AUG U. 7 2019       FORM A PPROVED OMEN. 1004-0137         Form 3160-3 June 2015       INNERCOMPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT       FORM A PPROVED OMEN. 1004-0137         AUG U. 7 2018       S. Lease Serial No. NMMM016619       S. Lease Serial No. NMMM016619         APPLICATION FOR PERMIT TO DRILL OR REENTER       I. If Indian, Allouce or Tribe Name         Ia. Type of work:       DRILL       REENTER       7. If Unit or CA Agreentent, Name and No.         Ib. Type of Well:       Oil Well [] Gas Well       Other       8. Lease Name and Well No.         Ic. Type of Completion:       Hydraulic Fracturing       Single Zone       Multiple Zone         2. Name of Operator       9'APINATION FOR PERMIT SO 006392 / LONG - 103.7243902       11. Sec. T. R. M. of Bik. and Survey or Are         3. Address       OD Box 5270 Hobbs NM 88240       13. State requirements.*)       11. Sec. T. R. M. of Bik. and Survey or Are         4. Location of Well (Report location clearly and in accordance with any State requirements.*)       11. Sec. T. R. M. of Bik. and Survey or Are         4. Dotation of Well (Report location from nearest town or post office*       12. Country or Parish       13. State         500       13. State       200       13. State         15. Distance from proposed*       19. Proposed Depth       20/Lipitime Count of the sec.       13. State         16. Do of acres in lease <th></th> <th></th> <th>RECEIVED</th> <th>V</th> <th></th>			RECEIVED	V	
SLease Strain No.       SLease Strain No.         Application For PERMIT TO PTHE INTERIOR       SLease Strain No.         Application For PERMIT TO DILL OR REENTER       6. If Indian, Allace or Tribe Name         1a. Type of work:       O BILL       REENTER         1b. Type of Well:       O Well () Case Well       O Bill       Case Name and No.         1c. Type of Completion:       Hydraulic Fracturing       Slingle Zone       Multiple Zone         2. Name of Operator       9/APNetI NC       Slice Graft         3. Address       3b. Phone No. functude area code/       VG/Infact and front, OFED COMP         2. Name of Operator       9/APNetI NC       SLice Cate         3. Address       3b. Phone No. functude area code/       VG/Infact and front, OFED/Infact of Troit, OFED/INFAC         PO Box 5270 Hobbe NM 88240       (575)393-5905       15. Config OF Physica Nation, OFED/INFAC       SLice Cate         At surface SEE / 400 FSL / 410 FEL / LAT 32 0806392 / LONG -103.724 3002       11. Scc. TR. M. Of Blk. and Survey or Are SC 347 1252, 1731 FL / NIP         41. Detator in mets and direction from nearest town or post office*       17. Specify OF Physic       13. State         50. Instance from proposed*       185 feet       10. No fact area in left.       17. Specify OF Physic       13. State         13. Distance from inreposed location*       50 feet       <		ATES		OMBN	lo. 1004-0137
Ia Type of work:       DRILL       REENTER         Ia Type of Well:       Dil Well       Gas Well       Other         Ic. Type of Completion:       Hydraulic Fracturing       Single Zone       Multiple Zone         2. Name of Operator       MeWBOURNE OIL COMPANY       Single Zone       Multiple Zone         2. Name of Operator       MeWBOURNE OIL COMPANY       Single Zone       Multiple Zone         3a Address       (3b. Phone No. (include area code)       V/3/Field hard Poul, of Expfortancy:         2. Name of Operator       Single Zone       V/3/Field hard Poul, of Expfortancy:         3a Address       (3b. Phone No. (include area code)       V/3/Field hard Poul, of Expfortancy:         2. Name of Operator       Single Zone       V/3/Field hard Poul, of Expfortancy:         3a Address       (3b. Phone No. (include area code)       V/3/Field hard Poul, of Expfortancy:         2. County or Nets/ / 2310 FSL / 330 FEL / LAT 32.0003094 / LONG -103.7241208       Single Zone       Single Zone         3 Dilate of the count on these and direction from nearest town or post office*       EDOY       Single Zone       Single Zone         3 Dilate of the count on these and direction from nearest town or post office*       10. No of acres in lease       17. Spacing Unit dedicated to this well         3 Dilate office on arrest drig unit line, if any)       19. Propoled Depth	BURFALLOF LAND M	HE INTI	ERIOR		
La Option Nume       Dottoor         Ib Type of Well:       Oil Well       Gas Well       Other         Ic. Type of Completion:       Hydraulic Fracturing       Single Zone       Multiple Zone         It. Case Name and Well Room       Hydraulic Fracturing       Single Zone       Multiple Zone         2. Name of Operator       By Andress       Bb. Phone No. <i>funchule area code</i> Single Zone       H. Zase Name and Well Room Operator         2. Name of Operator       By Andress       Bb. Phone No. <i>funchule area code</i> Single Zone       H. Zase Name and Well Room, Or Exploratory:         PO Box 5270 Hobbs NM 88240       (575)393-5905       Single Zone       Single Zone       H. Zase Name and Well Room, Or Exploratory:         PO Box 5270 Hobbs NM 88240       (575)393-5905       Single Zone       H. Zase Name and Well Room, Or Exploratory:         At surface       SES F / 400 FSL / 1AT 32:00806392 / LONG -103.724408       11:Sec.75, R. M. Of Bik. and Survey or Are SEC 30 miles         14. Distance from proposed:       185 feet       16. No of acres in leases       17. Spacing. Unit dedicated to this well sold         20       20       Singlature       Singlature       Singlature       22/Aghroximate date Work will start       23. Estimated duration         3028 feet       00 Agy Singlature       19. Propeded Deph       22/Aghroximate dator will sold	APPLICATION FOR PERMIT T				e or Tribe Name
Ite. Type of Completion:       Hydraulic Fracturing       Single Zone       Multiple Zone       8. Lease Name and Well No.         COLTRANE 3625-WORLEED COM       H       3. Address       OCOLTRANE 3625-WORLEED COM         2. Name of Operator       9'API-Well NG.       9'API-Well NG.         MEWBOURNE OIL COMPANY       9'API-Well NG.       9'API-Well NG.         3a. Address       Jb. Phone No. (include area code)       170; Feldal Pool, G: Expforatory         9'API-Well NG.       9'API-Well NG.       SAND / PURPLE S.         14. Location of Well (Report location clearly and in accordance with any State requirements.*)       11. Sec. T, R. M. Ø'Bik. and Survey or Are         At surface       SESE / 400 FSL / 410 FEL / LAT 32.00050892 / LONG -103.724/208       12. County or Parish       13. State         30 miles       10. No of acros in ledse       12. County or Parish       13. State         15. Distance from proposed*       105. No of acros in ledse       21/2. Spining.Unit dedicate to this well         16. No of acros in ledse       22/Aginzmittadae towik will start*       23/BILM/BIA Bond No. in file         110. Sec. R. R.       19. Proposed providew will start*       23/BILM/BIA Bond No. in file         110. Sec. R. R.       19. Proposed providew will start*       23/BILM/BIA Bond No. in file         1110. Sec. R. R.       19. Proposed providew will start* <td< td=""><td></td><td></td><td>ITER</td><td>7. If Unit or CA Ag</td><td>reement, Name and No.</td></td<>			ITER	7. If Unit or CA Ag	reement, Name and No.
2. None of Operator MEWBOURNE OIL COMPANY as. Address Address (57)393-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333-5905 (57)333			Zone Multiple Zone	COLTRANE 36/25	5-WOPI.FED COM
3a. Address       3b. Phone No. (include area code)       V0 Field and Pool, of Expforatory         PO Box 5270 Hobbs NM 88240       (575)393-5905       St. EcoNESPRING SAND / PURPLE S.         4. Location of Well (Report location clearly and in accordance with any State requirements.*)       St. EcoNESPRING SAND / PURPLE S.         At surface SESE / 400 FSL / 1410 FEL / LAT 32 0806392 / LONG -103.7243002       SEC 38/,7255 / R31E / NMP         4. proposed prod. zone NESE / 2310 FSL / 1330 FEL / LAT 32 10036034 / LONG -103.7241208       13. State         14. Distance in miles and direction from nearest town or post office*       12. Counfly or Parish EDDY       13. State         15. Distance from proposed* to case line, fi.       16. No of acres in lease       17. Spacing. Unit dedicated to this well scolar to nearest drig, unit line, if any)       18. Distance from proposed location*       19. Proposed Depth       20/BLM/BIA Bond No. in file         10. casto nearest drig, completed, 50 feet       17.74/60L/19151 feet-       FED. NN1693       60 days         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       02/Approximate date Work will start*       60 days       60 days         23. A prilipa Plan.       24. Attachments       14. Bond to cover the operations unless covered by an existing bond on file (scileotronic Submission)       14. Bond to cover the operations and/or plans as may be requested by the BLM         13. State       14. Bond to cover the operation surflexs covered by an existing bond on fil	•	<u>,,,, ,</u>			de blee
At surface SESE / 400 FSL / 410 FEL / LAT 32.0806392 / LONG -103.7243902 At proposed prod. zone NESE / 2310 FSL / 330 FEL / LAT 32.1003904 / LONG -103.724/208 14. Distance in miles and direction from nearest town or post office* 15. Distance from proposed* 185 feet 16. No of acres in lease 17. Spacing. Unit dedicated to this well 20 18. Distance from proposed location* 19. Proposed Depth 20/BL//BIA Bond No. in file 177.4+feel / 19151 feet 177.4+feel / 19151 feet 177.4+feel / 19151 feet 12. Couffy or Parish 20 22. Approximate date work will start* 23. Estimated duration 60 days 24. Attachments 24. Attachments 25. Signature 24. Attachments 25. Signature 24. Attachments 25. Signature 25. Signature 26. Depth 27. For the location is on National Forest System Lands, the BIA 20. Bord or proposed by a existing bond on file (set 24. Attachments 25. Signature 26. Depth 27. For the location is on National Forest System Lands, the 25. Signature 25. Signature 25. Signature 25. Signature 26. Depth 27. For the location is on National Forest System Lands, the 25. Signature 26. Depth 27. For the location is on National Forest System Lands, the 27. Bernet of the location is on National Forest System Lands, the 28. Abiling Plan. 29. A Diffing Plan. 20. Submission 20. Office			· · · ·		or Exploratory
4. Distance in miles and direction from nearest town or post office*       12. Coufty or Parish       13. State         30 miles       16. No of acres in lease       17. Spacing. Unit dedicated to this well         5. Distance from proposed*       185 feet       16. No of acres in lease       17. Spacing. Unit dedicated to this well         320 miles       11. No of acres in lease       17. Spacing. Unit dedicated to this well       20         320 miles       19. Proposed location*       20. BLM/BIA Bond No. in file       20         31. State       19. Proposed location*       20. BLM/BIA Bond No. in file       20. BLM/BIA Bond No. in file         19. Proposed location to nearest well, drilling, completed, so feet       117.74*feet/.19151 feet       FED: NM1693         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       22 / Approximate date work will start*       23. Estimated duration         3328 feet       08/23/2018       4. Attachments/       60 days         4. Dorilling Plan.       A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)       5. Operator certification.       5. Use there site specific information and/or plans as may be requested by the BLM.         Stiggetory       Name ( <i>Printed/Typed</i> )       Date       05/24/2018         Vitte       Cody Layton / Ph: (575)393-5905       Date       05/24/2019 <td>At surface SESE / 400 FSL / 410 FEL / LAT 32.08</td> <td>806392 /</td> <td>LONG -103.7243902</td> <td></td> <td></td>	At surface SESE / 400 FSL / 410 FEL / LAT 32.08	806392 /	LONG -103.7243902		
location to nearest       100 feet         property of lease line, ft.       (Also to nearest drig, unit line, if any)         8. Distance from proposed location*       19. Proposed Depth         applied for, on this lease, ft.       19. Proposed Depth         11774-feet/19151 feet       22/BLM/BIA Bond No. in file         FED: NM1693       2328 feet         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       22/Approximate date work will start*         23. Zestimated duration       60 days         24. Attachments       60 days         24. Attachments       60 days         25. Signature       4. Bond to cover the operations unless covered by an existing bond on file (st         SUPO must be filed with the appropriate Forest Service Office)       5. Operator certification.         5. Signature       8. Name ( <i>PrintedTyped</i> )       Date         Electronic Submission)       05/24/2018       Date         Title       Office       CARLSBAD         Resultary System Lands, Band       CARLSBAD       Date         05/24/2018       Office       Office         118       Coty Layton / Ph: (575)234-5959       Date         01/24/2019       Office       CARLSBAD         118       10. Office       Office         118       118 </td <td>4. Distance in miles and direction from nearest town or po</td> <td></td> <td></td> <td></td> <td></td>	4. Distance in miles and direction from nearest town or po				
to nearest well, drilling, completed, 50 feet 11774/feet//19151 feet FED: NM1693 11774/feet//19151 feet FED: NM1693 122[Adproximate date work will start* 08/23/218 024. Attachments 08/23/218 024. Attachments 08/23/218 04 04 04 05/23/218 05 04 05 05 05 05 05 05 05 05 05 05 05 05 05	location to nearest 105 leet property or lease line, ft. (Also to nearest drig. unit line, if any)	52		~	
3328 feet       08/23/2018       60 days         24. Attachments       24. Attachments         The following, completed in accordance with the requirements of Onshore. Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3- as applicable)         Well plat certified by a registered surveyor.       4. Bond to cover the operations unless covered by an existing bond on file (see the 20 above).         A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)       4. Bond to cover the operations and/or plans as may be requested by the BLM.         25. Signature (Electronic Submission)       Name ( <i>Printed/Typed</i> ) Bradley Bishop / Ph: (575)393-5905       Date 05/24/2018         Name ( <i>Printed/Typed</i> ) Cody Layton / Ph: (575)234-5959       Date 01/24/2019       01/24/2019         Title       Office CARLSBAD       Office CARLSBAD       CARLSBAD         Application of approval does not variant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the pplicant to conduct operations thereon.       Date 01/24/2019         Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agence	to nearest well, drilling, completed, 50 fact				
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-2         as applicable)        Well plat certified by a registered surveyor.        A Drilling Plan.        A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)        A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)        A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)        A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)        A Surface Use Plan (if the location is on National Forest System Lands, the SUBOR must be filed with the appropriate Forest Service Office)        A Surface Use Plan (if the location is on National Forest System Lands, the Submission)        A Surface Use Plan (if the location is on National Forest System Lands, the Submission)        A Surface Use Plan (if the location is on National Forest System Cands)        A Surface Use Plan (if the location is on National Forest System Cands)        A Surface Use Plan (if the location is on National Forest System Cands)        Bodition System Cands)       Name ( <i>Printed/Typed</i> )        A Surface Use Plan (if the location is on National Forest System Cands) <t< td=""><td></td><td>&gt; 08/</td><td>12312018</td><td></td><td>ion</td></t<>		> 08/	12312018		ion
as applicable)         I. Well plat certified by a registered surveyor.         2. A Drilling Plan.         S. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)         I. S. Signature         Support Sup	((	<u>^ ` `</u>			
(Electronic Submission)       Bradley Bishop / Ph: (575)393-5905       05/24/2018         Title       Regulatory       Name (Printed/Typed)       Date         Approved by (Signature)       Cody Layton / Ph: (575)234-5959       01/24/2019         Title       Office       CARLSBAD         Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the pplications of approval; francy, are attached.       Conditions of approval; francy, are attached.         Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agence.       Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agence.	as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest.)	System La	<ul> <li>4. Bond to cover the operation Item 20 above).</li> <li>5. Operator certification.</li> <li>6. Such other site specific info</li> </ul>	ns unless covered by a	n existing bond on file (se
Approved by (Signature)       Date         (Electronic Submission)       Cody Layton / Ph: (575)234-5959       Date         Office       Office         Assistant Field Manager Lands & Minerals       CARLSBAD         Approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the pplicant to conduct operations thereon.       Conditions of approval, if any, are attached.         Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agence	(Electronic Submission)			05	
Title Office Assistant Field Manager Lands & Minerals CARLSBAD Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the pplicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agence	Approved by (Signature)	<u></u>			
pplicant to conduct operations thereon. Conditions of approval;;if any; are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agenc	Title ( (		Office		
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency f the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	pplication approval does not warrant or certify that the app pplicant to conduct operations thereon.	plicant hol		in the subject lease w	hich would entitle the
	itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 12 of the United States any false, fictitious or fraudulent statem	212, make tents or res	it a crime for any person knowingly and presentations as to any matter within its	willfully to make to a	any department or agency



