ATS-15-1014

NM OIL CONSERVATION
DISTRICT
ARTESIA
JAN 11 2016
RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☑ REENTER	5. Lease Serial No. NM0540701A
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other SWD ☐ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2. Name of Operator Mewbourne Oil Company	7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 575-393-5905
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 660' FNL & 660' FEL, Sec 18 T23S R27E At proposed prod. zone	8. Lease Name and Well No. Top Gun Federal SWD #1 (315778)
	9. API Well No. 30-015-31075
	10. Field and Pool, or Exploratory Devonian; SWD (96101)
	11. Sec., T. R. M. or Blk. and Survey or Area Sec 18 T23S R27E
14. Distance in miles and direction from nearest town or post office* 7 miles W of Loving, NM	12. County or Parish Eddy / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 320 / 17. Spacing Unit dedicated to this well -
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320' Ranch Hand 18 Fed Com #1	19. Proposed Depth 14,000' / 20. BLM/BIA Bond No. on file NM1693 nationwide & NMB-000919
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3230' - GL	22. Approximate date work will start* 10/28/2015 / 23. Estimated duration 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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 required by the BLM.

25. Signature	Name (Printed/Typed) Bradley Bishop	Date 08/28/2015
Title		

Approved by (Signature) /S/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date 12/31/15
Title FOR FIELD MANAGER	Office BLM-CARLSBAD FIELD OFFICE	

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.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

KRD 1/15/2016

Witness CIT

Carlsbad Controlled Water Basin

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

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

NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 11 2016
RECEIVED

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-31025	96101	DEVONIAN ; SWD
4 Property Code: 315778	5 Property Name: TOP GUN FEDERAL SWD	6 Well Number: 1
7 OGRID NO.: 14744	8 Operator Name: MEWBOURNE OIL COMPANY	9 Elevation: 3230'

10 Surface Location

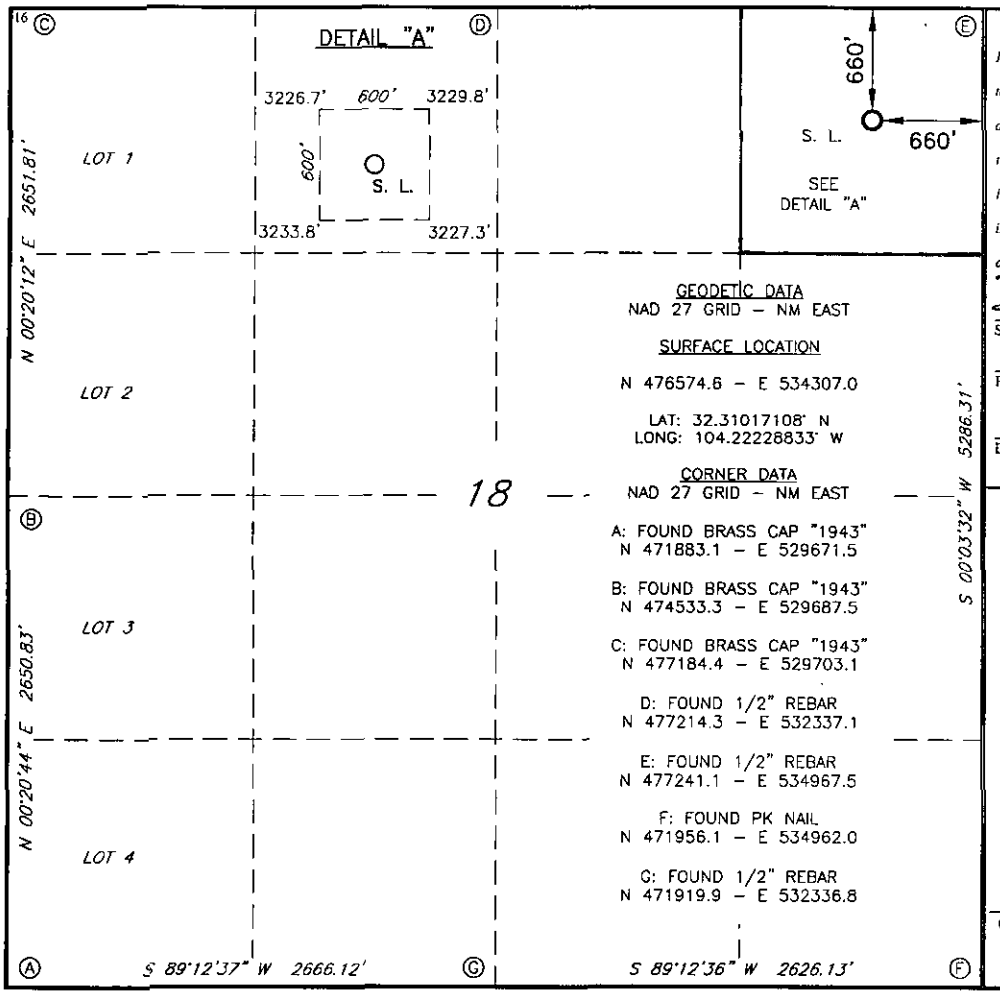
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
A	18	23S	27E		660	NORTH	660	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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

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



GEODETIC DATA
NAD 27 GRID – NM EAST

SURFACE LOCATION
N 476574.6 – E 534307.0
LAT: 32.31017108° N
LONG: 104.22228833° W

CORNER DATA
NAD 27 GRID – NM EAST

A: FOUND BRASS CAP "1943"
N 471883.1 – E 529671.5

B: FOUND BRASS CAP "1943"
N 474533.3 – E 529687.5

C: FOUND BRASS CAP "1943"
N 477184.4 – E 529703.1

D: FOUND 1/2" REBAR
N 477214.3 – E 532337.1

E: FOUND 1/2" REBAR
N 477241.1 – E 534967.5

F: FOUND PK NAIL
N 471956.1 – E 534962.0

G: FOUND 1/2" REBAR
N 471919.9 – E 532336.8

17 OPERATOR CERTIFICATION

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

Signature — Date: 8-28-15

Printed Name: BRADLEY BISHOP

E-mail Address:

18 SURVEYOR CERTIFICATION

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

8-24-2015
Date of Survey

Signature and Seal of Professional Surveyor: ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

RRC – Firm No.: TX 10193838 NM 4655451 – Job No.: LS1508453

United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, 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: NM-0540701A (SL & BHL)

Legal Description of Land: Section 18, T-23S, R-27E Eddy County, New Mexico.
Location @ 660' FNL & 660' FEL.

Formation (if applicable): Devonian

Bond Coverage: $150,000

BLM Bond File: NM1693 Nationwide, NMB 000919

Authorized Signature: _____ RE RT
Name: Robin Terrell
Title: District Manager
Date: 9-29-15

Mewbourne Oil Company

PO Box 5270
Hobbs, NM 88241
(575) 393-5905

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.

Executed this 29 day of Aug., 2015.

Name: Robin Terrell

Signature: FOR RT

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: Rterrell@mewbourne.com

Mewbourne Oil Company, Top Gun Federal SWD #1
Sec 18, T23S, R27E
SL: 660' FNL & 660' FEL

1. Geologic Formations

TVD of target	14000'	Pilot hole depth	NA
MD at TD:	14000'	Deepest expected fresh water:	125'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler			
Top of Salt			
Castile	600	Barren	
Lamar	2100	Oil	
Bell Canyon			
Cherry Canyon			
Manzanita Marker			
Brushy Canyon			
Bone Spring	5332	Oil/Gas	
Wolfcamp	8950	Oil/Gas	
Canyon	10214		
Strawn	10543		
Atoka	10918		
Morrow	11482	Gas	
Devonian	12900	Target Zone	

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

Mewbourne Oil Company, Top Gun Federal SWD #1
Sec 18, T23S, R27E
SL: 660' FNL & 660' FEL

2. Existing Casing & Open Hole

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	508'	13.375"	48	H40	STC			
12.25"	0'	2683'	9.625"	36	J55	STC			
8.75"	2683'	12150'	OPEN						
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

3. Existing Cement Plugs

Plug #	Casing Interval From	Casing Interval To	Interval (ft)						
1	0'	50'	50						
2	458'	558'	100						
3	2633'	2733'	100						
4	5600'	5700'	100						
5	8875'	9025'	200						
6	10443'	10643'	200						
7	11382'	11582'	200						

4. Proposed Drilling Program

-Deepen 8.75" hole from 12150' to 14000'.
-Set 7" casing @ 12900'.
-Open Hole completion from 12900' to 14000'.

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
8.75"	0'	12900'	7"	26#	HCP110	LTC	1.16	1.48	2.07
				BLM Minimum Safety Factor			1.125	1	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?	Y
If yes, are there two strings cemented to surface?	Y
(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_2O gal/ sk	500# Comp. Strength (hours)	Slurry Description
7" csg	1st Stage ~~DV Tool &~~ ECP Set @ 12875'					
	625	15.6	1.18	5.2	10	1st Stage: Class H + 0.65% FL-52 + 0.10% R-3 + 0.005 lb/sk Static Free
	2nd Stage DV Tool Set @ 9100'					
	760	12.5	2.12	11	9	2nd Stage Lead: 60:40:0 Class C + 15.00 lb/sk BA-90 + 4.00% MPS-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free
	100	15.6	1.18	5.2	10	2nd Stage Tail: Class H + 0.65% FL-52 + 0.10% R-3 + 0.005 lb/sk Static Free

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

Casing String	TOC	% Excess
Production (7" csg)	0'	25%

4. Pressure Control Equipment

	Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			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	Variance: 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?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	14000'	Cut Brine	8.6-9.5	28-40	<10

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, PVT, Pason

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL fromTD 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
	Gamma Ray	
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6115 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole. Weighted mud for possible over-pressure in Wolfcamp formation.

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

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

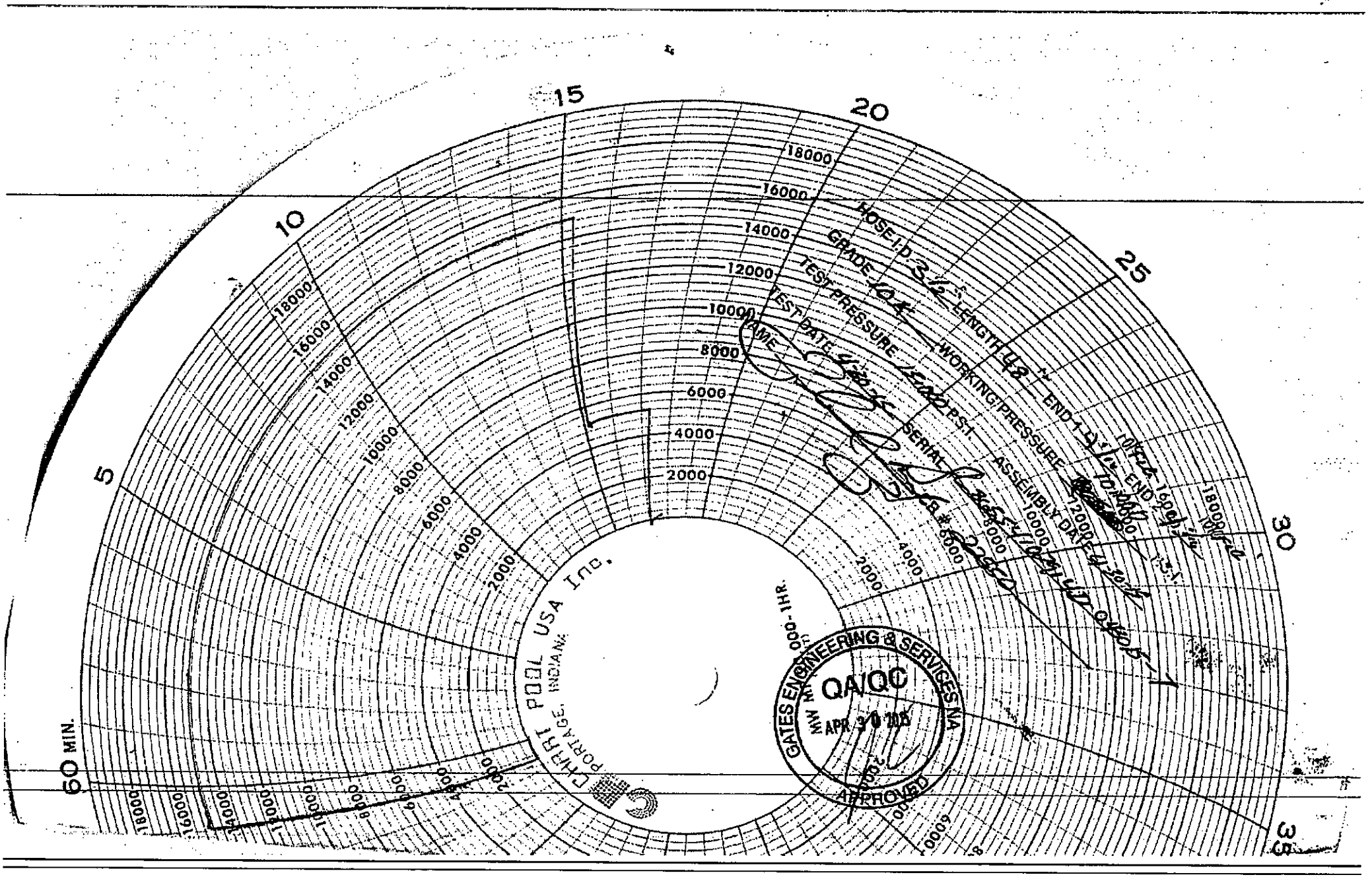
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

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.0 2

Gates BLACK GOLD


5
10
15
20
25
30
35
60 MIN.
18000
16000
14000
12000
10000
8000
6000
4000
2000
HOSE I.D 3½"
GRADE 4SH
LENGTH 48'
WORKING PRESSURE
TEST PRESSURE 12000 P.S.I.
TEST DATE 4-30-15
NAME
SERIAL # 8600
ASSEMBLY DATE 4-30-15
END 1
END 2
OFF
ON
CHART POOL USA Inc.
PORTAGE, INDIANA
GATES ENGINEERING & SERVICES NA
QA/QC
APPROVED

SURFACE USE PLAN OF OPERATIONS
MEWBOURNE OIL COMPANY

Top Gun Federal SWD #1
660 FNL & 660' FEL (SHL)
Sec. 18 – T23S-R27E
Eddy County, New Mexico

Introduction

This plan is submitted with Form 3160-3, Application for Permit to Drill, Covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads

a. The existing access road route to the proposed project is depicted on **Exhibit 3E**. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan.

b. The existing oil and gas roads utilized to access the proposed project will be maintained by crowning, clearing ditches, and fixing potholes. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

c. Mewbourne Oil Co. will cooperate with other operators in the maintenance of lease roads, it is anticipated that MOC will blade & water the lease roads 3 times per year.

2. New or Reconstructed Access Roads

a. No new lease road required to access this location, however the existing roadway will be upgraded. The existing road will require a 75' entrance on the NE starting point. 610' of the existing lease road will be re-sloped to a grade of 8%. Any excess material will be pushed with a bulldozer onto the well pad to aid in leveling. The road will be re-sloped using a bulldozer and motor grader. The road will be watered and rolled in using a vibrating roller. The road will be a maximum width of 20', driving surface will be 14' with 3' on each side sloped to allow for water runoff. Straw wattles will be installed to along the 3' slope along the road to limit runoff.

3. Location of Existing Wells

a. **Exhibit 4, 4A** of the APD depicts all known wells within a one mile radius of the proposed well.

4. Location of Existing and/or Proposed Production Facilities

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 transported to the production facility located on the **East edge of location.** Electricity lines will most likely head straight south to MOC's Jester well location. This route will follow an existing pipeline.
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.

5. Location and Types of Water

a. The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as identified above in this surface use plan. Water from the commercial suppliers will be supplied from the Brantley water station located in SE/SW of Sec 12 T26S R28E, Eddy Co.

6. Construction Materials

a. Construction material that will be used to build the well pad and road will be caliche.
b. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.
c. Obtaining caliche: One way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to obtaining caliche. Amount of caliche will vary for each pad. The procedure below has been approved by BLM personnel:
    i. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
    ii. An approximate 160' X 160' area is used within the proposed well site to remove caliche.

iii. Subsoil is removed and stockpiled within the surveyed well pad.
iv. When caliche is found, material will be stock piled within the pad site to build the location and road.
v. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
vi. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced.
vii. Neither caliche, nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

In the event that no caliche is found onsite, caliche will be hauled in from a BLM, state, or private mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or land.

Caliche for this well pad will be hauled from a State pit in Sec. 18 T23S T27E.

Construction will consist of using the following equipment: Dozer, grader/blade, backhoe, roller, water trucks & dump trucks. Dozer will level the location stockpiling topsoil on the specified edge of the location. Dump trucks will haul material to location. Dozer & Blade will spread material evenly across location. Location will be leveled & rolled with blade & roller. Backhoe will be used to install the 8' x 10' cellar. Average timeline for the construction of locations will be 10-14 days after APD approval. Approximately 500 linear feet of straw wattles will be installed along the West and South edges of location to prevent sedimentation. The African Rue that is on site will be sprayed with an herbicide using an ATV sprayer and a backpack sprayer.

7. Methods of Handling Waste

a. The well will be drilled utilizing a closed loop system. Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.) and taken to an NMOCD approved disposal facility listed below.

b. Drilling fluids and produced oil and water from the well during completion operations will be stored safely in closed containers (20 yard roll off bins) and disposed of properly in an NMOCD approved disposal facility listed below.

c. Garbage and trash produced during drilling and completion operations will be collected in trash containers (enclosed trash trailers) and disposed of properly

at a state approved site. All trash on and around the well site will be collected for disposal.

d. All human waste and grey water from drilling and completion operations will be properly contained in a 2,000 gallon plastic container and disposed of properly at the City of Carlsbad Water Treatment facility.

e. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at the said facilities. NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

8. Ancillary Facilities

a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

a. The proposed drilling pad to be built was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.

b. A title of a well site diagram is **Exhibit 5**. This diagram depicts the rig layout.

c. 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.

10. Plans for Surface Reclamation

Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

a. Interim Reclamation (well pad)

i. Interim reclamation will be performed on the well site after the well is drilled and completed. **Exhibit 6** depicts the location and dimensions of the planned interim reclamation for the well site.

ii. The well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

iii. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

iv. 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.

v. 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. 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.

vi. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

vii. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion and invasive/noxious weeds are controlled.

b. Final Reclamation (well pad, buried pipelines, etc.)

i. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

ii. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

iii. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

iv. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. 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.

v. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

vi. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

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.

11. Surface Ownership

a. The surface ownership of the proposed project is federal.

12. Other Information

a. No other information is needed at this time.

13. Operator's Representative

a. Through APD approval, drilling, completion and production operations:

Robin Terrell, District Manager
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
575-393-5905

Notes Regarding Blowout Preventer
Mewbourne Oil Company
Top Gun Federal SWD #1
660' FNL & 660' FEL (SHL)
Sec 18-T23S-R27E
Eddy County, New Mexico

I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.

II. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure on 13 3/8" casing and 3000 psi working pressure on 9 5/8" & 7" casing.

III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.

IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.

V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

11" 5M BOPE & Closed Loop Equipment Schematic

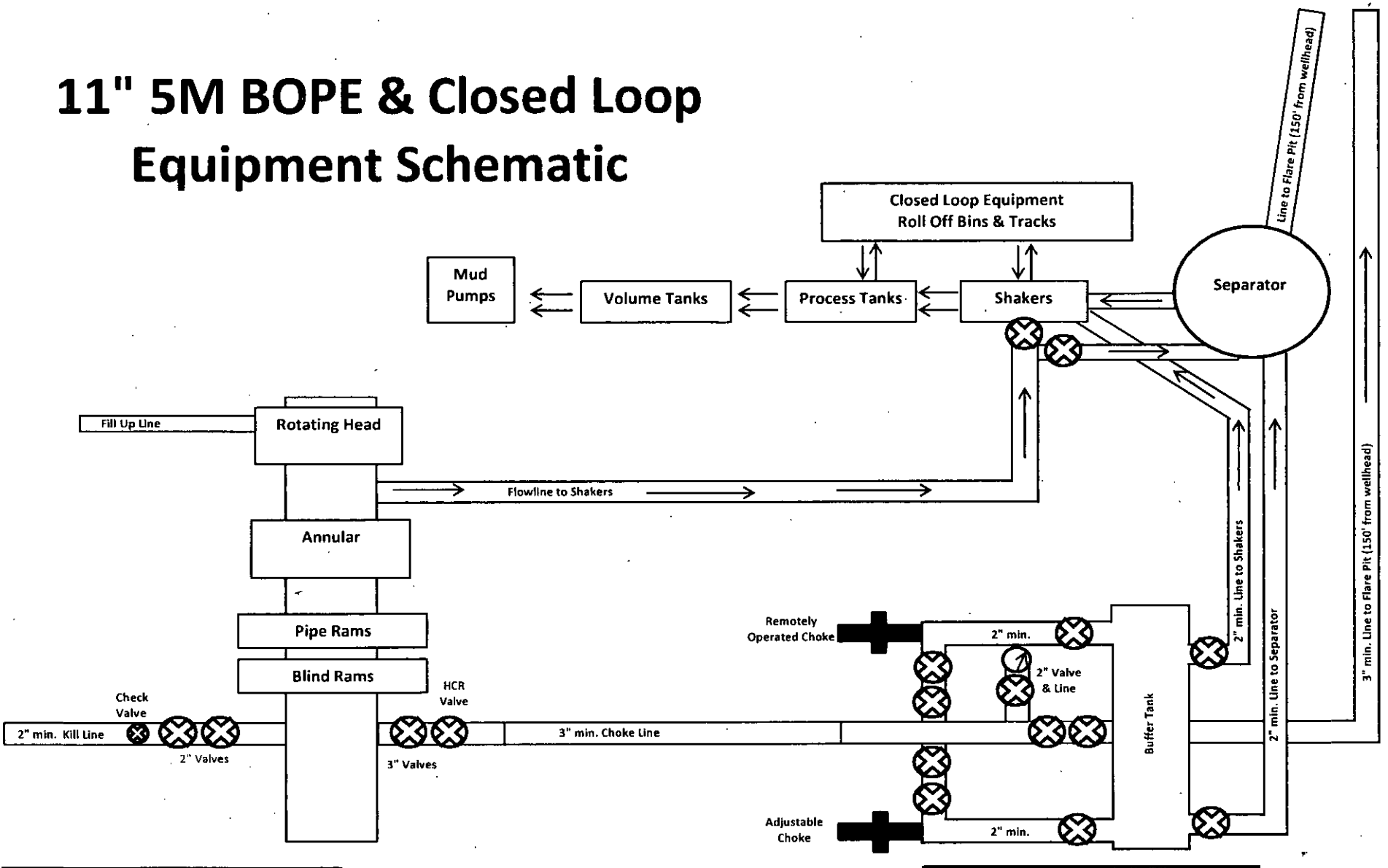
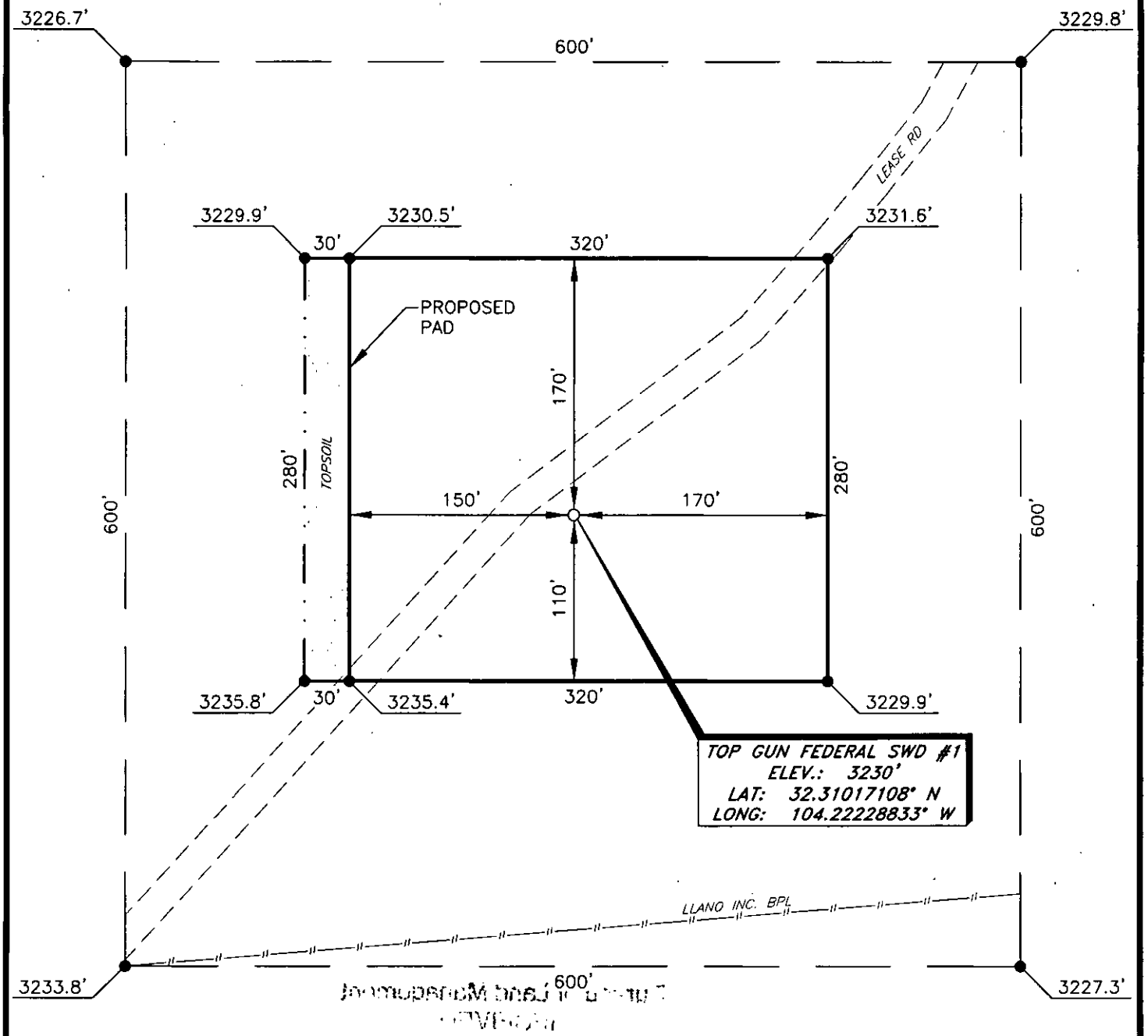


Exhibit 2
Well Name: Top Gun Fed SWD #1

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

MEWBOURNE OIL COMPANY
TOP GUN FEDERAL SWD #1
(660' FNL & 660' FEL)
SECTION 18, T23S, R27E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of Prairie View Rd. and CR-748 (Old Cavern Rd.)

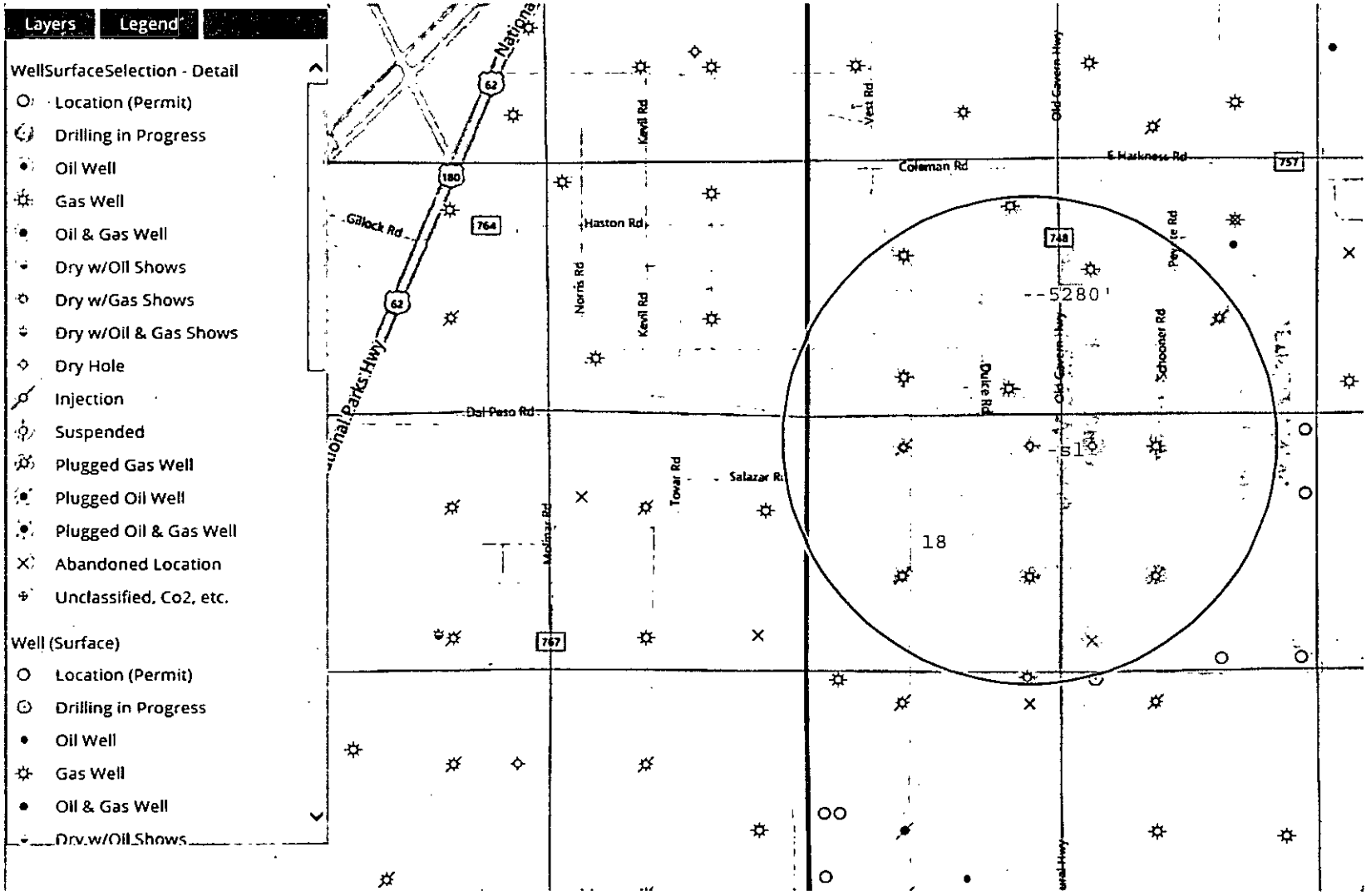
Go South on CR-748 approx. 0.3 miles to a lease road on the right;

Turn right and go West approx. 320 feet to a lease road on the left;

Turn left and go South approx. 0.1 miles to location on the left.

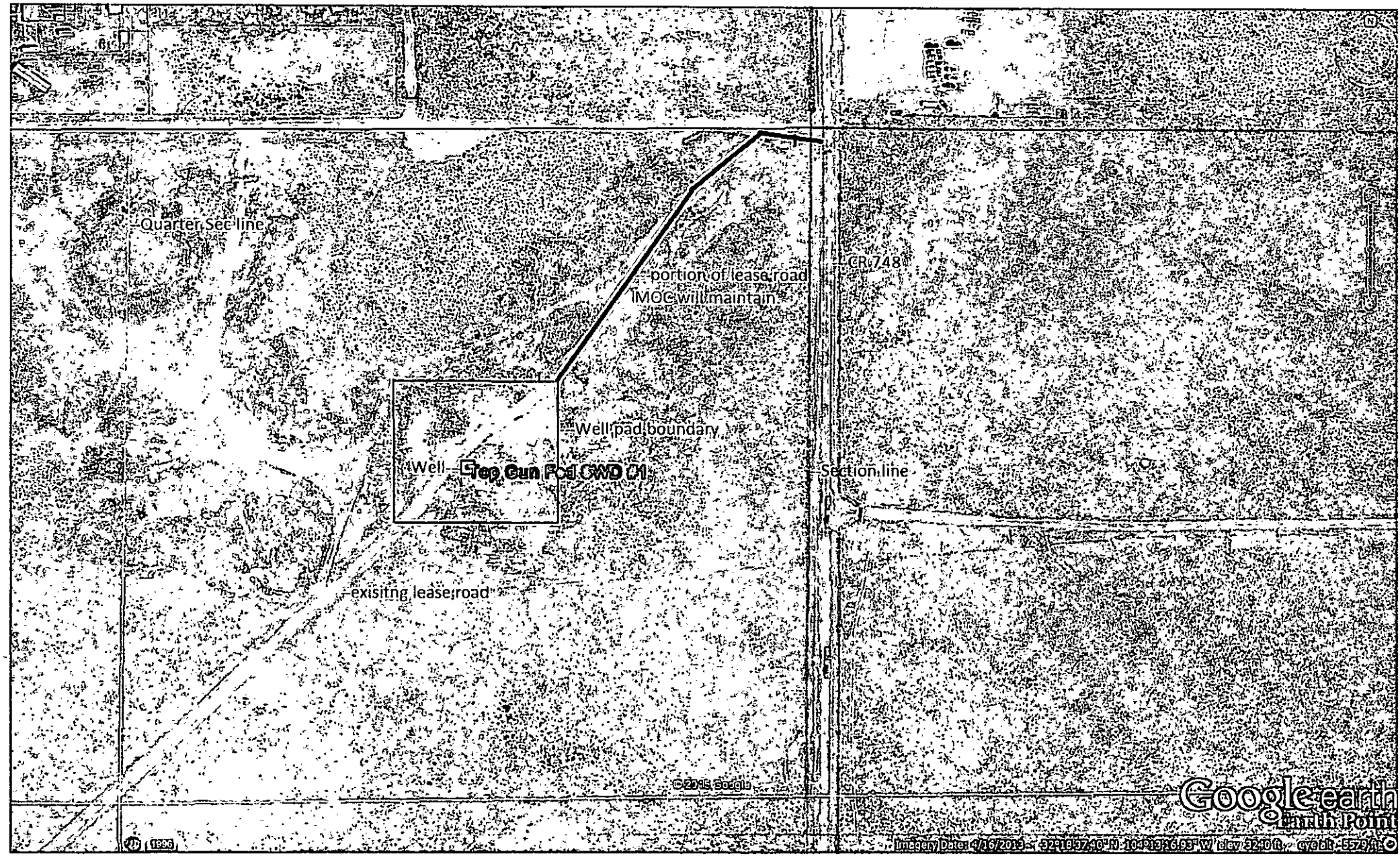
N

ERT M. HOW

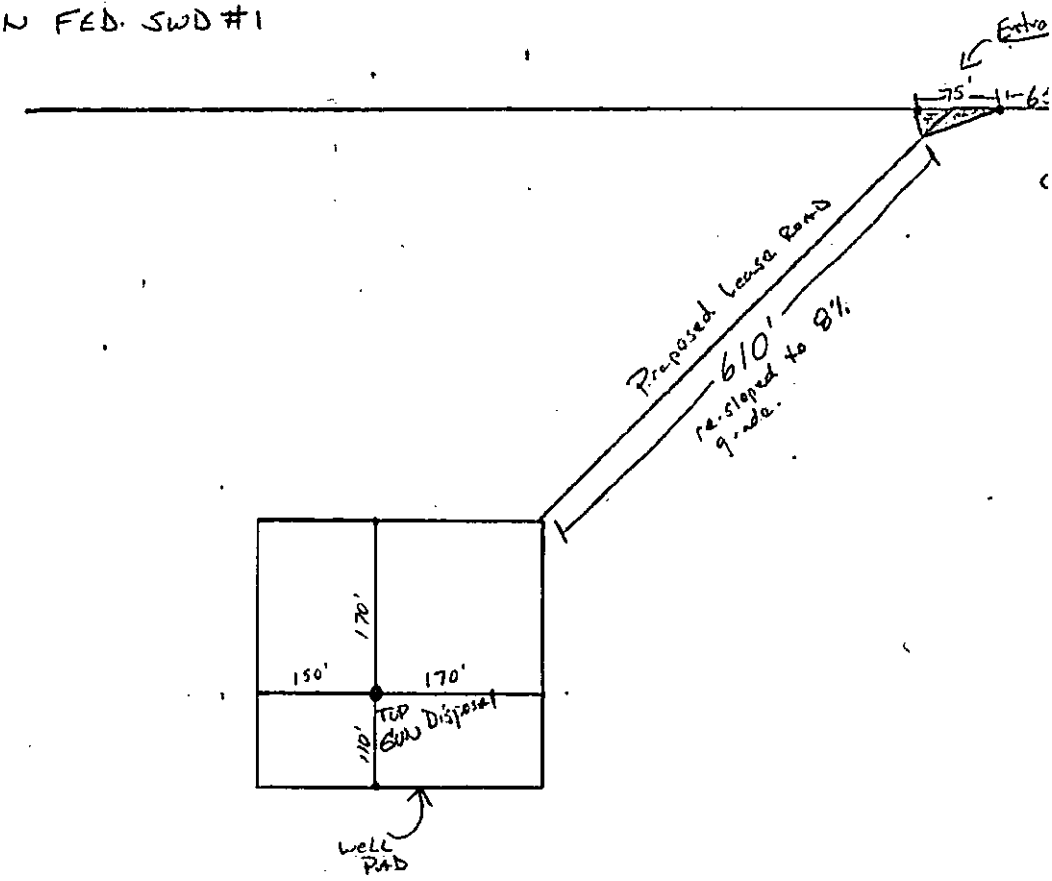


North

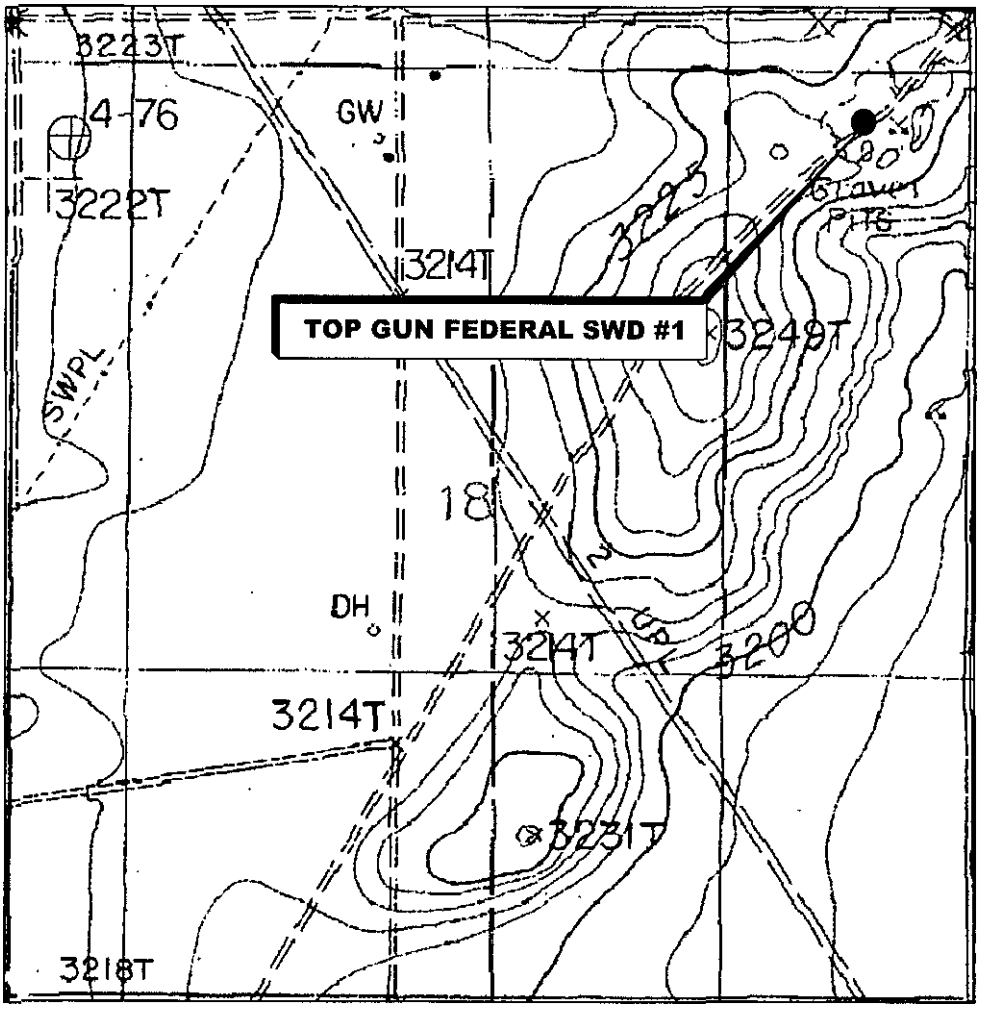
Exhibit 4 - SL - Top Gun Federal SWD #1


Quarter Sec line
portion of lease road
MOC will maintain
CR 748
Well pad boundary
Well - Top Gun Pad CWD 1H
Section line
exisitng lease road
©2015 Google
Google earth
Earth Point

Proposed Lease Road
for TOP GUN FED. SWD #1



LOCATION VERIFICATION MAP



SECTION 18, TWP. 23 SOUTH, RGE. 27 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Top Gun Federal SWD
WELL NO.: 1
ELEVATION: 3230'

LOCATION: 660' FNL & 660' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Otis, NM (P. E. 1985)

NO.	REVISION	DATE

JOB NO.: LS1508453
DWG. NO.: 1508453LVM

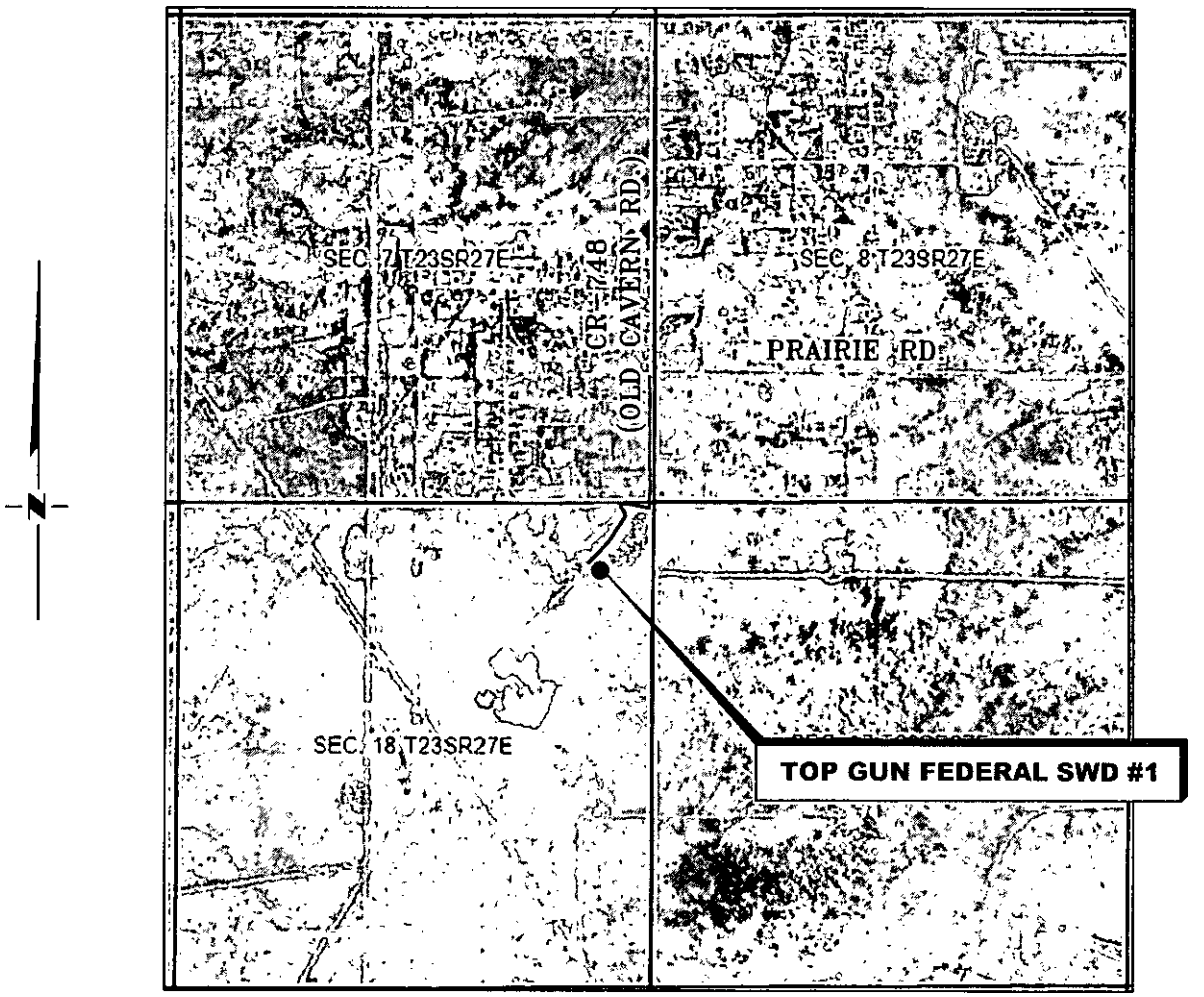
RRC

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

SCALE: 1000'
DATE: 8-24-2015
SURVEYED BY: ML/ER
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

VICINITY MAP Exhibit 3 E

NOT TO SCALE



SECTION 18, TWP. 23 SOUTH, RGE. 27 EAST, N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Top Gun Federal SWD
WELL NO.: 1

LOCATION: 660' FNL & 660' FEL
ELEVATION: 3230'

NO.	REVISION	DATE

JOB NO.: LS1508453
DWG. NO.: 1508453VM

RRC

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

SCALE: NTS
DATE: 8-24-2015
SURVEYED BY: ML/ER
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

H2S Diagram
Closed Loop Pad Dimensions 280' x 320'

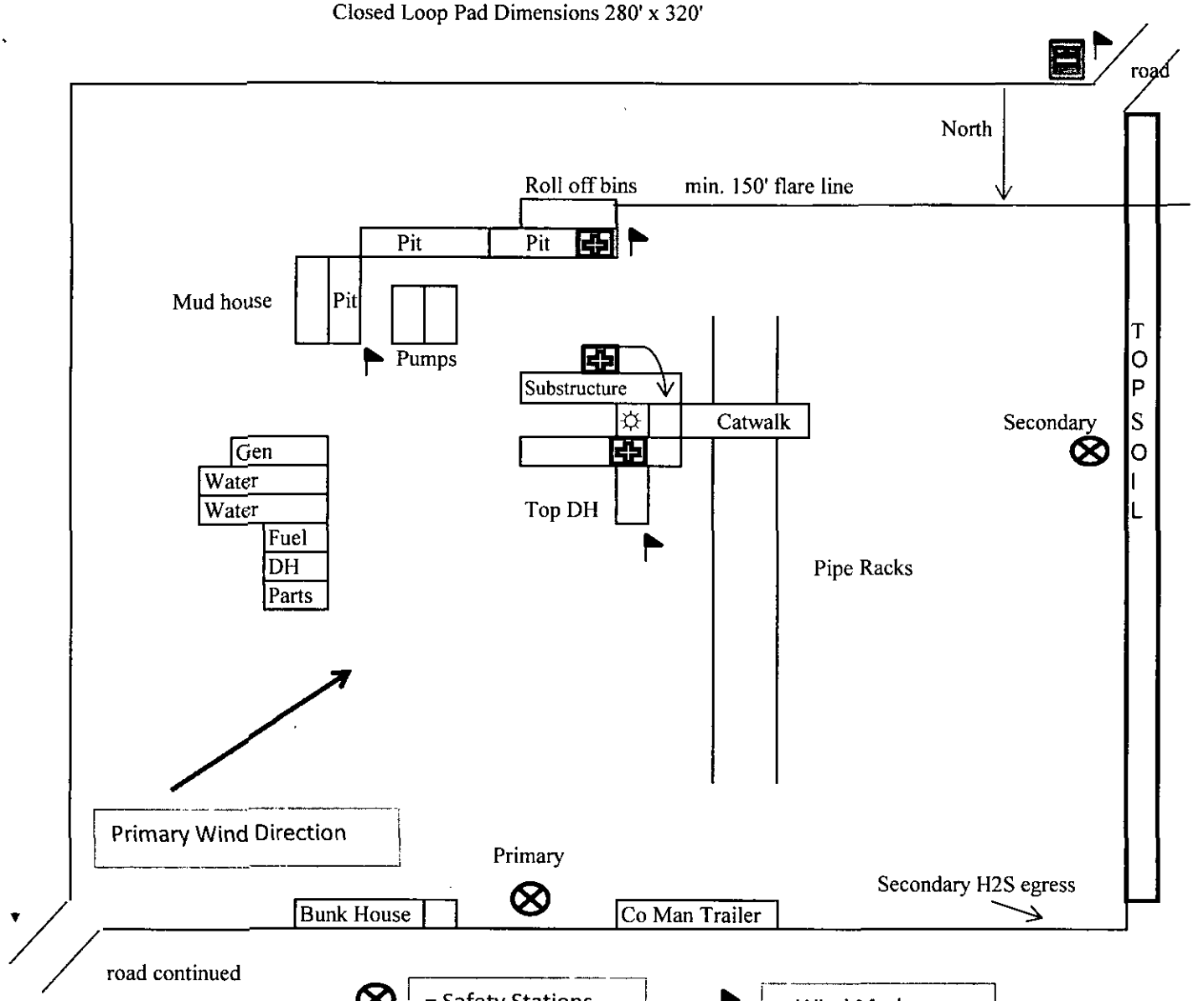


Exhibit 5

= Safety Stations

= H2S Monitors

= Wind Markers

= Warning Signs

Mewbourne Oil Company
Top Gun Federal SWD #1
660' FNL & 660' FEL
Sec. 18 T23S R27E
Eddy County, NM

Closed Loop Pad Dimensions 280' x 320'

lease road

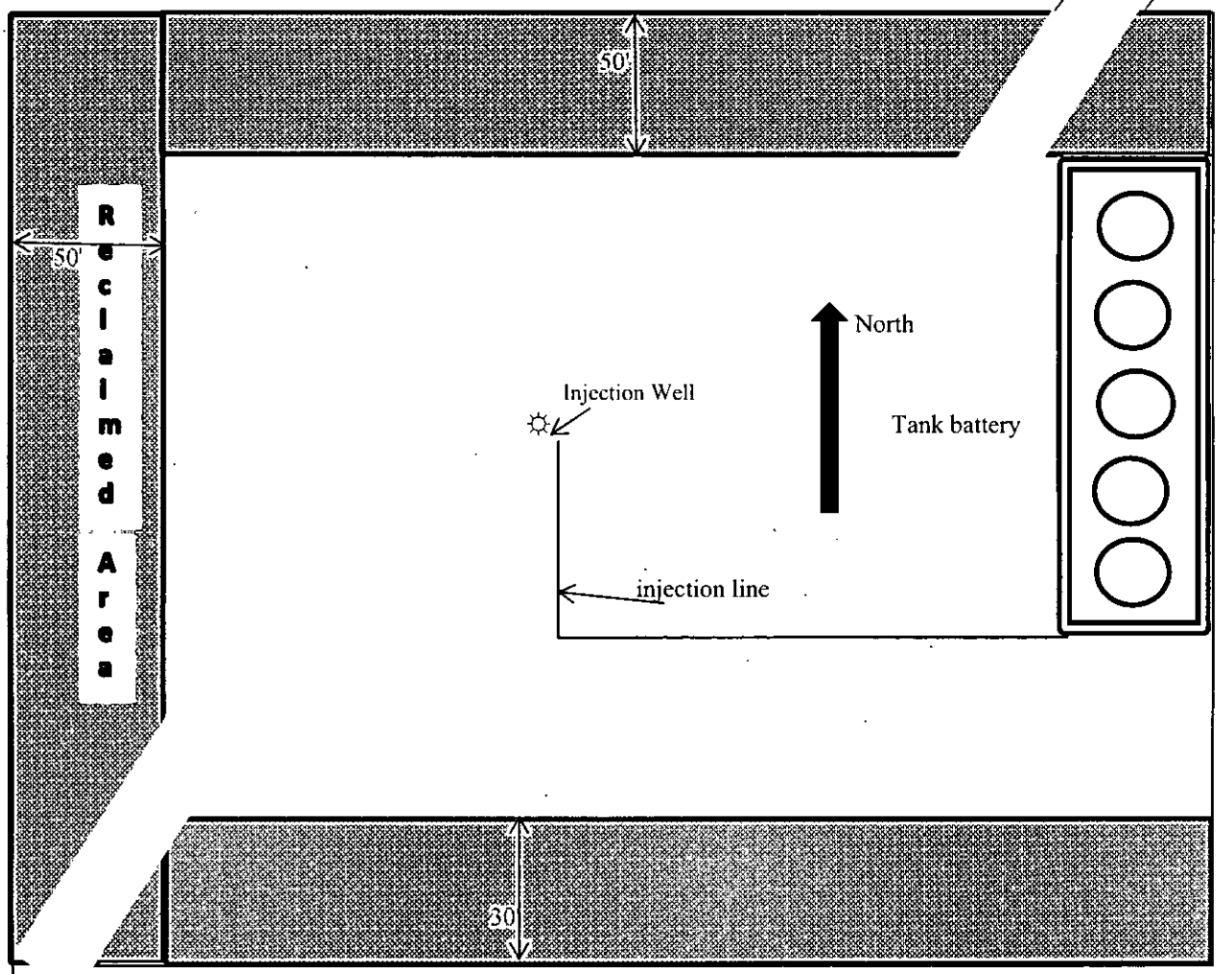


Exhibit 6

Mewbourne Oil Company
Top Gun Federal SWD #1
660' FNL & 660' FEL
Sec. 18 T23S R27E
Eddy County, NM

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___X___Disposal _____Storage
Application qualifies for administrative approval? ___X___Yes _____No

II. OPERATOR: **Mewbourne Oil Company**

ADDRESS: **500 W. Texas Suite 1020**
Midland, TX 79701
CONTACT PARTY: **Travis Cude** PHONE: **432-682-3715**

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes ____X____No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: **Travis Cude** TITLE: **Reservoir Engineer**

SIGNATURE: _____ DATE: 3/10/15

E-MAIL ADDRESS: **tcude@mewbourne.com**

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: **Mewbourne Oil Company**

WELL NAME & NUMBER: **Top Gun Federal SWD #1** (Originally: Ranch Hand 18 Fed Com #2) API 30-015-31075

WELL LOCATION:	**660' FNL & 660' FEL**	**A**	**18**	**23S**	**27E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC (See Attached)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **17 1/2"**

Casing Size: **13 3/8" @ 508'**

Cement with: **450 sx**

Top of Cement: **Surface (circulated)**

Intermediate Casing

Hole Size: **12 1/4"**

Casing Size: **9 5/8" @ 2683'**

Cement with: **910 sx**

Top of Cement: **Surface' (Circulated)**

Intermediate Casing

Hole Size: **8 3/4"**

Casing Size: **7" @ 12900'**

2nd Stg Cement with : **1500 sx**
Top of Cement: **Surface**
DVT @ 9100'
1st Stg Cement with : **600 sx**
DVT @ 12,875'
External Csg Packer @ 12,895'

TD @ 14000'

Injection Interval
Open Hole Completion from 12900'-14000'

INJECTION WELL DATA SHEET

Tubing Size: **3 1/2"9.3# L80** Lining Material: **TK99 IPC**

Type of Packer: **Arrowset 1X (nickel plated)**

Packer Setting Depth: **+/- 12,850**

Other Type of Tubing/Casing Seal (if applicable): **N/A**

Additional Data

1. Is this a new well drilled for injection? **No**

   If no, for what purpose was the well originally drilled? **Morrow Test**

2. Name of the Injection Formation: **Devonian, Open Hole Completion**

3. Name of Field or Pool (if applicable): **SWD, Devonian**

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

   Plugs: cmt plug (85 sx) 11382'-11582', cmt plug (90 sx) 10443'-10643', cmt plug(65 sx) 8875'-9025', cmt plug(40 sx) 5600'-5700', cmt plug(45 sx) 2633'-2733', cmt plug(35 sx) 458'-558', cmt plug (15 sx) 50' to Surface.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Overlying producing zone – **Morrow, 11482'-12000'**

   Underlying producing zone – **N/A**

Mewbourne Oil Company

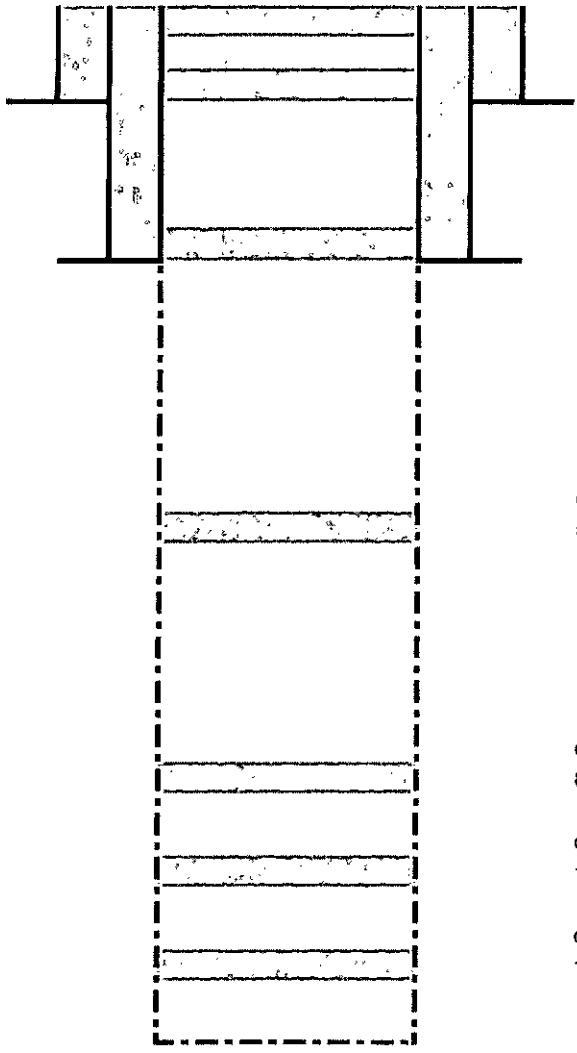
Well Name: Ranch Hand 18 Fed Com #2

Last Updated by: T Cude on 02/20/2015

17 1/2" x 13 3/8" 48# H-40 ST&C csg
Set @ 508'
Cmt w/ 450 sx, circ to surface

12 1/4" x 9 5/8" 40# J55 csg
Set @ 2683'
Cmt w/ 910 sx, circ to surface

8 3/4" Open Hole
TD @ 12150'



cmt plug, 15 sx
Surface-50'
cmt plug, 35 sx
458'-558'

cmt plug, 45 sx
2633'-2733'

cmt plug, 40 sx
5600'-5700'

cmt plug, 65 sx
8875'-9025'

cmt plug, 90 sx
10443'-10643'

cmt plug, 85 sx
11382'-11582'

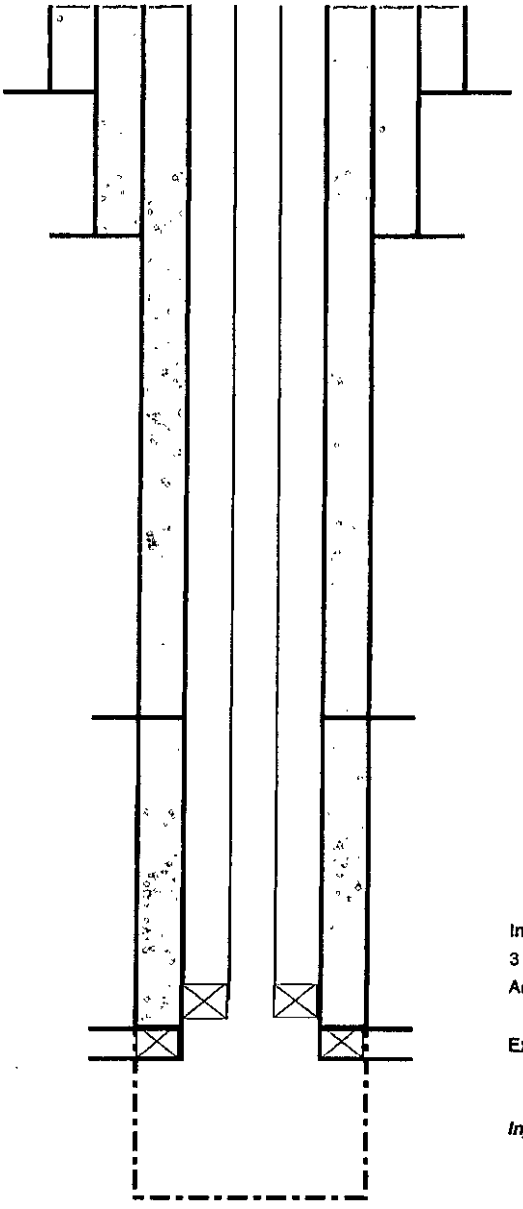
Mewbourne Oil Company

Well Name: Top Gun Federal SWD #1

Last Updated by: T Cude on 02/20/2015

17 1/2" x 13 3/8" 48# H-40 ST&C csg
Set @ 508'
Cmt w/ 450 sx, circ to surface

12 1/4" x 9 5/8" 40# J55 csg
Set @ 2683'
Cmt w/ 910 sx, circ to surface



DVT @ 9100'
Cmt 2nd Stage w/ 1500 Sx, circ to surface

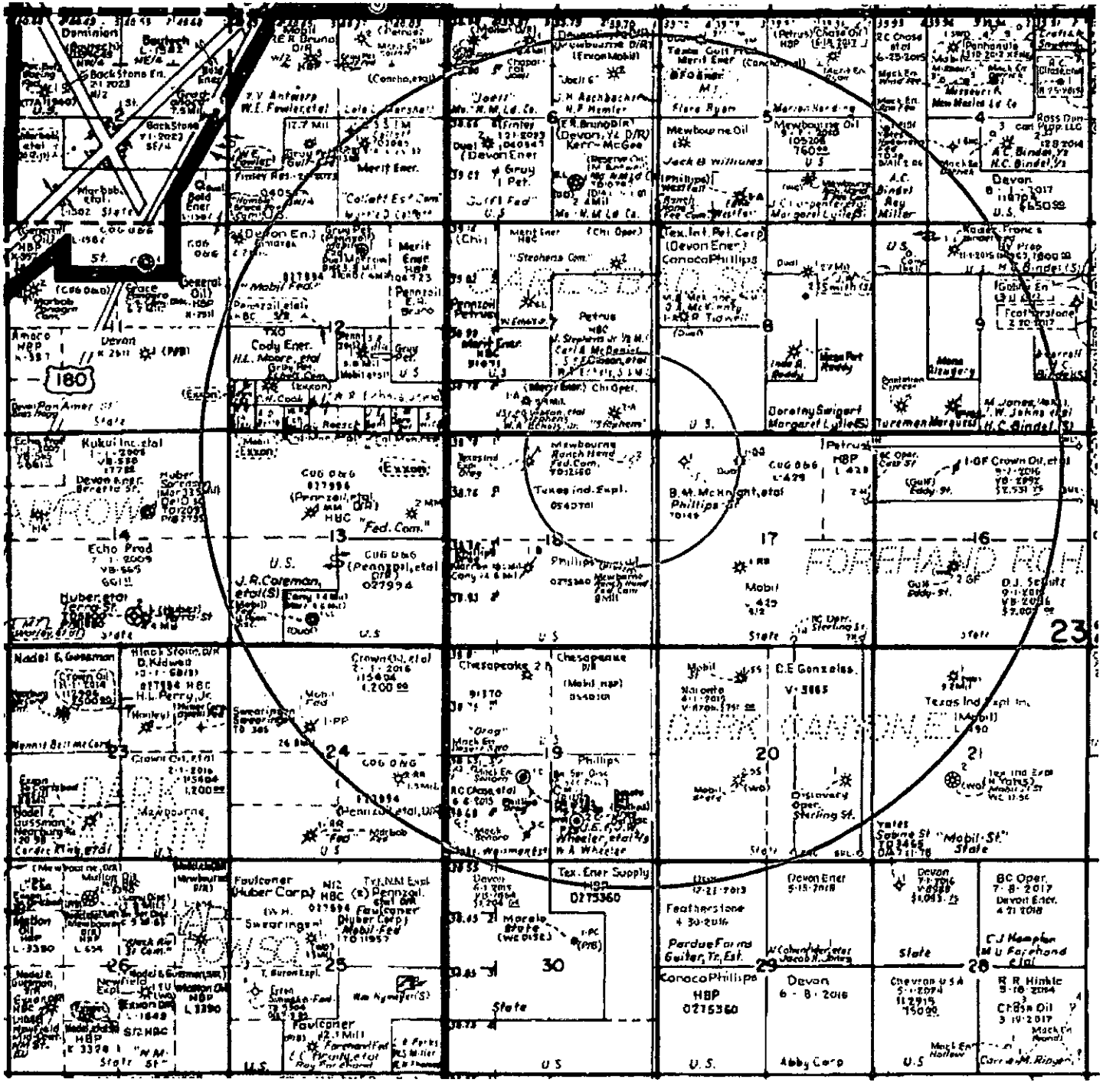
DVT @ 12875'
8 3/4" x 7" 26# HCP-110 LTC
Set @ 12900'
Cmt 1st Stage w/ 600 Sx, circ off upper tool

8 3/4" Open Hole
TD @ 14000'

Injection String
3 1/2" 9.3# L80 tbg IPC w/TK99
Arrowset 1X Nickel Pltd Pkr set @ 12850'

External Csg Pkr Set @ 12895'

Injection Invterval 12900'-14000'


Dominion
Bayshore
Back Stone En.
Grace Oil
Amoco
Devon
180
Kukui Inc. etal
Echo Prod
Huber etal
Nadel & Gussman
Black Stone, D/R
Crown Oil, etal
Faulconer
Huber Corp
Swearingen
Pennzoil, etal
Merit Exer.
Cody Exer.
Mobil Fed
Exxon
Merit Exer. HBP
Penroc Oil
Texland Petr.
Mewbourne Oil
Mewbourne Ranch Fed. Com.
Texas Ind. Expl.
Phillips
Chesapeake
Mobil
Tex. Exer Supply
HBP
Marcelo Brave
Devon Ener
Devon
Conoco Phillips
HBP
Abby Corp
Chevron USA
BC Oper.
Cimarex Energy Co.
Chase Oil
Ross Duncan Prop. LLC
Panhandle
Texas Gulf Prod.
Merit Ener
Jack B. Williams
Indo B. Ruddy
Dorothy Swigart
Margaret Lytle
Tex. Int. Pet. Corp
Conoco Phillips
Petrus
HBP
B.M. McKnight, etal
Phillips
Mobil
C.E. Gonzales
Texas Ind. Expl. Inc.
Discovery Oper.
Sterling St.
Yates
Sabine St "Mobil St"
Devon Ener
Featherstone
Purdue Farms
Guiter, Tr. Est.
Conoco Phillips
HBP
Devon
Chevron USA
R.R. Hinkle
Chase Oil
Forehand Ranch
Dark Canyon
Pecos
U.S.
State

Top Gun Federal SWD #1 C-108
Additional Details

VI. There are no wells penetrating the disposal formation within the area of review.

VII. 1. Proposed average rate of 10,000 bwpd and maximum rate of 20,000 bwpd.

2. Closed system.

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 2580 psi (0.2 psi/ft x 12,900 ft).

4. Injection fluid will be formation water from the Mewbourne Oil Company(MOC) operated Bone Spring and Wolfcamp wells in the area. Attached is a water analysis from the Layla 35 OB 1H (Bone Spring: 35-23S-28E) and the Layla 35 MD Fee 2H (Wolfcamp: 35-23S-28E).

5. We will be injecting into the Devonian formation. Devonian formation water is known to be compatible with the formation water of the Bone Spring and Wolfcamp; however, water analysis for the Devonian was not available in the area.

VIII. 1. The proposed injection interval is within the Devonian formation which is a porous dolomitic limestone from 12900' to 14,000'.

2. The underground fresh water aquifers (unnamed) are present at shallow depths <350'. There are no known fresh water intervals underlying the injecting formation.

IX. The proposed stimulation is an open-hole acid treatment of 20000 gallons of 15% HCL.

IX. No logs are currently on file with the Division. The appropriate log data will be filed upon re-entry and deepening of the well.

X. There are currently six water wells on file with the State Engineers Office in the area of interest. Five wells were filed with log information, and all five wells were drilled to depths shallower than 400 feet. Mewbourne Oil Company was able to get an analysis from the fresh water well located in the SW/4 of unit O-7-T23S-R27E. Additionally, MOC located an abandoned well in the SE/4 of unit P-7-T23S-27E. MOC was unable to find or access the other three wells on record.

XI. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water.

XII. See attached Proof of Notice

MEWBOURNE OIL COMPANY
P. O. BOX 7698
TYLER, TEXAS 75711

Lease Layla "35" OB **Well No** 1H **Location** 150' FSL & 1980' FEL

County Eddy **ST** NM **Section** 35 **TwnShp** 23S **Rng** 28E

Section **Blk** **Survey**

Filename **Page** 1

API No. 30-015-40968

DATE	DAILY REPORTS
AUG 1 2013	**Water analysis** from 08/01/13: SG @ 1.120, Temp 70°, pH 6.48, Na 49502, Ca 5200, Mg 2400, Fe 10, CL 92000, SO4 250, HCO3 73 (all in Mg/L).

MEWBOURNE OIL COMPANY
P. O. BOX 7698
TYLER, TEXAS 75711

Lease	Layla 35 MD Fee		**Well No**	#2H	**Location**	150' FSL & 660' FWL	
County	Eddy	**ST**	NM	**Section**	35	**TwnShp**	23S	**Rng**	28E
Section		**Blk**		**Survey**			
Filename						**Page**	1

API #30-015-41730

DATE	DAILY REPORTS
MAY 21 2014	**Water analysis from 5/21/14**: SG @ 1.075, Temp 70°, pH 6.77, Na 30000, Ca 7200, Mg 960, Fe 0.4, CL 62000, SO4 350, HCO3 166 (all in Mg/L).

BAKER HUGHES

Water Analysis

Date: 06-Mar-15

2708 West County Road, Hobbs NM 88240
Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For

Company	Well Name	County	State
Mewbourne	Ranch Hand	Lea	New Mexico

Sample Source well **Sample #** 1

Formation **Depth**

Specific Gravity	1.005	SG @ 60 °F	1.007
pH	6.90	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

Cations

Sodium (Calc)	in Mg/L	3,049	in PPM	3,028
Calcium	in Mg/L	120	in PPM	119
Magnesium	in Mg/L	96	in PPM	95
Soluable Iron (FE2)	in Mg/L	0.0	in PPM	0

Anions

Chlorides	in Mg/L	4,000	in PPM	3,972
Sulfates	in Mg/L	1,550	in PPM	1,539
Bicarbonates	in Mg/L	59	in PPM	58
Total Hardness (as CaCO3)	in Mg/L	700	in PPM	695
Total Dissolved Solids (Calc)	in Mg/L	8,874	in PPM	8,812
Equivalent NaCl Concentration	in Mg/L	8,089	in PPM	8,033

Scaling Tendencies

*Calcium Carbonate Index 7,027

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 186,000

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

***This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.**

Remarks rw=.96@70f

Report # 3304

MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020
MIDLAND, TEXAS 79701

(432) 682-3715
FAX (432) 685-4170

March 10, 2015

Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Phillip Goetze

Re: Top Gun Federal SWD #1

Mr. Goetze,

In accordance with item XII on Mewbourne Oil Company's C-108 filed for the captioned salt water disposal well, Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting or any other hydrologic connection between the proposed disposal zone and any underground sources of drinking water.

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

Sincerely yours,

MEWBOURNE OIL COMPANY

Travis Cude
Reservoir Engineer

30-015-31975
OGRID 14744
PROP 34757
POOL

7-7-00

Need Comp —
Dsw & Logs
Will need to enter comp rep
before you plug this one.
Got ID on Comp yet in computer

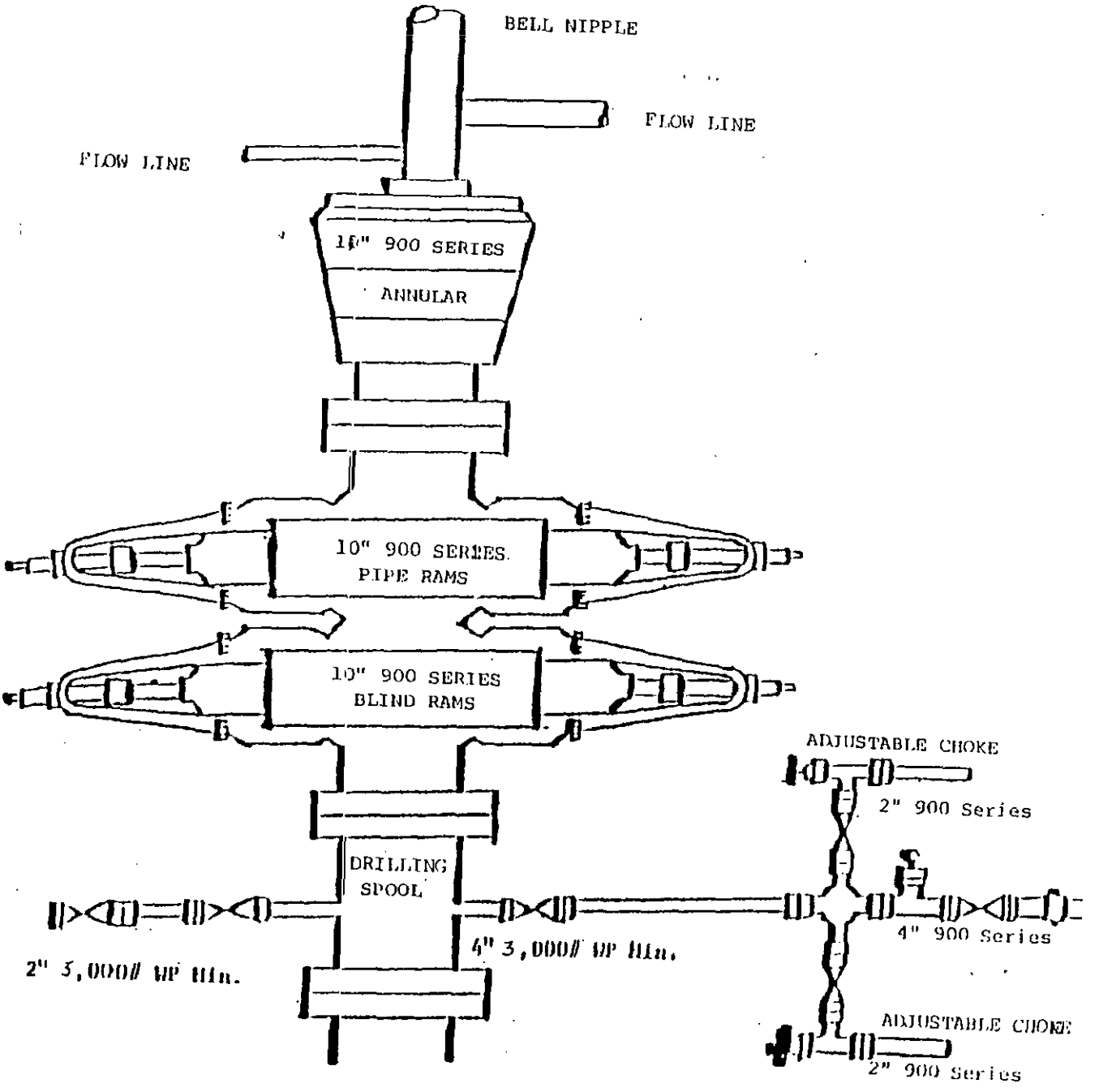


Exhibit 2A
Ranch Hand "18" Fed Com #2
660' FNL & 660' FEL
Section 8-T23S-R27E
Eddy County, New Mexico

Mewbourne Oil Company
BOP Scematic for
12 1/4 Hole

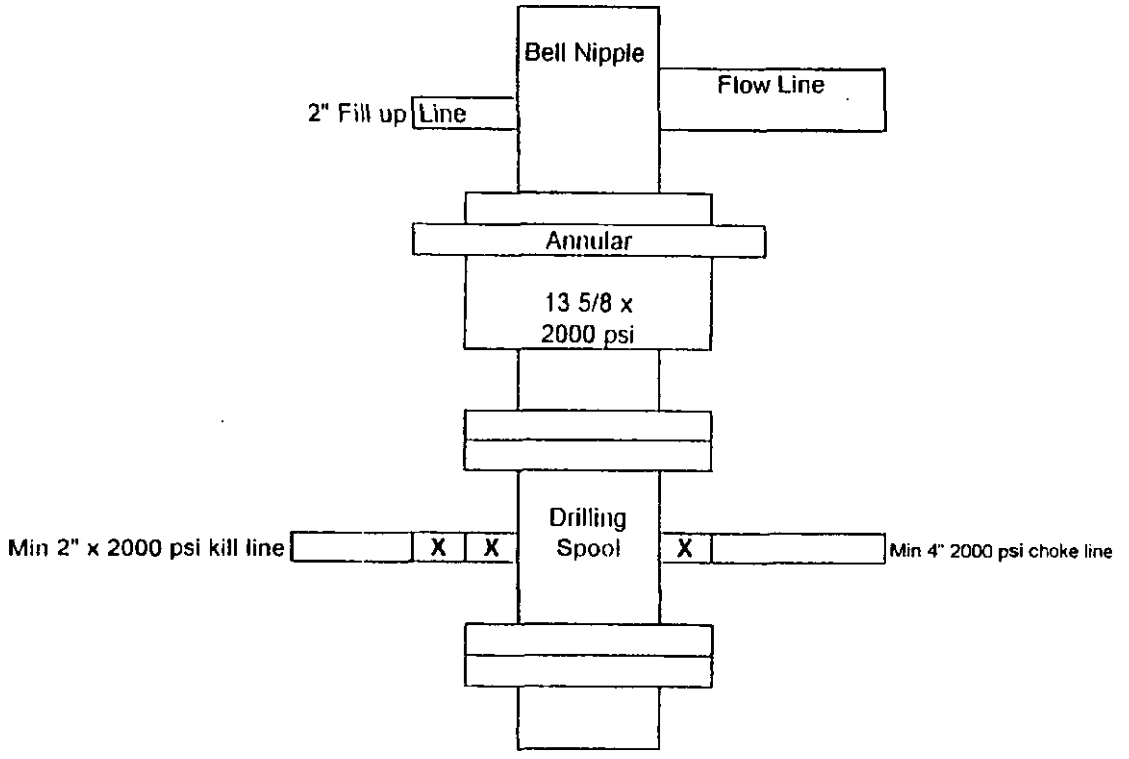


Exhibit 2
Ranch Hand "18" Fed Com #2
660' FNL & 660' FEL
Section 8-T23S-R27E
Eddy County, New Mexico

7. Downhole Conditions:

Zones of abnormal pressure:	None anticipated
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	190° F
Maximum bottom hole pressure:	8.3 lbs/gal gradient or less

8. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receivi7ng approval with approximately 35 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

B. Cementing Program

i. Surface Casing: 200 sacks Class "C" light cement containing ¼#/sk cellophane flakes, 3% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 3% CaCl.

ii. Intermediate Casing: 800 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.

iii. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

**Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

5. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-400'	FW spud mud	8.6-9.4	32-34	NA
400'-2600'	Fresh water	8.4-8.7	28-29	NA
2600'-7000'	Fresh water	8.4-8.5	28	NA
7000'-10000'	Cut brine	9.3-9.5	28	NA
10000'-12200'	Cut brine	9.2-9.5	30-38	8-12

6. Evaluation Program:

Samples:	10' samples from intermediate casing to TD
Logging:	Compensated density and dual laterlog from intermediate casing to TD
Coring:	As needed for evaluation
Drill Stem Tests:	As needed for evaluation

DRILLING PROGRAM
MEWBOURNE OIL COMPANY
Ranch Hand "18" Fed Com #2
660' FNL & 660' FEL
Section 18-T23S-R27E
Eddy County, New Mexico
Lease Number NM-0275360

1. **The estimated top of geological markers are as follows:**

Delaware	2052'
Bone Springs	5380'
Wolfcamp	8873'
Canyon	10278'
Strawn	10618'
Atoka	11091'
Morrow	11530'

2. **Estimated depths of anticipated fresh water, oil, or gas:**

Water	Approximately 200'
Hydrocarbons	All zones below San Andres

3. **Pressure control equipment:**

Two thousand psi working pressure mini BOP's will be installed on the 13-3/8" surface casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

4. **Proposed casing and cementing program:**

A. **Casing program:**

Hole Size	Casing	Wt/Ft.	Grade	Depth
17-1/2"	13-3/8"	48#	H40	0-400'
12-1/4"	9-5/8"	24#, 32#	J55	0-2600'
8-3/4"	5-1/2"	17#	N80, S95	0-12,200'

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	73960	Carlsbad, South, Morrow

Property Code	Property Name	Well Number
	RANCH HAND 18 FEDERAL COM	2

OGRID No.	Operator Name	Elevation
014744	MEWBOURNE OIL COMPANY	3230

Surface Location

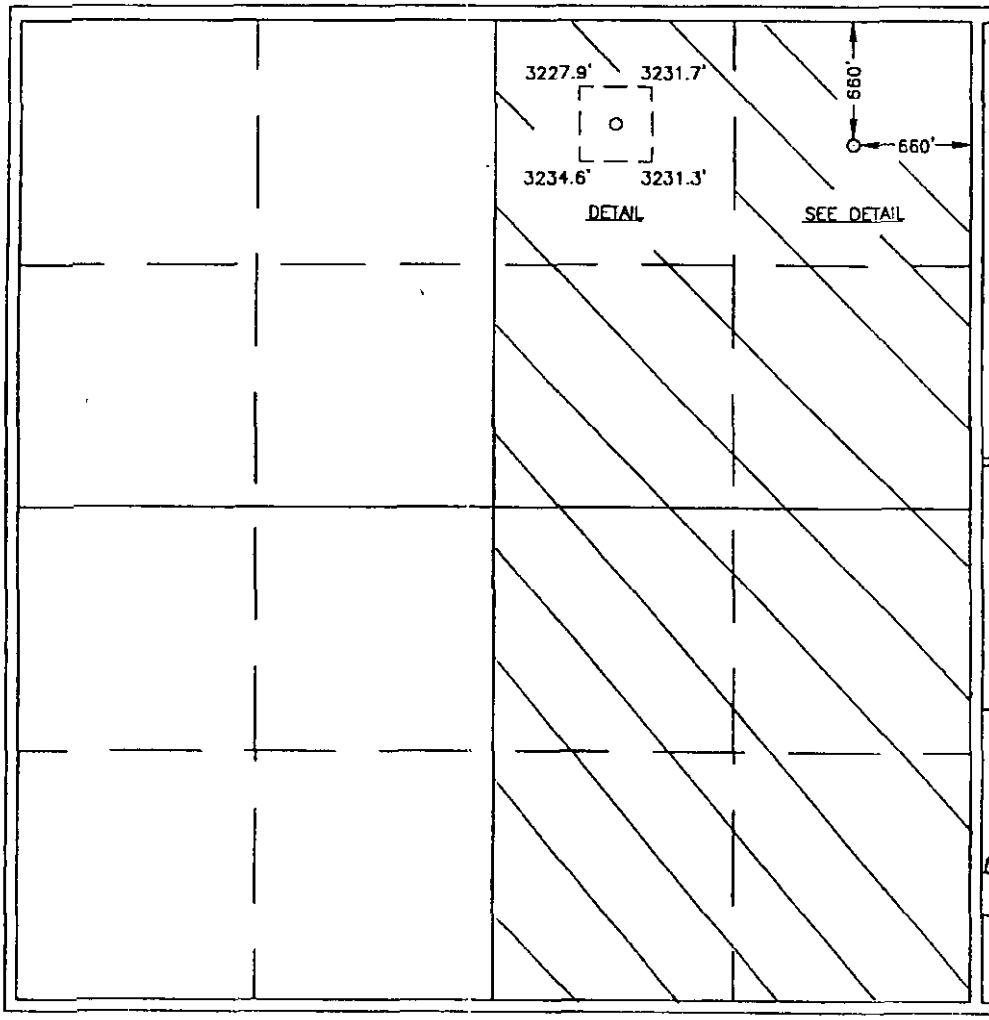
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	23 S	27 E		660	NORTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Jerry Elgin
Printed Name

District Manager
Title

2/21/00
Date

SURVEYOR CERTIFICATION

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

FEBRUARY 16, 2000
Date Surveyed LMP

Signature & Seal of Professional Surveyor

Ronald J. Eidson 2/18/00

00-11-0232

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

APR 2000 RECEIVED OCD - ARTESIA

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	73690	South Carlsbad Morrow Gas

Property Code	Property Name	Well Number
	RANCH HAND 18 FEDERAL COM	2

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3230

Surface Location

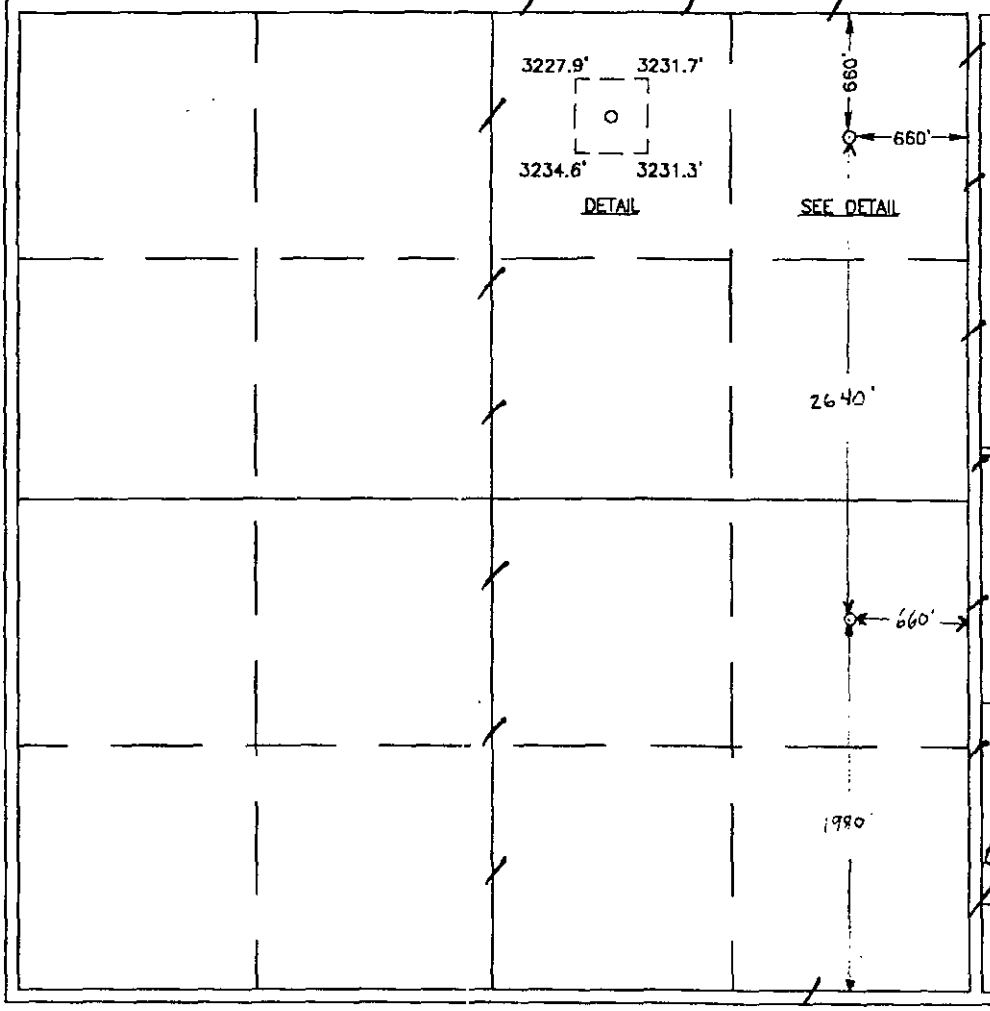
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	23 S	27 E		660	NORTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Jerry Elgin
Printed Name

District Manager
Title

4/14/2000
Date

SURVEYOR CERTIFICATION

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

FEBRUARY 16, 2000
Date Surveyed LMP

Signature & Seal of Professional Surveyor

2/18/00

00-11-0232

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

Artesia, N.M.

Form 3160-3 (July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

427

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO: NM-~~0275360~~ 054070 1A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

7. UNIT AGREEMENT NAME: 24757

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO: Ranch Hand "18" Fed Com #2

2. NAME OF OPERATOR: Mewbourne Oil Company 14744

9. API WELL NO: 30-015-31075

3. ADDRESS AND TELEPHONE NO.: P. O. Box 5270, Hobbs, NM 88241 505-393-5905

10. FIELD AND POOL, OR WILDCAT: Carlsbad, South Morrow

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL & 660' FEL of Section 18
At proposed prod. zone: Unit A

11. SEC., T., R., M., OR BLK AND SURVEY OR AREA: Section 18-T23S-R27E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 4 miles South of Carlsbad, New Mexico

12. COUNTY OR PARISH: Eddy — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	320	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
2640'	12,200'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3230' GR

22. APPROX. DATE WORK WILL START*: 03/30/00

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH*	QUANTITY OF CEMENT
17-1/2"	H40, 13-3/8"	48#	400'	400 sacks (circulated to surface)
12-1/4"	J55, 9-5/8"	36#	2600'	1000 sacks
8-3/4"	N80, 5-1/2"	17#	12200'	* 600 sacks

STIP BOP

Mewbourne Oil Company proposes to drill this well to a depth of 12,200' or a depth sufficient to test the Morrow Formation for gas production. If productive, the well will be equipped with 5-1/2" casing to total depth. If nonproductive, the well will be plugged and abandoned in accordance with regulatory guidelines. Specific plans are outlined in the following attachments:

1) Drilling Program
2) Surface Use and Operation Plan
3) Exhibit #1 Location and Elevation Plat
4) Exhibit #2, #2A Schematic of Blowout Preventer and Choke Manifold
5) Exhibit #3, #3A Exisiting and Planned Access Road and Location
6) Exhibit #4 Immediate Radius Map
7) Exhibit #5 Proposed Drilling Rig Layout
8) Exhibit #6 Proposed Production Facilities Layout
9) Exhibit #7 Hydrogen Sulfide Contingency Plan

RECEIVED
OCD - ARTESIA

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

* in order to cover all oil, gas & water bearing zones. Brian Amend OCD

IN ABOVE SPACE DESCRIBE PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Jerry Edgin TITLE District Manager DATE 02/20/00

(This space for Federal or State office use)

PERMIT NO _____ APPROVAL DATE _____

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:

APPROVED BY _____ TITLE Assistant Field Manager, Lands And Minerals DATE APR 10 2000

*See Instructions On Reverse Side

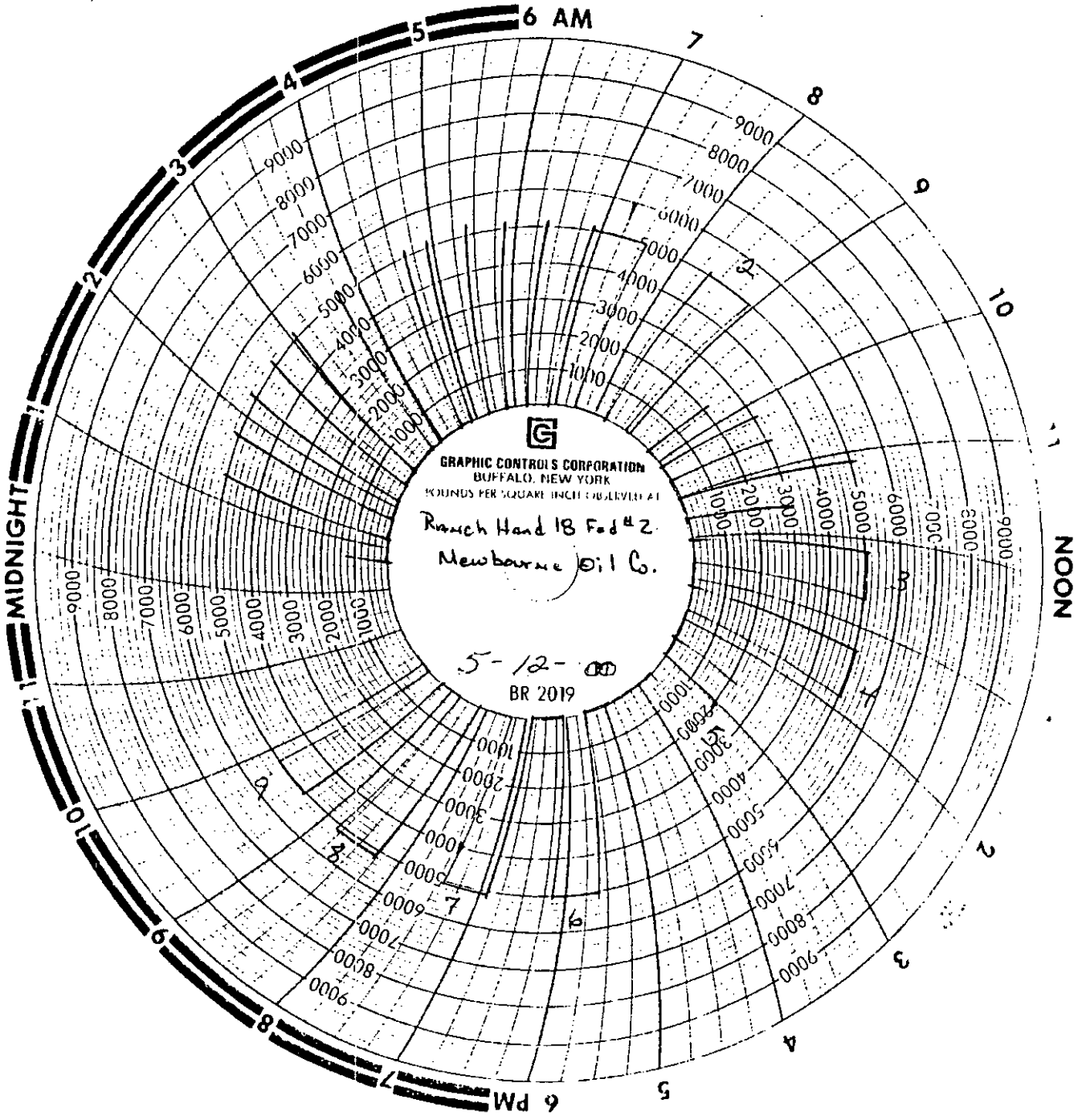
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Rig Hand '18' Fed #2

5-12-00

1.	Blinds, inside valves manifold, outside valve killside		
2.	7	5,000 psi	OK
2	Blinds, outside valves manifold, inside valve killside		
		5,000 psi	OK
3	Pipe Rams, outside 4" manual ...	5,000 psi	OK
4.	Pipe Rams, inside 4" manual	5,000 psi	OK
5	Hydril	2000 psi	OK
6	Dart Valve	5000 psi	OK
7	Safety Valve	5000 psi	OK
8	Lower Kelly	5000 psi	OK
9	Upper Kelly	5000 psi	OK

Test Completed by Doug Spradlin, Safety Test, Inc



Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons Division
811 S. 1st Street
Artesia, NM 88210-2834

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.
NM-0540701

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation

1. Type of Well
[ ] Oil Well [X] Gas Well [ ] Other

8. Well Name and No.
Ranch Hand 18 Federal Com #2

2. Name of Operator
Mewbourne Oil Company

9. API Well No.
30-015-31075

3. Address and Telephone No.
PO Box 5270, Hobbs, N.M. 88240 505-393-5905

10. Field and Pool, or Exploratory Area
Carlsbad, South Morrow

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FNL & 660' FEL
Sec. 18 T-23S R-27E

11. County or Parish, State
Eddy, N M

MAY 2000 RECEIVED OCD - ARTESIA

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans	
	[ ] Recompletion	[ ] New Construction	
[X] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing	
	[ ] Casing Repair	[ ] Water Shut-Off	
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection	
	[X] Other 9 5/8 Intermediate casing	[ ] Dispose Water	

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinet details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones pertinent to this work.)*

5/11/2000...TD'ed 12 1/4" hole @ 2683'. Ran 2701' 9 5/8" 36# & 40# csg. Set @ 2683'. Cemented w/ 710 sks Lite/ 'C. Tailed w/ 200 sks 'C' w/ 2% CaCl2. Circ 48 sks to pit. WOC 18 hrs.

5/12/2000...Test BOP & equipment w/ Safety Test, Inc (independent tester) as required (Note: Chart attached). OK.

ACCEPTED FOR RECORD
MAY 2 4 2000

(ORIG. SGD.) GARY GOURLEY

2000 MAY 18 A 11:19
RECEIVED
070 FARMINGTON NM

14. I hereby certify that the foregoing is true and correct

Signed N M Young Title N M Young District Manager Date 05/16/00

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

c/SF

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
811 S. 1st Street
Artesia, NM 88210-2834

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No
NM-0540701

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
Oil Well [ ] Gas Well [X] Other

8. Well Name and No.
Ranch Hand 18 Federal Com #2

2. Name of Operator
Mewbourne Oil Company

9. API Well No.
30-015-31075

3. Address and Telephone No.
PO Box 5270, Hobbs, N.M. 88240 505-393-5905

10. Field and Pool, or Exploratory Area
Carlsbad, South Morrow

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FNL & 660' FEL
Sec. 18 T-23S R-27E

11. County or Parish, State
Eddy, N M

RECEIVED
OCD - ARTESIA

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	[X] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones pertinent to this work.)*

6/10/2000...TD'ed 8 3/4" hole @ 12150'. Ran Open hole logs.
6/14/2000...Called BLM for Plugging orders & Plugged as listed below:

11382-11582'	(200')	85 sks H w/ .4% FL-52	15.6#/gal & 1.18 yd
10443-10643'	(200')	90 sks H w/ .4% FL-52	15.6 #/gal & 1.18 yd
8875-9025'	(200')	65 sks H w/ .4% FL-52	15.6 #/gal & 1.18 yd
5600-5700'	(100')	40 sks C Neat	14.8 #/gal & 1.32 yd
2633-2733'	(100')	45 sks C w/ 3% CaCl2	14.8 3/gal & 1.32 yd –TAGGED @ 2608'
458-558'	(100')	35 sks C Neat	14.8 #/gal & 1.32 yd
50' to Surface	(50')	15 sks C Neat	14.8 #/gal & 1.32 yd

ND well head & install DH Marker.
P&A'ed completed 6/15/2000 @ 6:00 am.

Approval as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed _____ Title N M Young District Manager Date 06/22/00

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUL 03 2000
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

Form 3160-4
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2004

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NM-0540701 A

1a. Type of Well ☐ Oil Well ☐ Gas Well ☑ Dry Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
Mewbourne Oil Company 14744

8. Lease Name and Well No.
Ranch Hand 18 Fed Com #2

3. Address
PO Box 5270 Hobbs, NM 88240

3a. Phone No. *(include area code)*
505-393-5905

9. API Well No.
30-015-31075

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**

At surface 660' FNL & 660' FEL

At top prod. interval reported below Same

At total depth Same

RECEIVED
APR 0 1 2004
OCD-ARTESIA

10. Field and Pool, or Exploratory
Carlsbad, South Morrow

11. Sec., T., R., M., on Block and Survey or Area
Sec 18-T23S-R27E

12. County or Parish
Eddy County

13. State
NM

14. Date Spudded
05/05/00

15. Date T.D. Reached
06/10/00

16. Date Completed
☒ D&A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
3760'

18. Total Depth: MD 12150'
TVD

19. Plug Back T.D.: MD
TVD

20. Depth Bridge Plug Set: MD NA
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2	13 3/8 H40	48	0	508		450 C	136	Surface	NA
12 1/4	9 5/8 J55	40	0	2683		910 C	311	Surface	NA
na	na	na		12150		Sett attach			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	TOP	Bottom
A)		
B)		
C)		
D)		

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flgw. SI	Csg. Press	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Call Press	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

ACCEPTED FOR RECORD
MAR 30 2004
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

(See instructions and spaces for additional data on next page)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

29. Disposition of Gas (Sold used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Delaware	2100				
BoneSpring	5332				
Wolfcamp	8950				
Canyon	10214				
Strawn	10543				
Atoka	10918				
Morrow	11482				
Barnett	11996				
TD	12150				

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

1 Electrical/Mechanical Logs (1 full set req'd.) 2 Geologic Report 3 DST Report 4 Directional Survey

5 Sundry Notice for plugging and cement verification 6 Core Analysis (7) Other: 3160-5 Plugging

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* NM Young Title Hobbs District Manger

Signature [signature] Date 03/22/04

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.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OPERATOR'S COPY

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
NM-0540701

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Ranch Hand 18 Federal Com #2

2. Name of Operator
Mewbourne Oil Company

9. API Well No.
30-015-31075

3. Address and Telephone No.
PO Box 5270, Hobbs, N.M. 88240 505-393-5905

10. Field and Pool, or Exploratory Area
Carlsbad, South Morrow

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FNL & 660' FEL
Sec. 18 T-23S R-27E

11. County or Parish, State
Eddy, N M

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinet details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones pertinent to this work.)*

6/10/2000...TD'ed 8 3/4" hole @ 12150'. Ran Open hole logs.
6/14/2000...Called BLM for Plugging orders & Plugged as listed below:

11382-11582'	(200')	85 sks H w/ .4% FL-52	15.6#/gal & 1.18 yd
10443-10643'	(200')	90 sks H w/ .4% FL-52	15.6 #/gal & 1.18 yd
8875-9025'	(200')	65 sks H w/ .4% FL-52	15.6 #/gal & 1.18 yd
5600-5700'	(100')	40 sks C Neat	14.8 #/gal & 1.32 yd
2633-2733'	(100')	45 sks C w/ 3% CaCl2	14.8 3/gal & 1.32 yd –TAGGED @ 2608'
458-558'	(100')	35 sks C Neat	14.8 #/gal & 1.32 yd
50' to Surface	(50')	15 sks C Neat	14.8 #/gal & 1.32 yd

ND well head & install DH Marker.
P&A'ed completed 6/15/2000 @ 6:00 am.

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed _____ Title N M Young District Manager Date 06/22/00

(This space for Federal or State office use)

Approved by David R. Glass Title PETROLEUM ENGINEER Date JUL 03 2000
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

PATTERSON DRILLING COMPANY LP
A LIMITED PARTNERSHIP
410 North Loraine Street • Midland, Texas 79701
(915) 682-9401 • Fax (915) 682-1565

June 28, 2000

Mewbourne Oil Company
P O Box 5270
Hobbs, NM 88240

RE: Inclination Report
Ranch Hand 18 Fed Com #2
Sec 18; T-23-S; R-27-E

Gentlemen:

The following is an inclination survey on the above referenced well located in Eddy County, New Mexico:

227' – 1.75	1634' – 3.25	4334' – 0.25	8636' – 1.50
508' – 1.75	1700' – 3.75	4680' – 0.50	8793' – 1.75
737' – 3.00	1761' – 3.00	5055' – 0.50	8950' – 1.75
829' – 2.50	1824' – 2.25	5371' – 0.25	9135' – 1.50
923' – 3.00	1903' – 2.25	5811' – 0.50	9292' – 1.25
1152' – 4.50	1978' – 1.25	6189' – 1.00	9543' – 1.25
1205' – 4.50	2104' – 1.00	6558' – 1.25	9885' – 1.25
1233' – 4.00	2198' – 1.00	6807' – 1.25	10343' – 1.00
1297' – 3.75	2420' – 0.75	7055' – 1.00	10806' – 0.75
1358' – 3.75	2683' – 1.00	7425' – 0.50	11121' – 0.50
1420' – 4.50	3012' – 0.50	7828' – 1.00	11356' – 1.00
1450' – 4.00	3360' – 0.25	8172' – 1.75	11825' – 0.75
1530' – 3.75	3613' – 0.50	8374' – 1.00	
1572' – 3.75	3959' – 0.75	8511' – 1.75	

Sincerely,
Rebecca Edwards
Rebecca A. Edwards
Administrative Assistant

STATE OF TEXAS)
)
COUNTY OF MIDLAND)

Rebecca A. Edwards acknowledged the foregoing before me this 28th day of June 2000.

MY COMMISSION EXPIRES:

Treva Forrester
NOTARY PUBLIC

TREVA FORRESTER
NOTARY PUBLIC
STATE OF TEXAS
My Comm. Exp. 9-2-2000

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

Administrative Order SWD-1561
July 15, 2015

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, Mewbourne Oil Company (the "operator") seeks an administrative order for its Top Gun Federal SWD Well No. 1 (API No. 30-015-31075) located 660 feet from the North line and 660 feet from the East line, Unit letter A of Section 18, Township 23 South, Range 27 East, NMPM, Eddy County, New Mexico, for disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8B. NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objection was received within the required suspense period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Mewbourne Oil Company (OGRID 14744) is hereby authorized to utilize its Top Gun Federal SWD Well No. 1 (API No. 30-015-31075) located 660 feet from the North line and 660 feet from the East line, Unit letter A of Section 18, Township 23 South, Range 27 East, NMPM, Eddy County, New Mexico, for disposal of oil field produced water (UIC Class II only) through an open hole interval within the Devonian formation approximately 12900 feet to approximately 14000 feet. Injection shall occur through internally-coated tubing and a packer set a maximum of 100 feet above the top of the open-hole interval.

This permit does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this formation.

Open hole logs were run on this well prior to plugging in June of 2000 but do not appear in Division files; therefore the operator shall provide copies of the original open hole logs to the Division. The operator also shall provide new logs and a mudlog over the proposed interval to verify that only the permitted interval is completed for disposal.

Failure to comply with the requirements detailed above shall result ipso-facto in the loss of disposal authority approved by this order.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the well construction proposed in the application and any required modifications of construction as required by the Division.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 2580 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well. The Division Director retains the right to require at any time the operator to install and maintain a chart recorder showing casing and tubing pressures during disposal operations.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any disposal well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection permit after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

David R. Catanach

DAVID R. CATANACH
Director

DRC/wvjj

cc: Oil Conservation Division – Artesia District Office
State Land Office – Oil, Gas, and Minerals Division
Administrative Application pWVJ1518440763

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Co
LEASE NO.:	NM054071A
WELL NAME & NO.:	1-Top Gun Federal SWD
SURFACE HOLE FOOTAGE:	660'/N & 660'/E
BOTTOM HOLE FOOTAGE	'/ & '/
LOCATION:	Section 18, T. 23 S., R. 27 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs. Sedimentation control structures shall be installed on the west and south sides of the well pad. Such structures can include straw wattles, silt fencing, or an equivalent product that prevents off-site migration of caliche or disturbed soils. Accumulated

caliche or disturbed soils at the erosion control structures shall be removed and properly disposed of once unstabilized soils have reached a height of ¾ of the structure height or at the time of the structure after interim reclamation seeding has been established.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

Turnouts

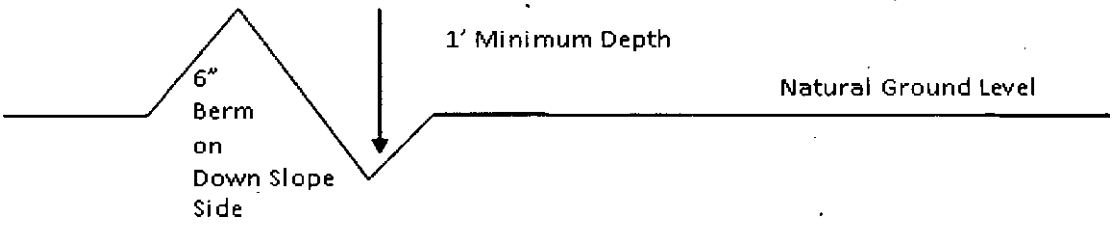
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

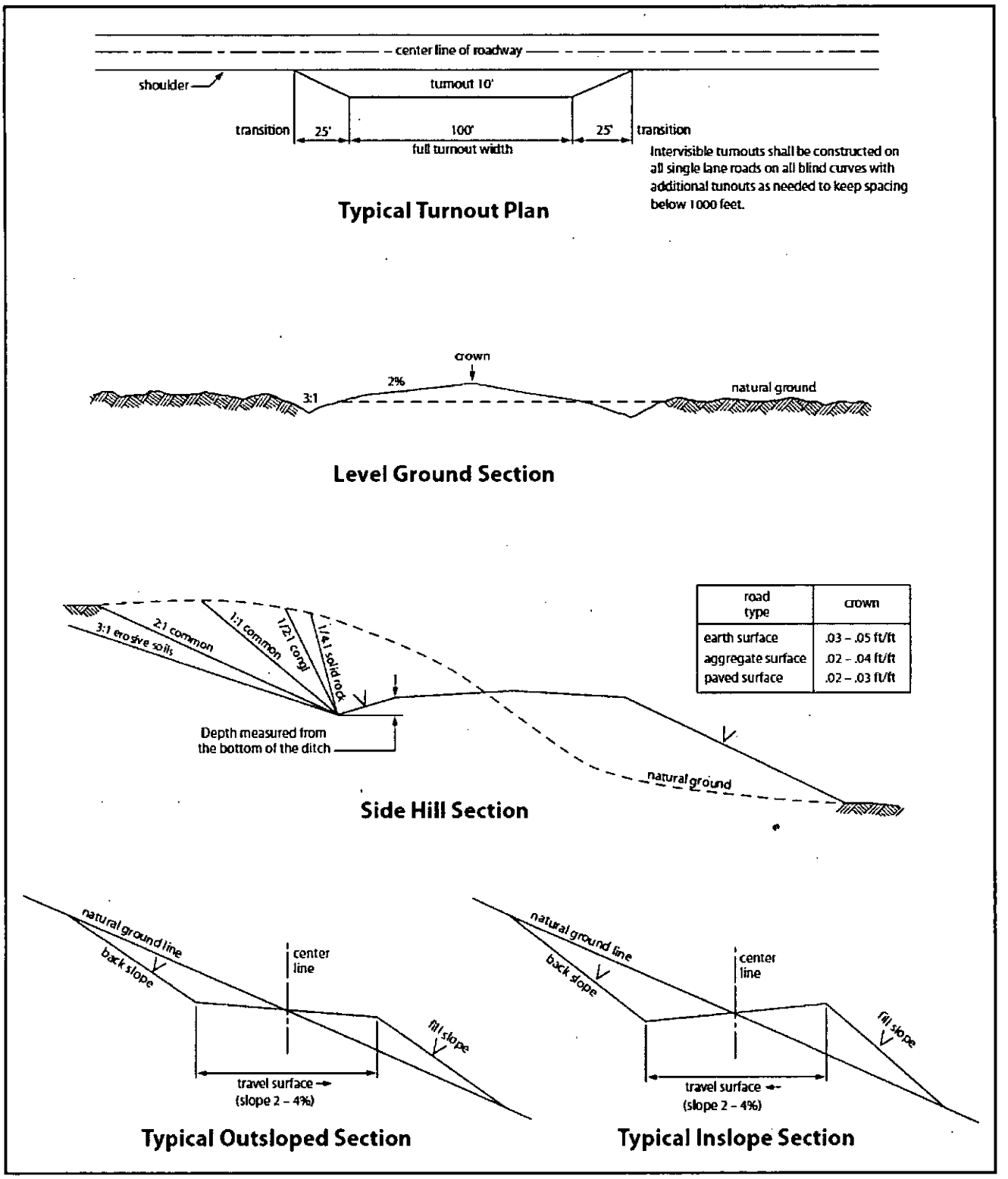


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. RE-ENTRY

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

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 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

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.

Medium Cave/Karst
Possible water flows in the Salado and Castile.
Possible lost circulation in the Red Beds, Rustler, and Delaware.
Abnormal pressure may be encountered within the 3rd Bone Spring Sandstone and Wolfcamp formation.

1. The **13-3/8** inch surface casing have been set at **508** feet in a **competent bed** (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

2. The cement filled behind the **9-5/8** inch intermediate casing at **2683** feet **(in the Bell Canyon Formation)**, and cement is circulated to surface.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

A CIT is to be performed on the 9-5/8" casing per Onshore Oil and Gas Order 2.III.B.1.h prior to drilling the intermediate shoe plug. Test pressure to be 1500 psi.

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

DV tool option: Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. 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 RP 53 Sec. 17.

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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface plug shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack**

pressure

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. 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.

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

    e. 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.**

    f. 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. WELL COMPLETION

A NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:

1. **Properly evaluate the injection zone utilizing open hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.**
2. **Restrict the injection fluid to the approved formation.**

If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

F. 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.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or

cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. ELECTRIC LINES
STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. Electrical lines shall follow existing disturbance such as access roads. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below. Sedimentation structures installed at the time of construction may be removed only when seeding has been successfully established along the reclaimed areas of the well pad. (See Construction section for sedimentation control structure requirements)

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1 for Loamy Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed