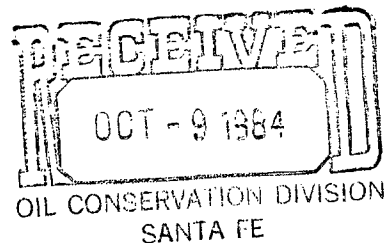


ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0149

Joe R. Hastings
District Engineer — West



October 2, 1984

Mr. Richard L. Stamets
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Stamets:

Application for Downhole Commingling of the
Tubb and Wantz Abo Pools
S. J. Sarkeys Well No. 5
Unit 0, Section 23, T21S, R37E
Lea County, New Mexico

ARCO Oil and Gas Company respectfully requests administrative approval under the provisions of Rule 303-C to downhole commingle the Tubb and Wantz Abo pools in the S. J. Sarkeys Well No. 5. This well is located in Section 23, T-21-S, R-37E, of Lea County, New Mexico.

The S. J. Sarkeys No. 5 was initially completed in the Wantz Abo in July, 1965, with an initial potential of 216 BOPD. The well was dually completed in the Tubb/Wantz Abo in August, 1965. Initial Tubb production was 860 MCFGD and 2 BOPD. The Sarkeys No. 5 is currently producing 2 BOPD, 28 MCFGD and no water from the Abo and 1 BOPD, 239 MCFGD and no water from the Tubb. ARCO Oil and Gas Company would like to downhole commingle the Wantz Abo with the Tubb to permit efficient, economical production from both zones.

No crossflow between zones is expected. Ownership of the zones to be commingled is common, including working interest and royalty. We believe that this request to commingle the Tubb and Wantz Abo pools is justified in the interest of conservation and to protect correlative rights.

Attached is the information requested by Rule 303-C for downhole commingling applications. Thank you for your consideration.

Yours very truly,

A handwritten signature in cursive script that reads "J. R. Hastings".

J. R. Hastings

JRH:JTL:sc
Atts.

S. J. SARKEYS NO. 5
INFORMATION FOR DOWNHOLE COMMINGLING

(a) Operator: ARCO Oil and Gas Company
P. O. Box 1610
Midland, Texas 79702

(b) Lease, Well, Locations and Pools:

S. J. Sarkeys Well No. 5
660 FSL & 1980' FEL
Section 23, T-21-S, R37-E
Lea County, New Mexico

Pools to be Commingled: Tubb and Wantz Abo

(c) Acreage Dedication and Offset Ownership:

(See Attachments)

(d) 24-Hour Productivity Tests:

(See Attached Form C-116)

(e) Decline Curve and Completion Resume:

(See Attachments)

(f) Bottom Hole Pressures:

Based on a 72-hour bottom hole pressure bomb survey performed on the S. J. Sarkeys No. 5 in May, 1984, the bottom hole pressures for the Tubb and Wantz Abo are as follows:

<u>Formation</u>	<u>Sub-Sea Depth</u>	<u>Gradient</u> ($\frac{\text{psi}}{\text{ft}}$)	<u>Bottom Hole Pressure (psig)</u>
Tubb	-2215'	0.012	415
Wantz Abo	-3656'	0.193	621

(g) Fluid Incompatibility:

The Tubb and Wantz Abo fluids are currently commingled at the Roy Barton lease battery. The Roy Barton lease is the adjacent lease to the north of the S. J. Sarkeys lease. To date, there has been no evidence of fluid incompatibility.

(h) Value of Commingled Fluids:

The S. J. Sarkeys lease is classified as stripper on a surface basis due to the presence of several producing horizons. Downhole commingling the Tubb and Wantz Abo will not jeopardize this stripper classification. Downhole commingling will not affect

the oil price because the Tubb and Wantz Abo oil are currently being commingled in surface storage facilities in the north adjacent lease. The oil well gas is committed to Warren Petroleum and the gas well gas is committed to El Paso Natural Gas Company. Both of these purchasers are being notified of our intention to downhole commingle the Tubb and Wantz Abo pools. The value of the commingled production will not be less than the sum of the values of the individual streams.

