

REPORT OF SUB-COMMITTEE FOR SOUTH AREA

The assigned South Area for this subcommittee included Sections 1-12, T23S, R37E; the south half of Section 31, T22S, R37E; and portions of the Skelly Penrose "A" and "B" Units which extend into Sections 31, 32, 33, and 34, T22S, R37E. This subcommittee included representatives of Gulf Oil Corporations, Amerada-Hess, Agua, Inc., and Skelly Oil Company; with Skelly Oil Company serving as chairman.

We have reviewed (1) well schematics, (2) available data on all known wellbores in the study area, (3) available data on waterflows, (4) temperature surveys, (5) injection profiles, (6) bradenhead pressures, (7) remedial work performed. Based on this information we have formulated the following recommendations:

General Recommendations:

1. That bradenhead pressure surveys be required on all active wells within the study area. That an initial bradenhead pressure check be obtained on each well as soon as possible. That bradenhead pressures be routinely reported at quarterly intervals for one year, and semi-annually thereafter. That remedial operations be expeditiously performed on wells where waterflows are indicated.
2. That bradenhead pressure data be utilized to determine localized problem areas where additional information or surveys are required to determine scope of problem. Our review of the South Area indicates that problem is not blanket throughout the area at this time; but localized in scattered areas.
3. That injection profiles and temperature surveys be run on injection wells in indicated problem areas to monitor injected water movement. That temperature surveys be run on producing wells in indicated problem areas to monitor water movement behind the casing; unless the Commission approves exemption due to recent remedial cementing operations which are considered to have eliminated possibility of waterflow. That temperature surveys be run on any well, in an indicated problem area, where bradenhead pressure check is deemed inconclusive due to either a shallow casing leak repair operation or suspected bridge condition in the bradenhead annulus. That remedial operations be expeditiously performed on wells where waterflows behind pipe are indicated.
4. That plugged and abandoned wells located in indicated problem areas be re-entered and re-plugged in a manner to insure against water movement within the wellbore under waterflood conditions.
5. That injection into the Skelly Penrose "A" Unit be increased to 150% of withdrawal rates as soon as remedial work indicated in the "Recommendations on Specific Wells" Section for wells in the immediate area has been satisfactorily completed.

*South
Committee*

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
State EXHIBIT NO. <u>3</u>
CASE NO. <u>5403</u>

Recommendations on Specific Wells:

1. Skelly's Ellen Sims No. 6, Unit J, Section 3, T23S, R37E.
Plugged and abandoned well. Considered possibly inadequately plugged for confinement of injection water. Recommended well be re-entered and re-plugged. Work has been completed.
2. Skelly's Sims "D" No. 2, Unit F, Section 3, T23S, R37E. Plugged and abandoned well. Considered possibly inadequately plugged for confinement of injection water. Recommended well be re-entered and re-plugged. Work has been completed.
3. Skelly Penrose "A" Unit No. 28, Unit L, Section 3, 23S, R37E.
Indicated small waterflow on bradenhead. Recommended remedial work to eliminate. Work has been completed.
4. Skelly Penrose "B" Unit No. 53, Unit K, Section 9, T23S, R37E.
Indicated waterflow on bradenhead. Recommended remedial work to eliminate. Work has been completed.
5. Skelly Penrose "A" Unit No. 3, Unit I, Section 33, T22S, R37E.
Indicated casing leak and collapsed casing at 2488'. Leaks in upper interval 136'-793' were squeezed-off in July 1974. Recommended remedial work to eliminate casing leak. Work is now underway.
6. Skelly Penrose "A" Unit No. 14, Unit C, Section 3, T23S, R37E.
Indicated casing leak in upper 900'. Attempt to replace upper section of 7" casing was unsuccessful due to failure to dress off top of 7" casing. Shut down to locate 5" OD casing for full liner. Work is planned for near future.
7. Skelly Penrose "A" Unit No. 46, Unit B, Section 9, T23S, R37E.
Indicated waterflow on bradenhead. Recommended remedial work to eliminate. Work is planned for near future.
8. Skelly Penrose "A" Unit No. 48, Unit H, Section 9, T23S, R37E.
Indicated small waterflow on bradenhead. Recommended remedial work to eliminate. Work is planned for near future.
9. Skelly Penrose "A" Unit No. 23, Unit F, Section 3, T23S, R37E.
Indicated waterflow on bradenhead. Recommended remedial work to eliminate. Work is planned for near future.
10. Skelly's H. O. Sims No. 16, Unit M, Section 34, T22S, R37E.
Plugged and abandoned well. Considered possibly inadequately plugged for confinement of injection water. Recommended well be re-entered and re-plugged. Work is planned for near future.
11. Skelly's Sims "C" No. 1, Unit N, Section 3, T23S, R37E. Plugged and abandoned well. Considered possibly inadequately plugged for confinement of injection water. Recommended well be re-entered and re-plugged. Work is planned for near future.
- ~~12. Skelly's Sims "A" No. 1, Unit I, Section 10, T23S, R37E. Plugged and abandoned well. Data very incomplete. Offset on north and west by injection wells. Considered possibly inadequately plugged for confinement of injection water. Recommend that well be re-entered and re-plugged.~~
13. Intercoast's Citgo-State No. 1 (R. D. Sims Water Well), Unit E, Section 2, T23S, R37E. Plugged and abandoned Queen Sand well. Reportedly has 400' water sand open. Previously used as water well for stock by R. D. Sims until early in 1974. Very incomplete data available. Well considered possibly inadequately plugged to confine injection waters. Recommend well be re-plugged; either by Oil Commission, or by operators at Commission request.

14. Blair & Price's C.F.E. Fed. No. 1, Unit M, Section 1, T23S, R37E.
Plugged and abandoned well. Considered a potential problem well for the future, if waterflood is extended into north half of Section 2. P&A procedure considered adequate for present, since waterflow is not indicated to extend this far east. Recommend action be deferred until waterflood is extended into adjacent area, or problem area is extended into vicinity of the wellbore.

15. Gulf's Fred C. King No. 1, Unit E, Section 5, T23S, R37E.
Plugged and abandoned well. Well considered adequately plugged in lower intervals; but possibly inadequately plugged in upper 1500' section. Recommend monitoring of bradenhead pressures on surrounding wells; and re-plugging if problems develop. No pressure or waterflows indicated on surrounding wells on bradenhead pressure check.