



BRIDGE OIL (U.S.A.) INC.

Recd 7-16-91

July 8, 1991

State of New Mexico
Oil Conservation Division
State Land Office Building
310 Old Sante Fe Trail
Sante Fe, New Mexico 87504

Re: Bridge Oil Company, L.P.
Application for Authorization to Inject (Form C-108)
Langlie Mattix Queen Unit and
Humphrey Queen Unit
Lea County, New Mexico

Gentlemen:

Bridge Oil Company, L.P. respectfully requests administrative approval of the enclosed applications for authorization to inject. The applications are for authority to convert marginal oil producers to water injection wells in our two waterflood projects in Lea County, the Langlie Mattix Queen Unit and the Humphrey Queen Unit. In support of this request, Form C-108 and its' attachments (in duplicate) are enclosed for each application.

If you have any questions or require further information regarding this submittal, please call the undersigned at (214) 788-3363.

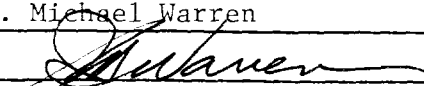
Sincerely yours,

J. Michael Warren
Regulatory Analyst

/jmw
Enclosures

cc: New Mexico Oil Conservation Division
1000 W. Broadway
Hobbs, New Mexico 88240

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Bridge Oil Company, L.P.
Address: 12404 Park Central Drive, Suite 400, Dallas, Texas 75251
Contact party: J. Michael Warren Phone: (214) 788-3300
- 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 R-3823 and WFX-340.
- 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: J. Michael Warren Title Regulatory Analyst
Signature:  Date: June 4, 1991
- * 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.

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.

SUPPLEMENT TO APPLICATION FOR AUTHORIZATION TO INJECT

- III. Well Data: See attached well data sheets for each of the wells covered by this application (Exhibits No. 1 - 4)
- 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. See attached area of review maps (Exhibits No. 5 - 8).
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. See attached Exhibits No. 9 - 12).
- VII. Proposed operations:
1. Average daily rate - 550 barrels per day per well
Maximum daily rate - 1000 barrels per day per well
Volume of fluid to be injected - 1,000,000 barrels per well
 2. System is closed.
 3. Average injection pressure - 625 psi
Maximum injection pressure - 625 psi
 4. Sources of water for injection in the subject wells is from water supply wells completed in the San Andres formation and produced water from the Queen formation. A chemical analysis of the injection fluids from both sources is attached (Exhibit No. 13).
- 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 overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval. See attached statement from Bridge Oil Co. geologist (Exhibit No. 14).
- IX. Describe the proposed stimulation program, if any.
1. Clean out wellbore down to original TD.
 2. Acidize with 2000 gallons 15% NEFE acid.
- X. Attach appropriate logging and test data on the well. Logs for each of the injection wells in this application have been previously submitted.

SUPPLEMENT TO APPLICATION FOR AUTHORIZATION TO INJECT

- 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. See analysis from Martin Water Laboratories, Inc. (Exhibit No. 15).
- 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. See statement from Bridge Oil geologist (Exhibit No. 14).
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of Form C-108. Legal notice was published in the Hobbs Daily News. See publisher's statement (Exhibit No. 16). All offset operators and surface owners were notified by certified mail, return receipt requested, see copy of return receipts (Exhibit No. 17).

**NEW MEXICO OIL CONSERVATION DIVISION
INJECTION WELL DATA SHEET**

05-Jun-91

Wellbore Schematic	OPERATOR Bridge Oil Co., L.P.	LEASE Langlie Mattix Queen Unit	COUNTY/STATE Lea Cnty, NM	WELL NO. 12
	UNIT LETTER A	FOOTAGE LOCATION 660' FNL & 660' FEL	SECTION 15	TOWNSHIP & RANGE T25-S & R37E
TABULAR DATA				
	Surface Casing <hr/> Size (inches): 10-3/4" Top of Cement: Surface Hole size (inches): 13-3/4" <hr/>			
	Intermediate Casing <hr/> Size (inches): N/A Top of Cement: Hole size (inches): <hr/>			
	Long String <hr/> Size (inches): 5-1/2" Top of Cement: 1933' & surface Hole size (inches): 7-3/4" Total Depth: 3560' <hr/>			
	Injection Interval: 3150'-3533' O.H. <small>(Indicate whether perforated or open hole)</small> <hr/>			
	Other Comments: <hr/>			
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Tubing size 2-7/8" Lined with plastic (material) set in a Baker AD-1 (brand & model)
 packer at 3100 feet. (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation: Queen
- Name of Field or Pool (if applicable): Langlie Mattix 7 Rivers Queen
- Is this a new well drilled for injection Yes ☐ No ☒
 If no, for what purpose was the well originally drilled? Oil production
- 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
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Yates @ +/- 2600'-3000' and Blinberry @ 5600'-5900' +/-

NEW MEXICO OIL CONSERVATION DIVISION
INJECTION WELL DATA SHEET

05-Jun-91

Wellbore Schematic	OPERATOR	LEASE	COUNTY/STATE	WELL NO.
	Bridge Oil Co., L.P.	Langlie Mattix Queen Unit	Lea Cnty, NM	16
	UNIT LETTER	FOOTAGE LOCATION	SECTION	TOWNSHIP & RANGE
	G	1979' FNL & 1982' FEL	15	T25-S & R37E

TABULAR DATA			
Surface Casing			
Size (inches):	10-3/4"	Cemented with	150 sacks
Top of Cement:	Surface	feet determined by	calculation
Hole size (inches):	13-1/2"		
Intermediate Casing			
Size (inches):	N/A	Cemented with	
Top of Cement:		feet determined by	
Hole size (inches):			
Long String			
Size (inches):	7"	Cemented with	150 sacks
Top of Cement:	1827' & surface	feet determined by	calculation
Hole size (inches):	8-3/4"		
Total Depth:	3610'		
Injection Interval:	3144'-3385' O.H. (Indicate whether perforated or open hole)		
Other Comments:			

Tubing size 2-7/8" Lined with plastic (material) set in a Baker AD-1 (brand & model)
 packer at 3100 feet. (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation: Queen
- Name of Field or Pool (if applicable): Langlie Mattix 7 Rivers Queen
- Is this a new well drilled for injection Yes ☐ No ☒
 If no, for what purpose was the well originally drilled? Oil production
- 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): Yes, Yates formation was produced (2660'-2935'). Sqz'd w/ 500 sx. Cl. H cement.
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Yates @ 2660' and Blinbry @ 5600'-5900' +/-

NEW MEXICO OIL CONSERVATION DIVISION INJECTION WELL DATA SHEET

05-Jun-91

Wellbore Schematic	OPERATOR	LEASE	COUNTY/STATE	WELL NO.
	Bridge Oil Co., L.P.	Langlie Mattix Queen Unit	Lea Cnty, NM	18
	UNIT LETTER E	FOOTAGE LOCATION 1980' FNL & 330' FWL	SECTION 14	TOWNSHIP & RANGE T25-S & R37E

TABULAR DATA			
Surface Casing			
Size (inches):	10-3/4"	Cemented with	200 sacks
Top of Cement:	Surface	feet determined by	calculation
Hole size (inches):	14"		
Intermediate Casing			
Size (inches):	7-5/8"	Cemented with	200 sacks
Top of Cement:	surface	feet determined by	calculation
Hole size (inches):	9-7/8"		
Long String			
Size (inches):	5-1/2"	Cemented with	150 sacks
Top of Cement:	1237	feet determined by	calculation
Hole size (inches):	6-7/8"		
Total Depth:	3427'		
Injection Interval:	3220'-3340' perf. & 3370'-3427' O.H. (indicate whether perforated or open hole)		
Other Comments:			

Tubing size 2-3/8" Lined with plastic (material) set in a Baker AD-1 (brand & model)
 packer at 3150 feet. (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation: Queen
- Name of Field or Pool (if applicable): Langlie Mattix 7 Rivers Queen
- Is this a new well drilled for injection Yes ☐ No ☒ x
 If no, for what purpose was the well originally drilled? Oil production
- 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
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Yates @ +/- 2600'-3000' and Blinbry @ 5600'-5900' +/-