(i) Allocation of Production:

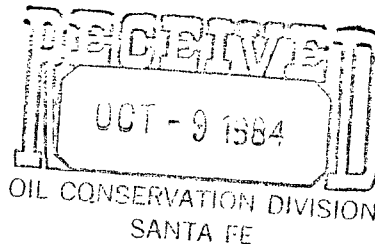
The Tubb production was 1 BOPD, 239 MCFGD and no water on test in September, 1984. The Wantz Abo production was 2 BOPD, 28 MCFGD and no water on test in August, 1984. The Wantz Abo is expected to produce 20 BOPD and 110 MCFGD after it is placed on rod pump. The Tubb production is expected to remain the same.

	<u>Oil, %</u>	<u>Gas, %</u>
Tubb	5	70
Wantz Abo	95	30

(j) All offset operators have been notified by registered mail of this downhole commingling application.

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702.
Telephone 915 684 0149

Joe R. Hastings
District Engineer — West



October 2, 1984

CERTIFIED
RETURN
RECEIPT
REQUESTED

OFFSET OPERATORS
S. J. SARKEYS LEASE

Gentlemen:

Re: Notification of Intent to Downhole Commingle
the Tubb and Wantz Abo Pools
S. J. Sarkeys Well No. 5
660' FSL and 1980' FEL
Section 23, T-21-S, R-37-E
Lea County, New Mexico

In accordance with the New Mexico Oil Conservation
Division regulations, you are hereby notified of ARCO
Oil and Gas Company's application to downhole commingle
production from the Tubb and Wantz Abo pools in the
S. J. Sarkeys Well No. 5.

Yours very truly,

A handwritten signature in cursive script that reads "J. R. Hastings".

J. R. Hastings

JRH:JTL:sc

S. J. SARKEYS LEASE

OFFSET OPERATORS

Gulf Oil Exploration and Production Company
P. O. Box 670
Hobbs, New Mexico 88240

Mobil Producing Texas and New Mexico, Inc.
P. O. Box 633
Midland, Texas 79702

Shell Oil Company
600 N. Marienfeld, Suite 310
Midland, Texas 79701

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

The Eastland Oil Company
One Marienfeld Place, Suite 560
Midland, Texas 79702

Sun Exploration and Production Co.
P. O. Box 1861
Midland, Texas 79702

Acoma Oil Corporation
Executive Plaza Building
210 W. 6th
Suite 1200
Fort Worth, Texas 76102

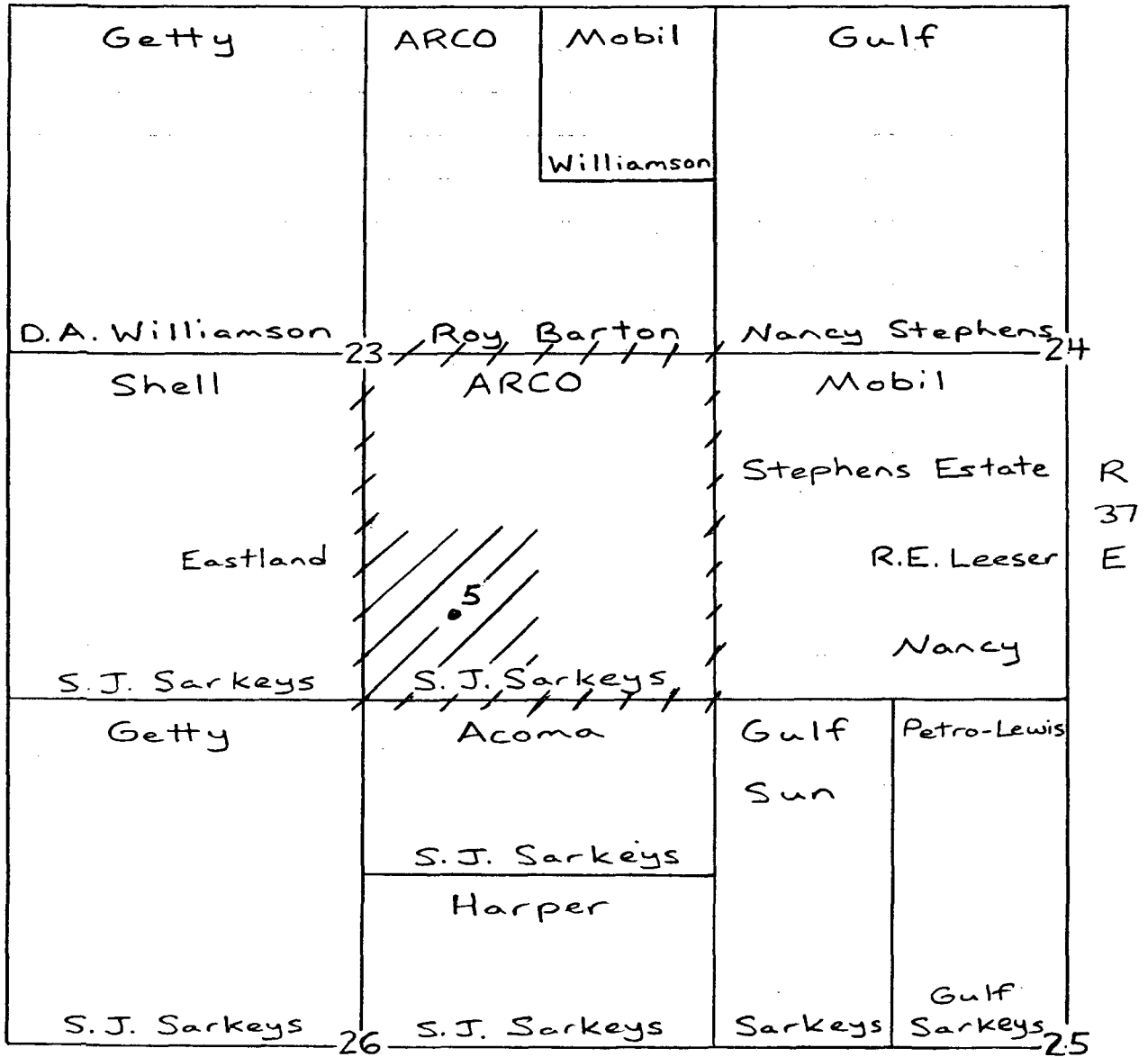
Russell E. Leeser
1390 Ridge Rd.
Littleton, Colorado 80120

