NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 04 2019

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Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0047633B

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
LOCO HILLS 1/2 B2AB FED COM
1H 323073

2. Name of Operator
MEWBOURNE OIL COMPANY 14744

9. API Well No.
30-015-45582

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
PO Box 5270 Hobbs NM 88240	(575)393-5905	LOCO HILLS;BONE SPRING 39513

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SESE / 300 FSL / 400 FEL / LAT 32.7845085 / LONG -103.9181528
At proposed prod. zone NWNE / 660 FNL / 2538 FEL / LAT 32.781896 / LONG -103.9422844

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 36 / T17S / R30E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
20 miles	EDDY	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
185 feet	440.64	320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
330 feet	7847 feet / 15602 feet	FED: NM1693

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3598 feet	11/21/2018	60 days

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 3162.3-3 (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 Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Bradley Bishop / Ph: (575)393-5905	08/22/2018

Title
Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Ty Allen / Ph: (575)234-5978	12/21/2018

Title	Office
Wildlife Biologist	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 applicant 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 agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 12/21/2018

RWP 1-4-19

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.

NOTICES

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.S.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.

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: SESE / 300 FSL / 400 FEL / TWSP: 17S / RANGE: 30E / SECTION: 36 / LAT: 32.7845085 / LONG: -103.9181528 (TVD: 27[illegible] feet, MD: 27[illegible] feet)
   PPP: NENE / 660 FNL / 0 FEL / TWSP: 18S / RANGE: 30E / SECTION: 2 / LAT: 32.7818878 / LONG: -103.9340276 (TVD: 7871 feet, MD: 13063 feet)
   PPP: NENE / 660 FNL / 100 FEL / TWSP: 18S / RANGE: 30E / SECTION: 1 / LAT: 32.7818694 / LONG: -103.9171892 (TVD: 7723 feet, MD: 7826 feet)
   BHL: NWNE / 660 FNL / 2538 FEL / TWSP: 18S / RANGE: 30E / SECTION: 2 / LAT: 32.781896 / LONG: -103.9422844 (TVD: 7847 feet, MD: 15602 feet)

BLM Point of Contact

Name: Katrina Ponder
Title: Geologist
Phone: 5752345969
Email: kponder@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.:	NMLC-0047633B
WELL NAME & NO.:	Loco Hills 1 2 B2AB Fed Com 1H
SURFACE HOLE FOOTAGE:	0300' FSL & 0400' FEL
BOTTOM HOLE FOOTAGE	0660' FNL & 2538' FEL Sec. 02, T. 18 S., R 30 E.
LOCATION:	Section 36, T. 17 S., R 30 E., NMPM
COUNTY:	County, New Mexico

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

A. DRILLING OPERATIONS 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)

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

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public**

protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. 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 is located, this does not include the dog house or stairway area.

4. **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.**

B. 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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:
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 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

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.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility of water flows in the Artesia Group and Salado.
Possibility of lost circulation in the Rustler, Red Beds, Artesia Group, and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **500** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    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 is to include the lead cement slurry.**

    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. **Excess calculates to 24% - Additional cement may be required.**

Centralizers required through the curve and a minimum of one every other joint.

3. The minimum required fill of cement behind the 7 inch production casing is:

    ☐ 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 as proposed. Operator shall provide method of verification.

5. 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.

C. 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 53.

2. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **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 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. **Operator shall perform the 9-5/8" and 7" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    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.**

4. The appropriate BLM office shall be notified a minimum of 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).

a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

b. 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.

c. The results of the test shall be reported to the appropriate BLM office.

d. 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.**

e. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. 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.

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

JAM 121318

AFMSS

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

Operator Certification Data Report

01/04/2019

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:** 08/22/2018

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs **State:** NM **Zip:** 88240

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

APD ID: 10400033293 **Submission Date:** 08/22/2018

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400033293 **Tie to previous NOS?** **Submission Date:** 08/22/2018

BLM Office: CARLSBAD **User:** Bradley Bishop **Title:** Regulatory

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMLC0047633B **Lease Acres:** 440.64

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** MEWBOURNE OIL COMPANY

Operator letter of designation: LocoHills1_2_B2ABFedCom1H_operatorletterofdesignation_20180821141426.pdf

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270 **Zip:** 88240

Operator PO Box:

Operator City: Hobbs **State:** NM

Operator Phone: (575)393-5905

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** LOCO HILLS **Pool Name:** BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** GEMINI 36/35 B2PO FED COM **Number:** 1

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 330 FT **Distance to lease line:** 185 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: LocoHills1_2_B2ABFedCom1H_wellplat_20180821140353.pdf

Well work start Date: 11/21/2018 **Duration:** 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 1

	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	300	FSL	400	FEL	17S	30E	36	Aliquot SESE	32.7845085	-103.9181528	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	3598	27	27
KOP Leg #1	660	FNL	10	FEL	18S	30E	1	Aliquot NENE	32.7818691	-103.9168866	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0047633B	-3842	7523	7440
PPP Leg #1	660	FNL	100	FEL	18S	30E	1	Aliquot NENE	32.7818694	-103.9171892	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0047633B	-4125	7826	7723

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB 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	MD	TVD
PPP Leg #1	660	FNL	0	FEL	18S	30E	2	Aliquot NENE	32.7818878	-103.9340276	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-4273	13063	7871
EXIT Leg #1	660	FNL	2538	FEL	18S	30E	2	Aliquot NWNE	32.781896	-103.9422844	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-4249	15602	7847
BHL Leg #1	660	FNL	2538	FEL	18S	30E	2	Aliquot NWNE	32.781896	-103.9422844	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-4249	15602	7847

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:	NMLC 047633B
Legal Description of Land:	Section 36, T17S, R30E, Eddy County, New Mexico. Location @ 300' FSL & 400' FEL
Formation (if applicable):	Bone Spring
Bond Coverage:	$150,000
BLM Bond File:	NM1693 nationwide, NMB000919

Authorized Signature: Bradley C Bishop

Name: Bradley Bishop
Title: Regulatory Manager

Date: 8-21-18

APD ID: 10400033293 **Submission Date:** 08/22/2018

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	UNKNOWN	3598	27	27		NONE	No
2	RUSTLER	3183	415	415	DOLOMITE,ANHYDRITE	USEABLE WATER	No
3	TOP SALT	2968	630	630	SALT	NONE	No
4	BASE OF SALT	2118	1505	1505	SALT	NONE	No
5	YATES	1908	1690	1690	SANDSTONE	NATURAL GAS,OIL	No
6	SEVEN RIVERS	1578	2045	2045	DOLOMITE	NATURAL GAS,OIL	No
7	QUEEN	923	2675	2675	SANDSTONE,DOLOMITE	NATURAL GAS,OIL	No
8	GRAYBURG	758	2840	2840		NATURAL GAS,OIL	No
9	SAN ANDRES	83	3515	3515	DOLOMITE	NATURAL GAS,OIL	No
10	BONE SPRING	-1367	4965	4965	LIMESTONE,SHALE	NATURAL GAS,OIL	No
11	BONE SPRING 1ST	-3142	6740	6740	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 2ND	-3752	7350	7350	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 15602

Equipment: Annular, Pipe Ram, Blind Ram

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 multibowl wellhead is being 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

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.

Choke Diagram Attachment:

Loco_Hills_1_2_B2AB_Fed_Com_1H_3M_BOPE_Choke_Diagram_20180822101646.pdf

Loco_Hills_1_2_B2AB_Fed_Com_1H_Flex_Line_Specs_20180822101649.pdf

BOP Diagram Attachment:

Loco_Hills_1_2_B2AB_Fed_Com_1H_3M_BOPE_Schematic_20180822101702.pdf

Loco_Hills_1_2_B2AB_Fed_Com_1H_Multi_Bowl_WH_20180822101704.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	415	0	415	3627		415	H-40	48	STC	3.37	7.56	DRY	13.42	DRY	22.54
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	3775	0	3775	3627		3775	J-55	36	LTC	1.13	1.96	DRY	3.3	DRY	4.11
3	PRODUCTION	8.75	7.0	NEW	API	N	0	8277	0	7917	3627		8277	P-110	26	LTC	1.89	2.55	DRY	2.95	DRY	3.86
4	LINER	6.125	4.5	NEW	API	N	7523	15602	7440	7847			8079	P-110	13.5	LTC	2.59	3.01	DRY	3.1	DRY	3.87

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB 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):

Loco_Hills_1_2_B2AB_Fed_Com_1H_Csg_Assumptions_20180822102136.pdf

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Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Loco_Hills_1_2_B2AB_Fed_Com_1H_TaperedCsg_20180822102603.pdf

Casing Design Assumptions and Worksheet(s):

Loco_Hills_1_2_B2AB_Fed_Com_1H_Csg_Assumptions_20180822102623.pdf

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Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Loco_Hills_1_2_B2AB_Fed_Com_1H_Csg_Assumptions_20180822102827.pdf

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Casing Attachments

Casing ID: 4 **String Type:**LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Loco_Hills_1_2_B2AB_Fed_Com_1H_Csg_Assumptions_20180822102922.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	309	205	2.12	12.5	435	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		309	500	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	3113	595	2.12	12.5	1261	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3113	3775	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		3575	5740	200	2.12	12.5	424	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		5740	8277	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		7523	15602	330	2.97	11.2	980	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB 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: Visual monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	500	SPUD MUD	8.6	8.8							
500	3775	SALT SATURATED	10	10							
3775	7440	WATER-BASED MUD	8.6	9.5							
7440	7917	OIL-BASED MUD	8.6	10							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (7523') to surface

List of open and cased hole logs run in the well:

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4117 **Anticipated Surface Pressure:** 2371.96

Anticipated Bottom Hole Temperature(F): 140

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:

Loco_Hills_1_2_B2AB_Fed_Com_1H_H2S_Plan_20180822103554.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Loco_Hills_1_2_B2AB_Fed_Com_1H_Dir_Plot_20180822103752.pdf

Loco_Hills_1_2_B2AB_Fed_Com_1H_Dir_Plan_20180822103753.pdf

Other proposed operations facets description:

