

WFX 5/4/00

April 14, 2000

State of New Mexico  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Case 12614

RE: Energen Resources Corporation, Ogrid #162928  
Application for Administrative Approval to Inject, Expansion of Project #WFX-581  
Langlie Lynn Queen Unit, Wells #3, 5, 7, 9, 12, 14, 16, & 18  
Lea County, New Mexico

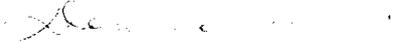
Gentlemen:

Energen Resources Corporation is seeking Administrative Authority to Expand it's existing Injection Permit #WFX-581 on the above wells. Enclosed are the following required supporting documents to complete the application.

1. Original C-108 Form.
2. Well Data Sheet on each well on Injection Application, including wellbore schematics and maps.
3. Table of Wells of all wells in "Area of Review" (1/2 mile).
4. Well Data Sheet on all wells in "Area of Review".
5. Proposed Project, including "Geological Data" and "Stimulation Program".
6. Water analysis on injection fluid.
7. Water analysis on fresh water wells.
8. Logs on new drill LLQU #20, (logs previously submitted on all other wells).
9. "Proof of Notice" to county newspaper, including "Affidavit of Publication".
10. "Proof of Notice" to State of New Mexico as landowner.
11. "Proof of Notice" to all leasehold operators within 1/2 mile.

Should additional information be needed, please advise.

Sincerely,

  
Denise A. Menoud  
Production Tech.  
Energen Resources Corporation  
(915) 687-2074  
Encl.

cc: Hobbs District Office  
cc: N.M. State Land Office

PKRVO 1320 48104

WFX

10/4/01



TELEPHONE: 915-687-1155  
FAX: 915-687-1796

April 20, 2000

700

Mr. Mark Ashley  
State of New Mexico  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Case 12614

Dear Mr. Ashley,

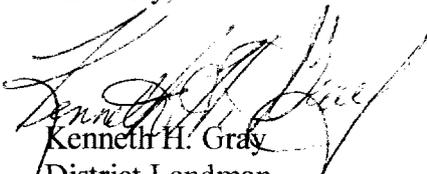
RE: Energen Resources Corporation, Ogrid #162928  
Application for Administrative Approval to Inject,  
(Expansion of Project #WFX-581)  
Langlie Lynn Queen Unit, Wells #~~3~~,5,7,~~9~~,12,14,16,18,  
Lea County, New Mexico

As a follow-up to our recent telephone conversation and to letter of April 14, 2000 from Denise H. Menoud, of this office, Energen's application did not include well # 23. Well #23 was included in the legal notice and advertised in the paper but once the Lanexco letter of March 23, 2000 was reviewed, Energen elected to exclude Well # 23 from its application to inject until the relationship between Well #23 and the Lanexco, Inc well, being the El Paso State # 1, is fully evaluated. It is our understanding that Lanexco, Inc. objections were limited to well #23.

If anything else is needed, please advise.

Sincerely,

Wells 12, 14, 16, 18

  
Kenneth H. Gray  
District Landman  
ASHLEY-INJECT-LLQU

KHG/pkr

cc: Lanexco, Inc.  
Attention: Mr. Robert W. Lansford, President

Scott Hall

LANGLIE LYNN TABLE OF WELLS (1/2 Mile Area of Review)

TD	Type	OPERATOR	LEASE & WELL	LOCATION.	Letter	Sec.	Twp	Range	Footage	Date Drilled	Address	Notes
OK	P&A	Grace Petroleum	New Mexico "AA" State #6	A	22	T23S	R36E	990' FNL, 990' FEL	07/05/1973	P.O. Drawer 2358, Midland TX 79702		
OK	P&A	Raptor Resources Inc.	State A A/C-1 #97	F	22	T23S	R36E	1980' FNL, 1980' FWL	10/27/1960	P.O. Drawer 2358, Midland TX 79702		
OK	P&A	Grace Petroleum	New Mexico "AA" State #5	G	22	T23S	R36E	1980' FNL, 1980' FEL	07/22/1960	P.O. Drawer 2358, Midland TX 79702		
OK	P&A	Grace Petroleum	New Mexico "AA" State #3	H	22	T23S	R36E	2310' FNL, 330' FEL	12/24/1959	P.O. Drawer 2358, Midland TX 79702		
OK	O&G	Doyle Hartman	New Mexico "AA" State #1	H	22	T23S	R36E	1980' FNL, 660' FEL	06/15/1950	P.O. Box 10426, Midland TX 79701		
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #2	J	22	T23S	R36E	1980' FSL, 660' FEL	02/29/1960	-----		
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #1	J	22	T23S	R36E	1980' FSL, 1980' FEL	09/07/1960	-----		
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #12	J	22	T23S	R36E	1863' FSL, 1950' FEL	-----	310 W. Wall, Midland TX 79701		Drill as injector
OK	P&A	Energy Resources	New Mexico State A A/C #1	N	22	T23S	R36E	330' FSL, 2310' FWL	10/11/1930	Six Destia Drive Suite 3000, Midland TX 79705		Replace #10 producer
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #20	O	22	T23S	R36E	672' FSL, 1797' FEL	-----	-----		
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #10	O	22	T23S	R36E	640' FSL, 1650' FEL	06/12/1963	-----		
OK	P&A	Energy Resources	Langlie Lynn Queen Unit #9	P	22	T23S	R36E	660' FSL, 330' FEL	04/12/1963	-----		Convert to injector
OK	P&A	Energy Resources	Shell State #3	P	22	T23S	R36E	660' FSL, 660' FEL	04/14/1954	P.O. Box 14097, Irving TX 75014		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #98	B	23	T23S	R36E	660' FNL, 2310' FEL	12/05/1960	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #73	C	23	T23S	R36E	660' FNL, 1980' FWL	11/22/1959	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #65	D	23	T23S	R36E	660' FNL, 760' FWL	08/26/1959	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #72	E	23	T23S	R36E	1980' FNL, 660' FWL	11/15/1959	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #27	F	23	T23S	R36E	1650' FNL, 660' FWL	03/20/1949	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #84	G	23	T23S	R36E	1980' FNL, 2310' FEL	03/07/1960	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #26	G	23	T23S	R36E	1650' FNL, 1650' FEL	02/01/1949	P.O. Box 160430, Austin TX 78716		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #105	H	23	T23S	R36E	2080' FNL, 660' FEL	06/28/1964	P.O. Box 160430, Austin TX 78716		
OK	O&G	Arco Permian	Sinclair A State #1	I	23	T23S	R36E	1650' FSL, 990' FEL	08/12/1949	P.O. Box 1710, Hobbs NM 88240		
OK	O&G	Arco Permian	Sinclair A State #5	I	23	T23S	R36E	1980' FSL, 660' FEL	02/01/1962	P.O. Box 1710, Hobbs NM 88240		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #5	J	23	T23S	R36E	1980' FSL, 1980' FEL	11/17/1960	-----		Continue injection
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #4	K	23	T23S	R36E	1650' FSL, 2310' FWL	11/03/1960	-----		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #3	L	23	T23S	R36E	1980' FSL, 660' FWL	10/10/1960	-----		Return to injection
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #8	M	23	T23S	R36E	660' FSL, 660' FWL	01/30/1963	-----		
OK	O&G	Arco Permian	Sinclair A State #10	M	23	T23S	R36E	990' FSL, 990' FWL	03/24/1990	P.O. Box 1710, Hobbs NM 88240		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #7	N	23	T23S	R36E	660' FSL, 1980' FWL	11/25/1962	-----		Return to injection
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #6	O	23	T23S	R36E	660' FSL, 1980' FEL	12/21/1962	-----		
OK	P&A	Arco Permian	Sinclair A State #9	P	23	T23S	R36E	660' FSL, 660' FEL	12/30/1963	P.O. Box 1710, Hobbs NM 88240		
OK	O&G	Raptor Resources Inc.	State A A/C-1 #107	L	24	T23S	R36E	1980' FSL, 660' FWL	07/26/1964	-----		
OK	P&A	Arco Permian	Lankford #3	D	25	T23S	R36E	660' FNL, 660' FWL	05/08/1981	P.O. Box 1710, Hobbs NM 88240		
OK	O&G	Rhombus Operating	Lankford #4	E	25	T23S	R36E	1650' FNL, 330' FWL	01/16/1985	200 N. Lorraine Suite 1270, Midland TX 79701		
OK	O&G	Conoco	Lynn B-1 #17	A	26	T23S	R36E	810' FNL, 660' FEL	05/28/1996	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	P&A	Conoco	Lynn B-1 #2	A	26	T23S	R36E	990' FNL, 990' FEL	03/31/1948	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Conoco	Lynn B-1 #16	A	26	T23S	R36E	660' FNL, 660' FEL	09/25/1974	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #14	B	26	T23S	R36E	660' FNL, 1980' FEL	08/11/1963	-----		Return to injection
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #13	C	26	T23S	R36E	660' FNL, 1980' FWL	04/23/1963	-----		
OK	O&G	Conoco	Lynn B-1 #3	C	26	T23S	R36E	990' FNL, 1650' FWL	04/03/1949	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #12	D	26	T23S	R36E	660' FNL, 660' FWL	06/10/1963	-----		
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #21	E	26	T23S	R36E	2130' FNL, 657' FWL	Loc.	-----		Convert to injector
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #17	E	26	T23S	R36E	1980' FNL, 660' FWL	11/16/1964	-----		Replace #17 producer
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #7	F	26	T23S	R36E	1980' FNL, 1980' FWL	10/06/1965	-----		Convert to injector
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #16	F	26	T23S	R36E	1980' FNL, 1980' FEL	03/06/1965	-----		Convert to producer
OK	O&G	Conoco	Langlie Lynn Queen Unit #15	G	26	T23S	R36E	2310' FSL, 2310' FEL	01/31/1929	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Conoco	Lynn B-1 #1	J	26	T23S	R36E	1832' FSL, 1980' FWL	Loc.	-----		Replace #19 producer
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #22	K	26	T23S	R36E	1980' FSL, 660' FWL	02/16/1965	-----		Convert to injector
OK	O&G	Conoco	Langlie Lynn Queen Unit #19	K	26	T23S	R36E	1980' FSL, 660' FWL	10/14/1965	-----		Convert to injector
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #18	L	26	T23S	R36E	990' FSL, 990' FWL	05/01/1949	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Conoco	Lynn B-1 #4	M	26	T23S	R36E	990' FSL, 990' FWL	05/09/1948	10 Destia Drive Suite 100W, Midland TX 79705-4500		
OK	O&G	Conoco	Lynn B-1 #7	A	27	T23S	R36E	990' FSL, 990' FEL	07/16/1963	-----		Convert to producer
OK	O&G	Energy Resources	Langlie Lynn Queen Unit #11	A	27	T23S	R36E	660' FNL, 660' FEL	03/29/1949	P.O. Box 10585, Midland TX 79702		
OK	O&G	HCW Exploration	George Etz #4	I	27	T23S	R36E	1650' FSL, 990' FEL	02/27/1986	P.O. Box 10139, Midland TX 79702		
OK	O&G	Roca Petroleum	George Etz #6	P	27	T23S	R36E	660' FSL, 660' FEL	-----	-----		

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  Yes  No
- II. OPERATOR: Energen Resources Corporation  
ADDRESS: 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705  
CONTACT PARTY: Denise Menoud PHONE: (915) 687-2074
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project?  Yes  No  
If yes, give the Division order number authorizing the project: WFX-581 R-02-17
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Denise Menoud TITLE: Production Tech.  
SIGNATURE: *Denise Menoud* DATE: 04/13/00
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

# NJECTION WELL DATA SHEET

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #3

WELL LOCATION: 1980' FSL, 660' FWL L 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 11"  
Casing Size: 8-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 6-1/4"  
Casing Size: 4-1/2"  
Cemented with: 1100 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3790'

### Injection Interval

3490' feet to 3691' (Indicate whether Open Hole or perforated) perforated

### Proposed Tubing Detail

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: 3458'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Ener Minerals and Natural Resources

Form C-103  
 Revised March 25, 1999

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

WELL API NO. 30-025-09388
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Langlie Lynn Queen Unit
8. Well No. 3
9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
 Oil Well  Gas Well  Other Injection

2. Name of Operator  
 Energen Resources Corporation

3. Address of Operator  
 3300 N. "A" St., Bldg 4, Ste. 100, Midland, TX 79705

4. Well Location  
 Unit Letter L : 1980 feet from the South line and 660 feet from the West line  
 Section 23 Township 23S Range 36E NMPM County Lea

10. Elevation (Show whether DR, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Note: Well was TA'd from injection in 08/91.

02/16-18/00: MIRUPU, tested 4 1/2" csg to 565# for 45 mins, held good. Retrieved RBP @ 3467'. Peforated 7 RVRs/Queen @ 3490'-3536', (total of 184 holes). Acidized w/ 3000 gals 15% HCL.

02/19/00: Found new PBD to be @ 3757'.

02/22/00: RIH w/ 2 3/8" tbg & 2 3/8" x 4 1/2" "Lok-Set" injection pkr. Pkr set @ 3458'. Pressure tested csg to 550# for 30 mins, no leak-off. RDPU. Waiting for reinstatement of injection permit.

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

SIGNATURE Denise Menoud TITLE Production Tech. DATE 03/16/2000

Type or print name Denise Menoud Telephone No. (915)687-2074  
 (This space for State use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of approval, if any:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #3  
Lea County, NM

GI Elevation: 3381'

KL Elevation:

Location: 1980' FSL, 660' FWL,  
Sec 23, T-23-S, R-36-E

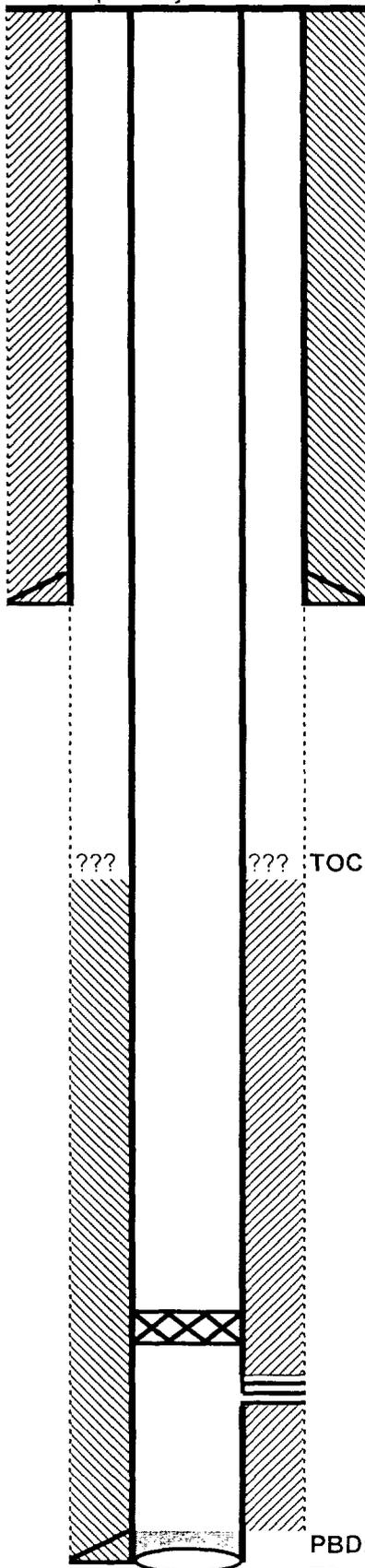
Current Conditions: Jan-99  
Temporarily Abandoned

**Conductor:**  
None

**Surface Casing:**  
8-5/8" 24# J-55, ST&C  
@ 259' in 11" hole  
Cemented to surface  
W/200 sx 50/50 Pozmix

**Well Head Assembly:**

**Intermediate Casing:**  
None



**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3790' in 7-7/8" hole  
1000 sx 50/50 Pozmix  
100 Sx Regular Cement + Latex

RBP @ 3467' (11/22/91)

**Perfs:**

7 Rivers: 3536-44, 74-84' (10/60)

'3556-61, 64, 68' (3/90)

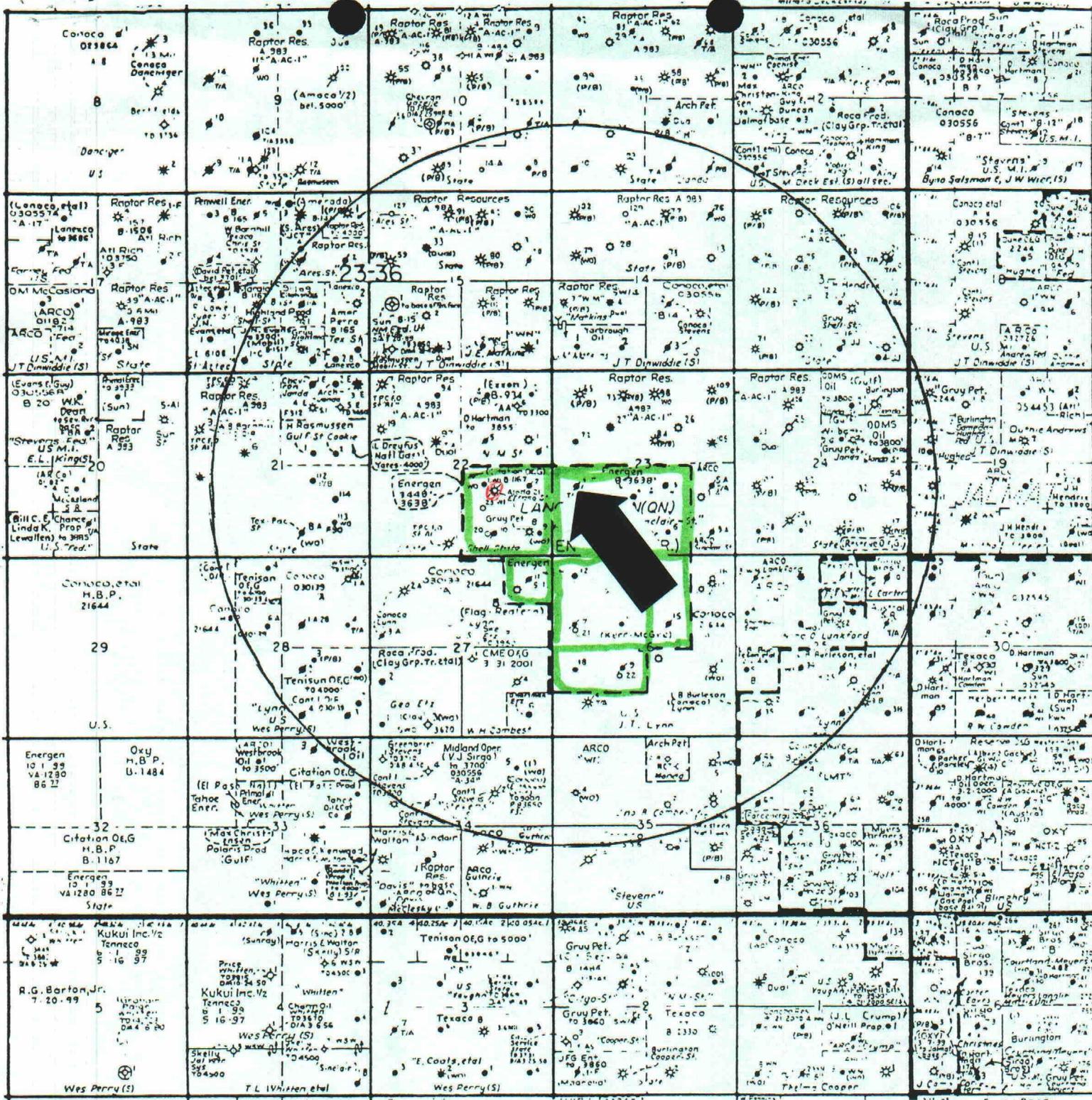
Queen: 3602-10, 13-24, 48-58, 60-64, 68-72' (10/60)

3626-29, 38-45, 48-58, 60-64, 68-72, 82-91'

Frac: 20,000 gal lease oil + 30,000# sand (10/60)

PBD: 3757'

TD = 3790'

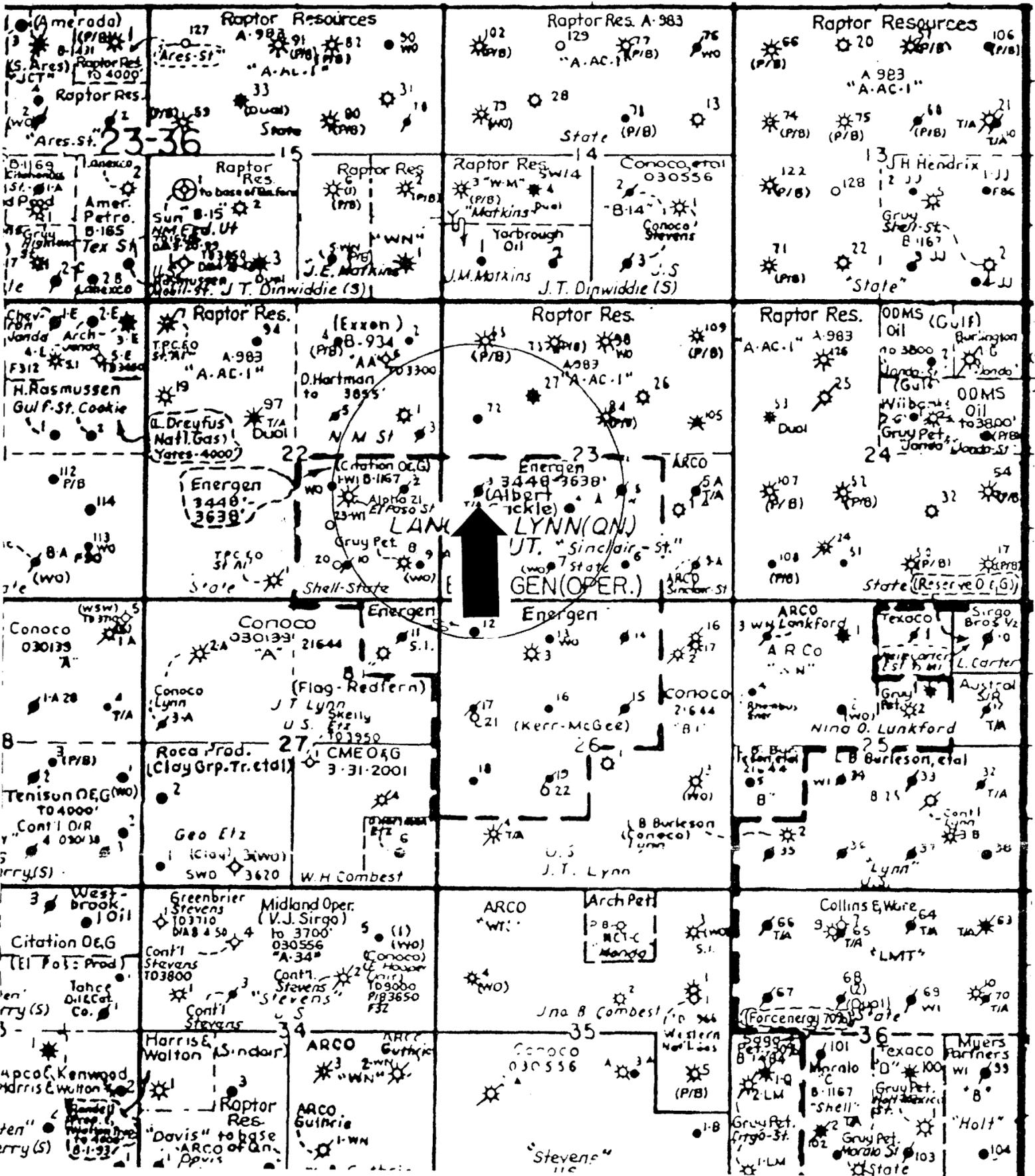


MILES



0 1 2

**LANGLIE-LYNN #3**  
**LANGLIE-LYNN UNIT**  
**LANGLIE-MATTIX FIELD**  
**T23s - R36E**  
**Lea County, New Mexico**  
**TWO MILE RADIUS**



**LANGLIE-LYNN #3**  
 LANGLEI-LYNN UNIT  
 LANGLEI-MATTIX FIELD  
 T23s - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

**INJECTION WELL DATA SHEET**

OPERATOR: Energen Resources 0-025-09389

WELL NAME & NUMBER: Langlie Lynn Queen Unit #5

WELL LOCATION: 1980' FSL, 660' FWL J 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 8-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 1600 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Circ.  
Total Depth: 3734'

**Injection Interval**

3494' feet to 3631' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO.  
30-025-09389

5. Indicate Type of Lease  
STATE  FEE

6. State Oil & Gas Lease No.  
23267

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name  
Langlie Lynn Queen Unit

1. Type of Well:  
OIL WELL  GAS WELL  OTHER Injection Well

8. Well No.  
5

2. Name of Operator  
Energen Resources Corporation

3. Address of Operator  
3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705

9. Pool name or Wildcat  
Langlie Mattix 7 RVRs/Queen/GB

4. Well Location  
Unit Letter J : 1980 Feet From The South Line and 1980 Feet From The East Line  
Section 23 Township 23S Range 36E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pressure test casing to 500 psi for 30 minutes. Pull injection equipment. Re-perforate the 7 RVRs/Queen, acidize w/ 3,000 gals. Run injection packer and tubing, perform casing integrity test and begin water injection.

