5.54	136.65	4,099.57	9.73 S	9.18 E	520,180.07	743,868.08	2.00	-9.79	0.00	
4,200.00	7.54	136.65	4,198.91	18.01 S	17.00 E	520,171.79	743,875.90	2.00	-18.11	0.00	
4,223.03	8.00	136.65	4,221.73	20.28 S	19.14 E	520,169.52	743,878.04	2.00	-20.39	0.00	Start Hold
4,300.00	8.00	136.65	4,297.95	28.07 S	26.49 E	520,161.73	743,885.39	0.00	-28.23	0.00	
4,372.76	8.00	136.65	4,370.00	35.43 S	33.44 E	520,154.37	743,892.34	0.00	-35.63	0.00	Salt Base - Fletcher Anhydrite
4,400.00	8.00	136.65	4,396.98	38.19 S	36.05 E	520,151.61	743,894.95	0.00	-38.40	0.00	
4,500.00	8.00	136.65	4,496.01	48.31 S	45.60 E	520,141.49	743,904.50	0.00	-48.58	0.00	
4,600.00	8.00	136.65	4,595.03	58.43 S	55.15 E	520,131.37	743,914.05	0.00	-58.76	0.00	
4,700.00	8.00	136.65	4,694.06	68.56 S	64.71 E	520,121.24	743,923.61	0.00	-68.94	0.00	
4,800.00	8.00	136.65	4,793.09	78.68 S	74.26 E	520,111.12	743,933.16	0.00	-79.12	0.00	
4,842.33	8.00	136.65	4,835.00	82.96 S	78.30 E	520,106.84	743,937.20	0.00	-83.43	0.00	Delaware (Lamar)
4,900.00	8.00	136.65	4,892.11	88.80 S	83.81 E	520,101.00	743,942.71	0.00	-89.30	0.00	
4,958.46	8.00	136.65	4,950.00	94.72 S	89.40 E	520,095.08	743,948.30	0.00	-95.25	0.00	Bell Canyon
4,991.31	8.00	136.65	4,982.53	98.04 S	92.54 E	520,091.76	743,951.44	0.00	-98.59	0.00	Drop @ 1.00°/100ft
5,000.00	7.91	136.65	4,991.14	98.92 S	93.36 E	520,090.88	743,952.26	1.00	-99.47	180.00	
5,100.00	6.91	136.65	5,090.30	108.30 S	102.22 E	520,081.50	743,961.12	1.00	-108.91	180.00	
5,200.00	5.91	136.65	5,189.68	116.43 S	109.89 E	520,073.37	743,968.79	1.00	-117.08	180.00	
5,300.00	4.91	136.65	5,289.23	123.29 S	116.36 E	520,066.51	743,975.26	1.00	-123.97	180.00	
5,400.00	3.91	136.65	5,388.93	128.88 S	121.65 E	520,060.92	743,980.55	1.00	-129.60	180.00	
5,500.00	2.91	136.65	5,488.75	133.21 S	125.73 E	520,056.59	743,984.63	1.00	-133.96	180.00	
5,600.00	1.91	136.65	5,588.66	136.28 S	128.62 E	520,053.52	743,987.52	1.00	-137.04	180.00	
5,700.00	0.91	136.65	5,688.63	138.07 S	130.32 E	520,051.73	743,989.22	1.00	-138.84	180.00	
5,791.37	0.00	0.00	5,780.00	138.60 S	130.82 E	520,051.20	743,989.72	1.00	-139.37	-180.00	Start Hold
5,800.00	0.00	0.00	5,788.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
5,900.00	0.00	0.00	5,888.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,000.00	0.00	0.00	5,988.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,006.37	0.00	0.00	5,995.00	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	Manzanita Marker
6,100.00	0.00	0.00	6,088.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	



Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
6,200.00	0.00	0.00	6,188.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,300.00	0.00	0.00	6,288.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,400.00	0.00	0.00	6,388.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,500.00	0.00	0.00	6,488.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,600.00	0.00	0.00	6,588.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,700.00	0.00	0.00	6,688.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,800.00	0.00	0.00	6,788.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
6,900.00	0.00	0.00	6,888.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,000.00	0.00	0.00	6,988.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,100.00	0.00	0.00	7,088.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,200.00	0.00	0.00	7,188.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,300.00	0.00	0.00	7,288.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,400.00	0.00	0.00	7,388.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,500.00	0.00	0.00	7,488.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,600.00	0.00	0.00	7,588.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,700.00	0.00	0.00	7,688.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,800.00	0.00	0.00	7,788.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
7,900.00	0.00	0.00	7,888.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,000.00	0.00	0.00	7,988.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,100.00	0.00	0.00	8,088.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,200.00	0.00	0.00	8,188.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,300.00	0.00	0.00	8,288.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,400.00	0.00	0.00	8,388.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,500.00	0.00	0.00	8,488.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,521.37	0.00	0.00	8,510.00	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	Basal Brushy Canyon
8,600.00	0.00	0.00	8,588.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,700.00	0.00	0.00	8,688.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,800.00	0.00	0.00	8,788.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
8,806.37	0.00	0.00	8,795.00	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	Bone Spring
8,900.00	0.00	0.00	8,888.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
9,000.00	0.00	0.00	8,988.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
9,100.00	0.00	0.00	9,088.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
9,200.00	0.00	0.00	9,188.63	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	
9,286.24	0.00	0.00	9,274.87	138.60 S	130.82 E	520,051.20	743,989.72	0.00	-139.37	0.00	KOP @ 10.00°/100ft - 7"
9,300.00	1.38	359.66	9,288.62	138.43 S	130.82 E	520,051.37	743,989.72	10.00	-139.21	359.66	
9,350.00	6.38	359.66	9,338.49	135.06 S	130.80 E	520,054.74	743,989.70	10.00	-135.83	0.00	
9,400.00	11.38	359.66	9,387.88	127.34 S	130.75 E	520,062.46	743,989.65	10.00	-128.12	0.00	



Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
9,450.00	16.38	359.66	9,436.41	115.36 S	130.68 E	520,074.44	743,989.58	10.00	-116.13	0.00	
9,500.00	21.38	359.66	9,483.70	99.19 S	130.58 E	520,090.61	743,989.48	10.00	-99.96	0.00	
9,550.00	26.38	359.66	9,529.41	78.96 S	130.46 E	520,110.84	743,989.36	10.00	-79.73	0.00	
9,600.00	31.38	359.66	9,573.18	54.82 S	130.32 E	520,134.98	743,989.22	10.00	-55.59	0.00	
9,650.00	36.38	359.66	9,614.68	26.96 S	130.15 E	520,162.84	743,989.05	10.00	-27.73	0.00	
9,700.00	41.38	359.66	9,653.59	4.41 N	129.97 E	520,194.21	743,988.87	10.00	3.64	0.00	
9,750.00	46.38	359.66	9,689.62	39.06 N	129.76 E	520,228.86	743,988.66	10.00	38.29	0.00	
9,800.00	51.38	359.66	9,722.49	76.71 N	129.54 E	520,266.51	743,988.44	10.00	75.94	0.00	
9,850.00	56.38	359.66	9,751.96	117.08 N	129.30 E	520,306.88	743,988.20	10.00	116.31	0.00	
9,900.00	61.38	359.66	9,777.80	159.87 N	129.04 E	520,349.67	743,987.94	10.00	159.10	0.00	
9,950.00	66.38	359.66	9,799.81	204.75 N	128.78 E	520,394.55	743,987.68	10.00	203.98	0.00	
9,991.36	70.51	359.66	9,815.00	243.21 N	128.55 E	520,433.01	743,987.45	10.00	242.44	0.00	1st Bone Spring Sand
10,000.00	71.38	359.66	9,817.82	251.37 N	128.50 E	520,441.17	743,987.40	10.00	250.60	0.00	
10,050.00	76.38	359.66	9,831.70	299.39 N	128.22 E	520,489.19	743,987.12	10.00	298.62	0.00	
10,100.00	81.38	359.66	9,841.35	348.43 N	127.92 E	520,538.23	743,986.82	10.00	347.67	0.00	
10,150.00	86.38	359.66	9,846.68	398.13 N	127.63 E	520,587.93	743,986.53	10.00	397.37	0.00	
10,185.94	89.97	359.66	9,847.82	434.05 N	127.42 E	520,623.85	743,986.32	10.00	433.28	0.00	Landing Point
10,200.00	89.97	359.66	9,847.83	448.11 N	127.33 E	520,637.91	743,986.23	0.00	447.34	0.00	
10,300.00	89.97	359.66	9,847.88	548.10 N	126.74 E	520,737.90	743,985.64	0.00	547.34	0.00	
10,400.00	89.97	359.66	9,847.94	648.10 N	126.14 E	520,837.90	743,985.04	0.00	647.34	0.00	
10,500.00	89.97	359.66	9,847.99	748.10 N	125.55 E	520,937.90	743,984.45	0.00	747.34	0.00	
10,600.00	89.97	359.66	9,848.04	848.10 N	124.96 E	521,037.90	743,983.86	0.00	847.34	0.00	
10,700.00	89.97	359.66	9,848.09	948.10 N	124.36 E	521,137.90	743,983.26	0.00	947.34	0.00	
10,751.90	89.97	359.66	9,848.12	1,000.00 N	124.05 E	521,189.80	743,982.95	0.00	999.25	0.00	Turn @ 2.00°/100ft
10,800.00	89.97	358.70	9,848.15	1,048.09 N	123.36 E	521,237.89	743,982.26	2.00	1,047.34	-90.00	
10,900.00	89.97	356.70	9,848.20	1,148.00 N	119.35 E	521,337.80	743,978.25	2.00	1,147.28	-90.00	
11,000.00	89.97	354.70	9,848.25	1,247.72 N	111.85 E	521,437.52	743,970.75	2.00	1,247.03	-90.00	
11,072.16	89.97	353.25	9,848.29	1,319.48 N	104.27 E	521,509.28	743,963.17	2.00	1,318.84	-90.00	Start Hold
11,100.00	89.97	353.25	9,848.30	1,347.13 N	101.00 E	521,536.93	743,959.90	0.00	1,346.50	0.00	
11,200.00	89.97	353.25	9,848.36	1,446.43 N	89.26 E	521,636.23	743,948.16	0.00	1,445.88	0.00	
11,300.00	89.97	353.25	9,848.41	1,545.74 N	77.51 E	521,735.54	743,936.41	0.00	1,545.25	0.00	
11,400.00	89.97	353.25	9,848.46	1,645.05 N	65.77 E	521,834.85	743,924.67	0.00	1,644.63	0.00	
11,500.00	89.97	353.25	9,848.51	1,744.36 N	54.02 E	521,934.16	743,912.92	0.00	1,744.00	0.00	
11,600.00	89.97	353.25	9,848.56	1,843.66 N	42.27 E	522,033.46	743,901.17	0.00	1,843.38	0.00	
11,700.00	89.97	353.25	9,848.62	1,942.97 N	30.53 E	522,132.77	743,889.43	0.00	1,942.76	0.00	
11,800.00	89.97	353.25	9,848.67	2,042.28 N	18.78 E	522,232.08	743,877.68	0.00	2,042.13	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
11,880.88	89.97	353.25	9,848.71	2,122.60 N	9.28 E	522,312.40	743,868.18	0.00	2,122.51	0.00	Turn @ 2.00°/100ft
11,900.00	89.97	353.64	9,848.72	2,141.59 N	7.10 E	522,331.39	743,866.00	2.00	2,141.51	90.00	
12,000.00	89.97	355.64	9,848.77	2,241.15 N	2.25 W	522,430.95	743,856.65	2.00	2,241.13	90.00	
12,100.00	89.97	357.64	9,848.83	2,340.97 N	8.11 W	522,530.77	743,850.79	2.00	2,340.98	90.00	
12,201.16	89.97	359.66	9,848.88	2,442.10 N	10.50 W	522,631.90	743,848.40	2.00	2,442.12	90.00	Turn @ 2.00°/100ft
12,300.00	89.97	1.64	9,848.93	2,540.93 N	9.38 W	522,730.73	743,849.52	2.00	2,540.94	90.00	
12,400.00	89.97	3.64	9,848.98	2,640.82 N	4.78 W	522,830.62	743,854.12	2.00	2,640.80	90.00	
12,492.32	89.97	5.48	9,849.03	2,732.84 N	2.56 E	522,922.64	743,861.46	2.00	2,732.78	90.00	Start Hold
12,500.00	89.97	5.48	9,849.04	2,740.49 N	3.29 E	522,930.29	743,862.19	0.00	2,740.42	46.62	
12,600.00	89.97	5.48	9,849.09	2,840.03 N	12.85 E	523,029.83	743,871.75	0.00	2,839.90	0.00	
12,700.00	89.97	5.48	9,849.14	2,939.57 N	22.40 E	523,129.37	743,881.30	0.00	2,939.39	0.00	
12,800.00	89.97	5.48	9,849.19	3,039.11 N	31.96 E	523,228.91	743,890.86	0.00	3,038.87	0.00	
12,900.00	89.97	5.48	9,849.24	3,138.66 N	41.51 E	523,328.46	743,900.41	0.00	3,138.36	0.00	
13,000.00	89.97	5.48	9,849.29	3,238.20 N	51.07 E	523,428.00	743,909.97	0.00	3,237.84	0.00	
13,100.00	89.97	5.48	9,849.35	3,337.74 N	60.62 E	523,527.54	743,919.52	0.00	3,337.32	0.00	
13,200.00	89.97	5.48	9,849.40	3,437.28 N	70.18 E	523,627.08	743,929.08	0.00	3,436.81	0.00	
13,300.00	89.97	5.48	9,849.45	3,536.83 N	79.74 E	523,726.63	743,938.64	0.00	3,536.29	0.00	
13,400.00	89.97	5.48	9,849.50	3,636.37 N	89.29 E	523,826.17	743,948.19	0.00	3,635.77	0.00	
13,442.19	89.97	5.48	9,849.52	3,678.37 N	93.32 E	523,868.17	743,952.22	0.00	3,677.75	0.00	Turn @ 2.00°/100ft
13,500.00	89.97	4.33	9,849.55	3,735.96 N	98.27 E	523,925.76	743,957.17	2.00	3,735.31	-90.00	
13,600.00	89.97	2.33	9,849.61	3,835.79 N	104.07 E	524,025.59	743,962.97	2.00	3,835.10	-90.00	
13,700.00	89.97	0.33	9,849.66	3,935.76 N	106.39 E	524,125.56	743,965.29	2.00	3,935.06	-90.00	
13,733.36	89.97	359.66	9,849.68	3,969.11 N	106.38 E	524,158.91	743,965.28	2.00	3,968.41	-90.00	Start Hold
13,800.00	89.97	359.66	9,849.71	4,035.76 N	105.99 E	524,225.56	743,964.89	0.00	4,035.06	150.26	
13,900.00	89.97	359.66	9,849.76	4,135.75 N	105.39 E	524,325.55	743,964.29	0.00	4,135.06	0.00	
14,000.00	89.97	359.66	9,849.81	4,235.75 N	104.80 E	524,425.55	743,963.70	0.00	4,235.06	0.00	
14,100.00	89.97	359.66	9,849.87	4,335.75 N	104.21 E	524,525.55	743,963.11	0.00	4,335.06	0.00	
14,200.00	89.97	359.66	9,849.92	4,435.75 N	103.61 E	524,625.55	743,962.51	0.00	4,435.06	0.00	
14,300.00	89.97	359.66	9,849.97	4,535.75 N	103.02 E	524,725.55	743,961.92	0.00	4,535.06	0.00	
14,400.00	89.97	359.66	9,850.02	4,635.75 N	102.43 E	524,825.55	743,961.33	0.00	4,635.06	0.00	
14,500.00	89.97	359.66	9,850.08	4,735.74 N	101.83 E	524,925.54	743,960.73	0.00	4,735.06	0.00	
14,600.00	89.97	359.66	9,850.13	4,835.74 N	101.24 E	525,025.54	743,960.14	0.00	4,835.06	0.00	
14,700.00	89.97	359.66	9,850.18	4,935.74 N	100.65 E	525,125.54	743,959.55	0.00	4,935.06	0.00	
14,800.00	89.97	359.66	9,850.23	5,035.74 N	100.05 E	525,225.54	743,958.95	0.00	5,035.06	0.00	
14,900.00	89.97	359.66	9,850.29	5,135.74 N	99.46 E	525,325.54	743,958.36	0.00	5,135.06	0.00	
15,000.00	89.97	359.66	9,850.34	5,235.73 N	98.87 E	525,425.53	743,957.77	0.00	5,235.06	0.00	
15,100.00	89.97	359.66	9,850.39	5,335.73 N	98.27 E	525,525.53	743,957.17	0.00	5,335.06	0.00	



Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing	Easting	Northing	Easting				
15,200.00	89.97	359.66	9,850.44	5,435.73 N	97.68 E	525,625.53	743,956.58	0.00	5,435.06	0.00	
15,300.00	89.97	359.66	9,850.50	5,535.73 N	97.08 E	525,725.53	743,955.98	0.00	5,535.06	0.00	
15,400.00	89.97	359.66	9,850.55	5,635.73 N	96.49 E	525,825.53	743,955.39	0.00	5,635.06	0.00	
15,500.00	89.97	359.66	9,850.60	5,735.73 N	95.90 E	525,925.53	743,954.80	0.00	5,735.06	0.00	
15,600.00	89.97	359.66	9,850.65	5,835.72 N	95.30 E	526,025.52	743,954.20	0.00	5,835.06	0.00	
15,700.00	89.97	359.66	9,850.70	5,935.72 N	94.71 E	526,125.52	743,953.61	0.00	5,935.06	0.00	
15,800.00	89.97	359.66	9,850.76	6,035.72 N	94.12 E	526,225.52	743,953.02	0.00	6,035.06	0.00	
15,900.00	89.97	359.66	9,850.81	6,135.72 N	93.52 E	526,325.52	743,952.42	0.00	6,135.06	0.00	
16,000.00	89.97	359.66	9,850.86	6,235.72 N	92.93 E	526,425.52	743,951.83	0.00	6,235.06	0.00	
16,100.00	89.97	359.66	9,850.91	6,335.72 N	92.34 E	526,525.52	743,951.24	0.00	6,335.06	0.00	
16,200.00	89.97	359.66	9,850.97	6,435.71 N	91.74 E	526,625.51	743,950.64	0.00	6,435.06	0.00	
16,300.00	89.97	359.66	9,851.02	6,535.71 N	91.15 E	526,725.51	743,950.05	0.00	6,535.06	0.00	
16,400.00	89.97	359.66	9,851.07	6,635.71 N	90.56 E	526,825.51	743,949.46	0.00	6,635.06	0.00	
16,500.00	89.97	359.66	9,851.12	6,735.71 N	89.96 E	526,925.51	743,948.86	0.00	6,735.06	0.00	
16,600.00	89.97	359.66	9,851.18	6,835.71 N	89.37 E	527,025.51	743,948.27	0.00	6,835.06	0.00	
16,700.00	89.97	359.66	9,851.23	6,935.70 N	88.78 E	527,125.50	743,947.68	0.00	6,935.06	0.00	
16,800.00	89.97	359.66	9,851.28	7,035.70 N	88.18 E	527,225.50	743,947.08	0.00	7,035.06	0.00	
16,900.00	89.97	359.66	9,851.33	7,135.70 N	87.59 E	527,325.50	743,946.49	0.00	7,135.06	0.00	
17,000.00	89.97	359.66	9,851.39	7,235.70 N	87.00 E	527,425.50	743,945.90	0.00	7,235.06	0.00	
17,100.00	89.97	359.66	9,851.44	7,335.70 N	86.40 E	527,525.50	743,945.30	0.00	7,335.06	0.00	
17,200.00	89.97	359.66	9,851.49	7,435.70 N	85.81 E	527,625.50	743,944.71	0.00	7,435.06	0.00	
17,300.00	89.97	359.66	9,851.54	7,535.69 N	85.22 E	527,725.49	743,944.12	0.00	7,535.06	0.00	
17,400.00	89.97	359.66	9,851.59	7,635.69 N	84.62 E	527,825.49	743,943.52	0.00	7,635.06	0.00	
17,500.00	89.97	359.66	9,851.65	7,735.69 N	84.03 E	527,925.49	743,942.93	0.00	7,735.06	0.00	
17,600.00	89.97	359.66	9,851.70	7,835.69 N	83.44 E	528,025.49	743,942.34	0.00	7,835.06	0.00	
17,700.00	89.97	359.66	9,851.75	7,935.69 N	82.84 E	528,125.49	743,941.74	0.00	7,935.06	0.00	
17,800.00	89.97	359.66	9,851.80	8,035.68 N	82.25 E	528,225.48	743,941.15	0.00	8,035.06	0.00	
17,900.00	89.97	359.66	9,851.86	8,135.68 N	81.66 E	528,325.48	743,940.56	0.00	8,135.06	0.00	
18,000.00	89.97	359.66	9,851.91	8,235.68 N	81.06 E	528,425.48	743,939.96	0.00	8,235.06	0.00	
18,100.00	89.97	359.66	9,851.96	8,335.68 N	80.47 E	528,525.48	743,939.37	0.00	8,335.06	0.00	
18,200.00	89.97	359.66	9,852.01	8,435.68 N	79.88 E	528,625.48	743,938.78	0.00	8,435.06	0.00	
18,300.00	89.97	359.66	9,852.07	8,535.68 N	79.28 E	528,725.48	743,938.18	0.00	8,535.06	0.00	
18,400.00	89.97	359.66	9,852.12	8,635.67 N	78.69 E	528,825.47	743,937.59	0.00	8,635.06	0.00	
18,500.00	89.97	359.66	9,852.17	8,735.67 N	78.10 E	528,925.47	743,937.00	0.00	8,735.06	0.00	
18,600.00	89.97	359.66	9,852.22	8,835.67 N	77.50 E	529,025.47	743,936.40	0.00	8,835.06	0.00	
18,700.00	89.97	359.66	9,852.28	8,935.67 N	76.91 E	529,125.47	743,935.81	0.00	8,935.06	0.00	
18,800.00	89.97	359.66	9,852.33	9,035.67 N	76.32 E	529,225.47	743,935.22	0.00	9,035.06	0.00	