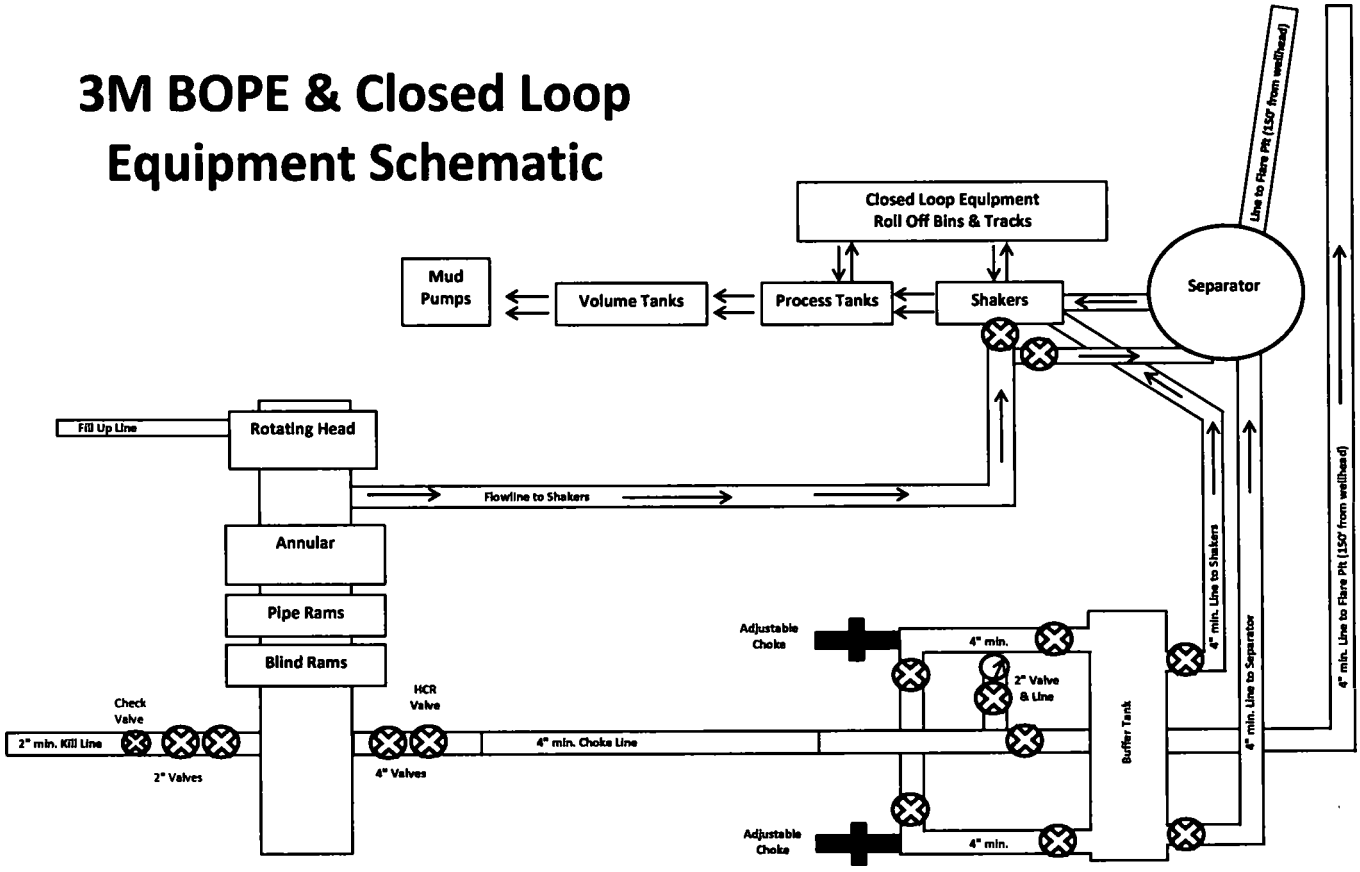
Other proposed operations facets attachment:

Loco_Hills_1_2_B2AB_Fed_Com_1H_Drilling_Program_20180822103810.doc

Loco_Hills_1_2_B2AB_Fed_Com_1H_C_101_20180822104244.pdf

Other Variance attachment:

3M BOPE & Closed Loop Equipment Schematic



Drawing not to scale

ENGINEERING & SERVICES

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

10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER

Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE

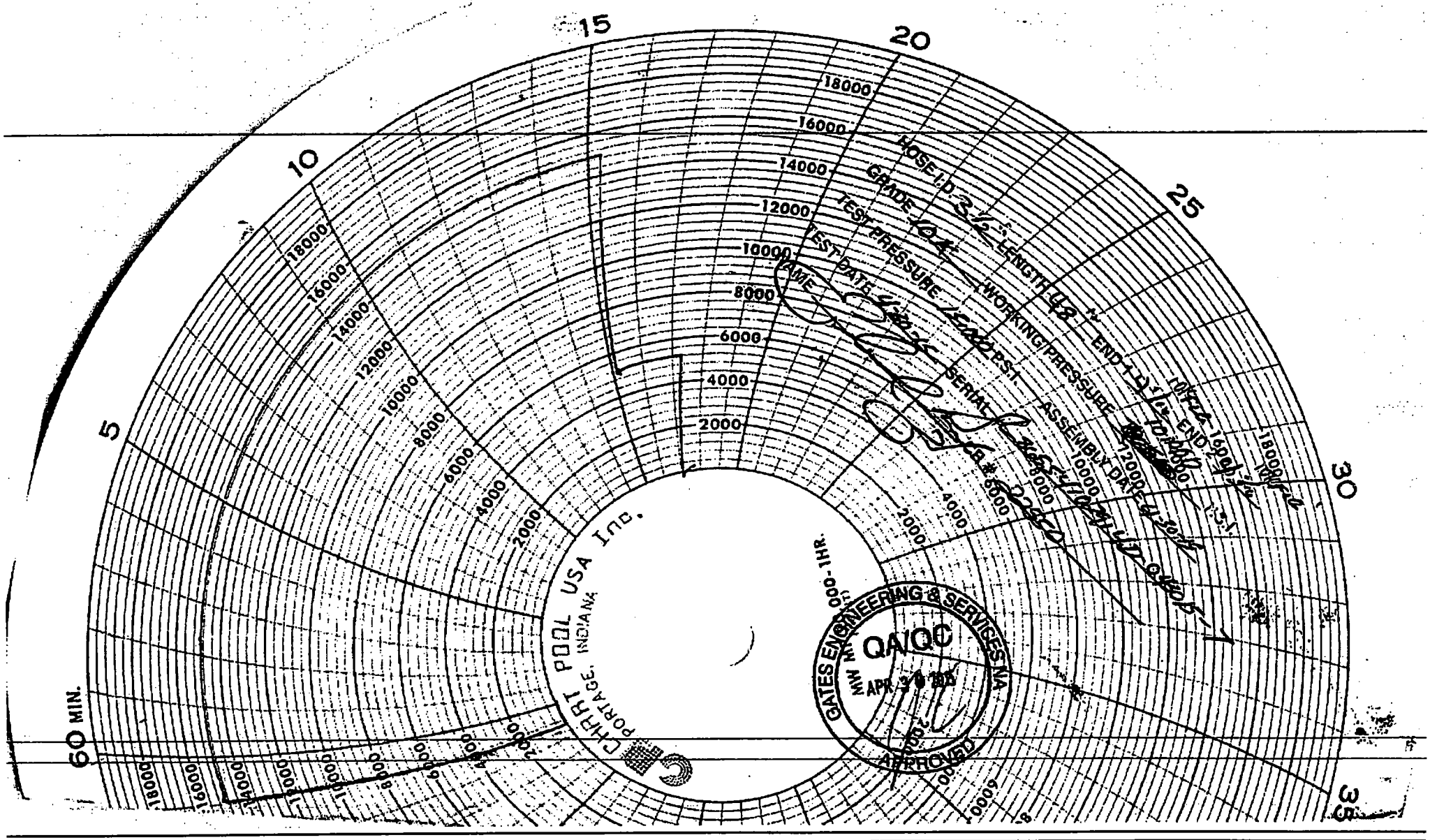
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

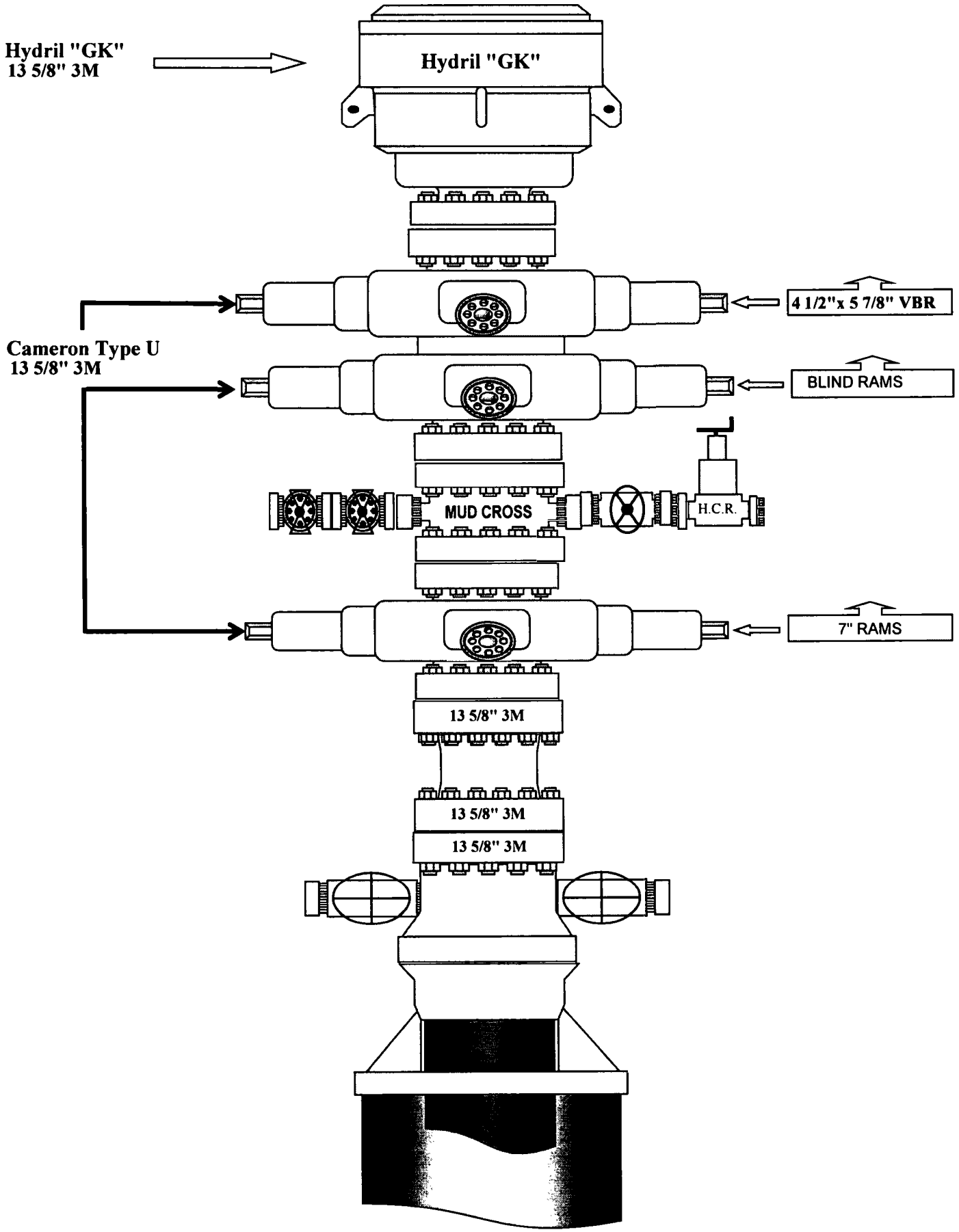
Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :	QUALITY	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form-PTC - 01 Rev.02

