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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-115422 BH LC062300	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator OGX RESOURCES, LLC. (JEFF BIRKELBACH 432-685-1287)		7. If Unit or CA Agreement, Name and No.	
3a. Address P. O. BOX 2064 MIDLAND, TEXAS 79702		8. Lease Name and Well No. <u>38515</u> SOL "28" FEDERAL COM. # 1H	
3b. Phone No. (include area code) 432-685-1287		9. API Well No. 30-025-40069	
4. Location of Well (Report location clearly and in accordance with any State requirements.) Unit P At surface 440' FSL & 440' FEL SECTION 28 T25S-R32E LEA CO. Unit A At proposed prod. zone BHL 330' FNL & 330' FEL SECTION 28 T25S-R32E		10. Field and Pool, or Exploratory WILDCAT-BONE SPRING 96403	
11. Sec., T. R. M. or Blk. and Survey or Area SECTION 28 T25S-R32E		12. County or Parish LEAS CO.	
13. State NEW MEXICO		14. Distance in miles and direction from nearest town or post office* Approximately 33 miles West of Jal New Mexico	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease 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-8900' MD-13,216'	20. BLM/BIA Bond No. on file NMB 000244	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3373' GL	22. Approximate date work will start* WHEN APPROVED	23. Estimated duration 35 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:

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

25. Signature <i>Joe T. Janica</i>	Name (Printed/Typed) Joe T. Janica	Date 11/18/10
Title Permit Eng.		
Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) <i>/s/ Don Peterson</i>	Date FEB 16 2011
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)

K2 03/02/11

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
2025 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

RECEIVED

Form C-102
Revised October 15, 2009
Submit one copy to appropriate
District Office

FEB 21 2011
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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40069	Pool Code 96403	Pool Name WILDCAT-BONE SPRING
Property Code 38515	Property Name SOL "28" FEDERAL COM	Well Number 1H
OGRID No. 217955	Operator Name OGX RESOURCES, LLC	Elevation 3373'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	25 S	32 E		440	SOUTH	440	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	25 S	32 E		330	NORTH	330	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	PROPOSED BOTTOM HOLE LOCATION Lat - N 32°06'28.07" Long - W 103°40'21.22" NMSPCE- N 403579.673 E 475931.446 (NAD-83) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°06'27.62" Long - W 103°40'19.51" NMSPCE- N 403521.842 E 704745.456 (NAD-27)	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: <i>Joe T. Janica</i> Date: 11/18/10 Printed Name: Joe T. Janica
	SURFACE LOCATION Lat - N 32°05'43.42" Long - W 103°40'22.39" NMSPCE- N 399067.765 E 745857.838 (NAD-83) SURFACE LOCATION Lat - N 32°05'42.439" Long - W 103°40'20.439" NMSPCE- N 399010.000 E 704671.657 (NAD-27)	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. DATE SURVEYED: OCTOBER 6, 2010 Signature & Seal of Professional Surveyor: <i>[Signature]</i> W.O. No. 23509 Certificate No. Gary L. Jones 7977 BASIN SURVEYS
	POE FSL FEL	
	3375.0' 3372.4' 3373.1' 3370.9'	

EXHIBIT "A"

APPLICATION TO DRILL

OGX RESOURCES, LLC.
 SOL "28" FEDERAL COM. #1H
 UNIT "P" SECTION 28
 T25S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provided.

1. LOCATION: 440' FSL & 440' FEL SECTION 28 T25S-R32E LEA CO. NM
2. ELEVATION ABOVE SEA LEVEL: 3373' GL
3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits;
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from hole.
5. PROPOSED DRILLING DEPTH: TVD-8900' MD-13,216'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	950'	Bell Canyon	4674'
Top Salt	1300'	Cherry Canyon	5620'
Basal Anhydrite	4400'	Brushy Canyon	8400'
Lamar Lime	4648'	Bone Spring	8690'
7. POSSIBLE MINERAL BEARING FORMATIONS:

Cherry Canyon	Oil/Gas	Bone Spring	Oil/Gas
Brushy Canyon	Oil/Gas	Possible usable water 410'±	

8. CASING PROGRAM: See COA

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
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26" 6'	0-40'	20"	NA	NA	NA	Conductor	New
17 1/2" 11'	0-1100' 900'	13 3/8"	48#	8-R	ST&C	H-40	New
* 11"	0-4600'	8 5/8"	32#	8-R	ST&C LT&C	EJ-55	New
7 7/8"	0-13,216'	5 1/2"	17#	8-R Buttress	LT&C BT&C	P-110 8200' 13216'	New

* Refer to drilling program

Safety Factors:	Collapse	1.125	Burst	1.0	Body Yield	1.5
	Joint Strength	8-R	1.8			
	Buttress		1.6			

APPLICATION TO DRILL

OGX RESOURCES, LLC.
SOL "28" FEDERAL COM. #1H
UNIT "P" SECTION 28
T25S-R32E LEA CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Run and set ^{900'} 1100' of 13 3/8" 48# H=40 ST&C casing. Cement 635 Sx. of 35/65/6 Premium Plus Class "C" POZ cement + 6% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.00, tail in with 200 Sx of Premium Plus Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.
8 1/8"	Intermediate	Run and set 4600' of 8 5/8" 32# ST&C J-55 casing. Cement with 600 Sx. of 35/65 Premium Plus Class "C" POZ cement + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7 % Sodium Metasilicate, + 5# LCM/Sx. yield 2.02, tail in with 200 Sx. of Premium Plus Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.
5 1/2"	Production	Run and set 13,216' of 5 1/2" casing as follows: 5016' of 5 1/2" 17# P-110 BT&C casing, 8200' of 5 1/2" 17# P-110 LT&C casing. Cement with 500 Sx. of Premium Plus Class "C" cement + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.02, tail in with 600 Sx. of Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.

