

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address LCX ENERGY, LLC. 110 NORTH MATIENFELD SUITE 200 MIDLAND, TEXAS 79701		² OGRID Number 218885
¹ Property Code 33039	³ Property Name 1624 STATE	⁴ Well No. 361
⁵ Proposed Pool 1 COTTONWOOD CREEK-WOLFCAMP (GAS) (75250)		⁶ Proposed Pool 2 OCCUPANCY

RECEIVED 015-34544

JAN 10 2006

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	16S	24E		660'	SOUTH	760'	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	36	16S	24E		660'	NORTH	760'	EAST	EDDY

Additional Well Information

¹⁰ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3633'
¹⁶ Multiple NO	¹⁷ Proposed Depth MD-8739 TVD-4960'	¹⁸ Formation WOLFCAMP	¹⁹ Contractor BIG DOG DRILLING	²⁰ Spud Date WHEN APPROVED
Depth to Groundwater 100+		Distance from nearest fresh water well .6 Mi.		Distance from nearest surface water UNKNOWN
Pit: Lining Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 18M bbls Drilling Method: Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	350'	400 Sx.	Surface
12 1/4"	9 5/8"	36#	1200'	475 Sx.	Surface
8 3/4"-7 7/8"	5 1/2"	15.5#	MD-8739 TVD-4960'	600 Sx.	1000' F. Surface

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED SHEET

NOTIFY OCD OF SPUD & TIME TO
WITNESS CEMENTING OF
SURFACE & INTERMEDIATE
CASING

Clean Fresh Water Mud to 1200'

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐ .		OIL CONSERVATION DIVISION	
Printed name: Joe T. Janica		Approved by: <i>Jim W. Green</i>	
Title: Agent		Title: District II Supervisor	
E-mail Address: joejanica@valornet.com		Approval Date: JAN 10 2006 Expiration Date: JAN 10 2007	
Date: 01/09/06	Phone: 505-391-8503	Conditions of Approval Attached ☐	

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

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

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

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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	75250	COTTONWOOD CREEK-WOLFCAMP (GAS)
Property Code	Property Name	Well Number
	1624 STATE	361
OGRID No.	Operator Name	Elevation
218885	LCX ENERGY, LLC	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
P	36	16 S	24 E		660	SOUTH	760	EAST	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
A	36	16 S	24 E		660	NORTH	760	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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

NOTE: 1) 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.	PRODUCING AREA → PROJECT AREA → E/2 VA-2578 Plane Coordinate X = 479,160.8 Y = 685,703.3 Plane Coordinate X = 479,135.5 Y = 681,719.4 #361(SL) 3633.8' 3629.4' 3635.7' 3632.4' 660' 3984' 660' 760'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 01/09/06 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 upervision and that the same is true and orrect to the best of my belief. December 9, 2005 Date Surveyed JMJ Signature & Seal Of Professional Surveyor 12185 W.O. Num. 2005-1164 Certificate No. MACON McDONALD 12185
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1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17-1/2" hole to 350'. Run and set 350' of 13-3/8" 48# H-40 ST&C casing. Cement with 200 sx 35/65 Poz/C + 6% gel and tail in with 200 sx of Class "C" cement + 2% CaCl, circulate cement to surface.
3. Drill 12-1/4 hole to 1200'. Run and set 1200' of 9-5/8" 36# J-55 ST&C casing. Cement with 375 sx of 35/65 Poz/C + 5% NaCl + 6% Bentonite, tail in with 100 sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 8-3/4" hole to approx. 5100'. Set cement kick-off plug from TD to approx. 4800 ft with 150 sx H + 0.7% dispersant.
5. Dress cement top to desired kick-off point. Drill 8-3/4" curve and land lateral in pay zone (approx. 4900 ft TVD). Pickup lateral drilling assembly with an 8-3/4" or 7-7/8" bit and drill a +/-4000' lateral to 660' from lease line (approx. 4000 ft vertical section).
6. Run and set 5-1/2" 15.5# N80 or stronger production casing. Cement 5-1/2" with acid soluble cement through the lateral and 400 sx 50/50 Poz/C + 10% gel and tail in with 200 sx C + 200% CaCO₃ (acid soluble cement) + fluid loss additive + retarder (as required), attempting to bring top of cement to 1,000'.

Contingency String:

If hole conditions dictate running a 7" contingency string in the 8-3/4" hole :

- 4a. Run approx. 5100 ft 7" 26# J55 or stronger casing to TD. Cement with 700 sx class 'C' cement + add's attempting bringing TOC to approx. 1,000 ft. This may be done in the vertical pilot hole or at the end of the 8-3/4" curve section.
- 4b. Run whipstock and cut a window in the 7" casing (or drill out with 6-1/8" BHA if 7" set at end of curve). Drill to TD.
- 5a. Step 5 will be omitted.
- 6a. Run and set approximately 4400 ft 4-1/2" 11.6# N/L80 liner from TD to approximately 200' above the window/7" casing shoe. Cement with approx. 110 sx C + 200% CaCO₃ (acid soluble cement) + add's attempting to bring TOC above liner top.

Fresh water will be used to drill the 350' hole and the 1200' hole.

There is no known presence of any H₂S in this area. Other wells have been drilled with no indication of any H₂S.

Joe T. Janice

Proposal

Report Date:	December 28, 2005	Survey / DLS Computation Method:	Minimum Curvature / Lubinski
Client:	LCX Energy LLC.	Vertical Section Azimuth:	0.360°
Field:	Eddy County, NM Nad 83	Vertical Section Origin:	N 0.000 ft, E 0.000 ft
Structure / Slot:	1624 State #361 / 1624 State #361	TVD Reference Datum:	RKB
Well:	1624 State #361	TVD Reference Elevation:	0.0 ft relative to
Borehole:	1624 State #361	Sea Bed / Ground Level Elevation:	0.000 ft relative to
UWI/API#:		Magnetic Declination:	8.715°
Survey Name / Date:	1625 State #361_r1 / December 28, 2005	Total Field Strength:	49483.395 nT
Tort / AHD / DDI / ERD ratio:	90.000° / 3984.33 ft / 5.801 / 0.803	Magnetic Dip:	60.751°
Grid Coordinate System:	NAD83 New Mexico State Planes, Eastern Zone, US Feet	Declination Date:	December 28, 2005
Location Lat/Long:	N 32 52 26.052, W 104 32 9.376	Magnetic Declination Model:	IGRF 2005
Location Grid N/E Y/X:	N 681719.400 ftUS, E 479135.500 ftUS	North Reference:	Grid North
Grid Convergence Angle:	-0.10997234°	Total Corr Mag North -> Grid North:	+8.825°
Grid Scale Factor:	0.99991352	Local Coordinates Referenced To:	Well Head

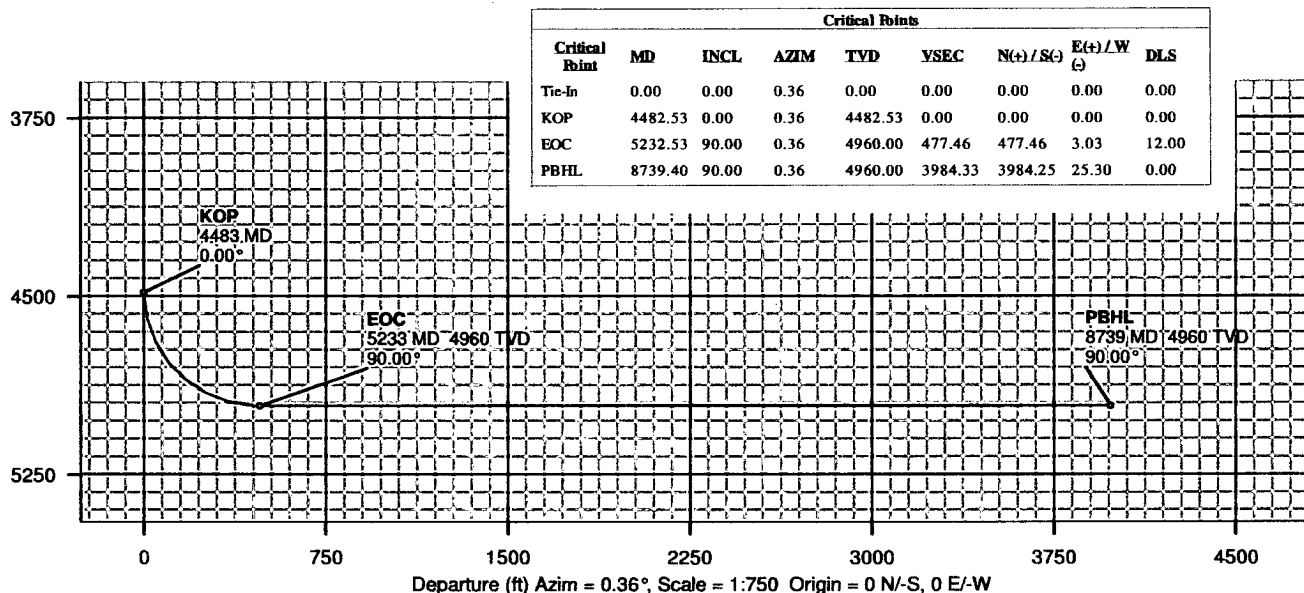
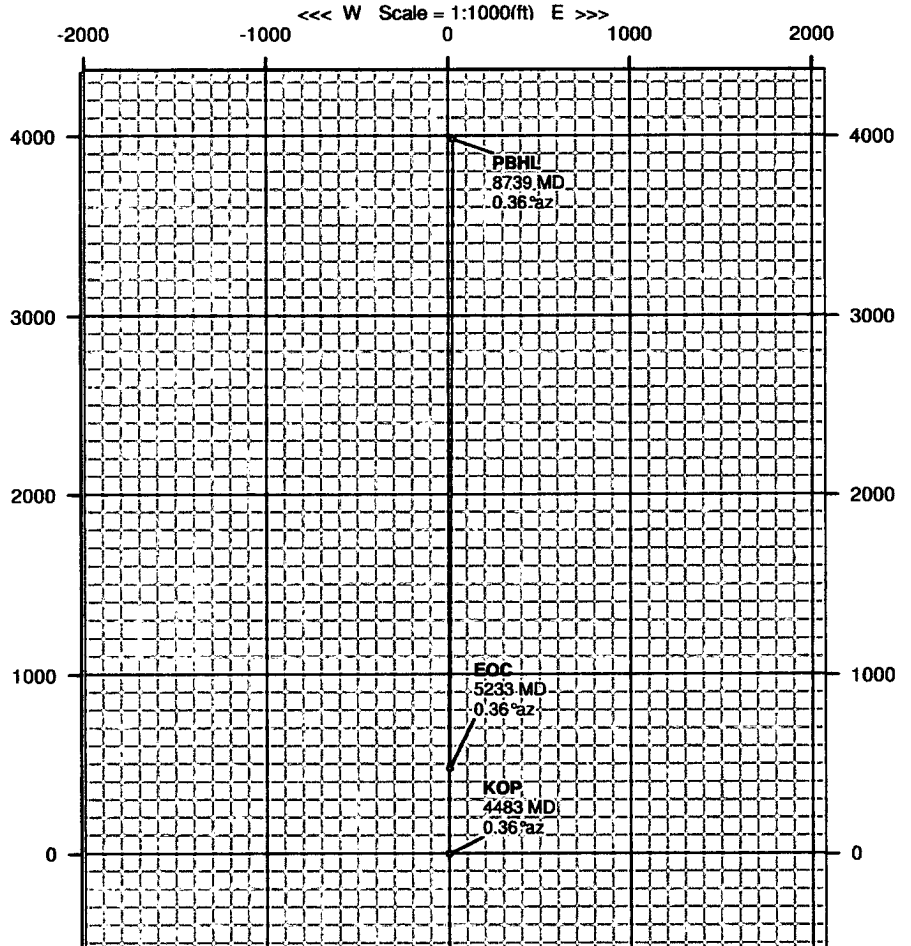
Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Tie-In	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36M
KOP	4482.53	0.00	0.36	4482.53	0.00	0.00	0.00	0.00	0.00	0.00	0.36M
	4500.00	2.10	0.36	4500.00	0.32	0.32	0.00	0.32	0.36	12.00	0.36M
	4600.00	14.10	0.36	4598.82	14.38	14.38	0.09	14.38	0.36	12.00	0.00G
	4700.00	26.10	0.36	4692.56	48.67	48.67	0.31	48.67	0.36	12.00	0.00G
	4800.00	38.10	0.36	4777.12	101.71	101.71	0.65	101.71	0.36	12.00	0.00G
	4900.00	50.10	0.36	4848.81	171.17	171.17	1.09	171.17	0.36	12.00	0.00G
	5000.00	62.10	0.36	4904.49	254.01	254.01	1.61	254.01	0.36	12.00	0.00G
	5100.00	74.10	0.36	4941.72	346.63	346.62	2.20	346.63	0.36	12.00	0.00G
	5200.00	86.10	0.36	4958.89	444.96	444.95	2.83	444.96	0.36	12.00	0.00G
EOC	5232.53	90.00	0.36	4960.00	477.46	477.46	3.03	477.46	0.36	12.00	0.00G
PBHL	8739.40	90.00	0.36	4960.00	3984.33	3984.25	25.30	3984.33	0.36	0.00	0.00G

LCX Energy LLC.

WELL	1624 State #361	FIELD	Eddy County, NM	STRUCTURE	1624 State #361
Magnetic Parameters Model: IGRF 2005	Dip: 60.751° Mag Dec: +8.715°	Date: December 28, 2005 FS: 49483.4 mT	Surface Location Lat: N32 52 28.052 Lon: W104 32 9.376	NAD83 New Mexico State Planes, Eastern Zone, US Feet Northing: 681718.40 BUS Easting: 479135.50 BUS Grid Conv: -0.10967234° Scale Fact: 0.9999135215	Miscellaneous Shot: 1624 State #361 Plan: 1625 State #361-11 TVD Ref: RNS (0.00 ft above) Entry Date: Wed 11:16 AM December 28, 2005



INTREPID
Directional Drilling Specialists

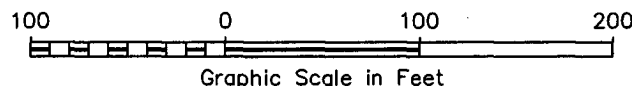
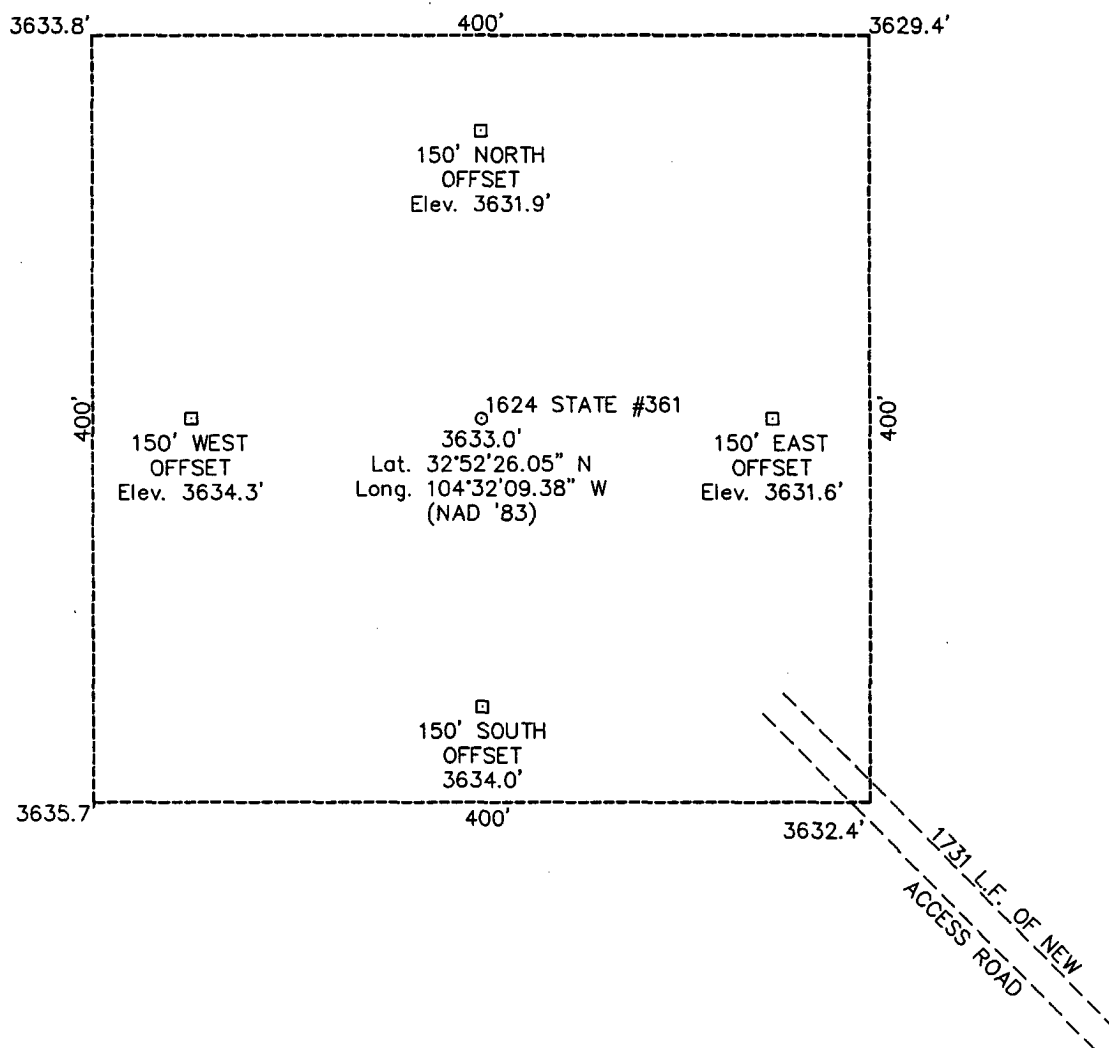


SECTION 36, TOWNSHIP 16 SOUTH, RANGE 24 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-1164

DRIVING DIRECTIONS

FROM INTERSECTION OF HWY 285 & HWY 82 IN ARTESIA, GO WEST ALONG HWY 82 5.9 MILES; THEN GO NORTH ALONG LONESOME TRAIL ROAD 1.4 MILES; THEN GO NORTHWEST ALONG LEASE ROAD 1.6 MILES TO WELL #311; CONTINUE SOUTHWEST ALONG SAME LEASE ROAD 0.4 MILE TO THE 1725 FED COM #61; LOCATION IS APPROXIMATELY 1700 FEET TO THE NORTHWEST.

LCX ENERGY, LLC**1624 STATE #361**

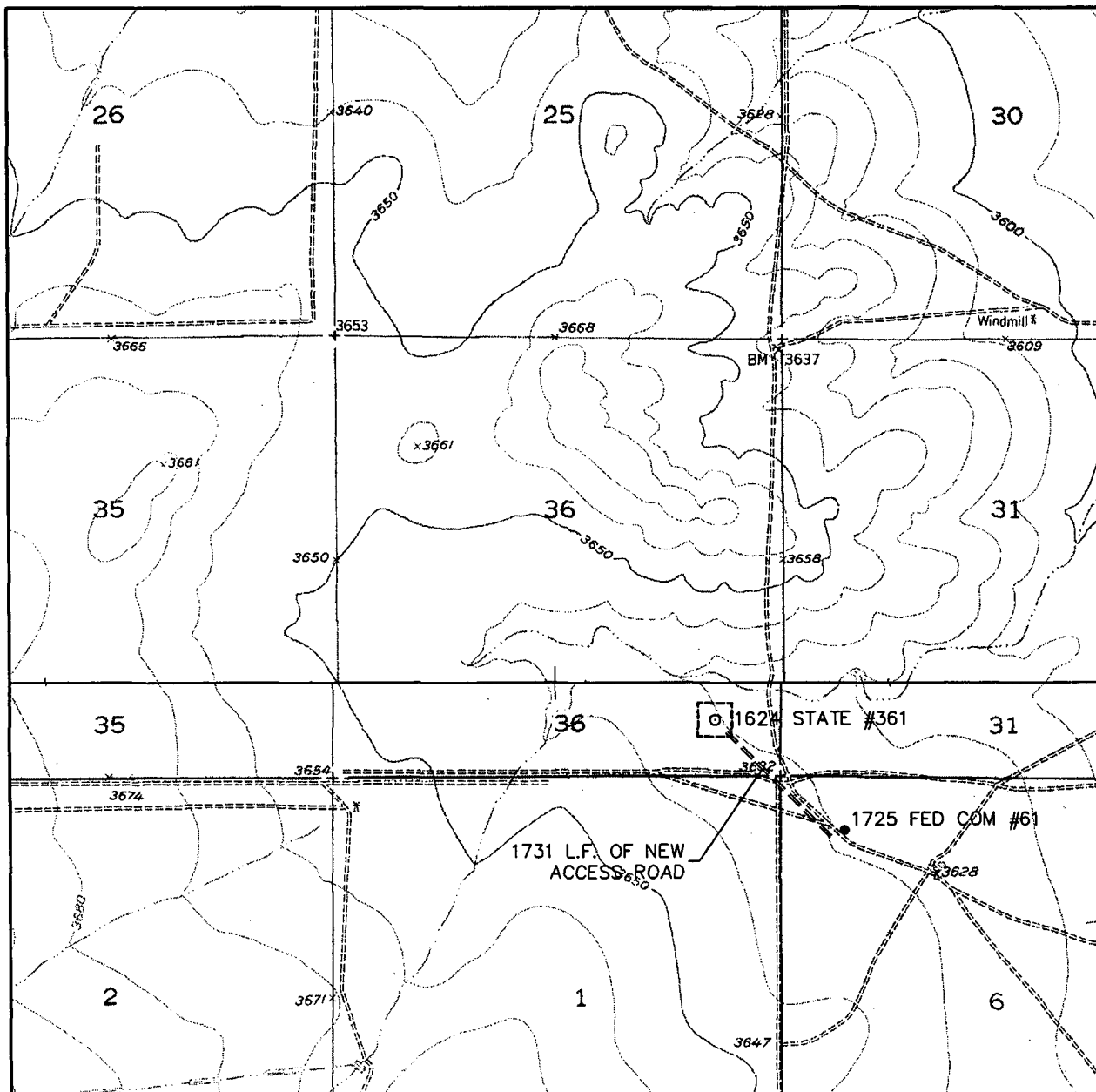
Located 660' FSL & 760' FEL, Section 36
Township 16 South, Range 24 East, N.M.P.M.
Eddy County, New Mexico

**WEST
COMPANY**
of Midland, Inc.

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

Drawn By: JMJ	Date: December 15, 2005
Scale: 1"=100'	Field Book: 326 / 1-3
Revision Date:	Quadrangle:
W.O. No: 2005-1164	Dwg. No.: L-2005-1164

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOPE SE - 10'

SEC. 36 TWP. 16-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 760' FEL

ELEVATION 3633'

OPERATOR LCX ENERGY, LLC

LEASE 1624 STATE

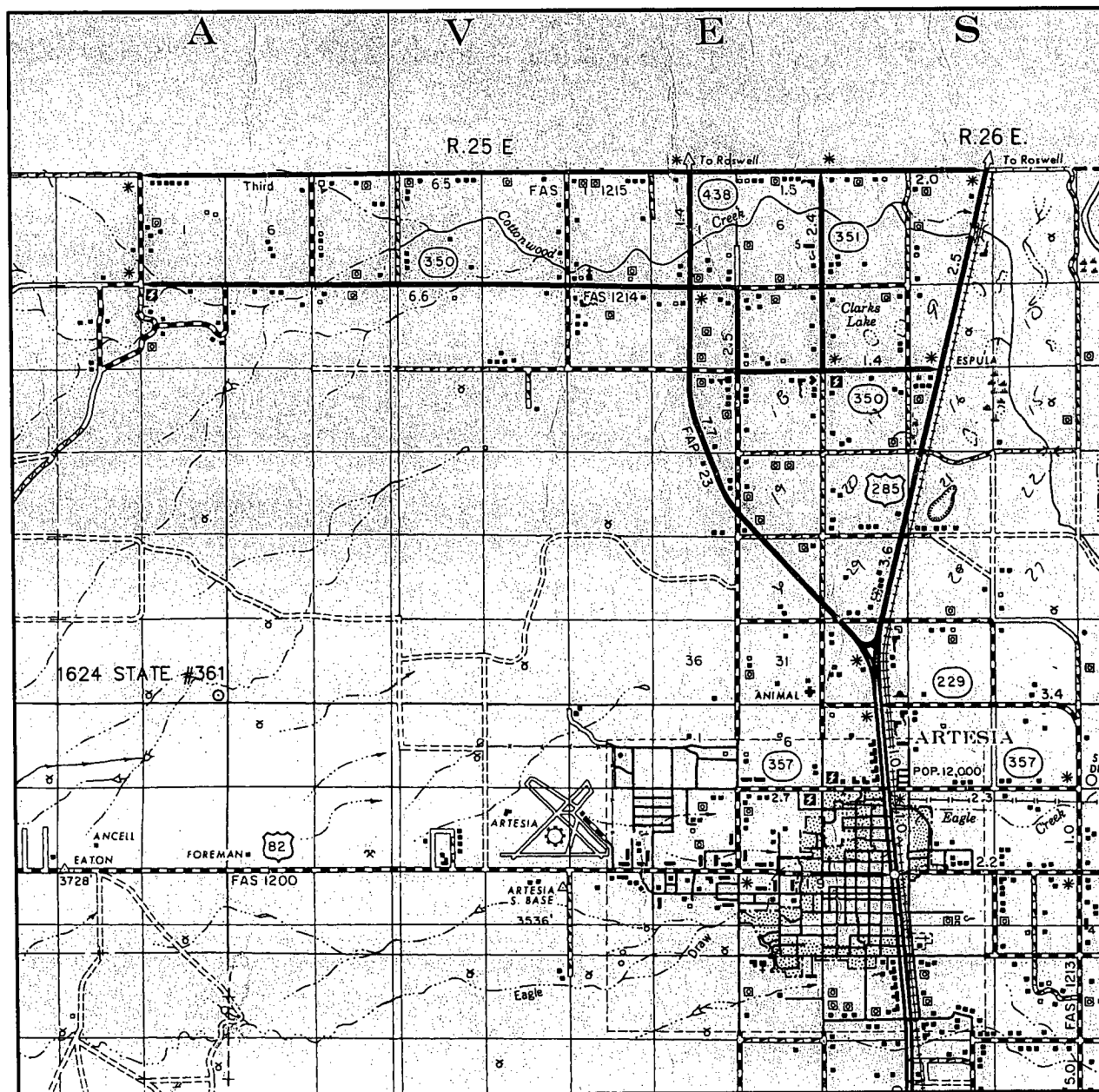
U.S.G.S. TOPOGRAPHIC MAP
HOPE SE, N.M.



**WEST
COMPANY**
of Midland, Inc.

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 36 TWP. 16-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 760' FEL

ELEVATION 3633'

OPERATOR LCX ENERGY, LLC

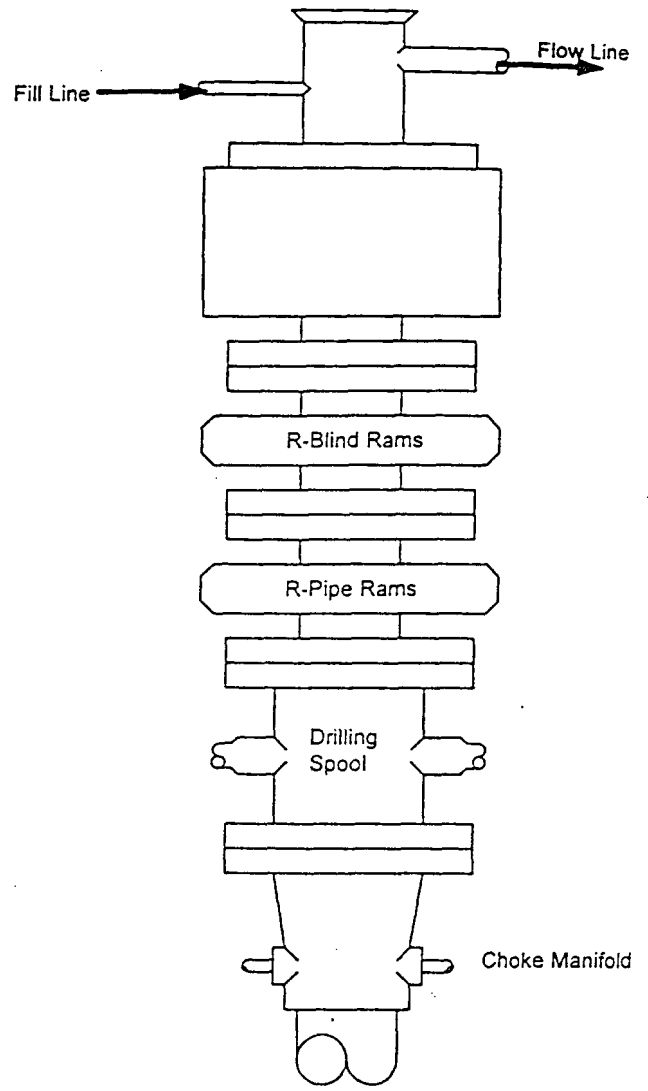
LEASE 1624 STATE



WEST
COMPANY
of Midland, Inc.

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

BLOWOUT PREVENTER SYSTEM



Type 900 Series
3000 psi WP

Choke Manifold Assembly for 3M WP System

