

Approved by  
Board 2-3-78  
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STATE OIL AND GAS BOARD OF ALABAMA

Tuscaloosa, Alabama

December 15, 1977

Testimony and proceedings before the State Oil and Gas Board of Alabama, in the Board Room of the State Oil and Gas Board Building, University Campus, Tuscaloosa, Alabama, pursuant to adjournment, on this the 15th day of December, 1977.

BEFORE:

BOARD MEMBERS

Dr. Ralph Adams..... Chairman  
Mr. Gaines C. McCorquodale..... Associate Member  
Dr. David Mathews..... Associate Member

BOARD STAFF

Mr. Thomas J. Joiner(absent).....Secretary & Supervisor  
Mr. Kendall Hanby.....Assistant Supervisor  
Mr. Richard Raymond..... Petroleum Engineer  
Mr. Phil Meadows..... Geologist  
Mr. Alan Cockrell..... Geologist  
Mr. Jay Masingill..... Geologist  
Mr. Charles Freeman..... Attorney

(Reported by Jean W. Smith)

APPEARANCES

	<u>NAME</u>	<u>REPRESENTING</u>
1.	Tom Watson Tuscaloosa, Alabama	Southland, Sun, Warrior
2.	Ron Avery Birmingham, Alabama	Alabama Gas Corporation
3.	Duncan Hamilton Birmingham, Alabama	Alabama Gas Corporation
4.	Hugh Craig Forshner New Orleans, Louisiana	Amoco Production Company
5.	Joe M. Van Auken Lafayette, Louisiana	Union Texas Petroleum
6.	W. Wadley Blackman Jr. Lafayette, Louisiana	Union Texas Petroleum
7.	Raymond P. Karpovich Lafayette, Louisiana	Union Texas Petroleum
8.	Bailey Powell Jackson, Mississippi	Union Texas Petroleum
9.	John Womack Lafayette, Louisiana	Union Texas Petroleum
10.	James T. Brannan Houston, Texas	Sun Oil Company
11.	Susan E. Phillips Houston, Texas	Sun Gas Company
12.	Steven F. Harrison Tuscaloosa, Alabama	Not listed
13.	James J. Sledge Tuscaloosa, Alabama	Warrior Drilling
14.	Doug Behm Tuscaloosa, Alabama	Warrior Drilling

APPEARANCES  
(Contd.)

	NAME	REPRESENTING
15.	Roy E. Wood Oklahoma City, Oklahoma	Terra Resources, Inc.
16.	Rae M. Crowe Mobile, Alabama.	Terra Resources, Inc.
17.	James D. Turner Mobile, Alabama	Oil and Gas Board
18.	W. W. Beckett Bruce, Mississippi	Independent
19.	C. G. Hutcherson Mobile, Alabama	Union Oil Co. of California
20.	L. C. Boney, Sr. Gilbertown, Alabama	Self
21.	John Johnson Montgomery, Alabama	Alabama Petroleum Council
22.	Leon Slay Brewton, Alabama	Oil and Gas Board
23.	Dan McKenzie Citronelle, Alabama	Oil and Gas Board
24.	Charles Zuppan Houston, Texas	Southland Royalty Company
25.	Robert B. Walters Houston, Texas	Southland Royalty Company
26.	Arnold Woodard Fayette, Alabama	Landowner
27.	Jack Truitt New Orleans, Louisiana	Getty Oil Company
28.	Ted Meade New Orleans, Louisiana	Getty Oil Company
29.	Wilbur H. Knight Jackson, Mississippi	Gibraltar Gas Corporation

### PROCEEDINGS

(The hearing was convened at 10:23 A.M. on Thursday, December 15, 1977, at 10:23 A.M.)

CHMN. ADAMS: Let the meeting come to order. Mr. Supervisor, has this meeting been properly advertised.

MR. HANBY: Mr. Chairman, it has, and I will transmit a copy of the notice to the recording secretary.

### NOTICE OF MEETING

"The State Oil and Gas Board will hold its regular monthly meeting on Friday, December 2, 1977, at 10 A.M. in the Board Room of the State Oil and Gas Board Building, University Campus, Tuscaloosa, Alabama, to consider, among other items of business, the following petitions:

"1. DOCKET NO. 7-8-773

Continued petition by Gibraltar Gas Corporation, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to reform a drilling unit in Lamar County, Alabama, in the Lower Nason and Lewis Formations, Petitioner alleging that Petitioner is the operator of the Gibraltar Gas Corp-



oration No. 1 Day well, located in the SE/4 of the NE/4 of Section 12, Township 16 South, Range 16 West, Lamar County, Alabama, and that said well has been drilled and completed as a gas well in the Lower Nason and Lewis Formations and Petitioner alleges that the drilling of the said well has revealed certain geological data which warrants the reformation of the said well and Petitioner further requests that the said well be reformed to consist of the North Half of Section 12, Township 16 South, Range 16 West, in the Lower Nason and Lewis Formations, Lamar County, Alabama, in the Star Field.

"2. DOCKET NO. 7-8-774

Continued petition by Gibraltar Gas Corporation, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to reform a drilling unit in Lamar County, Alabama, in the Upper Nason Formation and Petitioner alleges that Petitioner is the operator of the Gibraltar Gas Corporation No. 1 Cole Well, located in the NW/4 of the SE/4 of

Section 12, Township 16 South, Range 16 West, Lamar County, Alabama, that said well has been drilled and completed as a gas well in the Upper Nason Formation and that the drilling of the said well has revealed certain geologic data which warrants the reformation of the said well and Petitioner requests that the aforesaid well be reformed to consist of the South 1/2 of Section 12, Township 16 South, Range 16 West, in the Upper Nason Formation, Lamar County, Alabama, in the Star Field.

"3. DOCKET NO. 11-4-774A

Continued petition, as amended, by Warrior Drilling and Engineering Co., Inc. a domestic corporation doing business in the State of Alabama, requesting the Board to enter an order amending the Special Field Rules for the Carter Sand Gas Pool and the Lewis Sand Gas Pool of the West Fayette Field, Fayette County, Alabama, by establishing a permanent allowable for gas production from the wells in said field.

"Prior to the filing of this petition, Petitioner

filed its petition bearing Docket No. 10-7-7746 requesting the above in the form of an emergency order and, on the 7th day of October, 1977, the Board granted such request by Order No. E-77-181.

"4. DOCKET NO. 12-2-772

Petition by Gibraltar Gas Corporation, a foreign corporation, but authorized to do and doing business in the State of Alabama, asking for an order of this Board force integrating lands and interests in the South One-Half of Section 12, Township 16 South, Range 16 West, Lamar County, Alabama, in the Star Field, into and establishing those interests as a gas drilling and producing unit or units; approving the location of gas wells thereon; requiring all other owners or claimants of royalty, mineral, leasehold and all other oil and gas interests within said gas drilling unit or units to integrate their interests and to develop their lands as a drilling unit; and designating and approving Petitioner as the operator of the gas well or wells drilled within said drilling unit or units; all pursuant to the rules of this Board.

"5. DOCKET NO. 12-2-773

Petition by Allied Chemical Corporation, Union Texas Petroleum Division, a New York corporation, authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order establishing the East Half of Section 9, and the West Half of Section 10, Township 6 South, Range 3 East, Baldwin County, Alabama, into a 640-acre drilling unit; requesting the forced integration of all separately owned tracts and interests in said 640-acre drilling unit and requesting the designation of Petitioner as the operator of said unit.

"6. DOCKET NO. 12-2-774

Petition by Gibraltar Gas Corporation, a foreign corporation, authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to allow it to dually complete and operate the Morris Cole No. 1 Gas Well, Permit No. 2374, located in the Southeast Quarter of the Southeast Quarter of Section 12, Township 16 South, Range 16 West, Lamar County, Alabama, in the Lewis and Carter Gas Pools, all pursuant to Rule 5 of the Special Field Rules for the Star Field, Lamar County, Alabama.

"7. DOCKET NO. 12-2-775

Petition by Sun Oil Company, (Delaware) a foreign corporation authorized to do and doing business in the State of Alabama, requesting an order by the Board allowing petitioner to construct and operate a gas processing facility located in the SW/4 of the NE/4 of Section 22, Township 1 South, Range 2 North, Mobile County, Alabama, in the Chunchula Field.

"8. DOCKET NO. 12-2-776

Petition of Warrior Drilling & Engineering Co., Inc., a domestic corporation, qualified and doing business in the State of Alabama, to amend the field rules for the Bankston Field, Fayette County, Alabama, so as to enlarge the area comprising the field, and to establish Special Field Rules for the Fayette Sand Gas Pool in said field, said Field Rules, as amended, to further include all of Sections 31, 32, 33, 34, 35, and 36, Township 15 South, Range 11 West, and Sections 1 through 18, Township 16 South, Range 11 West, Fayette County, Alabama, as a part of said field.

"9. DOCKET NO. 12-2-777

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order reforming the following described gas units in the proposed Bankston Field, underlain by the Fayette Gas Sand and/or the Carter Gas Sand:

The Cleveland Lumber Company 15-1 Well, Permit No. 2206, located 450 feet South of the North Line and 500 feet West of the East line in the Northeast Quarter of the Northeast Quarter, Section 15, Township 16 South, Range 11 West, said 320-acre gas unit to consist of the North Half of Section 15, Township 16 South, Range 11 West, Fayette County, Alabama.

The Louie Hodges-Bankston Community Center No. 1 Well, Permit No. 2175, located 330 feet South of the North line and 330 feet West of East line in the Southwest Quarter of the Northwest Quarter. Section 10, Township 16 South, Range 11 West, said 320-acre gas unit to consist of the West Half of Section 10, Township 16 South, Range 11 West, Fayette County, Alabama.

"10. DOCKET NO. 12-2-778

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the State Oil and Gas Board

to enter an order approving the present location of two wells as exceptions to the proposed Special Field Rules for the Bankston Field, Fayette County, Alabama, said wells located as follows:

The Warrior Drilling & Engineering Co., Inc., Louie Hodges-Bankston Community Center No. 1 Well, Permit No. 2175, located 330 feet South of the North line and 330 feet West of the East line, in the Southwest Quarter of the Northwest Quarter, Section 10, Township 16 South, Range 11 West, Fayette County, Alabama.

The Warrior Drilling & Engineering Co., Inc., Cleveland Lumber Company 15-1, Permit No. 2206, located 450 feet South of the North line and 500 feet West of the East line in the Northeast Quarter of the Northeast Quarter, Section 15, Township 16 South, Range 11 West, Fayette County, Alabama.

"11. DOCKET NO. 12-2-779

Petition by Midroc Oil Company, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order force pooling tracts and interests in a unit composed of the South 30 acres of the SE/4 of the NW/4 and the North 10 acres of the NE/4 of the SW/4, all in Township 11 North, Range 3 West, Choctaw County, Alabama, said unit consisting of 40 contiguous acres.

"12. DOCKET NO. 12-2-7710

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the Board to enter an order amending the Special Field Rules for the Wiley Dome Field, Tuscaloosa County, Alabama, by adding thereto the upper Mississippian Carbonate Gas Pool; and further, Petitioner would request permission for dual completions in said field in accordance with the Special Field Rules as amended. The Upper Mississippian Carbonate Gas Pool is to be defined as that interval between 3174 feet to 3677 feet.

"13. DOCKET NO. 12-2-7711

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, to reform a drilling unit in the Lower Parkwood Sand Gas Pool of the Wiley Dome Field as follows:

The drilling unit for the Warrior Drilling & Engineering Co., Inc., Friedman-Holman 35-3 Well, Permit No. 2035, or any subsequent replacement well located thereon, to consist of the West Half of Section 35, Township 17 South, Range 9 West, Tuscaloosa County, Alabama.



"14. DOCKET NO. 12-2-7712

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the Board to enter an order force integrating the mineral interest owned by the United States in the East Half of Section 34, Township 17 South, Range 9 West, Tuscaloosa County, Alabama, in the Wiley Dome Field.

Prior to the filing of the above petition, Petitioner filed its petition bearing Docket No. 11-4-7714 requesting the above in the form of an emergency order and, on the 4th day of November, 1977, the Board granted such relief, subject to certain conditions, by Order No. E-77-232.

"15. DOCKET NO. 12-2-7713

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the Board to enter an order approving the present location of the Wiley 34-10 Well, Permit No. 1148-A, located 473 feet EWL and 605 feet NSL, NW/4

of SE/4, Section 34, Township 17 South, Range 9 West, Tuscaloosa County, as an exception to the Special Field Rules for the Lower Parkwood Sand Gas Pool of the Wiley Dome Field.

