Submit 3 Copies To Appropriate District State of New Mexico Form C-103 Office Energy, Minerals and Natural Resources Revised March 25, 1999 District 1 1625 N. French Dr., Hobbs, NM 87240 WELL API NO. District II 30-025-35573 OIL CONSERVATION DIVISION 811 South First, Artesia, NM 87210 5. Indicate Type of Lease District III 2040 South Pacheco 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, NM 87505 STATE X FEE \square District IV 6. State Oil & Gas Lease No. 2040 South Pacheco, Santa Fe, NM 87505 SUNDRY NOTICES AND REPORTS ON WELLS 7. Lease Name or Unit Agreement Name: (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) LEAMEX 1. Type of Well: Oil Well Gas Well Other INJECTION 2. Name of Operator 8. Well No. Phillips Petroleum Company 61 3. Address of Operator 9. Pool name or Wildcat 4001 Penbrook Street Odessa, TX 79762 MALJAMAR (GRAYBURG-SAN ANDRES) 4. Well Location Unit Letter 660 ___feet from the___ NORTH 1940 ___ feet from the_ line and Section Township 17-s Range **NMPM** County LEA 10. Elevation (Show whether DR, RKB, RT, GR, etc.) 4126' KB/ 4125' DF/ 4112' GL 11. 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** CHANGE PLANS COMMENCE DRILLING OPNS. PLUG AND ABANDONMENT PULL OR ALTER CASING **MULTIPLE** CASING TEST AND COMPLETION **CEMENT JOB** OTHER: PERFORM STEP RATE TEST X OTHER: 12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. PER ATTACHED PROCEDURE & WELL BORE SCHEMATIC, PHILLIPS WISHES TO PERFORM A PRESSURE STEP RATE TEST IN THE GRAYBURG FORMATION. I hereby certify that the information above is true and complete to the best of my knowledge and belief. ilisticH Vale for: X.111. 5. TITLE SUPV., REGULATION/PROPATION DATE 10/29/01 Type or print name L.M. SANDERS Telephone No. 915/368-1488 (This space for State use) و ال APPROVED BY _ TITLE DATE Conditions of approval, if any:

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PHILLIPS PETROLEUM COMPANY

Odessa, Texas
October 26, 2001
LEAMEX #61W
PERFORM STEP RATE TEST
CHARGE AFE #WA5.B53

To: D. T. Thorp

From: J. T. Lowder

A. **IMPORTANCE OF SAFETY**

Safe operations are of utmost importance at all Phillips Petroleum Company properties and facilities. To further this goal, the Phillips Supervisor at the location shall request tailgate safety meetings prior to initiation of work and also prior to any critical operations. All Company, contract, and service personnel then present shall attend these tailgate safety meetings at the location. All parties shall review the proposed upcoming steps, procedures, and potentially hazardous situations. Occurrence of these meetings shall be recorded in the Daily Report.

B. <u>History / Justification</u>

The purpose of the proposed project is to obtain a formation parting pressure in the Leamex #61W. This formation parting pressure data will be submitted to the NMOCD to increase the maximum allowable injection pressure of all four water injection wells in the Maljamar Grayburg Waterflood Pilot project. An increase in the maximum injection pressure in the Maljamar Grayburg Waterflood Pilot project will result in a corresponding increase in injection volumes and a quicker response in the offset Grayburg producers.

C. Formation Properties:

Estimated frac gradient = 0.9 psi/ft Estimated BHP = < 400 psi BHT = 100°F

H2S Concentration = 1000 ppm H2S ROE @ 100 ppm = 2' H2S ROE @ 500 ppm = 1'

D. Well Category:

Well Category 1 due to a 100 ppm H2S ROE < 50'. This well is not capable of hydrocarbon flow.

ONE BOP EXCEPTION: One untested barrier – packer.

Joundary J. T. Lowder

E. Recommended Procedure

- 1. MIRU pump truck and water transport truck. Test surface lines to 4000 psig.
- 2. Perform step rate test by pumping at the following rates: 0.2 BPM, 0.4 BPM, 0.7 BPM, 1.0 BPM, 1.4 BPM, 1.7 BPM, and 2.0 BPM. Maintain constant injection rate during each step for the lesser of 45 minutes or until injection pressure stabilizes. Record and plot surface pressures and rates throughout the test. Inject fresh water from Conoco. Record specific gravity of fluid to be pumped. Rates may be adjusted or eliminated based on well response.
- 3. RDMO pump truck. Clean location.

Phillips Petroleum Company - Southwest Region

October 26, 2001

GL 4112' DF 4125' RKB 4126' 8 5/8" Casing (12 1/4" hole) set @ 1500', 770 sx cmt. Circ. 113 sx. 34 jts - 24#, J-55, ST&C Packer at 4293' **Grayburg Perforations** 4332' - 4346' w/ 4 SPF (56 holes) Z3 4378' - 4386' w/ 4 SPF (32 holes) Z4 4440' - 4445' w/ 4 SPF (20 holes) Z5 4476' - 4480' w/ 4 SPF (16 holes) Z5 4503' - 4511' w/ 4 SPF (32 holes) Z6 4523' - 4528' w/ 4 SPF (20 holes) Z6 5 1/2" Casing (7 7/8" hole) set @ 4742', 1000 sx cmt.

Lease & Well No.: Leamex #61W

Well Category:

One

Status: Water Injection Well

Area: Subarea: New Mexico

Field:

Caprock

API Number:

Maljamar Grayburg/San Andres

30-025-35573

Legal Description:

660' FNL, 1940' FWL, Sec 25, T-17-S, R-33-E

Lea County, New Mexico

Spudded:

07/22/2001

Completed: Well History:

10/01 Perf'd Grayburg 4332-46', 4378-86', 4440-45', 4476-80', 4503-11', 4523-28' w/ 2 spf (176 holes). Acdzd 4476-80' w/ 400 gal heated 15% NEFE HCl. Acdzd 4440-45' w/ 500 gal heated 15% NEFE HCl. Acdzd 4332-86' overall w/ 2200 gal heated 15% NEFE HCl. Acdzd 4503-28' overall w/ 1300 gal heated 15% NEFE HCI. Set G-6 Injection packer w/ 1.78" F nipple & on-off tool at 4293' on 2 3/8" tubing IPC w/ TK-70.

Formation Tops:

Queen 3807' Grayburg Z5 4424' Grayburg Z1 4196' Grayburg Z6 4496 Grayburg Z2 Grayburg Z7 4232' 4564' Grayburg Z3 4329' San Andres 4600' Grayburg Z4 4370'

Circ. 109 sx.

PBTD: 4691' TD: 4750'

99 jts - 15.5#, J-55, LT&C