HALLIBURTON

Lea County, NM (NAD83)

Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
18,900.00	89.97	359.66	9,852.38	9,135.67 N	75.72 E	529,325.47	743,934.62	0.00	9,135.06	0.00	
19,000.00	89.97	359.66	9,852.43	9,235.66 N	75.13 E	529,425.46	743,934.03	0.00	9,235.06	0.00	
19,100.00	89.97	359.66	9,852.49	9,335.66 N	74.54 E	529,525.46	743,933.44	0.00	9,335.06	0.00	
19,200.00	89.97	359.66	9,852.54	9,435.66 N	73.94 E	529,625.46	743,932.84	0.00	9,435.06	0.00	
19,300.00	89.97	359.66	9,852.59	9,535.66 N	73.35 E	529,725.46	743,932.25	0.00	9,535.06	0.00	
19,400.00	89.97	359.66	9,852.64	9,635.66 N	72.76 E	529,825.46	743,931.66	0.00	9,635.06	0.00	
19,500.00	89.97	359.66	9,852.69	9,735.65 N	72.16 E	529,925.45	743,931.06	0.00	9,735.06	0.00	
19,600.00	89.97	359.66	9,852.75	9,835.65 N	71.57 E	530,025.45	743,930.47	0.00	9,835.06	0.00	
19,700.00	89.97	359.66	9,852.80	9,935.65 N	70.97 E	530,125.45	743,929.87	0.00	9,935.06	0.00	
19,800.00	89.97	359.66	9,852.85	10,035.65 N	70.38 E	530,225.45	743,929.28	0.00	10,035.06	0.00	
19,900.00	89.97	359.66	9,852.90	10,135.65 N	69.79 E	530,325.45	743,928.69	0.00	10,135.06	0.00	
20,000.00	89.97	359.66	9,852.96	10,235.65 N	69.19 E	530,425.45	743,928.09	0.00	10,235.06	0.00	
20,083.36	89.97	359.66	9,853.00	10,319.00 N	68.70 E	530,508.80	743,927.60	0.00	10,318.41	0.00	TD at 20083.36

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,823.00	3,823.00	0.00	0.00	Build @ 2.00°/100ft
4,223.03	4,221.73	-20.28	19.14	Start Hold
4,991.31	4,982.53	-98.04	92.54	Drop @ 1.00°/100ft
5,791.37	5,780.00	-138.60	130.82	Start Hold
9,286.24	9,274.87	-138.60	130.82	KOP @ 10.00°/100ft
10,185.94	9,847.82	434.05	127.42	Landing Point
10,751.90	9,848.12	1,000.00	124.05	Turn @ 2.00°/100ft
11,072.16	9,848.29	1,319.48	104.27	Start Hold
11,880.88	9,848.71	2,122.60	9.28	Turn @ 2.00°/100ft
12,201.16	9,848.88	2,442.10	-10.50	Turn @ 2.00°/100ft
12,492.32	9,849.03	2,732.84	2.56	Start Hold
13,442.19	9,849.52	3,678.37	93.32	Turn @ 2.00°/100ft
13,733.36	9,849.68	3,969.11	106.38	Start Hold
20,083.36	9,853.00	10,319.00	68.70	TD at 20083.36

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/_S (usft)	+E/-W (usft)	
User	No Target (Freehand)	359.66	Slot	0.00	0.00	0.00

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	1,000.00	Plan 1	3_MWD+HRGM
1,000.00	9,286.00	Plan 1	3_MWD+HRGM
9,286.00	20,083.36	Plan 1	3_MWD+HRGM

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	1,000.00	13 3/8"	13.375	17.500
9,286.24	9,274.87	7"	7.000	8.750
20,083.36	9,853.00	4 1/2"	4.500	6.125

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
770.00	770.00	-3,058.00	Rustler			
1,095.00	1,095.00	-2,733.00	Salt Top			
1,935.00	1,935.00	-1,893.00	Marker Bed 126			
4,372.76	4,370.00	542.00	Salt Base			
4,372.76	4,370.00	542.00	Fletcher Anhydrite			
4,842.33	4,835.00	1,007.00	Delaware (Lamar)			
4,958.46	4,950.00	1,122.00	Bell Canyon			
6,006.37	5,995.00	2,167.00	Manzanita Marker			
8,521.37	8,510.00	4,682.00	Basal Brushy Canyon			
8,806.37	8,795.00	4,967.00	Bone Spring			
9,991.36	9,815.00	5,987.00	1st Bone Spring Sand			

HALLIBURTON

Plan Report for Lobo 33-28 Fed Com 406H - Plan 1

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
Lobos 33-28 406H VT () - plan hits target center - Point	0.00	0.00	5,780.00	-138.60	130.82	520,051.20	743,989.72	32° 25' 40.71 N	103° 40' 35.50 W
Lobos 33-28 406H KOP () - plan misses target center by 0.38usft at 5791.54usft MD (5780.17 TVD, -138.60 N, 130.82 E) - Point	0.00	0.00	5,780.17	-138.60	131.20	520,051.20	743,990.10	32° 25' 40.71 N	103° 40' 35.50 W
Lobos 33-28 406H FTP () - plan misses target center by 176.63usft at 9788.07usft MD (9714.95 TVD, 67.47 N, 129.59 E) - Point	0.00	0.00	9,848.00	-48.70	130.60	520,141.10	743,989.50	32° 25' 41.60 N	103° 40' 35.50 W
Lobos 33-28 406H PPP2 () - plan misses target center by 0.22usft at 14897.06usft MD (9850.28 TVD, 5132.80 N, 99.48 E) - Point	0.00	0.00	9,850.28	5,132.80	99.70	525,322.60	743,958.60	32° 26' 32.87 N	103° 40' 35.49 W
Lobos 33-28 406H BHL () - plan hits target center - Point	0.00	0.00	9,853.00	10,319.00	68.70	530,508.80	743,927.60	32° 27' 24.19 N	103° 40' 35.48 W

Directional Difficulty Index

Average Dogleg over Survey:	0.65 °/100ft	Maximum Dogleg over Survey:	10.00 °/100ft at 10,185.94 usft
Net Tortousity applicable to Plans:	0.65 °/100ft	Directional Difficulty Index:	6.668

Audit Info

HALLIBURTON

North Reference Sheet for Lobo 33-28 - Lobo 33-28 Fed Com 406H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3800ft + RKB 28ft @ 3828.00usft (Patterson 260). Northing and Easting are relative to Lobo 33-28 Fed Com 406H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.00 W°, Longitude Origin:0° 0' 0.00 E°, Latitude Origin:0° 0' 0.00 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995606

Grid Coordinates of Well: 520,189.80 usft N, 743,858.90 usft E

Geographical Coordinates of Well: 32° 25' 42.09 N, 103° 40' 37.02 W

Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 20,083.36usft the Bottom Hole Displacement is 10,319.23usft in the Direction of 0.38° (Grid).

Magnetic Convergence at surface is: -6.15° (15 July 2024, , BGGM2024)

Magnetic Model: BGGM2024
 Date: 15-Jul-24
 Declination: 6.50°
 Inclination/Dip: 60.12°
 Field Strength: 47493.34480418nT

Grid North is 0.35° East of True North (Grid Convergence)
 Magnetic North is 6.50° East of True North (Magnetic Declination)
 Magnetic North is 6.15° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.35°
 To convert a Magnetic Direction to a True Direction, Add 6.50° East
 To convert a Magnetic Direction to a Grid Direction, Add 6.15°

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

**APPLICATION OF MEWBOURNE OIL COMPANY
FOR COMPULSORY POOLING AND VACATING,
ORDER NO. R-22924, LEA COUNTY, NEW MEXICO.**

CASE NO. 24657

**SELF-AFFIRMED STATEMENT
OF DANA S. HARDY**

1. I am attorney in fact and authorized representative of Mewbourne Oil Company, the Applicant herein.

2. I have reviewed the Notice Letter attached as **Exhibit C-1**. Co-counsel for Mewbourne Oil Company, James Bruce, caused the Notice Letter, along with the Application in this case, to be sent to the party shown on the certified mail returns shown as **Exhibit C-2**.

3. Copies of the certified mail green card and white slip are attached as **Exhibit C-2**.

4. On July 10, 2024, James Bruce caused a notice to be published to all interested parties in the Hobbs News-Sun. A copy of the Publication from the Hobbs News-Sun is attached as **Exhibit C-3**.

5. I understand this Self-Affirmed Statement will be used as written testimony in the subject cases. I affirm that my testimony above is true and correct and it 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.

/s/ Dana S. Hardy
Dana S. Hardy

August 16, 2024
Date

**Mewbourne Oil Company
Case No. 24657
Exhibit C**

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

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

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

jamesbruc@aol.com

July 3, 2024

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

BP America Production Company
501 Westlake Park Blvd.
Houston, TX 77079-2604

Attn: Stephanie Sullivan

Ladies and gentlemen:

Enclosed are copies of four applications, filed with the New Mexico Oil Conservation Division by Mewbourne Oil Company, requesting the following relief:

Case No. 24655: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well Nos. 402H, 521H, and 582H, with first take points in the SW/4SW/4 of 33 and last take points in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well Nos. 474H, 523H, 564H, and 623H, with first take points in the SE/4SW/4 of 33 and last take points in the NE/4SW/4 of Section 28.

Case No. 24656: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the upper Wolfcamp formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well No. 701H, with a first take point in the SW/4SE/4 of Section 33 and a last take point in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well No. 704H with a first take point in the SE/4SE/4 of Section 33 and a last take point in the NE/4SW/4 of Section 28.

Mewbourne Oil Company
Case No. 24657
Exhibit C-1

Case No. 24657: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the E/2 of Section 28 and the E/2 of Section 33, Township 21 South, Range 32 East, NMPM. The unit will be dedicated (a) the Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, and 625H, with first take points in the SW/4SE/4 of 33 and last take points in the NW/4NE/4 of Section 28; and (b) the Lobo 33/28 Fed. Com. Well Nos. 408H, 568H, and 628H, with first take points in the SE/4SE/4 of 33 and last take points in the NE/4NE/4 of Section 28. Applicant also requests that Order No. R-22924, which covers the subject acreage, be vacated.