Getty Dual (AR 21344) Shell 13-9188 State Marathon C Tubb Warlick Charlie Bettis (S) Gulf Dual Warlick Charlie Bettis (S) (WO) S (Dual) Turner eck, (S) Exxon B Blinberry Gas Co. AR 58392 S.I. A A Hardison Exxon P Small Tr S.I. Dual	Aztec Dual Gulf NM 289 Continental et al Shell Moranco A-NM-MD 37 1/4 Int. Dual JR Cone E. (Flag-Redfern) Eubanks Charlie Bettis (S) Getty Dual Mattie Williamson M.I. Tom Kemmer (S) Dual East Figs Getty Dual (NM-MD-) 4294 (WO) Dual Acoma Triple Ankham Acoma Harper (Acoma) Sarkeys Sun ARC Co Sun Triple Dual Comp 5-294 S-256 ARC Co Dual Dual Dual ARC Co NM 124 A-35 Moranco A M Lockhart	Shell Coll Chesher Shell Plumlee Fields Will N Terry Summit Energy TD6000 Gulf Bunin Continental et al Rowan Bunin TD9966 (DIAO 7-5) U.S. Lockhart Mark Owens, et al Continental et al Lockhart Fed Gulf W0 Nancy Stephens Dual Mobil RE Leaser Nancy Stephens Est Petro-Lewis PST Solar Roy Holding TIA 7828 Roy Holding Argos Oil Jones Walker TD 7660 Tex Pac (Gulf) Dual (Dual) Petro-Lewis Gulf Sarkeys (Dual) 2 "Darkness" (A.R.Co. D/R) Tex Pacific B Repollo S NM Simmons 275 TD 8756 DM 8-20 46 Evo Owens Del Rose Terry Amoco TC-13 (1/16 of 7/8 ORR) (to 6700, F.I. bel.)	Shell HBP 058011 U.S. Will T Petro-Lewis Solar Lewisi Burin MIAT638 T/A PI23 NR Bunin Solar HB (Imp.Amer.) Wayne S Elliott Oil et al H.B.P.- Solar TD7585 Petro Lewis Rosa Lee 061650B Dual U.S. Wayne Stephen (Artec) Marathon HBP 057443B Petro-Lewis 0457088 Owens Fed U.S.M.I. Del Rose Terry et al (S) Solar Walker TD7660 Imp Amer. Walker Luka Jones et al Imp Amer. 10 8 73 9 26 73 Solar Merry X-mas TD7660 Tommie Jon s. M Paul Wallach, S
---	--	---	--

