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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 10, 1962

EXAMINER HEARING

IN THE MATTER OF:)

)
Application of Gulf Oil Corporation for a unit)
agreement and a secondary recovery project,)
Lea County, New Mexico. Applicant, in the)
above-styled cause, seeks approval of the) Case 2557
West Dollarhide Devonian Unit Agreement em-)
bracing 765.25 acres, more or less, of)
Federal and State lands in Townships 24 and)
25 South, Range 38 East, Lea County, New)
Mexico. Applicant further seeks permission)
to institute a secondary recovery project in)
the proposed West Dollarhide Devonian Unit)
Area by injection of water into the Devonian)
formation into certain wells located in said)
unit.)

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.
The next case will be 2557, application of Gulf Oil Corporation
for a unit agreement and a secondary recovery project, Lea
County, New Mexico.

MR. KASTLER: Bill Kastler from Roswell, appearing on
behalf of Gulf, and our witness is Mr. Vance M. Hendricks.



Will you please stand and be sworn?

(Witness sworn.)

VANCE HENDRICKS

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Please state your name, position and employer.

A Vance Hendricks, Petroleum Engineer for the Gulf Oil Corporation, Roswell, New Mexico.

Q Have you testified before the New Mexico Oil Conservation Commission previously?

A Yes, sir, I have.

MR. KASTLER: Are the witness's qualifications satisfactory, Mr. Nutter?

MR. NUTTER: Yes, sir, they are.

Q Are you familiar with the requests that are being made in connection with this case regarding the West Dollarhide Devonian Unit?

A Yes, sir.

Q Will you please tell us why the properties encompassed by the proposed West Dollarhide Devonian Unit are being unitized and as to the events that prompted the Unit's formation?



A Unitization of the New Mexico properties producing in the Dollarhide Devonian Pool and owned by Pan American Petroleum Corporation, Skelly Oil Company, Texaco Inc. and Gulf was prompted by the initiation of water injection into the Devonian formation in September, 1959 on offsetting leases in the Texas portion of the Dollarhide Devonian reservoir. The commencement of water injection followed the successful unitization of the North Dollarhide and Dollarhide Units by Cities Service and The Pure Oil Company, respectively. At the present time, all 136 Devonian wells in the Texas portion of the Devonian reservoir are under unitized operation and 26 of these wells have been converted to water injection wells. In view of these offsetting activities, the New Mexico operators met and through joint effort have formed the West Dollarhide Devonian Unit.

Q Have you prepared or caused to have been prepared a plat showing the boundary of the proposed West Dollarhide Devonian Unit?

A Yes, sir, I have. It is included in Exhibit No. 1 which we would like to submit.

(Whereupon, Gulf's Exhibit No. 1 was marked for identification.)

MR. NUTTER: Has this brochure been marked Gulf's Exhibit No. 1?



A Yes, it has.

Q Refer now to Figure 1.

A Figure No. 1 of Exhibit No. 1 is a plat of a portion of Southern Lea County relevant to this hearing. The plat shows all wells that have been drilled in the immediate area of the proposed West Dollarhide Devonian Unit. The proposed Unit boundary has been outlined in yellow. As can be seen, the Dollarhide Field is composed of the Queen, Drinkard, Fusselman, Devonian and Ellenburger reservoirs.

Q Do you have a plat showing only the Dollarhide Devonian Pool wells that are to be unitized?

A Yes. Figure No. 2 is an enlarged plat of the proposed unit and shows only the Devonian wells that are to be unitized. The plat also shows that the West Dollarhide Devonian Unit, when approved, will be contiguous with two existing waterflood units located in Andrews County, Texas. The northernmost of these is the North Dollarhide Unit operated by Cities Service Producing Company. The larger unit, which extends considerably further to the south than is shown on the plat, is operated by Pure and is designated as a Dollarhide Unit. Further explanation of Figure No. 2 will be presented later in the testimony.

Q What are the reservoir and fluid characteristics of the reservoir with particular reference to reservoir name, composition



of producing formation, geological structure, type of producing method, and the original reservoir pressure?

A The reservoir to be water flooded is the Devonian age formation which is comprised of two producing intervals. The Upper Devonian pay is a white to brown, fine to coarse crystalline limestone, having scattered intercrystalline porosity. The Lower Devonian section is a white to light buff weathered chert, having intergranular and solution type porosities. If you will refer to Figure No. 4 of Exhibit No. 1 you'll see a microlog obtained in Gulf's Leonard (NCT-G) No. 6, Unit C Sec. 4, Township 25 South, Range 38 East, which shows the upper and lower Devonian pay development.

The subsurface structure is a northwest-southeast trending anticline which dips about 450 miles on the north and east flanks --

Q 450 miles?

A 450 feet per mile on the north and east flanks of the anticline and approximately 1500 feet per mile on the south and west flanks.

The Devonian reservoir has and is producing by a solution gas drive mechanism. The original reservoir pressure was 3300 pounds.

Q Please describe the proposed project area, giving the number of productive acres in the Unit and the reservoir



characteristics.

A The proposed waterflood unit will be comprised of 765 acres, 671 acres of which are State lands and 94 acres are Federal lands. There is no privately owned land in the Unit. Pan American, Skelly, Texaco and Gulf are the only operators of leases that will be unitized. The proposed Unit will include all wells which are producing in the Dollarhide Devonian Pool of Lea County, New Mexico, with the exception of Elliott Federal No. 1, located -- you might turn to Exhibit No. 1, Figure No. 1, the Elliott well is located in Unit H of Section 31, Township 24 South, Range 38 East and is approximately one mile from the Unit boundary.

Q Would you describe Unit H as being within the southeast of the northeast quarter of Section 31?

A That is correct.

Q Thank you. Go on.

A The average depth to the top of the Devonian pay is 7800 feet. The Upper Devonian gross thickness is about 70 feet, while the Lower Devonian has about 40 feet of gross pay. The respective average effective thickness for the Upper and Lower intervals is 15 and 30 feet. The Upper Devonian has an average effective porosity of 8.1 per cent with an average permeability of 3 millidarcys. Similar data for the Lower Devonian are 17.2 per cent and 16 millidarcys. The Devonian crude has an API gravity of



about 36.5 degrees.

Q Do you have exhibits which show primary production history and present status of the Dollarhide Devonian Pool?

A Yes. I invite you to look at Figure No. 3. Figure No. 3 is a family of curves showing the performance of the pool since the first well was completed in April, 1952. The uppermost line is nothing more than a well count showing that most of the Unit's wells were drilled early in the life of the pool. At present, there are 17 producing Devonian wells in the area to be unitized. The next curve is a plot of the average reservoir pressure taken at a datum of 4700 feet subsea. The most recent pressure taken in May, 1961 is 718 pounds per square inch and represents the average pressure recorded in 6 flowing wells.

On the far right side of the figure and above bottom hole pressure curve is a plot of the pool's producing gas-oil ratio for the last three years.

The monthly oil production has been plotted for all the wells in the proposed Unit. This is tabulated in Table No. 1. The curve indicates that the oil production has steadily decreased for the past several years. Current monthly oil production for all the wells to be unitized was 6,267 barrels during February of this year. This monthly figure represents an average daily oil rate of 13.2 barrels per day per well. The reservoir is producing



in the late stage of depletion.

MR. NUTTER: Mr. Hendricks, the Elliott well is not included in this curve here?

A That is correct. Those are just the wells to be unitized, yes, sir.

MR. NUTTER: Thank you.

A The cumulative oil production as of March 1, 1962 for all wells in the proposed unit was 2,565,299 barrels. The lowermost plot is that of monthly water production. As can be seen, water production has averaged about 300 barrels per month. The February water production was 183 barrels per month or about 3 barrels per well per day.

Q What will be the source of injection water, type of water to be used, pattern and spacing anticipated, and other relevant matters regarding injection?

A Again, I invite you to look at Figure No. 2. Water to be injected will be obtained from source wells completed in the Santa Rosa formation on State Water Easements No. W-266 and W-267, located in Sections 32 and 33, Township 24 South, Range 38 East.

Q Do those two water leases encompass all of 32 and 33 and the north half of 5?

A That is correct.

Q Thank you.



A Based on capacity tests in nearby Santa Rosa wells, it is believed that 4 and possibly 5 source wells will be needed to provide the estimated 9,000 barrels of water that will be used.

The Santa Rosa water is believed to be brackish so we plan to adequately protect all exposed equipment so that the water system will be as corrosion proof as possible. Based on our knowledge of the Santa Rosa water, no treatment facilities are anticipated; however, if a water analysis subsequently indicates that treatment is needed, appropriate action will be taken at that time.

Referring again to Figure No. 2, it can be seen that the proposed injection pattern is that of an 80-acre five-spot. The proposed New Mexico pattern is merely a continuation of the existing pattern water flood offsetting the proposed Unit to the east. The wells circled in red are existing water injection wells while those circled in yellow are the proposed water injection wells in the West Dollarhide Devonian Unit.

An initial wellhead injection pressure of approximately 500 pounds per square inch is expected while the maximum anticipated will be in the neighborhood of 1500 to 2000 pounds per square inch. The planned rate of water injection is 1,000 barrels per well per day per injection well. Since the Unit consists of only fully developed 40-acre tracts, no further drilling is planned.

Q Do you have an exhibit showing the casing program of the



injection wells and what conclusions can you make from it?

A Yes, I have. Table No. 2 is the last two pages in the brochure and is a tabulation of the casing program existing in the 9 proposed injection wells. The tabulation shows the size, setting depth, amount of cement used, and the indicated cement top for all casing run.

Based on these data, it appears that all these wells are satisfactory cased and cemented to adequately protect the other producing horizons and shallow fresh water zones.

Q What results do you expect from the project?

A It is expected that the proposed water flood project will effectively result in increased oil recovery from the Devonian Age formation. It is believed that the proposed water flood will recover from 75 to 100 per cent of the reservoir's primary ultimate recovery. In terms of barrels, the increased recovery due to secondary recovery measures should be in the magnitude of 2 to 2.7 million barrels of oil.

Q What are the reasons for the project and what recommendations does Gulf have?

A The Dollarhide Devonian Pool produces by a solution gas drive mechanism and as a result a considerable quantity of oil will remain unrecovered at the end of primary depletion unless some type of fluid injection project is inaugurated to increase



the ultimate oil recovery.

Production from the wells in the proposed Unit Area has declined to an average daily oil production of about 13 barrels per well. At the existing rate of decline these wells have only a few years remaining to produce prior to depletion and abandonment. Therefore, in order to prolong the production life of these wells and to increase the ultimate recovery, some type of secondary recovery project should be inaugurated. The available data indicate that the Devonian formation underlying the proposed West Dollarhide Devonian Unit is susceptible to water flooding operations and that the proposed plan should increase ultimate recovery.

In view of the above considerations, Gulf, in association with Pan American, Skelly and Texaco, has concluded that the best course of action is the unitization of the 18 wells completed in the Dollarhide Devonian Pool as shown on Figure 2, so that a joint water flood project can be undertaken. In so doing, the entire Dollarhide Devonian Pool of New Mexico will be water flooded in conjunction with the full scale water flooding of the Texas properties producing from the same reservoir. Therefore, Gulf Oil Corporation, as the West Dollarhide Devonian Unit Operator, respectfully requests that the Oil Conservation Commission approve the installation of the proposed waterflood facilities.

Q Mr. Hendricks, I want to refer to the Unit Agreement,



and it's my understanding that at the time the application was made three copies of the Unit Agreement were sent to the Commission.

What is the basic form of this Unit Agreement?

A The Unit Agreement is that of a standard federal unit that is used widely in southeastern New Mexico.

Q Is it the same type of Unit Agreement that is used in other secondary recovery water flood projects?

A Yes, sir, that is my opinion, my understanding.

Q Has this Unit Agreement been accepted by the operators?

A It has.

Q Have the operators also accepted a joint operating agreement?

A They have, yes.

Q Do you have a list for introduction here as Exhibit No. 2 which shows the names and addresses of all operators and all other interested parties?

A Yes, we do, and it's Exhibit No. 2.

(Whereupon, Gulf's Exhibit No. 2 was marked for identification.)

Q What does the Unit Agreement provide as to the expansion of the Unit?

A There is a provision, Section 4 of the Unit Agreement, which provides for expansion. Any party that is not in the Unit

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at the present time may request being taken into the Unit by contacting the working interest owners, and more specifically, the Unit operator; at which time the Unit operator will circulate a notice to all the working interest owners setting out the basis for the admission, the Unit participation to be assigned, and other pertinent data, and if at least three working interest owners having an aggregate of 80% of Unit participation have agreed that such tract should come in, it will be accepted, a notice will then be prepared of the proposed expansion, and it will be delivered to the working interest owners, the Land Commissioner, and the Oil Conservation Commission.

Q Mr. Hendricks, in the event that there were any expansion, would Gulf, as the Unit operator, also comply with State Oil Conservation Commission rules and regulations?

A Certainly.

Q And particularly Rule 501, I believe it is?

A 701.

Q 701.

A Yes, we would.

Q Isn't it a matter of fact that all the lands contiguous to this Unit area are owned by parties who are otherwise members of the Unit?

A This is a fact.



Q So that the enlargement or expansion of the Unit would not necessarily encompass an expansion of any additional parties?

A That is correct.

Q To your knowledge has Gulf solicited a waiver or consent to this hearing from Mr. Frank Elliott, who owns a Devonian oil producing well which is not presently encompassed in this Unit?

A We did so solicit and, as I understand, it has been directed to the Oil Conservation Commission.

Q Mr. Hendricks, what might you say about the formula that has been adopted, providing for the tract participation?

A Yes. That is provided in the Unit Agreement. There is a split formula that has been adopted by all the working interest owners. There is a primary phase of operation and a secondary phase. The primary phase participation is based on 50% of a ratio of the primary reserves for each tract, all the tracts.

Q Is a tract a producing unit?

A That is correct. The other half of the primary formula is 50% of the ratio of the rate of production of the tract to the total production for the entire unitized area for the period from July 1st, 1960 to June 1st, 1961. The secondary phase participation is that of dedicated to 100% the ultimate primary recovery for each tract as determined by the Engineering Committee and adopted by the working interest owners.



Q In your opinion, does this formula provide for the protection of correlative rights?

A It does, yes, sir.

Q Mr. Hendricks, has the State Land Commissioner's office indicated that it has examined this Unit Agreement and has preliminarily, at least, approved it?

A Yes, that's true.

Q And the other royalty owner you testified is the United States?

A Yes.

Q Has the United States Geological Survey rendered its preliminary approval?

A They have.

Q Pending final approval upon submission of a fully executed copy of the Unit Agreement?

A That's correct.

Q There are no fee owners, royalty owners, is that correct?

A There are none.

Q Of the overriding royalty owners, how many have accepted?

A All but about three, and that is a very, very small interest.

Q Have any of the overriding royalty operators or owners written back and appeared antagonistic to the Unit?



A They have not.

Q Do you expect to get them all in a matter of time?

A Yes.

Q What about the operators owning oil and gas rights in the Unit? How many of them have approved and accepted the Unit?

A One hundred percent of the working interest owners have signed the Unit Agreement.

Q What is your proposed project area? Do you propose a pilot water flood?

A No. We propose, as outlined in our previous testimony, the area outlined in yellow on Figure No. 2 of Exhibit 1. It is described fully on page 3 of the Unit Agreement.

Q How many injection wells do you intend to start off with?

A Nine injection wells.

Q Nine injection wells. Therefore, you intend to have to transfer the allowables covering those nine wells?

A Yes.

Q How long do you calculate the period of fill up will be before you anticipate getting a kick?

A It will be in the vicinity of two years.

Q Was Exhibit No. 1 and all of the figures and tables contained therein prepared by you or at your direction and supervision?



A They were.

Q And Exhibit No. 2 contains a list which is a mailing list and check list and that is correct to the best of your information, knowledge and belief?

A That is correct.

MR. KASTLER: I would like to move for the admission of Exhibits 1 and 2 in evidence in this case.

MR. NUTTER: Gulf's Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Gulf's Exhibits Nos. 1 and 2 were admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Hendricks?

MR. MORRIS: Yes.

MR. NUTTER: Mr. Morris.

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Hendricks, could you tell me briefly what is transpiring across the line in Texas in the flood going on over there?

A Yes, to the best of my knowledge, as you see, there are two separate units, one, the North Dollarhide Unit and the Dollarhide Unit is operated by Pure. They have converted 22 wells, I speak of Pure, has converted 22 wells, and Cities Service has converted four.



MR. KASTLER: By converted --

A Producing Devonian wells to water injection wells. The four wells in the North Dollarhide Unit were placed on in September of 1959, and the northernmost, that being the Dollarhide Unit Wells No. Tract 991, Tract 850, Tract 746, Tract 534 and Tract 11, were placed on injection at the same time and continued under that pilot operation for a period of about a year and a half. The remaining wells in the Dollarhide Unit were put on water injection service approximately eight months ago.

Q With respect to the injection wells that are closest to the New Mexico line, are they at the present time injecting water into those wells?

A They are injecting water in the three wells adjacent to the state line, yes.

Q What rates of injection are they using in those wells?

A About 900 barrels per well per day.

Q So that would be fairly comparable to the thousand barrels a day that you estimate for the wells in New Mexico?

A Yes.

Q Do you know approximately the rates of production of oil from the wells in Texas immediately adjacent to the New Mexico line?

A The reports for production for wells in those units are



published in a C. D. Lockwood report in Texas, and they cumulate all those wells and just give one figure for the entire unit, so I can not specifically answer by well. However, the Texas Railroad Commission proration schedule gives us some indication as to the allowables that these wells have, and in the Cities Service Unit, that is the North Dollarhide Unit, the allowables, I will give you some as representative, if you like.

Q Yes.

A 20 barrels, 28 barrels, 63 barrels, 40 barrels, 25, others 29, 17, 38, 70.

Q Down on the Pure acreage do you have the figure for that well 106 or 110?

A Yes, I believe I do. That's Tract 10-106. That has an allowable of 20 barrels. The No. 12-110 has 17 barrels. This Tract 9-116, which would be one well removed from the state line has a 3-barrel allowable.

Q That's a per day allowable?

A That is a scheduled day allowable.

Q Right. Do you feel that the rates of production of the wells on the New Mexico side of the line, and immediately adjacent to the Texas line, will be sufficiently comparable to the rates of production on the Texas side so that the New Mexico Unit will be protecting its own correlative rights, so-to-speak?



A At the present time or in the immediate future?

Q Both, if you will.

A At the present time, yes. I think that further study is going to have to be made, especially in the area of when a response occurs, so I would rather not speculate as to what might be the case in the future.

Q Have any of the wells on the New Mexico side received any response from the water injection on the Texas side?

A There are no known responses in the New Mexico wells, and the only response that has been shown in the Texas wells are very slight increases in bottom hole pressure. There has been no increase in production.

Q How long have they been injecting water into the injection wells immediately adjacent to the line?

A To my knowledge, it's been about eight months.

Q So you would estimate another year before you would get a fill up?

A At least that, yes.

MR. MORRIS: I believe that's all I have, thank you.

BY MR. NUTTER:

Q What is the total production in this unit area through 1960?

A Through 1960?



Q Through '60. I believe your participation formula is based on primary production through '60.

A Yes.

Q And then remaining primary of January 1st, 1961?

A The cumulative oil production for all the wells in the proposed unit as of 1-1-61, 2,458,809 barrels.

Q I believe your Unit Agreement participation formula determines that there are 276,576 barrels remaining of primary production?

A After that date 1-1-61.

Q Yes, sir. How much has been produced since 1-1-61, do you have any idea?

A May I tell you how much is remaining?

Q Yes. A 170,000.

Q So, the difference between 170,000 and 276,000 was what was produced in early '61 and the early part of '62?

A Yes, sir.

Q How was the 276,000 barrels of remaining primary arrived at, is that a, was that determined from production decline curves for individual wells?

A It was determined from production decline curves for each operator, extrapolated on log rate versus time curve by the Engineering Committee.



Q That was a decline curve for each operator rather than for each lease or each well?

A That is correct.

Q I don't know if you gave any estimate or not as to the expected recovery as the result of water injection.

A Yes, sir. We are anticipating 75 to 100% of the Unit primary ultimate, which in terms of barrels would be between 2 and 2.7 million barrels.

Q What was the initial bottom hole pressure, Mr. Hendricks?

A In the Texas portion of the reservoir it was 3300 pounds. The initial pressure in the New Mexico completion was 2,000 pounds.

Q And you stated that you had 15 feet of pay in the upper part of the Devonian and 30 feet of pay in the lower part?

A Yes, sir, these are effective figures.

Q Does each well have perforations or open hole completions in each of these two pays?

A No, some of them are completed in open hole both upper and lower sections, some are completed in perforations upper and lower, and some are completed in just the upper.

Q So all the wells don't have both zones?

A That is correct.

Q How about the injection wells, do they all have both zones open?



A All but one.

Q Is this one well that doesn't have injection perforations in both zones located in a place where it's going to be necessary, is it located in such a position that you can efficiently flood any offsetting well that does have production in both zones?

A Yes. We feel that it is. It's the Penny Federal No. 2, which is located in the Northwest of the Southwest of Section 4.

Q That injection well has only one zone, is that correct?

A Perforated, yes, sir.

Q How about the well to the west of it, does it have both zones?

A It has the upper and lower both perforated, yes, sir.

Q And which does the Penny No. 2 have?

A It has the upper perforations only.

Q So you wouldn't be flooding the lower in the Penny Federal No. 1, will you?

A It is our intent to perforate the lower section and flood the lower section.

Q So that the No. 2 well will have perforations of both sections?

A Yes, it will have.

Q What was the pilot area again in the Dollarhide Unit?

A Yes. That is shown on Figure 2. It is the row of wells



in the North Dollarhide Unit, there's just the one row. Then it's the northernmost row, or the offsetting row of the Dollarhide Unit. The top two rows where those were placed on injection in 1959.

Q You mean the four wells in the North Dollarhide Unit and the uppermost five wells in the Dollarhide Unit?

A Let me correct that. The uppermost four and the second row starting with No. 50, the state line well was not on injection until approximately eight months ago. In other words, it would be Well No. 50, 46, 34 and 1 in the Dollarhide Unit.

Q And then in the North Dollarhide, the number?

A 5, 1, 1 and 2. They have different tract numbers.

Q And that was the original pilot area?

A Yes, sir.

Q Have wells directly offsetting them been the ones that had the increase in pressure?

A Very slight.

Q But no response as far as production is concerned?

A No response, and the GOR behavior has been erratic, as it was reported to me. The Pure representative stated in a telephone conversation that they are anticipating a response sometime in the summer months.

Q Has the Commissioner of Public Lands for the State of



New Mexico given tentative approval to this Unit Agreement, including the participation formula?

A Yes, sir, it has.

Q One other thing, I missed the permeability in the upper section of the pay.

A Yes. Three millidarcys in the upper.

MR. NUTTER: Any further questions of Mr. Hendricks?

Mr. Gray.

MR. GRAY: Mr. Examiner, I would like to ask Mr. Hendricks about Table 2, injection well program.

BY MR. GRAY:

Q Will the Santa Rosa be injected down the five and a half inch production string, or you mentioned over on page 2 some corrosion-proof injection system?

A Yes, it is our intent to use plastic coated tubing inside the oil string and then inject below a packer into the Devonian.

Q Do you have a detail showing approximately where the packer would be set, or will it just be at the Devonian?

A No, it will be set between the upper section and the lower section, as it is our intent to water flood the lower section and meeting what is being done in Texas, and then if that proves to be satisfactory and response occurs, then we will consider



water flooding the Upper Devonian section.

MR. NUTTER: So you wouldn't be flooding both sections to start with?

A No.

MR. NUTTER: Now, this estimate of secondary recovery, is that for both sections?

A That's for both sections, yes, sir.

MR. NUTTER: But at the present time the injection is in the lower bench in Texas?

A Yes.

MR. NUTTER: And you are going to try that first before trying the upper bench?

A Yes, and cooperate with Pure.

MR. NUTTER: Of course, this primary is both benches?

A Yes.

MR. NUTTER: I am sorry, Mr. Gray.

MR. GRAY: I think that pretty well covers it.

MR. NUTTER: At any rate, for the time being, all injection will be down plastic coated tubing under a packer?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Hendricks? He may be excused.

(Witness excused.)



MR. NUTTER: Do you have anything further, Mr. Kastler?

MR. KASTLER: I was to mention some concurrences, but we only have copies of them. I believe the Commission has received the regular ones, so I yield.

MR. MORRIS: Mr. Examiner, the Commission has received concurrences from Skelly Oil Company and Elliott.

MR. NUTTER: Mr. Buell.

MR. BUELL: May it please the Examiner, Pan American has a working interest over in this Unit, and as such, we have been associated closely with Gulf in the developing of this program. In our opinion it is a significant conservation effort and we urge the Commission to approve, one, the Unit Agreement, as well as the proposed secondary recovery program.

MR. NUTTER: Anything else? We will take the case under advisement. The hearing is adjourned.



