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Form 3160-3
(February 2005)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.	NM19625(SHL);NM14497(BHL)
6 If Indian, Allotee or Tribe Name	
7 If Unit or CA Agreement, Name and No.	
8 Lease Name and Well No.	DIAMOND 8 FED COM 2 (37917)
9. API Well No.	30-025-39578
10. Field and Pool, or Exploratory	Red Hills (51020)
11 Sec., T R M. or Blk and Survey or Area	Section 8, T25S-R34E, N.M.P.M.
12. County or Parish	Lea
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: EOG Resources, Inc. (7377)

3a Address: P.O. Box 2267 Midland, TX 79702

3b Phone No. (include area code): 432-686-3642

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

At surface: 710' FSL & 660' FEL (U/L P)

At proposed prod zone: 330' FNL & 660' FEL (U/L A)

14 Distance in miles and direction from nearest town or post office*: Approx 18 miles W from Jal, NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any)	330'	16. No. of acres in lease: 160	17 Spacing Unit dedicated to this well: E/2 E/2
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	1800'	19 Proposed Depth: Pilot hole 12,200' 12088' TVD; 16119'TMD	20. BLM/BIA Bond No. on file: NM2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.): GL 3344.9'		22. Approximate date work will start*: 11/15/2009	23. Estimated duration: 30 days

24. Attachments

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

1 Well plat certified by a registered surveyor
2 A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Donny G. Glanton	Name (Printed/Typed): Donny G. Glanton	Date: 09/30/2009

Title: Sr. Lease Operations ROW Representative

Approved by (Signature): /s/ Don Peterson	Name (Printed/Typed)	Date: NOV 5 2009
Title: FOR 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.

MW OCD 11-24-09

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)

Approval Subject to General Requirements & Special Stipulations Attached

Carlsbad Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025- 39578	51020	Red Hills; Bone Spring

Property Code	Property Name	Well Number
37917	DIAMOND "8" FED. COM	2
OGRID No.	**Operator Name**	**Elevation**
7377	EOG RESOURCES, INC.	3344.9'

Surface Location

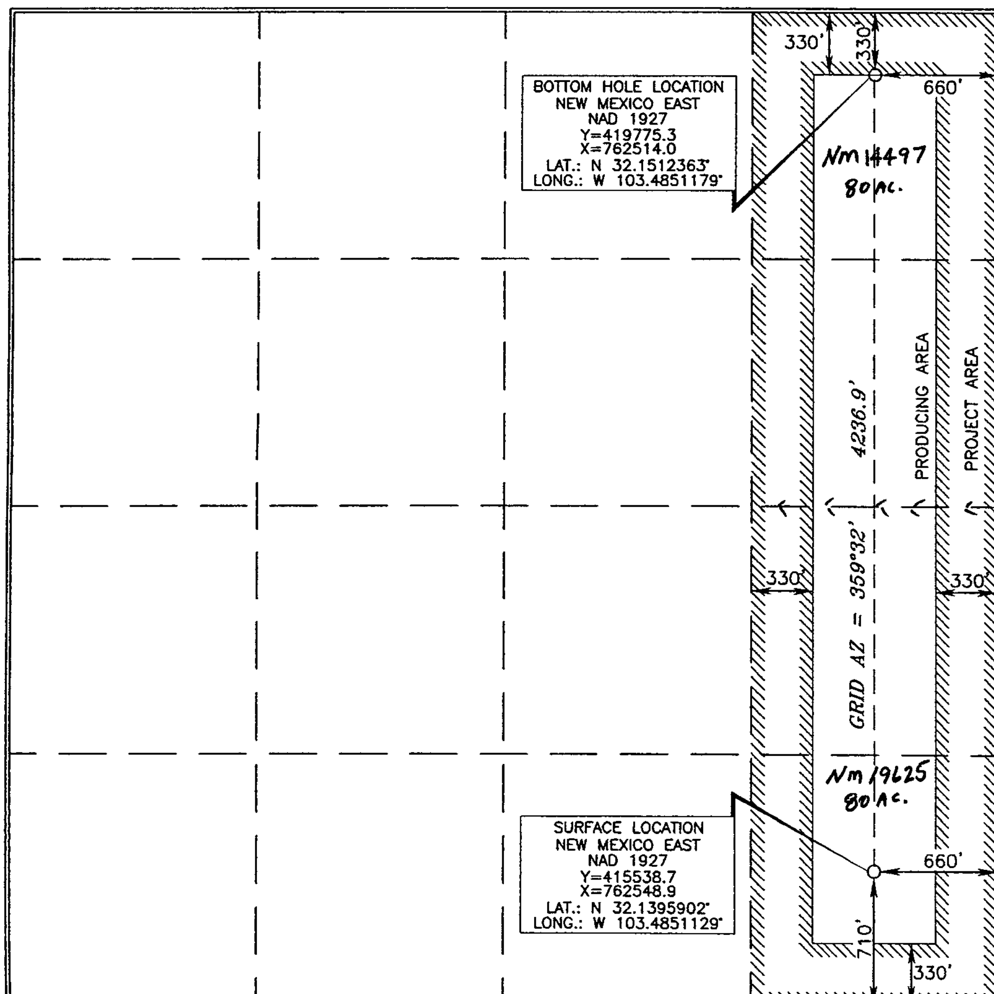
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	25 SOUTH	34 EAST, N.M.P.M.		710	SOUTH	660	EAST	LEA

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
A	8	25 SOUTH	34 EAST, N.M.P.M.		330	NORTH	660	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

[signature] 9/29/09
Signature *Date*

Donny G. Glanton
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.

NOVEMBER 3, 2008
Date of Survey

Signature and Seal of Professional Surveyor

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

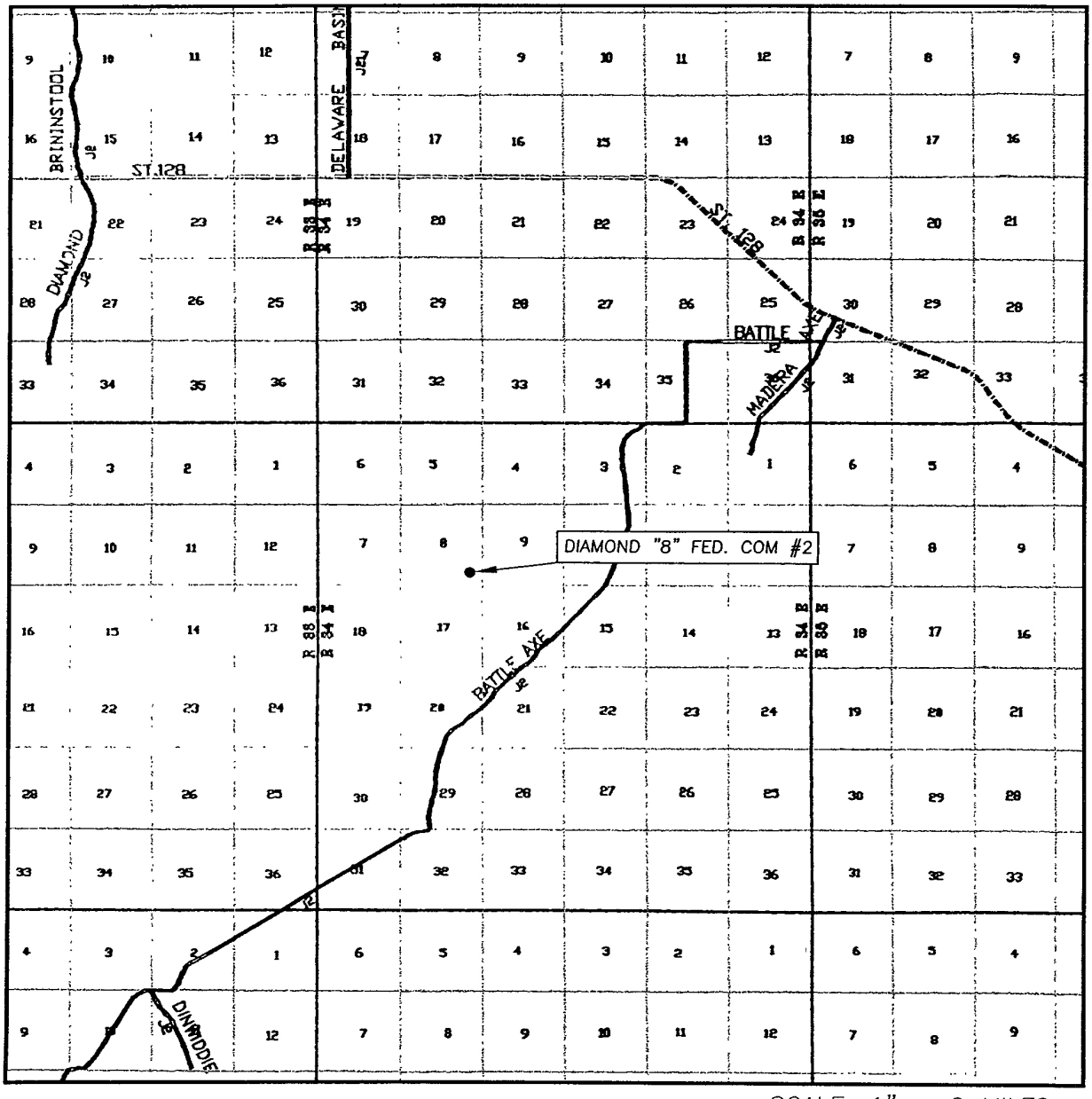
[signature] 8/24/2009

Certificate Number 15079

WO# 081103WL (Rev. A) (KA)

Exhibit 2

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 TWP. 25-S RGE. 34-E
SURVEY N.M.P.M.
COUNTY LEA
DESCRIPTION 710' FSL & 660' FEL
ELEVATION 3344.9'
OPERATOR EOG RESOURCES INC.
LEASE DIAMOND "8" FED. COM #2

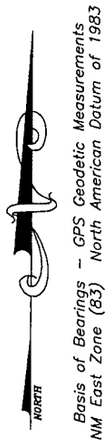
Asel Surveying

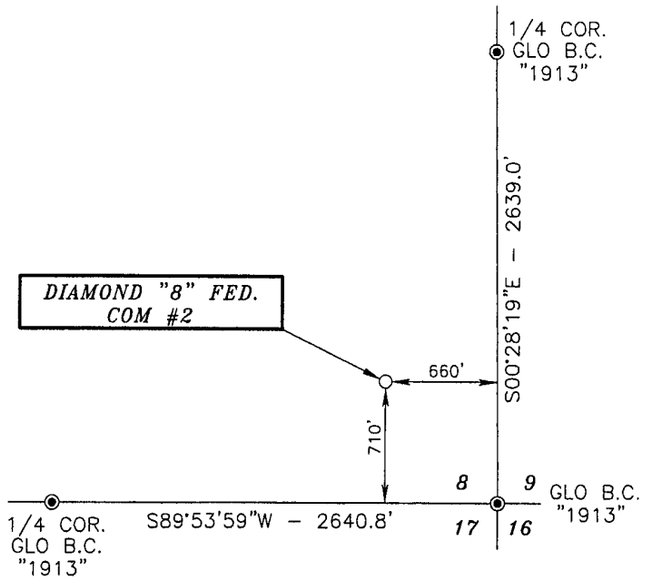
P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

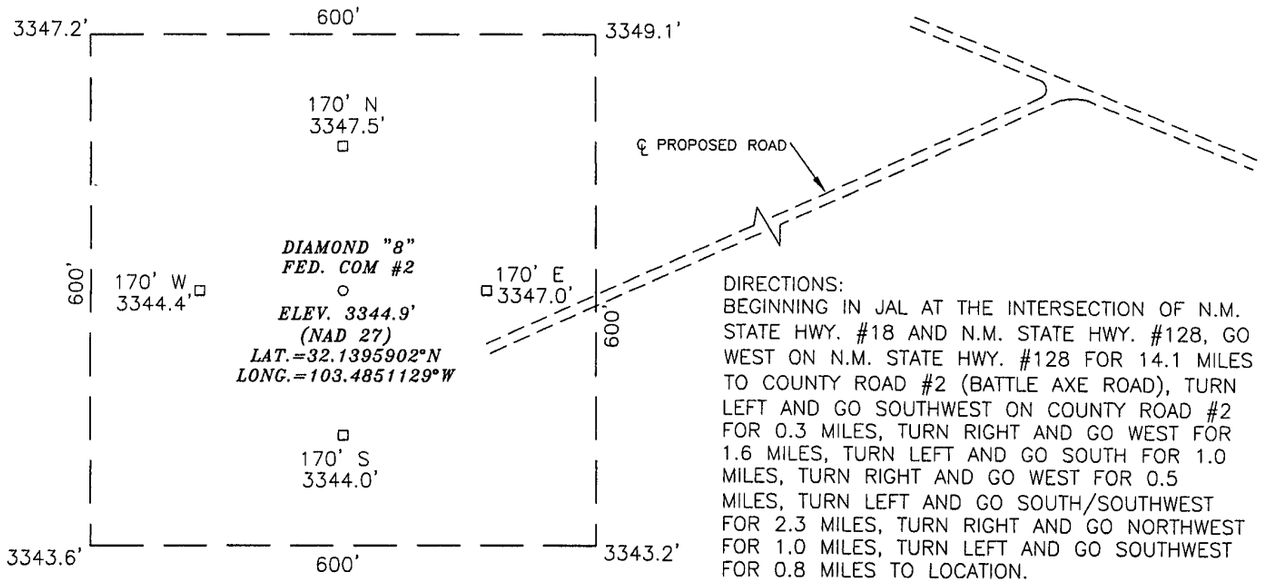
DIRECTIONS BEGINNING IN JAL AT THE INTERSECTION OF N.M. STATE HWY. #18 AND N.M. STATE HWY. #128, GO WEST ON N.M. STATE HWY. #128 FOR 14.1 MILES TO COUNTY ROAD #2 (BATTLE AXE ROAD), TURN LEFT AND GO SOUTHWEST ON COUNTY ROAD #2 FOR 0.3 MILES, TURN RIGHT AND GO WEST FOR 1.6 MILES, TURN LEFT AND GO SOUTH FOR 1.0 MILES, TURN RIGHT AND GO WEST FOR 0.5 MILES, TURN LEFT AND GO SOUTH/SOUTHWEST FOR 2.3 MILES, TURN RIGHT AND GO NORTHWEST FOR 1.0 MILES, TURN LEFT AND GO SOUTHWEST FOR 0.8 MILES TO LOCATION.

