

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1501 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 MARIENFELD SUITE 200 MIDLAND, TEXAS 79701		OGRID Number 218885 API Number 30 - 015-34910	
Property Code 35791	Property Name 1921 STATE	Well No. 22	
Proposed Pool 1 WILDCAT-WOLFCAMP		Proposed Pool 2	

Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	19S	21E		660'	SOUTH	760'	WEST	EDDY

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
D	2	19S	21E		660'	NORTH	760'	WEST	EDDY

Additional Well Information				
Work Type Code N	Well Type Code G	Cable/Rotary ROTARY	Lease Type Code S	Ground Level Elevation 4239'
Multiple NO	Proposed Depth MD-8726' TVD-4960'	Formation WOLFCAMP	Contractor BIG DOG DRLG. CO.	Spud Date WHEN APPROVED
Depth to Groundwater 200'+		Distance from nearest fresh water well 1.7 Mi East		Distance from nearest surface water None known
Liner: Synthetic ☒ 12 mills thick Clay ☐ Pit Volume: 18M bbls Drilling Method: Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐				
Closed-Loop System ☐				

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-8726'	600 Sx.	Est. TOC 1000'
			TVD-4960'		

** 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.

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

SEE ATTACHED SHEET FOR DETAIL

Operator to run CBL or Temp Survey to verify tie-back	
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 NMOC guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐ .	
OIL CONSERVATION DIVISION	
Approved by: BRYAN G. ARANT	
Title: DISTRICT II GEOLOGIST	
Approval Date: JUN 07 2006 Expiration Date: JUN 07 2007	
Printed name: Joe T. Janica	
Title: Agent	
E-mail Address: joe.janica@valornet.com	
Date: 05/31/06	Phone: 505-391-8503
Conditions of Approval Attached ☐	

LCX ENERGY, LLC
110 N. Marienfeld St., Suite 200
Midland, TX 79701
April 26, 2006

**Horizontal Drilling Procedure
Abo Wildcat Horizontals
(Eddy Co., NM)**

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'.
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 7-7/8" or 8-3/4" hole to approx. 5000'. Set cement kick-off plug from TD to approx. 4400 ft with 150 sx H + 0.5% dispersant.
5. Dress cement top to desired kick-off point. Drill 7-7/8" 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" 17# 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 Strings:

If lost circulation occurs in the surface hole:

- 2a. 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.

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 DRILLED HAVE NOT ENCOUNTERED ANY HYDROGEN SULFIDE WHILE DRILLING.

Proposal

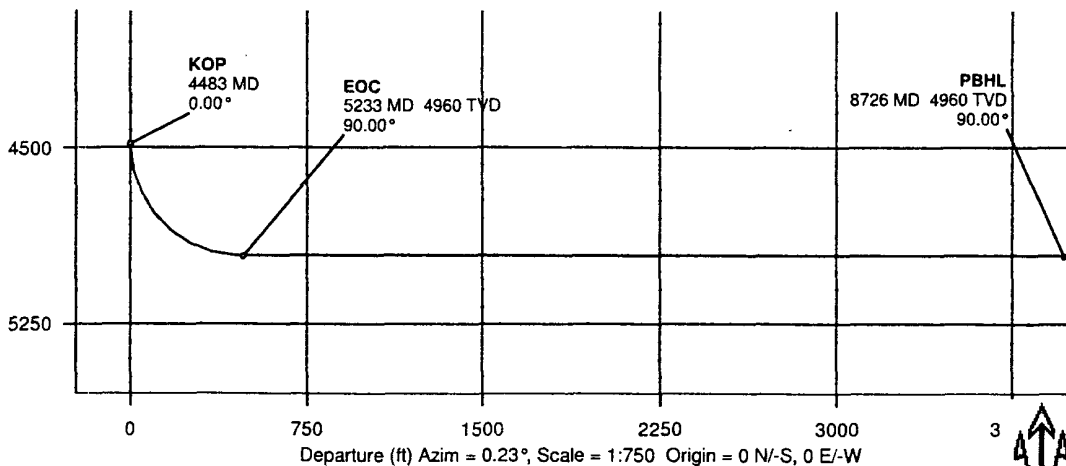
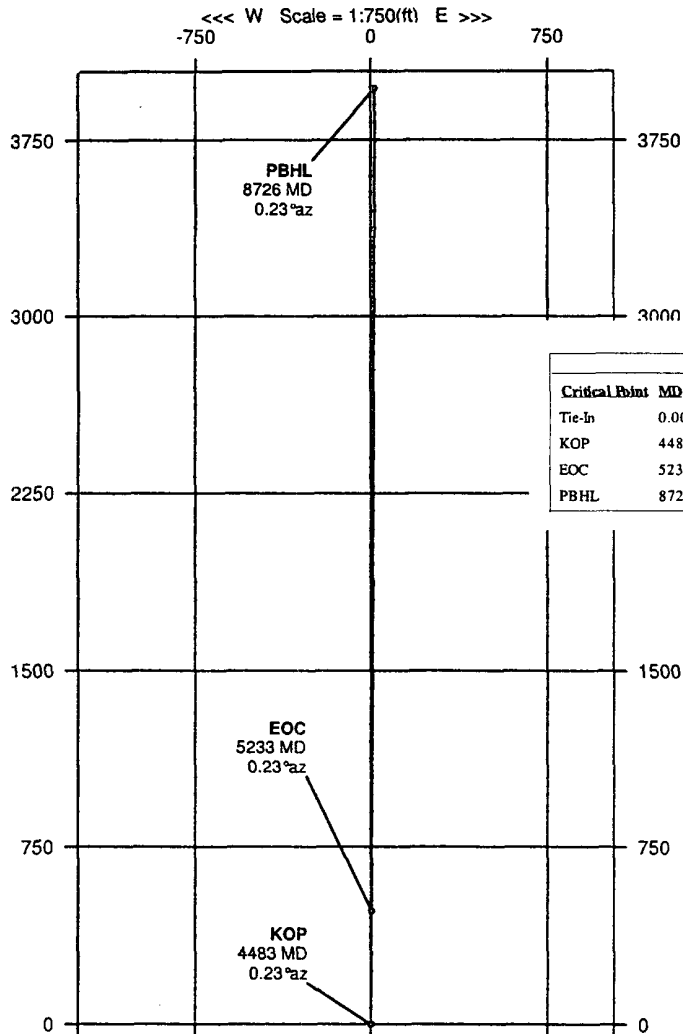
Report Date: May 30, 2006 Client: LCX ENERGY Field: Eddy County, NM Nad 83 Structure / Slot: 1921 State #22 / 1921 State #22 Well: 1921 State #22 Borehole: 1921 State #22 UWI/API#: Survey Name / Date: 1921 State #22_r1 / May 30, 2006 Tort / AHD / DDI / ERD ratio: 90.000° / 3970.96 ft / 5.798 / 0.801 Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet Location Lat/Long: N 32 41 0.058, W 104 54 17.656 Location Grid N/E Y/X: N 612807.400 ftUS, E 365482.700 ftUS Grid Convergence Angle: -0.30865337° Grid Scale Factor: 0.99994451	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 0.230° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 0.0 ft relative to Sea Bed / Ground Level Elevation: 0.000 ft relative to Magnetic Declination: 8.807° Total Field Strength: 49280.999 nT Magnetic Dip: 60.495° Declination Date: May 30, 2006 Magnetic Declination Model: IGRF 2005 North Reference: Grid North Total Corr Mag North -> Grid North: +9.116° Local Coordinates Referenced To: 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	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23M
KOP	4482.54	0.00	0.23	4482.54	0.00	0.00	0.00	0.00	0.00	0.00	0.23M
	4500.00	2.10	0.23	4500.00	0.32	0.32	0.00	0.32	0.23	12.00	0.23M
	4600.00	14.10	0.23	4598.82	14.38	14.38	0.06	14.38	0.23	12.00	0.00G
	4700.00	26.10	0.23	4692.56	48.67	48.67	0.19	48.67	0.23	12.00	0.00G
	4800.00	38.10	0.23	4777.12	101.71	101.71	0.40	101.71	0.23	12.00	0.00G
	4900.00	50.10	0.23	4848.81	171.17	171.17	0.68	171.17	0.23	12.00	0.00G
	5000.00	62.10	0.23	4904.49	254.01	254.01	1.00	254.01	0.23	12.00	0.00G
	5100.00	74.10	0.23	4941.72	346.63	346.62	1.37	346.63	0.23	12.00	0.00G
	5200.00	86.10	0.23	4958.89	444.95	444.95	1.76	444.95	0.23	12.00	0.00G
EOC	5232.54	90.00	0.23	4960.00	477.46	477.46	1.89	477.46	0.23	12.00	0.00G
	5300.00	90.00	0.23	4960.00	544.93	544.93	2.15	544.93	0.23	0.00	0.00G
