

Mobil Oil Corporation

P.O. BOX 633
MIDLAND, TEXAS 79701

August 23, 1968

100-297
Mr. A. L. Porter, Jr.
Secretary - Director
New Mexico Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

ADMINISTRATIVE REQUEST TO
EXPAND WATERFLOOD OPERATIONS
TO E. K. QUEEN UNIT WELL #7-6
E. K. YATES SEVEN RIVERS QUEEN POOL
LEA COUNTY, NEW MEXICO

Dear Mr. Porter:

Mobil Oil Corporation respectfully requests administrative approval under Rule 701-B to expand water injection facilities to include E. K. Queen Unit Well #7-6 in the E. K. Queen Seven Rivers Queen Pool, Lea County, New Mexico. Waterflooding on the E. K. Queen was initially approved by the Commission in Order No. R-2914 issued effective June 1, 1965. Injection was commenced into 26 wells in August 1966 and the proposed injector #7-6 will make the 27th input well. Unit Well #7-6 is needed to provide adequate sweep of recoverable oil from the southwest periphery of this reservoir.

It is proposed to inject Ogallala and produced water into the well at rates up to 800 BPD under surface pressure ranging to 2400 psi. Administrative approval is requested in recognition of production response which has occurred in the offset producer #11-2.

This well had been on temporarily abandoned status at the start of injection operations and was capable of producing no more than 2 or 3 BPD prior to response. Production tests obtained during the month of May 1968 demonstrate response to the level of 18 BPD.

Attached in support of this application are (1) a plat showing the location of the proposed injection Well #7-6, 330' FWL and 2310' FSL, Section 24, T-18-S, R-33-E; (2) a tabulation of production and injection since unitization operations began; (3) a graphical production and injection history of the unit; (4) a diagrammatic sketch showing the proposed condition of the well under injection operations; (5) a gamma ray neutron log of the well showing the perforations between 4314' and 4366', and (6) Commission Form C-116 showing tests obtained on Unit Well #11-2 before and after response.

Mobil

Mr. A. L. Porter, Jr.

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A copy of this application is being furnished to the State Engineer in Santa Fe.

Mobil Oil Corporation is the only offset operator to the proposed injection well location.

Yours very truly,



Ira B. Stitt, Jr.

Division Operations Engineer

PWKelly/t1

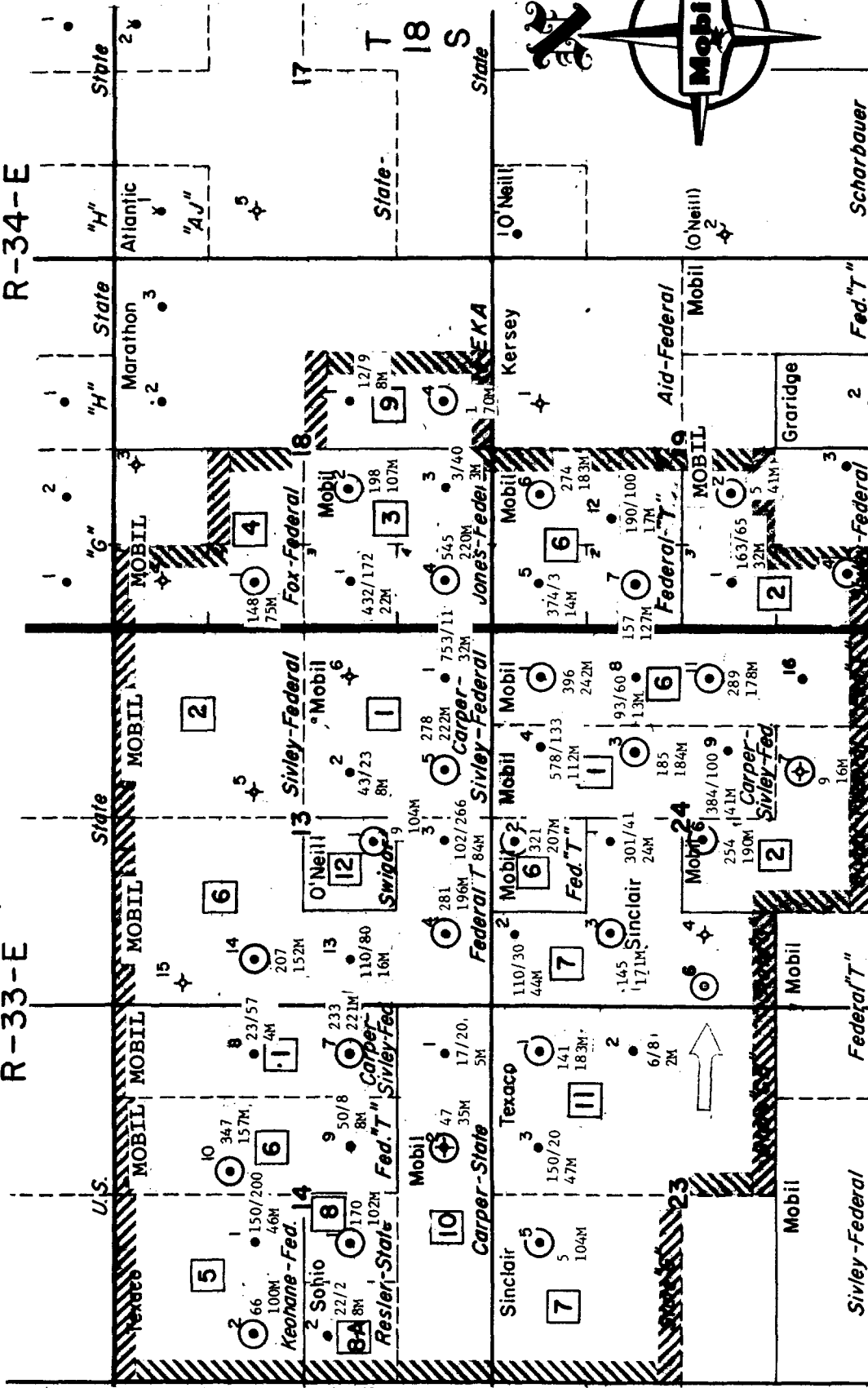
Attachments

cc: State Engineer
Capitol Building
Santa Fe, New Mexico 87501

Mr. Joe Ramey
New Mexico Oil Conservation Commission
Box 1980
Hobbs, New Mexico

R-33-E

R-34-E



LEGEND

- PRODUCING WELL
- ⊙ WATER INJECTION WELL
- UNIT BOUNDARY
- [6] TRACT NUMBER

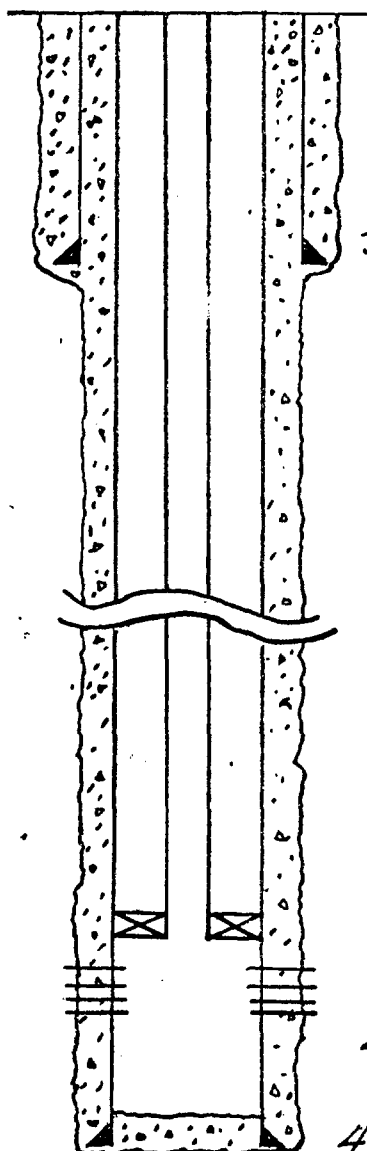
Production Rate (BOPD/BWPD, 12-67)
Cumulative Oil Production (M-Bbl., 1-1-68)

DAILY AVERAGE WATER INJECTION (12-67)
CUMULATIVE WATER INJECTION (1-1-68)

Mobil Oil Corporation
EXPLORATION AND PRODUCING DEPARTMENT
MIDLAND DIVISION

E-K QUEEN UNIT

SCALE
DATE 1/15/68
DRAWN BY JVN
CHECKED BY RLL
REVISED BY



K.B. ELEVATION 3885'

355' 8 5/8" Csg. W/ 250 SX
CIRC.

4304' 2 3/8" CEMENT LINED
TUBING ON JOHNSTON TENSION
PACKER AT 4304'

QUEEN PERFORATIONS
4314' - 4366' O/A

4450' 5 1/2" Csg W/ 950 SX
4450' TD CIRC.

NO.	DATE	BY	ALTERATION
PROPOSED INJECTION WELL EK QUEEN UNIT No. 7-6			
Mobil Oil Corporation			
DRAWN	SCALE	DWG. NO.	
CHECKED	DATE	A	

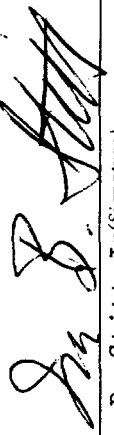
NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

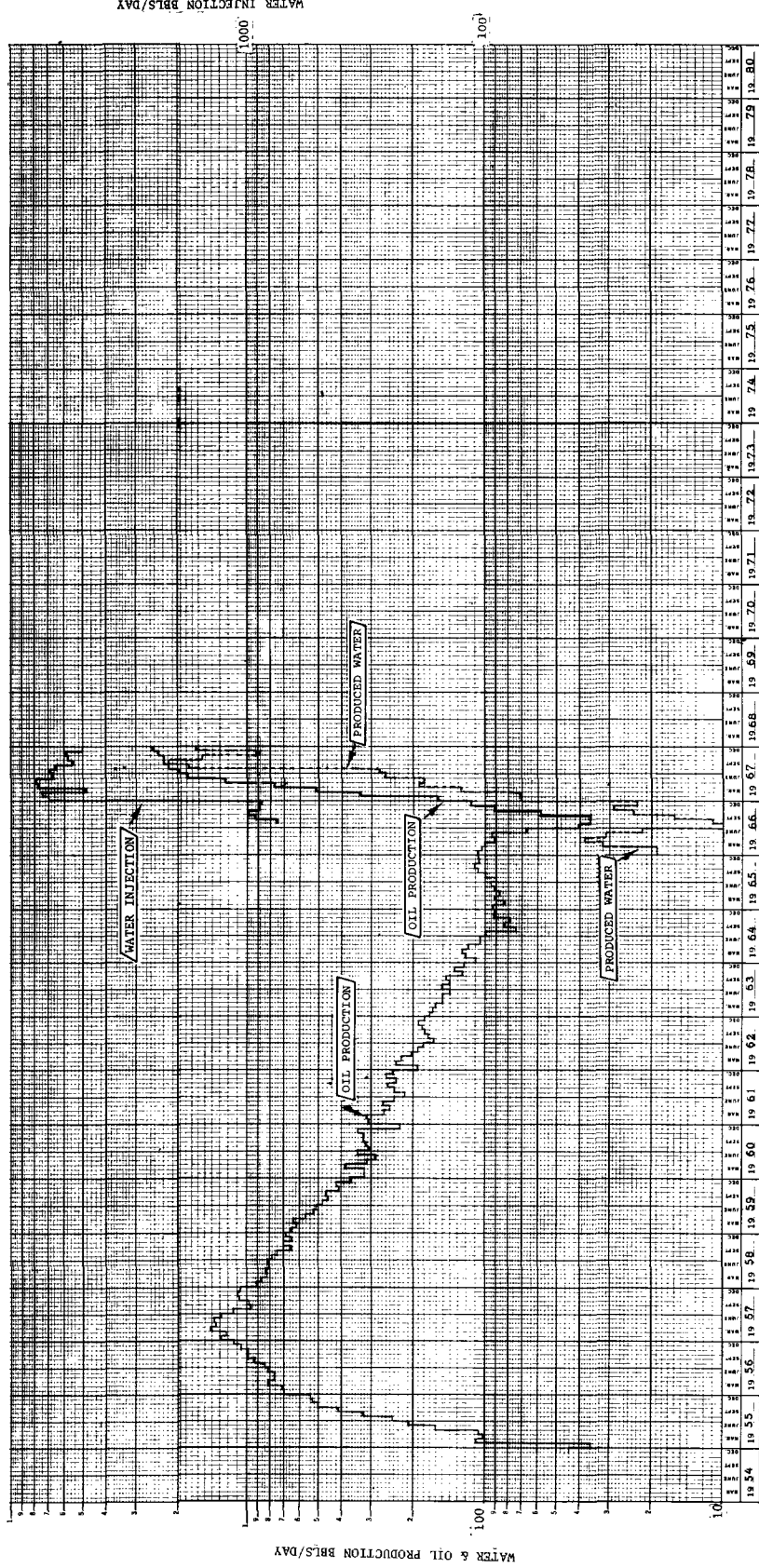
Operator		Pool		County		Lea									
Mobil Oil Corporation		E. K. Yates Seven Rivers Queen		Lea											
Address		Box 633, Midland, Texas 79701		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE 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.
E. K. Queen Unit	11-2	H	23	18	33	8/5/67	P	-	12	24	2	36	2	TSTM	-
E. K. Queen Unit	11-2	H	23	18	33	5/14/68	P	-	12	24	15	36	18	TSTM	-

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 Commission.
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 Commission 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.


I. B. Stitt, Jr. (Signature)

Division Operations Engineer
8-27-68
(Date)



Mobil Oil Corporation
 EXPLORATION AND PRODUCTION
 GRAPHIC HISTORY
 E. K. QUEEN UNIT

MOBIL OIL CORPORATION
TABULATION OF PRODUCTION AND INJECTION
E K QUEEN UNIT
LEA COUNTY, NEW MEXICO

Year and Month	Number of Wells		Production			Water
	Producing	Injection	Oil,Bbls	Gas,MCF	Water,Bbls	Injection,Bbls
1966						
January	26	-0-	3,331	6,754	N/A	-0-
February	27	-0-	2,880	7,076	541	-0-
March	27	-0-	3,086	6,617	990	-0-
April	27	-0-	2,731	6,399	1,133	-0-
May	27	-0-	2,924	5,999	953	-0-
June	26	-0-	1,995	5,027	663	-0-
July	26	-0-	1,241	2,674	203	-0-
August	12	26	1,105	1,684	338	111,724
September	12	26	1,082	1,471	474	277,634
October	12	26	1,808	1,246	747	308,622
November	12	26	2,722	963	875	280,095
December	12	26	3,573	824	717	274,270
ANNUAL TOTAL			28,478	46,734	7,634	1,240,345
1967						
January	12	26	4,906	766	849	251,818
February	19	26	9,350	1,329	1,984	236,274
March	19	26	15,945	1,088	3,946	149,315
April	22	26	23,081	3,913	5,715	265,077
May	22	26	38,417	6,241	5,647	275,363
June	22	26	53,737	7,049	7,914	239,430
July	22	26	60,289	7,305	8,625	213,474
August	22	26	68,865	6,373	54,160	202,697
September	22	26	68,854	4,620	66,376	166,579
October	22	26	71,810	6,451	47,836	179,760
November	22	26	74,032	3,550	27,328	177,899
December	22	26	80,257	3,972	51,105	153,350
ANNUAL TOTAL			569,543	52,657	281,485	2,513,036
1968						
January	22	26	82,070	2,905	78,492	212,167
February	22	26	80,440	3,351	73,535	206,178
March	23	26	84,182	5,316	88,682	228,394
April	23	26	73,036	5,635	90,293	214,466
May	23	26	64,744	5,805	102,743	209,163
June	23	26	53,699	6,903	81,112	170,779
July						
August						
September						
October						
November						
December						
ANNUAL TOTAL to 7/1/68			438,171	29,915	514,857	1,241,147
CUMULATIVE TOTAL SINCE						
UNITIZATION-1/1/68 to 7/1/68			1,036,192	129,306	803,976	4,994,528

CUMULATIVE OIL PRIOR TO