7037

NOV 26 2008

OCD-ARTESIA

OCD-ARTESIA

APS-08-985

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: [XX] DRILL [ ] REENTER	5. Lease Serial No. NM-~~100337~~ 130895
1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone	6. If Indian, Allotee or Tribe Name ----------
2. Name of Operator OGX RESOURCES, LLC. (JEFF BIRLELBACH) (432-685-1287)	7. If Unit or CA Agreement, Name and No. ----------
3a. Address P. O. BOX 2064 MIDLAND, TEXAS 79701	8. Lease Name and Well No. PATRON "23" FEDERAL # 1H
3b. Phone No. *(include area code)* 432-685-1287	9. API Well No. 30-015-36776
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface 990' FNL & 560' FWL SECTION 23 T25S-R29E EDDY CO. At proposed prod. zone 330' FSL & 660' FWL SEC. 23 T25S-R29E EDDY CO.	10. Field and Pool, or Exploratory CORRAL DRAW-BONE SPRING
	11. Sec., T. R. M. or Blk. and Survey or Area SECTION 23 T25S-R29E
14. Distance in miles and direction from nearest town or post office* Carlsbad Controlled Water Basin Approximately 15 miles Southeast of Malaga New Mexico	12. County or Parish EDDY CO. / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 560'	16. No. of acres in lease 320 / 17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NA	19. Proposed Depth TVD-8000 MD-11,788 / 20. BLM/BIA Bond No. on file NMB-000244
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3104' GL	22. Approximate date work will start* WHEN APPROVED / 23. Estimated duration 30 days

24. Attachments

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

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

25. Signature Joe T. Janica	Name *(Printed/Typed)* Joe T. Janica	Date 10/09/08
Title Permit Eng.		
Approved by *(Signature)* /s/ James A. Amos	Name *(Printed/Typed)* /s/ James A. Amos	Date
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOTIFY OCD 24-hrs PRIOR to Spud
NOTIFY OCD of ALL Lost Circulation and Water Flow Zones
NOTIFY OCD per 19.15.3.118 of H2S Values WHILE Drilling.

ENTERED 12-3-08

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-36776	96238	CORRAL DRAW-BONE SPRING

Property Code	Property Name	Well Number
37491	PATRON "23" FEDERAL	1H

OGRID No.	Operator Name	Elevation
217955	OGX RESOURCES	3104'

Surface Location

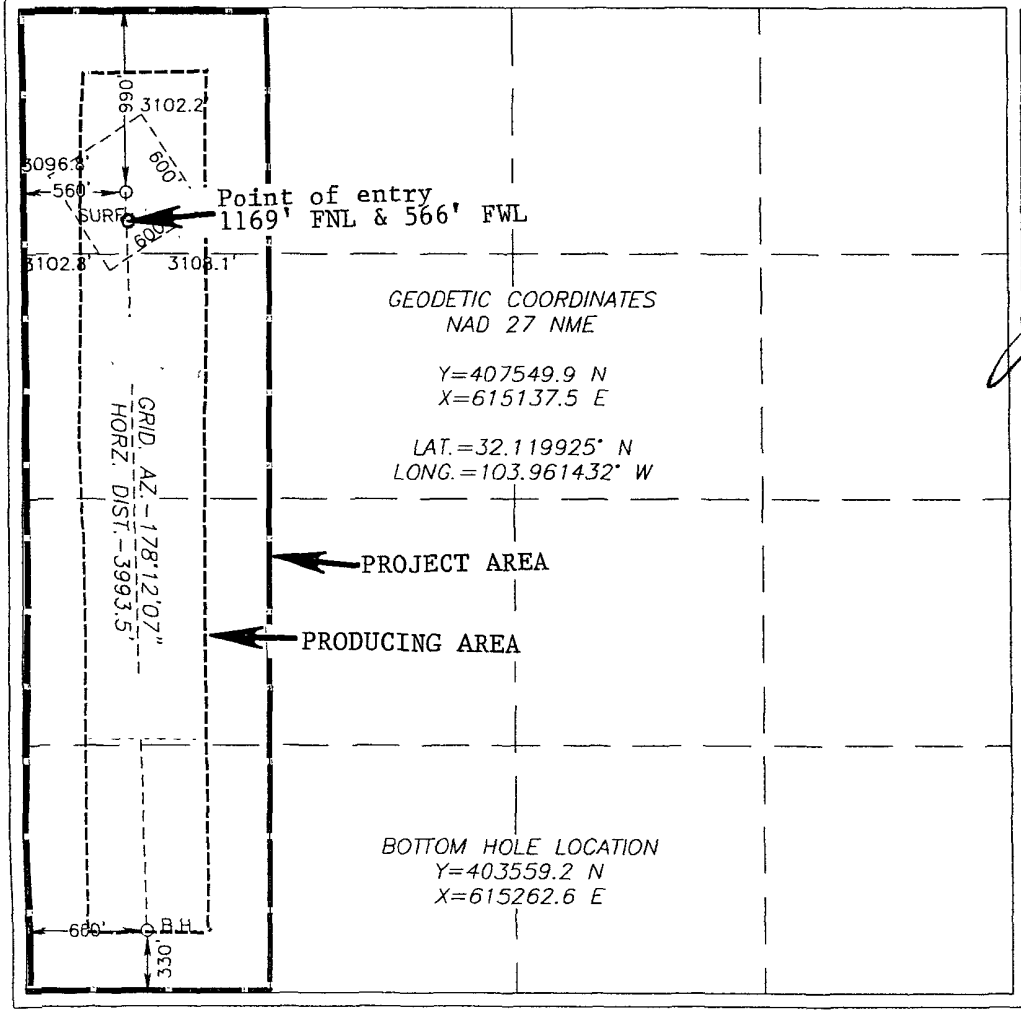
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	23	25-S	29-E		990	NORTH	560	WEST	EDDY

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
M	23	25-S	29-E		330	SOUTH	660	WEST	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 herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date 10/09/08

Joe T. Janica

Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

RONALD J. EIDSON — AUGUST 28, 2008 — NEW MEXICO — 3239 — REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed: JC

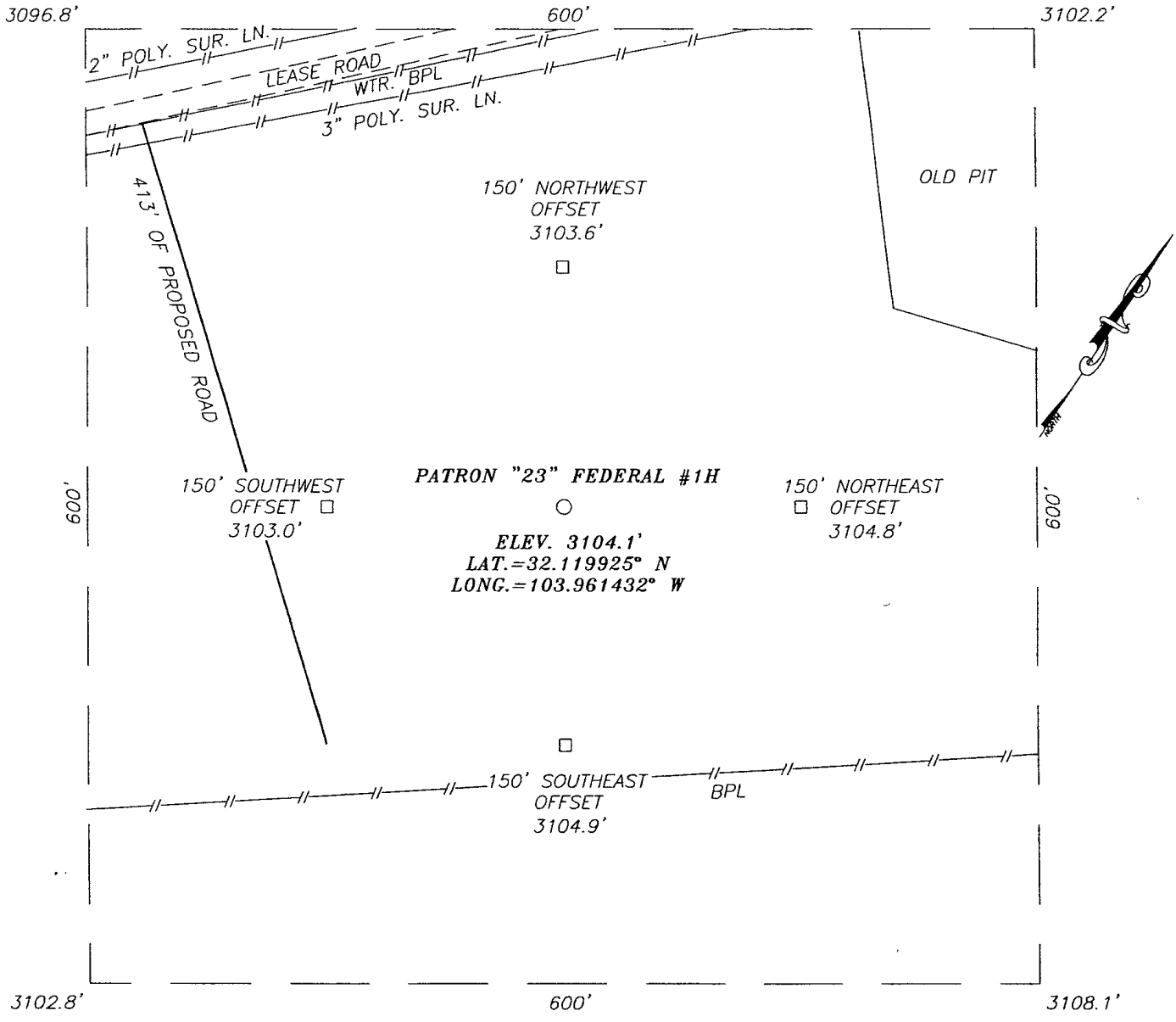
Signature & Seal of Professional Surveyor

9/03/08

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT "A"

SECTION 23, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN ROAD) GO NORTHEAST APPROX. 3.8 MILES. TURN LEFT APPROX. 500 FEET PAST LOW WATER CROSSING AND GO NORTHEAST APPROX. 1.8 MILES. TURN LEFT AND GO NORTH APPROX. 2.1 MILES. TURN RIGHT AT Y AND GO NORTHEAST APPROX. 1.0 MILE. THIS LOCATION IS APPROX. 350 FEET SOUTHEAST.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

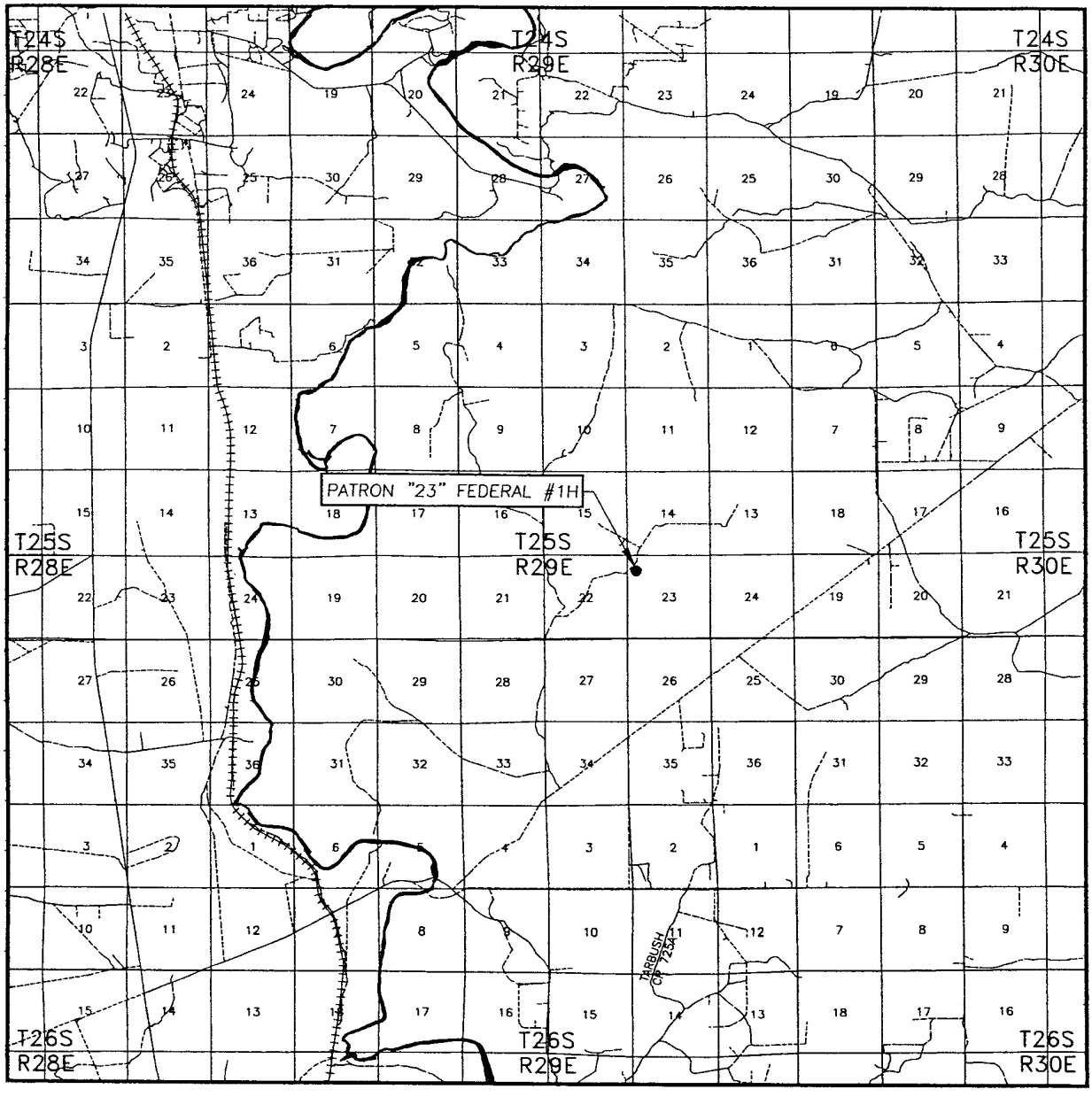
100 0 100 200 Feet
Scale: 1"=100'

OGX RESOURCES

PATRON "23" FEDERAL #1H
LOCATED 990 FEET FROM THE NORTH LINE
AND 560 FEET FROM THE WEST LINE OF SECTION 23,
TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 08/28/08	Sheet 1 of 1 Sheets		
W.O. Number: 08.11.1379	Dr By: JC		Rev 1. N/A
Date: 08/29/08		08111379	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 23 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 990' FNL & 560' FWL