NEW MEXICO OIL CONSERVATION DIVISION
INJECTION WELL DATA SHEET

04-Jun-91

Wellbore Schematic	OPERATOR	LEASE	COUNTY/STATE	WELL NO.
	Bridge Oil Co., L.P.	Langlie Mattix Queen Unit	Lea Cnty, NM	29
	UNIT LETTER	FOOTAGE LOCATION	SECTION	TOWNSHIP & RANGE
	B	330' FNL & 1650' FEL	22	T25-S & R37E

TABULAR DATA			
Surface Casing			
Size (inches):	15-1/2"	Cemented with	200 sacks
Top of Cement:	Surface	feet determined by	calculation
Hole size (inches):	20"		
Intermediate Casing			
Size (inches):	8-5/8"	Cemented with	250 sacks
Top of Cement:	surface	feet determined by	calculation
Hole size (inches):	10"		
Long String			
Size (inches):	7"	Cemented with	250 sacks
Top of Cement:	surface	feet determined by	calculation
Hole size (inches):	8"		
Total Depth:	3410'		
Injection Interval:	3272'-3386' perms (Indicate whether perforated or open hole)		
Other Comments:	5-1/2" Liner cemented w/100 sx. Pozmix TOC: 2847' TD @ bottom of Liner: 3398'		

15-1/2" csg. @ 250'

8-5/8" csg. @ 1225'

5-1/2" Liner @ 2847'

7" csg. @ 2897'

Proposed Pkr. @ 3200'

Queen Perfs:
3272'-3278'
3286'-3288'
3292'-3298'
3314'-3340'
3379'-3386'

PBTD: 3398'

TD: 3410'

Tubing size 2-3/8" Lined with plastic (material) set in a Baker AD-1 (brand & model)

packer at 3200 feet. (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation: Queen
- Name of Field or Pool (if applicable): Langlie Mattix 7 Rivers Queen
- Is this a new well drilled for injection Yes ☐ No ☒
If no, for what purpose was the well originally drilled? Oil production
- 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
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Yates @ +/- 2600'-3000' and Blinbry @ 5600'-5900' +/-

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EXHIBIT HAS
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AND IS LOCATED
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LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
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BRIDGE OIL CO., L.P.
STATUS OF WELLS WITHIN 1/2 MILE RADIUS OF CONVERSIONS
LEA COUNTY, NEW MEXICO

18-Jun-91

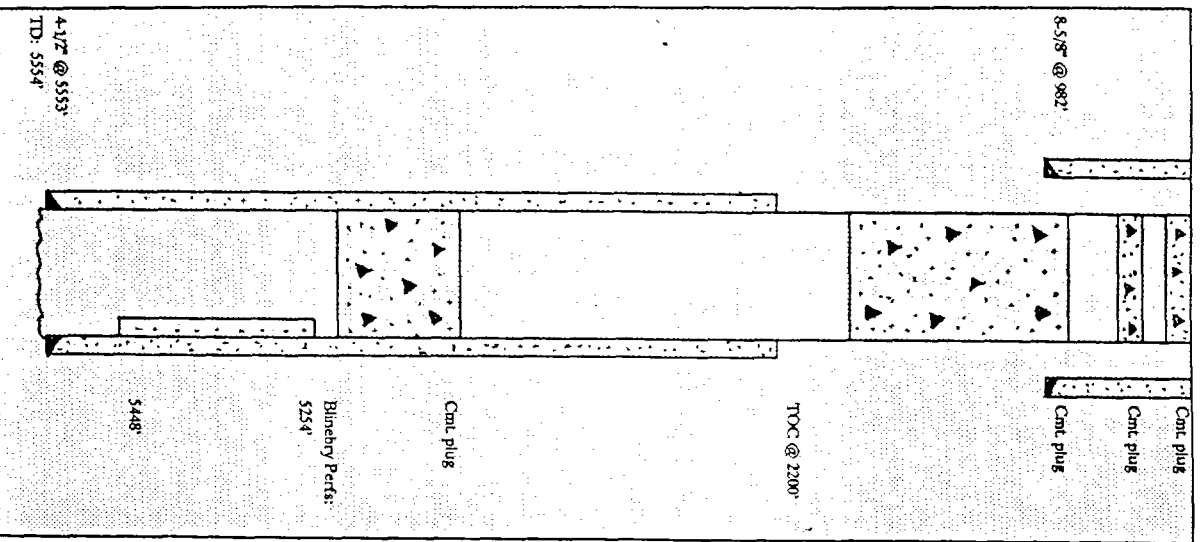
Bridge Oil LMOU #12

LEASE NAME	WELL NO.	SPUD DATE	WELL TYPE (to date)	FOOTAGE LOCATION	LOCATION SECT/TWNSHIP/RANGE	SURFACE CSG (AMT OF CMT)	INTER CSG (AMT OF CMT)	LONG STRG (AMT OF CMT)	LINER (AMT OF CMT)	TOTAL DEPTH (FT)	RECORD OF COMPL ZONES
=====											
P&A'd	Corrigan	1	2/17/66	Oil	990' FSL & 990' FWL	Sec. 11, T-2S, R37E	8-5/8" @ 982' (450)	4-1/2" @ 5553' (550)		5554'	Blinchey
	Langlie Mattox On, Unit	1	7/4/37	Oil	1650' FSL & 330' FWL	Sec. 11, T-2S, R37E	8-5/8" @ 224' (150)	5-1/2" @ 3148' (450)		3410'	Queen
	Langlie Mattox On, Unit	5	3/26/47	Oil	990' FSL & 2145' FEL	Sec. 10, T-2S, R37E	10-3/4" @ 164' (75)	5-1/2" @ 3268' (75)		3416'	Queen
	Langlie Mattox On, Unit	6	2/12/36	Oil	1980' FEL & 660' FSL	Sec. 10, T-2S, R37E	12-1/2" @ 114' (100)	7" @ 3042' (300)		3470'	On, Pentose
	Langlie Mattox On, Unit	7	9/7/36	WTW	990' FSL & 990' FEL	Sec. 10, T-2S, R37E	15-1/2" @ 97' (25)	8-5/8" @ 1293' (150)		3540'	Queen
	Langlie Mattox On, Unit	8	10/27/37	Oil	990' FSL & 330' FWL	Sec. 11, T-2S, R37E	10-3/4" @ 193' (200)	7-5/8" @ 1046' (350)		3409'	Queen
	Langlie Mattox On, Unit	9	9/21/71	Oil	330' FSL & 330' FEL	Sec. 10, T-2S, R37E	8-5/8" @ 1052' (700)	5-1/2" @ 3287' (200)		3350'	Queen
	Langlie Mattox On, Unit	10	N/A	Oil	520' FNL & 2090' FWL	Sec. 15, T-2S, R37E	9-5/8" @ 203' (100)	5-1/2" @ 3550' (900)		3406'	Syn. Rvrs, On.
	Langlie Mattox On, Unit	11	4/23/36	WTW	660' FNL & 1980' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 359' (125)	5-1/2" @ 3164' (500)		3624'	Queen
	Langlie Mattox On, Unit	13	10/7/37	WTW	660' FNL & 330' FWL	Sec. 14, T-2S, R37E	12-1/2" @ 144' (150)	6-5/8" @ 3356' (320)		3520'	Queen
	Langlie Mattox On, Unit	14	3/17/70	WTW	870' FNL & 1270' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1056' (700)	4-1/2" @ 3480' (900)		3480'	Queen
	Langlie Mattox On, Unit	16	3/6/37	Oil	1979' FNL & 1982' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 353' (150)	7" @ 3144' (730)		3383'	Yates, On.
	Langlie Mattox On, Unit	17	2/16/38	WTW	1980' FNL & 660' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 346' (150)	5-1/2" @ 3150' (348)		3545'	Queen
	Langlie Mattox On, Unit	18	4/3/38	Oil	1980' FNL & 330' FWL	Sec. 14, T-2S, R37E	10-3/4" @ 212' (200)	5-1/2" @ 3360' (150)		3427'	Queen
	Langlie Mattox On, Unit	20	12/31/37	Oil	660' FEL & 1980' FSL	Sec. 15, T-2S, R37E	13-3/8" @ 36' (60)	6" @ 3227' (150)		3409'	Queen
	Langlie Mattox On, Unit	41	1/4/90	Oil	1300' FNL & 1300' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 993' (550)	5-1/2" @ 3469' (675)		3650'	On, Pentose
	Langlie Mattox On, Unit	44	1/15/90	Oil	1300' FNL & 175' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1007' (550)	5-1/2" @ 3452' (625)		3655'	On, Pentose
	Langlie Mattox Queen	36	9/27/69	WSW	700' FSL & 2500' FEL	Sec. 10, T-2S, R37E	13-3/8" @ 1055' (1250)	9-5/8" @ 4800' (2175)		4800'	Water supply
	Stuart	1	7/1/36	Dry Hole	660' FNL & 1980' FWL	Sec. 15, T-2S, R37E	10-3/4" @ 151' (75)	7-5/8" @ 974' (350)		3416'	Dry Hole
	Stuart A* WN	1	3/19/38	Oil	330' FNL & 1650' FWL	Sec. 14, T-2S, R37E	10-3/4" @ 38' (50)	7" @ 3237' (150)		3395'	Queen
	Stuart Langlie Mattox Un	121	4/14/37	Oil	1650' FSL & 990' FEL	Sec. 10, T-2S, R37E	12-1/2" @ 224' (300)	9-5/8" @ 1170' (300)		3380'	N/A
	Stuart Langlie Mattox Un	122	7/27/36	Oil	1650' FSL & 1650' FEL	Sec. 10, T-2S, R37E	10" @ 731' (300)	8-1/4" @ 1295' (75)		3353'	N/A
	Stuart Langlie Mattox Un	128	11/12/68	Oil	1420' FSL & 100' FEL	Sec. 10, T-2S, R37E	8-5/8" @ 1324' (550)	5-1/2" @ 3550' (210)		3550'	Queen

