Mark K. Mosley
Division Manager
Production Department
Hobbs Division
North American Production

Conoco Inc.
P. O. Box 460
726 E. Michigan
Hobbs, NM 88240
(505) 393-4141

August 18, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: Joe D. Ramey

Re: Convert to Water Injection, Langlie Lynn Queen Unit, Well No. 7;
660' FSL and 1980' FWL of Section 23, T-23S, R-36E, Lea County,
New Mexico.

Gentlemen:

Conoco Inc. respectfully requests administrative approval to convert the subject producing oil well to an active water injection well. The proposed average injection rate into this closed system is 300 barrels of water per day, with a maximum rate of 500 barrels per day. The proposed average injection pressure is 650 psi, with a maximum of 755 psi. Injection will be confined to the producing zone, with no known sources of underground drinking water present in the area of review. The State of New Mexico owns the surface of the land on which the well is located.

The proposed stimulation program will consist of nine additional perforations from 3608' to 3652' and treatment of this interval with 1900 gallons of acid (composed of 75% of 15% HCL-NE-FE acid and 25% Xylene).

Your consideration of this application will be appreciated.

Very truly yours,

M K Mosley

CBB:ksh

Attachments

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

RECEIVED
AUG 29 1983
OIL CONSERVATION DIVISION
SANTA FE

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [X] yes [ ] no

II. Operator: Conoco Inc.

Address: P. O. Box 460, Hobbs, NM 88240

Contact party: Hugh Ingram Phone: 393-4141

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? [X] yes [ ] no
If yes, give the Division order number authorizing the project R-4417.

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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source 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: M. K. Mosley Title Division Manager

Signature: M K Mosley Date: August 18, 1983

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

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

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.

LEGAL NOTICE
August 15, 1983
Convert Well to
Water Injection

Conoco Inc., 726 E. Michigan, P.O. Box 460, Hobbs, New Mexico 88240, Mr. M. K. Mosley, Division Manager of Production, intends for the purpose of secondary recovery to convert from producing oil well to water injection well its Langlie Lynn Queen Unit Well No. 7, located 660' FSL & 1980' FWL of Section 23, T-23S, R-36E, Lea county, New Mexico, being a total depth of 3800'. Operator plans to inject water into the Seven Rivers/Queen formation (3608'-3652') at a maximum rate of 500 barrels per day and a maximum pressure of 755 psi. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days from the date of this publication.

Mark K. Mosley
Division Manager
Production Department
Hobbs Division
North American Production

Conoco Inc.
P. O. Box 460
726 E. Michigan
Hobbs, NM 88240
(505) 393-4141

August 18, 1983

Sun Exploration and Production Co.
Box 1861
Midland, TX 79702

Re: Convert to Water Injection, Langlie Lynn Queen Unit, Well No. 7;
660' FSL and 1980' FWL of Section 23, T-23S, R-36E, Lea County,
New Mexico.

Gentlemen:

Conoco Inc. intends to convert the subject producing oil well to an active water injection well.

Attached for your information and file is a copy of our Application to the New Mexico Oil Conservation Division.

Very truly yours,

MK Mosley

CBB:ksh

Attachment

PS Form 3811, Dec. 1980

● **SENDER:** Complete items 1, 2, 3, and 4.
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).
   - [X] Show to whom and date delivered ..... ¢
   - [ ] Show to whom, date, and address of delivery.. ¢
2. [ ] RESTRICTED DELIVERY ¢
   (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL $

3. ARTICLE ADDRESSED TO:
Sun Exploration & Production Co
Box 1861
Midland, TX 79702

4. TYPE OF SERVICE:
   - [ ] REGISTERED [ ] INSURED
   - [X] CERTIFIED [ ] COD
   - [ ] EXPRESS MAIL

ARTICLE NUMBER: P 714 730

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE [ ] Addressee [ ] Authorized agent

