

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



DHC - 317
Due - 7/16/80

June 20, 1980

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

Re: State 367 No. 4
Downhole Commingling Application
Tubb and Blinebry Pool
Section 36, T-21-S, R-37-E,
Lea County, New Mexico

Blinebry O&G
Tubb O&G

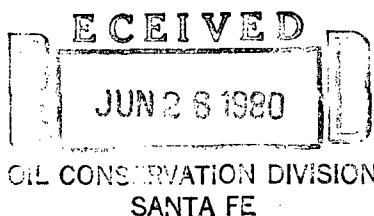
Gentlemen:

ARCO Oil and Gas Company respectfully requests administrative approval under the provisions of Rule 303-C to downhole commingle the Tubb and Blinebry oil pools in the State 367 No. 4.

The State 367 No. 4 was drilled and completed in the Blinebry and Tubb on April 1, 1980. Both zones are produced by artificial lift. The well produces from a maximum depth of 6256' and would therefore be allowed a commingled production rate up to 40 BOPD. The water production limit for each well would be 40 BWPD from each zone. Attached is Form C-105 with the production test for each zone. Production from both zones is priced as sour crude. An analysis of the fluid characteristics of each zone shows that the fluids are compatible in the wellbore. Downhole commingling will not affect the value of the oil. Ownership of both zones is common.

The commingling will not jeopardize the efficiency of possible future secondary recovery operations in either of the zones to be commingled.

Lease and well information is included as required by Rule 303-C. Offset operators are being notified by registered mail with a copy of this application.

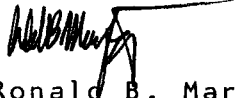


B1 - 1280 33% 175 mcf 83%
T - 2480 67% 37 mcf 17%
36 212

Oil Conservation Division of
The New Mexico Department of
Energy and Minerals
June 20, 1980
Page 2.

Thank you for your consideration.

Sincerely,



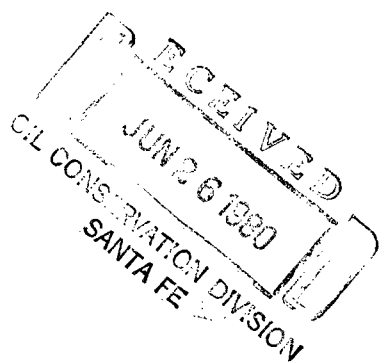
Ronald B. Marquez
Operations Engineer

Attachments

cc: Offset Operators (7)

New Mexico Oil Conservation
Area Supervisor
P. O. Box 1980
Hobbs, New Mexico

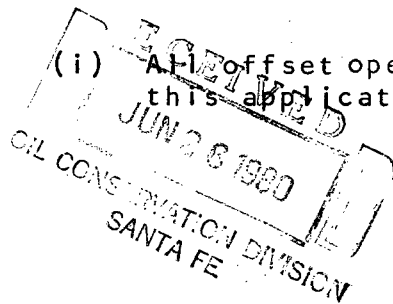
United States Geological Survey
P. O. Box 1157
Hobbs, New Mexico 88240



STATE 367 No. 4

- (a) Operator: ARCO Oil and Gas Company
P. O. Box 1610
Midland, Texas 79702
- (b) Lease, Well, and Location:
State 367 No. 4
1980' FEL and FSL,
Section 36, T-21-S, R-37-E,
Lea County, New Mexico
- (c) Producing Zones:
Blinebry by artificial lift
Tubb by artificial lift
Bottom most perforation at 6256'
No application submitted for dual
completion.
- (d) 24-Hour Production Test: See attached C-105.
- (e) Well History: See attached C-103 and C-105.
- (f) Bottom-hole Pressure:
Blinebry: 1115 psig
Tubb : 1269 psig
- (g) Fluid Compatibility: See attached Fluid Analysis.
Blinebry Oil: 39.0 API gravity
Tubb Oil : 37.0 API gravity
- (h) Value of Commingled Fluids:
Production from both zones is priced as
sour crude, downhole commingling will
not affect the value of the oil.

- (i) All offset operators are being notified by copy of
this application.



OFFSET OPERATORS:

Amoco
P. O. Box 68
Hobbs, New Mexico 88240

Getty Oil Company
P. O. Box 730
Hobbs, New Mexico 88240

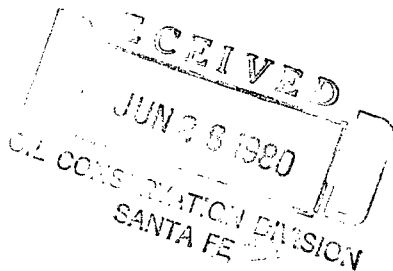
Marathon Oil Company
P. O. Box 2409
Hobbs, New Mexico 88240

Cities Service Oil Company
P. O. Box 1919
Midland, Texas 79702

Exxon
P. O. Box 1600
Midland, Texas 79701

Conoco, Inc.
P. O. Box 460
Hobbs, New Mexico 88240

Petro Lewis Corporation
P. O. Box 509
Levelland, Texas 79336



OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1

NO. OF COPIES RECEIVED	
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LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease

State ☒Fee ☐

5. State Oil & Gas Lease No.

367

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT - 1" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL ☐	GAS ☐	OTHER ☐
2. Name of Operator ARCO Oil and Gas Company Division of Atlantic Richfield Company		
3. Address of Operator P. O. Box 1710, Hobbs, New Mexico 88240		
4. Location of Well UNIT LETTER J 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 36 TOWNSHIP 21S RANGE 37E N.M.P.M.		
15. Elevation (Show whether DF, RT, GR, etc.) 3362.5' GR		

7. Unit Agreement Name

8. Farm or Lease Name

State 367

9. Well No.

4

10. Field and Pool, or Wildcat

Tubb Oil & Gas

12. County

Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐PLUG AND ABANDON ☐REMEDIAL WORK ☐ALTERING CASING ☐TEMPORARILY ABANDON ☐COMMENCE DRILLING OPNS. ☐PLUG AND ABANDONMENT ☐PULL OR ALTER CASING ☐CHANGE PLANS ☐CASING TEST AND CEMENT JOBS ☒

Prod Csg

OTHER ☐OTHER Log, Perf, Acidize, Treat & Complete ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Fin drlg 8-3/4" hole **SANTA FE** @ 2:15 PM 12/27/79. Ran CNFD, DLL, Computer Processed log. RIH w/1134' 7" OD 26# K-55, 5566' 7" OD 23# K-55 csg, set @ 6700', DV tool @ 3700'. Cmdt 7" OD csg 1st stage w/300 sx LW cmt w/5% salt, 6% gel, 5% Kolite & 1/4# celloflake/sk followed by 325 sx Cl C cmt w/2% CaCl. Cmdt 2nd stage w/1300 sx LW cmt w/6% gel, 15# salt, 1/4# celloflake/sk followed by 150 sx Cl C cmt w/2% CaCl. Circ 75 sx cmt to pit on 1st stage & 290 sx cmt to pit on 2nd stage. WOC 52 hrs. Drld cmt & DV tool, circ hole clean. Ran bit to 6651'. Press tested csg to 1500# 30 mins. OK. Ran CBL. Perf'd 7" csg w/1 JSPF 6159, 69, 74, 82, 6202, 05, 14, 22, 28, 34, 36, 42, 52, 56'. Set pkr @ 6034'. Acidized perfs 6159-6256' w/1800 gals 15% HCL acid & ball sealers. Flushed w/46 bbls 2% KCL wtr. Frac'd perfs 6159-6256' w/30,000 gals Krystal Frac-30 & 20,000 gal CO₂, 45,000# sd. Swbd & flwd back load. 40 hr SITP 800#. In 1 hr flwd 9 1/2 BO, 0 BW on 32/64" ck, TP dropped to 0. In 9 hrs swbd 26 BO, 18 BW, small amt gas. Set plug in on-off tool @ 6033'. Rel tbg from on-off tool, POH w/tbg. RIH w/RBP, set BP @ 5908'. Perf'd 7" csg @ 5601', 06, 17, 22, 24, 26, 28, 32, 34, 92, 96, 5702, 16' w/13 holes. RIH w/pkr & tbg, set pkr @ 5524'. Acidized perfs 5601-5716' w/1800 gals 15% HCL-NE acid. Frac'd perfs 5601-5716' w/30,000 gals cross-linked gelled, 13,350 gals CO₂ & 59,000# sd using rock salt as diverter. Flushed w/35 bbls 2% KCL slick water. Op well, flwd 3 BO, 70 BLW on 32/64" ck. TP 625-0#. In 3hrs swbd 7 BO, 31 BW. POH w/pkr & tbg. RIH w/2-3/8" OD tbg, SN, set tbg @ 5761'. On 24 hr potential test 3/14/80 pmpd Blinebry perfs 5601-5716', 12 BO, 6 BW 175 MCFG on 13-54" spm. GOR 14,583:1. (cont'd on back)

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

SIGNED

TITLE Dist. Drlg. Supt.DATE 4/15/80

APPROVED BY

Orig. Signed By
Jerry Sexton

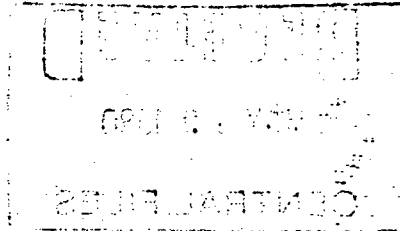
TITLE

DATE

CONDITIONS OF APPROVAL

Michael
Shallen

POH w/Bly compl assy. Rec BP @ 5908'. RIH w/tbg, latched into on-off tool @ 6033'. Ran rods & pump. On 24 hr potential test 4/13/80 pmpd Tubb perfs 6159-6256', 24 BO, 10 BW & 37 MCFG on 13-54" spm. GOR 1542:1. Final Report.



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APR 18 1980

OIL CONSERVATION DIV.

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NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form C-105
Revised 11-78

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.
367

1a. TYPE OF WELL

b. TYPE OF COMPLETION

OIL WELL ☒ GAS WELL ☐
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESER. ☐

2. Name of Operator **ARCO Oil and Gas Company**
Division of Atlantic Richfield Company

3. Address of Operator

P. O. Box 1710, Hobbs, New Mexico 88240

4. Location of Well

UNIT LETTER **J** LOCATED **1980** FEET FROM THE **South** LINE AND **1980** FEET FROM

THE **East** LINE OF SEC. **36** TWP. **21S** RGE. **37E** NMPM

15. Date Spudded **12/10/79** 16. Date T.D. Reached **12/28/79** 17. Date Compl. (Ready to Prod.) **4/1/80** 18. Elevations (DF, RHB, RT, GR, etc.) **3362.5' GR** 19. Elev. Casinghead

20. Total Depth **6700'** 21. Plug Back T.D. **6651'** 22. If Multiple Compl., How Many
23. Intervals Drilled By: Rotary Tools **0-6700'** Cable Tools

24. Producing Interval(s), of this completion - Top, Bottom, Name
6159-6256' Tubb Oil & Gas

25. Was Directional Survey Made
No

26. Type Electric and Other Logs Run

CNFD, DLL, Computer Processed Log, CBL

27. Was Well Cored
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8" OD	36# J-55	1354'	12 1/2"	525 SX	
7" OD	23#, 26#	6700'	8-3/4"	2075 SX	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8" OD	6034'	6034'

31. Perforation Record (Interval, size and number)

6159-6256' = 14 .48" holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
6159-6256'	1800 gals 15% HCL, 46 bbls 2% KCL wtr, 30,000 gal Krystal Fra
	30, 20,000 gal CO ₂ , 45,000# sd

33.

Date First Production **1/13/80** Production Method (Flowing, gas lift, pumping - Size and type pump) **Pumping - 2" x 1 1/2" x 16' RWBC** Well Status (Prod. or Shut-in) **Prod**
Date of Test **4/13/80** Hours Tested **24** Choke Size **-** Prod'n. Per Test Period **24** Oil - Bbl. **37** Gas - MCF **10** Water - Bbl. **1542** Gas - Oil Ratio
Flow Tubing Press. **-** Casing Pressure **-** Calculated 24-Hour Rate **24** Oil - Bbl. **37** Gas - MCF **10** Water - Bbl. **39.20** Oil Gravity - API (Corr.)

34. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

Test Witnessed By
George Benham

35. List of Attachments

Logs as listed in Item 26 above & Inclination Report

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED 

TITLE **Dist. Drlg. Supt.**

DATE **4/15/80**

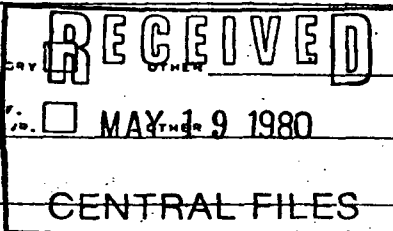
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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form C-105
Revised 10-78

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.
367

1a. TYPE OF WELL	OIL WELL ☒ GAS WELL ☐
b. TYPE OF COMPLETION	NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DRY ☐ OTHER ☐
2. Name of Operator	ARCO Oil and Gas Company Division of Atlantic Richfield Company
3. Address of Operator	Box 1710, Hobbs, New Mexico 88240
4. Location of Well	



7. Well Agreement Name
8. Name of Lease Name
State 367
9. Well No.
4
10. Field and Pool, or Wildcat
Blinebry Oil & Gas

UNIT LETTER	J	LOCATED	1980	FEET FROM THE	South	LINE AND	1980	FEET FROM
THE	East	LINE OF SEC.	36	TWP.	21S	RGE.	37E	N/4PM

12. County
Lea

15. Date Spudded	12/10/79	16. Date T.D. Reached	12/28/79	17. Date Compl. (Ready to Prod.)	4/1/80	18. Elevations (DF, RKB, RT, GR, etc.)	3362.5' GR	19. Elev. Casinghead
20. Total Depth	6700'	21. Plug Back T.D.	6651'	22. If Multiple Compl., How Many		23. Intervals Drilled By	Rotary Tools 0-6700'	Cable Tools
24. Producing Interval(s), of this completion - Top, Bottom, Name								25. Was Directional Survey Made
5601-5716' Blinebry Oil & Gas								No
26. Type Electric and Other Logs Run								27. Was Well Cored
CNFD, DLL, Computer Processed Log, CBL								No

18. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8" OD	36# J-55	1354'	12 1/4"	525 SX	
7" OD	23 & 26#	6700'	8-3/4"	2075 SX	

9. LINER RECORD					3c. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-3/8" OD	5761'	-

1. Perforation Record (Interval, size and number)	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
5601, 06, 17, 22, 24, 26, 28, 32, 34, 92, 96, 5702, 16' = 13 .48" holes	DEPTH INTERVAL
	AMOUNT AND KIND MATERIAL USED
	5601-5716' 1800 gal 15% HCL-NE acid, Frac w/30,000 gal cross-linked gelled, 13,350 gal CO
	59,000# sd, rock salt diverter, 35 gal
	2% KCL slick water.

1. PRODUCTION			
1a. First Production	1/20/80	Production Method (If different than lift pumping - Size and type pump)	Well Status (Prod. or Shut-in)
1b. Date of Test	3/14/80	Hours Tested	24 hrs
1c. Flow Tubing Press.	-	Choke Size	-
1d. Disposition of Gas (Sold, used for fuel, vented, etc.)	Sold	Calculated 24-Hour Rate	12
1e. List of Attachments	Logs as listed in Item 26 above & Inclination Report	Oil - Bbl.	12
		Gas - MCF	175
		Water - Bbl.	6
		Gas - Oil Ratio	14,583:1
		Oil Gravity - API (Corr.)	38.6°
		Test Witnessed By	J. J. Ballard

SIGNED	<i>[Signature]</i>	TITLE	Dist. Drlg. Supt.	DATE	4/15/80
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INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured by tape. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
D. Salt 2472'	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates 2610'	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen 3440'	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres 4016'	T. Simpson	T. Gallup	T. Ignacio Qtzite
T. Glorieta 5197'	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinbry 5620'	T. Gr. Wash	T. Morrison	T.
T. Tubb 6109'	T. Granite	T. Todillo	T.
T. Drinkard 6412'	T. Delaware Sand	T. Entrada	T.
T. Abo	T. Bone Springs	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn.	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn. "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from 6159 to 6256	No. 4, from to
No. 2, from to	No. 5, from to
No. 3, from to	No. 6, from to

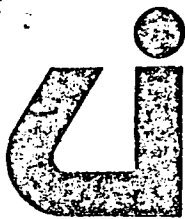
IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet	None encountered
No. 2, from to feet	
No. 3, from to feet	
No. 4, from to feet	

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	622	622	Surface, Red Beds				
622	1305	683	Red Beds				
1305	1390	85	Red Rock & Anhy				
1390	2435	1045	Salt & Anhy				
2435	2837	402	Anhy & Gyp				
2837	2915	78	Anhy				
2915	3000	85	Lime & Anhy				
3000	3560	560	Anhy, Sd & Gyp				
3560	3700	140	Anhy & Lime				
3700	3815	115	Lime				
3815	3910	95	Lime & Anhy				
3910	6427	2512	Lime				
6422	6700	278	Lime, Dolomite				



UNICHEM
INTERNATIONAL

Home Office 707 N. Leech, P. O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

Company Arco

Field Blinebry

Lease State 367, #4

Sampling Date 2-1-80

Type of Sample Wellhead

Sweet

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	306.00	6,120
Magnesium (Mg++)	242.00	2,904
Sodium (Na+) (CALCULATED)	1,395.24	32,077
Iron (Total)		147
Bicarbonate (HCO ₃ -)	15.60	952
Carbonate (CO ₃ -)	Not	Found
Hydroxide (OH-)	Not	Found
Sulphate (SO ₄ -)	38.16	1,833
Chloride (Cl-)	1,889.48	67,003
Total Dissolved Solids		110,888
6.78 pH c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	548.00	27,400
Carbonate Hardness as CaCO ₃ (temporary)	15.60	780
Non-Carbonate Hardness as CaCO ₃ (permanent)	532.40	26,620
Alkalinity as CaCO ₃	15.60	780
Specific Gravity c 68° F 1.078		

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

CaCO₃ S. I. positive @ 86°F (0.86)

CaSO₄ S. I. negative (0.21)



UNICHEM
INTERNATIONAL

Home Office 707 N. Leech, P. O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

Company Arco Oil and Gas

Field Tubb Zone

Lease State 367 #4

Sampling Date 4-15-80

Type of Sample Flowline

WATER ANALYSIS

Sour

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	565.00	11,300
Magnesium (Mg++)	375.00	4,500
Sodium (Na+) (CALCULATED)	2,846.75	65,447
Iron (Total)		58
Bicarbonate (HCO ₃ -)	89.98	5,490
Carbonate (CO ₃ -)	Not	Found
Hydroxide (OH-)	Not	Found
Sulphate (SO ₄ -)	30.77	1,478
Chloride (Cl-)	3,666.00	130,000
Total Dissolved Solids		218,215
6.47 pH c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	940.00	47,000
Carbonate Hardness as CaCO ₃ (temporary)	89.98	4,500
Non-Carbonate Hardness as CaCO ₃ (permanent)	850.02	42,500
Alkalinity as CaCO ₃	89.98	4,500
Specific Gravity c 68° F 1.145		

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

CaCO₃ S. I. positive at 86°F (2.13)

CaSO₄ S. I. positive (0.44)

AtlanticRichfieldCompany

Incorporated - 1870

TO: L. C. HUBBY
OFFICE: HOBBS, N. M.

STATIC RESERVOIR PRESSURE SURVEY - SONOLOG TESTS

FIELD BLINNEY BAY OIL

COUNTY - LEA

FORMATION TESTED: BLINNEY BAY
DATUM PLANE, FEET SUBSEA:

SURVEY UNIT J FIELD TESTS CONDUCTED BY:

SEC 36 - T21S - R 37E JDR.

RECEIVED
JUN 26 1960
OIL CONSERVATION DIVISION
SANTA FE

LEASE AND WELL NUMBER	DATE OF TEST	ELEVATION FEET, D.F.	AVERAGE TUBING JOINT LENGTH, FEET	JOINTS TO FLUID	FEET TO FLUID	FEET OF FLUID	PRESSURE OF OIL COLUMN PSI	CASING HEAD PRESSURE PSIG	PRESSURE OF GAS COLUMN PSI	CHANGE FROM PREVIOUS TEST		HOURS WELL SHUT-IN	BOTTOM HOLE PRESSURE AT DATUM PLANE PSIG
										PREVIOUS TEST DATE	CHANGE PSI		
STATE 367	4-14-80	3372.5	31.242721	158	4944.25	783.25	305.47	690	114.88			168	1115.32
WELL # 4													