Prior to the filing of this petition, Petitioner filed its petition bearing Docket No. 12-2-771 requesting the above in the form of an emergency order and the Board, at the time this notice was submitted to the press for publication, had not yet ruled on such request.

"16. DOCKET NO. 12-2-7714

Petition by Warrior Drilling & Engineering Co., Inc., a domestic corporation doing business in the State of Alabama, requesting the Board to enter an order approving the present location of the Friedman-Holman 35-3 Well, Permit No. 2035, located 330 feet NSL and 330 feet WEL, NE/4 of NW/4, Section 35, Township 17 South, Range 9 West, Tuscaloosa County, Alabama, as an exception to the Special Field Rules for the Lower Parkwood Sand Gas Pool of the Wiley Dome Field.

"17. DOCKET NO. 12-2-7715

Petition by Southland Royalty Company, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to approve the following gas units as productive extensions of the Beaverton Field, Lamar County, Alabama.

1. Lee Mixon 12-3 No. 1 Well (Permit No. 2402), located 700 feet FNL and 2490 feet FWL Section 12, Township 13 South, Range 15 West, said well completed in the Carter Sand Gas Pool in an interval between 2062 and 2076 feet. Petitioner requests the North Half of Section 12 as the gas unit, consisting of 320 contiguous acres.
2. Frank Gibson 12-10 Well No. 1 (Permit No. 2432), located 1980 feet FEL and 1930 feet FSL Section 12, Township 13 South, Range 15 West, said well completed in the Carter Sand Gas Pool in an interval between 2130 and 2136 feet. Petitioner requests the South Half of Section 12 as the gas unit, consisting of 320 contiguous acres.
3. D. J. Loggins 4-9 Well No. 1 (Permit No. 2432), located 800 feet FEL and 1600 feet FSL Section 4, Township 13 South, Range 15 West, said well completed in the Lewis Sand Gas Pool in an interval between 2413 feet and 2432 feet. Petitioner requests the South Half of Section 4 as the gas unit, consisting of 320 contiguous acres.

"Petitions before the State Oil and Gas Board of Alabama must be represented in person by the Petitioner or his duly authorized agent. In the absence of such representation, the petition before the Board shall be subject to dismissal. Petitioners are advised to closely review the new rules of practice and procedure of the Board. Additionally, Petitioners are referred to Rule L-12 which concerns the preparation of notices. This rule requires that a proposed notice be filed along with each petition filed with the Board. Additionally, Petitioners are referred to Rule L-14, which, among other things, concerns the identification of exhibits and the number of such exhibits required. Petitioners are also referred to Rule L-21 concerning the preparation of proposed orders, which is required of each Petitioner. Petitioners are advised that Rule L-5, concerning the form and content of pleadings, requires that the 'identification of any well or wells named in the petition shall include the permit number assigned to each such well by the Board.'

"Meetings of the Board are generally scheduled for the first Friday following the first Thursday of each month.

Accordingly, Petitioners are advised that in order to have a petition advertised and heard for any particular meeting such petition should be filed with the Board on the last Thursday before 21 days prior to such meeting. Therefore, it will generally be necessary that petitions be filed by the Thursday following a meeting in order to be heard for the next succeeding meeting.

"The Board was established by Act No. 1 of the Legislature of Alabama in the Regular Session of 1945, an act that became effective May 22, 1945, the same now appearing in Title 26, Chapter 3, Code of Alabama (1940) (Recomp. 1958), as last amended.

"The public is invited to attend this meeting.

"Thomas J. Joiner

Acting Secretary to the Board

Acting State Oil and Gas Supervisor"

CHMN. ADAMS: Because the new Supervisor is under the weather to some extent, Mr. Ken Hanby, who is the Assistant Supervisor, will be in charge at this time.

MR. HANBY: Mr. Chairman, according to our past procedures,

we will sound the docket. With the docket we will divide it into three categories. The first, noncontested items less than 15 minutes, noncontested items greater than 15 minutes, and contested items. When I call the docket number or the item number, the representative of the company please stand up and give the time and if anyone opposes it, so state. Item No. 1.

MR. BROOKER: I'm Norton Brooker on behalf of Gibraltar Gas. In connection with Docket Nos. 1, 2, 3, and 6, we would ask that they be consolidated and there will be opposition.

MR. HANBY: There will be opposition. O.K., sir. Item No. 4, petition by Warrior.

MR. WATSON: Fifteen minutes or less.

MR. CROWE: I'm Rae Crowe representing an interested party and we would plan to move to continue this item at the appropriate time and to oppose it.

MR. HANBY: All right. Item 4, opposed. Item 5, petition by Allied Chemical Corporation.

MR. JORDEN: Allied will be unopposed and less than 15 minutes.

MR. HANBY: Item 7, petition by Sun Oil Company.

MR. WATSON: Fifteen minutes or less.

MR. HANBY: Item 8, petition by Warrior.

MR. SLEDGE: Items 8, 9, and 10 will be 15 minutes or less.

MR. HANBY: Items 8, 9, and 10, 15 minutes or less. Is there any opposition to Items 8, 9, or 10? (No response) Item 11, petition by Midroc.

MR. WATSON: Fifteen minutes or less.

MR. HANBY: Any opposition? (No response) Item 12, petition by Warrior.

MR. WATSON; Items 12, 13, 14, 15, and 16 should take 15 minutes or less.

MR. HANBY: Is there any opposition to 12 through 16? (No response) Item 17, petition by Southland Royalty Company.

MR. WATSON: Fifteen minutes or less.

MR. HANBY: O.K. Mr. Chairman, we will start with Item 5, Docket 12-2-773, petition by Allied Chemical Corporation. Will the Petitioner please come forward?

MR. FREEMAN: Let me clarify one point. Mr. Reams, do you usually refer to this as Allied Chemical or Union Texas Petroleum or what is the situation there?

MR. REAMS: The correct name is Allied Chemical, Union Texas Petroleum Division. Allied Chemical is the corporation and Union Texas is not a separate corporation.

MR. FREEMAN: Allied Chemical is the corporate entity

then, and Union Texas Petroleum is simply a division of that corporation?

MR. REAMS: That is right. I have one witness and another in reserve if needed.

MR. FREEMAN: Do you want to go ahead and swear the other witness just in case?

MR. REAMS: Ray. Just swear them in.

MR. HANBY: Would you state your name for the record?

MR. VAN AUKEN: Joe Van Auken.

MR. KARPOVICH: Raymond Karopvich.

MR. HANBY: Do you need the spelling on that?

RECORDING SECRETARY: I need both the last names please.

MR. REAMS: Here are the qualifications.

RECORDING SECRETARY: Thank you.

(Witnesses were duly sworn by Mr. Hanby)

MR. REAMS: This is a petition, if the Board please, for a forced integration of a section for the drilling of a wildcat well near the town of Silverhill in south Baldwin County, Alabama, and we have requested that the 640 acres be made up of the East Half of Section 9 and the West Half of Section 10, and Mr. Van Auken is the landman and will be the witness that we will use on this.



JOE VAN AUKEN

Appearing as a witness on behalf of Petitioner, Allied Chemical Corporation, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Reams:

Q Please state your name and your address.

A Joe Van Auker, Lafayette, Louisiana.

Q By whom are you employed and in what capacity?

A By Union Texas Petroleum as a landman.

Q Is the State of Alabama included in your area of responsibility as a landman for Union?

A Yes, sir, it is.

Q Have you testified before the Board on any previous occasion as a landman?

A No, I haven't.

Q What educational background do you have as a landman?

A A degree in petroleum land management from the University of Oklahoma.

Q Have you had any additional education in this field?

A I attended a course at the Oklahoma Continuing Education Center in September 1974 and also a course at the SMU

Law Institute, completed in January of 1976.

Q When did you graduate from the University of Oklahoma?

A January of 1970.

Q What work experience have you had as a landman?

A Four years with Amoco Production Company in Denver, working the Rocky Mountain area, two years with Amerada Hess working the Gulf Coast, including Alabama, two years with Union Texas working the Gulf Coast, including Alabama.

MR. REAMS: At this time we would move the Board to accept Mr. Van Auken as an expert witness as a petroleum landman.

CHMN. ADAMS: He is accepted as an expert witness.

Q Mr. Van Auken, are you familiar with an application that was filed by Allied Chemical Corporation, Union Texas Petroleum Division, seeking to obtain the forced integration of all interests in the East Half of Section 9 and the West Half of Section 10 of Township 6 South, Range 3 East, Baldwin County, as a unit?

A Yes, I am.

Q Are you familiar with the title to the land in these sections as to which the forced integration is sought?

A Yes, I am.

Q Have you caused abstracts of title to be prepared and examined?

A Yes, abstracts were prepared by Title Insurance Company of Mobile and were examined by Mr. B. H. Roberts of the Pillans-Reams law firm.

Q Is the testimony which you give about the title within the proposed unit based upon these abstracts and that examination?

A Yes.

Q Have you prepared or had prepared under your supervision any exhibits for this hearing?

A Yes, I have prepared one exhibit which shows the approximate 640 acres involved in the proposed unit and the proposed area in the unit.

Q Does the exhibit correctly and accurately portray all matters shown thereon?

A Yes, it does.

MR. REAMS: We would like to introduce for identification as Petitioner's Exhibit 1 the exhibit which the witness has just described.

Q Mr. Van Auken, would you please explain what is shown on Petitioner's Exhibit 1?

A It shows the East Half of Section 9 and the West Half of Section 10 in Township 6 South, Range 3 East, Baldwin

County, Alabama, and the exhibit shows the proposed location for the drilling of the test well by Union Texas near the southwest corner of the SW/4 of NW/4 of Section 10.

Q Are there owners of any parcels, mineral interests, or drilling rights within this proposed drilling unit who have not agreed to integrate their interests with those of Union Texas?

A Yes, there are. In the northwest corner of Section 10, there is approximately a one-acre parcel which is leased to an owner who has not agreed to deal with Union Texas, and in the NW SW of Section 10, there are approximately 15 owners of undivided leasehold interests totaling approximately 20 acres with whom Union Texas has been unable to work out an agreement, and there are 20 acres in the SW SW of 10 and another 20 acres in the NE SE jointly owned by three lessees with whom we have been unable to work out an agreement. There is another approximate 3 acres undivided leasehold interest in the SE/4 of Section 9 which is owned by about 5 persons with whom we have not been able to make an agreement.

Q Have you made a diligent effort to work out an agreement with all of these owners?

A Yes, we have.

Q Have you offered or do you stand ready to offer these owners who have not made an agreement with Union Texas as favorable a deal as you offered the other owners in the proposed unit who did agree to deal with Union Texas?

A Yes, we have.

Q Do you think you will be able to work out trades with the remaining owners who have not traded to date?

A No, not all of them. Some of these owners have finally rejected our offers to reach an agreement.

MR. REAMS: Mr. Chairman, we move that the Petitioner's Exhibit 1 be accepted into evidence.

CHMN. ADAMS: It's accepted into evidence.

(Whereupon, Exhibit No. 1 was  
received in evidence to the  
testimony of Joe Van Auken)

Q Mr. Van Auken, does Union Texas have firm plans for the commencement of drilling on this unit?

A Yes, depending on rig availability.

Q When do you anticipate that a rig will be available to use in the drilling of the unit?

A Union Texas has contracted for the Delta 76 rig which we anticipate will be available for drilling this well

sometime between now and the end of January, 1978. This rig is also the largest land rig in the United States.

Q Approximately what depth do you expect to drill the well? You mentioned the size of the rig.

A 19 to 20,000 feet.

CHMN. ADAMS: What is the size?

MR. VAN AUKEN: I'm not familiar with the rig. It is the largest in the United States.

CHMN. ADAMS: You know it's the largest but you don't know how large that is?

MR. VAN AUKEN: No, sir, I sure don't.

MR. REAMS: We understand it takes 60 trucks to move it.

Q Why did Union Texas select this particular well location and having selected this particular well location, why did Union Texas propose the drilling unit as shown on Exhibit 1 as being of two half sections?

A Our geologists have determined that this is the optimum geological location for this proposed test well based upon the seismic evidence available. Since we estimate that the cost of this well will be in excess of \$3,000,000, we want to insure that it's drilled on the optimum location. After having selected the optimum geological location for

the well, we then determined what area would be efficiently and economically drained by a gas or gas-condensate well at this location. The 640 contiguous acres described on our proposed drilling unit as reflected on Exhibit 1 is, in our opinion, the only appropriate unit for the well under the rules and regulations of the State Oil and Gas Board of Alabama.

Q Mr. Van Auken, in your opinion, is it necessary for the prevention of waste, to avoid the drilling of unnecessary wells, and to protect the coequal and correlative rights of all owners of mineral interests within the East Half of Section 9 and the West Half of Section 10, of Township 6 South, Range 3 East, Baldwin County, Alabama, to require such owners to integrate their interests into the proposed unit and to develop this approximately 640 acres as a gas or gas-condensate drilling unit?

A Yes, it is.

MR. REAMS: Mr. Chairman, we tender the witness.

MR. HANBY: Mr. Reams, I have one question. Are you planning on putting your other witness on in geology?

MR. REAMS: We will make him available for any questions that might be asked if the Board or the staff would like to

have him, yes.

MR. HANBY: As we got the testimony from the witness, Mr. Van Auken, on the most probable location, the best location, I would like to ask the geologist a question.

MR. REAMS: O.K. Mr. Karpovich.

MR. FREEMAN: Excuse me, Ken, I don't believe he's been qualified yet.

MR. REAMS: Oh. O.K. Right. We turned in the affidavit but we didn't qualify him. Give us your full name again, please Ray.

MR. KARPOVICH: Raymond P. Karpovich.

RAYMOND P. KARPOVICH

Appearing as a witness on behalf of Union Texas Petroleum, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Reams:

Q And what is your employment?

A Union Texas Petroleum.

Q And where do you live?

A Lafayette, Louisiana.

Q What is your occupation or profession?

A Exploration geologist.



Q And what educational background do you have as an exploration geologist?

A B.S. from the University of Cincinnati and three years of graduate school at the University of Cincinnati and Florida State University.

Q And what degree do you hold?

A Bachelor of Science in Geology.

Q And what work experience have you had as a geologist?

A I worked for a year and a half for Dames & Moore, an engineering geology consulting firm, doing work primarily in underground gas storage, underground waste disposal, and groundwater in the southeastern United States. I worked for four years as an exploration geologist for Amoco Production in New Orleans doing exploration work primarily in the southeastern district, and I worked for a year and a half with General Crude Oil doing exploration geology in the southeastern United States, and I worked as an exploration geologist, primarily, in South Alabama and Florida for 10 months for Union Texas.

Q In your prior experience before coming with Union Texas, you mentioned working in the southeastern United States. Did you do any work in Alabama and did they have production in Alabama?

A Yes, I was associated with the farm-out of Silas Field in Choctaw County, Alabama, and also we had a part interest, Amoco, in the Dennie Blacksher(phon.).

Q In Monroe County?

A Monroe County.

MR. REAMS: Mr. Chairman, we move that the witness be accepted as an expert witness in geology?

CHMN. ADAMS: He's accepted.

EXAMINATION BY BOARD OR STAFF

Questions by Mr. Hanby:

Q Mr. Karpovich, in earlier testimony, the location of this well was picked on seismic, or interpretation of seismic data in the area, that is correct?

A That's correct.

Q With the use of the seismic, a location farther to the, say, east, in your opinion would this be a well that would have a less chance of being productive or greater chance in being not productive?

A Yes, I do.

MR. RAYMOND: There's a matter the landman mentioned. Several, a number of acres, within the unit, but I don't recall, maybe he did, could you give us the percent control that you have?

MR. VAN AUKEN: We own or control approximately 90 percent.

MR. RAYMOND: And also during the testimony you mentioned this would be the ultimate unit as the best producing unit for the well. I'm sure he understands that is strictly a drilling unit defined for drilling the well and the producing unit may be reformed later on.

MR. REAMS: We understand that, but we hope it's going to produce when we drill.

MR. HANBY: Mr. Chairman, we have no further questions, and we would recommend that you grant this petition.

CHMN. ADAMS: Do I hear a motion?

MR. MCCORQUODALE: I so move.

DR. MATHEWS: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. REAMS: Thank you, gentlemen. We hope to be drilling very soon after the first of the year.

CHMN. ADAMS: This will probably be the most expensive well drilled won't it? I haven't heard of any costing ...

MR. REAMS: No, sir, we hope not. There was one drilled in South Carlton that cost about \$7,000,000 last year.

MR. KARPOVICH: That rig has the capability of drilling to 35,000 feet.

MR. HANBY: Item 7, Docket 12-2-775, petition by Sun Oil Company. Petitioners please come forward.

MR. WATSON: Mr. Chairman, I have two witnesses. I would like to have them sworn at this time.

MR. HANBY: State your full name.

MS. PHILLIPS: Susan E. Phillips.

MR. BRANNAN: James T. Brannan.

(Witnesses were duly sworn by Mr. Hanby)

MR. WATSON: Mr. Chairman, we have submitted affidavits of qualifications for Ms. Phillips and Mr. Brannan. I would like to briefly go through their qualifications with you. Ms. Phillips, would you please give them a brief statement of your educational background and present working assignment.

MS. PHILLIPS: I received a B. S. in Chemical Engineering from Oklahoma State University this May. On June 5 I went to work for Sun Gas Company, a wholly owned subsidiary of Sun Oil Company of Delaware. Since that time I have been technical advisor to a deep ethane recovery expansion at our Delphi plant in Louisiana, and have been assigned as project engineer on the Churchula gas processing facility.

MR. WATSON: I tender Ms. Phillips to the Board for any questions you may have on her qualifications as a gas engineer.

CHMN. ADAMS: She is accepted as an expert.

MR. WATSON: Mr. Brannan, would you please give the Board a brief history of your educational background and current work assignment?

MR. BRANNAN: I was graduated from Austin College in 1966 with a degree in chemistry. I spent the next 8 years working for Sun Oil Company in production service lab working on projects such as gas plant problems, water flood problems, gas treating problems, and for the last three years I have been working as an environmental conservation representative specializing in environmental pollution problems.

MR. WATSON: Any questions of Mr. Brannan?

CHMN. ADAMS: He is accepted as an expert.

MR. WATSON: Thank you, Mr. Chairman. What we are requesting in this petition, Sun Oil Company has elected to take gas from Union Oil's Chunchula plant in Mobile County and process that gas knocking out heavy liquids and preparing the gas for acceptance to pipeline, Mobile Gas Pipeline District. This procedure had been tried prior to coming before this Board and requesting approval of the construction and operation of a gas processing

plant, but due to the inability of the gas pipeline to accept the quality of gas, it was necessary to install this gas processing plant prior to introduction of the gas into Mobile County gas line system. These witnesses this morning will describe to you the aspects of previous activities concerning the permitting of this facility with the Air Pollution Control agencies, and Ms. Phillips will explain to you the process of the plant. We have prepared and handed to the Board exhibits. I would like to have those exhibits now marked for identification. The exhibit numbers are on the exhibits numbered E-1 through E-5, E-6, I'm sorry. And ask that you receive those and mark those for identification purposes only. We'll start first, Mr. Chairman, with the testimony of Mr. Brannan.

JAMES T. BRANNAN

Appearing as a witness on behalf of Petitioner, Sun Oil Company, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

- Q Mr. Brannan, would you please tell the Board what Exhibit E-1 is intended to portray?
- A Exhibit E-1 shows the location for the proposed Sun Oil Company facility in Section 22, Township 1 South, Range 2 West.

Q All right, sir, now there has been a question from the staff about the exact location. I believe that if you will turn your pages to Exhibit E-1A, there is an explanation of the exact location of this gas processing plant. Would you describe that exhibit, Mr. Brannan?

A At the time the, of submission of the permits, we did not have an accurate survey. The only survey we had was from Union Oil Company whose plant is in the SW/4 of the NE/4 of Section 22, and I assume that our plant being 40 feet north of that was in the same section, and as it turns out, it is not in the same section. It is 40 feet north of the unit plant.

Q All right, sir, is it in fact, am I accurate in saying that Sun has a lease from the surface owner, namely International Paper Company, for the location of this plant?

A That is correct.

Q And basically this plant is adjacent to the Union plant and really a part thereof?

A Yes.

Q In that they are located in the immediate area, is that correct?

A Yes.

Q Now, tell the Board, if you will, Mr. Brannan, about the

processes that you have been through in obtaining permission from the air pollution regulatory bodies for this particular gas processing facility and why such a permit was required.

A According to the Alabama Air Pollution Control Commission, a permit to erect and operate a facility that emits air pollutants requires a permit. In accordance with the laws of the State of Alabama, requests for permits were submitted to the State of Alabama and the Mobile County Health Board. These permits have since been granted for this plant.

Q All right, sir. You will find that, Mr. Chairman, as Exhibit E-4. Also in the back of your booklet there you will find a Mobile County Health Department certificate. Now, Mr. Brannan, on that certificate there has been the same description that was previously submitted to this Board. Would you explain to the Board the contact that we've had with the Mobile County Health Board concerning this description?

A Yes. When it was discovered that there was an error in the section location of the plant, I discussed with Mr. Danny Herren(phon) of the Air Quality Engineers what was needed



to rectify this on the permit. I was instructed by Mr. Herren to not do anything but notify them by letter of the change in location and then when we apply for our operating permit to use the correct location on that permit and then they would follow through with the paper work at that time.

Q That would satisfy their requirements then for all permitting procedures for air quality control, is that correct?

A That's correct.

Q Would you please, for the record, give the Board the exact location, now one more time, of the processing plant, reading that description into the record?

A The exact location is the SE/4 of the NE/4 of the NW/4, and the SW/4 of the NW/4 of the NE/4.

Q All right, sir. Now, I would like to move to Exhibit E-2 and Ms. Phillips.

SUSAN E. PHILLIPS

Appearing as a witness on behalf of Petitioner, Sun Oil Company, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Ms. Phillips, would you please tell the Board what Exhibit

E-2 is intended to portray?

A This is a plot plan of our facility site showing the relationship of the process skid to the storage vessel and the loading facilities and the vent stack.

Q All right. This exhibit was prepared by Modular Engineering Corporation, is that correct?

A That's correct.

Q What is the relationship between Sun and Modular Engineering?

A Modular Engineering is our contractor on this plant, and these exhibits have been prepared by them with my approval.

Q Let's then go to the next exhibit, No. E-3, and I would ask that you go through this flow diagram please with the Board and describe the process of the gas plant.

A This plant was designed for 3,000,000 cubic feet of gas per day in that it will be skid mounted, meaning that it will be built in Houston on a skid and will be moved. This will make it easier to move into Alabama and easier to install. We won't have to pour individual foundations for individual pieces of equipment. The inlet gas will be refrigerated as it passes through the exchangers E-1 and E-2 going into the deethanizer. The ethane and methane will go out of the top of the deethanizer and be sold as our residue gas to Mobile County Gas District.

Propanes, butanes, and the heavier hydrocarbons will fall out as liquids, will pass through the treaters T-1 and T-2 into the storage tank.

Q All right. Now, Ms. Phillips, tell the Board exactly what is the source of the inlet gas.

A The inlet gas is the tail gas of Union Oil Company's sweetening plant. It is sweet desulfurized gas.

MR. WATSON: All right. Now, if I can, Mr. Chairman, I would like to stop right there and have Mr. Brannan tell you of the safety features of this plant as far as environmental control is concerned and personnel safety.

JAMES T. BRANNAN

Appearing as a witness on behalf of Petitioner, Sun Oil Company, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Brannan, would you describe the safety features of this plant?

A Yes. First gas entering this plant is a sweet gas. It is not a sour gas. It has a maximum concentration of one grain per 100 cubic feet or 16 parts per million. On the inlet gas there is an analyzer that should the gas exceed this concentration, valves will automatically shut allowing no more gas to enter the plant. Also should that analyzer fail there is another one at the

end on the exit from product gas going to Mobile County Gas District. If it exceeds their specifications, valves will also shut which shut in the plant. Through various phases of the plant there are high pressure shut-in locations that should any malfunction occur the plant will automatically shut down and no gas will be processed through the plant.

MR. WATSON: Mr. Chairman, I might state for the record that the inlet gas coming in is gas that's owned by Sun Oil Company and processed by Sun and we're not here concerned with the distribution of royalty income. This is Sun's election to take gas in kind and they're processing this gas and selling it. Now back to Ms. Phillips.

SUSAN E. PHILLIPS

Appearing as a witness on behalf of Petitioner, Sun Oil Company, having first been duly sworn, testified as follows,

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Ms. Phillips, let's go into the economics of the plant, if you will.

A Since this gas was too rich to sell directly to the Mobile County Gas District, we had to convince ourselves that it was still feasible to build the plant, and as

it turns out even with an investment of \$260,000, we should see a rate of return of 22 percent of the payout in 3.32 years. These additional net cash flow of \$194,000 and 10 percent net present value of \$82,000 were calculated by Sun Oil Company in-house computer program based on the 5-year life of the plant.

Q Now the heavy liquids that are knocked out as gas is processed through this plant, would you tell the Board what would be the disposition of those, and let's talk in terms of volumes and storage.

A All right. Our storage capacity is 15,000 gallons, which is approximately equal to six days' production. We are expecting about 60 barrels per day liquids to be produced. We're still trying to find a buyer in Mobile County, and we haven't as yet but we're still looking.

Q Ms. Phillips, are you familiar with the term "waste" as defined by the oil and gas laws of Alabama?

A Yes.

Q In your opinion, would the granting of this petition allowing Sun to construct and operate this gas processing plant prevent waste?

A Yes.

Q Will it protect the coequal and correlative rights of the owners?

A Yes.

MR. WATSON: Mr. Chairman, I think this is a prime example of where a company is spending some extra money and luckily making some money here processing this gas that otherwise would be unacceptable and lost. We submit Ms. Phillips and Mr. Brannan to the Board and staff for any questions that you may have. That concludes our presentation.

EXAMINATION BY BOARD OR STAFF

DR. MATHEWS: What happens to the hydrogen sulfide with one grain per 100 cubic feet still in the gas?

MS. PHILLIPS: It falls out in the liquids and these product treaters are iron sponge treaters to take care of the hydrogen sulfide.

DR. MATHEWS: What do you do with it?

MS. PHILLIPS: We have checked with the Mobile County Health Board and when it is fully used up we can change out the treaters and haul it to a sanitary waste disposal.

DR. MATHEWS: Do you, in prior processing, take out sulphur or other hydrogen sulfide compounds? Before you get the gas? Does the gas come out of the well sweet or does it come out of the well sour and you clean it?

MS. PHILLIPS: It's sour gas. It goes through Union's sweetening plant. They sweeten it and take out the sulphur

and then our inlet gas is sweet gas for this facility.

MR. WATSON: Dr. Mathews, this entire process, all of these wells are connected to Union's plant there at Chunchula and this being simply Sun taking a processed gas through that plant which is not in itself good enough to introduce into the pipeline due to these impurities and this processing therefore being necessary before they can sell the product.

CHMN. ADAMS: Did you say you were looking for a buyer?

MS. PHILLIPS: Yes.

CHMN. ADAMS: It's my understanding that there is a shortage of gas rather than a shortage of buyers.

MS. PHILLIPS: The gas we have a buyer for. We're looking for a buyer for the liquids.

MR. RAYMOND: What was your total liquid volume?

MS. PHILLIPS: About 60 barrels per day.

MR. HANBY: Mr. Chairman, we don't have any further questions.

CHMN. ADAMS: Anything else from anybody?

MR. FREEMAN: I'd like to ask one question, Mr. Chairman. Concerning the description you referred to, Mr. Brannan or Ms. Phillips, does Sun Oil own or control by lease all of the surface rights in the NW/4 of Section 22?

MR. BRANNAN: Yes. At the time these exhibits were

submitted, it was under contract. Since then we have signed a lease and the money has been paid to International Paper.

MR. FREEMAN: And that's true of both the NE and the NW/4 of Section 22?

MR. BRANNAN: That's correct.

MR. FREEMAN: There are no outstanding surface rights then other than those that Sun either owns or controls?

MR. BRANNAN: That's correct.

MR. FREEMAN: Thank you.

MR. WATSON: Mr. Chairman, I would ask that you receive the exhibits that we have introduced this morning into evidence.

CHMN. ADAMS: The exhibits introduced are received into evidence.

(Whereupon, Exhibits E-1 through E-7 were received in evidence to the testimony of James T. Brannan and Susan E. Phillips)

CHMN. ADAMS: Is there anything else?

MR. WATSON: That's all.

CHMN. ADAMS: Do I hear a motion?

MR. MCCORQUODALE: I move the petition be granted.

DR. MATHEWS: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.



MR. HANBY: Item 8, Docket 12-2-776, petition by Warrior Drilling. Petitioner please come forward.

MR. SLEDGE: Mr. Chairman, Items 8, 9, and 10 all pertain to the Bankston Field and we would ask that they be consolidated and heard together. The first stack of exhibits pertain to 776 and this group here is for 777.

CHMN. ADAMS: What item are you calling now, Jim?

MR. SLEDGE: We are 776.

MR. HANBY: 776. Items 8, 9 and 10 combined.

MR. SLEDGE: Mr. Chairman, at this time I would like to move the Board, move that the Board orally delete any references in Items Nos. 777 and 778 to the Louie Hodges-Bankston Community Center No. 1 well, Permit No. 2175. The matters in those two petitions relating to that well will have to be considered at a later time.

CHMN. ADAMS: Any objection to that? (No response) Your request is granted.

MR. FREEMAN: Excuse me. Let me ask something here. I have two sets of exhibits each beginning with Exhibit No. 1. I'm afraid there may be some confusion here.

MR. SLEDGE: One stack of exhibits pertains to Item 776. The larger stack with the...

MR. FREEMAN: O.K. I see. All right. Thank you.

MR. SLEDGE: One is 777.

MR. HANBY: State your full name.

MR. BEHM: Douglas Behm.

(Witness was duly sworn by Mr. Hanby)

DOUGLAS BEHM

Appearing as a witness on behalf of Petitioner, Warrior Drilling and Engineering, Inc., having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Sledge:

Q Mr. Behm, who are you employed by?

A Warrior Drilling & Engineering.

Q And what is your occupation?

A Geologist.

Q Do you have a resume on file with this Board?

A I do.

Q And have you been--testified before the Board in the past?

A Yes, I have.

MR. SLEDGE: I tender the witness as an expert witness.

CHMN. ADAMS: He's accepted as an expert witness.

Q Did you prepare the exhibits pertaining to Item No. 776 which have been distributed to the Board and staff?

A Yes, I did.

Q Referring to the items on, pertaining to 776, would you describe for the Board what Exhibit No. 1 displays?

A Exhibit No. 1 is an isopach of what we're calling the Fayette Sand, everything above 9 percent porosity. We mapped on this 9 percent as a cut off point, our cut off point, to try to define the sand body a little better.

MR. SLEDGE: Mr. Chairman, at this time I think a little explanation is in order. The petition in Item No. 776 seeks to amend the Special Field Rules for the Bankston Field which have previously been adopted by this Board so as to add Special Field Rules for the Fayette Sand Gas Field and to expand the limits of the Bankston Field to include additional geographic area.

Q Mr. Behm, would you describe Exhibit No. 2?

A Exhibit No. 2 is the structure on top of this Fayette Gas Sand and the smaller inset on this map is the old field limits that were established by the Board and the larger outline is the exhibits (sic) that we would like.

Q The area of the new field limits?

A Right. Would be the new field limits that we would like.

Q And Exhibit No. 3?

A Exhibit 3 is a dual induction laterolog of the type section of the Fayette Gas Sand Pool in Bankston, and it's perforated in the bottom there from 1320 to 1330.

Q And what well is that in?

A This is the Louie Hodges-Bankston Community Center well.

Q Exhibit No. 4?

A Exhibit No. 4 is a cross section of the Fayette Sand Gas Pool halfway across this field. The two--the Louie Hodges-Bankston Community Center and the Cleveland Lumber Company 15-1 are the two wells that produce from this sand.

MR. SLEDGE: And I believe that Exhibit No. 5 was, is merely the results, the AOF results, for these three wells and was prepared by Jesse Ellard. These results are on file with the Board and we tender this exhibit to the Board, not as an exhibit prepared by Mr. Behm however.

MR. FREEMAN: Which exhibit was that?

MR. SLEDGE: Exhibit No. 5.

MR. FREEMAN: I see no problem with who prepared it.

Q Then looking at the exhibits on Item No. 777, which is, 777 and 8 are petitions to reform the unit for the Cleveland Lumber Company 15-1 to be composed of a unit consisting of the North Half of Section 15, Township 16 South, Range 11 West. Would you describe Exhibit No. 1?

A Exhibit No. 1 is the governmental half section that we would like to have entered as the unit for the Cleveland 15-1. Exhibit No. 2 is an isopach of the Carter Sand

above 9 percent that's underlain by the field limits, and the red circles are the wells that we operate for ourselves and others in this field completed in the Carter Sand, and Exhibit No. 3 is the structure on top of the Carter Sand.

Q I believe that the Cleveland Lumber 15-1 was originally drilled on a 40-acre drill site permit, is that correct?

A That's correct.

Q And that it is located 450 feet South of the North line and 500 feet West of the East line in the NE/4 of NE/4 of Section 15, is that correct?

A That's correct.

Q So that this unit would be an exceptional location under the Special Field Rules for the Bankston Field if they are adopted by this Board?

A That's correct.

Q Mr. Behm, are you familiar with the term "waste" as defined by the oil and gas laws and rules and regulations of this Board?

A I am.

Q In your opinion, will the proposed field rules for the Fayette Sand Gas Pool and the expanded field limits for the Bankston Field promote the proper and orderly development of the Fayette Sand Gas Pool?

A Yes.

Q And would they prevent the drilling of unnecessary wells?

A Yes.

Q And protect and enforce the coequal and correlative rights of all the owners in the pool and prevent avoidable waste?

A Yes, I believe so.

Q In your opinion, will the Cleveland Lumber Company 15-1 well adequately drain the proposed North Half unit and prevent avoidable waste in that unit?

A Yes.

MR. SLEDGE: Mr. Chairman, I would tender the witness to the Board for any questions from the staff.

CHMN. ADAMS: Any questions by the staff or Board?

EXAMINATION BY BOARD OR STAFF

MR. MEADOWS: When you say 9 percent porosity, is that off the compensated neutron?

MR. BEHM: Yes.

MR. MEADOWS: Is that on a limestone base? Even in the sand?

MR. BEHM: Right.

MR. HANBY: Mr. Chairman, we have no further questions.

MR. FREEMAN: Are there any exhibits concerning Item 10 to be filed?

MR. SLEDGE: No.

MR. HANBY: Mr. Chairman, we would recommend that you take each item individually for action.

MR. MASINGILL: I just want to ask--you all do have ownership or control of the entire unit, is that correct?

MR. BEHM: To the best of my knowledge. The affidavit has not been filed.

MR. MASINGILL: And you will file a new affidavit with a new drilling permit should it be granted?

MR. BEHM: Yes.

CHMN. ADAMS: Anything else on this matter?

MR. SLEDGE: No, sir.

CHMN. ADAMS: Do I hear a motion concerning Item 8?

MR. MCCORQUODALE: Mr. Chairman, I move that the petition be granted.

DR. MATHEWS: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered. Do I hear a motion on Item 9?

MR. MCCORQUODALE: On Item 9 I move that the petition be granted so far as it pertains only to the Cleveland Lumber Company 15-1 well.

DR. MATHEWS: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered. Do I hear a motion on Item 10?

MR. MCCORQUODALE: Mr. Chairman, I move that the petition in Item 10 be granted so far as it pertains only to the Cleveland Lumber Company 15-1 well with the stipulation that the well is subject to proration.

DR. MATHEWS: Second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it--so ordered.

MR. HANBY: Item 11, Docket 12-2-779, petition by Midroc Oil Company. Would the Petitioner please come forward?

MR. WATSON: I'd like to be sworn.

MR. HANBY: State your full name.

MR. WATSON: William T. Watson.

(Witness was duly sworn by Mr. Hanby)

WILLIAM T. WATSON

MR. WATSON: Mr. Chairman, I am the examining attorney of title for Midroc Oil Company, and I have examined the title concerning the NE/4 of the SW/4 of Section 26, 11 North, 3 West, Choctaw County, which is a drilling unit consisting of 40 acres. On December 2, this Board, by emergency order,



granted permission to force pool an outstanding unleased interest of  $4\frac{1}{2}$  acres by your Order No. E-77-243. Today I'm here to ask that an order be issued, a permanent order be issued, force pooling the interests of the, the outstanding unleased interest of two owners in that 40-acre unit. I have personally contacted both, Mr. Ralph Feazel and Mrs. Byrda Hacker. I have had one response, Mr. Feazel, who appreciated our inquiry and concurred. Basically, these two individuals are aware of the fact that we are carrying their unleased interest which amounts to 11 percent of the 40-acre unit. After payout of the cost of drilling and completing the well, these two individuals will come into their full interest as though we had not drilled a well. They have a full 8/8 in other words, minus only our supervisory charges and cost of completing the well. In accordance with the new rule promulgated by this Board on forced pooling, we did go the extra step of personally notifying these people of this meeting today, and unless they are in the audience and would object, I would ask that you grant this petition force pooling this interest.

CHMN. ADAMS: Is there any comment or questions from any member of the audience? Any member of the Board or staff?

MR. FREEMAN: Let me ask one question if I may, Mr. Chairman. I apologize. Let me ask this, Mr. Watson. The

allegations of the petition, are those allegations true and correct to the best of your knowledge and belief?

MR. WATSON: Yes, sir. Granting of this petition will prevent waste, will protect the coequal and correlative rights of all owners in the field, and will promote the orderly and efficient development of our resources.

MR. MCCORQUODALE: I move that the petition be granted.

DR. MATHEWS: Second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. HANBY: Item 12, Docket No. 12-2-7710, petition by Warrior Drilling & Engineering Company. Will the Petitioner please come forward?

MR. WATSON: I have one witness, Mr. Chairman.

(Exhibits were distributed)

MR. WATSON: Mr. Chairman, would you like to have Mr. Behm resworn or remind him that he remains under oath?

CHMN. ADAMS: You're reminded that you are still under oath.

MR. WATSON: Mr. Chairman, we're distributing the exhibits for Item 12, 13, and 14 in the package that has just been distributed to you here. In Item 12 on today's docket, we're

requesting that the Board amend the Special Field Rules which have previously been promulgated by this Board establishing the Wiley Dome Field in Tuscaloosa County by adding to that field another sand, namely, the Mississippi Carbonate Gas Pool Sand, and we're also asking that you amend the Special Field Rules to allow dual completions in this field.

DOUGLAS BEHM

Appearing as a witness on behalf of Petitioner, Warrior Drilling & Engineering Company, Inc., having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Behm, have you prepared exhibits concerning Item No. 12 on today's docket?

A Yes, I have.

Q Those exhibits are numbered 1, 2, and 3?

A And 4.

MR. WATSON: Four. I would ask, Mr. Chairman, that those exhibits be marked for identification purposes to the testimony of Mr. Behm.

Q Mr. Behmn, would you tell the Board please what Exhibit No. 1 is intended to portray?

A Exhibit No. 1 is the structure of the Upper Mississippian

Carbonate in the Wiley Dome Field, and the red circles indicate wells completed in that carbonate and attempted completion in that carbonate, and the tests haven't been run on the Mildred Wells 3-3, but it has been attempted completion in that carbonate. Exhibit No. 2 is a schematic of the dual completion of the Friedman-Holman well with perforations in the Lower Parkwood Gas Sand and completed open hole in the Mississippian Carbonate.

Q The Lower Parkwood Gas Sand being the sand previously designated by the field rules of this Board, is that correct?

A Yes.

Q All right, sir, Exhibit No. 3?

A Exhibit No. 3 is a cross section of Wiley Dome across the northwest edge showing the configuration of the Upper Mississippian Carbonate and showing it was completed open hole in the Friedman-Holman, and completed through pipe in the Mildred B. Wells. And Exhibit No. 4 is a type log, a dual induction focused log, of the Upper Mississippian Carbonate with a corrected depth of 3222 and the bottom of this interval is just where the hole stops. It's mainly pressure porosity and we've just completed open hole and just let the gas come. We're

not really sure where the gas is coming from except it's coming from this carbonate, and the bottom of this interval would be the TD of this hole.

Q Mr. Behm, would you, you've touched on it here, explain the necessity for dually completing wells if that occasion arises in this particular field?

A These wells are dually completed so we can adequately produce the gas where we can have the sand developed and the lime developed so we can drain both by drilling two wells.

Q And that would be the only alternative to drilling these were we not allowed to come before this Board and request, under the provisions of the Special Field Rules, dual completion, is that correct?

A That's correct.

MR. WATSON: Mr. Chairman, I would ask that you receive into evidence Exhibits 1 through 4 to the testimony of Mr. Behm for Docket No. 7710, and I will submit Mr. Behm to the Board and the staff for any questions you may have.

CHMN. ADAMS: Exhibits 1 through 4 are admitted.

(Whereupon, Exhibits 1 through 4  
were received in evidence to the  
testimony of Douglas Behm)

CHMN. ADAMS: Any questions by the members of the Board and staff?

EXAMINATION BY BOARD OR STAFF

MR. HANBY: Yes, sir, I've got several questions. Pertaining to the definition of the Mississippian Carbonate Gas Pool, the depths that are shown on the petition, do they agree with what is shown on the exhibits for identifying the top of the Upper Mississippian Carbonate?

MR. BEHM: No, sir.

MR. HANBY: Have you all prepared any amended data to supply to correct the depth?

MR. WATSON: Yes. We have described here the depths of this zone. In submitting the Board a proposed order, we will set out the depths that correspond with the correct depths that we are encountering in this reservoir.

MR. HANBY: O.K., Mr. Watson, thank you, and for the record would you once again state the upper definition for the Upper Mississippian Carbonate?

MR. BEHM: 3222 depth in the Friedman-Holman well.

MR. HANBY: All right, sir, one other question. With your well TD-ing at 36 what? 70? 3680?

MR. WATSON: 3677.

MR. HANBY '77? Has there been any other indication in other wells that the carbonate may be productive of gas even deeper than this interval?

MR. BEHM: We'll just have to drill deeper and find out.

MR. HANBY: Is this anticipated in the next well that you will drill deeper?

MR. BEHM: We could, yes, if we don't pick up the fracture this high..

MR. HANBY: O.K. One other question I have for the record, going back to Exhibit 2, talking about dual completion, and with the field rules, this exhibit is not intended to get approval at this time for dual completion?

MR. WATSON: No, sir, this is intended to show how a well would be constructed so as to allow dual completion. We would come before the Supervisor under the provisions of the Special Field Rules requesting this on an individual basis.

MR. FREEMAN: Mr. Watson, we have exhibits on Items 12 and 13? Did I miss any exhibits?

MR. WATSON: Yes, I have some...

REDIRECT

Questions by Mr. Watson:

Q Mr. Behm, are you familiar with the term "waste" as defined by the oil and gas laws of Alabama?

A I am.

Q Will the granting of this petition in your opinion prevent waste?

A Yes.

Q Will it protect the coequal and correlative rights of owners in this reservoir?

A Yes.

MR. WATSON: That's all we have, Mr. Chairman.

CHMN. ADAMS: Anything else on this item? Any questions by anybody? (No response) Do I hear a motion?

DR. MATHEWS: Mr. Chairman, I move that that petition be granted.

MR. MCCORQUODALE: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it--so ordered.

MR. HANBY: Item 13, Docket 12-2-7711, petition by Warrior Drilling & Engineering Company. Petitioners are....

MR. WATSON: All right, sir. This we're requesting the Board to reform the Friedman-Holman 35-3 well to consist of the West Half of Section 35. You will remember when we first--in the Lower Parkwood Sand Gas Pool--when we first presented the petition to this Board requesting the designation of the Wiley Dome Field, we established a unit for one of the wells in the field at that time leaving some question as to how the units for the other two gas wells would be formed. We are now prepared at this time to request that the



Friedman-Holman 35-3 well consist of the West Half.

DOUGLAS BEHM

Appearing as a witness on behalf of Petitioner, Warrior Drilling & Engineering Co., Inc., having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Behm, have you prepared exhibits in this matter?

A I have.

Q All right, sir, they are identified--would you please identify those exhibits?

A This first exhibit is the map of the proposed units in the Wiley Dome Field with Section 35 showing the location of the Friedman-Holman well.

Q All right, sir.

A Exhibit No. 2 is an isopach of the Lower Parkwood Gas Sand with the red circles denoting which wells have been completed in this sand, and Item No. 3 is an isopach on top of this sand in the Wiley Dome Field.

Q All right, sir. Is the West Half of Section 35 underlain by drainable hydrocarbons in the Lower Parkwood Gas Sand?

A Yes, it is.

Q Would the formation of the West Half unit for the Friedman-

Holman well efficiently and economically drain the hydrocarbons from the West Half of Section 35?

A Yes.

Q Thereby preventing waste?

A Yes.

Q And protecting the coequal and correlative rights of owners in the West Half unit?

A Yes, it would.

MR. WATSON: All right, sir. Now, Mr. Chairman, before I go further with this, I would like, if you would, we've asked that these matters be heard, to go to Item 16, which relates to the Friedman-Holman well. We're requesting there an exceptional location in that a West Half unit such as we've requested here would be an exceptional location, is that correct, Mr. Behm?

A Yes, it would.

MR. WATSON: Mr. Chairman, may I proceed with Item 16 as it relates to ...

MR. HANBY: Mr. Chairman, let me interject this. Item 16 was the item referred to on the notice. It was changed to Item 13 on the agenda.

MR. WATSON: I'm sorry.

MR. HANBY: Item 14 on the agenda, excuse me.

MR. WATSON: All right. That matter pertaining to the exceptional location for the Friedman-Holman. May I proceed with that, Mr. Chairman?

CHMN. ADAMS: Proceed.

MR. WATSON: I missed that. I thought they were all the same.

MR. FREEMAN: You were going by the notice rather than the agenda.

MR. WATSON: Yes.

MR. FREEMAN: Do you have a copy of the notice now, Tom?

MR. WATSON: Yes, I'm with you now.

Q Mr. Behm, why is it necessary to ask for an exceptional location for the Friedman-Holman well?

A There is a deep ravine running across the northwest part of Section 35, and this was one place we could get in to drill this well. This exhibit shows the location of the well in the West Half unit.

MR. WATSON: I submit Mr. Behm to any questions the Board or staff may have concerning the reformation of the Friedman-Holman well or that matter pertaining to the exceptional location.

CHMN. ADAMS: Any questions of the staff or members of the Board?

MR. HANBY: Mr. Watson, when you handed out exhibits, the exhibits for Item 13, were they included within that?

MR. FREEMAN: They were.

MR. WATSON: No, I have those here.

MR. FREEMAN: I have exhibits for 12 and 13 if we're referring to the same 12 and 13. Let me clarify that a little more. I have exhibits for Docket No. 12-2-7710 and 7711, and the one I just received would be for 7714, which is Item 14.

MR. WATSON: All right, and that's the exceptional location for the Friedman-Holman well.

MR. HANBY: Mr. Chairman, the staff does not have any questions on these three items--two items.

MR. MCCORQUODALE: Mr. Chairman, I move that Item 13 be granted.

DR. MATHEWS: Second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. MCCORQUODALE: I move that the petition in Item 14 be granted with the stipulation that the well is subject to pro-ration.

DR. MATHEWS: Second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it--so ordered.

MR. HANBY: Item 15, Docket 12-2-7713. Petitioner is forward.

MR. WATSON: Here, Mr. Chairman, we are requesting an exceptional location for the Wiley 34-10 well.

DOUGLAS BEHM

Appearing as a witness on behalf of Petitioner, Warrior Drilling & Engineering Co., Inc., having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

- Q Mr. Behm, you've prepared a plat showing the exceptional location. Would you please describe that to the Board and the reason for the exception?
- A Well, this is a plat of Section 34 showing the Wiley 34-10 well, and the reason it's there is because we had re-entered the well originally drilled by Gulf Oil in the early '60's. They completed it as a gas well and it's there because that's where they drilled it.
- Q So Warrior took over this well, the operation of this well. It is there and you're now--this was drilled on a 40-acre location?

A Yes, it was.

Q It was reformed at our last meeting. It is an exceptional location as far as the Special Field Rules are concerned, is that correct?

A That's correct.

Q In your opinion, will the granting of this petition prevent waste?

A Yes.

Q Protect the coequal and correlative rights of owners in this East Half unit?

A Yes.

Q Avoid the necessity of drilling unnecessary wells?

A Yes.

MR. WATSON: I tender Mr. Behm on this matter for any questions the Board or staff may have.

#### EXAMINATION BY BOARD OR STAFF

MR. MEADOWS: With respect to Item 15, the reformation was issued pending the outcome of what is now Item 16 on the docket for force integration. It might be good to make note of that...

MR. WATSON: Yes. If the Board would like to hear the testimony on the forced integration, I am prepared to present that.

MR. HANBY: That would be Item 16?

MR. WATSON: Correct.

MR. HANBY: Proceed.

MR. SLEDGE: Tom, I believe we have already presented that at the last meeting.

MR. WATSON: Yes, we did. We have--this is where the United States Government owns a mineral interest, 40 acres. We presented this testimony at the last meeting and the contact that had been made with the U. S. Government on force pooling this. As has been the case before this Board, when we're force pooling government interest that's subject to the approval of the Secretary of the Interior or Energy Department as it is now reorganized, or his duly appointed designate, and we understand in requesting that the Board force pool the Government that this is subject to, Mr. Chairman, the approval of the appropriate Federal authority. We need that action by the Board, as Mr. Meadows points out, in order to make this a 320-acre unit.

MR. HANBY: Mr. Watson, I would ask has this matter been taken to anybody with the Federal government? Are they aware that this petition is before the Board?

MR. WATSON: Yes, sir.

MR. FREEMAN: The Item 16, there has been testimony received by this Board previously?

MR. WATSON: Yes, sir.

MR. FREEMAN: Do you happen to know the docket number? Is it different from the docket number we're considering now? Was that another petition or is it the same?

MR. WATSON: That was part of another petition.

MR. MEADOWS: Another petition. The docket number was 11-4-7714.

MR. FREEMAN: So you're proposing that the Board consider the testimony in the item Mr. Meadows just...

MR. WATSON: That's correct.

MR. FREEMAN: ...at that hearing. Was that at the last meeting of the Board?

MR. WATSON: The October--at the November meeting--and at that time, just to refresh your memory, we introduced a letter to Mr. James Edlefson who is chief of the Land and Mineral Division, Eastern States Office, Bureau of Land Management. They have been contacted by the Warrior office, Mr. Clark Neal, advising them of the action we're requesting of this Board. So then we're asking that you consider this matter, the outstanding unleased interest, and making this unit an exceptional location for the Wiley 34-10.

MR. FREEMAN: And along with the other exhibits then you're



offering the evidence previously, that we just referred to, to the Board for the Board's consideration?

MR. WATSON: That's correct.

MR. FREEMAN: Mr. Chairman, would you want to rule on the acceptance or rejection...

CHMN. ADAMS: If there is no objection from any member of the Board or anybody else, your request will be granted.

MR. HANBY: Mr. Chairman, we would recommend that you take action on Item 16 first, and that the item be granted with the stipulation that it is not effective until it is approved by the appropriate authority with the Department of Energy or the Department of Interior, and then take action on Item 15 and grant the exceptional location with the well subject to proration.

CHMN. ADAMS: Do I hear a motion?

DR. MATHEWS: Mr. Chairman, I move that we do grant the petition on Item 16 with the stipulation that the forced integration would not be effective until approved by the appropriate department of the Federal government.

MR. MCCORQUODALE: I second the motion.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

DR. MATHEWS: On Item 15 I move that we grant the petition with the stipulation that the well is subject to proration.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. WATSON: Thank you, Mr. Chairman.

MR. HANBY: Item 17, Docket No. 12-2-7715, petition by Southland Royalty Company. Will the Petitioner please come forward?

MR. WATSON: I have two witnesses that I would like to have sworn. One witness, I'm sorry. I would like to have this witness sworn.

MR. HANBY: State your full name please sir.

MR. ZUPPAN: Charles W. Zuppan, Jr.

MR. HANBY: Would you for the recorder, spell your last name, please sir?

MR. ZUPPAN: Zuppan. Z-u-p-p-a-n.

(Witness was duly sworn by Mr. Hanby)

CHARLES W. ZUPPAN, JR.

Appearing as a witness on behalf of Petitioner, Southland Royalty Company, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Zuppan, you have never appeared before this Board, is that correct?

A No, I have not.

Q Would you please give the Board a brief resume of your educational background and present work assignment?

A I received a B.S. in Business Administration from Austin State University and M.S. in Geology from Vanderbilt University. I worked for Texaco in South Louisiana for two years. I'm presently working for Southland Royalty and have for the last year and a half.

MR. WATSON: Mr. Zuppan, as I explained to you before, it is customary for expert witnesses to file a verified resume of your educational background and work experience with this Board. Will you do that please as soon as possible?

MR. ZUPPAN: Yes, I will.

MR. WATSON: I tender Mr. Zuppan to the Board and staff for any questions that you may have on his qualifications.

CHMN. ADAMS: You may proceed.

Q Mr. Zuppan, have you prepared exhibits concerning the matter now before this Board where you're requesting the Board to recognize and incorporate three units

into the Beaverton Field as that field is described in the Special Field Rules for the Carter and Lewis Gas Sand?

A Yes, I have.

Q These exhibits we have handed up to the Board marked Exhibits 1 through 4, is that correct?

A Right.

MR. WATSON: I would ask, Mr. Chairman, that these exhibits be marked for identification purposes please?

CHMN. ADAMS: Your request is granted.

(Whereupon, Exhibits 1 through 4  
were marked for identification)

Q Exhibit No. 1, Mr. Zuppan, is the top of the Carter Sand structure. Would you please tell the Board what this is intended to portray?

A This shows the structure of the Carter Sand and on it I have superimposed the limits of the reservoir.

Q All right, sir. You also have shown the existing Beaverton Field Rules, is that correct?

A Correct, and also our proposed extension.

Q These are 320-acre gas units in the Beaverton Field, is that correct?

A Correct.

Q And the units that we are requesting to be included are in Section 12, is that correct?

A That's true.

Q And in Section 4, one unit?

A Not a Carter Gas Sand.

Q Not a Carter Gas Sand. The Section 12 units are Carter Sand completions, is that correct?

A Correct.

MR. WATSON: All right. sir. Exhibit No. 2, Mr. Chairman, is a Carter net sand isopach.

Q Mr. Zuppan, would you tell the Board what this exhibit is intended to portray?

A Yes, this shows the extent of the reservoir and its magnitude.

Q Does it also show the Carter Sand in reference to those units we're requesting in Section 12?

A Yes, it does.

Q Does the Carter Sand underlie the units that we are requesting, a North Half unit and a South Half unit in Section 12?

A Yes, sir.

Q In your opinion, Mr. Zuppan, will the wells located in Section 12 on those two units effectively and economically

drain the Carter Sand Gas Pool as encountered in those wells?

A They would.

MR. WATSON: Exhibit No. 3, Mr. Chairman, is the top of the Lewis Limestone structure.

Q Would you please describe this exhibit, Mr. Zuppan?

A Yes, I've mapped on the top of the Lewis Limestone structure which is a limestone stringer about 65 feet above the Lewis Sand, and I feel it's a more correlative marker in the Beaverton area and I used that as my map.

Q As opposed to the Lewis sandstone, mapping on top of the Lewis sandstone, is that correct?

A Yes, I feel this better shows the structure in the area.

Q All right, sir. Could you prepare and submit to this Board if they would so desire a structure map on the top of the Lewis sandstone?

A Yes, I could.

Q But you feel that this Lewis Limestone map is a better indicator of the reservoir?

A Of the structure.

Q Of the structure? All right, sir. Exhibit No. 4 is a net porous Lewis Sand isopach, is that correct?

A Yes, it is.

Q Would you please tell the Board what this exhibit depicts?

A This shows the porosity as found on the FDC CNL logs encountered in the lower Lewis limestone--I mean the lower Lewis sandstone--at Beaverton Field.

Q What cutoff point did you use in determining the net effective pay of the sand?

A Well, we used a porosity cutoff calculated at about 10 percent.

Q All right. And how did you pick your intervals of production, Mr. Zuppan?

A We used a suite of logs, the dual induction laterolog, the FDC CNL, and the microlog, on two of the three wells.

Q In your opinion, will the Loggins...

A Excuse me, there is only one well on the log in the Lewis Sand.

Q Right. The Loggins well in Section 4 is completed in the Lewis, that's correct?

A Correct.

Q In your opinion, will the Loggins well effectively and economically drain the hydrocarbons that you have shown in that East Half section?

A Yes, it will.

Q Will the granting of this petition protect the coequal and correlative rights of owners in that unit?

A Yes.

Q Now, concerning Exhibits 1 through 4 and the Carter Sand completion wells in Exhibit 12, are those sands in communication with Beaverton Field and the Carter Sand Gas Pool as defined in the Special Field Rules?

A Yes, they are.

Q In Section 4, the Loggins well completed in the Lewis Gas Sand, is that well completed in the Lewis Gas Sand as defined by the Special Field Rules for the Lewis Gas Sand, Beaverton Field?

A Yes, it is.

Q Are you familiar with the term "waste" as defined by the oil and gas laws of Alabama?

A Yes, I am.

Q In your opinion, will the granting of this petition prevent waste?

A Yes, sir.

Q Protect the coequal and correlative rights of all owners?

A Yes.

MR. WATSON: I submit Mr. Zuppan for any questions that the Board and staff may have.



EXAMINATION BY BOARD OR STAFF

MR. HANBY: Yes, sir, Mr. Zuppan, I've got a question referring to the Loggins well in Section 4. That well was permitted as a South Half unit, is that not correct?

MR. ZUPPAN: I believe it was originally, the permit was requested as South Half but later on the parties involved requested an East Half unit. I think that's--I don't know if it's been amended yet or what the status is of the unit itself.

MR. HANBY: Well, it's still a South Half and the action today, if it was granted, would in essence create an East Half unit. With the South Half unit in the application filed, there is an affidavit of ownership from Southland owning or controlling the South Half. Do you all have ownership or control of the entire South Half of that unit?

MR. ZUPPAN: I'm not sure about the South Half. I know we have the East Half.

MR. WATSON: I think I can answer in the affirmative there, Mr. Hanby.

MR. HANBY: Southland does have control of all of the South Half?

MR. WATSON: That's correct. When this particular unit was requested, the AFE's and everything was on a West--I mean

on an East Half unit, I'm sorry. In permitting this, there was a breakdown in communication in submitting the permit and for that reason the South Half was submitted. It was always intended to be an East Half unit on the part of Southland. The AFE's were executed on that basis. So Southland does own and control 100 percent of the East Half and if those affidavits of ownership or control have not been corrected, they can be, and I think they have. I have requested that.

DR. MATHEWS: I was unclear about your answer on the South Half. Are you testifying to the Board that you have ownership and/or control in the South Half?

MR. WATSON: If I might, I have someone here who is much better qualified than me if you would like for me to submit him to that question, Dr. Mathews, and have him sworn. Would you please state your name and identify?

MR. WALTERS: I'm Robert B. Walters, district landman for Southland Royalty.

(Witness was duly sworn by Mr. Hanby)

ROBERT B. WALTERS

Appearing as a witness on behalf of Petitioner, Southland Royalty Company, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Walters, did you hear Dr. Mathews' question? Do you understand his question?

A Yes, there is some question about the unit, whether it's the South Half or the East Half.

DR. MATHEWS: My question, specifically, was are you prepared to testify that you would have control, ownership or control, of all of the properties in the South Half?

MR. WALTERS: Yes, we do.

UNIDENTIFIED: East Half.

DR. MATHEWS: No, I asked South Half.

MR. WALTERS: We own and control both the South Half and the East Half of that section. Actually, the permit was originally filed through error by our Production Department, and then we corrected it from the South Half to the East Half. I think that, perhaps, will answer the question.

MR. WATSON: I think so. Any other questions, Mr. Chairman?

MR. HANBY: I don't have any other questions.

MR. MEADOWS: I have one. In your petition under the first section, No. 1, there is a discrepancy in what we have on file as the interval perforated...

MR. WATSON: Yes, sir, can we address that? I meant to cover that.

CHARLES W. ZUPPAN, JR.

REDIRECT

Questions by Mr. Watson:

Q Mr. Zuppan, this is the interval that we have shown.

Would you please, in that particular well we show 2,062 to 2,077, and I believe your interpretation, Mr. Meadows, would carry that to 2,086, is that correct?

MR. MEADOWS: That's the intervals that you all perforated.

Q All right, sir, would you please discuss that?

A You are going to have to identify the well--I'm sorry. It's the Lee Mixon well?

MR. MEADOWS: It's the Lee Mixon well--12-3.

A And I believe we perforated the interval 2062 to 2086.

MR. MEADOWS: That's correct. That's what we have on file. And the interval defined here is 10 feet less than the interval actually perforated. In the petition, there seems to be an error.

MR. WATSON: I understand your point. We will show that 10-foot addition in our order.

EXAMINATION BY BOARD OR STAFF

MR. MEADOWS: Are these intervals that you've got in the petition based on your 10 percent porosity cutoff also?

MR. ZUPPAN: No, not in the Carter Sand.

MR. MEADOWS: Not in the Carter?

MR. ZUPPAN: No. We didn't find anything less than 10 percent in the Carter.

MR. MEADOWS: Well, I was asking what did you all use as the parameters to determine these intervals that are in the petition? They seem to be more based on the porosity cutoff than on actual formation or thickness.

MR. ZUPPAN: O.K. We used the gas effect as seen on the FDC CNL logs.

MR. MASINGILL: I have one question. Mr. Zuppan, if I'm right, you testified that you felt that the Carter gas wells in the Beaverton Field were part of the same pool but when your testimony got to the Lewis, do you feel that the two Lewis wells which are west of the fault, approximately 200 foot fault, that runs through Section 3, do you feel these are in communication with the Lewis Sand gas in the Sanford well?

MR. ZUPPAN: No, I don't. However, as I understand it, the Lewis completion in the Petroleum Corporation of Texas well is considered part of the Beaverton Lewis reservoir.

MR. HANBY: Mr. Chairman, we don't have any further questions.

CHMN. ADAMS: Any further questions or comments from anybody? (No response) We'll take a 3-minute recess.

(The Board was recessed for 5 minutes)

DR. MATHEWS: Mr. Chairman, I recommend that we grant the petition with the following stipulations: Namely, that it applies only to the Lee Dixon 12-3 No. 1 well and the Frank Gibson 12-10 No. 1 well, and denies declaring the East Half of Section 4 as a productive extension and denies the implicit reformation of the unit from the South Half to the East Half of Section 4 for the D. J. Loggins 4-9 No. 1 well.

CHMN. ADAMS: Is there a second to this motion?

MR. MCCORQUODALE: I second.

CHMN. ADAMS: All in favor of the motion say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

DR. MATHEWS: Mr. Chairman, I might say hypothetically if there is to be any action regarding the D.J. Loggins 4-9 No. 1 well, it would seem to me--I don't know if the Board would concur in this or not--that an explicit petition to reform the South Half to the East Half would be a clearer and more appropriate way to ask for that action to be taken.

CHMN. ADAMS: Your suggestion is well taken.

MR. WATSON: Thank you, Mr. Chairman. We will do just that.

MR. HANBY: O.K. That concludes our sounding on the uncontested items. We will now call for Item No. 1, Docket 7-8-773, Item 2, Docket 12-2-772, Item 3, Docket 7-8-774, and Item 6, Docket 12-2-774. Would the Petitioner please come forward? For the record, these are petitions by Gibraltar Gas Corporation.

MR. BROOKER: Mr. Chairman, I'm Norton Brooker, Lyons, Pipes & Cook in Mobile, representing Gibraltar Gas. I'm pleased to advise the Board that this matter can now be considered an uncontested matter. Mr. Sistrunk and Mr. Karges have agreed to withdraw their opposition to the items, specifically Nos. 1, 2, and 3, and we would anticipate withdrawing Item No. 2.

MR. HANBY: Mr. Brooker, Item No. 2 to withdraw?

MR. BROOKER: The force integration. Yes. In other words, we have made an agreement between... We do have additionally, and I have discussed this with Mr. Hanby and Mr. Freeman, an emergency petition which we would like to present a little testimony on today dealing with an exceptional location in Section 7 and 8. I have the originals and we have now filled out the forms and have the matter with us. With your all's permission, we will go into that at the conclusion of this testimony if that's all right.

CHMN. ADAMS: Yes, let's take it up when we get to it.

MR. BROOKER: Mr. Knight.

MR. HANBY: State your full name.

MR. KNIGHT: Wilbur H. Knight.

(Witness was duly sworn by Mr. Hanby)

MR. HANBY: Proceed.

MR. BROOKER: At this time we would like to reintroduce all of Mr. Knight's testimony at the November meeting, together with his exhibits that were presented in support of Docket No. 7-8-773, 7-8-774.

CHMN. ADAMS: If there are no objections, your request is granted.

WILBUR H. KNIGHT

Appearing as a witness on behalf of Petitioner, Gibraltar Gas Corporation, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Brooker:

Q State your name, please sir.

A Wilbur H. Knight.

Q Mr. Knight, where do you live?

A Jackson, Mississippi.



Q Have you testified before this Board on prior occasions and have your qualifications as a geologist been accepted by this Board?

A I have and they were.

Q Now, since the last hearing on this matter, have you made or prepared additional exhibits to your prior testimony?

A I have.

Q Could I have your exhibits?

A These are my Exhibits 1 through 6.

MR. BROOKER: And I'll transmit Exhibits 1 through 6 to Mr. Knight's testimony for today's hearing and ask that they be marked for identification and into evidence.

MR. FREEMAN: Mr. Brooker, we're now hearing Items 1, 3, and 6, is that correct? And not 2?

MR. BROOKER: We're hearing 1, 3, and 6, and actually I was going to bring this up later, but we're going to withdraw 6 because it's not going to be dually completed now. I can do that right now.

MR. FREEMAN: It might be a good idea to just withdraw 2 and 6.

MR. BROOKER: We will at this time withdraw Items No. 2

and 6.

MR. FREEMAN: You move for that?

MR. BROOKER: I move for that.

CHMN. ADAMS: Subject to objection by any member of the Board, your request is granted.

MR. SISTRUNK: Mr. Chairman.

CHMN. ADAMS: Mr. Sistrunk.

MR. SISTRUNK: If I may at this time...

CHMN. ADAMS: Are you objecting to the withdrawal of these items?

MR. SISTRUNK: No, sir, we're concurring in it. Concurring for myself and Mr. Karges and we have withdrawn all objections to the other two items filed by Mr. Brooker for Gibraltar and we concur in the presentation of the testimony which Mr. Knight is going to present. At the end of the testimony, I will advise the Board again that we will concur.

CHMN. ADAMS: Thank you.

Q Mr. Knight, if you would, go to your exhibits, please sir, that you have prepared for today's hearing, and were each of these exhibits numbered 1 through 6 prepared by you?

A They were.

Q Would you explain your exhibits and what they intend to portray, please sir?

A Yes, exhibits--I'd like to make two or three general statements before we get into exhibits specifically--exhibits 1 through 4 are isopach maps drawn with the microlog separation as the value at the well bore. A microlog is a device that measures wall cake thickness which is related to permeability. Unfortunately, the microlog device does not distinguish between 1/10 of a millidarcy or 1,000 millidarcies. It cannot tell you whether or not your sand is capable of commercial production or not. It's a help but it isn't a perfect tool by any means. Exhibits 1 through 4 have used the measurements from the micrologs on these wells to arrive at the effective sand thickness, and the contouring has been rendered in a very mechanical manner. Exhibits 5 and 6, I've used a different parameter for the isopachs in that trying to arrive at some values that in my opinion were more truly representative of the pay thickness in the wells. The SP curve was of no help. I ruled it out. I finally came up with a rather arbitrary formula wherein I added the microlog separation in the well together with all the porosity

in the zone under the study if 9 percent or more, and then struck an arithmetic average of those two values, and those are the numbers you will find on my Exhibits 5 and 6. Also, in contouring, in my rendering of the contours on Exhibits 5 and 6, I have used a good deal more professional judgment and considerably less mechanical contouring in my attempt to portray where I think the reservoirs extend. Now I'll go quickly one at a time through these exhibits. I direct your attention to Exhibit 1, and you will notice that it shows that the Upper Nason Sand is very limited. It's only present in the Leslie Cole No. 1 well and, consequently, I believe is a very small reservoir, and the pay thickness indicated by the microlog there is only five feet. Exhibit 2 shows the microlog extent of the Lower Nason Pool, and there is only one well in the field that has any significant amount of Lower Nason pay in it and that's the Day No. 1 unit where the contours stack up, and that well is completed as a dual completion in the Lower Nason. Again, all the other wells with the exception of the Morris Cole No. 1 had no microlog separation in the Lower Nason. Exhibit 4, excuse me, Exhibit 3, portrays the same param-

eters on the Carter Gas Pool. I would like to call to your attention two things in connection with this map. One, I have not extrapolated the extent of the reservoir to the east. You will notice that the isopach lines build up and become thicker and thicker to the east, and I don't mean to imply by any means that just where the lines are is where the reservoir is. I think there's a significant amount of the Carter Gas Pool extends east of my 20-foot contour line. On the west, the dash line with the question mark is the mechanical zero which would imply that that is the end of the reservoir. I don't believe it, even though we do have one well, the Leslie Cole well, that did not have any microlog in the Carter. So that portrays the Carter Sand based on microlog evaluation. Exhibit 4 is the same rendering on the Lewis Gas Pool. Here we've developed a typical deltaic channel that is so classically observed in these Mississippian sands. Again, the best well or the thickest well, being the Day No. 1, a Lewis Sand well, which has been completed in that zone, and on east and west, this rendering again implies the reservoir boundaries because of the zero contour. The north and south limits are

somewhat open because we haven't reached zero microlog. Again, this is as I say mostly or nearly pure mechanical contouring. So in summary, if a person relied on these maps to decide what his reserves were or where to drill a well in the Star Field, why he would certainly have very low reserves and not drill anymore wells probably, and in my judgment, they do not portray realistically where the reservoirs exist and this is one of the serious problems that all of the operators in producing gas in these very tight Mississippian sands have up in this area is the, trying to map the extent of these reservoirs and make prudent locations for the development thereof. Now Exhibit 5, the numbers by the well bores as I say is the arithmetic average of the microlog separation and the 9 percent or plus porosity of the reservoir in question as determined from the density log, and you'll notice you get an entirely different set of values if you'll-- I did not prepare an exhibit on the two Nason pools because they are of less significance in this field than the Carter and Lewis Sands are, but if you will compare Item 5, or Exhibit 5, with Exhibit 3 you will see that there are a, quite a difference in values of

the indicated pay thickness in the various wells on the map. I think that Exhibit 5 more accurately projects or predicts the actual location of the underground limits of this reservoir. Now you'll note I've put a little island around the Leslie Cole No. 1, and that is an actual island. There was no density porosity in excess of 9 percent and no microlog, but you've got to remember that these measurements are taken right at the well bore and we have proven almost conclusively by recent completion on the Morris Cole that even when you get low values, both in microlog and density, a successful frac job will reach out beyond the limits of the measurement of your electrical logs and actually create a permeable passage between the reservoir and the well bore. So the implication here is that this is just a local condition in the vicinity of this well bore and that it is established that we are very, very close to the edge of it because we made a drill stem test of the open hole where we actually recovered a very slight amount of gas, but we did get some gas. It wasn't commercial and there was no thought that we could make a commercial well out of it, but the fact that we actually did get some gas on the drill stem test

is pretty good proof that we're very, very close to the reservoir. Therefore, this map is my professional opinion of the more reasonable extent of this Carter Sand Pool. Again, I would like to call the Board and staff's attention to the fact that I have not, I've only contoured really the west half of the field because the values are all piling up to the east and the eastern part of the field is yet, remains to be explored, and the implication here is that there should be some good locations out there to the east in the Carter Gas Pool. The last exhibit is the Lewis Gas Pool. Again we're comparing it with Exhibit 4. You will see there again there are significant differences in the values assigned to the sand thickness or pay thickness if you prefer, and they were, again, these values are the averages of the microlog separation and the density porosity in excess of 9 percent. Here again this map shows a broader more reasonably sized deltaic type Mississippian Sand channel with the thickest part approximately in the middle around the Day No. 1 well. An attempt to complete the Morris Cole well in the SE SE/4 of Section 12 in this zone failed because of mechanical problems. We had a bad cement job and I think the well



could have probably produced. As this implies, it could, but for mechanical reasons, why, it was not successfully completed in the Lewis. So really Exhibits 1 through 4 were offered to show the trap a person can get in if he relies on just one arbitrary measurement that's obtained from electrical log and fails to use any geological expertise in interpreting that data. Exhibits 5 and 6 are, in my judgment, based on a good deal of experience in the paleozoic sandstones of Mississippian Age, is a much more realistic interpretation of the most probable reservoir limits. Now then, again, I've left them open to the north and south. I don't know how far they might extend just because of the lack of control, and that, in essence, concludes my testimony regarding the extent of these reservoirs.

Q Let me just ask you a few questions. Based on your testimony, Mr. Knight, do you have an opinion as to whether or not the West Half of 12 is underlain by recoverable gas?

A Yes, I think that it has some gas in both the, as my Exhibits 5 and 6 indicate, yes.

Q Is it also your opinion that gas underlying the West Half of 12 would be drained by the existing wells

located in the eastern portion of the Section 12?

A Most probably it would, yes.

Q Are you familiar with the statutory definition of waste as used in the statutes of this state?

A I am.

Q In your opinion, would waste occur if the Northwest and Southwest of 12 were not included in the units of the existing wells of Section 12?

A Well, very definitely, because economically it would be greatest kind of waste because I doubt if there is sufficient pay of sufficient quality in the West Half of 12 that would justify a prudent operator to drill a well to produce it. It can be produced in existing wells.

Q In your opinion, would a unit formed in the manner in which we have asked in these docket items today as being the North Half of 12 and the South Half of 12, create an optimum unit for the further development of the field and prevent waste and protect and enforce the correlative rights of all parties in Section 12?

A Yes, it would, and I might add to that conclusion and that statement that since we have successfully completed

the Morris Cole well in the Carter Sand, the productive capacity of the two wells in Section 12 will be almost the same as the well in, I mean in the South Half of 12, will be about the same as the well in the North Half of 12. So even their production rates, even though they are coming from different reservoirs, will be approximately the same.