WELL INFORMATION DIAGRAM

18-Jun-91

Corrigan #1



DESCRIPTION OF WELLBORE

Cmt. plug from surface to 10' (10 ss)
Cmt. plug from 500' (50 ss)
8.5/8" 24#/ft csg @ 982'. Cmt'd w/ 450 ss to surface.
Cmt. plug from 820' - 1070' (90 ss)
Pulled 1020' of 4-1/2" csg. (P&A)
TOC @ 2200'
Cmt. plug from 4897' - 5150' (40 ss)
Blinberry Perfs: 5254' - 5448'
4-1/2" 10.5#/ft csg @ 5553'. Cmt'd w/ 550 ss. TOC @ 2200'

LEASE / WELL #: Corrigan #1

FIELD NAME: Justin Blinberry

CNTY / STATE: Lea County, New Mexico

LOCATION: 9907 FWL & 9907 FSL of Sec. 11, T25S, R37E

OPERATOR: V-F Petroleum Inc.

API #:

ELEVATION:

STATUS:

HISTORY:

Spudded 2/17/66

Produced from the Blinberry zone (5254' - 5448')

1/3/91

Completed plugging operations (Form C-103):

Circ. hole w/ mud. Spotted 40 ss of C cmt @ 5150'. Tagged plug @ 491'. Attempted to cut pipe and pull from 1823'. Pipe pulled up 20 ft. and stuck.

Circ. hole w/ mud. Spot 40 ss of C cmt @ 1843'. Cut pipe again @ 1070'. Pulled 1020' of 4-1/2" Circ. hole and mix mud. Spot 40 ss of C cmt @ 1070'. Got low tag so spotted another 50 ss C cmt. Tagged @ 820'. Pulled to 500' and spot 50 ss of C cmt. Pulled to surface. Spotted 10 ss @ surface.

18-Jun-91

WELL INFORMATION DIAGRAM

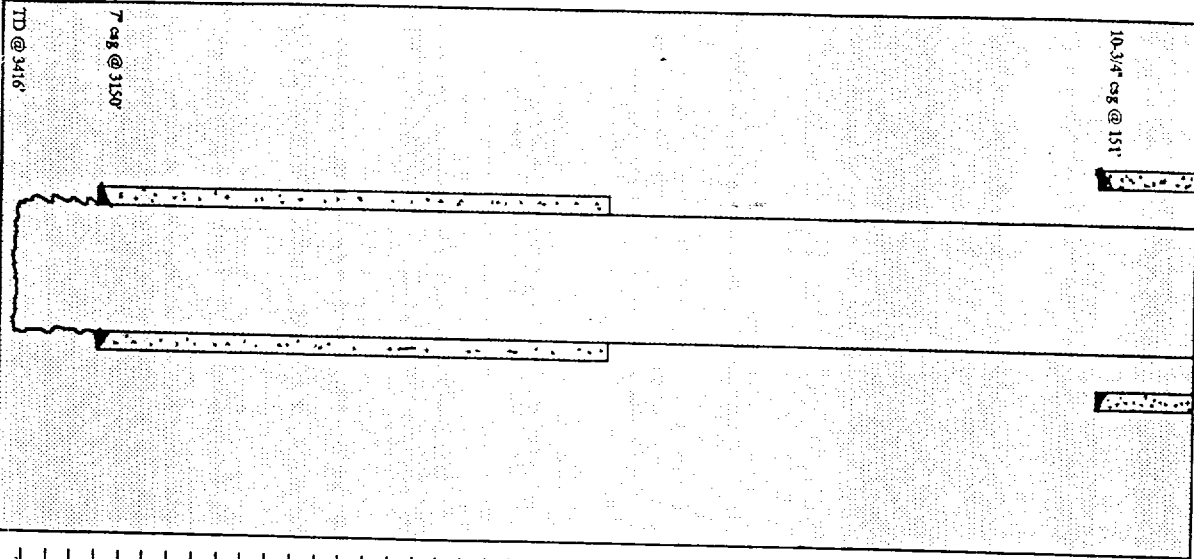
Stuart #1

DESCRIPTION OF WELLBORE

Spud Date: 5/28/36

10-3/4" csg @ 151'

10-3/4" csg @ 151' w/ 75 sk



LEASE / WELL #: Stuart #1

FIELD NAME:

CNTY / STATE:

LOCATION:

OPERATOR:

API #:

ELEVATION:

STATUS:

HISTORY:

Lea County, New Mexico

660 FNL & 1960 FNL of Sec. 15, T-25S, R37E

Stelly Oil Co.

Dry Hole

Spudded 5/28/36

No history available for this well besides Scout tract.

Blank lines for additional wellbore description.

Total Depth: 3416'

