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February 6, 1997

#### **HAND-DELIVERED**

David R. Catanach, Hearing Examiner Oil Conservation Division New Mexico Department of Energy, Minerals and Natural Resources 2040 South Pacheco Street Santa Fe, New Mexico 87505

Re: Oil Conservation Division Case No. 11650:

Application of Texaco Exploration and Production Inc. for Amendment of Division Order No. R-5530, as Amended, to Increase Injection Pressures in its Central Vacuum Unit Pressure Maintenance Project Area, Authorize a Tertiary Recovery Project by the Injection of Carbon Dioxide and to Qualify this Project for the Recovered Oil Tax Rate Pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico

Dear Mr. Catanach:

Pursuant to your request, enclosed is the proposed Order of Texaco Exploration and Production Inc. in the above referenced case.

If you need additional information from Texaco to proceed with your consideration of this application, please advise.

Very truly yours,

WILLIAM F. CARR

ATTORNEY FOR TEXACO EXPLORATION AND PRODUCTION INC.

WFC:mlh

Enclosure

cc: Mr. Scott Wehner (w/enclosure)

Mr. Ron Lanning (w/enclosure)

## 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. 11650 |  |
|----------------|--|
| ORDER NO. R-   |  |

APPLICATION OF TEXACO EXPLORATION
AND PRODUCTION INC. FOR AMENDMENT OF
DIVISION ORDER NO. R-5530, AS AMENDED,
TO INCREASE INJECTION PRESSURES IN ITS
CENTRAL VACUUM UNIT PRESSURE
MAINTENANCE PROJECT AREA, AUTHORIZE
A TERTIARY RECOVERY PROJECT BY
THE INJECTION OF CARBON DIOXIDE AND TO
QUALIFY THIS PROJECT FOR THE RECOVERED
OIL TAX RATE PURSUANT TO THE
ENHANCED OIL RECOVERY ACT,
LEA COUNTY, NEW MEXICO.

### TEXACO EXPLORATION AND PRODUCTION INC.'S PROPOSED ORDER OF THE DIVISION

#### **BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on December 19, 1996, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this \_\_\_\_\_ day of February, 1997, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

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#### **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) (A) By Division Order R-5496, issued in Case 5970 and dated August 9, 1977, The Central Vacuum Unit was approved for an area comprising 3080 acres, more or less, of State and fee lands underlying the following described acreage:

#### TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 25: S/2, SE/4 NE/4

Section 36: All

#### TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM

Section 30: All

Section 31: N/2, SW/4, SW/4 SE/4

#### TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM

Section 12: N/2 NE/4

#### TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM

Section 6: All

Section 7: NW/4, NW/4 NE/4

- (B) The "Unitized Formation" for this unit includes the stratigraphic interval underlying the Unit Area in the Vacuum-Grayburg San Andres Pool between the depths of 3558 feet (plus 144 feet sub-sea) on the Welex Acoustic Velocity Log, run on November 15, 1963, in the Texaco State of New Mexico "O" (NCT-1) Well No. 23, located in the SW/4 SE/4 of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico (now Vacuum Glorieta West Unit Well No. 101).
  - (C) The EOR Project Area for this proposed Tertiary CO<sub>2</sub> flood contains 1550

acres, more or less, and is described as follows:

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#### TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 25: S/2 S/2 SE/4, S/2 SE/4 SW/4, SE/4 SW/4 SW/4 Section 36: S/2, NE/4, E/2 NW/4, SW/4 NW/4, S/2 NW/4 NW/4, NE/4 NW/4 NW/4

#### TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM

Section 30: S/2 S/2 SW/4, S/2 SW/4 SE/4, SW/4 SE/4 SE/4
Section 31: W/2, SW/4 SE/4, W/2 NE/4, SE/4 NE/4, S/2
NE/4 NE/4, NW/4 NE/4 NE/4

#### TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM

Section 6: N/2 NW/4, NW/4 NE/4, SW/4 NW/4, N/2 NE/4
NE/4, SW/4 NE/4 NE/4, NW/4 SE/4 NE/4, N/2
SW/4 NE/4, N/2 SE/4 NW/4, SW/4 SE/4 NW/4,
N/2 NW/4 SW/4, NW/4 NE/4 SW/4

- (3) The applicant, Texaco Exploration and Production Inc. ("Texaco") seeks the following:
  - (A) Amendment of Division Order No. R-5530, as amended, dated September 20, 1977, which approved the Central Vacuum Unit Pressure Maintenance Project for the injection of water into the Vacuum Grayburg-San Andres Pool to;
    - (1) Authorize the implementation of tertiary recovery operations in the Central Vacuum Unit Pressure Maintenance Area by including the injection of Carbon Dioxide and produced gasses with water into the Grayburg and San Andres formations,
    - (2) Increase the maximum surface injection pressure for water in certain injection wells to 1500 pounds per square inch gauge (psig) (provided there is no break in the step rate test conducted on the well),

- (3) Permit CO<sub>2</sub> injection to be conducted at a maximum of 350 psig above the allowed surface water injection pressure, to account for the differences in density between CO<sub>2</sub> and water, not to exceed 1850 psig.
- (B) To qualify this project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) Texaco as the operator of the Central Vacuum Unit Pressure Maintenance Project ("EOR Project Area") intends to recover additional oil by means of combined water and CO<sub>2</sub> and associated gas injection into the Grayburg and San Andres formations of the Vacuum-Grayburg-San Andres Pool within the Unit Area with 51 injection wells, and 71 producing wells (68 existing wells and three wells being drilled at the time of the hearing).
- (5) The proposed tertiary CO<sub>2</sub> flood is offset by two Division-approved tertiary CO<sub>2</sub> floods in the same Grayburg-San Andres formation:
  - (A) To the east is the Phillips Petroleum Company East Vacuum Grayburg-San Andres Unit Pressure Maintenance Project (see Division Order No. R-5897), which is also a CO<sub>2</sub> tertiary recovery project (see Division Order Nos. R-6856 and R-6856-A) in portions of Townships 17 and 18 South, Range 35 East, NMPM, East Vacuum Grayburg-San Andres Unit Area (approved by Division Order No. R-5871), Lea County, New Mexico. The current authorized bottomhole pressure in this project area equates to a surface injection pressure for CO<sub>2</sub> of approximately 1850 psig.
  - (B) To the west is the Phillips Petroleum Company State "35" Unit Pressure Maintenance Project which is also a CO<sub>2</sub> tertiary recovery project (see Division Order No. R-10599-B), underlying the N/2, E/2 SW/4, and SE/4 of Section 35 Township 17 South, Range 34 East, NMPM, State "35" Com Unit Area (Approved by Order Nos. R-10599 and R-10599-A), Lea County, New Mexico. The authorized surface injection pressure for CO<sub>2</sub> in this project area is 1850 psig.

- (6) Texaco seeks to institute tertiary recovery operations within the proposed EOR Project Area by means of a change in the process used for the displacement of crude oil by the initiation or the injection of water-alternating-gas injection ("WAG") by injecting water, and carbon dioxide ("CO<sub>2</sub>") in alternating slugs of produced gas and CO<sub>2</sub> with slugs of water. An estimated total of 259 billion cubic feet of CO<sub>2</sub> and other gases in addition to 148 million barrels of water will be injected during the life of the project.
- (7) The amount of recoverable oil attributed to a positive production response from the expanded use of enhanced oil recovery technology for this proposed EOR Project is an estimated 20.3 million stock tank barrels along with 23.2 Bscf of hydrocarbon gas.
- (8) Texaco testified that the initiation of tertiary recovery operations utilizing the methodology set forth in Finding Paragraph No. (6) above, should result in the additional recovery set forth in Finding Paragraph No. (7) above for a projected cost of approximately \$345.7 million which includes field installations and upgrades, well remediation, separation and compression facilities, the purchase of CO<sub>2</sub> and the costs associated with the recycling of injectant.
- (9) The applicant provided evidence, exhibits and testimony in accordance with Division General Rule 701 which justifies the approval of the 51 proposed WAG injection wells all as identified on Exhibit "A" attached hereto and made a part hereof.
- (10) Texaco testified that the success of the proposed CO<sub>2</sub> flood tertiary recovery project depended on maintaining reservoir pressure at high enough levels to meet miscible pressure requirements in the reservoir.
- (11) Maximum injection pressures have been established for this waterflood project of 0.2 per foot of depth to the uppermost perforations in each injection well unless the operator can establish that such higher pressure will not result in fracturing of the confining strata (see Division Order No. R-5530, Decretory paragraphs (5) and (6)).
- (12) At present average reservoir pressures range between 1500 and 1700 psig and the minimum miscibility at current reservoir conditions is 1250 psig. To maintain sufficient pressure to avoid the breakout of injected CO<sub>2</sub> in the near well bores regions of producers where lower reservoir pressures are encountered an increase in injection pressure is required.

- (13) Although the current maximum injection pressure limits are based upon actual formation fracture gradients based on individual well step rate tests, eight wells in high quality reservoir do not show a parting pressure in step rate tests where test pressures far exceeded the 1500 psig surface pressure limitation for water injection sought by Texaco in this case.
- (14) Texaco therefore requests that the maximum surface injection pressure limitation for water for each of these wells be established at 1500 psig. These wells are identified on Exhibit "B" attached hereto and made a part hereof. Texaco seeks no increase in the surface injection pressure for water for any well which shows a break during a step rate test.
- (15) The evidence established that, because of differences in density between water and CO<sub>2</sub>, a 350 psig increase in the surface injection pressure limitation for CO<sub>2</sub> would result in bottom hole injection pressures for CO<sub>2</sub> which are comparable to the approved surface injection pressure limitation for water.
- (16) Texaco therefore seeks an increase in the surface injection pressure limitation for  $CO_2$  for each  $CO_2$  well in the EOR Project Area equal to 350 psig above the authorized surface injection pressure for water in each well.
- (17) The increased injection pressures requested by Texaco are necessary to maintain reservoir pressures at levels sufficient to maintain miscibility, should not result in injected substances escaping from the injection intervals and should be approved.
- (18) The increase in maximum injection pressure sought by Texaco will result in injection pressures in the EOR Project Area which are comparable to the authorized injection pressures in the offsetting Phillips Petroleum Company operated East Vacuum Grayburg-San Andres Unit Pressure Maintenance Project and the Phillips Petroleum Company State "35" Unit Pressure Maintenance Project.
- (19) All injection wells or the pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than the individual well surface injection pressure authorized by this Order.

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- (20) Further evidence presented by Texaco indicated that the subject "EOR Project Area" meets all the criteria for certification by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (21) The certified "EOR Project Area" should initially comprise the area within the "EOR Project Area" as defined in Finding Paragraph No. (2) C. above, provided however, that the "EOR Project Area" eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.
- (22) To be eligible for the EOR tax credit, the operator should advise the Division when WAG injection commences in the project area and requests the Division Certify such phases as areas to the New Mexico Taxation and Revenue Department.
- (23) At such time as a positive production response occurs from WAG injection operations and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefiting form enhanced recovery operations. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands which are eligible for the credit.
- (24) The proposed tertiary recovery project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (25) The applicant testified that there are no problem wells within the one-half mile "area of review" and a review of the individual wellbore data presented at the hearing by the applicant confirms that all plugged and abandoned wells and all producing wells are cemented in a manner adequate to confine the injected fluid to the proposed injection interval.
- (26) If not previously equipped, each of the injection wells shown on Exhibit "A" should be accomplished through internally coated tubing installed with a packer set within 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus 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. As a reminder to Texaco; OCD may reject results of unwitnessed tests.

- (27) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of any new injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.
- (28) The application should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.
- (29) Approval of this application will prevent waste, result in the recovery of hydrocarbons which would not otherwise be recovered, protect correlative rights and promote the interests of conservation.

#### IT IS THEREFORE ORDERED THAT:

(1) The applicant, Texaco Exploration and Production Inc. ("Texaco"), is hereby authorized to institute an EOR tertiary recovery project by means of combined water, carbon Dioxide ("CO<sub>2</sub>"), and produced gas injection ("WAG") in its Central Vacuum Unit Area (approved by Division Order No. R-5496) comprising 3,046.2 acres, more or less, underlying the Following described lands in Lea County, New Mexico:

By Division Order R-5496, issued in Case 5970 and dated August 9, 1977, The Central Vacuum Unit was approved for an area comprising 3080 acres, more or less, of State and fee lands underlying the following described acreage:

#### TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 25: S/2, SE/4 NE/4

Section 36: All

#### TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM

Section 30: All

Section 31: N/2, SW/4, SW/4 SE/4

#### TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM

Section 12: N/2 NE/4

#### TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM

Section 6: All

Section 7: NW/4, NW/4 NE/4

by the injection of water, and carbon dioxide ("CO<sub>2</sub>"), and produced gases into the Grayburg and San Andres formations of the Vacuum Grayburg-San Andres Pool, through the correlative gross perforated and/or open hole interval between the depths of 3558 feet (plus 144 feet sub-sea) on the Welex Acoustic Log, run on November 15, 1963, in the Texaco State of New Mexico "O" (NCT-1) Well No. 23, located in the SW/4 SE/4 of Section 36, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico (Vacuum Glorieta West Unit Well No. 101) into 51 certain wells, all of which are existing, as shown on Exhibit "A", attached hereto and made a part hereof.

#### IT IS FURTHER ORDERED THAT:

- (2) Any previous injection authority not in conflict with the provisions set forth in this order shall remain in full force and effect.
- (3) WAG injection operations for the 51 subject injection wells shown on Exhibit "A" shall be accomplished through internally coated tubing installed with a packer set within approximately 100 feet of the uppermost injection perforations or casing shoe; the casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

- (4) The 51 WAG injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to not more than 1850 psig at the injection wellhead.
- (5) The Division Director shall retain the authority to administratively authorize a pressure limitation in excess of the above pressure limit upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.
- (6) The operator shall immediately notify the Supervisor of the Hobbs District Office of the Division of the failure of the casing in any of the injection wells, the leakage of water, natural gas CO<sub>2</sub>, or oil from or around any producing well, or the leakage of water, natural gas, CO<sub>2</sub>, or oil from any plugged and abandoned well within the proposed area, and shall take such steps as may be necessary to correct such failure of leakage.
- (7) A maximum surface injection pressure for water is hereby established at 1500 psig for those wells identified on Exhibit "B" attached hereto and made a part hereof.
- (8) The maximum surface injection pressure for CO<sub>2</sub> injection is hereby established for any CO<sub>2</sub> injection well in the EOR Project Area equal to 350 psig above the maximum surface injection pressure for water authorized by the Division.
- (9) The subject tertiary recovery/pressure maintenance project is hereby designated the Central Vacuum Unit Tertiary Recovery/ Pressure Maintenance Project and shall be governed by the provisions of Rules Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.
- (10) Monthly progress reports of the tertiary recovery/pressure maintenance project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.
- (11) The subject tertiary recovery/pressure maintenance project is hereby certified as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

- (12) The certified and approved "EOR Project Area" shall include those lands described in Finding 2 (C) above, provided however, the "EOR Project Area" eligible for the recovered oil tax rate may be reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.
- (13) To be eligible for the EOR credit, prior to commencing WAG injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.
- (14) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.
- (15) The injection authority granted herein for the 51 WAG injection wells shall terminate one year after the effective date of this order if the operator has not commenced WAG injection operations into these wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.
- (16) Jurisdiction is hereby 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

# EXHIBIT "A" CASE NO. 11650 ORDER NO. R-5530-E TEXACO EXPLORATION AND PRODUCTION INC. CENTRAL VACUUM UNIT TERTIARY/PRESSURE MAINTENANCE PROJECT INJECTION WELLS

| TEXACO CVU CO2 INJECTORS LOCATION |                      |         |        |       |             |  |
|-----------------------------------|----------------------|---------|--------|-------|-------------|--|
| WELL NO                           | FOOTAGE              | SECTION | TWNSHP | RANGE | API NUMBERS |  |
|                                   |                      |         |        |       |             |  |
| CVU #40                           | 42' FNL, 1247' FWL   | 36      | 17     | 34    | 3002525703  |  |
| CVU #41                           | 60' FNL, 2552' FWL   | 36      | 17     | 34    | 3002525704  |  |
| CVU #42                           | 32' FNL, 1286' FEL   | 36      | 17     | 34    | 3002525705  |  |
| CVU #43                           | 35' FNL, 127' FEL    | 36      | 17     | 34    | 3002525706  |  |
| CVU #44                           | 134' FNL, 1219' FWL  | 31      | 17     | 35    | 3002525719  |  |
| CVU #45                           | 121' FNL, 2475' FWL  | 31      | 17     | 35    | 3002525720  |  |
| CVU #46                           | 119' FNL, 1224' FEL  | 31      | 17     | 35    | 3002525818  |  |
| CVU #55                           | 1310' FNL, 1310' FWL | 36      | 17     | 34    | 3002525721  |  |
| CVU #56                           | 1310' FNL, 2630' FWL | 36      | 17     | 34    | 3002525722  |  |
| CVU #57                           | 1310' FNL, 1330' FEL | 36      | 17     | 34    | 3002525723  |  |
| CVU #58                           | 1310' FNL, 132' FEL  | 36      | 17     | 34    | 3002525724  |  |
| CVU #59                           | 1403' FNL, 1200' FWL | 31      | 17     | 35    | 3002525725  |  |
| CVU #60                           | 1310' FNL, 2535' FWL | 31      | 17     | 35    | 3002525707  |  |
| CVU #61                           | 1310' FNL, 1230' FEL | 31      | 17     | 35    | 3002525819  |  |
| CVU #70                           | 2630' FNL, 1310' FWL | 36      | 17     | 34    | 3002525726  |  |
| CVU #71                           | 2630' FNL, 2623' FEL | 36      | 17     | 34    | 3002525727  |  |
| CVU #72                           | 2630' FSL, 1330' FEL | 36      | 17     | 34    | 3002525697  |  |
| CVU #73                           | 2630' FNL, 142' FEL  | 36      | 17     | 34    | 3002525728  |  |

| CVU #74  | 2561' FSL, 1180' FWL | 31 | 17 | 35 | 3002525729 |
|----------|----------------------|----|----|----|------------|
| CVU #81  | 1332' FSL, 1310' FWL | 36 | 17 | 34 | 3002525708 |
| CVU #82  | 1333' FSL, 2528' FWL | 36 | 17 | 34 | 3002525730 |
| CVU #83  | 1330' FSL, 1330' FEL | 36 | 17 | 34 | 3002525731 |
| CVU #84  | 1333' FSL, 151' FEL  | 36 | 17 | 34 | 3002525732 |
| CVU #85  | 1336' FSL, 1201' FWL | 31 | 17 | 35 | 3002525709 |
| CVU #93  | 10' FSL, 1136 FWL    | 31 | 17 | 35 | 3002525733 |
| CVU #94  | 50' FSL, 2549' FEL   | 31 | 17 | 35 | 3002525734 |
| CVU #99  | 1408' FNL, 1211' FWL | 6  | 18 | 35 | 3002525710 |
| CVU #100 | 1372' FNL, 2544' FWL | 6  | 18 | 35 | 3002525711 |
| CVU #101 | 1410' FNL, 1336' FEL | 6  | 18 | 35 | 3002525712 |
| CVU #106 | 2520' FNL, 1040' FWL | 6  | 18 | 35 | 3002525796 |
| CVU #136 | 2450' FNL, 40' FWL   | 6  | 18 | 35 | 3002525997 |
| CVU #137 | 1100' FNL, 40' FWL   | 6  | 18 | 35 | 3002525998 |
| CVU #138 | 10' FSL, 70' FEL     | 36 | 17 | 34 | 3002525999 |
| CVU #139 | 85' FSL, 958' FEL    | 36 | 17 | 34 | 3002526078 |
| CVU #140 | 10' FSL, 2571' FWL   | 36 | 17 | 34 | 3002526000 |
| CVU #141 | 10' FSL, 1310' FWL   | 36 | 17 | 34 | 3002526001 |
| CVU #144 | 35' FNL, 1330' FEL   | 6  | 18 | 35 | 3002526788 |
| CVU #145 | 1310' FSL, 2475' FWL | 31 | 17 | 35 | 3002526789 |
| CVU #146 | 2465' FNL, 1335' FWL | 31 | 17 | 35 | 3002526790 |
| CVU #147 | 1310' FNL, 200' FEL  | 31 | 17 | 35 | 3002526791 |
| CVU #159 | 1310' FNL, 100' FWL  | 36 | 17 | 34 | 3002527969 |
| CVU #160 | 2602' FNL, 35' FWL   | 36 | 17 | 34 | 3002527970 |
| CVU #161 | 180' FSL 10' FWL     | 36 | 17 | 34 | 3002527971 |
| CVU #193 | 101' FNL, 534' FWL   | 6  | 18 | 35 | 3002532800 |
| CVU #194 | 14' FNL, 1917' FWL   | 6  | 18 | 35 | 3002538010 |

| CVU #199 | 1372' FNL, 584' FWL  | 6 | 18 | 35 | 3002532804 |
|----------|----------------------|---|----|----|------------|
| CVU #200 | 1301' FNL, 1875' FWL | 6 | 18 | 35 | 3002532805 |
| CVU #201 | 1360' FNL, 1973' FEL | 6 | 18 | 35 | 3002532806 |
| CVU #206 | 2509' FNL, 536' FWL  | 6 | 18 | 35 | 3002532808 |
| CVU #207 | 2500' FNL, 1825' FWL | 6 | 18 | 35 | 3002532809 |
| CVU #244 | 10' FNL, 1930' FEL   | 6 | 18 | 35 | 3002532810 |

# EXHIBIT "B" CASE 11650 ORDER NO. R-5530-E TEXACO EXPLORATION AND PRODUCTION INC. CENTRAL VACUUM UNIT TERTIARY/PRESSURE MAINTENANCE PROJECT SURFACE INJECTION PRESSURE LIMITATIONS SELECTED WELLS

| WELL NAME<br>AND NUMBER | API NUMBER | LOCATION    | SURFACE INJECTION<br>PRESSURE |
|-------------------------|------------|-------------|-------------------------------|
| CVU # 026               | 3002525814 | S25 T17 R34 | 1500 psig                     |
| CVU # 027               | 3002525815 | S25 T17 R34 | 1500 psig                     |
| CVU # 043               | 3002525706 | S36 T17 R34 | 1500 psig                     |
| CVU # 055               | 3002525721 | S36 T17 R34 | 1500 psig                     |
| CVU # 058               | 3002525724 | S36 T17 R34 | 1500 psig                     |
| CVU # 071               | 3002525727 | S36 T17 R34 | 1500 psig                     |
| CVU # 074               | 3002525729 | S31 T17 R35 | 1500 psig                     |