See COA

10. PRESSURE CONTROL EQUIPMENT:

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 nipped 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 and upper kelly cock with proper threads will be available on the rig floor at all times. Exhibit "E-1" shows a hydraulically operated closing unit and a 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
 SOL "28" FEDERAL COM. #1H
 UNIT "P" SECTION 28
 T25S-R32E LEA CO. NM

II. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40- 1100 900'	8.6-8.8	36-38	NC	Fresh water Spud Mud, use paper to control seepage.
900' 1100 -4600'	10.0-10.1	29-30	NC	Brine water use paper to control seepage and high viscosity sweeps to clear hole.
4600-8000'	8.4-9.1	28-29	NC	Fresh water use paper to control seepage and high viscosity sweeps to clear hole.
8000-13,202'	8.4-9.1	34-36	12-15 cc or less	Same as above use Dynazar HB411 and starch to control fluid loss and hole stability.

A closed mud system will be employed during the drilling of this well all cuttings and fluids will be disposed in a State approved disposal facility.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, cut cores and casing, the viscosity, water loss and other properties may have to be altered to meet these requirements.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
SOL "28" FEDERAL COM. #1H
UNIT "P" SECTION 28
T25S-R32E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM: See COA

- A. Open hole logs: From vertical at KO Point back to 8 5/8" casing shoe run Dual Laterolog, Neutron, Density, Gamma Ray, Caliper. From 8 5/8" casing shoe back to surface run Gamma Ray, and Neutron to surface.
- B. Log the lateral part of hole thru drill pipe, gyro, gamma Ray, neutron.
- C. Rig up mud logger on hole at the base of the surface casing (1100')
- D. No DST's or cores are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S 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 4250 PSI, and Estimated BHT 155°.

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 35 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 potentialized as an oil well.

**SOL "28" Fed Com No.1H
Paduca (Bone Spring) Field
Lea County, New Mexico
Drilling Procedure
Oct 2010**

General Information

Lease:	SOL "28" Fed Com	AFE BCP:	\$
Well No.:	1H	AFE ACP:	
Field:	Paduca	AFE Total:	
County:	Lea	AFE NO:	
State:	New Mexico	API No.:	30-000-XXXXX
Section:	28	Permit Date:	XX/XX/10
Township:	25S	Permit TVD:	9,000'
Range:	32E	Proposed MD:	13,215'
Surface Section Ties:	440' FSL & 440' FEL	Drilling Days:	30
BHL (target)	330' FNL & 330' FEL		
Ground Level:	3373'	KB:	3390'
Latitude:	32°06'28.07" N	Longitude	103°40'21.22"W

Well Objectives

The primary objective of this well is to drill the Avalon Shale horizontally without a pilot hole. Open hole logging will be accomplished at kick-off pt.

Directions To Well**Special Drilling Considerations**

1. No hunting for game is permitted. No fire arms are to be taken to the location. Keep trash picked up on location and road.
2. Do not run hard-banded or hard-faced drill pipe in casing without consulting OGX.
3. Cement must be circulated on surface and intermediate. If cement does not circulate, run a temperature survey and contact the BLM and Operations Engineer for remedial instructions.
4. BOP equipment will be NU on the 13-3/8" surface casing. All safety and well control equipment should be rigged up and operational prior to drilling out the 13-3/8" casing shoe.

DRILLING PROGRAM**Geologic Name of Surface Formation:**

Permian

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

<u>Formation</u>	<u>Depth</u>	<u>Frm Pres</u>	<u>Remarks</u>
Basal Anhydrite	4400'	10 ppge	Drig fluid must be saturated salt water
Lamar	4648'	8.4ppge	Water
Bell Canyon	4674'	8.4ppge	Water
Cherry Canyon	5620'	8.4 ppge	Oil / Gas / Formation water /Poss.H ₂ S
Brushy Canyon	7095'	9.1 ppge	Oil / Gas / Formation water
TVD	8400'	9.1 ppge	Oil / Gas / Formation water
Bone Spring	8690'	9.1 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 1100' and circulating cement back to surface. Potash/ fresh water sands will be protected by setting 8 5/8" casing at 4600' / circulating cement on the 8 5/8" string. . The hydrocarbon producing intervals will be isolated by setting a 5 1/2" production string and circulating cement 500' above the 8 5/8" csg. shoe (4100').

CASING PROGRAM:

HOLE SIZE	DEPTH	OD Csg	WEIGHT	COLLAR	GRADE	NEW/USED
17 1/2"	0-1100' 900'	13 3/8"	48	STC	H40	New
11"	0-4600'	8 5/8"	32	STC/LTC	J55	New
7 7/8"	0-8200'	5 1/2"	17	LTC	P110	New
7 7/8"	8200-13215'	5 1/2"	17	BTC	P110	New

Casing weight and grades are minimum -- higher weights & better grades may be substituted

(8 5/8" 32# will be special drift to 7.921)
(5 1/2" BTC will be run thru the curve & Lateral)

DEPTH	OD Csg	WEIGHT	factors: Burst / Collapse / Tension		
0-1100' 900'	13 3/8"	48	1.54	1.46	9.7+
0-4600'	8 5/8"	32	1.24	1.15*	2.95
0-13215'	5 1/2"	17	1.32	2.01	3.55

** The Intermediate hole will never be evacuated**

(51/2 Burst & Collapse Calculated @ 8900' TVD)

CEMENT PROGRAM:**13 3/8" Surface**

Spacer 50 bbls of fresh water
 Slurry Lead: 35:65:6 – Poz: Prem Plus C + 6% Bentonite + 5% salt + 5% MPA-5 + .7% Sodium Metasilicate + 5 lbs LCM + 97.9 fresh water
 Tail: Premium Plus C + 2% CaCl₂ + 56.4% Fresh Water

Cement Properties	Lead	Tail
Est Volume (sacks)	635	200
Density (ppg)	12.80	14.80
Yield (ft ³ /sx)	2.00	1.34
Mix Water, gps	10.21	6.36
Thickening Time, hrs:min		~3:30
Free Water, %		0
Fluid Loss, cc's		~850
Top of Cement	surface	