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

SIGNATURE Denise Menoud TITLE Prod. Tech. DATE 3/13/2000  
TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-20

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #5  
Lea County, NM

GL Elevation: 3381'

KL Elevation:

Location: 1980' FSL, 660' FWL,  
Sec 23, T-23-S, R-36-E

**Conductor:**  
None

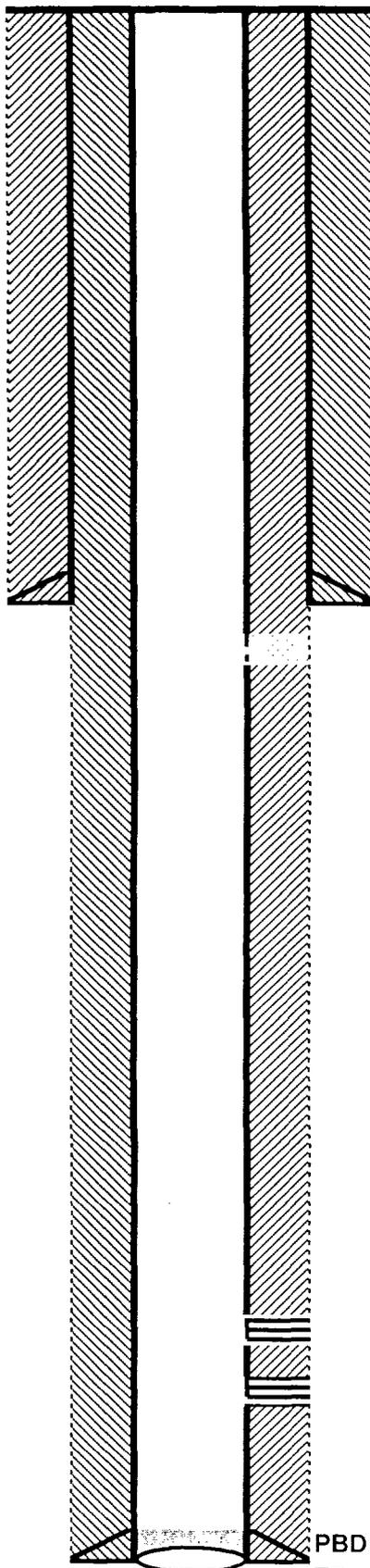
**Surface Casing:**  
8-5/8" 24# J-55, ST&C  
@ 263' in 11" hole  
Cemented to surface  
W/200 sx 50/50 Pozmix

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3734' in 6-3/4" hole  
1600 Sx Regular Cement  
Circulated to Surface

**Well Head Assembly:**

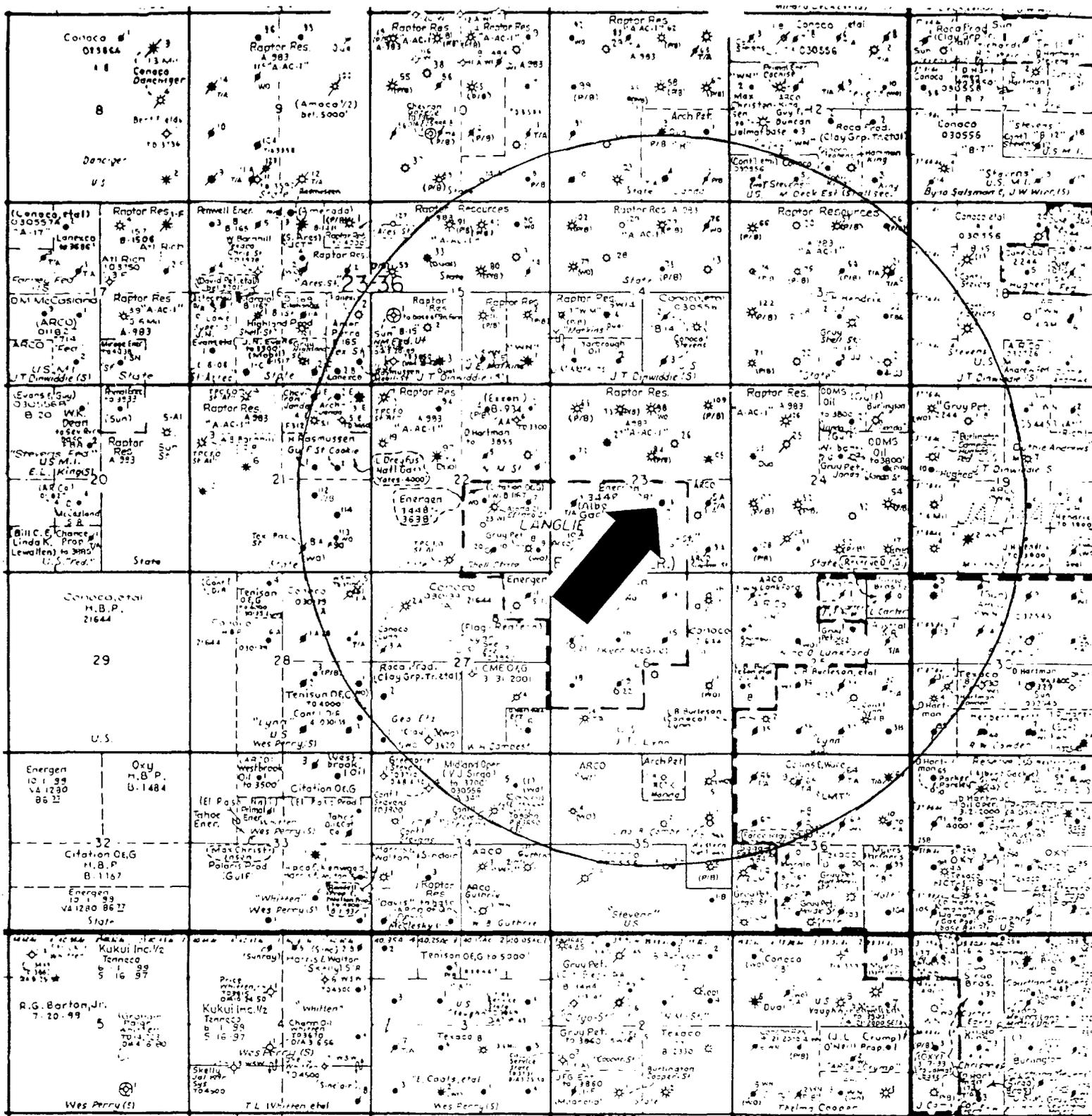
Current Conditions: Jan-99  
Active-WIW



Casing Leak @ 334'--Squeezed (12/89)

Perfs: 3450-52 (Squeezed 12/89)  
Inj profile showed perfs taking water (9/91)  
Queen: 3494-3502' (11/60)  
3518-47, 55-59, 62-88, 94-3600'  
3609-22, 26-31'

Frac: 20,000 gal lease oil + 31,000# 20/40 sand (10/60)  
PBD: 3670'  
TD = 3734'

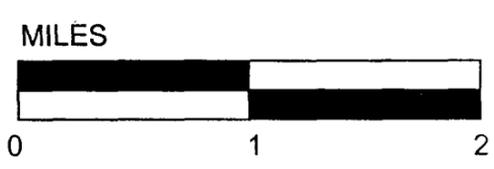
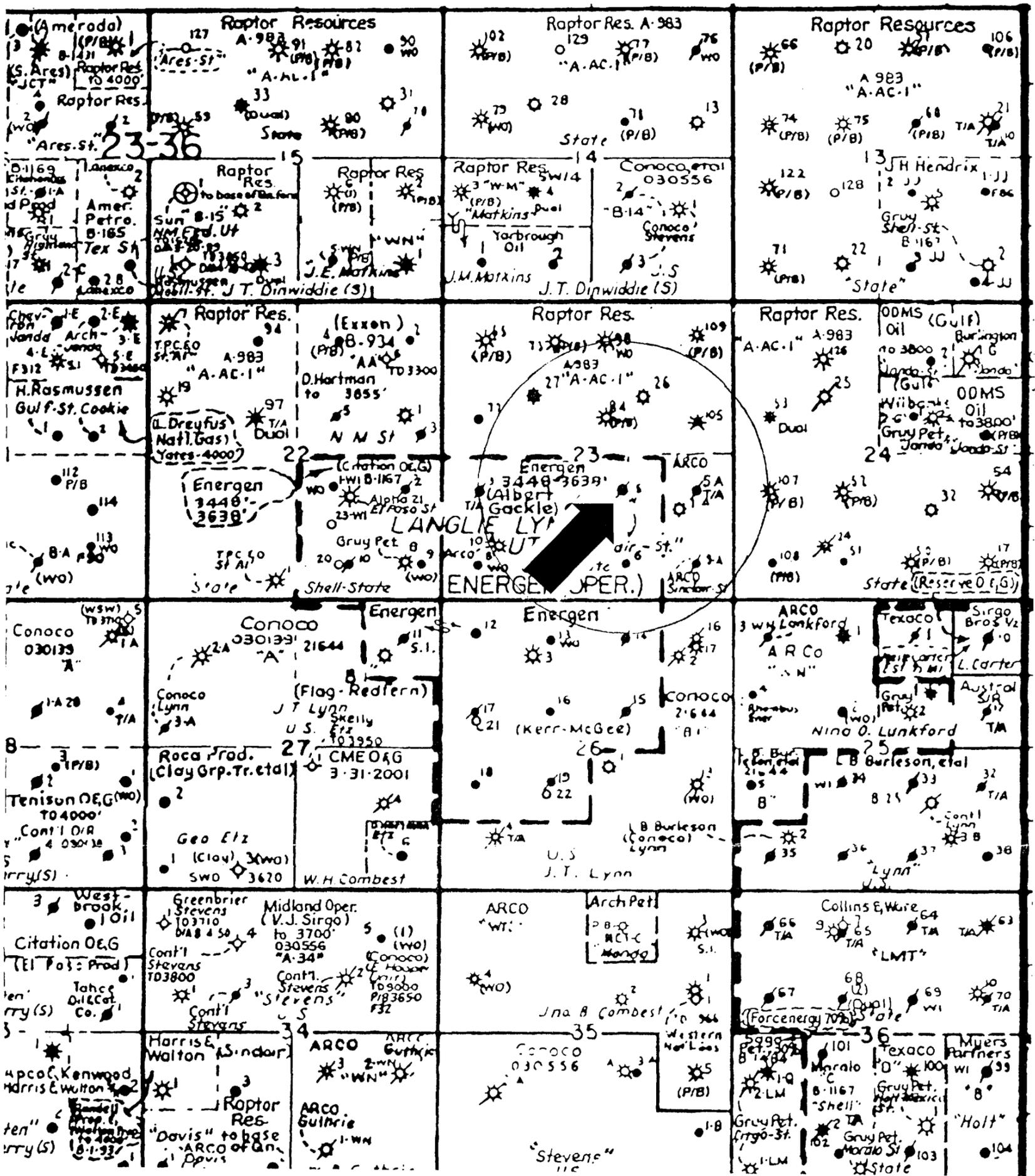


MILES



0 1 2

**LANGLIE-LYNN #5**  
**LANGLIE-LYNN UNIT**  
**LANGLIE-MATTIX FIELD**  
**T23s – R36E**  
**Lea County, New Mexico**  
**TWO MILE RADIUS**



**LANGLIE-LYNN #5**  
 LANGLIE-LYNN UNIT  
 LANGLIE-MATTIX FIELD  
 T23S - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

JECTION WELL DATA SHEET

WAF-521

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #7 30-025-09391

WELL LOCATION: 660' FSL, 1980' FWL N 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 11"  
Casing Size: 8-5/8"  
Cemented with: 275 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

Production Casing

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 1778 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual  
Total Depth: 3800'

Injection Interval

3510' feet to 3682' (Indicate whether Open Hole or perforated) perforated

Proposed Tubing Detail

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: ± 3350'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

- 1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
- 2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
- 3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
- 5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

Completion Record

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-09391

5. Indicate Type of Lease  
STATE  FEE

6. State Oil & Gas Lease No.  
23267

7. Lease Name or Unit Agreement Name  
Langlie Lynn Queen Unit

8. Well No. 7

9. Pool name or Wildcat  
Langlie Mattix 7 RVRs/Queen/GB

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR TO PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
OIL WELL  GAS WELL  OTHER Convert to WIW

2. Name of Operator  
Energen Resources Corporation

3. Address of Operator  
3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705

4. Well Location  
Unit Letter N : 600 Feet From The South Line and 1980 Feet From The West Line  
Section 23 Township 23S Range 36E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: Convert To WIW <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pressure test casing to 500 psi for 30 minutes. Re-perforate the 7 RVRs/Queen, acidize w/ 3,000 gals. Run injection packer and tubing, perform casing integrity test and begin water injection.

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

SIGNATURE Denise Menoud TITLE Prod. Tech. DATE 3/13/2000

TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-20

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #7  
Lea County, NM

GI Elevation: 3374'

KL Elevation: 3385'

Location: 660' FSL, 1980' FWL,  
Sec 23, T-23-S, R-36-E

Current Conditions: Jan-99  
Inactive-TA

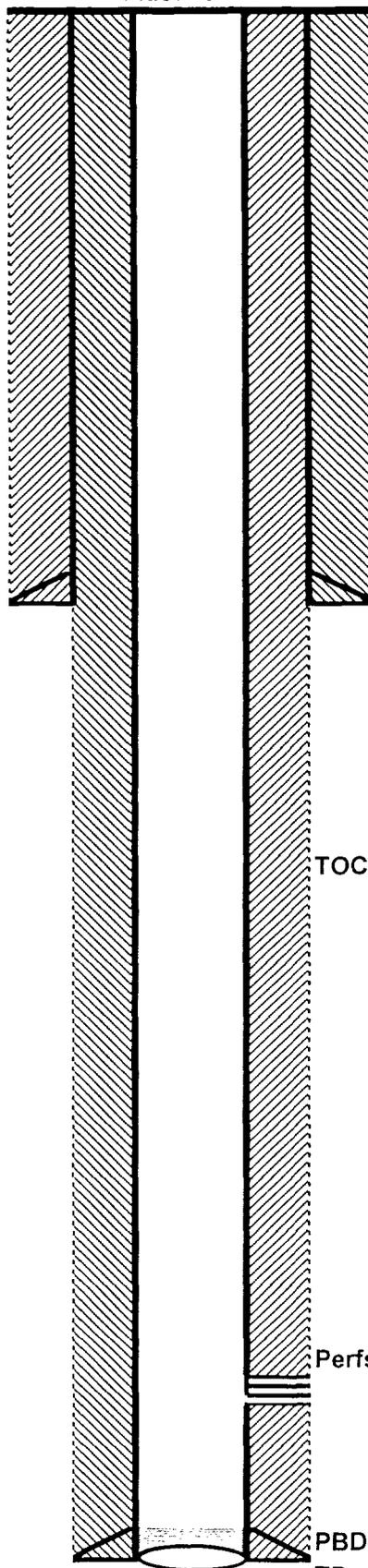
**Conductor:**  
None

**Surface Casing:**  
8-5/8" 24# J-55, ST&C  
@ 271' in 11" hole  
Cemented to surface  
W/150 sx 50/50 Pozmix

**Well Head Assembly:**

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3800' in 6-3/4" hole  
1728 sx 50/50 Pozmix  
50 sx Regular cement + Latex  
Cement Circulated



TOC: unknown

Perfs:

3510-20, 30-38, 50-58, 60-64, 70-3600' (1/99)  
3548-50, 64-66, 82-84,  
3605-07, 08-10, 16-18, 24-26, 28-30, 42-44,  
3648-50, 53-55, 59-61, 66-68, 80-82'  
3608, 12, 19, 23, 28, 36, 40, 48, 52 (11/62)(re-perf)

Frac: 20,000 gal lease oil + 28,000# sand (11/62)

PBD: 3757'

TD = 3800'





Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Encl. Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO. 30-025-20049
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Convert to WIW	7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corproation	8. Well No. 9
3. Address of Operator 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB
4. Well Location Unit Letter <u>P</u> : <u>660</u> Feet From The <u>South</u> Line and <u>330</u> Feet From The <u>East</u> Line Section <u>22</u> Township <u>23S</u> Range <u>36E</u> NMPM Lea County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3378' KB	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Convert to WIW</u> <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pull all producton equipment. TIH w/ RBP to 3,500', pressure test casing to 500 psi for 30 minutes. POH & re-perforate the 7 RVRs/Queen, acidize w/ 3,000 gals. Run injection packer and tubing, perform casing integrity test and begin water injection.

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

SIGNATURE Denise Menoud TITLE Prodc. Tech. DATE 3/13/2000  
TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-207

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #9  
Lea County, NM

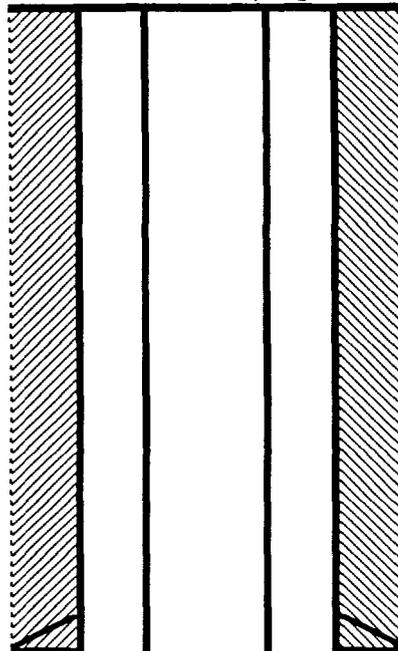
GL Elevation: 3378'  
KL Elevation: 3388'  
Location: 660' FSL, 330' FEL,  
Sec 22, T-23-S, R-36-E

Current Conditions: Jan-99  
Active-Pumping

**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# Smls, ST&C  
@ 295' in 11" hole  
Cemented to surface  
W/275 sx 50/50 Pozmix

**Well Head Assembly:**



**Intermediate Casing:**  
None

???

???

TOC: unknown

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3800' in 6-3/4" hole  
200 sx "C" Neat

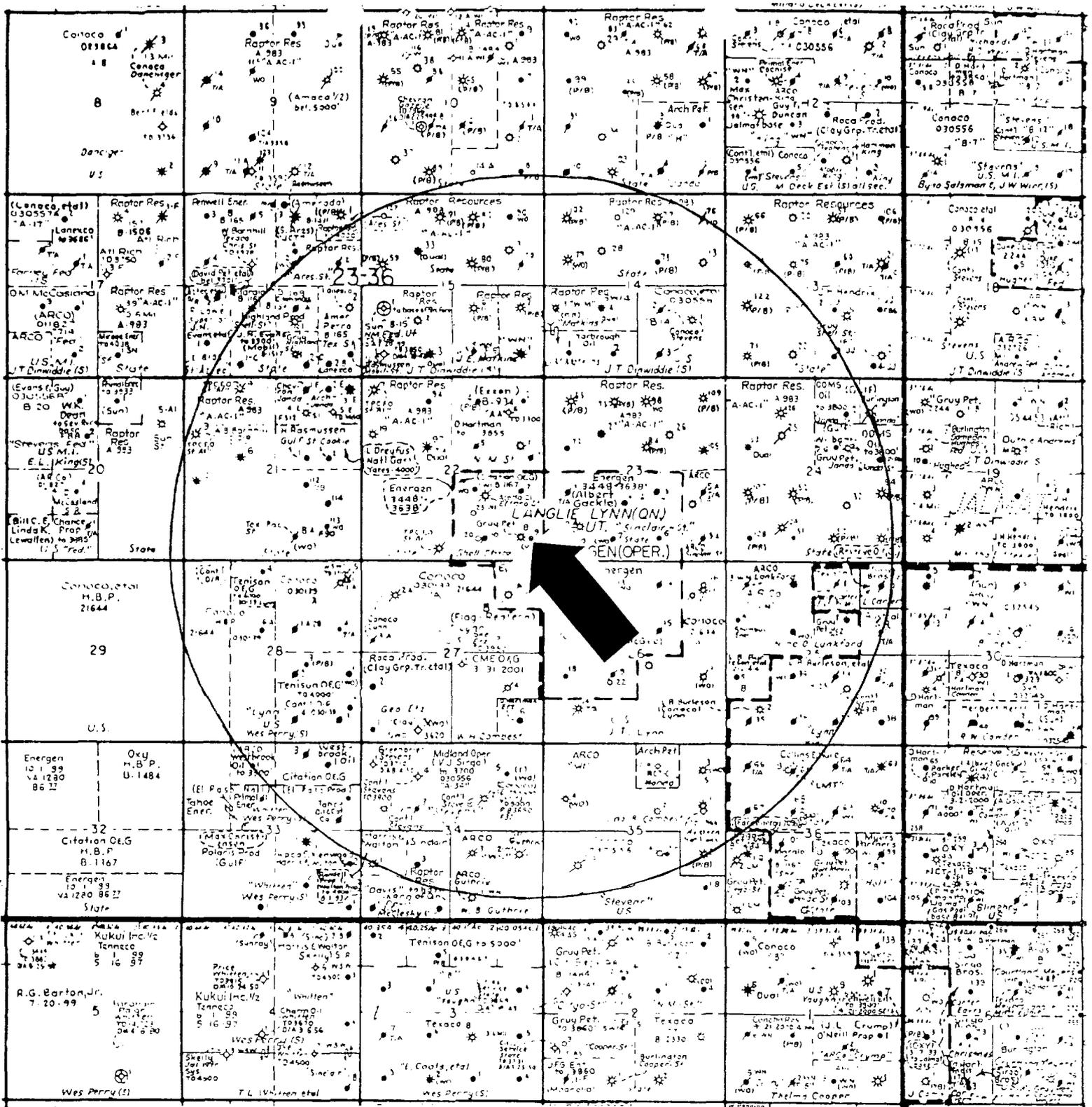
Perfs:

3512-26, 32-50, 56-61, 66-75, 81  
3616-30, 38, 40, 42, 46, 56, 88 (2/99)