	5400.00	90.00	0.23	4960.00	644.93	644.92	2.55	644.93	0.23	0.00	0.00G
	5500.00	90.00	0.23	4960.00	744.93	744.92	2.95	744.93	0.23	0.00	0.00G
	5600.00	90.00	0.23	4960.00	844.93	844.92	3.34	844.93	0.23	0.00	0.00G
	5700.00	90.00	0.23	4960.00	944.93	944.92	3.74	944.93	0.23	0.00	0.00G
	5800.00	90.00	0.23	4960.00	1044.93	1044.92	4.13	1044.93	0.23	0.00	0.00G
	5900.00	90.00	0.23	4960.00	1144.93	1144.92	4.53	1144.93	0.23	0.00	0.00G
	6000.00	90.00	0.23	4960.00	1244.93	1244.92	4.92	1244.93	0.23	0.00	0.00G
	6100.00	90.00	0.23	4960.00	1344.93	1344.92	5.32	1344.93	0.23	0.00	0.00G
	6200.00	90.00	0.23	4960.00	1444.93	1444.92	5.71	1444.93	0.23	0.00	0.00G
	6300.00	90.00	0.23	4960.00	1544.93	1544.92	6.11	1544.93	0.23	0.00	0.00G
	6400.00	90.00	0.23	4960.00	1644.93	1644.92	6.50	1644.93	0.23	0.00	0.00G
	6500.00	90.00	0.23	4960.00	1744.93	1744.92	6.90	1744.93	0.23	0.00	0.00G
	6600.00	90.00	0.23	4960.00	1844.93	1844.92	7.29	1844.93	0.23	0.00	0.00G
	6700.00	90.00	0.23	4960.00	1944.93	1944.91	7.69	1944.93	0.23	0.00	0.00G
	6800.00	90.00	0.23	4960.00	2044.93	2044.91	8.09	2044.93	0.23	0.00	0.00G
	6900.00	90.00	0.23	4960.00	2144.93	2144.91	8.48	2144.93	0.23	0.00	0.00G
	7000.00	90.00	0.23	4960.00	2244.93	2244.91	8.88	2244.93	0.23	0.00	0.00G
	7100.00	90.00	0.23	4960.00	2344.93	2344.91	9.27	2344.93	0.23	0.00	0.00G
	7200.00	90.00	0.23	4960.00	2444.93	2444.91	9.67	2444.93	0.23	0.00	0.00G
	7300.00	90.00	0.23	4960.00	2544.93	2544.91	10.06	2544.93	0.23	0.00	0.00G
	7400.00	90.00	0.23	4960.00	2644.93	2644.91	10.46	2644.93	0.23	0.00	0.00G
	7500.00	90.00	0.23	4960.00	2744.93	2744.91	10.85	2744.93	0.23	0.00	0.00G
	7600.00	90.00	0.23	4960.00	2844.93	2844.91	11.25	2844.93	0.23	0.00	0.00G
	7700.00	90.00	0.23	4960.00	2944.93	2944.91	11.64	2944.93	0.23	0.00	0.00G
	7800.00	90.00	0.23	4960.00	3044.93	3044.91	12.04	3044.93	0.23	0.00	0.00G
	7900.00	90.00	0.23	4960.00	3144.93	3144.91	12.43	3144.93	0.23	0.00	0.00G

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)
	8000.00	90.00	0.23	4960.00	3244.93	3244.90	12.83	3244.93	0.23	0.00	0.00G
	8100.00	90.00	0.23	4960.00	3344.93	3344.90	13.23	3344.93	0.23	0.00	0.00G
	8200.00	90.00	0.23	4960.00	3444.93	3444.90	13.62	3444.93	0.23	0.00	0.00G
	8300.00	90.00	0.23	4960.00	3544.93	3544.90	14.02	3544.93	0.23	0.00	0.00G
	8400.00	90.00	0.23	4960.00	3644.93	3644.90	14.41	3644.93	0.23	0.00	0.00G
	8500.00	90.00	0.23	4960.00	3744.93	3744.90	14.81	3744.93	0.23	0.00	0.00G
	8600.00	90.00	0.23	4960.00	3844.93	3844.90	15.20	3844.93	0.23	0.00	0.00G
	8700.00	90.00	0.23	4960.00	3944.93	3944.90	15.60	3944.93	0.23	0.00	0.00G
PBHL	8726.03	90.00	0.23	4960.00	3970.96	3970.93	15.70	3970.96	0.23	0.00	0.00G

LCX ENERGY

WELL	1921 State #22	FIELD	Eddy County, NM	STRUCTURE	1921 State #22
Magnetic Parameters Model: XDRF 2005 Dir: 60.465° Date: May 30, 2008 Mag Dec: +8.807° FS: 48281.0 nT Surface Location Lat: N32 41 0.056 Long: W104 54 17.856 NAD83 New Mexico State Planes, Eastern Zone, US Feet Northing: 612807.40 BUS Easting: 365482.70 BUS Grid Conv: -0.30885337° Scale Fact: 0.9999445067 Miscellaneous Slot: 1921 State #22 Plan: 1921 State #22_v1 TVD Ref: FK3 (0.00 ft above) Srvy Date: Tue 04:28 PM May 30, 2008					



INTREPID
Directional Drilling Specialists



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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96086	Pool Name WILDCAT-WOLFCAMP
Property Code	Property Name 1921 STATE	Well Number 22
OGRID No. 218885	Operator Name LCX ENERGY, LLC	Elevation 4239'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	19 S	21 E		760	WEST	660	SOUTH	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
D	2	19 S	21 E		760	WEST	660	NORTH	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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

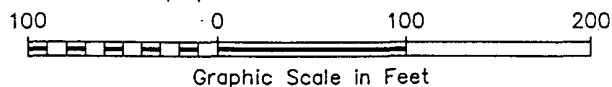
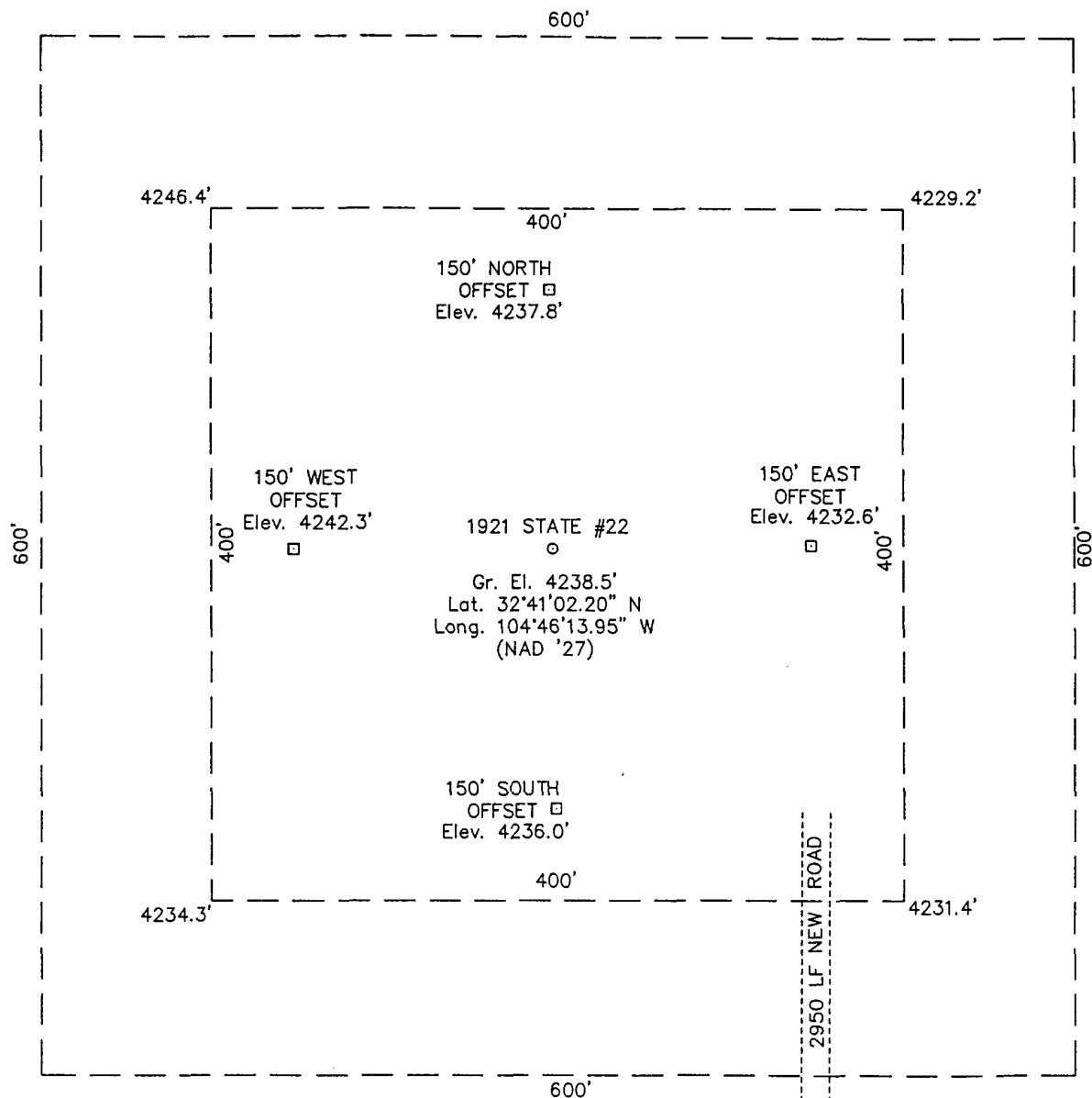
	OPERATOR CERTIFICATION I hereby certify the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Joe T. Janica</i> Signature Date 05/31/06 Printed Name Agent 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. May 12, 2006 Date of Survey Signature & Seal of Professional Surveyor W.O. Num. 2006-0423 Certificate No. MACON McDONALD 12185
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SECTION 2, TOWNSHIP 19 SOUTH, RANGE 21 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2006-0423

DRIVING DIRECTIONS

Beginning at the intersection of US Highway 82 with County Road 12 (Armstrong Road) located in the West side of the town of Hope, New Mexico, proceed South on County Road 12 (Armstrong Road) for approximately 7.0 miles to a fork intersection with County Road 20 (Broncho Road). Turn Right and proceed Southwesterly along County Road 20 (Broncho Road) approximately 2.4 miles to a point from which the well location bears West 3,200 feet.

LCX ENERGY, LLC**1921 STATE #22**

Located 660' FSL & 760' FWL, Section 2
Township 19 S, Range 21 E, N.M.P.M.
Eddy County, New Mexico

Drawn By: JSR

Date: May 12, 2006

Scale: 1"=100'

Field Book:

Revision Date:

Quadrangle: Holt Tank, N.M.

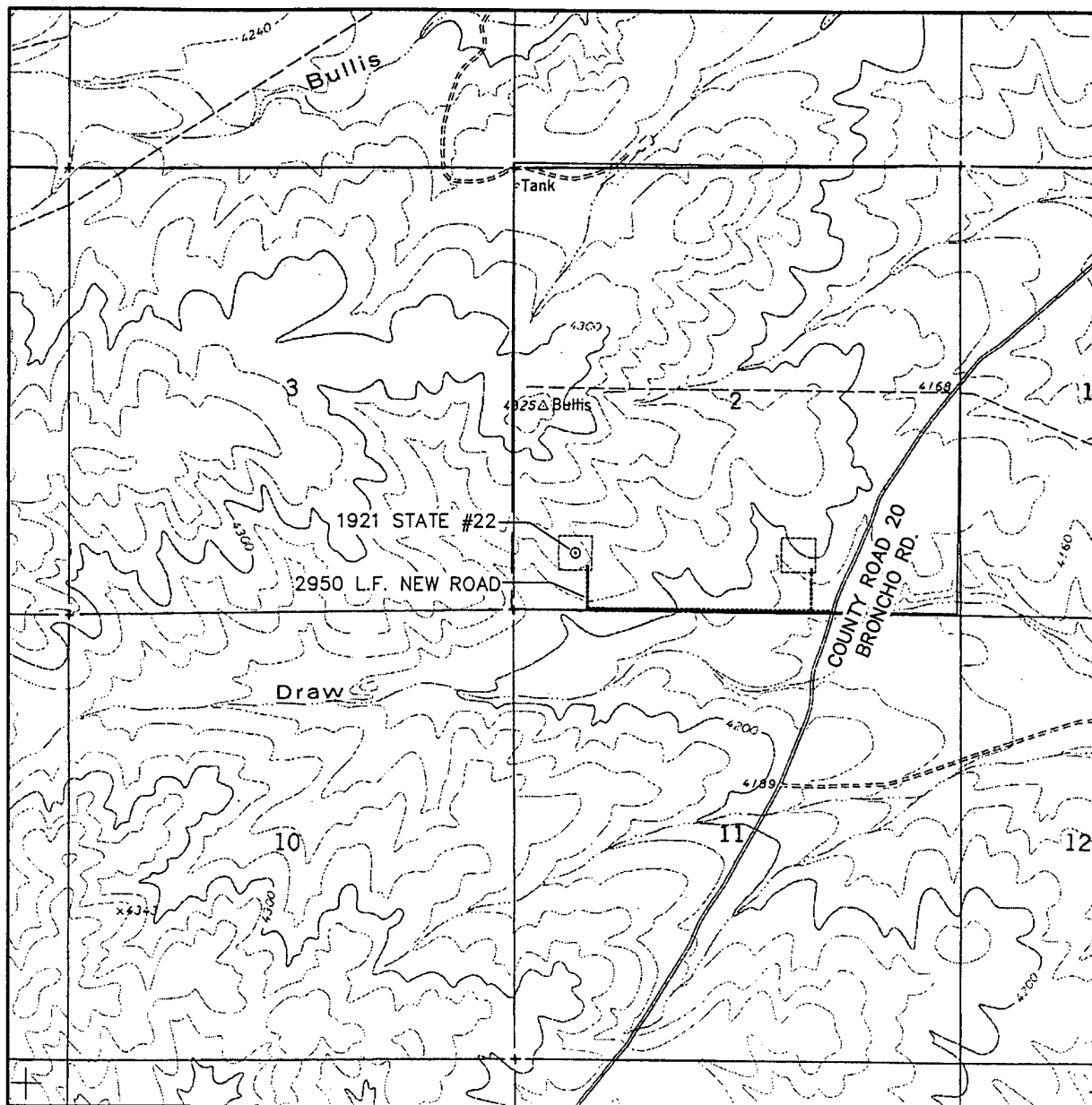
W.O. No: 2006-0423

Dwg. No.: L-2006-0423



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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOLT TANK, NM - 20'

SEC. 2 TWP. 19-S RGE. 21-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 760' FWL & 660' FSL

ELEVATION 4239'

OPERATOR LCX ENERGY, LLC

LEASE 1921 STATE 22

U.S.G.S. TOPOGRAPHIC MAP

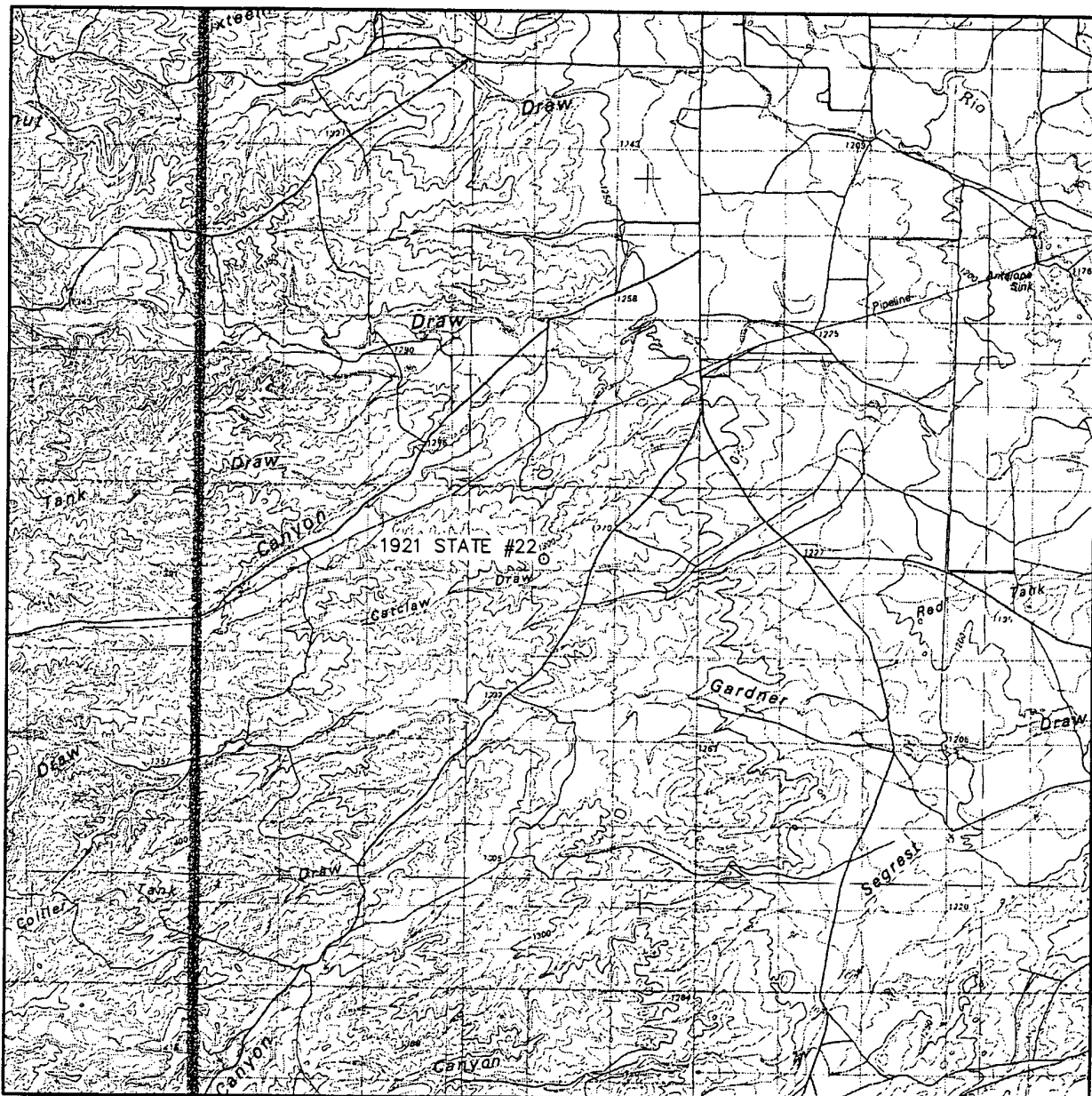
HOLT TANK N.M.



**WEST
COMPANY**
of Midland, Inc.

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

VICINITY MAP

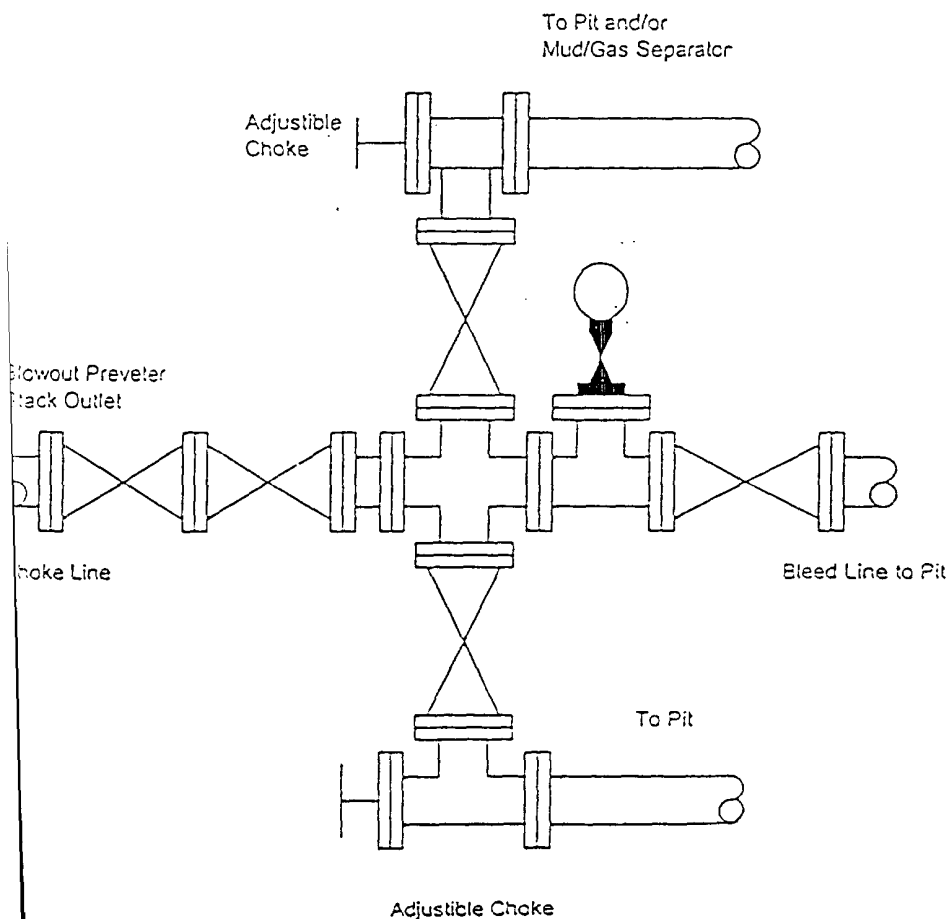


SCALE: 1" = 2 MILES

BLOWOUT PREVENTER SYSTEM

3000 PSI

Choke Manifold Assembly for 5M WP System



Fill Line

