

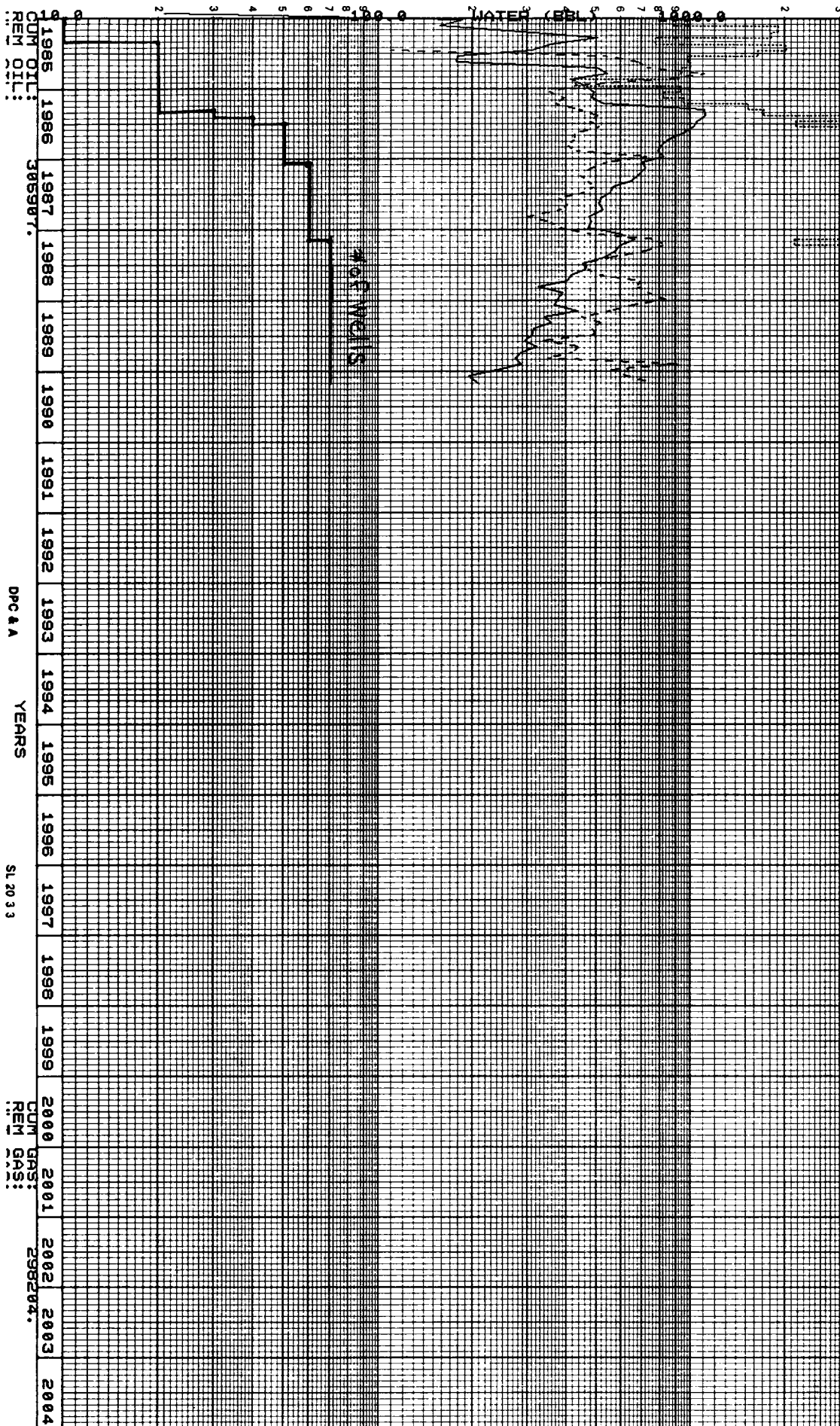
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PRODUCTION

WATERFLOOD SUMMARY

GAS - DASHED WATER - STEP OIL - SOLID
CASE: SUMMARY



EAST SHUGART WATERFLOOD

Well Name	Cum Oil	Cum H2O	Cum Gas	Current BOPD	Current BWPD	Current MCFGPD
Arco Federal #2	17655	85994	6564	4	38	4
Conoco Federal #2	11643	33525	15261	5	29	40
Geronimo Federal #1	62507	24550	85077	5	12	16
Geronimo Federal #2	66219	25232	45402	10	12	9
Geronimo Federal #6	66154	10728	65863	19	9	77
Geronimo Federal #7	62635	10789	65103	19	8	77
Inca Federal #4	19511	30	17792	6	0	19

TOTALS	306324	190848	301062	68	108	242

SHUGART WATERFLOOD

TOP OF CEMENT

WELL	TD	HOLE SIZE	CASING SIZE	SACKS OF CEMENT	TOP OF CEMENT
ARCO #1	5256	7.875	4.5	2300	SURF.
ARCO #2	4500	7.875	5.5	750	540
BLACKHAWK #1	4527	7.875	4.5	1985	SURF.
BLACKHAWK #2	4500	7.875	5.5	2050	SURF.
BLACKHAWK #3	4500	7.875	5.5	2415	SURF.
BLACKHAWK #4	4500	7.875	N/A	0	N/A P&A
BLACKHAWK #5	4500	7.875	5.5	990	SURF.
BLACKHAWK #6	4500	7.875	5.5	799	281
CONOCO #1	5500	7.875	5.5	1100	SURF.
CONOCO #2	4500	7.875	5.5	1100	SURF.
CONOCO #3	5650	7.875	5.5	1425	SURF.
GERONIMO #1	5367	7.875	5.5	900	615
GERONIMO #2	4702	7.875	4.5	1730	SURF.
GERONIMO #3	6470	7.875	5.5	2830	SURF.
GERONIMO #4	6550	7.875	5.5	840	SURF.
GERONIMO #5	5350	7.875	8.63	2050	SURF.
GERONIMO #6	4450	7.875	5.5	900	SURF.
GERONIMO #7	4500	7.875	5.5	700	SURF.
GERONIMO #8	5500	7.875	5.5	910	SURF.
GERONIMO #9	5400	7.875	5.5	935	SURF.
GERONIMO #10	5500	7.875	5.5	1300	SURF.
GERONIMO #11	5500	7.875	5.5	1330	SURF.
GERONIMO #12	5600	7.875	5.5	1170	SURF.
INCA #1	5500	7.875	5.5	1250	SURF.
INCA #2	5500	7.875	5.5	1170	SURF.

INCA #3	5500	7.875	5.5	1360	SURF.
INCA #4	4500	7.875	5.5	1050	SURF.
JADE #1	5500	7.875	5.5	1160	SURF.
JADE #2	4525	7.875	5.5	1205	SURF.
MOHAWK #1	6550	7.875	5.5	1635	SURF.
PANCO WI-4	3535	7.875	5.5	300	1951
BUFFALO #1	6519	7.875	5.5	2775	SURF.
BUFFALO #2	6500	7.875	5.5	2025	SURF.
YOUNG #5	4050	7.875	5.5	500	1410
S. TAYLOR 13 #1	5410	7.875	5.5	2325	SURF.
S. TAYLOR 13 #2	5448	7.875	5.5	1350	SURF.
S. TAYLOR 13 #3	5450	7.875	5.5	1950	SURF.
KEHOANE 24-1	4200	7.875	4.5	365	2755
KEOHANE 24-2	4500	7.875	4.5	870	1055
KEOHANE 24-3	4500	7.875	4.5	750	1530
KEOHANE SAUNDERS	4232	7.875	7	100	N/A P&A
KEOHANE #3	3692	7.875	4.5	400	2108

1. ASSUME CEMENT VOLUME= 1.2 CU. FT. PER SACK

HOLE	CASING	ANNULAR VOLUME		VOLUME ESTIMATE
		FT/CUFT	SAFETY FACTOR	
7.875	4.5	4.4	0.75	3.3
7.875	5.5	5.8	0.75	4.4

TOP OF CEMENT CALCULATION
 $TOC = TD - [(SACKS * 1.2) * VOL. EST.]$

IN SOME INSTANCES FOR SIETE WELLS
A CEMENT TOP IS CALCULATED BELOW
THE SURFACE, BUT OUR DRILLING RECORDS
SHOW CEMENT WAS CIRCULATED.

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 9925
Order No. R-9184

APPLICATION OF SIETE OIL AND
GAS CORPORATION FOR A WATERFLOOD
PROJECT, EDDY AND LEA COUNTIES,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 2, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 25th day of May, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Siete Oil and Gas Corporation, seeks authority to institute a cooperative lease waterflood project in the Shugart Yates-Seven Rivers-Queen-Grayburg Pool by the injection of water into said pool through selected perforated intervals from approximately 3748 feet to 4330 feet in three certain existing wells located on the applicant's Conoco Federal, Inca Federal, Arco Federal and Geronimo Federal leases, located in portions of Sections 18 and 19, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, and Section 24, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) The applicant proposed that the project area consist of the following described leases and areas:

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LEA COUNTY, NEW MEXICO
TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM

Conoco Federal Lease	Section 18: Lot 4
Inca Federal Lease	Section 19: NW/4 NW/4

EDDY COUNTY, NEW MEXICO
TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Geronimo Federal Lease	Section 24: NE/4
Arco Federal Lease	Section 24: NE/4 NW/4

(4) The wells within the proposed project area are in an advanced state of depletion within the Shugart Yates-Seven Rivers-Queen-Grayburg Pool and should properly be classified as "stripper" wells.

(5) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil within the Shugart Yates-Seven Rivers-Queen-Grayburg Pool, thereby preventing waste.

(6) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) Injection into each of the proposed injection wells should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each injection well should be filled with an inert fluid and a gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(8) The injection wells or system should be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director should have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in migration of waters from the Shugart Yates-Seven Rivers-Queen-Grayburg Pool.

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(9) Prior to commencing injection operations into the proposed injection wells, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(10) The operator should give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(11) Prior to commencing injection operations, the applicant should be required to obtain any applicable approval from the appropriate agency of the United States Department of the Interior.

(12) The application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Oil Conservation Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Siete Oil and Gas Corporation, is hereby authorized to institute a cooperative lease waterflood project in the Shugart Yates-Seven Rivers-Queen-Grayburg Pool by the injection of water into said pool through selected perforated intervals from approximately 3748 feet to 4330 feet in the three wells shown on Exhibit "A" attached hereto, located in Section 19, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, and Section 24, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) The project area shall consist of the following described leases and areas:

LEA COUNTY, NEW MEXICO
TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM

Conoco Federal Lease
 Inca Federal Lease

Section 18: Lot 4
 Section 19: NW/4 NW/4

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EDDY COUNTY, NEW MEXICO
TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM

Geronimo Federal Lease Section 24: NE/4
Arco Federal Lease Section 24: NE/4 NW/4

(3) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(4) Injection into the wells shown on Exhibit "A" shall be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each injection well shall be filled with an inert fluid and a gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(5) The injection wells or system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation (as shown on Exhibit "A"). The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in migration of waters from the Shugart Yates-Seven Rivers-Queen-Grayburg Pool.

(6) Prior to commencing injection operations into the wells shown on Exhibit "A", the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(7) The operator shall give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(8) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer in any of the injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around any plugged and abandoned well within the project area and shall take such steps as may be timely and necessary to correct such failure or leakage.

(9) The subject waterflood project is hereby designated the Siete Shugart Cooperative Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

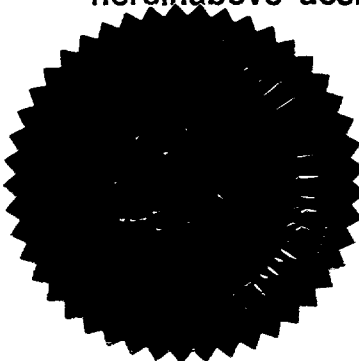
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(10) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 704 and 1120 of the Division Rules and Regulations.

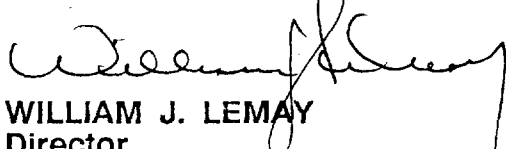
(11) Prior to commencing injection operations, the applicant shall be required to obtain any applicable approval from the appropriate agency of the United States Department of the Interior.

(12) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

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EXHIBIT "A"
CASE NO. 9925
DIVISION ORDER NO. R-9184

<u>WELL NAME AND LOCATION</u>	<u>MAXIMUM SURFACE INJECTION PRESSURE</u>
Geronimo Federal Well No. 2 950' FNL & 2310' FEL, Unit B, Section 24, Township 18 South, Range 31 East, NMPM.	754 PSIG
Geronimo Federal Well No. 7 1750' FNL & 990' FEL, Unit H, Section 24, Township 18 South, Range 31 East, NMPM.	750 PSIG
Inca Federal Well No. 4 760' FNL & 420' FWL, Unit D, Section 19, Township 18 South, Range 32 East, NMPM.	754 PSIG