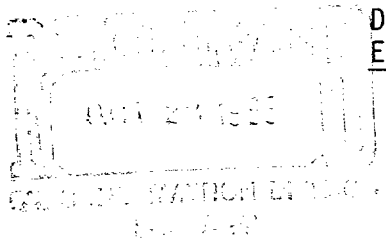
PHILLIPS PETROLEUM COMPANY
ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP

October 25, 1985

Expansion at Burch Keely
Cooperative Waterflood Project.
Division Order R-7900,
Eddy County, New Mexico



R. L. Stamets
Director, NMOCD
Post Office Box 2088
State Land Office Bldg.
Santa Fe, New Mexico 87501

Dear Sir:

Enclosed is Phillips' application for administrative approval for inclusion of nine water injection wells as part of the Burch Keely Cooperative Waterflood Project. This project was approved by Divison Order No. R-7900 on April 25, 1985.

There are currently nine water injection wells in Sections 23 and 26, T-17-S, R-29-E which were approved by Division Order R-2327 for injection into the Keely sub zone of the San Andres. Phillips plans to recomplete these nine wells for injection into all of the Grayburg/ San Andres pay zones and operate them as part of the Burch Keely Cooperative Waterflood Project.

By copy of this letter and application, all offset operators are requested to file any objections to the proposed recompletions with the NMOCD within 15 days. Any questions concerning this application or the expansion should be directed to the undersigned (915) 367-1488 or John Upchurch (915) 367-1342.

Very truly yours,

L. M. Sanders
Regulation & Proration Supervisor

LMS:JLU:jj

Attachments

cc: Offset Operators (List included)
Surface Owner

Expansion at Burch Keely
Cooperative Waterflood Project

Surface Land Owner: Department of the Interior
Bureau of Land Management
P. O. Drawer 1357
Roswell, New Mexico 88201

Offset Operators: Marbob Energy Corporation
P. O. Drawer 217
Artesia, New Mexico 88211-0217

Southland Royalty Company
21 Desta Drive
Midland, Texas 79701

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

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Phillips Petroleum Company

Address: 4001 Penbrook Street

Contact party: J. E. Jennings Phone: (915) 367-1290

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? [XX] yes [ ] no
If yes, give the Division order number authorizing the project R-7900.

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: W. J. Mueller Title Sr. Engineering Specialist

Signature: W. J. Mueller Date: 10/25/85

* 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

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.

III. Well Data

A. See table. (All wells will use 2 3/8" OD, 4.7 #/ft, plastic lined tubing and a Baker AD-1, plastic coated packer.)

B. 1. Injection Formation: Grayburg/San Andres, Grayburg - Jackson (SR- Q-GB-SA) Pool

2. Injection Interval: ± 2350'-3537', perforated and open hole

3. Original Purpose: San Andres Production

4. Perforated Intervals: None outside Grayburg/San Andres

5. Producing Zones: Upper - Seven Rivers @ ± 1500' - Queen @ ± 1800'

Lower-None

JU/msc
PR.U/welldata

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF INJECTION WELLS

Lease/Well No.	Footage	TD (PBTD)	Hole Size	Size & Wt.	Casing Depth	Cmt.	TOC	Tubing/Packer Depth	Injection Interval
Section 23, T-17-S, R-29-E									
Burch BB Fed #7	1980' FNL 1980' FEL	3360'	10" 8" 6-1/4"	8-5/8" 24# 7" 20# 5-1/2" 14#	420' 2557' 2505-3265'	100sx 100sx 35sx	Circ.(C) 1335'(C) 2807'(T.S.)	± 2300'	Perfs ± 2350'-3265'**, O.H. 3265'-3360'
Burch C Fed #1	2400' FNL 855' FWL	3319' 3368'	10" 8" 6-1/4"*	8-5/8" 32# 7" 20# 5-1/2" 14#	362' 2597' 2541'-3237'	50sx 75sx 35sx	4' (C) 1680' (C) 2541' (C)	± 2300'	Perfs ± 2350'-3237'**, O.H. 3237'-3319'
Burch C Fed #?	2314' FNL 2310 FWL	3337'	10" 8" 6-1/4"	8-5/8" 28# 7" 24# 5-1/2" 14#	380' 2606' 2553-3246'	50sx 100sx 35sx	22' (C) 1384' (C) 2783'(T.S.)	± 2300'	Perfs ± 2350'-3246'**, O.H. 3246'-3337'
Burch C Fed #7	1980' FSL 660' FEL	3358'	10" 8" 6-1/4"	8-5/8" 24# 7" 24# 5-1/2" 14#	384' 2459' 2408-3282'	75sx 100sx 35sx	Circ. (C) 1237' (C) 2750'(T.S.)	± 2350'	Perfs ± 2400'-3282'**, O.H. 3282'-3358'
Burch F Fed #8	660' FSL 660' FEL	3493' (3374')	10"* 8"* 6-1/4"*	8-5/8" 28# 7" 24# 5-1/2"(L) 17#	390' 2509' 2445-3291'	75sx 100sx 35sx	Circ. (C) 1287' 2860'(T.S.)	± 2350'	Perfs ± 2400'-3291'**, O.H. 3291'-3374'
Section 26, T-17-S, R-29-E									
Keely B Fed #4	660' FNL 1980' FEL	3450'	10"* 8" 6-1/4"*	8-5/8" 24# 7" 20# 5-1/2"(L) 17#	400' 2509' 2441-33124'	50sx 100sx 35sx	42' (C) 1287' (C) 2915'(T.S.)	± 2400'	Perfs ± 2450'-3314'**, O.H. 3314'-3450'
Keely B Fed #13	1345' FNL 1295' FEL	5076' (3537')	12-1/4"* 9-1/2"* 9-1/2"*	10-3/4" 35# 7" 20# 7" 20#	915' 2820' 3020'-3420'	300sx 200sx 125sx	Circ. (C) 1931' (C) 3350'(T.S.)	± 2400'	Perfs ± 2450'-3420'**, O.H. 3420'-3537'

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF INJECTION WELLS

Lease/Well No.	Footage	TD (PBTD)	Hole Size	Size & Wt.		Casing Depth	Cmt.	TOC	Tubing/Packer Depth	Injection Interval
Section 26, T-17-S, R-29-E (Cont.)										
Keely C Fed #9	1980' FNL	3426'	10"	8-5/8"	24#	369'	50sx	11' (C)	± 2400'	Perfs ± 2450'-3337'**,
	1980' FWL		8"	7"	20#	2784	100sx	1562' (C)		O.H. 3337'-3426'
			6-1/4"	5-1/2"	14#	2371-3337'	35sx	2731' (C)		
Keely C Fed #14	1980' FNL	3430'	10"*	8-5/8"	24#	372'	75sx	Circ. (C)	± 2400'	Perfs ± 2450'-3112'**,
	660' FWL	(3368')	8"*	7"	20#	2737'	200sx	292' (C)		O.H. 3112'-3368'
			6-1/4"*	5-1/2"	14#	2678-3112'	41sx	2678' (C)		

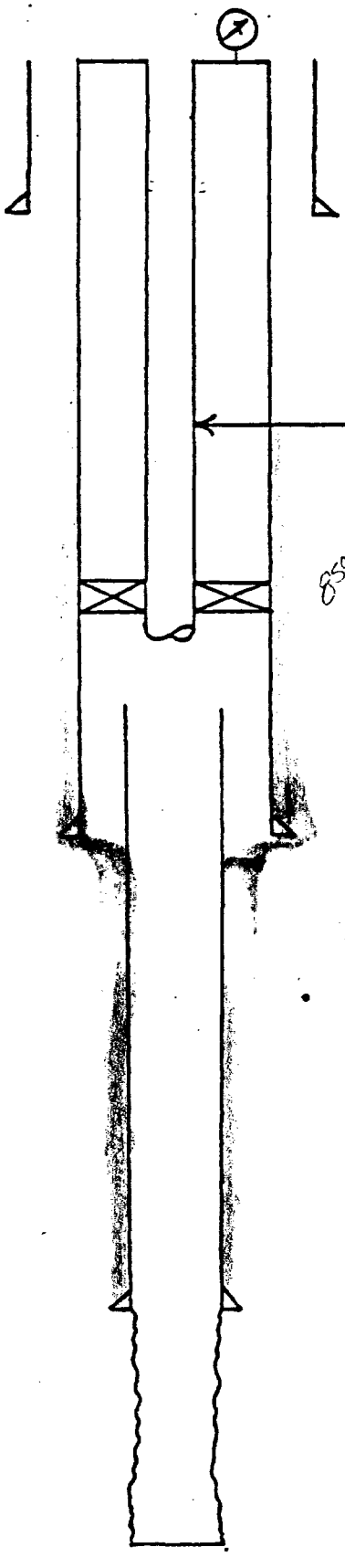
* Estimate

** Proposed perforations

RE2.1,inject1

PHILLIPS PETROLEUM COMPANY
Burch BB Fed. Well No. 7
1980' FNL, 1980' FEL
Unit G, Section 23, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 420'
10" Hole Size
Cmt'd w/100 sx, TOC @ Circ(C)

Queen @ 1845'

Grayburg @ 2185'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2300'

850' of cmt above packer

San Andres @ 2480'

Cut and pulled 5 1/2" csg. @ 2505'

7" OD, 20#/ft @ 2459'
8" Hole Size
Cmt'd w/100 sx, TOC @ 1335'(C)

Injection Interval
±2350'-3360'

TOC @ 1450' @ 70% fill

TOC @ 2663' @ 70% fill

5 1/2" OD, 14#/ft @ 3265'
6 1/4" Hole Size
Cmt'd w/35 sx, TOC @ 2807'(TS)

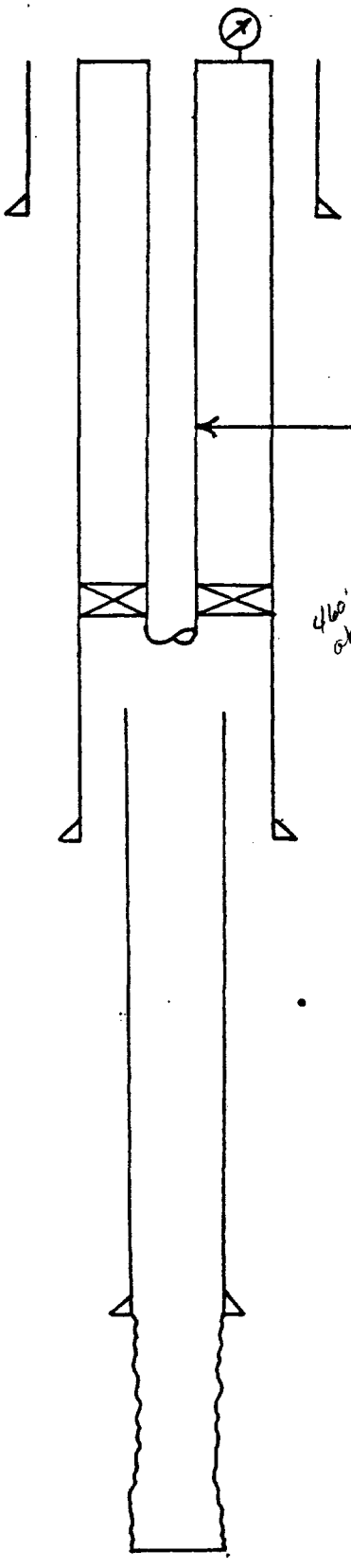
5" Open Hole 3265'-3360'

TD @ 3360'

RE5.2/burch1

PHILLIPS PETROLEUM COMPANY
Burch C Fed. Well No. 1
2400' FNL, 855' FWL
Unit E, Section 23, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 32#/ft @ 362'
10" Hole Size
Cmt'd w/50 sx, TOC @ 4' (C)

Queen @ 1825'

Grayburg @ 2170'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2300'

San Andres @ 2525'

460' cmt above packer.

Cut and pulled 5 1/2" csg. @ 2546'

7" OD, 20#/ft @ 2597'
8" Hole Size
Cmt'd w/75 sx, TOC @ 1680'(C)

Injection Interval
±2350'-3319'

TOC @ 1840' @ 70%

5 1/2" OD, 14#/ft @ 3237'
6 1/4" Hole Size
Cmt'd w/35 sx, TOC @ 2541'(C)

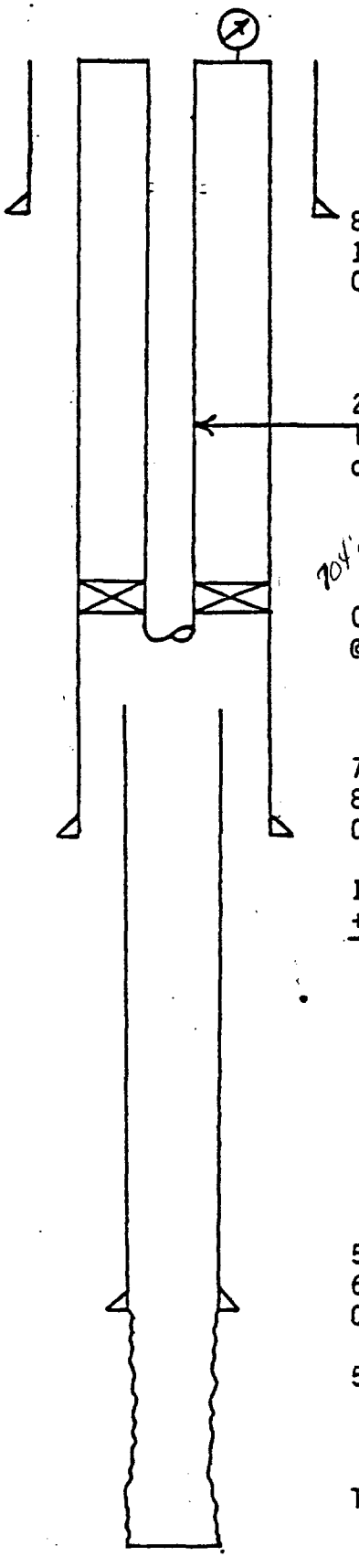
5" Open Hole 3237'-3319'

TD @ 3319'

RE5.2/burch2

PHILLIPS PETROLEUM COMPANY
Burch C Fed. Well No. 2
2314' FNL, 2310' FWL
Unit F, Section 23, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 28#/ft @ 380'
10" Hole Size
Cmt'd w/50 sx, TOC @ 22' (C)

Queen @ 1835'

Grayburg @ 2160'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2300'

704' cement

San Andres @ 2485'

Cut and pulled 5 1/2" csg. @ 2553'

7" OD, 20#/ft @ 2606'
8" Hole Size
Cmt'd w/100 sx, TOC @ 1384'(C)

Injection Interval
±2350'-3337'

TOC - 1596' @ 70%

5 1/2" OD, 15.5#/ft @ 3246'
6 1/4" Hole Size
Cmt'd w/35 sx, TOC @ 2783'(TS)

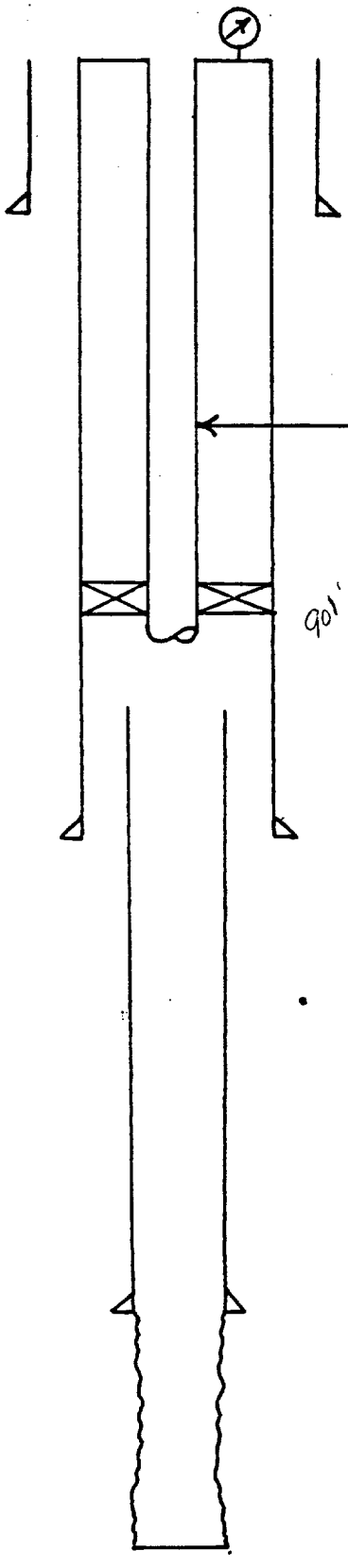
5" Open Hole 3246'-3337'

TD @ 3337'

RE5.2/burch3

PHILLIPS PETROLEUM COMPANY
Burch C Fed. Well No. 7
1980' FSL, 660' FEL
Unit I, Section 23, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 384'
10" Hole Size
Cmt'd w/75 sx, TOC @ Circ(C)

Queen @ 1840'

Grayburg @ 2177'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2350'

90' cmt

San Andres @ 2542'

Cut and pulled 5 1/2" csg. @ 2408'

7" OD, 24#/ft @ 2459'
8" Hole Size
Cmt'd w/100 sx, TOC @ 1237'(C)

Injection Interval
±2400'-3358'

TOC 1449'

5 1/2" OD, 14#/ft @ 3281'
6 1/4" Hole Size
Cmt'd w/35 sx, TOC @ 2750'(TS)

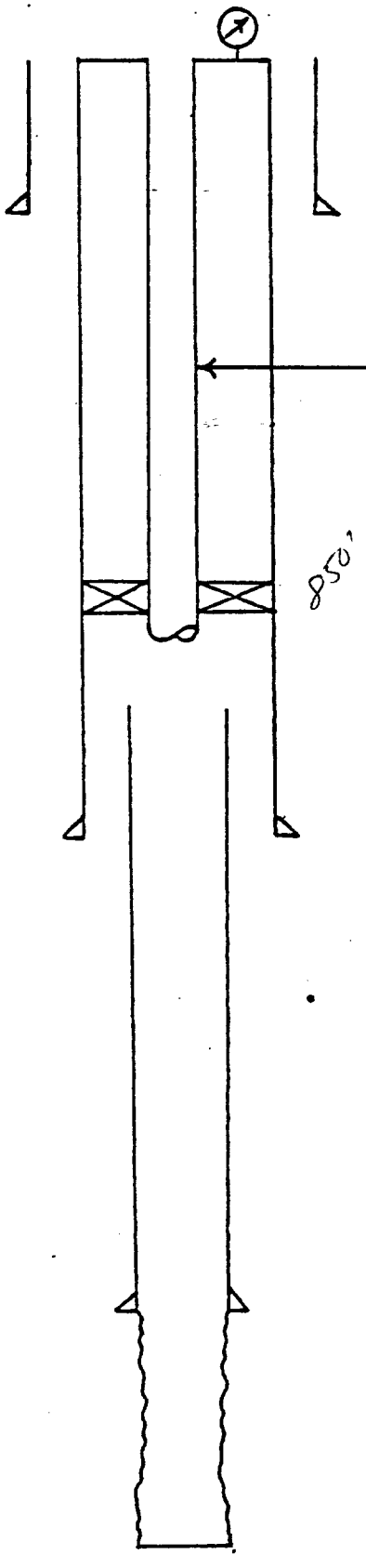
5" Open Hole 3281'-3358'

TD @ 3358'

RE5.2/burch4

PHILLIPS PETROLEUM COMPANY
Burch C Fed. Well No. 8
660' FSL, 660' FEL
Unit P, Section 23, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 390'
10" Hole Size*
Cmt'd w/50 sx, TOC @ Circ (C)

Queen @ 1834'

Grayburg @ 2165'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2350'

San Andres @ 2540'

850'

7" OD, 20#/ft @ 2509'
8" Hole Size*
Cmt'd w/100 sx, TOC @ 1287'

Injection Interval
±2400'-3374'

TOC - 1500'

5 1/2" OD 17#/ft, Liner @ 2445'-3281'
6 1/4" Hole Size*
Cmt'd w/35 sx, TOC @ 2860'(TS)

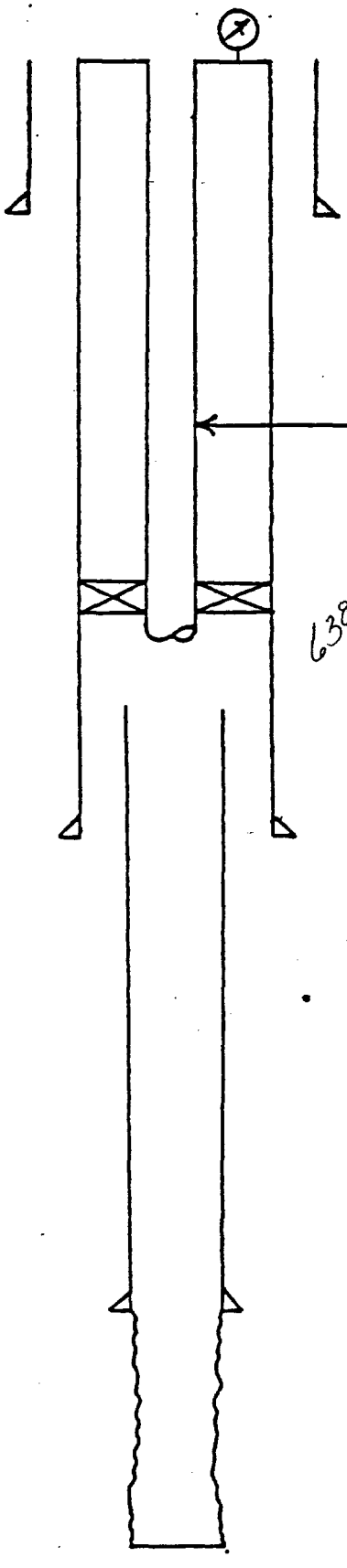
5" Open Hole 3291'-3374'

PTD @ 3374'
TD @ 3493'

*estimate

PHILLIPS PETROLEUM COMPANY
Keely B Fed. Well No. 4
660' FNL, 660' FEL
Unit A, Section 26, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 394'
10 Hole size*
Cmt'd w/50 sx, TOC @ 42' (C)

Queen @ 1880'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2400'

Grayburg @ 2224'

638'

San Andres @ 2604'

7" OD, 20 #/ft @ 2772'
8" Hole size
Cmt'd w/100 sx, TOC @1287'(C)

Injection Interval
±2450'-3475'

TOC 1762'

5 1/2" OD 14-17#/ft Liner,
@ 2702'-3347'
6 1/4" Hole size*
Cmt'd w/35 sx, TOC @2915'(TS)

5" Open hole 3347'-3475'

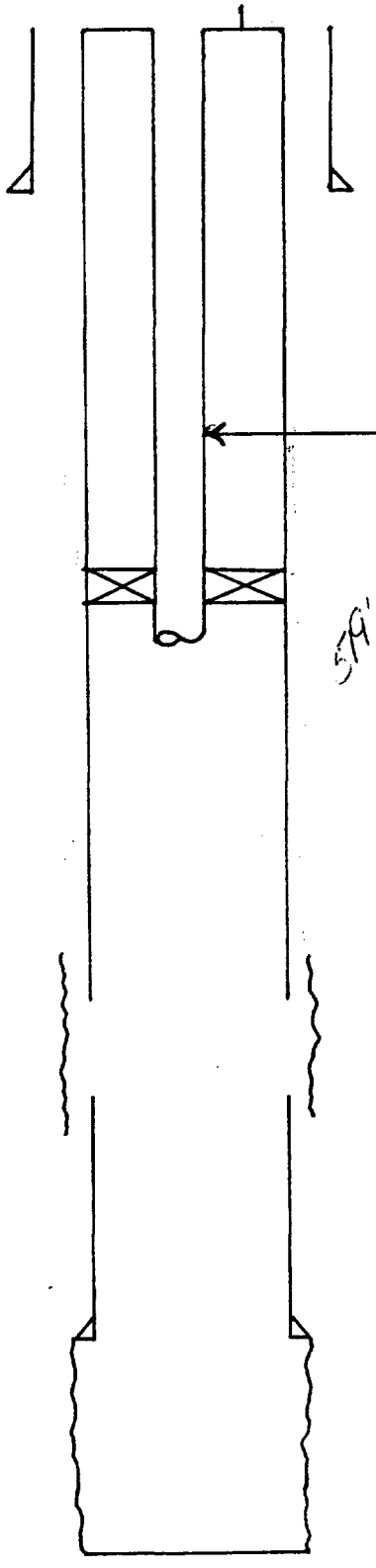
TD @ 3475'

*estimate

RE8.1/keely1

PHILLIPS PETROLEUM COMPANY
Keely B Fed. Well No. 13
1345' FNL, 1295' FWL, Unit H
Section 26, T-17-S, R-29-E

PROPOSED INJECTOR



10 3/4" OD, 35#/ft @ 915'
12 1/4" hole size
Cmt'd w/300 sx, TOC @ Circ. (C)

Queen @ 1882'

2 3/8" OD, 4.7#/ft, plastic coated tubing w/plastic coated Baker AD-1 @ ±2400'

Grayburg @ 2225'

San Andres @ 2615'

Injection Interval
±2450'-3537'

7" csg. pulled to 2820'
and re-cmt'd w/200 sx,
TOC @ 1931' (C)
9 1/2" OH 2820'-3020'

7" csg. backed off at 3020'

7" OD 20 #/ft @ 3420'
9 1/2" hole size *
Cmt'd w/125 sx, TOC
@ 3350' (T.S.)
6 1/2" OH 3420'-3537'

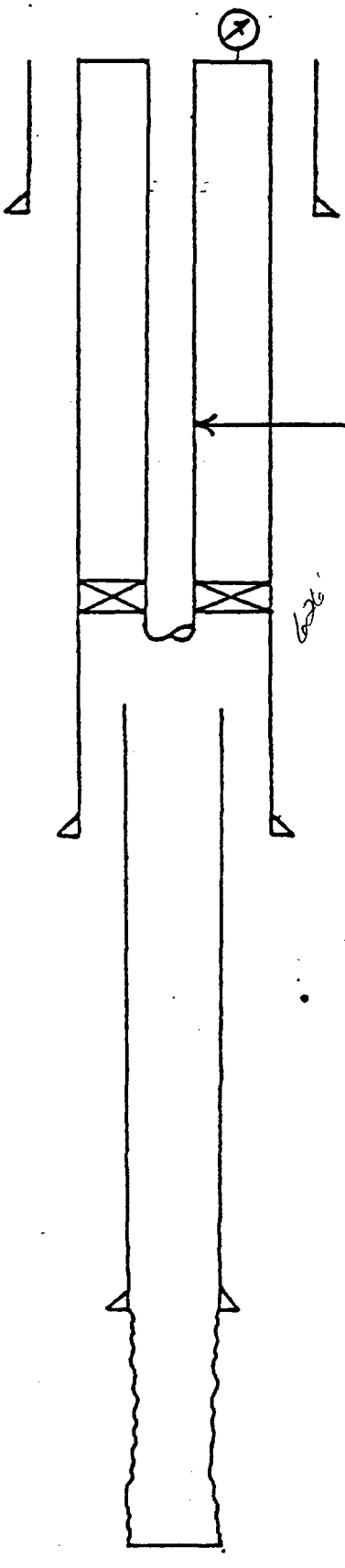
PTD @ 3537'

*Estimate

RE8.1/keely

PHILLIPS PETROLEUM COMPANY
Keely C Fed. Well No. 9
1980' FNL, 1980' FWL
Unit F, Section 26, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 369'
10" Hole size
Cmt'd w/50 sx, TOC @ 11' (C)

Queen @ 1830'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2400'

Grayburg @ 2170'

Cut and pulled 5 1/2" csg. @ 2731'

San Andres @ 2574'

7" OD, 20 #/ft @ 2784'
8" Hole size
Cmt'd w/100 sx, TOC @1562'(C)

Injection Interval
±2450'-3426'

TOC 1774

5 1/2" OD, 14#/ft @ 3337'
6 1/4" Hole size
Cmt'd w/35 sx, TOC @ 2731'(C)

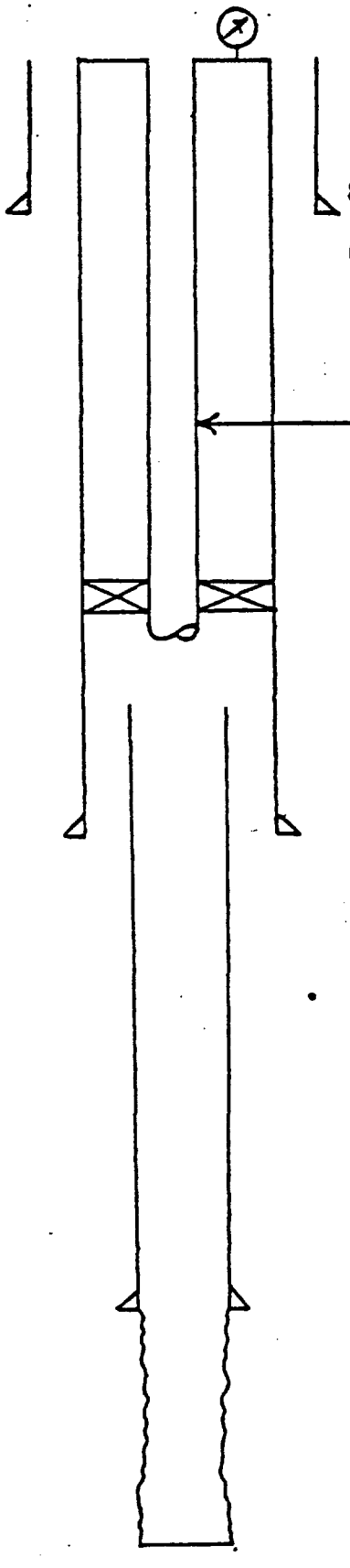
5" Open hole 3337'-3426'

TD @ 3426'

RE8.1/keely2

PHILLIPS PETROLEUM COMPANY
Keely C Fed. Well No. 14
1980' FNL, 660' FWL
Unit E, Section 26, T-17-S, R-29-E

PROPOSED INJECTOR



8 5/8" OD, 24#/ft @ 372'
10" Hole size*
Cmt'd w/75 sx, TOC @Circ(C)

Queen @ 1805'

2 3/8" OD, 4.7#/ft, plastic lined tubing w/plastic coated Baker AD-1 @ ±2400'

Grayburg @ 2145'

Cut and pulled 5 1/2" csg. @ 2678'

San Andres @ 2540'

7" OD, 20 #/ft @ 2737'
8" Hole size*
Cmt'd w/200 sx, TOC @ 292'(C)

Injection Interval
±2450'-3368'

TOC - 718'

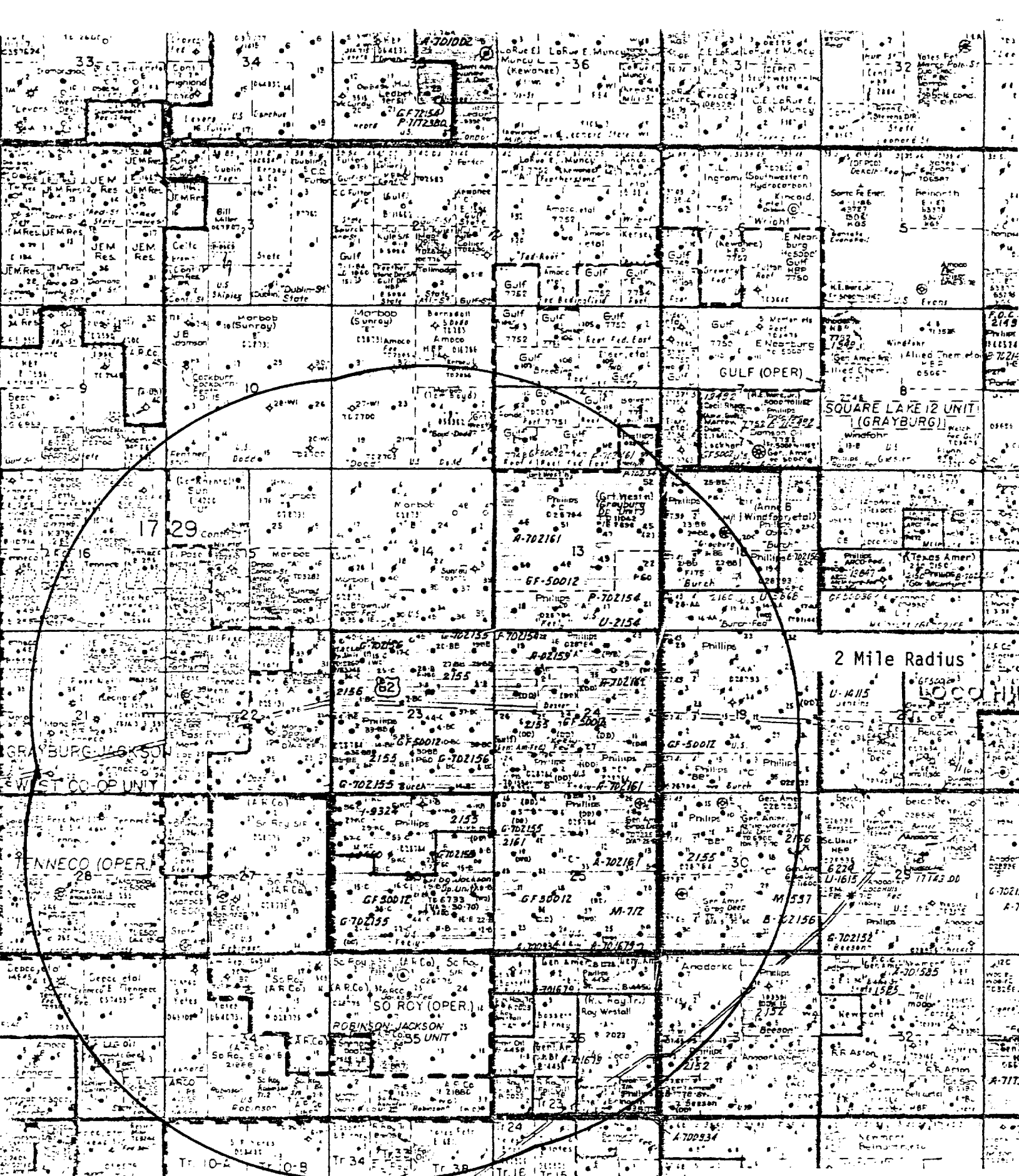
5 1/2" OD, 14#/ft @ 3112'
6 1/4" Hole size*
Cmt'd w/41 sx, TOC @2678'(C)

5" Open hole 3112'-3368'

PTD @ 3368'
TD @ 3430'

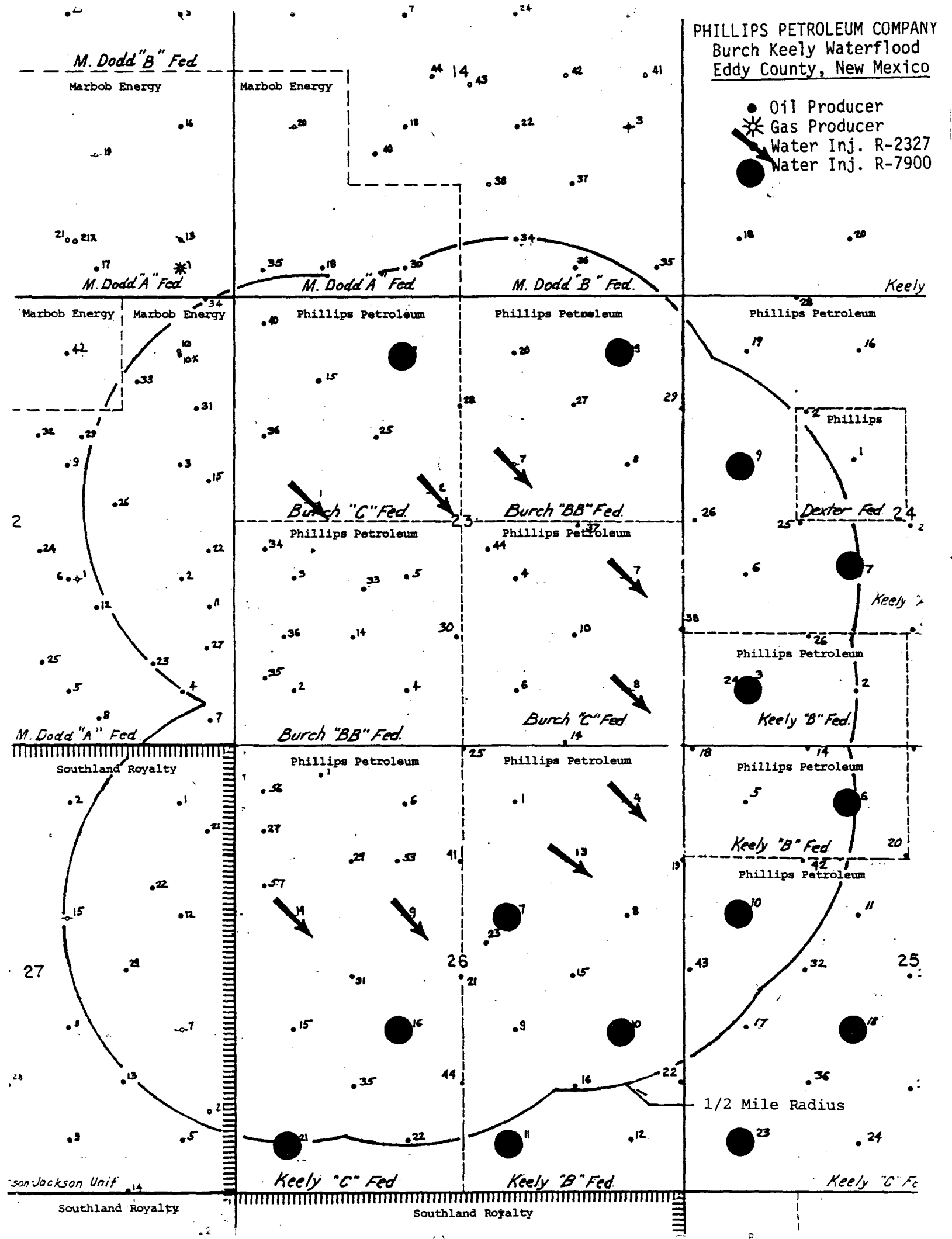
*estimate

RE8.1/keely3



PHILLIPS PETROLEUM COMPANY
BURCH KEELY WATERFLOOD
EXPANSION NO. 1
Eddy County, New Mexico

Offset Leases


PHILLIPS PETROLEUM COMPANY
Burch Keely Waterflood
Eddy County, New Mexico
Oil Producer
Gas Producer
Water Injection R-2327
Water Injection R-7900
M. Dodd "B" Fed.
Marbob Energy
Marbob Energy
M. Dodd "A" Fed.
M. Dodd "A" Fed.
M. Dodd "B" Fed.
Keely
Marbob Energy
Marbob Energy
Phillips Petroleum
Phillips Petroleum
Phillips Petroleum
Phillips
Burch "C" Fed.
Burch "BB" Fed.
Dexter Fed.
Keely
Phillips Petroleum
Phillips Petroleum
Phillips Petroleum
M. Dodd "A" Fed.
Burch "BB" Fed.
Burch "C" Fed.
Keely "B" Fed.
Southland Royalty
Phillips Petroleum
Phillips Petroleum
Phillips Petroleum
Keely "B" Fed.
Phillips Petroleum
1/2 Mile Radius
Keely "C" Fed.
Keely "B" Fed.
Keely "C" Fed.
Southland Royalty
Southland Royalty

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Casing Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Section 14, T-17-S, R-29-E										
M. Dodd B #34	O	3380'	Oil	12-1/4"	8-5/8"	20#	457'	250sx	Circ.	Perfs 2438' - 3334'
			9/5/71	7-7/8"	5-1/2"	15.5#	3380'	1700sx	Circ.	
M. Dodd B #36	O	3453'	Oil	12-1/4"	8-5/8"	24#	336'	225sx	Circ.	Perfs 2437' - 3336'
		(3445')	2/20/84	7-7/8"	5-1/2"	15.5 & 17#	3453'	1050sx	Circ.	
Section 22, T-17-S R-29-E										
M. Dodd A #2	I	2927'	Oil	12-1/4"*	10"	40#	279'	None	-	O.H. 2220' - 2927'
			6/17/35	9" *	8-1/4"	32#	1008'	None	-	
				7-7/8"*	6-5/8"	24#	2220'	70sx	1512' (C)	
M. Dodd A #3	H	2710'	Oil	12-1/4"*	10"	40#	289'	None	-	O.H. 2290' - 2710'
			2/2/36	9" *	8-5/8"	32#	1000'	100sx	Circ. (C)	
				7-7/8"*	7"	24#	2290'	100sx	881'	
M. Dodd A #7	P	3311'	Oil	12-1/4"*	10-3/4"	29#	288'	250sx	See Remarks	O.H. 3246-3311', perfs 3210-3249'
			10/1/48	9" *	7"	23#	3246'	100sx	2673' (C)	CIBP w/7sx cmt @ 3200'. Circulate around 10-3/4" w/100sx. Perfs 2671' - 3090'
M. Dodd A #10-Y	A	3285'	WI	12-1/4"*	8-5/8"	24#*	449'	450sx	Circ. (C)	Perfs 3246-3262' & 2380-3186'.
			12/9/55	7-7/8"*	5-1/2"	20#*	3284'	250sx	1841' (C)	Conv. to WI 4/23/69
M. Dodd A #11	I	3290'	Oil	12-1/4"*	8-5/8"	24#	393'	250sx	Circ. (C)	O.H. 3242-3290' Conv. to WI 3/4/66
			2/8/56	7-7/8"	5-1/2"	14#	3242'	250sx	1799' (C)	Perfs 2358-2373'. Sqz'd perfs w/100 sx, Sqz'd O.H. w/150sx, perfs 3190-3210' Conv. to oil well 4/13/77

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Casing Size & Wt.	Casing Depth	Cmt	TOC	Remarks
M. Dodd A #15	H	3318'	Oil	12-1/4"*	8-5/8" 24#	507'	450sx	Circ.	O.H. 3265-3318', perfs
			3/14/56	7-7/8"*	5-1/2" 14#	3265'	150sx	2399'(C)	3217-3257'.
M. Dodd A #22	I	4000'	Oil	12-1/4"	8-5/8" 24#	340'	225sx	Surface	Cmt to surface w/4yds of ready-
		(3940')	2/11/83	7-7/8"	5-1/2" 15.5 & 17#	3993'	4250sx	Circ.	mix, perfs 2665-3323'.
M. Dodd A #23	P	3410'	Oil	12-1/4"	8-5/8" 24#	345'	200sx	Circ.	Perfs 2674' - 3282.
		(3358')	7/15/83	7-7/8"	5-1/2" 15.5#	3410'	2800sx	Circ.(C)	
M. Dodd A #26	J	3467'	Oil	12-1/4"	8-5/8" 24#	335'	325sx	Surface	Cmt to surface w/6yds of ready-
		(3434')	1/4/84	7-7/8"	5-1/2" 15.5 & 17#	3467'	1850sx	Circ.	mix, perfs 2679-3338'
M. Dodd A #27	P	3491'	Oil	12-1/4"	8-5/8" 24#	252'	325sx	Surface	Cmt to surface w/8yds of ready-
		(3450')	12/30/83	7-7/8"	5-1/2" 15.5#	3467'	2750sx	Circ.	mix perfs 2684-3338'
M. Dodd A #29	G	3460'	Oil	12-1/4"	8-5/8" 24#	373'	250sx	Circ.	Perfs 2665'-3351'
		(3454')	3/19/84	7-7/8"	5-1/2" 15.5#	3454'	1300sx	Circ.	
M. Dodd A #31	H	3484'	Oil	12-1/4"*	8-5/8" 24#*	337'	250sx	Circ.(C)	Perfs 2379'-3344'.
		(3450')	11/14/84	7-7/8"*	5-1/2" 15.5#*	3484'	1300sx	Circ.(C)	
M. Dodd A #33	A	3438'	Oil	12-1/4"*	8-5/8" 24#*	350'	250sx	Circ.(C)	Perfs 2363'-3286'
		(3450')	10/2/84	7-7/8"*	5-1/2" 15.5#*	3438'	1400sx	Circ.(C)	
M. Dodd A #34	A	3535'	Oil	12-1/4"*	8-5/8" 24#*	340'	250sx	Circ.(C)	Perfs 2385'-3289'
		(3518')	11/28/84	7-7/8"*	5-1/2" 15.5#*	3535'	1300sx	Circ.(C)	

RE2.1,offset1

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.	Casing Depth	Cmt	TOC	Remarks
Section 23, T-17-S, R-29-E									
Burch BB Fed #2	M	3300'	Oil	10"	8-5/8" 24#	424'	170sx	Circ.(C)	Cut and pulled 5-1/2" csg. @
			11/14/41	8"	7" 20#	2350'	75sx	1433'(C)	2311'O.H. 3226'-3300'
				6-1/4"	5-1/2" 14#	3226'	30sx	2835'(T.S.)	
Burch BB Fed #3	L	3314'	Oil	10"*	8-5/8" 24#	414'	60sx	Circ. (C)	O.H. 3247'-3314'
			7/24/44	8"*	7" 20#	2550'	100sx	1328' (C)	
				6-1/4"*	5-1/2" 14#	3247'	54sx	2124' (C)	
Burch BB Fed #4	N	3325'	Oil	10"*	8-5/8" 24#	416'	50sx	58' (C)	O.H. 3249'-3325', perfs 3048'-
			3/9/42	8"*	7" 20#	2536'	100sx	1314' (C)	3074'
				6-1/4"*	5-1/2"(L) 15.5#	2492'-3249'	35sx	2750' (T.S.)	
Burch BB Fed #5	K	3325'	Oil	10"*	8-5/8" 24#	400'	100sx	Circ. (C)	O.H. 3267'-3325', cut & pulled
			6/28/42	8"*	7" 20#	2565'	100sx	1343' (C)	5-1/2" csg. @ 2565'
				6-1/4"*	5-1/2" 14#	3267'	35sx	2538' (C)	
Burch BB Fed #7	G	3360'	WI	10"	8-5/8" 24#	420'	100sx	Circ.(C)	O.H. 3265'-3360',conv. to WI
			9/15/42	8"	7" 20#	2557'	100sx	1335'(C)	4/15/66
				6-1/4"	5-1/2"(L) 14#	2505-3265'	35sx	2807'(T.S.)	
Burch BB Fed #8	H	3384'	Oil	10"	8-5/8" 28#	440'	50sx	82'(C)	Perfs 2442'-3186'
		(3250')	3/26/43	8-1/4"	7" 24#	2564'	100sx	1342'(C)	
				6-1/4"	5-1/2"(L) 17#	2516-3290'	35sx	2835'(T.S.)	
Burch BB Fed #14	N	3309'	Oil	10"	8-5/8" 24#	349'	75sx	Circ.(C)	O.H. 3252'-3309',cut and pulled
			8/1/49	8"	7" 20#	2610'	100sx	1388'(C)	5-1/2" csg. @ 2559'
				6-1/4"	5-1/2" 14#	3252'	160sx	2559'(F.P.)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Burch BB Fed #19	A	3400'	Oil	12-1/4"	8-5/8"	20#	394'	100sx	152'(C)	Perfs 2463'-3169'
			2/18/71	7-7/8"	4-1/2'	9.5#	3400'	300sx	2083'(C)	
Burch BB Fed #20	B	3400'	Oil	12-1/4"	8-5/8"	20#	379'	100sx	137'(C)	Perfs 2407'-3351'
			3/28/71	7-7/8"	5 1/2"	14#	3400'	300sx	1668'(C)	
Burch BB Fed #27	A	3403'	Oil	11"	8-5/8"	20#	408'	100sx	15'(C)	Perfs 2450'-3356'
			8/13/74	7-7/8"	4-1/2"	9.5#	3399'	350sx	1863'(C)	
Burch BB Fed #28	B	3425'	Oil	12-1/4"	8-5/8"	20#	410'	100sx	167'(C)	Perfs 2400'-3369'
			11/16/74	7-7/8"	4-1/2"	9.5#	3425'	350sx	1889'(C)	
Burch BB Fed #29	H	3425'	Oil	12-1/4"	8-5/8"	20#	414'	100sx	171'(C)	Perfs 2468'-3185'
			11/7/74	7-7/8"	4-1/2"	9.5#	3425'	350sx	1889'(C)	
Burch BB Fed #30	N	3420'	Oil	12-1/4"	8-5/8"	20#	342'	100sx	99'(C)	Perfs 2272'-3076'
		(3414')	2/1/75	7-7/8"	4-1/2"	9.5#	3420'	400sx	1664'(C)	
Burch BB Fed #33	K	3610'	Oil	12-1/4"	8-5/8"	20	347'	225sx	Circ.	Perfs 2652'-3094'
		(3598')	5/16/80	7-7/8"	5-1/2"	15.5#	3610'	325sx	1734'(C)	
Burch BB Fed #34	L	3240'	Oil	12-1/4"	8-5/8"	36#	358'	250sx	Circ.	DV Tool @ 2320', Perfs 2717'-
		(3219')	11/17/81	7-7/8"	5-1/2"	15.5#	3240'	470sx	2284'(A.L.)	3092'
Burch BB Fed #35	M	3505'	Oil	12-1/4"	8-5/8"	24#	340'	350sx	Circ.	DV Tool @ 2008', waterflow @
			5/8/84	7-7/8"	4-1/2"	11.6#	3505'	1960sx	Circ.	± 2000' Shut off by cmt. Perfs 2314'-3394'

RE2.1,offset3

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Burch BB Fed #36	M	3505'	Oil	12-1/4"	8-5/8"	24#	340'	350sx	Circ.	DV Tool @ 1938', waterflow @
		(3350')	4/1/84	7-7/8"	4-1/2"	11.6#	3505'	1960sx	Circ.	±2000' shut off by cmt. Perfs 2263'-3326'
Burch C Fed #1	E	3319'	WI	10"	8-5/8"	32#	362'	50sx	4'(C)	O.H. 3237'-3319', cut & pulled
			3/28/38	8"	7"	20#	2597'	75sx	1680'(C)	5-1/2" csg. @ 2541'. Conv. to
				6-1/4"	5-1/2"	14#	3237'	35sx	2541'(C)	WI 4/4/66
Burch C Fed #2	F	3337'	WI	10"	8-5/8"	28#	380'	50sx	22'(C)	O.H. 3246'-3337', conv. to WI
			9/18/38	8"	7"	24#	2606'	100sx	1384'(C)	4/12/66
				6-1/4"	5-1/2"(L)	14#	2553-3246'	35sx	2783'(T.S.)	
Burch C Fed #4	J	3325'	Oil	10"	8-5/8"	24#	349'	75sx	Circ.(C)	O.H. 3267'-3325', cut & pulled
			12/10/42	8"	7"	24#	2610'	100sx	1388'(C)	5-1/2" csg. @ 2541'
				6-1/4"	5-1/2"	14#	3267'	35sx	2538'(C)	
Burch C Fed #6	O	3326'	Oil	10"	8-5/8"	28#	366'	90sx	Circ.(C)	O.H. 3255'-3326', cut & pulled
			2/10/43	8"	7"	20#	2385'	100sx	1163'(C)	5-1/2" @ 2339'
				6-1/4"	5-1/2"	14#	3255'	35sx	2527'(C)	
Burch C Fed #7	I	3358'	WI	10"	8-5/8"	24#	384'	75sx	Circ.(C)	O.H. 3281'-3358', conv. to WI
			4/25/43	8"	7"	24#	2459'	100sx	1237'(C)	4/4/66
				6-1/4"	5-1/2"(L)	14#	2408-3282'	35sx	2750'(T.S.)	
Burch C Fed #8	P	3493'	WI	10"*	8-5/8"	28#	390'	75sx	Circ.(C)	O.H. 3291'-3374'
		(3374')	4/26/49	8"*	7"	24#	2509'	100sx	1287'	
				6-1/4"*	5-1/2"(L)	17#	2445'-3291'	35sx	2860'(T.S.)	

RE2.1,offset4

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Burch C Fed #10	P	3347'	Oil	10"	8-5/8"	24#	392'	50sx	34'(C)	O.H. 3280'-3347'
			5/26/49	8"	7"	20#	2674'	100sx	1452'(C)	
				6-1/4"	5-1/2"(L)	15.5#	2612-3280'	35sx	2660'(T.S.)	
Burch C Fed #14	O	3345'	Oil	10"*	8-5/8"	28#	407'	125sx	Circ.(C)	O.H. 3267'- 3345'
			6/4/50	8"*	7"	20#	2721'	100sx	1499'(C)	
				6-1/4"*	5-1/2"(L)	17#	2668-3267'	35sx	2860'(T.S.)	
Burch C Fed #15	D	12260'	Oil	17-1/2"*	13-3/8"	48#	765'	463sx	Circ.	Cmt. plugs 7216'-7281' (25 sx),
		(3345')	9/18/58	12-1/4"	9-5/8"	36#	2744'	1100sx	610'(T.S.)	3413'-3518' (50 sx). Cal seal
				8-3/4"	5-1/2"	15.5#	3355'	230sx	2444'(C)	& hydromite 3329'-3413'.
										Perfs 2407'-3312'
Burch C Fed #17	C	3356'	Oil	12-1/4"	8-5/8"	20#	380'	100sx	137'(C)	Perfs 2390'-3218'
			4/3/71	7-7/8"	4-1/2"	9.5#	3200'	300sx	1883'(C)	
Burch C Fed #25	F	3400'	Oil	12-1/4"	8-5/8"	20#	375'	100sx	132'(C)	Perfs 2390'-3357'
			5/15/72	7-7/8"*	4-1/2"	9.5#	3400'	500sx	1205'(C)	
Burch C Fed #36	E	3549'	Oil	12-1/4"	8-5/8"	20#	359'	100sx	116'(C)	Perfs 2419'-3484'
			5/18/73	7-7/8"	4-1/2"	9.5#	3549'	535sx	1390'(B.L.)	
Burch C Fed #37	J	3575'	Oil	12-1/4"	8-5/8"	24#	413'	100sx	171'(C)	Perfs 3362'-3448'
		(3569')	12/13/75	7-7/8"	5-1/2"	14#	3575'	350sx	1555'(C)	
Burch C Fed #38	I	3552'	Oil	12-1/4"	8-5/8"	24#	375'	100sx	133'(C)	Perfs 3356'-3366'
		(3546')	2/8/76	7-7/8"	5-1/2"	14#	3552'	350sx	1532'(C)	
Burch C Fed #40	D	3525'	Oil	12-1/4"	8-5/8"	20#	396'	200sx	Circ.(C)	Perfs 2372'-3464'
			9/26/77	7-7/8"	5-1/2"	15.5#	3525'	400sx	1216'(C)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.	Casing Depth	Cmt	TOC	Remarks
Burch C Fed #44	I	3300'	Oil	12-1/4"	8-5/8" 36#	385'	240sx	Circ.	DV tool @ 2051', perfs 2393'-
		(3279')	12/3/81	7-7/8"	5-1/2" 15.5#	3300'	2250sx	845'(A.L.)	3087'
Section 24, T-17-S, R-29-E									
Keely A Fed #6	L	3544'	Oil	12-1/4"	8-5/8" 28#	428'	50sx	307'(C)	Perfs 2328'-3524'
		(3538')	9/29/43	7-7/8"	7" 24#	2732'	100sx	1323'(C)	
				6-1/4"	4-1/2"(L) 9.5&11.6#	2720'-3544'	135sx	2720'(C)	
Keely A Fed #7	K	3569'	Oil	10-3/4"*	8-5/8" 28#	430'	65sx	141'(C)	Perfs 2342'-3488'
			9/30/43	8-1/4"*	7" 20#	2738'	100sx	1776'(C)	
				6-1/4"*	4-1/2"(L) 9.5#	2703-3569'	100sx	2703'	
Keely A Fed #9	E	3527'	Oil	10-3/4"	8-5/8" 24#	416'	50sx	295'(C)	Perfs 2333'-3481'
		(3521')	12/10/43	8-1/4"	7" 20#	2749'	100sx	1787'(C)	
				6-1/4"	4-1/2"(L) 9.5#	2719'-3527'	135sx	2719'(C)	
Keely A Fed #25	L	3550'	Oil	12-1/4"	8-5/8" 24#	403'	100sx	161'(C)	Perfs 2340'-3510'
		(3544')	12/3/75	7-7/8"	4-1/2" 9.5&10.5#	3550'	400sx	1794'(C)	
Keely A Fed #26	L	3575'	Oil	12-1/4"	8-5/8" 24#	386'	100sx	144'(C)	Perfs 2330'-3506'
		(3569')	12/21/75	7-7/8"	4-1/2" 9.5&11.6#	3575'	400sx	1819'(C)	

RE2.1,offset6

BURCH-KEELY WATERFLOOD

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TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.	Casing Depth	Cmt	TOC	Remarks
Keely B Fed #2	N	3593'	Oil	10-3/4"*	8-5/8" 24#	385'	50sx	162'(C)	Perfs 2372'-3529'
		(3589')	5/21/43	8-1/4"*	7" 20#	2715'	100sx	1753'(C)	
				6-1/4"	4-1/2"(L) 9.5#	2663'-3589'	135sx	2663'	
Keely B Fed #3	M	2937'	Oil	10-3/4"*	8-1/4" 28#	406'	50sx	183'(C)	O.H. 2705'-2937'
			9/7/43	8"*	7" 24#	2705'	100sx	1483'(C)	
Keely B Fed #24	M	13341'	Oil	15-1/2"	13-3/8" 61#	310'	650sx	Circ (C)	75 sx cmt. 3550'-3702
		(3550')	2/1/53	12-1/4"	9-5/8" 36#	3452'	2350sx	Circ (C)	Perfs 2342'-3390', O.H.
				8-3/4"	7" 23,26 & 29#	3702'-11,148	515sx	6495'(T.S.)	3452'-3550'
Keely B Fed #26	N	3575'	Oil	12-1/4"	8-5/8" 20#	392'	100sx	150'(C)	Perfs 2936'-3471'
			11/22/74	7-7/8"	4-1/2" 9.5#	3575'	725sx	392'(C)	
Section 25, T-17-S, R-29-E									
Keely B Fed #5	O	3520'	Oil	10-3/4"	8-5/8" 24#	400'	50sx	177'(C)	Perfs 2400'-3443'
			2/15/44	8-1/4"	7" 20#	2819'	100sx	1857'(C)	
				6-1/4"*	4-1/2"(L) 9.5#	2800-3583'	175sx	2800'(C)	
Keely B Fed #6	C	3158'	Oil	10-3/4"*	8-5/8" 23#	420'	50sx	197'(C)	O.H. 2819'-3158', Conv. to WI
			1/1/44	8-1/4"*	7" 20#	2819'	100sx	1857'(C)	4/25/69, SI 10/5/73 O.H. abandoned w/CIBP @ 2767'. Conv to oil producer 1/3/83. Perfs 2426-2583'.
Keely B Fed #14	C	3582'	Oil	10-3/4"	8-5/8" 24#	380'	75sx	46'(C)	Perfs 2380'-3466'.
			2/2/49	8-1/4"	7" 20&24#	2782'	100sx	1820'(C)	
				6-1/4"	4-1/2"(L) 9.5#	2763'-3582'	60sx	2763'(C)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Keely B Fed #18	D	3434'	Oil	12-1/4"	8-5/8"	24#	403'	75sx	221'(C)	Perfs 2452'-3370'
		(3391')	2/9/51	8-1/4"*	7"	20#	2770'	100sx	1808'(C)	
				6-1/4"*	4-1/2"	12.75#	3406'	150sx	1944'(C)	
Keely C Fed #10	E	3165'	Oil	10"	8-5/8"	24#	430'	50sx	210'(C)	Conv. to WI 4/25/69. CIBP @ 2951'
		(2951')	2/14/45	8-1/4"	7"	20#	3001'	100sx	2039'(C)	w/4sx cmt. Conv. to oil 12/6/82.
										Perfs 2480'-2600'.
Keely C Fed #42	F	3177'	Oil	10"	8-5/8"	24#	437'	75sx	Circ.(C)	Perfs 2450'-3354'
			11/10/50	7-7/8"	7"	20&24#	2525'	100sx	1116'(C)	
				6-1/4"	4-1/2"(L)	9.5#	2493'-3563'	214sx	2493'	
Keely C Fed #43	E	3192'	Oil	10-3/4"*	8-5/8"	24#	433'	75sx	99'(C)	O.H. 2915'-3192' CIBP @2700'
			7/15/50	8-1/4"*	7"	20#	2915'	100sx	1853'(C)	Hole in production csg.(Depth Unkn.)
Section 26, T-17-S, R-29-E										
Keely B Fed #1	B	3450'	Oil	10" *	8-5/8"	24#	400'	50sx	42'(C)	O.H. 3314'-3450'.
			4/30/43	8" *	7"	20#	2509'	100sx	1287'(C)	
				6-1/4"*	5-1/2"(L)	17#	2441'-3314'	35sx	2915'(T.S.)	
Keely B Fed #4	A	3475'	WI	10" *	8-5/8"	24#	394'	50sx	36'(C)	O.H. 3347'-3475', Conv. to
			3/30/44	8" *	7"	20#	2772'	100sx	1550'(C)	WI 1/28/66
				6-1/4"*	5-1/2"(L)	14,15.5 &17#	2702'-3347'	35sx	2935'(T.S.)	

RE2.1,offset8

BURCH-KEELY WATERFLOOD

EXPANSION No. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.	Casing Depth	Cmt	TOC	Remarks
Keely B Fed #7	G	2987'	Oil	10"*	8-5/8" 24#	414'	50sx	56'(C)	O.H. 2823'-2987', perfs 2478-
			2/21/45	8-1/4"*	7" 20#	2823'	100sx	1870'(C)	2492'
Keely B Fed #8	H	3542'	Oil	10-3/4"	8-5/8" 24#	416'	150sx	Circ.(C)	Perfs 2403'-3488'
			7/31/44	8-1/4"*	7" 20#	2800'	100sx	1838'(C)	
				6-1/4	4-1/2"(L) 9.5#	2776'- 3542'	145sx	2776'(C)	
Keely B Fed #9	J	3103'	P & A	10"*	8-5/8" 24#	411'	50sx	53'(C)	P&A, see attached sketch
			9/26/44	8-1/4"*	7" 20#	2930'	150sx	1487'(C)	
Keely B Fed #10	I	3166'	Oil	10"*	8-5/8" 24#	415'	100sx	Circ.(C)	O.H. 2980-3166', Conv to WI
		(2930')	11/27/44	8-1/4"*	7" 20#	2980'	100sx	2018'(C)	4/25/69 CIBP @2930' w/4sx cmt. sqz'd w/100sx @ 1417'. Conv. to oil producer 12/13/82. Perfs 2466'-2627'
Keely B Fed #13	H	5076'	WI	12-1/4"*	10-3/4" 35#	915'	300sx	Circ.(C)	O.H. 2820'-3020' & 3420'-3537'
		(3537')	8/28/47	9-1/2"*	7" 20#	2820'	200sx	1931'(C)	Backed off 7"@3020', recmt'd
				9-1/2"*	7" 20#	3020'- 3420'	125sx	3350'(T.S.)	@ 2820' Conv. to WI 3/1/63
Keely B Fed #15	I	3096'	Oil	10"*	8-5/8" 24#	420'	75sx	Circ.(C)	O.H. 2853'-3096'
			5/23/51	8-1/4"*	7" 20#	2853'	100sx	1891'(C)	
Keely B Fed #16	P	3185'	Oil	12-1/4"*	10" 32#	200'	None(pulled)		O.H. 2935'-3185', perfs 2584'
			10/23/48	9-1/2"*	8-5/8" 24#	428'	75sx	67'(C)	-2596'
				8-1/4"*	7" 20#	2935'	100sx	1973'(C)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Keely B Fed #19	H	3545'	Oil	12-1/4"	8-5/8"	24#	377'	50sx	256'(C)	Perfs 2395'-3468'
			5/20/50	7-7/8"	7"	20#	2821'	100sx	1412'(C)	
				6-1/4"	4-1/2"(L)	9.5#	2739'-3545'	150sx	2739'(C)	
Keely B Fed #21	J	2938'	Oil	12-1/4"*	10-3/4"	32#*	197'	None(pulled)		O.H. 2801'-2938'
			10/25/54	10"*	8-5/8"	24#	402'	75sx	86'(C)	
				8-1/4"*	7"	20#	2801'	100sx	1839'(C)	
Keely B Fed #23	G	6733'	Oil	11"	8-5/8"	24#	1293'	400sx	Circ.(C)	Perfs 4253'-4329' abandonded
		(3555')	3/11/73	7-7/8"	5-1/2"	15.5#	4424'	500sx	Circ.	w/CIBP @ 3555' & 3400'. Perfs
										2374'-3270'
Keely B Fed #25	B	3450'	Oil	12-1/4"	8-5/8"	20#	363'	100sx	121'(C)	Perfs 2278'-3136'
			9/6/74	7-7/8"	4-1/2"	9.5#	3450'	450sx	1475'(C)	
Keely C Fed #1	D	3325'	Oil	10"*	8-5/8"	28#	320'	50sx	Circ.(C)	O.H. 3252'-3325'
			9/12/37	8"*	7"	20#	2685'	100sx	1463'(C)	
				6-1/4"*	5-1/2"(L)	15.5#	2628'-3252'	35sx	2840'(T.S.)	
Keely C Fed #6	C	3345'	Oil	10"	8-5/8"	28#	359'	50sx	1'(C)	O.H. 3291'-3345', cut & pulled
			2/27/43	8"	7"	24#	2452'	100sx	1230'(C)	5-1/2" csg. @ 2405'
				6-1/4"	5-1/2"	14#	3291'	35sx	2563'(C)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.	Casing Depth	Cmt	TOC	Remarks
Keely C Fed #9	F	3426'	WI	10"	8-5/8" 24#	369'	50sx	11'(C)	O.H. 3337'-3426' Conv to WI
			6/10/45	8"	7" 20#	2784'	100sx	1562'(C)	4/7/66.
				6-1/4"	5-1/2"(L) 14#	2371'-3337'	35sx	2731'(C)	
Keely C Fed #14	E	3430'	WI	10"*	8-5/8" 24#	372'	75sx	Circ.(C)	O.H. 3112'-3368', perfs 2825'-
		(3368')	9/25/46	8"*	7" 20#	2737'	200sx	292'(C)	2870' Conv. to WI 4/21/66
				6-1/4"*	5-1/2"(L) 14#	2678'-3112'	41sx	2678'(C)	
Keely C Fed #15	L	3055'	Oil	11"	8-5/8" 24#	402'	75sx	107'(C)	O.H. 2807'-3055'
			9/25/46	8"	7" 20#	2807'	100sx	1585'(C)	
Keely C Fed #16	K	3018'	Oil	10"	8-5/8" 24#	410'	100sx	69'(C)	O.H. 2817'-3018', Perfs 2471'-
			7/9/46	8-1/4"*	7" 24#	2817'	100sx	1855'(C)	2491'
Keely C Fed #21	M	3367'	Oil	10-3/4"	8-5/8" 24#	396'	250sx	Circ.(C)	Perfs 2378'-3256'
			5/12/46	8-1/4"	7" 20#	2858'	100sx	1896'(C)	
				6-1/4"	4-1/2"(L) 9.5#	2836'-3363'	115sx	2836'	
Keely C Fed #22	N	3413'	Oil	11"	8-5/8" 24#	415'	75sx	120'(C)	Perfs 2412'-3376'
			7/13/46	8"	7" 20#	2876'	100sx	1654'(C)	
				6-1/4"	4-1/2"(L) 9 .5#	2869'-3414'	125sx	2689'	
Keely C Fed #27	D	3407'	Oil	10"*	8-5/8" 24#	340'	50sx	Circ.(C)	O.H. 2675'-3320'
		(3320')	3/22/48	8"*	7" 20#	2675'	100sx	1453'(C)	
Keely C Fed #29	F	3361'	Oil	10"*	8-5/8" 28#	391'	75sx	Circ.(C)	O.H. 3283'-3361'
			12/12/50	8"*	7" 20#	2725'	100sx	1483'(C)	
				6-1/4"*	5-1/2"(L) 17#	2649-3283'	35sx	2850'(T.S.)	

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Keely C Fed #31	K	3280'	Oil	11"*	8-5/8"	24#	366'	75sx	71'(C)	O.H. 2759'-3280'
			11/13/48	8"*	7"	20#	2759'	100sx	1537'(C)	
Keely C Fed #35	N	3101'	Oil	10"	8-5/8"	24#	387'	50sx	29'(C)	O.H. 2382'-3101'
			12/23/53	8-1/4"	7"	20&24#	2832'	100sx	1870'(C)	
Keely C Fed #41	F	3385'	Oil	10"	8-5/8"	28#	371'	160sx	Circ.(C)	O.H. 3311'-3385'
			10/17/50	8-1/4"	7"	20#	2721'	100sx	1759'(C)	
				6-1/4"	5-1/2"(L)	17#	2655'-3311'	35sx	2880'(T.S.)	
Keely C Fed #44	N	3106'	Oil	12-1/4"*	10-3/4"	40#	238'	None(pulled)		O.H. 2692'-3106', perfs 2371'-2669'
			12/1/53	9-1/2"*	8-5/8"	24#	399'	150sx	Circ.(C)	
				8"*	7"	20#	2692'	100sx	1730'(C)	
Keely C Fed #53	F	3460'	Oil	12-1/4"	8-5/8"	20#	333'	335sx	Circ.	Perfs 2312'-3172'
			9/7/78	7-7/8"	5-1/2"	15.5#	3460'	720sx	Circ.(C)	
Keely C Fed #56	D	3507'	Oil	12-1/4"	8-5/8"	24#	343'	350sx	Surface	Cmt 8-5/8" to surface w/16 yds. ready mix. DV tool @ 1877'. Water flow @ 2000'sqzd w/300sx, perfs 2375'-3409'.
		(3462')	4/9/84	7-7/8"	4-1/2"	11.6#	3507'	2050sx	300'	
Keely C Fed #57	E	3503'	Oil	12-1/4"	8-5/8"	24#	325'	350sx	Circ.	Waterflow @ 2100' shut off by cmt.perfs 2636'-3109'
		(3371')	5/8/84	7-7/8"	4-1/2"	11.6#	3503'	1300sx	Circ.	

RE2.1,offset11

BURCH-KEELY WATERFLOOD

EXPANSION NO. 1

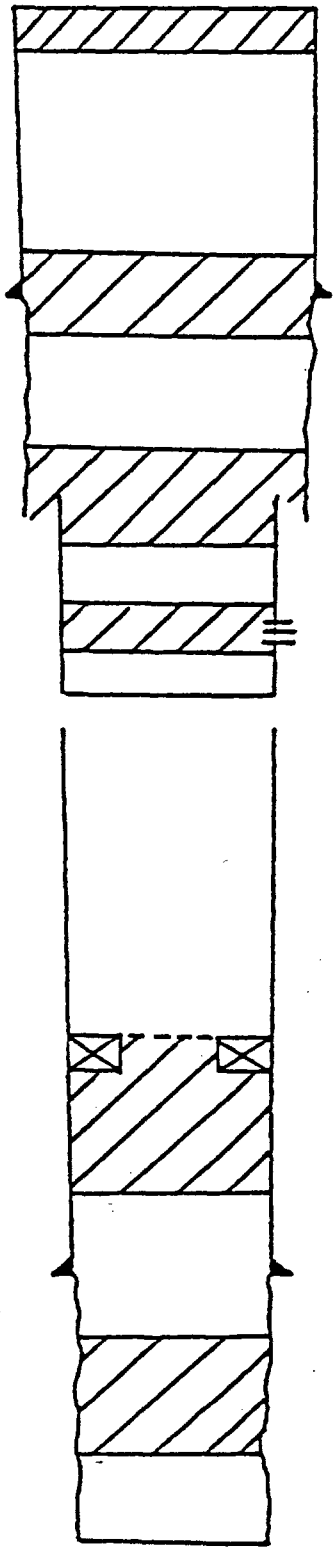
TABLE OF OFFSET WELLS

Lease/Well No.	Unit Letter	TD (PBTD)	Type & Date Drilled	Hole Size	Size & Wt.		Casing Depth	Cmt	TOC	Remarks
Section 27, T-17-S, R-29-E										
Robinson Jackson Unit Tr. 1 #7	I	2975'	WI 12/20/46	10"*	8-1/4"	24#*	404'	50sx	117'(C)	O.H. 2768'-2975'. Conv. to WI 8/73
				8"*	7"	20#*	2768'	100sx	1546'(C)	
Robinson Jackson Unit Tr. 2 #12	H	2902'	Oil 10/26/46	10"*	8-5/8"	24#*	387'	50sx	29'(C)	O.H. 2681'-2902'
				8-1/4"*	7"	20#*	2681'	100sx	1719'(C)	
Robinson Jackson Unit Tr. 2 #15	G	2870'	WI 3/10/47	10"*	8-1/4"	24#*	335'	No record		O.H. 2659'-2870'. Perfs 2346'-2384'. Conv. to WI 8/31/73/
				8"*	7"	20#*	2659'	No record		
Robinson Jackson Unit Tr. 2 #22	H	3310'	Oil 9/3/48	10"*	8-1/4"	24#*	375'	50sx	88'(C)	O.H. 2666'-3310'.
				8"*	7"	20#*	2666'	100sx	1444'(C)	
Robinson Jackson Unit Tr. 2 #29	H	2920'	Oil 11/4/50	10"*	8-1/4"	24#*	345'	50 sx	58'(C)	O.H. 2710'-2920'.
				8"*	7"	20#*	2710'	100sx	1488'(C)	
Robinson Jackson Unit Tr. 2A #1	A	2798'	Oil 4/7/37	12-1/4"*	10"	32#*	331'	None(Pulled)		O.H. 2305'-2798'
				10"*	8-1/2"	24#*	982'	100sx	321'(C)	
				8"*	7"	20#*	2305'	100sx	1083'(C)	
Robinson Jackson Unit Tr. 2A #21	A	3310'	Oil 6/23/48	10"*	8-1/4"	24#*	371'	50sx	84'(C)	O.H. 2655'-3310'
				8"*	7"	20#*	2655'	100sx	1433'(C)	

*Estimate

RE2.1,offset12

General American Oil Company
(Phillips Petroleum Company)
Keely B Fed #9
Plugged and Abandoned Well
Unit J, Section 26, T-17-S, R-29-E



10 sx @ surface

8 5/8" OD @ 411', 10" hole*
Cmt w/50sx, TOC @ 53'(c)
Cement plug 364'-464'

Backed off 7" @ 820'
Cement plug 720'-870'

1224'-1232'
25 sx across perfs
7" OD @ 1357', 7 7/8" hole
Cmt w/150sx, TOC @ Circ.(c)
Cut & pulled 7" @ 1364'

Halliburton EZSV Ret. @ 2000'
w/100sx cement

7" OD @ 2930', 7 7/8" hole
Cmt w/150 sx, TOC @ 1487'(c)

50 sx @ 3060'

TD @ 3103'

VII. Proposed Operations

1. Injection Pressure - Average: 2700 BWPD
   Maximum: 3000 BWPD

2. System: Closed

3. Injection Pressure - Average: 550 psi
   Maximum: 550 psi

4. Water Source: Produced water w/fresh water make-up.
   (Analysis and compatibility tests attached.)

5. N/A

VIII. Geological Data

1. Injection Zone

   a. Lithology: Fine grained sandstone w/dolomitic cement
      Changing to dolimite w/anhydritic veins.

   b. Name: Grayburg/San Andres

   c. Thickness: 1850'

   d. Depth: 2150'-4000'

2. Aquifer

   a. Name: Oogalala

   b. Depth: ± 300'

IX. Proposed Treatment

1. Acidize the Grayburg w/± 5000 gallons of 7.5% NEFE HCl and frac w/± 10,000 gallons of gelled water w/± 20,000 lbs. sand. Acidize the San Andres w/± 7500 gallons of 15% NEFE HCl.

XI. Fresh Water

1. No fresh water wells produce within one (1) mile of the proposed injection wells.

JU/msc
PR.U/well data1

COMPATABILITY TESTS

MALJAMAR FRESH & GRAYBURG JACKSON PRODUCED WATERS

ANALYSIS BY UNICHEM INTERNATIONAL, HOBBS, N.M.

Fresh Water (%)	100	86	75	50	25	14	0
Produced Water (%)	0	14	25	50	75	86	100
Specific Gravity	1.000	1.014	1.025	1.053	1.080	1.091	1.106
Total Dissolved Solids	212	22,312	39,633	79,050	119,563	134,929	157,864
pH	8.85	8.53	8.29	7.73	7.17	6.92	6.61
Cations							
Calcium (ppm)	20.0	372	649	1,279	1,908	2,185	2,538
Magnesium (ppm)	31.7	494	857	1,683	2,508	2,872	3,322
Sodium (ppm)	5.3	7,517	13,396	26,764	41,327	45,252	53,591
Anions							
Bicarbonate (ppm)	12.2	85.6	143	274	405	463	536
Carbonate (ppm)	12.0	10.3	9.0	6.0	3.0	1.6	0.0
Hydroxide (ppm)	0	0	0	0	0	0	0
Sulfates (ppm)	11	831	1,477	2,943	4,409	5,054	5,875
Chlorides (ppm)	120	13,000	23,100	46,100	69,000	79,100	92,000
Iron (ppm)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Barium (ppm)	0.6	0.51	0.45	0.30	0.15	0.08	Not run
Ionic Strength (Molal)	6E-03	0.428	0.764	1.541	2.364	2.675	3.155
Carbonate Index @ 86 F	2.880	0.696	0.709	0.600	0.489	0.450	0.403
Calcium Carbonate Scaling?	Likely	Likely	Likely	Likely	Likely	Likely	Likely
Calcium Sulfate Index	-19.0	-44.0	-41.0	-35.0	-14.0	-0.83	13.7
Calcium Sulfate Scaling?	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Likely

Affidavit of Publication

No. 11291

STATE OF NEW MEXICO,
County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Business Manager of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for 1 consecutive days weeks on the same day as follows:

First Publication October 15, 1985

Second Publication

Third Publication

Fourth Publication

and that payment therefore in the amount of $

has been made.

Gary D. Scott

Subscribed and sworn to before me this 24th day of October, 19 85

Barbara Ann Boone
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1987

Copy of Publication

LEGAL NOTICE

NOTICE is hereby given of the application of Phillips Petroleum Company, Attention: J.E. Jennings, Manager of Operations, 4001 Penbrook Street, Odessa, Texas 79762 — telephone (915) 367-1290, to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of the following injection well(s) for the purpose of waterflooding.

NAME AND WELL NO.	LOCATION
	Sec. 23, T-17-S, R-29-E
Burch BB Fed #7	1980' FNL & 1980' FEL
Burch C Fed #1	2400' FNL & 855' FWL
Burch C Fed #2	2314' FNL & 2310' FWL
Burch C Fed #7	1980' FSL & 660' FEL
Burch F Fed #8	660' FSL & 660' FEL
	Sec. 26, T-17-S, R-29-E
Keely B Fed #4	660' FNL & 1980' FEL
Keely B #13	1345' FNL & 1295' FEL
Keely C Fed #9	1980' FNL & 1980' FWL
Keely C Fed #14	1980' FNL & 660' FWL

All wells are in Eddy County, New Mexico. The injection formation is Grayburg/San Andres at an approximate interval from 2350'-3537 feet below the surface of the ground. Expected maximum injection rate is 3000 barrels per day, and expected maximum injection pressure is 550 pounds per square inch. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within fifteen (15) days of this publication.

Published in the Artesia Daily Press, Artesia, N.M., Oct. 15. 1985.

Legal No. 11291.

PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

Form 3A 3-76

FROM

PHILLIPS PETROLEUM COMPANY

NAME L. M. Sanders

4001 Penbrook Street, Odessa, Texas 79762

1st Class	3rd Class	4th Class	Insured Mail	Certified Mail	Registered Mail	Special Delivery	Express	Air Express	Air Freight	Other
				X						

To Department of the Interior
Bureau of Land Management
P. O. Box 1357
Roswell, New Mexico 88201

CERTIFIED
P 503 931 330
MAIL

PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

PHILLIPS 66

FROM

Form 3-A-S 7-84

PHILLIPS PETROLEUM COMPANY

NAME L. M. Sanders

ADDRESS 4001 Penbrook Street
Odessa, Texas 79762

Priority 1st class	3rd or 4th Class	Express Mail	Insured Mail	Certified Mail	Registered Mail	Special Delivery	Motor Freight	Air Express	Int'l.	UPS
				X						

To Marbob Energy Corporation
P. O. Drawer 217
Artesia, New Mexico 88211-0217

CERTIFIED
P 503 931 328
MAIL

EXPLORATION AND PRODUCTION
PERMIAN BASIN REGION
4001 PENBROOK
ODESSA, TEXAS 79762

Form 3A 3-76

FROM
PHILLIPS PETROLEUM COMPANY

NAME L. M. Sanders
4001 Penbrook Street, Odessa, Texas 79762

1st Class	3rd Class	4th Class	Insured Mail	Certified Mail	Registered Mail	Special Delivery	Express	Air Express	Air Freight	Other
				X						

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Midland, Texas 79701

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