AUG - 5 2009

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

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
30-015- 37207	60660	Turkey Track; Bone Spring

Property Code	Property Name	Well Number
33359	PARKWAY 23 STATE COM	3H

OGRID No.	Operator Name	Elevation
7377	EOG RESOURCES, INC.	3311.0'

Surface Location

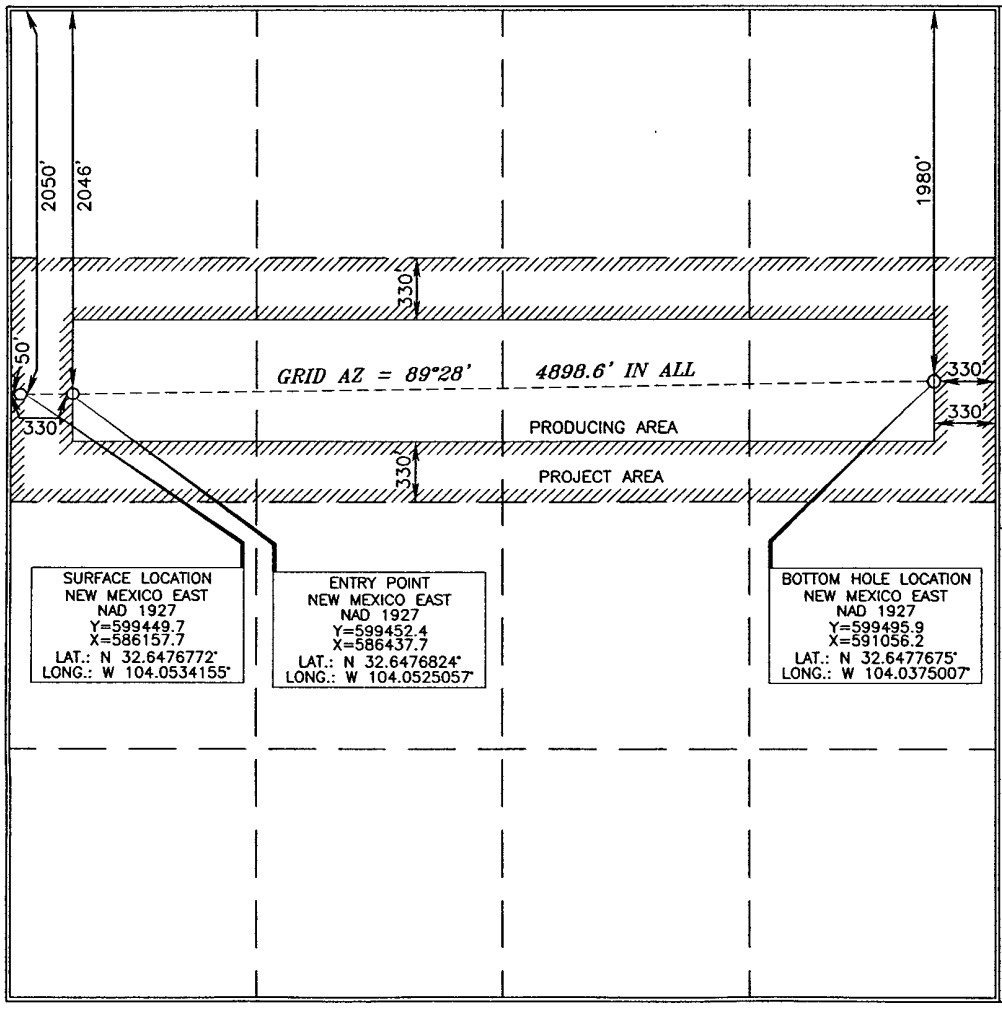
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	23	19 SOUTH	29 EAST, N.M.P.M.		2050	NORTH	50	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	19 SOUTH	29 EAST, N.M.P.M.		1980	NORTH	330	EAST	EDDY

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 — Date: 7/29/09

Donna 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.

JUNE 25, 2009
Date of Survey

Signature and Seal of Professional Surveyor:

NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

7/2/2009

Certificate Number 15079

WO# 090625WL-b (KA)

Permit Information:

Well Name: Parkway 23 State Com #3H

Location:

SL 2050' FNL & 50' FWL, Section 23, T-19-S, R-29-E, Eddy Co., N.M.

BHL 1980' FNL & 330' FEL, Section 23, T-18-S, R-30-E, Eddy Co., N.M.

