

Form 3160-3
(April 2004)

OCD Hobbs
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DEC 09 2011

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No. -----	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. 38971 GADWALL "35" FEDERAL #1H	
2. Name of Operator OGX RESOURCES, LLC. (JEFF BIRKELBACH 432-685-1287)		9. API Well No. 30-025-40364	
3a. Address P. O. BOX 2064 MIDLAND, TEXAS 79702		10. Field and Pool, or Exploratory WILDCAT-BONE SPRING 4778	
3b. Phone No. (include area code) 432-685-1287		11. Sec., T. R. M. or Blk. and Survey or Area SECTION 35 T24S-R32E	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 180' FNL & 990' FEL SECTION 35 T24S-R32E LEA CO. At proposed prod. zone 330' FSL & 990' FEL SECTION 35 T24S-R32E		12. County or Parish LESA CO.	
14. Distance in miles and direction from nearest town or post office* Approximately 25 miles East of Carlsbad, New Mexico		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 180'	16. No. of acres in lease 640	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 6900'	19. Proposed Depth TVD-9750' MD-14,318'	20. BLM/BIA Bond No. on file NMB-000244	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3564' GL	22. Approximate date work will start* WHEN APPROVED	23. Estimated duration 36 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. 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 09/12/11
Title Permit Eng.		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date DEC 07 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) Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

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APPLICATION TO DRILL

OGX RESOURCES, LLC.
 GADWELL "35" FEDERAL #1H
 UNIT "A" SECTION 35
 T24S-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: 180' FNL & 990' FEL SECTION 35 T24S-R32E LEA CO. NM
 BHL 330' FSL & 990' FEL SECTION 35 T24S-R32E LEA CO. NM
2. ELEVATION ABOVE SEA LEVEL: 3564' 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 the hole.
5. PROPOSED DRILLING DEPTH: TVD-9750'
 MD-14,318'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

	Top of salt 950'	Base of salt 4670'
Rustler Anhydrite 900'	Cherry Canyon 5860'	
Basal Anhydrite 4680'	Brushy Canyon 7320'	
Lamar Lime 4910'	Bone Spring 8930'	
Bell Canyon 4940'	TVD 9750'	
7. POSSIBLE MINERAL BEARING FORMATIONS:

Bell Canyon	Oil/Gas/Form. Water	Brushy Canyon	Oil/Gas/Form. Water
Cherry Canyon	Oil/Gas/Form. Water	Bone Spring	Oil/Gas/Form. Water
Possible fresh water 240'			
8. CASING PROGRAM:

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
26"	0-40'	20"	NA	NA	NA	Conductor	New
17½"	0-925' 1105	13 3/8"	48#	8-R	ST&C	H-40	New
11"	0-5000' 4850	8 5/8"	32#	8-R	LT&C	HCK-55	New
7 7/8"	0-9200'	5½"	17#	8-R	LT&C	P-110	New
7 7/8"	9200-14,318'	5½"	17#	BUTTRESS	BT&C	P-110	New
<u>CASING SAFETY FACTORS:</u>		Collapse	1.125	Burst	1.00	Body Yield	1.5
		Joint Strength		8-Round	1.8		
				Buttress	1.6		

APPLICATION TO DRILL

OGX RESOURCES, LLC.
GADWALL "35" FEDERAL #1H
UNIT "A" SECTION 35
T24S-R32E LEA CO. NM

9. CASING CEMENTING AND SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Run and set 925' of 13 3/8" 48# ST&C H-40 casing. Cement with 500 Sx. of Class "C" cement + 4% Bentonite, + 1% CaCl, +0.25# Celloflake/Sx. Yield 1.73 Tail in with 200 Sx. of Premium Plus Class "C" Cement + 2% CaCl, Yield 1.34 Circulate cement. *
8 5/8"	Intermediate	Run and set 5000' of 8 5/8" 32# LT&C HCK-55 casing. Cement with 950 Sx. of Premium Plus Class "C" POZ, + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx., Yield 2.19, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.34, circulate cement. *
5 1/2"	Production	Run and set 14,318' of 5 1/2" casing as follows: 5118' of 5 1/2" 17# BT&C P-110 casing, 9200' of 5 1/2" 17# LT&C P-110 casing. Cement with 600 Sx. of 35/65 Premium PLuc Class "C" POZ 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. Yield 1.34, circulate cement to surface. *

* After a caliper is run to determine cement volume a 25% Excess will be added to cement volumes.

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. B.O.P. WILL BE A 13 5/8"

APPLICATION TO DRILL

OGX RESOURCES, LLC.

GADWELL "35" FEDERAL #1H

UNIT "A" SECTION 35

T24S-R32E LEA CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-925' 1105	8.6-8.8	36-38	NC	Fresh water Spud Mud, use paper to control seepage.
925-5000' 4850	10.0-10.1	29-30	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
5000-9200'	8.4-9.1	28-29	NC	Fresh water use paper to control seepage and high viscosity sweeps to clean hole.
9200-14,318'	8.4-9.1	34-36	12-15 cc or less	Same as above use Dynazan HB-411 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.
GADWELL "35" FEDERAL #1H
UNIT "A" SECTION 35
T24S-R32E LEA CO. NM

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

- A. Open hole logs: Dual Laterolog, Neutron/Density, Gamma Ray, Caliper from KOP back to 8 5/8" casing shoe. Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- B. Mud logger will be rigged up on hole below the 13 3/8" casing and remain on the hole to TD.
- C. No cores or DST's 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 bottom hole pressure 4650 PSI and estimated bottom hole temperature 165°.

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 The 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 25 days will be required to complete the well and construct surface production facilities.

15. OTHER FACETS OF OPERATION:

After running casing, cased hole Gamma Ray, Neutron, Collar logs will be run over the productive interval. The BONE SPRING formation will be perforated and stimulated in order to establish production, and potential as an oil well.

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**GADWALL "35" Fed No.1H
Mesa Verde (Bone Spring) Field
Lea County, New Mexico
Drilling Procedure
Aug 2011**

General Information

Lease:	Gadwall "35" Fed	AFE BCP:	\$
Well No.:	1H	AFE ACP:	
Field:	Mesa Verde	AFE Total:	
County:	Lea	AFE NO:	
State:	New Mexico	API No.:	30-000-XXXXXX
Section:	35	Permit Date:	XX/XX/08
Township:	24S	Permit TVD:	9,300'
Range:	32E	Proposed MD:	13,715'
Surface Section Ties:	180' FNL & 990' FWL	Drilling Days:	30
BHL (target)	330' FSL & 990' FWL		
Ground Level:	3564'	KB:	3581'
Latitude:	32.180746° N	Longitude	103.639622°W

Well Objectives

The primary objective of this well is to drill the Avalon 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

Formation	Depth	Frm Pres	Remarks
Rustler	900'	390#	Water
Basal Anhydrite	4680'	2025#	Water
Lamar	4910'	2125#	Water
Bell Canyon	4940'	2140#	Oil / Gas / Formation water / Poss. H ₂ S
Cherry Canyon	5860'	2535#	Oil / Gas / Formation water
Brushy Canyon	7320'	3170#	Oil / Gas / Formation water
Bone Spring	8930'	4170#	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 825' and circulating cement back to surface. Potash/ fresh water sands will be protected by setting 8 5/8" casing at 5000' / 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 (4500').

Surface Per operator 10/12/11 CPW

CASING PROGRAM:

HOLE SIZE	DEPTH	OD Csg	WEIGHT	COLLAR	GRADE	NEW/USED
<i>See 6A</i> 17 1/2"	0-925' <i>1105</i>	13 3/8"	48	STC	H40	New
11"	0-5000' <i>4850</i>	8 5/8"	32	LTC	HCK55	New
7 7/8"	0-9200'	5 1/2"	17	LTC	P110	New
7 7/8"	9200-14318'	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
0-925'	13 3/8"	48	1.91 1.79 12.9
0-5000'	8 5/8"	32	1.27 2.03* 3.61
0-14318'	5 1/2"	17	1.20 1.47 1.83

** The Intermediate hole will never be evacuated**

(51/2 Burst & Collapse Calculated @ 9750' TVD)

13 3/8" Surface

Cement Properties	Lead	Tail
Est Volume (sacks)	500	200
Density (ppg)	13.50	14.80
Yield (ft ³ /sx)	1.73	1.34
Mix Water, gps		6.36
Thickening Time, hrs:min		~3:30
Free Water, %		0
Fluid Loss, cc's		~850
Top of Cement	surface	

8 5/8" Intermediate

Cement Properties	Lead	Tail
Est Volume (sacks)	950	200
Density (ppg)	12.4	14.8
Yield (ft ³ /sx)	2.19	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	

6

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)	600	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
0-925' ¹¹⁰⁵ Set 13-3/8" Casing	8.6 – 8.8	36 – 38	N/C	6 – 10	6 – 20	Spud Mud
925' - 5,000' ⁴⁹⁵⁰ Set 8-5/8" Casing	10.0 – 10.1	29 – 30	N/C	0 – 1	0 – 1	Brine
5,000' – 9,200'	8.4 – 9.1	28 – 29	N/C	0 – 1	0 – 1	Fresh Water
9,200' – 14318' 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

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 4650 psi. & BHT is 165° 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.



Project: Eddy County, New Mexico
Site: Gadwall 35 Federal
Well: Gadwall 35 Fed 1H
Wellbore: Wellbore #1
Plan: Plan #1 080311
Rig: Silver Oak 11

WELL DETAILS: Gadwall 35 Fed 1H

Northing	Easting	Latitude	Longitude
430167 80	714626 30	32° 10' 50.69" N	103° 38' 22.64" W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
9272 53	0 00	0 00	9272 53	0 00	0 00	0 00	0 00	0 00
10022 54	90 00	179 71	9750 00	-477 46	2 38	12 00	179 71	477 47
14318 34	90 00	179 71	9750 00	-4773 21	23 80	0 00	0 00	4773 27

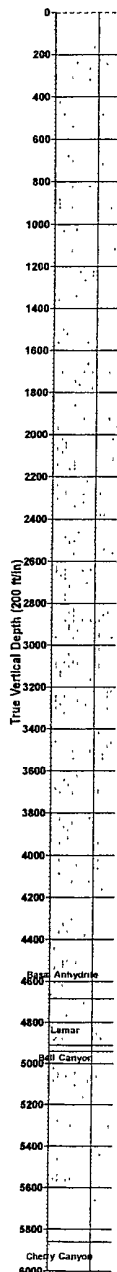
BHL Gadwall 35 Fed 1H

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4880 00	4880 00	Basal Anhydrite
4910 00	4910 00	Lamar
4940 00	4940 00	Bell Canyon
5860 00	5860 00	Cherry Canyon
6080 00	6080 00	Manzanita
7320 00	7320 00	Brushy Canyon
8930 00	8930 00	Bone Spring
9750 00	10022 54	Avellan Shale

ANNOTATIONS

TVD	MD	Annotation
9272 53	9272 53	KOP Start 12°/100' Build @ 9272' MD
9750 00	10022 54	Land/Start 429° Hold @ 10022' MD
9750 00	14318 34	TD @ 14318' MD

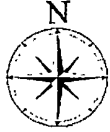


OGX Resources

Project: Eddy County, New Mexico
Site: Gadwall 35 Federal
Well: Gadwall 35 Fed 1H
Wellbore: Wellbore #1



Plan: Plan #1 080311 (Gadwall 35 Fed 1H/Wellbore #1)



SECTION DETAILS

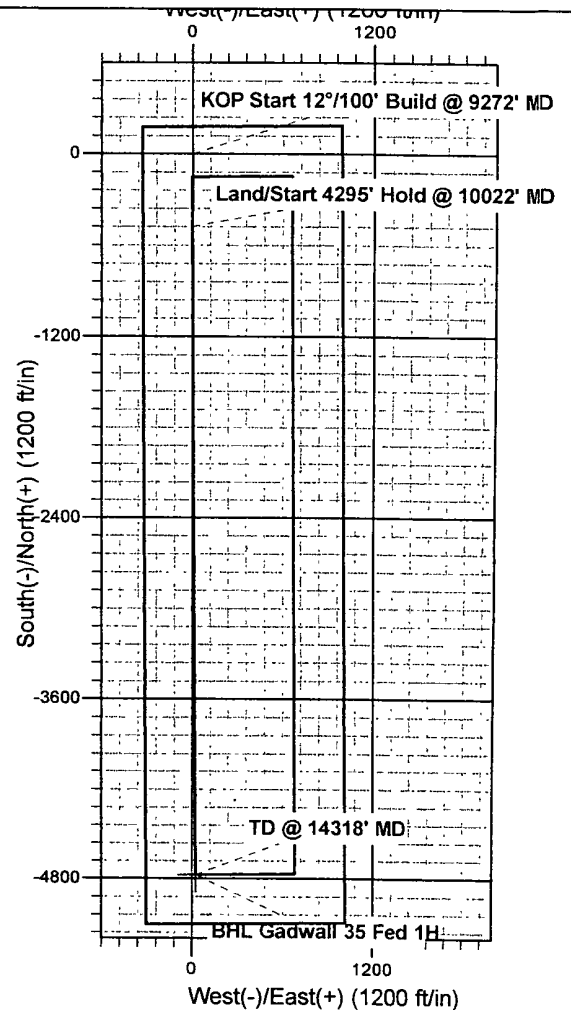
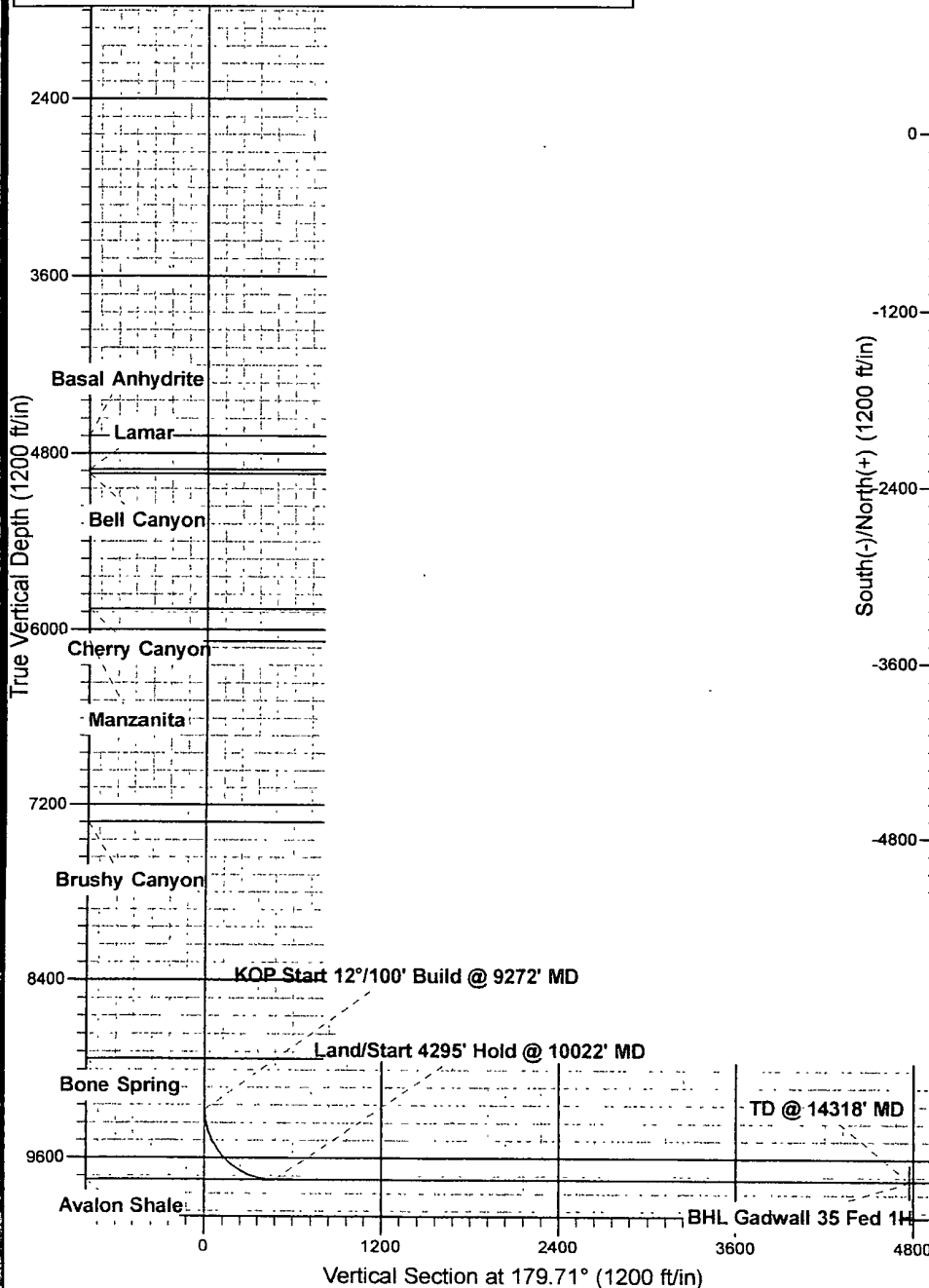
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9272.53	0.00	0.00	9272.53	0.00	0.00	0.00	0.00	0.00	
10022.54	90.00	179.71	9750.00	-477.46	2.38	12.00	179.71	477.47	
14318.34	90.00	179.71	9750.00	-4773.21	23.80	0.00	0.00	4773.27	BHL Gadwall 35 Fed 1H

WELL DETAILS: Gadwall 35 Fed 1H

Ground Level: 3564.00
Northing 430167.80 Easting 714626.30 Latitude 32° 10' 50.69 N Longitude 103° 38' 22.64 W

WELLBORE TARGET DETAILS

Name BHL Gadwall 35 Fed 1H TVD 9750.00 +N/-S -4773.21 +E/-W 23.80 Shape Point



OGX Resources

Eddy County, New Mexico

Gadwall 35 Federal

Gadwall 35 Fed 1H

Wellbore #1

Plan: Plan #1 080311

OGX Resources

03 August, 2011



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Phoenix Technology Services

OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Gadwall 35 Fed 1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3582.00ft (Original Well Elev + 18' KB)
Site:	Gadwall 35 Federal	MD Reference:	Well @ 3582.00ft (Original Well Elev + 18' KB)
Well:	Gadwall 35 Fed 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 080311	Database:	GCR3

Project	Eddy County, New Mexico		
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	Gadwall 35 Federal				
Site Position:	Northing:	430,167.80 ft	Latitude:	32° 10' 50.69 N	
From:	Map	Easting:	714,626.30 ft	Longitude:	103° 38' 22.64 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.37 °

Well	Gadwall 35 Fed 1H					
Well Position	+N/-S	0.00 ft	Northing:	430,167.80 ft	Latitude:	32° 10' 50.69 N
	+E/-W	0.00 ft	Easting:	714,626.30 ft	Longitude:	103° 38' 22.64 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,564.00 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010_14	8/3/2011	7.60	60.13	48,568

Design	Plan #1 080311			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	179.71

Survey Tool Program	Date 8/3/2011			
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0.00	14,318.34	Plan #1 080311 (Wellbore #1)	MWD	MWD - Standard

Phoenix Technology Services

OGX Resources



Company: OGX Resources
Project: Eddy County, New Mexico
Site: Gadwall 35 Federal
Well: Gadwall 35 Fed 1H
Wellbore: Wellbore #1
Design: Plan #1 080311

Local Co-ordinate Reference: Well Gadwall 35 Fed 1H
TVD Reference: Well @ 3582.00ft (Original Well Elev + 18' KB)
MD Reference: Well @ 3582.00ft (Original Well Elev + 18' KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR3

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	-3,582.00	0.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
100.00	0.00	0.00	-3,482.00	100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
200.00	0.00	0.00	-3,382.00	200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
300.00	0.00	0.00	-3,282.00	300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
400.00	0.00	0.00	-3,182.00	400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
500.00	0.00	0.00	-3,082.00	500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
600.00	0.00	0.00	-2,982.00	600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
700.00	0.00	0.00	-2,882.00	700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
800.00	0.00	0.00	-2,782.00	800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
900.00	0.00	0.00	-2,682.00	900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,000.00	0.00	0.00	-2,582.00	1,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,100.00	0.00	0.00	-2,482.00	1,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,200.00	0.00	0.00	-2,382.00	1,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,300.00	0.00	0.00	-2,282.00	1,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,400.00	0.00	0.00	-2,182.00	1,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,500.00	0.00	0.00	-2,082.00	1,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,600.00	0.00	0.00	-1,982.00	1,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,700.00	0.00	0.00	-1,882.00	1,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,800.00	0.00	0.00	-1,782.00	1,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
1,900.00	0.00	0.00	-1,682.00	1,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,000.00	0.00	0.00	-1,582.00	2,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,100.00	0.00	0.00	-1,482.00	2,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,200.00	0.00	0.00	-1,382.00	2,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,300.00	0.00	0.00	-1,282.00	2,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,400.00	0.00	0.00	-1,182.00	2,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,500.00	0.00	0.00	-1,082.00	2,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,600.00	0.00	0.00	-982.00	2,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30

Phoenix Technology Services
OGX Resources



Company: OGX Resources
Project: Eddy County, New Mexico
Site: Gadwall 35 Federal
Well: Gadwall 35 Fed 1H
Wellbore: Wellbore #1
Design: Plan #1 080311

Local Co-ordinate Reference: Well Gadwall 35 Fed 1H
TVD Reference: Well @ 3582.00ft (Original Well Elev + 18' KB)
MD Reference: Well @ 3582.00ft (Original Well Elev + 18' KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR3

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	-882.00	2,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,800.00	0.00	0.00	-782.00	2,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
2,900.00	0.00	0.00	-682.00	2,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,000.00	0.00	0.00	-582.00	3,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,100.00	0.00	0.00	-482.00	3,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,200.00	0.00	0.00	-382.00	3,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,300.00	0.00	0.00	-282.00	3,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,400.00	0.00	0.00	-182.00	3,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,500.00	0.00	0.00	-82.00	3,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,600.00	0.00	0.00	18.00	3,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,700.00	0.00	0.00	118.00	3,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,800.00	0.00	0.00	218.00	3,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
3,900.00	0.00	0.00	318.00	3,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,000.00	0.00	0.00	418.00	4,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,100.00	0.00	0.00	518.00	4,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,200.00	0.00	0.00	618.00	4,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,300.00	0.00	0.00	718.00	4,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,400.00	0.00	0.00	818.00	4,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,500.00	0.00	0.00	918.00	4,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,600.00	0.00	0.00	1,018.00	4,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,680.00	0.00	0.00	1,098.00	4,680.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Basal Anhydrite										
4,700.00	0.00	0.00	1,118.00	4,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,800.00	0.00	0.00	1,218.00	4,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,900.00	0.00	0.00	1,318.00	4,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
4,910.00	0.00	0.00	1,328.00	4,910.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Lamar										

Phoenix Technology Services
OGX Resources



Company: OGX Resources
Project: Eddy County, New Mexico
Site: Gadwall 35 Federal
Well: Gadwall 35 Fed 1H
Wellbore: Wellbore #1
Design: Plan #1 080311

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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR3

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
4,940.00	0.00	0.00	1,358.00	4,940.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Bell Canyon										
5,000.00	0.00	0.00	1,418.00	5,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,100.00	0.00	0.00	1,518.00	5,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,200.00	0.00	0.00	1,618.00	5,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,300.00	0.00	0.00	1,718.00	5,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,400.00	0.00	0.00	1,818.00	5,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,500.00	0.00	0.00	1,918.00	5,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,600.00	0.00	0.00	2,018.00	5,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,700.00	0.00	0.00	2,118.00	5,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,800.00	0.00	0.00	2,218.00	5,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
5,860.00	0.00	0.00	2,278.00	5,860.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Cherry Canyon										
5,900.00	0.00	0.00	2,318.00	5,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,000.00	0.00	0.00	2,418.00	6,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,080.00	0.00	0.00	2,498.00	6,080.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Manzanita										
6,100.00	0.00	0.00	2,518.00	6,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,200.00	0.00	0.00	2,618.00	6,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,300.00	0.00	0.00	2,718.00	6,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,400.00	0.00	0.00	2,818.00	6,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,500.00	0.00	0.00	2,918.00	6,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,600.00	0.00	0.00	3,018.00	6,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,700.00	0.00	0.00	3,118.00	6,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,800.00	0.00	0.00	3,218.00	6,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
6,900.00	0.00	0.00	3,318.00	6,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,000.00	0.00	0.00	3,418.00	7,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30

Phoenix Technology Services

OGX Resources



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 Wellbore: Wellbore #1
 Design: Plan #1 080311

Local Co-ordinate Reference: Well Gadwall 35 Fed 1H
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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: GCR3

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)
7,100.00	0.00	0.00	3,518.00	7,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,200.00	0.00	0.00	3,618.00	7,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,300.00	0.00	0.00	3,718.00	7,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,320.00	0.00	0.00	3,738.00	7,320.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Brushy Canyon										
7,400.00	0.00	0.00	3,818.00	7,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,500.00	0.00	0.00	3,918.00	7,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,600.00	0.00	0.00	4,018.00	7,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,700.00	0.00	0.00	4,118.00	7,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,800.00	0.00	0.00	4,218.00	7,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
7,900.00	0.00	0.00	4,318.00	7,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,000.00	0.00	0.00	4,418.00	8,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,100.00	0.00	0.00	4,518.00	8,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,200.00	0.00	0.00	4,618.00	8,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,300.00	0.00	0.00	4,718.00	8,300.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,400.00	0.00	0.00	4,818.00	8,400.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,500.00	0.00	0.00	4,918.00	8,500.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,600.00	0.00	0.00	5,018.00	8,600.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,700.00	0.00	0.00	5,118.00	8,700.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,800.00	0.00	0.00	5,218.00	8,800.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,900.00	0.00	0.00	5,318.00	8,900.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
8,930.00	0.00	0.00	5,348.00	8,930.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
Bone Spring										
9,000.00	0.00	0.00	5,418.00	9,000.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
9,100.00	0.00	0.00	5,518.00	9,100.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30
9,200.00	0.00	0.00	5,618.00	9,200.00	0.00	0.00	0.00	0.00	430,167.80	714,626.30

Phoenix Technology Services
OGX Resources



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Local Co-ordinate Reference: Well Gadwall 35 Fed 1H
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Database: GCR3

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)
11,600.00	90.00	179.71	6,168.00	9,750.00	-2,054.90	10.25	2,054.93	0.00	428,112.90	714,636.55
11,700.00	90.00	179.71	6,168.00	9,750.00	-2,154.90	10.74	2,154.93	0.00	428,012.90	714,637.04
11,800.00	90.00	179.71	6,168.00	9,750.00	-2,254.90	11.24	2,254.93	0.00	427,912.90	714,637.54
11,900.00	90.00	179.71	6,168.00	9,750.00	-2,354.90	11.74	2,354.93	0.00	427,812.90	714,638.04
12,000.00	90.00	179.71	6,168.00	9,750.00	-2,454.90	12.24	2,454.93	0.00	427,712.91	714,638.54
12,100.00	90.00	179.71	6,168.00	9,750.00	-2,554.90	12.74	2,554.93	0.00	427,612.91	714,639.04
12,200.00	90.00	179.71	6,168.00	9,750.00	-2,654.90	13.24	2,654.93	0.00	427,512.91	714,639.54
12,300.00	90.00	179.71	6,168.00	9,750.00	-2,754.90	13.74	2,754.93	0.00	427,412.91	714,640.04
12,400.00	90.00	179.71	6,168.00	9,750.00	-2,854.89	14.23	2,854.93	0.00	427,312.91	714,640.53
12,500.00	90.00	179.71	6,168.00	9,750.00	-2,954.89	14.73	2,954.93	0.00	427,212.91	714,641.03
12,600.00	90.00	179.71	6,168.00	9,750.00	-3,054.89	15.23	3,054.93	0.00	427,112.91	714,641.53
12,700.00	90.00	179.71	6,168.00	9,750.00	-3,154.89	15.73	3,154.93	0.00	427,012.92	714,642.03
12,800.00	90.00	179.71	6,168.00	9,750.00	-3,254.89	16.23	3,254.93	0.00	426,912.92	714,642.53
12,900.00	90.00	179.71	6,168.00	9,750.00	-3,354.89	16.73	3,354.93	0.00	426,812.92	714,643.03
13,000.00	90.00	179.71	6,168.00	9,750.00	-3,454.89	17.23	3,454.93	0.00	426,712.92	714,643.53
13,100.00	90.00	179.71	6,168.00	9,750.00	-3,554.89	17.73	3,554.93	0.00	426,612.92	714,644.03
13,200.00	90.00	179.71	6,168.00	9,750.00	-3,654.88	18.22	3,654.93	0.00	426,512.92	714,644.52
13,300.00	90.00	179.71	6,168.00	9,750.00	-3,754.88	18.72	3,754.93	0.00	426,412.92	714,645.02
13,400.00	90.00	179.71	6,168.00	9,750.00	-3,854.88	19.22	3,854.93	0.00	426,312.93	714,645.52
13,500.00	90.00	179.71	6,168.00	9,750.00	-3,954.88	19.72	3,954.93	0.00	426,212.93	714,646.02
13,600.00	90.00	179.71	6,168.00	9,750.00	-4,054.88	20.22	4,054.93	0.00	426,112.93	714,646.52
13,700.00	90.00	179.71	6,168.00	9,750.00	-4,154.88	20.72	4,154.93	0.00	426,012.93	714,647.02
13,800.00	90.00	179.71	6,168.00	9,750.00	-4,254.88	21.22	4,254.93	0.00	425,912.93	714,647.52
13,900.00	90.00	179.71	6,168.00	9,750.00	-4,354.88	21.71	4,354.93	0.00	425,812.93	714,648.01
14,000.00	90.00	179.71	6,168.00	9,750.00	-4,454.87	22.21	4,454.93	0.00	425,712.93	714,648.51
14,100.00	90.00	179.71	6,168.00	9,750.00	-4,554.87	22.71	4,554.93	0.00	425,612.94	714,649.01
14,200.00	90.00	179.71	6,168.00	9,750.00	-4,654.87	23.21	4,654.93	0.00	425,512.94	714,649.51

Phoenix Technology Services

OGX Resources



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Well: Gadwall 35 Fed 1H
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Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVDSS (ft)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
14,300.00	90.00	179.71	6,168.00	9,750.00	-4,754.87	23.71	4,754.93	0.00	425,412.94	714,850.01
14,318.34	90.00	179.71	6,168.00	9,750.00	-4,773.21	23.80	4,773.27	0.00	425,394.60	714,850.10

TD @ 14318' MD

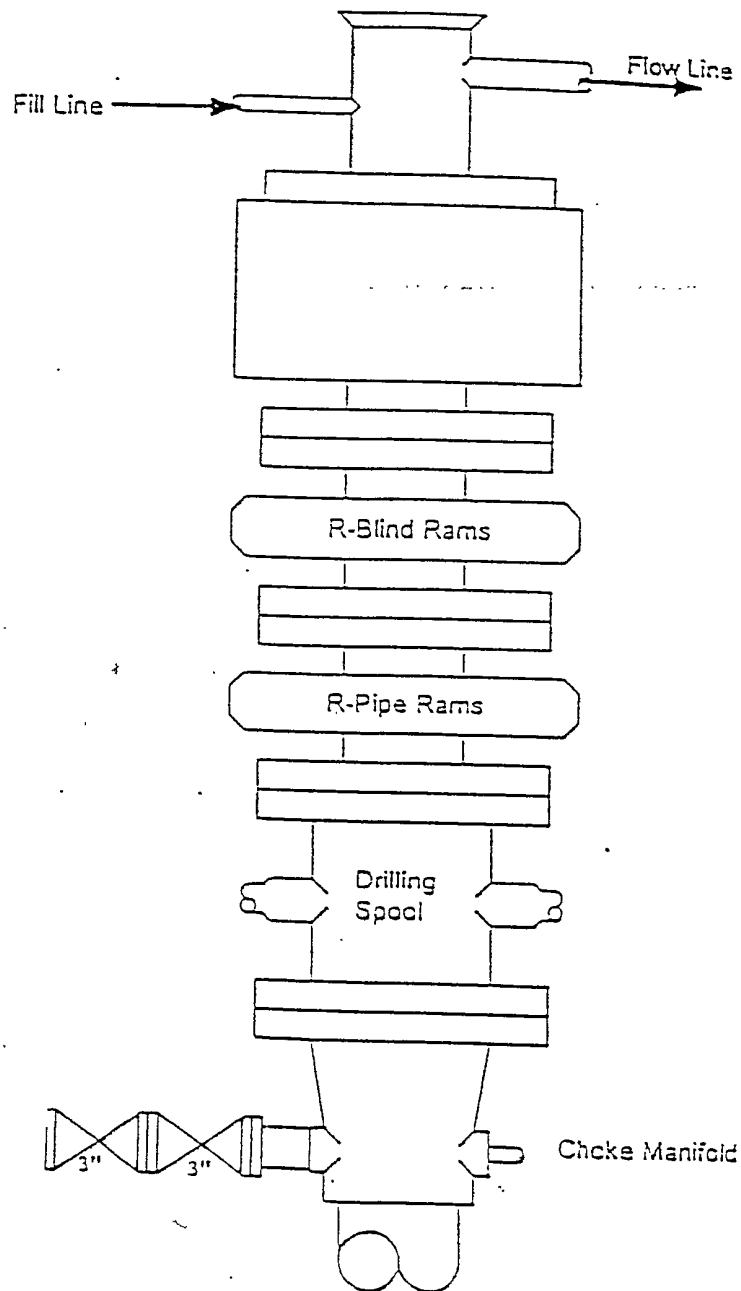
Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
10,022.54	9,750.00	Avalon Shale		0.00	
8,930.00	8,930.00	Bone Spring		0.00	
5,860.00	5,860.00	Cherry Canyon		0.00	
4,940.00	4,940.00	Bell Canyon		0.00	
4,680.00	4,680.00	Basal Anhydrite		0.00	
6,080.00	6,080.00	Manzanita		0.00	
4,910.00	4,910.00	Lamar		0.00	
7,320.00	7,320.00	Brushy Canyon		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
9,272.53	9,272.53	0.00	0.00	KOP Start 12"/100' Build @ 9272' MD
10,022.54	9,750.00	-477.46	2.38	Land/Start 4295' Hold @ 10022' MD
14,318.34	9,750.00	-4,773.21	23.80	TD @ 14318' MD

Checked By: _____ Approved By: _____ Date: _____



Type 900 Series
3000 psi WP

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

OGX RESOURCES, LLC.
GADWALL "35" FEDERAL #1H
UNIT "A" SECTION 35
T24S-R32E LEA CO. NM

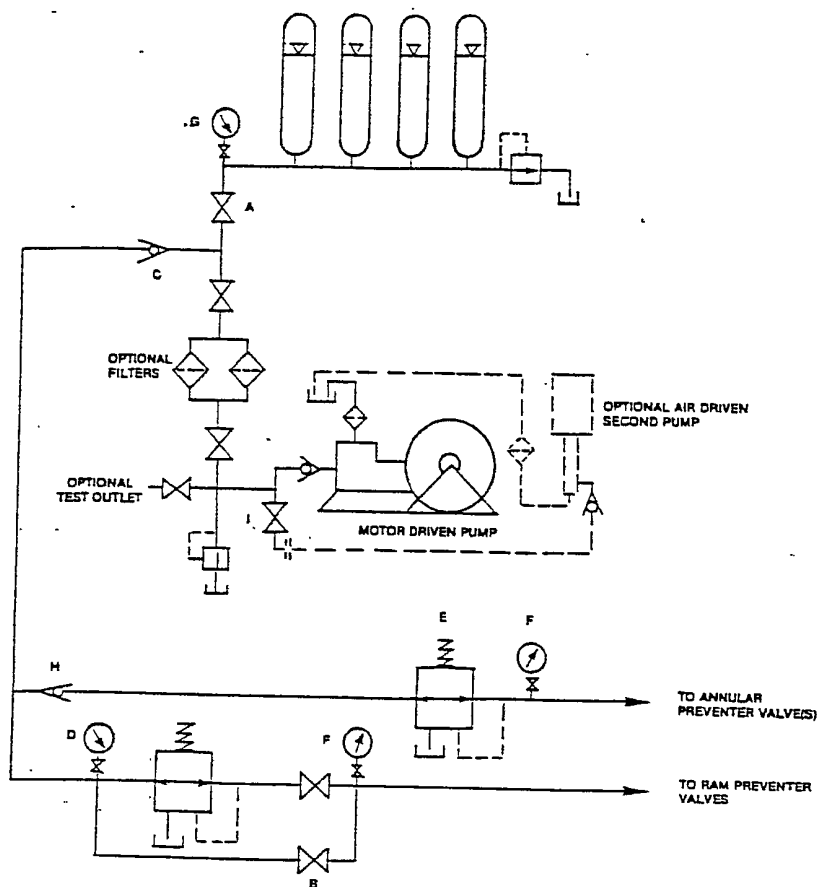


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

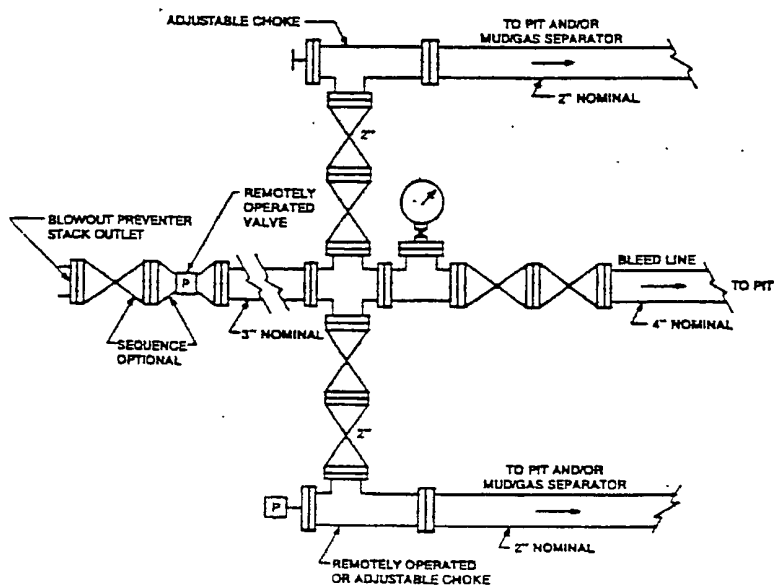
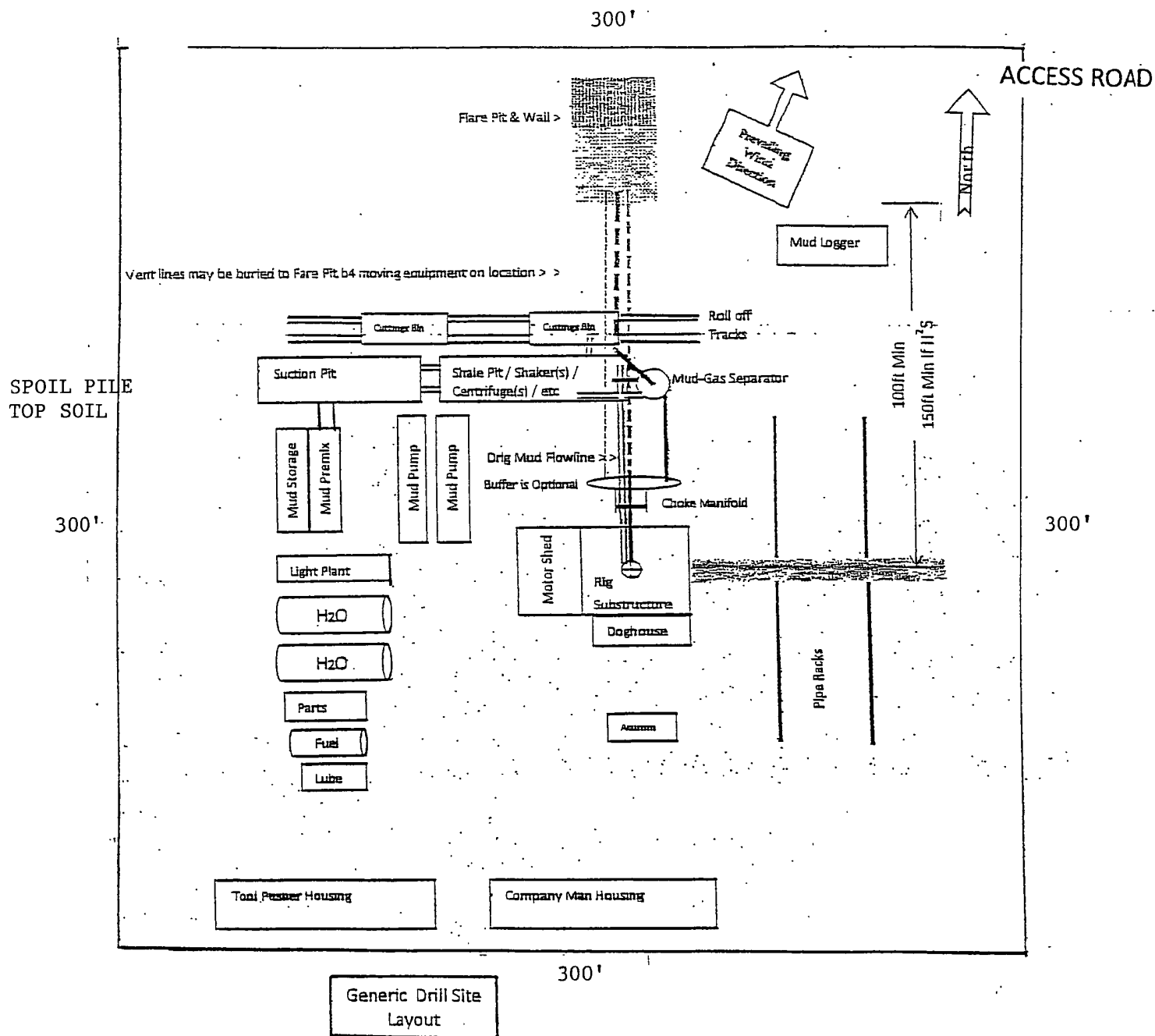


FIGURE K4-2. Typical choke manifold assembly for SM rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

OGX RESOURCES, LLC.
GADWALL "35" FEDERAL #1H
UNIT "A" SECTION 35
T24S-R32E LEA CO. NM



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 and their connection routing.

EXHIBIT "D" RIG LAY OUT PLAT

OGX RESOURCES, LLC.
GADWALL "35" FEDERAL # 1H
UNIT "A" SECTION 35
T24S-R#2E LEA CO. NM