Gates

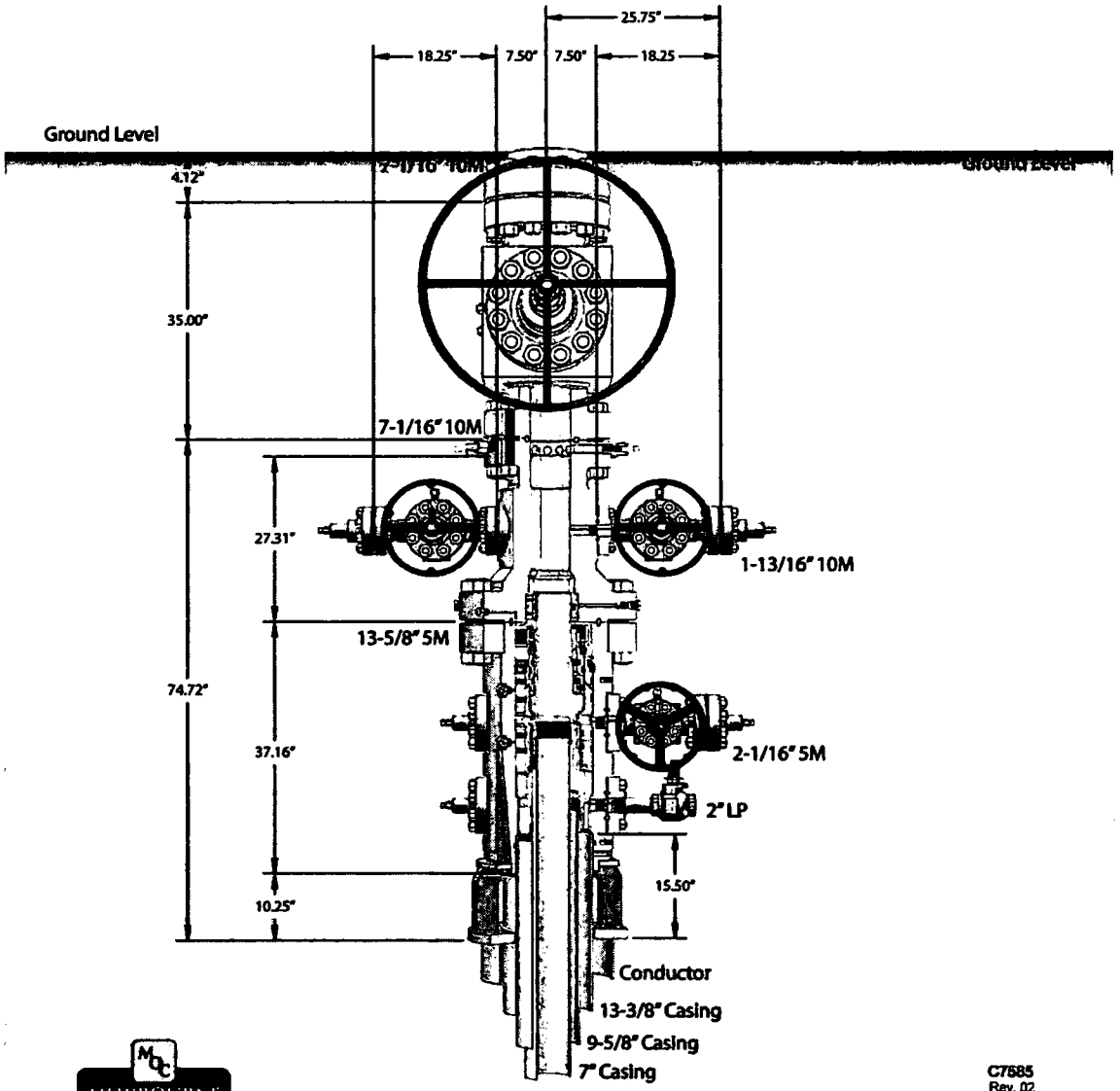

60 MIN.
5
10
15
20
25
30
35
18000
16000
14000
12000
10000
8000
6000
4000
2000
HOSE I.D. 3½"
LENGTH 43'
GRADE 104
WORKING PRESSURE 12000 PSI
TEST PRESSURE 18000 PSI
TEST DATE 4-30-15
NAME
SERIAL # 6000
ASSEMBLY DATE 4-30-15
END 1
END 2
10000-1HR.
CHART POOL USA Inc.
PORTAGE, INDIANA
GATES ENGINEERING & SERVICES NA
QA/QC
APR 30 '15
APPROVED


Hydril "GK"
13 5/8" 3M
Hydril "GK"
4 1/2"x 5 7/8" VBR
Cameron Type U
13 5/8" 3M
BLIND RAMS
MUD CROSS
H.C.R.
7" RAMS
13 5/8" 3M
13 5/8" 3M
13 5/8" 3M

CAMERON

A Schlumberger Company

13-5/8" MN-DS Wellhead System



MEWBOURNE OIL COMPANY

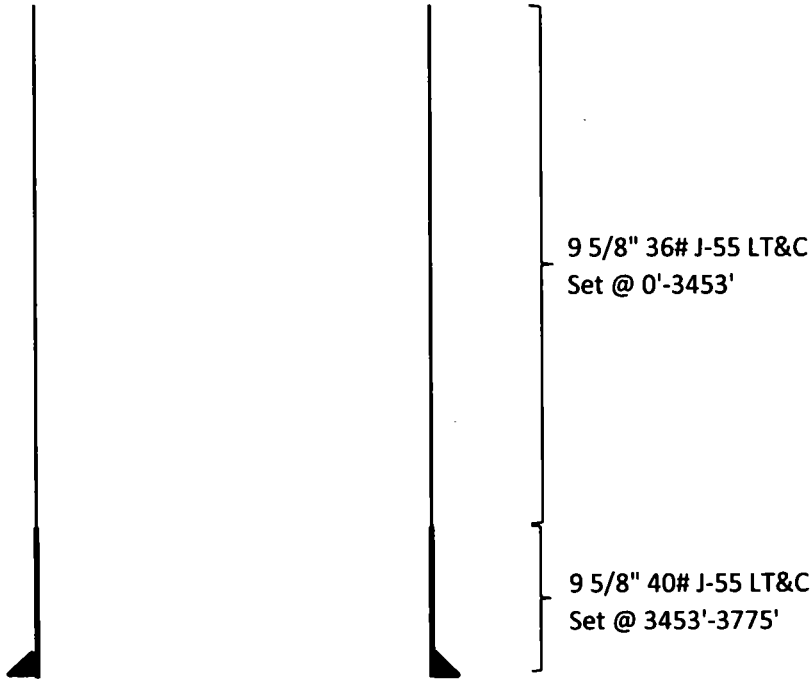
C7685
Rev. 02

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

Capping flange 57" conductor cw-cut

79

Loco Hills 1/2 B2AB Fed Com #1H
Intermediate Casing



Casing	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
36# J-55	1.13	1.96	3.3	4.11
40# J-55	1.31	2.01	40.37	48.91

Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	500'	13.375"	48	H40	STC	3.37	7.56	13.42	22.54
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.30	4.11
12.25"	3453'	3775'	9.625"	40	J55	LTC	1.31	2.01	40.37	48.91
8.75"	0'	8277'	7"	26	HCP110	LTC	1.89	2.55	2.95	3.86
6.125"	7523'	15,602'	4.5"	13.5	P110	LTC	2.59	3.01	3.10	3.87
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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 3rd 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 2nd 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?	

Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

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Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

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Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
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Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

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6.125"	7523'	15,602'	4.5"	13.5	P110	LTC	2.59	3.01	3.10	3.87
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
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Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
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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. Well Control Equipment
   - 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. Protective Equipment for Essential Personnel
   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. Visual Warning Systems
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.

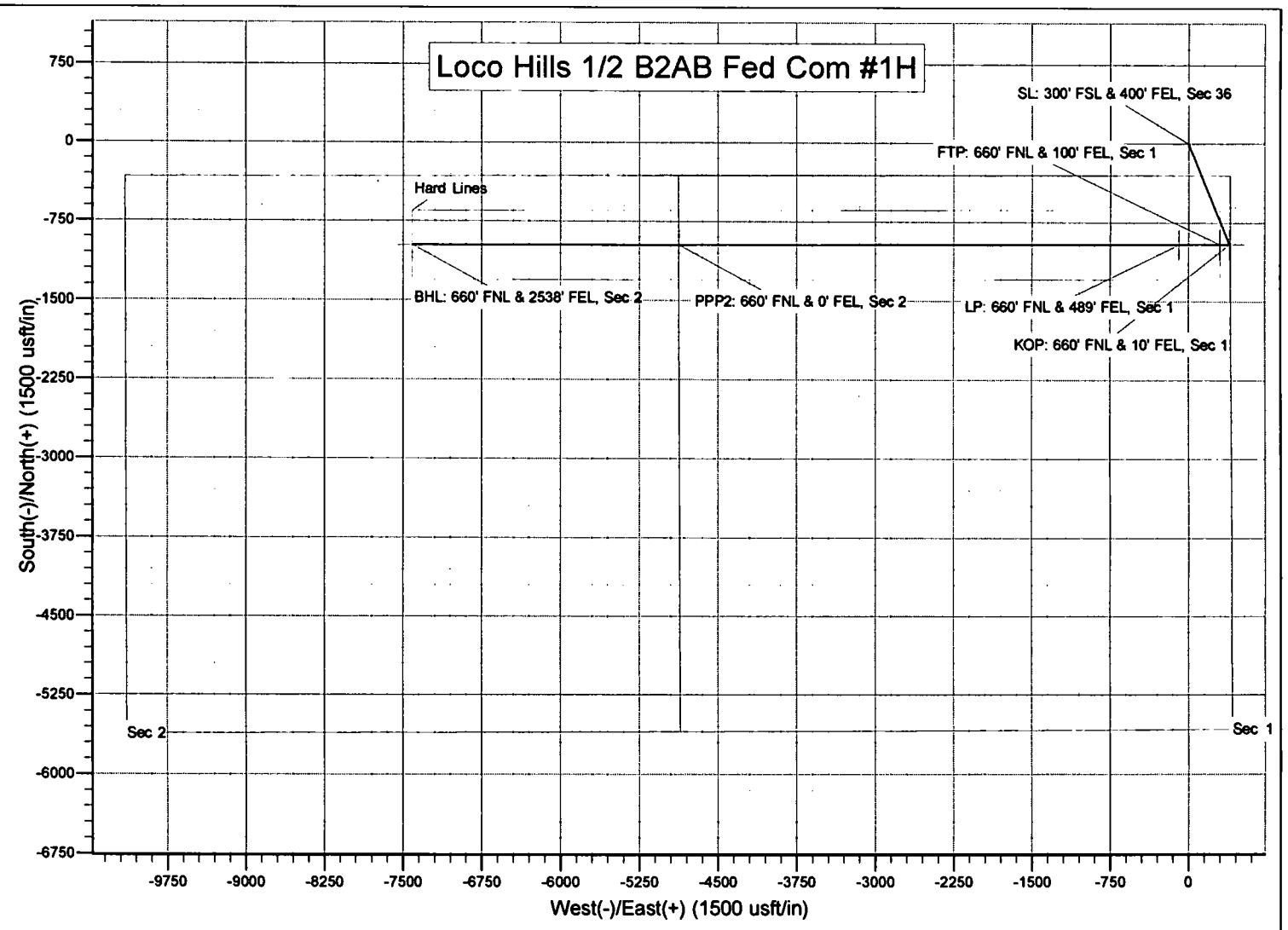
7. Well Testing

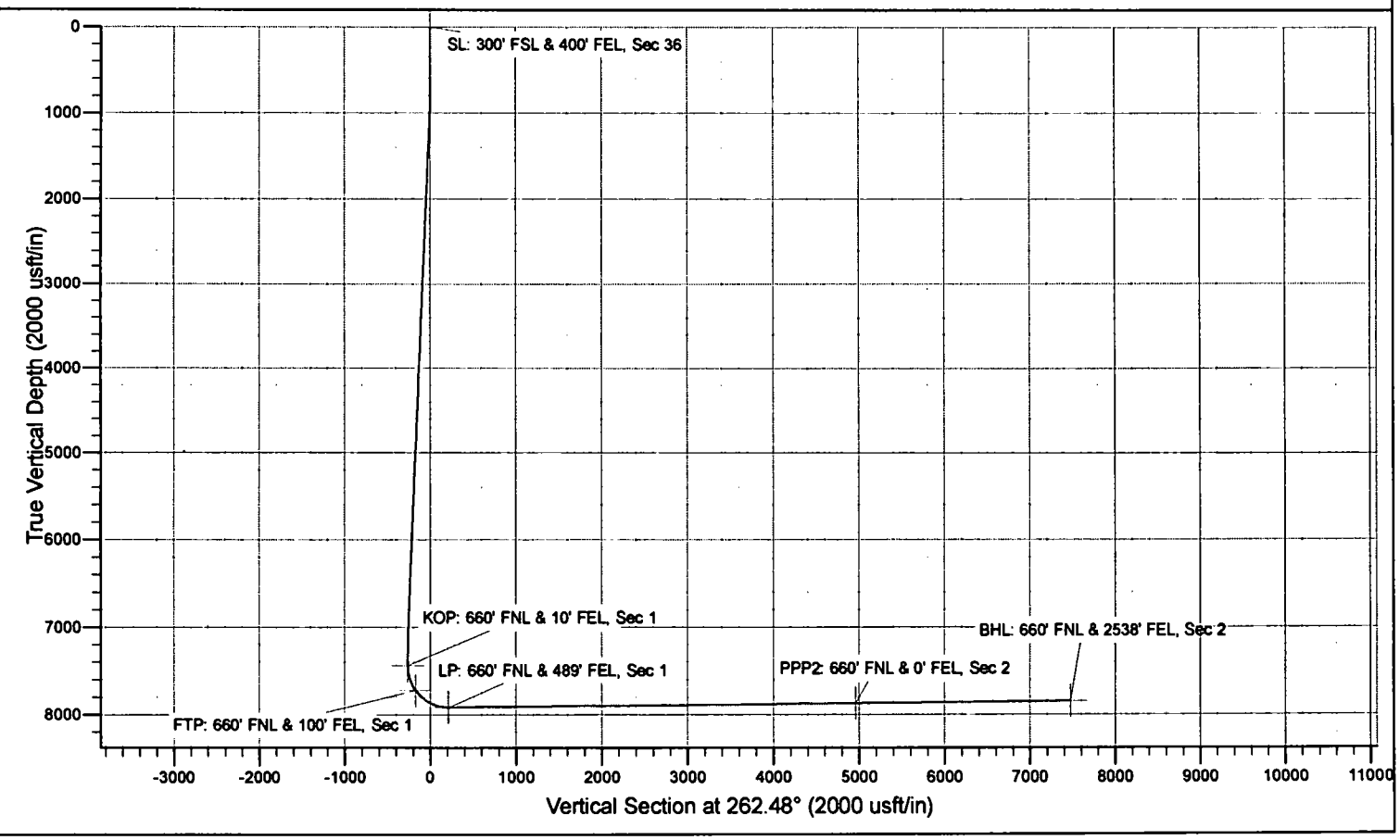
Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

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**
Closest Medical Facility - Columbia Medical Center of Carlsbad	**575-492-5000**

Mewbourne Oil Company	**Hobbs District Office**	**575-393-5905**
	Fax	**575-397-6252**
	2nd Fax	**575-393-7259**
District Manager	**Robin Terrell**	**575-390-4816**
Drilling Superintendent	**Frosty Lathan**	**575-390-4103**
	Bradley Bishop	**575-390-6838**
Drilling Foreman	**Wesley Noseff**	**575-441-0729**


Loco Hills 1/2 B2AB Fed Com #1H
SL: 300' FSL & 400' FEL, Sec 36
FTP: 660' FNL & 100' FEL, Sec 1
Hard Lines
BHL: 660' FNL & 2538' FEL, Sec 2
PPP2: 660' FNL & 0' FEL, Sec 2
LP: 660' FNL & 489' FEL, Sec 1
KOP: 660' FNL & 10' FEL, Sec 1
Sec 2
Sec 1
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)


SL: 300' FSL & 400' FEL, Sec 36
KOP: 660' FNL & 10' FEL, Sec 1
LP: 660' FNL & 489' FEL, Sec 1
FTP: 660' FNL & 100' FEL, Sec 1
PPP2: 660' FNL & 0' FEL, Sec 2
BHL: 660' FNL & 2538' FEL, Sec 2
True Vertical Depth (2000 usft/in)
Vertical Section at 262.48° (2000 usft/in)

Mewbourne Oil Company

Eddy County, New Mexico NAD 83
Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

Plan: Design #1

Standard Planning Report

16 August, 2018

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Loco Hills 1/2 B2AB Fed Com #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3625.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3625.0usft (Original Well Elev)
Site:	Loco Hills 1/2 B2AB Fed Com #1H	**North Reference:**	Grid
Well:	Sec 36, T17S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 660' FNL & 2538' FEL, Sec 2		
Design:	Design #1		

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

Site	Loco Hills 1/2 B2AB Fed Com #1H				
Site Position:		**Northing:**	649,387.00 usft	**Latitude:**	32.7845092
From:	Map	**Easting:**	668,931.00 usft	**Longitude:**	-103.9181531
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.22 °

Well	Sec 36, T17S, R30E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	649,387.00 usft	**Latitude:**	32.7845092
	+E/-W	0.0 usft	**Easting:**	668,931.00 usft	**Longitude:**	-103.9181531
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,625.0 usft	**Ground Level:**	3,598.0 usft

Wellbore	BHL: 660' FNL & 2538' FEL, Sec 2				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	8/16/2018	6.90	60.46	48,197

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	262.48	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,232.1	9.48	157.72	1,229.2	-48.3	19.8	1.50	1.50	0.00	157.72	
6,890.5	9.48	157.72	6,810.4	-910.7	373.2	0.00	0.00	0.00	0.00	
7,522.6	0.00	0.00	7,439.5	-959.0	393.0	1.50	-1.50	0.00	180.00	KOP: 660' FNL & 10' I
8,277.2	90.55	269.85	7,917.0	-960.2	-89.0	12.00	12.00	0.00	-90.15	
15,601.5	90.55	269.85	7,847.0	-979.0	-7,413.0	0.00	0.00	0.00	0.00	BHL: 660' FNL & 253(

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Site:	Loco Hills 1/2 B2AB Fed Com #1H	**North Reference:**	Grid
Well:	Sec 36, T17S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 660' FNL & 2538' FEL, Sec 2		
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 300' FSL & 400' FEL, Sec 36									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.50	157.72	700.0	-1.2	0.5	-0.3	1.50	1.50	0.00
800.0	3.00	157.72	799.9	-4.8	2.0	-1.3	1.50	1.50	0.00
900.0	4.50	157.72	899.7	-10.9	4.5	-3.0	1.50	1.50	0.00
1,000.0	6.00	157.72	999.3	-19.4	7.9	-5.3	1.50	1.50	0.00
1,100.0	7.50	157.72	1,098.6	-30.2	12.4	-8.3	1.50	1.50	0.00
1,200.0	9.00	157.72	1,197.5	-43.5	17.8	-12.0	1.50	1.50	0.00
1,232.1	9.48	157.72	1,229.2	-48.3	19.8	-13.3	1.50	1.50	0.00
1,300.0	9.48	157.72	1,296.2	-58.6	24.0	-16.1	0.00	0.00	0.00
1,400.0	9.48	157.72	1,394.8	-73.9	30.3	-20.3	0.00	0.00	0.00
1,500.0	9.48	157.72	1,493.5	-89.1	36.5	-24.5	0.00	0.00	0.00
1,600.0	9.48	157.72	1,592.1	-104.4	42.8	-28.7	0.00	0.00	0.00
1,700.0	9.48	157.72	1,690.7	-119.6	49.0	-32.9	0.00	0.00	0.00
1,800.0	9.48	157.72	1,789.4	-134.8	55.3	-37.1	0.00	0.00	0.00
1,900.0	9.48	157.72	1,888.0	-150.1	61.5	-41.3	0.00	0.00	0.00
2,000.0	9.48	157.72	1,986.6	-165.3	67.8	-45.5	0.00	0.00	0.00
2,100.0	9.48	157.72	2,085.3	-180.6	74.0	-49.7	0.00	0.00	0.00
2,200.0	9.48	157.72	2,183.9	-195.8	80.2	-53.9	0.00	0.00	0.00
2,300.0	9.48	157.72	2,282.5	-211.0	86.5	-58.1	0.00	0.00	0.00
2,400.0	9.48	157.72	2,381.2	-226.3	92.7	-62.3	0.00	0.00	0.00
2,500.0	9.48	157.72	2,479.8	-241.5	99.0	-66.5	0.00	0.00	0.00
2,600.0	9.48	157.72	2,578.4	-256.8	105.2	-70.7	0.00	0.00	0.00
2,700.0	9.48	157.72	2,677.1	-272.0	111.5	-74.9	0.00	0.00	0.00
2,800.0	9.48	157.72	2,775.7	-287.3	117.7	-79.1	0.00	0.00	0.00
2,900.0	9.48	157.72	2,874.3	-302.5	124.0	-83.3	0.00	0.00	0.00
3,000.0	9.48	157.72	2,973.0	-317.7	130.2	-87.5	0.00	0.00	0.00
3,100.0	9.48	157.72	3,071.6	-333.0	136.5	-91.7	0.00	0.00	0.00
3,200.0	9.48	157.72	3,170.2	-348.2	142.7	-95.9	0.00	0.00	0.00
3,300.0	9.48	157.72	3,268.9	-363.5	148.9	-100.1	0.00	0.00	0.00
3,400.0	9.48	157.72	3,367.5	-378.7	155.2	-104.3	0.00	0.00	0.00
3,500.0	9.48	157.72	3,466.1	-393.9	161.4	-108.5	0.00	0.00	0.00
3,600.0	9.48	157.72	3,564.8	-409.2	167.7	-112.7	0.00	0.00	0.00
3,700.0	9.48	157.72	3,663.4	-424.4	173.9	-116.9	0.00	0.00	0.00
3,800.0	9.48	157.72	3,762.0	-439.7	180.2	-121.1	0.00	0.00	0.00
3,900.0	9.48	157.72	3,860.7	-454.9	186.4	-125.3	0.00	0.00	0.00
4,000.0	9.48	157.72	3,959.3	-470.2	192.7	-129.5	0.00	0.00	0.00
4,100.0	9.48	157.72	4,057.9	-485.4	198.9	-133.7	0.00	0.00	0.00
4,200.0	9.48	157.72	4,156.6	-500.6	205.2	-137.8	0.00	0.00	0.00
4,300.0	9.48	157.72	4,255.2	-515.9	211.4	-142.0	0.00	0.00	0.00
4,400.0	9.48	157.72	4,353.8	-531.1	217.7	-146.2	0.00	0.00	0.00
4,500.0	9.48	157.72	4,452.5	-546.4	223.9	-150.4	0.00	0.00	0.00
4,600.0	9.48	157.72	4,551.1	-561.6	230.1	-154.6	0.00	0.00	0.00
4,700.0	9.48	157.72	4,649.7	-576.8	236.4	-158.8	0.00	0.00	0.00
4,800.0	9.48	157.72	4,748.4	-592.1	242.6	-163.0	0.00	0.00	0.00
4,900.0	9.48	157.72	4,847.0	-607.3	248.9	-167.2	0.00	0.00	0.00
5,000.0	9.48	157.72	4,945.7	-622.6	255.1	-171.4	0.00	0.00	0.00
5,100.0	9.48	157.72	5,044.3	-637.8	261.4	-175.6	0.00	0.00	0.00