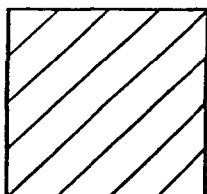
T
2.
S

General Purpose Worksheet

Subject	Page No. 01	
File	By	Date



T-21-S



Dedicated Acreage

Blinbry : 40 acres
 Drinkard: 40 acres
 Wantz Abo: 40 acres
 Tubb : 160 acres

GAS-OIL RATIO TESTS

Operator ARCO Oil & Gas Company		Pool		County											
Division of Atlantic Richfield Co.		Tubb Gas		Lea											
Address P.O. Box 1710, Hobbs, New Mexico 88240															
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL		
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.	GAS M.C.F.
Sarkeys	5	0	23	21S	37E	9-1-84	F 64/64"	65	Gas well	24	0	36.8	1	239	239,000
This test reported to document records for application to downhole commingle the Tubb Gas and Wantz Abo zones within the well bore.															

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

A. L. Shackelford
(Signature)
Engrg. Tech. Spec.
9-7-84
(Date)

GAS-OIL RATIO TESTS

Operator ARCO Oil & Gas Company		Pool		County												
Division of Atlantic Richfield Co.		Wantz Abo		Lea												
Address P.O. Box 1710, Hobbs, New Mexico 88240		TYPE OF TEST - (X)		Completion ☐ Scheduled ☐ Special ☒												
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL			
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.	
Sarkeys	5	0	23	21S	37E	8/13/84	F	21/64"	25	3	24	0	39.2	2	28	14,000
	This test reported to document records for Application to downhole commingle the Wantz Abo and Tubb Gas Zones within the well bore.															

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

P. L. [Signature]
(Signature)

Engrg. Tech. Spec.

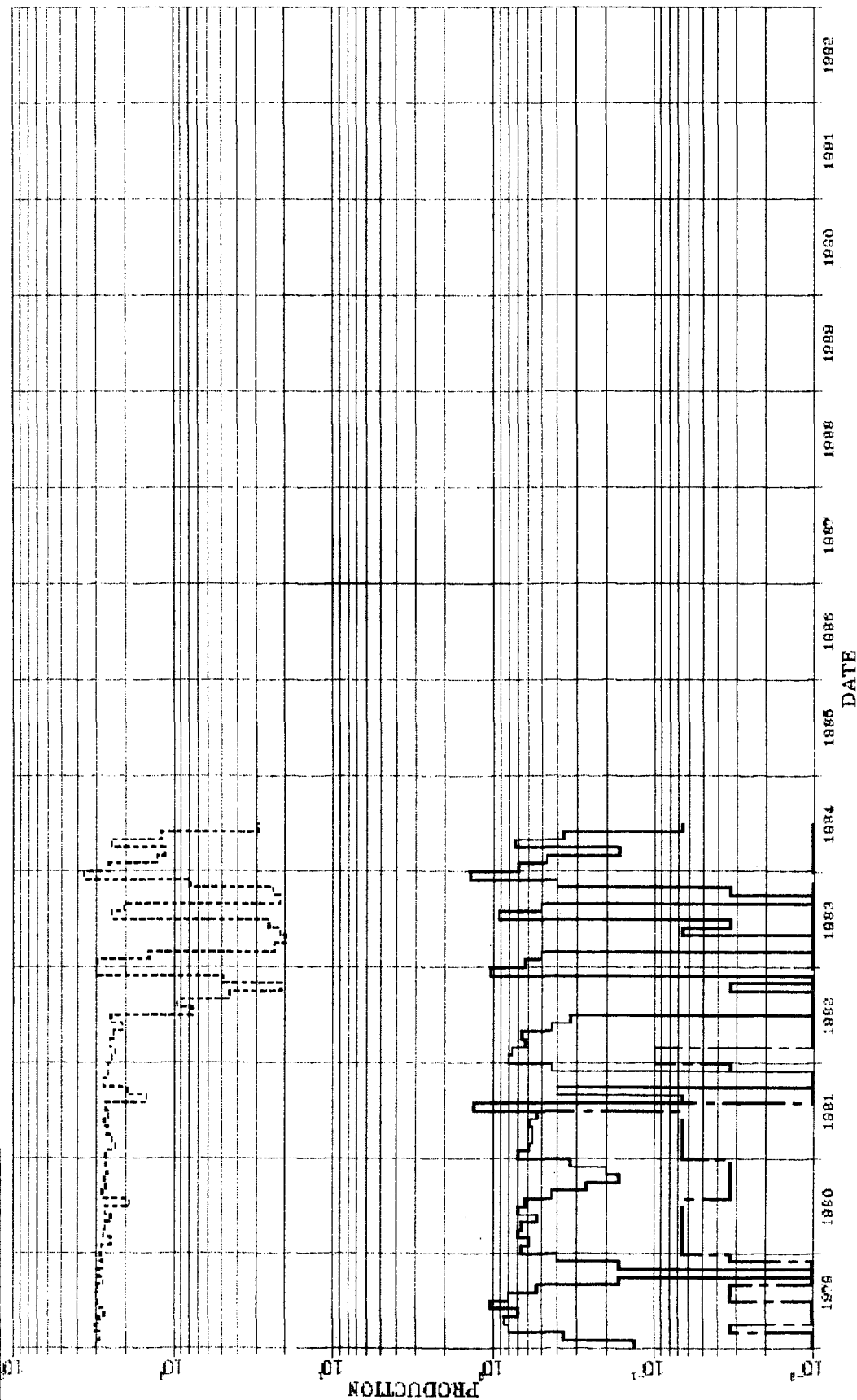
(Title)