Case No. 24658: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the upper Wolfcamp formation underlying a proximity tract horizontal spacing unit comprised of the E/2 of Section 33 and the E/2 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to the Lobo 33/28 Fed. Com. Well No. 706H with a first take point in the SW/4SE/4 (1330 feet FEL) of Section 33 and a last take point in the NW/4NE/4 (1330 feet FEL) of Section 28. Applicant also requests that Order Nos. R-22925 and R-22926, which cover the subject acreage, be vacated.

Also to be considered will be the cost of drilling, completing, testing, and equipping the wells and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a 200% charge for the risk involved in drilling, completing, testing, and equipping the wells.

These matters are scheduled for hearing at 8:30 a.m. on Thursday, July 25, 2024. The hearing may be attended (a) in person in Pecos Hall of the Wendell Chino Building, 1st Floor, 1220 South St. Francis Drive, Santa Fe New Mexico 87505, or (b) via the WebEx virtual meeting platform. To view the hearing docket and to determine how to participate in an electronic hearing, go to <https://www.emnrd.nm.gov/oed/hearing-info/>, or contact Freya Tschantz at freya.tschantz@emnrd.nm.gov. You are not required to attend this hearing, but as an owner of an interest who may be affected by the applications, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from contesting these matters 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 five business days before the hearing date. This statement may be filed online with the Division at oed.hearings@emnrd.nm.gov, and should include: The name of the party and his or her 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 time the party will need to present his or her case; and identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to the undersigned.

Very truly yours,


James Bruce

Attorney for Mewbourne Oil Company

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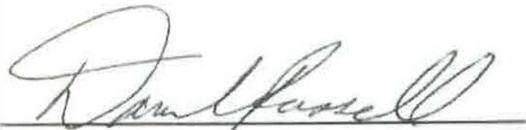
Mewbourne Oil Company
Case No. 24657
Exhibit C-2

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
July 10, 2024
and ending with the issue dated
July 10, 2024.



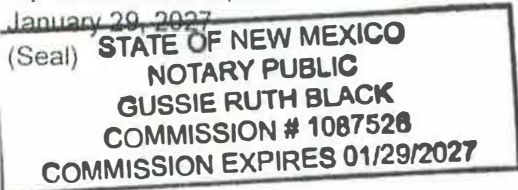
Publisher

Sworn and subscribed to before me this
10th day of July 2024.



Business Manager

My commission expires
January 29, 2027



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said publication has been made.

LEGAL NOTICE July 10, 2024

NOTICE

To: BP America Production Company, or your successors or assigns: Mewbourne Oil Company has filed four applications with the New Mexico Oil Conservation Division seeking the following relief:

Case No. 24655: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well Nos. 402H, 521H, and 582H, with first take points in the SW/4SW/4 of 33 and last take points in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well Nos. 474H, 523H, 564H, and 623H, with first take points in the SE/4SW/4 of 33 and last take points in the NE/4SW/4 of Section 28.

Case No. 24656: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the upper Wolfcamp formation underlying a non-standard horizontal spacing unit comprised of the W/2 of Section 33 and the SW/4 of Section 28, Township 21 South, Range 32 East, NMPM. The unit will be dedicated to (a) the Lobo 33/28 Fed. Com. Well No. 701H, with a first take point in the SW/4SE/4 of Section 33 and a last take point in the NW/4SW/4 of Section 28, and (b) the Lobo 33/28 Fed. Com. Well No. 704H with a first take point in the SE/4SE/4 of Section 33 and a last take point in the NE/4SW/4 of Section 28.

Case No. 24657: Mewbourne Oil Company seeks an order pooling all mineral interest owners in the Bone Spring formation underlying a non-standard horizontal spacing unit comprised of the E/2 of Section 28 and the E/2 of Section 33, Township 21 South, Range 32 East, NMPM. The unit will be dedicated (a) the Lobo 33/28 Fed. Com. Well Nos. 406H, 586H, and 625H, with first take points in the SW/4SE/4 of 33 and last take points in the NW/4NE/4 of Section 28; and (b) the Lobo 33/28 Fed. Com. Well Nos. 408H, 588H, and 628H, with first take points in the SE/4SE/4 of 33 and last take points in the NE/4NE/4 of Section 28. Applicant also requests that Order No. R-22924, which covers the subject acreage, be vacated.

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01101711

00292089

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

Mewbourne Oil Company
Case No. 24657
Exhibit C-3