7" @ 3150' w/ 250 sk cml

BRIDGE OIL CO., L.P.
STATUS OF WELLS WITHIN 1/2 MILE RADIUS OF CONVERSIONS
LEA COUNTY, NEW MEXICO

18-Jun-91

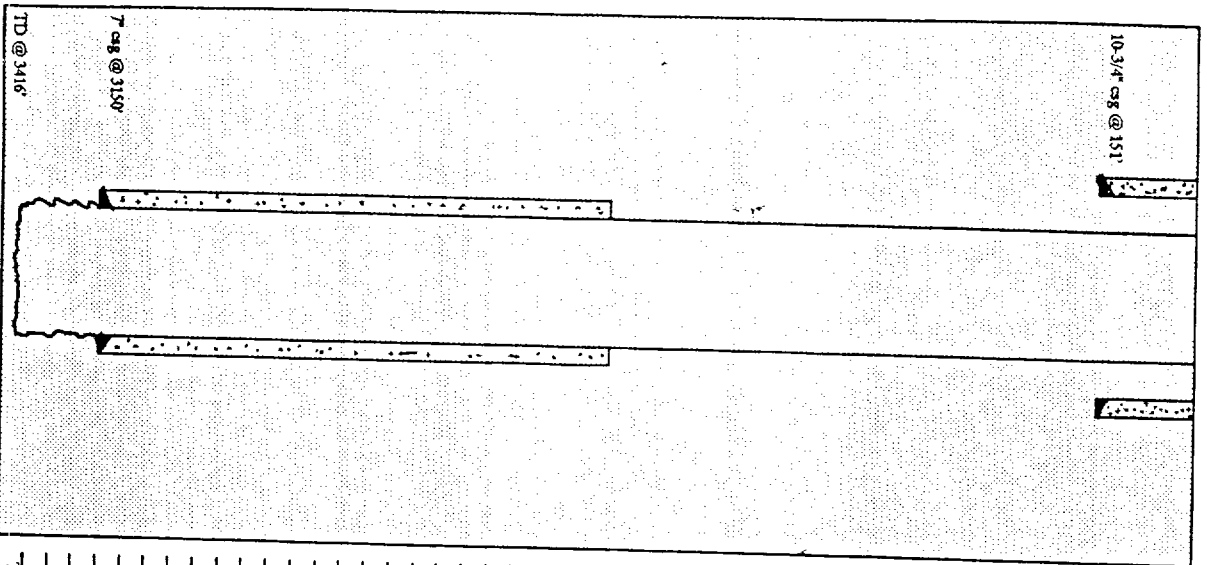
Bridge Oil LMQU #16

LEASE NAME	WELL NO.	SPUD DATE	WELL TYPE (to date)	FOOTAGE LOCATION	LOCATION SECTIONSHIP/RANGE	SURFACE CSG (AMT OF CMT)	INTER. CSG (AMT OF CMT)	LONG STRG (AMT OF CMT)	LINER (AMT OF CMT)	TOTAL DEPTH (FT)	RECORD OF COMPL ZONES
Langlie Maritz On, Unit	6	2/12/36	Oil	1980' FEL & 660' FSL	Sec. 10, T-2S, R37E	12-1/2" @ 114' (100)	8-1/4" @ 1305' (50)	7" @ 3042' (300)		3470'	On, Penrose
Langlie Maritz On, Unit	10	N/A	Oil	520' FNL & 2090' FWL	Sec. 15, T-2S, R37E	9-5/8" @ 203' (100)		7" @ 3206' (400)		3406'	Syn. Ryrs, On.
Langlie Maritz On, Unit	11	4/23/36	WTW	660' FNL & 1980' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 359' (125)		5-1/2" @ 3164' (500)		3624'	Queen
Langlie Maritz On, Unit	12	5/31/37	Oil	660' FNL & 660' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 362' (150)		5-1/2" @ 3137'		3560'	Queen
Langlie Maritz On, Unit	15	10/15/69	WTW	1980' FNL & 1720' FWL	Sec. 15, T-2S, R37E	8-5/8" @ 1025' (700)		5-1/2" @ 3700' (860)		3700'	Queen
Langlie Maritz On, Unit	17	2/16/38	WTW	1980' FNL & 660' FEL	Sec. 14, T-2S, R37E	10-3/4" @ 346' (150)		5-1/2" @ 3150' (348)		3545'	Queen
Langlie Maritz On, Unit	18	4/3/38	Oil	1980' FNL & 330' FWL	Sec. 14, T-2S, R37E	10-3/4" @ 212' (200)	7-5/8" @ 1086' (200)	5-1/2" @ 3360' (150)		3427'	Queen
Langlie Maritz On, Unit	19	5/20/37	WTW	1980' FSL & 1980' FEL	Sec. 15, T-2S, R37E	16" @ 30' (100)	9-5/8" @ 1238' (600)	7" @ 3271' (125)		3560'	Queen
Langlie Maritz On, Unit	20	12/31/37	Oil	660' FEL & 1980' FSL	Sec. 15, T-2S, R37E	13-3/8" @ 36' (60)	8-5/8" @ 1222' (400)	6" @ 3227' (150)		3409'	Queen
Langlie Maritz On, Unit	37	4/30/38	Oil	2000' FWL & 2000' FSL	Sec. 15, T-2S, R37E	8-5/8" @ 1021' (500)		5-1/2" @ 3550' (675)		3550'	Syn. Ryrs, On.
Langlie Maritz On, Unit	38	5/13/71	Oil	2144' FEL & 850' FSL	Sec. 15, T-2S, R37E	8-5/8" @ 1020' (600)		5-1/2" @ 3550' (850)		3550'	Syn. Ryrs, On.
Langlie Maritz On, Unit	41	1/4/90	Oil	1300' FNL & 1300' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 993' (550)		5-1/2" @ 3649' (675)		3650'	On, Penrose
Langlie Maritz On, Unit	44	1/15/90	Oil	1300' FNL & 175' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1007' (550)		5-1/2" @ 3652' (625)		3655'	On, Penrose
Stuart	1	7/1/36	Dry Hole	660' FNL & 1980' FWL	Sec. 15, T-2S, R37E	10-3/4" @ 151' (75)		7" @ 3150' (250)		3416'	Dry Hole

WELL INFORMATION DIAGRAM

18-Jun-91

Stuart #1



DESCRIPTION OF WELLBORE

Spud Date: 5/28/36

10-3/4" csg @ 151' w/ 75 sz

LEASE / WELL #: Stuart #1
 FIELD NAME:
 CNTY / STATE:
 LOCATION:
 OPERATOR:
 API #:
 ELEVATION:
 STATUS:

Lea County, New Mexico
 6607 FNL & 19807 FNL of Sec 15, T.25S, R.37E
 Seely Oil Co.

Dry Hole

HISTORY:

Spudded 5/28/36
 No history available for this well besides Spout ticket.

Blank lines for additional wellbore description.

Total Depth: 3416'

7" @ 3150' w/ 250 sz cml

18-Jun-91

BRIDGE OIL CO., L.P.
STATUS OF WELLS WITHIN 1/2 MILE RADIUS OF CONVERSIONS
LEA COUNTY, NEW MEXICO

LEASE NAME	WELL NO.	SPUD DATE	WELL TYPE (to date)	FOOTAGE LOCATION	LOCATION SECTIONSHIP/RANGE	SURFACE CSG (AMT OF CMT)	INTER CSG (AMT OF CMT)	LONG STRG (AMT OF CMT)	LINER (AMT OF CMT)	TOTAL DEPTH (FT)	RECORD OF COMPL ZONES
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Bridge Oil LMOU #18

P&A'd	Langlie "A"	2	12/6/54	Gas	1980' FSL & 1980' FWL	Sec. 14, T-2S, R37E	9-5/8" @ 205' (200)			7" @ 3210' (300)	Queen
	Langlie "A"	2	9/2/76	Oil	1980' FSL & FWL	Sec. 14, T-2S, R37E	9-5/8" @ 213' (200)			7" @ 3215' (300)	On, Pentose
	Langlie "D"	2	6/5/63	Oil	1650' FSL & 2310' FWL	Sec. 14, T-2S, R37E	9-5/8" @ 938' (318)			4-1/2" @ 5609' (780)	Name N/A, zn. 5441-81'
	Langlie Mattox On, Unit	9	9/21/71	Oil	330' FSL & 330' FEL	Sec. 10, T-2S, R37E	8-5/8" @ 1052' (700)			5-1/2" @ 3550' (900)	Queen
	Langlie Mattox On, Unit	11	4/23/36	WTW	660' FNL & 1980' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 359' (125)			5-1/2" @ 3164' (500)	Queen
	Langlie Mattox On, Unit	12	5/31/37	Oil	660' FNL & 660' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 362' (150)			5-1/2" @ 3137'	Queen
	Langlie Mattox On, Unit	13	10/7/37	WTW	660' FNL & 330' FWL	Sec. 14, T-2S, R37E	12-1/2" @ 144' (150)	8-5/8" @ 1007' (300)		6-5/8" @ 3356' (320)	Queen
	Langlie Mattox On, Unit	14	3/17/70	WTW	870' FNL & 1270' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1056' (700)			4-1/2" @ 3480' (900)	Queen
	Langlie Mattox On, Unit	16	3/6/37	Oil	1979' FNL & 1982' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 353' (150)			7" @ 3144' (730)	Yates, On.
	Langlie Mattox On, Unit	17	2/16/38	WTW	1980' FNL & 660' FEL	Sec. 15, T-2S, R37E	10-3/4" @ 346' (150)			5-1/2" @ 3150' (348)	Queen
	Langlie Mattox On, Unit	20	12/31/37	Oil	660' FEL & 1980' FSL	Sec. 15, T-2S, R37E	13-3/8" @ 36' (60)	8-5/8" @ 1222' (400)		6" @ 3227' (150)	Queen
	Langlie Mattox On, Unit	21	7/19/38	WTW	1980' FSL & 660' FWL	Sec. 14, T-2S, R37E	10-3/4" @ 1183' (450)			7" @ 3297' (200)	Queen
	Langlie Mattox On, Unit	27	7/30/37	WTW	660' FSL & 660' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1262' (400)			5-1/2" @ 2971' (460)	Queen

