

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
1301 W. Grand Avenue  
Albuquerque, NM 87106

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

LCX ENERGY, LLC. 218885 (FRANK NIX 432-682-8553)

3. ADDRESS AND TELEPHONE NO.

110 NORTH MARIENFELD SUITE 200  
MIDLAND, TEXAS 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 660' FNL & 760' FWL SECTION 6 T17S-R25E EDDY CO. NM  
At proposed prod. zone 660' FSL & 760' FWL SECTION 6 T17S-R25E

SUBJECT TO LIKE APPROVAL BY STATE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

Approximately 7 miles Northwest of Artesia New Mexico

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 660'  
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA

19. PROPOSED DEPTH

MD 8790' TVD-4940'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3633' GR.

22. APPROX. DATE WORK WILL START\*

WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	Conductor	NA	40'	Redi-mix cement to surface
17 1/2"	H-40 13 3/8"	48#	350'	400 Sx. cement to surface
12 1/4"	J-55 9 5/8"	40#	1250'	900 Sx. " " "
8 3/4"	L-80 7"	26#	5000'	700 Sx. Estimate TOC 900' ES.
6 1/8"	L-80 4 1/2"	11.6#	TVD 4940' MD 8790'	425 Sx. cement to top Liner.

Roswell Controlled Water Basin

SEE ATTACHED SHEET

LCX ENERGY, LLC. ACCEPTS RESPONSIBILITY FOR OPERATION OF THIS LEASE

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE Agent

DATE 07/21/05

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY /s/ Joe G. Lara

ACTING  
FIELD MANAGER

SEP 14 2005

\*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 350'. Run and set 350' of 13 3/8" 48# H-40 ST&C casing. Cement with 400 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. circulate cement to surface.
3. Drill 12¼" hole to 1250'. Run and set 1250' of 9 5/8" 40# J-55 ST&C casing. Cement with 500 Sx. of Class "C" cement + 2% CaCl, + 5% NaCl, + 6% Bentonite, + ¼# Flocele/Sx, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + ¼# Flocele/Sx. Circulate cement to surface.
4. Drill 8 3/4" hole to 5000'. Run and set 5000' of 7" 26# L-80 LT&C casing. Cement with 500 Sx. of Class "C" cement + 6% Bentonite, + 5% Salt, + ¼# Flocele/Sx., tail in with 200 Sx. of Class "C" cement + 2% CaCl, estimate to- of cement 900' from surface.
5. Run in hole with CIBP on wireline and set at 4750'±. Run in hole with Whipstock set at 4690'± orient 360° North, Run in hole with mill and cut a window at 4690'±. Run in hole with 6 1/8" bit and bottom hole assembly to drill horizontal hole to TVD of 4940'±, MD of 8790±.
6. Run and set 4400' of 4½" 11.6# L-80 liner from 4390' to 8790'±. Cement with 425 Sx. of Class "C" Premium Plus cement + additives. Cement to top of liner.

DISTRICT I  
1625 N. French St., Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 75250	Pool Name COTTONWOOD CREEK-WOLFCAMP
Property Code	Property Name 1725 FED COM	Well Number 61
OGRID No. 218885	Operator Name LCX ENERGY, LLC	Elevation 3633'

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	6	17 S	25 E		660	NORTH	760	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	6	17 S	25 E		660	SOUTH	760	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

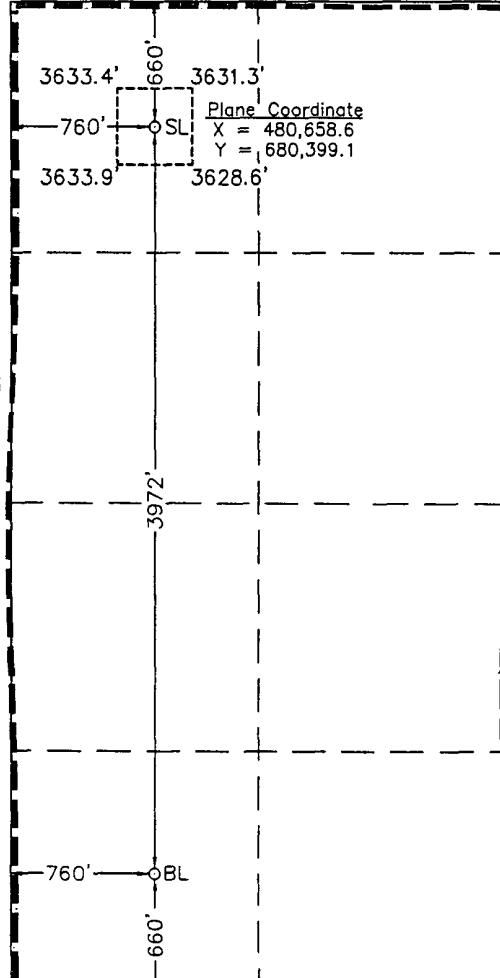
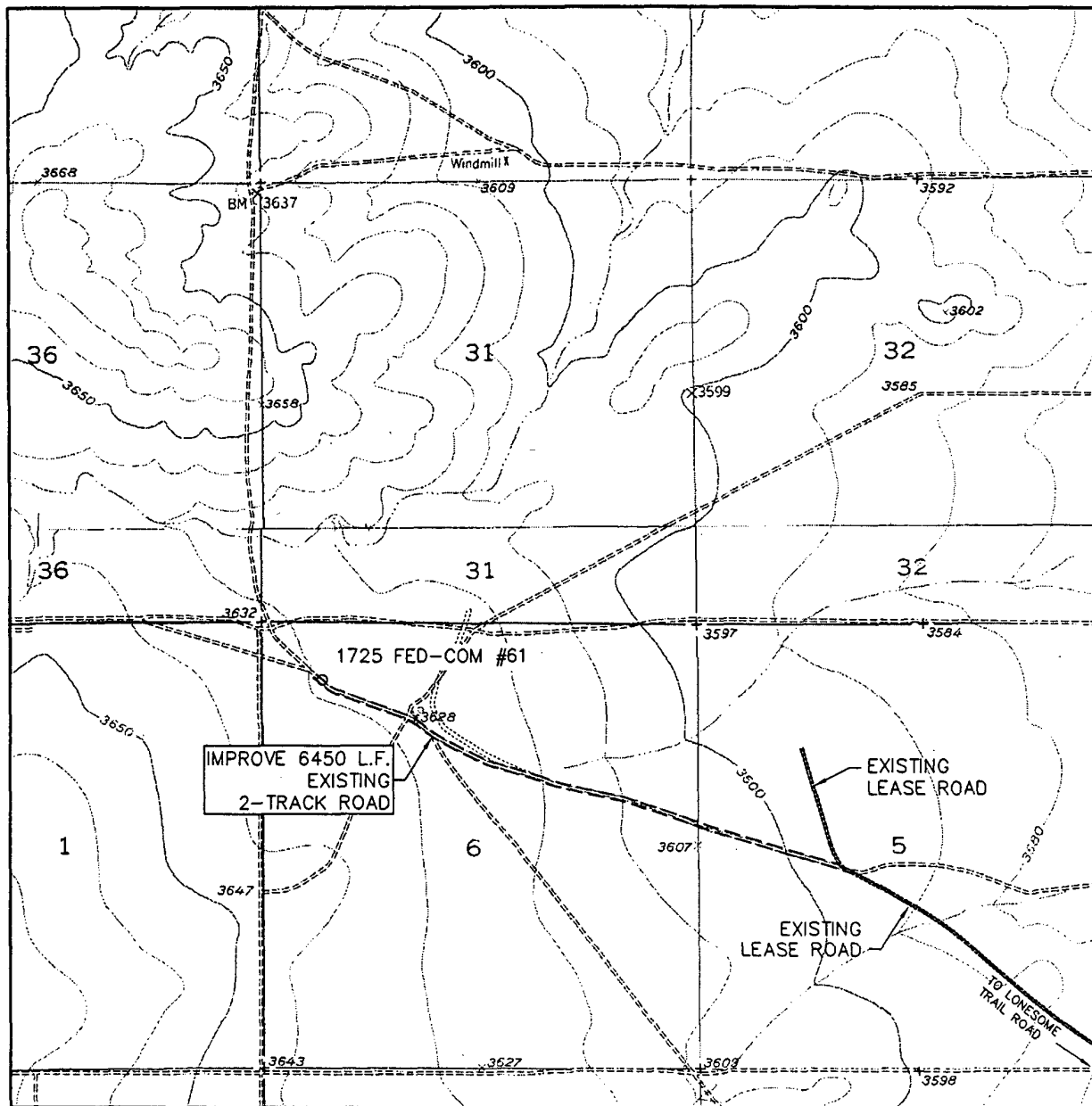
	<p>NOTE: Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature</p> <p>Joe T. Janica Printed Name</p> <p>Agent Title</p> <p>07/21/05 Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>July 8, 2005 Date Surveyed</p> <p>JSR Signature &amp; Seal of Professional Surveyor</p> <p><i>JSR</i></p> <p>W.O. Num. 2005-0527</p> <p>Certificate No. MACON McDONALD 12185</p>	

EXHIBIT "A"

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
HOPE SE - 20'

SEC. 6 TWP. 17-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 760' FWL

ELEVATION 3633'

OPERATOR LCX ENERGY, LLC

LEASE 1725 FED-COM

U.S.G.S. TOPOGRAPHIC MAP  
HOPE SE, N.M.



**WEST  
COMPANY**  
of Midland, Inc.

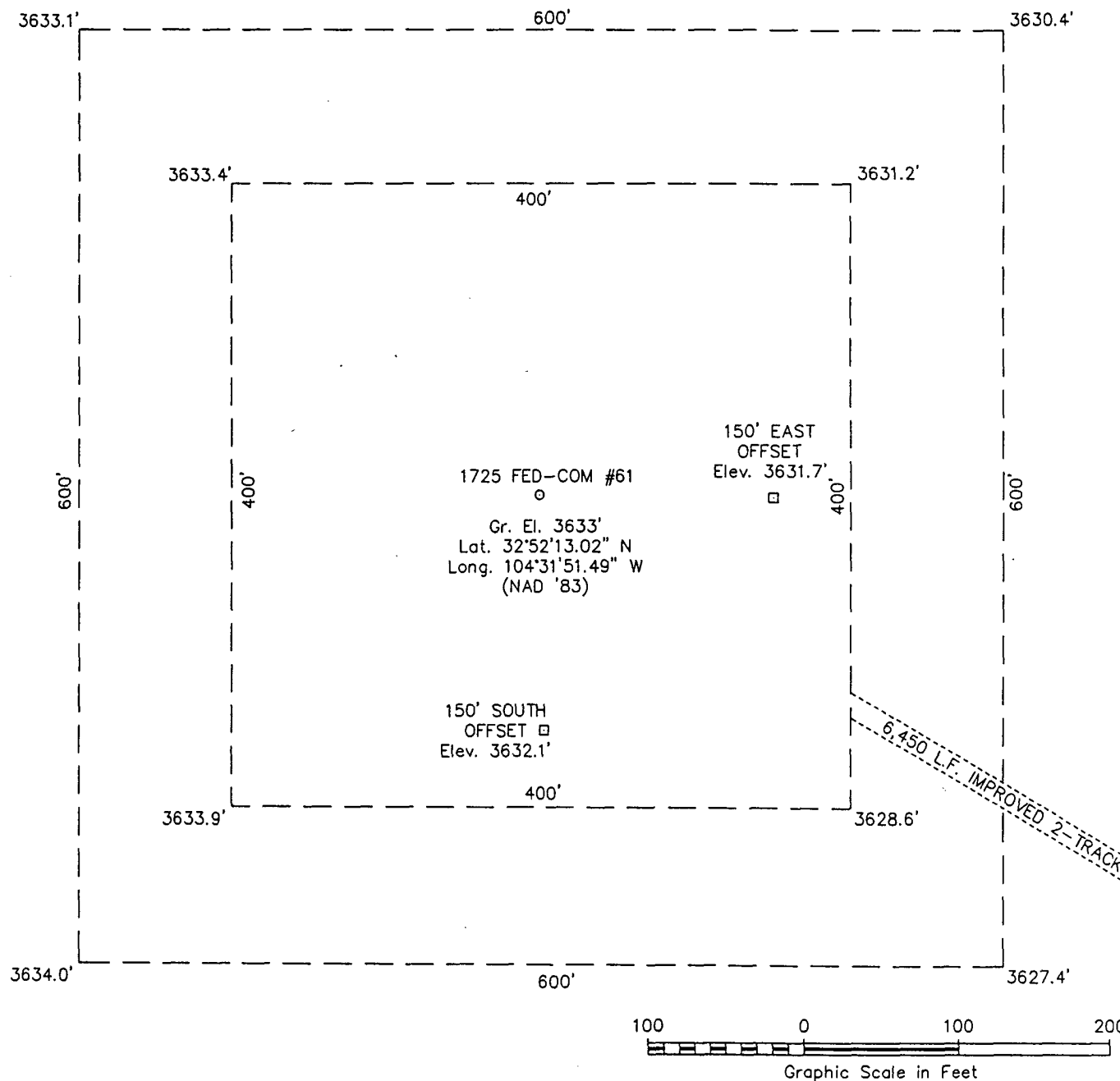
110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0865 - (432) 687-0868 FAX

## SECTION 6, TOWNSHIP 17 SOUTH, RANGE 25 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-0527

DRIVING DIRECTIONS

FROM HIGHWAY INTERSECTION 285 & 82 IN ARTESIA, DRIVE WEST ALONG HIGHWAY 82 ABOUT 5.9 MILES TO LONESOME TRAIL ROAD, THEN DRIVE NORTH ALONG LONESOME TRAIL ROAD ABOUT 1 MILE TO LEASE ROAD, DRIVE NORTHWEST ALONG EXISTING LEASE ROAD APPROXIMATELY 0.8 MILES TO EXISTING 2-TRACK ROAD TO THE WEST. THEN DRIVE WEST AND NORTHWEST ON EXISTING 2-TRACK ROAD APPROXIMATELY 1.2 MILES TO POINT 200 FEET SOUTHEAST OF THE WELL LOCATION FLAG.

**LCX ENERGY, LLC****1725 FED-COM #61**

Located 660' FNL & 760' FWL, Section 6  
Township 17 S, Range 25 E, N.M.P.M.  
Eddy County, New Mexico

**WEST  
COMPANY**  
of Midland, Inc.

110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0865 - (432) 687-0868 FAX

Drawn By: JSR	Date: July 15, 2005
Scale: 1"=100'	Field Book: 303 / 19-26
Revision Date:	Quadrangle: Hope SE
W.O. No: 2005-0527	Dwg. No.: L-2005-0527

# APPLICATION TO DRILL

LCX ENERGY, LLC.  
1725 FEDERAL COM # 61  
SHL UNIT "D" SECTION 6  
BHL UNIT "M" SECTION 6  
T17S-R25E EDDY 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 consideration.

1. Location of well: SHL 660' FNL & 760' FWL SECTION 6 T17S-R25E EDDY CO. NM  
BHL 660' FSL & 760' FWL SECTION 6 T17S-R25E EDDY CO. NM

2. Ground Elevation above Sea Level: 3633' GR.

3. Geological age of surface formation: Quaternary Deposits:

4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.

5. Proposed drilling depth: MD 8790' TVD 4937'

6. Estimated tops of geological markers:

San Andres	577'	Abo	3872'
Glorieta	1712'	Wolfcamp	4700'
Tubb	3197'		

7. Possible mineral bearing formations:

Abo	Gas
Wolfcamp	Gas

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-350'	13 3/8"	48#	8-R	ST&C	H-40
12½"	0-1250'	9 5/8"	40#	8-R	ST&C	N-80
8 3/4"	0-5000'	7"	26#	8-R	LT&C	J-55
6 1/8"	4390-8790'	4½"	11.6	BUTT.	HDL	N-80

# APPLICATION TO DRILL

LCX ENERGY, LLC.  
1725 FEDERAL COM # 61  
SHL UNIT "D" SECTION 6  
BHL UNIT "M" SECTION 6  
T17S-R25E EDDY CO. NM

## 9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 350' of 13 3/8" 48# H-40 ST&C casing. Cement with 400 Sx. of Class "C" cement + additives, circulate cement.
9 5/8"	Intermediate	Set 1250' of 9 5/8" 40# N-80 ST&C casing. Cement with 700 Sx. of Class "C" cement + additives. Circulate cement to surface.
7"	2nd Intermediate	Set 5000' of 7" 26# L-80 LT&C casing. Cement with 700 Sx. of Class "C" cement + additives estimate TOC 900' FS.
4 1/2"	Production Liner	Set a 4400' 4 1/2" 11.6# L-80 HDL liner from TD back to 4390'. Cement with 425 Sx. of Class "C" cement + additives, cement back to liner hanger.

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 9 5/8" 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 hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected in this well.

## 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE SYSTEM
40-350'	8.4-8.7	29-34	NC	Fresh water Spud Mud add paper to control seepage.
350-1250'	8.4-8.7	29-38	NC	Fresh water use Gel for viscosity control and paper for seepage control.
1250-5000'	8.4-8.7	29-40	NC	Same as above using high viscosity sweeps to clean hole.
5000-8790' MD	8.4-8.8	29-36	NC	Fresh water use high viscosity Polymer sweeps to clean hole.

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

APPLICATION TO DRILL

LCX ENERGY, LLC.  
1725 FEDERAL COM # 61  
SHL UNIT "D" SECTION 6  
BHL UNIT "M" SECTION 6  
T17S-R25E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, SNP. LDT, MSFL, Gamma Ray, Caliper from TD back to 9 5/8" casing shoe.
- B. Cased hole logs: Gamma Ray, Neutron from 9 5/8" casing shoe back to surface.
- C. No cores are planned at this time
- D. Mud logger may be used at the request of the Staff Geologist.
- E. No DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2500 PSI, and Estimated BHT 110°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 28 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

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



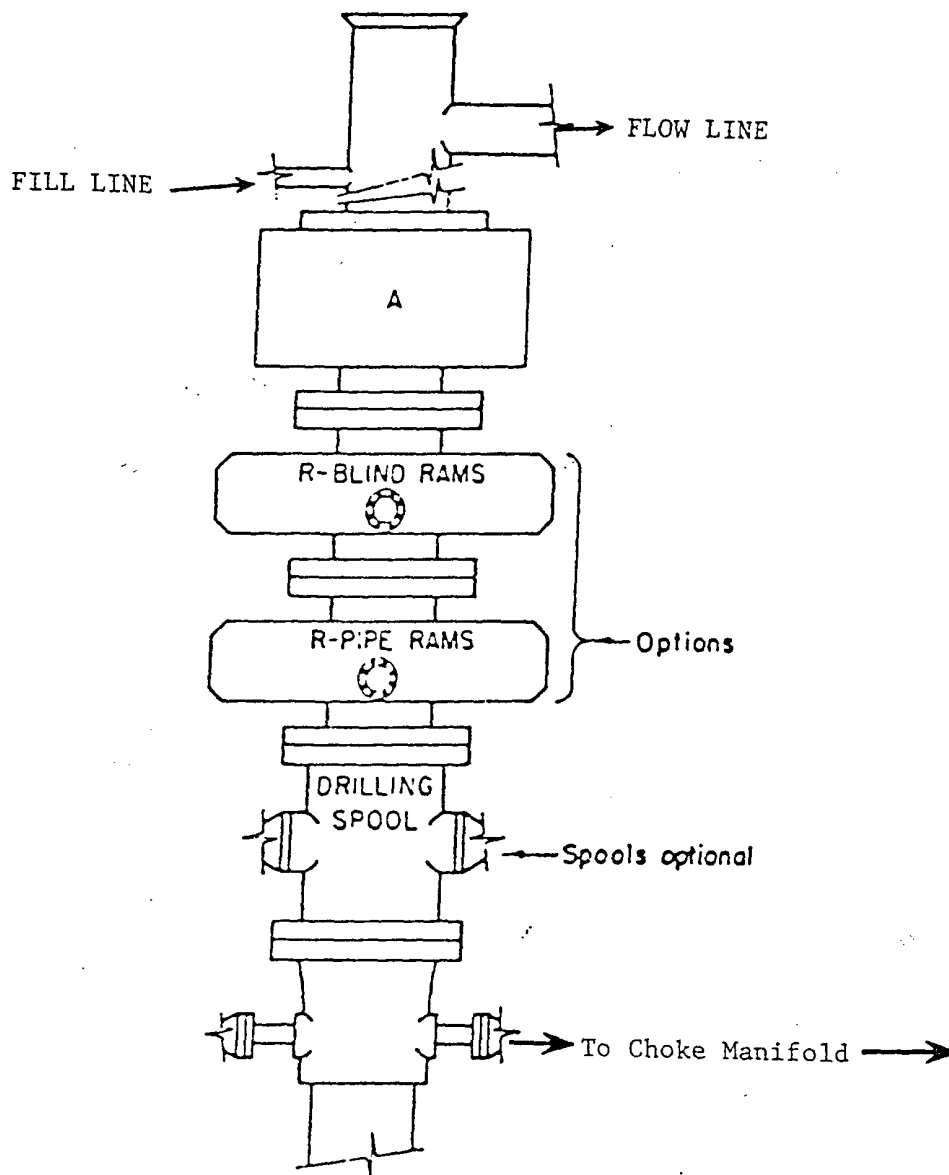
## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
  - A. See exhibit "E"
6. Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If location is near any dwelling a closed D.S.T. will be performed.

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects  $H_2S$  has on tubular goods and other mechanical equipment.
9. If  $H_2S$  is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with  $H_2S$  scavengers if necessary.



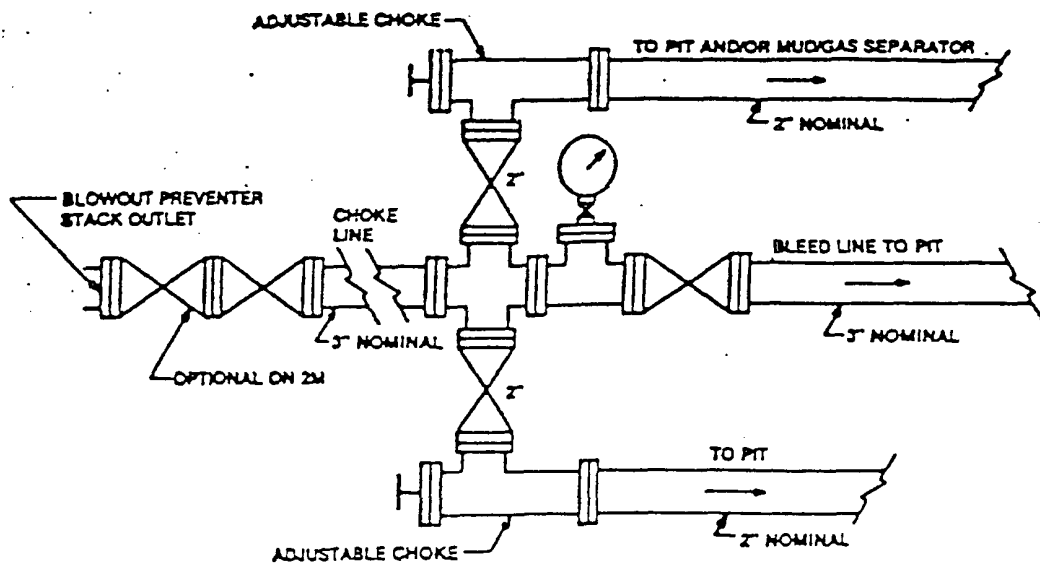


# ARRANGEMENT SRRA

900 Series  
3000 PSI WP

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

LCX ENERGY, LLC.  
FEDERAL "1725" COM. # 61  
SHL UNIT "D" SECTION 6  
BHL UNIT "M" SECTION 6  
T17S-R25E EDDY CO. NM



Typical choke manifold assembly for 3M WP system

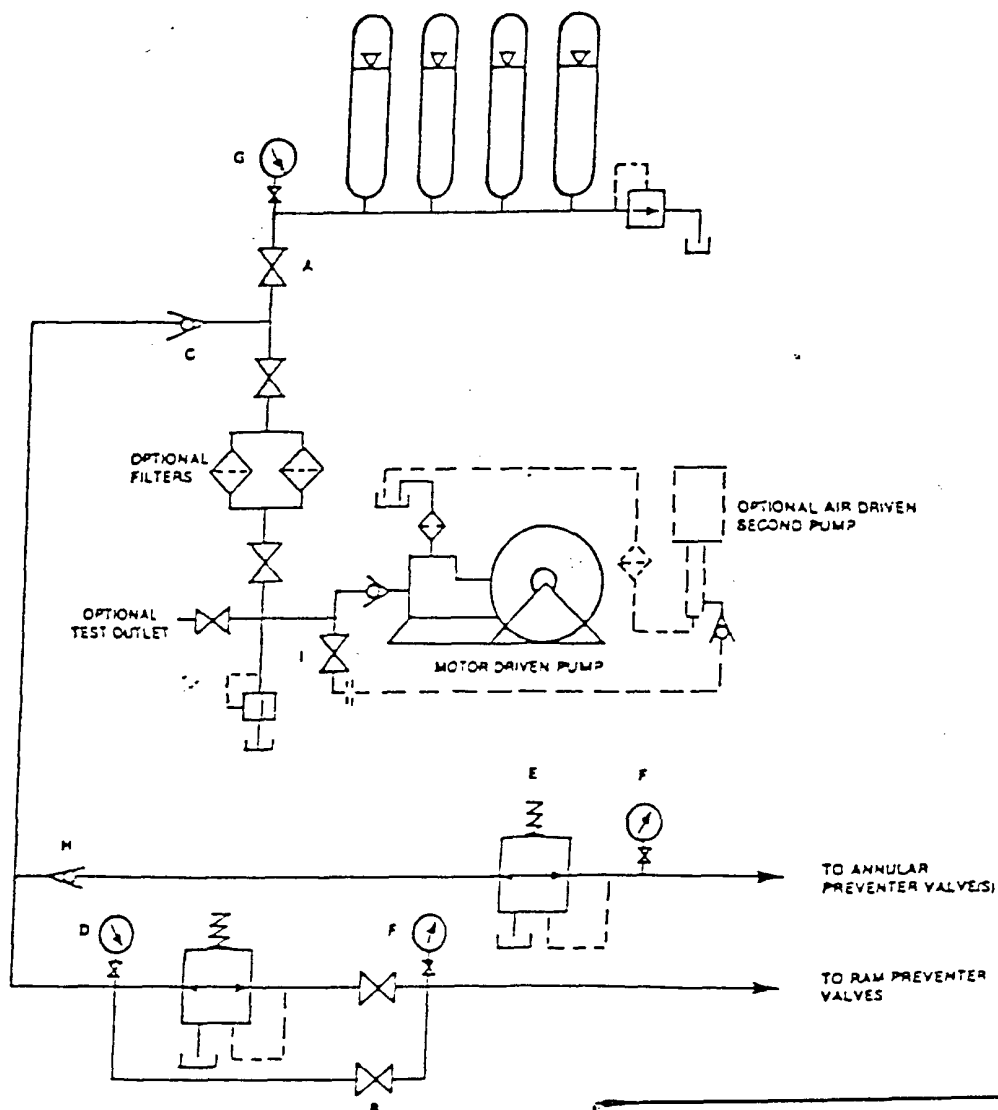


EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

LCX ENERGY, LLC.  
FEDERAL "1725" COM. # 61  
SHL UNIT "D" SECTION 6  
BHL UNIT "M" SECTION 6  
T17S-R25R EDDY CO. NM

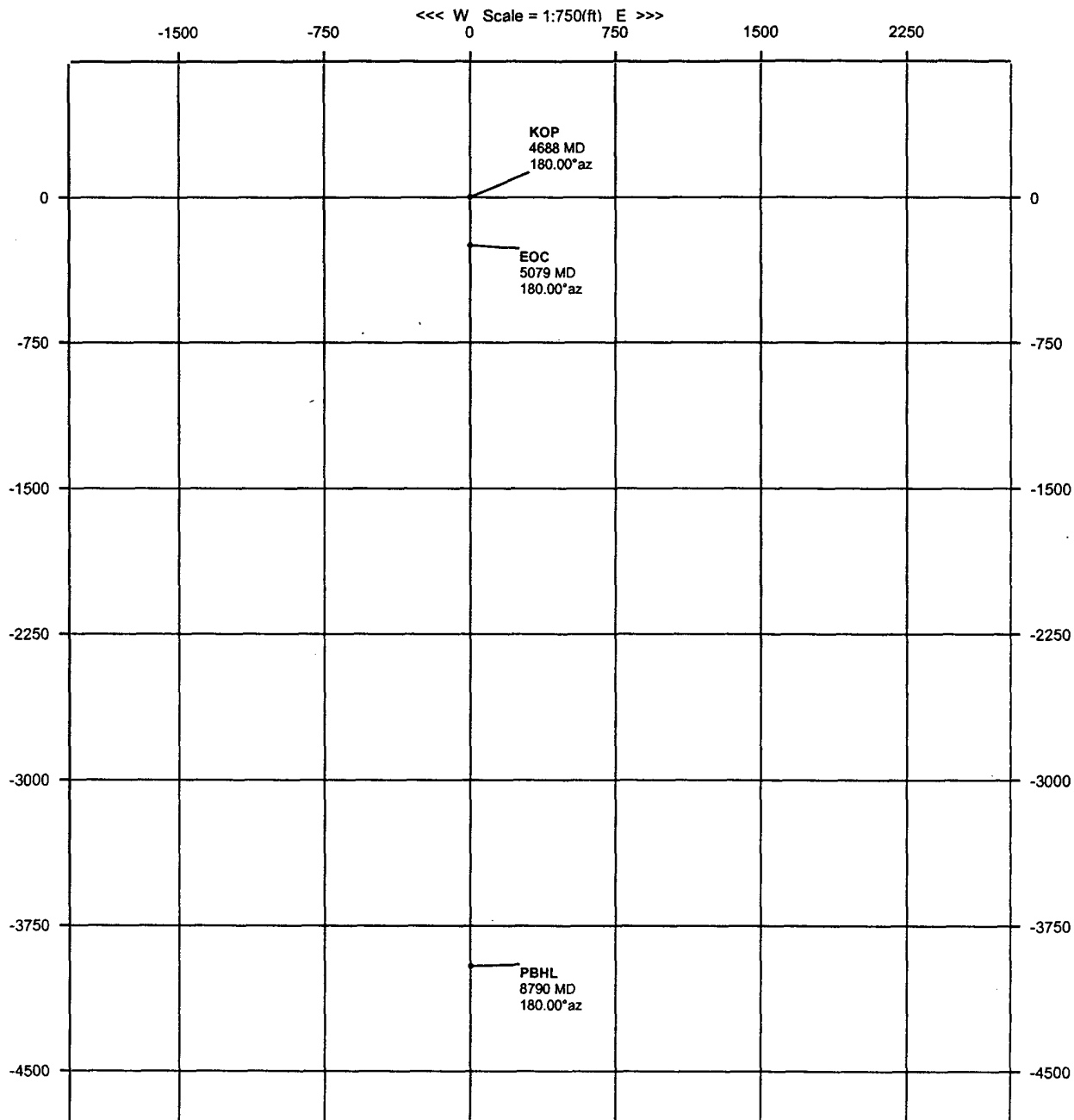
# Proposal

<b>Report Date:</b> July 11, 2005 <b>Client:</b> Endeavor Energy <b>Field:</b> Eddy County, NM Nad 83 <b>Structure / Slot:</b> 1725 Fed Com #61 / 1725 Fed Com #61 <b>Well:</b> 1725 Fed Com #61 <b>Borehole:</b> 1725 Fed Com #61 <b>UWI/API#:</b> <b>Survey Name / Date:</b> 1725 Fed Com 61_r2 / July 11, 2005 <b>Tort / AHD / DDI / ERD ratio:</b> 90.000° / 3960.00 ft / 5.802 / 0.802 <b>Grid Coordinate System:</b> NAD83 New Mexico State Planes, Eastern Zone, US Feet <b>Location Lat/Long:</b> N 32 27 58.536, W 104 17 54.240 <b>Location Grid N/E Y/X:</b> N 533358.051 ftUS, E 552111.259 ftUS <b>Grid Convergence Angle:</b> +0.01875232° <b>Grid Scale Factor:</b> 0.99990922	<b>Survey / DLS Computation Method:</b> Minimum Curvature / Lubinski <b>Vertical Section Azimuth:</b> 180.000° <b>Vertical Section Origin:</b> N 0.000 ft, E 0.000 ft <b>TVD Reference Datum:</b> RKB <b>TVD Reference Elevation:</b> 0.0 ft relative to <b>Sea Bed / Ground Level Elevation:</b> 0.000 ft relative to <b>Magnetic Declination:</b> 8.638° <b>Total Field Strength:</b> 49318.957 nT <b>Magnetic Dip:</b> 60.427° <b>Declination Date:</b> June 06, 2005 <b>Magnetic Declination Model:</b> IGRF 2005 <b>North Reference:</b> Grid North <b>Total Corr Mag North -&gt; Grid North:</b> +8.619° <b>Local Coordinates Referenced To:</b> Well Head
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Tie-In	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	180.00M
KOP	4687.89	0.00	180.00	4687.89	0.00	0.00	0.00	0.00	0.00	0.00	180.00M
	4700.00	2.79	180.00	4700.00	0.29	-0.29	0.00	0.29	180.00	23.00	180.00M
	4800.00	25.79	180.00	4796.25	24.80	-24.80	0.00	24.80	180.00	23.00	0.00G
	4900.00	48.79	180.00	4875.28	84.98	-84.98	0.00	84.98	180.00	23.00	0.00G
	5000.00	71.79	180.00	4924.52	171.25	-171.25	0.00	171.25	180.00	23.00	0.00G
EOC	5079.19	90.00	180.00	4937.00	249.11	-249.11	0.00	249.11	180.00	23.00	0.00G
PBHL	8790.08	90.00	180.00	4937.00	3960.00	-3960.00	0.00	3960.00	180.00	0.00	0.00G

# Endeavor Energy

WELL 1725 Fed Com #61	FIELD Eddy County, NM Nad 83	STRUCTURE 1725 Fed Com #61
<b>Magnetic Parameters</b> Model: IGRF 2005 Dip: 60.427° Mag Dec: +8.636°	<b>Surface Location</b> Lat: N32 27 58.936 Lon: W104 17 54.240 Northing: 533358.06 NUS Easting: 552111.26 NUS	<b>Map Information</b> Scale: 1725 Fed Com #61 Plan: 1725 Fed Com #1 -/2 TVD Ref: RKB (0.00 R above) Brw Date: Mon 03:38 PM July 11, 2005

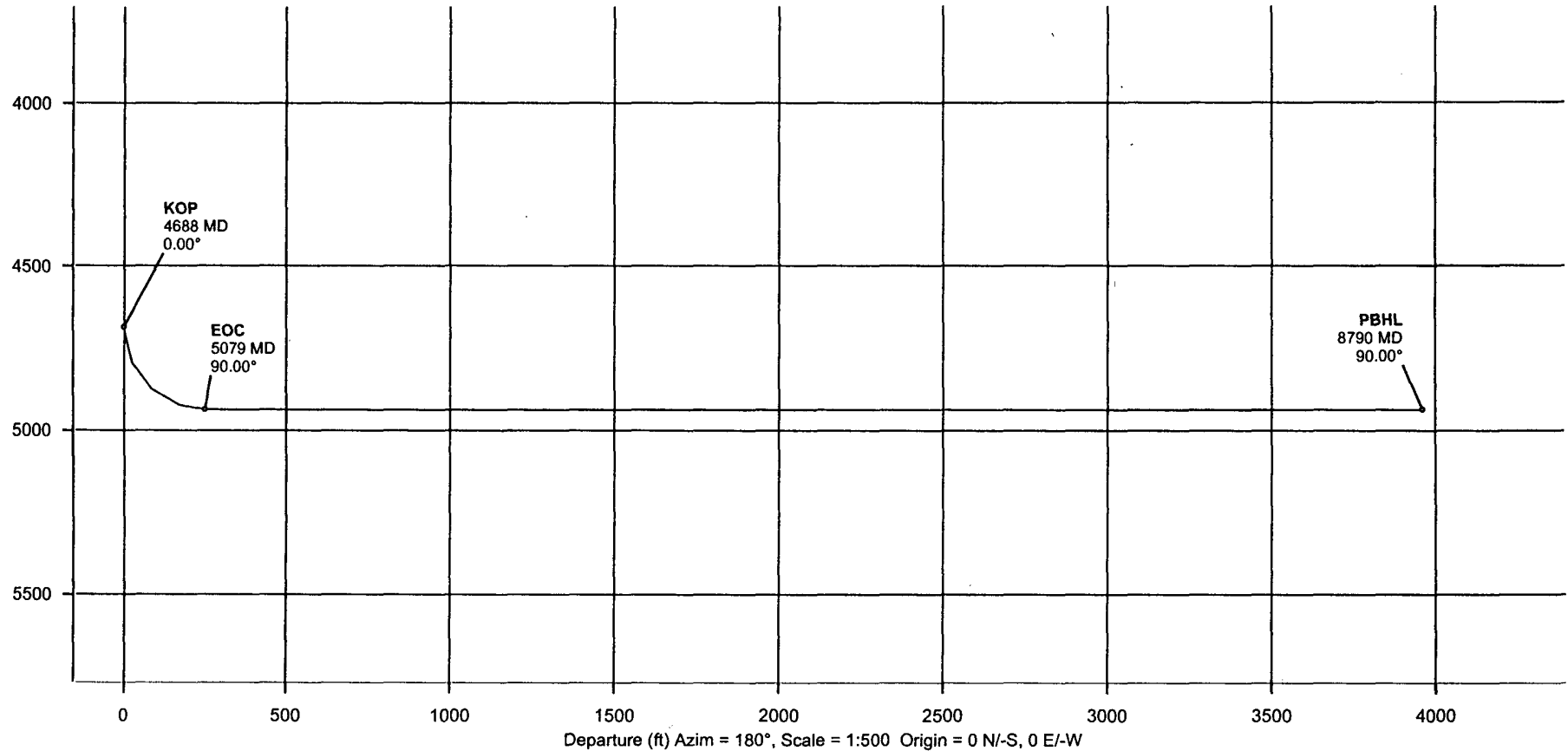


**INTREPID**  
Directional Drilling Specialists



# Endeavor Energy

WELL	1725 Fed Com #61	FIELD	Eddy County, NM Nad 83	STRUCTURE	1725 Fed Com #61
Magnetic Parameters		Surface Location		Miscellaneous	
Model:	IGRF 2005	Lat:	N32 27 58.536	Slot:	1725 Fed Com #61
Dip:	90.427°	Lon:	W104 17 54.240	Plan:	1725 Fed Com 01 / 2
Mag Dec:	+8.038°	Northing:	533356.05 RUS	TVD Ref:	RKB (0.00 ft above)
		Eastings:	552111.26 RUS	Srvy Date:	Mon 03:36 PM July 11, 2005
			Scale Fact:		0.0000002238



**INTREPID**  
Directional Drilling Specialists





BUREAU OF LAND MANAGEMENT  
ROSWELL FIELD OFFICE  
2909 WEST SECOND STREET  
ROSWELL, NEW MEXICO 88201-2019

09/05/05

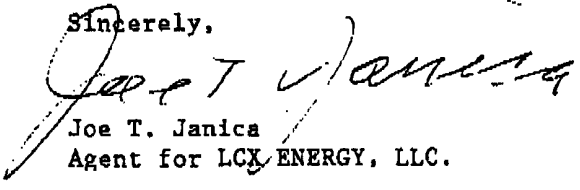
Re: Surface owner agreement.  
1725 FEDERAL COM. # 61H  
T17S-R25E SECTION 6

ATT: Ms. ASKWIG

Dear Ms. ASKWIG

LCX ENERGY, LLC. has made an agreement with Chase Farms Artesia New Mexico to compensate them for any damages to the surface that may occur while the drilling completing, and producing of their 1725 FEDERAL COM. # 61 located in the W/2 of section 6 T17S-R25E Eddy Co. New Mexico

Sincerely,



Joe T. Janica  
Agent for LCX ENERGY, LLC.

Cc: Frank Nix  
Lisa Hunt  
File  
Crono

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: LCX Energy LLC  
Well Name & No. 1725 Federal Com #61  
Surface Location: 660' FNL, 760' FWL, Section 6, T. 17 S., R. 25 E., Eddy County, New Mexico  
Bottom Location: 660' FSL, 760' FWL, Section 6, T. 17 S., R. 25 E., Eddy County, New Mexico  
Lease: NM-93181

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Well spud

B. Cementing casing: 13-3/8 inch 9-5/8 inch 7 inch 4-1/2 inch liner

C. BOP tests

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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at 350 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is to be circulated to the surface.

3. The minimum required fill of cement behind the 7 inch production casing is to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.

4. The minimum required fill of cement behind the 4-1/2 inch production liner is to be circulated to the top of the liner.

### III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
  - The tests shall be done by an independent service company.
  - The results of the test shall be reported to the appropriate BLM office.
  - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
  - Testing must be done in a safe workman-like manner. Hard line connections shall be required.

#### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

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