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Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3625.0usft (Original Well Elev)
Site:	Loco Hills 1/2 B2AB Fed Com #1H	**North Reference:**	Grid
Well:	Sec 36, T17S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 660' FNL & 2538' FEL, Sec 2		
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)
5,200.0	9.48	157.72	5,142.9	-653.1	267.6	-179.8	0.00	0.00	0.00
5,300.0	9.48	157.72	5,241.6	-668.3	273.9	-184.0	0.00	0.00	0.00
5,400.0	9.48	157.72	5,340.2	-683.5	280.1	-188.2	0.00	0.00	0.00
5,500.0	9.48	157.72	5,438.8	-698.8	286.4	-192.4	0.00	0.00	0.00
5,600.0	9.48	157.72	5,537.5	-714.0	292.6	-196.6	0.00	0.00	0.00
5,700.0	9.48	157.72	5,636.1	-729.3	298.9	-200.8	0.00	0.00	0.00
5,800.0	9.48	157.72	5,734.7	-744.5	305.1	-205.0	0.00	0.00	0.00
5,900.0	9.48	157.72	5,833.4	-759.7	311.3	-209.2	0.00	0.00	0.00
6,000.0	9.48	157.72	5,932.0	-775.0	317.6	-213.4	0.00	0.00	0.00
6,100.0	9.48	157.72	6,030.6	-790.2	323.8	-217.6	0.00	0.00	0.00
6,200.0	9.48	157.72	6,129.3	-805.5	330.1	-221.8	0.00	0.00	0.00
6,300.0	9.48	157.72	6,227.9	-820.7	336.3	-226.0	0.00	0.00	0.00
6,400.0	9.48	157.72	6,326.5	-836.0	342.6	-230.2	0.00	0.00	0.00
6,500.0	9.48	157.72	6,425.2	-851.2	348.8	-234.4	0.00	0.00	0.00
6,600.0	9.48	157.72	6,523.8	-866.4	355.1	-238.6	0.00	0.00	0.00
6,700.0	9.48	157.72	6,622.4	-881.7	361.3	-242.8	0.00	0.00	0.00
6,800.0	9.48	157.72	6,721.1	-896.9	367.6	-247.0	0.00	0.00	0.00
6,890.5	9.48	157.72	6,810.4	-910.7	373.2	-250.8	0.00	0.00	0.00
6,900.0	9.34	157.72	6,819.7	-912.2	373.8	-251.2	1.50	-1.50	0.00
7,000.0	7.84	157.72	6,918.6	-926.0	379.5	-255.0	1.50	-1.50	0.00
7,100.0	6.34	157.72	7,017.8	-937.4	384.1	-258.1	1.50	-1.50	0.00
7,200.0	4.84	157.72	7,117.3	-946.4	387.8	-260.6	1.50	-1.50	0.00
7,300.0	3.34	157.72	7,217.1	-953.0	390.5	-262.4	1.50	-1.50	0.00
7,400.0	1.84	157.72	7,317.0	-957.2	392.3	-263.6	1.50	-1.50	0.00
7,500.0	0.34	157.72	7,416.9	-958.9	393.0	-264.0	1.50	-1.50	0.00
7,522.6	0.00	0.00	7,439.5	-959.0	393.0	-264.1	1.50	-1.50	0.00
KOP: 660' FNL & 10' FEL, Sec 1									
7,600.0	9.29	269.85	7,516.6	-959.0	386.7	-257.8	12.00	12.00	0.00
7,700.0	21.29	269.85	7,612.9	-959.1	360.4	-231.7	12.00	12.00	0.00
7,800.0	33.29	269.85	7,701.6	-959.2	314.7	-186.4	12.00	12.00	0.00
7,825.6	36.36	269.85	7,722.6	-959.2	300.0	-171.8	12.00	12.00	0.00
FTP: 660' FNL & 100' FEL, Sec 1									
7,900.0	45.29	269.85	7,778.9	-959.4	251.5	-123.7	12.00	12.00	0.00
8,000.0	57.29	269.85	7,841.3	-959.6	173.6	-46.4	12.00	12.00	0.00
8,100.0	69.29	269.85	7,886.2	-959.8	84.4	42.0	12.00	12.00	0.00
8,200.0	81.29	269.85	7,911.5	-960.0	-12.1	137.7	12.00	12.00	0.00
8,277.1	90.54	269.85	7,917.0	-960.2	-89.0	214.0	12.00	12.00	0.00
LP: 660' FNL & 489' FEL, Sec 1									
8,300.0	90.55	269.85	7,916.8	-960.3	-111.9	236.6	0.02	0.02	0.00
8,400.0	90.55	269.85	7,915.8	-960.5	-211.9	335.8	0.00	0.00	0.00
8,500.0	90.55	269.85	7,914.9	-960.8	-311.9	435.0	0.00	0.00	0.00
8,600.0	90.55	269.85	7,913.9	-961.1	-411.8	534.1	0.00	0.00	0.00
8,700.0	90.55	269.85	7,913.0	-961.3	-511.8	633.3	0.00	0.00	0.00
8,800.0	90.55	269.85	7,912.0	-961.6	-611.8	732.5	0.00	0.00	0.00
8,900.0	90.55	269.85	7,911.0	-961.8	-711.8	831.6	0.00	0.00	0.00
9,000.0	90.55	269.85	7,910.1	-962.1	-811.8	930.8	0.00	0.00	0.00
9,100.0	90.55	269.85	7,909.1	-962.3	-911.8	1,030.0	0.00	0.00	0.00
9,200.0	90.55	269.85	7,908.2	-962.6	-1,011.8	1,129.1	0.00	0.00	0.00
9,300.0	90.55	269.85	7,907.2	-962.9	-1,111.8	1,228.3	0.00	0.00	0.00
9,400.0	90.55	269.85	7,906.3	-963.1	-1,211.8	1,327.5	0.00	0.00	0.00
9,500.0	90.55	269.85	7,905.3	-963.4	-1,311.8	1,426.6	0.00	0.00	0.00
9,600.0	90.55	269.85	7,904.4	-963.6	-1,411.8	1,525.8	0.00	0.00	0.00
9,700.0	90.55	269.85	7,903.4	-963.9	-1,511.8	1,625.0	0.00	0.00	0.00

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,800.0	90.55	269.85	7,902.4	-964.1	-1,611.8	1,724.1	0.00	0.00	0.00
9,900.0	90.55	269.85	7,901.5	-964.4	-1,711.8	1,823.3	0.00	0.00	0.00
10,000.0	90.55	269.85	7,900.5	-964.6	-1,811.8	1,922.5	0.00	0.00	0.00
10,100.0	90.55	269.85	7,899.6	-964.9	-1,911.8	2,021.6	0.00	0.00	0.00
10,200.0	90.55	269.85	7,898.6	-965.2	-2,011.8	2,120.8	0.00	0.00	0.00
10,300.0	90.55	269.85	7,897.7	-965.4	-2,111.8	2,220.0	0.00	0.00	0.00
10,400.0	90.55	269.85	7,896.7	-965.7	-2,211.8	2,319.2	0.00	0.00	0.00
10,500.0	90.55	269.85	7,895.8	-965.9	-2,311.8	2,418.3	0.00	0.00	0.00
10,600.0	90.55	269.85	7,894.8	-966.2	-2,411.7	2,517.5	0.00	0.00	0.00
10,700.0	90.55	269.85	7,893.8	-966.4	-2,511.7	2,616.7	0.00	0.00	0.00
10,800.0	90.55	269.85	7,892.9	-966.7	-2,611.7	2,715.8	0.00	0.00	0.00
10,900.0	90.55	269.85	7,891.9	-967.0	-2,711.7	2,815.0	0.00	0.00	0.00
11,000.0	90.55	269.85	7,891.0	-967.2	-2,811.7	2,914.2	0.00	0.00	0.00
11,100.0	90.55	269.85	7,890.0	-967.5	-2,911.7	3,013.3	0.00	0.00	0.00
11,200.0	90.55	269.85	7,889.1	-967.7	-3,011.7	3,112.5	0.00	0.00	0.00
11,300.0	90.55	269.85	7,888.1	-968.0	-3,111.7	3,211.7	0.00	0.00	0.00
11,400.0	90.55	269.85	7,887.2	-968.2	-3,211.7	3,310.8	0.00	0.00	0.00
11,500.0	90.55	269.85	7,886.2	-968.5	-3,311.7	3,410.0	0.00	0.00	0.00
11,600.0	90.55	269.85	7,885.2	-968.7	-3,411.7	3,509.2	0.00	0.00	0.00
11,700.0	90.55	269.85	7,884.3	-969.0	-3,511.7	3,608.3	0.00	0.00	0.00
11,800.0	90.55	269.85	7,883.3	-969.3	-3,611.7	3,707.5	0.00	0.00	0.00
11,900.0	90.55	269.85	7,882.4	-969.5	-3,711.7	3,806.7	0.00	0.00	0.00
12,000.0	90.55	269.85	7,881.4	-969.8	-3,811.7	3,905.8	0.00	0.00	0.00
12,100.0	90.55	269.85	7,880.5	-970.0	-3,911.7	4,005.0	0.00	0.00	0.00
12,200.0	90.55	269.85	7,879.5	-970.3	-4,011.7	4,104.2	0.00	0.00	0.00
12,300.0	90.55	269.85	7,878.6	-970.5	-4,111.7	4,203.3	0.00	0.00	0.00
12,400.0	90.55	269.85	7,877.6	-970.8	-4,211.7	4,302.5	0.00	0.00	0.00
12,500.0	90.55	269.85	7,876.6	-971.1	-4,311.7	4,401.7	0.00	0.00	0.00
12,600.0	90.55	269.85	7,875.7	-971.3	-4,411.7	4,500.8	0.00	0.00	0.00
12,700.0	90.55	269.85	7,874.7	-971.6	-4,511.6	4,600.0	0.00	0.00	0.00
12,800.0	90.55	269.85	7,873.8	-971.8	-4,611.6	4,699.2	0.00	0.00	0.00
12,900.0	90.55	269.85	7,872.8	-972.1	-4,711.6	4,798.3	0.00	0.00	0.00
13,000.0	90.55	269.85	7,871.9	-972.3	-4,811.6	4,897.5	0.00	0.00	0.00
13,063.4	90.55	269.85	7,871.3	-972.5	-4,875.0	4,960.4	0.00	0.00	0.00
PPP2: 660' FNL & 0' FEL, Sec 2									
13,100.0	90.55	269.85	7,870.9	-972.6	-4,911.6	4,996.7	0.00	0.00	0.00
13,200.0	90.55	269.85	7,870.0	-972.8	-5,011.6	5,095.9	0.00	0.00	0.00
13,300.0	90.55	269.85	7,869.0	-973.1	-5,111.6	5,195.0	0.00	0.00	0.00
13,400.0	90.55	269.85	7,868.0	-973.4	-5,211.6	5,294.2	0.00	0.00	0.00
13,500.0	90.55	269.85	7,867.1	-973.6	-5,311.6	5,393.4	0.00	0.00	0.00
13,600.0	90.55	269.85	7,866.1	-973.9	-5,411.6	5,492.5	0.00	0.00	0.00
13,700.0	90.55	269.85	7,865.2	-974.1	-5,511.6	5,591.7	0.00	0.00	0.00
13,800.0	90.55	269.85	7,864.2	-974.4	-5,611.6	5,690.9	0.00	0.00	0.00
13,900.0	90.55	269.85	7,863.3	-974.6	-5,711.6	5,790.0	0.00	0.00	0.00
14,000.0	90.55	269.85	7,862.3	-974.9	-5,811.6	5,889.2	0.00	0.00	0.00
14,100.0	90.55	269.85	7,861.4	-975.2	-5,911.6	5,988.4	0.00	0.00	0.00
14,200.0	90.55	269.85	7,860.4	-975.4	-6,011.6	6,087.5	0.00	0.00	0.00
14,300.0	90.55	269.85	7,859.4	-975.7	-6,111.6	6,186.7	0.00	0.00	0.00
14,400.0	90.55	269.85	7,858.5	-975.9	-6,211.6	6,285.9	0.00	0.00	0.00
14,500.0	90.55	269.85	7,857.5	-976.2	-6,311.6	6,385.0	0.00	0.00	0.00
14,600.0	90.55	269.85	7,856.6	-976.4	-6,411.6	6,484.2	0.00	0.00	0.00
14,700.0	90.55	269.85	7,855.6	-976.7	-6,511.5	6,583.4	0.00	0.00	0.00
14,800.0	90.55	269.85	7,854.7	-976.9	-6,611.5	6,682.5	0.00	0.00	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Loco Hills 1/2 B2AB Fed Com #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3625.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3625.0usft (Original Well Elev)
Site:	Loco Hills 1/2 B2AB Fed Com #1H	**North Reference:**	Grid
Well:	Sec 36, T17S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 660' FNL & 2538' FEL, Sec 2		
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)
14,900.0	90.55	269.85	7,853.7	-977.2	-6,711.5	6,781.7	0.00	0.00	0.00
15,000.0	90.55	269.85	7,852.7	-977.5	-6,811.5	6,880.9	0.00	0.00	0.00
15,100.0	90.55	269.85	7,851.8	-977.7	-6,911.5	6,980.0	0.00	0.00	0.00
15,200.0	90.55	269.85	7,850.8	-978.0	-7,011.5	7,079.2	0.00	0.00	0.00
15,300.0	90.55	269.85	7,849.9	-978.2	-7,111.5	7,178.4	0.00	0.00	0.00
15,400.0	90.55	269.85	7,848.9	-978.5	-7,211.5	7,277.5	0.00	0.00	0.00
15,500.0	90.55	269.85	7,848.0	-978.7	-7,311.5	7,376.7	0.00	0.00	0.00
15,600.0	90.55	269.85	7,847.0	-979.0	-7,411.5	7,475.9	0.00	0.00	0.00
15,601.5	90.55	269.85	7,847.0	-979.0	-7,413.0	7,477.4	0.00	0.00	0.00
BHL: 660' FNL & 2538' FEL, Sec 2									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 300' FSL & 400' FEL - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	649,387.00	668,931.00	32.7845092	-103.9181531
KOP: 660' FNL & 10' FE - plan hits target center - Point	0.00	0.00	7,439.5	-959.0	393.0	648,428.00	669,324.00	32.7818691	-103.9168866
FTP: 660' FNL & 100' FE - plan hits target center - Point	0.00	0.00	7,722.7	-959.2	300.0	648,427.77	669,231.00	32.7818694	-103.9171892
BHL: 660' FNL & 2538' F - plan hits target center - Point	0.00	0.00	7,847.0	-979.0	-7,413.0	648,408.00	661,518.00	32.7818960	-103.9422857
PPP2: 660' FNL & 0' FEI - plan hits target center - Point	0.00	0.00	7,871.3	-972.5	-4,875.0	648,414.51	664,056.00	32.7818878	-103.9340276
LP: 660' FNL & 489' FEL - plan hits target center - Point	0.00	0.00	7,917.0	-960.2	-89.0	648,426.80	668,842.00	32.7818710	-103.9184549

Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

1. Geologic Formations

TVD of target	7917'	Pilot hole depth	NA
MD at TD:	15,602'	Deepest expected fresh water:	300'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	415	Water	
Top of Salt	630		
Castile			
Base Salt	1505		
Yates	1690	Oil/Gas	
Seven Rivers	2045	Oil/Gas	
Queen	2675	Oil/Gas	
Grayburg	2840		
San Andres	3515	Oil/Gas	
Bone Spring	4965	Oil/Gas	
1st Bone Spring Sand	6740		
2nd Bone Spring Sand	7350	Target Zone	
3rd Bone Spring Sand			
Abo			
Wolfcamp		Will Not Penetrate	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Company, Loco Hills 1/2 B2AB Fed Com #1H
Sec 36, T17S, R30E
SL: 300' FSL & 400' FEL, Sec 36
BHL: 660' FNL & 2538' FEL, Sec 2

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	500'	13.375"	48	H40	STC	3.37	7.56	13.42	22.54
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.30	4.11
12.25"	3453'	3775'	9.625"	40	J55	LTC	1.31	2.01	40.37	48.91
8.75"	0'	8277'	7"	26	HCP110	LTC	1.89	2.55	2.95	3.86
6.125"	7523'	15,602'	4.5"	13.5	P110	LTC	2.59	3.01	3.10	3.87
BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet		1.6 Dry 1.8 Wet			

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 3rd 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 2nd 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?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	205	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.	595	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.	200	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
Liner	330	11.2	2.97	17	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	3575'	25%
Liner	7523'	25%

4. Pressure Control Equipment

	Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	X	1500#
			Blind Ram	X	3000#
			Pipe Ram	X	
			Double Ram		
			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.

X	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	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N 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

TVD		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	500'	FW Gel	8.6-8.8	28-34	N/C
500'	3775'	Saturated Brine	10.0	28-34	N/C
3775'	7440'	Cut Brine	8.6-9.7	28-34	N/C
7440'	7917'	FW w/ Polymer	8.6-10	30-40	<20cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

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

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (7523') 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
X	Gamma Ray	7523' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4117 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
X	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

APD ID: 10400033293 **Submission Date:** 08/22/2018

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

LocoHills1_2_B2ABFedCom1H_existingroadmap_20180821112135.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:

LocoHills1_2_B2ABFedCom1H_existingwellmap_20180821112158.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color that blends in with the surrounding landscape. The paint color will be one of the colors from the BLM Standard Environmental Colors chart selected by the BLM authorized officer. b. All proposed production facilities that are located on the well pad will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location. c. Production from the proposed well will be located on the East edge of location. d. If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation of construction. e. An electric line will be applied for through a sundry notice or BLM right of way at a later date.

Production Facilities map:

LocoHills1_2_B2ABFedCom1H_productionfacilitymap_20180821112221.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: CAMP USE, DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING

Water source type: IRRIGATION

Describe type:

Source longitude: -103.53552

Source latitude: 32.464592

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1940

Source volume (acre-feet): 0.2500526

Source volume (gal): 81480

Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING

Water source type: IRRIGATION

Describe type:

Source longitude: -103.902504

Source latitude: 32.71228

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: PRIVATE

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1940 **Source volume (acre-feet):** 0.2500526

Source volume (gal): 81480

Water source and transportation map:

LocoHills1_2B2ABFedCom1H_watersourceandtransmap_20180821112250.pdf

Water source comments:

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche - BOTH SOURCES SHOWN ON ONE MAP

Construction Materials source location attachment:

LocoHills1_2B2ABFedCom1H_calichesourceandtransmap_20180821112323.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

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 FACILITY **Disposal location ownership:** PRIVATE

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 FACILITY **Disposal location ownership:** PRIVATE

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 FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

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

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

LocoHills1_2_B2ABFedCom1H_wellsitemap_20180821112415.pdf

Comments:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** GEMINI 36/35 B2PO FED COM

Multiple Well Pad Number: 1

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance (acres): 3.95
Road proposed disturbance (acres): 0.53
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 0
Total proposed disturbance: 4.48

Well pad interim reclamation (acres): 0.489
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 0.489

Well pad long term disturbance (acres): 3.461
Road long term disturbance (acres): 0
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0
Total long term disturbance: 3.461

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

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 Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Bradley **Last Name:** Bishop

Phone: (575)393-5905 **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: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: ARTESIA NM

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: ARTESIA NM

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: ARTESIA NM

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LOCO HILLS 1/2 B2AB FED COM **Well Number:** 1H

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: AUG 09 2018 Met w/RRC Surveying & staked location @ 300' FSL & 400' FEL, Sec 36, T17S, R30E, Eddy Co., NM. (Elevation @ 3598'). Topsoil stockpiled 30' wide on N side. Reclaim 70' on all sides. Battery will be off location to S along road. Road will be on SW corner heading W to lease road. Pad is 400' x 430'. Location will require archeologist due to State surface. Location will require BLM on-site for surface w/wildlife biologist. Lat.: 32.78450852, Long.: -103.91815273.

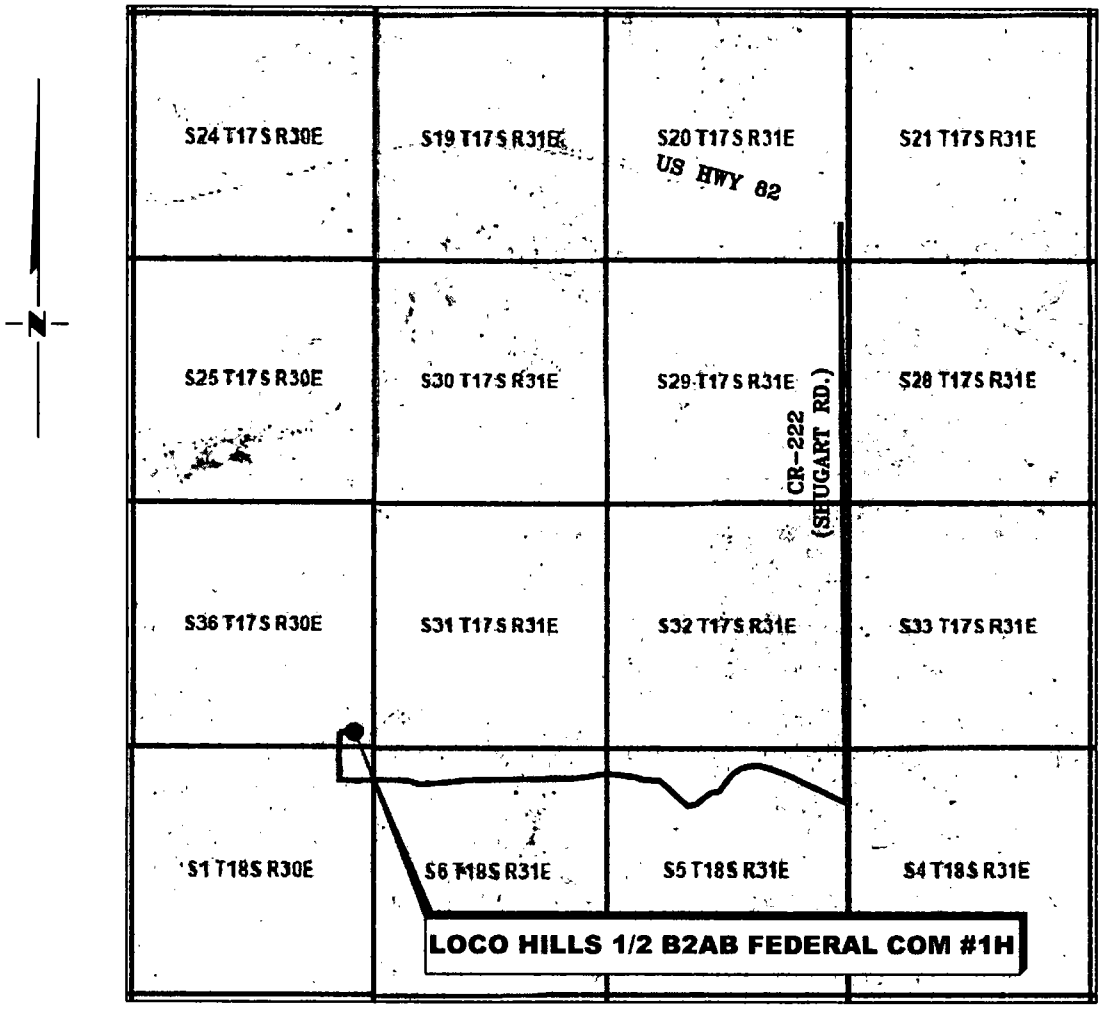
Other SUPO Attachment

LocoHills1_2_B2ABFedCom1H_interimreclamationdiagram_20180821112614.pdf

LocoHills1_2_B2ABFedCom1H_gascaptureplan_20180821112636.pdf

VICINITY MAP

NOT TO SCALE



SECTION 36, TWP. 17 SOUTH, RGE. 30 EAST, N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Loco Hills 1/2 B2AB Federal Com
WELL NO.: 1H

LOCATION: 300' FSL & 400' FEL
ELEVATION: 3598'

NO.	REVISION	DATE

JOB NO.: LS1807954
DWG. NO.: 1807954VM

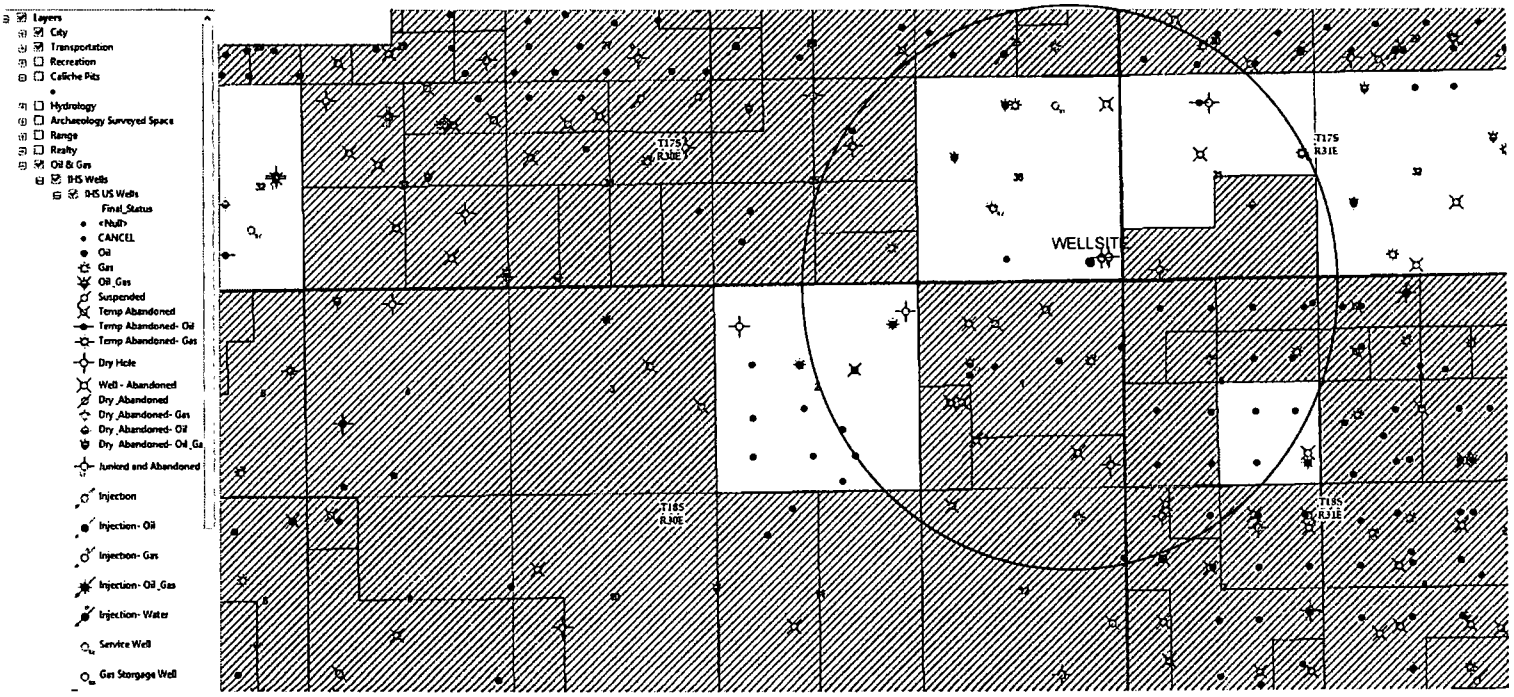
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

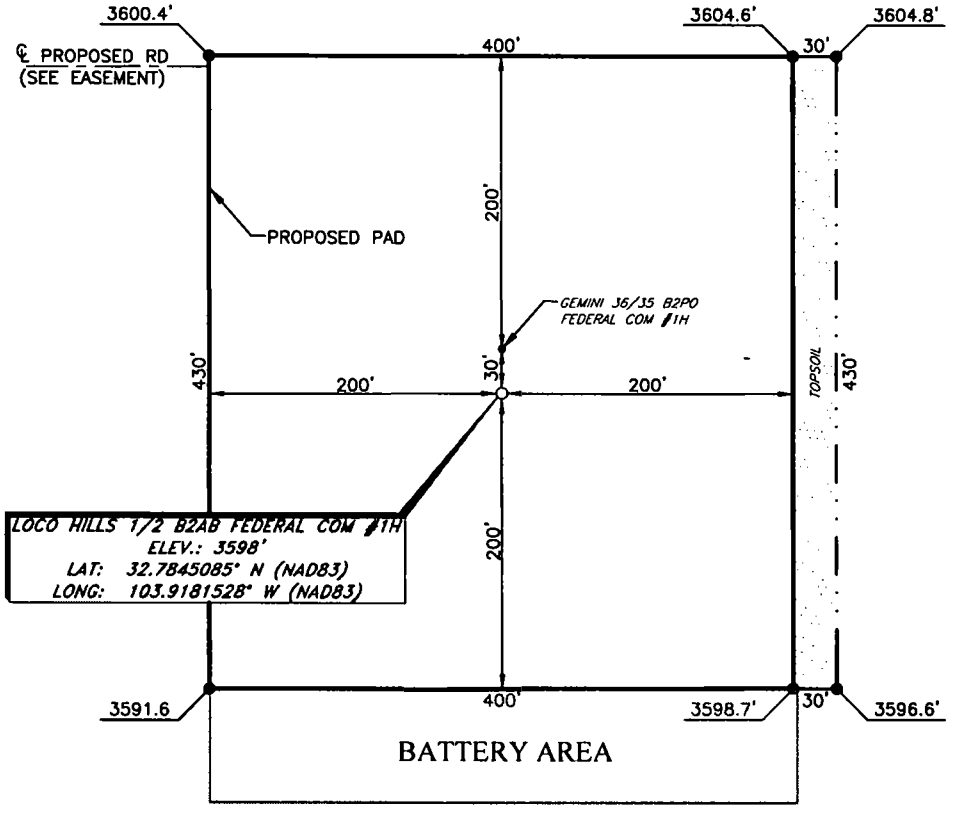
SCALE: 1" = 1000'
DATE: 7/24/18
SURVEYED BY: ML/TF
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

EXISTING WELL MAP

LOCO HILLS 1/2 B2AB FED COM #1H



MEWBOURNE OIL COMPANY
LOCO HILLS 1/2 B2AB FEDERAL COM #1H
(300' FSL & 400' FEL)
SECTION 36, T17S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of US HWY 82 and CR-222 (Shugart Rd.):

Go South on CR-222 approx. 2.4 miles to a lease road on the right;

Turn right and go West approx. 0.9 miles to a "Y" in road;

Stay left at "Y" and continue West approx. 1.3 miles to a lease road on the right;

Turn right and Go North on lease road approx. 0.2 miles to a proposed road on the right;

Turn right and go East approx. 325 feet to location on the right.

-N-

SCALE: 1" = 100'
50 100

BEARINGS ARE NAD 83 GRID - NM EAST
DISTANCES ARE GROUND

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this unclassified survey of a well location from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett

Robert M. Howett NM PS 19680

ROBERT M. HOWETT
NEW MEXICO
19680
8/7/18
PROFESSIONAL SURVEYOR

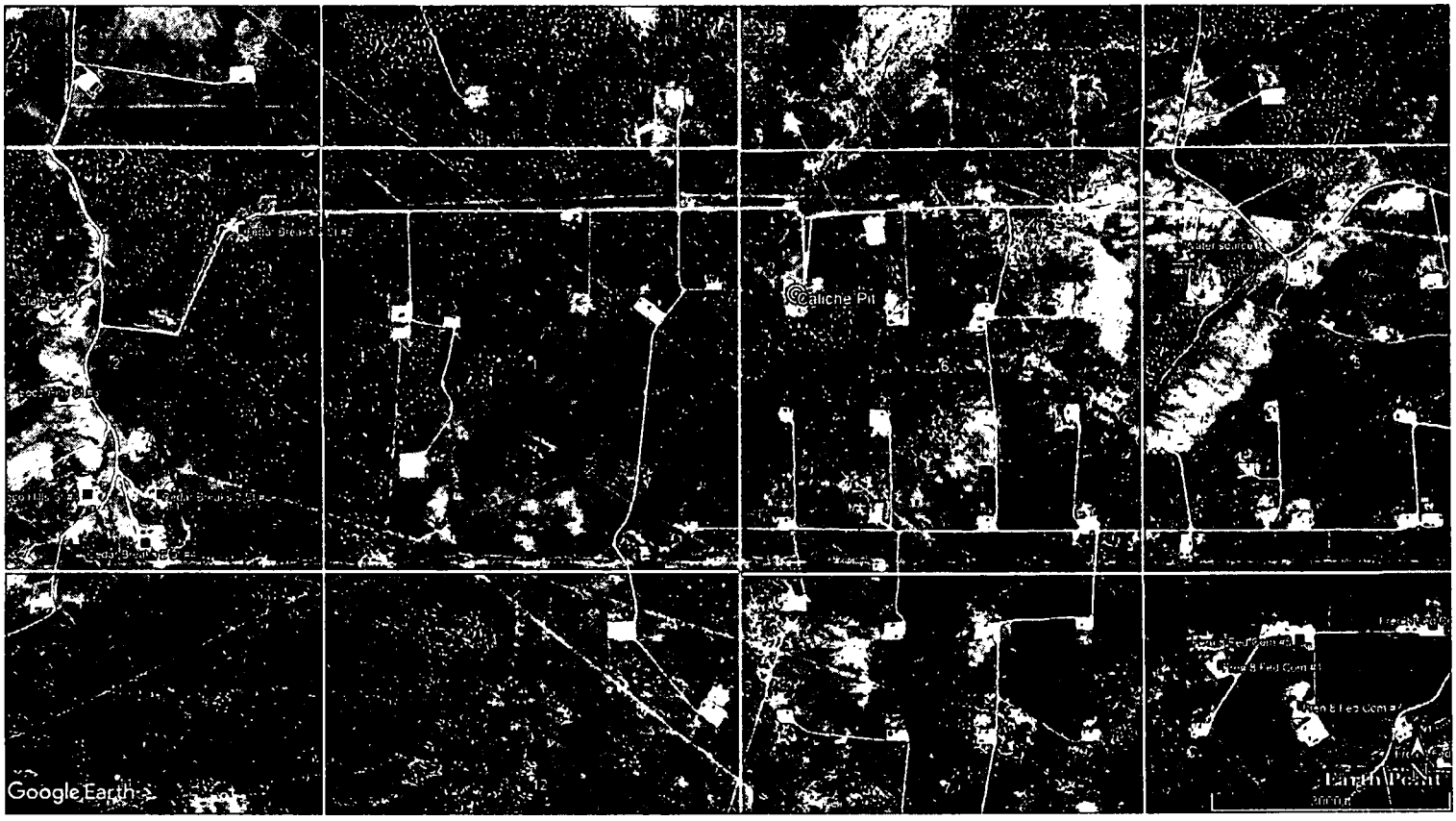
NO.	REVISION	DATE

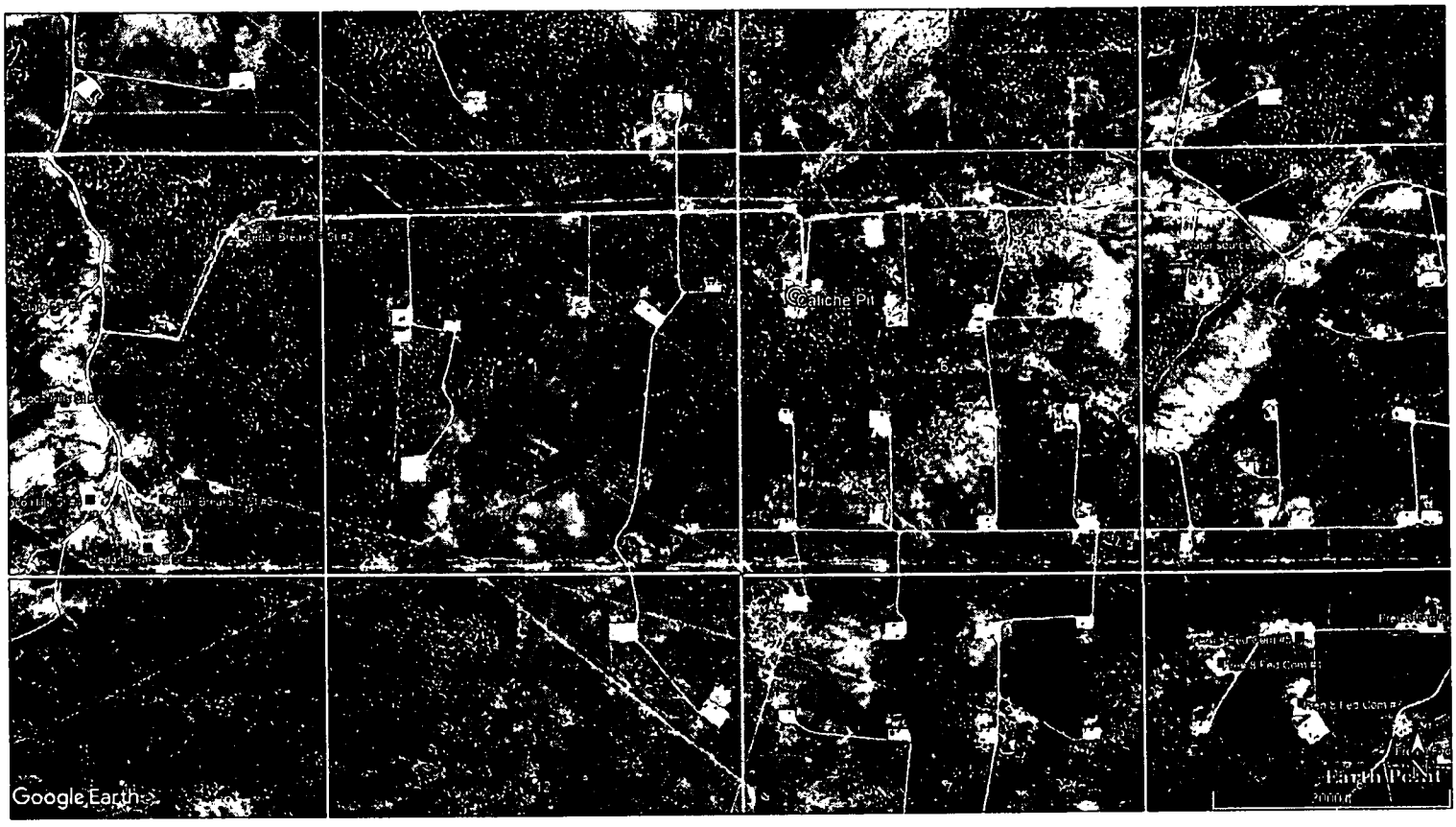
JOB NO.: LS1807954
DWG. NO.: 1807954PAD

RRC

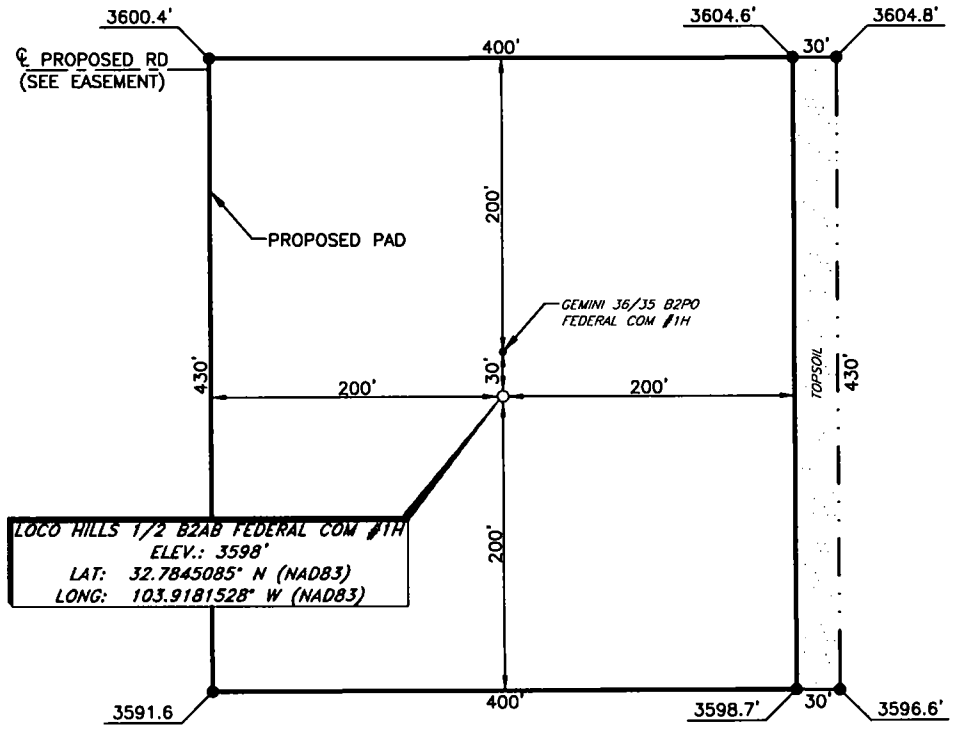
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 7-24-2018
SURVEYED BY: ML/TF
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1


Caliche Pit
Google Earth


Caliche Pit
Google Earth

MEWBOURNE OIL COMPANY
LOCO HILLS 1/2 B2AB FEDERAL COM #1H
(300' FSL & 400' FEL)
SECTION 36, T17S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



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SCALE: 1" = 100'
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SURVEYED BY: ML/TF
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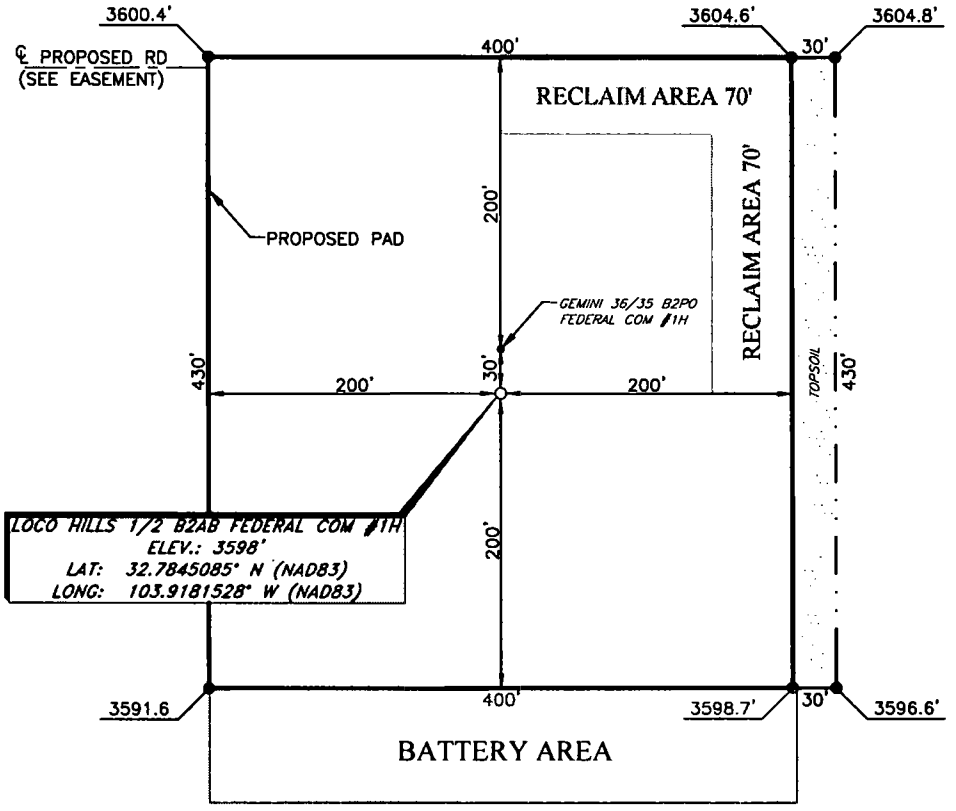
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
LOCO HILLS 1/2 B2AB FEDERAL COM #1H
(300' FSL & 400' FEL)
SECTION 36, T17S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



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NEW MEXICO
19680
8/7/18
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS1807954
DWG. NO.: 1807954PAD

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 7-24-2018
SURVEYED BY: ML/TF
DRAWN BY: GA
APPROVED BY: RMH
SHEET: 1 OF 1

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:

PWD disturbance (acres):

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:

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 surface owner: **PWD disturbance (acres):**

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?

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: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

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:

PWD disturbance (acres):

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:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

01/04/2019

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: