

Submit 3 Copies to Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-35897	
5. Indicate Type of Lease FEDERAL STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name REINDEER 21 FEDERAL	
8. Well Number 2	
9. OGRID Number 229137	
10. Pool name or Wildcat WILDCAT; ABO	

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/> MAY - 7 2008	
2. Name of Operator COG Operating LLC OCD-ARTESIA	
3. Address of Operator 550 W. Texas Ave., Suite 1300 Midland, TX 79701	
4. Well Location Unit Letter A : 330' feet from the North line and 330' feet from the East line Section 21 Township 16S Range 28E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3599' GR	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input checked="" type="checkbox"/>	
Pit type DRILLING Depth to Groundwater 100' Distance from nearest fresh water well 1000' Distance from nearest surface water 1000'	
Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Change Pool <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC respectfully requests permission to change the pool from Wolfcamp to Abo. Attached is a revised plat and drilling plan, and approval from the Bureau of Land Management.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Phyllis Edwards TITLE Regulatory Analyst DATE 4-24-08

Type or print name **Phyllis Edwards** E-mail address: **pedwards@conchoresources.com** Telephone No. **432-685-4340**
For State Use Only

APPROVED BY: Kimberly M. Wilson Compliance Officer DATE 5-6-08
Conditions of Approval (if any):

DISTRICT I
1028 N. French Dr., Hobbs, NM 88240

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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-102
Revised October 12, 2006

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

MAY - 7 2008

AMENDED REPORT
OCD-ARTESIA

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-35897	Pool Code 97019	Pool Name WILDCAT; ABO
Property Code 36817	Property Name REINDEER "21" FEDERAL	Well Number 2
OGRD No. 229137	Operator Name C.O.G. OPERATING L.L.C.	Elevation 3599'

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	21	16 S	28 E		330	NORTH	330	EAST	EDDY

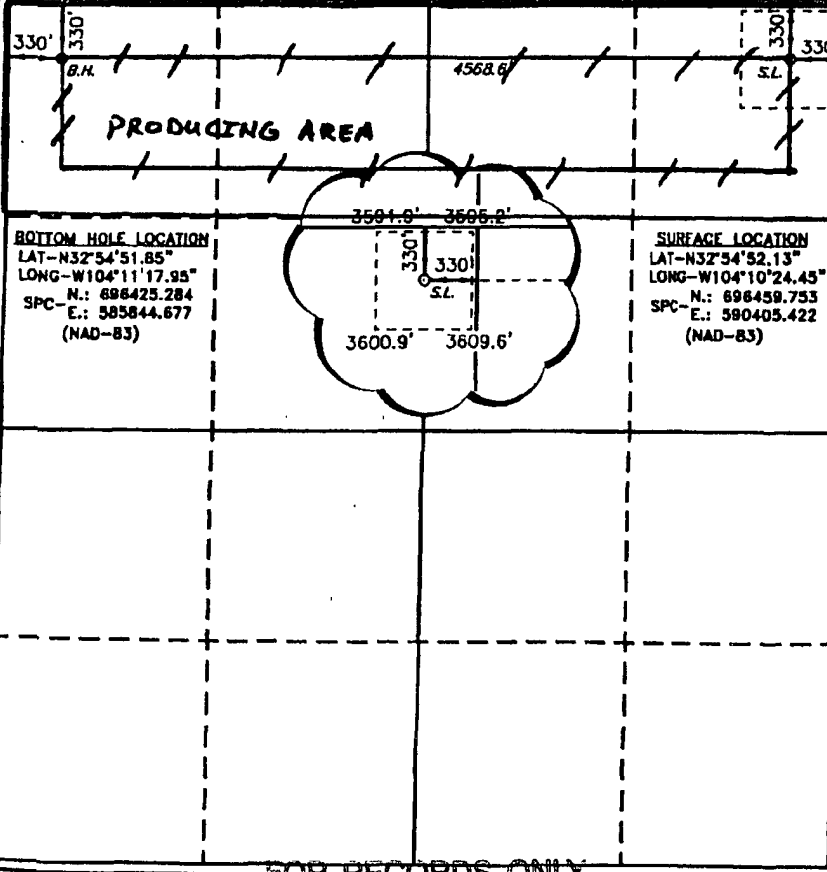
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	16 S	28 E		330	NORTH	330	WEST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

PROJECT AREA - 160 ACRES

	<p>OPERATOR CERTIFICATION</p> <p>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 pursuant to a contract with an owner of such a mineral or working interest, or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Phyllis A. Edwards</i> 4/24/08 Signature Date</p> <p>PHYLIS A. EDWARDS Printed Name REGULATORY ANALYST</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>AUGUST 6, 2007 Date Surveyed</p> <p><i>W.O. Jones</i> Signature Professional Surveyor</p> <p>W.O. Jones Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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Reindeer 21 Federal 2
COG Operating LLC
April 23, 2008
Conditions of Approval

MAY - 7 2008
OCD-ARTESIA

1. Pool changes have to be approved by NMOCD. Copy of Approval must be in BLM CFO prior to drilling second intermediate. Note - COG may want to send copy of this sundry to NMOCD for more rapid review.
2. Well bore for 9-5/8" casing to be drilled with fresh water.
3. Operator shall provide method of verification that TOC on 7" is a minimum of 200' inside 9-5/8" casing.
4. Production liner packer assembly to be a minimum of 200' inside 7" casing.
5. Packer on production liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Please call BLM for witness of seal test.

WWI 042308

FOR RECORDS ONLY

APR-21-08 02:44PM FROM-CONCHO

+4326854388

T-127 P.04/05 F-858

ATTACHMENT TO FORM 3160-3

COG Operating LLC

Reindeer "21" Federal # 2

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OCD-ARTESIA

7. Cement Program

13 3/8" Surface Casing set at +/- 500', Circ to Surf with +/- 500 sx Class "C" w/ 2% CaCl₂, 1.35 yd.

9 5/8" Intermediate Casing set at +/- 1800', Circ. to Surf with +/- 600 sx 35/85 Poz "C", 2.05 yd. & 200 sx Class "C" w/ 2% CaCl₂, 1.35 yd.

7" Production Casing set at +/- 8100' MD, Cement with +/- 500 sx. 50/50/10 "C", 2.45 yd & +/- 200 sx Class "H", 1.18 yd., Est. TOC @ 200' minimum tie back into intermediate casing.

4 1/2" Production Liner set from +/- 5950' to +/- 11150' MD, 6555' TVD, Liner run with +/- 5 isolation Packers and Sliding sleeves in un-cemented Lateral.

8. Pressure Control Equipment:

After setting 13 3/8" casing and installing 3000 psi casing head, NU 13 5/8" 3000 psi annular BOP. Test annular BOP, casing and manifold with clear fluid to 1000 psi w/ rig pump.

After setting 9 5/8" casing and installing 3000 psi casing spool, NU 3000 psi double ram BOP and 3000 psi annular BOP. Test double ram BOP and manifold to 3000# with clear fluid and annular to 1500 psi using an independent tester, this equipment will be used continuously until TD is reached. Blind rams will be operationally checked on each trip out of hole. Pipe rams will be operationally checked each 24 hour period. These checks will be noted on dally tour sheets. Other accessories to the BOP equipment include a Kelly cock and floor safety valves, choke lines and choke manifold with 3000 psi WP rating.

9. Proposed Mud Circulating System

Interval	Mud Wt.	Visc.	FL	Type Mud System
0' - 500'	8.5	28	NC	Fresh water native mud w/ paper for seepage and sweeps. Lime for PH.
500' - 1800'	9.1	30	NC	Brine mud, lime for PH and paper for seepage and sweeps.
1800' - 5300'	9.1	29	NC	Drill section with fresh water/cut brine circulating the reserve utilizing periodic sweeps of paper as needed for seepage control and solids removal.
5300' - 11150'	9.5	36	10	Drill horizontal section with XCD polymer / cut brine / starch.

See original CCA

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

10. Production Hole Drilling Summary:

Drill 8-3/4" pilot hole thru Top Basal Abo to +/- 8700', run open hole logs. Spot 350 sx. "H" Kick off plug from +/- 8700' to +/- 6000'. Dress off to 6100' and set 7" production casing. Drill 6-1/8" hole and kick off at +/- 8200', building curve over +/- 350' to horizontal at 8555' TVD. Drill horizontal section in an westerly direction for +/- 4500' lateral to TD at +/- 11150' MD. Run 4-1/2" production liner in Open hole lateral and set isolation packers.

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T-127 P.05/08 F-858

ATTACHMENT TO FORM 3160-3
COG Operating LLC
Reindeer #21" Federal # 2
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OCD-ARTESIA

11. 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.

12. Logging, Testing and Coring Program:

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be ran from T.D. in Pilot hole to 9 5/8" casing shoe.
- B. The mud logging program will consist of lagged 10' samples from intermediate casing point to T.D. in vertical pilot hole and from Kick off point to TD in Horizontal hole.
- C. Drill Stem test is not anticipated.
- D. No conventional coring is anticipated.
- E. Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows and log evaluation.

13. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and estimated maximum bottom hole pressure is 2838 psig. Low levels of Hydrogen sulfide have been monitored in producing wells in the area, so H2S may be present while drilling of the well. An H2S plan is attached to the Drilling Program. No major loss of circulation zones has been reported in offsetting wells.

14. Anticipated Starting Date

Drilling operations will commence approximately on October 15 2007 with drilling and completion operations lasting approximately 45 days.

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T-127 P.03/05 F-859

ATTACHMENT TO FORM 3160-3
COG Operating LLC
Reindeer "21" Federal # 2
SL: 330' FNL & 330' FEL, Unit A
BHL: 330' FNL & 330' FWL, Unit D
Sec 21, T18S, R28E
Eddy County, NM
Revised 4/21/08

MAY - 7 2008
OCD-ARTESIA

1. Proration Unit Spacing: 180 Acres
2. Ground Elevation: 3599'
3. Proposed Depths: Pilot hole TD = 6700', Horizontal TVD = 6555', Horizontal MD = 11600'
4. Estimated tops of geological markers:

Quaternary	Surface
Yates/Seven Rivers	600'
Queens	1120'
San Andres	1940'
Glorietta	3350'
Abo	5375'
Top Basal Abo	6520'

5. Possible mineral bearing formations:

Water Sand	Fresh Water	150'
San Andres	Oil / Gas	1940'
Glorietta	Oil / Gas	3350'
Abo	Oil / Gas	5375'
Top Basal Abo	Oil / Gas	6520'

6. Casing Program

<u>Hole size</u>	<u>Interval</u>	<u>OD of Casing</u>	<u>Weight</u>	<u>Cond.</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0' - +/-500'	13-3/8"	48#	New	STC	H40
Collapse sf - 2.98, Burst sf - 2.33, Tension sf - 13.42						
12 1/4"	0' - 1800'	9-5/8"	40#	New	STC	J-55
Collapse sf - 2.86, Burst sf - 1.42, Tension sf - 7.22						
8-3/4"	0' - 6100'MD	7"	28#	New	LTC	P-110
Collapse sf - 2.18, Burst sf - 1.83, Tension sf - 4.37						
6-1/8"	5950' - 11150'MD	4-1/2"	11.6#	New	BTC	P-110
Collapse sf - 2.47, Burst sf - 1.84, Tension sf - 4.48						

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