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	360'	14-3/4"	11-3/4"	42#	H-40	Surface
Intermediate	3,300'	11"	8-5/8"	32#	J-55	Surface
Production	12,652'	7-7/8"	5 ½"	17#	N-80	2800'

Cement Program:

Depth	No. Sacks	Slurries:
360'	500	Premium Plus C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L
3,300'	650	Lead: Class C + 2% SMS + 1.0% R-3 + 0.25 pps CelloFlake + 0.005 pps Static Free
	200	Tail: Premium Plus C + 0.25 pps CelloFlake + 0.005 pps Static Free
12,652'	750	Lead: 50:50:10 Poz:C:Gel+ 0.005 pps Static Free + 0.25 pps CelloFlake + 0.005 gps FP-6L + 0.80% FL-52A + 0.30% ASA-301 + 0.15% SMS
	1000	Tail: 50:50:2 Poz: H: Gel + 0.005 pps Static Free + 5% NaCl + 0.2% CD-32 + 0.65% FL-52A

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 360'	Fresh - Gel	8.6-8.8	28-34	N/c
360' – 3,300'	Brine	10.0-10.2	28-34	N/c
3,300' – 7,000'	Fresh Water	8.4 – 8.6	28-34	N/c
7,000' – 7,500'	Cut Brine	8.8-9.6	28-34	N/c
7,500' – 8,400'	Cut Brine	8.8-9.6	28-34	10-15
KOP – 12,652'	Cut Brine/ Polymer (Lateral)	8.8-9.6	40-45	10-25

eog resources

Project: Eddy County
Site: Parkway 23 State Com
Well: #3H
Wellbore: OH
Plan: Plan #1 (#3H/OH)

T G M

Azimuths to Grid North
True North: -0.15°
Magnetic North: 7.90°

Magnetic Field
Strength: 49034.8snT
Dip Angle: 60.56°
Date: 07/28/2009
Model: IGRF200510

PATHFINDER

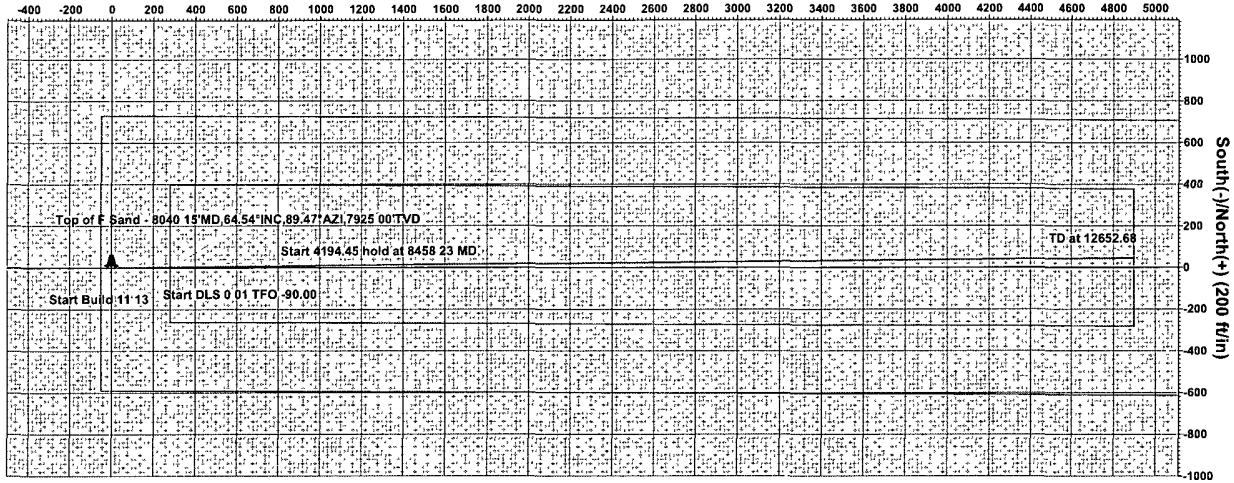
SECTION DETAILS

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	7460 00	0 00	0.00	7460.00	0 00	0 00	0 00	0.00	0.00	
3	8268.96	90 00	89 47	7975 00	4 76	514 98	11 13	89 47	515 00	
4	8458 23	90 00	89.46	7975.00	6 53	704 24	0 01	-90 00	704 27	
5	12652 68	90 00	89.46	7975.00	46.20	4898 50	0.00	0 00	4898.72	PBHL(P23S#3H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(P23S#3H)	7975 00	46 20	4898 50	599495 900	591056 200	Point

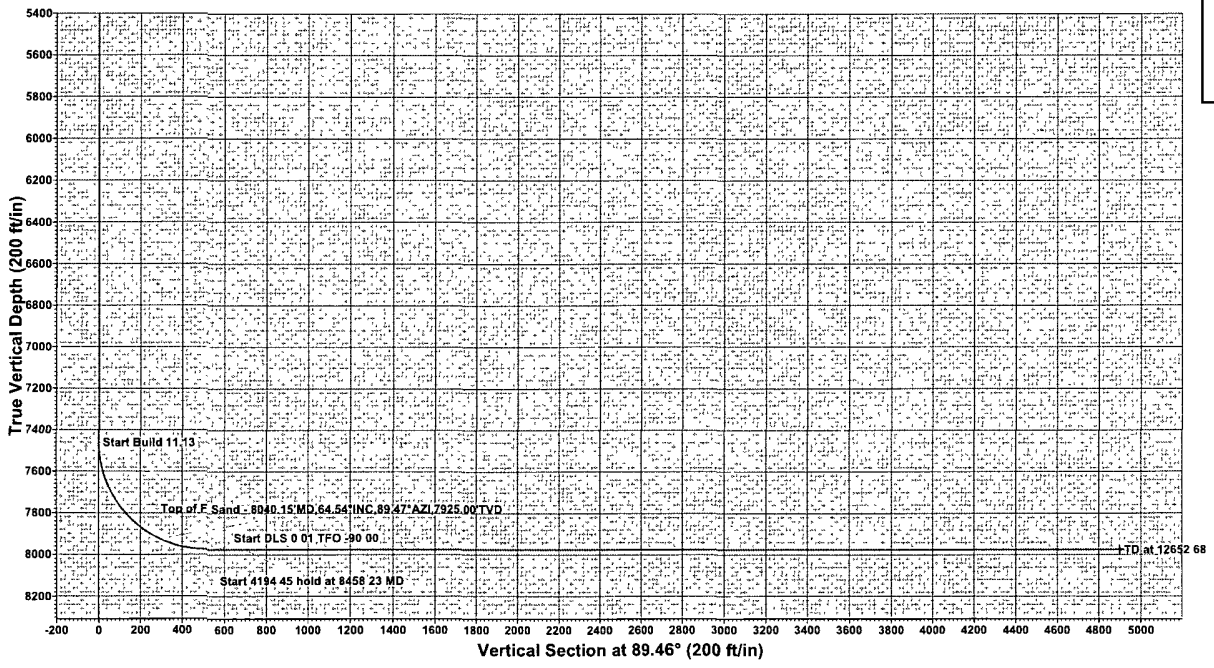
West(-)/East(+) (200 ft/in)



WELL DETAILS #3H

Ground Elevation: 3311 00
RKB Elevation: WELL @ 3330 00ft (19' KB Correction)
Rig Name: 19' KB Correction

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	599449 700	586157 700	32° 38' 51 637 N	104° 3' 12 296 W	



PROJECT DETAILS. Eddy 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

Plan Plan #1 (#3H/OH)

Created By Nate Bingham Date 15 17, July 28 2009

Checked _____ Date _____

eog resources

EOG Resources, Inc.

Eddy County
Parkway 23 State Com
#3H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

28 July, 2009

PATHFINDER

Company:	EOG Resources, Inc	**Local Co-ordinate Reference:**	Well #3H
Project:	Eddy County	**TVD Reference:**	WELL @ 3330.00ft (19' KB Correction)
Site:	Parkway 23 State Com	**MD Reference:**	WELL @ 3330.00ft (19' KB Correction)
Well:	#3H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Eddy 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 Parkway 23 State Com

Site Position:		**Northing:**	600,739 000 ft	**Latitude:**	32° 39' 4 392 N
From:	Map	**Easting:**	586,310 400 ft	**Longitude:**	104° 3' 10 470 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0 15 °

Well #3H

Well Position	**+N/-S**	0 00 ft	**Northing:**	599,449.700 ft	**Latitude:**	32° 38' 51.637 N
	+E/-W	0.00 ft	**Easting:**	586,157 700 ft	**Longitude:**	104° 3' 12.296 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,311.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/28/2009	8.05	60 56	49,035

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	89.46

Survey Tool Program **Date** 07/28/2009

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	12,652.68	Plan #1 (OH)	MWD	MWD - Standard

Company:	EOG Resources, Inc	**Local Co-ordinate Reference:**	Well #3H
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Well:	#3H	**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	-3,330 00	0.00	0 00	0.00	0 00	599,449.70	586,157.70
100.00	0.00	0.00	100 00	-3,230.00	0 00	0.00	0 00	0.00	599,449 70	586,157.70
200.00	0 00	0 00	200 00	-3,130.00	0 00	0.00	0.00	0.00	599,449 70	586,157.70
300 00	0 00	0.00	300.00	-3,030.00	0.00	0 00	0.00	0 00	599,449.70	586,157.70
400 00	0 00	0 00	400.00	-2,930.00	0.00	0 00	0.00	0.00	599,449.70	586,157.70
500 00	0.00	0 00	500.00	-2,830.00	0.00	0 00	0.00	0 00	599,449.70	586,157.70
600 00	0.00	0.00	600.00	-2,730 00	0 00	0.00	0.00	0.00	599,449 70	586,157.70
700.00	0 00	0.00	700.00	-2,630 00	0.00	0 00	0 00	0.00	599,449 70	586,157.70
800.00	0.00	0 00	800.00	-2,530 00	0.00	0.00	0 00	0.00	599,449 70	586,157 70
900.00	0 00	0 00	900.00	-2,430 00	0.00	0 00	0.00	0 00	599,449 70	586,157.70
1,000.00	0 00	0 00	1,000 00	-2,330 00	0 00	0 00	0.00	0.00	599,449 70	586,157.70
1,100.00	0 00	0 00	1,100.00	-2,230.00	0 00	0 00	0.00	0.00	599,449 70	586,157 70
1,200.00	0.00	0.00	1,200 00	-2,130.00	0 00	0.00	0 00	0 00	599,449.70	586,157.70
1,300 00	0 00	0 00	1,300.00	-2,030 00	0.00	0 00	0.00	0.00	599,449 70	586,157 70
1,400.00	0.00	0 00	1,400 00	-1,930 00	0 00	0.00	0 00	0.00	599,449 70	586,157 70
1,500 00	0.00	0 00	1,500 00	-1,830 00	0.00	0 00	0.00	0 00	599,449 70	586,157.70
1,600.00	0.00	0 00	1,600 00	-1,730 00	0.00	0.00	0 00	0.00	599,449 70	586,157.70
1,700.00	0 00	0 00	1,700 00	-1,630 00	0.00	0.00	0 00	0.00	599,449 70	586,157 70
1,800.00	0.00	0.00	1,800.00	-1,530.00	0.00	0.00	0.00	0.00	599,449.70	586,157.70
1,900 00	0 00	0 00	1,900.00	-1,430.00	0 00	0.00	0.00	0.00	599,449.70	586,157.70
2,000 00	0.00	0 00	2,000.00	-1,330.00	0 00	0.00	0.00	0.00	599,449 70	586,157 70
2,100 00	0 00	0 00	2,100.00	-1,230 00	0 00	0 00	0.00	0.00	599,449 70	586,157.70
2,200.00	0.00	0 00	2,200 00	-1,130.00	0.00	0.00	0.00	0.00	599,449 70	586,157 70
2,300 00	0 00	0 00	2,300.00	-1,030 00	0 00	0.00	0.00	0.00	599,449 70	586,157.70
2,400 00	0.00	0.00	2,400 00	-930 00	0 00	0 00	0.00	0.00	599,449 70	586,157.70
2,500.00	0 00	0 00	2,500.00	-830 00	0 00	0.00	0.00	0.00	599,449 70	586,157.70
2,600 00	0.00	0 00	2,600 00	-730 00	0 00	0 00	0.00	0.00	599,449.70	586,157 70

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Eddy County	**TVD Reference:**	WELL @ 3330 00ft (19' KB Correction)
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Well:	#3H	**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	-630 00	0 00	0.00	0 00	0.00	599,449.70	586,157 70
2,800.00	0.00	0 00	2,800.00	-530.00	0 00	0.00	0.00	0 00	599,449 70	586,157.70
2,900.00	0 00	0 00	2,900 00	-430.00	0 00	0.00	0.00	0.00	599,449.70	586,157.70
3,000.00	0.00	0 00	3,000.00	-330 00	0.00	0 00	0 00	0.00	599,449 70	586,157 70
3,100.00	0.00	0.00	3,100.00	-230.00	0.00	0 00	0.00	0.00	599,449 70	586,157 70
3,200 00	0.00	0 00	3,200.00	-130.00	0.00	0 00	0.00	0.00	599,449.70	586,157 70
3,300.00	0.00	0 00	3,300 00	-30 00	0.00	0.00	0.00	0 00	599,449.70	586,157.70
3,400 00	0 00	0.00	3,400.00	70 00	0 00	0.00	0.00	0 00	599,449 70	586,157.70
3,500 00	0 00	0.00	3,500.00	170 00	0.00	0.00	0.00	0.00	599,449 70	586,157.70
3,600.00	0 00	0.00	3,600 00	270.00	0 00	0.00	0 00	0.00	599,449 70	586,157.70
3,700.00	0 00	0.00	3,700 00	370.00	0 00	0.00	0 00	0.00	599,449 70	586,157.70
3,800.00	0 00	0.00	3,800 00	470.00	0 00	0 00	0.00	0.00	599,449.70	586,157.70
3,900.00	0.00	0 00	3,900.00	570.00	0 00	0 00	0.00	0 00	599,449.70	586,157.70
4,000.00	0.00	0.00	4,000 00	670.00	0.00	0.00	0 00	0.00	599,449 70	586,157.70
4,100.00	0.00	0 00	4,100 00	770.00	0.00	0.00	0.00	0.00	599,449 70	586,157.70
4,200.00	0.00	0.00	4,200.00	870 00	0.00	0.00	0 00	0.00	599,449 70	586,157.70
4,300.00	0.00	0 00	4,300.00	970 00	0.00	0.00	0 00	0 00	599,449 70	586,157 70
4,400.00	0 00	0.00	4,400.00	1,070 00	0.00	0 00	0.00	0.00	599,449 70	586,157.70
4,500.00	0.00	0.00	4,500 00	1,170 00	0 00	0 00	0.00	0 00	599,449.70	586,157.70
4,600.00	0 00	0 00	4,600.00	1,270.00	0 00	0.00	0.00	0 00	599,449.70	586,157.70
4,700 00	0.00	0 00	4,700 00	1,370.00	0 00	0 00	0 00	0.00	599,449.70	586,157 70
4,800.00	0.00	0 00	4,800 00	1,470.00	0 00	0.00	0 00	0.00	599,449 70	586,157 70
4,900.00	0.00	0 00	4,900 00	1,570 00	0.00	0.00	0 00	0.00	599,449 70	586,157.70
5,000.00	0.00	0 00	5,000.00	1,670 00	0 00	0 00	0.00	0.00	599,449 70	586,157.70
5,100.00	0.00	0 00	5,100.00	1,770 00	0.00	0 00	0.00	0 00	599,449.70	586,157 70
5,200 00	0.00	0.00	5,200.00	1,870.00	0.00	0 00	0.00	0.00	599,449.70	586,157 70
5,300.00	0 00	0.00	5,300 00	1,970.00	0.00	0.00	0 00	0.00	599,449.70	586,157 70