8 5/8" Intermediate

Spacer 30 bbls of fresh water
 Lead 35:65 – Poz: Prem Plus C + 4% Bentonite + 5% salt + 5% MPA-5 + .7% Sodium Metasilicate + 5 lbs LCM + 99.6% fresh water
 Tail C + 2% CaCl₂ + 56.4% fresh water

Cement Properties	Lead	Tail
Est Volume (sacks)	600	200
Density (ppg)	12.7	14.8
Yield (ft ³ /sx)	2.02	1.34
Mix Water, gps	10.39	6.36
Thickening Time, hrs:min	4:07	3:32
Free Water, %	2.0	0
Fluid Loss, cc's	~750	~600
Top of Cement	surface	

5 1/2" Production

Spacer 30 bbls of fresh water
Lead 35:65 – Poz: Prem Plus C + 4% Bentonite + 5% salt + 5% MPA-5 + .7%
Sodium Metasilicate + 5 lbs LCM + 99.6% fresh water
Tail C + 2% CaCl₂ + 56.4% fresh water

Cement Properties

	<u>Lead</u>	<u>Tail</u>
Est Volume (sacks)	500	600
Density (ppg)	12.7	14.8
Yield (ft ³ /sx)	2.02	1.34
Mix Water, gps	10.39	6.36
Thickening Time, hrs:min	4:07	3:32
Free Water, %	2.0	0
Fluid Loss, cc's	~750	~600
Top of Cement	surface	

The above cement volumes will be revised pending fluid and open hole caliper measurements.

Kick-Off plug in Pilot Hole for Horizontal

No Plug Required

MUD PROPERTIES SUMMARY:

Depth (feet)	Weight (ppg)	Viscosity (sec/1000cc)	Fluid Loss (cc/30min)	PV (cps)	YP (lb/100ft ²)	Mud Type
0' - 4,400' ^{900'} Set 13-3/8" Casing	8.6 - 8.8	36 - 38	N/C	6 - 10	6 - 20	Spud Mud
^{900'} 4,400' - 4,600' Set 8-5/8" Casing	10.0 - 10.1	29 - 30	N/C	0 - 1	0 - 1	Brine
4,600' - 8,000'	8.4 - 9.1	28 - 29	N/C	0 - 1	0 - 1	Fresh Water
8,000' - 13215' MD Set 5-1/2"	8.4 - 9.10	34 - 36	12 - 15	4 - 8	4 - 8	Dynazan / Starch HB 411

Auxiliary Well Control & Monitoring Equipment:

A Kelly cock will be in the drill string at all times.

A full opening drill pipe stabbing valve having the appropriate connections will be on the floor at all times.

H₂S detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" csg is cemented.

LOGGING, CORING, AND TESTING

See COA

No logs at surface.

Mud loggers on below 13 3/8" casing shoe - no electric logs at intermediate depth

The Vertical @ KO pt. (Production) hole will be logged: Gyro (Thru DP) & GR / Dual Laterolog / Neutron-Density / Caliper

No DST's or pressure testing is anticipated.

The horizontal lateral will be mud logged and GR via MWD.

Potential Hazards:

No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil & Gas Order No.6. No loss 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 is 4250 psi. & BHT is 155° F.

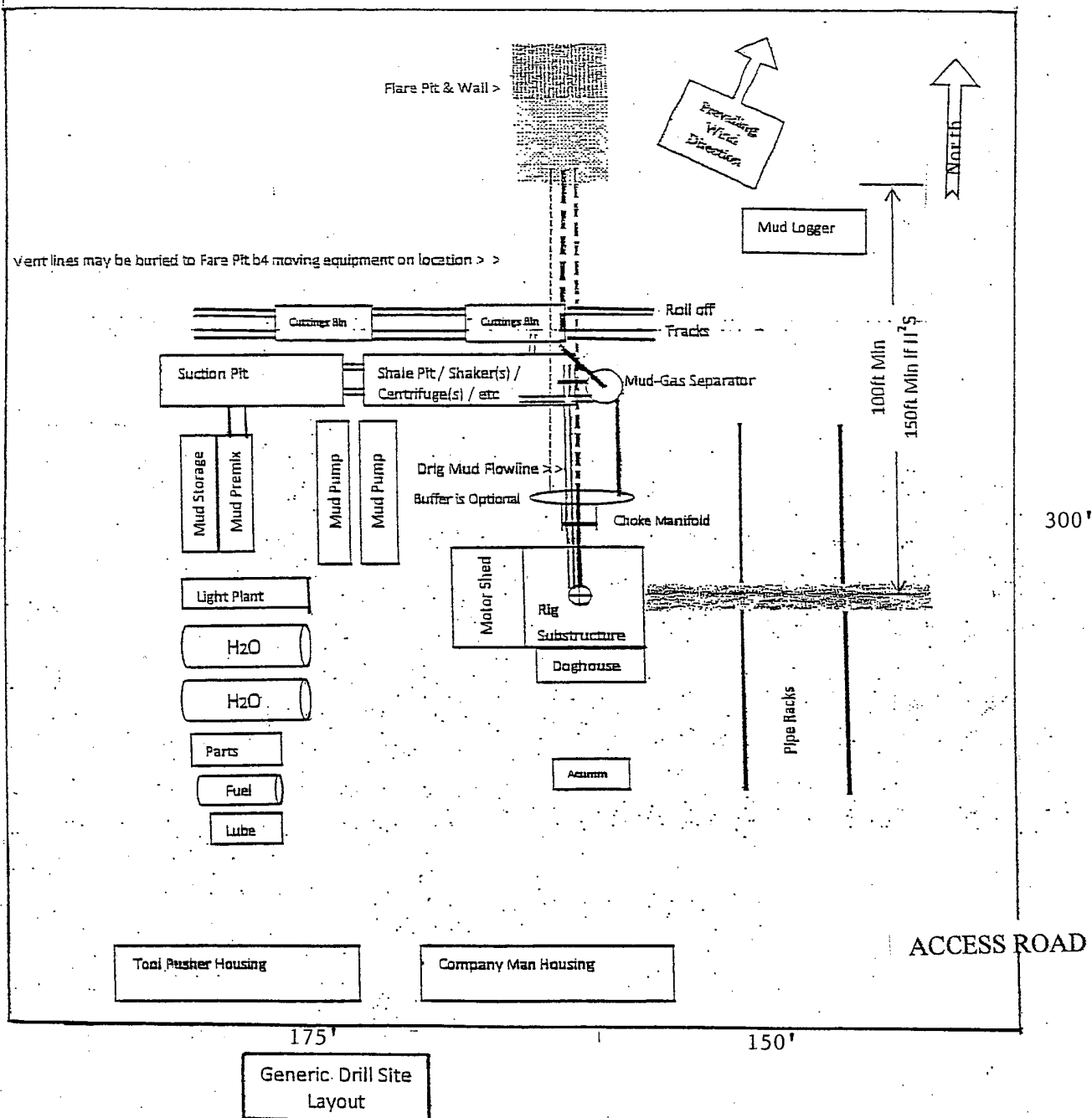
Anticipated Starting Date & Duration:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be ASAP subsequent to APD approval. Move in and drilling operations will take 35 days with an additional 25 days to complete the well and construct production facilities.

325'

300'

300'



Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-gas separator location and their connection routing.

EXHIBIT "D" RIG LAYOUT PLAT

OGX RESOURCES, LLC.
SOL "28" FEDERAL COM. #1H
UNIT "P" SECTION 28
T25S-R32E LEA CO. NM

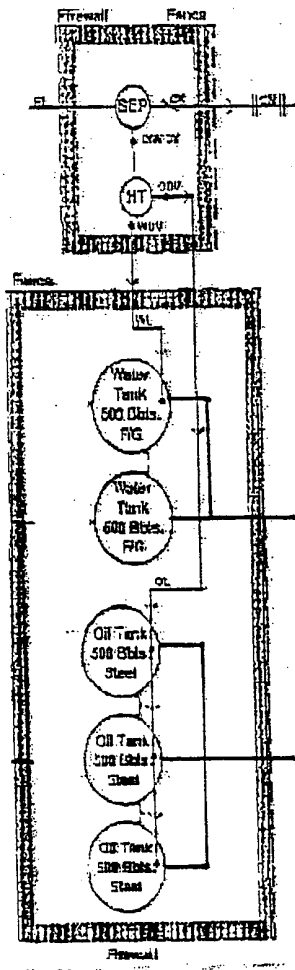
325'

120'

RECLAIMED AREA

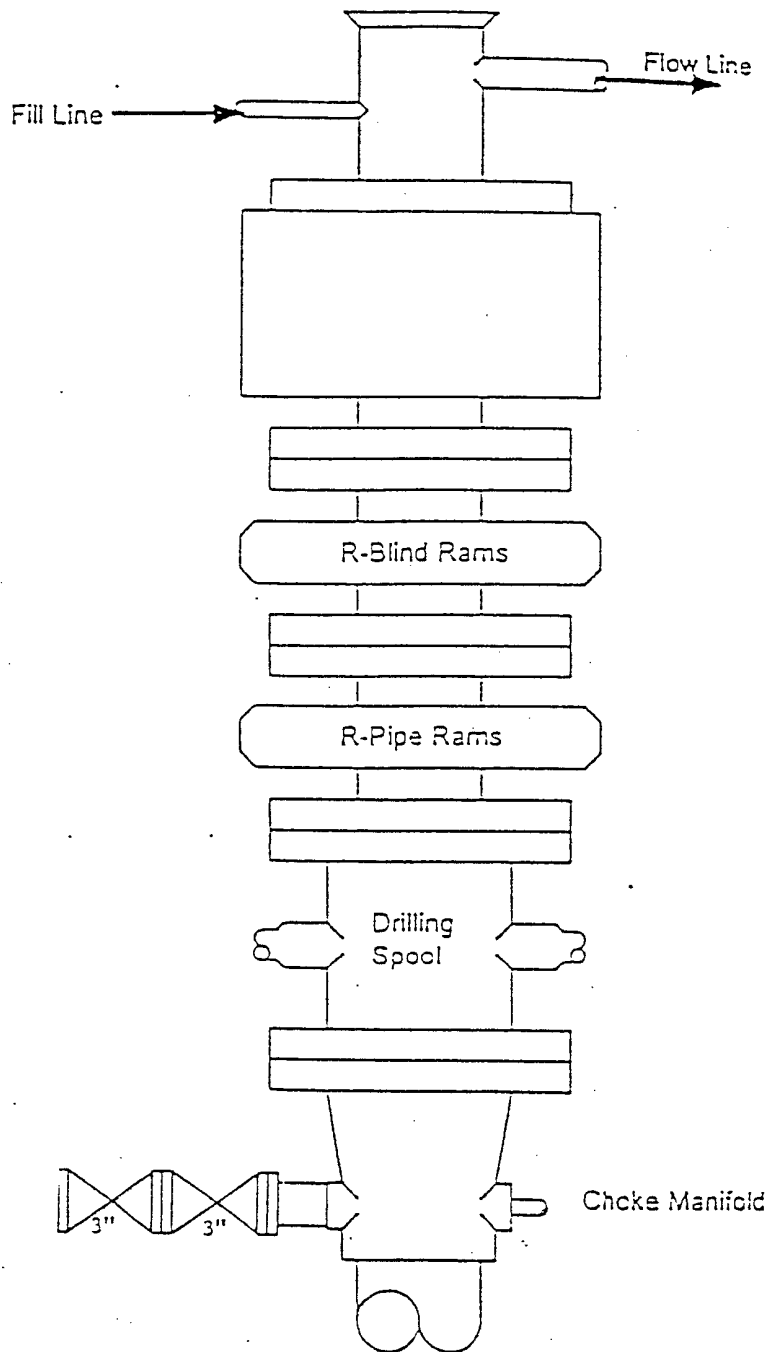
Well Head

180'



ACCESS ROAD

325'



Type 900 Series
3000 psi WP

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

OGX RESOURCES, LLC.
SOL "28" FEDERAL COM. #1H
UNIT "P" SECTION 28
T25S-r32E LEA CO. NM

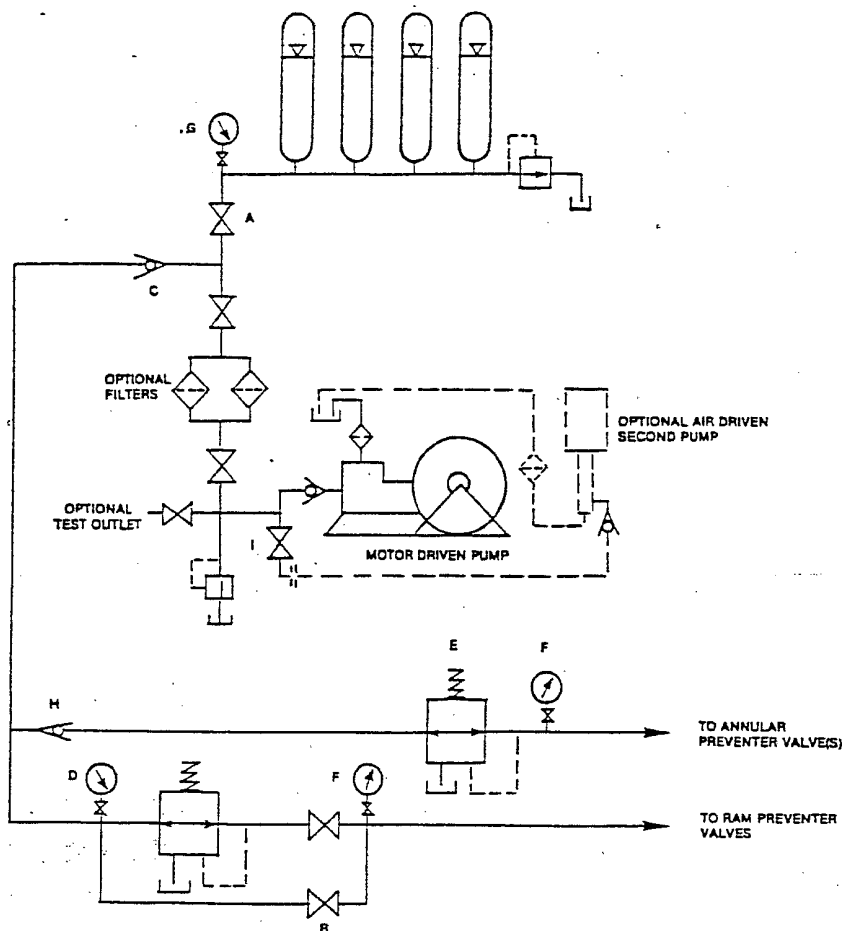


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

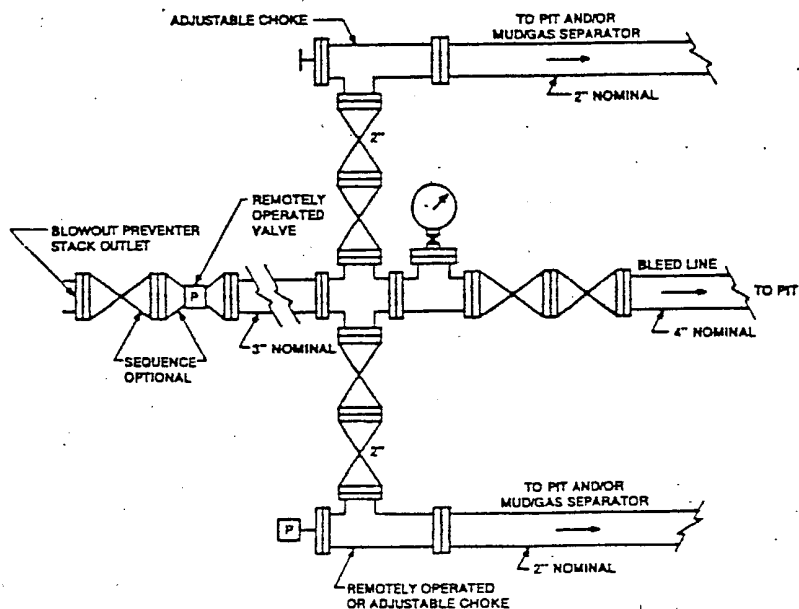


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

OGX RESOURCES, LLC.
SOL "28" FEDERAL COM. #1H
UNIT "P" SECTION 28
T25S-R32E LEA CO. NM

OGX

OGX Resources

Lea County
Sol "28" Federal Com
#1H
OH

RECEIVED
FEB 21 2011
HOBBSDUCD

Plan: Plan #1

Pathfinder X & Y Planning Report

26 October, 2010

PATHFINDER[®]
A Schlumberger Company



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: OGX Resources
Project: Lea County
Site: Sol "28" Federal Com
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3392.00ft (19' KB Correction)
MD Reference: WELL @ 3392.00ft (19' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

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

Site	Sol "28" Federal Com		
Site Position:		Northing:	399,010.043 ft
From: Map		Easting:	704,671.657 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 5' 42.973 N
		Longitude:	103° 40' 20.687 W
		Grid Convergence:	0.35 °

Well	#1H		
Well Position	+N/-S	0.00 ft	Northing: 399,010.043 ft
	+E/-W	0.00 ft	Easting: 704,671.657 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 5' 42.973 N
		Longitude:	103° 40' 20.687 W
		Ground Level:	3,373.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	10/18/10	7.69
			60.08
			48,627

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			0.94

Survey Tool Program	Date 10/26/10		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
0.00	13,215.66	Plan #1 (OH)	MWD
			MWD - Standard



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: OGX Resources
Project: Lea County
Site: Sol "28" Federal Com
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3392.00ft (19' KB Correction)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
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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	-3,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
100.00	0.00	0.00	100.00	-3,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
200.00	0.00	0.00	200.00	-3,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
300.00	0.00	0.00	300.00	-3,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
400.00	0.00	0.00	400.00	-2,992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
500.00	0.00	0.00	500.00	-2,892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
600.00	0.00	0.00	600.00	-2,792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
700.00	0.00	0.00	700.00	-2,692.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
800.00	0.00	0.00	800.00	-2,592.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
900.00	0.00	0.00	900.00	-2,492.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,000.00	0.00	0.00	1,000.00	-2,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,100.00	0.00	0.00	1,100.00	-2,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,200.00	0.00	0.00	1,200.00	-2,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,300.00	0.00	0.00	1,300.00	-2,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,400.00	0.00	0.00	1,400.00	-1,992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,500.00	0.00	0.00	1,500.00	-1,892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,600.00	0.00	0.00	1,600.00	-1,792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,700.00	0.00	0.00	1,700.00	-1,692.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,800.00	0.00	0.00	1,800.00	-1,592.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,900.00	0.00	0.00	1,900.00	-1,492.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,000.00	0.00	0.00	2,000.00	-1,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,100.00	0.00	0.00	2,100.00	-1,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,200.00	0.00	0.00	2,200.00	-1,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,300.00	0.00	0.00	2,300.00	-1,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,400.00	0.00	0.00	2,400.00	-992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,500.00	0.00	0.00	2,500.00	-892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,600.00	0.00	0.00	2,600.00	-792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66



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0.00	0.00	0.00	0.00	-3,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
100.00	0.00	0.00	100.00	-3,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
200.00	0.00	0.00	200.00	-3,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
300.00	0.00	0.00	300.00	-3,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
400.00	0.00	0.00	400.00	-2,992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
500.00	0.00	0.00	500.00	-2,892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
600.00	0.00	0.00	600.00	-2,792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
700.00	0.00	0.00	700.00	-2,692.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
800.00	0.00	0.00	800.00	-2,592.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
900.00	0.00	0.00	900.00	-2,492.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,000.00	0.00	0.00	1,000.00	-2,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,100.00	0.00	0.00	1,100.00	-2,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,200.00	0.00	0.00	1,200.00	-2,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,300.00	0.00	0.00	1,300.00	-2,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,400.00	0.00	0.00	1,400.00	-1,992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,500.00	0.00	0.00	1,500.00	-1,892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,600.00	0.00	0.00	1,600.00	-1,792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,700.00	0.00	0.00	1,700.00	-1,692.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,800.00	0.00	0.00	1,800.00	-1,592.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
1,900.00	0.00	0.00	1,900.00	-1,492.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,000.00	0.00	0.00	2,000.00	-1,392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,100.00	0.00	0.00	2,100.00	-1,292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,200.00	0.00	0.00	2,200.00	-1,192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,300.00	0.00	0.00	2,300.00	-1,092.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,400.00	0.00	0.00	2,400.00	-992.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,500.00	0.00	0.00	2,500.00	-892.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,600.00	0.00	0.00	2,600.00	-792.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66



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2,700.00	0.00	0.00	2,700.00	-692.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,800.00	0.00	0.00	2,800.00	-592.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
2,900.00	0.00	0.00	2,900.00	-492.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,000.00	0.00	0.00	3,000.00	-392.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,100.00	0.00	0.00	3,100.00	-292.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,200.00	0.00	0.00	3,200.00	-192.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,300.00	0.00	0.00	3,300.00	-92.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,400.00	0.00	0.00	3,400.00	8.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,500.00	0.00	0.00	3,500.00	108.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,600.00	0.00	0.00	3,600.00	208.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,700.00	0.00	0.00	3,700.00	308.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,800.00	0.00	0.00	3,800.00	408.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
3,900.00	0.00	0.00	3,900.00	508.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,000.00	0.00	0.00	4,000.00	608.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,100.00	0.00	0.00	4,100.00	708.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,200.00	0.00	0.00	4,200.00	808.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,300.00	0.00	0.00	4,300.00	908.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,400.00	0.00	0.00	4,400.00	1,008.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,500.00	0.00	0.00	4,500.00	1,108.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,600.00	0.00	0.00	4,600.00	1,208.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,700.00	0.00	0.00	4,700.00	1,308.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,800.00	0.00	0.00	4,800.00	1,408.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
4,900.00	0.00	0.00	4,900.00	1,508.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,000.00	0.00	0.00	5,000.00	1,608.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,100.00	0.00	0.00	5,100.00	1,708.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,200.00	0.00	0.00	5,200.00	1,808.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,300.00	0.00	0.00	5,300.00	1,908.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66



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5,400.00	0.00	0.00	5,400.00	2,008.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,500.00	0.00	0.00	5,500.00	2,108.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,600.00	0.00	0.00	5,600.00	2,208.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,700.00	0.00	0.00	5,700.00	2,308.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,800.00	0.00	0.00	5,800.00	2,408.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
5,900.00	0.00	0.00	5,900.00	2,508.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,000.00	0.00	0.00	6,000.00	2,608.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,100.00	0.00	0.00	6,100.00	2,708.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,200.00	0.00	0.00	6,200.00	2,808.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,300.00	0.00	0.00	6,300.00	2,908.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,400.00	0.00	0.00	6,400.00	3,008.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,500.00	0.00	0.00	6,500.00	3,108.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,600.00	0.00	0.00	6,600.00	3,208.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,700.00	0.00	0.00	6,700.00	3,308.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,800.00	0.00	0.00	6,800.00	3,408.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
6,900.00	0.00	0.00	6,900.00	3,508.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,000.00	0.00	0.00	7,000.00	3,608.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,100.00	0.00	0.00	7,100.00	3,708.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,200.00	0.00	0.00	7,200.00	3,808.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,300.00	0.00	0.00	7,300.00	3,908.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,400.00	0.00	0.00	7,400.00	4,008.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,500.00	0.00	0.00	7,500.00	4,108.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,600.00	0.00	0.00	7,600.00	4,208.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,700.00	0.00	0.00	7,700.00	4,308.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,800.00	0.00	0.00	7,800.00	4,408.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
7,900.00	0.00	0.00	7,900.00	4,508.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,000.00	0.00	0.00	8,000.00	4,608.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66



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8,100.00	0.00	0.00	8,100.00	4,708.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,200.00	0.00	0.00	8,200.00	4,808.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,300.00	0.00	0.00	8,300.00	4,908.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,400.00	0.00	0.00	8,400.00	5,008.00	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,441.60	0.00	0.00	8,441.60	5,049.60	0.00	0.00	0.00	0.00	399,010.04	704,671.66
8,450.00	1.05	0.94	8,450.00	5,058.00	0.08	0.00	0.08	12.50	399,010.12	704,671.66
8,475.00	4.17	0.94	8,474.97	5,082.97	1.22	0.02	1.22	12.50	399,011.26	704,671.68
8,500.00	7.30	0.94	8,499.84	5,107.84	3.71	0.06	3.72	12.50	399,013.76	704,671.72
8,525.00	10.42	0.94	8,524.54	5,132.54	7.56	0.12	7.57	12.50	399,017.61	704,671.78
8,550.00	13.55	0.94	8,548.99	5,156.99	12.76	0.21	12.76	12.50	399,022.80	704,671.87
8,575.00	16.67	0.94	8,573.13	5,181.13	19.27	0.32	19.27	12.50	399,029.31	704,671.97
8,600.00	19.80	0.94	8,596.87	5,204.87	27.09	0.44	27.10	12.50	399,037.14	704,672.10
8,625.00	22.92	0.94	8,620.15	5,228.15	36.20	0.59	36.20	12.50	399,046.24	704,672.25
8,650.00	26.05	0.94	8,642.90	5,250.90	46.56	0.76	46.56	12.50	399,056.60	704,672.42
8,675.00	29.17	0.94	8,665.05	5,273.05	58.14	0.95	58.15	12.50	399,068.18	704,672.61
8,700.00	32.30	0.94	8,686.53	5,294.53	70.91	1.16	70.92	12.50	399,080.96	704,672.82
8,725.00	35.42	0.94	8,707.29	5,315.29	84.84	1.39	84.85	12.50	399,094.88	704,673.05
8,750.00	38.55	0.94	8,727.26	5,335.26	99.87	1.64	99.89	12.50	399,109.92	704,673.30
8,775.00	41.67	0.94	8,746.37	5,354.37	115.98	1.90	115.99	12.50	399,126.02	704,673.56
8,800.00	44.80	0.94	8,764.59	5,372.59	133.10	2.18	133.11	12.50	399,143.14	704,673.84
8,825.00	47.92	0.94	8,781.84	5,389.84	151.18	2.48	151.20	12.50	399,161.23	704,674.14
8,850.00	51.05	0.94	8,798.08	5,406.08	170.18	2.79	170.21	12.50	399,180.23	704,674.45
8,875.00	54.17	0.94	8,813.26	5,421.26	190.04	3.12	190.07	12.50	399,200.08	704,674.78
8,900.00	57.30	0.94	8,827.33	5,435.33	210.70	3.46	210.73	12.50	399,220.74	704,675.11
8,925.00	60.42	0.94	8,840.26	5,448.26	232.09	3.81	232.12	12.50	399,242.13	704,675.47
8,950.00	63.55	0.94	8,852.00	5,460.00	254.15	4.17	254.19	12.50	399,264.20	704,675.83
8,975.00	66.67	0.94	8,862.52	5,470.52	276.82	4.54	276.86	12.50	399,286.87	704,676.20



Pathfinder
Pathfinder X & Y Planning Report



Company: OGX Resources
Project: Lea County
Site: Sol "28" Federal Com
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3392.00ft (19' KB Correction)
MD Reference: WELL @ 3392.00ft (19' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
11,100.00	90.00	0.94	8,900.00	5,508.00	2,396.42	39.32	2,396.75	0.00	401,406.47	704,710.98
11,200.00	90.00	0.94	8,900.00	5,508.00	2,496.41	40.96	2,496.75	0.00	401,506.45	704,712.62
11,300.00	90.00	0.94	8,900.00	5,508.00	2,596.40	42.60	2,596.75	0.00	401,606.44	704,714.26
11,400.00	90.00	0.94	8,900.00	5,508.00	2,696.38	44.24	2,696.75	0.00	401,706.43	704,715.90
11,500.00	90.00	0.94	8,900.00	5,508.00	2,796.37	45.88	2,796.75	0.00	401,806.41	704,717.54
11,600.00	90.00	0.94	8,900.00	5,508.00	2,896.36	47.52	2,896.75	0.00	401,906.40	704,719.18
11,700.00	90.00	0.94	8,900.00	5,508.00	2,996.34	49.16	2,996.75	0.00	402,006.39	704,720.82
11,800.00	90.00	0.94	8,900.00	5,508.00	3,096.33	50.80	3,096.75	0.00	402,106.37	704,722.46
11,900.00	90.00	0.94	8,900.00	5,508.00	3,196.32	52.44	3,196.75	0.00	402,206.36	704,724.10
12,000.00	90.00	0.94	8,900.00	5,508.00	3,296.30	54.08	3,296.75	0.00	402,306.35	704,725.74
12,100.00	90.00	0.94	8,900.00	5,508.00	3,396.29	55.72	3,396.75	0.00	402,406.33	704,727.38
12,200.00	90.00	0.94	8,900.00	5,508.00	3,496.28	57.37	3,496.75	0.00	402,506.32	704,729.02
12,300.00	90.00	0.94	8,900.00	5,508.00	3,596.26	59.01	3,596.75	0.00	402,606.31	704,730.66
12,400.00	90.00	0.94	8,900.00	5,508.00	3,696.25	60.65	3,696.75	0.00	402,706.29	704,732.30
12,500.00	90.00	0.94	8,900.00	5,508.00	3,796.24	62.29	3,796.75	0.00	402,806.28	704,733.94
12,600.00	90.00	0.94	8,900.00	5,508.00	3,896.22	63.93	3,896.75	0.00	402,906.27	704,735.58
12,700.00	90.00	0.94	8,900.00	5,508.00	3,996.21	65.57	3,996.75	0.00	403,006.25	704,737.23
12,800.00	90.00	0.94	8,900.00	5,508.00	4,096.20	67.21	4,096.75	0.00	403,106.24	704,738.87
12,900.00	90.00	0.94	8,900.00	5,508.00	4,196.18	68.85	4,196.75	0.00	403,206.23	704,740.51
13,000.00	90.00	0.94	8,900.00	5,508.00	4,296.17	70.49	4,296.75	0.00	403,306.21	704,742.15
13,100.00	90.00	0.94	8,900.00	5,508.00	4,396.16	72.13	4,396.75	0.00	403,406.20	704,743.79
13,200.00	90.00	0.94	8,900.00	5,508.00	4,496.14	73.77	4,496.75	0.00	403,506.18	704,745.43
13,215.66	90.00	0.94	8,900.00	5,508.00	4,511.80	74.03	4,512.40	0.00	403,521.84	704,745.68
PBHL(SOL#1H)										



Pathfinder
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Targets

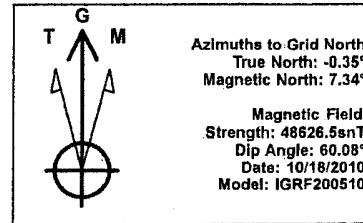
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
PBHL(SOL#1H)	0.00	0.00	8,400.00	4,511.80	73.80	403,521.842	704,745.456	32° 6' 27.617 N	103° 40' 19.507 W
- plan misses target center by 500.00ft at 13215.66ft MD (8900.00 TVD, 4511.80 N, 74.03 E)									
- Point									

Checked By: _____ Approved By: _____ Date: _____



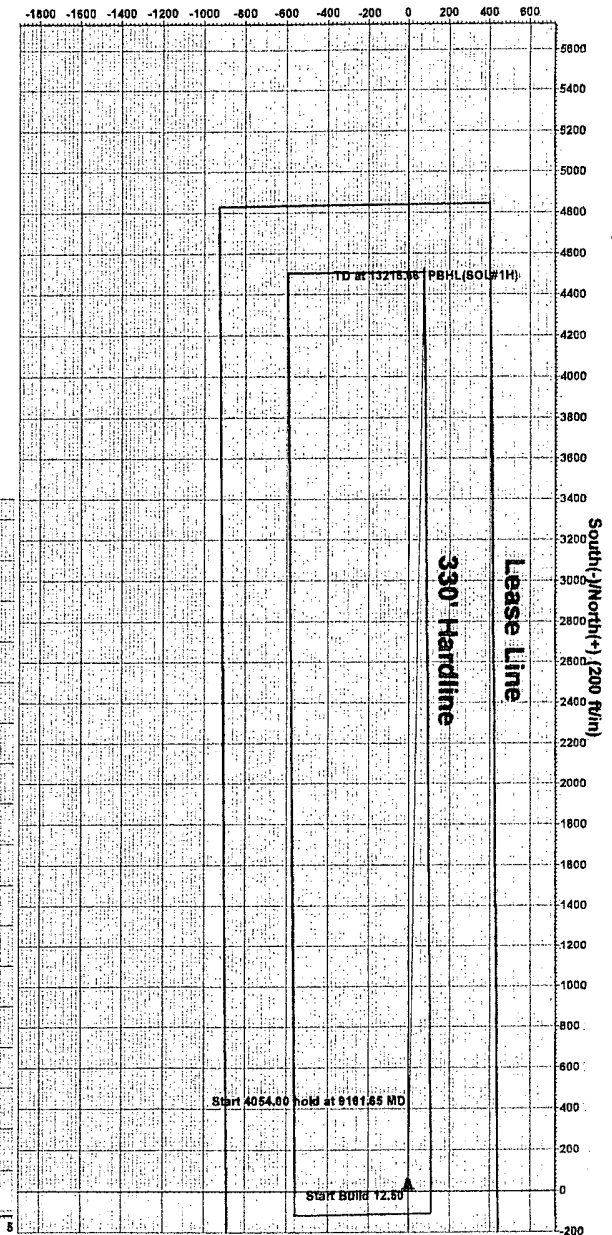
PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

Project: Lea County
Site: Sol "28" Federal Com
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)



A Schlumberger Company

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



WELL DETAILS: #1H									
Ground Elevation:: 3373.00									
RKB Elevation: WELL @ 3382.00ft (19' KB Correction)									
Rig Name: 19' KB Correction									
+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude	Slot			
0.00	0.00	399010.043	704571.657	32° 5' 42.973 N	103° 40' 20.687 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	8441.50	0.00	0.00	8441.50	0.00	0.00	0.00	0.00	0.00'
3	9161.65	90.00	0.94	8900.00	458.34	7.52	12.50	0.94	458.40
4	13215.85	90.00	0.94	8900.00	4511.80	74.03	0.00	0.00	4512.40' PBHL(SOL#1H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Eastng	Shape
PBHL(SOL#1H)	4511.80	73.80	403521.642	704745.455	Point	

