

DATE IN 7.27.10	SUSPENSE	ENGINEER <i>WJ</i>	LOGGED IN 7.27.10	TYPE DHC	APP NO. 1080850765
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Edge Pet.*  
*(224400)*

*South Lovington 75 #1*  
*30-025-38877*

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location]** **[NSP-Non-Standard Proration Unit]** **[SD-Simultaneous Dedication]**
- [DHC-Downhole Commingling]** **[CTB-Lease Commingling]** **[PLC-Pool/Lease Commingling]**
- [PC-Pool Commingling]** **[OLS - Off-Lease Storage]** **[OLM-Off-Lease Measurement]**
- [WFX-Waterflood Expansion]** **[PMX-Pressure Maintenance Expansion]**
- [SWD-Salt Water Disposal]** **[IPI-Injection Pressure Increase]**
- [EOR-Qualified Enhanced Oil Recovery Certification]** **[PPR-Positive Production Response]**

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- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Angela Lightner  
 Print or Type Name

Angela Lightner  
 Signature

Regulatory Consultant 7/23/10  
 Title Date

angela@rkford.com  
 e-mail Address



## R. K. FORD & ASSOCIATES

Engineering, Drilling & Completion

415 West Wall  
Suite 1700 • Wilco Building  
Midland, Texas 79701

(432) 682-0440  
Fax (432) 682-0441  
e-mail: randell@rkford.com

July 23, 2010

Will Jones  
New Mexico Oil Conservation Division  
Oil & Gas Division  
1220 S. Saint Frances Drive  
Santa Fe, NM 87505

Mr. Jones,

Edge Petroleum Operating Company, Inc. would like to submit this Application for Downhole Commingling on the South Lovington 25 #1 well. Enclosed you will find required data and documents for the application process. If you have questions or need further information please contact me.

Thank you,

Angela Lightner  
Regulatory Consultant  
432-682-0440  
angela@rkford.com

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2010 JUL 26 A 11:24

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

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

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

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

District III  
1000 Rio Brazos Road, Aztec, NM 87410

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

APPLICATION FOR DOWNHOLE COMMINGLING

DHC-4300

Edge Petroleum Operating Company, Inc. POB 51937 Midland, TX 79710  
Operator Address

South Lovington 25 1 E 25 16S 36E Leas  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 224400 Property Code 35306 API No. 302125-38877 Lease Type: Federal State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	UVDES Lovington; Wolfcamp Oil	Upper Lovington Penn Oil	
Pool Code	41040	40710	
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	10577'-10560', 10120'-10104', 10086'-10076'	11,609'-11,111'	
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	N/A	N/A	
Oil Gravity or Gas BTU (Degree API or Gas BTU)		40 API	
Producing, Shut-In or New Zone	New Zone	Producing	
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates: to be determined later	Date: 6/14/2010 Rates: O-0, G-24 mcf/d, W-0	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil _____ Gas _____ % PCTS	Oil _____ Gas _____ LATER 60% 40%	Oil _____ Gas _____ % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes  No \_\_\_\_\_  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes \_\_\_\_\_ No \_\_\_\_\_

Are all produced fluids from all commingled zones compatible with each other? Yes  No \_\_\_\_\_

Will commingling decrease the value of production? Yes \_\_\_\_\_ No

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes  No \_\_\_\_\_

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Angela Lightner TITLE Regulatory Consultant DATE 7-23-2010

TYPE OR PRINT NAME Angela Lightner TELEPHONE NO. (432-) 682-0440

E-MAIL ADDRESS angela@rkford.com

State of New Mexico

Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised JUNE 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-025-38877	Pool Code 40710	Pool Name Upper Lovington Penn
Property Code 35304	Property Name SOUTH LOVINGTON 25	Well Number 1
OGRID No. 224400	Operator Name EDGE PETROLEUM OPERATING COMPANY, INC.	Elevation 3848'