(Continued on page 2)

,

۲.

\*(Instructions on page 2)

KNP 3-8-19

### **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances-for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.



The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U(§:C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

#### **Additional Operator Remarks**

#### Location of Well

SHL: SESE / 400 FSL / 410 FEL / TWSP: 25S / RANGE: 31E / SECTION: 36 / LAT: 32.0806392 / LONG: -103.7243902 (TVD: 0 feet, MD: 0 feet)
 PPP: SESE / 330 FSL / 330 FEL / TWSP: 25S / RANGE: 31E / SECTION: 36 / LAT: 32.0804456 / LONG: -103.7241313. (TVD: 11742 feet, MD: 11892 feet)
 PPP: SESE / 0 FSL / 330 FEL / TWSP: 25S / RANGE: 31E / SECTION: 25 / LAT: 32.0940416 / LONG: -103.7241233 (TVD: 11772-feet, MD: 16841 feet)
 BHL: NESE / 2310 FSL / 330 FEL / TWSP: 25S / RANGE: 31E / SECTION: 25 / LAT: 32.1003904 / LONG: -103.7241208 (TVD: 11774 feet, MD: 19151 feet)

## **BLM Point of Contact**

Name: Priscilla Perez Title: Legal Instruments Examiner Phone: 5752345934 Email: pperez@blm.gov

#### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMNM019619
WELL NAME & NO.:	1H- COLTRANE 36/25 WOPI FED COM
<b>SURFACE HOLE FOOTAGE:</b>	400'/S & 410'/E
<b>BOTTOM HOLE FOOTAGE</b>	2310'/S & 330'/E
LOCATION:	Section. 36.,T25S.,R.31E., NMP
COUNTY:	LEA County, New Mexico

COA

H2S	€ Yes	r No	
Potash	🕫 None	C Secretary	
Cave/Karst Potential	CLow	🖸 Medium	C High
Variance	C None	Flex Hose	<b>C</b> Other
Wellhead	C Conventional	Multibowl	C Both
Other	□ 4 String Area	Capitan Reef	<b>□</b> WIPP
Other	Fluid Filled	Cement Squeeze	🗖 Pilot Hole
Special Requirements	🗖 Water Disposal	COM	🗔 Unit

#### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

## **B.** CASING

- 1. The **13-3/8** inch surface casing shall be set at approximately **1225** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>8</u> <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

Page 1 of 7

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.

# Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

# Operator shall filled 1/3<sup>rd</sup> casing with fluid while running intermediate casing to maintain collapse safety factor.

3. The minimum required fill of cement behind the 7 inch production casing is: Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- 4. The minimum required fill of cement behind the 4-1/2 inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

#### C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
  - 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

# **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Chaves and Roosevelt Counties Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201. During office hours call (575) 627-0272. After office hours call (575)

Eddy County Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

#### Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

Page 3 of 7

- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24</u> hours. WOC time will be recorded in the driller's log.
- <u>Wait on cement (WOC) for Water Basin:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the

formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - e. The results of the test shall be reported to the appropriate BLM office.
  - f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

f

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

#### ZS 012319



#### U.S. Department of the Interior BUREAU OF LAND MANAGEMENT



### **Operator Certification**

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Bradley Bishop		Signed on: 05/24/2018
Title: Regulatory		
Street Address: PO Box 5270		
City: Hobbs	State: NM	<b>Zip:</b> 88240
Phone: (575)393-5905		
Email address: bbishop@mew	/bourne.com	
Field Representat	ive	
Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

# **FAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Application Data Report

APD ID: 10400030357

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: COLTRANE 36/25 W0PI FED COM

Well Type: CONVENTIONAL GAS WELL

Submission Date: 05/24/2018

Zip: 88240

Well Number: 1H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General		
APD ID: 10400030357	Tie to previous NOS?	Submission Date: 05/24/2018
BLM Office: CARLSBAD	User: Bradley Bishop	Title: Regulatory
Federal/Indian APD: FED	Is the first lease penetrated f	or production Federal or Indian? FED
Lease number: NMNM019619	Lease Acres: 520	
Surface access agreement in place	? Allotted? Re	eservation:
Agreement in place? NO	Federal or Indian agreement:	
Agreement number:		
Agreement name:		
Keep application confidential? YES		
Permitting Agent? NO	APD Operator: MEWBOURNE	E OIL COMPANY
Operator letter of designation:	Coltrane36_25W0PIFedCom1H_operato	prletterofdesignation 20181003111320.pdf

**Operator Info** 

Operator Organization Name: MEWBOURNE OIL COMPANY

State: NM

Operator Address: PO Box 5270

**Operator PO Box:** 

Operator City: Hobbs

Operator Phone: (575)393-5905

**Operator Internet Address:** 

#### **Section 2 - Well Information**

Well in Master Development Plan? NO	Master Development Plan name	:						
Well in Master SUPO? NO	Master SUPO name:							
Well in Master Drilling Plan? NO	Master Drilling Plan name:							
Well Name: COLTRANE 36/25 W0PI FED COM	Well Number: 1H	Well API Number:						
Field/Pool or Exploratory? Field and Pool	Field Name: 1ST BONESPRING SAND	Pool Name: PURPLE SAGE WOLFCAMP GAS						
Is the proposed well in an area containing other mine	ral resources? USEABLE WATER	र						

Well Number: 1H

Desc	ribe c	other	miner	als:														
ls the	e prop	osed	well	in a H	elium	prod	uctio	n area?	N Use E	Existing W	ell Pa	<b>1?</b> NO	Ne	ew :	surface o	distur	bance	?
Туре	of W	ell Pa	d: MU	ILTIPL	.E WE	ELL				ple Well P				umk	<b>ber:</b> 2			
Well	Class	: HOF	RIZON	ITAL						COLTRANE 36/25 PI FED COM Number of Legs: 1								
Well	Work	Туре	: Drill															
Well	Туре	CON	VENT	IONA	L GAS	S WEI	L.											
Desc	ribe V	Vell T	уре:															
Well	sub-T	ype:	APPR	AISAL	_													
Desc	ribe s	ub-ty	pe:															
Dista	ince t	o tow	<b>n:</b> 30	Miles			Dis	tance to	nearest v	<b>vell:</b> 50 FT	-	Dist	ance t	o le	ase line	: 185	FT	
Rese	rvoir	well s	pacin	ig ass	igneo	d acre	s Mea	asurem	<b>ent</b> : 320 A	cres								
Well	plat:	Co	ltrane	36_25	5W0P	IFedC	om1⊦	I_wellpla	at_201805	24142250.	pdf							
Well	work	start	Date:	08/23	/2018				Durat	i <b>on</b> : 60 DA	AYS							
	•																	
	Sec	tion	3 - V	Vell	Loca	atior	lat	Die										
Surve	еу Туј	be: RE	ECTA	NGUL	AR													
Desc	ribe S	urvey	/ Туре	e:					·									
Datu	m: NA	D83							Vertic	al Datum:	NAVD	88						
Surv	ey nu	nber:				-			Refer	ence Datu	m:							
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	400	FSL	410	FEL	258	31E	36	Aliquot SESE	32.08063 92	- 103.7243 902	EDD Y	NEW MEXI CO		s	STATE	332 8	0	0
KOP Leg #1	10	FSL	330	FEL	25S	31E	36	Aliquot SESE	32.07956 87	- 103.7241 318	EDD Y	NEW MEXI CO		S	STATE	- <i>.</i> 796 4		112 92
PPP Leg #1	PPP 0 FSL 330 FEL 25S 31E 25 Aliquot 3 Leg SESE 1							32.09404 16	- 103.7241 233	EDD Y	NEW MEXI CO		F	NMNM 019619	- 844 4	168 41	117 72	

# Operator Name: MEWBOURNE OIL COMPANY

# Well Name: COLTRANE 36/25 W0PI FED COM

# Well Number: 1H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	QW	TVD
PPP Leg #1	330	FSL	330	FEL	25S	31E	36	Aliquot SESE	32.08044 56		EDD Y		NEW MEXI CO	S	STATE	- 841 4	118 92	117 42
EXIT Leg #1	231 0	FSL	330	FEL	25S	31E	25	Aliquot NESE	32.10039 04	- 103.7241 208	EDD Y	NEW MEXI CO			NMNM 019619	- 844 6	191 51	117 74
BHL Leg #1	231 0	FSL	330	FEL	25S	31E	25	Aliquot NESE	32.10039 04	- 103.7241 208	EDD Y	NEW MEXI CO			NMNM 019619	- 844 6	191 51	117 74

United States Department of the Interior Bureau of Land Management Carlsbad Field Office 620 E Greene Street Carlsbad, New Mexico 88201-1287

#### Statement Accepting Responsibility for Operations

Operator Name:	Mewbourne Oil Company
Street or Box:	P.O. Box 5270
City, State:	Hobbs, New Mexico
Zip Code:	88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number:

J

NMNM 019619

Wolfcamp

\$150,000

Legal Description of Land:

Section 36, T25S, R31E, Eddy County, New Mexico. Location @ 400 FSL & 410 FEL

Formation (if applicable):

Bond Coverage:

BLM Bond File:

NM1693 nationwide, NMB000919

Snadley CC

Authorized Signature:

Name: Bradley Bishop Title: Regulatory Manager

;

Date: <u>5-17-18</u>

# 

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT 08/06/2019

APD ID: 10400030357

Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

Highlighted data reflects the most recent changes

Show Final Text

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Submission Date: 05/24/2018

# Section 1 - Geologic Formations

Formation			True Vertical				Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	
1	UNKNOWN	3328	27	27		NONE	N
2	RUSTLER	2258	1070	1070	ANHYDRITE,DOLOMIT E	USEABLE WATER	N
3	TOP SALT	2098	1230	1230	SALT	NONE	N
4	BOTTOM SALT	-812	4140	4140	SALT	NONE	N
5	DELAWARE	-982	4310	4310	LIMESTONE	NATURAL GAS,OIL	N
6	MANZANITA	-2202	5530	5530	SANDSTONE	NATURAL GAS,OIL	N
7	BRUSHY CANYON	-3722	7050	7050	SANDSTONE	NATURAL GAS,OIL	N
8	BONE SPRING	-5002	8330	8330	LIMESTONE, SHALE	NATURAL GAS,OIL	N
9	BONE SPRING 1ST	-6082	9410	9410	SANDSTONE	NATURAL GAS, ÕIL	N
10	BONE SPRING 2ND	-6772	10100	10110	SANDSTONE	NATURAL GAS,OIL	N
11	BONE SPRING 3RD	-7882	11210	11230	SANDSTONE	NATURAL GAS,OIL	N
12	WOLFCAMP	-8312	11640	11700	LIMESTONE,SHALE,SA NDSTONE	NATURAL GAS,OIL	Y