9/7/84

(Date)

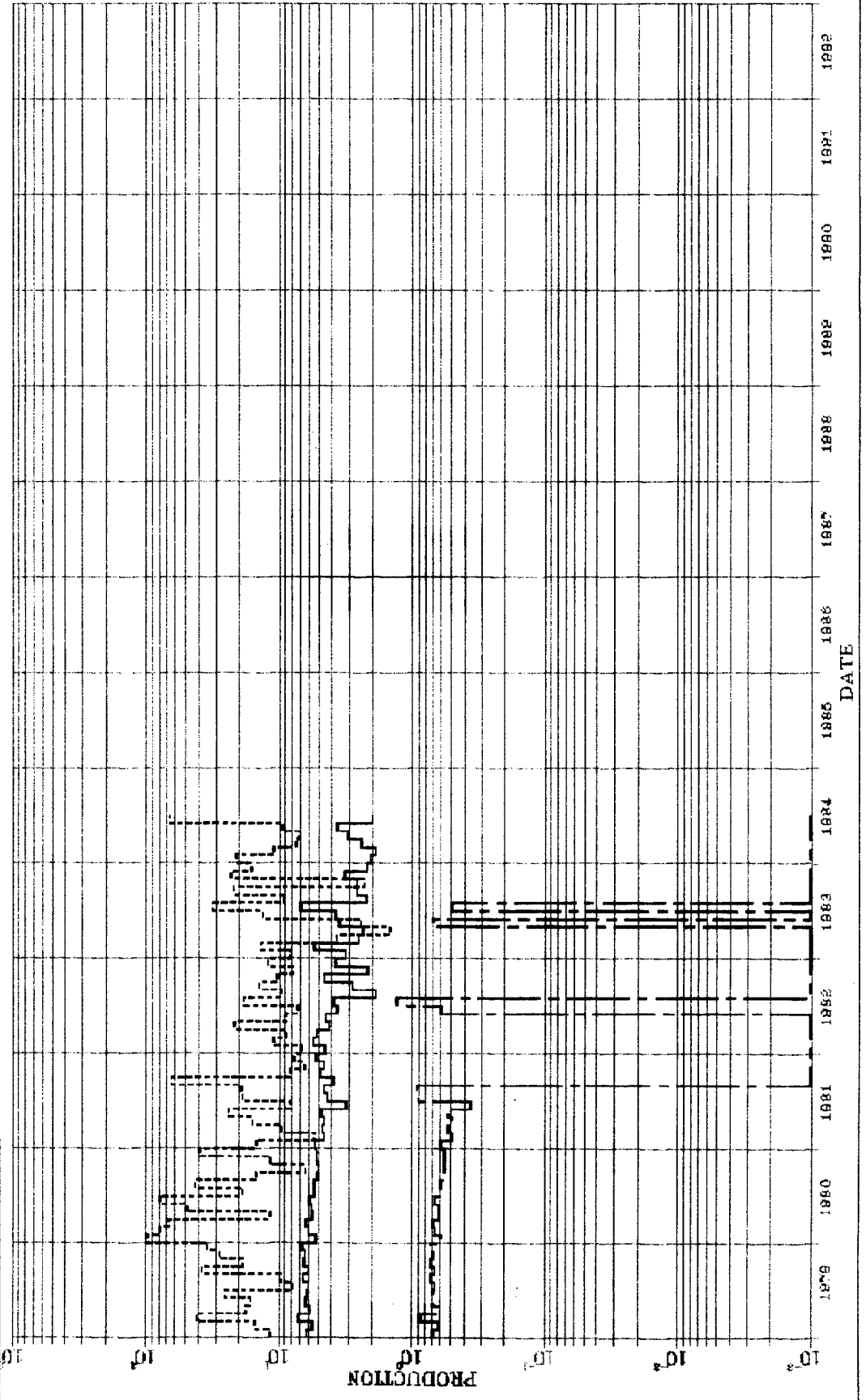
STATE: NEW MEXICO COUNTY: LEA TB
 FIELD: TUBB OIL AND GAS
 LEASE: SARKEYS WELL# 000005
 OPERATOR: ARCO OIL & GAS CO

LEGEND
 OIL PRODUCTION STRO/D
 GAS PRODUCTION MCF/D
 WATER PRODUCTION STB/D



STATE: NEW MEXICO COUNTY: LEA
 FIELD: WANTZ ABO AB
 LEASE: S J SARKEYS WELL# 000005
 OPERATOR: ARCO OIL & GAS CO

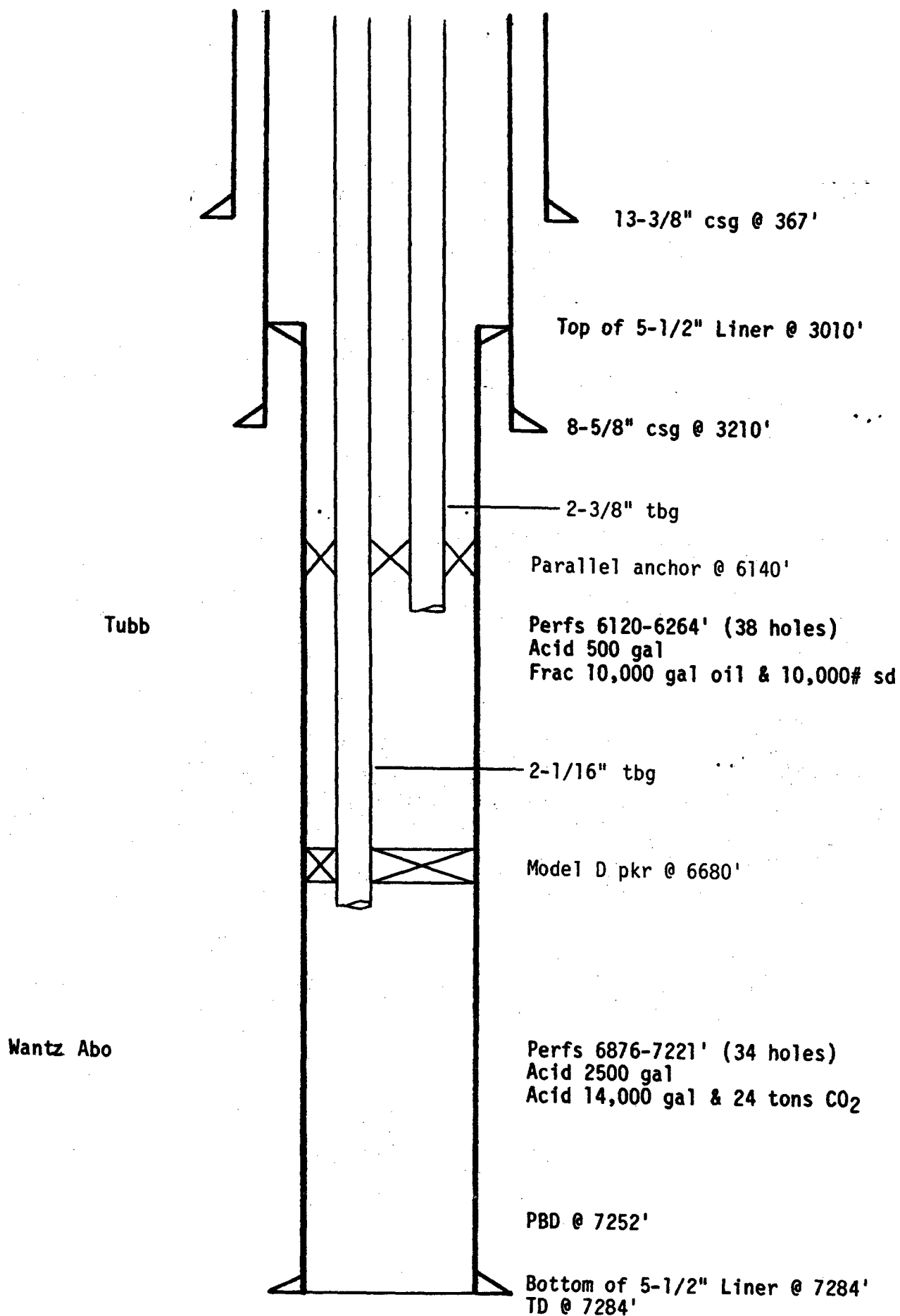
LEGEND
 - OIL PRODUCTION STB/D
 - GAS PRODUCTION MCF/D
 - WATER PRODUCTION STB/D



Depth	Conditions		Lease & well number			Date		
	Present	Proposed	S. J. Sarkeys Well No. 5					
			Field Tubb/Wantz Abo			County Lea		
			State New Mexico					
			Proposed operation:					
			Datum (GL) (CMT) (KCB)		Casing and Liner Detail			
					Size	Weight	BTM	TOP
			Elev.	3382'	13-3/8"	48#	367'	Surf.
			TD	7284'	8-5/8"	24,32#	3210'	Surf.
			PBTD	7252'	5-1/2"	15.5#	7284'	3010'
			Year Drld.	1965				
			Background and proposed procedure (use additional sheets if needed)					
			HISTORY:					
			6-10-65 Perf'd Wantz Abo @ 6846, 53, 74, 82, 6906, 16, 42, 48, 56, 70, 76, 86, 7005, 16, 20, 44, 60, 96, 7159, 91 and 7220'					
			w/2 SPF (44 Holes). Acid. w/2000 gal. IPF Abo 96 BOPD.					
			GOR = 3300.					
			6-22-65 Ran prod. survey. Found fluid & gas entry 6846-6916'.					
			Thief zone 6942-70'. No movement below 6970'.					
			6-27-65 Squeezed Abo perfs 6846-7220' OA w/150 sx cmt. Resqueezed w/100 sx cmt.					
			7-2-65 Re-perf'd Abo @ 6876, 84, 92, 6906, 16, 7003, 14, 20, 44, 60, 65, 78, 87, 95, 7159, 92, 7221 w/2 SPF (34 holes). Acid					
			7159-7221' OA w/500 gal MCA. Acid. 7060-95' OA w/750 gal					
			MCA and communicated above. Acid. 7003-95' OA w/500 gal.					
			MCA. Acid. 6876-6916' OA w/750 gal. MCA and communicated.					
			7-4-65 Granted approval to dually complete Tubb and Wantz Abo by NMOCD Order No. MC-1649.					
			7-11-65 IPF Abo 6876-7221' 216 BOPD. GOR = 2780.					
			7-14-65 Perf'd Tubb @ 6120, 24, 28, 42, 54, 58, 62, 66, 79, 87, 94, 6202, 08, 13, 28, 40, 52, 58, 64 w/2 SPF (38 holes).					
			Acid. w/500 gal MA. SOF Tubb 6120-6264' w/10,000 gal refined oil + 10,000# sand.					
			8-1-65 IPF Tubb 2 BC, 6 BLO & 860 MCFGD. CAOFP = 1850 MCFGD.					
			3-23-68 Acid. Abo perfs 6876-7221' w/10,000 gal. Dolo wash, 24 tons CO ₂ + 4000 gal. acid flush. Abo flowed 21 BNO &					
			7 BAW/24 hrs. Prod. prior to WO = 21 BOPD.					
				Proposed by	Prepared by	Engineering	Production	Drilling
			Initial					
			Date					

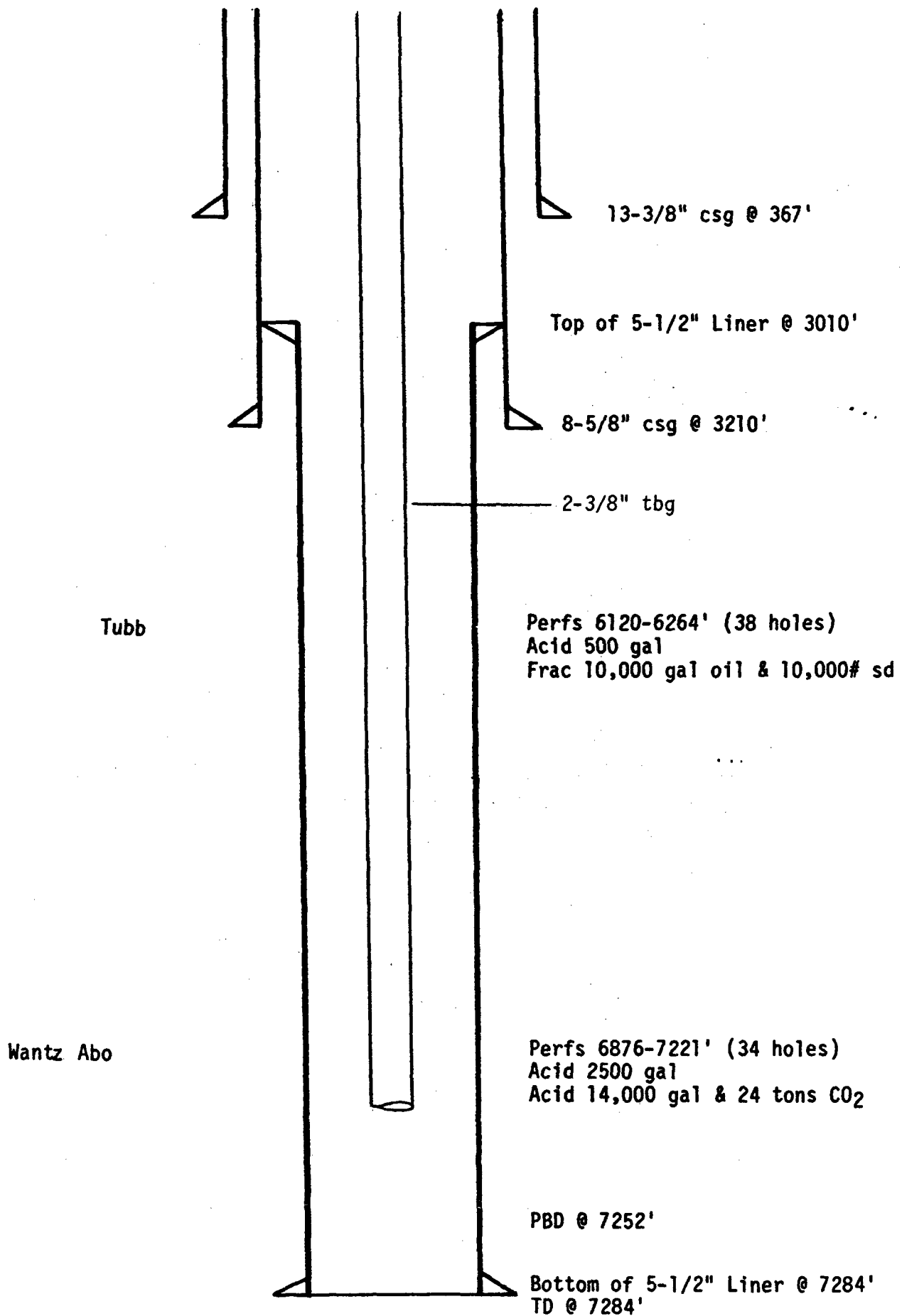
Diagrammatic Sketch
 S. J. Sarkeys Well No. 5
 660' FSL & 1980' FEL
 Section 23, T-21-S, R-37-E
 Lea County, New Mexico

Present



Diagrammatic Sketch
S. J. Sarkeys Well No. 5
660' FSL & 1980' FEL
Section 23, T-21-S, R-37-E
Lea County, New Mexico

Proposed





David Catanach

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE

November 1, 1984

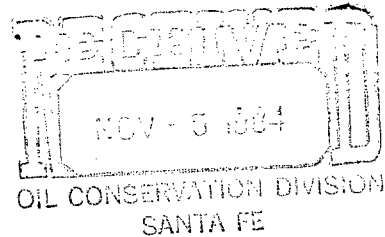
TONEY ANAYA
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

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

RE: Proposed:

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



Gentlemen:

I have examined the application for the:

ARCO Oil & Gas Company	S. J. Sarkeys	No. 5-0	23-21-37
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/mc