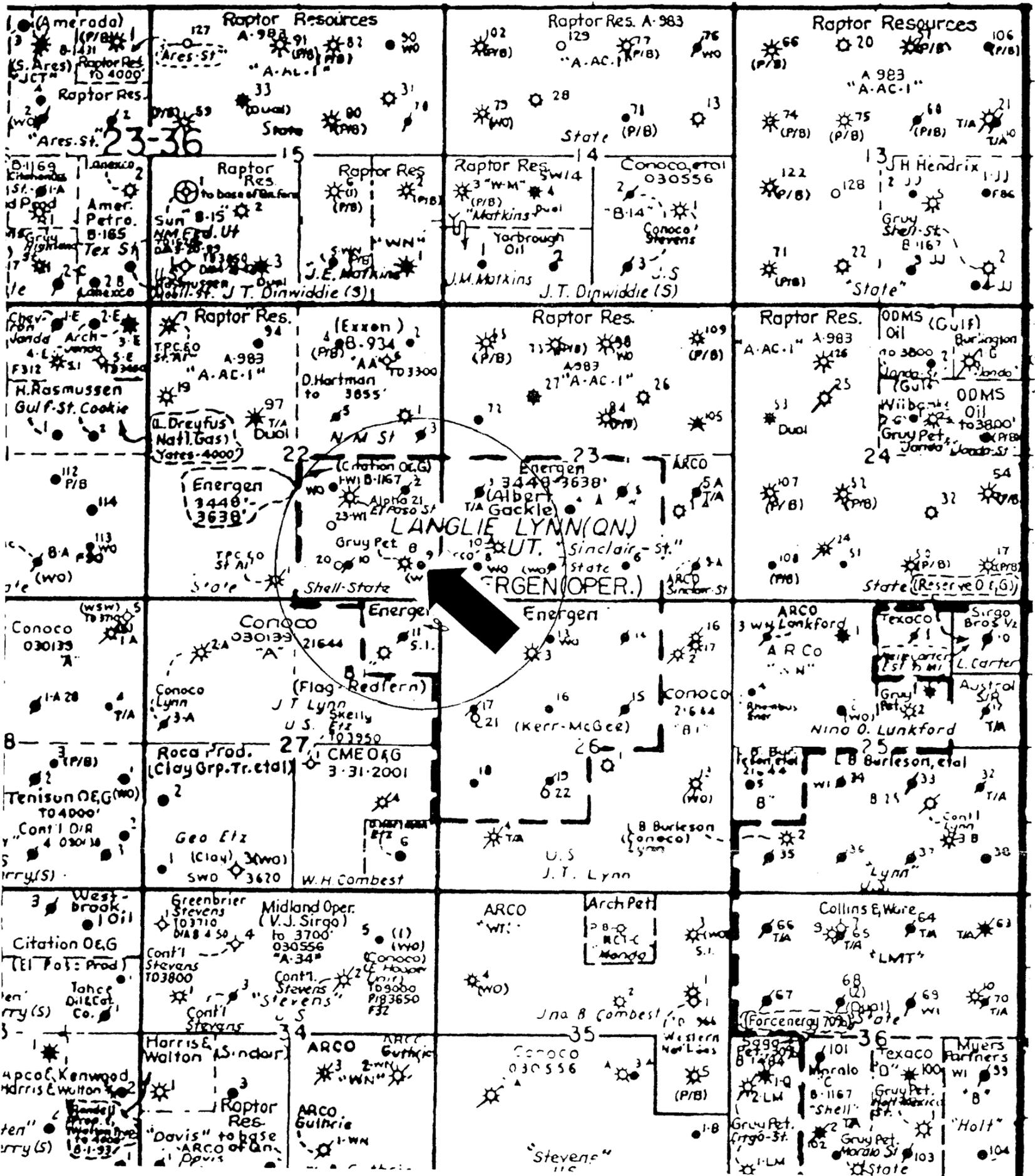
3588, 90, 3605, 08,10, 12, 31, 34, 36, 44, 48,  
3650, 52, 54, 58, 60, 67, 69, 72, 74, 81, 84, 90, 92  
3702, 11, 14, (4/63)

Frac: 30,000 gal lease oil + 40,000# sand (4/63)

PBD: 3773'  
TD = 3800'



**LANGLIE-LYNN #9**  
**LANGLIE-LYNN UNIT**  
**LANGLIE-MATTIX FIELD**  
**T23s - R36E**  
**Lea County, New Mexico**  
**TWO MILE RADIUS**



**LANGLIE-LYNN #9**  
 LANGLIE-LYNN UNIT  
 LANGLIE-MATTIX FIELD  
 T23S - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

Submit 3 Copies To Appropriate District  
 Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Energy Minerals and Natural Resources

Form C-103  
 Revised March 25, 1999

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

WELL API NO. 30-025-20052
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	7. Lease Name or Unit Agreement Name: Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corporation	8. Well No. 12
3. Address of Operator 3300 N. "A" St., Bldg 4, Ste. 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB
4. Well Location Unit Letter <u>D</u> : <u>660</u> feet from the <u>North</u> line and <u>660</u> feet from the <u>West</u> line Section <u>23</u> Township <u>23S</u> Range <u>36E</u> NMPM County <u>Lea</u>	
10. Elevation (Show whether DR, RKB, RT, GR, etc.)	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 PULL OR ALTER CASING  MULTIPLE COMPLETION   
 OTHER: Convert to Injection

SUBSEQUENT REPORT OF:

- REMEDIAL WORK  ALTERING CASING   
 COMMENCE DRILLING OPNS.  PLUG AND ABANDONMENT   
 CASING TEST AND CEMENT JOB   
 OTHER:

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

MIRU WSU, pull all production equipment. TIH w/ 2 1/2" RBP to 3,500'. pressure test casing to 500# for 30 mins. POOH & reperf the 7 RVRs/ Queen. Acidize w/ 3,000 gals 15% HCL. Run injection packer & tubing. Perform casing integrity test and begin water injection after approval of permit.

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

SIGNATURE Denise Menoud TITLE Production Tech. DATE 04/13/2000

Type or print name Denise Menoud Telephone No. (915)687-2074

(This space for State use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of approval, if any:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #12  
Lea County, NM

GL Elevation: 3368'

KI Elevation: 3378'

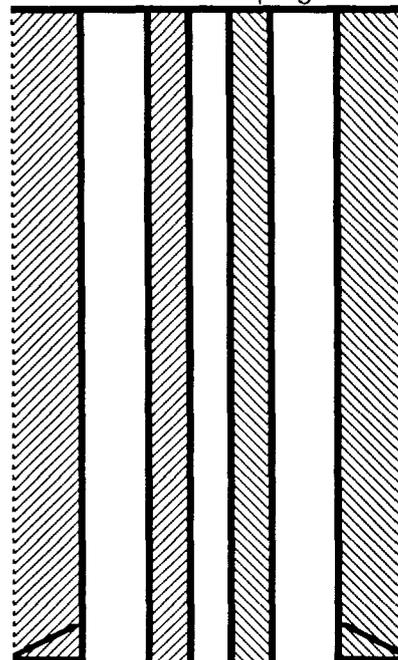
Location: 660' FNL, 660' FWL,  
Sec 26, T-23-S, R-36-E

**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# H-40, ST&C  
@ 330' in 11" hole  
Cemented to surface  
W/200 sx 50/50 Pozmix

**Well Head Assembly:**

Current Conditions: Jan-99  
Active-Pumping



**Intermediate Casing:**  
None

4-1/2" casing leaks from 580-1300'

2100'

2100'

TOC: 2100' by TS

**Slim Hole String: (10/80)**  
2-7/8" tubing @ 3748'  
Cemented to surface with 545 Sx "C"

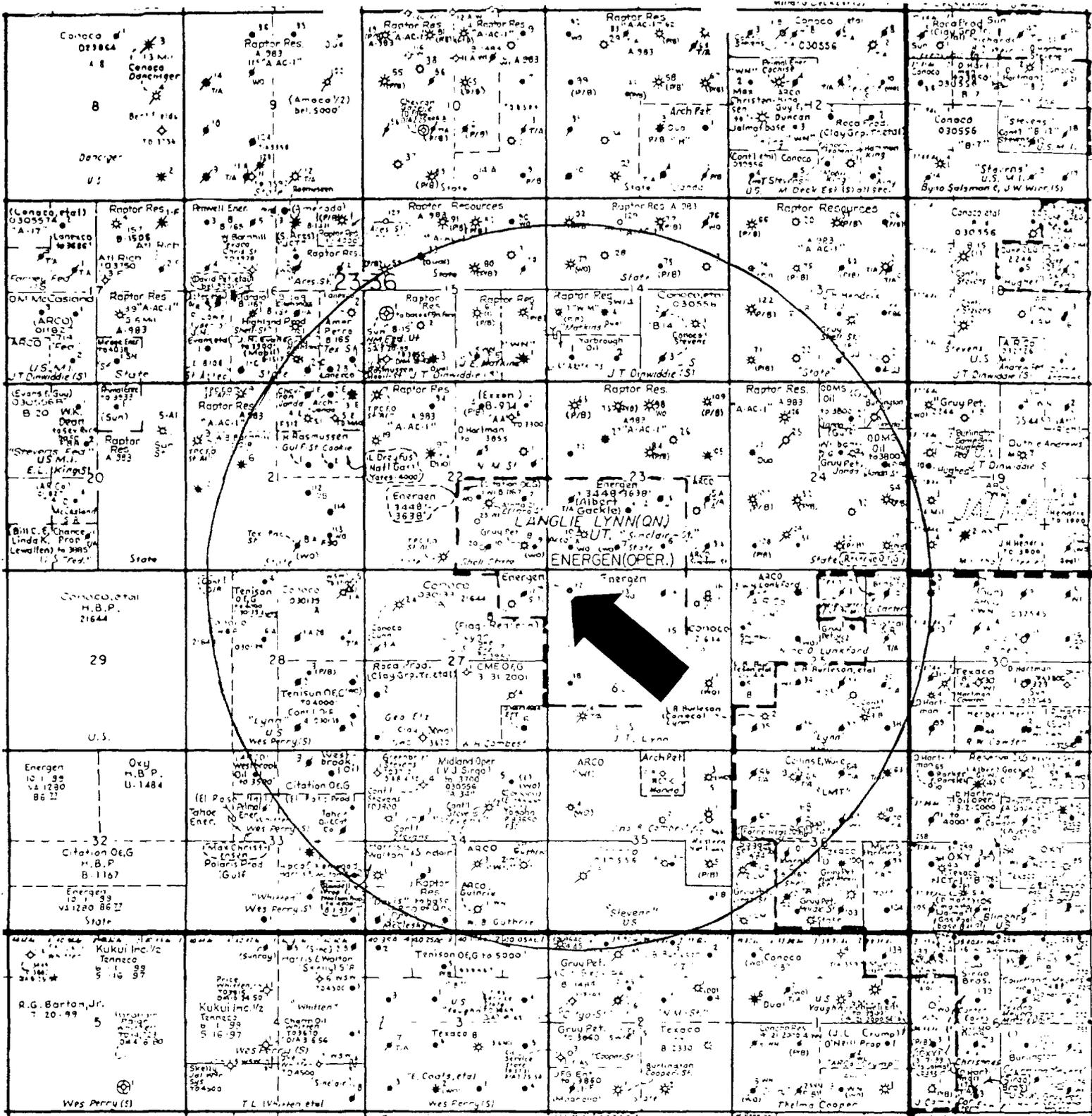
Tight Spot @ 3416' in 2-7/8" casing

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3750' in 6-3/4" hole  
300 sx Regular cement

**Perfs:** 3548-50, 64-66, 82-84,  
3605-07, 08-10, 16-18, 24-26, 28-30, 42-44,  
3648-50, 53-55, 59-61, 66-68, 80-82'  
(Perfed 11/62, Re-perfed 10/80)  
3642-82' (Re-perf 3/88, 18 holes)

Frac: 25,000 gal lease oil + 37,500# sand (11/62)

PBD: 3720'  
TD = 3750'

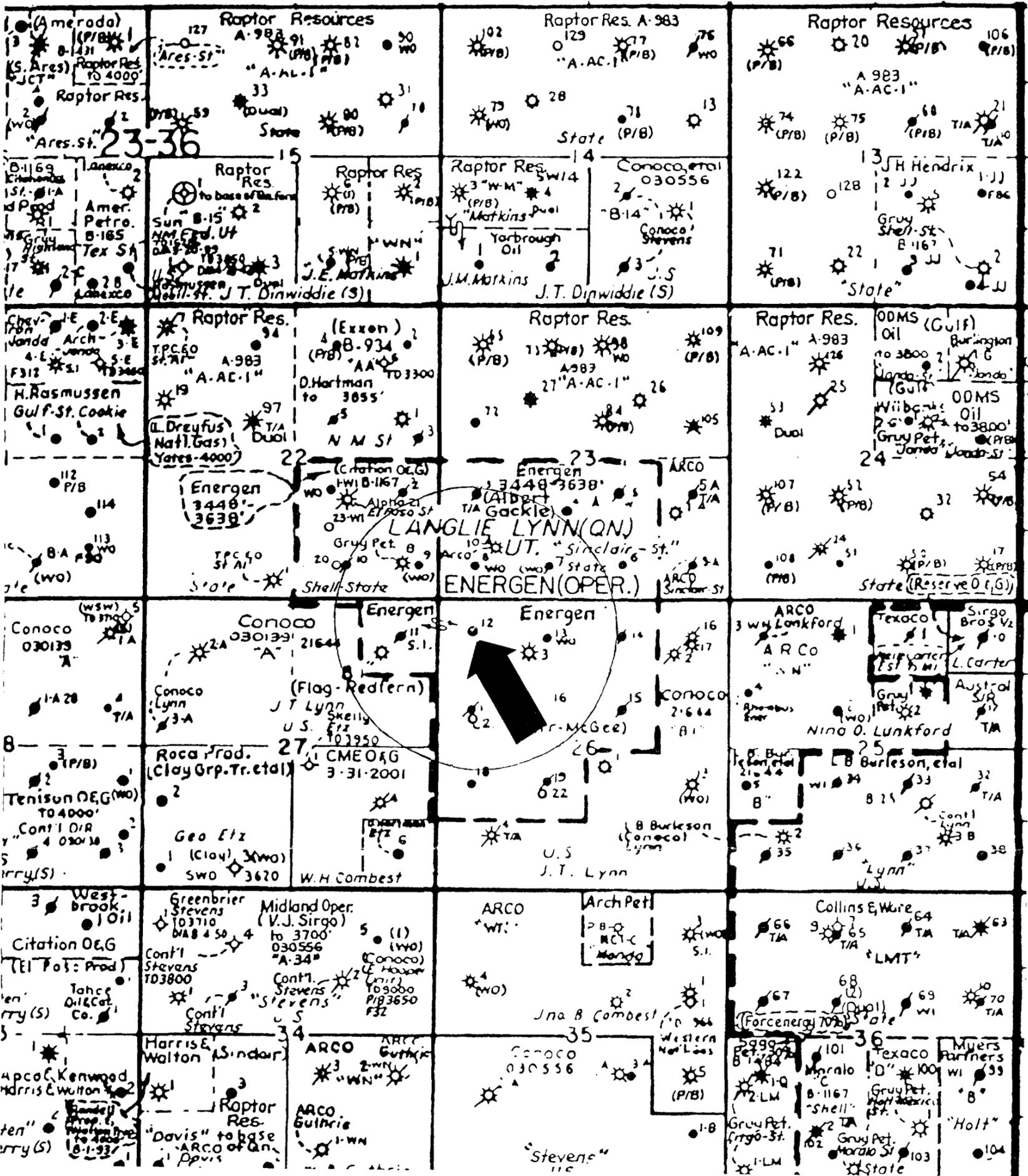


MILES



0 1 2

**LANGLIE-LYNN #12**  
 LANGLEI-LYNN UNIT  
 LANGLEI-MATTIX FIELD  
 T23s - R36E  
 Lea County, New Mexico  
**TWO MILE RADIUS**



**LANGLIE-LYNN #12**  
 LANGLIE-LYNN UNIT  
 LANGLIE-MATTIX FIELD  
 T23S - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

**INJECTION WELL DATA SHEET**

101

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #14 30 025 20191

WELL LOCATION: 660' FNL, 1980' FEL B 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 7-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: 2600'  
Method Determined: TS  
Total Depth: 3720'

**Injection Interval**

3408' feet to 3586' (Indicate whether Open Hole or perforated) perforated

**Proposed Tubing Detail**

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: 3393'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

- 1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
- 2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
- 3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Sut mit 3 Copies To Appropriate District  
 O'fice  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Enc , Minerals and Natural Resources

Form C-103  
 Revised March 25, 1999

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

WELL API NO. 30-025-20191
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267
7. Lease Name or Unit Agreement Name:  Langlie Lynn Queen Unit
8. Well No. 14
9. Pool name or Wildcat Langlie Mattix 7 RVR/Queen/GB
10. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
 Oil Well  Gas Well  Other WIW

2. Name of Operator  
Energen Resources Corporation

3. Address of Operator  
3300 N. "A" St., Bldg 4, Ste. 100, Midland, TX 79705

4. Well Location  
 Unit Letter B : 660 feet from the North line and 1980 feet from the East line  
 Section 26 Township 23S Range 36E NMPM County Lea

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 PULL OR ALTER CASING  MULTIPLE COMPLETION

SUBSEQUENT REPORT OF:

REMEDIAL WORK  ALTERING CASING   
 COMMENCE DRILLING OPNS.  PLUG AND ABANDONMENT   
 CASING TEST AND CEMENT JOB

OTHER:  OTHER:

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

03/07/00: MIRUPU. Tag RBP at 3360'. PU & set packer @ 3,340' and test RBP to 530#, no leak-off. Pressure test failed. Csg leak at 703'-989' FS.  
 03/10/00-03/18/00: RIH to 1233', spot 2 sacks sand out EOT. Tag CR @ 949', PU to 948', spot 25 sx Cl C cmt, tag cmt @ 708'. Shot 4 sqz holes at 703' FS over a 1' interval. Pump 218 sx Cl C cmt (slurry-290 cubic feet). Pressure test failed. DO cmt, circ, fish for RBP. POOH w/RBP. Set RBP @ 1010'.  
 03/19/00-03/22/00: Spot 2 sx sand on top of RBP. Acidize w/2 barrels 15% HCL. Spot 14 sx Cl C cmt (slurry-19 cubic feet), WOC. Spot 14 sx Cl C cmt (slurry- 19 cubic feet). DO cmt. Tag tbg @ 840'. Perf 3,408'-3,416', 3,424'-3,428', & 3,454'-3,462', total 80 holes.  
 3/23/00-3/24/00: Acidize w/3000 barrels 15% HCL. Swab. RIH w/ 2 3/8" x 4 1/2" "Lok-Set" injection packer, SN, & 2 3/8" tbg. Set inj pkr at 3,393'. PBTD @ 3,607'. Pressure test csg to 500#. Pressure held. Waiting on reinstatement of injection permit.

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

SIGNATURE Judy Bagwell TITLE Production Clerk DATE 4/10/2000

Type or print name Judy Bagwell Telephone No. (915)687-1155

(This space for State use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of approval, if any:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #14

Lea County, NM

Current Conditions: Jan-99

TA-WIW

**Conductor:**

None

**Surface Casing:**

7-5/8" 24# Smls, ST&C

@ 302' in 11" hole

Cemented to surface

W/200 sx "A" 2% gel, 2% CaCl<sub>2</sub>

GL Elevation: 3364'

DF Elevation: 3374'

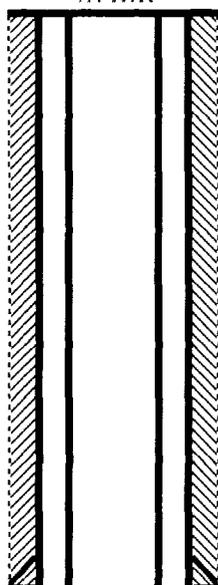
Location: 660' FNL, 1980' FEL,

Sec 26, T-23-S, R-36-E

**Well Head Assembly:**

**Intermediate Casing:**

None



TOC: 2600' by TS

Baker Lok-Set RBP @ 3370' (7/91)

Original WIW Packer was set @ 3438'

Possible hole @ 3455' 80% water inj @ 3451-71' (3/90)

Perfs: 3474, 80, 95

3515, 19, 27, 35, 50-52, 58-60, 69-71, 84-86'

CIBP @ 3605'

Perfs: 3620-22, 34-36, 53-55'

**Production Casing:**

4 1/2" 9.50# J-55 ST&C

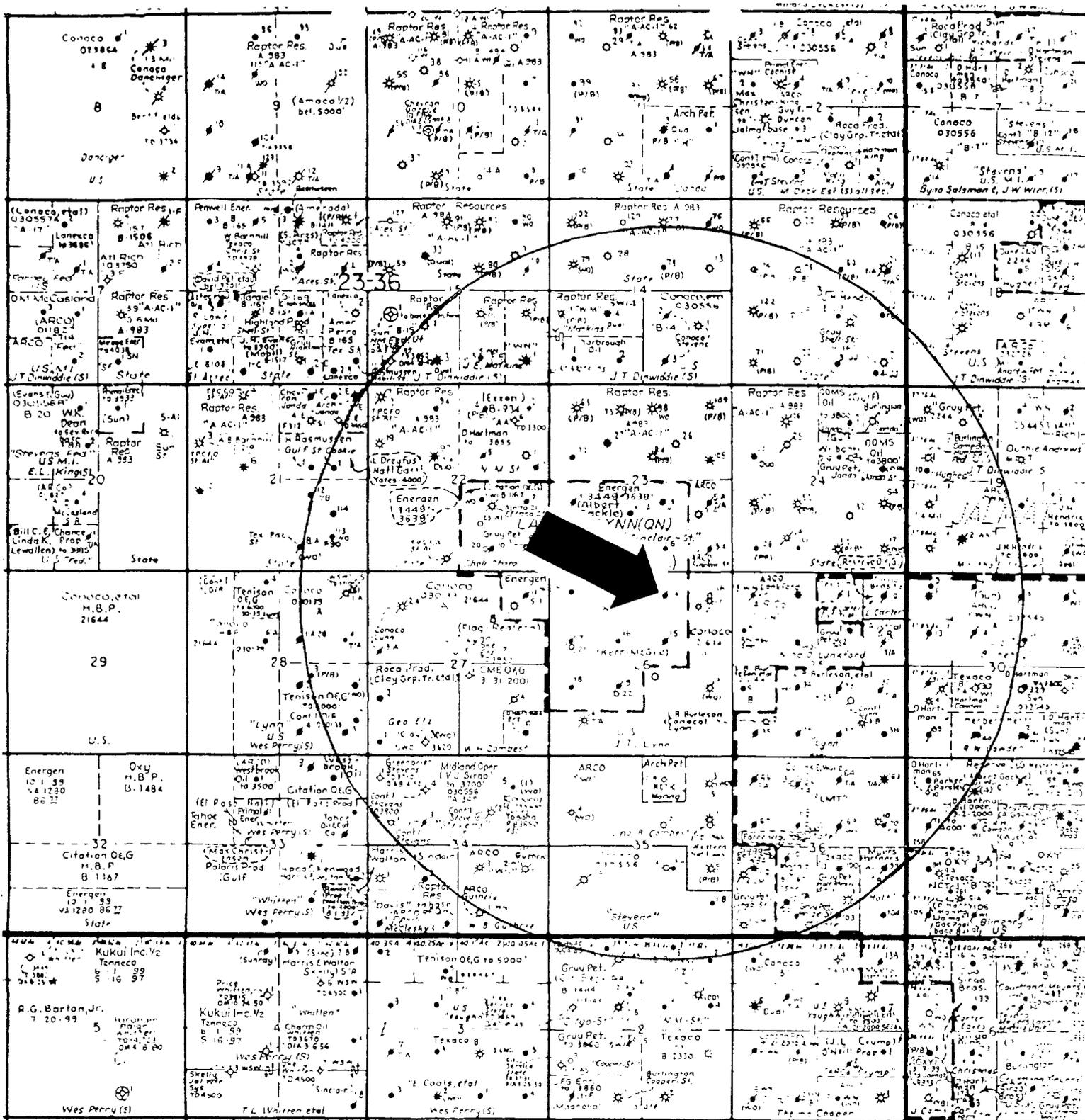
@ 3720' in 6-3/4" hole

250 sx "C" + 4% gel, salt saturated

Frac: 40,000 gal lease oil + 60,000# sand

PBD:

TD = 3720'



MILES



0 1 2

**LANGLIE-LYNN #14**  
 LANGLEIE-LYNN UNIT  
 LANGLEIE-MATTIX FIELD  
 T23s - R36E  
 Lea County, New Mexico  
**TWO MILE RADIUS**



**INJECTION WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #16 20-025 21217

WELL LOCATION: 1980' FNL, 1980' FWL F 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 7-5/8"  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2450'  
Method Determined: TS  
Total Depth: 3700'

**Injection Interval**

3468' feet to 3653' (Indicate whether Open Hole or perforated) perforated

**Proposed Tubing Detail**

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: ± 3350'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO. 30-025-21229
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Convert to WIW	7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corporation	8. Well No. 16
3. Address of Operator 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB
4. Well Location Unit Letter <u>F</u> : <u>1980</u> Feet From The <u>North</u> Line and <u>1980</u> Feet From The <u>West</u> Line Section <u>26</u> Township <u>23S</u> Range <u>36E</u> NMPM Lea County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Convert to WIW</u> <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pull all production equipment. TIH w/ RBP to 3,500', prssure test casing to 500 psi for 30 minutes. POH & re-perforate the 7 RVRs/Queen @3,468'-72', @ 3,478'-86', and @ 3,502'-08'. Acidize w/ 3,000 gals. Run injection packer and tubing, perform casing integrity test and begin water injection.

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

SIGNATURE *D. Menoud* TITLE Prod. Tech. DATE 3/13/2000

TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-2001

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #16  
Lea County, NM

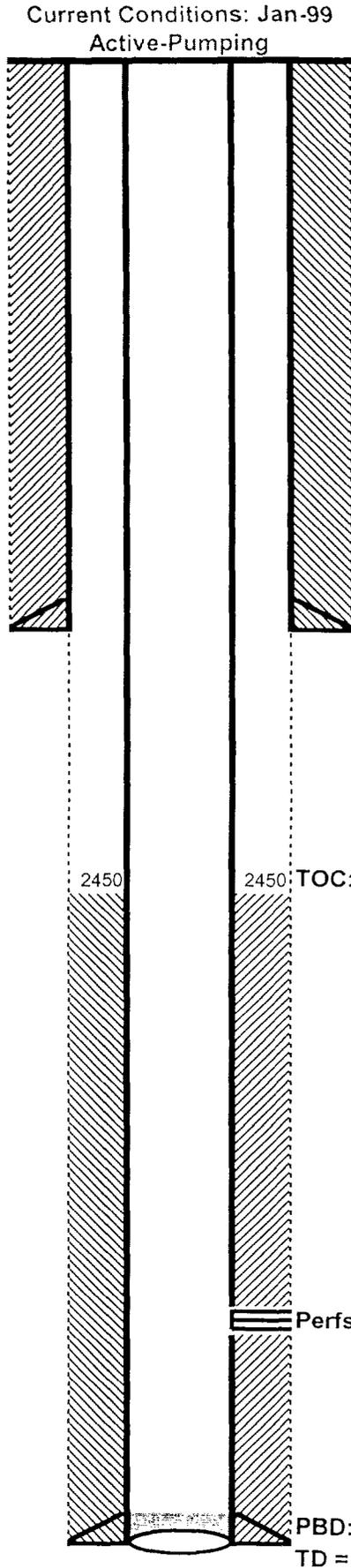
GI Elevation: 3356'  
KL Elevation: 3367'  
Location: 1980' FNL, 1980' FWL,  
Sec 26, T-23-S, R-36-E

**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# Smls, ST&C  
@ 319' in 11" hole  
Cemented to surface  
W/250 sx 50/50 Pozmix

**Intermediate Casing:**  
None

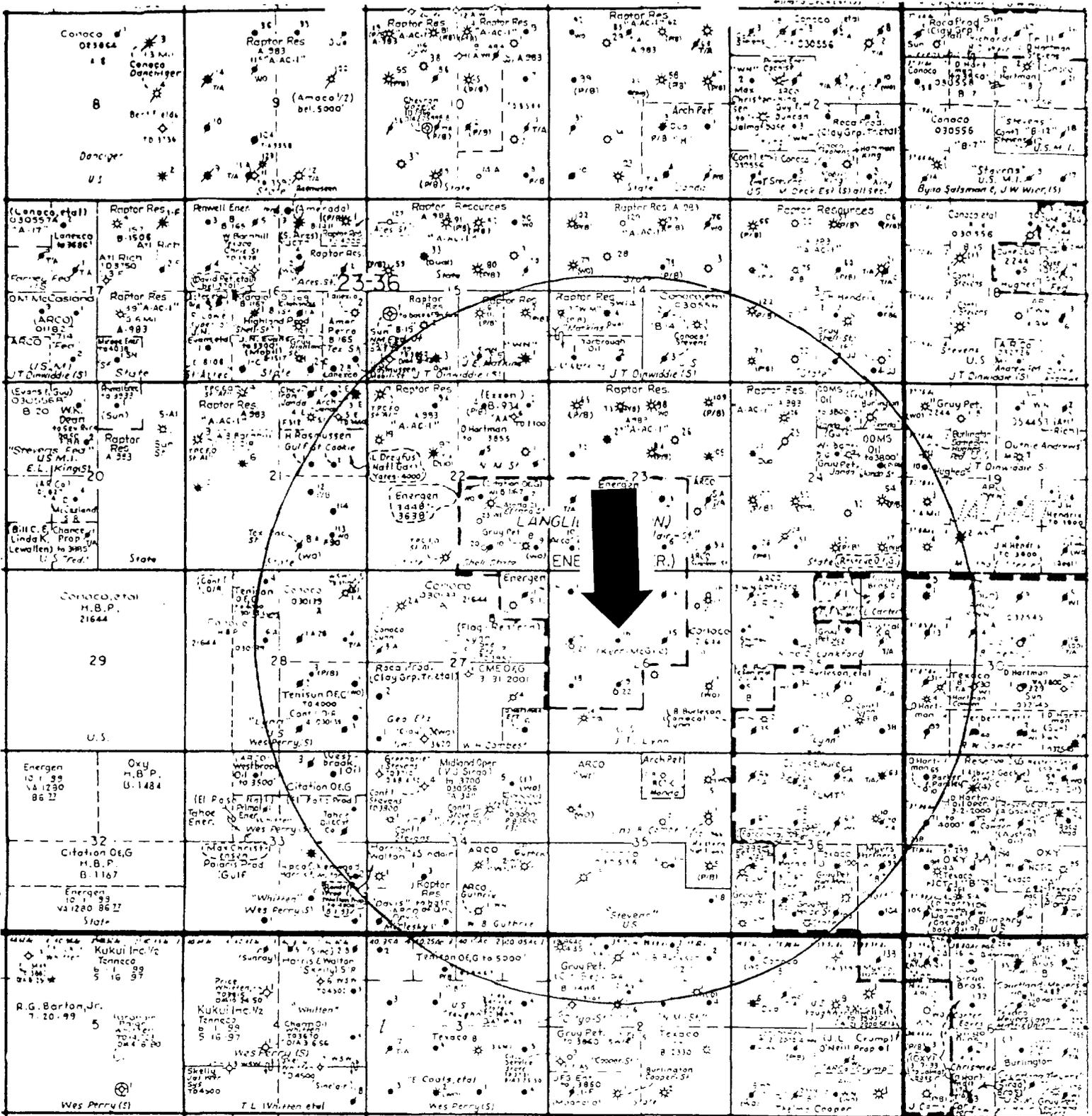
**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3700' in 6-3/4" hole  
200 sx "C" Neat



**Well Head Assembly:**

**Perfs:** 3519, 36, 55, 79, 84, 88, 96  
3600, 11, 24, 33, 48, 53 (1 JSPF)

**Frac:** 40,000 gal lease oil + 60,000# sand

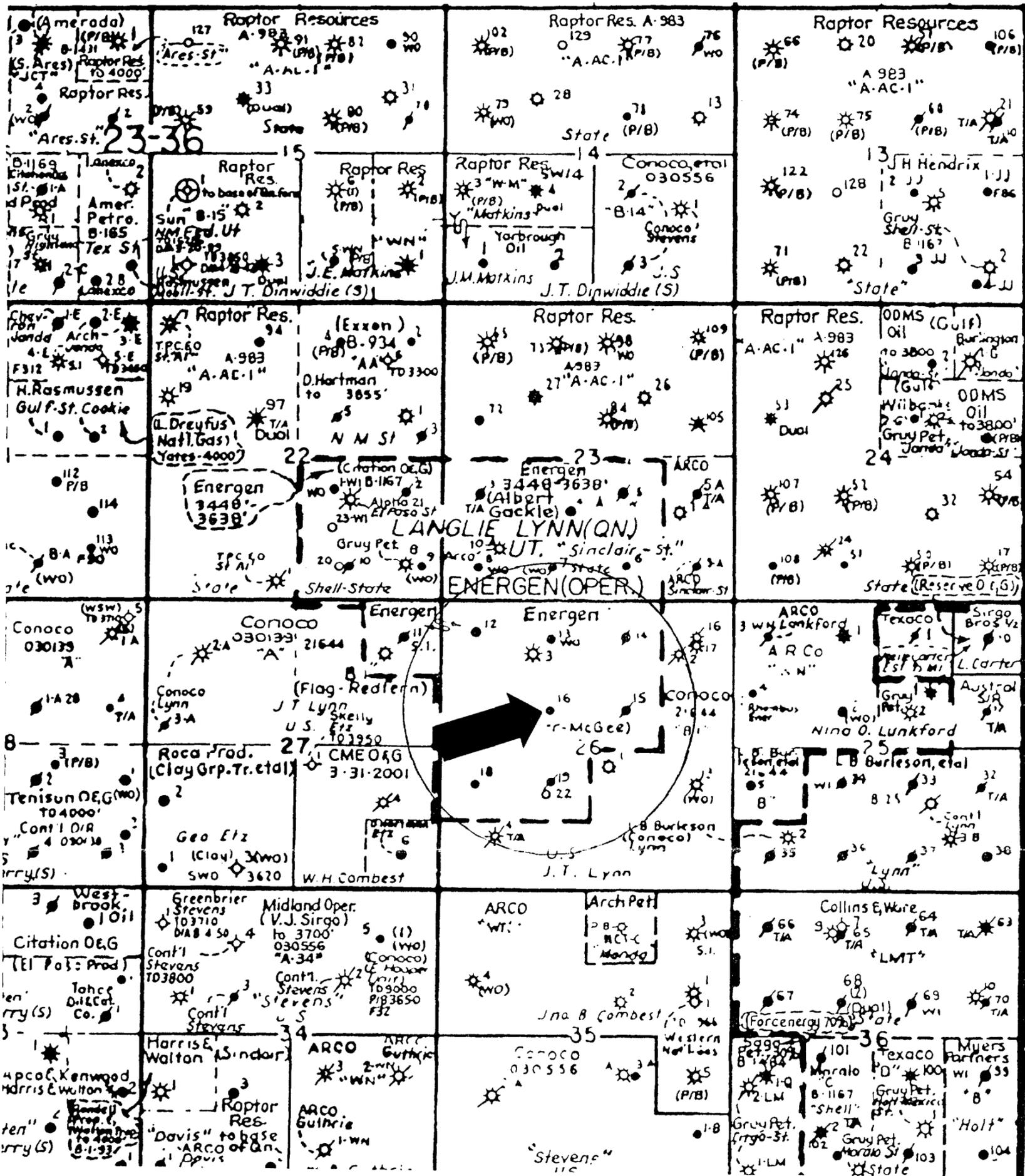


MILES

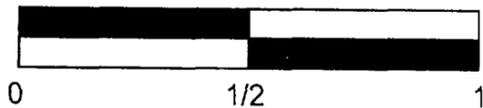


0 1 2

**LANGLIE-LYNN #16**  
**LANGLIE-LYNN UNIT**  
**LANGLIE-MATTIX FIELD**  
**T23s - R36E**  
**Lea County, New Mexico**  
**TWO MILE RADIUS**



MILES



**LANGLIE-LYNN #16**  
 LANGLIE-LYNN UNIT  
 LANGLIE-MATTIX FIELD  
 T23S - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

**JECTION WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #18 225-21458

WELL LOCATION: 1980' FSL, 660' FWL L 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 9-7/8"  
Casing Size: 7-5/8"  
Cemented with: 98 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 100 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2400'  
Method Determined: TS  
Total Depth: 3710'

**Injection Interval**

3540' feet to 3681' (Indicate whether Open Hole or perforated) perforated

**Proposed Tubing Detail**

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: ± 3350'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

**OIL CONSERVATION DIVISION**  
2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO. 30-025-21458
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Convert to WIW	7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corporation	8. Well No. 18
3. Address of Operator 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB
4. Well Location Unit Letter <u>L</u> : <u>1980</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>West</u> Line Section <u>26</u> Township <u>23S</u> Range <u>36E</u> NMPM Lea County	

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
--

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
PLUG AND ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
CHANGE PLANS <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>
OTHER: <u>Convert to WIW</u> <input type="checkbox"/>	OTHER: _____ <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pull all production equipment. TIH w/ RBP to 3,500', pressure test casing to 500 psi for 30 minutes. POH & re-perforate the 7 RVRs/Queen, acidize w/ 3,000 gals. Run injection packer and tubing, perform casing integrity test and begin water injection.

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

SIGNATURE D. Menoud TITLE Prod. Tech. DATE 3/13/2000  
 TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-2074

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCFS, INC.

Langlie Lynn Unit #18  
Lea County, NM

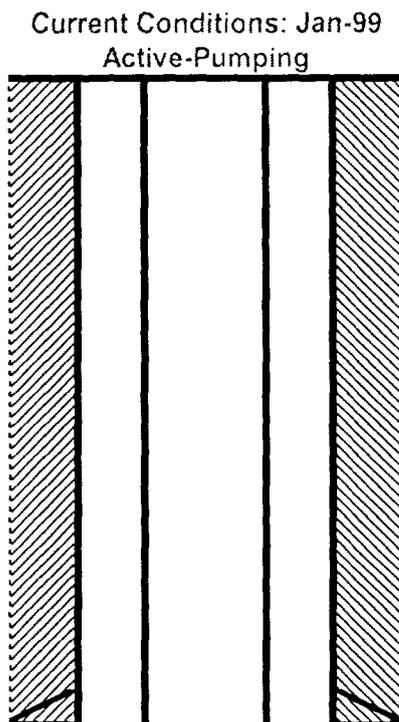
GI Elevation: 3358'  
D. Elevation: 3370'  
Location: 1980' FSL, 660' FWL,  
Sec 26, T-23-S, R-36-E

Conductor:  
None

Surface Casing:  
7-5/8" 24# Smls, ST&C  
@ 312' in 11" hole  
Cemented to surface  
W/98 sx"C" + 2% CaCl2

Intermediate Casing:  
None

Production Casing:  
4 1/2" 9.50# J-55 ST&C  
@ 3710' in 6-3/4" hole  
60 sx "C" + 4% gel, salt saturated  
40 sx "C" + 12% gel, salt saturated



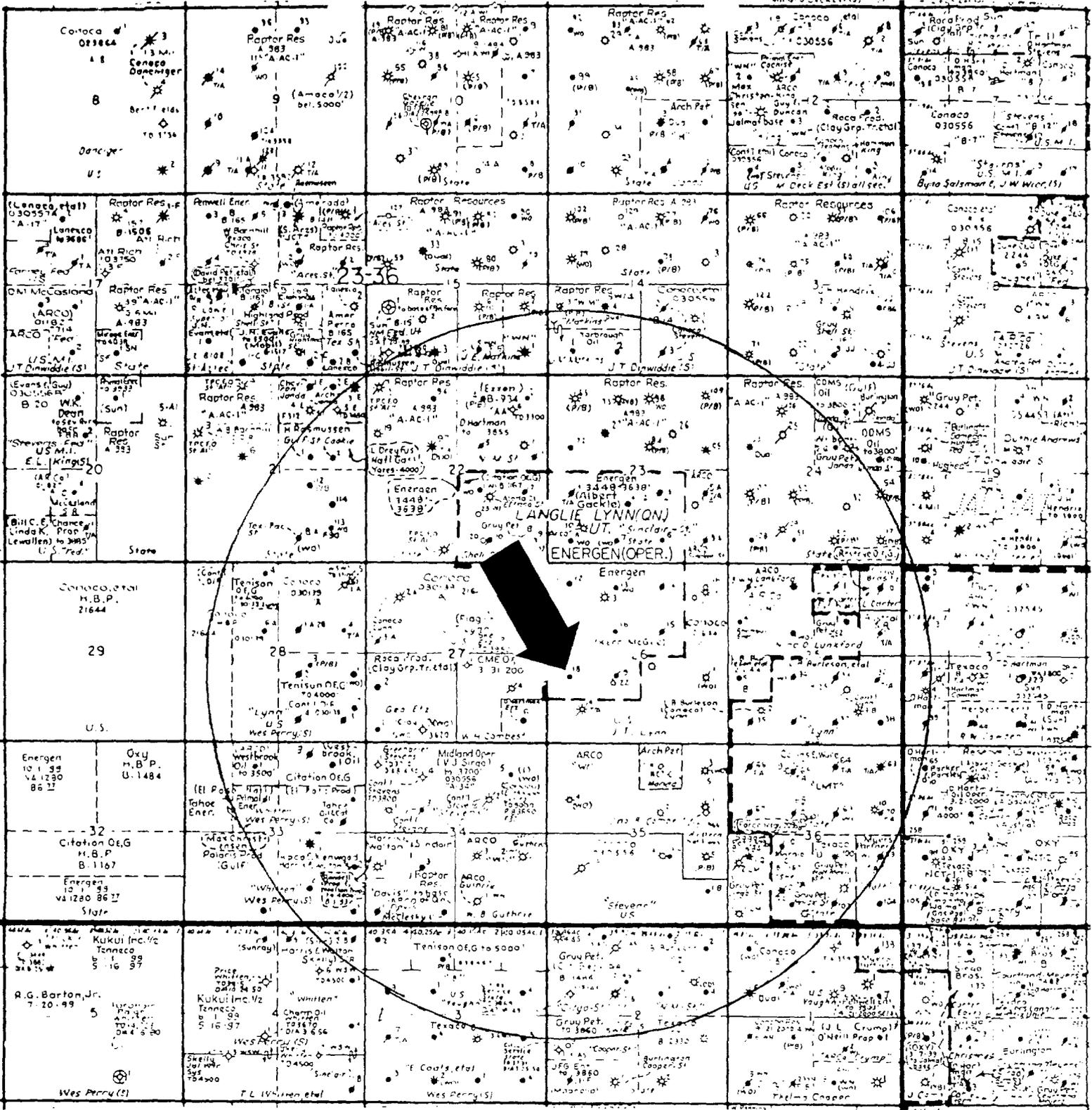
Well Head Assembly:

2400 2400 TOC: 2400' by TS

Perfs: 3540, 55, 89  
3625, 52, 64, 71, 81 (1 JSPF)

Frac: 40,000 gal lease oil + 60,000# sand

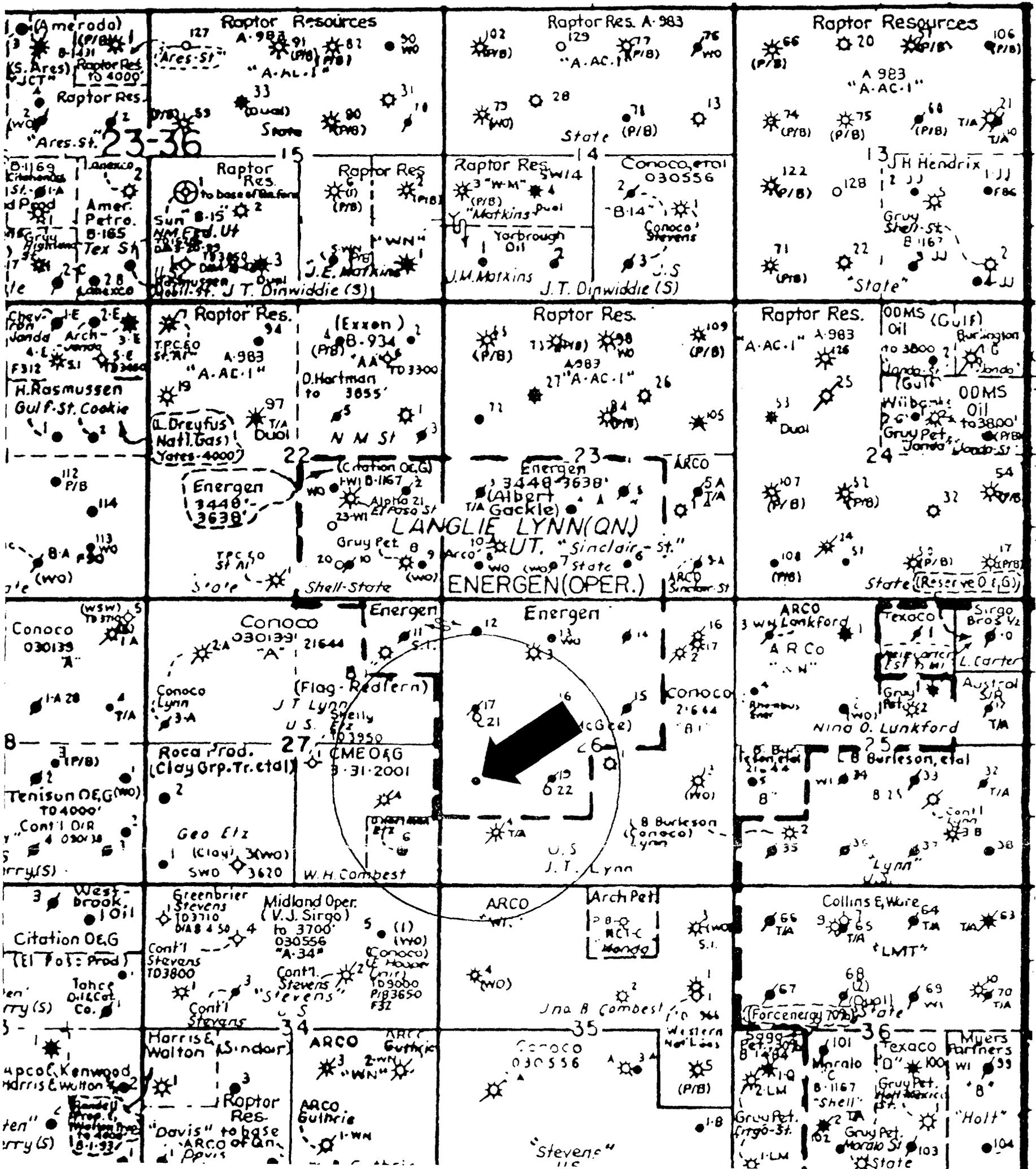
PBD:  
TD = 3710'



MILES



**LANGLIE-LYNN #18**  
 LANGLEI-LYNN UNIT  
 LANGLEI-MATTIX FIELD  
 T23s - R36E  
 Lea County, New Mexico  
**TWO MILE RADIUS**



MILES



0 1/2 1

**LANGLIE-LYNN #18**  
 LANGLIE-LYNN UNIT  
 LANGLIE-MATTIX FIELD  
 T23S - R36E  
 Lea County, New Mexico  
**HALF MILE RADIUS**

**JECTION WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #12 125-20052

WELL LOCATION: 660' FNL, 660' FWL D 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 7-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: 2100'  
Method Determined: TS  
Total Depth: 3750'

**Slim Hole Casing**

Hole Size: 4-1/2"  
Casing Size: 2-7/8"  
Cemented with: 545 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Injection Interval**

3446' feet to 3682' (Indicate whether Open Hole or perforated) perforated

**Proposed Tubing Detail**

Tubing Size: 2-3/8" J-55  
Lining Material: Internal Plastic Coated (IPC)  
Type of Packer: Baker "Lok-Set"  
Packer Setting Depth: ± 3350'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: Seven Rivers-Queen-Grayburg
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #1

WELL LOCATION: 1980' FSL, 1980' FEL J 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 8-5/8"  
Cemented with: 280 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4 1/2"  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2745'  
Method Determined: CBL  
Total Depth: 3812'

**Injection Interval**

         P&A feet to          (Indicate whether Open Hole or perforated)         

**Tubing Detail**

Tubing Size: \_\_\_\_\_  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection?          No  
If no, for what purpose was the well originally drilled?          Oil and gas  
2. Name of the Injection Formation:          n/a  
3. Name of Field or Pool (if applicable):          Langlie Mattix Seven Rivers-Queen-Grayburg

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.  
          
Original perfs in interval from 3622' to 3766'  
          
Originally PA'd 11-2-92  
          
         Set cmt retainer @ 3550'  
         Squeezed w/ 50 sx  
         Spot 7 sx cmt on top of retainer (TOC 3425')  
         Spot 25 sx cmt @ 1300' (TOC @ 931')  
         Perf. @ 375'. Pump 148 sx cmt to surface.  
          
Re-entry PA'd 1-28-00  
         See attached sheet for plugging details

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
         Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs:          See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
2040 Pacheco St.  
Santa Fe, NM 87505

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO.	30-025-09380
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	23267

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Plugged	7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corporation	8. Well No. 1
3. Address of Operator 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Mattix 7 RVS Queen
4. Well Location Unit Letter <u>J</u> : <u>1980</u> Feet From The <u>South</u> Line and <u>1980</u> Feet From The <u>East</u> Line Section <u>22</u> Township <u>23-S</u> Range <u>36-E</u> NMPM Lea County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3388' GL	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

01/27-28/2000: Cut-off the P&A marker. Stubbed the 4 1/2" casing back to surface. NU a Larkin "R" type tubing head, & BOP. RIH w/ a 3 7/8" blade bit. Tagged up @ 167'. Drilled medium-hard cement down to & fell out @ 372'. Circulated the hole clean & pressured the casing the casing to 500# which leaked-off down to 250# in 6 minutes. RIH & tagged up @ 958'. Drilled cement to 1,021', determined bit was outside the casing. POOH. RIH to 1,021'. RU Triple N Services & mixed & spotted 25 sacks of Class "C" neat. POOH to 386', spotted 25 sacks of Class "C" neat. POOH to 31' FS & mixed & spotted a 10 sack Class "C" Surface plug. Cut-off 4 1/2" casing & welded on Dry-Hole marker. Filled in the working pit, dug up the anchors, filled the cellar, & cleaned the location to it's pre-move-in condition. The well is P&A'd.

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

SIGNATURE Denise Menoud TITLE Production Tech. DATE 2/15/00  
TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. (915) 687-20

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #1  
Lea County, NM

GL Elevation: 3388'  
KB Elevation: 3399.3'  
Location: 1980' FSL, 1980' FEL,  
Sec 22, T-23-S, R-36-E

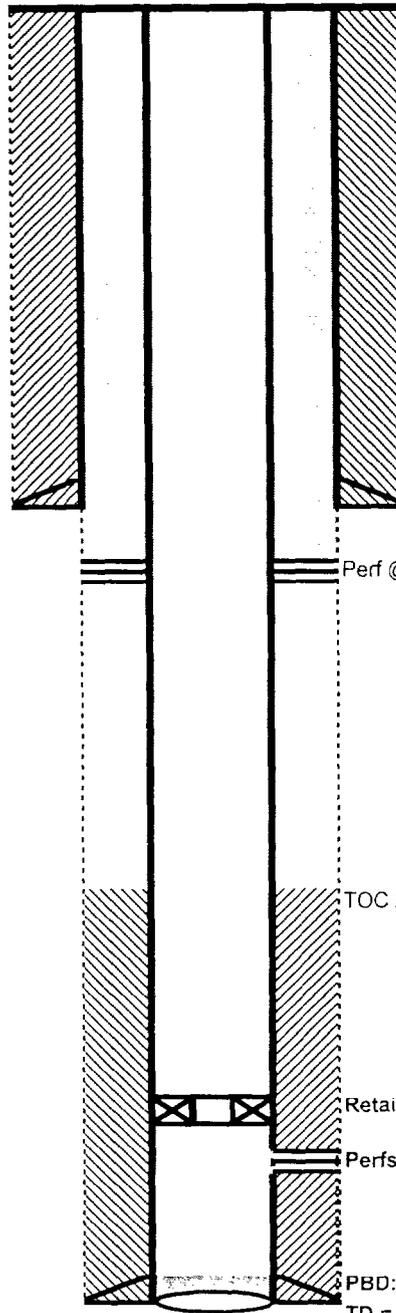
Conductor:  
None

Surface Casing:  
8-5/8" 32# H-40, ST&C  
@ 324' in 11" hole  
Cemented to surface  
W/275 sx Regular Neat

Intermediate Casing:  
None

Production Casing:  
4 1/2" 11.6# (1-jt) & 9.5 # J-55 ST&C  
@ 3812' in 6-3/4" hole  
200 Sx Regular Cement + 4% gel

Current Conditions: Mar-00  
PxA



10 sacks "C" at surface (01/28/00)

Well Head Assembly:  
None--Well PxA  
Dry Hole Marker installed

25 sacks "C" from 386' (01/28/00) (Calc top @ 26')  
Perf @ 375' Pump 148 sacks circ. to surface (10/29/92)  
Drilled out (01/27/00)

Drilled out to 1021'--bit outside casing (01/27/00)  
25 sacks "C" from 1021' (01/28/00)

25 sacks "C" from 1300' (tagged top @ 931') (10/29/92)

TOC 2745' By CBL

7 sx cement on retainer (tag @ 3425')  
Retainer @ 3550'- Squeezed w/50 sx (10/29/92)

Perfs: 7 Rivers--3622-28, 34-38, 42-46, 48-52, 60-66'  
Queen--3682-3708, 19-24, 29-32, 36-40, 66'  
Frac W/ 36,000 gal lease oil + 54,000# sand

PBD: 3782'

TD = 3812'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #2

WELL LOCATION: 1980' FSL, 660' FEL I 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 8-5/8" @ 320'  
Cemented with: 275 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 5-1/2" @ 3761'  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3765'

**Injection Interval**

3510' feet to 3732' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: 2-3/8" @  
Lining Material: \_\_\_\_\_  
Type of Packer: None  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

- 1. Is this a new well drilled for injection? No
- If no, for what purpose was the well originally drilled? Oil and gas
- 2. Name of the Injection Formation: n/a
- 3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
- 5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Minerals and Natural Resources

Form C-103  
 Revised March 25, 1999

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

WELL API NO.  
 30-025-09379

5. Indicate Type of Lease  
 STATE  FEE

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
 Oil Well  Gas Well  Other

7. Lease Name or Unit Agreement Name:  
 Langlie Lynn Queen Unit

2. Name of Operator  
 Energen Resources Corporation

8. Well No.  
 2

3. Address of Operator  
 3300 N. "A" St., Bldg 4, Ste. 100, Midland, TX 79705

9. Pool name or Wildcat  
 Langlie Mattix 7 RVR/Queen/GB

4. Well Location  
 Unit Letter I : 1980 feet from the South line and 660 feet from the East line  
 Section 22 Township 23S Range 36E NMPM County Lea

10. Elevation (Show whether DR, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK
- TEMPORARILY ABANDON
- PULL OR ALTER CASING
- OTHER:
- PLUG AND ABANDON
- CHANGE PLANS
- MULTIPLE COMPLETION

SUBSEQUENT REPORT OF:

- REMEDIAL WORK
- COMMENCE DRILLING OPNS.
- CASING TEST AND CEMENT JOB
- OTHER:
- ALTERING CASING
- PLUG AND ABANDONMENT

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

02/02/00: MIRUPU to repair csg leak between 570'-602' FS. Shot 4 sqz holes @ 2,700' FS & 4 holes @ 1,589' FS. Set cmt ret @ 1,521', sqz'd the 5 1/2" x 8 5/8" annulus in 2 stages: 400 sx Cl C (slurry-679 cu.ft) & 175 sx Cl C (surry-253 cu.ft.), 5 sx circ

02/04-10/00: D.O. cmt, tested sqz, still had some leak-off. Re-sqz'd as follows: spotted 12 sx @ 2702' (slurry-16.2 cu.ft.), 6 sx @ 1622', & 12 sx @ 608'. D.O. cmt, tested sqz, pressure held. Ran CNL/GR/CCL, new WL PBD @ 3738'.

02/11/00: Perf 7 RVR/Queen @ 3510'-88' (total of 120 new holes). Acidized w/ 3000 gals 15% HCL.

02/16/00: RIH w/ 2 3/8" tbg, set @ 3582'. RIH w/ 2 x 1 1/2 x 12 RWBC pump.

02/29/00: 24 hr retest: 5 B0/ 33 BW/ 0 MCF. RIH w/ add. 4 jts tbg, set @ 3708'.

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

SIGNATURE Denise Menoud TITLE Production Tech. DATE 3/15/2000

Type or print name Denise Menoud Telephone No. (915)687-2074

(This space for State use)

APPROVED BY Chris Williams DISTRICT SUPERVISOR TITLE DISTRICT SUPERVISOR DATE MAR 23 2000

Conditions of approval, if any:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #2  
Lea County, NM

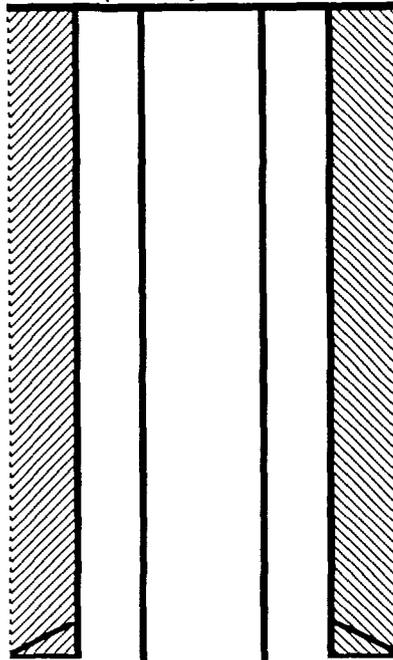
GI Elevation: 3391'  
KL Elevation: 3400.6, 9.6' ACHF  
Location: 1980' FSL, 660' FEL,  
Sec 22, T-23-S, R-36-E

Current Conditions: Jan-99  
Temporarily Abandoned

**Conductor:**  
None

**Surface Casing:**  
8-5/8" 32# H-40, ST&C  
@ 330' in 12-1/4" hole  
Cemented to surface  
W/275 sx Regular Neat

**Well Head Assembly:**



**Intermediate Casing:**  
None

NOTE: Well records indicate casing leak at unknown depth.  
No record of leak location or casing repair

???

???

TOC: unknown

**Production Casing:**  
5 1/2" 15.50# J-55 ST&C  
@ 3761' in 7-7/8" hole  
200 Sx Regular Cement + 4% gel

**Perfs:**  
7 Rivers: 3590-94'  
Queen: 3626-30, 69-73, 85-91, 96-99'  
3705-09, 13-16, 19-22, 28-32'  
Top interval 4 JSPF, all others 2 JSPF  
Frac W/ 27,000 gal lease oil + 1.5 ppg sand  
PBD: Baffle @ 3741'

TD = 3765'



Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 En , Minerals and Natural Resources

Form C-103  
 Revised March 25, 1999

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

WELL API NO. 30-025-09387
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267
7. Lease Name or Unit Agreement Name: Langlie Lynn Queen Unit
8. Well No. 4
9. Pool name or Wildcat Langlie Mattix 7 RVRs/Queen/GB
10. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
 Oil Well  Gas Well  Other

2. Name of Operator  
 Energen Resources Corporation

3. Address of Operator  
 3300 N. "A" St., Bldg 4, Ste. 100, Midland, TX 79705

4. Well Location  
 Unit Letter K : 1650 feet from the South line and 2310 feet from the West line  
 Section 23 Township 23S Range 36E NMPM County Lea

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 PULL OR ALTER CASING  MULTIPLE COMPLETION

SUBSEQUENT REPORT OF:

- REMEDIAL WORK  ALTERING CASING   
 COMMENCE DRILLING OPNS.  PLUG AND ABANDONMENT   
 CASING TEST AND CEMENT JOB

OTHER:  OTHER:

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

02/22-23/00: MIRUPU, pulled production equipment. Cleaned out fill to new PBD of 3,685'. (could not bail any deeper).

02/24/00: Re-perforated the 7 RVRs/ Queen @ 3,440'-78', (total of 152 holes). Old perms @ 3,440'-3,526' & 3,542'-3,628'. Acidized perms w/ 3M gals 15% HCL acid.

02/29/00: RIH w/ rods & 2 3/8" tubing. Tubing landed @ 3,660'. RDPU & RWTP.

03/05/00: Retest: 3 B0/ 27 BW.

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

SIGNATURE Denise Menoud TITLE Production Tech. DATE 03/21/00

Type or print name Denise Menoud Telephone No. (915)687-2074

(This space for State use)

ORIGINAL SIGNED BY CHRIS WILLIAMS  
 DISTRICT SUPERVISOR

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE MAR 24 2000

Conditions of approval, if any:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #4

Lea County, NM

C' Elevation: 3370'

... Elevation: 3380'

Location: 1650' FSL, 2310' FWL,  
Sec 23, T-23-S, R-36-E

Current Conditions: Jan-99  
Active-Pumping

Conductor:  
None

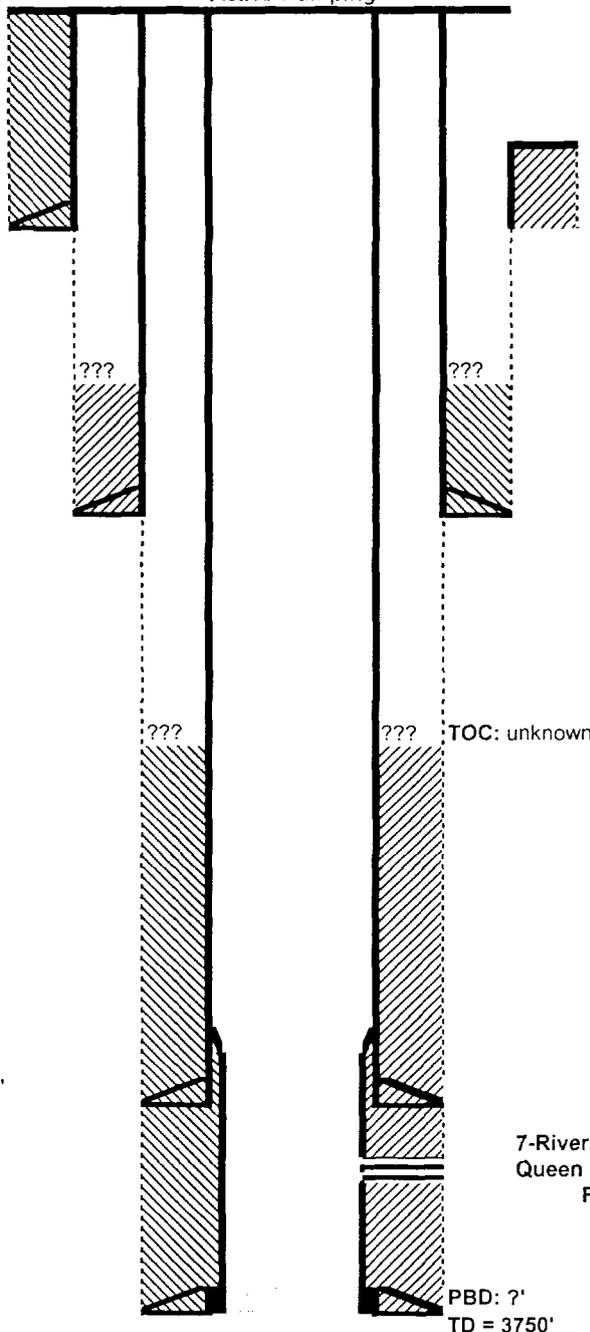
Surface Casing:  
10-3/4" 28# casing  
@ 225' in ?" hole  
Cemented to surface  
W/500 sacks

7-5/8" 26# Casing @ 1235'  
with 500 sacks cement

Production Casing:  
5-1/2" 14# @2795'  
with 600 sacks

Production Liner:  
4 1/2" 16.60# Liner from 2768-3750'  
@ 3750' in ?" hole  
with 115 sacks

Well Head Assembly:



7-Rivers Perfs: 3478-90, 3494-3503, 06, 10, 17-26' (1/90)  
Queen Perfs: 3542-70, 3576-3614, 3618-3628'  
Frac: 20,000 gals Lease oil



# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #6  
Lea County, NM

GI Elevation: 3374'

KL Elevation: 3385'

Location: 660' FSL, 1980' FEL,  
Sec 23, T-23-S, R-36-E

Well Head Assembly:

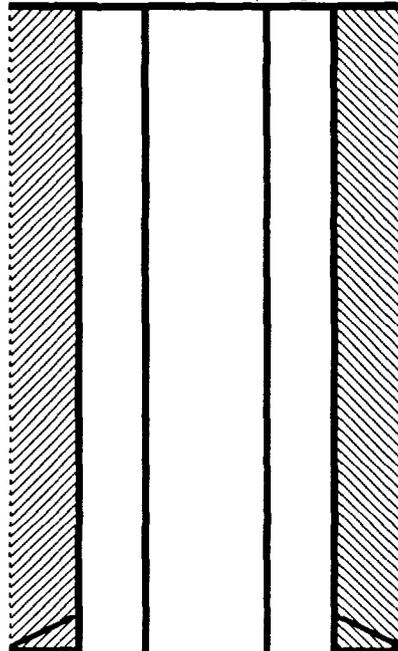
Conductor:

None

Surface Casing:

8-5/8" 24# J-55, ST&C  
@ 269' in 11" hole  
Cemented to surface  
W/150 sx 50/50 Pozmix

Current Conditions: Jan-99  
Active-Pumping



Intermediate Casing:

None

???

???

TOC: unknown

Production Casing:

4 1/2" 9.50# J-55 ST&C  
@ 3727' in 6-3/4" hole  
1100 sx 50/50 Pozmix  
50 Sx Regular Cement + Latex

Perfs:

3466-72, 82-86 (1/99)

3500-12, 32-56, 66-3600, 3606-12' (1/99)

3550, 55, 68, 76, 81, 86, 94 (12/62)

3601, 11 (12/62)

Frac: 20,000 gal lease oil + 26,000# sand (12/62)

PBD: 3704'

TD = 3727'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #8

WELL LOCATION: 660' FSL, 660' FWL M 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 8-5/8"  
Cemented with: 150 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 1926 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual  
Total Depth: 3712'

**Injection Interval**

3482' feet to 3673' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #8  
Lea County, NM

GL Elevation: 3358'

KL Elevation: 3370'

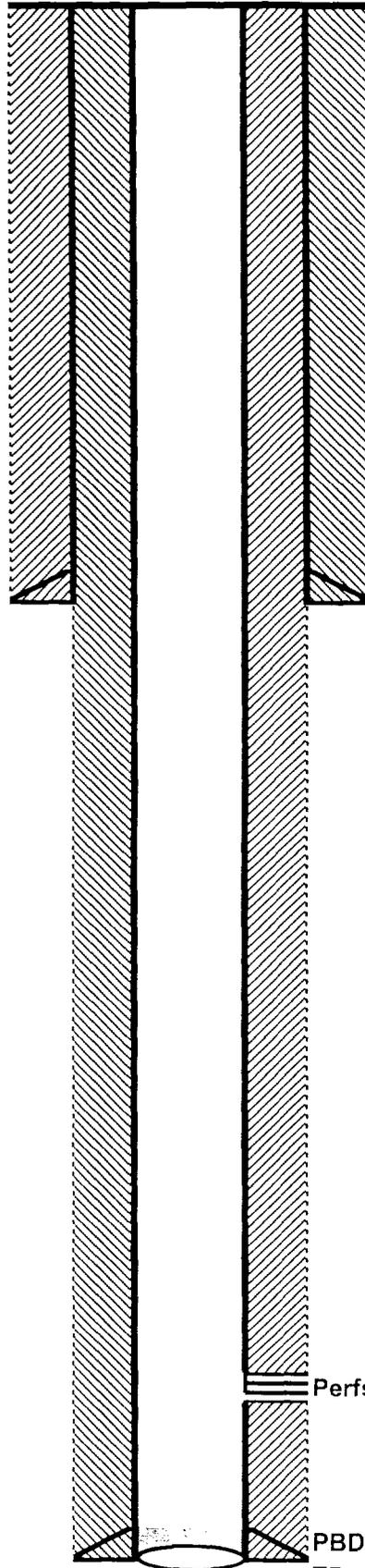
Location: 660' FSL, 660' FWL,  
Sec 23, T-23-S, R-36-E

**Conductor:**  
None

**Surface Casing:**  
8-5/8" 24# J-55, ST&C  
@ 272' in 11" hole  
Cemented to surface  
W/150 sx 50/50 Pozmix

**Well Head Assembly:**

Current Conditions: Jan-99  
Active-Pumping



**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3712' in 6-3/4" hole  
1876 sx 50/50 Pozmix  
50 sx Regular cement + Latex  
Cement Circulated

Perfs: 3533, 58, 69, 80, 89, 92, 96,  
3604, 12, 16, 32, 38, 43, 47, 54, 58, 61, 70, 73'

Frac: 20,000 gal lease oil + 28,000# sand (11/62)

PBD: 3695'

TD = 3712'

Note: Records indicate 18' corroded mud anchor left in hole (8/87)

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #10

WELL LOCATION: 660' FSL, 1650' FEL O 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 9-7/8"  
Casing Size: 7-5/8"  
Cemented with: 225 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3812'

**Injection Interval**

         P&A          feet to          (Indicate whether Open Hole or perforated)         

**Tubing Detail**

Tubing Size: \_\_\_\_\_  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

- 1. Is this a new well drilled for injection?          No           
If no, for what purpose was the well originally drilled?          Oil and gas
- 2. Name of the Injection Formation:          n/a
- 3. Name of Field or Pool (if applicable):          Langlie Mattix Seven Rivers-Queen-Grayburg

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_  
         Old perfs in interval from 3623 to 3739, PA'd 7-2-86  
         See attached sheet for plugging detail

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
         Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs:          See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

NO. OF COPIES RECEIVED		
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SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State  Fee   
5. State Oil & Gas Lease No.  
**B-1167**

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL  GAS WELL  OTHER **Try well**  
2. Name of Operator **CONOCO INC.**  
3. Address of Operator **P. O. Box 460, Hobbs, N.M. 88240**  
4. Location of Well  
UNIT LETTER **0** **640** FEET FROM THE **South** LINE AND **1650** FEET FROM  
THE **East** LINE, SECTION **22** TOWNSHIP **23S** RANGE **36E** N.M.P.M.  
7. Unit Agreement Name  
8. Farm or Lease Name **Langle Lynn Queen**  
9. Well No. **10**  
10. Field and Pool, or Wildcat **Langle Mattix Trus**  
11. Elevation (Show whether DF, RT, GR, etc.)  
12. County **Lea**

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK  PLUG AND ABANDON  REMEDIAL WORK  ALTERING CASING   
TEMPORARILY ABANDON  CHANGE PLANS  COMMENCE DRILLING OPER.  PLUG AND ABANDONMENT   
PULL OR ALTER CASING  OTHER  CASING TEST AND CEMENT JOB   
OTHER \_\_\_\_\_

SUBSEQUENT REPORT OF:

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- ① MIRU on 7-1-86. POOH w/ tbg
- ② Set CIBP @ 3600'. Displace hole w/ mud, set 3cmt plugs. Tag top of plug after waiting on cmt 3 1/2 hrs. (Top @ 1140')
- ③ Bullhead 300 sxs class "C" cmt down 4 1/2 csq, had good returns out 7 3/8" csq. Installed P & A marker.
- ④ Rig down on 7-2-86.

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

SIGNED Ceal O. Yarbrough TITLE Administrative Supervisor DATE 7-18-86

APPROVED BY [Signature] TITLE OIL & GAS INSPECTOR DATE SEP 1 1 1986  
CONDITIONS OF APPROVAL (IF ANY):

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #10

Lea County, NM

Current Conditions: Jan-99  
PxA

**Conductor:**  
None

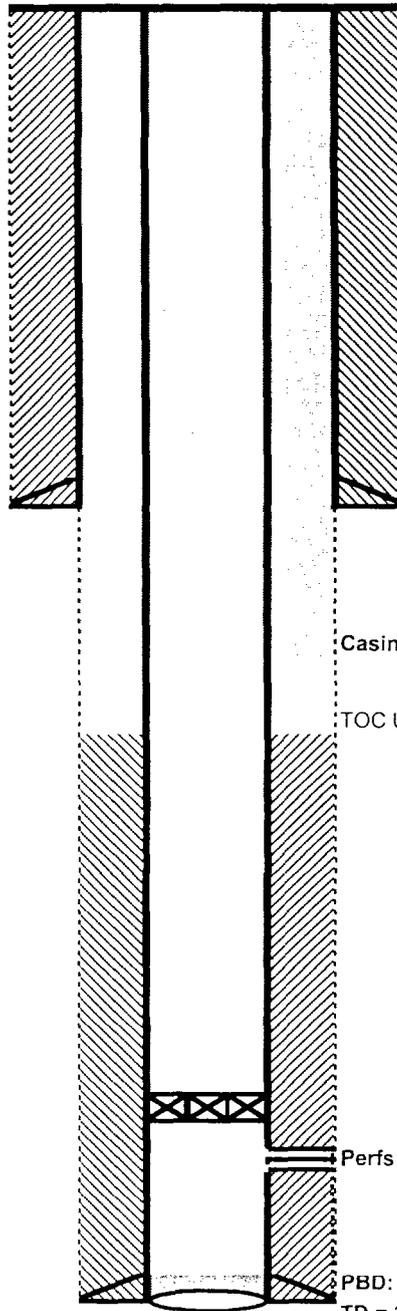
**Surface Casing:**  
7-5/8" 32# H-40, ST&C  
@ 307' in 11" hole  
Cemented to surface  
W/225 sx Regular Neat

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 10.5 & 11.6# J-55 ST&C  
@ 3800' in 6-3/4" hole  
200 Sx Regular Cement + 4% gel

**GL Elevation:** 3391'  
**KB Elevation:** 3401'  
**Location:** 660' FSL, 1650' FEL,  
Sec 22, T-23-S, R-36-E

**Well Head Assembly:**  
None--Well PxA  
Dry Hole Marker installed



300 Sacks bull headed down 4-1/2" & out 7-5/8"

Casing Leaks: 321-1236'

TOC Unknown

25 sacks "C" from 1302-582' (7/86)

20 sacks "C" from 3095-2805' (7/86)

20 Sx plug on CIBP top @ 3310' (7/86)

Retainer @ 3600' (7/86)

Perfs: 3623, 41 (5/74 Conv to WIW)  
3659, 71, 75, 84, 85, 93,  
3700, 04, 05, 13, 15, 21, 22, 23, 31, 35, 39,  
Frac W/ 30,000 gal lease oil + 40,000# sand  
3770, 72, 76, 82, 84, 85, 87, 90, 93 (Squeezed 6/63)

PBD: 3782'

TD = 3812'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #13

WELL LOCATION: 660' FNL, 1980' FWL C 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 7-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2500'  
Method Determined: TS  
Total Depth: 3700'

**Injection Interval**

3446' feet to 3638' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO.

30-025-20335

5. Indicate Type of Lease

STATE

FEE

6. State Oil & Gas Lease No.

23267

7. Lease Name or Unit Agreement Name

Langlie Lynn Queen Unit

8. Well No.

13

9. Pool name or Wildcat

Langlie Mattix 7 RVRs/Queen/GB

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL  
WELL

GAS  
WELL

OTHER

2. Name of Operator

Energen Resources Corporation

3. Address of Operator

3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705

4. Well Location

Unit Letter C : 660 Feet From The North Line and 1980 Feet From The East Line

Section 26 Township 23S Range 36E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK

PLUG AND ABANDON

REMEDIAL WORK

ALTERING CASING

TEMPORARILY ABANDON

CHANGE PLANS

COMMENCE DRILLING OPNS.

PLUG AND ABANDONMENT

PULL OR ALTER CASING

CASING TEST AND CEMENT JOB

OTHER: \_\_\_\_\_

OTHER: \_\_\_\_\_

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pull production equipment. Re-perforate the 7 RVRs/Queen @ 3,446'-54', @ 3,466'-72', and @ 3,496'-3,504'. Acidize w/ 3,000 gals. RWTP.

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

SIGNATURE Denise Menoud TITLE Prod. Tech. DATE 3/13/2000

TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-20

(This space for State Use)

ORIGINAL SIGNED BY CHRIS WILLIAMS  
DISTRICT I SUPERVISOR

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #13  
Lea County, NM

GL Elevation: 3376'

KL Elevation: 3386'

Location: 660' FNL, 1980' FWL,  
Sec 26, T-23-S, R-36-E

Current Conditions: Jan-99  
Active-Pumping

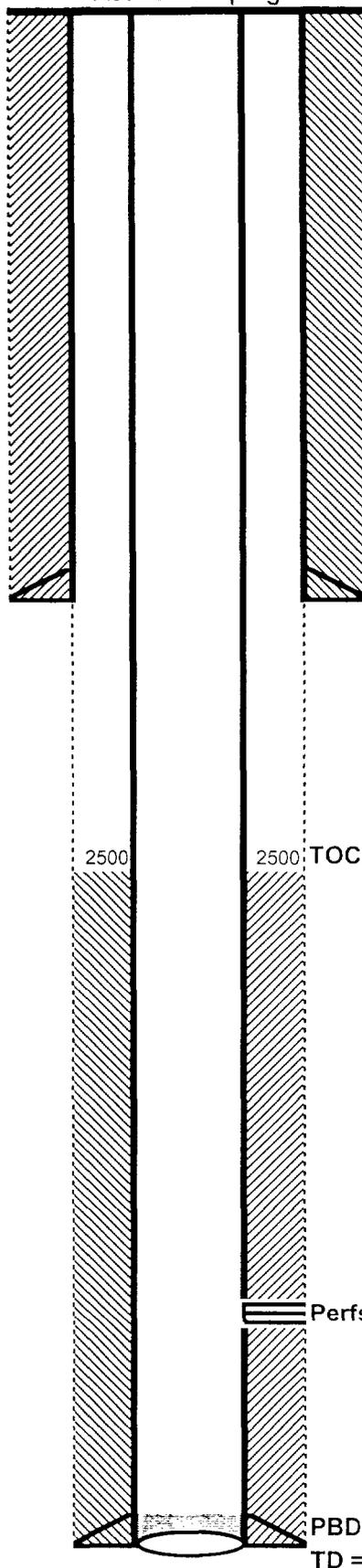
**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# Smls, ST&C  
@ 318' in 11" hole  
Cemented to surface  
W/200 sx 50/50 Pozmix

**Well Head Assembly:**

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3700' in 6-3/4" hole  
250 sx "C" Neat



2500 TOC: 2500' by TS

Recommended perfs: 3444-52, 3498-3508'

Perfs: 3518-20, 38-40, 50-52, 62-64, 71-73, 79-81, 85-87  
3612-14, 16-18, 36-38 (2 JSPF)

Frac: 25,000 gal lease oil + 31,500# sand (5/63)

PBD:  
TD = 3700'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #15

WELL LOCATION: 1980' FNL, 1980' FEL G 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 9-7/8"  
Casing Size: 7-5/8"  
Cemented with: 275 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: \_\_\_\_\_

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2550'  
Method Determined: TS  
Total Depth: 3675'

**Injection Interval**

3416' feet to 3641' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO.	30-025-21067
5. Indicate Type of Lease	Federal STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	23267

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Convert to Producer	7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
2. Name of Operator Energen Resources Corporation	8. Well No. 15
3. Address of Operator 3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705	9. Pool name or Wildcat Langlie Matrix 7 RVRs/Queen/GB
4. Well Location Unit Letter <u>B6</u> : 1980 Feet From The North Line and 1980 Feet From The East Line Section 26 Township 23S Range 36E NMPM Lea County	10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: Convert from WIW to Producer <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pressure test casing to 500 psi for 30 minutes. Recover RBP @ 3,368'. Re-perforate the 7 RVRs/Queen @ 3,416'-24', @ 3,432'-44', and @ 3,462'-68'. Acidize w/ 3,000 gals. Run tubing and rods, place well on production.

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

SIGNATURE Denise Menoud TITLE Prod. Tech. DATE 3/13/2000  
TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-20

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

ORIGINAL SIGNED BY  
GARY WINK  
FIELD REP.

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #15  
Lea County, NM

GL Elevation: 3342'

DE Elevation: 3354'

Location: 1980' FNL, 1980' FEL,  
Sec 26, T-23-S, R-36-E

Current Conditions: Jan-99  
TA-WIW

**Conductor:**

None

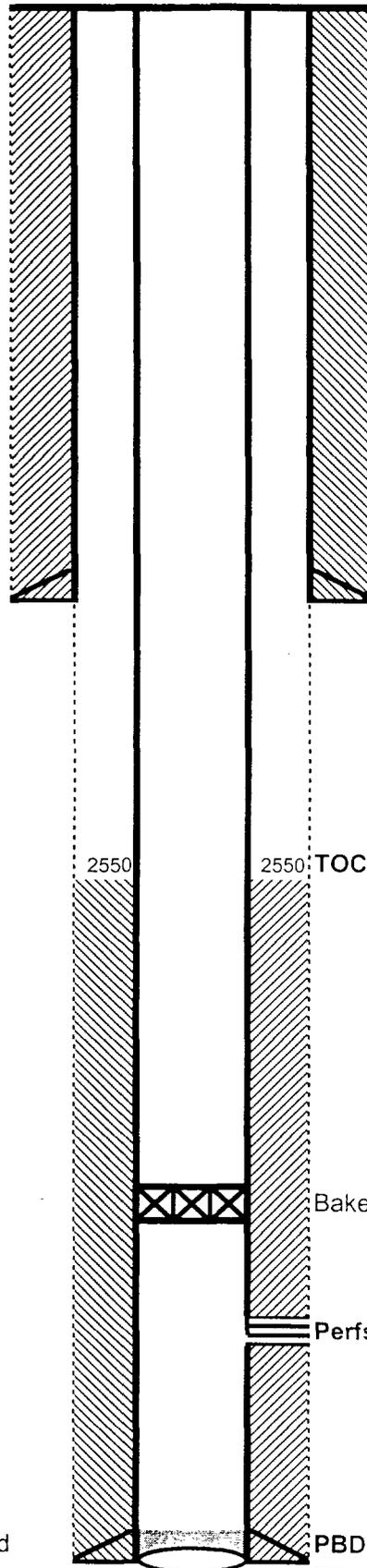
**Surface Casing:**

7-5/8" 24# Smls, ST&C  
@ 312' in 11" hole  
Cemented to surface  
W/275 sx "A" 2% gel, 2% CaCl<sub>2</sub>

**Well Head Assembly:**

**Intermediate Casing:**

None



**Production Casing:**

4 1/2" 9.50# J-55 ST&C  
@ 3675' in 6-3/4" hole  
250 sx "C" + 4% gel, salt saturated

2550 TOC: 2550' by TS

Baker Lok-Set RBP @ 3368'

Original WIW Packer was set @ 3398'

Perfs: 3468, 3485 (2JSPF) 7/74  
3504, 32, 43, 48, 59, 64, 74, 82, 95  
3619, 27, 41 (1 JSPF)

Frac: 40,000 gal lease oil + 60,000# sand

PBD:  
TD = 3675'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #17

WELL LOCATION: 1980' FNL, 660' FWL E 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"

Casing Size: 7-5/8"

Cemented with: 150 sacks (or) \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Surface

Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"

Casing Size: 4-1/2"

Cemented with: 120 sacks (or) \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: 2400' ✓

Method Determined: TS

Total Depth: 3725'

**Injection Interval**

3506' feet to 3560' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: \_\_\_\_\_

Lining Material: \_\_\_\_\_

Type of Packer: \_\_\_\_\_

Packer Setting Depth: \_\_\_\_\_

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No

If no, for what purpose was the well originally drilled? Oil and gas

2. Name of the Injection Formation: n/a

3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

Old perms @ 3560'-3687'. PA'd 10-26-92 as follows:

RBP at 3506' w/ 20 sx cmt on top (TOC 3352')

Set cmt plug at 1356' w/ 25 sx cmt (TOC at 1110')

Set cmt plug at 350'. Circ cmt to surface

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram

Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #17

Lea County, NM

GL Elevation: 3367'

K. Elevation: 3377'

Location: 1980' FNL, 660' FWL,  
Sec 26, T-23-S, R-36-E

Current Conditions: Jan-99

PxA

## Conductor:

None

## Surface Casing:

7-5/8" 24# Smls, ST&C

@ 300' in 11" hole

Cemented to surface

W/150 sx 50/50 Pozmix

## Well Head Assembly:

Marker installed

Cement circulated from 350' to surface  
Volume not reported

Pulled 4-1/2" casing @ 300'

25 Sx cement plug 1110' to 1356'

## Intermediate Casing:

None

2400

2400

TOC: 2400' by TS

20 Sx Cement Plug @ 3352'

RBP @ 3506'

Perfs: 3560, 64, 80

3601, 11, 18, 30, 42, 61, 73, 78, 87 (1 JSPF)

Frac: 40,000 gal lease oil + 60,000# sand (11/64)

## Production Casing:

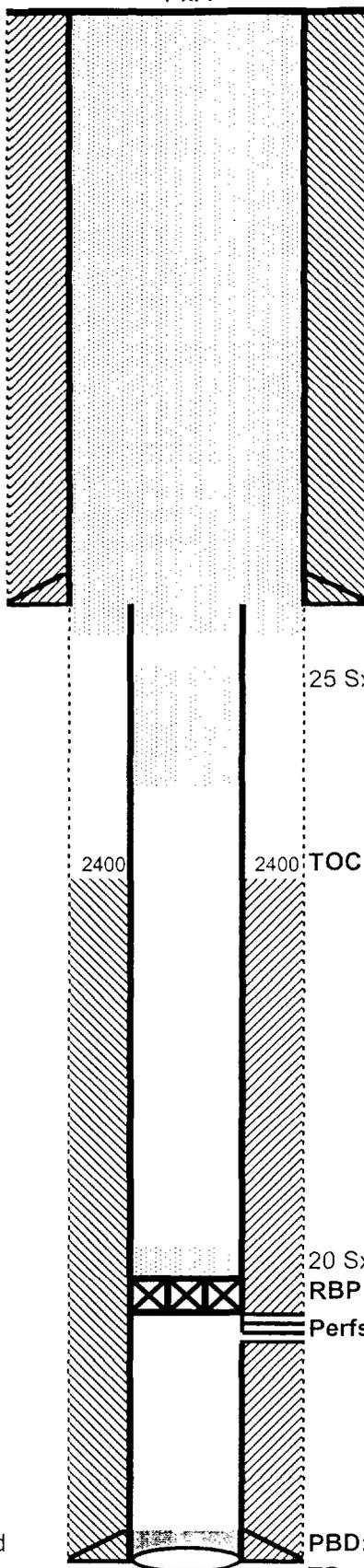
4 1/2" 9.50# J-55 ST&C

@ 3725' in 6-3/4" hole

120 sx "C" + 6% gel, salt saturated

PBD: 3693'

TD = 3725'





# ENERGEN RESOURCES, INC.

Larglie Lynn Unit #19  
Lea County, NM

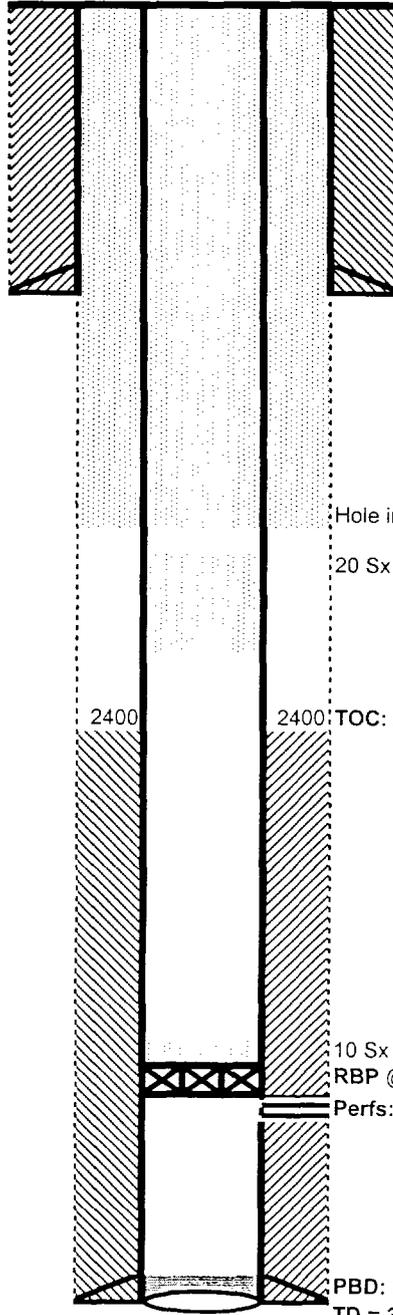
**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# H-40, Smls, ST&C  
@ 315' in 11" hole  
Cemented to surface  
W/250 sx "A" + 2% gel & CaCl<sub>2</sub>

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3725' in 6-3/4" hole  
225 sx "C" + 6% gel, salt saturated

Current Conditions: Jan-99  
Px A



**GL Elevation:** 3354'  
**KB Elevation:** 3365'  
**Location:** 1980' FS & WL,  
Sec 26, T-23-S, R-36-E

**Well Head Assembly:**  
Marker installed

175 Sx from 635 to surface inside and outside 4-1/2"

Hole in casing @ 615' - 635'

20 Sx cement plug 1075' to 1345'

TOC: 2400' by TS

10 Sx Cement Plug @ 3294'

RBP @ 3406'

Perfs: 3503, 23, 34, 36, 71, 90,  
3608, 13, 30, 37, 45, 59 (1 JSPF)

Frac: 40,000 gal lease oil + 60,000# sand (11/64)

PBD: 3693'  
TD = 3725'

**WELL DATA SHEET**

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #20

WELL LOCATION: 672' FSL, 1797' FEL O 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"  
Casing Size: 8-5/8"  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: \_\_\_\_\_

**Production Casing (Intended)**

Hole Size: 7-7/8"  
Casing Size: 5-1/2"  
Cemented with: 500 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual  
Total Depth: 3850'

**Injection Interval**

3576' feet to 3804' (Indicate whether Open Hole or perforated) perforated

**Tubing Detail**

Tubing Size: \_\_\_\_\_  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

- 1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Spudded 2-24-00. Presently drilling as a producer
- 2. Name of the Injection Formation: n/a
- 3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

# ENERGEN RESOURCES, INC.

Langlie Lynn Unit #20  
Lea County, NM

Current Conditions: Mar-00  
New Well

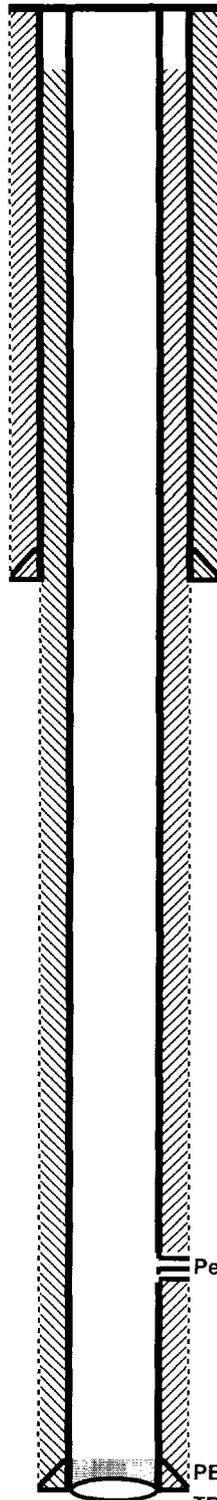
**Conductor:**  
None

**Surface Casing:**  
8-5/8" 24#, J-55, ST&C  
@ 329' in 12-1/4" hole  
Cemented to surface  
W/300 sx"C" + 2% CaCl<sub>2</sub>

GL Elevation: 3394'  
DF Elevation: 3406'  
Location: 627' FSL, 1797' FEL,  
Sec 22, T-23-S, R-36-E  
API # 30-025-34916  
**Well Head Assembly:**

TOC: 5-1/2" x 8-7/8" casing annulus @ 89' by Temp Survey

**Intermediate Casing:**  
None



**Production Casing:**  
5 1/2" 15.50# J-55 LT&C  
@ 3853' in 7-7/8" hole  
650 sx 50/50 Poz "C" + 10% gel, 5% salt  
FB 225 sx 50/50 Poz "C" + 5% salt  
Cement Circulated

PBD:  
TD = 3853'



**WELL DATA SHEET**

OPERATOR: Roca Petroleum

WELL NAME & NUMBER: George Etz #6

WELL LOCATION: 660' FSL, 660' FEL P 27 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"  
Casing Size: 8-5/8" @ 447'  
Cemented with: 480 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 4-1/2" @ 3600'  
Cemented with: 1000 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3600'

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: 3140'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 3164'-3429', PBD 3547'  
Acid, Shot, Fracture, Squeeze: Acidize 5500 gals. 7-1/2% MSR-100  
Frac 40,000 gals YF3PSD w/ 85,000# 20/40 & 50,000# 10/20 & 50 scf/bbl N2

**WELL DATA SHEET**

OPERATOR: Doyle Hartman

WELL NAME & NUMBER: State of New Mexico AA #1

WELL LOCATION: 1980' FNL, 660' FEL H 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 13-3/4  
Casing Size: 10-3/4" @ 305.26'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 8-3/4"  
Casing Size: 7" @ 2906'  
Cemented with: 2350 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: n/a  
Method Determined: \_\_\_\_\_  
Total Depth: 3130'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, I.e. sacks of cement or plug(s) used. \_\_\_\_\_  
\_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 2906'-3130'  
Acid, Shot, Fracture, Squeeze: None

**WELL DATA SHEET**

OPERATOR: Gruy Petroleum Management

WELL NAME & NUMBER: Shell State #3

WELL LOCATION: 660' FSL, 660' FEL P 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 17-1/2"  
Casing Size: 13-3/8" @ 287'  
Cemented with: 350 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Intermediate Casing**

Hole Size: 11-1/4"  
Casing Size: 8-5/8" @ 1213'  
Cemented with: 500 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 5-1/2" @ 3425'  
Cemented with: 750 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3426'

**Additional Data**

1. Is this a new well drilled for injection? \_\_\_\_\_ No  
If no, for what purpose was the well originally drilled? \_\_\_\_\_ Oil and gas
2. Name of the Injection Formation: \_\_\_\_\_ n/a
3. Name of Field or Pool (if applicable): \_\_\_\_\_ Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_ n/a

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 3017'-3068', 3400'-3420'  
Acid, Shot, Fracture, Squeeze: Sand-frac w/ 10,000 gal., 1# per gal. sand to oil

**WELL DATA SHEET**

OPERATOR: Raptor Resources

WELL NAME & NUMBER: State of New Mexico A A/C-1 #98

WELL LOCATION: 660' FNL, 2310' FEL B 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"  
Casing Size: 8-5/8" @ 323'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 5-1/2" @ 3580'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3595'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 3580'-3595'  
Acid, Shot, Fracture, Squeeze: Open hole Vibro-frac @ 3578'-3582' w/ 3 No. 3 charges  
Sand oil treat w/10,000 gals. lease crude & 10,000# sand w/ 500# Adomite

**WELL DATA SHEET**

OPERATOR: Raptor Resources

WELL NAME & NUMBER: State of New Mexico A A/C-1 #73

WELL LOCATION: 660' FNL, 1980' FWL C 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 13-3/4"  
Casing Size: 9-5/8" @ 325'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 8-3/4"  
Casing Size: 7" @ 3537'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3577'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 3527'-3577'  
Acid, Shot, Fracture, Squeeze: Open hole sand jetted at 3554' for 2 hrs.  
SOT w/ 10,000 gal. refined oil & 10,000# sand

# WELL DATA SHEET

OPERATOR: Raptor Resources

WELL NAME & NUMBER: State of New Mexico A A/C-1 #65

WELL LOCATION: 660' FNL, 760' FWL D 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 13-1/4"  
Casing Size: 9-5/8" @ 335'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 8-3/4"  
Casing Size: 7" @ 3537'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3569'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_  
\_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'  
\_\_\_\_\_

### Completion Record

Perfs: Open hole 3537'-3569'  
Acid, Shot, Fracture, Squeeze: Open hole perforation w/Abrasi Jet @ 3562' w/10,000 gals. refined oil & 10,000# sand

**WELL DATA SHEET**

OPERATOR: Raptor Resources Inc.