5. DATE OF DELIVERY

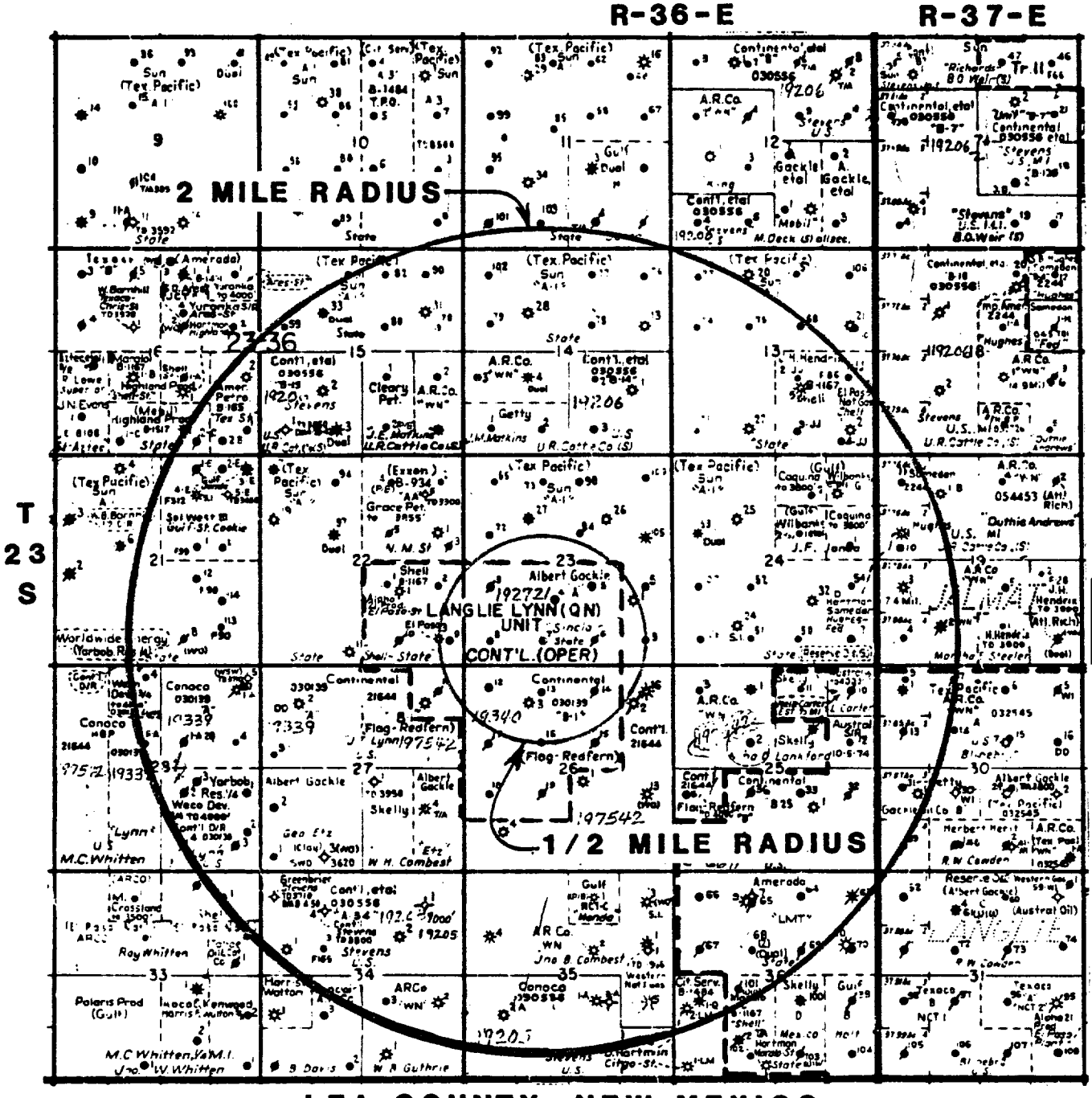
MIDLAND, TX AUG 25 1983 USPO

6. ADDRESSEE'S ADDRESS *(Only if requested)*

7. UNABLE TO DELIVER BECAUSE:

7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL


R-36-E
R-37-E
2 MILE RADIUS
1/2 MILE RADIUS
LANGLIE LYNN (QN) UNIT
CONT'L. (OPER)
T 23 S
N
LEA COUNTY, NEW MEXICO

WELLS IN AREA OF REVIEW - LANGLIE LYNN QUEEN UNIT NO. 7

Well Name & No.	Type	Langlie Mattix Prod/Inj Interval	Casing Size	Casing Depth	Cement Sacks	Cement TOC	Date Drilled	Location	TD/PBD	Record Of Completion
Langlie Lynn Qn. #3	Inj.	3536'-3672'	8-5/8"	241'	200	Circ.	09-30-60	1980' FSL & 660' FWL of Sec. 23, T-23S, R-36E	3790'-3760'	10-25-60
			4-1/2"	3790'	1100	Circ.				
Langlie Lynn Qn. #4	Oil	3542'-3628'	10-3/4"	225'	500	Circ.	08-18-49	2310' FWL & 1650' FSL of Sec. 23, T-23S, R-36E	3750'	09-16-49
			7-5/8"	1235'	500	Circ.				
			5-1/2"	2795'	600	Circ.				
			4-1/2"	3750'	115	N/A				
Langlie Lynn Qn. #5	Oil	3494'-3631'	8-5/8"	263'	200	Circ.	11-07-60	1980' FSL & 1980' FEL of Sec. 23, T-23S, R-36E	3734'	01-23-61
			4-1/2"	3734'	1600	Circ.				
Langlie Lynn Qn. #6	Oil	3550'-3611'	8-5/8"	269'	150	Circ.	12-11-62	660' FSL & 1980' FEL of Sec. 23, T-23S, R-36E	3728'-3704'	01-09-63
			4-1/2"	3727'	1150	Circ.				
Langlie Lynn Qn. #8	Oil	3535'-3673'	8-5/8"	272'	150	Circ.	01-21-63	660' FSL & 660' FWL of Sec. 23, T-23S, R-36E	3711'-3695'	02-27-63
			4-1/2"	3711'	1926	Circ.				
Langlie Lynn Qn. #9	Oil	3588'-3714'	7-5/8"	297'	275	Circ.	04-06-63	660' FSL & 330' FEL of Sec. 23, T-23S, R-36E	3800'-3773'	04-23-63
			4-1/2"	3800'	200	N/A				
Langlie Lynn Qn. #12	Oil	3548'-3682'	7-5/8"	330'	200	Circ.	05-30-63	660' FNL & 660' FWL of Sec. 26, T-23S, R-36E	3750'	06-20-63
			4-1/2"	3750'	300	2100'				
Langlie Lynn Qn. #13	Oil	3518'-3638'	7-5/8"	318'	200	Circ.	04-15-63	660' FNL & 1980' FWL of Sec. 26, T-23S, R-36E	3700'	05-15-63
			4-1/2"	3700'	250	N/A				
Langlie Lynn Qn. #14	Inj.	3474'-3655'	7-5/8"	302'	200	Circ.	08-04-63	660' FNL & 1980' FEL of Sec. 26, T-23S, R-36E	3720'	10-07-63
			4-1/2"	3720'	250	2600'				

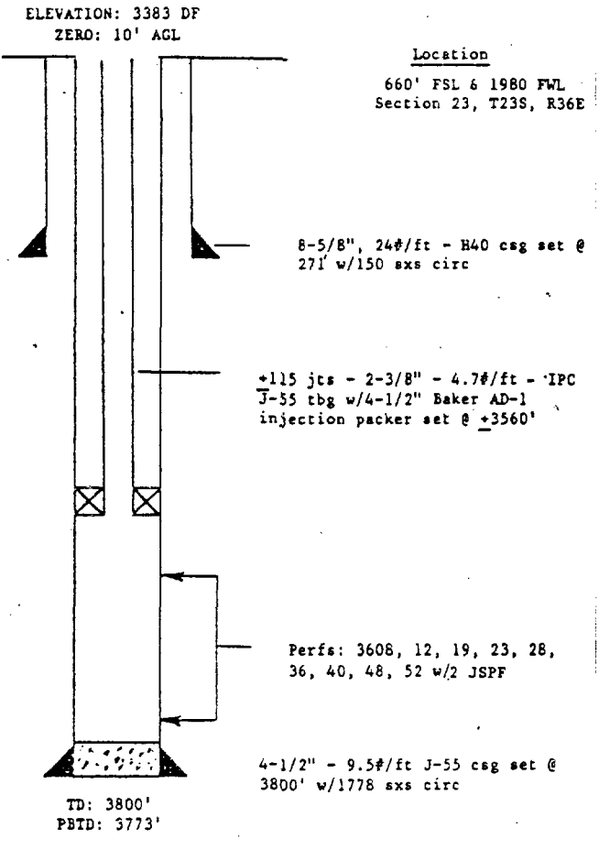
Conoco Inc. — Langlie Lynn Queen Unit

OPERATOR — LEASE

7	660' FSL & 1980' FWL	23	23-S	36-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, New Mexico

Schematic



Tabular Data

Surface Casing

Size 8-5/8" Cemented with 150 sx.

TOC surface feet determined by circ.

Hole size 11"

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 4-1/2" Cemented with 1778 sx.

TOC surface feet determined by circ.

Hole size 6-3/4"

Total depth 3800'

Injection interval

3608 feet to 3652 feet (perfs)

(perforated or open-hole, indicate which)

Tubing size 2-3/8" lined with plastic (material) set in a Baker Model AD-1 Injection (brand and model) packer at 3560 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Seven Rivers/Queen
2. Name of Field or Pool (if applicable) Langlie Mattix
3. Is this a new well drilled for injection? /_/ Yes /X/ No

   If no, for what purpose was the well originally drilled? Producing oil well.
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Jalmat Yates Gas zone, top @ 2908'.

conoco

Mark K. Mosley
Division Manager
Production Department
Hobbs Division
North American Production

Conoco Inc.
P.O. Box 460
726 E. Michigan
Hobbs, NM 88240
(505) 393-4141

October 20, 1983

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention Gilbert Quintana

Re: Letter of August 18, 1983; Application to Convert to Water Injection, Langlie Lynn Queen Unit, Well No. 7; 660' FSL and 1980' FWL of Section 23, T-23S, R-36E, Lea County, New Mexico.

Gentlemen:

Attached are wellbore diagrams for the two temporarily abandoned wells within the area of review. There are no wells in this area that have been permanently plugged and abandoned. Langlie Lynn Queen Unit No. 6 will be returned to production as soon as a response is noted from the No. 7 injection well.

Included is a map illustrating the current status of all wells within a one-half mile radius of Well No. 7. If any further information is required, please contact Chris Bode of this office.

Yours very truly,

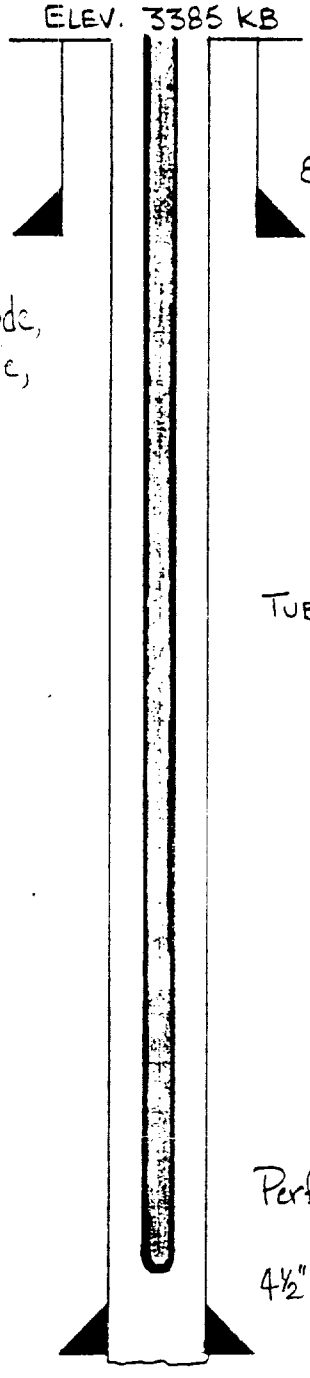
M K Mosley

CBB:ksh

Attachments

T. SALT 1405'
B. SALT 2810'

SEC 23, T-23S, R-36E
660' FSL & 1980' FEL



8⅝", 24# csg @ 269' w/ 150 sx. (circ.)

Completion & Workover History:

1962 - fraced w/ 20,000 gals. lse. crude, 26,000# 20-40 sand, 500# adomite, Mark II 500 gals. Spearhead acid, 12 ball sealers.

TUBING: 2⅜" @ 3600'

Perfs: 3550', 55', 68', 76', 81', 86', 94', 3601', & 3611'

4½", 9.5# csg @ 3727' w/ 1150 sx.

P.B.D. - 3704'
T.D. - 3728'

Completed in 1962

LANGLIE LYNN UNIT No. 6

Langlie Mattix
Lea County

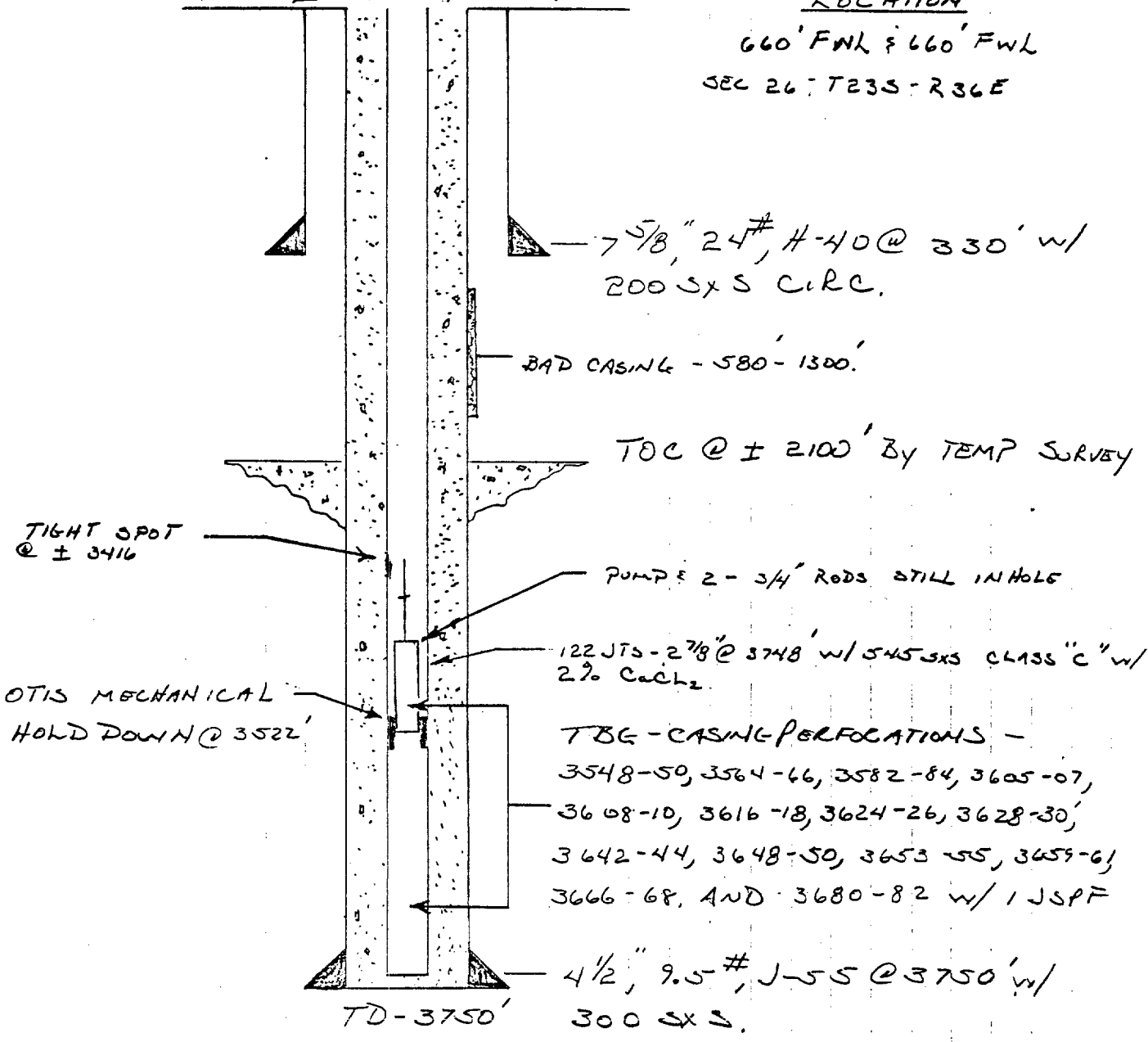
ELEVATION - 3368' GL

ZERO - 10' AGL

LOCATION

660' FNL & 660' FWL

SEC 26 ; T23S - R36E



NOTE: PUMP & 2 EA - 3/4" RODS LOFT IN HOLE 4/26/83 & S.I PENDING ENGINEERING EVALUATION.

JER

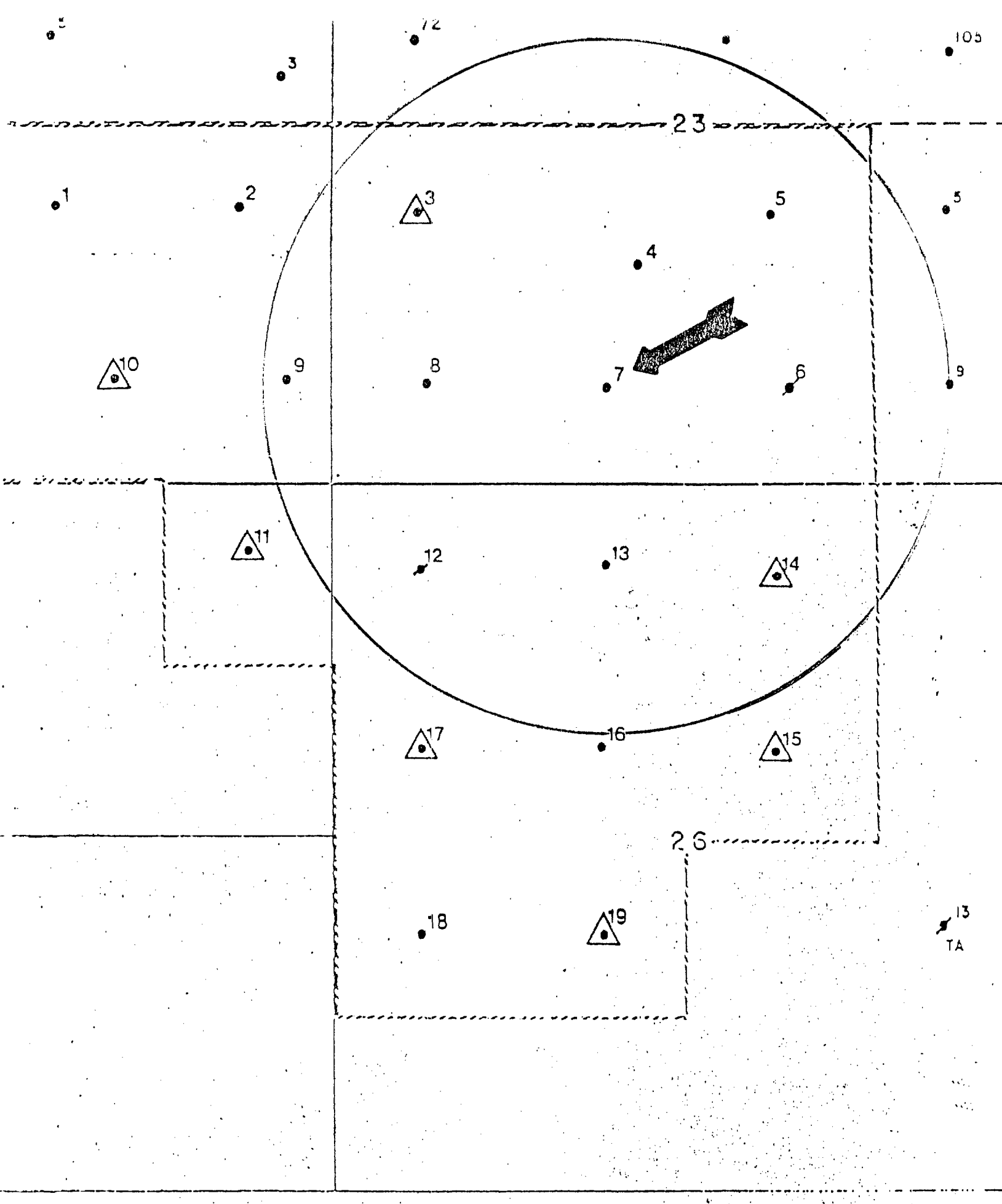
10/19/83

Conoco Inc.
Calculation Sheet

Job No. N.M. EU.

LANGLIE LYNN NO. 12

Field: JALMAT YATES GAS


23
26
LANGLIE LYNN QUEEN UNIT