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY NEW MEXICO

Exhibit 2a







DIRECTIONS:
BEGINNING IN JAL AT THE INTERSECTION OF N.M. STATE HWY. #18 AND N.M. STATE HWY. #128, GO WEST ON N.M. STATE HWY. #128 FOR 14.1 MILES TO COUNTY ROAD #2 (BATTLE AXE ROAD), TURN LEFT AND GO SOUTHWEST ON COUNTY ROAD #2 FOR 0.3 MILES, TURN RIGHT AND GO WEST FOR 1.6 MILES, TURN LEFT AND GO SOUTH FOR 1.0 MILES, TURN RIGHT AND GO WEST FOR 0.5 MILES, TURN LEFT AND GO SOUTH/SOUTHWEST FOR 2.3 MILES, TURN RIGHT AND GO NORTHWEST FOR 1.0 MILES, TURN LEFT AND GO SOUTHWEST FOR 0.8 MILES TO LOCATION.

SCALE-1'=200'

LEGEND

◉ — DENOTES FOUND MONUMENT AS NOTED

1000' 0 1000' 2000' FEET

SCALE: 1"=1000'

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 8/24/2009

Terry J. Asel N.M. R.P.S. No. 15079

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

EOG RESOURCES, INC.

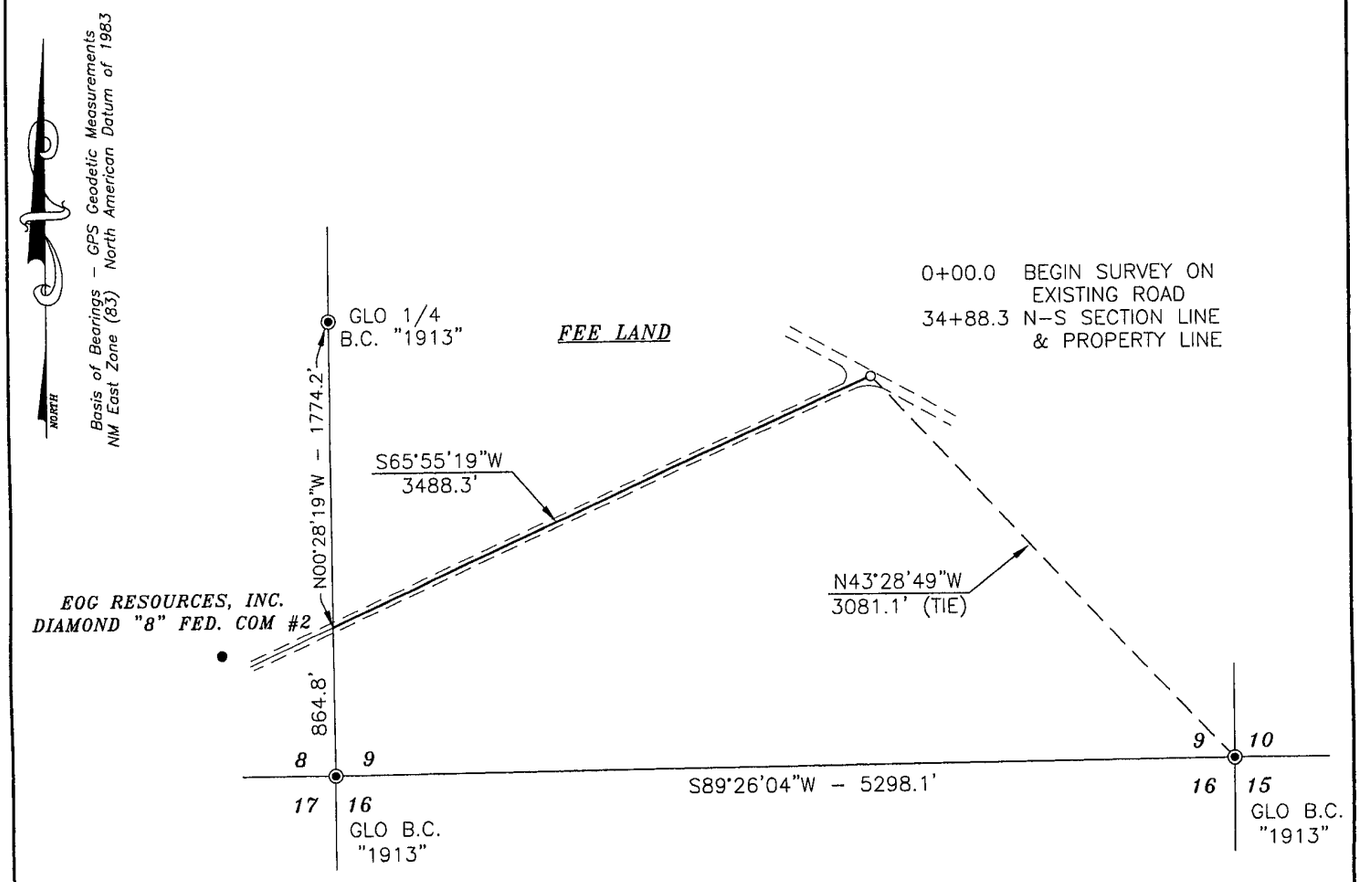
DIAMOND "8" FED. COM #2 LOCATED AT 710' FSL & 660' FEL IN SECTION 8, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 11/03/08	Sheet 1 of 1 Sheets	
W.O. Number: 081103WL (Rev. B)	Drawn By: KA	Rev: B
Date: 08/21/09	081103WL	Scale:1"=1000'

SECTION 9, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY NEW MEXICO

Exhibit 2b

Page 1 of 2



DESCRIPTION

SURVEY FOR A ROAD EASEMENT CROSSING FEE LAND IN SECTION 9, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHICH LIES N43°28'49"W – 3081.1 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION 9; THEN S65°55'19"W – 3488.3 FEET TO A POINT ON THE WEST LINE OF SAID SECTION 9, WHICH LIES N00°28'19"W – 864.8 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 9.

TOTAL LENGTH EQUALS 3488.3 FEET OR 211.41 RODS.

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND

◉ – DENOTES FOUND MONUMENT AS NOTED

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 11/6/2008

Terry J. Asel N.M. R.P.S. No. 15079

Asel Surveying
P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

1000' 0 1000' 2000' FEET

SCALE: 1"=1000'

EOG RESOURCES, INC.

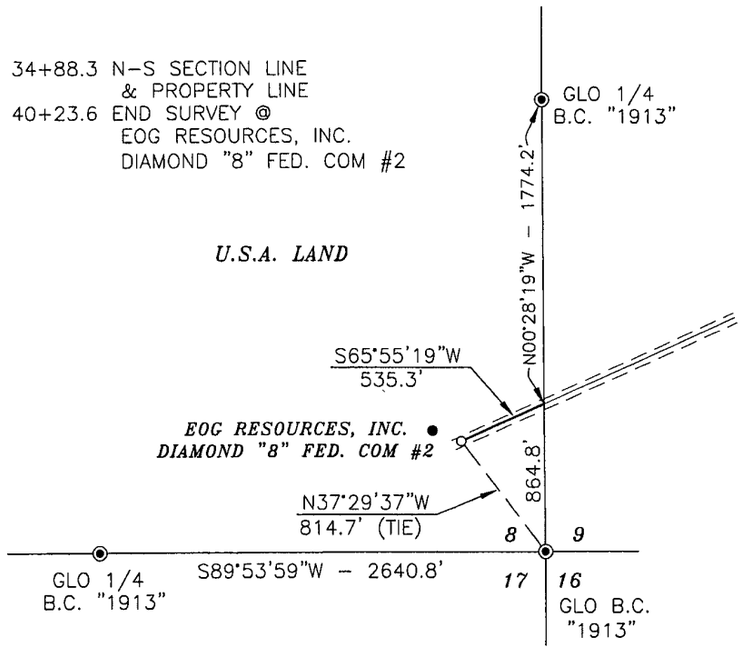
SURVEY FOR A ROAD EASEMENT IN SECTION 9, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 11/03/08	Sheet 1 of 2 Sheets	
W.O. Number: 081103RD	Drawn By: KA	
Date: 11/05/08	081103RD.DWG	Scale:1"=1000'

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY NEW MEXICO

Exhibit 2b
Page 2 of 2

Basis of Bearings – GPS Geodetic Measurements
NM East Zone (83) North American Datum of 1983



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE AND 535.3 FEET OR 0.101 MILES IN LENGTH CROSSING U.S.A. LAND IN SECTION 8, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND

◉ – DENOTES FOUND MONUMENT AS NOTED

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 11/6/2008
Terry J. Asel N.M. R.P.S. No. 15079

Asel Surveying
P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

1000' 0 1000' 2000' FEET
SCALE: 1"=1000'

EOG RESOURCES, INC.

SURVEY FOR A ROAD EASEMENT CROSSING
U.S.A. LAND IN SECTION 8, TOWNSHIP 25 SOUTH,
RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 11/03/08		Sheet 2 of 2 Sheets	
W.O. Number: 081103RD		Drawn By: KA	
Date: 11/05/08	081103RD.DWG	Scale:1"=1000'	

EXHIBIT 3

Diamond 8 Fed Com 2

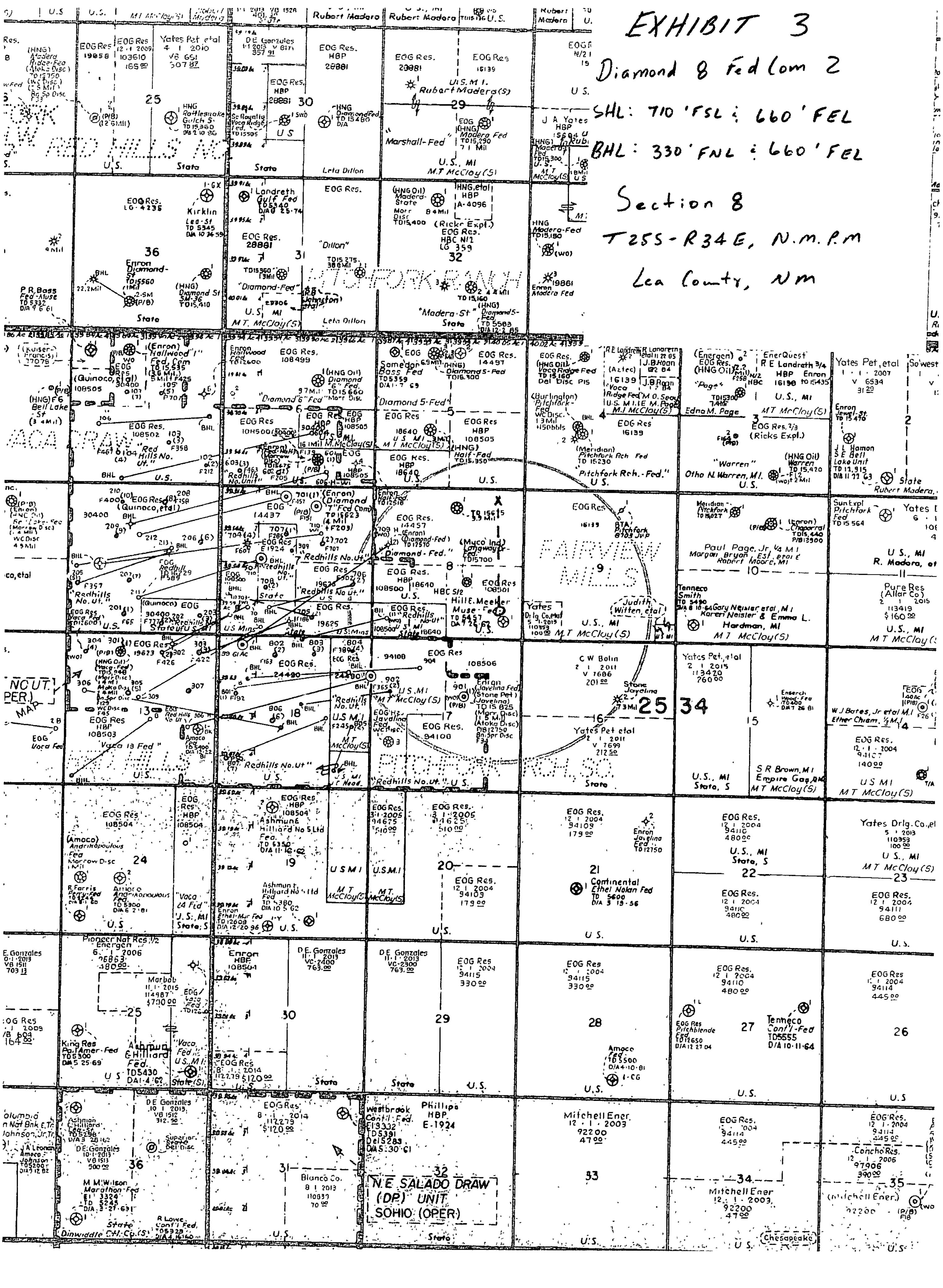
SHL: 710' FSL & 660' FEL

BHL: 330' FNL & 660' FEL

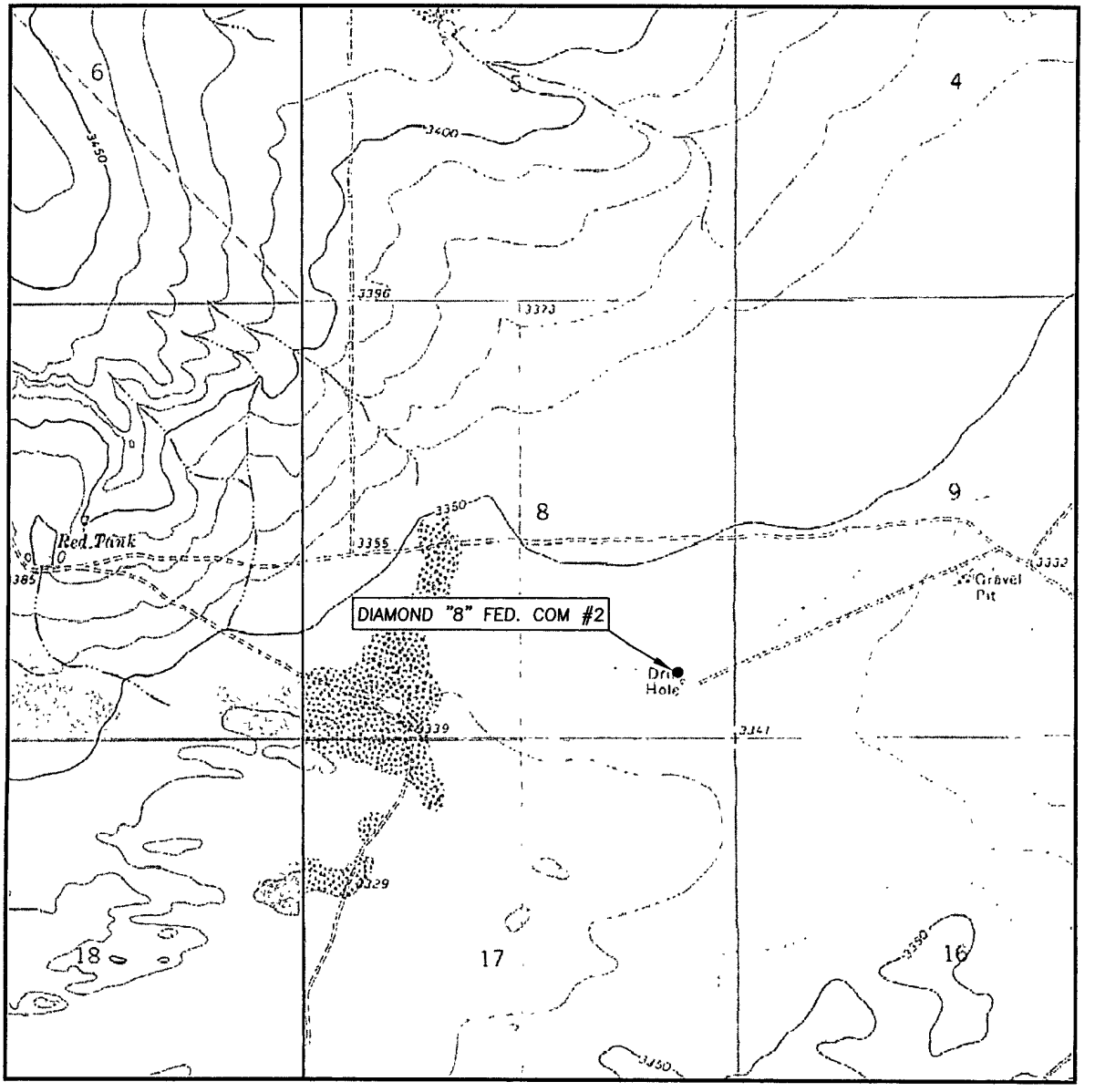
Section 8

T25S-R34E, N.M.P.M

Lea County, NM



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 8 TWP. 25-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 710' FSL & 660' FEL

ELEVATION 3344.9'

OPERATOR EOG RESOURCES INC.

LEASE DIAMOND "8" FED. COM #2

U.S.G.S. TOPOGRAPHIC MAP
WOODLEY FLAT, N.M.

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

EOG RESOURCES, INC.
DIAMOND 8 FED COM 2

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,050'
Base of Salt	5,000'
Delaware	5,280'
Cherry Canyon	6,260'
Leonard	9,060'
1st Bone Spring Sand	10,230'
2nd Bone Spring Sand	10,840'
3rd Bone Spring Sand	11,988'
Pilot hole TD	12,200'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Delaware	5,280'	Oil
Cherry Canyon	6,260'	Oil
Leonard	9,060'	Oil
1st Bone Spring Sand	10,230'	Oil
2nd Bone Spring Sand	10,840'	Oil
3rd Bone Spring Sand	11,988'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 650' and circulating cement back to surface.

4. CASING PROGRAM - NEW

See COA

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 – ~~650~~ 1240'	13.375"	48#	H40	STC	1.10	1.25	1.60
12.25"	0-~~4000'~~ 5K	9.625"	40#	J55	LTC	1.10	1.25	1.60
12.25"	4000'-~~5200'~~ 5238'	9.625"	40#	HCK55	LTC	1.10	1.25	1.60
8.75"	0'-16,119'	5.5"	17#	HCP110	LTC	1.10	1.25	1.60

Cementing Program:

See COA

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Slurry Description
650'	675	14.8	1.32	Class C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L * Surface TOC
5,200'	1100	12.7	2.01	Lead: Class 'C' + 2.00% SMS + 1.50% R-3 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free Surface TOC
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
16,119'	1800	12.0	2.00	Lead: 47:20:17 Class 'H':Poz (Fly Ash):CSE-2 + 1.50% SMS + 0.20% ASA-301 + 1.65% R-21 + 3.00 lb/sk LCM-1
	975	14.2	1.30	Tail: 50:50:2 Class 'H' + 0.30% FL-52A + 0.20% CD-32 + 0.35% SMS + 5.00% Salt (2.454 lb/sk) + 0.45% R-3 + 0.005 lb/sk Static Free TOC 4700

* from page after wellbore schematic

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. EOG Resources request authorization to use a 2M system, providing for an annular preventer to be used prior to drilling out of the surface casing shoe and while drilling the intermediate section. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 2500/ 250 psig.

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.

Hydraulically operated choke will not be installed prior to the setting and cementing of the intermediate casing string, but will be installed prior to drilling out of the intermediate casing shoe.

6. 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 (ppg)	Viscosity	Water Loss
0 – ~~650'~~ 1040	Fresh - Gel	8.6-8.8	28-34	N/c
1040 ~~650'~~ – ~~5,200'~~ 5280	Brine	10.0-10.2	28-34	N/c
5,200' – 8,500'	Fresh Water	8.4-8.6	28-34	N/c
See COA 8,500'– 12,200' Pilot hole	Cut Brine - XCD	9.0-9.5	40-42	8-10
11,610'– 16,119' Lateral	Cut Brine - XCD	9.0-9.5	40-42	8-10

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

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) A mud logging unit will be continuously monitoring drill penetration rate and hydrocarbon shows from 650' to TD.

(D) H_2S monitoring and detection equipment will be utilized from 650' to TD.

8. LOGGING, TESTING AND CORING PROGRAM: See COA

Open-hole logging is anticipated in the 8-3/4" hole section. The logging suites for this hole section are listed below:

NGT–CNL–LDT w/ Pe	From TD to previous casing shoe. At casing pull GR – Neutron to surface.
HR Laterolog Array	From TD to previous casing shoe.
FMI	Possible in the production hole

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 185 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately two months. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

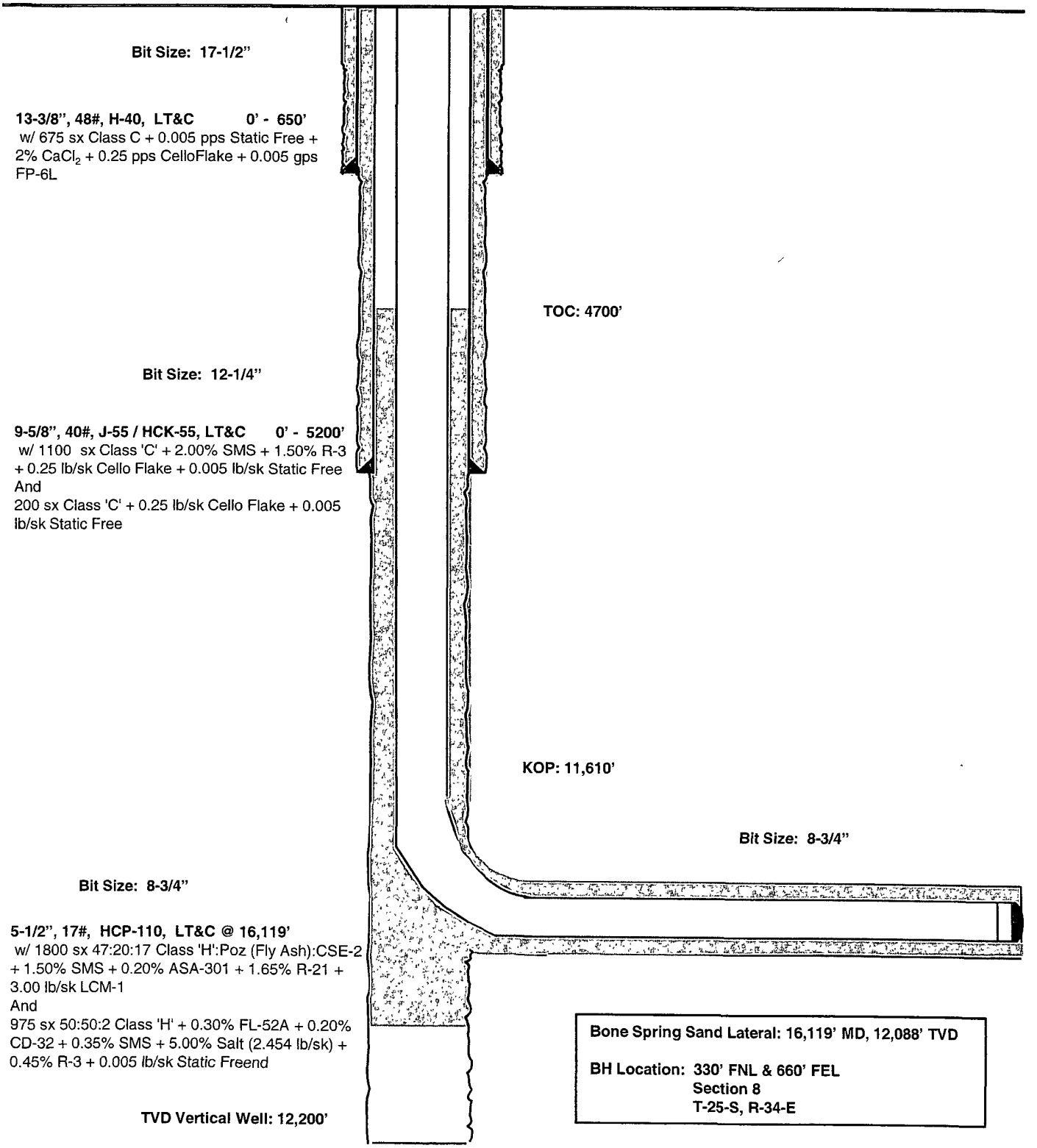
Diamond 8 Fed Com #2
Red Hills
Lea County, New Mexico

710' FSL
660' FEL
Section 8
T-25-S, R-34-E

Proposed Wellbore

API: 30-025-

KB: 3,363.9'
GL: 3,344.9'



Permit Information:

Well Name: Diamond 8 Fed Com No. 2

Location:
SL: 710' FSL & 660' FEL, Section 8, T-25-S, R-34-E, Lea Co., N.M.
BHL: 330' FNL & 660' FEL, Section 8, T-25-S, R-34-E, Lea Co., N.M.

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	650'	17-1/2"	13-3/8"	48#	H-40	Surface
Intermediate	4,000' 5,200'	12-1/4" 12-1/4"	9-5/8" 9-5/8"	40# 40#	J-55 HCK-55	Surface
Production	16,119'	8-3/4"	5-1/2"	17#	HCP-110	4700'

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Slurry Description
650'	675	14.8	1.32	Class C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L
5,200'	1100	12.7	2.01	Lead: Class 'C' + 2.00% SMS + 1.50% R-3 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
16,119'	1800	12.0	2.00	Lead: 47:20:17 Class 'H':Poz (Fly Ash):CSE-2 + 1.50% SMS + 0.20% ASA-301 + 1.65% R-21 + 3.00 lb/sk LCM-1
	975	14.2	1.30	Tail: 50:50:2 Class 'H' + 0.30% FL-52A + 0.20% CD-32 + 0.35% SMS + 5.00% Salt (2.454 lb/sk) + 0.45% R-3 + 0.005 lb/sk Static Free

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 650'	Fresh - Gel	8.6-8.8	28-34	N/c
650' – 5,200'	Brine	10.0-10.2	28-34	N/c
5,200' – 8,500'	Fresh Water	8.4-8.6	28-34	N/c
8,500'– 12,200' Pilot hole	Cut Brine - XCD	9.0-9.5	40-42	8-10
11,610'– 16,119' Lateral	Cut Brine - XCD	9.0-9.5	40-42	8-10

eog resources

Project: Lea County
Site: Diamond "8" Fed Com
Well: #2H
Wellbore: OH
Plan: Plan #1 (#2H/OH)

T G M

Azimuths to Grid North
True North: -0.45°
Magnetic North: 7.28°

Magnetic Field
Strength: 48771.2snT
Dip Angle: 60.18°
Date: 10/15/2009
Model: IGRF200510

PATHFINDER

WELL DETAILS: #2H

Ground Elevation: 3344.90
RKB Elevation: WELL @ 3363 90ft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0 00	415538 700	762548 900	32° 8' 22 525 N	103° 29' 6 406 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	11610.50	0.00	0.00	11610 50	0.00	0.00	0.00	0.00	0.00	
3	12360.56	90.00	359.53	12088.00	477.48	-3.92	12.00	359.53	477.50	
4	16119.80	90.00	359.53	12088.00	4236.60	-34 75	0 00	0.00	4236.74	PBHL(diamond#2H)

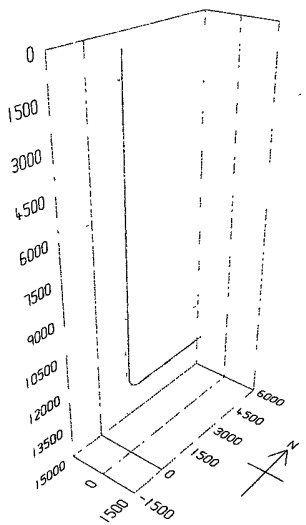
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

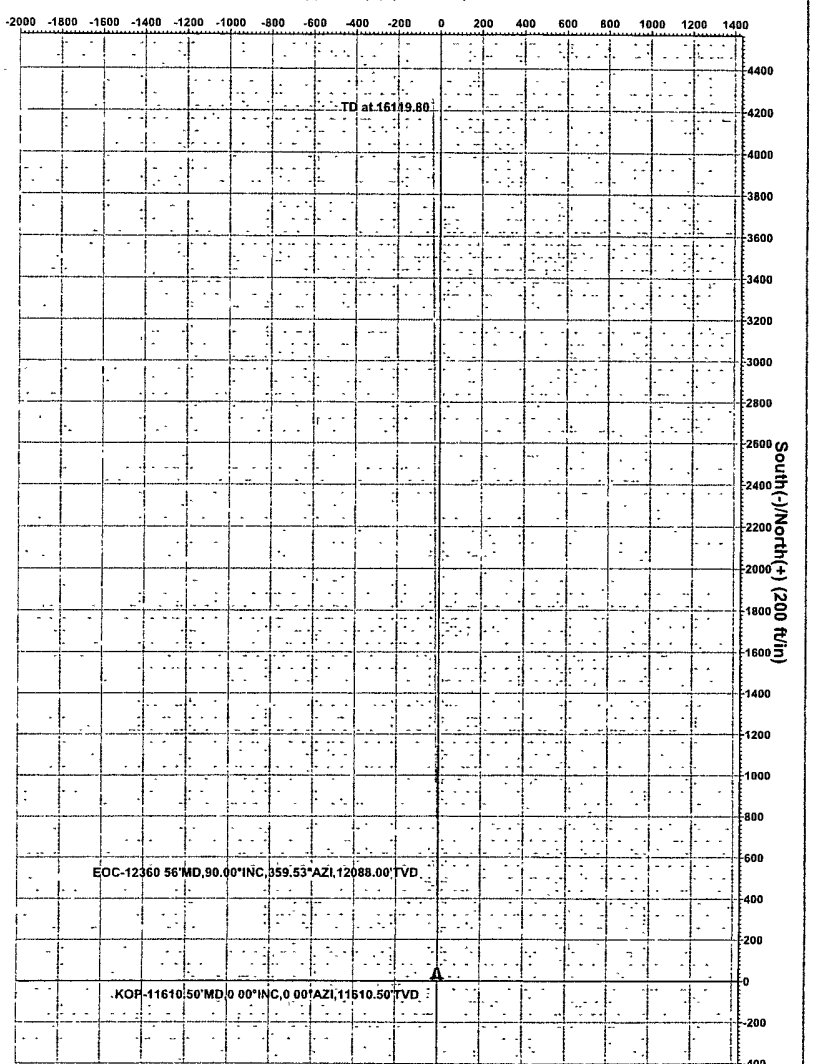
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(diamond#2H)	12088 00	4236.60	-34 90	419775.300	762514 000	Point

PROJECT DETAILS: Lea County
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
Local North: Grid

LEGEND

* Plan #1





Plan: Plan #1 (#2H/OH)

Created By Nate Bingham Date: 9 56, September 28 2009

Checked. _____ Date. _____

eog resources

EOG Resources, Inc.

Lea County
Diamond "8" Fed Com
#2H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

28 September, 2009

PATHFINDER

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Lea County

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 Diamond "8" Fed Com

Site Position:		**Northing:**	415,538 700 ft	**Latitude:**	32° 8' 22.525 N
From:	Map	**Easting:**	762,548.900 ft	**Longitude:**	103° 29' 6.406 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0 45 °

Well #2H

Well Position	**+N/-S**	0.00 ft	**Northing:**	415,538.700 ft	**Latitude:**	32° 8' 22.525 N
	+E/-W	0.00 ft	**Easting:**	762,548.900 ft	**Longitude:**	103° 29' 6.406 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,344.90 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/15/2009	7.73	60 18	48,771

Design Plan #1

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	359.53

Survey Tool Program **Date** 09/28/2009

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0 00	16,119.80	Plan #1 (OH)	MWD	MWD - Standard

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0 00	0.00	-3,363.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
100.00	0 00	0.00	100.00	-3,263.90	0.00	0 00	0.00	0.00	415,538.70	762,548.90
200.00	0.00	0.00	200 00	-3,163.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
300.00	0 00	0.00	300.00	-3,063.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
400.00	0.00	0 00	400.00	-2,963.90	0.00	0.00	0 00	0.00	415,538.70	762,548.90
500.00	0.00	0.00	500.00	-2,863.90	0 00	0.00	0.00	0.00	415,538.70	762,548.90
600.00	0 00	0.00	600.00	-2,763.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
700.00	0 00	0.00	700.00	-2,663.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
800.00	0.00	0.00	800.00	-2,563.90	0.00	0.00	0.00	0.00	415,538.70	762,548 90
900.00	0.00	0.00	900.00	-2,463.90	0.00	0 00	0.00	0.00	415,538.70	762,548.90
1,000.00	0.00	0.00	1,000.00	-2,363.90	0.00	0.00	0.00	0 00	415,538.70	762,548.90
1,100.00	0.00	0.00	1,100 00	-2,263.90	0.00	0 00	0.00	0.00	415,538.70	762,548.90
1,200.00	0.00	0.00	1,200.00	-2,163.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
1,300.00	0.00	0.00	1,300.00	-2,063.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
1,400.00	0.00	0.00	1,400.00	-1,963.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
1,500.00	0 00	0.00	1,500 00	-1,863.90	0 00	0.00	0.00	0 00	415,538.70	762,548 90
1,600 00	0 00	0.00	1,600.00	-1,763.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
1,700.00	0.00	0.00	1,700.00	-1,663.90	0.00	0 00	0.00	0.00	415,538.70	762,548.90
1,800.00	0 00	0.00	1,800 00	-1,563.90	0.00	0.00	0 00	0.00	415,538.70	762,548 90
1,900.00	0.00	0.00	1,900 00	-1,463.90	0.00	0.00	0.00	0 00	415,538.70	762,548.90
2,000.00	0.00	0 00	2,000.00	-1,363 90	0 00	0.00	0.00	0.00	415,538.70	762,548.90
2,100.00	0.00	0.00	2,100.00	-1,263.90	0.00	0.00	0.00	0 00	415,538.70	762,548.90
2,200 00	0.00	0.00	2,200.00	-1,163.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
2,300.00	0.00	0.00	2,300.00	-1,063 90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
2,400.00	0 00	0 00	2,400.00	-963.90	0.00	0.00	0 00	0.00	415,538.70	762,548.90
2,500.00	0.00	0.00	2,500.00	-863.90	0 00	0 00	0.00	0.00	415,538.70	762,548.90
2,600.00	0.00	0 00	2,600 00	-763 90	0.00	0.00	0.00	0 00	415,538.70	762,548.90

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-663.90	0.00	0.00	0.00	0.00	415,538 70	762,548.90
2,800.00	0 00	0.00	2,800.00	-563.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
2,900.00	0.00	0.00	2,900.00	-463.90	0.00	0 00	0.00	0.00	415,538.70	762,548.90
3,000.00	0 00	0 00	3,000.00	-363.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,100.00	0.00	0.00	3,100.00	-263.90	0 00	0.00	0.00	0.00	415,538.70	762,548.90
3,200.00	0.00	0.00	3,200.00	-163.90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,300.00	0.00	0.00	3,300.00	-63 90	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,400.00	0.00	0.00	3,400.00	36.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,500.00	0.00	0.00	3,500.00	136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,600.00	0.00	0.00	3,600.00	236 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
3,700.00	0.00	0.00	3,700.00	336.10	0 00	0.00	0.00	0.00	415,538.70	762,548.90
3,800.00	0.00	0.00	3,800.00	436.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
3,900.00	0.00	0.00	3,900.00	536.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,000.00	0.00	0 00	4,000.00	636.10	0 00	0.00	0.00	0.00	415,538.70	762,548.90
4,100.00	0.00	0.00	4,100.00	736 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,200.00	0.00	0.00	4,200.00	836.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
4,300.00	0 00	0.00	4,300 00	936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,400.00	0.00	0.00	4,400 00	1,036.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,500.00	0.00	0.00	4,500.00	1,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,600.00	0.00	0.00	4,600 00	1,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548 90
4,700.00	0.00	0 00	4,700.00	1,336.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
4,800 00	0.00	0.00	4,800.00	1,436.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
4,900 00	0.00	0.00	4,900 00	1,536.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
5,000 00	0.00	0 00	5,000 00	1,636 10	0.00	0.00	0.00	0 00	415,538.70	762,548.90
5,100.00	0.00	0.00	5,100 00	1,736.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
5,200.00	0.00	0 00	5,200.00	1,836.10	0.00	0.00	0.00	0 00	415,538 70	762,548.90
5,300.00	0.00	0.00	5,300.00	1,936.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	2,036.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
5,500.00	0.00	0.00	5,500.00	2,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
5,600.00	0.00	0.00	5,600.00	2,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
5,700.00	0.00	0.00	5,700.00	2,336.10	0 00	0.00	0.00	0.00	415,538.70	762,548.90
5,800.00	0 00	0.00	5,800.00	2,436.10	0.00	0.00	0.00	0.00	415,538 70	762,548.90
5,900.00	0.00	0.00	5,900.00	2,536.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,000.00	0.00	0.00	6,000.00	2,636.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,100 00	0 00	0 00	6,100.00	2,736.10	0 00	0.00	0.00	0.00	415,538.70	762,548 90
6,200.00	0 00	0.00	6,200.00	2,836.10	0.00	0.00	0 00	0.00	415,538 70	762,548.90
6,300.00	0.00	0.00	6,300.00	2,936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,400.00	0.00	0.00	6,400.00	3,036.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
6,500 00	0.00	0 00	6,500.00	3,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,600.00	0.00	0.00	6,600.00	3,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,700.00	0.00	0.00	6,700.00	3,336.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
6,800.00	0 00	0.00	6,800.00	3,436 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
6,900.00	0.00	0.00	6,900.00	3,536.10	0 00	0.00	0.00	0.00	415,538 70	762,548.90
7,000.00	0.00	0.00	7,000.00	3,636.10	0.00	0 00	0.00	0 00	415,538.70	762,548.90
7,100.00	0.00	0.00	7,100.00	3,736 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
7,200.00	0 00	0 00	7,200.00	3,836.10	0.00	0.00	0.00	0 00	415,538.70	762,548.90
7,300 00	0.00	0.00	7,300.00	3,936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
7,400.00	0 00	0.00	7,400 00	4,036 10	0.00	0 00	0.00	0.00	415,538 70	762,548.90
7,500.00	0.00	0.00	7,500.00	4,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
7,600.00	0 00	0.00	7,600.00	4,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
7,700.00	0.00	0.00	7,700.00	4,336.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
7,800.00	0.00	0.00	7,800 00	4,436.10	0.00	0.00	0.00	0.00	415,538.70	762,548 90
7,900.00	0.00	0.00	7,900.00	4,536.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,000.00	0.00	0.00	8,000.00	4,636.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,100.00	0.00	0.00	8,100.00	4,736.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,200.00	0.00	0.00	8,200.00	4,836.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
8,300 00	0.00	0.00	8,300.00	4,936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,400.00	0.00	0 00	8,400 00	5,036.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,500.00	0 00	0.00	8,500.00	5,136.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
8,600.00	0.00	0 00	8,600.00	5,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,700.00	0.00	0.00	8,700.00	5,336.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,800.00	0.00	0.00	8,800.00	5,436.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
8,900.00	0 00	0.00	8,900.00	5,536 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
9,000.00	0.00	0.00	9,000.00	5,636.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
9,100.00	0.00	0.00	9,100 00	5,736.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
9,200.00	0.00	0.00	9,200.00	5,836.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
9,300.00	0.00	0.00	9,300.00	5,936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
9,400.00	0.00	0.00	9,400.00	6,036.10	0.00	0.00	0.00	0.00	415,538 70	762,548.90
9,500.00	0.00	0.00	9,500.00	6,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
9,600.00	0.00	0.00	9,600.00	6,236.10	0.00	0.00	0.00	0 00	415,538.70	762,548.90
9,700.00	0.00	0.00	9,700.00	6,336.10	0.00	0.00	0.00	0.00	415,538.70	762,548 90
9,800.00	0.00	0.00	9,800 00	6,436.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
9,900 00	0.00	0.00	9,900.00	6,536.10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
10,000 00	0.00	0.00	10,000.00	6,636.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
10,100 00	0.00	0.00	10,100.00	6,736.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
10,200.00	0.00	0.00	10,200.00	6,836.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
10,300.00	0.00	0.00	10,300 00	6,936.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
10,400.00	0.00	0.00	10,400.00	7,036.10	0 00	0.00	0.00	0.00	415,538 70	762,548.90
10,500 00	0.00	0 00	10,500 00	7,136 10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
10,600.00	0.00	0 00	10,600.00	7,236.10	0 00	0.00	0.00	0.00	415,538.70	762,548.90
10,700.00	0.00	0.00	10,700.00	7,336.10	0.00	0.00	0.00	0 00	415,538.70	762,548.90

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #2H
Project:	Lea County	**TVD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	**MD Reference:**	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,800.00	0.00	0.00	10,800.00	7,436.10	0.00	0.00	0.00	0.00	415,538.70	762,548 90
10,900.00	0.00	0.00	10,900.00	7,536.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,000.00	0.00	0.00	11,000.00	7,636.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,100.00	0.00	0.00	11,100.00	7,736.10	0.00	0.00	0 00	0.00	415,538.70	762,548.90
11,200.00	0.00	0.00	11,200.00	7,836 10	0.00	0 00	0.00	0.00	415,538.70	762,548.90
11,300.00	0.00	0.00	11,300.00	7,936.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,400 00	0.00	0.00	11,400 00	8,036.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,500.00	0.00	0.00	11,500.00	8,136.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,600 00	0.00	0 00	11,600.00	8,236.10	0.00	0.00	0.00	0.00	415,538.70	762,548.90
11,610.50	0.00	0.00	11,610.50	8,246.60	0.00	0.00	0.00	0.00	415,538.70	762,548.90
KOP-11610.50'MD,0.00°INC,0.00°AZI,11610.50'TVD										
11,625.00	1.74	359.53	11,625.00	8,261.10	0.22	0.00	0.22	12.00	415,538 92	762,548.90
11,650.00	4.74	359.53	11,649.95	8,286 05	1.63	-0 01	1.63	12.00	415,540.33	762,548.89
11,675.00	7.74	359.53	11,674 80	8,310.90	4 35	-0.04	4.35	12.00	415,543.05	762,548.86
11,700 00	10.74	359.53	11,699.48	8,335.58	8.36	-0 07	8.36	12.00	415,547 06	762,548.83
11,725.00	13 74	359.53	11,723.91	8,360.01	13.66	-0 11	13.66	12.00	415,552 36	762,548.79
11,750.00	16.74	359.53	11,748.02	8,384.12	20.23	-0.17	20 23	12.00	415,558.93	762,548.73
11,775.00	19.74	359.53	11,771.77	8,407 87	28.06	-0.23	28.06	12.00	415,566.76	762,548.67
11,800.00	22.74	359.53	11,795.06	8,431.16	37.11	-0.30	37.11	12.00	415,575.81	762,548.60
11,825.00	25.74	359.53	11,817.86	8,453 96	47.37	-0.39	47.37	12 00	415,586.07	762,548.51
11,850.00	28.74	359 53	11,840.08	8,476.18	58.81	-0.48	58.81	12.00	415,597 51	762,548.42
11,875.00	31.74	359.53	11,861.68	8,497.78	71.40	-0.59	71.40	12 00	415,610.10	762,548.31
11,900.00	34.74	359.53	11,882.59	8,518.69	85.10	-0.70	85.10	12.00	415,623.80	762,548.20
11,925.00	37 74	359 53	11,902.75	8,538.85	99.88	-0.82	99.88	12.00	415,638 58	762,548 08
11,950.00	40.74	359.53	11,922.11	8,558.21	115.69	-0 95	115.69	12.00	415,654.39	762,547.95
11,975.00	43 74	359.53	11,940.62	8,576.72	132.49	-1.09	132.50	12.00	415,671.19	762,547 81
12,000.00	46.74	359.53	11,958.22	8,594.32	150.24	-1.23	150.24	12.00	415,688.94	762,547.67

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	MD Reference:	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
12,025.00	49.74	359.53	11,974.87	8,610.97	168.88	-1.39	168.89	12.00	415,707.58	762,547.51
12,050.00	52 74	359.53	11,990.52	8,626.62	188.37	-1 55	188.38	12.00	415,727.07	762,547.35
12,075.00	55.74	359.53	12,005.13	8,641.23	208.66	-1.71	208.66	12.00	415,747.36	762,547.19
12,100.00	58.74	359.53	12,018.66	8,654.76	229.68	-1.88	229.68	12 00	415,768.38	762,547.02
12,125.00	61 74	359.53	12,031.07	8,667.17	251.37	-2 06	251.38	12.00	415,790.07	762,546 84
12,150.00	64.74	359.53	12,042.32	8,678 42	273.69	-2.25	273.70	12.00	415,812 39	762,546 65
12,175.00	67.74	359 53	12,052 40	8,688.50	296 57	-2.43	296 58	12.00	415,835.27	762,546.47
12,200.00	70.73	359.53	12,061.26	8,697.36	319.94	-2.62	319.95	12.00	415,858.64	762,546.28
12,225.00	73 73	359.53	12,068.89	8,704.99	343.75	-2.82	343.76	12.00	415,882.45	762,546.08
12,250.00	76.73	359.53	12,075 26	8,711.36	367.92	-3 02	367.93	12 00	415,906.62	762,545.88
12,275.00	79.73	359 53	12,080.36	8,716.46	392.39	-3.22	392.40	12.00	415,931.09	762,545.68
12,300.00	82.73	359.53	12,084 17	8,720.27	417.09	-3.42	417.11	12 00	415,955.79	762,545.48
12,325.00	85 73	359.53	12,086.68	8,722.78	441.96	-3.63	441.98	12.00	415,980.66	762,545.27
12,350.00	88.73	359.53	12,087 88	8,723.98	466.93	-3.83	466.95	12.00	416,005.63	762,545.07
12,360.56	90.00	359.53	12,088.00	8,724.10	477.48	-3.92	477.50	12 00	416,016.18	762,544.98
EOC-12360.56'MD,90.00°INC,359.53°AZI,12088.00'TVD,12.00°DLS, 477.50'VS, 477.49'N, -3.92'E										
12,400.00	90.00	359.53	12,088.00	8,724 10	516.93	-4.24	516.94	0.00	416,055.63	762,544.66
12,500.00	90.00	359.53	12,088.00	8,724 10	616.92	-5 06	616.94	0.00	416,155.62	762,543.84
12,600.00	90.00	359.53	12,088.00	8,724.10	716.92	-5.88	716.94	0.00	416,255.62	762,543.02
12,700.00	90.00	359.53	12,088.00	8,724.10	816.92	-6.70	816.94	0.00	416,355.62	762,542.20
12,800.00	90.00	359.53	12,088.00	8,724.10	916.91	-7.52	916.94	0.00	416,455.61	762,541.38
12,900.00	90.00	359.53	12,088.00	8,724.10	1,016.91	-8.34	1,016.94	0.00	416,555.61	762,540.56
13,000.00	90.00	359.53	12,088.00	8,724.10	1,116.91	-9.16	1,116 94	0.00	416,655 61	762,539.74
13,100.00	90.00	359.53	12,088.00	8,724 10	1,216.90	-9.98	1,216.94	0.00	416,755.60	762,538.92
13,200.00	90.00	359.53	12,088.00	8,724.10	1,316.90	-10.80	1,316.94	0.00	416,855.60	762,538.10
13,300.00	90.00	359.53	12,088.00	8,724.10	1,416.90	-11.62	1,416.94	0.00	416,955.60	762,537.28
13,400.00	90 00	359.53	12,088.00	8,724.10	1,516.89	-12 44	1,516.94	0.00	417,055 59	762,536.46

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	MD Reference:	WELL @ 3363 90ft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
13,500.00	90.00	359.53	12,088 00	8,724.10	1,616.89	-13.26	1,616.94	0.00	417,155.59	762,535.64
13,600.00	90.00	359.53	12,088.00	8,724.10	1,716.89	-14.08	1,716.94	0.00	417,255.59	762,534.82
13,700.00	90.00	359.53	12,088.00	8,724.10	1,816.88	-14.90	1,816.94	0.00	417,355.58	762,534.00
13,800.00	90.00	359.53	12,088.00	8,724 10	1,916.88	-15 72	1,916.94	0.00	417,455.58	762,533.18
13,900.00	90.00	359.53	12,088.00	8,724.10	2,016.88	-16.54	2,016.94	0.00	417,555.58	762,532.36
14,000 00	90.00	359.53	12,088.00	8,724.10	2,116.87	-17.37	2,116.94	0.00	417,655.57	762,531.53
14,100.00	90.00	359 53	12,088 00	8,724.10	2,216.87	-18.19	2,216.94	0.00	417,755.57	762,530.71
14,200.00	90 00	359.53	12,088.00	8,724.10	2,316.87	-19.01	2,316.94	0.00	417,855.57	762,529.89
14,300.00	90.00	359.53	12,088.00	8,724.10	2,416.86	-19.83	2,416.94	0.00	417,955.56	762,529.07
14,400.00	90.00	359.53	12,088.00	8,724.10	2,516.86	-20.65	2,516 94	0 00	418,055.56	762,528.25
14,500.00	90.00	359.53	12,088.00	8,724.10	2,616.86	-21.47	2,616.94	0.00	418,155.56	762,527.43
14,600.00	90.00	359.53	12,088.00	8,724 10	2,716 85	-22.29	2,716.94	0.00	418,255.55	762,526.61
14,700.00	90.00	359.53	12,088.00	8,724.10	2,816.85	-23.11	2,816.94	0 00	418,355.55	762,525.79
14,800.00	90 00	359.53	12,088 00	8,724.10	2,916.85	-23.93	2,916.94	0.00	418,455.55	762,524.97
14,900.00	90.00	359.53	12,088.00	8,724.10	3,016 84	-24.75	3,016.94	0.00	418,555.54	762,524.15
15,000.00	90.00	359.53	12,088 00	8,724 10	3,116.84	-25.57	3,116.94	0.00	418,655 54	762,523.33
15,100.00	90.00	359.53	12,088.00	8,724.10	3,216 84	-26.39	3,216.94	0.00	418,755.54	762,522.51
15,200.00	90.00	359.53	12,088.00	8,724.10	3,316.83	-27.21	3,316.94	0.00	418,855.53	762,521.69
15,300.00	90.00	359 53	12,088.00	8,724.10	3,416.83	-28.03	3,416.94	0.00	418,955.53	762,520.87
15,400.00	90 00	359 53	12,088.00	8,724.10	3,516.83	-28.85	3,516.94	0.00	419,055.53	762,520.05
15,500.00	90.00	359.53	12,088.00	8,724.10	3,616.82	-29.67	3,616.94	0.00	419,155 52	762,519.23
15,600.00	90 00	359.53	12,088.00	8,724.10	3,716.82	-30.49	3,716.94	0.00	419,255.52	762,518.41
15,700 00	90.00	359.53	12,088.00	8,724.10	3,816.82	-31.31	3,816.94	0.00	419,355.52	762,517.59
15,800 00	90.00	359.53	12,088.00	8,724.10	3,916.81	-32.13	3,916.94	0.00	419,455.51	762,516.77
15,900.00	90.00	359.53	12,088.00	8,724.10	4,016.81	-32.95	4,016.94	0.00	419,555 51	762,515.95
16,000.00	90.00	359.53	12,088.00	8,724.10	4,116.81	-33.77	4,116.94	0.00	419,655.51	762,515.13
16,100.00	90.00	359 53	12,088.00	8,724.10	4,216.80	-34 59	4,216.94	0.00	419,755.50	762,514.31

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	WELL @ 3363.90ft (Original Well Elev)
Site:	Diamond "8" Fed Com	MD Reference:	WELL @ 3363.90ft (Original Well Elev)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
16,119.80	90.00	359.53	12,088.00	8,724.10	4,236.60	-34.75	4,236.74	0.00	419,775.30	762,514.15
TD at 16119.80 - PBHL(diamond#2H)										

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
PBHL(diamond#2H) - plan hits target - Point	0.00	0.00	12,088.00	4,236.60	-34.90	419,775.300	762,514.000	32° 9' 4.451 N	103° 29' 6.424 W

Formations

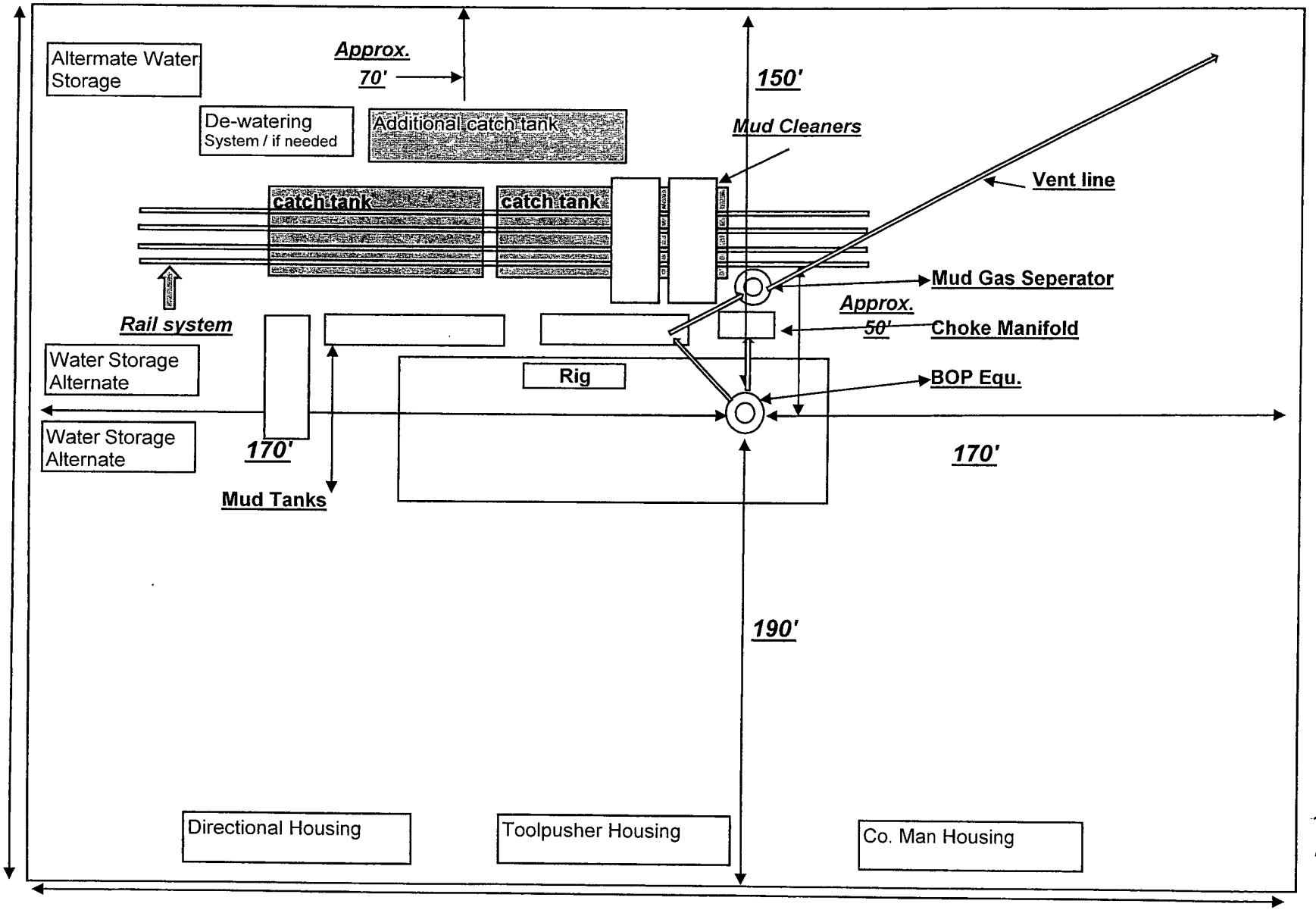
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
12,045.86	11,988.00	Top 3rd BS Sand		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
11,610.50	11,610.50	0.00	0.00	KOP-11610.50'MD,0.00°INC,0.00°AZI,11610.50'TVD
12,360.56	12,088.00	477.48	-3.92	EOC-12360.56'MD,90.00°INC,359.53°AZI,12088.00'TVD,12.00°DLS, 4
16,119.80	12,088.00	4,236.60	-34.75	TD at 16119.80

Checked By: _____ Approved By: _____ Date: _____

EXHIBIT 4



N

Diamond 8 Fed Com 2

Road

EOG Resources / Closed Loop Location Design Plan

Not to scale

6/30/2008

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.

2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.

3. All fittings to be flanged

4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.

5. All choke and fill lines to be securely anchored especially ends of choke lines.

6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

7. Kelly cock on kelly.

8. Extension wrenches and hand wheels to be properly installed.

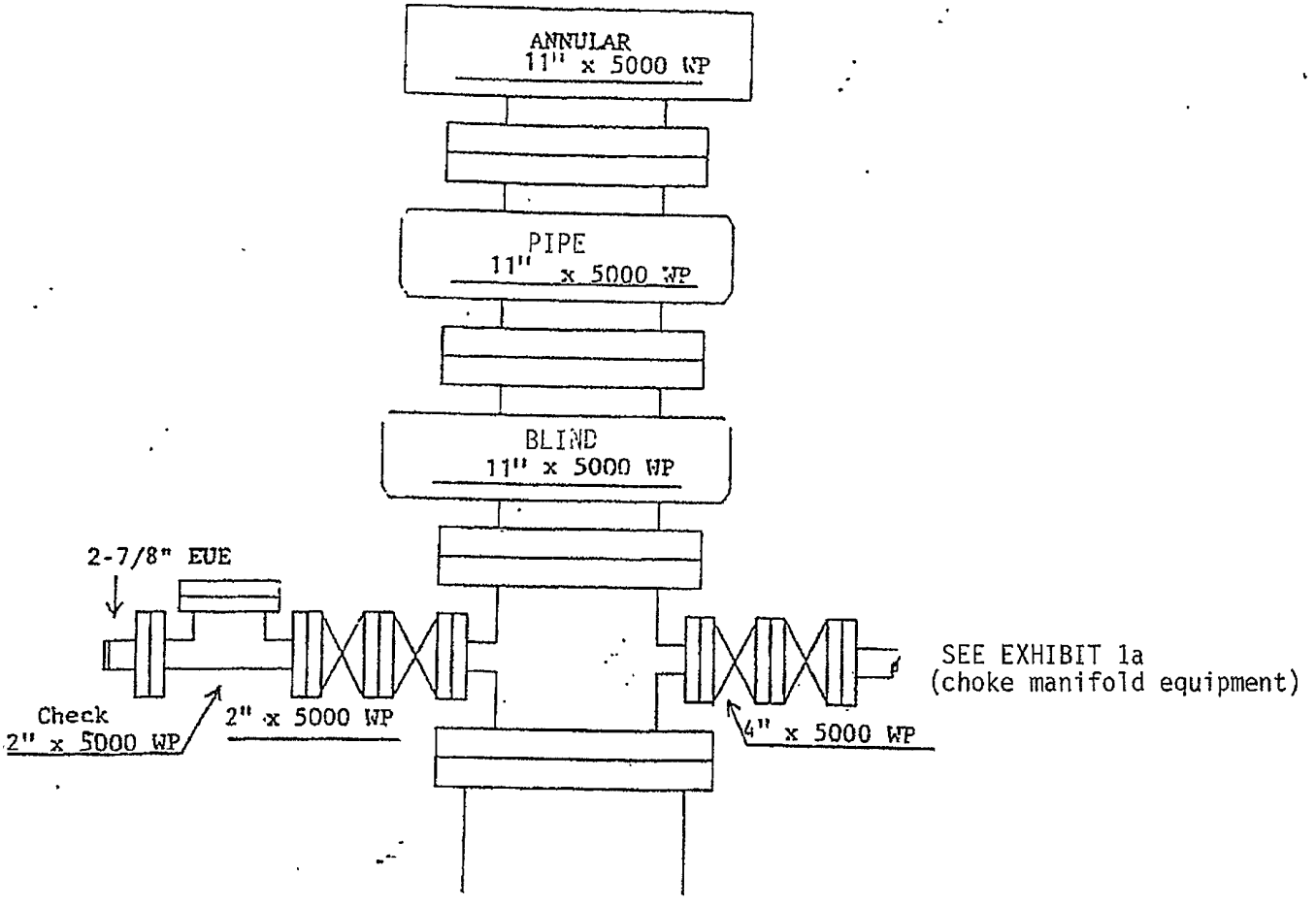
9. Blow out preventer control to be located as close to driller's position as feasible.

10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EXHIBIT 1

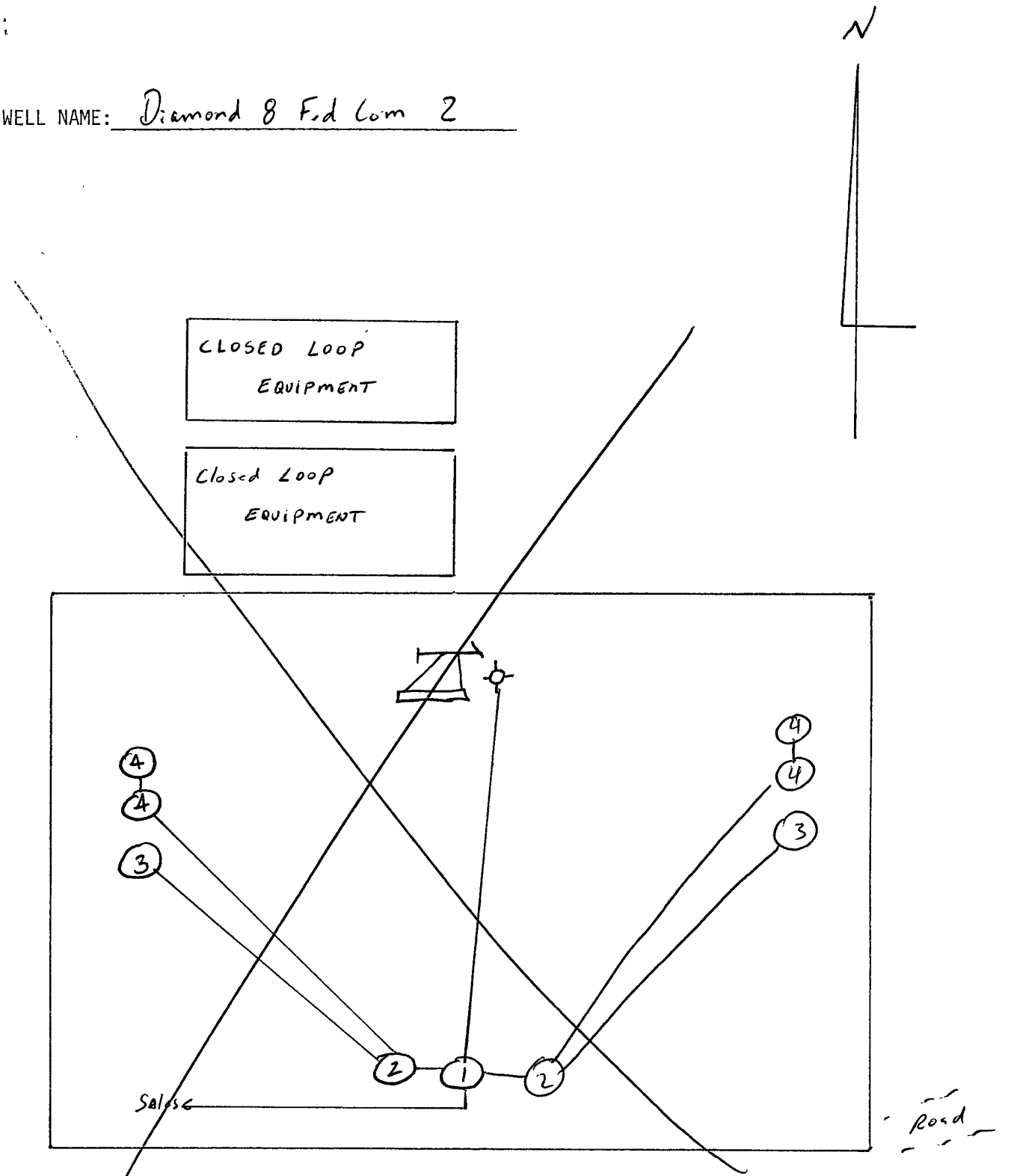
EOG Resources, Inc.

Diamond 8 Fed Com 2



PRODUCTION FACILITY LAYOUT

WELL NAME: Diamond 8 Fed Com 2



1. Separator
2. Heater
3. Water Tank
4. Oil Tank

Reverse (in COA) -TEN

"NOT TO SCALE"

Water tanks and oil tanks need to be placed on the east side of the pad. Pipeline needs to be routed by company.

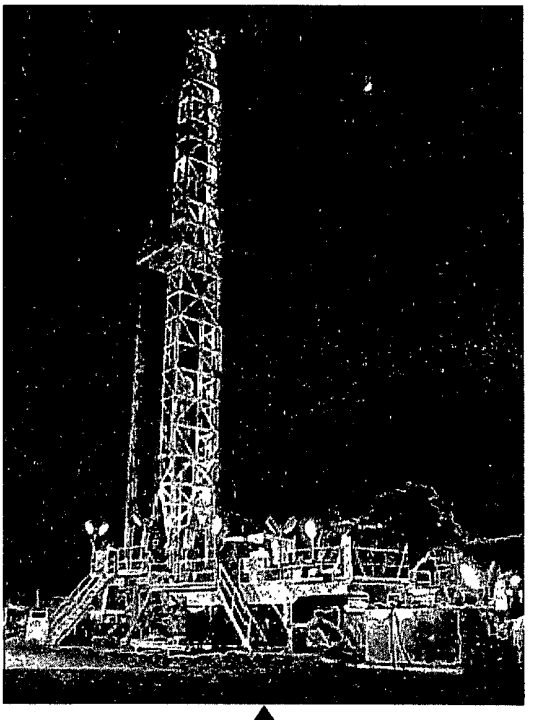
EOG Resources, Inc.

Legals:
Diamond "8" FED. COM #2
Lea Co. New Mexico

710' FSL & 660' FEL Surface Location
Section 8
T-25-S, R-34-E
Lat: N 32.1395902
Long: W 103.4851129

330' FNL & 660' FEL Bottom Hole Location
Section 8
T-25-S, R-34-E
Lat: N 32.1512363
Long: W 103.4851179

H_2S
"Contingency Plan"



SAFETY
SOLUTIONS, LLC.

Safety Solutions, LLC **(432) 686-8555**
3222 Commercial Dr. **Midland, TX 79701**

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H_2S CONTINGENCY PLAN SECTION

Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, or following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H_2S).

Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H_2S into the atmosphere.

Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

Discussion of Plan:

Suspected Problem Zones:

Implementation: This plan, with all details, is to be fully implemented 1000' before drilling into the first sour zone.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to 1000' before drilling into the first sour zone.

Emergency call list: Included are the telephone numbers of all persons that would need to be contacted, should an H_2S emergency occur.

Briefing: This section deals with the briefing of all persons involved with the drilling of this well.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

Check Lists: Status check lists and procedural check lists have been included to ensure adherence to the plan.

General Information: A general information section has been included to supply support information.

EMERGENCY PROCEDURES SECTION

I. In the event of any evidence of H_2S level above 10ppm, take the following steps immediately:

   a. Secure breathing apparatus.

   b. Order non-essential personnel out of the danger zone.

   c. Take steps to determine if the H_2S level can be corrected or suppressed, and if so, proceed with normal operations.

II. If uncontrollable conditions occur, proceed with the following:

   a. Take steps to protect and/or remove any public downwind of the rig, including partial evacuation or isolation. Notify necessary public safety personnel and the New Mexico Oil Conservation Division of the situation.

   b. Remove all personnel to the Safe Briefing Area.

   c. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.

   d. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety measures.

III. Responsibility:

   a. The Company Approved Supervisor shall be responsible for the total implementation of the plan.

   b. The Company Approved Supervisor shall be in complete command during any emergency.

   c. The Company Approved Supervisor shall designate a back up Supervisor in the event that he/she is not available.

EMERGENCY PROCEDURE IMPLEMENTATION

I. Drilling or Tripping

a. *All Personnel*

- **i.** When alarm sounds, don escape unit and report to upwind Safe Briefing Area.
- **ii.** Check status of other personnel (buddy system).
- **iii.** Secure breathing apparatus.
- **iv.** Wait for orders from supervisor.

b. *Drilling Foreman*

- **i.** Report to the upwind Safe Briefing Area.
- **ii.** Don Breathing Apparatus and return to the point of release with the Tool Pusher or Driller (buddy system).
- **iii.** Determine the concentration of H_2S.
- **iv.** Assess the situation and take appropriate control measures.

c. *Tool Pusher*

- **i.** Report to the upwind Safe Briefing Area.
- **ii.** Don Breathing Apparatus and return to the point of release with the Drilling Foreman or the Driller (buddy system).
- **iii.** Determine the concentration of H_2S.
- **iv.** Assess the situation and take appropriate control measures.

d. *Driller*

- **i.** Check the status of other personnel (in a rescue attempt, always use the buddy system).
- **ii.** Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
- **iii.** Assume the responsiblility of the Drilling Foreman and the Tool Pusher until they arrive, in the event of their absence.

e. *Derrick Man and Floor Hands*

i. Remain in the upwind Safe Briefing Area until otherwise instructed by a supervisor.

f. *Mud Engineer*

i. Report to the upwind Safe Briefing Area.

ii. When instructed, begin check of mud for pH level and H_2S level.

g. *Safety Personnel*

i. Don Breathing Apparatus.

ii. Check status of personnel.

iii. Wait for instructions from Drilling Foreman or Tool Pusher.

II. Taking a Kick

a. All Personnel report to the upwind Safe Briefing Area.

b. Follow standard BOP procedures.

III. Open Hole Logging

a. All unnecessary personnel should leave the rig floor.

b. Drilling Foreman and Safety Personnel should monitor the conditions and make necessary safety equipment recommendations.

IV. Running Casing or Plugging

a. Follow "Drilling or Tripping" procedures.

b. Assure that all personnel have access to protective equipment.

SIMULATED BLOWOUT CONTROL DRILLS

All drills will be initiated by activating alarm devices (air horn). One long blast, on the air horn, for ACTUAL and SIMULATED Blowout Control Drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

Drill #1 Bottom Drilling

Drill #2 Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.:
Reaction Time to Shut-In: minutes, seconds.
Total Time to Complete Assignment: minutes, seconds.

I. Drill Overviews

a. Drill No. 1 – Bottom Drilling

i. Sound the alarm immediately.

ii. Stop the rotary and hoist Kelly joint above the rotary table.

iii. Stop the circulatory pump.

iv. Close the drill pipe rams.

v. Record casing and drill pipe shut-in pressures and pit volume increases.

b. Drill No. 2 – Tripping Drill Pipe

i. Sound the alarm immediately.

ii. Position the upper tool joint just above the rotary table and set the slips.

iii. Install a full opening valve or inside blowout preventer tool in order to close the drill pipe.

iv. Close the drill pipe rams.

v. Record the shut-in annular pressure.

II. Crew Assignments

a. Drill No. 1 – Bottom Drilling

i. Driller

1. Stop the rotary and hoist Kelly joint above the rotary table.
2. Stop the circulatory pump.
3. Check Flow.
4. If flowing, sound the alarm immediately
5. Record the shit-in drill pipe pressure
6. Determine the mud weight increase needed or other courses of action.

ii. Derrickman

1. Open choke line valve at BOP.
2. Signal Floor Man #1 at accumulator that choke line is open.
3. Close choke and upstream valve after pipe tam have been closed.
4. Read the shut-in annular pressure and report readings to Driller.

iii. Floor Man #1

1. Close the pipe rams after receiving the signal from the Derrickman.
2. Report to Driller for further instructions.

iv. Floor Man #2

1. Notify the Tool Pusher and Operator representative of the H_2S alarms.
2. Check for open fires and, if safe to do so, extinguish them.
3. Stop all welding operations.
4. Turn-off all non-explosions proof lights and instruments.
5. Report to Driller for further instructions.

v. Tool Pusher

1. Report to the rig floor.
2. Have a meeting with all crews.

3. Compile and summarize all information.

4. Calculate the proper kill weight.

5. Ensure that proper well procedures are put into action.

vi. Operator Representative

1. Notify the Drilling Superintendent.

2. Determine if an emergency exists and if so, activate the contingency plan.

b. Drill No. 2 – Tripping Pipe

i. Driller

1. Sound the alarm immediately when mud volume increase has been detected.

2. Position the upper tool joint just above the rotary table and set slips.

3. Install a full opening valve or inside blowout preventer tool to close the drill pipe.

4. Check flow.

5. Record all data reported by the crew.

6. Determine the course of action.

ii. Derrickman

1. Come down out of derrick.

2. Notify Tool Pusher and Operator Representative.

3. Check for open fires and, if safe to do so , extinguish them.

4. Stop all welding operations.

5. Report to Driller for further instructions.

iii. Floor Man #1

1. Pick up full opening valve or inside blowout preventer tool and stab into tool joint above rotary table (with Floor Man #2).

2. Tighten valve with back-up tongs.

3. Close pipe rams after signal from Floor Man #2.

4. Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.

5. Report to Driller for further instructions.

iv. Floor Man #2

1. Pick-up full opening valve or inside blowout preventer tool and stab into tool joint above rotary table (with Floor Man #1).

2. Position back-up tongs on drill pipe.

3. Open choke line valve at BOP.

4. Signal Floor Man #1 at accumulator that choke line is open.

5. Close choke and upstream valve after pipe rams have been closed.

6. Check for leaks on BOP stack and choke manifold.

7. Read annular pressure.

8. Report readings to the Driller.

v. Tool Pusher

1. Report to the rig floor.

2. Have a meeting with all of the crews.

3. Compile and summarize all information.

4. See that proper well kill procedures are put into action.

vi. Operator Representative

1. Notify Drilling Superintendent

2. Determine if an emergency exists, and if so, activate the contingency plan.

IGNITION PROCEDURES

Responsibility:

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.

2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well:

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and must use a full body harness and attach a retrievable safety line to the D-Ring in the back. One man must monitor the atmosphere for explosive gases with the LEL monitor, while the Drilling Foreman is responsible for igniting the well.

2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.

3. Ignite from upwind and do not approach any closer than is warranted.

4. Select the ignition site best suited for protection and which offers an easy escape route.

5. Before igniting, check for the presence of combustible gases.

6. After igniting, continue emergency actions and procedures as before.

7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

Note: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

TRAINING PROGRAM

When working in an area where Hydrogen Sulfide (H_2S) might be encountered, definite training requirements must be carried out. The Company Supervisor will ensure that all personnel, at the well site, have had adequate training in the following:

1. Hazards and characteristics of Hydrogen Sulfide.
2. Physicals effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H_2S detection, Emergency alarm and sensor location.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of Hydrogen Sulfide on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H_2S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

EMERGENCY EQUIPMENT REQUIREMENTS

Lease Entrance Sign:

Should be located at the lease entrance with the following information:

CAUTION – POTENTIAL POISON GAS
HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION

Respiratory Equipment:

- Fresh air breathing equipment should be placed at the safe briefing areas and should include the following:
- Two SCBA's at each briefing area.
- Enough air line units to operate safely, anytime the H_2S concentration reaches the IDLH level (100 ppm).
- Cascade system with enough breathing air hose and manifolds to reach the rig floor, the derrickman and the other operation areas.

Windsocks or Wind Streamers:

- A minimum of two 10" windsocks located at strategic locations so that they may be seen from any point on location.
- Wind streamers (if preferred) should be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).

Hydrogen Sulfide Detector and Alarms:

- 1 - Four channel H_2S monitor with alarms.
- Four (4) sensors located as follows: #1 – Rig Floor, #2 – Bell Nipple, #3 – Shale Shaker, #4 – Mud Pits.
- Gastec or Draeger pump with tubes.
- Sensor test gas.

Well Condition Sign and Flags:

The Well Condition Sign w/flags should be placed a minimum of 150' before you enter the location. It should have three (3) color coded flags (green, yellow and red) that will be used to denote the following location conditions:

GREEN – Normal Operating Conditions
YELLOW – Potential Danger
RED – Danger, H_2S Gas Present

Auxiliary Rescue Equipment:

- Stretcher
- 2 – 100' Rescue lines.
- First Aid Kit properly stocked.

Mud Inspection Equipment:

Garret Gas Train or Hach Tester for inspection of Hydrogen Sulfide in the drilling mud system.

Fire Extinguishers:

Adequate fire extinguishers shall be located at strategic locations.

Blowout Preventer:

- The well shall have hydraulic BOP equipment for the anticipated BHP.
- The BOP should be tested upon installation.
- BOP, Choke Line and Kill Line will be tested as specified by Operator.

Confined Space Monitor:

There should be a portable multi-gas monitor with at least 3 sensors (O_2, LEL H_2S). This instrument should be used to test the atmosphere of any confined space before entering. It should also be used for atmospheric testing for LEL gas before beginning any type of Hot Work. Proper calibration documentation will need to be provided.

Communication Equipment:

- Proper communication equipment such as cell phones or 2-way radios should be available at the rig.
- Radio communication shall be available for communication between the company man's trailer, rig floor and the tool pusher's trailer.

- Communication equipment shall be available on the vehicles.

Special Control Equipment:

- Hydraulic BOP equipment with remote control on the ground.
- Rotating head at the surface casing point.

Evacuation Plan:

- Evacuation routes should be established prior to spudding the well.
- Should be discussed with all rig personnel.

Designated Areas:

Parking and Visitor area:

- All vehicles are to be parked at a pre-determined safe distance from the wellhead.
- Designated smoking area.

Safe Briefing Areas:

- Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
- Personal protective equipment should be stored at both briefing areas or if a moveable cascade trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both briefing areas should be accessible.

Note:

- Additional equipment will be available at the Safety Solutions, LLC office.
- Additional personal H_2S monitors are available for all employees on location.
- Automatic Flare Igniters are recommended for installation on the rig.

CHECK LISTS

Status Check List

Note: Date each item as they are implemented.

1. Sign at location entrance. _____
2. Two (2) wind socks (in required locations). _____
3. Wind Streamers (if required). _____
4. SCBA's on location for all rig personnel and mud loggers. _____
5. Air packs, inspected and ready for use. _____
6. Spare bottles for each air pack (if required). _____
7. Cascade system for refilling air bottles. _____
8. Cascade system and hose line hook up. _____
9. Choke manifold hooked-up and tested. (before drilling out surface casing.) _____
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing). _____
11. BOP tested (before drilling out surface casing). _____
12. Mud engineer on location with equipment to test mud for H_2S. _____
13. Safe Briefing Areas set-up _____
14. Well Condition sign and flags on location and ready. _____
15. Hydrogen Sulfide detection system hooked -up & tested. _____
16. Hydrogen Sulfide alarm system hooked-up & tested. _____
17. Stretcher on location at Safe Briefing Area. _____
18. 2 – 100' Life Lines on location. _____
19. 1 – 20# Fire Extinguisher in safety trailer. _____
20. Confined Space Monitor on location and tested. _____
21. All rig crews and supervisor trained (as required). _____

22. Access restricted for unauthorized personnel. _____

23. Drills on H_2S and well control procedures. _____

24. All outside service contractors advised of potential H_2S on the well. _____

25. NO SMOKNG sign posted. _____

26. H_2S Detector Pump w/tubes on location. _____

27. 25mm Flare Gun on location w/flares. _____

28. Automatic Flare Igniter installed on rig. _____

Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.
2. Check breathing equipment to insure that they have not been tampered with.
3. Check pressure on the supply air bottles to make sure they are capable of recharging.
4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that they are fully charged and operational. This requires that the air cylinder be opened and the mask assembly be put on and tested to make sure that the regulators and masks are properly working. Negative and Positive pressure should be conducted on all masks.
2. BOP skills.
3. Check supply pressure on BOP accumulator stand-by source.
4. Check all breathing air mask assemblies to see that straps are loosened and turned back, ready for use.
5. Check pressure on cascade air cylinders to make sure they are fully charged and ready to use for refill purposes if necessary.
6. Check all cascade system regulators to make sure they work properly.
7. Perform breathing drills with on-site personnel.
8. Check the following supplies for availability:
    - Stretcher
    - Safety Belts and Ropes
    - Spare air Bottles
    - Spare Oxygen Bottles (if resuscitator required)
    - Gas Detector Pump and Tubes
    - Emergency telephone lists
9. Test the Confined Space Monitor to verify the batteries are good

BRIEFING PROCEDURES

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well.
Attendance: Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Tool Pushers
Rig Drillers
Mud Engineer
All Safety Personnel
Key Service Company Personnel

Purpose: Review and discuss the well program, step-by-step, to insure complete understanding of assignments and responsibilities.

EVACUATION PLAN

General Plan

The direct lines of action prepared by SAFETY SOLUTIONS, LLC to protect the public from hazardous gas situations are as follows:

1. When the company approved supervisor (Drilling Foreman, Tool Pusher or Driller) determine that Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the area map.

2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.

3. Company approved safety personnel that have been trained in the use of the proper emergency equipment will be utilized.

4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

See Emergency Action Plan

Emergency Assistance Telephone List

PUBLIC SAFETY:	911 or
Eddy County Sheriff's Department	(575) 887-7551
Kent Waller	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office	(432) 686-3600
Company Drilling Consultants:		
Danny Kiser	Cell	(281) 833-2749
Drilling Engineer		
Steve Munsell	Office	(432) 686-3609
	Cell	(432) 894-1256
Operations Manager		
Joel Pettit	Office	(432) 686-3705
	Cell	(432)894-1226
Drilling Superintendent		
Barney Thompson	Office	(432) 686-3678
	Cell	(432) 254-9056
Field Drilling Superintendent		
Ron Welch	Cell	(432) 386-0592
McVay Drilling		
McVay Drilling / Hobbs	Office	(575) 397-3311
McVay Drilling Rig #4	Rig	(575) 370-5598
Tool Pusher:		
Terry Johnson	Cell	(575) 370-5620
Safety Consultants		
Safety Solutions, LLC	Office	(432) 686-8555
Cliff Strasner	Cell	(432) 894-9789
Craig Strasner	Cell	(432) 894-0341

Affected Notification List

(within a 65' radius of exposure @100ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H_2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:
Residents: **THERE ARE NO RESIDENTS WITHIN 3000' ROE.**

Notification Process:

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

Evacuation Plan:
All evacuees will migrate lateral to the wind direction.

The Oil Company will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local and emergency medical service as necessary.

OPERATOR CERTIFICATION

I certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal Laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true, and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 30th day of September, 2009.

Name: Donny G. Glanton
Position: Sr. Lease Operations ROW Representative
Address: P.O. Box 2267 Midland, TX 79705
Telephone: 432-686-3642
Email: donny_glanton@eogresources.com

Signed: D. G. Glanton

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG Resources
LEASE NO.:	NM14497
WELL NAME & NO.:	2 Diamond 8 Fed Com
SURFACE HOLE FOOTAGE:	710' FSL & 660' FEL
BOTTOM HOLE FOOTAGE	330' FNL & 660' FEL
LOCATION:	Section 8, T. 25 S., R 34 E., NMPM
COUNTY:	Lea 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
- Ground-level Abandoned Well Marker to avoid raptor perching
- Communitization Agreement

☒ **Construction**
- Notification
- Topsoil
- Closed Loop System
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☒ **Drilling**
- Logging Requirements
- Casing/Cement

☒ **Production (Post Drilling)**
- Well Structures & Facilities
  - Placement of production facilities
  - Placement of electric line

☒ **Interim Reclamation/Reseeding Procedure**
☐ **Final Abandonment/Reclamation**

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.

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. Operator to supply NMOCD order, which details the vertical and horizontal extent of pool to verify that requested communitization is within an approved and established pool. NMOCD form C-123 – pool designation request.

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

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.

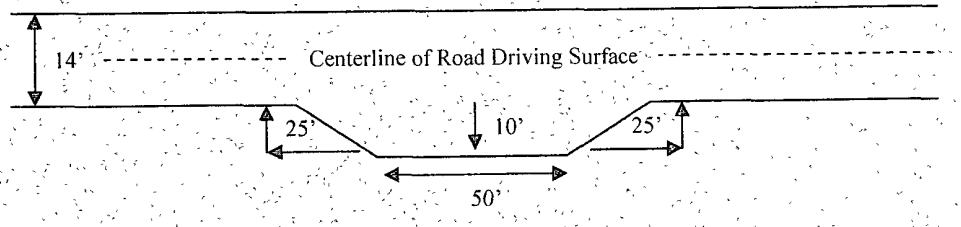
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing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

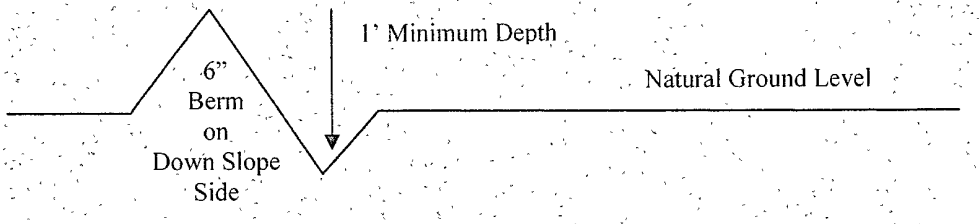
Standard Turnout – Plan View



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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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.

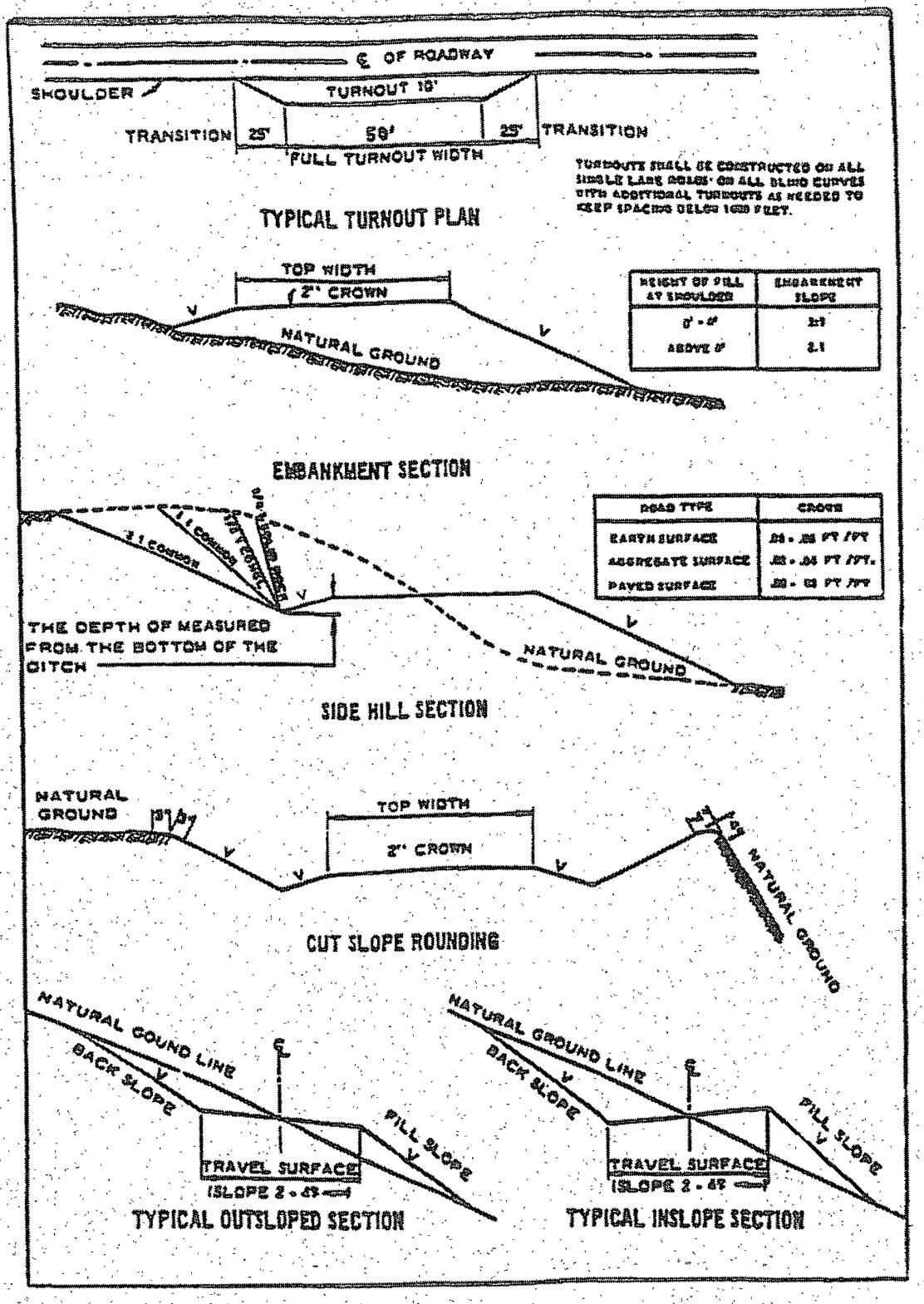
Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Bone Springs** 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. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **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 lost circulation in the Chinle, Salado, and the Castile groups.
Possible high bottom hole pressure in the Wolfcamp (pilot hole).

1. The **13-3/8** inch surface casing shall be set at **approximately 1040 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Additional cement may be required because calculated cement excess is only 7%. Fresh water mud is to be used until surface casing is set.**

    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 **9-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
    Set casing within the Lamar Limestone at approximately 5280 feet.

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

3. The cement used to fill the pilot hole shall be 300sx from **11,300'-11,900'**. This shall be allowed with the addition of a **220'** plug spotted at TD. The plug will have a WOC time and a tag of **11980'** or shallower with a PET to witness (4 hour minimum notice). With the close proximity of the plugs, a single plug from **11,300'-TD** will be allowed. If the solid plug option is used, a tag will not be required.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

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

   a. 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. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

DHW 102809

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

Placement of Electric Line
In the event that the well needs electricity by means of an overhead electric line, the electric line shall be routed along the proposed access road for the Diamond 8 Fed Com 2 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

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.

At the time reserve pits are to be reclaimed, 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.

B. RESEEDING PROCEDURE

Once the well is drilled, all completion procedures accomplished and all trash removed, reseed the location and all surrounding disturbed areas as follows:

Seed Mixture 2, for Sandy 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 no primary or 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	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

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.

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.

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.