# **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M

Rating Depth: 19151

Equipment: Annular, Pipe Rams, Blind Rams

Requesting Variance? YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to choke manifold. Anchors are not required by the manufacturer. A multi-bowl wellhead will be used. See attached schematic.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

.

tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

#### Choke Diagram Attachment:

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_5M\_BOPE\_Choke\_Diagram\_20180523153742.pdf

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Flex\_Line\_Specs\_20180523153753.pdf

#### **BOP Diagram Attachment:**

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_5M\_BOPE\_Schematic\_20180523153807.pdf

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_5M\_Multi\_Bowl\_WH\_20180523153819.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	625	0	625	3328	2703	625	H-40	48	ST&C	1.47	3.3	DRY	5.86	DRY	9.84
2	INTERMED IATE	12.2 5	9.625	NEW	API	Y	0	4235	0	4235	3328	-907	4235	J-55	36	LT&C	1.13	1.96	DRY	2.91	DRY	3.62
1	PRODUCTI ON	8.75	7.0	NEW	API -	N	0	12054	0	11770	3328	-8442	12054	P- 110	26	LT&C	1.4	1.78	DRY	2.08	DRY	2.65
4	LINER	6.12 5	4.5	NEW	API	N	11303	19151	11292	11800	-7964	-8446		P- 110	13.5	LT&C	1.34	1.56	DRY	3.19	DRY	3.98

#### **Casing Attachments**

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

#### **Casing Attachments**

Casing ID: 1 String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Csg\_Assumptions\_20180523154615.pdf

Casing ID: 2 String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

#### Tapered String Spec:

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Inter\_Tapered\_String\_Diagram\_20180523155247.pdf

#### Casing Design Assumptions and Worksheet(s):

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Csg\_Assumptions\_20180523154623.pdf

Casing ID: 3 String Type: PRODUCTION

**Inspection Document:** 

Spec Document:

Tapered String Spec:

#### Casing Design Assumptions and Worksheet(s):

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Csg\_Assumptions\_20180523154631.pdf

Well Number: 1H

#### **Casing Attachments**

Casing ID: 4

String Type: LINER

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Csg\_Assumptions\_20180523154639.pdf

Section	4 - Co	emen	t								
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	953	630	2.12	12.5	1336	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		953	1145	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	3590	705	2.12	12.5	1495	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3590	4235	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5530	4035	4846	75	2.12	12.5	159	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		4846	5530	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	5530	5530	9560	360	2.12	12.5	763	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		9560	1205 4	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		1130 3	1915 1	320	2.97	11.2	950	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

#### Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

# Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Pason/PVT/Visual Monitoring

# Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1145	SPUD MUD	8.6	8.8							
1135	4235	SALT SATURATED	10	10							
4235	1129 2	WATER-BASED MUD	8.6	9.5							
1129 2	1177 4	OIL-BASED MUD	10	12							Mud weight up to 13.0 ppg may be required for shale control. The highest mud weight needed to balance formation is expected to be 12.0 ppg.

#### Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

# Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL from KOP (11,303') to surface. Will run MWD GR from KOP (11,303') to TD. List of open and cased hole logs run in the well:

CNL,DS,GR,MWD,MUDLOG

#### Coring operation description for the well:

None

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure: 7347** 

Anticipated Surface Pressure: 4751

Anticipated Bottom Hole Temperature(F): 165

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

**Contingency Plans geohazards attachment:** 

#### Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_H2S\_Plan\_20180523163427.pdf

#### **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

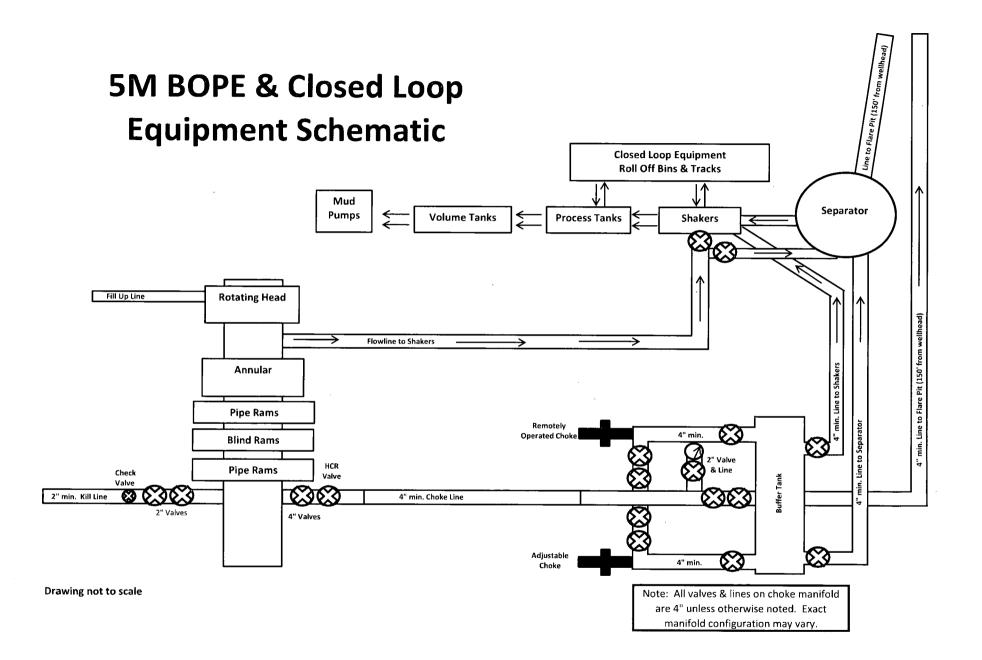
Coltrane\_36\_25\_W0PI\_Fed\_Com\_1H\_Dir\_Plan\_20180523163518.pdf Coltrane\_36\_25\_W0PI\_Fed\_Com\_1H\_Dir\_Plot\_20180523163525.pdf

#### Other proposed operations facets description:

#### Other proposed operations facets attachment:

Coltrane\_36\_25\_W0IP\_Fed\_Com\_1H\_Drlg\_Program\_20180523163535.docx

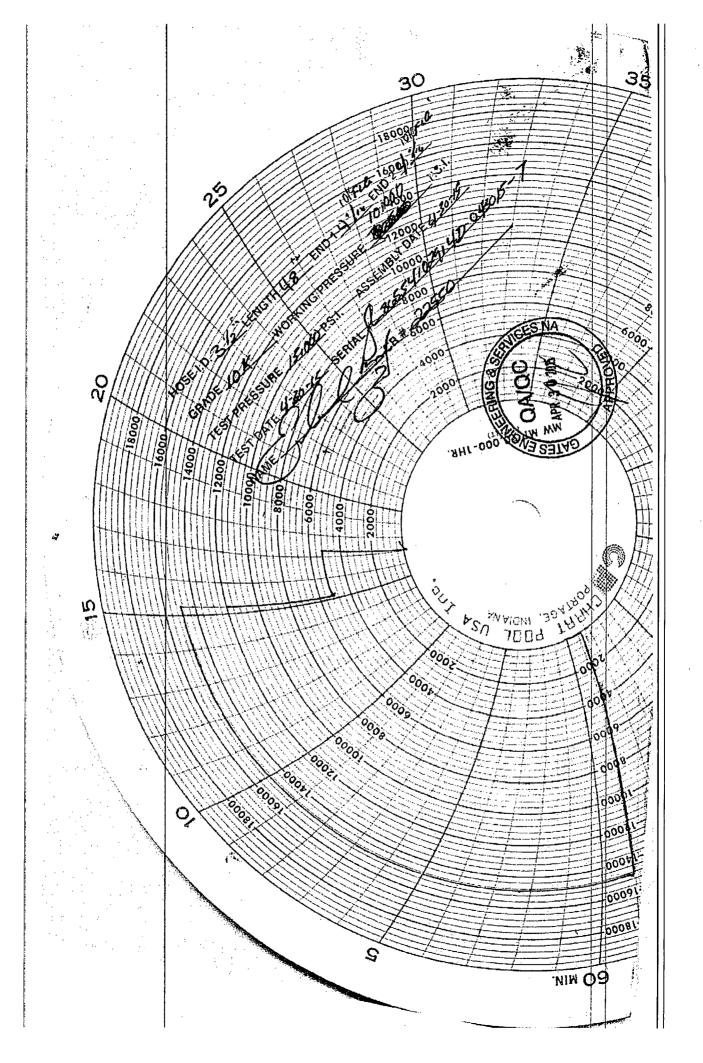
#### Other Variance attachment:

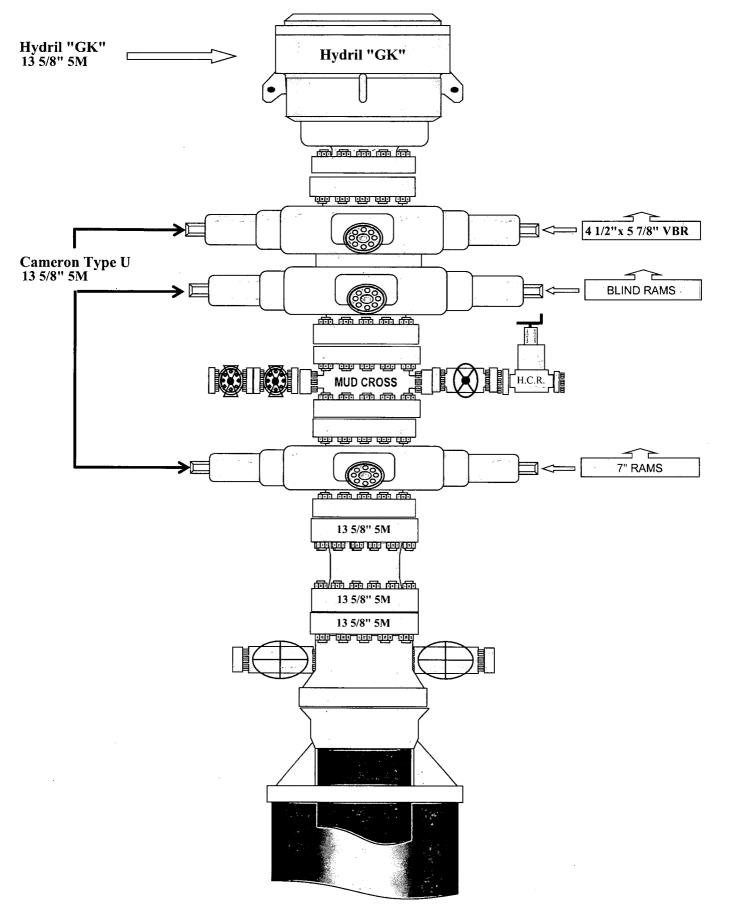




GATES E & S NORTH AMERICA, INC. 134 44TH STREET CORPUS CHRISTI, TEXAS 78405 PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: *Tim.Cantu@gates.com* WEB: www.gates.com

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015	
ustomer Ref. :	4060578	Hose Serial No.:	D-043015-7	
invoice No. :	500506	Created By:	JUSTIN CROPPER	
Product Description:		10K3.548.0CK4.1/1610KFLGE/E	16	
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG	
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7	
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI	
· · · · · · · · · · · · · · · · · · ·				
			e assembly has been tested to	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E	Specification requiremen dition, June 2010, Test (	ts and passed the 15 minute pressure 9.6.7 and per Table 9	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ	Specification requiremen dition, June 2010, Test p uct number. Hose burst	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ	Specification requiremen dition, June 2010, Test (	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ	Specification requiremen dition, June 2010, Test p uct number. Hose burst	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ	Specification requiremen dition, June 2010, Test p uct number. Hose burst	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the	
the Gates Oilfi hydrostatic test to 15,000 psi i	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9.	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9.	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	-
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	
the Gates Oilfi hydrostatic test to 15,000 psi i Quality Manager : Date :	eld Roughneck Agreement/S per API Spec 7K/Q1, Fifth E n accordance with this produ minimum of 2.5 times t	Specification requiremen dition, June 2010, Test p uct number. Hose burst the working pressure pe Produciton:	ts and passed the 15 minute pressure 9.6.7 and per Table 9 pressure 9.6.7.2 exceeds the r Table 9. PRODUCTION 4/30/2015	

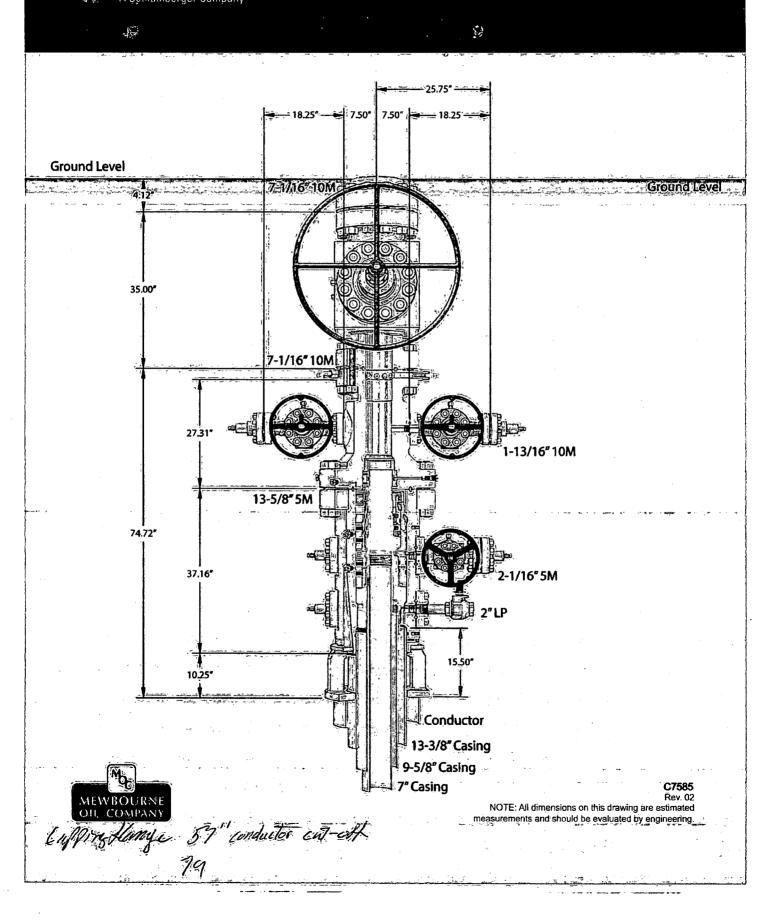


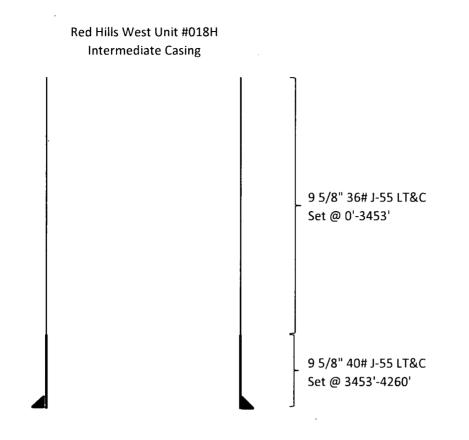


-----

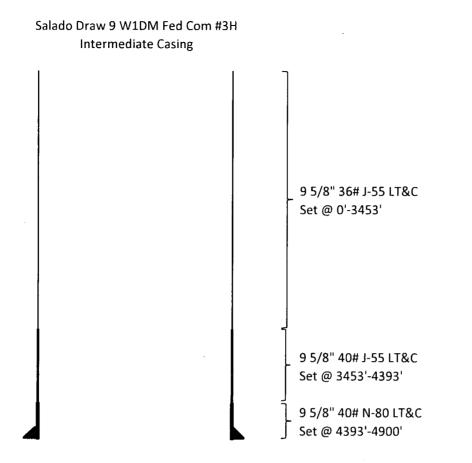


# 13-5/8" MN-DS Wellhead System

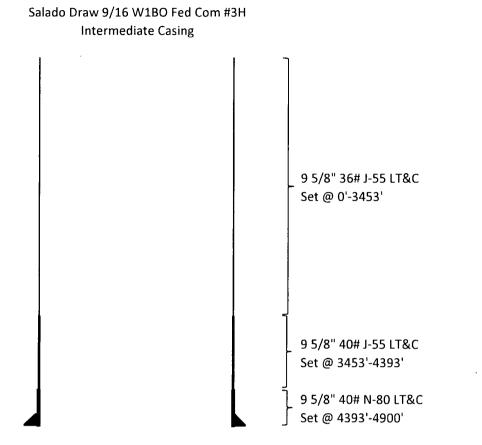




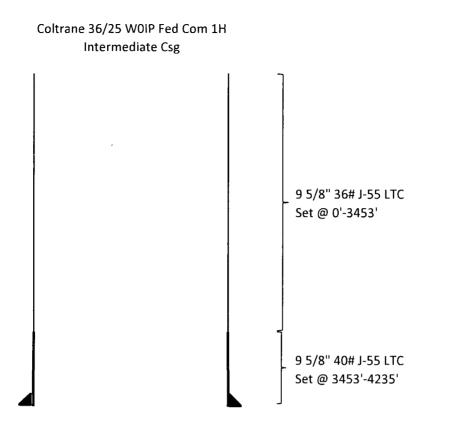
	SF	SF	SF Jt	SF Body
Casing	Collapse	Burst	Tension	Tension
36# J-55	1.13	1.96	2.89	4.54
40# J-55	1.16	1.78	16.11	19.52



	SF	SF	SF Jt	SF Body
Casing	Collapse	Burst	Tension	Tension
36# J-55	1.13	1.96	2.49	4.54
40# J-55	1.13	1.73	8.98	16.75
40# N-80	1.21	2.26	36.35	45.18



	SF	SF	SF Jt	SF Body
Casing	Collapse	Burst	Tension	Tension
36# J-55	1.13	1.96	2.78	4.54
40# J-55	1.13	1.73	8.98	16.75
40# N-80	1.21	2.26	36.35	45.18



	SF	SF	SF Jt	SF Body
Casing	Collapse	Burst	Tension	Tension
36# J-55	1.13	1.96	2.91	3.62
40# J-55	1.17	1.79	16.62	20.14

# **Casing Program**

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	ŚF	SF Jt	SF Body
Size	From	То	Size	(lbs)		4	Collapse	Burst	Tension	Tension
17.5"	0'	1145'	13.375"	48	H40	STC	1.47	3.30	5.86	9.84
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.91	3.62
12.25"	3453'	4235'	9.625"	40	J55	LTC	1.17	1.79	16.62	20.14
8.75"	0'	12054'	7"	26	HCP110	LTC	1.40	1.78	2.08	2.65
6.125"	11303'	19151'	4.5"	13.5	P110	LTC	1.34	1.56	3.19	3.98
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# **Casing Program**

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1145'	13.375"	48	H40	STC	1.47	3.30	5.86	9.84
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.91	3.62
12.25"	3453'	4235'	9.625"	40	J55	LTC	1.17	1.79	16.62	20.14
8.75"	0'	12054'	7"	26	HCP110	LTC	1.40	1.78	2.08	2.65
6.125"	11303'	19151'	4.5"	13.5	P110	LTC	1.34	1.56	3.19	3.98
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	Ν
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
	···
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# **Casing Program**

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)	- 		Collapse	Burst	Tension	Tension
17.5"	0'	1145'	13.375"	48	H40	STC	1.47	3.30	5.86	9.84
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.91	3.62
12.25"	3453'	4235'	9.625"	40	J55	LTC	1.17	1.79	16.62	20.14
8.75"	0'	12054'	7"	26	HCP110	LTC	1.40	1.78	2.08	2.65
6.125"	11303'	19151'	4.5"	13.5	P110	LTC	1.34	1.56	3.19	3.98
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	1
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well leasted in artical Cause/Warst?	NT
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# **Casing Program**

Hole	Casing Interval		Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1145'	13.375"	48	H40	STC	1.47	3.30	5.86	9.84
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.91	3.62
12.25"	3453'	4235'	9.625"	40	J55	LTC	1.17	1.79	16.62	20.14
8.75"	0'	12054'	7"	26	HCP110	LTC	1.40	1.78	2.08	2.65
6.125"	11303'	19151'	4.5"	13.5	P110	LTC	1.34	1.56	3.19	3.98
				BLM Minimum Safety			1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N				
Is casing new? If used, attach certification as required in Onshore Order #1					
Is casing API approved? If no, attach casing specification sheet.					
Is premium or uncommon casing planned? If yes attach casing specification sheet.					
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y				
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y				
Is well located within Capitan Reef?	N				
If yes, does production casing cement tie back a minimum of 50' above the Reef?					
Is well within the designated 4 string boundary.					
Is well located in SOPA but not in R-111-P?					
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?					
Is well located in R-111-P and SOPA?	N				
If yes, are the first three strings cemented to surface?					
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?					
Is well located in high Cave/Karst?	N				
If yes, are there two strings cemented to surface?					
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?					
Is well located in critical Cave/Karst?	N				
If yes, are there three strings cemented to surface?					

#### Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

#### 1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

#### 2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1. The hazards and characteristics of hydrogen sulfide gas.
- 2. The proper use of personal protective equipment and life support systems.
- 3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

#### 3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

- 1. <u>Well Control Equipment</u>
  - A. Choke manifold with minimum of one adjustable choke/remote choke.
  - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
  - C. Auxiliary equipment including annular type blowout preventer.
- 2. <u>Protective Equipment for Essential Personnel</u>

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

#### 3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

- 4. <u>Visual Warning Systems</u>
  - A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

#### 4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

#### 5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

#### 6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

#### 7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

#### 8. Emergency Phone Numbers

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Carlsbad Fire Dept	911 or 575-885-2111
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
<b>Closest Medical Facility - Columbia Medical Cente</b>	er of Carlsbad 575-492-5000

lobbs District Office	575-393-5905
ax	575-397-6252
<sup>nd</sup> Fax	575-393-7259
obin Terrell	575-390-4816
rosty Lathan	575-390-4103
radley Bishop	575-390-6838
Vesley Noseff	575-441-0729
	lobbs District Office <sup>'ax</sup> <sup>nd</sup> Fax Cobin Terrell 'rosty Lathan Bradley Bishop Vesley Noseff

# **Mewbourne Oil Company**

Eddy County, New Mexico NAD 83 Coltrane 36/25 W0PI Fed Com #1H Sec 36, T25S, R31E SL: 400' FSL & 410' FEL (36) BHL: 2310' FSL & 330' FEL (25)

Plan: Design #1

# **Standard Planning Report**

21 May, 2018

<b>R</b> 4 4	· [							Ni+- 0-1	105 MIC 21 5		
Database:	Hobbs	s ourne Oil Corr			1	ordinate Referen	1	Site Coltrane 36			
Company:	ł				TVD Refe		ł	WELL @ 3328.0			
Project:		÷ .	Aexico NAD 83		MD Refer			WELL @ 3328.0	usft (Original	Well Elev)	
Site:	1		I Fed Com #1H		North Ref			Grid			
Well:		6, T25S, R31E			Survey C	alculation Method	1: I	Minimum Curvat	ure		
Wellbore:	BHL:	2310' FSL & 33	30' FEL (25)		1.0	· . · .	14 A				
Design:	Desig	n #1			1.2	<u>1736) - 18</u>				nameniatation, né z 16. zamazonácia	
Project	Eddy C	ounty, New M	exico NAD 83								
Map System:	US State	e Plane 1983			System Da	tum:	Me	an Sea Level			
Geo Datum:	North An	nerican Datum	1983		•						
Map Zone:	New Me	xico Eastern Z	one								
Site	Coltran	e 36/25 W0PI	Fed Com #1H				<b></b>				
		00020 WOFT				COC 00					
Site Position:			Northi	-			titude:				80639
From:	Maj		Easting	-	729		ongitude:			-103.72	
Position Uncertai	nty:	0.	0 usft Slot Ra	adius:		13-3/16 "GI	rid Converg	ence:			0.32
Well	Sec 36,	T25S, R31E		· · · · · · · · · · · · · · · · · · ·							
Well Position	+N/-S	(	0.0 usft No	rthing:		393,606.00 us	ft Lati	tude:		32.08	80639
	+E/-W	(		sting:		729,939.00 us	ft Lon	gitude:		-103.72	24389
Position Uncertai	ntv	(		Ilhead Elevatio	n٠	3,328.0 us		und Level:			1.0 us
Magnetics	Mo	del Name	Sample		Declina (°)		Dip A (°			Strength nT}	
		IGRF2010		5/21/2018		6.79		59.85		47,823	
Design	Design	#1									
Audit Notes:											
Version:			Phase	: PR	ΟΤΟΤΥΡΕ	Tie Or	n Depth:		0.0		
Vertical Section:	·. ·	Ĩ	Depth From (TV	D)	+N/-S	+E/-W				• •	
· · · · · ·			. (usft) 0.0	·	(usft) 0.0	(usft) 0.0	i .		(°) ,34		
				1				-		and a subscription of the	
Plan Sections	L					P					
Measured			Vertical	<i></i>	3 <b>.</b>	Dogleg	Build	Turn			
	clination	Azimuth	Depth	+N/-S	+E/-W	Rate	Rate	Rate	TFO		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft) ('	'/100usft).	(°/100usft)	· (°)	Target	
0.0	0.00	0.00	0.0	0,0	0,0	0,00	0.00	0.00	0.00	<del>,,,,</del>	
4,310.0	0.00	0.00	4,310.0	0.0	0.0	0.00	0.00	0.00	0.00		
4,476.9	3.34	168.10	4,476.8	-4.8	1.0	2.00	2.00	0.00	168.10		
11,136.6	3.34	168.10	11,125.2	-384.2	81.0	0.00	0.00	0.00	0.00		
11,303.5	0.00	0.00	11,292.0	-389.0	82.0	2.00	-2.00	0.00		KOP @ 11292'	
		359.71	11,770.0	88.7	79.5	11.99	11,99	0.00	-0.29		
12,054.1	09,97	000.11									
12,054.1	89,97	555.71	11,770.0	00.1	10.0	11.00	11.00	0.00			

.

Wellbore: Desian:	BHL: 2310' FSL & 330' FEL (25)	Survey Calculation Method:	
Site:	Coltrane 36/25 W0PI Fed Com #1H	North Reference:	Grid
Well:	Sec 36, T25S, R31E		Minimum Curvature
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3328.00st (Original Well Elev) WELL @ 3328.0usft (Original Well Elev)
Database:	Hobbs	Local Co-ordinate Reference:	Site Coltrane 36/25 W0PI Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3328.0usft (Original Well Elev)

Plann	ed Survey
-------	-----------

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0			0.0		0.00	
		0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	L & 410' FEL (36)	0.00	400.0				0.00		
100.0	0.00	0.00	100.0	0,0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0						
700.0	0.00			0.0	0.0	0.0	0.00	0.00	. 0.00
		0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00							
			1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0,0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0,0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0					
3,200.0	0.00	0.00		0.0	0.0	0.0	0.00	0.00	0.00
3,300.0			3,200.0		0.0	0.0	0.00	0.00	0.00
	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0,00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,310.0	0.00	0.00	4,310.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	1.80	168.10	4,400.0	-1.4	0.3	-1.4	2.00	2.00	0.00
4,476.9	3.34	168.10	4,476.8	-4.8	1.0	-4.8	2.00	2.00	0.00
4,500.0	3.34	168.10	4,499.9	-6.1	1.3	-6.1	0.00	0.00	0.00
4,600.0	3.34	168.10	4,599.7	-11.8	2.5	-11.8	0.00	0.00	0.00
4,700.0	3.34	168.10	4,699.5	-17.5	3.7	-17,4	0.00	0.00	0.00
4,800.0	3.34	168.10	4,799.4	-23.2	4.9	-23.1	0.00	0.00	0.00
4,900.0	3.34	168.10	4,899.2	-28.9	6.1	-28.8	0.00	0.00	0.00
5,000.0	3.34	168.10	4,999.0	-34.6	7.3	-34.5	0.00	0.00	0.00

Database:	Hobbs	Local Co-ordinate Reference:	Site Coltrane 36/25 W0PI Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3328.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3328.0usft (Original Well Elev)
Site:	Coltrane 36/25 W0PI Fed Com #1H	North Reference:	Grid
Well:	Sec 36, T25S, R31E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 2310' FSL & 330' FEL (25)		
Desian:	Design #1		

Planned	Survey

	asured )epth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
. (	usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	· ·
	5,100.0	3.34	168.10	5,098.8	-40.3	8.5	-40.2	0.00	0.00	0.00	
	5,200.0	3.34	168.10	5,198.7	-46.0	9.7	-45.9	0.00	0.00	0.00	
	5,300.0	3.34	168.10	5,298.5	-51.7	10.9	-51.6	0.00	0.00	0.00	
	5,400.0	3.34	168.10	5,398.3	-57.4	10.9	-51.6				
	5,500.0	3.34	168.10	5,498.2	-57.4	13.3		0.00	0.00	0.00	
	5,600.0	3.34	168.10				-63.0	0.00	0.00	0.00	
				5,598.0	-68.8	14.5	-68.7	0.00	0.00	0.00	
	5,700.0	3.34	168.10	5,697.8	-74.5	15,7	-74.4	0.00	0.00	0.00	
	5,800.0	3.34	168.10	5,797.7	-80.1	16.9	-80.0	0.00	0.00	0.00	
	5,900.0	3.34	168.10	5,897.5	-85.8	18.1	-85.7	0.00	0.00	0.00	
	6,000.0	3.34	168.10	5,997.3	-91.5	19.3	-91.4	0.00	0.00	0.00	
	6,100.0	3.34	168.10	6,097.2	-97.2	20.5	-97.1	0.00	0.00	0.00	
	6,200.0	3.34	168.10	6,197.0	-102.9	21.7	-102.8	0.00	0.00	0.00	
	6,300.0	3.34	168.10	6,296.8	-108.6	22.0	109 5	0.00	0.00	0.00	
	6,400.0	3.34				22.9	-108.5	0.00	0.00	0.00	
			168,10	6,396.6	-114.3	24.1	-114.2	0.00	0.00	0.00	
	6,500.0	3.34	168.10	6,496.5	-120.0	25.3	-119.9	0.00	0.00	0.00	
	6,600.0	3.34	168.10	6,596.3	-125.7	26.5	-125.6	0.00	0.00	0.00	
	6,700.0	3.34	168.10	6,696.1	-131.4	27.7	-131.3	0.00	0.00	0.00	
	6,800.0	3.34	168.10	6,796.0	-137.1	28.9	-137.0	0.00	0.00	0.00	
	6,900.0	3.34	168.10	6,895.8	-142.8	30.1	-142.6	0.00	0.00	0.00	
	7,000.0	3.34	168.10	6,995.6	-148.5	31.3	-148.3	0.00	0.00	0,00	
	7,100.0	3.34	168.10	7,095.5	-154.2	32.5	-154.0	0.00	0.00	0.00	
	7,200.0	3.34	168,10	7,195.3	-159.9	33.7	-159.7	0.00	0.00	0.00	
	7,300.0	3.34	168.10	7,295.1	-165.6	34.9	-165.4	0.00	0.00	0.00	
	7,400.0	3.34	168.10	7,394.9	-171.3	36.1	-171.1	0.00	0.00	0.00	
	7,500.0	3.34	168.10	7,494.8	-177.0	37.3	-176.8	0.00	0.00	0.00	
	7,600.0	3.34	168.10	7,594.6	-182.7	38.5	-182.5	0.00	0.00	0.00	
	7,700.0	3.34	168.10	7,694.4	-188.4	39.7	-188.2	0.00	0.00	0.00	
	7,800.0	3.34	168.10	7,794.3	-194.1	40.9	-193.9	0.00	0.00	0.00	
	7,900.0	3.34	168.10	7,894.1	-199.8	42.1	-199.6	0.00	0.00	0.00	
	8,000.0	3.34	168.10	7,993.9	-205.5	43.3	-205.2	0.00	0.00	0.00	
	8,100.0	3.34	168.10	8,093.8	-211.2	44.5	-210.9	0.00	0.00	0.00	
	8,200.0	3.34	168.10	8,193.6	-216.9	45.7	-216.6	0.00	0.00	D.00	
					-210.9	45.7	-210.0	0.00	. 0.00	0.00	
	8,300.0	3.34	168.10	8,293.4	-222.6	46.9	-222.3	0.00	0.00	0.00	
	8,400.0	3.34	168.10	8,393.2	-228.3	48,1	-228.0	0.00	0.00	0.00	
	8,500.0	3.34	168.10	8,493.1	-234.0	49.3	-233.7	0.00	0.00	0.00	
	8,600.0	3.34	168.10	8,592.9	-239.7	50.5	-239.4	0.00	0.00	0.00	
	8,700.0	3.34	168.10	8,692.7	-245.4	51.7	-245.1	0.00	0.00	0.00	
	8,800.0	3.34	168.10	8,792.6	-251.1	52.9	-250.8	0.00	0.00	0.00	
	8,900.0	3.34	168,10	8,892.4	-251.1	52.9 54.1	-250.8	0.00		0.00	
	9,000.0	3.34	168.10	8,992.2	-256.8	54.1	-256.5		0.00		
	9,100.0	3.34	168.10					0.00	0.00	0.00	
	9,100.0		168.10	9,092.1 9,191,9	-268.2	56.5 57.7	-267.9	0.00	0.00	0.00	
	3,200.0	3,34	100.10	a' 1a 1'a	-273.9	57.7	-273.5	0.00	0.00	0.00	
	9,300.0	3.34	168.10	9,291.7	-279.6	58.9	-279.2	0.00	0.00	0.00	
	9,400.0	3.34	168.10	9,391.6	-285.3	60.1	-284.9	0.00	0.00	0.00	
	9,500.0	3,34	168.10	9,491.4	-291.0	61.3	-290.6	0.00	0.00	0.00	
	9,600.0	3.34	168.10	9,591.2	-296.7	62.5	-296.3	0.00	0.00	0.00	
	9,700.0	3.34	168.10	9,691.0	-302.4	63.7	-302.0	0.00	0.00	0.00	
	9,800.0	3.34	168.10	9,790.9	-308.1	64.9	-307.7	0.00	0.00	0.00	
	9,900.0	3.34	168.10	9,890.7	-313.8	66.1	-313.4	0.00	0.00	0.00	
	0,000.0	3.34	168.10	9,990.5	-319.5	67.3	-319.1	0.00	0.00	0.00	
1	0,100.0	3.34	168.10	10,090.4	-325.2	68.5	-324.8	0.00	0.00	0.00	
1	0,200.0	3.34	168.10	10,190.2	-330.9	69.7	-330.5	0.00	0.00	0.00	
	0,300.0	3.34	168.10	10,290.0	-336.6	70,9	-336.1	0.00	0.00	0.00	
1	0,400.0	3,34	168.10	10,389.9	-342.3	72.1	-341.8	0.00	0.00	0.00	

COMPASS 5000.1 Build 72

Database:		Hobbs	Local Co-ordinate Reference:	Site Coltrane 36/25 W0PI Fed Com #1H
Company:		Mewbourne Oil Company	TVD Reference:	WELL @ 3328.0usft (Original Well Elev)
Project:		Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3328.0usft (Original Well Elev)
Site:		Coltrane 36/25 W0PI Fed Com #1H	North Reference:	Grid
Well:	1	Sec 36, T25S, R31E	Survey Calculation Method:	Minimum Curvature
Wellbore:		BHL: 2310' FSL & 330' FEL (25)		
Design:	1	Design #1		

Planned Survey

Depth (usft)	Inclination (°)	Azimuth (°)	Vertical , Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	3.34	168.10	10,489.7	-348.0	73.4	-347.5	0.00	0.00	0.00
10,600.0	3.34	168.10	10,589.5	-353.7	74.6	-353.2	0.00	0.00	0.00
10,700.0	3.34	168.10	10,689.3	-359.4	75.8	-358.9	0.00	0.00	0.00
10,800.0	3.34	168.10	10,789.2	-365.1	77.0	-364.6	0.00	0.00	0.00
10,900.0	3.34	168.10	10,889.0	-370.8	78.2	-370.3	0.00	0.00	0.00
11,000.0	3.34	168.10	10,988.8	-376.5	79.4	-376.0	0.00	0.00	0.00
11,100.0	3.34	168.10	11,088.7	-382.2	80.6	-381.7	0.00	0.00	0.00
11,136.6	3.34	168.10	11,125.2	-384.2	81.0	-383.8	0.00	0.00	0,00
11,200.0	2.07	168.10	11,188.5	-387.2	81.6	-386.7	2.00	-2.00	0.00
11,300.0	0.07	168.10	11,288.5	-389.0	82.0	-388.5	2.00	-2.00	0.00
11,303.5	0.00	0.00	11,292.0	-389.0	82.0	-388.5	2.00	-2.00	0.00
KOP @ 112	92'								
11,400.0	11.57	359.71	11,387.9	-379.3	82.0	-378.8	11.99	11.99	0.00
11,500.0	23,55	359.71	11,483.0	-349.2	81.8	-348.7	11.99	11.99	0.00
11,600.0	35.54	359.71	11,569.9	-299.9	81.5	-299.5	11.99	11.99	0.00
11,700.0	47.53	359.71	11,644.6	-233.8	81.2	-233.3	11.99	11.99	0.00
11,800.0	59.51	359.71	11,703.9	-153.5	80.8	-153.0	11.99	11.99	0.00
11,892.3	70.57	359.71	11,742.8	-70.0	80.4	-69.5	11.99	11.99	0.00
	SL & 330' FEL (36								
11,900.0	71.50	359.71	11,745.3	-62.7	80.3	-62.2	11.99	11.99	0.00
12,000.0	83.49	359.71	11,766.9	34.8	79.8	35.3	11.99	11.99	0.00
12,054.1	89.97	359.71	11,770.0	88.7	79.5	89.2	11.99	11.99	0.00
	L & 330' FEL (36)								
12,100.0 12,200.0	89,97	359.71	11,770.0	134.7	79.3	135.1	0.00	0.00	0.00
12,200.0	89.97 89.97	359.71 359.71	11,770.1 11,770.1	234.7 334.7	78.8 78.3	235.1 335.1	0.00 0.00	0.00 0.00	0.00 0.00
12,400.0 12,500.0	89.97	359.71	11,770.2	434.7	77.8	435.1	0.00	0.00	0.00
	89.97	359.71	11,770.3	534.7	77.2	535.1	0.00	0.00	0.00
12,600.0	89.97	359.71	11,770.3	634,7	76.7	635.1	0.00	0.00	0.00
12,700.0 12,800.0	89.97 89.97	359.71 359.71	11,770.4 11,770.4	734,7 834.7	76.2 75.7	735.1 835.1	0.00 0.00	0.00 0.00	0.00 0.00
12,900.0 13,000.0	89.97	359.71	11,770.5	934.7	75.2	935.1	0.00	0.00	0.00
13,100.0	89.97 89.97	359.71 359.71	11,770.5 11,770.6	1,034.6	74.7	1,035.1	0.00	0.00	0.00
13,200.0	89.97	359.71	11,770.6	1,134.6 1,234.6	74.2 73.6	1,135.1 1,235.1	0.00	0.00	0.00
13,300.0	89.97	359.71	11,770.7	1,234.6	73.8	1,335.1	0.00 0.00	0.00 0.00	0.00 0.00
13,400.0	89.97	359.71	11,770.8	1,434.6	72.6	1,435.1	0.00	0.00	0.00
13,400.0	89.97	359.71	11,770.8	1,434.6	72.6	1,435.1	0.00	0.00	0.00
13,600.0	89.97	359.71	11,770.9	1,634.6	72.1	1,635.0	0.00	0.00	0.00
13,700.0	89.97	359.71	11,770.9	1,734.6	71.8	1,835.0	0.00	0.00	0.00
13,800.0	89.97	359.71	11,771.0	1,834.6	70.6	1,835.0	0.00	0.00	0.00
13,900.0	89.97	359.71	11,771.0	1,934.6	70.0	1,935.0	0.00	0.00	0.00
14,000.0	89.97	359.71	11,771.1	2,034.6	69.5	2,035.0	0.00	0.00	0.00
14,100.0	89.97	359.71	11,771.2	2,034.6	69.0	2,035.0	0.00	0.00	0.00
14,200.0	89.97	359.71	11,771.2	2,234.6	68.5	2,135.0	0.00	0.00	0.00
14,300.0	89.97	359.71	11,771.3	2,234.6	68.0	2,235.0	0.00	0.00	0.00
14,400.0	89.97	359.71	11,771.3	2,434.6	67.5	2,435.0	0.00	0.00	0.00
14,400.0	89.97	359.71	11,771.4	2,434.6	66.9	2,435.0	0.00	0.00	0.00
14,500.0	89.97								
14,600.0		359.71	11,771.4	2,634.6	66.4	2,635.0	0.00	0.00	0.00
	89.97	359.71	11,771.5	2,734.6	65.9	2,735.0	0.00	0.00	0.00
14,800.0	89.97	359.71	11,771.5	2,834.6	65.4	2,835.0	0.00	0.00	0.00
14,900.0	89.97	359.71	11,771.6	2,934.6	64.9	2,935.0	0.00	0.00	0.00
15,000.0	89,97	359.71	11,771.7	3,034.6	64.4	3,035.0	0.00	0.00	0.00

COMPASS 5000.1 Build 72

.

Database:	Hobbs	Local Co-ordinate Reference:	Site Coltrane 36/25 W0PI Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3328.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3328.0usft (Original Well Elev)
Site:	Coltrane 36/25 W0PI Fed Com #1H	North Reference:	Grid
Well:	Sec 36, T25S, R31E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 2310' FSL & 330' FEL (25)		
Design:	Design #1		

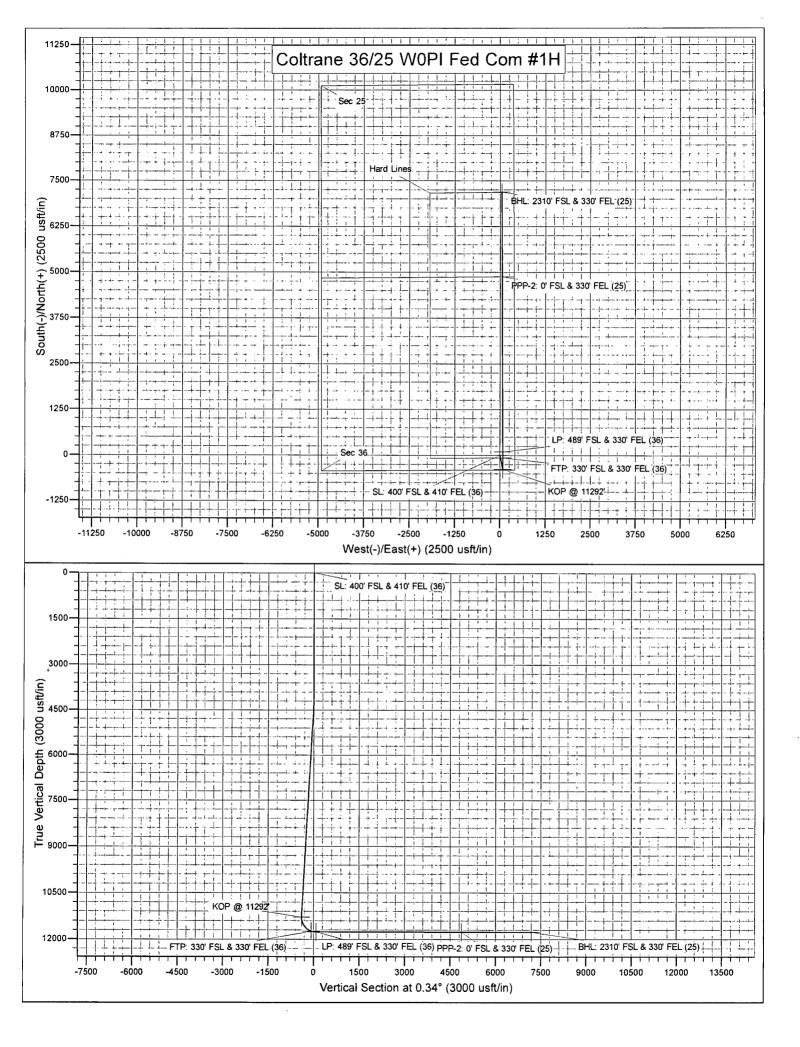
Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,100.0	89.97	359.71	11,771.7	3,134.6	63.9	3,134.9	0.00	0.00	0.00
15,200.0	89.97	359.71	11,771.8	3,234.6	63.3	3,234.9	0.00	0.00	0.00
15,300.0	89.97	359.71	11,771.8	3,334.6	62.8	3,334.9	0.00	0.00	0.00
15,400.0	89.97	359.71	11,771.9	3,434.6	62.3	3,434.9	0.00	0.00	0.00
15,500.0	89.97	359.71	11,771.9	3,534.6	61.8	3,534.9	0.00	0.00	0.00
15,600.0	89.97	359.71	11,772.0	3,634.6	61.3	3,634.9	0.00	0.00	0.00
15,700.0	89.97	359.71	11,772.1	3,734.6	60.8	3,734.9	0.00	0.00	0.00
15,800.0	89.97	359.71	11,772.1	3,834.6	60.3	3,834,9	0,00	0.00	0.00
15,900.0	89.97	359.71	11,772.2	3,934.6	59.7	3,934.9	0.00	0.00	0.00
16,000.0	89.97	359.71	11,772.2	4,034.6	59.2	4,034.9	0.00	0.00	0.00
16,100.0	89.97	359.71	11,772.3	4,134.6	58.7	4,134.9	0.00	0.00	0.00
16,200.0	89.97	359.71	11,772.3	4,234.6	58.2	4,234.9	0.00	0.00	0.00
16,300.0	89.97	359.71	11,772.4	4,334.6	57.7	4,334.9	0.00	0.00	0.00
16,400.0	89.97	359,71	11,772.4	4,434.6	57.2	4,434.9	0.00	0.00	0.00
16,500.0	89.97	359.71	11,772.5	4,534.6	56.7	4,534.9	0.00	0.00	0.00
16,600.0	89.97	359.71	11,772.6	4,634.6	56.1	4,634.9	0.00	0.00	0.00
16,700.0	89.97	359.71	11,772.6	4,734.6	55.6	4,734.8	0.00	0.00	0.00
16,800.0	89.97	359.71	11,772.7	4,834.6	55.1	4,834.8	0.00	0.00	0.00
16,841.4	89.97	359.71	11,772.7	4,876.0	54.9	4,876.2	0.00	0.00	0.00
	L & 330' FEL (25)							-	
16,900.0	89.97	359.71	11,772.7	4,934.6	54.6	4,934.8	0.00	0.00	0.00
17,000.0	89.97	359.71	11,772.8	5,034.6	54.1	5,034.8	0.00	0.00	0.00
17,100.0	89.97	359,71	11,772,8	5,134.6	53.6	5,134.8	0.00	0.00	0.00
17,200.0	89.97	359.71	11,772.9	5,234.6	53.0	5,234.8	0.00	0.00	0.00
17,300.0	89.97	359.71	11,773.0	5,334.6	52.5	5,334.8	0.00	0.00	0.00
17,400.0	89,97	359.71	11,773.0	5,434.6	52.0	5,434.8	0.00	0.00	0.00
17,500.0	89.97	359.71	11,773.1	5,534.6	51.5	5,534.8	0.00	0.00	0.00
17,600.0	89.97	359.71	11,773.1	5,634.6	51.0	5,634.8	0.00	0.00	. 0.00
17,700.0	89.97	359.71	11,773.2	5,734.6	50.5	5,734.8	0.00	0.00	0.00
17,800.0	89.97	359.71	11,773.2	5,834.6	50.0	5,834.8	0.00	0.00	0.00
17,900.0	89.97	359.71	11,773.3	5,934.6	49.4	5,934.8	0.00	0.00	0.00
18,000.0	89.97	359.71	11,773.4	6,034.6	48.9	6,034.8	0.00	0.00	0.00
18,100.0	89.97	359.71	11,773.4	6,134.6	48.4	6,134.8	0.00	0.00	0.00
18,200.0	89.97	359.71	11,773.5	6,234.6	47.9	6,234.8	0.00	0.00	0.00
18,300.0	89.97	359.71	11,773.5	6,334.6	47.4	6,334.7	0.00	0.00	0.00
18,400.0	89.97	359.71	11,773.6	6,434.6	46.9	6,434.7	0.00	0.00	0.00
18,500.0	89.97	359.71	11,773.6	6,534.6	46.4	6,534.7	0.00	0.00	0.00
18,600.0	89.97	359.71	11,773.7	6,634.6	45.8	6,634.7	0.00	0.00	0.00
18,700.0	89.97	359.71	11,773.7	6,734.6	45.3	6,734.7	0.00	0.00	0.00
18,800.0	89.97	359.71	11,773.8	6,834.6	44.8	6,834.7	0.00	0.00	0.00
18,900.0	89.97	359.71	11,773.9	6,934.6	44.3	6,934.7	0.00	0.00	0.00
19,000.0	89.97	359.71	11,773.9	7,034,6	43.8	7,034.7	0.00	0.00	0.00
19,100.0	89.97	359.71	11,774.0	7,134.6	43,3	7,134.7	0.00	0.00	0.00
19,151.4	89.97	359.71	11,774.0	7,186.0	43.0	7,186.1	0.00	0.00	0.00
DUL . 22401 C	SL & 330' FEL (25	-					•		

.

Database:	Hobbs	Local Co-ordinate Reference:	Site Coltrane 36/25 W0PI Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3328.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3328.0usft (Original Well Elev)
Site:	Coltrane 36/25 W0PI Fed Com #1H	North Reference:	Grid
Well:	Sec 36, T25S, R31E	Survey Calculation Method:	Minimum Curvature
Nellbore:	BHL: 2310' FSL & 330' FEL (25)		
Desian:	Design #1		1

Target Name		-					P	•	1 1
	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	° .	
		· · · · · · · · · · · · · · · · · · ·	lusid	(0310)	(0314)	(usit)	(usit)	Latitude	Longitude
SL: 400' FSL & 410' FEL - plan hits target cente - Point	0.00 F	0.00	0.0	0.0	0.0	393,606.00	729,939.00	32.0806392	-103.7243894
KOP @ 11292' - plan hits target cente - Point	0.00 er	0.00	11,292.0	-389.0	82.0	393,217.00	730,021.00	32.0795687	-103.7241318
FTP: 330' FSL & 330' FE - plan hits target cente - Point	0.00 er	0.00	11,742.8	-70.0	80.4	393,536.00	730,019.35	32.0804456	-103.7241313
LP: 489' FSL & 330' FEL - plan hits target cente - Point	0.00 er	0.00	11,770.0	88.7	79.5	393,694.72	730,018.54	32.0808819	-103.7241310
PPP-2: 0' FSL & 330' FE - plan hits target cente - Point	0.00 r	0.00	11,772.7	4,876.0	54.9	398,482.00	729,993.89	32.0940416	-103.7241233
BHL: 2310' FSL & 330' F - plan hits target cente - Point	0.00 r	0.00	11,774.0	7,186.0	43.0	400,792.00	729,982.00	32.1003915	-103.7241195



# 1. Geologic Formations

TVD of target	11774'	Pilot hole depth	NA
MD at TD:	19151'	Deepest expected fresh water:	300'

Basin

Formation	Depth (TVD)	Water/Mineral Bearing/	Hazards*
· ·	from KB	Target Zone?	· · · ·
Quaternary Fill	Surface		
Rustler	1070		-
Top of Salt	1230		
Base of Salt	4140		
Yates			
Seven Rivers			
Queen			
Delaware	4310	Oil/Gas	
Manzanita	5530	Oil/Gas	
Brushy Canyon	7050	Oil/Gas	
Bone Spring	8330	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	9410	Oil/Gas	
2 <sup>nd</sup> Bone Spring Sand	10100	Oil/Gas	
3 <sup>rd</sup> Bone Spring Sand	11210	Oil/Gas	
Abo			
Wolfcamp	11640	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

# 2. Casing Program

Hole	Casing Interval		Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size			Size	(lbs)			Collapse	Burst	Tension	Tension
3	Fro	То								
<u></u>	m					s			· · · · · · ·	
17.5"	0'	1145'	13.375"	48	H40	STC	1.47	3.30	5.86	9.84
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.91	3.62
12.25"	3453'	4235'	9.625"	_40	J55	LTC	1.17	1.79	16.62	20.14
8.75"	0'	12054'	7"	26	HCP110	LTC	1.40	1.78	2.08	2.65
6.125"	1130	19151'	4.5"	13.5	P110	LTC	1.34	1.56	3.19	3.98
	3'									
BLM	1.125	1	1.6 Dr	y 1.6 Dr	у				• • •	
Minimu			1.8 We	et   1.8 W	et					
m										
Safety										
Factor										

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h Must have table for contingency casing.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
Is well located in R-111-P and SOPA?	N

If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well loosted in high Coug/Koast?	NT
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Casing	#Sks	Wt.	Yld	H <sub>2</sub> 0	500#	Slurry Description
2/5 - <sup>2</sup> -		lb/	ft3/	gal/	Comp.	and the second
		gal	sack	sk	Strength	
	a e si e				(hours)	
Surf.	630	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	705	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	360	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +
Stg 1						Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
					ECP/DV T	ool @ 5530'
Prod.	75	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +
Stg 2						Extender
	100	14.8	1.34	6.3	8	Tail: Class C + Retarder
Liner	320	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder +
						Dispersant + Defoamer + Anti-Settling Agent

# 3. Cementing Program

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4035'	25%
Liner	11303'	25%

.

### 3. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Туре			Tested to:		
			Annular		X	2500#		
		5M	Blind Ram		X			
12-1/4"	13-5/8"		Pip	e Ram	X	5000#		
			Double Ram			5000#		
			Other*					

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Х	Formation integrity test will be performed per Onshore Order #2.
	On exploratory wells or on that portion of any well approved for a 5M BOPE system or
	greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in
	accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y	<ul><li>A variance is requested for the use of a flexible choke line from the BOP to Choke</li><li>Y Manifold. See attached for specs and hydrostatic test chart.</li></ul>	
N Are anchors required by manufacturer?		Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.	
	• Provide description here: See attached schematic.	

### 5. Mud Program

Depth		Type Weight (ppg)		Viscosity	Water Loss
From	То				
0'	1145'	FW Gel	8.6-8.8	28-34	N/C
1145'	4235'	Saturated Brine	10.0	28-34	N/C
4235'	11303'	Cut Brine	8.6-9.	28-34	N/C
11303'	19151'	OBM	10.0-12.0	30-40	<10cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. Mud weight up to 13.0 ppg may be required for shale control. The highest mud weight needed to balance formation is expected to be 12.0 ppg.

What will be used to monitor the loss or gain	Pason, PVT, Visual Monitoring
of fluid?	

### 6. Logging and Testing Procedures

Logging, Coring and Testing.			
X	Will run GR/CNL from KOP (11303') to surface (horizontal well – vertical portion of		
	hole). Stated logs run will be in the Completion Report and submitted to the BLM.		
	No Logs are planned based on well control or offset log information.		
	Drill stem test? If yes, explain		
	Coring? If yes, explain		

Additional logs planned		Interval
Χ	Gamma Ray	11303' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7347 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

	H2S is present	
Χ	H2S Plan attached	

#### 8. Other facets of operation

Is this a walking operation? If yes, describe. Will be pre-setting casing? If yes, describe.

Attachments

\_\_\_\_ Directional Plan \_\_\_\_ Other, describe

# **FAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# SUPO Data Report

Highlighted data reflects the most

recent changes

Show Final Text

Submission Date: 05/24/2018

Well Number: 1H

Well Work Type: Drill

APD ID: 10400030357

Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Type: CONVENTIONAL GAS WELL

# Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Coltrane36\_25W0PIFedCom1H\_existingroadmap\_20180517141852.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

## **Section 3 - Location of Existing Wells**

Existing Wells Map? YES

Attach Well map:

Coltrane36\_25W0PIFedCom1H\_existingwellmap\_20180517141927.pdf

Operator Name: MEWBOURNE OIL COMPANY Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

Existing Wells description:

Section 4 - Location	of Existing and/or Pr	oposed Production Facilities
Submit or defer a Proposed Production	on Facilities plan? SUBMIT	
Desidentian Excilition descelations Det		
Production Facilities description: Bat	tery will be on the north side of	of location
Production Facilities map:		
Coltrane36_25W0PIFedCom1H_produc	tionfacilitymap_20180517141	952.pdf
Section 5 - Location an	d Types of Water Sup	oply
Water Source Tabl	e	
Water source use type: CAMP USE INTERMEDIATE/PRODUCTION CAS CASING		
Describe type:		Source longitude: -103.433784
Source latitude: 32.42423		
Source datum: NAD83	•	
Water source permit type: WATER	WELL	
Source land ownership: FEDERAL		
Water source transport method: TF	RUCKING	
Source transportation land owners	hip: FEDERAL	
Water source volume (barrels): 194	10	Source volume (acre-feet): 0.2500526
Source volume (gal): 81480		
Water source and transportation map	:	
Coltrane36_25W0PIFedCom1H_waters	ourceandtransmap_20180517	7142021.pdf
Water source comments: Both sources	s shown on same map	
New water well? NO		
New Water Well In	fo	
Well latitude:	Well Longitude:	Well datum:
Well target aquifer:	wen Longitude.	wen datum.
Est. depth to top of aquifer(ft):	Est thickness	s of aquifer:
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing typ	e:

**Operator Name: MEWBOURNE OIL COMPANY** Well Name: COLTRANE 36/25 W0PI FED COM

Well casing outside diameter (in.): New water well casing? Drilling method: Grout material: Casing length (ft.): Well Production type: Water well additional information:

Well casing inside diameter (in.): Used casing source: **Drill material:** Grout depth: Casing top depth (ft.): **Completion Method:** 

Well Number: 1H

State appropriation permit:

Additional information attachment:

#### Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche

**Construction Materials source location attachment:** 

Coltrane36\_25W0PIFedCom1H\_calichesourceandtransmap\_20180517142102.pdf

#### Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

Safe containment description: Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE FACILITY

**Disposal type description:** 

Disposal location description: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE FACILITY

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

Disposal type description:

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE FACILITY Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

**Reserve Pit** 

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

**Cuttings Area** 

Cuttings Area being used? NO

Are you storing cuttings on location? NO

**Description of cuttings location** 

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

#### **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

Comments:

.

Section 9 - Well Site Layout

Well Site Layout Diagram:

Coltrane36\_25W0PIFedCom1H\_wellsitelayout\_20180517142121.pdf

J

Comments:

## Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance	Multiple Well Pad Name: COLTRANE 36/25 PI FED COM	
	Multiple Well Pad Number: 2	
Recontouring attachment:		
Drainage/Erosion control construction: None		
Drainage/Erosion control reclamation: None		
Wellpad long term disturbance (acres): 3.675	Wellpad short term disturbance (acres): 0.275	
Access road long term disturbance (acres): 0	Access road short term disturbance (acres): 0	
Pipeline long term disturbance (acres): 2.9834712	E-7 <b>Pipeline short term disturbance (acres):</b> 2.9834712E-7	
Other long term disturbance (acres): 1.205	Other short term disturbance (acres): 1.205	
Total long term disturbance: 4.88	Total short term disturbance: 1,4800003	

**Disturbance Comments:** In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging. **Reconstruction method:** The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Well Number: 1H

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses Existing Vegetation Community at the road attachment: Existing Vegetation Community at the pipeline: NA Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO Seed harvest description: Seed harvest description attachment:

#### **Seed Management**

Seed Type

	Seed Summary	Total pounds/Acre:
PLS pounds per acre:		Proposed seeding season:
Seed use location:		
Seed cultivar:		
Source phone:		
Source name:		Source address:
S	Seed name:	
Seed type:		Seed source:
	Seed Table	

**Pounds/Acre** 

Well Number: 1H

#### Seed reclamation attachment:

#### **Operator Contact/Responsible Official Contact Info**

First Name: Bradley

Phone: (575)393-5905

Last Name: Bishop

Email: bbishop@mewbourne.com

**Seedbed prep:** Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites. **Seed BMP:** To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Seed method: drilling or broadcasting seed over entire reclaimed area.

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

**Monitoring plan description:** vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion and invasive/noxious weeds are controlled. **Monitoring plan attachment:** 

Success standards: regrowth within 1 full growing season of reclamation.

Pit closure description: NA

Pit closure attachment:

#### Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

Operator Name: MEWBOURNE OIL COMPANY Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

Other Lo	cal Office:	
USFS Re	gion:	

USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: NEW ACCESS ROAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: EXISTING ACCESS ROAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: NPS Local Office: Operator Name: MEWBOURNE OIL COMPANY Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

State Local Office:	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:

Section 12 - Other Information

Right of Way needed? NO ROW Type(s): Use APD as ROW?

**ROW Applications** 

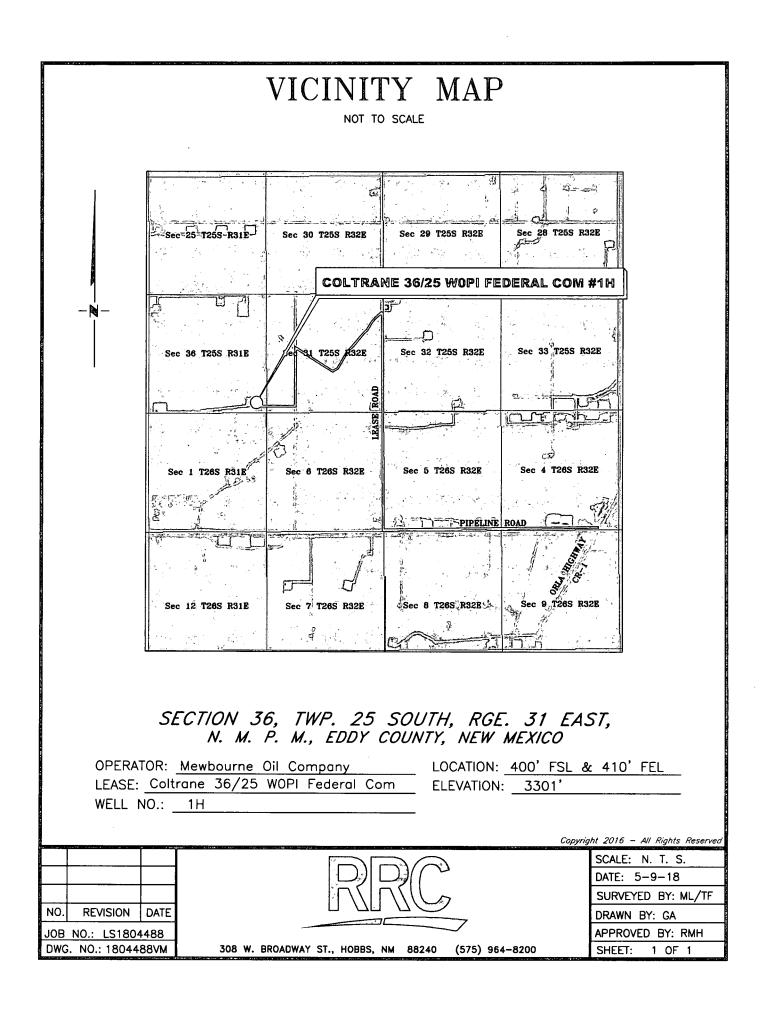
**SUPO Additional Information:** 

Use a previously conducted onsite? YES

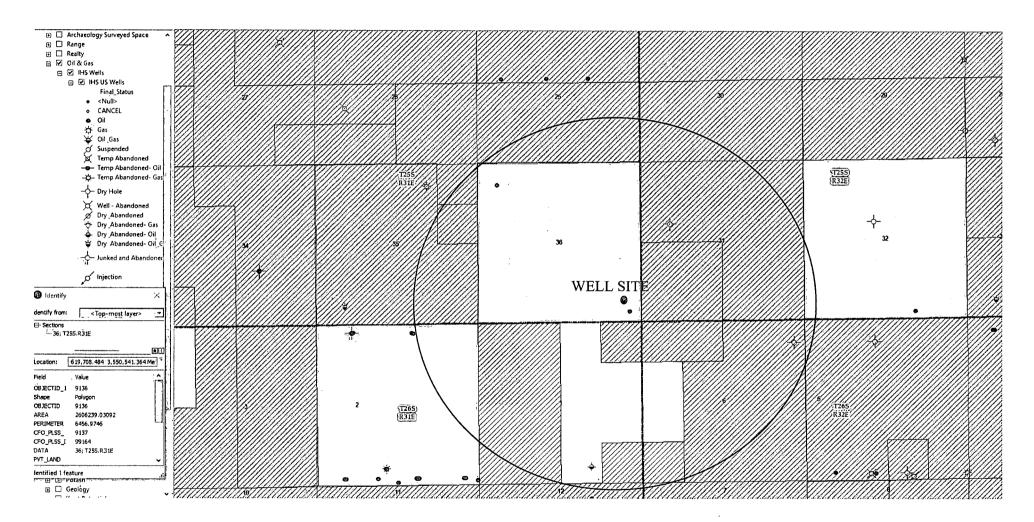
**Previous Onsite information:** MAY 08 2018 Met w/RRC Surveying & Paul Murphy (BLM). Staked location @ 400' FSL & 410' FEL, Sec 36, T25S, R31E, Eddy Co. NM. This is a drillable location. Pad will be 400' x 430'. Battery will be on North side of location. No new road access road required. Reclaim 60' on east edge of well pad. (BCB) MAY 11 2018 Elevation @ 3301'. GPS: 32.08063920, -103.72439016, NAD 83.

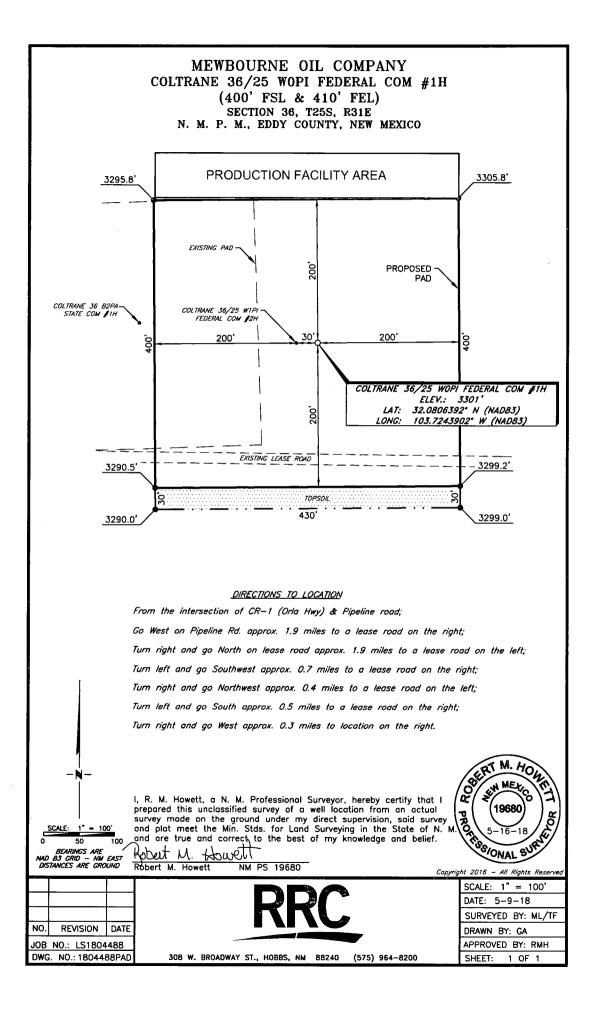
## Other SUPO Attachment

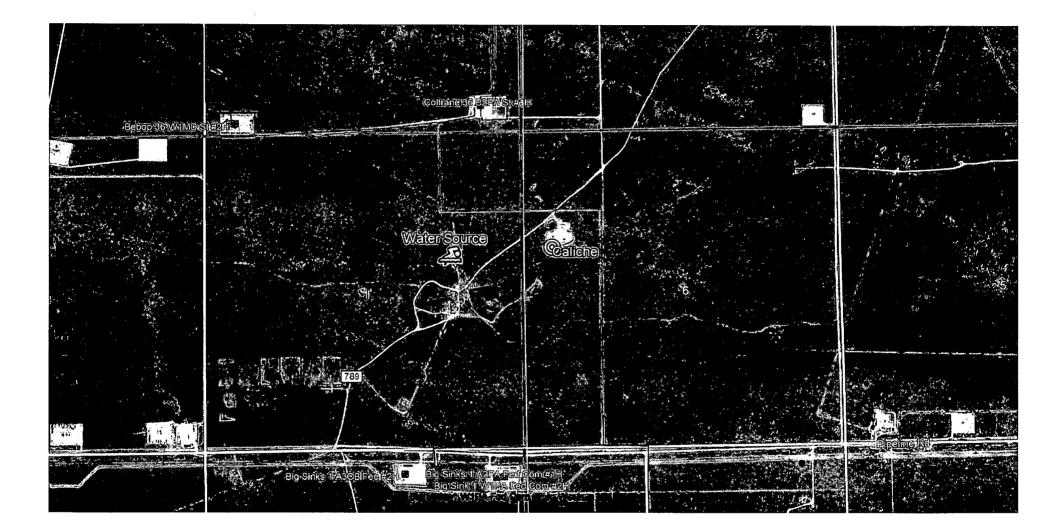
Coltrane36\_25W0PIFedCom1H\_gascaptureplan\_20180517142222.pdf Coltrane36\_25W0PIFedCom1H\_interimreclamationdiagram\_20180517142238.pdf

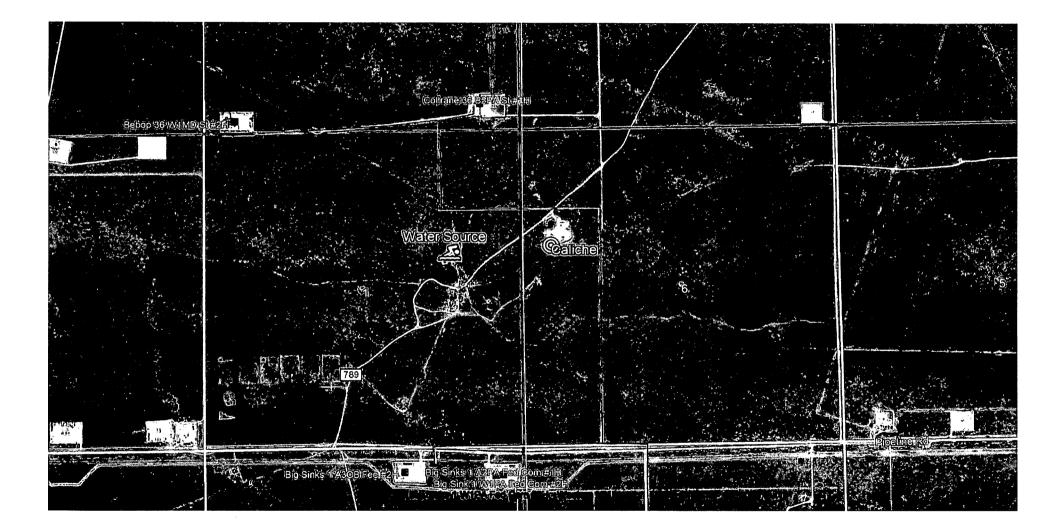


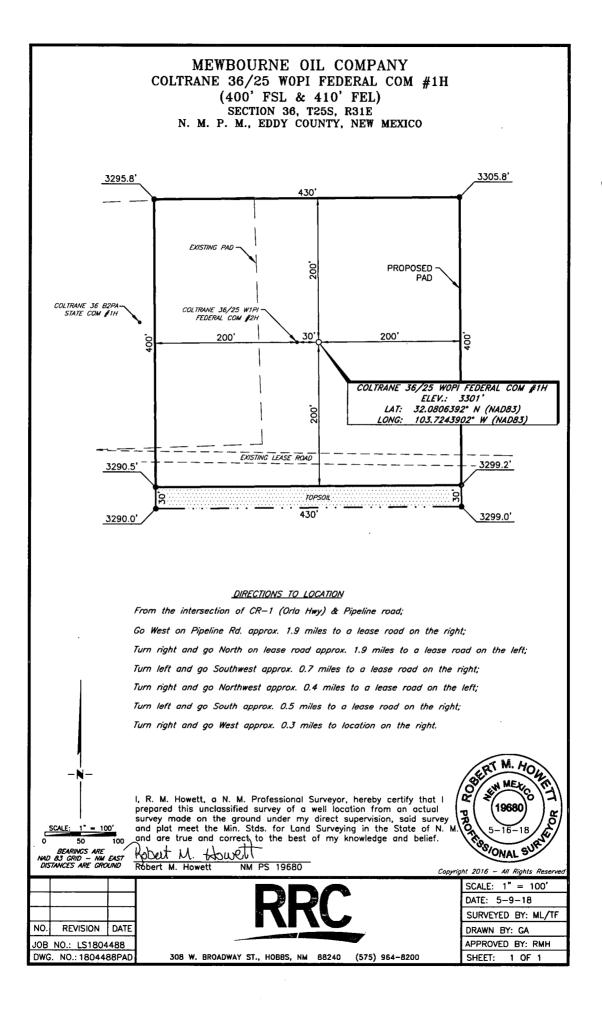
# EXISTING WELL MAP COLTRANE 36/25 W0PI FED COM 1H

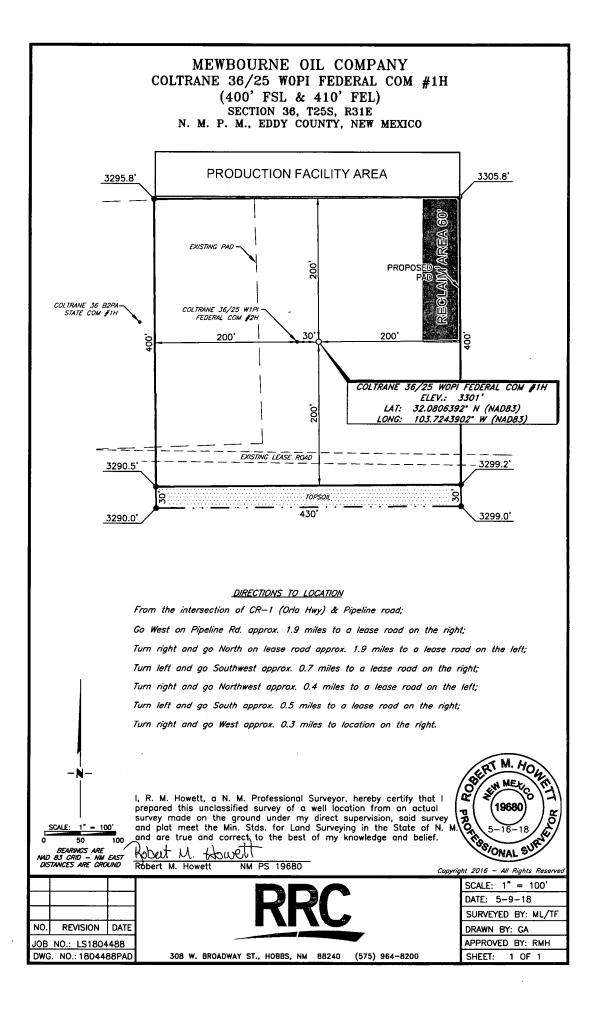












# **FAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT



APD ID: 10400030357

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: COLTRANE 36/25 W0PI FED COM

Well Type: CONVENTIONAL GAS WELL

Well Number: 1H Well Work Type: Drill

Submission Date: 05/24/2018

**Section 1 - General** 

Would you like to address long-term produced water disposal? NO

# Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner: Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit specifications: Pit liner description: Pit liner manufacturers information: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule attachment: Lined pit reclamation description: Lined pit reclamation attachment: Leak detection system description: Leak detection system attachment:

PWD disturbance (acres):

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

Lined pit Monitor description: Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

## **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

Unlined pit: do you have a reclamation bond for the pit?

Well Number: 1H

Is the reclamation bond a rider under the BLM bond? Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

## **Section 4 - Injection**

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

**Underground Injection Control (UIC) Permit?** 

**UIC Permit attachment:** 

### Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

## **Section 6 - Other**

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Other PWD discharge volume (bbl/day):

PWD disturbance (acres):

**PWD disturbance (acres):** 

Injection well name:

Injection well API number:

PWD disturbance (acres):

Operator Name: MEWBOURNE OIL COMPANY

Well Name: COLTRANE 36/25 W0PI FED COM

Well Number: 1H

.

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

**FMSS** 

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Bond Info Data Report

08/06/2019

APD ID: 10400030357 Operator Name: MEWBOURNE OIL COMPANY Well Name: COLTRANE 36/25 W0PI FED COM Well Type: CONVENTIONAL GAS WELL

Submission Date: 05/24/2018

Well Number: 1H

Well Work Type: Drill

Highlighted data reflects the most recent changes <u>Show Final Text</u>

**Bond Information** 

Federal/Indian APD: FED

BLM Bond number: NM1693

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

**Reclamation bond number:** 

Reclamation bond amount:

**Reclamation bond rider amount:** 

Additional reclamation bond information attachment:

.

**FMSS** 

# Application for Permit to Drill

# **APD Package Report**

Date Printed: 08/06/2019 10:13 AM

2 Partie No. and

APD ID: 10400030357 APD Received Date: 05/24/2018 02:26 PM Operator: MEWBOURNE OIL COMPANY Well Status: AAPD Well Name: COLTRANE 36/25 W0PI FED Well Number: 1H

U.S. Department of the Interior Bureau of Land Management

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
  - -- Operator Letter of Designation: 1 file(s)
  - -- Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - -- Blowout Prevention Choke Diagram Attachment: 2 file(s)
  - -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  - -- Casing Taperd String Specs: 4 file(s)
  - -- Casing Design Assumptions and Worksheet(s): 4 file(s)
  - -- Hydrogen sulfide drilling operations plan: 1 file(s)
  - -- Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
  - -- Other Facets: 1 file(s)
- SUPO Report
- SUPO Attachments
  - -- Existing Road Map: 1 file(s)
  - -- Attach Well map: 1\_file(s)
  - -- Production Facilities map: 1 file(s)
  - -- Water source and transportation map: 1 file(s)
  - -- Construction/Materials source location attachment: 1 file(s)
  - -- Well Site Layout Diagram: 1 file(s)
  - -- Other SUPO Attachment: 2 file(s)
- PWD Report
- PWD Attachments
  - -- None

AUG 0.7 2019 DISTRICTILARTESIAO.C.D.

Bond ReportBond Attachments

7

-- None