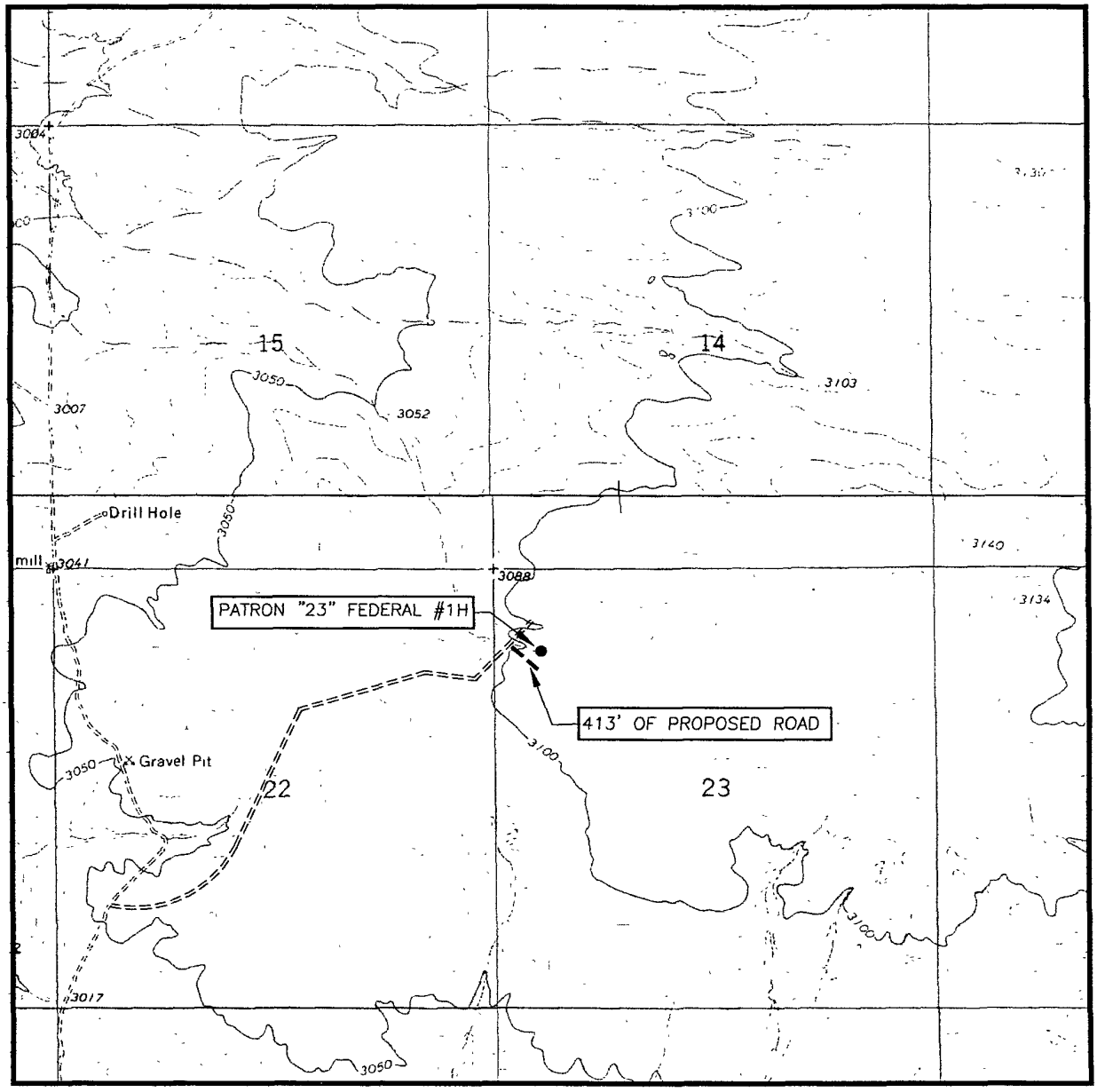
ELEVATION 3104'

OPERATOR OGX RESOURCES

LEASE PATRON "23" FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
ROSS RANCH, N.M. – 10'
PIERCE CANYON, N.M. – 10'

SEC. 23 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 990' FNL & 560' FWL

ELEVATION 3104'

OPERATOR OGX RESOURCES

LEASE PATRON "23" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ROSS RANCH, N.M., PIERCE CANYON, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

DRILLING PROGRAM

Geologic Name of Surface Formation:

Permian

FORMATION TOPS / ANTICIPATED FRESH WATER, OIL, or GAS / PRESSURES

Formation	Depth	Frm Pres	Remarks
Salado	550'	8.4 ppge	Water
Basal Anhydrite	3000'	10 ppge	Drlg fluid must be saturated salt water
Lamar	3240'	8.4 ppge	Base of Salt
Bell Canyon	3300'	8.4 ppge	Oil / Gas / Formation water /Poss.H_2S
Cherry Canyon	4100'	8.4 ppge	Oil / Gas / Formation water
Brushy Canyon	5350'	8.4 ppge	Oil / Gas / Formation water
Bone Spring	7000'	8.4 ppge	Oil / Gas / Formation water
1st Bone Spring	7950'	8.4 ppge	Oil / Gas / Formation water

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 525' and circulating cement back to surface. Potash/ fresh water sands will be protected be setting 9 5/8" casing at 3240' and circulating cement to the surface. The hydrocarbon producing intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing.

CASING PROGRAM:

HOLE SIZE	DEPTH	OD Csg	WEIGHT	COLLAR	GRADE	NEW/USED
17 ½"	0-525'	13 3/8"	48	STC	J55	New
12 ¼"	0-3240'	9 5/8"	36	STC	J55	New
8 ¾"	0-7100	5 ½"	17	LTC	N80	New
	7100-11787	5 ½"	17	BTC	N80	New

DEPTH	OD Csg	WEIGHT	factors: Burst	/ Collapse	/ Tension
0-525'	13 3/8"	48	1.36	2.82	12 7
0-3240'	9 5/8"	36	1.16	1.43	4.6
0-11787' MD	5 ½"	17	1.25	1.42	1 67

(51/2 Burst & Collapse Calculated @ 8500' TVD)

APPLICATION TO DRILL

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

9. CASING CEMENTING & SETTING DEPTHS: ← see COA

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 525' of 13 3/8" 48# H-40 ST&C casing. Cement with 210 Sx. of 35/65 Class "C" Premium Plus POZ cement + 6% Bento nite, + 5% Salt, + 5% MPA-5, + .7% Sodium Metasilicate, + 5# LCM, Yield 2.0, tail in with 200 Sx. of Premium Plus Class "C" cement + 2% CaCl, Yield 1.34, circulate cement.
9 5/8"	Intermediate	Set ~~2700'~~ of 9 5/8" 36# J-55 ST&C casing. Cement with 500 Sx. of 35/65 Class "C" Premium Plus Class "C" POZ cement + 4% BEntonite, + 5% Salt, + 5% MPA-5, +.7% Sodium Metasilicate, + 5# LCM, Yield 2.02, tail in with 200 Sx. of Class "C" Premium Plus cement + 2% CaCl, Yield 1.34, circulate cement to surface.
5½"	Production	Set 11,788' of 5½" 17# N-80 LT&C & Buttress thread. Cement with 810 Sx. of Premium PLus Class "H" cement + .7% FL-62, + .4% BA-10A, + .1% FL-62, Yield 2.44, tail in with 607 Sx. of 50/50 Class "C" POZ + 10% Bentonite, + 5% Salt, Yield 1.33. circulate cement to surface.

see COA →

10. PRESSURE CONTROL EQUIPMENT: ↗ see COA

Exhibit "E" shows a 900 Series 3000 PSI working pressure B. O. P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nipplled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period, and the blind rams will be operated when the drill pipe is out of the hole on trips. Full opening stabbing valve will be on the floor at all times and a kelly cock will be in the drill string at all times. Exhibit "E-1" shows a hydraulically operatedclosing unit and a 3" 5000 PSI working pressure chole manifold with dual adjustable chokes. No abnormal pressures or abnormal temperatures are expected while drilling this well.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-525'	8.5-8.8	30-38	NC	Fresh water spud mud add paper to control seepage.
525-2700' Seeca	10.0-10.1	29-32	NC	Brine water use paper to control seepage and high viscosity sweeps to clean the hole.
2700-8500'	8.4-10.0	28-30	NC	Fresh water going to Brine use paper to control seepage, and high viscosith sweeps to clean hole.
8300-11,788'	8.4-10.0	34-38	12 cc or less	Same as above but to control water loss and maintain hole stability use Dynazan/Starch.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation and/or kicks. In order to run open hole logs the mud properties may have to be altered, as well as running casingand taking DST's or cores.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, Neutron/Density, Gamma Ray, Caliper from TD (verticle hole)8500±') back to 9 5/8" casing shoe.

B. No DST's are planned at this time. Sidewall cores may be taken depths TBD.

Mud logger will be rigged up after the surface casing is run.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3770 PSI, and Estimated BHT 135°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 30 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Bone Spring formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

OGX Resources

Eddy County
Sec 23 T25S R29E
Patron '23' Fed #1H
OH

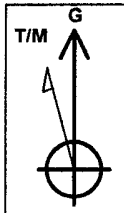
Plan: Plan #1

Pathfinder X & Y Survey Report

09 September, 2008

PATHFINDER
ENERGY SERVICES

OGX Resources



Azimuths to Grid North
True North: -0.13°
Magnetic North: -0.13°

Magnetic Field
Strength: 0.0snT
Dip Angle: 0.00°
Date: 2008/08/19
Model: USER DEFINED

PATHFINDER ENERGY SERVICES

WELL DETAILS. Patron '23' Fed #1H

Ground Elevation:: 0.00
RKB Elevation: WELL @ 0.00ft (Original Well Elev)
Rig Name: Original Well Elev

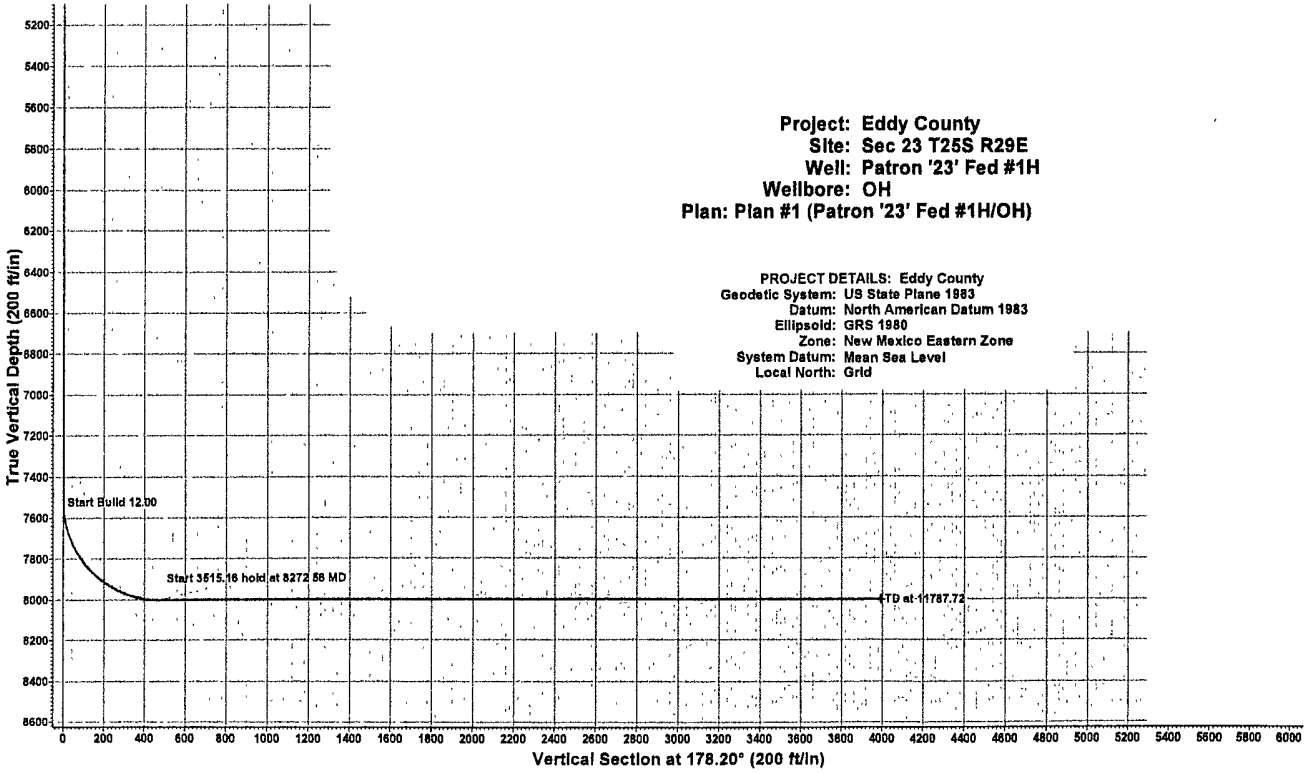
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	407549.900	615137.500	32° 7' 12.754 N	104° 5' 41.814 W	

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	7522.50	0.00	0.00	7522.50	0.00	0.00	0.00	0.00	0.00	
3	8272.66	90.00	178.20	8000.00	-477.26	15.00	12.00	178.20	477.50	
4	11787.72	90.00	178.20	8000.00	-3990.70	125.41	0.00	0.00	3992.67	PBHL OH P#1H

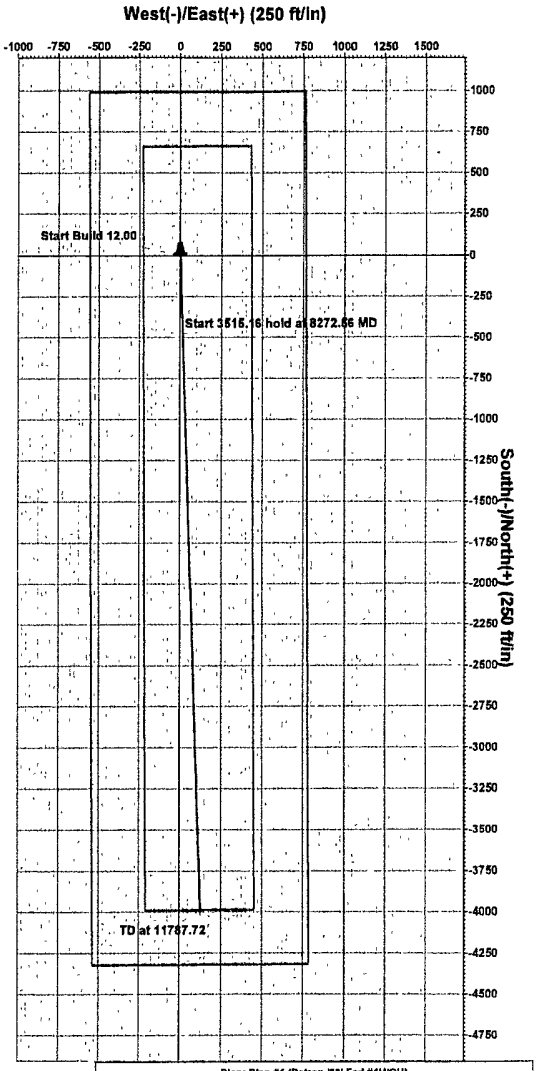
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL OH	8000.00	-3990.70	125.10	403559.200	615262.600	Point



Project: Eddy County
Site: Sec 23 T25S R29E
Well: Patron '23' Fed #1H
Wellbore: OH
Plan: Plan #1 (Patron '23' Fed #1H/OH)

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid



Plan: Plan #1 (Patron '23' Fed #1H/OH)
Created By: Nate Bingham Date: 15:24, September 09 2008
Checked: _____ Date: _____

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Project Eddy County, New Mexico

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Sec 23 T25S R29E

Site Position:		**Northing:**	407,549.900 ft	**Latitude:**	32° 7' 12.754 N
From:	Map	**Easting:**	615,137.500 ft	**Longitude:**	104° 5' 41.814 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.13 °

Well Patron '23' Fed #1H

Well Position	**+N/-S**	0.00 ft	**Northing:**	407,549.900 ft	**Latitude:**	32° 7' 12.754 N
	+E/-W	0.00 ft	**Easting:**	615,137.500 ft	**Longitude:**	104° 5' 41.814 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	User Defined	2008/08/19	0.00	0.00	0

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	178.20

Survey Tool Program **Date** 2008/09/09

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	11,787.22	Plan #1 (OH)	MWD	MWD - Standard

Pathfinder Energy Services

Pathfinder X & Y Survey Report

PATHFINDER ENERGY SERVICES

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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	0.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
100.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
200.00	0.00	0.00	200.00	200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
300.00	0.00	0.00	300.00	300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
400.00	0.00	0.00	400.00	400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
500.00	0.00	0.00	500.00	500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
600.00	0.00	0.00	600.00	600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
700.00	0.00	0.00	700.00	700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
800.00	0.00	0.00	800.00	800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
900.00	0.00	0.00	900.00	900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,000.00	0.00	0.00	1,000.00	1,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,100.00	0.00	0.00	1,100.00	1,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,200.00	0.00	0.00	1,200.00	1,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,300.00	0.00	0.00	1,300.00	1,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,400.00	0.00	0.00	1,400.00	1,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,500.00	0.00	0.00	1,500.00	1,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,600.00	0.00	0.00	1,600.00	1,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,700.00	0.00	0.00	1,700.00	1,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,800.00	0.00	0.00	1,800.00	1,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
1,900.00	0.00	0.00	1,900.00	1,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,000.00	0.00	0.00	2,000.00	2,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,100.00	0.00	0.00	2,100.00	2,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,200.00	0.00	0.00	2,200.00	2,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,300.00	0.00	0.00	2,300.00	2,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,400.00	0.00	0.00	2,400.00	2,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,500.00	0.00	0.00	2,500.00	2,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,600.00	0.00	0.00	2,600.00	2,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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	2,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,800.00	0.00	0.00	2,800.00	2,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
2,900.00	0.00	0.00	2,900.00	2,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,000.00	0.00	0.00	3,000.00	3,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,100.00	0.00	0.00	3,100.00	3,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,200.00	0.00	0.00	3,200.00	3,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,300.00	0.00	0.00	3,300.00	3,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,400.00	0.00	0.00	3,400.00	3,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,500.00	0.00	0.00	3,500.00	3,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,600.00	0.00	0.00	3,600.00	3,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,700.00	0.00	0.00	3,700.00	3,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,800.00	0.00	0.00	3,800.00	3,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
3,900.00	0.00	0.00	3,900.00	3,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,000.00	0.00	0.00	4,000.00	4,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,100.00	0.00	0.00	4,100.00	4,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,200.00	0.00	0.00	4,200.00	4,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,300.00	0.00	0.00	4,300.00	4,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,400.00	0.00	0.00	4,400.00	4,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,500.00	0.00	0.00	4,500.00	4,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,600.00	0.00	0.00	4,600.00	4,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,700.00	0.00	0.00	4,700.00	4,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,800.00	0.00	0.00	4,800.00	4,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
4,900.00	0.00	0.00	4,900.00	4,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,000.00	0.00	0.00	5,000.00	5,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,100.00	0.00	0.00	5,100.00	5,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,200.00	0.00	0.00	5,200.00	5,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,300.00	0.00	0.00	5,300.00	5,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50

Pathfinder Energy Services

Pathfinder X & Y Survey Report

PATHFINDER ENERGY SERVICES

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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	5,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,500.00	0.00	0.00	5,500.00	5,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,600.00	0.00	0.00	5,600.00	5,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,700.00	0.00	0.00	5,700.00	5,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,800.00	0.00	0.00	5,800.00	5,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
5,900.00	0.00	0.00	5,900.00	5,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,000.00	0.00	0.00	6,000.00	6,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,100.00	0.00	0.00	6,100.00	6,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,200.00	0.00	0.00	6,200.00	6,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,300.00	0.00	0.00	6,300.00	6,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,400.00	0.00	0.00	6,400.00	6,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,500.00	0.00	0.00	6,500.00	6,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,600.00	0.00	0.00	6,600.00	6,600.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,700.00	0.00	0.00	6,700.00	6,700.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,800.00	0.00	0.00	6,800.00	6,800.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
6,900.00	0.00	0.00	6,900.00	6,900.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,000.00	0.00	0.00	7,000.00	7,000.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,100.00	0.00	0.00	7,100.00	7,100.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,200.00	0.00	0.00	7,200.00	7,200.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,300.00	0.00	0.00	7,300.00	7,300.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,400.00	0.00	0.00	7,400.00	7,400.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,500.00	0.00	0.00	7,500.00	7,500.00	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,522.50	0.00	0.00	7,522.50	7,522.50	0.00	0.00	0.00	0.00	407,549.90	615,137.50
7,525.00	0.30	178.20	7,525.00	7,525.00	-0.01	0.00	0.01	12.00	407,549.89	615,137.50
7,550.00	3.30	178.20	7,549.98	7,549.98	-0.79	0.02	0.79	12.00	407,549.11	615,137.52
7,575.00	6.30	178.20	7,574.89	7,574.89	-2.88	0.09	2.88	12.00	407,547.02	615,137.59
7,600.00	9.30	178.20	7,599.66	7,599.66	-6.27	0.20	6.28	12.00	407,543.63	615,137.70

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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)
7,625.00	12.30	178.20	7,624.21	7,624.21	-10.95	0.34	10.96	12.00	407,538.95	615,137.84
7,650.00	15.30	178.20	7,648.49	7,648.49	-16.91	0.53	16.92	12.00	407,532.99	615,138.03
7,675.00	18.30	178.20	7,672.42	7,672.42	-24.13	0.76	24.15	12.00	407,525.77	615,138.26
7,700.00	21.30	178.20	7,695.94	7,695.94	-32.60	1.02	32.61	12.00	407,517.30	615,138.52
7,725.00	24.30	178.20	7,718.98	7,718.98	-42.28	1.33	42.30	12.00	407,507.62	615,138.83
7,750.00	27.30	178.20	7,741.49	7,741.49	-53.15	1.67	53.18	12.00	407,496.75	615,139.17
7,775.00	30.30	178.20	7,763.40	7,763.40	-65.19	2.05	65.22	12.00	407,484.71	615,139.55
7,800.00	33.30	178.20	7,784.64	7,784.64	-78.35	2.46	78.39	12.00	407,471.55	615,139.96
7,825.00	36.30	178.20	7,805.17	7,805.17	-92.61	2.91	92.66	12.00	407,457.29	615,140.41
7,850.00	39.30	178.20	7,824.92	7,824.92	-107.92	3.39	107.98	12.00	407,441.98	615,140.89
7,875.00	42.30	178.20	7,843.84	7,843.84	-124.25	3.90	124.31	12.00	407,425.65	615,141.40
7,900.00	45.30	178.20	7,861.89	7,861.89	-141.54	4.45	141.61	12.00	407,408.36	615,141.95
7,925.00	48.30	178.20	7,879.00	7,879.00	-159.75	5.02	159.83	12.00	407,390.15	615,142.52
7,950.00	51.30	178.20	7,895.14	7,895.14	-178.83	5.62	178.92	12.00	407,371.07	615,143.12
7,975.00	54.30	178.20	7,910.25	7,910.25	-198.73	6.25	198.83	12.00	407,351.17	615,143.75
8,000.00	57.30	178.20	7,924.30	7,924.30	-219.40	6.89	219.51	12.00	407,330.50	615,144.39
8,025.00	60.30	178.20	7,937.25	7,937.25	-240.77	7.57	240.89	12.00	407,309.13	615,145.07
8,050.00	63.30	178.20	7,949.07	7,949.07	-262.79	8.26	262.92	12.00	407,287.11	615,145.76
8,075.00	66.30	178.20	7,959.71	7,959.71	-285.39	8.97	285.53	12.00	407,264.51	615,146.47
8,100.00	69.29	178.20	7,969.16	7,969.16	-308.52	9.70	308.68	12.00	407,241.38	615,147.20
8,125.00	72.29	178.20	7,977.38	7,977.38	-332.12	10.44	332.28	12.00	407,217.78	615,147.94
8,150.00	75.29	178.20	7,984.36	7,984.36	-356.11	11.19	356.29	12.00	407,193.79	615,148.69
8,175.00	78.29	178.20	7,990.07	7,990.07	-380.43	11.96	380.62	12.00	407,169.47	615,149.46
8,200.00	81.29	178.20	7,994.50	7,994.50	-405.02	12.73	405.22	12.00	407,144.88	615,150.23
8,225.00	84.29	178.20	7,997.63	7,997.63	-429.81	13.51	430.02	12.00	407,120.09	615,151.01
8,250.00	87.29	178.20	7,999.47	7,999.47	-454.73	14.29	454.95	12.00	407,095.17	615,151.79
8,272.56	90.00	178.20	8,000.00	8,000.00	-477.26	15.00	477.50	12.00	407,072.64	615,152.50

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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)
8,300.00	90.00	178.20	8,000.00	8,000.00	-504.70	15.86	504.94	0.00	407,045.20	615,153 36
8,400.00	90.00	178.20	8,000.00	8,000.00	-604.65	19.00	604.94	0.00	406,945.25	615,156.50
8,500.00	90.00	178.20	8,000.00	8,000.00	-704.60	22.14	704.94	0.00	406,845.30	615,159.64
8,600.00	90.00	178.20	8,000.00	8,000.00	-804.55	25.28	804.94	0.00	406,745.35	615,162.78
8,700.00	90.00	178.20	8,000.00	8,000.00	-904.50	28.43	904.94	0.00	406,645.40	615,165.93
8,800.00	90.00	178.20	8,000.00	8,000.00	-1,004.45	31.57	1,004.94	0.00	406,545.45	615,169.07
8,900.00	90.00	178.20	8,000.00	8,000.00	-1,104.40	34.71	1,104.94	0.00	406,445.50	615,172.21
9,000.00	90.00	178.20	8,000.00	8,000.00	-1,204.35	37.85	1,204.94	0.00	406,345.55	615,175.35
9,100.00	90.00	178.20	8,000.00	8,000.00	-1,304.30	40.99	1,304.94	0.00	406,245.60	615,178.49
9,200.00	90.00	178.20	8,000.00	8,000.00	-1,404.25	44.13	1,404.94	0.00	406,145.65	615,181.63
9,300.00	90.00	178.20	8,000.00	8,000.00	-1,504.20	47.27	1,504.94	0.00	406,045.70	615,184.77
9,400.00	90.00	178.20	8,000.00	8,000.00	-1,604.15	50.41	1,604.94	0.00	405,945.75	615,187.91
9,500.00	90.00	178.20	8,000.00	8,000.00	-1,704.10	53.55	1,704.94	0.00	405,845.80	615,191.05
9,600.00	90.00	178.20	8,000.00	8,000.00	-1,804.05	56.69	1,804.94	0.00	405,745.85	615,194.19
9,700.00	90.00	178.20	8,000.00	8,000.00	-1,904.00	59.84	1,904.94	0.00	405,645.90	615,197.34
9,800.00	90.00	178.20	8,000.00	8,000.00	-2,003.96	62.98	2,004.94	0.00	405,545.94	615,200.48
9,900.00	90.00	178.20	8,000.00	8,000.00	-2,103.91	66.12	2,104.94	0.00	405,445.99	615,203.62
10,000.00	90.00	178.20	8,000.00	8,000.00	-2,203.86	69.26	2,204.94	0.00	405,346.04	615,206.76
10,100.00	90.00	178.20	8,000.00	8,000.00	-2,303.81	72.40	2,304.94	0.00	405,246.09	615,209 90
10,200.00	90.00	178.20	8,000.00	8,000.00	-2,403.76	75.54	2,404.94	0.00	405,146.14	615,213.04
10,300.00	90.00	178.20	8,000.00	8,000.00	-2,503.71	78.68	2,504.94	0.00	405,046.19	615,216.18
10,400.00	90.00	178.20	8,000.00	8,000.00	-2,603.66	81.82	2,604.94	0.00	404,946.24	615,219.32
10,500.00	90.00	178.20	8,000.00	8,000.00	-2,703.61	84.96	2,704.94	0.00	404,846 29	615,222.46
10,600.00	90.00	178.20	8,000.00	8,000.00	-2,803.56	88.11	2,804.94	0.00	404,746.34	615,225.61
10,700.00	90.00	178.20	8,000.00	8,000.00	-2,903.51	91.25	2,904.94	0.00	404,646 39	615,228.75
10,800.00	90.00	178.20	8,000.00	8,000.00	-3,003.46	94.39	3,004.94	0.00	404,546.44	615,231.89
10,900.00	90.00	178.20	8,000.00	8,000.00	-3,103.41	97.53	3,104.94	0.00	404,446.49	615,235.03

Pathfinder Energy Services

Pathfinder X & Y Survey Report

PATHFINDER ENERGY SERVICES

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well Patron '23' Fed #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 23 T25S R29E	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Well:	Patron '23' Fed #1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

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)
11,000.00	90.00	178.20	8,000.00	8,000.00	-3,203.36	100.67	3,204.94	0.00	404,346.54	615,238.17
11,100.00	90.00	178.20	8,000.00	8,000.00	-3,303.31	103.81	3,304.94	0.00	404,246.59	615,241.31
11,200.00	90.00	178.20	8,000.00	8,000.00	-3,403.26	106.95	3,404.94	0.00	404,146.64	615,244.45
11,300.00	90.00	178.20	8,000.00	8,000.00	-3,503.22	110.09	3,504.94	0.00	404,046.68	615,247.59
11,400.00	90.00	178.20	8,000.00	8,000.00	-3,603.17	113.23	3,604.94	0.00	403,946.73	615,250.73
11,500.00	90.00	178.20	8,000.00	8,000.00	-3,703.12	116.38	3,704.94	0.00	403,846.78	615,253.88
11,600.00	90.00	178.20	8,000.00	8,000.00	-3,803.07	119.52	3,804.94	0.00	403,746.83	615,257.02
11,700.00	90.00	178.20	8,000.00	8,000.00	-3,903.02	122.66	3,904.94	0.00	403,646.88	615,260.16
11,787.72	90.00	178.20	8,000.00	8,000.00	-3,990.69	125.41	3,992.66	0.00	403,559.21	615,262.91
PBHL OH P#1H										

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 OH P#1H - plan hits target - Point	0.00	0.00	8,000.00	-3,990.70	125.10	403,559.200	615,262.600	32° 6' 33.258 N	104° 5' 40.462 W

Checked By: _____ Approved By: _____ Date: _____

Plat for Closed Loop Sys

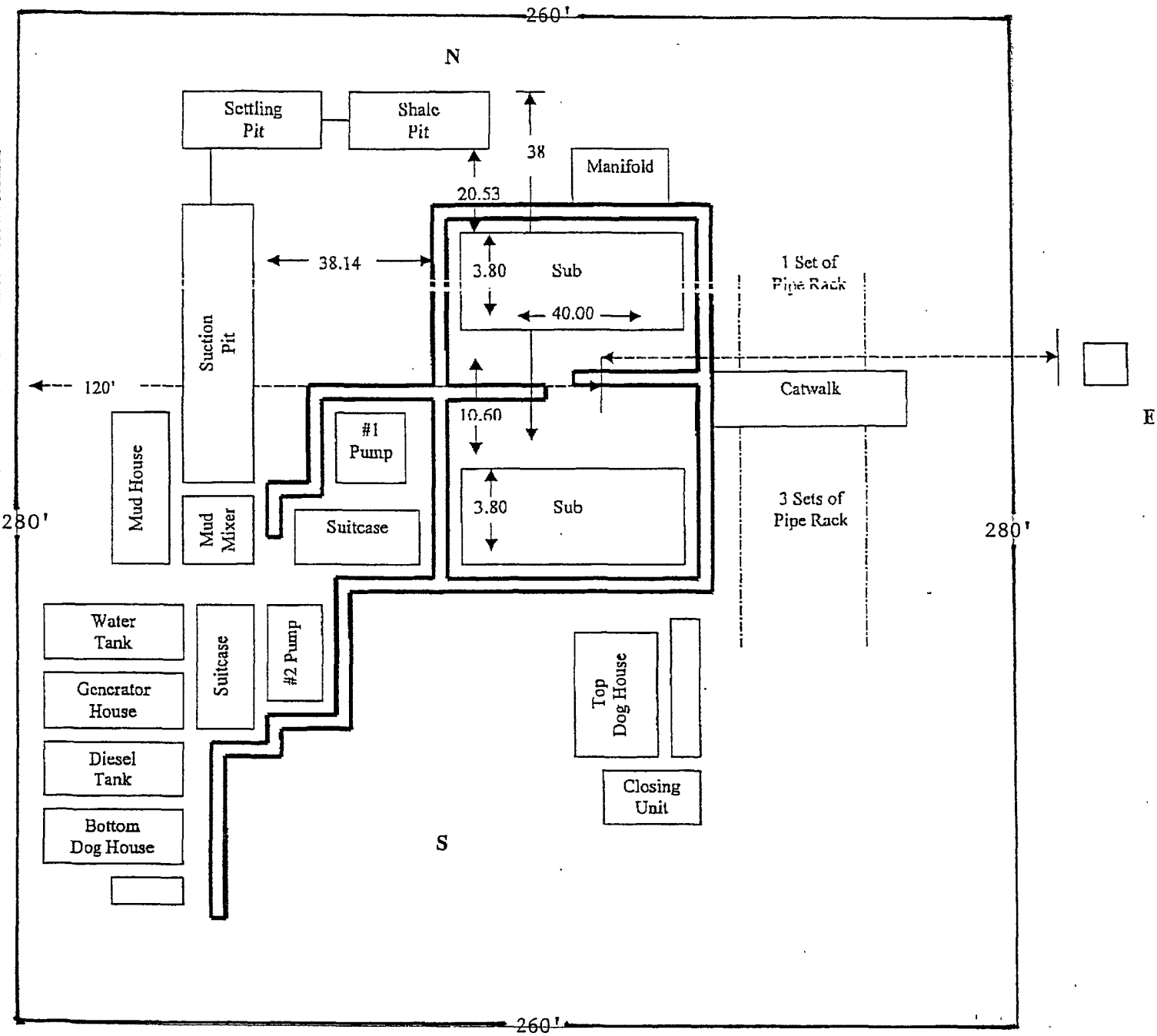
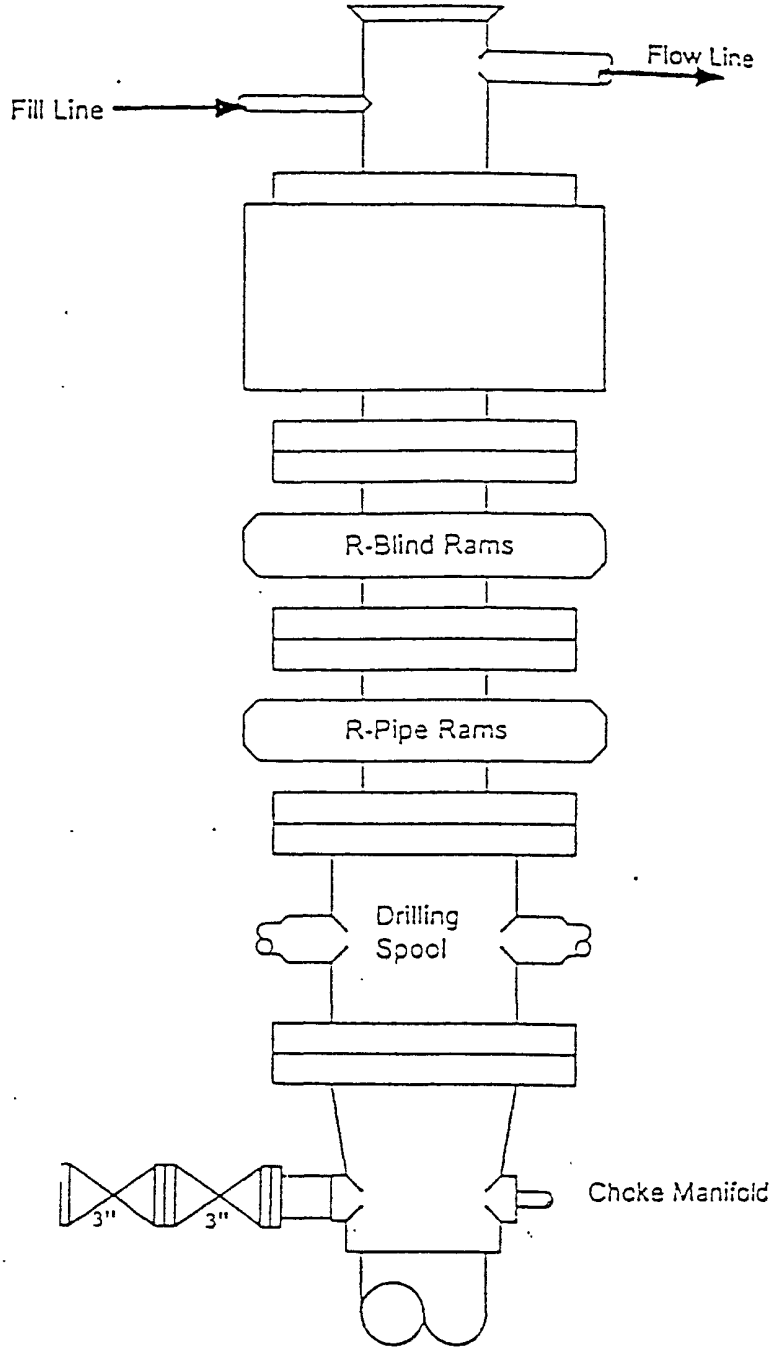


EXHIBIT "D"
RIG LAY OUT PLAT

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM



Type 900 Series
3000 psi WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

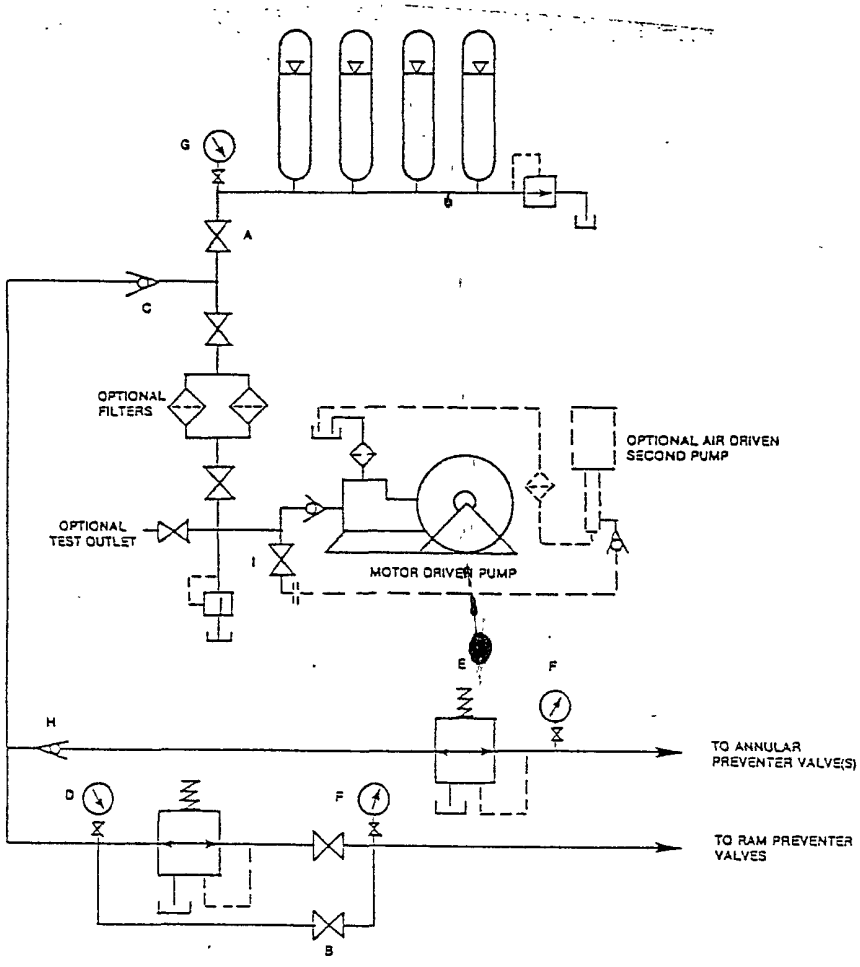


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

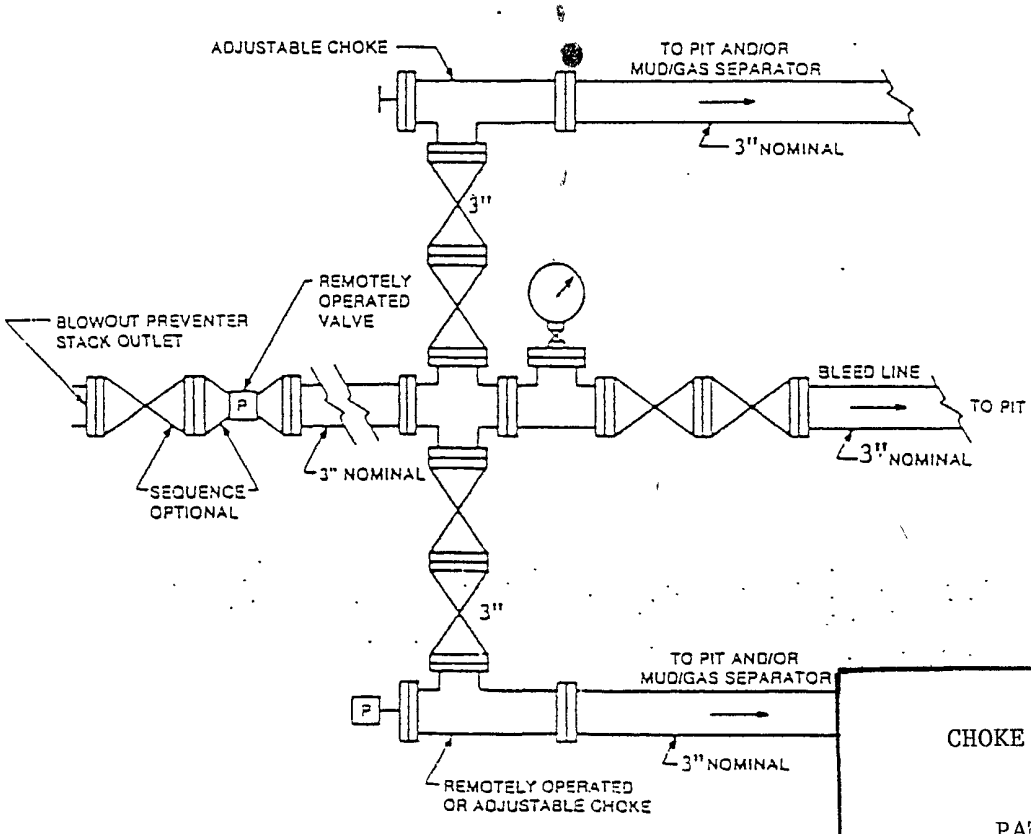


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT"1-"
CHOKE MANIFOLD & CLOSING UNIT

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

TABLE OF CONTENTS

HYDROGEN SULFIDE CONTINGENCY PLAN

SCOPE

THIS CONTENGENCY PLAN ESTABLISHES GUIDELINES FOR THE PUBLIC, ALL COMPANY EMPLOYEES WHO'S WORK ACTIVITIES MAY INVOLVE EXPOSURE TO HYDROGEN SULFIDE GAS.

OBJECTIVE

1. PREVENT ANY AND ALL ACCIDENTS, AND PREVENT THE UNCONTROLLED RELEASE OF HYDROGEN SULFIED INTO THE ATMOSPHERE.
2. PROVIDE PROPER EVACUATION PROCEDURES TO COPE WITH EMERGENCIES.
3. PROVIDE IMMEDIATE AND ADEQUATE MEDICAL ATTENTION SHOULD AN INJURY OCCUR.

DISCUSSION

GEOLOGICAL PROGNOSIS

IMPLEMENTATION:	THIS PLAN WITH ALL DETAILS IS TO BE FULLY IMPLEMENTED BEFORE DRILLING TO PRODUCTION CASING POINT.
EMERGENCY RESPONSE:	THIS SECTION OUTLINES THE CONDITIONS AND DENOTES STEPS TO BE TAKEN IN THE EVENT OF AN EMERGENCY
EMERGENCY EQUIPMENT:	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 PRIOR TO DRILLING TO PRODUCTION CASING POINT.
EMERGENCY CALL LISTS:	INCLUDED ARE THE TELEPHONE NUMBERS OF ALL PERSONS TO BE CONTACTED SHOULD AN EMERGENCY EXISTS.
BRIEFING:	THIS SECTON DEALS WITH THE BRIEFING OF ALL PEOPLE INVOLVED IN THE DRILLING OPERATION.
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 INSURE ADHERENCE TO THE PLAN.
GENERAL INFORMATION:	A GENERAL INFORMATION SECTION HAS BEEN INCLUDED TO SUPPLY SUPPORT INFORMATION.

EMERGENCY PROCEDURES

A. IN THE EVENT OF ANY EVIDENCE OF H_2S LEVEL ABOVE 10 PPM. TAKE THE FOLLOWING STEPS:

1. SECURE BREATHING EQUIPMENT.
2. ORDER NON-ESSENTIAL PERSONNEL OUT OF DANGER ZONE.
3. TAKE STEPS TO DETERMINE IF THE H_2S LEVEL CAN BE CORRECTED OR SUPPRESSED AND, IF SO, PROCEED IN NORMAL OPERATION.

B. IF UNCONTROLLABLE CONDITIONS OCCUR.

1. TAKE STEPS TO PROTECT AND/OR REMOVE ANY PUBLIC IN THE DOWN-WIND AREA FROM THE RIG – PARTIAL EVACUATION AND ISOLATION. NOTIFY NECESSARY PUBLIC SAFETY PERSONNEL AND THE BUREAU OF LAND MANAGEMENT OF THE SITUATION.
2. REMOVE ALL PERSONNEL TO SAFE BREATHING AREA.
3. NOTIFY PUBLIC SAFETY PERSONNEL TO SAFE BREATHING AREA.
4. PROCEED WITH BEST PLAN TO REGAIN CONTROL OF THE WELL. MAINTAIN TIGHT SECURITY AND SAFETY PROCEDURES.

C. RESPONSIBILITY:

1. DESIGNATED PERSONNEL.

   a. SHALL BE RESPONSIBLE FOR THE TOTAL IMPLEMENTATION OF THIS PLAN.
   b. SHALL BE IN COMPLETE COMMAND DURING ANY EMERGENCY.
   c. SHALL DESIGNATE A BACK-UP.

EMERGENCY PROCEDURES

(Procedures are the same for both Drilling and Tripping)

ALL PERSONNEL:

1. ON ALARM, DON ESCAPE UNIT AND REPORT IN UP WIND BREIFING AREA.
2. CHECK STATUS OF PERSONNEL (BUDDY SYSTEM).
3. SECURE BREATHING EQUIPMENT.
4. AWAIT ORDERS FROM SUPERVISOR.

DRILLING FOREMAN:

1. REPORT TO UP WIND BREIFING AREA.
2. DON BREATHING EQUIPMENT AND RETURN TO POINT OF RELEASE WITH TOOL PUSHER OR DRILLER (BUDDY SYSTEM).
3. DETERMINE H_2S CONCENTRATIONS.
4. ASSESS SITUATION AND TAKE CONTROL MEASURES.

TOOL PUSHER:

1. REPORT TO UP WIND BREIFING AREA.
2. DON BREATHING EQUIPMENT AND RETURN TO POINT OF RELEASE WITH DRILLING FOREMAN OR DRILLER (BUDDY SYSTEM).
3. DETERMINE H_2S CONCENTRATION.
4. ASSESS SITUATION AND TAKE CONTROL MEASURES.

DRILLER:

1. DON ESCAPE UNIT.
2. CHECK MONITOR FOR POINT OF RELEASE.
3. REPORT TO BREIFING AREA.
4. CHECK STATUS OF PERSONNEL (FOR RESCUE, USE THE BUDDY SYSTEM).
5. ASSIGNS LEAST ESSENTIAL PERSON TO NOTIFY DRILLING FOREMAN AND TOOL PUSHER BY QUICKEST MEANS IN CASE OF THEIR ABSENCE.
6. ASSUMES THE RESPONSIBILITIES OF THE DRILLING FOREMAN AND TOOL PUSHER UNTIL THEY ARRIVE.

EMERGENCY PROCEDURES

DERRICK MAN / FLOOR HANDS:

1. WILL REMAIN IN BREIFING AREA UNTIL INSTRUCTED BY SUPERVISOR.

MUD ENGINEER:

1. REPORT TO BRIEFING AREA.
2. WHEN INSTRUCTED, BEGIN CHECK OF MUD FOR Ph AND H_2S LEVEL (GARRETT GAS TRAIN).

SAFETY PERSONNEL:

1. MASK UP AND CHECK STATUS OF ALL PERSONNEL AND SECURE OPERATIONS AS INSTRUCTED BY DRILLING FOREMAN AND REPORT TO BRIEFING AREA.

TAKING A KICK

WHEN TAKING A KICK DURING AN H_2S EMERGENCY, ALL PERSONNEL WILL FOLLOW STANDARD BOP PROCEDURES AFTER REPORTING TO BRIEFING AREA AND MASKING UP.

OPEN-HOLE LOGGING

ALL UNNECESSARY PERSONNEL OFF THE FLOOR. DRILLING FOREMAN AND SAFETY PERSONNEL SHOULD MONITOR CONDITION, ADVISE STATUS AND DETERMINE NEED FOR USE OF AID EQUIPMENT.

RUNNING CASING OR PLUGGING

FOLLOWING THE SAME "TRIPPING" PROCEDURE AS ABOVE. DRILLING FOREMAN AND SAFETY PERSONNEL SHOULD DETERMINE IF ALL PERSONNEL HAVE ACCESS TO PROTECTIVE EQUIPMENT.

IGNITION PROCEDURES

THE DECISION TO IGNITE THE WELL IS THE RESPONSIBILITY OF COMPANY FOREMAN. IN THE EVENT HE IS INCAPACITATED, IT BECOMES THE RESPONSIBILITY OF THE CONTRACT RIG TOOL PUSHER. THE DECISION SHOULD BE MADE ONLY AS A LAST RESORT AND IN A SITUATION WHERE IT IS CLEAR THAT:

1. HUMAN LIFE AND PROPERY ARE ENDANGERED.
2. THERE IS NO HOPE OF CONTROLLING THE BLOWOUT UNDER THE PREVAILING CONDITIONS AT THE WELL.

NOTIFY THE DISTRICT OFFICE IT TIME PERMITS, BUT DO NOT DELAY IF HUMAN LIFE IS IN DANGER.

INITIATE FIRST PHASE OF EVACUATION PLAN.

IGNITION PROCEDURES

INSTRUCTIONS FOR IGNITING THE WELL:

1. TWO PEOPLE ARE REQUIRED FOR THE ACTUAL IGNITING OPERATION. THEY MUST WEAR SELF-CONTAINED BREATHING UNITS AND HAVE SAFETY ROPES ATTACHED. ONE MAN WILL CHECK THE ATMOSPHERE FOER EXPLOSIVE GASES WITH THE EXPLOSIMETER. THE OTHER MAN IS RESPONSIBLE FOR IGNITING THE WELL.
2. PRIMARY METHOD TO IGNITE: 25 MM FLARE GUN WITH RANGE OF 500 FT.
3. IGNITE UP WIND AND DO NOT APPROACH ANY CLOSER THAN IS WARRENTED.
4. SELECT THE IGNITION SITE BEST FOR PROTECTION, AND WHICH OFFERS AN EASY ESCAPE ROUTE.
5. BEFORE FIRING, CHECK PRESENCE OF COMBUSTABLE GAS.
6. AFTER LIGHTING, CONTINUE EMERGENCY ACTION AND PROCEDURE AS BEFORE.
7. ALL UNASSIGNED PERSONNEL WILL LIMIT THEIR ACTIONS TO THOSE DIRECTED BY THE DRILLING FOREMAN.

REMEMBER: AFTER 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 REQUIREMENTS

WHEN WORKING IN AN AREA WHERE H_2S GAS MIGHT BE ENCOUNTERED, DEFINITE TRAINING REQUIREMENTS MUST BE CARRIED OUT. ALL COMPANIES WILL INSURE THAT ALL PERSONNEL AT THE WELL SITE WILL HAVE HAD ADEQUATE TRAINING IN THE FOLLOWING:

1. HAZARDS AND CHARACTERISTICS OF H_2S
2. PHYSICAL EFFECTS OF HYDROGEN SULFIDE ON THE HUMAN BODY
3. TOXICITY OF HYDROGEN SULFIDE AND SULFUR DIOXIDE.
4. H_2S DETECTION.
5. EMERGENCY RESCUE.
6. RESUSCITATORS.
7. FIRST AID AND ARTIFICIAL RESPIRATION.
8. EFFECTS OF H_2S ON METALS.
9. LOCATION SAFETY.

SERVICE COMPANY AND VISITING PERSONNEL

A. EACH SERVICE COMPANY THAT WILL BE ON THIS WELL WILL BE NOTIFIED IF THE ZONE CONTAINS H_2S.
B. EACH SERVICE COMPANY MUST PROVIDE FOR THE TRAINING AND EQUIPMENT OF THEIR EMPLOYEES BEFORE THEY ARRIVE AT THE WELLSITE.
C. EACH SERVICE COMPANY WILL BE EXPECTED TO ATTEND A SITE BRIEFING.

EMERGENCY EQUIPMENT REQUIREMENTS

1. SIGNS
   A. ONE SIGN LOCATED AT LOCATION ENTRANCE WITH THE FOLLOWING:

(LEASE NAME & WELL NO.)
CAUTION – POTENTIAL POISON GAS
HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION

2. WIND SOCK – WIND STREAMERS
   A. ONE 36" WIND SOCK LOCATED AT PROTECTION CENTER, AT A VISIBLE HEIGHT ABOVE THE RIG FLOOR.
   B. ONE 36" WIND SOCK LOCATED AT VISIBLE HEIGHT FROM PIT AREAS.

3. HYDROGEN SULFIED DETECTOR AND ALARMS
   A. H_2S MONITORS WITH ALARMS WILL BE LOCATED ON THE RIG FLOOR, AT THE BELL NIPPLE, AND AT THE FLOE LINE. THESE MONITORS WILL SET FOR VISUAL AT 10 PPM WITH RED LIGHT AND AUIBLE AT 15 PPM.
   B. HAND OPERATED DETECTORS WITH TUBES.
   C. H_2S MONITOR TESTER.

4. CONDITION FLAGS
   A. ONE EACH OF GREEN, YELLOW, AND RED CONDITION FLAGS TO BE DISPLAYED TO DENOTE CONDITIONS.

GREEN - NORMAL CONDITIONS

YELLOW - POTENTIAL DANGER

RED - DANGER, H_2S PRESENT

   B. CONDITION FLAG SHALL BE POSTED AT LOCATION SIGN ENTRANCE.

5. AUXILIARY EQUIPMENT
   A. STRETCHER
   B. 100' LENGTH OF NYLON ROPE

EMERGENCY EQUIPMENT REQUIREMENTS

6. MUD INSPECTION DEVICES

   GARRETT GAS TRAN OR HACH TESTER FOR INSPECTION OF SULFIDE CONCENTRATION IN MUD SYSTEM.

7. FIRE EXTINGUISHER

8. BLOW OUT PREVENTION EQUIPMENT

   THE WELL SHALL HAVE HYDRAULIC BOP EQUIPMENT FOR THE ANTICIPATED BHP OF 1500 PSI. EQUIPMENT IS TO BE TESTED ON INSTALLATION.

9. COMBUSTIBLE GAS DETECTOR

   THERE SHALL BE ONE COMBUSTIBLE GAS DETECTOR ON LOCATION AT ALL TIMES.

10. BOP TESTING

    BOP, CHOKE LINE, AND KILL LINE WILL BE TESTED.

11. AUDIO SYSTEM

    RADIO COMMUNICATION EQUIPMENT
    A. RIG FLOOR OR TRAILER
    B. VEHICLE

12. SPECIAL CONTROL EQUIPMENT

    A. HYDRAULIC BOP EQUIPMENT WITH REMOTE CONTROL ON GROUND.
    B. ROTATING HEAD.

13. EVACUATION PLAN

    EVACUATION ROUTES SHOULD BE ESTABLISHED PRIOR TO SPUDDING EACH WELL AND DISCUSSED WITH ALL RIG PERSONNEL.

14. DESIGNATED AREA

A. PARKING AND VISITOR AREA: ALL VEHICLES ARE TO BE PARKED AT A PREDETERMINED SAFE DISTANCE FROM THE WELLHEAD. THIS WILL BE DESIGNATED AS SMOKING AREA.
B. TWO BRIEFING AREAS ON EITHER SIDE OF THE LOCATION AT THE MAXIMUM ALLOWABLE DISTANCE FROM THE WELLBORE SO THEY OFFSET PREVAILING WINDS PERPENDICULARY, OR AT A 45 DEGREE ANGLE IF WIND DIRECTION TENDS TO SHIFT IN THE AREA.
C. PROTECTION CENTERS OR IF A MOVABLE TRAILER IS USED, IT SHOULD BE KEPT UPWIND. WHEN WIND IS FROM THE PREVAILING DIRECTION, BOTH PROTECTION CENTERS SHOULD BE ACCESSIBLE.

STATUS CHECK LIST

NOTE: ALL TEMS ON THIS LIST MUST BE COMPLETED BEFORE DRILLING TO PRODUCTION CASING POINT.

1. SIGN AT LOCATION ENTRANCE
2. TWO WIND SOCKS LOCATED AS REQUIRED
3. TWO 30-MINUTE PRESSURE DEMAND AIR PACKS ON LOCATION FOR ALL RIG PERSONNEL AND MUD LOGGERS.
4. AIR PACK INSPECTED FOR READY USE.
5. CASCADE SYSTEM AND HOSE LINE HOOK-UP.
6. CASCADE SYSTEM FOR REFILLING AIR BOTTLES.
7. SAFE BREATHING AREAS SET UP.
8. CONDITION FLAG LOCATION AND READY FOR USE.
9. H_2S ALARM SYSTEM HOOKED UP AND READY.
10. H_2S DETECTION SYSTEM HOOKED UP.
11. OXYGEN RESUSCITATOR ON LOCATION AND TESTED FOR USE.
12. STRETCHER ON LOCATION AT SAFETY TRAILER.
13. 100' LENTH OF NYLON ROPE ON LOCATION.
14. ALL RIG CREW AND SUPERVISORS TRAINED AS REQUIRED.
15. ALL OUTSIDE CONTRACTORS ADVISED OF POTENTIAL H_2S HAZARD ON WELL.
16. NO SMOKING SIGN POSTED.
17. HAND OPERATED H2S DETECTOR WITH TUBES ON LOCATION.

PROCEDURAL CHECK LIST

PERFORM EACH TOUR:

1. CHECK FIRE EXTINGUISHERS FOR PROPER CHARGE.
2. CHECK BREATHING EQUIPMENT
3. CHECK OPERATION OF H_2S DETECTION SYSTEM.

PERFORM EACH WEEK:

1. CHECK EACH PIECE OF BREATHING EQUIPMENT FOR DEMAND REGULATOR FUNCTION. THIS REQUIRES THAT THE BOTTLE BE OPENED AND THE MASK ASSY BE PUT ON TIGHT ENOUGH SO THAT WHEN YOU INHALE, YOU RECEIVE AIR.
2. BLOW OUT PREVENTOR SKILLS
3. CHECK SUPPLY PRESSURE ON BOP ACCUMULATOR STAND BY SOURCE.
4. CHECK ALL SKA-PAC UNITS FOR OPERATION: DEMAND REGULATOR, ESCAPE BOTTLE AIR VOLUMES, SUPPLY BOTTLE AIR VOLUMES.
5. CHECK BREATHING EQUIPMENT MASK ASSY TO SEE THAT STRAPS ARE LOOSENED AND TURNED BACK, READY FOR DON.
6. CHECK PRESSURE ON BREATHING EQUIPMENT AIR BOTTLES FOR FULL CHARGE.
7. CONFIRM PRESSURE ON ALL SUPPLY AIR BOTTLES.
8. PERFORM BREATHING EQUIPMENT DRILLS WITH ON-SITE PERSONNEL.
9. CHECK THE FOLLOWING SUPPLIES FOR AVAILABILITY:
    A. EMERGENCY TELEPHONE LIST
    B. HAND OPERATED H_2S DETECTORS AND TUBES.

GENERAL EVACUATION PLAN

THE DIRECT LINES OF ACTION PREPARED TO PROTECT THE PUBLIC FROM HAZARDOUS GAS SITUATIONS ARE AS FOLLOWS:

1. WHEN THE COMPANY APPROVED SUPERVISOR (DRILLING FOREMAN, CONSULTANT, RIG PUSHER, OR DRILLIER) DETERMINES THE H_2S 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 AREA MAP.

2. "COMPANY MAN" OR DESIGNEE WILL NOTIFY LOCAL GOVERNMENT AGENCYTHAT A HAZARDOUS CONDITION EXISTS AND EVACUATION NEEDS TO BE IMPLEMENTED.

3. COMPANY SAFETY PERSONNEL THAT HAVE BEEN TRAINED IN THE USE OF H_2S DETECTION EQUIPMENT AND SELF-CONTAINED BREATHING EQUIPMENT WILL MONITOR H_2S CONCENTRATIONS, WIND DIRECTION, AND AREA OF EXPOSURE. THEY WILL DELINEATE THE OUTER PERIMETER OR THE HAZARDOUS GAS AREA. EXTENSION TO THE EVACUATION AREA WILL BE DETERMINED FROM INFORMATION GATHERED.

4. LAW ENFORCEMENT PERSONNEL (STATE POLICE, POLICE DEPT, FIRE DEPT, AND SHERIFF'S DEPT) WILL BE CALLED TO AID IN SETTING UP AND MAINTAINING ROAD BLOCKS. ALSO, THEY WILL AID IN EVACUATION OF THE PUBLIC IF NECESSARY.

   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.

EMERGENCY ACTIONS

WELL BLOWOUT – IF EMERGENCY

1. EVACUATE ALL PERSONNEL IF POSSIBLE.
2. IF SOUR GAS – EVACUATE RIG PERSONNEL.
3. IF SOUR GAS – EVACUATE PUBLIC WITHIN 3000 FT RADIUS OF EXPOSURE.
4. DON SCBA AND RESCUE.
5. CALL 911 EMERGENCY HELP (FIRE AND AMBULANCE) AND NOTIFY SR. DRILLING FOREMAN AND DISTRICT FOREMAN.
6. GIVE FIRST AID.

PERSON DOWN LOCATION/FACILITY

1. IF IMMEDIATELY POSSIBLE, CONTACT 911. GIVE LOCATION AND WAIT FOR CONFIRMATION.
2. DON SCBA AND RESCUE.

EMERGENCY PHONE LIST

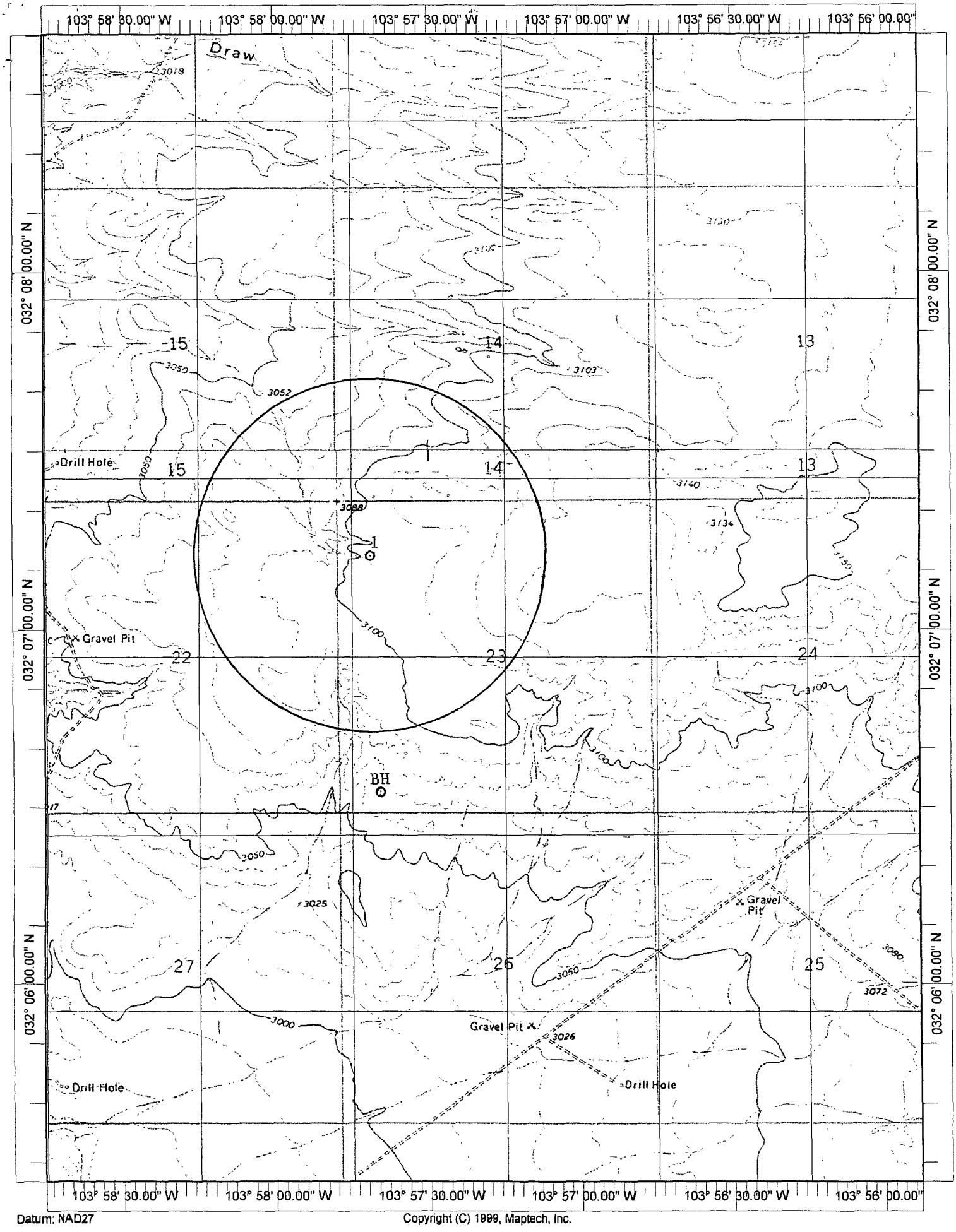
GOVERNMENT AGENCIES

EDDY COUNTY SHERIFF'S OFFICE	911
NON- EMERGENCY	575 -746-9888
FIRE DEPARTMENT	911
CARLSBAD – NON EMERGENCY	575 -885-2111
BLM	
CARLSBAD	575-361-2822
STATE POLICE DEPARTMENT	911
NON-EMERGENCY	575437-1313
CITY OF CARLSBAD	
	575--885-2111
AMBULANCE	
CARLSBAD – NON EMERGENCY	575--885-2111
HOSPITALS	
CARLSBAD	575--887-4100
AREOCARE	806-747-8923
CHEMTREC	800-424-9300
OSHA	
LUBBOCK,TX	800-692-4204

EMERGENCY CONTACT LIST

OGX RESOURCES	OFFICES	432-685-1287
DONNY LEEK	CONSULTANT	432-634-4862
JEFF BIRKELBACH	OGX OPERATIONS	432-553-0391 cell
STEVE DOUGLAS	OGX OPERATIONS	432-934-6800 cell
KIP AGAR	OGX PRESIDENT	432-631-1736 cell

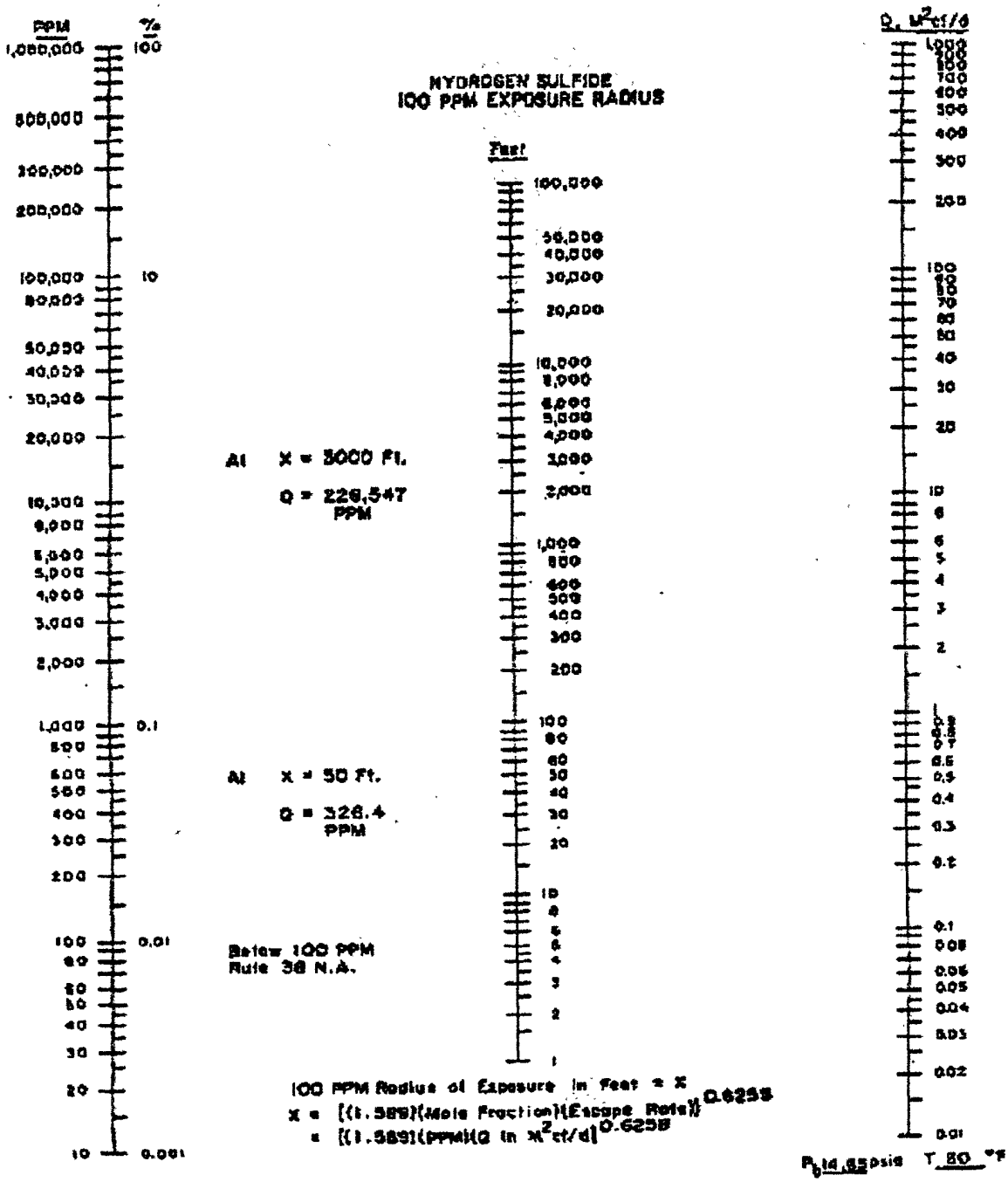
OGX RESOURCES, LLC

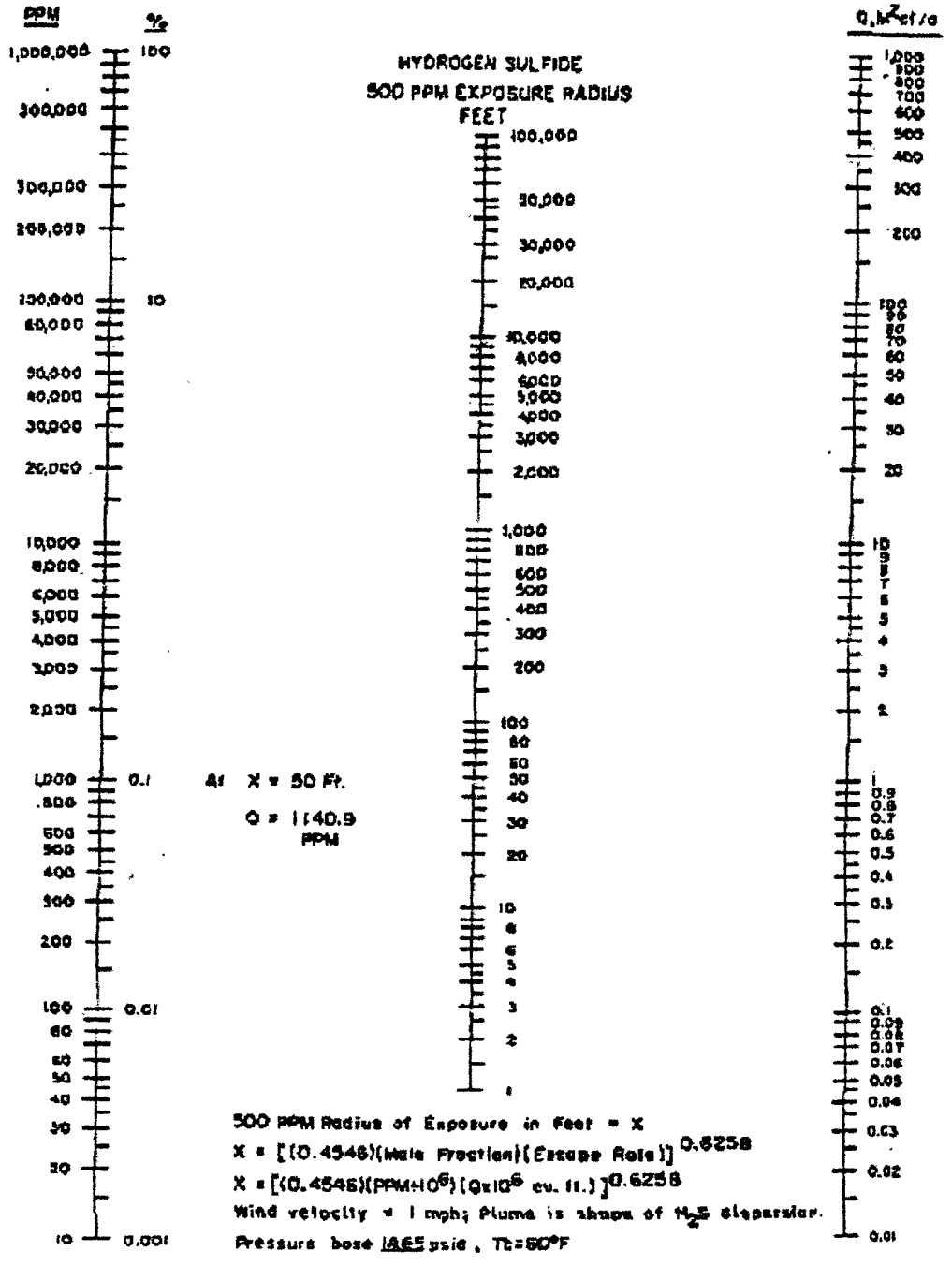


Datum: NAD27

OGX RESOURCES LLC – H_2S CONTINGENCY PLAN

3,000 FT RADIUS FROM WELL


HYDROGEN SULFIDE
100 PPM EXPOSURE RADIUS
PPM
%
Feet
Q, M²cf/d
At X = 3000 Ft.
Q = 226,547 PPM
At X = 50 Ft.
Q = 326.4 PPM
Below 100 PPM
Rule 38 N.A.
100 PPM Radius of Exposure in Feet = X
X = [(1.589)(Mole Fraction)(Escape Rate)]^0.6258
= [(1.589)(PPM)(Q in M²cf/d)]^0.6258
Pb 14.65 psia T 60 °F


PPM
%
1,000,000
100
300,000
100,000
10
50,000
40,000
30,000
20,000
10,000
8,000
6,000
5,000
4,000
3,000
2,000
1,000
0.1
800
600
500
400
300
200
100
0.01
80
60
50
40
30
20
10
0.001
HYDROGEN SULFIDE
500 PPM EXPOSURE RADIUS
FEET
100,000
50,000
30,000
20,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
900
800
700
600
500
400
300
200
100
90
80
70
60
50
40
30
20
10
9
8
7
6
5
4
3
2
1
At X = 50 Ft.
Q = 1140.9
PPM
500 PPM Radius of Exposure in Feet = X
X = [(0.4546)(Mole Fraction)(Escape Rate)]^0.6258
X = [(0.4546)(PPM÷10^6)(Q×10^6 cu. ft.)]^0.6258
Wind velocity = 1 mph; Plume is shape of H2S dispersion.
Pressure base 14.65 psia, Tb=60°F
Q, MMscf/d
1,000
900
800
700
600
500
400
300
200
100
90
80
70
60
50
40
30
20
10
9
8
7
6
5
4
3
2
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

TOXIC EFFECTS OF HYDROGEN SULFIDE

HYDROGEN SULFIDE IS EXTREMELY TOXIC. THE ACCEPTABLE CEILING CONENTRATION FOR EIGHT-HOUR EXPOSURE IS 10 PPM, WHICH IS .001% BY VOLUME. HYDROGEN SULFIED IS HEAVIER THAN AIR (SPECIFIC GRAVITY – 1.192) AND COLORLESS. IT FORMS AN EXPLOSIVE MIXTURE WITH AIR BETWEEN 4.3 & 46% BY VOLUME. HYDROGEN SULFIED IS ALMOST AS TOXIC AS HYDROGEN CYANIDE AND IS BETWEEN FIVE & SIX TIMES MORE TOXIC AS CARBON MONOXIDE. TOXICITY DATA FOR HYDROGEN SULFIDE AND VARIOUS OTHER GASES ARE COMPARED IN TABLE I. PHYSICAL EFFECTS AT VARIOUS HYDROGEN SULFIED EXPOSURE LEVELS ARE SHOWN IN TABLE II.

TABLE I.

TOXICITY OF VARIOUS GASES

Common Name	Chem Sym	SpGr	Threshold Lm	Hazardous Lm	Lethal Lm
Hydrogen Cyanide	HCN	0.94	10 PPM	150 PPM/Hr	300 PPM
Hydrogen Sulfide	H_2S	1.18	10 PPM	250 PPM/Hr	600 PPM
Sulfur Dioxide	SO_2	2.21	5 PPM		1000 PPM
Chlorine	CL_2	2.45	1 PPM	4 PPM/Hr	1000 PPM
Carbon Monoxide	CO	0.97	50 PPM	400 PPM/Hr	1000 PPM
Carbon Dioxide	CO	1.52	5000 PPM	5%	10%
Methane	CH_4	0.55	90,000 PPM	Combustible Above 5% in Air	

1. THRESHOLD LIMIT – CONCENTRATION AT WHICH IT IS BELIEVED THAT ALL WORKERS MAT BE REPEATEDLY EXPOSED DAY AFTER DAY WITHOUT ADVERSE EFFECTS.

2. HAZARDOUS LIMIT – CONCENTRATION THAT WILL CAUSE DEATH WITH SHORT TERM EXPOSURE.

3. LETHAL CONCENTRATION – CONCENTRATION THAT WILL CAUSE DEATH WITH SHORT – TERM EXPOSURE.

TOXIC EFFECTS OF HYDROGEN SULFIDE

TABLE II

PHYSICAL EFFECTS OF HYDROGEN SULFIDE

PERCENT	PPM	Concentration Grains	Physical Effects
0.001	<10	0.65	Obvious and unpleasant odor
0.002	10	1.30	Safe for 8 hours of exposure
0.010	100	6.48	Kills sense of smell in 3-15 minutes. May sting eyes & throat.
0.020	200	12.96	Kills sense of smell; stings eyes & throat
0.050	500	32.96	Dizziness, Breathing ceases in a few minutes, Needs prompt artificial respiration.
0.070	700	45.36	Unconscious quickly, Death will result if not rescued promptly
0.100	1000	64.3	Unconscious at once, followed by death within minutes

USE OF SELF-CONTAINED BREATHING EQUIPMENT

1. WRITTEN PROCEDURES SHALL BE PREPARED COVERING SAFE USE OF SCBA'S IN DANGEROUS ATMOSPHERE, WHICH MIGHT BE ENCOUNTERED IN NORMAL OPERATIONS OR IN EMERGENCIES. PERSONNEL SHALL BE FAMILIAR WITH THESE PROCEDURES AND THE AVAILABLE SCBA.

2. SCBA'S SHALL BE INSPECTED FREQUENTLY AT RAMDON TO INSURE THAT THEY ARE PROPERLY USED, CLEANED, AND MAINTAINED.

3. ANYONE WHO MAY USE THE SCBA'S SHALL BE TRAINED IN HOW TO INSURE PROPER FACE-PIECE TO FACE SEAL. THEY SHALL WEAR SCBA'S IN NORMAL AIR AND THEN WEAR THEM IN A TEST ATMOSPHERE. BEARD AND/OR SIDEBURNS AND EYEGLASSES WILL NOT ALLOE A PROPER SEAL. ANYONE THAT MAY BE REASONABLY EXPECTED TO WEAR SCBA'S SHOULD HAVE THESE ITEMS REMOVED BEFORE ENTERING A TOXIC ATMOSPHERE. A SPECIAL MASK MUST BE OBTAINED FOR ANYONE WHO MUST WAER EYEGLASSES OR CONTACT LENSES.

4. MAINTENANCE AND CARE OF SCBA'S:

   A. A PROGRAM FOR MAINTENANCE AND CARE OF SCBA'S SHALL INCLUDE THE FOLLOWING:
      1. INSPECTIO FOR DEFECTS, INCLUDING LEAK CHECKS
      2. CLEANING AND DISINFECTING
      3. REPAIR
      4. STORAGE

   B. INSPECTION; SELF-CONTAINED BREATHING APPARATUS FOR EMERGENCY USE SHALL BE INSPECTED MONTHLY AND THE FOLLOWING PERMANENT RECORDS KEPT OF THESE INSPECTIONS.
      1. FULLY CHARGED CYLINDERS
      2. REGULATOR AND WARNING DEVICE OPERATION.
      3. CONDITION OF FACE PIECE AND CONNECTIONS.
      4. ELASTOMER OR RUBBER PARTS SHALL BE STRETCHED OR MASSAGED TO KEEP THEM PLIABLE AND PREVENT DETERIORATION.

   C. ROUTINELY USED SCBA'S SHALL BE COLLECTED, CLEANED AND DISINFECTED AS FREQUENTLY AS NECESSARY TO INSURE PROPER PROTECTION IS PROVIDED.

5. PERSONS ASSIGNED TASKS THAT REQUIRES USE OF SELF- CONTAINED BREATHING EQUIPMENT SHALL BE CERTIFIED PHYSICALLY FIT FOR BREATHING EQUIPMENT USAGE BY THE LOCAL COMPANY PHYSICIAN AT LEAST ANNUALLY.

6. SCABA'S SHOULD BE WORN WHEN:

   A. ANY EMPLOYEE WORKS NEAR THE TOP OR ON TOP OF ANY TANK UNLESS TEST REVEALS LESS THAN 10 PPM OF H_2S.
   B. WHEN BREAKING OUT ANY LINE WHERE H_2S CAN REASONABLY BE EXPECTED.
   C. WHEN SAMPLING AIR IN AREAS TO DETERMINE IF TOXIC CONCENTRATIONS OF H_2S EXISTS.
   D. WHEN WORKING IN AREAS WHERE OVER 10 PPM H_2S HAS BEEN DETECTED.
   E. AT ANY TIME THERE IS A DOUBT AS TO THE H_2S LEVEL IN THE AREA TO BE ENTERED.

RESCUE

FIRST AID FOR H_2S POISONING

DO NOT PANIC!

REMAIN CALM – THINK

1. HOLD YOUR BREATH (DO NOT INHALE FIRST)
2. PUT ON BREATHING APPARATUS.
3. REMOVE VICTIMS TO FRESH AIR AS QUICKLY AS POSSIBLE. GO UP WIND.
4. BRIEFLY APPY CHEST PRESSURE – ARM LIFT METHOD OF ARTIFICIAL RESPERATION TO CLEAN THE VICTIM'S LUNGS AND TO AVOID INHALING ANY TOXIC GAS DIRECTLY FROM THE VICTIM'S LUNGS.
5. PROVIDE FOR PROMPT TRANSPORTATION TO THE HOSPITAL, AND CONTINUE GIVING ARTIFICIAL RESPIRATION IF NEEDED.
6. HOSPITALS OR MEDICAL FACILITIES NEED TO BE INFORMED BEFORE-HAND OF THE POSSIBILITY OF H_2S GAS POISONING – NO MATTER HOW REMOTE THE POSSIBLITY.
7. NOTIFY EMERGENCY ROOM PERSONNEL THAT THE VICTIMS HAVE BEEN EXPOSED TO H_2S GAS.

BESIDES BASIC FIRST AID, EVERONE ON LOCATION SHOULD HAVE A GOOD WORKING KNOWLEDGE OF ARTIFICAL RESPIRATION, AS WELL AS FIRST AID FOR EYES AND SKIN CONTACT WITH LIQUID H_2S. EVERYONE NEEDS TO MASTER THESE NECESSARY SKILLS.

SURFACE USE PLAN

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Malaga New Mexico take U. S. Hi-way 285 South 12.5 miles to the junction with CR-725, turn Left (East) go 3.8 miles cross river continue .2 miles bear left (Northeast) go 1.8 miles bear Left (North) go 2.2 milesbear Right (Northeast) follow lease road for 1.2 miles and location is on the Right Side of road.

D. Exhibit "C" is a topographic map showing existing roads and any proposed roads.

2. PLANNED ACCESS ROADS: Approximately 450' of new road will be constructed.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells - One approximately 1.5 miles Northwest.

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells -As shown on exhibit "A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads , flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.

C. Where a closed loop mud system is used to drill a well the drilling fluid that remains after the drilling and casing is run or the well is Plugged and abandoned will be removed from the location and in some cases may be used on another well or transported to a State approve disposal site. The drilling cuttings that result from drilling the well will likewise be transported to a State approved disposal site.

D. All water produced while completing this well and completion fluids will be treated in the same procedure as the drilling fluids.

E. Any remaining salts or mud additive that was not used will be removed by the supplier, this includes all broken sacks and containers.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on this location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the proposed well site layout.

B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.

D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 21 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.

E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out.If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

11. ADDITIONAL INFORMATION:

A. This project is located East of the Pecos River and South of of Cedar Canyon, drainage is West Southwest into the Pecos River. Topography consists of low relief gentle sloping grass land. The vegetation consists of Broom snakeweed, Yucca, Christmas tree cactus, catclaw, and various native range grasses.

B. The surface and the minerals are owned by The U. S. Department of Interior and is administered by The Bureau of Land Management. The surface is used mainly for the grazing of livestock. A small portion of the surface is used by Oil Companies for the production of oil & gas.

C. An archaeological survey will be performed on the location and roads used by this oil well and the report will be filed in the Breau of Land Management in the Carlsbad Field Office .

D. There are no dwellings located within 2 miles of this location.

CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY DIRECT SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND THE ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY OGX RESOURCES, LLC. ITS CONTRACTORS AND/OR ITS SUB-CONTRACTORS AND IS IN CONFORMANCE WITH THIS PLANS AND TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. FOR FILING A FALSE REPORT.

OPERATOR'S REPRESENTATIVES:

BEFORE CONSTRUCTION

TIERRA EXPLORATION, INC
P. O. BOX 2188
HOBBS, NEW MEXICO 88241
JOE JANICA 575-391-8503
CELL 575-390-1598

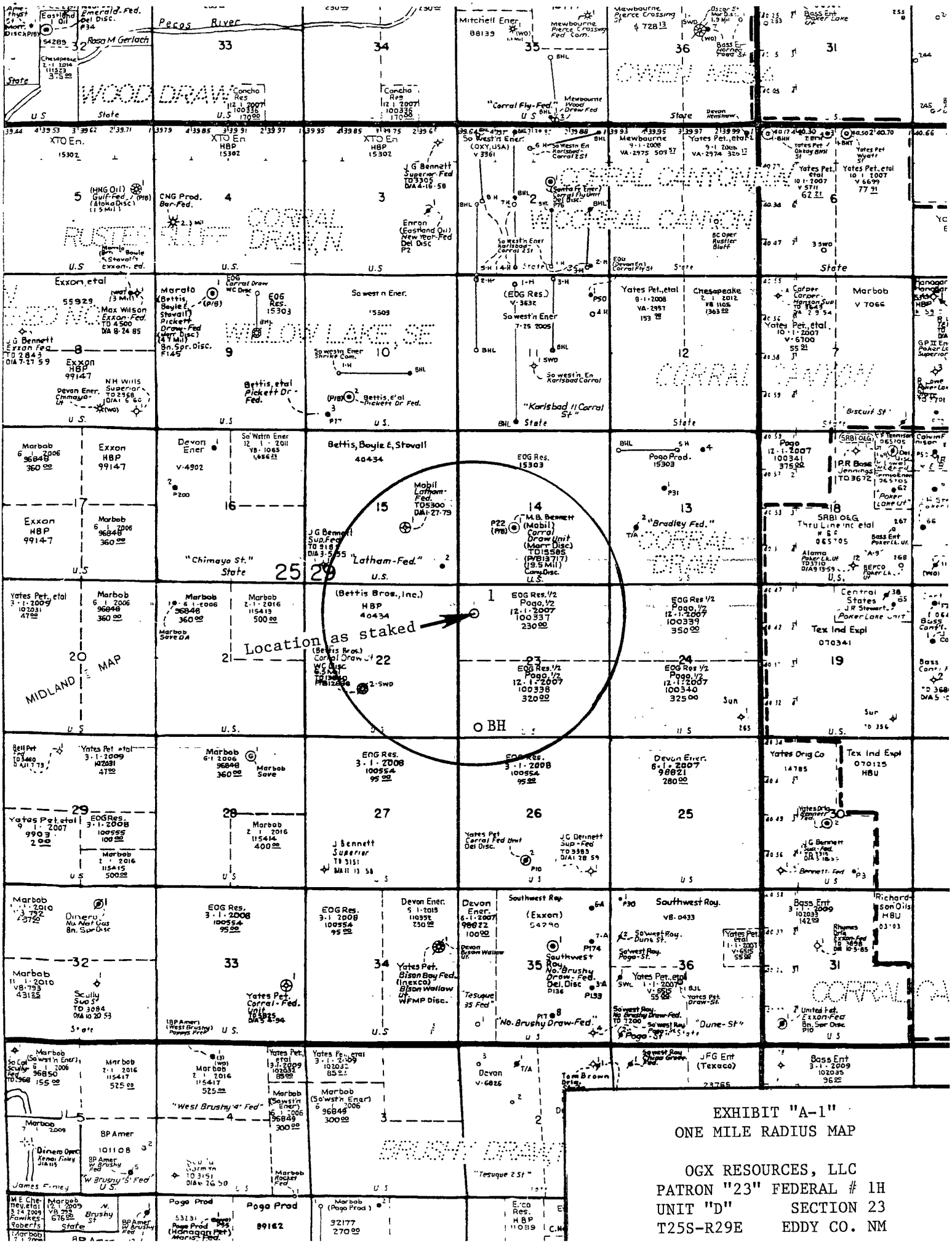
DURING & AFTER CONSTRUCTION

OGX RESOURCES, LLC.
P. O. BOX 2064
MIDLAND, TEXAS 79701
JEFF BIRKELBACH 432-685-1287
CELL 432-553-0391

NAME Joe T Janica

TITLE Permit Eng.

DATE 10/09/08


Location as staked
MIDLAND MAP
EXHIBIT "A-1"
ONE MILE RADIUS MAP
OGX RESOURCES, LLC
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

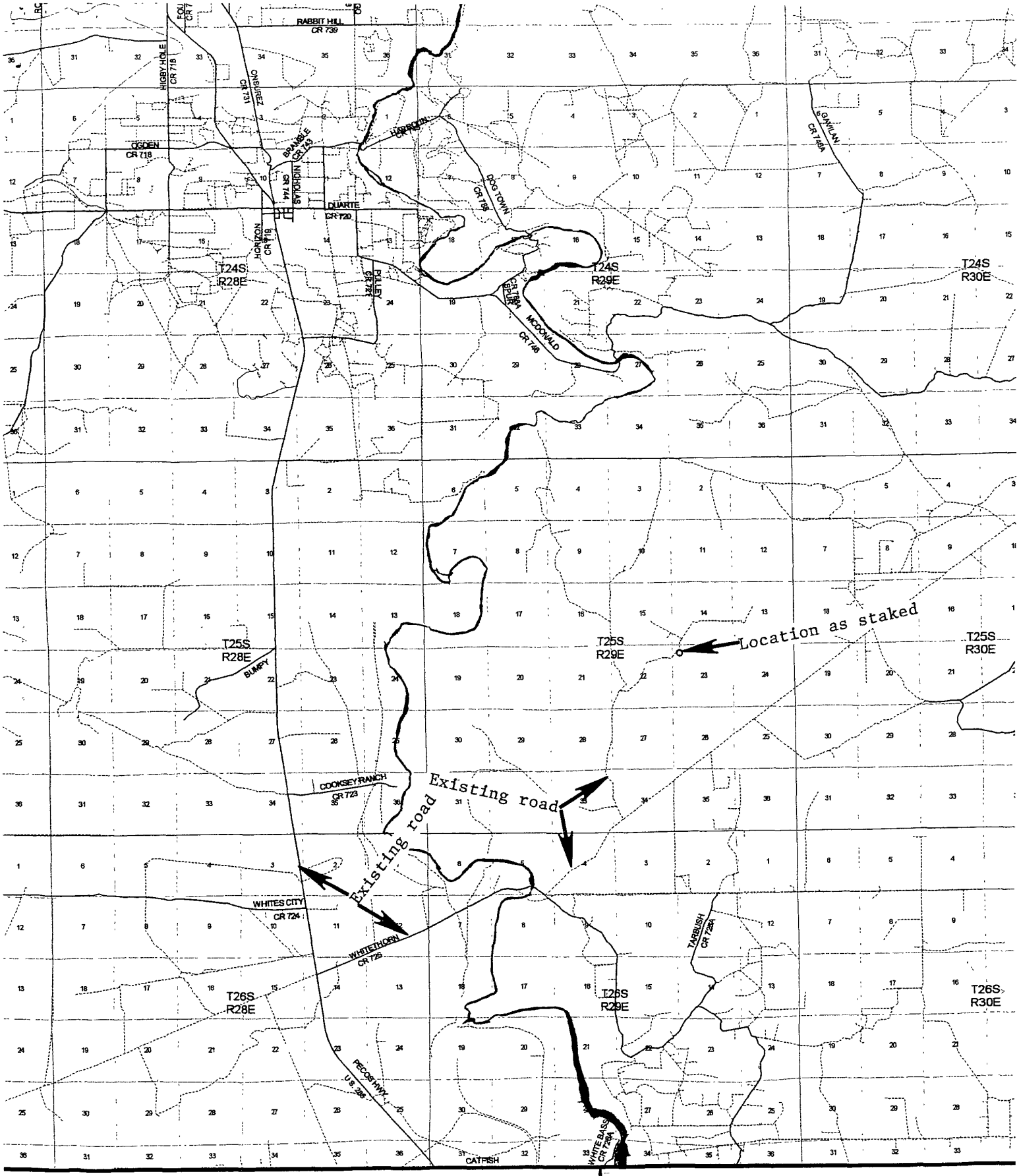
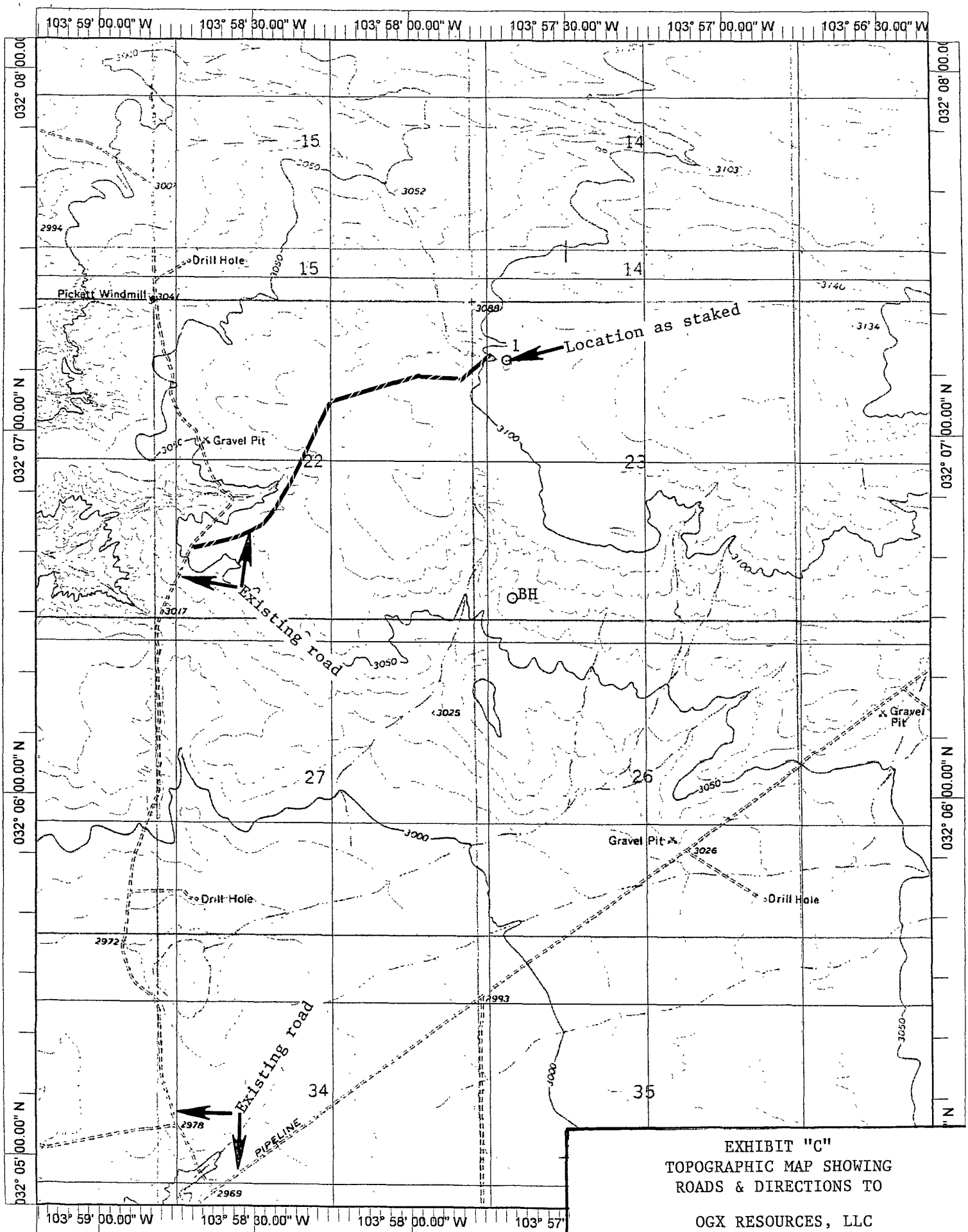


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

OGX RESOURCES, LLC.
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM



Datum: NAD27

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

OGX RESOURCES, LLC
PATRON "23" FEDERAL # 1H
UNIT "D" SECTION 23
T25S-R29E EDDY CO. NM

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OGX Resources
LEASE NO.:	NMNM120895
WELL NAME & NO.:	Patron 23 Federal No 1H
SURFACE HOLE FOOTAGE:	990' FNL & 560' FWL
BOTTOM HOLE FOOTAGE	330' FSL & 660' FWL
LOCATION:	Section 23, T. 25 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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. CONSTRUCTION

V-DOOR SOUTHEAST. AVOID GAS PIPELINE TO THE SOUTHEAST.

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 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 to be stripped is approximately 8 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

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 (505) 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.

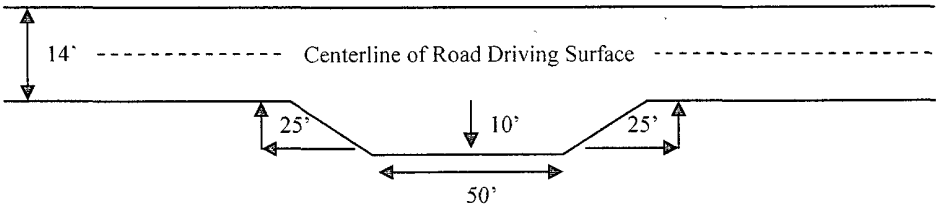
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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

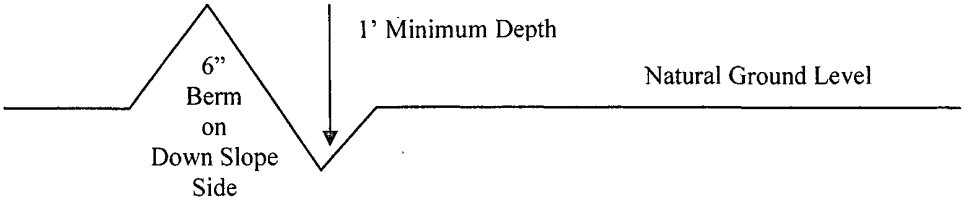


Drainage

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:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

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.

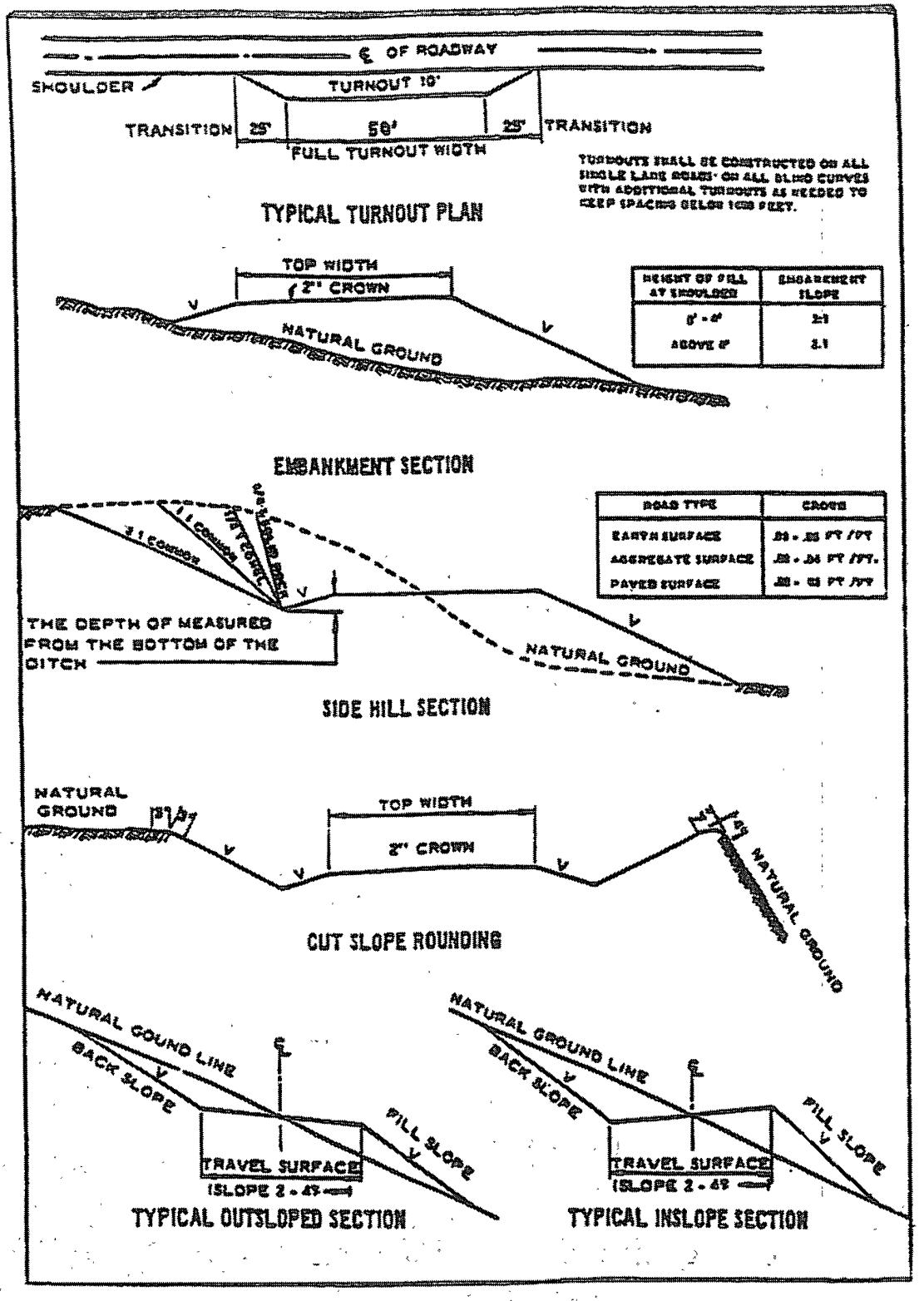
A gate shall be constructed and fastened securely to H-braces.

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



VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts 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.

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.

Medium cave/karst.
Possible water flows in the Salado Group and Delaware Mountain Group.
Possible lost circulation in the Delaware Mountain Group.

1. The **13-3/8** inch surface casing shall be set **at approximately 525 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Rustler Anhydrite could be encountered shallower.**

    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. **Casing to be set in the Lamar Limestone or Fletcher Anhydrite. Brine water mud to be used to setting depth. With added depth, excess cement calculates to less than 25%. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst concerns.**

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

    ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement will be required as excess cement calculated to a negative 8%.**

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

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

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

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

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

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

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

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

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

The operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Seed Mixture 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 see 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

(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

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

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