Surface Location

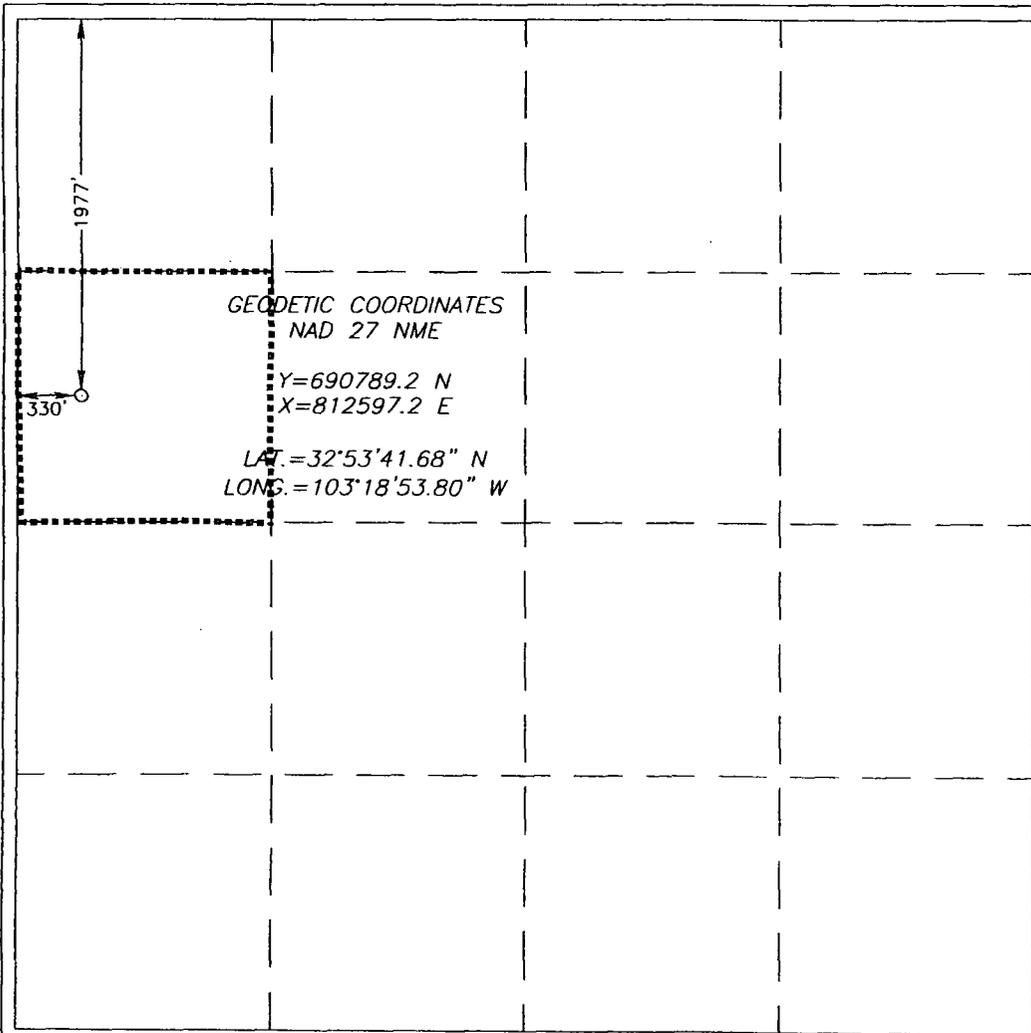
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	25	16-S	36-E		1977	NORTH	330	WEST	LEA

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

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 the the information contained herein is true and complete to the best of my knowledge and belief.

*Angela Lightner*  
Signature

Angela Lightner  
Printed Name

Consultant-Reg.  
Title

1-30-09  
Date

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**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.

FEBRUARY 11, 2006  
Date Surveyed

LA REV: 3/21/06

Signature & Seal of Professional Surveyor

*Gary Edson*  
3/22/06

06.11.0306

Certificate No. GARY EDSON 12641

State of New Mexico

Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-1C  
Revised JUNE 10, 2001  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-025-38877	Pool Code 41040	Pool Name Lovington; Wolfcamp
Property Code 35306	Property Name SOUTH LOVINGTON 25	Well Number 1
OGRID No. 224400	Operator Name EDGE PETROLEUM OPERATING COMPANY, INC.	Elevation 3848'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	25	16-S	36-E		1977	NORTH	330	WEST	LEA

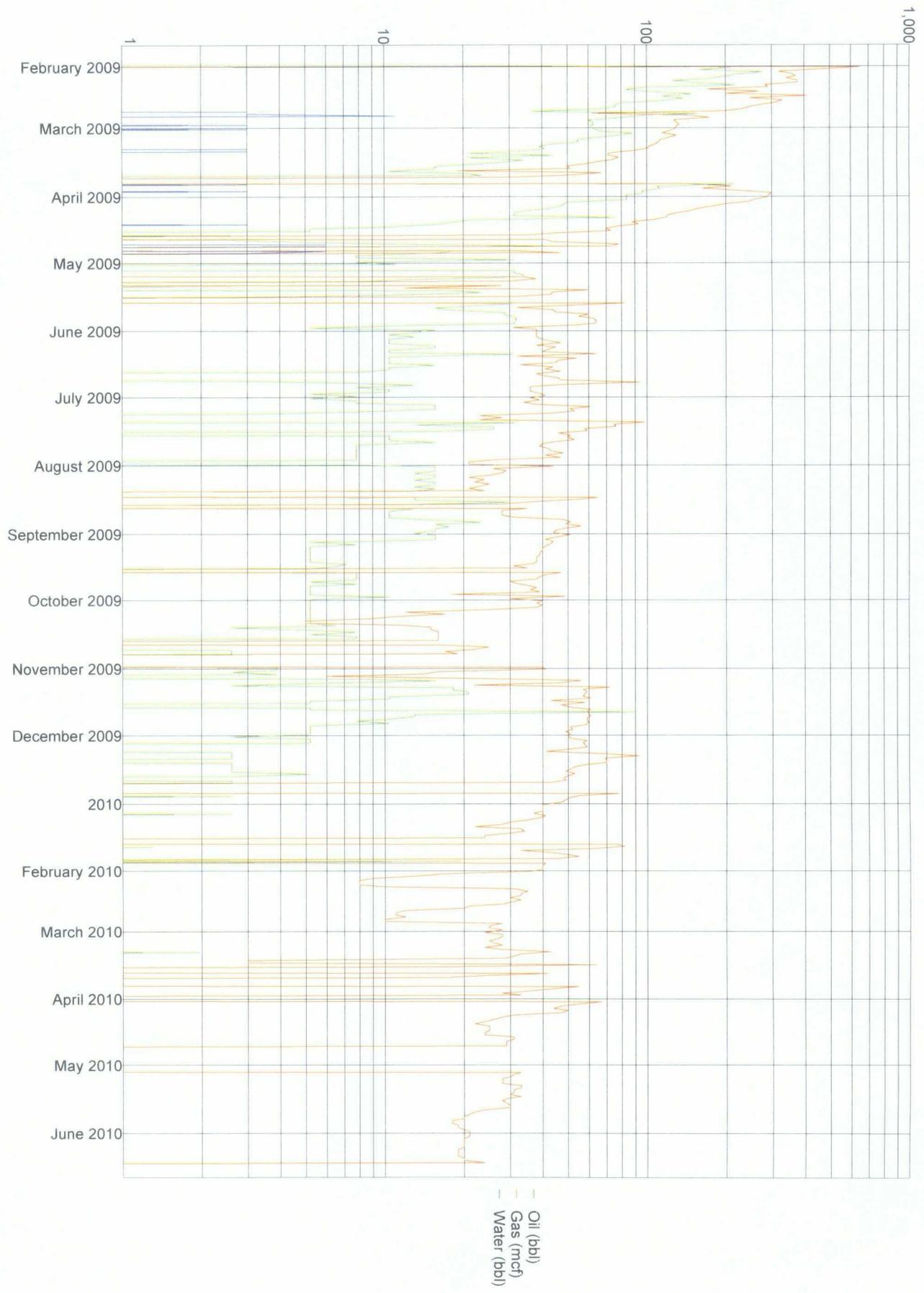
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Angela Lightner Signature</p> <p>Angela Lightner Printed Name</p> <p>Reg. Consultant Title</p> <p>5-26-2010 Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></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>FEBRUARY 11, 2006</p> <p>Date Surveyed: LA REV: 3/21/06</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p>Gary J. Eidson 3/22/06 06.11.0306</p>
	<p>Certificate No. GARY EIDSON 12641</p>
	<p>Professional Surveyor Seal</p>



# **EDGE PETROLEUM**

## **Intent of Commingling Well in Strawn and Wolfcamp Formations**

**S. Lovington 25-1**

**Lea County, NM**

**1977' FNL & 330' FWL Sec. 25, T16S, R36E**

**May 19, 2010**

This well is currently producing from the Wolfcamp formation. Isolated testing is ongoing to obtain accurate production rates from this zone. Originally, this well was drilled to the Devonian, but was plugged back several times due to poor production. Most recently, this well produced from the Strawn formation, although the low and intermittent production rates and volumes have not proven economical. Several methods have been attempted to produce this formation more efficiently, with minimal success. The decision was made to isolate the Strawn formation and recomplete the well in the Wolfcamp. The well was perforated and acidized and is now producing under rod pump. At the current production rates, cost environment, and commodity pricing, this well is near the lower limit of acceptable economic justification. If permission is granted, it is our intent to pump these two adjacent zones together, and commingle their production in order to recover reservoir fluids in a more efficient manner, and to achieve an economically viable well.

# EDGE PETROLEUM

## Procedure to Commingle Well in Strawn and Wolfcamp Formations

S. Lovington 25-1  
Lea County, NM

1977' FNL & 330' FWL Sec. 25, T16S, R36E

May 19, 2010

**Elevation:** 3,848' GL 3,872' KB AFE #: 100421

**PBTD:** 11,200' KB

**CURRENT STATUS:** The well is currently producing via rod pump from the Wolfcamp zone at a low rate. The Strawn formation is isolated with a retrievable bridge plug between the two zones.

**PROPOSED OPERATIONS:** Retrieve bridge plug, RIH with tubing, pump, and rods. Commingle Strawn and Wolfcamp zones, return well to production.

Casing Size:..... 7" 32# HCP-110 LTC ID/Drift: 6.094" / 5.969"

### *Procedure to Commingle Strawn and Wolfcamp Zones*

1. MIRU WSU.
2. Unset pump, POH w/ pump & rods.
3. ND wellhead. NU BOP. POH tbg.
4. PU retrieving head. RIH w/ retrieving head & tbg to 11,025'. Release RBP.
5. POH tbg, RBP, & retrieving head. LD RBP & retrieving head.
6. PU and RIH w/ production tbg, BHA, pump, & rods. Return well to production.
7. RD & release WSU.