

ATOKA SAN ANDRES UNIT
WATERFLOOD APPLICATION

August, 1968

*Allowable calculation
on Exhibit "B"*

BEFORE EXAMINER LITZ
OIL CONSERVATION COMMISSION
<i>App'd</i> EXHIBIT NO. <u>1</u>
CASE NO. <u>1857</u>

LIST OF EXHIBITS

- A. - Proposed Unit Area & Adjacent Ownership
- B. - Proposed Injection Wells
- C. - Structure Contour Map
- D. - Typical Log of Injection Well
- E. - Sketch of Typical Injection Well
- F. - Proposed Injection Well Completion Data
- G. - Production Graph of Unit Area
- H. - Key to Unit Tract Numbers

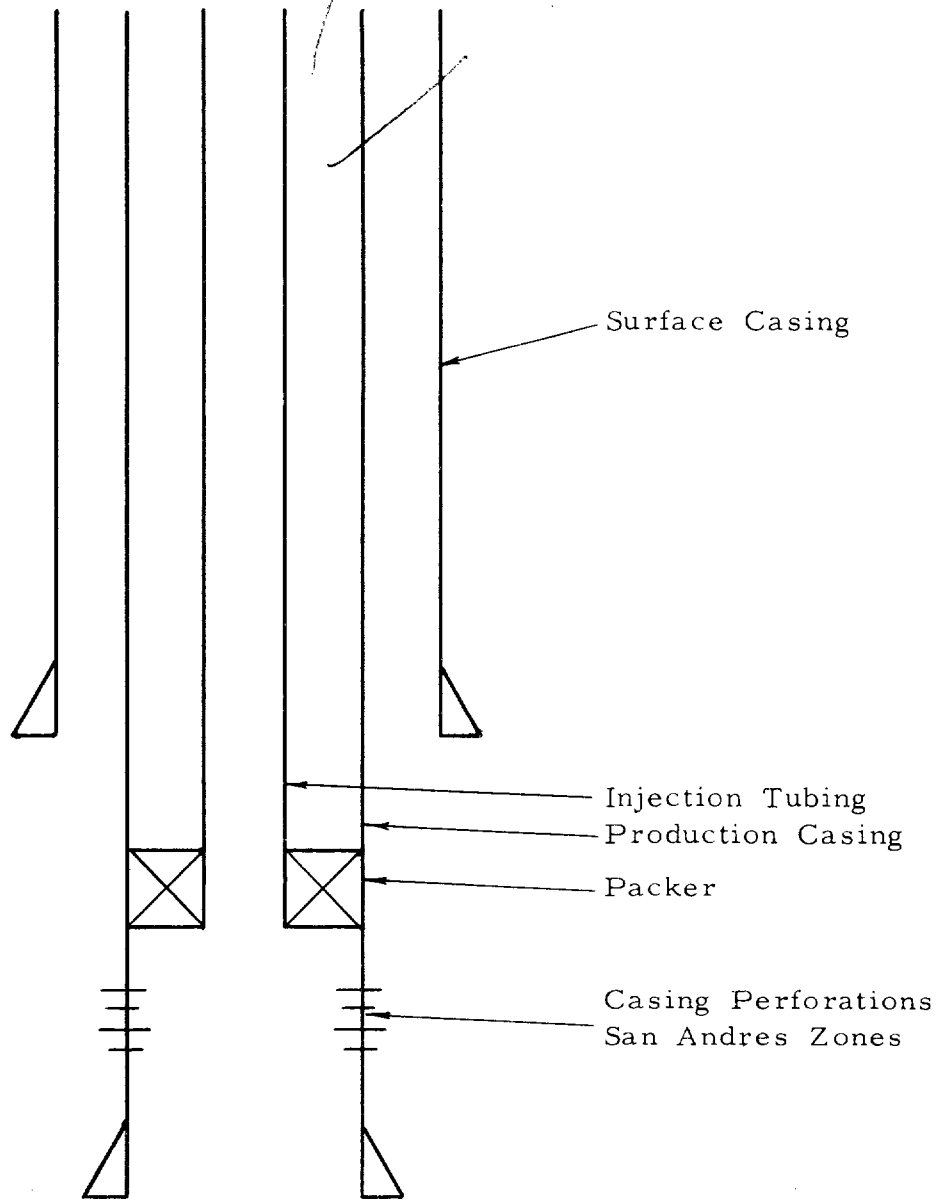


EXHIBIT "E"
 Typical Injection Well
 Completion Technique

EXHIBIT "F"

Injection Well Data

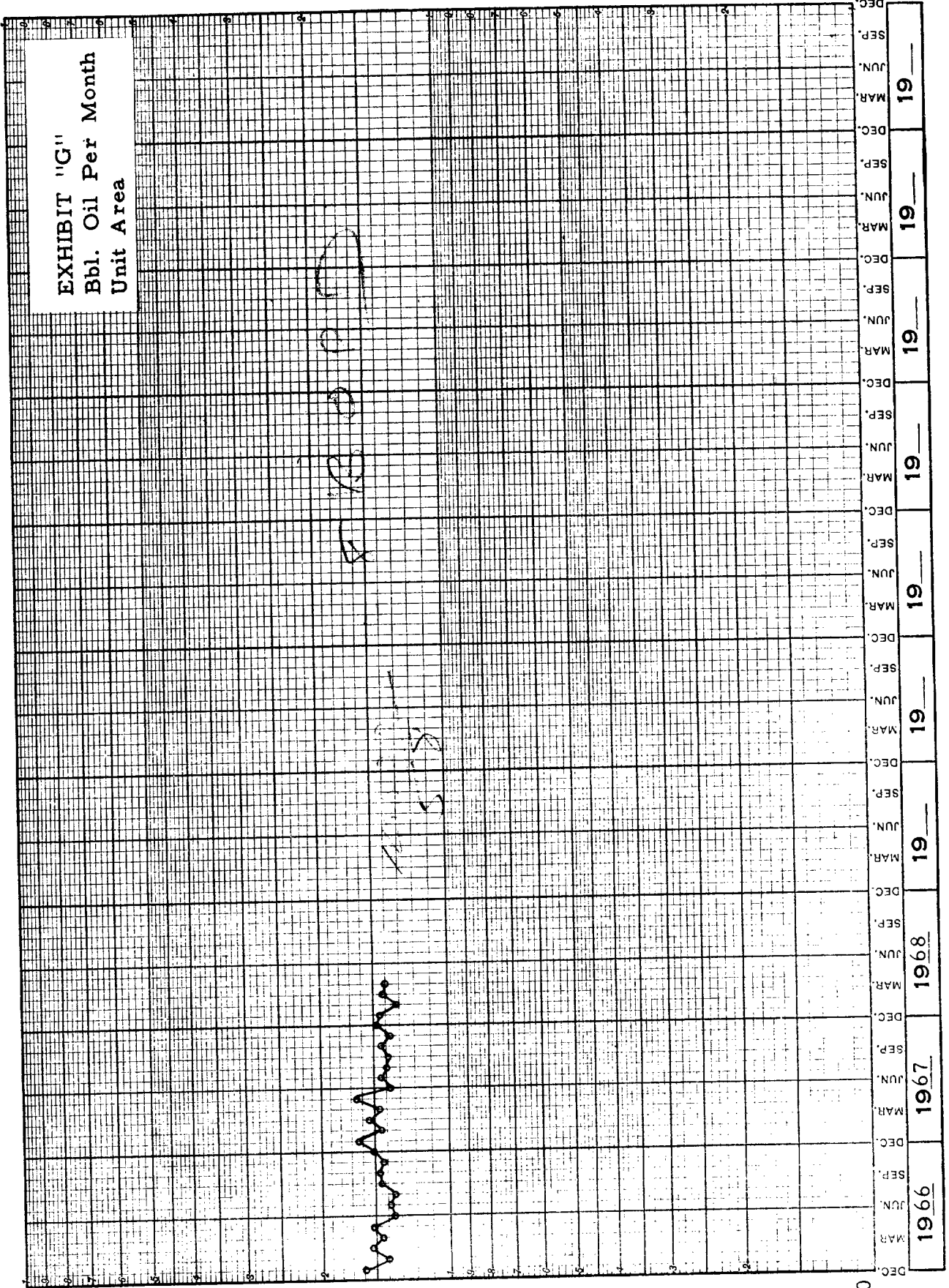
Operator Lease	Well No.	Location	Casing	Depth	Cement	Cement Top	Total Depth	Completion Interval
<u>Keweenaw Oil Co.</u>								
Everest Est. 20-#1	20-#1	NE NE Sec. 23	8 5/8"	1228'	480sax	Surface	1804'	
Martin 29-#2	29-#2	NW NW Sec. 23	5 1/2"	1804'	150sax	1050'	1804'	1698-1791
Everest Est. 20-#2	20-#2	SE SW Sec. 14	8 5/8"	1204'	450sax	Surface	1795'	1382-1683
Everest 22-#1	22-#1	SE SW Sec. 14	5 1/2"	1795'	150sax	900'	1795'	1698-1708
Fanning "S" 23-#1	23-#1	NW SE Sec. 14	8 5/8"	761'	586sax	Surface	1849'	1630-1710
Fanning "A" 24-#2	24-#2	NW SE Sec. 13	5 1/2"	1848'	280sax	Surface	1848'	1703-1722
Leavitt "S" 19-#9	19-#9	NE SE Sec. 14	8 5/8"	738'	300sax	Surface	3028'	1681-1833
Leavitt "S" 19-#4	19-#4	NW SE Sec. 13	5 1/2"	2939'	500sax	Surface	1953'	1576-1722
Terry Tr. 2 17-#2	17-#2	SW NW Sec. 13	8 5/8"	1095'	500sax	Surface	1742'	1670-1680
Terry Tr. 3 16-#3	16-#3	NE NE Sec. 14	5 1/2"	1740'	380sax	Surface	1740'	1650-1664
Terry Tr. 3 16-#3	16-#3	SE NW Sec. 14	8 5/8"	1095'	450sax	Surface	1743'	1652-1660
Terry Tr. 3 16-#3	16-#3	SE NW Sec. 14	5 1/2"	1740'	475sax	Surface	1740'	1652-1660
<u>Standard of Texas</u>								
Vandagriff 27-#1	27-#1	SW SW Sec. 13	8 5/8"	1194'	-	Surface	1852'	
Leavitt 20-#1	20-#1	NW NE Sec. 13	5 1/2"	1849'	295sax	Surface	1849'	1813-1826
Vinther 11-#1	11-#1	SE SW Sec. 12	7 5/8"	1103'	-	Surface	1772'	1693-1706
Higgins Unit 3 12-#1	12-#1	SE SW Sec. 12	5 1/2"	1770'	150sax	700'	1770'	1678-1690
Swearingen Unit 10-#1	10-#1	SE SW Sec. 12	8 5/8"	1187'	-	Surface	1754'	1678-1690
Higgins Unit 2 8-#1	8-#1	NW SE Sec. 12	5 1/2"	1754'	150sax	700'	1754'	1678-1690
Paul Terry 15-#3	15-#3	NW SE Sec. 12	7"	1108'	-	Surface	1810'	1698-1761
E. Holland 1-#1	1-#1	NW SE Sec. 12	4 1/2"	1804'	300sax	400'	1804'	1684-1729
Ralph Rogers 2-#3	2-#3	SE NW Sec. 12	7"	924'	-	Surface	1800'	1679-1706
Stroup 3-#4	3-#4	SE NW Sec. 12	3 1/2"	1794'	300sax	Surface	1764'	1679-1706
Stroup 3-#2	3-#2	NW NW Sec. 12	8 5/8"	1198'	-	Surface	1764'	1679-1706
Stroup 3-#6	3-#6	NW NW Sec. 12	5 1/2"	1759'	200sax	400'	1759'	1679-1706
M. G. Johnson 4-#2	4-#2	NW NW Sec. 14	8 5/8"	1209'	-	Surface	1740'	1634-1666
B. C. Aaron 5-#1	5-#1	NW NW Sec. 14	5 1/2"	1738'	150sax	700'	1738'	1634-1666
B. C. Aaron 5-#1	5-#1	NE SW Sec. 10	7"	1103'	-	Surface	1850'	1513-1748
B. C. Aaron 5-#1	5-#1	NE SW Sec. 10	4 1/2"	1833'	300sax	400'	1833'	1513-1748
B. C. Aaron 5-#1	5-#1	SE SE Sec. 10	8 5/8"	1207'	-	Surface	1766'	1636-1693
B. C. Aaron 5-#1	5-#1	SE SE Sec. 10	5 1/2"	1765'	265sax	Surface	1765'	1636-1693
B. C. Aaron 5-#1	5-#1	SE NE Sec. 10	8 5/8"	1239'	-	Surface	1747'	1672-1736
B. C. Aaron 5-#1	5-#1	SE NE Sec. 10	5 1/2"	1744'	150sax	700'	1744'	1672-1736
B. C. Aaron 5-#1	5-#1	SE NW Sec. 11	7 5/8"	1197'	-	Surface	1746'	1539-1584
B. C. Aaron 5-#1	5-#1	SE NW Sec. 11	5 1/2"	1746'	150sax	Surface	1746'	1539-1584
B. C. Aaron 5-#1	5-#1	NE NW Sec. 11	7 5/8"	1242'	-	Surface	1783'	1696-1706
B. C. Aaron 5-#1	5-#1	NE NW Sec. 11	5 1/2"	1782'	150sax	Surface	1782'	1696-1706
B. C. Aaron 5-#1	5-#1	NW SW Sec. 11	8 5/8"	1183'	-	Surface	1721'	1652-1686
B. C. Aaron 5-#1	5-#1	NW SW Sec. 11	5 1/2"	1720'	250sax	Surface	1720'	1652-1686
B. C. Aaron 5-#1	5-#1	SE SW Sec. 11	8 5/8"	1158'	-	Surface	1710'	1611-1653
B. C. Aaron 5-#1	5-#1	SE SW Sec. 11	5 1/2"	1696'	150sax	700'	1696'	1611-1653
<u>Mobil</u>								
D. E. Fanning 6-#5	6-#5	NW SW Sec. 12	8 5/8"	1219'	700sax	Surface	1750'	1670-1694
D. E. Fanning 6-#1	6-#1	NW SW Sec. 12	5 1/2"	1750'	350sax	Surface	1750'	1670-1694
D. E. Fanning 6-#4	6-#4	NW SE Sec. 11	8 5/8"	1225'	700sax	Surface	1797'	1654-1672
D. E. Fanning 6-#4	6-#4	SE NE Sec. 11	5 1/2"	1797'	350sax	Surface	1797'	1654-1672
D. E. Fanning 6-#4	6-#4	SE NE Sec. 11	8 5/8"	1288'	900sax	Surface	1772'	1680-1705
Reed Brainard 7-#2	7-#2	SE NE Sec. 11	5 1/2"	1772'	350sax	Surface	1772'	1680-1705
Reed Brainard 7-#2	7-#2	SE SE Sec. 11	8 5/8"	1242'	750sax	Surface	1799'	1680-1700
Reed Brainard 7-#2	7-#2	SE SE Sec. 11	5 1/2"	1799'	350sax	Surface	1799'	1680-1700

Std Higgins # 12
 Std Higgins # 14
 Std Higgins # 18
 Std Higgins # 21

Std Higgins # 22
 Std Higgins # 25

EXHIBIT "G"
Bbl. Oil Per Month
Unit Area

Bbl. Oil Per Month



5,000

10,000

20,000

1966

1967

1968

1969

1970

1971

1972

1973

1974

1975

1976

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

SEP.

JUN.

MAR.

DEC.

EXHIBIT "H"

Old Lease Names and New Tract Number

		<u>New Tract No.</u>
Standard of Texas	-> Eve Holland	1
	-> R. Rogers, et al	2
	-> Stroup	3
	-> Johnson	4
	-> Aaron	5
Mobil -	-> Fanning	6
	Reed-Brainard	7
Standard of Texas	-> Higgins Com. 2	8
Mobil -	-> Brainard	9
Standard of Texas	-> Swearingen Comm.	10
	-> Vinther	11
	-> Higgins Comm. 3	12
	-> Higgins Comm. 1	13
	Simpson	14
	-> Terry	15
Kewanee -	-> Terry Tr. 3	16
	-> Terry Tr. 2	17
	Terry Tr. 1	18
	-> Leavitt "S"	19
Standard of Texas	-> Leavitt	20
	Higgins	21
Kewanee -	-> Everest	22
	-> Fanning "S"	23
	-> Fanning "A"	24
	-> Everest Est.	25
Standard of Texas	- McNatt Vandagriff	26
	-> Lee Vandagriff	27
	A Waldrop	28
Kewanee -	-> Martin	29
	-> Rogers "A"	30

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
GUYTON B. HAYS
MEMBER



P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 20, 1968

Mr. Richard S. Morris
Montgomery, Federici, Andrews,
Hannahs and Morris
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: Case No. 3831
Order No. R-3476
Applicant:
KEWANEE OIL COMPANY

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC _____
State Engineer x

Other _____

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

September 16, 1968

Mr. Richard S. Morris
Montgomery, Federici, Andrews, Hannahs & Morris
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Dear Sir:

Reference is made to Commission Order No. R-3476, recently entered in Case No. 3831, approving the Kewanee Atoka San Andres Waterflood Project.

Injection is to be through the 28 authorized water injection wells each of which shall be equipped with tubing set in a packer, said packers to be set within 100 feet of the uppermost perforation. The casing-tubing annulus in each well shall be loaded with a corrosion-inhibited fluid and shall be left open or equipped with a pressure gauge to facilitate detection of leakage in the tubing, casing or packer.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 2436 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. Richard S. Morris
Montgomery, Federici, Andrews,
Hannahs & Morris
Attorneys at Law
Santa Fe, New Mexico

September 16, 1968

C commences, when additional injection or producing wells are drilled,
when additional wells are acquired through purchase or unitization,
when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the
status of the project and the wells therein will be appreciated.

O
P
V
Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSM/ir

cc: Oil Conservation Commission offices in Hobbs and Artesia, N. M.

Mr. D. E. Gray, State Engineer Office, Santa Fe, New Mexico