ATS-09-607

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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

5. Lease Serial No.: NM-120906

6. If Indian, Allotee or Tribe Name: ----------

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.: ----------

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: TRISTE DRAW"5" FEDERAL 1H (38018)

2. Name of Operator: OGX RESOURCES, LLC. (217955) (JEFF BIRKELBACH 432-685-1287)

9. API Well No.: 30-025-39668

3a. Address: P. O. BOX 2064, MIDLAND, TEXAS 79702

3b. Phone No. (include area code): 432-685-1287

10. Field and Pool, or Exploratory: MESA VERDE-DELAWARE

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

At surface: 660' FNL & 660' FWL SECTION 5 T24S-R32E LEA CO. Unit D

At proposed prod. zone: 660' FWL & 330' FSL SECTION 5 T24S-R32E Unit M

11. Sec., T. R. M. or Blk. and Survey or Area: SECTION 5 T24S-R32E

14. Distance in miles and direction from nearest town or post office*: Approximately 27 miles West North West of Jal New Mexico

12. County or Parish: LEA CO.

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
660'	560	160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
NA	TVD-8500' MD-12,578'	NMB_000244

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3614' GL	WHEN APPROVED	28 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 (se 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	Name (Printed/Typed)	Date
Joe T. Janica	Joe T. Janica	12/21/09

Title: Permit Eng.

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Don Peterson		JAN 28 2010

Title	Office
FIELD MANAGER	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

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

RECEIVED
FEB 03 2010
HOBBSOCD

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
30-025-39668	96191	MESA VERDE-DELAWARE

Property Code	Property Name	Well Number
39018	TRISTE DRAW 5 FEDERAL	1H

OGRID No.	Operator Name	Elevation
217955	OGX RESOURCES	3614'

Surface Location

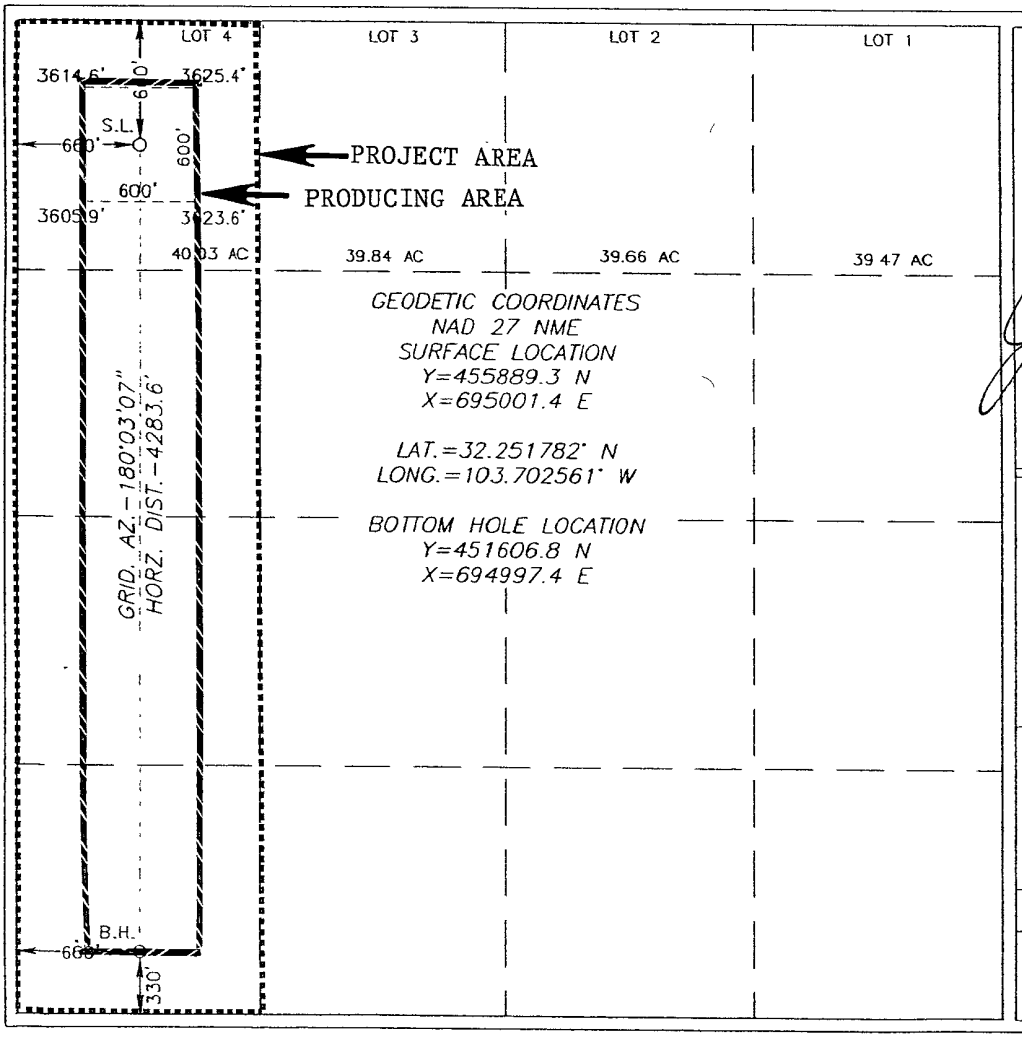
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D/4	5	24-S	32-E		660	NORTH	660	WEST	LEA

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
M	5	24-S	32-E		330	SOUTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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

Joe T. Janica — 12/21/09

Printed Name — Date

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
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed: AUGUST 20, 2009 — LA

Signature & Seal of Professional Surveyor

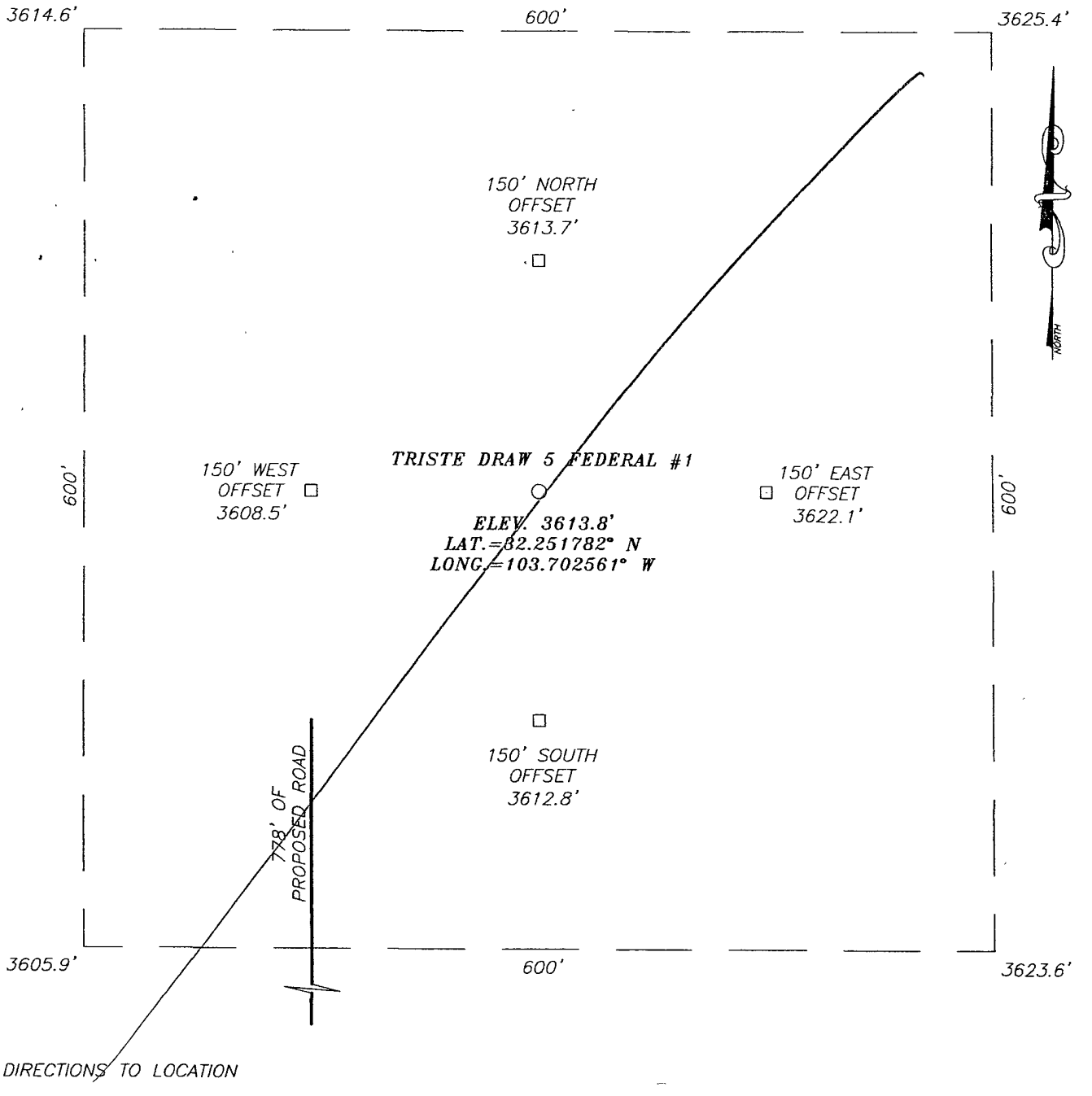
Ronald J. Eidson 12-12-09

Certificate No. GARY EIDSON 12641
RONALD EIDSON 3239

EXHIBIT "A"

SECTION 5, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #128 AND BUCK JACKSON RD. GO NORTHWEST ON ST. HWY. #128 APPROX. 0.7 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 1.3 MIELS. TURN RIGHT AND GO SOUTHEAST APPROX. 0.2 MILES TO A TRAIL ROAD. FOLLOW TRAIL ROAD SOUTH APPROX. 0.1 MILE TO A POPROSED ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 778 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale:1"=100'

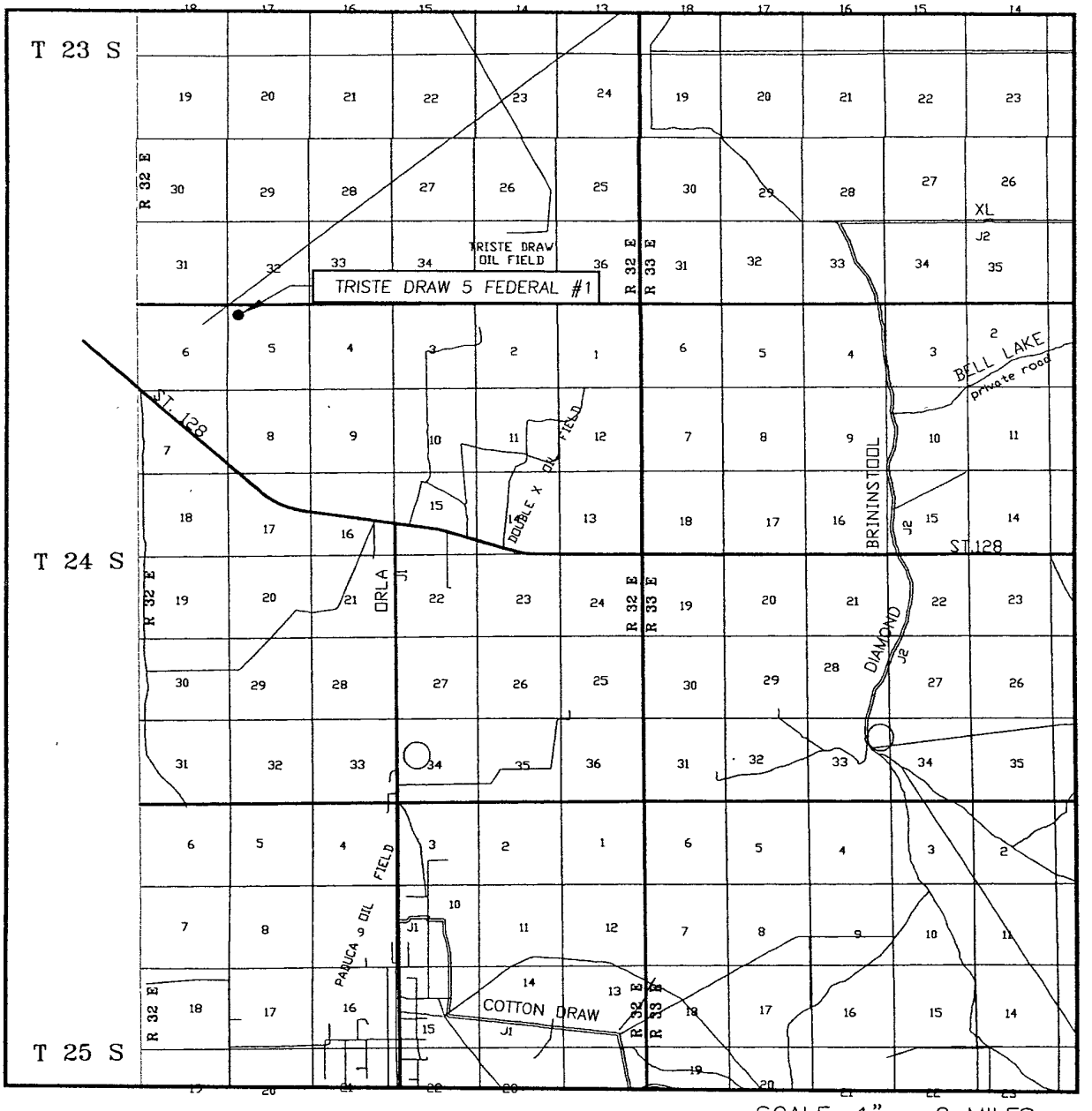
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

OGX RESOURCES

TRISTE DRAW 5 FEDERAL #1 WELL
LOCATED 660 FEET FROM THE NORTH LINE
AND 660 FEET FROM THE WEST LINE OF SECTION 5,
TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 8/20/09	Sheet 1 of 1 Sheets		
W.O. Number: 09.11.0755	Dr By: LA		Rev 1:N/A
Date: 8/25/09		09110755_ALT	Scale:1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 5 TWP. 24-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 660' FNL & 660' FWL

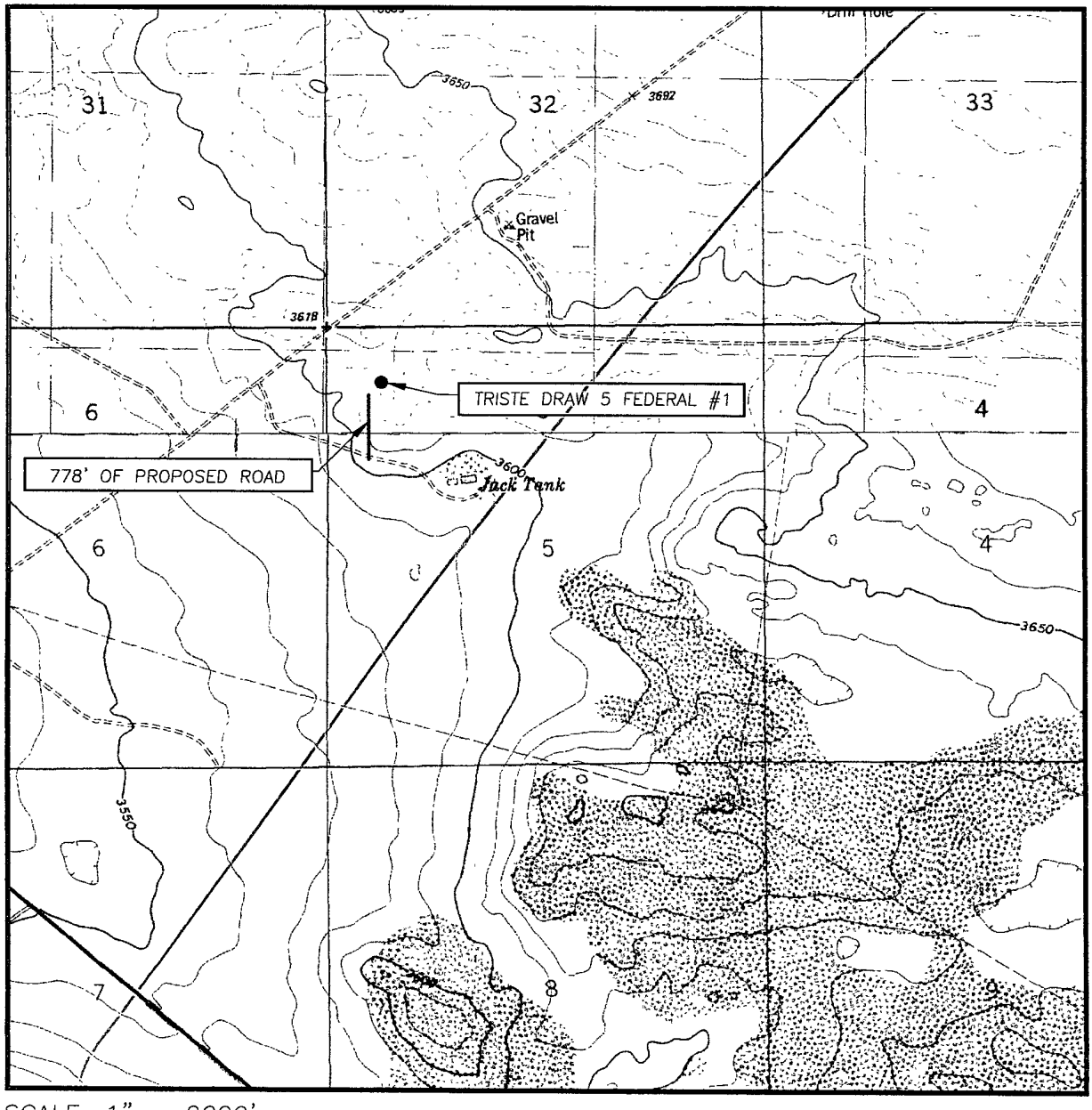
ELEVATION 3614'

OPERATOR OGX RESOURCES

LEASE TRISTE DRAW 5 FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PADUCA BREAKS NW, N.M. – 10'

SEC. 5 TWP. 24–S RGE. 32–E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 660' FNL & 660' FWL

ELEVATION 3614'

OPERATOR OGX RESOURCES

LEASE TRISTE DRAW 5 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
PADUCA BREAKSK NW, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393–3117

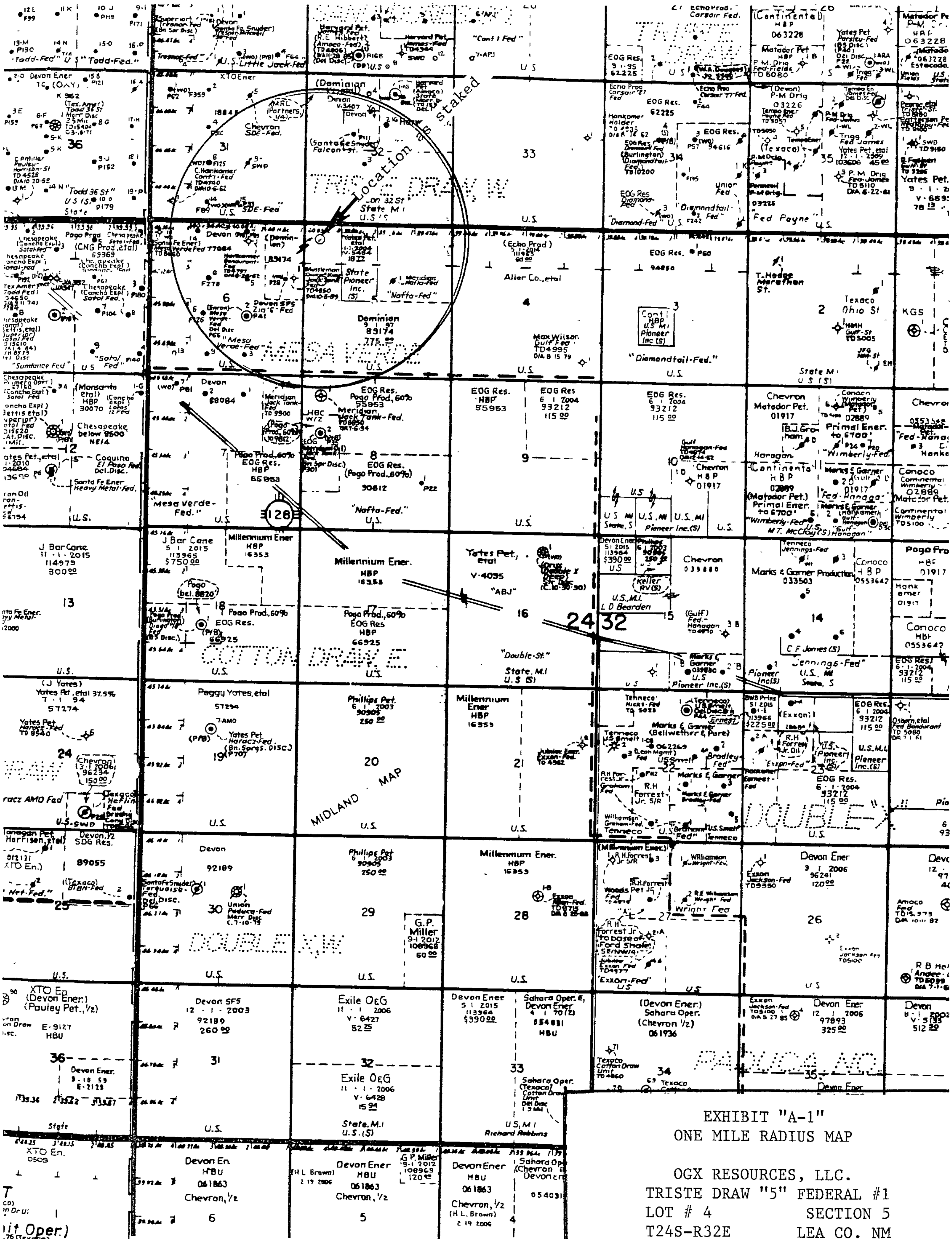


EXHIBIT "A-1"
ONE MILE RADIUS MAP

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

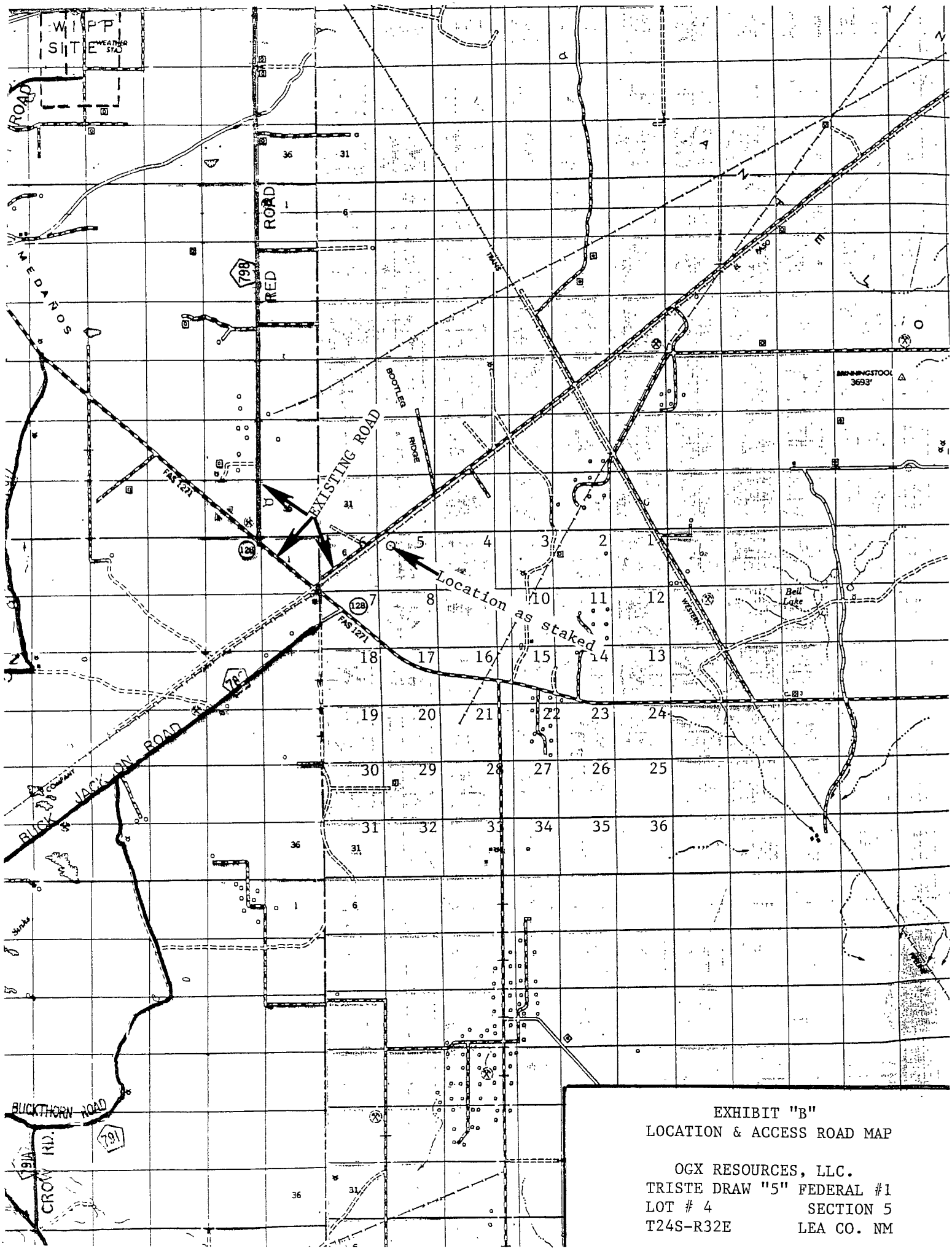
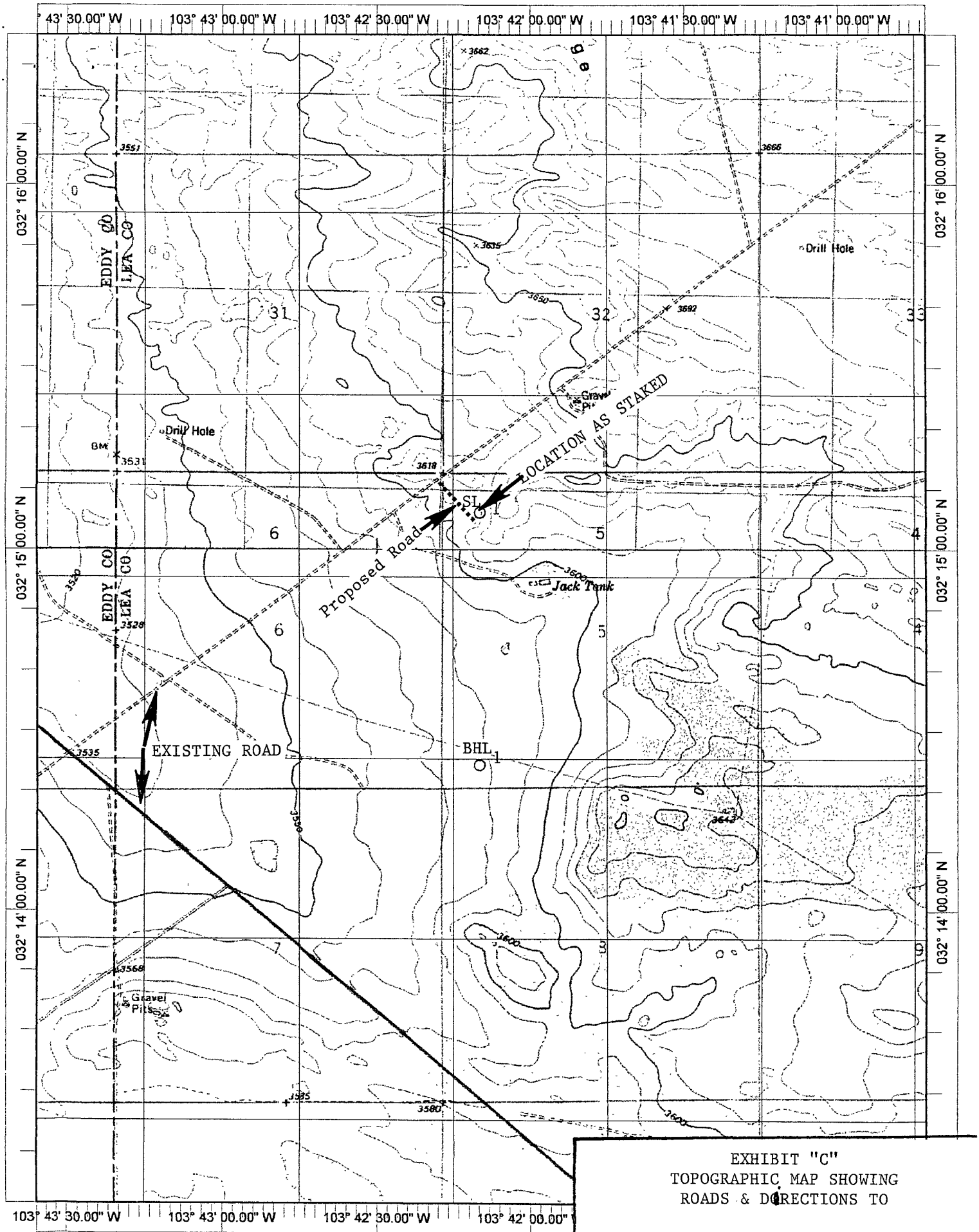


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM



Datum: NAD27

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

APPLICATION TO DRILL

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your information.

1. LOCATION: 660' FNL & 660' FWL SECTION 5 T24S-R32E LEA CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3614' GL

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4.
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: TVD-8500' MD-12,578'

6. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Rustler Anhydrite	835'	Cherry Canyon	5700'
Salado Salt	1194'	Brushy Canyon	6800'
Delaware	4600'	TVD	8500'

7. POSSIBLE MINERAL BEARING FORMATION:

Cherry Canyon	Oil-Gas	8500'	Oil-Gas
Brushy Canyon	Oil-Gas		

8. CASING PROGRAM:

HOLE SIZE	INTERVAL	OD OF CASING	WEIGHT	THREAD	COLLAR	GRADE	CONDITION	
See COA	~~14 5/8"~~ 17 1/2"	0-~~585~~ 1040	11 3/4"	~~42#~~ 48	8-R	ST&C	~~J-55~~ H-40	New	
	~~10 5/8"~~ 11 1/2"	0-4500'	8 5/8"	32#	8-R	ST&C	J-55	New	per operator 1/15/18 CRW
	7 7/8"	0-12,578'	5½ "	17#	8-R & Bittress	LT&C Butt	P-110	New	

APPLICATION TO DRILL

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

9. CASING SETTING DEPTHS & CEMENTING:

20" 13 3/8 ~~11 3/4"~~	Conductor	Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
	Surface	Drill ~~14 4/8~~ 17 1/2" hole to ~~585~~'. Run and set 585' of 11 3/4" 42# J-55 ST&C casing. Cement with 250 Sx. of 35/65/6 Premium Plus Class "C" POZ + 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.
8 5/8"	Intermediate	Drill ~~10 5/8~~ 11 1/2" hole to 4500'. Run and set 4500' of 8 5/8" 32# J-55 ST&C casing. Cement with ~~590~~ Sx of 35/65 Premium Plus Class "C" POZ + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/ Sx. Yield 2.02, Tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.
5½"	Production	Drill 7 7/8" hole to 12,578'. Run and set 5½' casing as follows: 4580' of 5½" 17# P-110 BUTTRESS T & C, 8000' of 5½" 17# P-110 LT&C. Cement with 400 Sx. of 35/65 Premium Plus Class "C" POZ, + 45 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, circulatercement. Volumes may be changed after logging well.

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 nippled up on the 11 3/4" casingand 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. Full opening stabbing valve and upper kelly cock will available at all times on the derrick floor. Exhibit "E-1" shows a hydraulically operate closing unit and a 5000 PSI working pressure choke manifold with dual adjustiable choles. No abnormal pressures or temperatures are expected while drilling this well.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
See COA 0-585' 1040	8.6-8.8	36-38	NC	Fresh water Spud mud use paper to control seepage
585-4500'	10.0-10.1	29-30	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
4500-7500'	8.4-9.1	28-29	NC	Fresh water use paper to control seepage and high viscosity sweeps to clean hole.
7500-12,578'	8.4-9.1	34-36	12-15 cc oe less	Fresh water base use HB-411 Dynazan/starch to control water loss

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, and/or casing the viscosity and/or water loss may to be adjusted in order to meet these needs.

APPLICATION TO DRILL

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

12. LOGGING, CORING, TESTING PROGRAM: See COA

A. Open hole logs from TD back to 11 3/4" casing shoe. Gyro through Drill pipe, Gamma Ray Neutron, Dual Laterolog, Density, Caliper.

B. No cores or DST' are planned at this time.

C. Mud logger will be placed on the hole at 4500'± .

13. POTENTIAL HAZZARDS:

No abnormal pressures or temperatures are expected. There are no known existance of H_2S in this area however H_2S detection equipment will be on the hole from 4500' to TD. If H_2S is encountered the operator will comply with the provisions of on-shoreoil & gas Order No.6. No lost circulationis expected to occur. All personnel will be familiar with all aspects of safe operations of equipment being used to drill this well.Estimated BHP 3680 PSI, AND Estimated BHT 125° .

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

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 is available. Movén operations and drilling is espected to take 35± days. If production casing is run an additional 30 day may be require to complete the well, construct surface facilities and/or lay pipelines in order to place well on production.

15. OTHER FACETS OF OPERATION:

After running production casing cased hole collar, Gamma Ray Neutron log may be run over possible producing zones. The Delaware formation will be perforated and stimulated in order to establish production.completed as an oil well.

Triste Draw Fed 5 No.1
Mesa Verde (Delaware) Field
Lea County, New Mexico
Drilling Procedure
Dec. 2009

General Information

Lease:	Triste Draw Fed.5	AFE BCP:	$
Well No.:	1	AFE ACP:	
Field:	Mesa Verde	AFE Total:	
County:	Lea	AFE NO:	10250XX
State:	New Mexico	API No.:	30-025-XXXXX
Section:	5	Permit Date:	XX/XX/10
Township:	24S	Permit TVD:	9,000'
Range:	32E	Proposed MD:	13,205'
Section Ties:	660' FNL & 660' FWL	Drilling Days:	35
Ground Level:	3614'	KB:	3630' (16')
Latitude:	32. 251782° N	Longitude	103.702561° W

Well Objectives

The primary objective of this well is to drill the Delaware interval horizontal without a pilot hole. The well will be drilled to ~ 8,000', logged and taken horizontal.

Directions To Well

From U.S. Hwy 128 and Buck Jackson Rd. Go Northwest on hwy 128 for 0.7 mi. / turn Rt (NrthEst) 1.3 mi. / Rt. (SthEst) 0.2 mi. to trail Rd. / follow Rd. to location.

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, intermediate. Attempt to circulate production . 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.
5. The Blinds will be closed anytime the hole is evacuated.

OGX **Resources Contact List**		
Operations Engineer	Steve Douglas	Mobile: 432-934-6800 Home: 432-682-1734
Operations Engineer	Jeff Birkelbach	Office: 432-685-1287 Home: 432-694-7880 Mobile: 432-553-0391
Vice President-Operations	Kip Agar	Office: 432-685-1287 Mobile: 432-631-1736 Home: 432-685-4114
Geologist	Bill Hardie	Office: 432-685-1287 Cell: 432-553-0259
		Office:
Production Foreman		Mobile: Home: Pager:
Production Foreman-Assistant		Mobile: Home:
Landman		Office: 432-685-1287
Regulatory	Joe Janica Ann Richey	Office: 505-391-8503 Office: 432-684-6381
Drilling Well Supervision	Donny Leek	Cell: Mobile: 432-634-4862 Home: 432-399-4489

DRILLING PROGRAM

Geologic Name of Surface Formation:

Permian

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

Formation	Depth	Frm Pres	Remarks
Rustler	835'	8.4 ppge	Water
Salado	1194'	10 ppge	Drlg fluid must be saturated salt water
Delaware	4600'	8.4ppge	Water
Cherry	5700'	8.4 ppge	Oil / Gas / Formation water /Poss.H_2S
Brushy	6800'	9.1 ppge	Oil / Gas / Formation water
TVD	8500'	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 11 3/4" casing at 585' and circulating cement back to surface. Potash/ fresh water sands will be protected by setting 8 5/8" casing at 4500' / circulating cement on the 8 5/8" string. . The hydrocarbon producing intervals will be isolated by setting a 5 ½" production string ement 500' above the 8 5/8" csg. shoe (4000').

CASING PROGRAM:

See COA

HOLE SIZE	DEPTH	OD Csg	WEIGHT	COLLAR	GRADE	NEW/USED	
17½	1040'	13 3/8	48		H-40		per operator
~~14 5/8"~~	0-585'	~~11 3/4"~~	~~42~~	STC	~~J55~~	New	
11½" ~~10 5/8"~~	0-4500' ← See COA	8 5/8"	32	STC	J55	New	1-15-10
7 7/8"	0-8000'	5 1/2"	17	LTC	P110	New	CRW
7 7/8"	8000-12577'	5 1/2"	17	BTC	P110	New	

(8 5/8" 32# will be special drift to 7.921)

(5 ½" BTC will be run thru the curve & Lateral)

DEPTH	OD Csg	WEIGHT	factors: Burst	/ Collapse	/ Tension
0-585'	11 3/4"	42	1.65	1.52	12+
0-4500'	8 5/8"	32	1.17	1.12	2.58
0-12577'	5 ½"	17	1.66	1.69	2.08

(8 5/8" 32# will be special drift to 7.921)

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

CEMENT PROGRAM: See COA

11 3/4" 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% $CaCl_2$ + 56.4% Fresh Water

Cement Properties	**Lead**	**Tail**
Est Volume (sacks)	250	200
Density (ppg)	12.80	14.80
Yield (ft3/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% $CaCl_2$ + 56.4% fresh water

Cement Properties

	Lead	Tail
Est Volume (sacks)	590	200
Density (ppg)	12.7	14.8
Yield (ft3/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% $CaCl_2$ + 56.4% fresh water

Cement Properties

	Lead	Tail
Est Volume (sacks)	400	600
Density (ppg)	12.7	14.8
Yield (ft3/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/100ft²)	Mud Type
0' – ~~585'~~ 1040 Set 11-3/4" Casing	8.6 – 8.8	36 – 38	N/C	6 – 10	6 – 20	**Spud Mud**
~~585'~~ – 4,500' Set 8-5/8" Casing	10.0 – 10.1	29 – 30	N/C	0 – 1	0 – 1	**Brine**
4,500' – 7,500'	8.4 – 9.1	28 – 29	N/C	0 – 1	0 – 1	**Fresh Water**
7,500' – 12,577' MD Set 5-1/2"	8.4 – 9.10	34 – 36	12 – 15	4 – 8	4 – 8	**Dynazan / Starch HB 411**

See COA

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.

H_2S detection equipment will be in operation after drilling out the 11 3/4" casing shoe until the 5 ½" csg is cemented.

LOGGING, CORING, AND TESTING See COA

No logs at surface.

Mud loggers on below 11 3/4" 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 H_2S in this area. If H_2S 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 3680 psi. & BHT is 125° 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 20 days to complete the well and construct production facilities.

OGX

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

Azimuths to Grid North
True North: -0.34°
Magnetic North: 7.48°

Magnetic Field
Strength: 48798.6snT
Dip Angle: 60.24°
Date: 12/08/2009
Model: IGRF200510

PATHFINDER

Project: Lea County
Site: Triste Draw 5 Federal
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)

WELL DETAILS: #1H

Ground Elevation:: 3614.00
RKB Elevation: Well1 @ 3630.00ft
Rig Name:

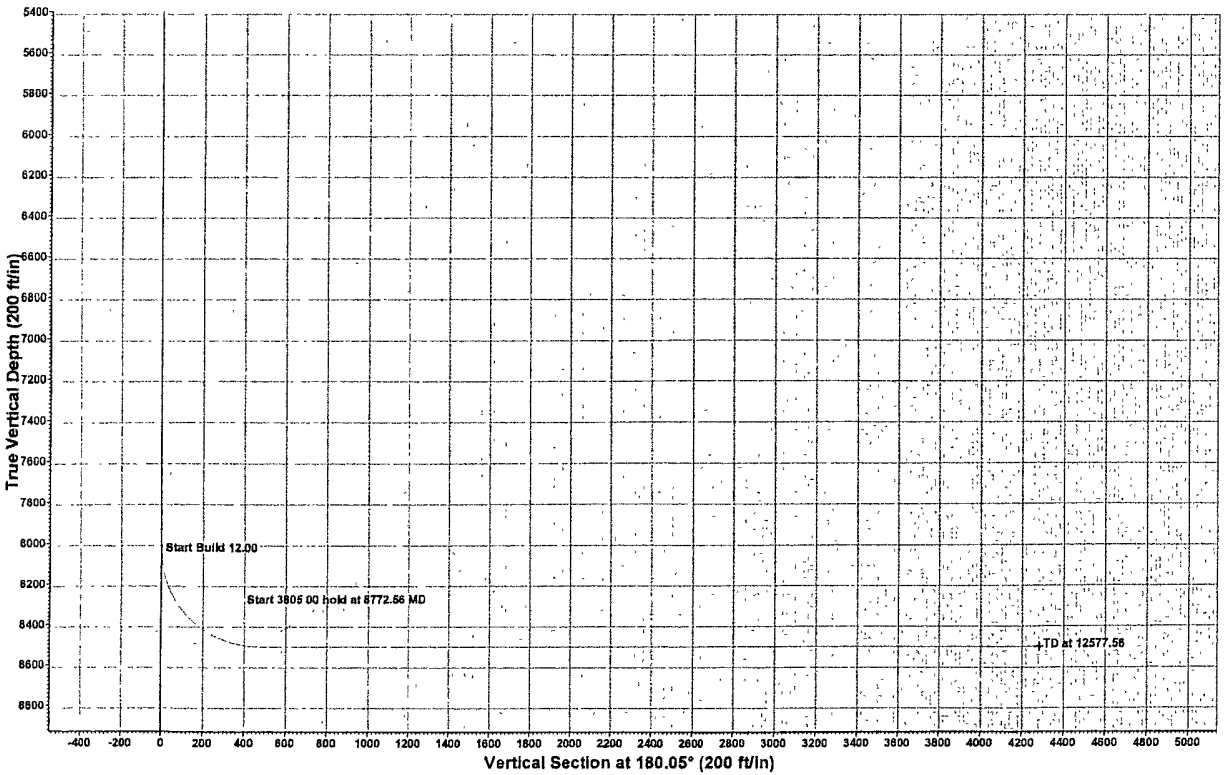
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	455880.300	695001.400	32° 15' 6.415 N	103° 42' 9.222 W	

SECTION DETAILS

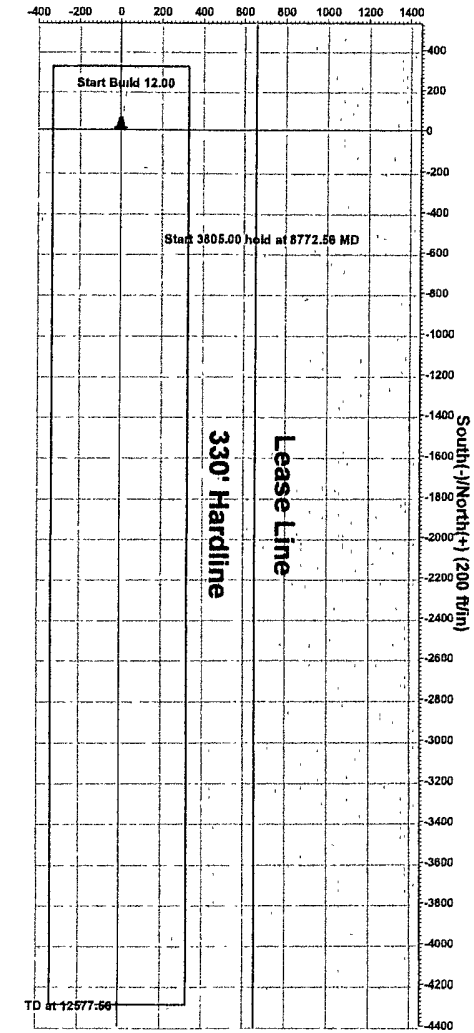
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8022.50	0.00	0.00	8022.50	0.00	0.00	0.00	0.00	0.00	
3	8772.56	90.00	180.05	8500.00	-477.50	-0.42	12.00	180.05	477.50	
4	12577.56	90.00	180.05	8500.00	-4282.50	-3.74	0.00	0.00	4282.50	PBHL(#1H Triste)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(#1H Triste)	8500.00	-4282.50	-4.00	451606.800	694997.400	Point



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



Plan: Plan #1 (#1H/OH)
Created By: Nate Bingham Date: 14:23, December 08 2009
Checked: _____ Date: _____

OGX

OGX Resources

Lea County
Triste Draw 5 Federal
#1H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

08 December, 2009

PATHFINDER

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Lea County

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

Site Triste Draw 5 Federal

Site Position:		**Northing:**	455,889.300 ft	**Latitude:**	32° 15' 6.415 N
From:	Map	**Easting:**	695,001.400 ft	**Longitude:**	103° 42' 9.222 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.34 °

Well #1H

Well Position	**+N/-S**	0.00 ft	**Northing:**	455,889.300 ft	**Latitude:**	32° 15' 6.415 N
	+E/-W	0.00 ft	**Easting:**	695,001.400 ft	**Longitude:**	103° 42' 9.222 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,614.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/08/2009	7.82	60.24	48,799

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	180.05	

Survey Tool Program **Date** 12/08/2009

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	12,577.56	Plan #1 (OH)	MWD	MWD - Standard

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,630.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
100.00	0.00	0.00	100.00	-3,530.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
200.00	0.00	0.00	200.00	-3,430.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
300.00	0.00	0.00	300.00	-3,330.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
400.00	0.00	0.00	400.00	-3,230.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
500.00	0.00	0.00	500.00	-3,130.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
600.00	0.00	0.00	600.00	-3,030.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
700.00	0.00	0.00	700.00	-2,930.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
800.00	0.00	0.00	800.00	-2,830.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
900.00	0.00	0.00	900.00	-2,730.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,000.00	0.00	0.00	1,000.00	-2,630.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,100.00	0.00	0.00	1,100.00	-2,530.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,200.00	0.00	0.00	1,200.00	-2,430.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,300.00	0.00	0.00	1,300.00	-2,330.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,400.00	0.00	0.00	1,400.00	-2,230.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,500.00	0.00	0.00	1,500.00	-2,130.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,600.00	0.00	0.00	1,600.00	-2,030.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,700.00	0.00	0.00	1,700.00	-1,930.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,800.00	0.00	0.00	1,800.00	-1,830.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
1,900.00	0.00	0.00	1,900.00	-1,730.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,000.00	0.00	0.00	2,000.00	-1,630.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,100.00	0.00	0.00	2,100.00	-1,530.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,200.00	0.00	0.00	2,200.00	-1,430.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,300.00	0.00	0.00	2,300.00	-1,330.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,400.00	0.00	0.00	2,400.00	-1,230.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,500.00	0.00	0.00	2,500.00	-1,130.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,600.00	0.00	0.00	2,600.00	-1,030.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-930.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,800.00	0.00	0.00	2,800.00	-830.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
2,900.00	0.00	0.00	2,900.00	-730.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,000.00	0.00	0.00	3,000.00	-630.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,100.00	0.00	0.00	3,100.00	-530.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,200.00	0.00	0.00	3,200.00	-430.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,300.00	0.00	0.00	3,300.00	-330.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,400.00	0.00	0.00	3,400.00	-230.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,500.00	0.00	0.00	3,500.00	-130.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,600.00	0.00	0.00	3,600.00	-30.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,700.00	0.00	0.00	3,700.00	70.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,800.00	0.00	0.00	3,800.00	170.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
3,900.00	0.00	0.00	3,900.00	270.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,000.00	0.00	0.00	4,000.00	370.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,100.00	0.00	0.00	4,100.00	470.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,200.00	0.00	0.00	4,200.00	570.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,300.00	0.00	0.00	4,300.00	670.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,400.00	0.00	0.00	4,400.00	770.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,500.00	0.00	0.00	4,500.00	870.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,600.00	0.00	0.00	4,600.00	970.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,700.00	0.00	0.00	4,700.00	1,070.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,800.00	0.00	0.00	4,800.00	1,170.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
4,900.00	0.00	0.00	4,900.00	1,270.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,000.00	0.00	0.00	5,000.00	1,370.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,100.00	0.00	0.00	5,100.00	1,470.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,200.00	0.00	0.00	5,200.00	1,570.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,300.00	0.00	0.00	5,300.00	1,670.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	1,770.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,500.00	0.00	0.00	5,500.00	1,870.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,600.00	0.00	0.00	5,600.00	1,970.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,700.00	0.00	0.00	5,700.00	2,070.00	0.00	0.00	0.00	0.00	455,889.30	695,001 40
5,800.00	0.00	0.00	5,800.00	2,170.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
5,900.00	0.00	0.00	5,900.00	2,270.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,000.00	0.00	0.00	6,000.00	2,370.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,100.00	0.00	0.00	6,100.00	2,470.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,200.00	0.00	0.00	6,200.00	2,570.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,300.00	0.00	0.00	6,300.00	2,670.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,400.00	0.00	0.00	6,400.00	2,770.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,500.00	0.00	0.00	6,500.00	2,870.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,600.00	0.00	0.00	6,600.00	2,970.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,700.00	0.00	0.00	6,700.00	3,070.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,800.00	0.00	0.00	6,800.00	3,170.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
6,900.00	0.00	0.00	6,900.00	3,270.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,000.00	0.00	0.00	7,000.00	3,370.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,100.00	0.00	0.00	7,100.00	3,470.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,200.00	0.00	0.00	7,200.00	3,570.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,300.00	0.00	0.00	7,300.00	3,670.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,400.00	0.00	0.00	7,400.00	3,770.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,500.00	0.00	0.00	7,500.00	3,870.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,600.00	0.00	0.00	7,600.00	3,970.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,700.00	0.00	0.00	7,700.00	4,070.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,800.00	0.00	0.00	7,800.00	4,170.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
7,900.00	0.00	0.00	7,900.00	4,270.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40
8,000.00	0.00	0.00	8,000.00	4,370.00	0.00	0.00	0.00	0.00	455,889.30	695,001.40

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,022.50	0.00	0.00	8,022.50	4,392.50	0.00	0.00	0.00	0.00	455,889.30	695,001.40
8,025.00	0.30	180.05	8,025.00	4,395.00	-0.01	0.00	0.01	12.00	455,889.29	695,001.40
8,050.00	3.30	180.05	8,049.98	4,419.98	-0.79	0.00	0.79	12.00	455,888.51	695,001.40
8,075.00	6.30	180.05	8,074.89	4,444.89	-2.88	0.00	2.88	12.00	455,886.42	695,001.40
8,100.00	9.30	180.05	8,099.66	4,469.66	-6.28	-0.01	6.28	12.00	455,883.02	695,001.39
8,125.00	12.30	180.05	8,124.21	4,494.21	-10.96	-0.01	10.96	12.00	455,878.34	695,001.39
8,150.00	15.30	180.05	8,148.49	4,518.49	-16.92	-0.01	16.92	12.00	455,872.38	695,001.39
8,175.00	18.30	180.05	8,172.42	4,542.42	-24.15	-0.02	24.15	12.00	455,865.15	695,001.38
8,200.00	21.30	180.05	8,195.94	4,565.94	-32.61	-0.03	32.61	12.00	455,856.69	695,001.37
8,225.00	24.30	180.05	8,218.98	4,588.98	-42.30	-0.04	42.30	12.00	455,847.00	695,001.36
8,250.00	27.30	180.05	8,241.49	4,611.49	-53.18	-0.05	53.18	12.00	455,836.12	695,001.35
8,275.00	30.30	180.05	8,263.40	4,633.40	-65.22	-0.06	65.22	12.00	455,824.08	695,001.34
8,300.00	33.30	180.05	8,284.64	4,654.64	-78.39	-0.07	78.39	12.00	455,810.91	695,001.33
8,325.00	36.30	180.05	8,305.17	4,675.17	-92.66	-0.08	92.66	12.00	455,796.64	695,001.32
8,350.00	39.30	180.05	8,324.92	4,694.92	-107.98	-0.09	107.98	12.00	455,781.32	695,001.31
8,375.00	42.30	180.05	8,343.84	4,713.84	-124.31	-0.11	124.31	12.00	455,764.99	695,001.29
8,400.00	45.30	180.05	8,361.89	4,731.89	-141.61	-0.12	141.61	12.00	455,747.69	695,001.28
8,425.00	48.30	180.05	8,379.00	4,749.00	-159.83	-0.14	159.83	12.00	455,729.47	695,001.26
8,450.00	51.30	180.05	8,395.14	4,765.14	-178.92	-0.16	178.92	12.00	455,710.38	695,001.24
8,475.00	54.30	180.05	8,410.25	4,780.25	-198.83	-0.17	198.83	12.00	455,690.47	695,001.23
8,500.00	57.30	180.05	8,424.30	4,794.30	-219.51	-0.19	219.51	12.00	455,669.79	695,001.21
8,525.00	60.30	180.05	8,437.25	4,807.25	-240.89	-0.21	240.89	12.00	455,648.41	695,001.19
8,550.00	63.30	180.05	8,449.07	4,819.07	-262.92	-0.23	262.92	12.00	455,626.38	695,001.17
8,575.00	66.30	180.05	8,459.71	4,829.71	-285.53	-0.25	285.53	12.00	455,603.77	695,001.15
8,600.00	69.29	180.05	8,469.16	4,839.16	-308.68	-0.27	308.68	12.00	455,580.62	695,001.13
8,625.00	72.29	180.05	8,477.38	4,847.38	-332.28	-0.29	332.28	12.00	455,557.02	695,001.11
8,650.00	75.29	180.05	8,484.36	4,854.36	-356.29	-0.31	356.29	12.00	455,533.01	695,001.09

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,675.00	78.29	180.05	8,490.07	4,860.07	-380.62	-0.33	380.62	12.00	455,508.68	695,001.07
8,700.00	81.29	180.05	8,494.50	4,864.50	-405.22	-0.35	405.22	12.00	455,484.08	695,001.05
8,725.00	84.29	180.05	8,497.63	4,867.63	-430.02	-0.38	430.02	12.00	455,459.28	695,001.02
8,750.00	87.29	180.05	8,499.47	4,869.47	-454.95	-0.40	454.95	12.00	455,434.35	695,001.00
8,772.56	90.00	180.05	8,500.00	4,870.00	-477.50	-0.42	477.50	12.00	455,411.80	695,000.98
8,800.00	90.00	180.05	8,500.00	4,870.00	-504.94	-0.44	504.94	0.00	455,384.36	695,000.96
8,900.00	90.00	180.05	8,500.00	4,870.00	-604.94	-0.53	604.94	0.00	455,284.36	695,000.87
9,000.00	90.00	180.05	8,500.00	4,870.00	-704.94	-0.62	704.94	0.00	455,184.36	695,000.78
9,100.00	90.00	180.05	8,500.00	4,870.00	-804.94	-0.70	804.94	0.00	455,084.36	695,000.70
9,200.00	90.00	180.05	8,500.00	4,870.00	-904.94	-0.79	904.94	0.00	454,984.36	695,000.61
9,300.00	90.00	180.05	8,500.00	4,870.00	-1,004.94	-0.88	1,004.94	0.00	454,884.36	695,000.52
9,400.00	90.00	180.05	8,500.00	4,870.00	-1,104.94	-0.96	1,104.94	0.00	454,784.36	695,000.44
9,500.00	90.00	180.05	8,500.00	4,870.00	-1,204.94	-1.05	1,204.94	0.00	454,684.36	695,000.35
9,600.00	90.00	180.05	8,500.00	4,870.00	-1,304.94	-1.14	1,304.94	0.00	454,584.36	695,000.26
9,700.00	90.00	180.05	8,500.00	4,870.00	-1,404.94	-1.23	1,404.94	0.00	454,484.36	695,000.17
9,800.00	90.00	180.05	8,500.00	4,870.00	-1,504.94	-1.31	1,504.94	0.00	454,384.36	695,000.09
9,900.00	90.00	180.05	8,500.00	4,870.00	-1,604.94	-1.40	1,604.94	0.00	454,284.36	695,000.00
10,000.00	90.00	180.05	8,500.00	4,870.00	-1,704.94	-1.49	1,704.94	0.00	454,184.36	694,999.91
10,100.00	90.00	180.05	8,500.00	4,870.00	-1,804.94	-1.58	1,804.94	0.00	454,084.36	694,999.82
10,200.00	90.00	180.05	8,500.00	4,870.00	-1,904.94	-1.66	1,904.94	0.00	453,984.36	694,999.74
10,300.00	90.00	180.05	8,500.00	4,870.00	-2,004.94	-1.75	2,004.94	0.00	453,884.36	694,999.65
10,400.00	90.00	180.05	8,500.00	4,870.00	-2,104.94	-1.84	2,104.94	0.00	453,784.36	694,999.56
10,500.00	90.00	180.05	8,500.00	4,870.00	-2,204.94	-1.92	2,204.94	0.00	453,684.36	694,999.48
10,600.00	90.00	180.05	8,500.00	4,870.00	-2,304.94	-2.01	2,304.94	0.00	453,584.36	694,999.39
10,700.00	90.00	180.05	8,500.00	4,870.00	-2,404.94	-2.10	2,404.94	0.00	453,484.36	694,999.30
10,800.00	90.00	180.05	8,500.00	4,870.00	-2,504.94	-2.19	2,504.94	0.00	453,384.36	694,999.21
10,900.00	90.00	180.05	8,500.00	4,870.00	-2,604.94	-2.27	2,604.94	0.00	453,284.36	694,999.13

Company:	OGX Resources	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County	**TVD Reference:**	Well1 @ 3630.00ft
Site:	Triste Draw 5 Federal	**MD Reference:**	Well1 @ 3630.00ft
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Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
11,000.00	90.00	180.05	8,500.00	4,870.00	-2,704.94	-2.36	2,704.94	0.00	453,184.36	694,999.04
11,100.00	90.00	180.05	8,500.00	4,870.00	-2,804.94	-2.45	2,804.94	0.00	453,084.36	694,998.95
11,200.00	90.00	180.05	8,500.00	4,870.00	-2,904.94	-2.54	2,904.94	0.00	452,984.36	694,998.86
11,300.00	90.00	180.05	8,500.00	4,870.00	-3,004.94	-2.62	3,004.94	0.00	452,884.36	694,998.78
11,400.00	90.00	180.05	8,500.00	4,870.00	-3,104.94	-2.71	3,104.94	0.00	452,784.36	694,998.69
11,500.00	90.00	180.05	8,500.00	4,870.00	-3,204.94	-2.80	3,204.94	0.00	452,684.36	694,998.60
11,600.00	90.00	180.05	8,500.00	4,870.00	-3,304.94	-2.88	3,304.94	0.00	452,584.36	694,998.52
11,700.00	90.00	180.05	8,500.00	4,870.00	-3,404.94	-2.97	3,404.94	0.00	452,484.36	694,998.43
11,800.00	90.00	180.05	8,500.00	4,870.00	-3,504.94	-3.06	3,504.94	0.00	452,384.36	694,998.34
11,900.00	90.00	180.05	8,500.00	4,870.00	-3,604.94	-3.15	3,604.94	0.00	452,284.36	694,998.25
12,000.00	90.00	180.05	8,500.00	4,870.00	-3,704.94	-3.23	3,704.94	0.00	452,184.36	694,998.17
12,100.00	90.00	180.05	8,500.00	4,870.00	-3,804.94	-3.32	3,804.94	0.00	452,084.36	694,998.08
12,200.00	90.00	180.05	8,500.00	4,870.00	-3,904.94	-3.41	3,904.94	0.00	451,984.36	694,997.99
12,300.00	90.00	180.05	8,500.00	4,870.00	-4,004.94	-3.49	4,004.94	0.00	451,884.36	694,997.91
12,400.00	90.00	180.05	8,500.00	4,870.00	-4,104.94	-3.58	4,104.94	0.00	451,784.36	694,997.82
12,500.00	90.00	180.05	8,500.00	4,870.00	-4,204.94	-3.67	4,204.94	0.00	451,684.36	694,997.73
12,577.56	90.00	180.05	8,500.00	4,870.00	-4,282.50	-3.74	4,282.50	0.00	451,606.80	694,997.66

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(#1H Triste) - plan hits target - Point	0.00	0.00	8,500.00	-4,282.50	-4.00	451,606.800	694,997.400	32° 14' 24.037 N	103° 42' 9.561 W

Checked By: _____ Approved By: _____ Date: _____

Rig Plat For Closed Loop Mud System

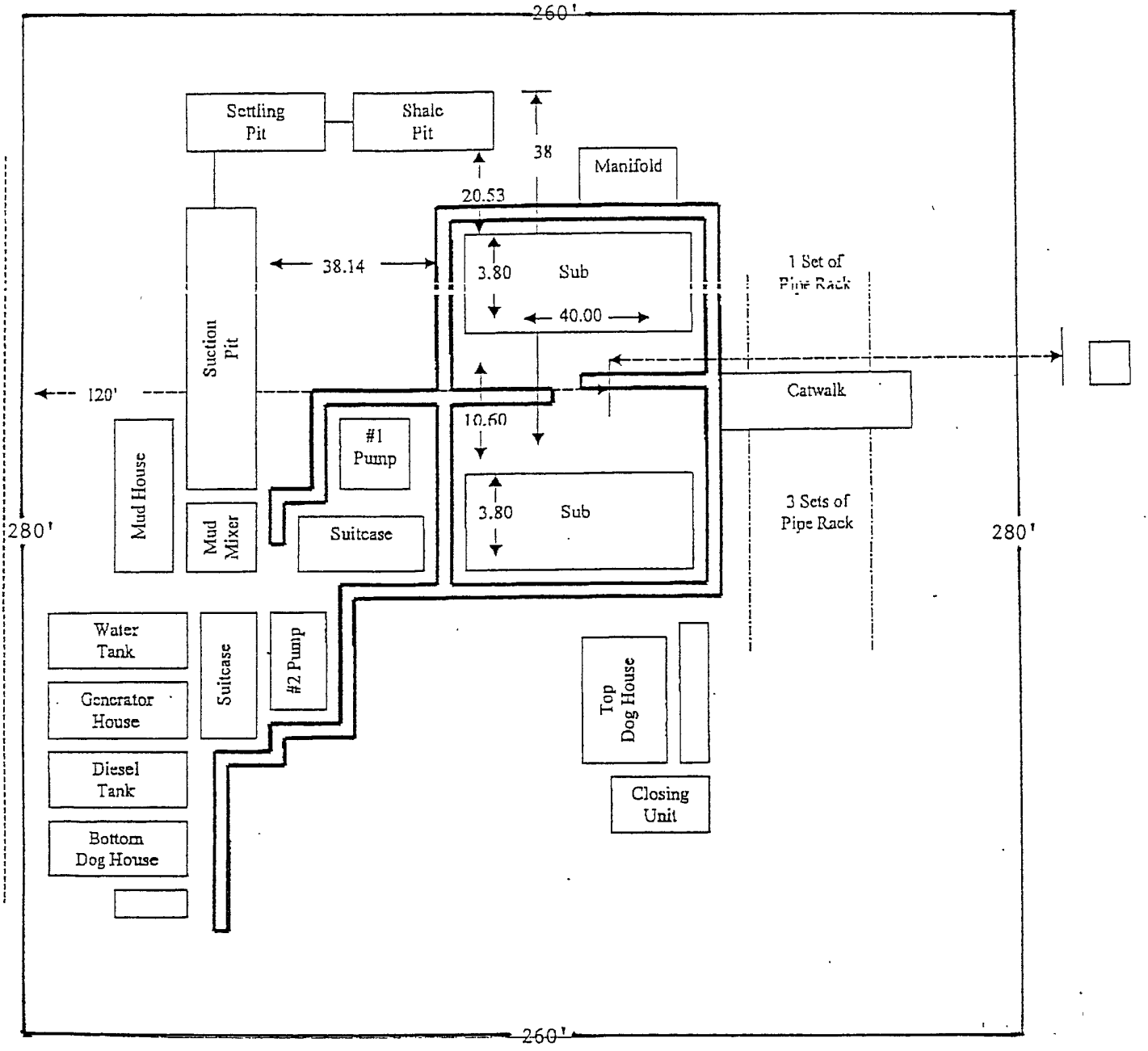
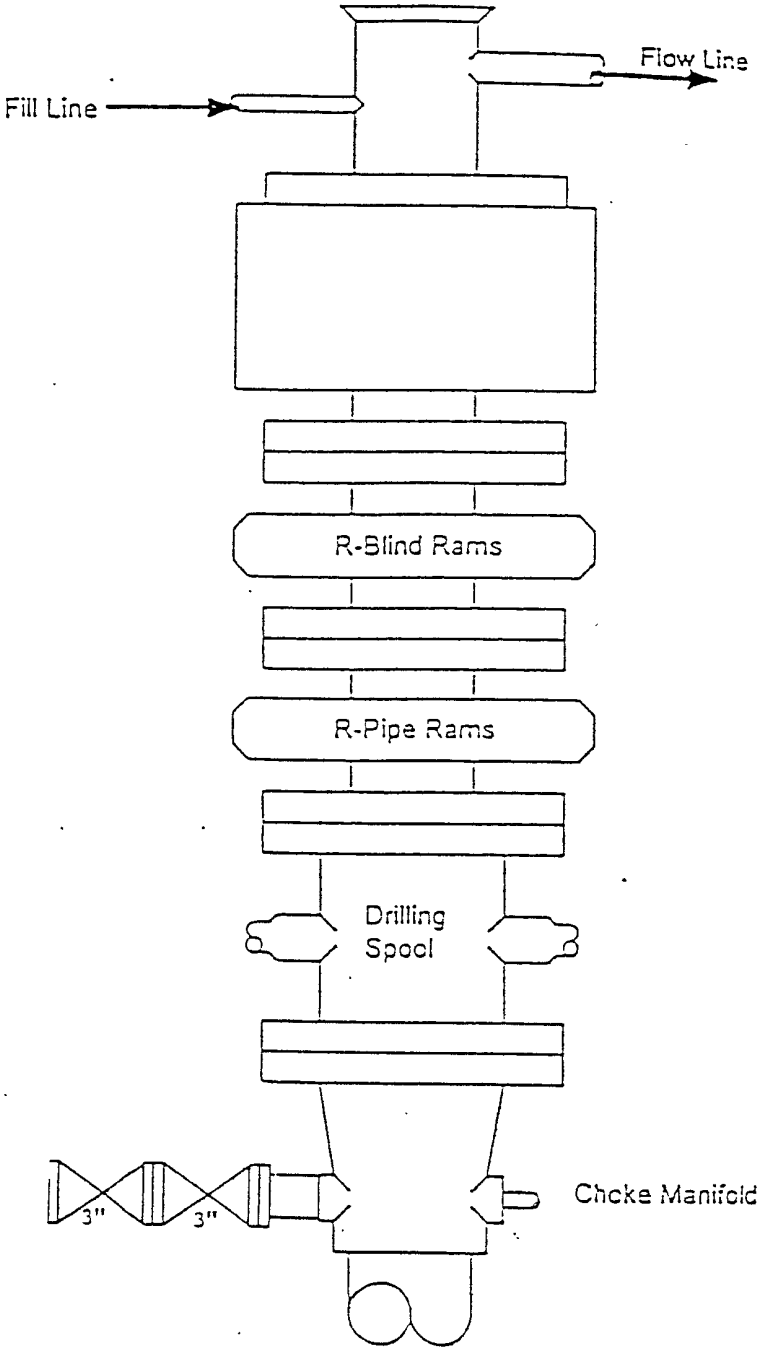


EXHIBIT "D"
RIG LAY OUT PLAT

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM



Type 900 Series
3000 psi WP

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

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

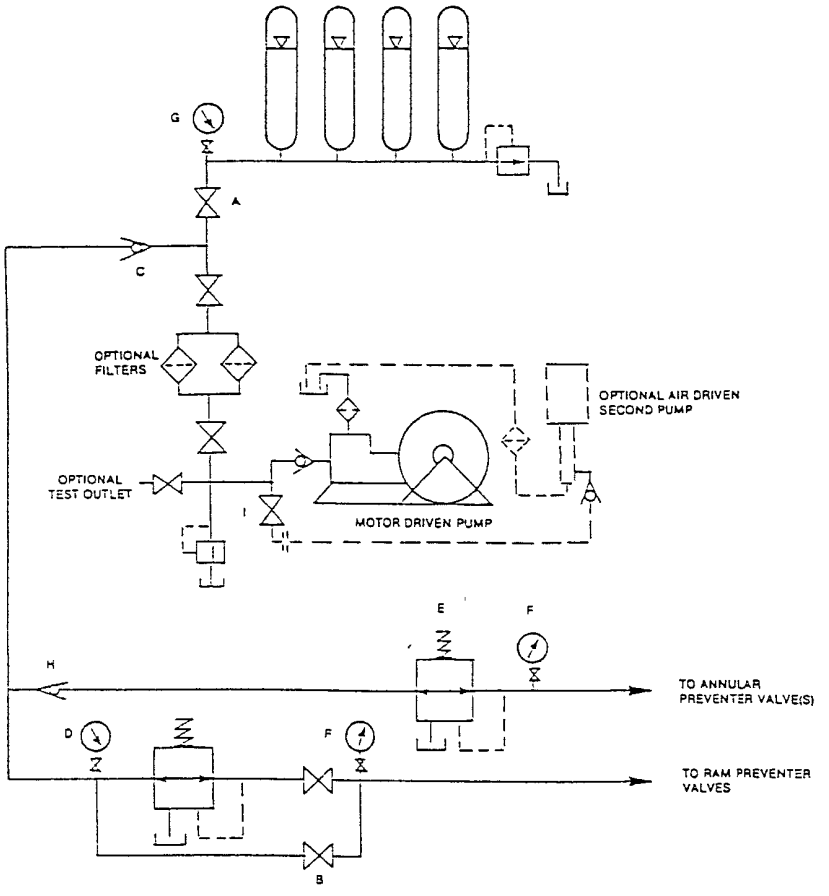


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

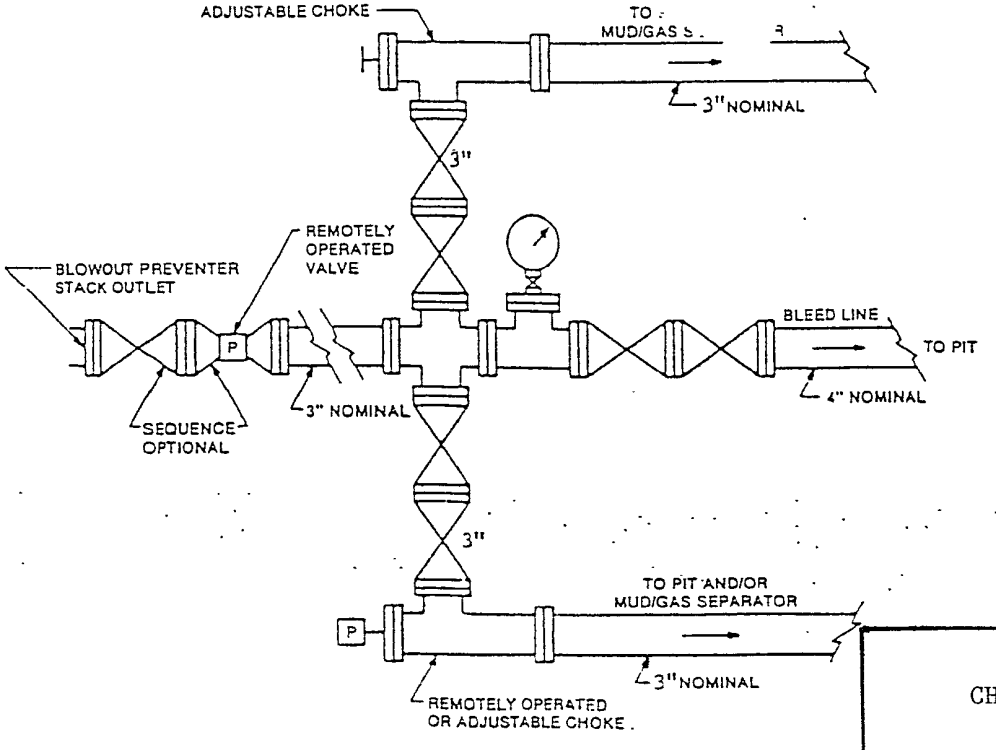


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no Private residences in the area but a contingency plan has been orchestrated. OGX RESOURCES, LLC. Will have a company representative available to rig personnel throughout drilling or production operations. If Hydrogen Sulfide is detected or suspected, monitoring equipment will be acquired for monitoring and/or testing.

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

TABLE OF CONTENTS

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus).
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus
2. Remove all personnel to the "safe area" (always use the buddy system)
3. Contact company personnel if not on location]
4. Set in motion the steps to protect and or remove the general public to and upwind "safe area" Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel
6. Notify the appropriate agencies:
   City Police – City Street(s)
   State Police – State Rd.
   County Sheriff – County Rd.
7. Call the NMOCD

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.

EMERGENCY CALL LIST: (Start and continue until ONE of these people has been contacted)

	OFFICE	MOBILE	HOME
Jeff Birkelbach	432-685-1287	432-694-7880	432-553-0391
Donny Leek		432-634-4862	432-399-4489
JW Drilling Co	575-748-8704	575-513-2415 575-513-0321	

State Police	Eddy County		575 -748-9718
State Police	Lea County		575-392-5588
Sheriff	Eddy County		575-746-2701
Sheriff	Lea County		
Emergency Medical Service (Ambulance)	Eddy County		911 or 575-746-2701
	Lea County	Eunice	911 or 575-394-3258
Emergency Response	Eddy County SERC		575-476-9620
	Lea County		
Artesia Police Dept			575-746-5001
Artesia Fire Dept			575-746-5001
Carlsbad Police Dept			575-885-2111
Carlsbad Fire Dept			575-885-3125

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

EMERGENCY CALL LIST (CONT.)

Loco Hills Police Dept		575- 677-2349
Jal Police Dept		575--395-2501
Jal Fire Dept		575--395-2221
Jal Ambulance		575--395-2221
Eunice Police Dept		575- 394-0112
Eunice Fire Dept		575--394-3258
Eunice Ambulance		575--394-3258
Hobbs Police Dept		575--397-3365
Hobbs Fire Dept		575--397-9308
NMOCD	District 1 (Lea, Roosevelt, Curry)	575--393-6161
	District 2 (Eddy, Chavez)	575--748-1283
Lea County Information		575--393-8203
Callaway Safety	Eddy/Lea Counties	575--392-2973
BJ Services	Artesia	575--746-3140
	Hobbs	575--392-5556
Halliburton	Artesia	1-800-523-2482
	Hobbs	1-800-523-2482
Wild Well Control	Midland	432-550-6202
	Mobile	432-553-1166

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

PROTECTION OF THE GENERAL PUBLIC (ROE)

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road with the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "PASQUILL-GIFFORD EQUATION"

X = [(1.589) (mole fraction) (Q-volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q – volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X = [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X = 7 ft.

500 ppm X = [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment shall be UL approved, for use in class 1 groups A, B, C & D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S, oxygen and flammable values.)**

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

1. Human life and/or property are in danger.

2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.

2. One of the people will be qualified safety person who will test the atmosphere for H2S, oxygen and LFL. The other person will be the company supervisor; he is responsible for igniting the well.

3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

4. Prior to ignition, make a final check with combustible gases.

5. Following ignition, continue with the emergency actions & procedures as before.

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

REQUIRED EMERGENCY EQUIPMENT:

1. **Breathing apparatus:**
   - Rescue packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
   - Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
   - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. **Signage & Flagging:**
   - One color code condition sign will be placed at the entrance to the site reflection the possible conditions at the site.
   - A colored conditioned flag will be on display, reflecting the condition at the site at the time.

3. **Briefing Area:**
   - Two perpendicular areas will be designated by signs and readily accessible.

4. **Wind Socks:**
   - Two windsocks will be placed in strategic locations, visible from all angles.

5. **H2S Detectors & Alarms:**
   - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible at 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
     - Rig Floor
     - Bell Nipple
     - End of flow line or where well bore fluid are being discharged.

6. **Auxiliary Rescue Equipment:**
   - Stretcher
   - Two OSHA full body harness
   - 100 ft. 5/8 inch OSHA approved rope.
   - 1 – 20# class ABC fire extinguisher
   - Communication via cell phones on location and vehicles on location.

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
    - Working near the top or on the top of a tank
    - Disconnecting any line where H2S can reasonably be expected
    - Sampling air in the area to determine if toxic concentration of H2S can exist.
    - Working in areas where over 10 ppm on H2S has been detected.
    - At any time there is a doubt as the level of H2S in the area.
- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain calm and think
- Get on the breathing apparatus

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

- Remove the victim to the safe breathing area as quickly as possible. Up wind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

OGX RESOURCES, LLC.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr = 1.19) (Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10 ppm 15 ppm	100 ppm/hr	600ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible @ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death.

Concentrations: Concentrations that will cause death with short term exposure.

Threshold Limit: (10 ppm) NIOSH guide to chemical hazards

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION	*PHYSICAL EFFECTS*
.001% 10 ppm	Obvious and unpleasant odor. Safe for 8 hr. exposure
.005% 50 ppm	Can cause some flu like symptoms and can cause pneumonia.
.01% 100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02% 200 ppm	Kills the sense of smell rapidly. Severely irritates the eyes and throat. Severe flu-like symptoms after 4 or more hours. May cause lung damage and or death.
.06% 600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

SURFACE USE PLAN

OGX RESOURCES, LLC.
TRISTE DRAW "5" FEDERAL #1
LOT # 4 SECTION 5
T24S-R32E LEA CO. NM

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 12/21/09

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OGX RESOURCES
LEASE NO.:	NM120906
WELL NAME & NO.:	TRISTE DRAW 5 FEDERAL #1
SURFACE HOLE FOOTAGE:	660' FNL & 660' FWL
BOTTOM HOLE FOOTAGE	330' FSL & 660' FWL
LOCATION:	Section 5, T. 24 S., R 32 E., NMPM
COUNTY:	LEA County, New Mexico

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

A berm will be constructed around the final location to prevent runoff of contaminated fluids into the earthen tank southeast of the project.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. V-DOOR DIRECTION: East

C. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil will be used for interim and final reclamation.

D. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

E. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call theCarlsbad Field Office at (575) 234-5972.

F. 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.

G. 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.

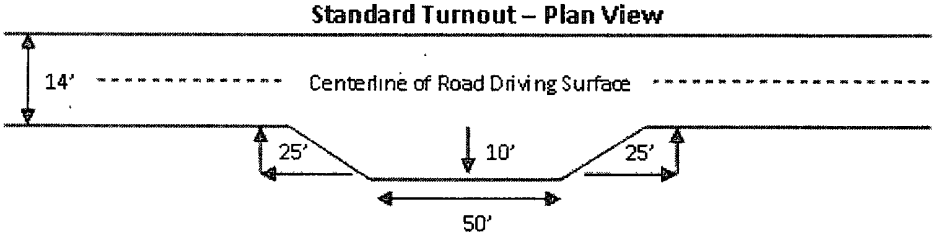
Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

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 the uphill side of the road.

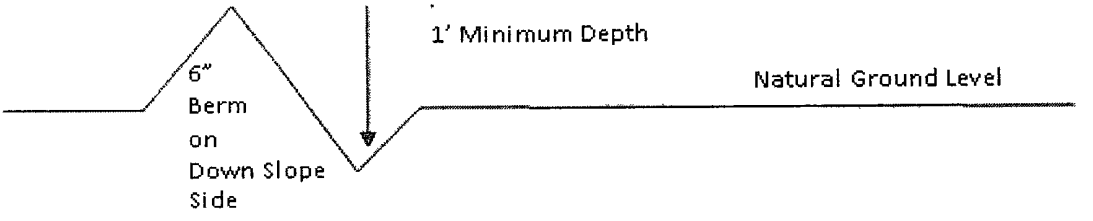
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

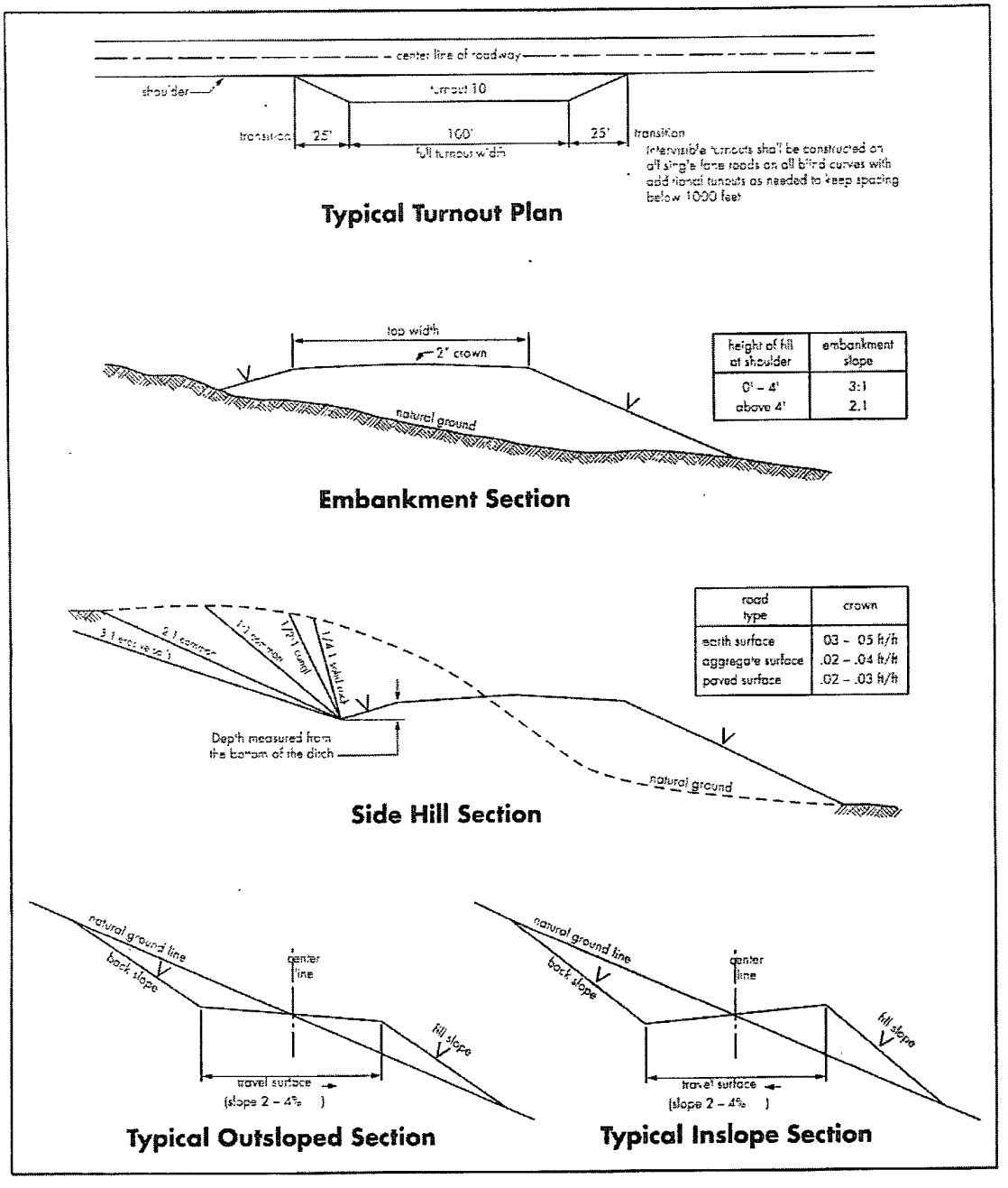
A gate shall be constructed and fastened securely to H-braces.

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

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

1. **Hydrogen Sulfide has been reported as a hazard, but no measurements have been recorded. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible water and brine flows in the Salado, Castile, Delaware and Bone Spring Formations.
Possible lost circulation in the Delaware and Bone Spring Formations.

1. The **13-3/8** inch surface casing shall be set at **approximately 1040 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Onshore Order II requires casing to be set across a competent bed and the Rustler Anhydrite is the first formation that meets that criteria. Additional cement will be required due to the change in setting depth. Fresh water mud to be used to setting depth.**

    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. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    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.

Intermediate casing is to be kept fluid filled while running into hole.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Casing is to be set below the salt in the Lamar Limestone Formation. Additional cement may be required as the excess cement calculated to be a negative 9%.**

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

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 may be required as the excess cement calculated to be a negative 27%.**

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.

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

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

   a. Casing cut-off and BOP installation will not be initiated until the cement has had 4-6 hours of setup time in a water basin and 12 hours in the potash areas. This time will start after the cement plug is bumped. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

   b. The tests shall be done by an independent service company utilizing a test plug.

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

   d. 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.**

e. 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.

CRW 011510

VIII. 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

IX. 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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation 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 that is free of contaminants 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

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