ATS-09-246 LM

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Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.	NMLC-029020G
6 If Indian, Allotee or Tribe Name	N/A
7 If Unit or CA Agreement, Name and No	N/A
8 Lease Name and Well No.	Dexter ~~Federal~~ #10
9 API Well No.	30-015- 37351
10 Field and Pool, or Exploratory	Loco Hills; Glorieta Yeso 96718
11 Sec, T R M. or Blk and Survey or Area	Sec 22, T17S, R30E
12 County or Parish	Eddy
13. State	NM

1a. Type of work ☑ DRILL ☐ REENTER

1b. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2 Name of Operator: COG Operating LLC

3a Address: 550 W. Texas, Suite 1300 Midland TX 79701

3b. Phone No. *(include area code)*: (432) 685-4385

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

At surface: SHL: 1485' FSL & 865' FEL, UL I

At proposed prod zone: BHL: 1650' FSL & 990' FEL, UL I

UNORTHODOX LOCATION

14 Distance in miles and direction from nearest town or post office*: 2 miles North of Loco Hills, NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any)	865'	16 No. of acres in lease	120
17 Spacing Unit dedicated to this well	40		
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	650'	19 Proposed Depth	6300' 6461' MD 6150TVD
20 BLM/BIA Bond No. on file	NMB000215		
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	3651' GL	22 Approximate date work will start*	10/31/2009
23 Estimated duration	10 days		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer

25 Signature: Robyn Odom	Name *(Printed/Typed)*: Robyn M. Odom	Date: 09/17/2009
Title: Regulatory Analyst		

Approved by *(Signature)*: /s/ Don Peterson /s/ Don Peterson	Name *(Printed/Typed)*	Date: OCT 19 2009
Title: FIELD MANAGER	Office: 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

(Instructions on page 2)

Roswell Controlled Water Basin

well becomes orthodox at MD 4261' TVD 4250'

SEE ATTACHED FOR CONDITIONS OF APPROVAL
APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015- 37351	96718	LOCO HILLS; GLORIETA-YESO

Property Code	Property Name	Well Number
302477	DEXTER ~~FEDERAL~~	10

OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC	3651'

Surface Location

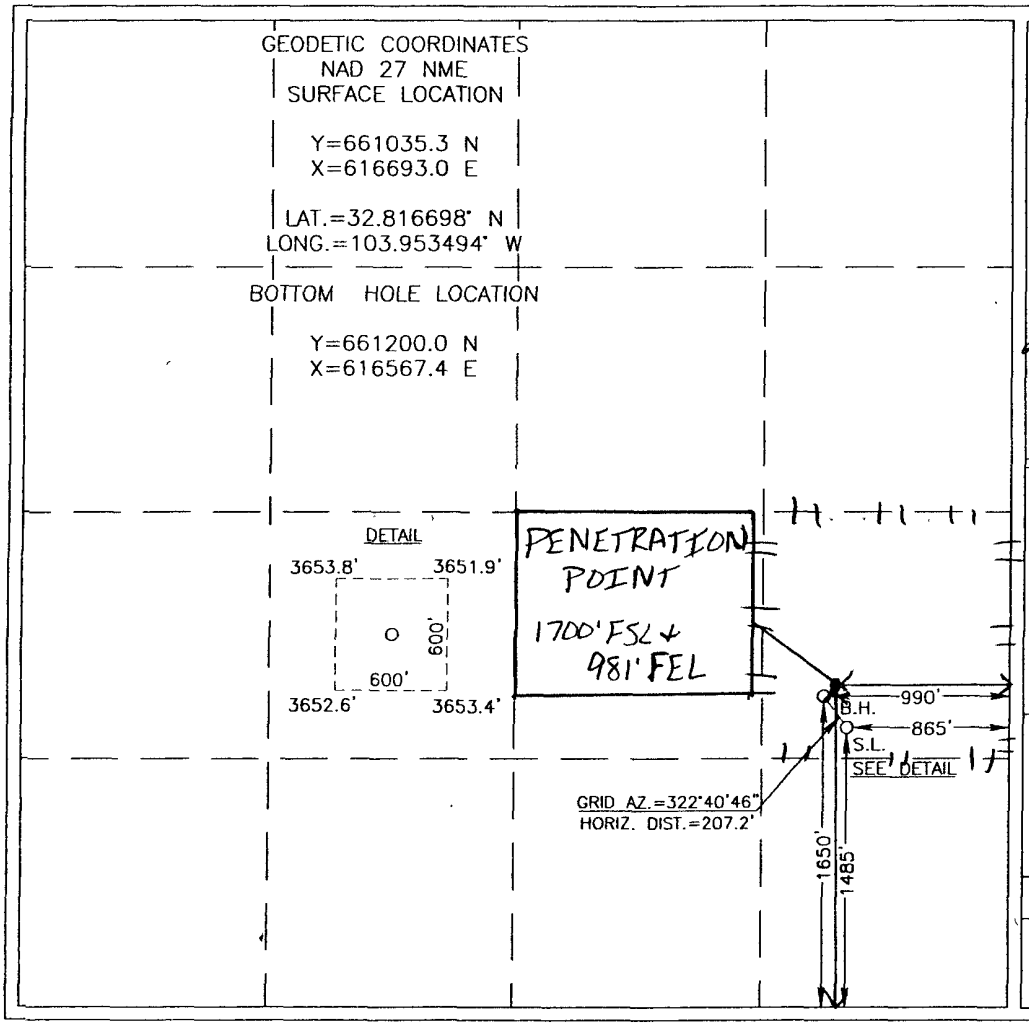
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	22	17-S	30-E		1485	SOUTH	865	EAST	EDDY

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
I	22	17-S	30-E		1650	SOUTH	990	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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 that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 3/27/2009 Date

Robyn Odom
Printed Name

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.

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed MARCH 17, 2009 AR

Signature & Seal of Professional Surveyor

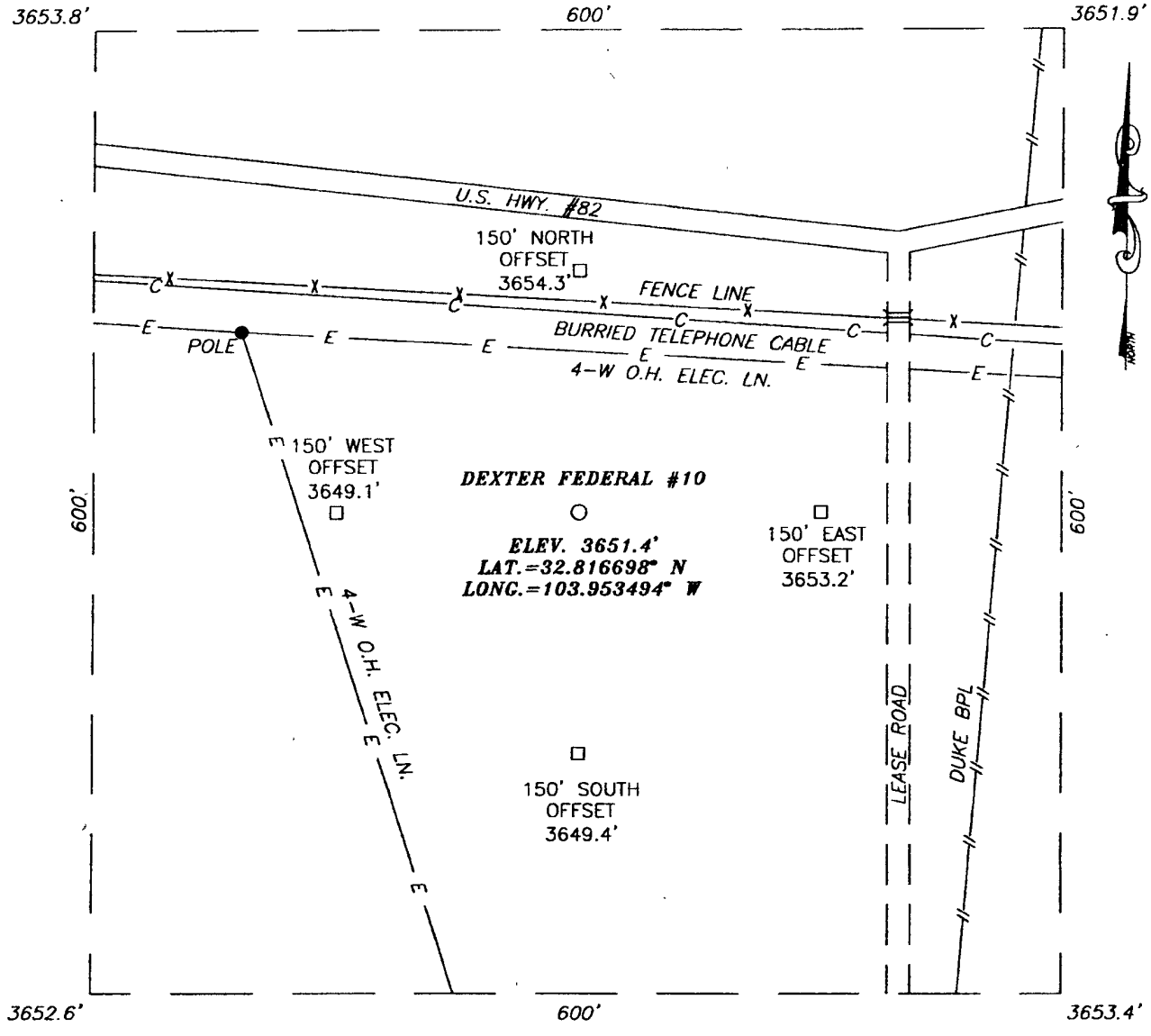
Ronald J. Eidson 03/26/09

09-11-0123

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

SECTION 22, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #219 (GOAT ROPERS), GO EAST ON U.S. HWY. #82 APPROX. 1.5 MILES. TURN RIGHT AND GO SOUTH ON LEASE ROAD APPROX. 150 FEET. THIS LOCATION IS APPROX. 200 FEET WEST OF LEASE ROAD.

100 0 100 200 Feet

Scale:1"=100'

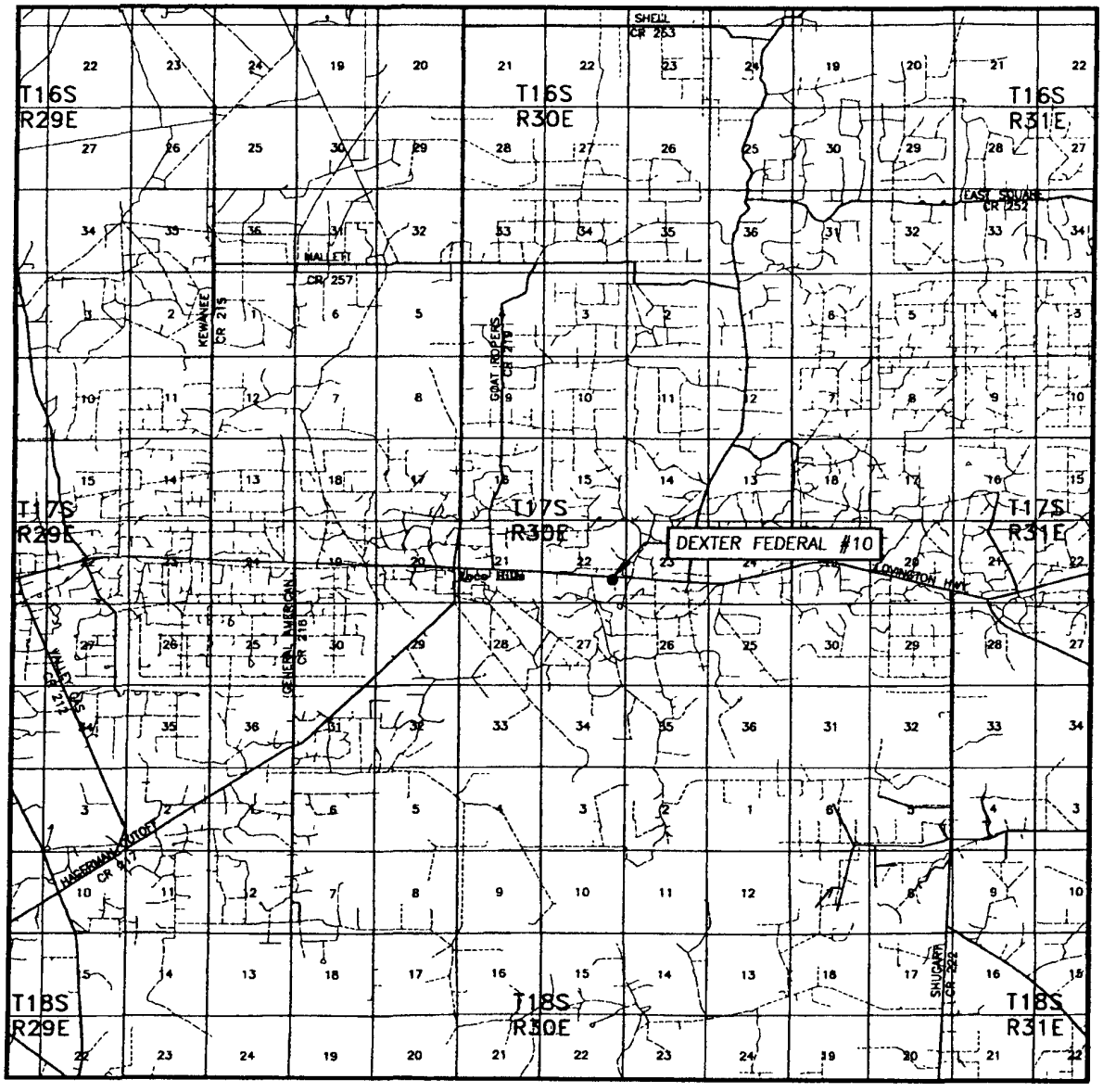
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

COG OPERATING, LLC

DEXTER FEDERAL #10 WELL
LOCATED 1485 FEET FROM THE SOUTH LINE
AND 865 FEET FROM THE EAST LINE OF SECTION 22,
TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 3/17/09	Sheet 1 of 1 Sheets		
W.O. Number: 09.11.0123	Dr By: AR	Rev 1:N/A	
Date: 3/24/09	Disk:	09110123	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 22 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1485' FSL & 865' FEL

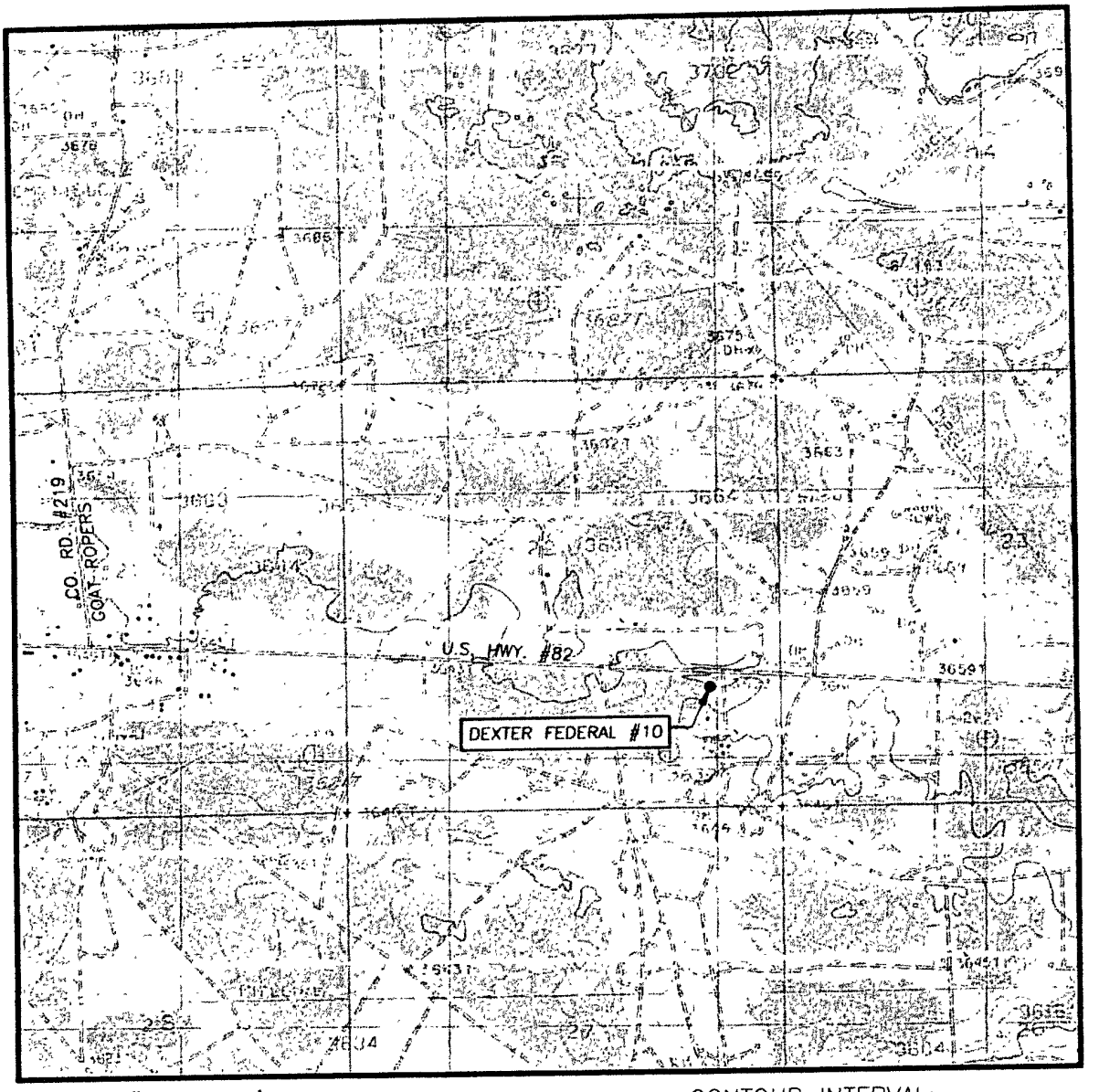
ELEVATION 3651'

OPERATOR COG OPERATING, LLC

LEASE DEXTER FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 22 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1485' FSL & 865' FEL

ELEVATION 3651'

OPERATOR COG OPERATING, LLC

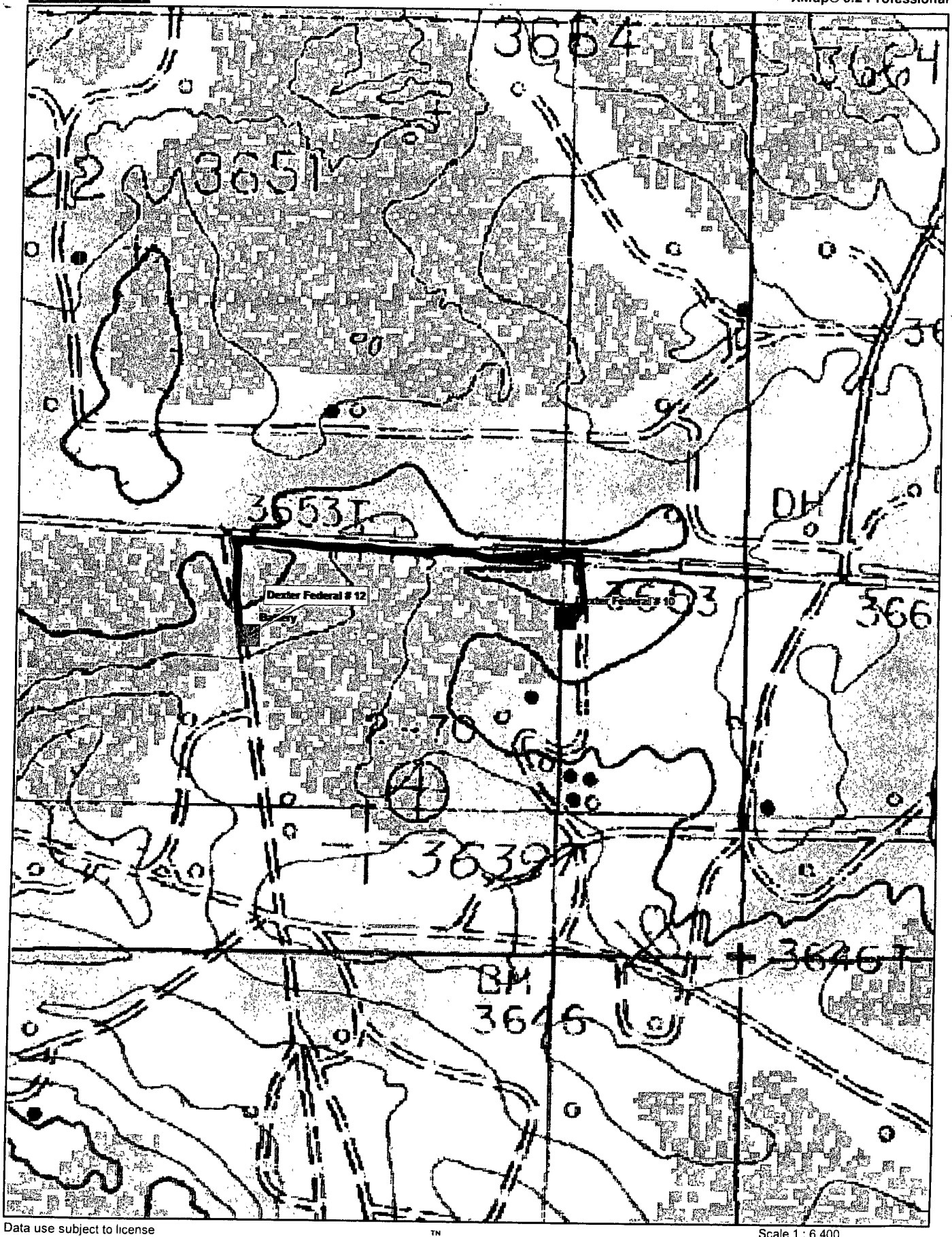
LEASE DEXTER FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
LOCO HILLS, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

DELORME

XMap® 5.2 Professional



Data use subject to license

© DeLorme. XMap® 5.2 Professional.

www.delorme.com

TN

MN (8.0°E)

Scale 1 : 6,400

1" = 533.3 ft

Data Zoom 15-0

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

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 See COA

Hole Size	Interval	OD Casing	Weight	Grade	Jt., Condition	Jt.	brst/clps/ten
17 ½"	0-425'	13 3/8"	48#	H-40orJ-55	ST&C/New	ST&C	9.22/3.943/15.8
~~11"or12-¼"~~	~~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

See COA

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.~~ See COA 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
0-425'	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.

See COA

~~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 H_2S 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.

CONCHO

COG Operating LLC

Eddy County, NM (NAN27 NME)
Dexter Federal #10
Dexter Federal #10

OH

Plan: Plan #1 - 7-7/8" Hole
SHL = 1485' FSL & 865' FEL
BHL = 1700' FSL & 980' FEL
Top of Paddock 4250' TVD = 1700' FSL & 980' FEL

Standard Planning Report

17 September, 2009

Scientific Drilling

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Site Dexter Federal #10
Company:	COG Operating LLC	**TVD Reference:**	Ground Elev @ 3651.00ft (Rig ?)
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	Ground Elev @ 3651.00ft (Rig ?)
Site:	Dexter Federal #10	**North Reference:**	Grid
Well:	Dexter Federal #10	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" Hole		

Project Eddy County, NM (NAN27 NME)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Dexter Federal #10

Site Position:		**Northing:**	661,035 30 ft	**Latitude:**	32° 49' 0 111 N
From:	Map	**Easting:**	616,693 00 ft	**Longitude:**	103° 57' 12.578 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	0 "	**Grid Convergence:**	0 21 °

Well Dexter Federal #10

Well Position	**+N/-S**	0 00 ft	**Northing:**	661,035 30 ft	**Latitude:**	32° 49' 0.111 N
	+E/-W	0.00 ft	**Easting:**	616,693 00 ft	**Longitude:**	103° 57' 12 578 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,651 00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/09/17	8 00	60 73	49,133

Design Plan #1 - 7-7/8" Hole

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0 00	0 00	0.00	331 70

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0 00	0 00	0 00	0.00	0 00	0 00	0 00	0 00	0 00	
1,375.00	0 00	0 00	1,375.00	0.00	0.00	0 00	0.00	0.00	0.00	
1,642 11	5 34	331.70	1,641.72	10 96	-5 90	2.00	2.00	0 00	331 70	
3,993 88	5 34	331 70	3,983.28	203 74	-109 70	0 00	0 00	0 00	0 00	
4,260 99	0.00	0 00	4,250 00	214 70	-115 60	2 00	-2 00	0.00	180 00	TG1-Dexter #10
6,160 99	0 00	0 00	6,150 00	214 70	-115 60	0 00	0.00	0 00	0 00	PBHL-Dexter #10

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Site Dexter Federal #10
Company:	COG Operating LLC	**TVD Reference:**	Ground Elev @ 3651.00ft (Rig ?)
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	Ground Elev @ 3651.00ft (Rig ?)
Site:	Dexter Federal #10	**North Reference:**	Grid
Well:	Dexter Federal #10	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" Hole		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
South HL-Dexter #10 - East HL-Dexter #10									
1,275 00	0 00	0 00	1,275 00	0 00	0 00	0 00	0 00	0 00	0 00
8 5/8" Casing									
1,375 00	0 00	0 00	1,375.00	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 2.00°/100'									
1,400 00	0 50	331 70	1,400 00	0 10	-0 05	0 11	2 00	2.00	0 00
1,500 00	2 50	331 70	1,499 96	2.40	-1 29	2 73	2.00	2 00	0 00
1,600 00	4 50	331 70	1,599 77	7 78	-4.19	8 83	2 00	2 00	0 00
1,642 11	5.34	331 70	1,641 72	10 96	-5 90	12.44	2 00	2 00	0 00
EOC hold 5.34°									
1,700 00	5 34	331 70	1,699.36	15 70	-8 45	17 83	0 00	0 00	0 00
1,800 00	5 34	331 70	1,798 93	23.90	-12 87	27 14	0 00	0 00	0.00
1,900 00	5 34	331 70	1,898 49	32 10	-17.28	36 45	0 00	0 00	0 00
2,000 00	5 34	331 70	1,998 06	40 29	-21 70	45 76	0 00	0 00	0.00
2,100 00	5 34	331 70	2,097 62	48.49	-26.11	55 07	0.00	0 00	0 00
2,200 00	5 34	331 70	2,197 19	56 69	-30 52	64 38	0 00	0 00	0 00
2,300 00	5 34	331 70	2,296 76	64 89	-34 94	73 69	0 00	0 00	0 00
2,400 00	5 34	331 70	2,396 32	73 08	-39 35	83 01	0 00	0 00	0 00
2,500 00	5 34	331 70	2,495 89	81 28	-43.76	92 32	0 00	0 00	0 00
2,600 00	5 34	331 70	2,595 45	89 48	-48 18	101 63	0.00	0 00	0 00
2,700 00	5 34	331 70	2,695 02	97.68	-52 59	110 94	0 00	0 00	0 00
2,800 00	5 34	331 70	2,794 58	105 87	-57 01	120.25	0 00	0 00	0 00
2,900 00	5 34	331 70	2,894 15	114 07	-61.42	129 56	0 00	0 00	0 00
3,000 00	5 34	331 70	2,993 72	122 27	-65 83	138 87	0 00	0 00	0 00
3,100 00	5 34	331 70	3,093 28	130 47	-70 25	148 18	0 00	0 00	0 00
3,200 00	5 34	331 70	3,192 85	138 67	-74 66	157 49	0.00	0 00	0 00
3,300 00	5 34	331 70	3,292 41	146 86	-79 07	166 80	0 00	0 00	0 00
3,400 00	5 34	331 70	3,391 98	155 06	-83 49	176 11	0 00	0.00	0 00
3,500 00	5.34	331 70	3,491 54	163 26	-87 90	185 42	0 00	0 00	0 00
3,600 00	5.34	331.70	3,591 11	171 46	-92 32	194 73	0 00	0 00	0 00
3,700 00	5.34	331 70	3,690 67	179 65	-96 73	204 04	0.00	0 00	0 00
3,800 00	5 34	331 70	3,790 24	187 85	-101 14	213 35	0 00	0 00	0 00
3,900 00	5 34	331.70	3,889.81	196 05	-105 56	222 66	0.00	0.00	0.00
3,993 88	5 34	331 70	3,983 28	203.74	-109 70	231.40	0 00	0 00	0 00
Start Drop 2.00°									
4,000 00	5 22	331 70	3,989 37	204 24	-109 97	231 96	2.00	-2 00	0 00
4,100.00	3 22	331 70	4,089 10	210 72	-113 46	239 32	2.00	-2 00	0 00
4,200 00	1 22	331 70	4,189 02	214.13	-115 29	243 19	2.00	-2 00	0.00
4,260 99	0 00	0 00	4,250 00	214 70	-115 60	243 84	2 00	-2 00	0 00
EOC hold 0.00° - TG1-Dexter #10									
6,160 99	0 00	0.00	6,150.00	214 70	-115.60	243 84	0 00	0 00	0 00
PBHL-Dexter #10									

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Site Dexter Federal #10
Company:	COG Operating LLC	**TVD Reference:**	Ground Elev @ 3651 00ft (Rig ?)
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	Ground Elev @ 3651.00ft (Rig ?)
Site:	Dexter Federal #10	**North Reference:**	Grid
Well:	Dexter Federal #10	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" Hole		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
South HL-Dexter #10	0 00	0 00	0 00	164 70	-125 60	661,200 00	616,567 40	32° 49' 1 746 N	103° 57' 14 042 W
- plan misses target center by 207 13ft at 0.00ft MD (0 00 TVD, 0 00 N, 0 00 E)									
- Rectangle (sides W200 00 H0 00 D0 00)									
East HL-Dexter #10	0 00	0 00	0 00	164.70	-125.60	661,200 00	616,567 40	32° 49' 1.746 N	103° 57' 14.042 W
- plan misses target center by 207 13ft at 0 00ft MD (0 00 TVD, 0 00 N, 0.00 E)									
- Rectangle (sides W0 00 H150 00 D0 00)									
TG1-Dexter #10	0 00	0 00	4,250 00	214 70	-115 60	661,250 00	616,577 40	32° 49' 2 240 N	103° 57' 13 923 W
- plan hits target center									
- Circle (radius 50 00)									
PBHL-Dexter #10	0 00	0 00	6,150 00	214 70	-115 60	661,250 00	616,577 40	32° 49' 2 240 N	103° 57' 13 923 W
- plan hits target center									
- Circle (radius 50 00)									

Casing Points

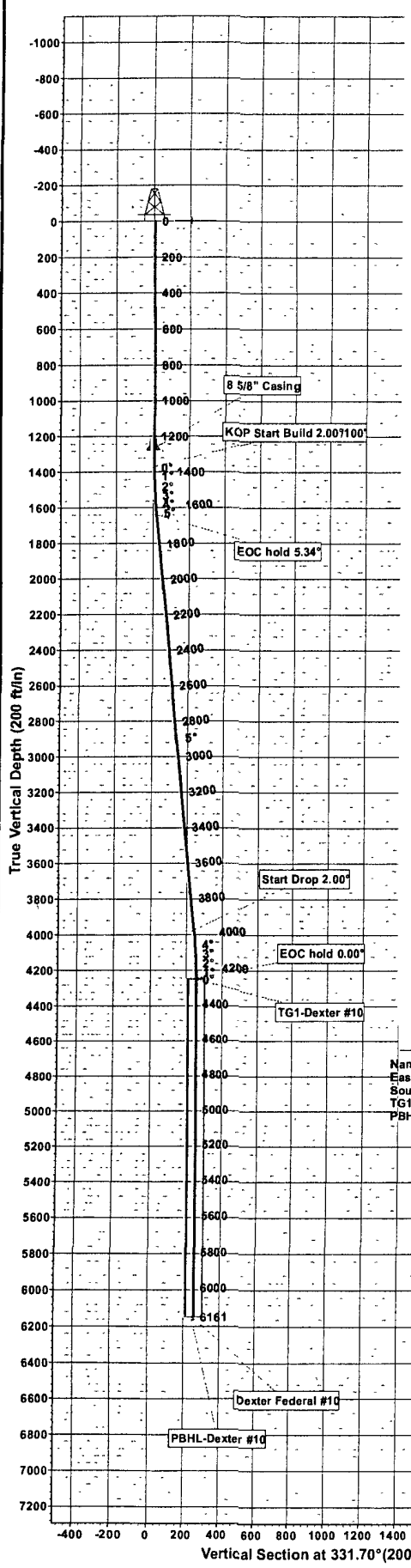
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,275.00	1,275.00	8 5/8" Casing	8-5/8	12-1/4

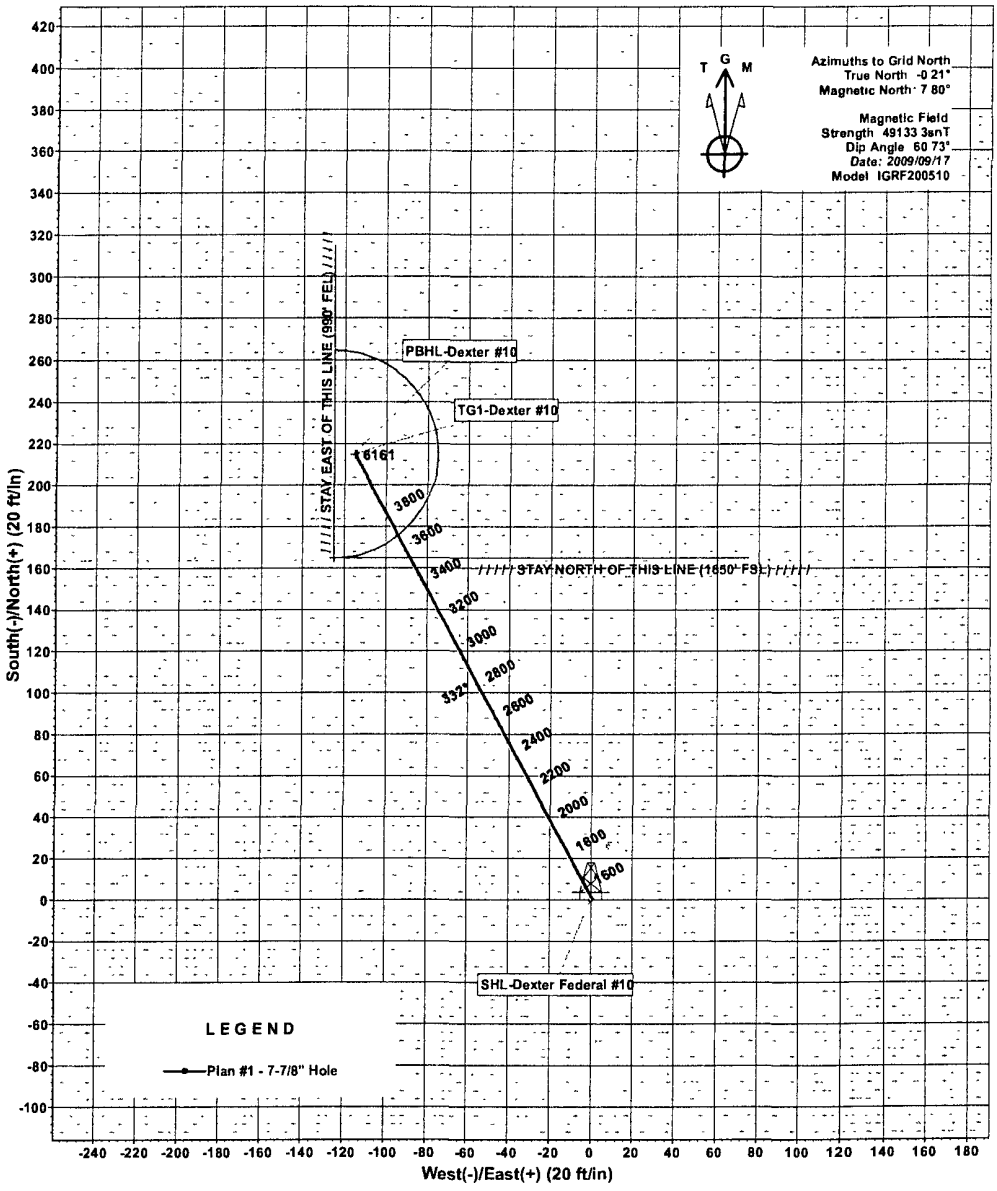
Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,375 00	1,375 00	0 00	0 00	KOP Start Build 2 00°/100'
1,642 11	1,641 72	10 96	-5 90	EOC hold 5.34°
3,993 88	3,983 28	203 74	-109 70	Start Drop 2 00°
4,260 99	4,250 00	214 70	-115 60	EOC hold 0 00°

Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Dexter Federal #10
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole

Scientific Drilling





WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
East HL-Dexter #10	0.00	164.70	-125.60	661200.00	616567.40	32°49' 1.746 N	103°57' 14.042 W	Rectangle (Sides: L150.00 W0.00
South HL-Dexter #10	0.00	164 70	-125.60	661200.00	616567.40	32°49' 1.746 N	103°57' 14.042 W	Rectangle (Sides : L0.00 W200.00
TG1-Dexter #10	4250.00	214 70	-115.60	661250.00	616577.40	32°49' 2.240 N	103°57' 13 923 W	Circle (Radius: 50 00)
PBHL-Dexter #10	6150.00	214 70	-115.60	661250 00	616577.40	32°49' 2 240 N	103°57' 13.923 W	Circle (Radius: 5 0 00)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0 00	0.00	0.00	0 00	0 00	0.00	0.00	0 00	0.00	
2	1375.00	0.00	0.00	1375.00	0 00	0.00	0.00	0 00	0 00	
3	1642 11	5 34	331 70	1641 72	10.96	-5 90	2.00	331.70	12 44	
4	3993 88	5.34	331.70	3983 28	203.74	-109.70	0.00	0.00	231.40	
5	4260.99	0.00	0 00	4250.00	214.70	-115.60	2.00	180.00	243.84	TG1-Dexter #10
6	6160.99	0.00	0.00	6150.00	214.70	-115.60	0.00	0.00	243.84	PBHL-Dexter #10

WELL DETAILS: Dexter Federal #10

Ground Level: 3651.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	661035.30	616693.00	32°49' 0 111 N	103°57' 1 2 578 W	

PROJECT DETAILS. Eddy County, NM (NAN27 NME)

Plan: Plan #1 - 7-7/8" Hole (Dexter Federal #10/OH)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Created By: Julio Pina — Date 17-Sep-09
Checked: _____ Date: _____
Reviewed. _____ Date. _____
Approved: _____ Date: _____

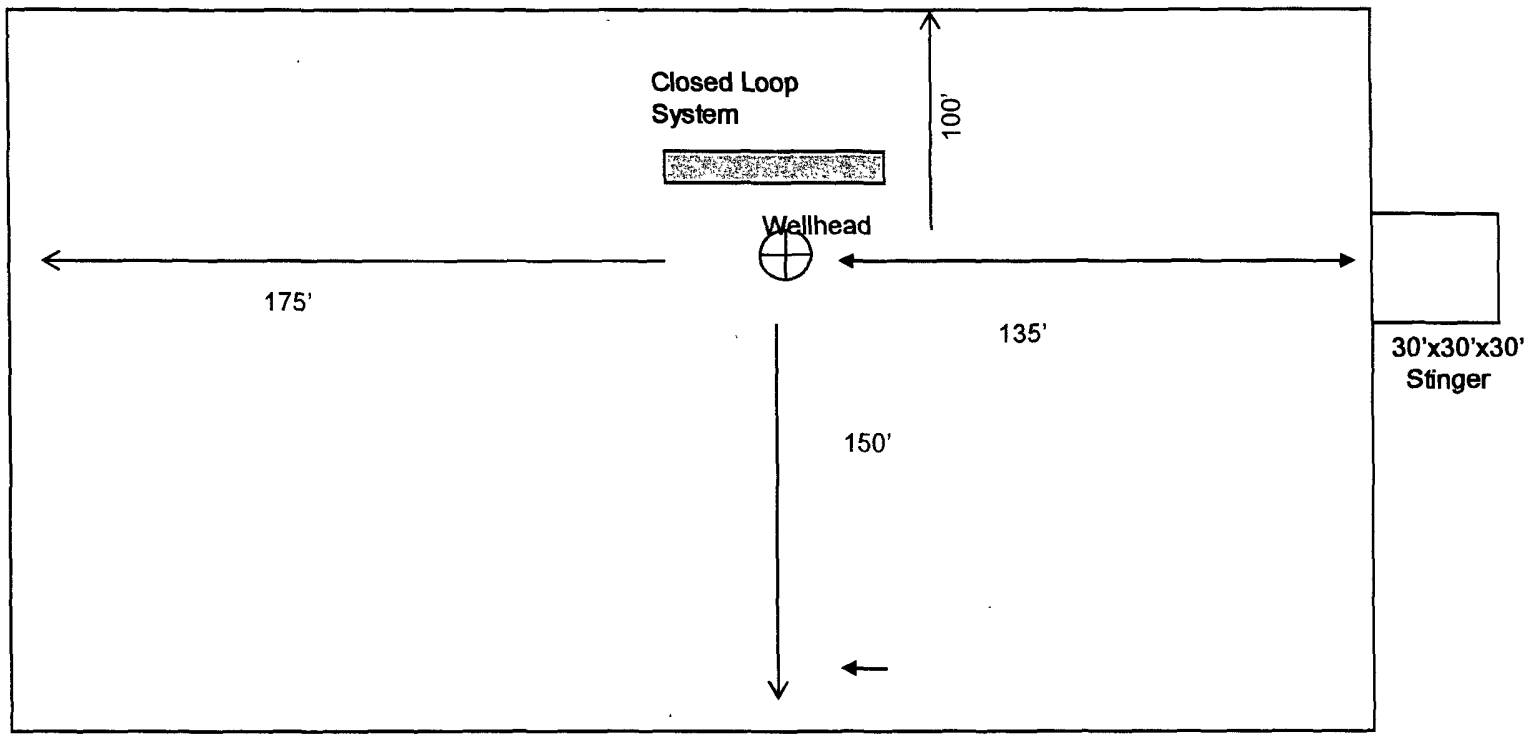


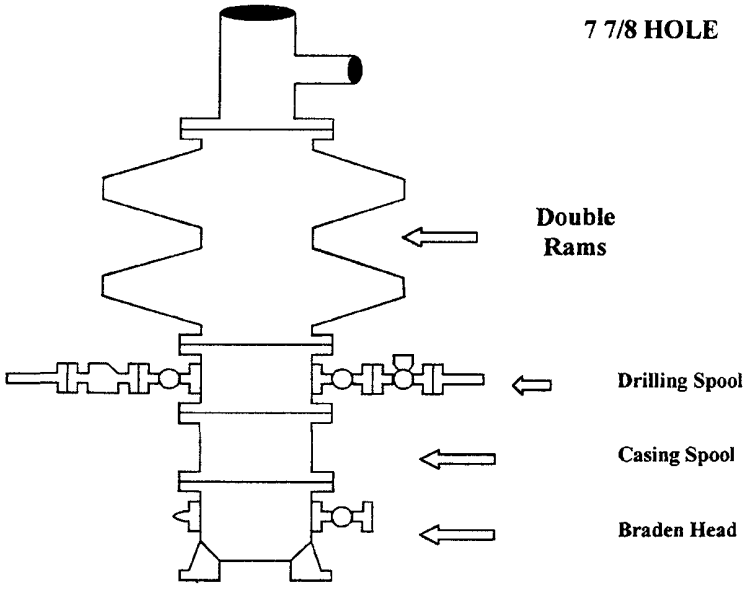
Exhibit 6

COG OPERATING, LLC

Rig Layout- Closed Loop System

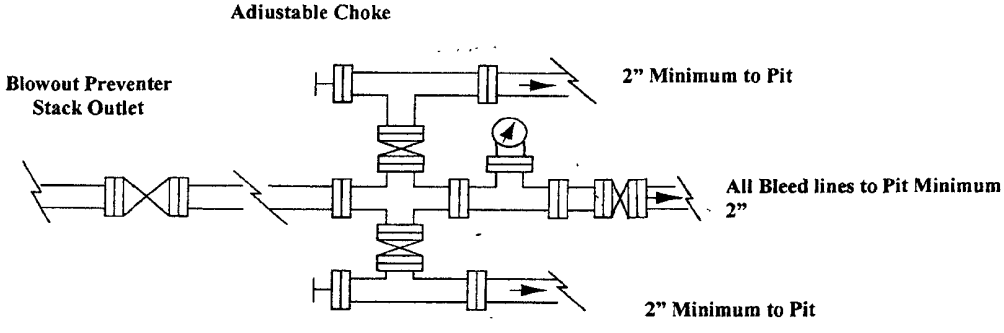
Not To Scale

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
(or Positive)

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.

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

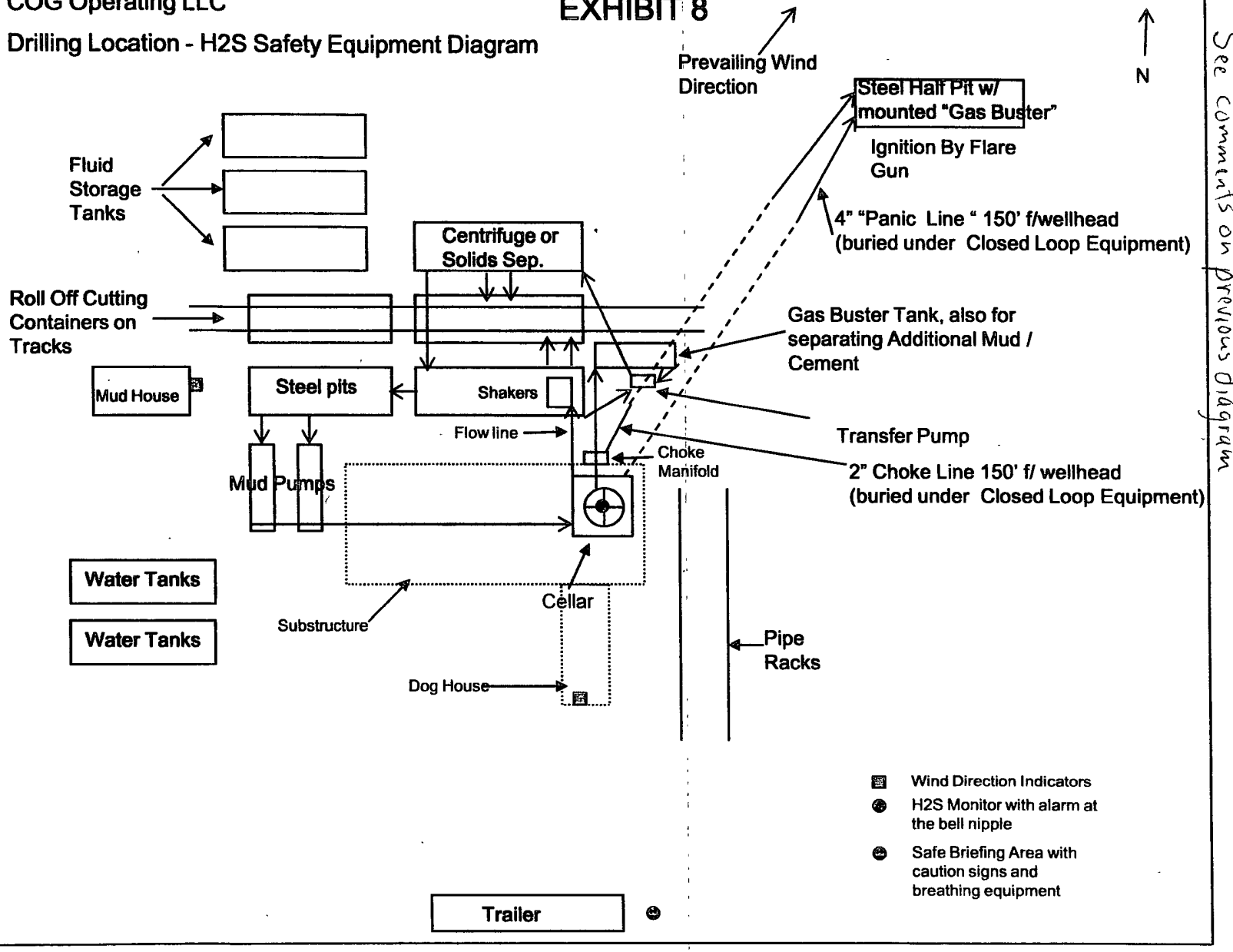
EDDY COUNTY EMERGENCY NUMBERS
ARTESIA FIRE DEPT. 575-746-5050
ARTESIA POLICE DEPT. 575-746-5000
EDDY CO. SHERIFF DEPT. 575-746-9888

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

COG Operating LLC

EXHIBIT 8

Drilling Location - H2S Safety Equipment Diagram



See comments on previous diagram

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 East on US Highway 82 apprx 1.5 miles to Wiser Oil Co. sign and lease road. Turn Right and go South on lease road apprx 150 feet. This location is apprx 200 feet at the West 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 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 Dexter Federal Tank Battery located at the Dexter Federal #12 in Section 22. 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 Dexter Federal Tank Battery located at the Dexter Federal #12 in Section 22. The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 2200 ~~miles~~ feet in length. JDF 9-23-04

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 2500 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 re-contour 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 Williams & Son Cattle Company, P.O. Box 30, Maljamar, NM 8826

C. The proposed road routes and surface location will be restored as directed by the BLM.

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, coyotes 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)
(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 11th day of September, 2009.

Signed: Carl Bird

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