WELL NAME & NUMBER: State of New Mexico A A/C-1 #72

WELL LOCATION: 1980' FNL, 660' FWL E 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 13-3/4"  
Casing Size: 9-5/8" @ 328'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 8-3/4"  
Casing Size: 7" @ 3560'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3587'

**Tubing Detail**

Tubing Size: 2-3/8"@ 3358'  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 3560'-3587'; PBTD 3513'; 3506'-3482'  
Acid, Shot, Fracture, Squeeze: Open hole sand jetted @ 3563' for 4 hrs.  
SOT w/10,000 gals refined oil & 10,000# sand  
3506'-3482' 1750 gal. 7.5% HClW / 100 BS  
Frac w/ 22,000 gals. 40# linear gel W 99 T CO<sub>2</sub> & 308 MCF N<sub>2</sub> &  
130,000# 12/20 Brady sand

**WELL DATA SHEET**

OPERATOR: Raptor Resources Inc.

WELL NAME & NUMBER: State of New Mexico A A/C-1 #84

WELL LOCATION: 1980' FNL, 2310' FEL G 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"  
Casing Size: 9-5/8" @ 334'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 8-3/4"  
Casing Size: 7" @ 3529'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3585'

**Tubing Detail**

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: 2918'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers  
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 3519'-3585'; PBTD 3380'; 2918'-3123'  
Acid, Shot, Fracture, Squeeze: Open hole Vibro-fraced @ 3548'-51' w/3 No. 3 charges  
Sand-oil treat w/ 10,000 gals. Refined oil & 10,000# sand  
2918'-3123' Acidize w/ 1500 gals. Frac w/ 1400 bbl. & 200,000# 12/30 sand

# WELL DATA SHEET

OPERATOR: Raptor Resources Inc.

WELL NAME & NUMBER: State of New Mexico A A/C-1 #105

WELL LOCATION: 2080' FNL, 660' FEL H 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 11"  
Casing Size: 7-5/8" @ 323'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 6-3/4"  
Casing Size: 4-1/2" @ 3669'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3669'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: Unknown perfs; oil zone @ 3646'-3650'  
Acid, Shot, Fracture, Squeeze: Acidized w/10,000 gals. LTNE acid w/ 20 balls



**WELL DATA SHEET**

OPERATOR: Arco Permian

WELL NAME & NUMBER: Sinclair A State #10

WELL LOCATION: 990' FSL, 990' FWL M 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"  
Casing Size: 8-5/8" @ 340'  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 5-1/2" @ 3550'  
Cemented with: 700 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3550'

**Tubing Detail**

Tubing Size: 2-3/8" @ 3241'  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

- 1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
- 2. Name of the Injection Formation: n/a
- 3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
- 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, I.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 2980'-3454'; PBD 3520'  
Acid, Shot, Fracture, Squeeze: Acidized w/2500 gals. Frac. w/ 22,000 gals. & 46,000# sand

## WELL DATA SHEET

OPERATOR: Raptor Resources

WELL NAME & NUMBER: State A A/C-1 #107

WELL LOCATION: 1980' FSL, 660' FWL L 24 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

### WELL CONSTRUCTION DATA

#### Surface Casing

Hole Size: 11"  
Casing Size: 7-5/8" @ 325'  
Cemented with: Circulated sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

#### Production Casing

Hole Size: 6-3/4"  
Casing Size: 4-1/2" @ 3664'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: 2620'  
Method Determined: \_\_\_\_\_  
Total Depth: 3664'

#### Tubing Detail

Tubing Size: 2-3/8" @ 3176'  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

#### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

#### Completion Record

Perfs: 3515'-3644', 3306'-3351', 2912'-3114'; PBTD 3400'  
Acid, Shot, Fracture, Squeeze: 3515'-3644' Acidized w/ 1500 gals. SOT w/ 20,000 gals. & 20,000# & 30 balls  
3306'-3351' Frac w/ 12,500 gal & 24,500#  
2912'-3114' Frac w/ 60,500 gals. & 118,600#

## WELL DATA SHEET

OPERATOR: Rhombus Operating

WELL NAME & NUMBER: Lankford #4

WELL LOCATION: 1650' FNL, 330' FWL E 25 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

### WELL CONSTRUCTION DATA

#### Surface Casing

Hole Size: 12-1/8"  
Casing Size: 8-5/8" @ 416'  
Cemented with: 450 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

#### Production Casing

Hole Size: 7-7/8"  
Casing Size: 5-1/2" @ 3800'  
Cemented with: 850 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual  
Total Depth: 3800'

#### Tubing Detail

Tubing Size: 2"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: 3658'  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

#### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

#### Completion Record

Perfs: 3416'-3660'; PBTB 3745'  
Acid, Shot, Fracture, Squeeze: 4000 gals 15% MCA acid

# WELL DATA SHEET

OPERATOR: Conoco

WELL NAME & NUMBER: Lynn B-1 #17

WELL LOCATION: 810' FNL, 660' FEL A 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 12-1/4"  
Casing Size: 8-5/8" @445'  
Cemented with: 350 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 7-7/8"  
Casing Size: 4-1/2" @ 3270'  
Cemented with: 960 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3270'

### Tubing Detail

Tubing Size: 2-3/8" @3203'  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: 2914'-3004', 3026'-3102', 3108'-3204'; PBDT 3225'  
Acid, Shot, Fracture, Squeeze: 70 quality CO2 foam, 744 bbls fluid, 230,000# 12/120 brady sand







**Langlie Lynn Queen Unit  
Wells #3, #5, #7, #9, #12, #14, #16, #18**

**Proposed Injection Project**

(April 13, 2000)

Proposed average and maximum daily rate: 300 BWPD / 500 BWPD

System is closed

Proposed average and maximum injection pressure: 500 psi / 1000 psi

Source of injection fluid: Texaco SW Supply (water lines)

Geological Data: The injection zone is the Queen/Seven Rivers at 3400-3800' and the lithology consists of dolomite, sandstone and anhydrite. No known sources of underground drinking water below the surface casing setting depth at 325 ± are present in the area of review.

Proposed Stimulation Program: Reperforate the Queen/Seven Rivers. Acidize each well with 3,000 gals NEFE acid.

P O BOX 1468  
 MONAHANS, TEXAS 79756  
 PH. 943-3234 OR 563-1040

Martin Water Laboratory, Inc. **REC'D M/ 28 2000**

709 W. INDIANA  
 MIDLAND, TEXAS 79701  
 PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Terry Lawler LABORATORY NO. 300184  
3300 North "A" Street, Bldg. 4, Ste. 100 SAMPLE RECEIVED 3-24-00  
Midland, TX 79705 RESULTS REPORTED 3-27-00

COMPANY Energen Resources Corporation LEASE Langlie-Lynn

FIELD OR POOL \_\_\_\_\_  
 SECTION \_\_\_\_\_ BLOCK \_\_\_\_\_ SURVEY \_\_\_\_\_ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Raw water - taken from Texaco Jal Water System. 3-24-00
- NO. 2 Produced water - taken from Langlie-Lynn. 3-24-00
- NO. 3 \_\_\_\_\_
- NO. 4 \_\_\_\_\_

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0087	1.0282		
pH When Sampled				
pH When Received	6.94	7.14		
Bicarbonate as HCO <sub>3</sub>	927	1,586		
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	3,200	6,200		
Calcium as Ca	720	352		
Magnesium as Mg	340	1,293		
Sodium and/or Potassium	1,834	9,502		
Sulfate as SO <sub>4</sub>	1,751	508		
Chloride as Cl	3,266	17,750		
Iron as Fe	0.27	12.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	8,838	30,991		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	95.0	27.0		
Resistivity, ohms/cm at 77° F	0.740	0.250		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The objective herein is to evaluate the compatibility between the two waters represented. A careful study of these waters has revealed no evidence of any incompatibility in any proportion of mixtures between these two waters. This is to say that we would not expect any scaling potential or precipitation as a result of combining these waters.

REC'D MAR 21 2000

P. O. BOX 1468  
MONAHANS, TEXAS 79756  
PH. 943-3234 OR 563-1040

LANGLIE  
LY  
WENALE

Martin Water Laboratories, Inc.

709 W. INDIANA  
MIDLAND, TEXAS 79701  
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Terry Lawler  
3300 North A Street, Bldg. 4, Ste. 100  
Midland, TX 79705

LABORATORY NO. 300138  
SAMPLE RECEIVED 3-14-00  
RESULTS REPORTED 3-20-00

COMPANY Energen Resources Corporation LEASE Langlie-Lynn

FIELD OR POOL \_\_\_\_\_

SECTION \_\_\_\_\_ BLOCK \_\_\_\_\_ SURVEY \_\_\_\_\_ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from Dimwidder windmill. 3-14-00

NO. 2 Raw water - taken from Myers Ranch windmill. 3-14-00

NO. 3 \_\_\_\_\_

NO. 4 \_\_\_\_\_

REMARKS: Samples taken by Chuck Emerson, Martin Water Laboratories, Inc. cc

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0018	1.0019		
pH When Sampled				
pH When Received	7.49	7.39		
Bicarbonate as HCO <sub>3</sub>	317	224		
Supersaturation as CaCO <sub>3</sub>				
Undersaturation as CaCO <sub>3</sub>				
Total Hardness as CaCO <sub>3</sub>	176	312		
Calcium as Ca	61	112		
Magnesium as Mg	6	8		
Sodium and/or Potassium	107	60		
Sulfate as SO <sub>4</sub>	89	148		
Chloride as Cl	40	74		
Iron as Fe	0.13	0.22		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	619	626		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	14.66	12.75		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	2.9	4.1		

Results Reported As Milligram's Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

By \_\_\_\_\_

Waylan C. Martin, M.A.

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1 weeks.

Beginning with the issue dated March 25 2000 and ending with the issue dated

March 25 2000

Kathi Bearden  
Publisher

Sworn and subscribed to before me this 27th day of

March 2000

Jodi Benson  
Notary Public.

My Commission expires October 18, 2000 (Seal)

LEGAL NOTICE  
March 25, 2000  
NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Energen Resources Corporation, 3300 N. A St., Bldg. 4, Ste. 100, Midland, TX 79705 (Contact Person: Denise Menoud, Telephone: 915-687-2074) is applying to the New Mexico Oil Conservation Commission for a permit to inject fluid into a formation productive of oil or gas.

The applicant proposes to inject fluid into the Langlie Mattix Queen Unit #3, 5, 7, 9, 12, 14, 16, 18, and 23 for the purpose of a secondary recovery waterflood project. The proposed injection wells are located in Sec. 22, 23 and 26 - T-23S - R36E in the Langlie-Lynn Queen Unit, Langlie Mattix Field, Lea County, New Mexico. Fluid will be injected into strata in the subsurface Seven Rivers-Queen-Grayburg Formation, at a depth interval from 3400-3800'. Expected maximum injection rate is 500 BWPD. Expected maximum injection pressure is 1000#.

LEGAL AUTHORITY: Rule 401.C. (1) of the Rules and Regulations of the New Mexico Oil Conservation Commission.

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of this publication, to the Oil Conservation Division, 2040 South Pacheco, Santa Fe, NM 87505. #17282

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made

01105161000 01539720  
Energen Resources Corporation  
3300 North "A" Street  
Building 4, Suite 100  
MIDLAND, TX 79705

**AFFIDAVIT OF PUBLICATION**

STATE OF NEW MEXICO

COUNTY OF Lea

Before me, the undersigned authority, on this day personally appeared

Kathi Bearden, the Publisher of the  
(Name) (Title)

Hobbs News-Sun, a newspaper having  
(Name of Newspaper)

general circulation in Lea County, New Mexico, who being

by me duly sworn, deposes and says that the foregoing attached notice was published in

said newspaper on the following date(s), to wit: March 25, 2000.  
(Date)

Kathi Bearden  
(Signature)

Subscribed and sworn to before me this the 3 day of April,  
19 2000, to certify which witness my hand and seal of office.

Jodi Henson  
Notary Public in and for

Lea County, New Mexico

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

3. Article Addressed to:

NEW MEXICO STATE  
 LAND OFFICE  
 P.O. BOX 1148  
 SANTA FE NM  
 87504-1148

4a. Article Number

Z-558-120-401

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery

8. Addressee's Address (Only if requested and fee is paid)

5. Received By: (Print Name)

6. Signature (Addressee or Agent)

RS Form 3811, December 1994

102595-99-B-0223

Domestic Return Rece

Thank you for using Return Receipt Service.

**March 15, 2000**

**New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, New Mexico 87504-1148**

**RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico**

**Dear Sir:**

**Energen Resources is applying to the Oil Conservation Division of New Mexico for authority to inject fluids into the Seven Rivers-Queen-Grayburg Formation.**

**The Oil Conservation Division of New Mexico requires that all offset operators and surface owners be notified.**

**NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.**

**Sincerely,**

**Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074**

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ORYX ENERGY  
 P.O. Box 2880  
 DALLAS TX  
 75221-2880

2. Article Number (Copy from service label)

Z - 558 - 120 - 409

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly)

B. Date of Delivery

7/3

C. Signature

X

*Joe Lemo*

 Agent Addressee

D. Is delivery address different from item 1?

 Yes

If X ES, enter delivery address below:

 No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes



March 15, 2000

Oryx Energy Co.  
P.O. Box 2880  
Dallas TX 75221-2880

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
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Sincerely,

A handwritten signature in cursive script that reads "D. Menoud".

Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074

**SENDER: COMPLETE THIS SECTION**

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RAPTOR RESOURCES  
~~PO BOX 160430~~  
 AUSTIN TX 78716

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

STEVE STATION  
 3-2-99

C. Signature

X *[Signature]*  Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

901 Rio Grande  
 78701

3. Service Type

- Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Copy from service label)

Z-558-120-406



March 15, 2000

Raptor Resources  
P.O. Box 160430  
Austin, Texas 78716

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

Dear Sir:

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Production Tech.  
Energen Resources Corp.  
(915) 687-2074

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

CLAYTON WILLIAMS  
6 DESTA DR. STE 3000  
MIDLAND TX 79705

2. Article Number (Copy from service label)

Z-558-120-407

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) **MARY OLIVE** B. Date of Delivery **3-16-08**

C. Signature **X Mary Olive**  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes



March 15, 2000

Clayton Williams  
6 Desta Dr. Ste. 3000  
Midland, Texas 79705

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

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Energen Resources Corp.  
(915) 687-2074

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ROCA PETROLEUM  
P.O. BOX 10139  
MIDLAND TX 79702

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature

X *[Signature]*  Agent  Addressee

D. Is delivery address different from item 1?  Yes  No  
If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Copy from service label) **2-558-120-404**



March 15, 2000

Roca Petroleum  
P.O. Box 10139  
Midland TX 79702

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

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Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074

**SENDER: COMPLETE THIS SECTION**

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

CONOCO  
 10 DESTA DR. STE.  
 100W  
 MIDLAND TX 79705

2. Article Number (Copy from service label)

Z-558-118-764

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

SHANNA WILLIAMS

3/13/00

C. Signature

X Shanna Williams

 Agent AddresseeD. Is delivery address different from item 1?  YesIf YES, enter delivery address below:  No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes



March 15, 2000

Conoco  
10 Desta Dr. Suite 100W  
Midland TX 79705-4500

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
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Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b.
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- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

3. Article Addressed to:

DOYLE HARTMAN  
P.O. BOX 10426  
MIDLAND TX 79701

4a. Article Number

Z-558-120-423

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery

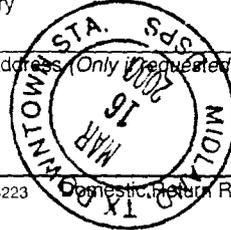
5. Received By: (Print Name)

BETSY LONE HART

6. Signature (Addressee or Agent)

Betsy Lonehart

8. Addressee's Address (Only if requested and fee is paid)



PS Form 3811, December 1994

102595-99-8-0223

Domestic Return Receipt

Thank you for using Return Receipt Service.



March 15, 2000

Doyle Hartman  
P.O. Box 10426  
Midland TX 79701

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
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Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DEEP WELLS RANCH  
INC.  
ATTN: KELLY MYERS  
STAR RT. 1 Box 244  
JAL NM 88252

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

Kelly Myers 3/16/00

C. Signature

X Kelly Myers  Agent  Addressee

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

- Certified Mail  Express Mail
- Registered  Return Receipt for Merchandise
- Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

2. Article Number (Copy from service label)

Z-558-120-424



March 15, 2000

Deep Wells Ranch Inc.  
c/o Kelly Myers  
Star Rt. 1, Box 244  
Jal, New Mexico 88252

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

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Production Tech.  
Energen Resources Corp.  
(915) 687-2074

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RHOMBUS OPERATING  
200 N. LORAINÉ  
STE. 1270  
MIDLAND TX 79701

**COMPLETE THIS SECTION ON DELIVERY**

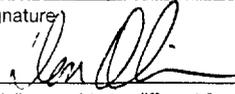
A. Received by (Please Print Clearly)

B. Date of Delivery

3-16-00

C. Signature

X

 Agent Addressee

D. Is delivery address different from item 1?

 Yes

If YES, enter delivery address below:

 No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. Article Number (Copy from service label)

2-558-120-403



March 15, 2000

Rhombus Operating  
200 N. Loraine Suite 1270  
Midland TX 79701

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

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Production Tech.  
Energen Resources Corp.  
(915) 687-2074

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

L. DREYFUS  
14000 QUAIL SPRINGS  
PKWY STE. 600  
OKLAHOMA CITY OK  
73134

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

JERRY PEARSON 3-17

C. Signature

X *Jerry Pearson*

Agent

Addressee

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

Certified Mail  Express Mail

Registered  Return Receipt for Merchandise

Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

2. Article Number (Copy from service label)

Z-558-120-408



March 15, 2000

L. Dreyfus  
14000 Quail Springs Pkwy. Ste. 600  
Oklahoma City OK 73134

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
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Production Tech.  
Energen Resources Corp.  
(915) 687-2074

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ARCO PERMIAN  
 600 N. MARIENFELD  
 MIDLAND, TX  
 79701

2. Article Number (Copy from service label)

7-558-118-621

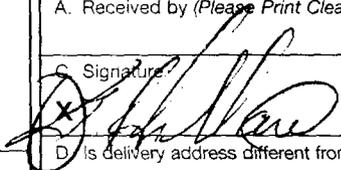
**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly)

B. Date of Delivery

3-22-00

C. Signature


 Agent Addressee Is delivery address different from item 1? Yes

If YES, enter delivery address below:

 No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

**ENERGEN**

R E S O U R C E S

Energen Resources Corporation  
3300 North "A" Street  
Building 4, Suite 100  
Midland, Texas 79705

NOT DELIVERABLE AS  
ADDRESSED-UNABLE  
TO FORWARD

**ENERGEN**  
R E S O U R C E S

ENERGEN RESOURCES CORPORATION  
AN ENERGEN COMPANY  
3300 North "A" Street  
Building 4, Suite 100  
Midland, Texas 79705

ARCO PERMIAN  
~~PO Box 1710~~  
HOBBS NM 88240

3/16  
*[Handwritten signature]*

600 N. MAEJERFIELD.

UNITED STATES POSTAGE  
138  
0550 \$ 03.200  
4314 MAILED FROM MIDLAND TX  
PB8660416  
MAR 15 00  
79705

Fold at line over top of envelope to  
the right of the return address

**CERTIFIED**

Z 558 118 763

**MAIL**

3-20-00



March 15, 2000

Arco Permian  
P.O. Box 1710  
Hobbs NM 88240

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
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(915) 687-2074

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1. Article Addressed to:

GRUY PETROLEUM  
MGMT.

P.O. BOX 14097  
IRVING TX 75014

2. Article Number (Copy from service label)

Z-558-118-765

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature

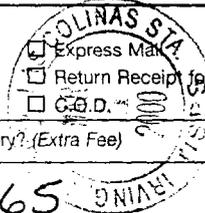
*X. Drew P. Egan*  Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

3. Service Type

- Certified Mail  Express Mail
- Registered  Return Receipt for Merchandise
- Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes





March 15, 2000

Gruy Petroleum Mgmt  
P.O. Box 14097  
Irving TX 75014

RE: Energen Resources Corporation  
Application to Inject Fluid Into a Reservoir Productive of Oil or Gas  
Langlie Lynn #3, 5, 7, 9, 12, 14, 16, 18, 23  
Langlie Lynn Unit, Langlie Mattix Field, Lea County, New Mexico

Dear Sir:

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Denise Menoud  
Production Tech.  
Energen Resources Corp.  
(915) 687-2074

**WELL DATA SHEET**

OPERATOR: Grace Petroleum Corp.

WELL NAME & NUMBER: State of New Mexico AA #3

WELL LOCATION: 2310' FNL, 330' FEL H 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 9-7/8"  
Casing Size: 7-5/8" @ 328'  
Cemented with: 175 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 2-7/8" @ 3629'  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: n/a  
Method Determined: \_\_\_\_\_  
Total Depth: 3630'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

Old perms @ 3613'-3621'. PA'd 4-16-79 as follows:

Set 100' cmt plug 50' in & 50' out of 2-7/8" casing stub @ 2050' w/ 30 sx (TOC 1950')

Set 100' cmt plug @ 378' w/ 30 sx (TOC 278')

Spot 15 sx cmt @ surface

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 3613'-3621'

Acid, Shot, Fracture, Squeeze: Frac w/ 15,000 gal refined oil & 30,000# sand

# WELL DATA SHEET

OPERATOR: Clayton Williams Energy

WELL NAME & NUMBER: State of New Mexico A A/C-1 #1

WELL LOCATION: 330' FSL, 2310' FWL N 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: Unknown  
Casing Size: 7" @ 4234'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: \_\_\_\_\_  
Casing Size: \_\_\_\_\_  
Cemented with: \_\_\_\_\_ sacks (or) \_\_\_\_\_ ft3  
Top of Cement: \_\_\_\_\_  
Method Determined: \_\_\_\_\_  
Total Depth: 5095' OWDD

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

PB from 5095' to 3620' w/ 450 sx cmt

Old perfs @ 3465'-3575', P&A'd 6-22-93 as follows:

Set CIBP at 3120' w/ 35' cmt on top

Perforate 7" casing at 370'. Pumped 130 sx cmt down 7" casing and up 7" / 9-5/8" annulus

Circulate 10 sx to surface

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: 3465'-3475', 3505'-3515', 3550'-3560', 3565'-3575'

Acid, Shot, Fracture, Squeeze: Unknown

## WELL DATA SHEET

OPERATOR: Raptor Resources Inc.

WELL NAME & NUMBER: State of New Mexico A/C-1 #27

WELL LOCATION: 1650' FNL, 1650' FWL F 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

### WELL CONSTRUCTION DATA

#### Surface Casing

Hole Size: 17"  
Casing Size: 12-1/2" @ 276'  
Cemented with: 350 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

#### Production Casing

Hole Size: 11"  
Casing Size: 8-5/8" @ 2880'  
Cemented with: 600 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3670' OWDD

#### Additional Data

1. Is this a new well drilled for injection? \_\_\_\_\_ No  
If no, for what purpose was the well originally drilled? \_\_\_\_\_ Oil and gas  
2. Name of the Injection Formation: \_\_\_\_\_ n/a  
3. Name of Field or Pool (if applicable): \_\_\_\_\_ Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

#### Completion Record

Perfs: Open hole 2880'-3670'  
Acid, Shot, Fracture, Squeeze: Original TD 3260'; well shut in  
Deepening to 3670' completed 9-10-51

# WELL DATA SHEET

OPERATOR: Raptor Resources Inc.

WELL NAME & NUMBER: State of New Mexico A A/C-1 #26

WELL LOCATION: 1650' FNL, 1650' FEL G 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: Unknown  
Casing Size: 13-3/8" @ 269'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: Unknown  
Casing Size: 8-5/8" @ 2777'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3148'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: Open hole 2777'-3148'  
Acid, Shot, Fracture, Squeeze: None

# WELL DATA SHEET

OPERATOR: Arco Permian

WELL NAME & NUMBER: Sinclair A State #1

WELL LOCATION: 1650' FSL, 990' FEL I 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: Unknown  
Casing Size: 10-3/4" @ 225'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Intermediate Casing

Hole Size: Unknown  
Casing Size: 7-5/8" @ 1235'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_

### Production Casing

Hole Size: Unknown  
Casing Size: 5-1/2" @ 2770'  
Cemented with: Unknown sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3300'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers  
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: Open hole 2770'-3300'  
Acid, Shot, Fracture, Squeeze: None

# WELL DATA SHEET

OPERATOR: Arco Permian

WELL NAME & NUMBER: Sinclair A State #9

WELL LOCATION: 660' FSL, 660' FEL P 23 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 11"  
Casing Size: 8-5/8" @ 277'  
Cemented with: 150 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 7-7/8"  
Casing Size: 4-1/2" @ 3750'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3750'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.  
Old perms @ 3385'-3668'. PA'd 2-24-88 as follows:  
Set CIBP at 3340' w/ 50 sx cmt on top (TOC 2900')  
Set CR at 620' w/ 150 sx cmt on top (TOC 590')  
Set cmt plug at 550' w/ 200 sx cmt on top (TOC @ surface)

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: 3385'-3419', 3591'-3637', 3646'-3654', 3664'-3668'  
Acid, Shot, Fracture, Squeeze: 3664'-3668' Acidized w/250 gals. NEA. Reacidized w/1000 gals.  
RBP @ 3660'. Perf. 3646'-3654'. Acidized 500 gals. 15% NEA.  
Reacidized 1500 gals. 15% retarded acid.  
CIBP @ 3642'. Perf. 3591', 3605', 3608', 3612', 3616', 3623', 3628', 3635', 3637'  
Sandfrac w/ 20,000 gals. Oil & 20,000 # sand  
CIBP @ 3460'. Perf. 3385'-3419' (10 shots)

**WELL DATA SHEET**

OPERATOR: Arco

WELL NAME & NUMBER: Lankford #3

WELL LOCATION: 660' FNL, 660' FWL D 25 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12-1/4"

Casing Size: 8-5/8" @ 1211'

Cemented with: 850 sacks (or) \_\_\_\_\_ ft3

Top of Cement: Surface

Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"

Casing Size: 5-1/2" @ 3724'

Cemented with: 850 sacks (or) \_\_\_\_\_ ft3

Top of Cement: Unknown

Method Determined: \_\_\_\_\_

Total Depth: 3750'

**Tubing Detail**

Tubing Size: 2-3/8" @ 3646'

Lining Material: \_\_\_\_\_

Type of Packer: \_\_\_\_\_

Packer Setting Depth: \_\_\_\_\_

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No
- If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.  
Old perfs @ 3445'-3664'. PA'd 6-5-89 as follows:  
Set CIBP at 3385' w/ 25 sx cmt on top (TOC 3138')  
Spot cmt plug at 2996' w/ 35 sx on top (TOC 2635')  
Spot cmt plug at 1353' w/ 25 sx on top (TOC 1106')  
Spot cmt plug at 30' w/ 10 sx on top (TOC @ surface)

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 3445-3664'; PBTd 3681'

Acid, Shot, Fracture, Squeeze: Acidized w/ 3000 gals 15% NE acid, 44,000 gals. gelled water,  
22,000 gals. CO2, 79,000# 20/40 sand, 33,750# 10/20 sand



**WELL DATA SHEET**

OPERATOR: HCW Exploration

WELL NAME & NUMBER: George Etz #4

WELL LOCATION: 1650' FSL, 990' FEL I 27 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 11"  
Casing Size: 8-5/8" @ 304'  
Cemented with: 150 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_

**Production Casing**

Hole Size: 6-3/4"  
Casing Size: 5-1/2" @ 2970'  
Cemented with: 400 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3550'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

Open hole 2970'-3550'  
PA'd 10-16-84  
See attached sheet for plugging detail

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 2970-3550'  
Acid, Shot, Fracture, Squeeze: Acidized 2000 gals.

OIL CONSERVATION DIVISION

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER-	7. Unit Agreement Name
2. Name of Operator HCW Exploration, Inc.	8. Farm or Lease Name George Etz.
3. Address of Operator P.O. Box 10585 Midland, TX 79702	9. Well No. 4
4. Location of Well UNIT LETTER <u>I</u> <u>1650</u> FEET FROM THE <u>South</u> LINE AND <u>990</u> FEET FROM THE <u>East</u> LINE, SECTION <u>27</u> TOWNSHIP <u>23S</u> RANGE <u>36E</u> NMPM.	10. Field and Pool, or Wildcat Jalmat
15. Elevation (Show whether DF, RT, GR, etc.) 3381.5' RT	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	
		OTHER _____	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

10/4/84 Find 2 3/8" EUE, 8rd tbg parted at 700'. 10/5/84 Fishing for parted tbg at 700'.  
10/6/84 Fishing. 10/8/84 Fishing & washing. Tag fill at 668'. Mill to 698'. Loosing circ  
10/9/84 Milling & washing. Loosing circ. TD 702'.  
10/10/84 Milling & washing. Tite spot @ 698'. Work thru to 712'. Loosing circ.  
10/11/84 Milling & washing. Hit bridge @ 698', could not work thru bridge. Pump down tbg 0 pressure. Pump dwn annulus 2 3/8" tbg & 5 1/2" csg 2 1/2 BPM @ 250 psi, getting returns out annulus of 5 1/2" csg & 8 5/8" csg.  
10/12/84 Prepare to pump cmt thru 5 1/2" HOWCO retainer.  
10/13/84 Set retainer @ 286' pump 160 sx cement. Cmt to surface in annulus of 5 1/2" csg & 8 5/8" csg. Close surface valves & squeeze 500 sx cmt below retainer. SI 400 psi. Spot 35 sx cement above retainer.  
10/15/84 Open 5 1/2" annulus, flow 1" stream. Pump in to establish a rate. (1 1/2 BPM @ 200 psi) Squeeze 200 sx cement pressure to 400 psi. SI & RD.  
10/16/84 Pressure up 5 1/2" annulus to 500 psi. Held OK. ND wellhead, weld on top plate, install dry hole marker. P & A.

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

SIGNED [Signature] TITLE Production Supt. DATE 10/26/84

APPROVED BY [Signature] TITLE OIL & GAS INSPECTOR DATE MAY 17 1985

CONDITIONS OF APPROVAL, IF ANY:

**WELL DATA SHEET**

OPERATOR: Conoco

WELL NAME & NUMBER: Lynn B-1 #2

WELL LOCATION: 990' FNL, 990' FEL A 26 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: Unknown  
Casing Size: 7-5/8" @ 1225'  
Cemented with: 500 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_

**Production Casing**

Hole Size: Unknown  
Casing Size: 5-1/2" @ 2784'  
Cemented with: 500 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3350'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

Open hole 2784'-3550'  
PA'd 4-12-77  
See attached sheet for plugging detail

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: Open hole 2784'-3350'  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE  
(Other instructions  
verse side)

COPY TO O. E. C.

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER  Plug & Abandon

2. NAME OF OPERATOR  
Continental Oil Company

3. ADDRESS OF OPERATOR  
Box 460 Hobbs N.M. 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
990' FNL + 990' FEL Sec. 26

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
3364' DF

5. LEASE DESIGNATION AND SERIAL NO.  
NM-21644

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
NMFU

8. FARM OR LEASE NAME  
Lynn B-1

9. WELL NO.  
2

10. FIELD AND POOL, OR WILDCAT  
Jalmaf Yates 7 Rive

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec 26 T-23S R-36E

12. COUNTY OR PARISH  
LEA

13. STATE  
N.M.

RECEIVED  
MAY 31 1977

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Plug & Abandon

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

4-8 W/H w/ Baker retainer. Set at 2709' Spotted cmt to tool. Stung into retainer, started pumping. Communicate to casing. P00H, pumped approximately 65 Sx. cmt. 600'-560' in casing.

4-12-77 Tagged top of cmt. at 2497' Tested 5 1/2" csq. w/ s. Spotted 25 Sx plug at 1284'-1150'. spot 10 Sx plug at 96' t surface

18. I hereby certify that the foregoing is true and correct

SIGNED Wm. E. Butterfield TITLE Admin. Supv. DATE 5-26-77

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**APPROVED**

OCT 19 1977

ARTHUR R. BROWN  
DISTRICT ENGINEER

\*See Instructions on Reverse Side

## WELL DATA SHEET

OPERATOR: Energen Resources

WELL NAME & NUMBER: Langlie Lynn Queen Unit #11

WELL LOCATION: 660' FNL, 660' FEL A 27 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

### WELL CONSTRUCTION DATA

#### Surface Casing

Hole Size: 11"  
Casing Size: 7-5/8"  
Cemented with: 200 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Surface  
Method Determined: Visual

#### Production Casing

Hole Size: 6-3/4"  
Casing Size: 4-1/2"  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3730'

#### Injection Interval

3532' feet to 3698' (Indicate whether Open Hole or perforated) perforated

#### Tubing Detail

Tubing Size: 2-3/8"  
Lining Material: \_\_\_\_\_  
Type of Packer: \_\_\_\_\_  
Packer Setting Depth: \_\_\_\_\_  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

#### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

#### Completion Record

Perfs: See attached diagram  
Acid, Shot, Fracture, Squeeze: \_\_\_\_\_

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL API NO. 30-025-20521
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 23267
7. Lease Name or Unit Agreement Name Langlie Lynn Queen Unit
8. Well No. 11
9. Pool name or Wildcat Langlie Mattix 7 RVERS/Queen/GB
10. Elevation (Show whether DF, RKB, RT, GR, etc.)

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
OIL WELL  GAS WELL  OTHER

2. Name of Operator  
Energen Resources Corporation

3. Address of Operator  
3300 N. A St, Bldg 4, Ste 100, Midland, TX 79705

4. Well Location  
Unit Letter A : 660 Feet From The North Line and 660 Feet From The East Line  
Section 27 Township 23S Range 36E NMPM Lea County

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: _____ <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: _____ <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

MIRU WSU, pressure test casing to 500 psi for 30 minutes. Recover RBP @ 3,452'.  
Re-perforate the 7 Rivers/Queen, acidize w/ 3,000 gals. Run tubing and rods, RWTP.

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

SIGNATURE Denise Menoud TITLE Prod. Tech. DATE 3/13/2000  
TYPE OR PRINT NAME Denise Menoud TELEPHONE NO. 915-687-207

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE MAR 20 2000  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

# NERGEN RESOURCES, INC.

Langlie Lynn Unit #11  
Lea County, NM

GI Elevation: 3376'  
K. Elevation: 3386'  
Location: 660' FNL, 660' FEL,  
Sec 27, T-23-S, R-36-E

Current Conditions: Jan-99  
Inactive-TA

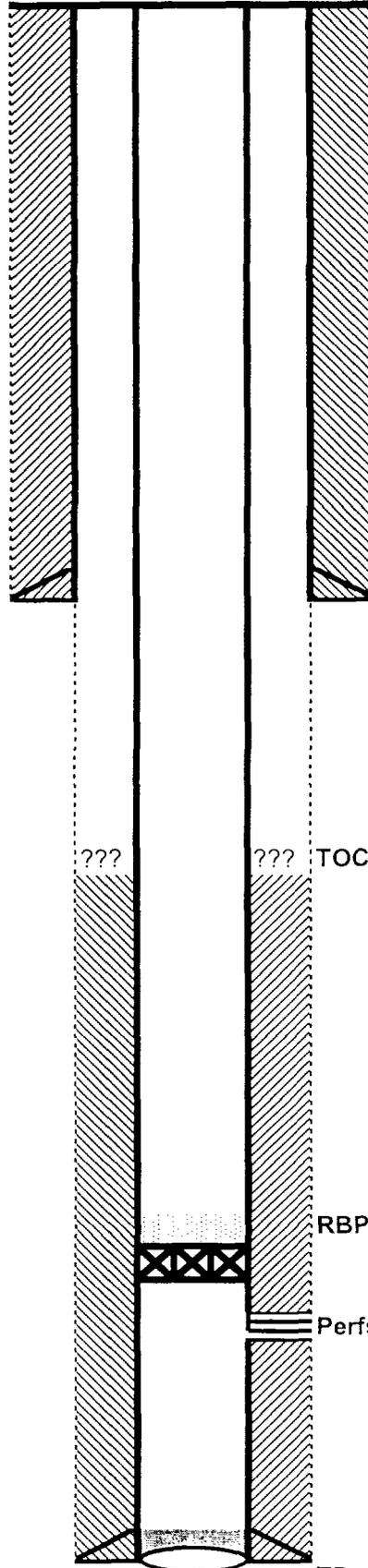
**Conductor:**  
None

**Surface Casing:**  
7-5/8" 24# Smls, ST&C  
@ 323' in 11" hole  
Cemented to surface  
W/200 sx Cmt + 4% gel

**Intermediate Casing:**  
None

**Production Casing:**  
4 1/2" 9.50# J-55 ST&C  
@ 3730' in 6-3/4" hole  
300 sx cement

**Well Head Assembly:**



Casing leak: 322-354' Squeezed (8/91)

TOC: unknown

Circulated casing with Conoco Packer Fluid (8/91)

RBP @ 3452', capped with 2 sacks sand  
(Could not get below 3493' with RBP)  
(Inj Packer was set @ 3460')

Perfs: 3580-82, 84-86,  
3602-04, 20-22, 41-42, 44-46, 56-58, 64-66,  
3676-79, 86-88, 90-92, 96-98' (2-JSPF 7/63)  
Frac: 40,000 gal lease oil + 60,000# sand (7/63)

TD = 3730'

# WELL DATA SHEET

OPERATOR: Grace Petroleum Corp.

WELL NAME & NUMBER: State of New Mexico AA #5

WELL LOCATION: 1980' FNL, 1980' FEL G 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 9-7/8"  
Casing Size: 7" @ 336'  
Cemented with: 200 sacks  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 6-1/4"  
Casing Size: 2-7/8" @ 3774'  
Cemented with: 200 sacks  
Top of Cement: n/a  
Method Determined: \_\_\_\_\_  
Total Depth: 3774'

### Additional Data

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Langlie Mattix Seven Rivers-Queen-Grayburg

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.  
Old perms @ 3713'-3721' & 3729'-3735'. PA'd 5-15-79 as follows:  
Set CIBP @ 3650' w/ 4 sx cmt on top  
Set cmt plug @ 2600' w/ 50 sx cmt. (TOC 2500')  
Set cmt plug @ 336' w/ 25 sx cmt. on top  
spotted 35 sx cmt @ 336' (TOC 170')  
spotted 15 sx cmt @ 170' to surface.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: 3678'-3700', 3713'-3721', 3729'-3739'  
Acid, Shot, Fracture, Squeeze: Treated 3678'-3700' w/15,000 gal. refined oil & 30,000# sand  
Broke down 3713'-3721' & 3729'-3739' w/lease crude

# WELL DATA SHEET

OPERATOR: Raptor Resources

WELL NAME & NUMBER: State of New Mexico A A/C-1 #97

WELL LOCATION: 1980' FNL, 1980' FWL F 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

## WELL CONSTRUCTION DATA

### Surface Casing

Hole Size: 13-3/4"  
Casing Size: 9-5/8" @ 323'  
Cemented with: 300 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Surface  
Method Determined: Visual

### Production Casing

Hole Size: 8-3/4"  
Casing Size: 7" @ 3635'  
Cemented with: 250 sacks (or) \_\_\_\_\_ ft3  
Top of Cement: Unknown  
Method Determined: \_\_\_\_\_  
Total Depth: 3645'

### Additional Data

1. Is this a new well drilled for injection? No
- If no, for what purpose was the well originally drilled? Oil and gas
2. Name of the Injection Formation: n/a
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

### Completion Record

Perfs: 3568'-3594', 3086'-3228'  
Acid, Shot, Fracture, Squeeze: Vibro-frac 3588'-3592' w/ 3 No. 3 charges  
Sand oil treat 3568'-3594' w/10,000 gals. lease crude & 10,000# sand  
Sand oil treat 3086'-3228' w/20,000 gals. lease crude & 60,000# sand

**WELL DATA SHEET**

OPERATOR: Grace Petroleum Corp.

WELL NAME & NUMBER: State of New Mexico A A/C-1 #6

WELL LOCATION: 990' FNL, 990' FEL A 22 T-23-S R-36-E Lea  
(Footage Location) (Unit Letter) (Section) (Township) (Range) (County)

**WELL CONSTRUCTION DATA**

**Surface Casing**

Hole Size: 12"  
Casing Size: 8-5/8" @ 331'  
Cemented with: 170 sacks  
Top of Cement: Surface  
Method Determined: Visual

**Production Casing**

Hole Size: 7-7/8"  
Casing Size: 4-1/2" @ 3293'  
Cemented with: 175 sacks  
Top of Cement: n/a  
Method Determined: \_\_\_\_\_  
Total Depth: 3300'

**Additional Data**

1. Is this a new well drilled for injection? No  
If no, for what purpose was the well originally drilled? Oil and gas  
2. Name of the Injection Formation: n/a  
3. Name of Field or Pool (if applicable): Jalmat Tansil-Yates-Seven Rivers

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

Old perms @ 3038'-3149'. PA'd 5-18-79 as follows:  
Set CIBP @ 3000' w/ 10 sx cmt on top  
Set cmt plug @ 2500' w/ 35 sx cmt on top (TOC 2390')  
Set cmt plug @ 381' w/ 35 sx cmt on top (TOC 330')  
spotted additional 35 sx cmt from 330' up (TOC 240')  
spotted 15 sx cmt @ 240' to surface

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Jalmat Yates Gas Zone, Top @ approx. 3040'

**Completion Record**

Perfs: 3038'-3149'  
Acid, Shot, Fracture, Squeeze: 1000 gals. Acid, 10,000 gals. Gelled MS acid, 15,000# sand

**COMPANY: Energen Resources Corporation**

**WELL: Langlie Lynn Queen Unit #20**

**FIELD: Langlie Mattix 7 Rivers / Queen**

**COUNTY: Lea STATE: New Mexico**

Field: Langlie Mattix 7 Rivers / Queen Location: 672 FSL & 1797 FEL Well: Langlie Lynn Queen Unit #20 Company: Energen Resources Corporation	<b>Schlumberger</b>		<b>PLATFORM EXPRESS Compensated Neutron Three Detector Density / GR</b>				
	672 FSL & 1797 FEL			Elev. K.B.	3406 ft		
				G.L.	3394 ft		
				D.F.	3405 ft		
Permanent Datum		Ground Level	Elev.	3394 ft			
Log Measured From		Kelly Bushing	12.0 ft	above Perm. Datum			
Drilling Measured From		Kelly Bushing					
API Serial No. 30-025-34926		SECTION 22	TOWNSHIP 23S	RANGE 36E			
Logging Date	3-MAR-2000						
Run Number	One						
Depth Driller	3850 ft						
Schlumberger Depth	3854 ft						
Bottom Log Interval	3836 ft						
Top Log Interval	200 ft						
Casing Driller Size @ Depth	8.625 in	@	331 ft		@		
Casing Schlumberger	331 ft						
Bit Size	7.875 in.						
Type Fluid In Hole	STARCH-MF-SS-DCS						
Density	Viscosity	10.2 lbm/gal	30 s				
Fluid Loss	PH	10 cm3	10				
Source Of Sample	Circulation Pit						
IM @ Measured Temperature	0.060 ohm.m	@	80 degF		@		
IMF @ Measured Temperature	0.045 ohm.m	@	80 degF		@		
IMC @ Measured Temperature		@			@		
Source RMF	RMC	Calculated					
IM @ MRT	RMF @ MRT	0.053 @ 91	0.040 @ 91	@		@	
Maximum Recorded Temperatures	91 degF						
Circulation Stopped	Time	3-MAR-2000					
Logger On Bottom	Time	3-MAR-2000		23:59			
Unit Number	Location	3125	Hobbs, NM				
Recorded By	Tom Steinauer/Olav Amundsen						
Witnessed By	Del Windle / Brad English						

**COMPANY: Energen Resources Corporation**

**WELL: Langlie Lynn Queen Unit #20**

**FIELD: Langlie Mattix 7 Rivers / Queen**

**COUNTY: Lea**

**STATE: New Mexico**

COUNTY: Lea  
 Field: Langlie Mattix 7 Rivers / Queen  
 Location: 672 FS\_ & 1797FEL  
 Well: Langlie Lynn Queen Unit #20  
 Company: Energen Resources Corporation

LOCATION	<b>Schlumberger</b>		<b>PLATFORM EXPRESS</b>	
			<b>Azimuthal Laterolog</b>	
			<b>MicroCFL</b>	
	672 FSL & 1797FEL		Elev.:	K.B
			G.L.	3394 ft
			D.F.	3405 ft
Permanent Datum:		Ground Level	Elev.:	3394 ft
Log Measured From:		Kelly Bushing	12.0 ft	above Perm. Datum
Drilling Measured From:		Kelly Bushing		
API Serial No. 30-025-34926		SECTION 22	TOWNSHIP 23S	RANGE 36E

Logging Date	3-MAR-2000			
Run Number	One			
Depth Driller	3850 ft			
Schlumberger Depth	3854 ft			
Bottom Log Interval	3846 ft			
Top Log Interval	331 ft			
Casing Driller Size @ Depth	8.625 in	@	331 ft	@
Casing Schlumberger	331 ft			
Bit Size	7.875 in			
Type Fluid In Hole	STARCH-MF-SS-DCS			
Density	Viscosity	10.2 lbm/gal	30 s	
Fluid Loss	PH	10 cm <sup>3</sup>	10	
Source Of Sample	Circulation Pit			
RM @ Measured Temperature	0.060 ohm.m	@	80 degF	@
RMF @ Measured Temperature	0.045 ohm.m	@	80 degF	@
RMC @ Measured Temperature		@		@
Source RMF	RMC	Calculated		
RM @ MRT	RMF @ MRT	0.053 @ 91	0.040 @ 91	@ @
Maximum Recorded Temperatures	91 degF			
Circulation Stopped	Time	3-MAR-2000		
Logger On Bottom	Time	3-MAR-2000 23:59		
Unit Number	Location	3125 Hobbs, NM		
Recorded By	Tom Steinauer/Olav Amundsen			
Witnessed By	Dei Windle / Brad English			

**COMPANY: Energen Resources Corporation**

**WELL: Langlie Lynn Queen Unit #20**

**FIELD: Langlie Mattix 7 Rivers / Queen**

**COUNTY: Lea STATE: New Mexico**

COUNTY: Lea  
 Field: Langlie Mattix 7 Rivers / Queen  
 Location: 672 FSL & 1797 FEL  
 Well: Langlie Lynn Queen Unit #20  
 Company: Energen Resources Corporation

<b>Schlumberger</b>	<b>MECHANICAL SIDE WALL CORING TOOL GAMMA RAY</b>			
	672 FSL & 1797 FEL		Elev. K.B.	3406 ft
		G.L.	3394 ft	
		D.F.	3405 ft	
Permanent Datum: Ground Level		Elev.:	3394 ft	
Log Measured From: Kelly Rushing		12.0 ft	above Perm. Datum	
Drilling Measured From: Kelly Bushing				
API Serial No. 30-025-34926	SECTION 22	TOWNSHIP 23S	RANGE 36E	

Logging Date	3-MAR-2000		
Run Number	One		
Depth Driller	3850 ft		
Schlumberger Depth	3854 ft		
Bottom Log Interval	3813 ft		
Top Log Interval	3558 ft		
Casing Driller Size @ Depth	8.625 in	@	331 ft
Casing Schlumberger	331 ft		
Bit Size	7.875 in		
Type Fluid In Hole	STARCH-MF-SS-DCS		
Density	Viscosity	10.2 lbm/gal	30 s
Fluid Loss	PH	10 cm <sup>3</sup>	10
Source Of Sample	Circulation Pit		
RM @ Measured Temperature	0.060 ohm.m	@	80 degF
RMF @ Measured Temperature	0.045 ohm.m	@	80 degF
RMC @ Measured Temperature		@	
Source RMF	RMC	Calculated	
RM @ MRT	0.053 @ 91	0.040 @ 91	@
RMF @ MRT			@
Maximum Recorded Temperatures	91 degF		
Circulation Stopped	Time	3-MAR-2000	
Logger On Bottom	Time	3-MAR-2000 23.59	
Unit Number	Location	3125 Hobbs, NM	
Recorded By	Tom Steinauer/Jim Andrews		
Witnessed By	Del Windle / Brad English		