P&A'd	Langlie Mattox On, Unit	39	7/8/71	Oil	215' FEL & 900' FSL	Sec. 15, T-2S, R37E	8-5/8" @ 1025' (500)			5-1/2" @ 3450' (675)	On, Pentose
	Langlie Mattox On, Unit	41	1/4/90	Oil	1300' FNL & 1300' FEL	Sec. 15, T-2S, R37E	8-5/8" @ 993' (550)			5-1/2" @ 3649' (675)	On, Pentose
	Langlie Mattox On, Unit	44	1/15/90	Oil	1300' FNL & 115' FWL	Sec. 14, T-2S, R37E	8-5/8" @ 1007' (550)			5-1/2" @ 3652' (625)	On, Pentose
	Stuart "A" WN	1	3/19/38	Oil	330' FNL & 1650' FWL	Sec. 14, T-2S, R37E	10-3/4" @ 38' (50)	7-5/8" @ 974' (350)		5" @ 3237' (150)	Queen
	Stuart "A" WN	2	8/23/64	Oil	330' FNL & 2310' FWL	Sec. 14, T-2S, R37E	9-5/8" @ 1004' (464)			7" @ 6250' (1195)	Justia Bly, Tubb
	W.F. Stuart	1	10/25/65	Oil	2310' FWL & 1650' FNL	Sec. 14, T-2S, R37E	8-5/8" @ 997' (500)			5-1/2" @ 5685' (550)	Blintney

W.L. Stuart

1 1/2" @ 30'

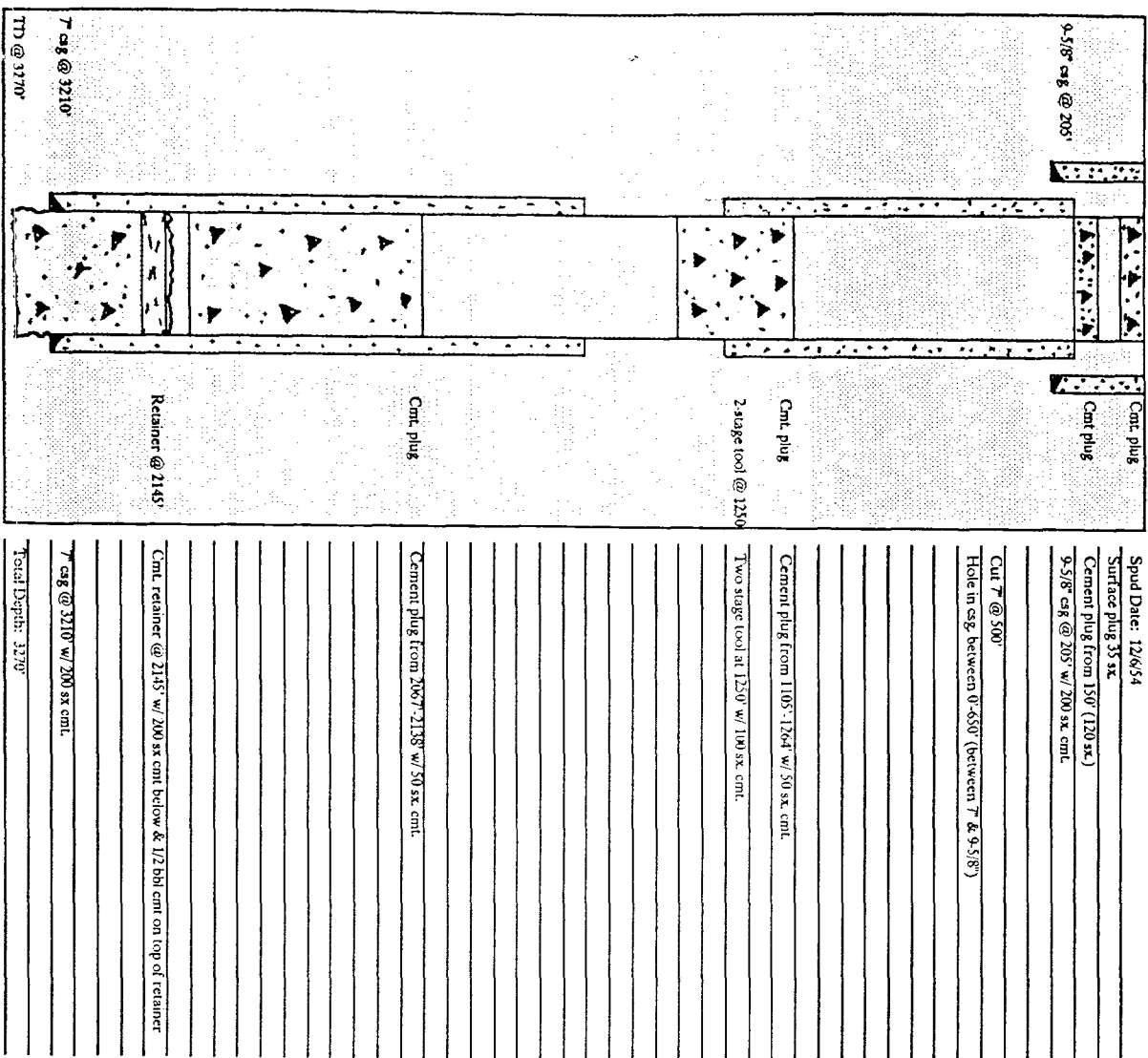
2 1/2" @ 30'

WELL INFORMATION DIAGRAM

18-Jun-91

Langlie "A" #2

DESCRIPTION OF WELLBORE



LEASE / WELL #: Langlie "A" #2
 FIELD NAME: Langlie-Matrix
 CNTY / STATE: Lea County, New Mexico
 LOCATION: 1980 FSL & 1980 FWL of Sec 14, T-25S, R-37E
 OPERATOR: El Paso Natural Gas Company
 API #: 3116 CL
 ELEVATION: P&AD 12/6/76
 STATUS: Spudded 12/6/54

HISTORY:

12/2/76

Set cmt. retainer @ 2145'. Pumped 200 sx below retainer & dumped 1.5 bbl. on top of retainer. Loaded hole w/ gel mud & spotted 50 sx CL H from 2138'-2061'. Pulled tbg to 1264' & spotted 50 sx CL H to 1105'. Tagged top plug @ 1105'. Tested 7' from 650' to surface, communication between 7' & 9.5/8" csg. Cut off wellhead & speared 7' csg. Calc. free pt. @ 634'. Cut csg. @ 500', pulled and LD 13.5 lbs of 7'. Spotted 120 sx CL C cmt. to 150'. Spotted 33 sx CL C to surf. Set dry hole marker and cleaned up location.

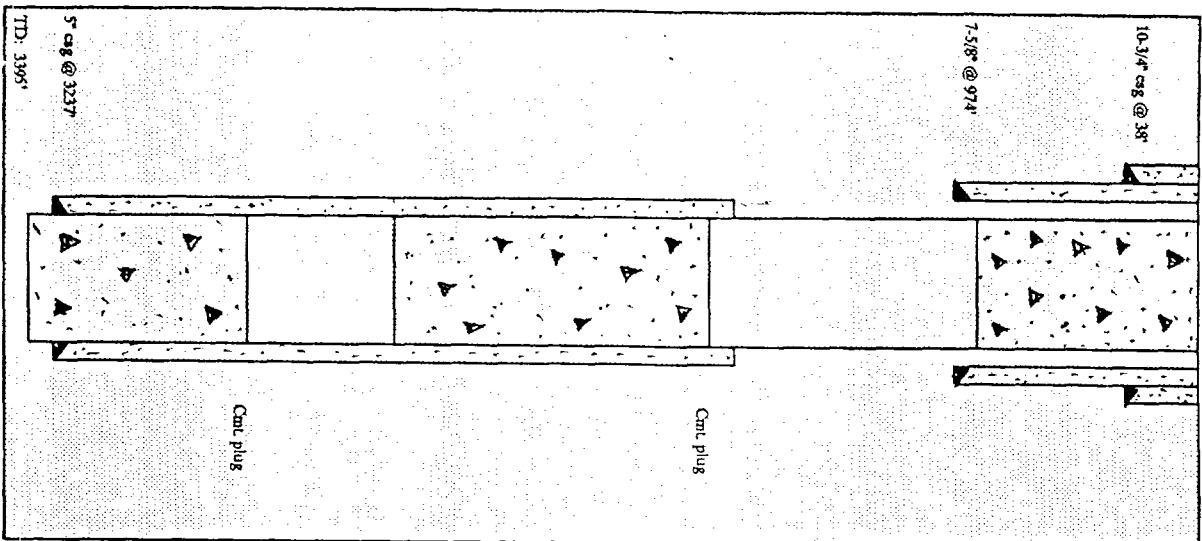
Spud Date: 12/6/54
 Surface plug 33 sx
 Cement plug from 150' (120 sx)
 9.5/8" csg @ 205' w/ 200 sx cmt.
 Cut 7' @ 500'
 Hole in csg. between 0'-650' (between 7' & 9.5/8')
 Cement plug from 1105'-1264' w/ 50 sx cmt.
 Two stage tool at 1250' w/ 100 sx cmt.
 Cement plug from 2067'-2138' w/ 50 sx cmt.
 Cmt. plug
 Retainer @ 2145'
 7 csg @ 3210'
 TD @ 3270'

FILE: LangyA2.WQJ

WELL INFORMATION DIAGRAM

18-Jun-91

Stuart "A" WN #1



DESCRIPTION OF WELLBORE

10-3/4" csg @ 38'
Cement plug from 0'-300' w/ 185 sx
7-5/8" csg @ 974' w/ 350 sx cml
Cement plug from 1929' - 2100' w/ 100 sx
7-5/8" csg @ 3237' w/ 150 sx cml
TD: 3395'

LEASE / WELL #: Stuart "A" WN #1
 FIELD NAME: Langley Matux SR On.
 CNTY / STATE: Lea County, New Mexico
 LOCATION: 330 FNL & 1650' FWL of Sec. 14, T25S, R37E
 OPERATOR: Arco Oil and Gas Company
 API #: 3129 GR
 ELEVATION: P&AD 271/87
 STATUS: Spudded 1/31/88 as the Stuart #1A

HISTORY:

3/31/87 Plugging operations (Form C-103):

RU Pu. Unable to pull tag. Clean out @ 2300'. POH w/ 7 1/2 lb
 Plug #1: 2300'-3395' w/ 300 sx. Set pkr @ 2800'. Set w/ 300 sx. POOH w/ pkr.
 Plug #2: 1929'-2100' w/ 100 sx. Tag TOC @ 2300'. Perf @ 2300'. Unable to pump in. Perf @ 2100'. Est PIR. CR @ 1989' w/ 60 cml on top.
 Plug #3: 0'-900' w/ 185 sx. Perf @ 993'. Wouldn't circ. out ann. Perf 900'. Circ cent to surf out 5-17-88. Closed 7-5/8" csg & pump 15 sx into perf @ 993'.

Bridge Oil LMQU #29

Oil LMQU #29											
LEASE NAME	WELL NO.	SPUD DATE	WELL TYPE (to date)	FOOTAGE LOCATION	LOCATION SECT/TWNSHIP/RANGE	SURFACE CSG (AMT.OF CMT)	INTER CSG (AMT.OF CMT)	LONG STRG (AMT.OF CMT)	LINER (AMT.OF CMT)	TOTAL DEPTH (FT)	RECORD OR COMPL ZONES
Harrison Langlie Maritx On, Unit	2	7/6/38	Gas	2310 FSL & 990' FEL	Sec. 22, T-2S5, R37E	9-5/8" @ 1100' (500)		7" @ 3218' (250)		3366'	N/A
Langlie Maritx On, Unit	19	5/20/37	W/VW	1980' FSL & 1980' FEL	Sec. 15, T-2S5, R37E	16" @ 30' (100)	9-5/8" @ 1238' (600)	7" @ 3271' (125)		3560'	Queen
Langlie Maritx On, Unit	20	1/23/37	Oil	660' FEL & 1980' FSL	Sec. 15, T-2S5, R37E	13-3/8" @ 36' (60)	8-5/8" @ 1222' (400)	6" @ 3227' (150)		3409'	Queen
Langlie Maritx On, Unit	22	6/12/69	W/VW	668' FSL & 1633' FEL	Sec. 15, T-2S5, R37E	8-5/8" @ 1103' (600)		5-1/2" @ 3650' (700)		3650'	Queen
Langlie Maritx On, Unit	24	6/20/37	Oil	330' FSL & 1650' FEL	Sec. 15, T-2S5, R37E	13-3/8" @ 32' (50)	9-5/8" @ 1229' (550)	7" @ 3262' (125)		3375'	Queen
Langlie Maritx On, Unit	25	6/22/37	Oil	990' FEL & 330' FSL	Sec. 15, T-2S5, R37E	13-3/8" @ 32' (25)	7-5/8" @ 1240' (600)	5-1/2" @ 3237' (25)		3510'	7 Rvrs, On, Pennose, Jal
Langlie Maritx On, Unit	27	7/30/37	W/VW	660' FSL & 660' FVL	Sec. 14, T-2S5, R37E	8-5/8" @ 1262' (400)		5-1/2" @ 2971' (460)		3453'	Queen
Langlie Maritx On, Unit	28	1/125/69	W/VW	500' FNL & 2540' FEL	Sec. 22, T-2S5, R37E	8-5/8" @ 1017' (700)		5-1/2" @ 3516' (650)		3516'	Queen
Langlie Maritx On, Unit	30	2/10/38	Oil	330' FNL & 990' FEL	Sec. 22, T-2S5, R37E	12-1/2" @ 225' (200)	8-5/8" @ 1235' (250)	7" @ 2849' (250)		3373'	Queen
Langlie Maritx On, Unit	31	10/10/36	W/VW	660' FNL & 660' FVL	Sec. 22, T-2S5, R37E	10-3/4" @ 375' (200)		7" @ 2449' (600)	4-1/2" @ 2311'-3475' (200)	3475'	Queen
Langlie Maritx On, Unit	32	10/10/69	W/VW	2530' FNL & 2600' FEL	Sec. 22, T-2S5, R37E	8-5/8" @ 1060' (700)		5-1/2" @ 3620' (700)		3620'	Queen
Langlie Maritx On, Unit	33	6/15/67	Oil	1650' FEL & 2310' FNL	Sec. 22, T-2S5, R37E	8-5/8" @ 636' (250)		4-1/2" @ 3217' (100)		3344'	5m Rvrs, On.
Langlie Maritx On, Unit	34	4/18/39	Oil	1650' FNL & 990' FEL	Sec. 22, T-2S5, R37E	7-5/8" @ 1115' (250)		5-1/2" @ 3298' (200)		3380'	Queen
Langlie Maritx On, Unit	38	5/13/71	Oil	2144' FEL & 850' FSL	Sec. 15, T-2S5, R37E	8-5/8" @ 1020' (600)		5-1/2" @ 3550' (850)		3550'	5m Rvrs, On.
Langlie Maritx On, Unit	39	7/8/71	Oil	215' FEL & 900' FSL	Sec. 15, T-2S5, R37E	8-5/8" @ 1025' (500)		5-1/2" @ 3450' (675)		3450'	On, Pennose
Langlie Maritx On, Unit	40	3/24/38	Oil	1650' FNL & 1650' FEL	Sec. 22, T-2S5, R37E	10-3/4" @ 162' (100)	7-5/8" @ 1103' (250)	5-1/2" @ 3385' (200)		3345'	On, Yates, 5m Rvrs
Mobile Stuart	1	3/9/78	Gas	1980' FNL & 2180' FVL	Sec. 22, T-2S5, R37E	8-5/8" @ 1016' (1100)		4-1/2" @ 3450' (400)		3450'	Yates
	2	8/15/74	Gas	660' FNL & 2310' FVL	Sec. 22, T-2S5, R37E	8-5/8" @ 312' (200)		5-1/2" @ 3400' (250)		3400'	Queen

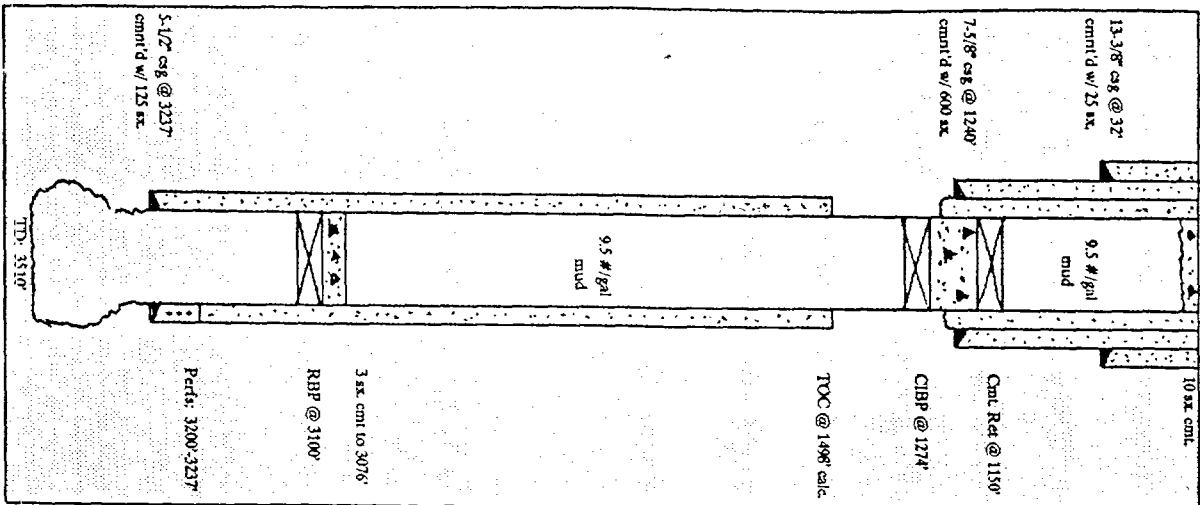
WELL INFORMATION DIAGRAM

11-Jun-91

Langlie Mattox Queen Unit #25

DESCRIPTION OF WELLBORE

Originally spudded as the J.A. Elliott #1



LEASE / WELL #:

Langlie Mattox Queen Unit #25

FIELD NAME:

Langlie Mattox 7 Rivers Queen Grayburg

CNTY / STATE:

Tea County, New Mexico

LOCATION:

900' FEL & 330' FSL of Sec 15, T.25S, R.37E

OPERATOR:

Bridge Oil Company L.P.

API #:

30 025-11604

ELEVATION:

CR - 3000'

STATUS:

Plugged & Abandoned 7/12/86

HISTORY:

- 7/37 Spud: 6222/37
- 7/37 Open hole completion from 3217'-3400' (Original TD @ 3400')
- 8/39 Open hole about from 3303'-3400' w/ 170 gals. SNQ
- 8/41 Acidized w/ 500 gals. mud acid & 500 gals. wash acid.
- 4/52 Found anhydrite plug @ 2567'. Removed & CO from 3139'-3400' TD. Found Oil savings and received w/ bailer. Well would not pump. Well T&A'd 7/31/52
- 5/27/55 Perforate Jarama sand @ 2526'-2650', 2665'-2690', 2715'-2740'. Acidized w/ 500 gals mud acid & 15,000 gals Petroleum w/ 1# /gal sand w/ 1# /gal sand. Well washed dry w/o gas show.
- 11/69 Deepened well to 3510'
- 9/71 Converted to WYW
- 7/12/86 Well plugged & abandoned. Unsuccessful attempts to squeeze seg. leaks from 2540'-2741' in a cavernous salt bed

P&A Completed Operations:

Tag sand on RBP @ 3100', disp. hole w/ 75 bbls 9.5 # /gal mud. Mix 3 sec Class C cmc. and dump from 3100'-3076'. Set CIBP @ 1274' and perf 5-1/2" csg w/ 4 holes from 1255'-1258'. Set cmc. retainer @ 1150' and pump 90 sec Class C cmc thru perfs. Mix & pump 10 sec Class C as surface plug.

13-3/8" csg @ 32'
cmnt'd w/ 25 sec
9.5 # /gal mud
10 sec cmc.
Cmc Ret @ 1150'
CIBP @ 1274'
TOC @ 1498' calc.
3 sec cmc to 3076'
RBP @ 3100'
Perfs: 3300'-3237'
5-1/2" csg @ 3237'
cmnt'd w/ 125 sec
TD: 3510'

DESCRIPTION OF WELLBORE

Originally spudded as the J.A. Elliott #1

13-3/8" 48' ft csg @ 32'
7-5/8" 26' 44' ft csg @ 1210'
Perf'd 1255'-58' and squeezed 90 sec cm thru perfs. (Part of P&A)
TOC calculated @ 1498' using 5 gal wtr/sec
Holes in casing from 2540'-2741'
5-1/2" 17# ft csg @ 3237'
Nitro shot from 3303'-3400'
Original TD: 3400'

TO: Mr. Mickey Horn
P. O. box 77, Andrews, TX 79714

RESULTS REPORTED 12-26-90

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from water supply well. 12-18-90

NO. 2 Composite Produced water - taken from inlet @ pumpjack #1. 12-12-90

No. 3 Treated water - taken from injection pump discharge. 12-18-90

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0095	1.0385	1.0113	
pH When Sampled	6.7	7.1	6.7	
pH When Received	6.70	7.50	6.80	
Bicarbonate as HCO ₃	761	891	769	
Supersaturation as CaCO ₃	—	40	0	
Undersaturation as CaCO ₃	—	—	—	
Total Hardness as CaCO ₃	3,400	9,100	3,800	
Calcium as Ca	900	2,060	960	
Magnesium as Mg	279	960	340	
Sodium and/or Potassium	2,031	19,123	2,902	
Sulfate as SO ₄	2,180	2,766	2,180	
Chloride as Cl	3,480	33,379	5,113	
Iron as Fe	0.06	0.60	0.20	
Barium as Ba	0	0	0	
Turbidity, Electric	3	32	11	
Color as Pt	23	21	37	
Total Solids, Calculated	9,651	59,178	12,264	
Temperature °F.	80	50	68	
Carbon Dioxide, Calculated	258	116	254	
Dissolved Oxygen.	0.020	0.010	0.080	
Hydrogen Sulfide	583	234	477	
Resistivity, ohms/m at 77° F.	0.070	0.142	0.560	
Suspended Oil	4	157	4	
Filtrable Solids as mg/l	1.8	13.0	3.6	
Volume Filtered, ml	10,000	3,800	6,100	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

B R I D G E O I L (U.S.A.) I N C.

M E M O R A N D U M

TO: New Mexico Oil Conservation Division

FROM: Stan Ward, Geologist

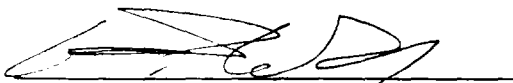
DATE: June 4, 1991

RE: Saltwater Injection Permits for L.M.Q.U. #12, L.M.Q.U. #16, L.M.Q.U. #18 and L.M.Q.U. #29 in the Langlie Mattix Queen Unit, Lea County, New Mexico

Saltwater will be injected into the unitized Queen formation through perforations or into the open hole from 3144' MD to 3533' MD in the subject wells. The Queen formation is composed of alternative sequences of tight fine-grained sandstones, anhydrite and dolomite.

In this area, native fresh waters are encountered in aquifers from 0' to 250' below the earth's surface. In the subject wells, native fresh waters have been protected from wellbore fluids by large diameter casing in all the subject wells. There are no sources of fresh water underlying the Queen Injection Zone at 3144'-3533' MD.

I have examined the 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.



Stan Ward, Geologist

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

Martin Water Laboratories, Inc.

RESULT OF WATER ANALYSES

LABORATORY NO. 69152
SAMPLE RECEIVED 6-12-91
RESULTS REPORTED 6-13-91

TO: Mr. Mike Warren
12404 Park Central Drive, Suite 400, Dallas,
TX 75251

COMPANY Bridge Oil (USA), Inc. LEASE Langlie Mattix
FIELD OR POOL Langlie-Mattix
SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from water well.

NO. 2 _____

NO. 3 _____

NO. 4 _____

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0019			
pH When Sampled				
pH When Received	7.81			
Bicarbonate as HCO ₃	234			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	360			
Calcium as Ca	106			
Magnesium as Mg	23			
Sodium and/or Potassium	92			
Sulfate as SO ₄	273			
Chloride as Cl	60			
Iron as Fe	0.07			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	789			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	10.03			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	2.7			

Results Reported As Milligrams Per Liter

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

Form No. 3

cc: Mr. Mickey Horn, Andrews

By

Waylan C. Martin, M.A.

RESULT OF WATER ANALYSES

TO: Mr. Mike Warren
12404 Park Central Drive, Suite 400, Dallas,
TX 75251

LABORATORY NO. 69153
 SAMPLE RECEIVED 6-12-91
 RESULTS REPORTED 6-13-91

COMPANY Bridge Oil (USA), Inc. LEASE Humphrey Queen

FIELD OR POOL _____

SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from Northeast water well.

NO. 2 Raw water - taken @ windmill.

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0023	1.0025		
pH When Sampled				
pH When Received	7.35	7.51		
Bicarbonate as HCO ₃	239	410		
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	500	590		
Calcium as Ca	144	158		
Magnesium as Mg	34	47		
Sodium and/or Potassium	241	276		
Sulfate as SO ₄	218	109		
Chloride as Cl	426	526		
Iron as Fe	0.11	28.8		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,302	1,527		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	4.99	4.35		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	3.9	0.5		

Results Reported As Milligrams Per Liter

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

Form No. 3

cc: Mr. Mickey Horn, Andrews

By

Waylan C. Martin, M.A.

OFFSET OPERATORS
LANGLIE MATTIX QUEEN UNIT

Mobil Producing Texas and New Mexico, Inc.
P. O. Box 633
Midland, Texas 79701

ARCO
P. O. Box 1610
Midland, Texas 79702

Chevron, U.S.A.
P. O. Box 1660
Midland, Texas 79701

Amerada Hess Corporation
P. O. Box 2040
Tulsa, Oklahoma 74102

Tempo Energy
4000 N. Big Spring #109
Midland, Texas 79705

Tahoe Energy Corporation
3909 West Industrial
Midland, Texas 79761

Exxon (USA)
P. O. Box 1600
Midland, Texas 79702

Amoco Production Co.
P. O. Box 3092
Houston, Texas 77001

El Paso Natural Gas
P. O. Box 1492
El Paso, Texas 79978

Saba Energy, Inc.
2723 Sackett, Suite 200
Houston, Texas 77098

SURFACE OWNER
LANGLIE MATTIX QUEEN UNIT

Johnny Owen
P. O. Box 1013
Jal, New Mexico 88252

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Toby Spears

of the Hobbs Daily News-Sun, a daily 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 _____

One weeks.
Beginning with the issue dated

June 16, 1991
and ending with the issue dated

June 16, 1991

Toby Spears
Business Manager

Sworn and subscribed to before

me this 21 day of

June, 1991

Rhonda Copeland
Notary Public.

My Commission expires _____

July 24, 1991

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.

LEGAL NOTICE

June 16, 1991

NOTICE OF
APPLICATION
FOR FLUID INJECTION
WELL PERMIT

Bridge Oil Company, L.P.,
12404 Park Central Drive,
Suite 400, Dallas, Texas
75251 is applying to the
State of New Mexico,
Energy, Minerals and Nat-
ural Resources Depart-
ment, Oil Conservation
Division for a permit to
inject fluid into a formation
which is productive of oil or
gas.

The applicant proposes
to inject fluid into the
Queen formation in appli-
cant's Langlie Mattix
Queen Unit waterflood
project. Injection will be at
an average depth of 3314'
with expected maximum
injection rates of 1000
barrels per day per well at
625 psi injection pressure.
The proposed injection
wells are located in Section
14, 15 and 22, T-25-S,
R-37-E, Lea County, New
Mexico.

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. For further informa-
tion concerning the
application, contact
applicant's representative,
Mr. J. Michael Warren at
(214) 788-3300.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:
Mobil Producing Texas and New Mexico, Inc.
P. O. Box 633
Midland, Texas 79701 *79702*

4. Article Number
P176192936

Type of Service:
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X *B. Sanchez*

7. Date of Delivery
JUN 25 1991

8. Addressee's Address (ONLY if requested and fee paid)
Same

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:
Amerada Hess Corporation
P. O. Box 2040
Tulsa, Oklahoma 74102

4. Article Number
P176192938

Type of Service:
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X *Carlos Laurence*

7. Date of Delivery
JUN 24 1991

8. Addressee's Address (ONLY if requested and fee paid)
Same

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:
ARCO
P. O. Box 1610
Midland, Texas 79702

4. Article Number
P176192937

Type of Service:
☒ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X *Robin*

6. Signature — Agent
X

7. Date of Delivery
JUN 26 1991

8. Addressee's Address (ONLY if requested and fee paid)
Same

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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 next to the article number.

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

1. ☒ Addressee's Address

2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Saba Energy, Inc.
2723 Sackett, Suite 200
Houston, Texas 77098

4a. Article Number

P 176 193 144

4b. Service Type

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

7. Date of Delivery

6/24/91

5. Signature (Addressee)

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

6. Signature (Agent)

H. Ballard

PS Form 3811, October 1990

★ U.S. G.P.O. 1990-273-861

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:

Amoco Production Co.
P. O. Box 3092
Houston, Texas 77001

4. Article Number

P 176 192 940

Type of Service:

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

Always obtain signature of addressee or agent and **DATE DELIVERED**.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

JUN 24 1991

PS Form 3811, Apr. 1989

★ U.S.G.P.O. 1989-238-815

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:

Tahoe Energy Corporation
3909 West Industrial
Midland, Texas 79761

4. Article Number

P 176 192 939

Type of Service:

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

Always obtain signature of addressee or agent and **DATE DELIVERED**.

5. Signature — Addressee

X

6. Signature — Agent

Deani Deombes

7. Date of Delivery

PS Form 3811, Apr. 1989

★ U.S.G.P.O. 1989-238-815

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: Tempo Energy 4000 N. Big Spring #109 Midland, Texas 79705	4. Article Number P176 192 942
5. Signature — Addressee X	Type of Service: <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
6. Signature — Agent X	Always obtain signature of addressee or agent and DATE DELIVERED.
7. Date of Delivery 6-24-91 812	8. Addressee's Address (ONLY if requested and fee paid) SAME

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: Chevron, U.S.A. P. O. Box 1660 Midland, Texas 79701 79702	4. Article Number P176 192 941
5. Signature — Addressee X	Type of Service: <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
6. Signature — Agent X	Always obtain signature of addressee or agent and DATE DELIVERED.
7. Date of Delivery	8. Addressee's Address (ONLY if requested and fee paid) ZIP CODE 79702

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER:
• Complete items 1 and/or 2 for additional services.
• Complete items 3, and 4a & b.
• 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 next to the article number.

I also wish to receive the following services (for an extra fee):
1. ☒ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to: Johnny Owen P. O. Box 1013 Jal, New Mexico 88252	4a. Article Number P176 193 145
5. Signature (Addressee) 	4b. Service Type <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
6. Signature (Agent) 	7. Date of Delivery 6-26-91
	8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, October 1990 *U.S. GPO: 1990-273-861 DOMESTIC RETURN RECEIPT

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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 next to the article number.

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

1. ☒ Addressee's Address

2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

El Paso Natural Gas
P. O. Box 1492
El Paso, Texas 79978

4a. Article Number

P 176 193 143

4b. Service Type

☒ Registered

☐ Insured

☐ Certified

☐ COD

☐ Express Mail

☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

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

6. Signature (Agent)

R. [Signature]

JUN 22 1991

PS Form 3811, October 1990

★ U.S. GPO: 1990-273-861

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:

Exxon (USA)
P. O. Box 1600
Midland, Texas 79702

4. Article Number

P 176 193 142

Type of Service:

☒ Registered

☐ Insured

☒ Certified

☐ COD

☐ Express Mail

☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

JUN 26 1991

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



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

'91 JUL 16 AM 9 40

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD _____
WFX ☒ _____
PMX _____

Gentlemen:

I have examined the application for the:

<i>Bridge Oil Co.</i>	<i>Lease & Well No.</i>	<i>Unit</i>	<i>S-T-R</i>
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed