RECEIVED

OG-GG / OCD-ARTESIA ATS-09-586

Form 3160-3 (April 2004)	OCT 8 2009				OMBN	APPROVED to 1004-0137			
	MOCD ARTHSTED STATE	ES			Expires	March 31, 200	7		_
	DEPÄRTMENT OF THE	INTERIOR			5 Lease Serial No. NMLC-9029342D				
	BUREAU OF LAND MA				6. If Indian, Alloted	e or Tribe Na	me		_
Al	PPLICATION FOR PERMIT TO	DRILL O	R REENTER		N/A				
la. Type of work.	✓ DRILL REEN	TER			7 If Unit or CA Agr N/A	reement, Nam	e and N	10.	_
lb. Type of Well	✓Oıl Well Gas Well Other	s	ingle Zone Mult	ıple Zone	8 Lease Name and Well No. Miranda Federal #3				_
2 Name of Operator	COG Operating LLC		D. (Include area code)		9 API Well No. 30-015- 3	1318			
3a. Address 550 W.	Texas, Suite 1300 Midland TX 79701		10 Field and Pool, or Loco Hills; G		9671	8			
4. Location of Well (F	Report location clearly and in accordance with		,		11 Sec, T R. M or I	31k and Surve	y or Ar	rea	-
At surface At proposed prod 2	SHL: 2185' FNL & 1290' FEL, U 20ne BHL: 2310' FNL & 990' FEL, U		NORTHOE LOCATIO		Sec 9, T17S, F	R30E			
14 Distance in miles an 2 miles North of	d direction from nearest town or post office* Loco Hills, NM			-	12 County or Parish Eddy	1	3. State	e NM	-
15 Distance from propolocation to nearest	osed*	16 No of	acres in lease	17 Spacin	ng Unit dedicated to this	well			_
property or lease lin (Also to nearest drig			240	40					_
18 Distance from propo to nearest well, drilli	sed location*	19 Propose	•						
applied for, on this le	ease, ft 690'		6170' MD 150 TVD	NMB	000215				
21 Elevations (Show v	whether DF, KDB, RT, GL, etc.)		mate date work will st	art*	23 Estimated duration	n			-
	3698' GL		10/31/2009 10 da						_
		24. Atta	chments						
The following, completed	In accordance with the requirements of Onsh	nore Oil and Gas	Order No. I, shall be	ittached to th	is form.				-
 Well plat certified by A Drilling Plan. 	a registered surveyor		4 Bond to cover Item 20 above).		ns unless covered by an	existing bon	d on fil	le (see	:
	(if the location is on National Forest Syster with the appropriate Forest Service Office)	n Lands, the	5 Operator certifi 6. Such other site authorized offi	specific infe	ormation and/or plans as	s may be requ	iired by	the	
25. Signature	Elon Ohn	Name	Name (Printed Typed) Robyn M. Odom			Date 09/02/	2009		=
Title Regulate	ory Analyst		· · · · · · · · · · · · · · · · · · ·			<u> </u>			-
Approved by (Signature)	/s/ Don Peterson	Name	(Printed/Typed)			Date OC	T	6	200
Title	1,	Office							-

FIELD MANAGER

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.

Conductions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Fitle 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

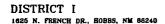
*(Instructions on page 2)

well becomes orthodox @ 4200'MD

Roswell Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL



State of New Mexico Energy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NW 88210

OIL CONSERVATION DIVISION

Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Pee Lease - 3 Copies

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV

11885 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102

DISTRICT IV 11885 S. ST. FRANCIS DR., SANTA FE, NM 67505	WELL LOCATION AND	ACREAGE DEDICATION PLAT	☐ AMENDED REPORT					
API Number	Pool Code	Pool Name						
30-015- 37318	96718	LOCO HILLS;	GLORIETA-YESO					
Property Code	Prop	Property Name						
37868	MIRAND	MIRANDA FEDERAL						
OGRID No.	Opera	Elevation						
229137	COG OPE	RATING, LLC	3698'					

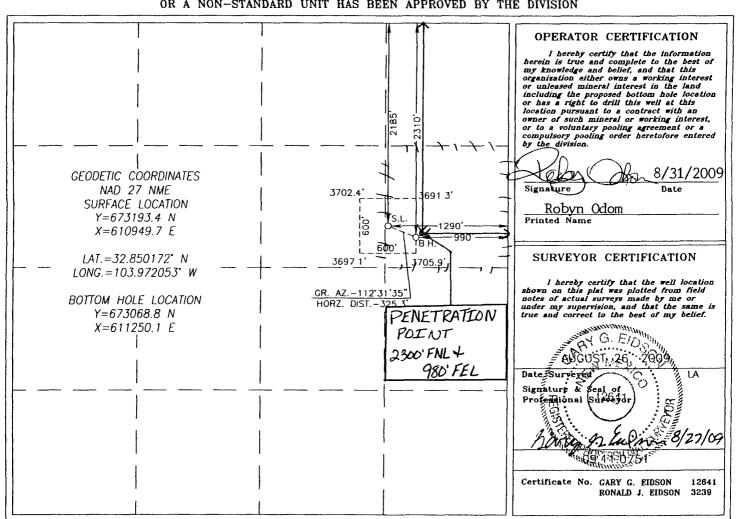
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	9	17-S	30-E		2185	NORTH	1290	EAST	EDDY

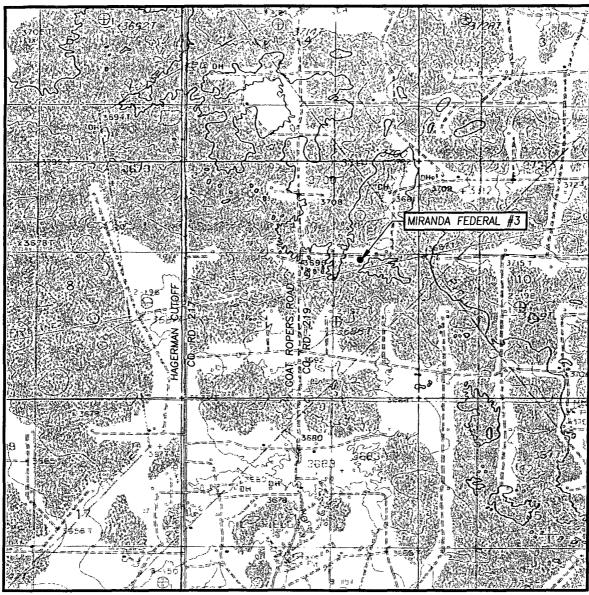
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	9	17-S	30-E		2310	NDRTH	990	EAST	EDDY
Dedicated Acre	s Joint o	r Infill Co	nsolidation (Code Or	der No.				

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



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 9 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2185' FNL & 1290' FEL

DESCRIPTION 2105 THE & 1290 TE

ELEVATION 3698'

OPERATOR COG OPERATING, LLC

EDDYSE MIRANDA FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

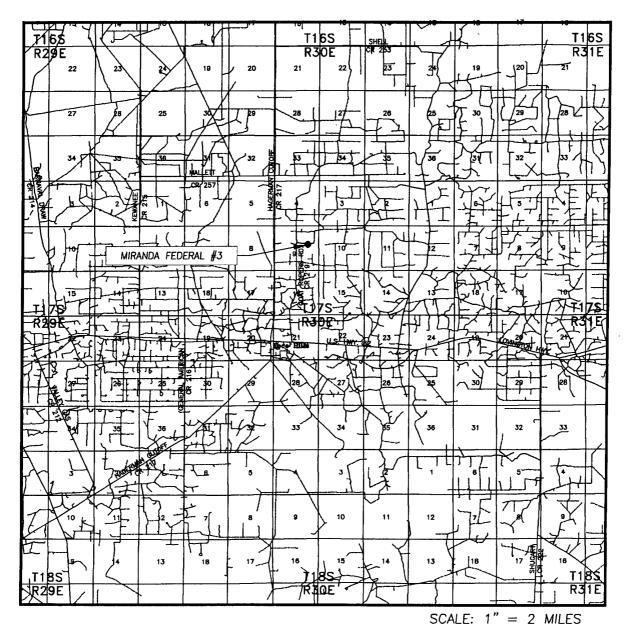
LOCOHILLS, N.M.

CONTOUR INTERVAL: LOCO HILLS, N.M. - 10'





VICINITY MAP



SEC. 9 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2185' FNL & 1290' FEL

ELEVATION 3698'

OPERATOR COG OPERATING, LLC

EDDYSE MIRANDA FEDERAL

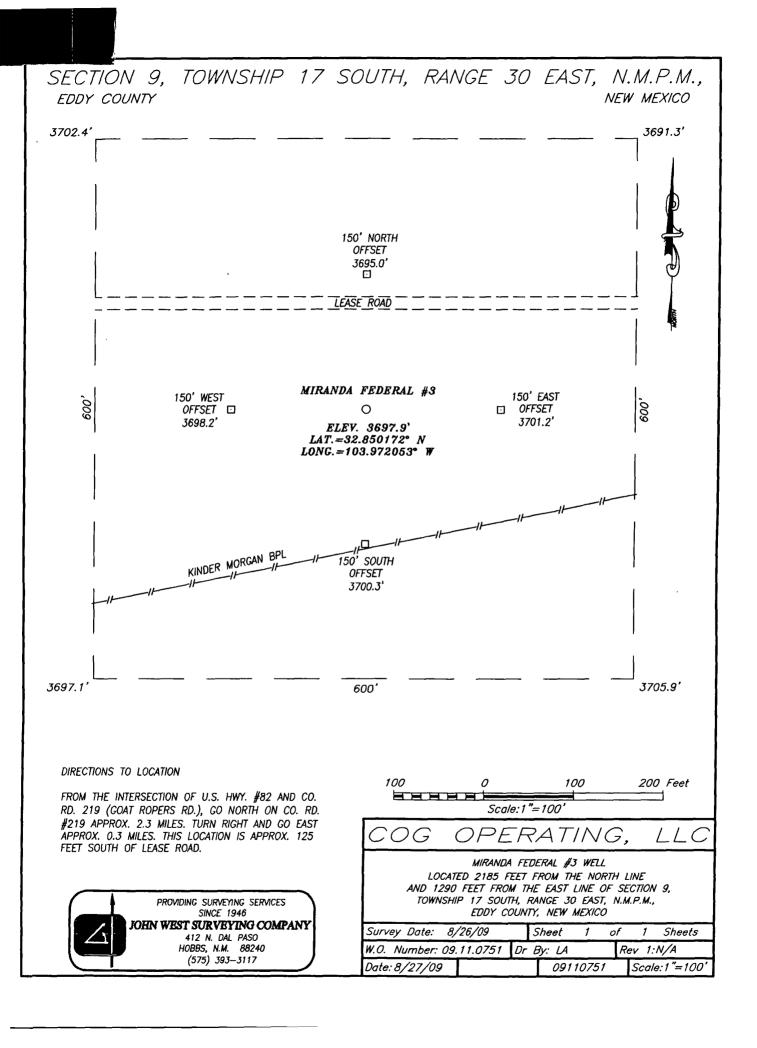


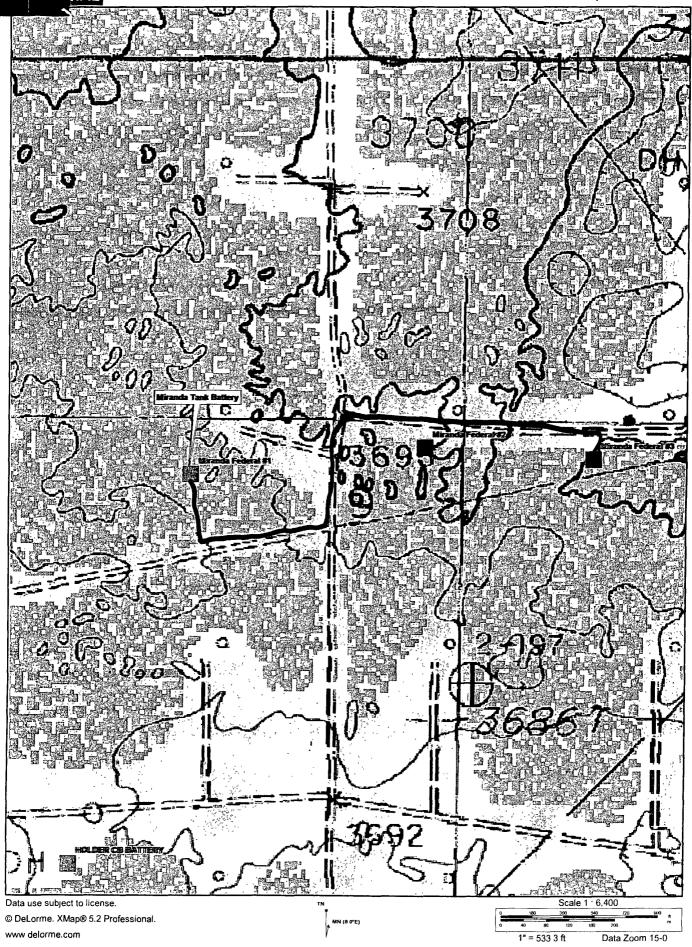
PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240 (575) 393–3117







MASTER DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Quaternary	Surface
Top of Salt	500'
Base of Salt	1000'
Yates	1180'
Seven Rivers	1470'
Queen	2070'
Grayburg	2480'
San Andres	2780'
Glorietta	4220'
Yeso Group	4300'

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas

Water Sand	150'	Fresh Water
Grayburg	2480'	Oil/Gas
San Andres	2780'	Oil/Gas
Glorietta	4220'	Oil/Gas
Yeso, Group	4300'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 425' and circulating cement back to the surface will protect the surface fresh water sand. The Salt Section will be protected by setting 8 5/8" casing to 1300' and circulating cement back to the surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 1/2" production casing back 200' into the intermediate casing, to be run at TD.

4. Casing Program

Hole Size	See COA Interval		Weight	Grade	Jt., Condition	Jt.	brst/clps/ten
17 1/2"	0-425'345'	13 3/8"	48#	H-40orJ-55	ST&C/New	ST&C	9.22/3.943/15.8
11"or12 1/4"	0-1300'	8 5/8"	24or32#	J-55	ST&C/New	ST&C	3.03/2.029/7.82
7 7/8"	0-TD	5 1/2"	15.5or17#	J-55orL-80	LT&C/New	LT&C	1.88/1.731/2.42



COG Operating LLC Master Drilling Plan Revised 6-29-09 Loco Hills; Yeso Use for Sections 3-30, T-17-S, R-30-E Eddy County, NM

5. Cement Program

13 3/8" Surface Casing:

Class C, 475 sx, yield 1.32, back to surface

8 5/8" Intermediate Casing:

11" Hole: Class C, 300 sx lead, yield-2.45 +

200 sx tail, yield-1.32, back to surface.

12-1/4" Hole: Class C, 600 sx lead, yield-2.45 + 200 sx tail, yield-1.32, back to

surface.

5 1/2" Production Casing:

Class C, 500 sx Lead, yield-2.05+ 400 sx Tail, yield-1.37, to 200' minimum tie back

to intermediate casing.

6. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on the bottom. The BOP will be nippled up on the 13 3/8" surface casing with BOP equipment and tested together to 1000 psi by rig pump in one test. The BOP will then be nippled up on the 8 5/8" intermediate casing and tested by a third party to 2000 psi and used continuously until total depth is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of the intermediate casing. 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 (Exhibit #10) will include a Kelly cock and floor safety valve, choke lines and a choke manifold (Exhibit #11) will a 2000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-428 345	Fresh Water	8.5	28	N.C.
425-1300'	Brine	10	30	N.C.
1300'-TD	Cut Brine	8.7-9.1	29	N.C.

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

8. Auxiliary Well Control and Monitoring Equipment

- A. Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program See COA

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 8 5/8" casing shoe.
- B. Drill Stem test is not anticipated.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD, based on drill shows and log evaluation.

10. Abnormal Conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and the estimated maximum bottom hold pressure is 2300 psig. Low levels of hydrogen sulfide have been monitored in producing wells in the area, so H₂S may be present while drilling the well. A Hydrogen Sulfide Drilling Operation Plan is attached to this program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the BLM. As this is a Master Drilling plan, please refer to the Form 3160-3 for the anticipated start date. Once commenced, drilling operations should be finished in approximately 12 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

COG OPERATING LLC

550 West Texas, Suite 1300 Midland, TX 79701

DIRECTIONAL PLAN VARIANCE REQUEST

MIRANDA FEDERAL #3 EDDY, NM

SHL 2185 FNL, 1290 FEL Sec 9, T17S, R30E, Unit H BHL 2310 FNL, 990 FEL Sec 9, T17S, R30E, Unit H

COG Operating LLC, as Operator, desires that the APD reflect the footages as stated on the surveyor's plat. However, Operator also desires to avoid inadvertently drilling the well to a non-standard location. Therefore, due to the proximity of the plat bottom hole location to the pro-ration unit hard line(s), the attached directional plan is designed to avoid the hard lines by as much as fifty feet; said fifty feet being in either (or both) the north-south and/or east-west directions as applicable.



COG Operating LLC

Eddy County, NM (NAN27 NME) Miranda Federal #3 Miranda Federal #3

OH

Plan: Plan #2 - 7-7/8" Hole SHL = 2185' FNL & 1290' FEL BHL = 2300' FNL & 980' FEL Top of Paddock = 2300' FNL & 980' FEL @ 4500' TVD

Standard Planning Report

01 September, 2009





Scientific Drilling

Planning Report



Database: Company: Project: Site: * Well:

Wellbore:

Map Zone:

EDM 5000 1 Single User Db COG Operating LLC Eddy County, NM (NAN27 NME) Miranda Federal #3

Miranda Federal #3 OH. Plan #2.- 7-7/8" Hole Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method

Site Miranda Federal #3

Ground Elev @ 3698:00ft (Rig ?) Ground Elev @ 3698.00ft (Rig ?)

Grid :

Minimum Curvature

Project Eddy County, NM (NAN27 NME)

US State Plane 1927 (Exact solution) Map System: NAD 1927 (NADCON CONUS) Geo Datum:

New Mexico East 3001

System Datum:

Mean Sea Level

Site Miranda Federal #3

Northing: Site Position: From: Мар Easting:

673,193 40 ft Latitude: 610,949.70 ft Longitude:

M. K. LOW AV

32° 51' 0 618 N 103° 58' 19.390 W

0 00 ft Slot Radius: 0 20 **Position Uncertainty:** 0" **Grid Convergence:**

Well Miranda Federal #3

Well Position +N/-S +E/-W 0.00 ft 0.00 ft Northing: Easting:

673,193.40 ft 610,949 70 ft

Latitude: Longitude:

32° 51' 0 618 N 103° 58' 19 390 W

0 00 ft Wellhead Elevation: 3.698 00 ft Position Uncertainty **Ground Level:**

OH A

Magnetics Model Name Sample Date Declination

Dip Angle

Field Strength

是北於民

IGRF200510 2009/09/01 8 02 60.76 49,155

Plan #2" 7-7/8" Hole

Audit Notes:

Version:

Phase:

PLAN

Tie On Depth:

0.00

Vertical Section: Depth From (TVD) +E/-W Direction 0.00 0.00 0.00 110 26

See Mily See		Lindon we say		Comment	AND A THE	TO THE WAY	N. W. Carle	WESTSTEP 2	TER ENVIOLENCE.
		Vertical			Doglad	Rillia	Turn		
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0 00	0 00	4,400 00	-114 60	310.40	2 00	-2 00	0 00	180.00	
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Scientific Drilling Planning Report



Database: EDM 5000.1 Single User Db Company COG Operating LLC Eddy County, NM (NAN27 NME) Site: Miranda Federal #3 Well: Miranda Federal #3 OH Plan #2 - 7-7/8" Hole

Local Co-ordinate Reference: Site Miranda Federal #3

Local Co-ordinate Reference TVD Reference: MD Reference North Reference: Survey Calculation Method: Ground Elev @ 3698 00ft (Rig ?) Ground Elev @ 3698 00ft (Rig ?)

Ġnd

Minimum Curvature

Design: Plan	#2 - 7-7/	8" Hole					-	a returnition automobile properties are are also	aplant to static to microst the following superpopulation of the sup
Planned Survey	AND STATES	en americal providente de la comparazione de la comparazione de la comparazione de la comparazione de la compa	and the second second	CAN LANC TO THE COMPANY OF THE CO.	THE PERSON NAMED IN COLUMN TWO	o excession construction	and the second second second second	regionalisticate at a more,	AND THE PROPERTY OF THE PROPER
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Depth Inclin	ation	Azimuth:	Depth 🖫	+N/-S +	+E/-W	Section	Rate	Rate	Rate
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1,800 00	7 00	110 26	1,799 13	7 40	20 03	21 35	2 00	2 00	0 00
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2,800.00	7 29	110 26	2,791.04	-51 36	139.11	148 29	0 00	0 00	0 00
2,900 00	7.29	110 26	2,890.23	-55.76	151 02	160 99	0 00	0 00	0 00
3,000 00	7.29	110 26	2,989 42	-60 16	162.94	173 69	0 00	0 00	0 00
3,100.00	7 29	110 26	3,088 61	-64 55	174.85	186 38	0.00	0.00	0 00
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3,800 00	7 29	110 26	3,782.95	-95.34	258 23	275 27	0 00	0 00	0 00
3,900.00	7 29	110 26	3,882.14	-99 74	270.14	287 96	0 00	0 00	0 00
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4,300 00	2.40	110 26	4,279 93	-113.73	308.04	328 36	2 00	-2 00	0 00
4,400 00	0 40	110 26	4,379 90	-114 58	310 33	330 81	2.00	-2 00	0 00
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Scientific Drilling

Planning Report



Database: EDM 5000 1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Miranda Federal #3
Well: Miranda Federal #3
Wellbore: OH
Design: Plan #2 - 7-7/8" Hole EDM 5000 1 Single User Db

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:

Site Miranda Federal #3 Ground Elev @ 3698.00ft (Rig ?) Ground Elev @ 3698 00ft (Rig ?) Ģrid

Minimum Curvature

Target Name (a	THE RESERVE OF THE PERSON OF T	**************************************	ATTEMPT OF THE PERSON OF THE STREET	+N/-S. (ft)		Northing (ft)	Easting,	i ali di sala	Eongitude
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- plan misses target center - Rectangle (sides W100	er by 325.22	ft at 0 00f				673,068 80	611,250.10	32° 30° 39 375 N	103 36 13 874 99
East HL-MF #3 - plan misses target cente - Rectangle (sides W0.00			0 00 t MD (0 00 T\	-124 60 /D, 0 00 N , 0	300.40 00 E)	673,068 80	611,250 10	32° 50′ 59.375 N	103° 58' 15.874 W
PP-MF #3 - plan hits target center - Circle (radius 10 00)	0 00	0 00	4,400 00	-114.60	310 40	673,078 80	611,260 10	32° 50' 59.473 N	103° 58' 15 756 W
PBHL-MF #3 - plan hits target center - Circle (radius 10 00)	0 00	0.00	6,150 00	-114 60	310 40	673,078 80	611,260.10	32° 50′ 59 473 N	103° 58' 15 756 W

C	Dasing Points Measured Vertical) Depth (Depth (ft) (ft)	Casing Holes Diameter Diameter (ii) (;)
-	1,350 00 1,350.00 8 5/8" Casing	8-5/8 12-1/4

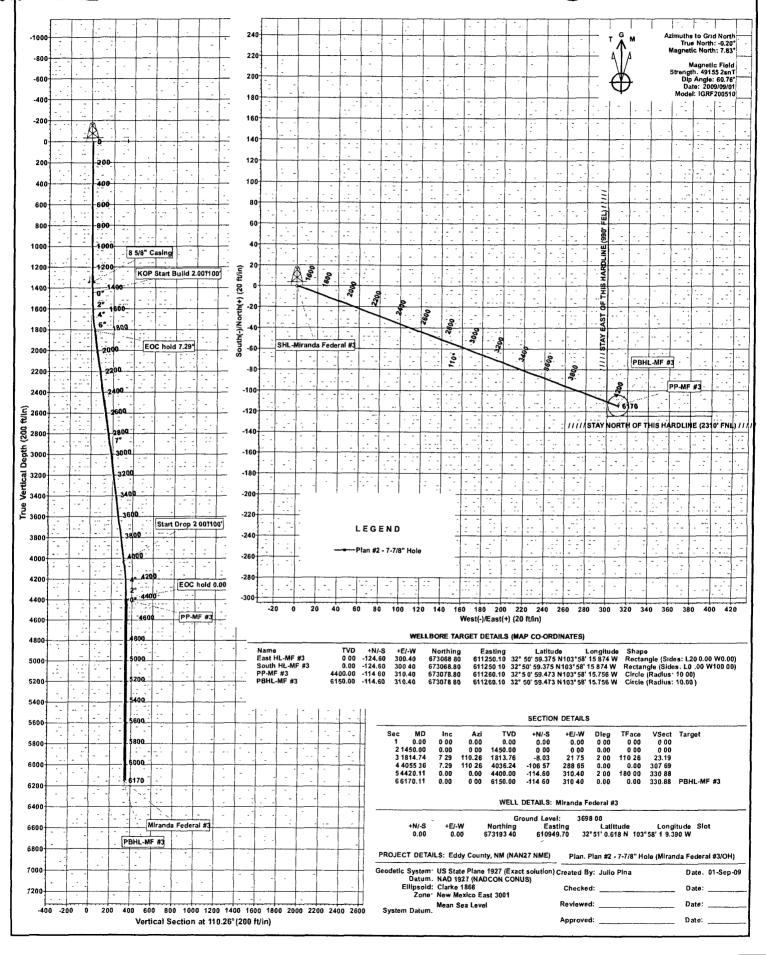
Superior and Control of the Control
CAN'T MANAGEMENT

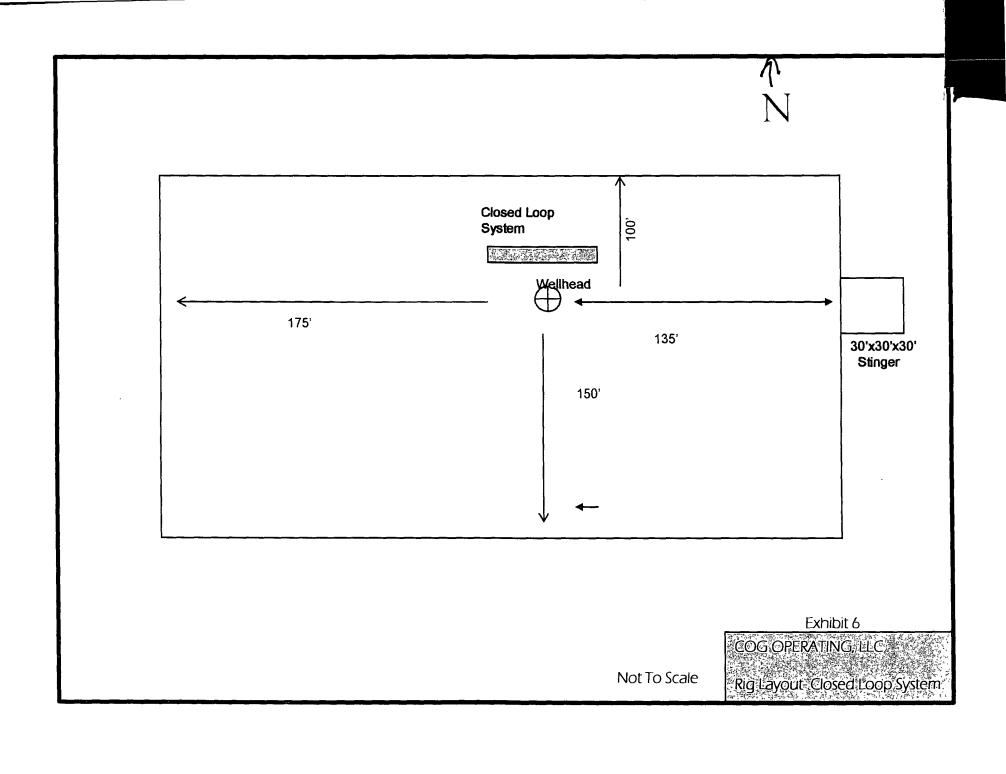


Scientific Drilling for COG Operating LLC Site: Eddy County, NM (NAN27 NME)

Well: Miranda Federal #3 Wellbore: OH Design: Plan #2 - 7-7/8" Hole

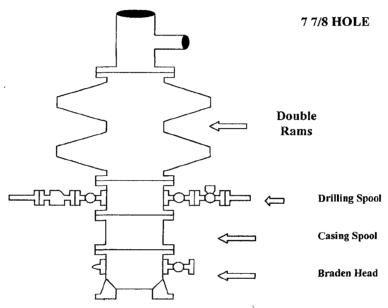






COG Operating LLC

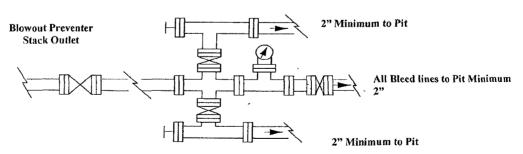
Exhibit #9 BOPE and Choke Schematic



Minimum 4" Nominal choke and kill lines

Choke Manifold Requirement (2000 psi WP) No Annular Required

Adjustable Choke



Adjustable Choke (or Positive)

Blowout Preventer Schematic

NOTES REGARDING THE BLOWOUT PREVENTERS Master Drilling Plan Eddy County, New Mexico

- 1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
- 2. Wear ring to be properly installed in head.
- 3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
- 4. All fittings to be flanged.
- 5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
- 6. All choke and fill lines to be securely anchored especially ends of choke lines.
- 7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 8. Kelly cock on Kelly.
- 9. Extension wrenches and hands wheels to be properly installed.
- 10. Blow out preventer control to be located as close to driller's position as feasible.
- 11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Blowout Preventers Prage 2

COG Operating LLC

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards an characteristics of hydrogen sulfide (H2S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

EXHIBIT #7

WARNING YOU ARE ENTERING AN H2S

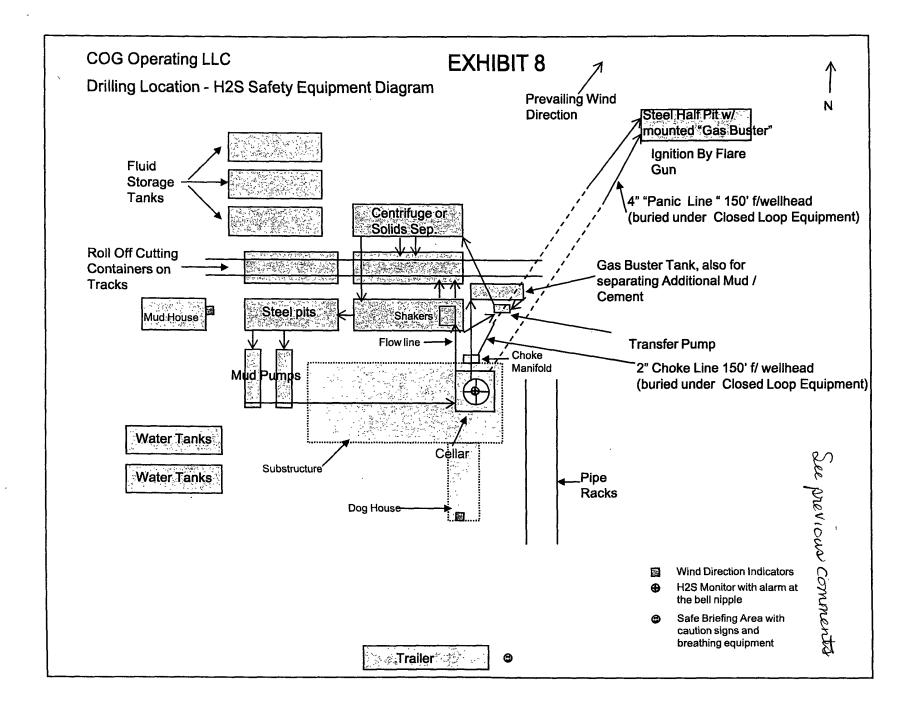
AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CHECK WITH COG OPERATING FOREMAN AT

COG OPERATING LLC 1-432-683-7443 1-575-746-2010

EDDY COUNTY EMERGENCY NUMBERS
ARTESIA FIRE DEPT. 575-746-5050
ARTESIA POLICE DEPT. 575-746-5000
EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS
HOBBS FIRE DEPT. 575-397-9308
HOBBS POLICE DEPT. 575-397-9285
LEA CO. SHERIFF DEPT. 575-396-1196



SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in the topographic map Exhibit #2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary.
- C. Directions to Location: From the intersection US Highway 82 and Co. Rd. 219 (Goat Ropers Road), go North on County Road 219 apprx 2.3 miles. Turn Right and go East apprx 0.3 mile. This location is apprx 125 feet South of lease road. See Vicinity Map, Exhibit #3
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

Exhibit #4 shows that 0' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit or reserve pit area.

3. Location of Existing Well:

Exhibit #5 shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the San And

As shown on this plat there are numerous wells producing from the San Andres and Yeso formations.

4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) Production will be sent to the Miranda Federal Tank Battery located at the Miranda Federal #1 well location. The facility location is shown in Exhibit #5.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
 - 4) Proposed flow lines, will follow an archaeologically approved route to the Miranda Federal tank battery located at the Miranda Federal #1 well location. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 3300° in length.
 - 5) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will submit a separate plan and ROW for service to the well location.
 - 6) If the well is productive, rehabilitation plans will include the following:
 - a) The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and proposed new access road (approximately 2600 cubic yards) will be obtained from a BLM approved caliche pit or the reserve pit.

7. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #4. Dimensions of the pad and pits are shown on Exhibit #6. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 also shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

- A. The location and road will be rehabilitated as recommended by the BLM.
- B. Upon completion of proposed operations, it the well is completed, the reserve pit area will be closed as outlined in Section 4.6 above within the same prescribed time. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area to its original natural level and re-seeded as per BLM specifications.

11. Surface Ownership:

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant for this site is Charles Martin, P O Box 706, Artesia, NM 88211.
- C. The proposed road routes and surface location will be restored as directed by the BIM

12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, covotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Southern New Mexico Archaeological Services, Inc. P.O. Box 1, Bent New Mexico, 88314, phone # 505-671-4797 and the results will be forwarded to your office in the near future. Otherwise, COG will be participating in the Permian Basin MOA Program.

13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

John Coffman, Drilling Superintendent COG Operating LLC 550 W. Texas, Suite 1300 Midland, TX 79701 Phone (432) 683-7443 (office)

e (432) 683-7443 (office) (432) 631-9762 (cell) Erick Nelson.
Division Operations Manager
COG Operating LLC
550 W. Texas, Suite 1300
Midland, TX 79701
Phone (505) 746-2210 (office)
(432) 238-7591 (cell)

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements make 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 COG Operating, LLC, 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 24th day of August, 2009.

Signed:

Printed Name: Carl Bird Position: Drilling Engineer

Address: 550 W. Texas, Suite 1300, Midland, Texas 79701

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
LEASE NO.:	LC029342D
WELL NAME & NO.:	MIRANDA FEDERAL #3
SURFACE HOLE FOOTAGE:	2185' FNL & 1290' FEL
BOTTOM HOLE FOOTAGE	2310' FNL & 990' FEL
LOCATION:	Section 9, T. 17 S., R 30 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.

General Provisions				
Permit Expiration				
Archaeology, Paleontology, and Historical Sites				
Noxious Weeds				
Special Requirements				
Lesser Prairie Chicken				
⊠ Construction				
Notification				
Topsoil -				
Closed Loop				
Federal Mineral Material Pits				
Well Pads				
Roads				
Road Section Diagram				
Drilling				
H2S Requirements, Onshore Order #6				
Logging Requirements				
Casing Depth Change				
Production (Post Drilling)				
Well Structures & Facilities				
Pipelines				
Closed Loop System/Interim Reclamation				
Final Abandonment/Pealemation				

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)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

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) 234-5972 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 stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Closed Loop System: v-door east

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

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. 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.

F. 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 thirty (30) 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

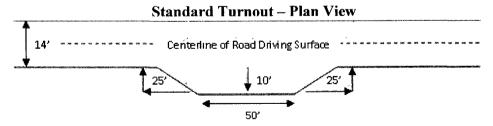
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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 be constructed on all blind curves. Turnouts shall conform to the following diagram:

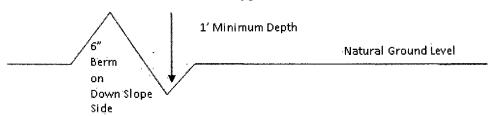


Drainage

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 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:

400 foot road with 4% road slope: 400'/4% + 100' = 200' lead-off ditch interval **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

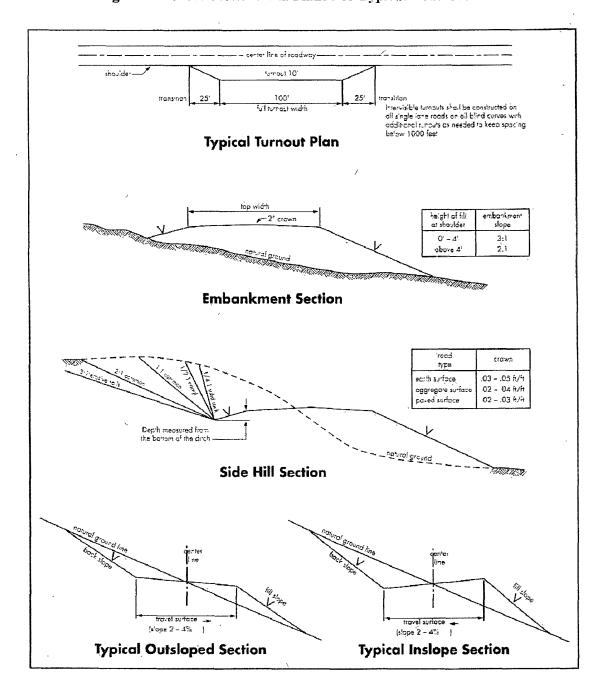
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to, witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

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

- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Grayburg formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will 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 and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

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

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

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

Possible water flows in the Salado and Artesia Groups.

Possible lost circulation in the Grayburg and San Andres formations.

- 1. The 13-3/8 inch surface casing shall be set at approximately 345 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If the salt is encountered at a shallower depth, the casing is to be set a minimum of 25' above the salt.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- 3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. 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.
 - d. 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.
 - e. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

D. DRILL STEM TEST

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

CRW 100209

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.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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 activity of 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. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder

of any responsibility as provided herein.
6. All construction and maintenance activity will be confined to the authorized right-of-way width of _______ feet.
7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

- 8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.
- 9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. 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 of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. 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 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.

(March 1989)

IX. INTERIM RECLAMATION & RESEEDING PROCEDURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting 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.

The operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions 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 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.

Seed Mixture for LPC Sand/Shinnery Sites

The 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 <u>no</u> primary of secondary noxious weeds in the seed mixture. Seed will 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 will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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	<u>lb/acre</u>	
Plains Bristlegra	ISS	5lbs/A
Sand Bluestem		5lbs/A
Little Bluestem		3lbs/A
Big Bluestem		6lbs/A
Plains Coreopsis	3	2lbs/A
Sand Dropseed		1lbs/A

^{**}Four-winged Saltbush

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

⁵lbs/A

^{*} This can be used around well pads and other areas where caliche cannot be removed.

^{*}Pounds of pure live seed:

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.