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #3H
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Well:	#3H	**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	2,070 00	0 00	0.00	0.00	0 00	599,449.70	586,157.70
5,500 00	0.00	0.00	5,500.00	2,170.00	0 00	0 00	0.00	0 00	599,449 70	586,157 70
5,600 00	0 00	0.00	5,600.00	2,270.00	0 00	0.00	0.00	0 00	599,449.70	586,157 70
5,700 00	0 00	0 00	5,700 00	2,370 00	0 00	0 00	0.00	0.00	599,449.70	586,157.70
5,800 00	0 00	0 00	5,800 00	2,470 00	0.00	0 00	0.00	0.00	599,449.70	586,157.70
5,900 00	0.00	0 00	5,900 00	2,570 00	0.00	0.00	0 00	0.00	599,449.70	586,157.70
6,000.00	0 00	0.00	6,000 00	2,670.00	0 00	0.00	0 00	0.00	599,449.70	586,157.70
6,100.00	0.00	0 00	6,100.00	2,770 00	0.00	0 00	0.00	0.00	599,449.70	586,157.70
6,200.00	0.00	0.00	6,200.00	2,870.00	0 00	0 00	0.00	0 00	599,449.70	586,157.70
6,300.00	0.00	0 00	6,300.00	2,970.00	0.00	0.00	0.00	0.00	599,449 70	586,157 70
6,400.00	0.00	0 00	6,400.00	3,070.00	0 00	0.00	0 00	0.00	599,449 70	586,157 70
6,500.00	0.00	0 00	6,500.00	3,170 00	0 00	0.00	0 00	0.00	599,449 70	586,157.70
6,600 00	0 00	0.00	6,600 00	3,270 00	0.00	0.00	0.00	0 00	599,449.70	586,157 70
6,700 00	0.00	0 00	6,700.00	3,370 00	0.00	0 00	0 00	0.00	599,449.70	586,157.70
6,800 00	0.00	0.00	6,800.00	3,470 00	0.00	0 00	0.00	0 00	599,449 70	586,157.70
6,900.00	0 00	0.00	6,900.00	3,570.00	0 00	0.00	0.00	0 00	599,449.70	586,157 70
7,000.00	0.00	0 00	7,000.00	3,670.00	0 00	0.00	0 00	0.00	599,449.70	586,157 70
7,100.00	0.00	0 00	7,100.00	3,770.00	0.00	0.00	0 00	0.00	599,449 70	586,157 70
7,200.00	0.00	0.00	7,200 00	3,870.00	0.00	0.00	0.00	0 00	599,449.70	586,157.70
7,300.00	0.00	0 00	7,300.00	3,970 00	0.00	0 00	0.00	0 00	599,449.70	586,157.70
7,400.00	0 00	0.00	7,400 00	4,070 00	0.00	0.00	0.00	0.00	599,449.70	586,157.70
7,460 00	0 00	0.00	7,460.00	4,130.00	0.00	0.00	0 00	0.00	599,449.70	586,157.70
Start Build 11.13										
7,500.00	4.45	89.47	7,499 96	4,169 96	0.01	1.55	1.55	11 13	599,449.71	586,159.25
7,550.00	10.01	89 47	7,549.54	4,219 54	0 07	7 84	7.84	11 13	599,449.77	586,165 54
7,600.00	15.58	89 47	7,598.28	4,268 28	0 17	18 91	18 91	11 13	599,449 87	586,176 61
7,650 00	21.14	89 47	7,645.72	4,315 72	0 32	34.65	34 65	11.13	599,450.02	586,192 35

Company:	EOG Resources, Inc	**Local Co-ordinate Reference:**	Well #3H
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Well:	#3H	**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)
7,700 00	26 70	89 47	7,691.41	4,361.41	0.51	54 92	54.92	11 13	599,450 21	586,212 62
7,750.00	32.26	89 47	7,734.92	4,404.92	0.74	79.51	79.52	11 13	599,450.44	586,237.21
7,800 00	37.83	89.47	7,775.83	4,445.83	1 00	108.21	108 22	11.13	599,450.70	586,265.91
7,850.00	43 39	89 47	7,813 78	4,483.78	1.30	140 74	140.75	11.13	599,451 00	586,298 44
7,900 00	48 95	89 47	7,848 39	4,518.39	1.64	176.79	176 80	11 13	599,451 34	586,334.49
7,950.00	54 51	89 47	7,879 34	4,549.34	2.00	216.03	216.04	11 13	599,451 70	586,373.73
8,000 00	60 08	89.47	7,906 35	4,576.35	2 39	258 09	258.10	11.13	599,452 09	586,415 79
8,040 15	64.54	89.47	7,925.00	4,595.00	2 72	293.63	293.64	11.13	599,452.42	586,451.33
Top of F Sand - 8040.15'MD,64.54°INC,89.47°AZI,7925.00'TVD										
8,050 00	65 64	89.47	7,929.15	4,599 15	2.80	302 56	302.58	11.13	599,452 50	586,460.26
8,100.00	71.20	89 47	7,947.53	4,617.53	3.23	349.04	349.05	11 13	599,452 93	586,506.74
8,150.00	76.77	89 47	7,961.32	4,631.32	3.67	397.08	397.09	11.13	599,453 37	586,554.78
8,200 00	82.33	89.47	7,970 39	4,640.39	4 13	446.23	446 25	11 13	599,453.83	586,603 93
8,250.00	87.89	89 47	7,974.65	4,644 65	4.59	496 02	496.04	11.13	599,454.29	586,653 72
8,268.96	90.00	89 47	7,975.00	4,645 00	4.76	514 98	515 00	11.13	599,454.46	586,672.68
Start DLS 0.01 TFO -90.00										
8,300 00	90 00	89.47	7,975 00	4,645 00	5 05	546 02	546.04	0 01	599,454.75	586,703.72
8,400.00	90 00	89.46	7,975.00	4,645.00	5.99	646 01	646.04	0 01	599,455.69	586,803 71
8,458 23	90.00	89.46	7,975.00	4,645.00	6.53	704.24	704.27	0 01	599,456.23	586,861.94
Start 4194.45 hold at 8458.23 MD										
8,500.00	90.00	89.46	7,975.00	4,645.00	6 93	746 01	746 04	0.00	599,456.63	586,903 71
8,600.00	90.00	89.46	7,975.00	4,645 00	7 87	846.00	846.04	0 00	599,457.57	587,003 70
8,700 00	90.00	89 46	7,975 00	4,645.00	8.82	946 00	946 04	0.00	599,458 52	587,103 70
8,800.00	90.00	89.46	7,975.00	4,645 00	9.77	1,045 99	1,046.04	0.00	599,459 47	587,203.69
8,900 00	90.00	89.46	7,975.00	4,645.00	10.71	1,145.99	1,146 04	0 00	599,460.41	587,303.69
9,000 00	90.00	89.46	7,975 00	4,645.00	11.66	1,245.99	1,246.04	0.00	599,461 36	587,403 69
9,100.00	90.00	89 46	7,975 00	4,645.00	12 60	1,345.98	1,346.04	0.00	599,462 30	587,503.68
9,200 00	90.00	89 46	7,975 00	4,645.00	13 55	1,445 98	1,446.04	0 00	599,463 25	587,603.68

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Eddy County	**TVD Reference:**	WELL @ 3330 00ft (19' KB Correction)
Site:	Parkway 23 State Com	**MD Reference:**	WELL @ 3330.00ft (19' KB Correction)
Well:	#3H	**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)
9,300.00	90.00	89.46	7,975.00	4,645 00	14 49	1,545.97	1,546.04	0.00	599,464.19	587,703 67
9,400.00	90 00	89.46	7,975 00	4,645.00	15 44	1,645.97	1,646.04	0.00	599,465.14	587,803.67
9,500.00	90 00	89.46	7,975.00	4,645 00	16.39	1,745.96	1,746.04	0.00	599,466.09	587,903.66
9,600.00	90.00	89.46	7,975.00	4,645.00	17.33	1,845 96	1,846 04	0.00	599,467 03	588,003.66
9,700.00	90.00	89.46	7,975.00	4,645.00	18.28	1,945 95	1,946 04	0 00	599,467 98	588,103 65
9,800.00	90.00	89 46	7,975.00	4,645 00	19.22	2,045.95	2,046 04	0 00	599,468.92	588,203 65
9,900.00	90.00	89.46	7,975.00	4,645 00	20 17	2,145.95	2,146.04	0 00	599,469 87	588,303 65
10,000 00	90 00	89.46	7,975.00	4,645.00	21.11	2,245 94	2,246.04	0.00	599,470 81	588,403.64
10,100 00	90.00	89 46	7,975.00	4,645.00	22 06	2,345 94	2,346.04	0 00	599,471 76	588,503 64
10,200.00	90.00	89.46	7,975 00	4,645 00	23.01	2,445 93	2,446 04	0.00	599,472.71	588,603 63
10,300.00	90.00	89 46	7,975 00	4,645 00	23.95	2,545 93	2,546 04	0.00	599,473 65	588,703.63
10,400 00	90.00	89 46	7,975.00	4,645.00	24.90	2,645.92	2,646.04	0 00	599,474.60	588,803.62
10,500.00	90.00	89.46	7,975.00	4,645 00	25.84	2,745.92	2,746.04	0 00	599,475.54	588,903.62
10,600.00	90 00	89.46	7,975.00	4,645 00	26 79	2,845.91	2,846.04	0.00	599,476 49	589,003 61
10,700.00	90 00	89.46	7,975.00	4,645 00	27.73	2,945 91	2,946 04	0.00	599,477.43	589,103.61
10,800.00	90.00	89 46	7,975.00	4,645.00	28 68	3,045.90	3,046.04	0 00	599,478 38	589,203.60
10,900.00	90 00	89 46	7,975.00	4,645.00	29.63	3,145.90	3,146.04	0 00	599,479 33	589,303.60
11,000.00	90.00	89 46	7,975 00	4,645 00	30.57	3,245.90	3,246.04	0.00	599,480 27	589,403.60
11,100.00	90.00	89 46	7,975 00	4,645.00	31 52	3,345.89	3,346.04	0.00	599,481.22	589,503.59
11,200.00	90.00	89.46	7,975.00	4,645 00	32.46	3,445.89	3,446 04	0.00	599,482.16	589,603 59
11,300.00	90.00	89.46	7,975 00	4,645.00	33 41	3,545 88	3,546.04	0 00	599,483.11	589,703.58
11,400 00	90.00	89 46	7,975 00	4,645.00	34.35	3,645.88	3,646.04	0.00	599,484.05	589,803.58
11,500 00	90.00	89.46	7,975.00	4,645 00	35 30	3,745.87	3,746.04	0.00	599,485.00	589,903.57
11,600.00	90.00	89 46	7,975.00	4,645 00	36.25	3,845 87	3,846.04	0 00	599,485.95	590,003 57
11,700.00	90.00	89.46	7,975.00	4,645.00	37 19	3,945 86	3,946.04	0 00	599,486 89	590,103.56
11,800.00	90.00	89 46	7,975 00	4,645.00	38.14	4,045 86	4,046.04	0.00	599,487 84	590,203.56
11,900 00	90 00	89.46	7,975.00	4,645 00	39 08	4,145.86	4,146.04	0 00	599,488.78	590,303 56

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Eddy County	**TVD Reference:**	WELL @ 3330.00ft (19' KB Correction)
Site:	Parkway 23 State Com	**MD Reference:**	WELL @ 3330.00ft (19' KB Correction)
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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)
12,000.00	90 00	89 46	7,975 00	4,645 00	40.03	4,245.85	4,246.04	0 00	599,489 73	590,403 55
12,100.00	90.00	89.46	7,975.00	4,645.00	40.97	4,345.85	4,346 04	0 00	599,490 67	590,503 55
12,200 00	90 00	89 46	7,975 00	4,645.00	41.92	4,445.84	4,446.04	0 00	599,491.62	590,603.54
12,300.00	90.00	89.46	7,975.00	4,645.00	42.86	4,545.84	4,546 04	0 00	599,492 56	590,703.54
12,400.00	90.00	89.46	7,975.00	4,645.00	43.81	4,645.83	4,646 04	0.00	599,493 51	590,803 53
12,500 00	90.00	89.46	7,975.00	4,645.00	44 76	4,745.83	4,746.04	0 00	599,494.46	590,903 53
12,600.00	90.00	89.46	7,975 00	4,645 00	45.70	4,845.82	4,846.04	0.00	599,495 40	591,003.52
12,652.68	90.00	89 46	7,975.00	4,645.00	46.20	4,898.50	4,898 72	0.00	599,495.90	591,056.20
TD at 12652.68										

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(P23S#3H) - plan hits target - Point	0.00	0.00	7,975.00	46.20	4,898.50	599,495 900	591,056.200	32° 38' 51.963 N	104° 2' 15 002 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,460.00	7,460 00	0 00	0.00	Start Build 11.13
8,040.15	7,925 00	2 72	293.63	Top of F Sand - 8040.15'MD,64.54°INC,89 47°AZI,7925 00'TVD
8,268 96	7,975.00	4.76	514.98	Start DLS 0 01 TFO -90.00
8,458.23	7,975.00	6 53	704 24	Start 4194.45 hold at 8458 23 MD
12,652 68	7,975 00	46.20	4,898 50	TD at 12652 68

Checked By: _____ Approved By: _____ Date: _____

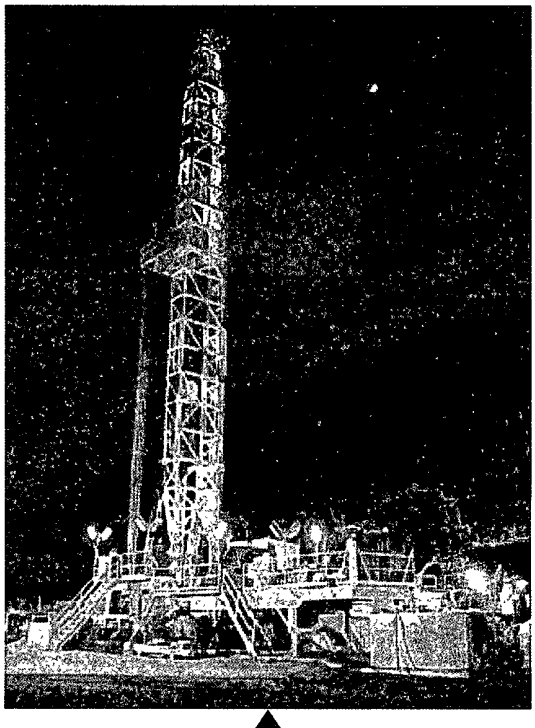
EOG Resources, Inc.

Legals:
Parkway 23 State COM 3H
Eddy Co. New Mexico

2050' FNL & 50' FWL Surface Location
Section 23
T-19-S, R-29-E
Lat: N 32.6476772
Long: W 104.0534155

1980' FNL & 330' FEL Bottom of Hole Location
Section 23
T-19-S, R-29-E
Lat: N 32.6477675
Long: W 104.0375007

H_2S
"Contingency Plan"



SAFETY
SOLUTIONS, LLC.

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

Table of Contents

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

MAPS AND PLATS
(Maps & Plats Attached)

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.

GENERAL INFORMATION

Toxic Effects of H_2S Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity – 1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic than Carbon Monoxide. Occupational exposure limits for Hydrogen Sulfide and other gases are compared below in Table 1. Toxicity table for H_2S and physical effects are shown in Table 2.

Table 1
Permissible Exposure Limits of Various Gases

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H_2S	1.192	10 ppm	15 ppm	100 ppm
Sulfide Dioxide	SO_2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	.97	25 ppm	200 ppm	
Carbon Dioxide	CO_2	1.52	5000 ppm	30,000 ppm	
Methane	CH_4	.55	4.7% LEL	14% UEL	

Definitions

A. TLV – Threshold Limit Value is the concentration employees may be exposed based on a TWA (time weighted average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Governmental Hygienists) and regulated by OSHA.

B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H_2S is 19 PPM.

C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H_2S is 100 PPM.

D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed based on an TWA.

TABLE 2

Toxicity Table of H_2S

Percent %	PPM	Physical Effects
.0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure.
.0015	15	STEL for 15 minutes of exposure.
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins **in a few minutes.**
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H_2S

The properties of all gases are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT

Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence. In fact that makes this gas extremely dangerous to be around.

ODOR – ROTTEN EGGS

Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs". For this reason it earned its common name "sour gas". However, H_2S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192

Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H_2S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%

Mixed with the right proportion of air or oxygen, H_2S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY

Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO_2), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER

Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H_2S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H_2S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)

Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

RESPIRATOR USE

The Occupational Safety and Health Administration (OSHA) regulate the use of respiratory protection to protect the health of employees. OSHA's requirements are written in the Code of Federal Regulations, Title 29, Part 1910, Section 134, Respiratory Protection. This regulation requires that all employees who might be required to wear respirators, shall complete a OSHA mandated medical evaluation questionnaire. The employee then should be fit tested prior to wearing any respirator while being exposed to hazardous gases.

Written procedures shall be prepared covering safe use of respirators in dangerous atmospheric situations, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.

Respirators shall be inspected prior to and after each use to make sure that the respirator has been properly cleaned, disinfected and that the respirator works properly. The unit should be fully charged prior to being used.

Anyone who may use respirators shall be properly trained in how to properly seal the face piece. They shall wear respirators in normal air and then in a test atmosphere. (Note: Such items as facial hair (beard or sideburns) and eyeglass temple pieces will not allow a proper seal.) Anyone that may be expected to wear respirators should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses. Contact lenses should not be allowed.

Respirators shall be worn during the following conditions:

A. Any employee who works near the top or on the top of any tank unless tests reveal less than 20 ppm of H_2S.

B. When breaking out any line where H_2S can reasonably be expected.

C. When sampling air in areas where H_2S may be present.

D. When working in areas where the concentration of H_2S exceeds the Threshold Limit Value for H_2S (10 ppm).

E. At any time where there is a doubt as to the H_2S level in the area to be entered.

EMERGENCY RESCUE PROCEDURES

DO NOT PANIC!!!

Remain Calm – Think

1. Before attempting any rescue you must first get out of the hazardous area yourself. Go to a safe briefing area.

2. Sound alarm and activate the 911 system.

3. Put on breathing apparatus. At least two persons should do this, when available use the buddy system.

4. Rescue the victim and return them to a safe briefing area.

5. Perform an initial assessment and begin proper First Aid/CPR procedures.

6. Keep victim lying down with a blanket or coat, etc.., under the shoulders to keep airway open. Conserve body heat and do not leave unattended.

7. If the eyes are affected by H_2S, wash them thoroughly with potable water. For slight irritation, cold compresses are helpful.

8. In case a person has only minor exposure and does not lose consciousness totally, it's best if he doesn't return to work until the following day.

9. Any personnel overcome by H_2S should always be examined by medical personnel. They should always be transported to a hospital or doctor.