MR. BROOKER: That concludes our testimony on these two items.

EXAMINATION BY BOARD OR STAFF

MR. HANBY: Mr. Chairman, I have a couple of questions. In regard to the South Half of Section 12 where in the Morris Cole you reported <sup>Don K.A.A.</sup> ~~porous~~ cement, is it anticipated or if it is not anticipated at this time, would you recommend drilling another well in the South Half of Section 12 for the Lewis?

MR. KNIGHT: The answer to that question might be developed, perhaps, a little better with our engineering witness but I'll be glad to answer the question in my opinion. I think that there are sufficient wells in this part of the field at the present time to probably drain it if the reservoirs are very limited in extent. If they're not, then I think another well is certainly called for in the South Half

of 12. Now the only way we can find out whether or not these reservoirs are in fact commercial is put them into production and watch their performance for a matter of months. Now then I would say if the Lewis Sand produces efficiently and without any significant pressure drop over a period of several months from the Day No. 1 well in the North Half of the section, then I think it would be economically prudent to drill a well to the Lewis Sand in the South Half of Section 12, but that's my answer--qualified.

MR. HANBY: O.K., Sir, let me ask another one. On the Morris Cole well, this well has been tested in the Carter?

MR. KNIGHT: That is correct.

MR. HANBY: Have you all filed a first production test with the Board?

MR. KNIGHT: It was mailed to your office three days ago and apparently it hasn't been received. We have several copies and we will file it at this time.

MR. BROOKER: I apologize if it's--I thought you all had it.

MR. KNIGHT: It was mailed. I know that. I checked that out yesterday but Christmas and the post office is something else.

MR. MASINGILL: Mr. Knight, what did the Carter --since I didn't see the production test on it--what did it test?

MR. KNIGHT: About a half a million feet a day with-- what was it--130-40 pounds? Does that answer it close enough?

MR. MASINGILL: That's fine.

DR. MATHEWS: Mr. Chairman, are you ready for a motion?

CHMN. ADAMS: Do I hear a motion?

DR. MATHEWS: I move that the petition, Item No. 1, be granted.

MR. MCCORQUODALE: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: So ordered.

DR. MATHEWS: I move that the petition in Item No. 3 be granted.

MR. MCCORQUODALE: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it--so ordered.

MR. HANBY: Mr. Chairman, did we dismiss Items 2 and 6 officially yet?

CHMN. ADAMS: Yes.

MR. HANBY: We did? O.K. That...

MR. BROOKER: Mr. Hanby, would it be appropriate to take up our request for an emergency order at this point in time on the well location?

MR. HANBY: Mr. Chairman....

CHMN. ADAMS: Is it on the agenda?

MR. BROOKER: No, sir, it is not.

MR. HANBY: Do you want to go on to the next item?

CHMN. ADAMS: I think since you're here...

MR. KNIGHT: The exhibits...

MR. BROOKER: The exhibits are going to be the same exhibits you've got in front of you.

CHMN. ADAMS: Since you're here and...

MR. BROOKER: I don't want to take up anybody else's time but I had hoped to...

CHMN. ADAMS: If there is no objection, proceed.

MR. FREEMAN: Let me state something too if I may, Norton. Even though we're hearing this matter in open hearing, it of course, would have to be advertised and at the next advertised public hearing, I think you would need to be prepared to resubmit this same evidence in the event there was opposition.

MR. BROOKER: We are prepared to do that and I have today

the petition to make it final, proposed advertisement, and everything else. If I may...

MR. KNIGHT: I promise you the exhibits will be in a little better shape next month to.

MR. BROOKER: Mr. Sistrunk has called something to my attention that I had best bring up. The unit formation in the South Half of 12 is to be only in the Carter and the Upper Nason at this time. We do not have a Lewis well in the South Half. I thought it was clear from what the petition-- Mr. Sistrunk brings that up to me. So this is something for the record. We will clear that up in the order.

MR. HANBY: Right. Mr. Brooker, will you have Gibraltar file a new or amended application to drill for the Morris Cole well defining it only as a Carter? The Upper Nason is a reformation in Item 3, and that is already --everything is o.k. on that. We would ask that you also ask Gibraltar on each of these that have been reformed, the Leslie Cole and the C. C. Day, that they file an affidavit of ownership or control...

MR. BROOKER: Right.

MR. FREEMAN: And in the event the Board should grant your

request for an emergency order, the advertisements would be mailed tomorrow, is that correct?

MR. BROOKER: You've got them in that.

MR. FREEMAN: O.K. Thank you.

WILBUR KNIGHT

Appearing as a witness on behalf of Petitioner, Gibraltar Gas Corporation, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Brooker:

Q Mr. Knight, in connection with this emergency petition, Gibraltar has requested to drill a well...

A It might be helpful just to pass--we apologize for the lack of exhibits. This is all I can offer and because of the emergency I just sketched on the proposed unit and the location on those two maps. I have it on the other maps if it would be of help.

MR. BROOKER: Basically, what Gibraltar is asking the Board to do is to approve an exceptional unit comprised of two quarter sections in the Southwest of 8 and Southeast of 7.

Q Mr. Knight, have you reviewed your maps and your



geology in connection with this request for an exceptional location?

A I have.

Q In the Southeast of 8--Southwest of 8 and Southeast of 7?

A I have.

Q Do you have an opinion as to the effect, from a geological point of view, of the Board creating a drilling unit in this manner?

A Well, I think it just continues an orderly pattern of development, and as I testified at a prior hearing, I don't think there is anything magical about governmental half sections. It's again the same domino game, and as long as the Board watches that no islands are created in the issuance of administrative permits, why it certainly adds to orderly development rather than detracts from it. So I think this is a fair and proper unit and it certainly is implied especially by the Carter geology that it is probably entirely underlain with sand. I think the East Half of the field is yet to be defined and discovered. Again, as I say, my Carter Sand isopachs, no matter what parameters I use, definitely imply that

the Carter Sand is still building to the east. Now the Lewis at this location I think will be commercial in the Lewis, but not necessarily the entire unit underlain, but it's just impossible to predict with any reasonable accuracy what the ultimate development of any of these sands will be. We know structurally we're still way up on top of this low relief anticline, so it's a must well. It has to be drilled for proper development and I think that the proposed unit is a proper unit for the well.

Q In your opinion, would the unit as proposed be better from a geologic point of view based on data known now as opposed to, say, an East Half 7 unit?

A Well, the well is going to be the same regardless of the unit, so it's just a question of the future development, and now the goal of any prudent operator in any field is to maximize the profit and that means to drill the minimum number of wells he can to produce all the recoverable gas, and I think this location and this proposed unit goes hand in glove with that basic premise.

MR. BROOKER: That's all the questions I have of Mr. Knight. I do have another witness on this, Mr. Mason, with Gibraltar. Does anyone have any questions of Mr. Knight?

MR. HANBY: I've got a couple I can ask at this time or we can wait until you finish your presentation.

MR. BROOKER: Maybe he will cover it. Mr. Mason.

MR. HANBY: Mr. Mason, will you state your full name?

MR. MASON: Richard H. Mason.

(Witness was duly sworn by Mr. Hanby)

MR. HANBY: Be seated and proceed.

MR. BROOKER: I'll transmit the statement of Mr. Mason's qualifications.

RICHARD H. MASON

Appearing as a witness on behalf of Petitioner, Gibraltar Gas Corporation, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Brooker:

Q Mr. Mason, state your name, please sir.

A Richard H. Mason.

Q By whom are you employed?

A Gibraltar Gas Corporation.

Q And Mr. Hanby is looking over the statement of your qualifications as a geologist. Are those matters true and correct as contained in that statement?

A That's correct.

MR. BROOKER: I would tender Mr. Mason as an expert witness to the Board.

CHMN. ADAMS: He is accepted.

Q Mr. Mason, in connection with the proposed exceptional location for this well in Section 7 and 8, have you been responsible for the well locations and the general day to day operations on behalf of Gibraltar in the Star Field?

A Yes, sir, that's correct.

Q And are you, also as a geologist, have you reviewed Mr. Knight's maps and presentation made to the Board?

A Yes, I have, and let me say that in looking at the proposed development program and the wells, Gibraltar is responsible, as the primary operator, in selecting these locations and we try to take into account two things: The risk of drilling the proposed test well in response to the risk money involved and will the proposed well adequately drain the reserves from the unit we propose. As Mr. Knight testified, the location will remain the same in either case, but now if we made a unit, say, the East Half of Section 7, the next location requires us to move over to the east in Section 8 and to a location

we think is an extremely high risk location, and that is the primary reason. We're doing the same thing on the west side of the field where we extend proposed units or approved units now off to the west side. We're proposing to do the same thing off the east side of the field. We feel like that the area in Section 8 probably is not as perspective as where we're drilling in 7, so we're trying to keep from drilling a noncommercial or subcommercial well, reducing our risk involved and yet adequately draining the reserves from the Star Field area.

Q Now, in further connection with this matter, do you, would you explain to the Board why you need emergency relief today?

A The situation, as far as drilling rigs are concerned, is extremely tight right now. We're talking with several contractors, and for us to start preliminary work and not be able to give a commitment to a contractor that we will or will not use his services is extremely critical at this time of the year. We realize that this matter must come up before rehearing in the next Board meeting, but there are a lot of groundwork and paperwork that we could have ready and after final approval we could

almost move in immediately. If we don't get approval at this time, then it would slow our development program down, and in the south end of the field, this is, we think the optimum location. So we are prepared to drill additional wells and we want to move as fast as possible.

EXAMINATION BY BOARD OR STAFF

DR. MATHEWS: Let me ask you this question. How critical-- you make a case for drilling the well and as your earlier witness testified, drilling the well and running the unit lines are two different matters. The geology is not going to change under the ground regardless of what you do with lines on top of it, so does it make any difference to you from the point of view of your point whether the lines run east to west or north-south?

MR. MASON: It will not on this well but it will on subsequent wells. What we would plan on doing would probably propose an additional unit. If this is successful and our signs are like we think, we would probably propose the next unit to be the Northeast of 7 and the Northwest of 8. This would keep from leaving any islands in the field and would allow orderly development on wells that aren't high risk or stepping out and too distant. If we did not do that and had an East Half of 7, our next well then would be over in Section

8 and it would be approximately 33 or 3400 feet away, and moving in that direction that distance it would in my opinion be a high risk well.

MR. HANBY: Mr. Mason, I've got a question. Earlier in your testimony you made the statement of an exceptional location and for the record the location as shown on these exhibits is a regular location within the field rules. The exception is the proposed unit.

MR. MASON: Yes, that's correct. I just misstated that. That's correct. It is a regular location and exceptional unit.

MR. HANBY: Now which one of the pools within the Star Field is the proposed well to be drilled to?

MR. MASON: We would drill it to the Lewis Pool. Probably the zone, as Mr. Knight points out, that has the highest potential would be the Carter Pool. We would hope to be successful enough to come back to the Board and ask for permission to dually complete this, but our primary objective is the Carter. We would drill it as prudent operators to the Lewis and test it and if it's commercial at that point, we would probably make a dual completion if the reservoirs justify it.

MR. HANBY: O.K. So this would be your Carter but you would go in total depth proposed to test the Lewis?

MR. MASON: That's correct.

MR. HANBY: Mr. Chairman, on this, since it is an emergency request and the study on this by the staff has not had that much time, we would recommend, as most emergency orders are handled, that the staff have time to review and then contact the Board in the normal manner for action.

CHMN. ADAMS: Is there any objection to the procedure suggested by Mr. Hanby?

MR. SISTRUNK: Mr. Chairman, may I address the Board?

CHMN. ADAMS: On this matter here or some other matter?

MR. SISTRUNK: On this matter.

CHMN. ADAMS: All right.

MR. SISTRUNK: And on the specific subject if I may. I'm W. E. Sistrunk. I own several hundred acres of oil and gas leases lying in the north parts of Section 1 and Section 6. It is immediately adjacent to and adjoins the area under discussion. I would like to direct some questions, if I can, to the witness regarding this matter to eliminate some of the factors in this, at this time.

CHMN. ADAMS: Are you opposed to this order or are you for it?



MR. SISTRUNK: I am opposed to the formation of a unit which extends out of a section, yes, sir.

CHMN. ADAMS: And this is an emergency order proposing a new unit?

MR. SISTRUNK: I would like to preface it with a question. One or two questions may solve some of the answers, but I would like a little more information from Mr. Mason.

#### CROSS-EXAMINATION

##### Questions by Mr. Sistrunk:

Q Mr. Mason, at the last meeting of the Board, Gibraltar, through its attorney, petitioned the Board to approve units within a certain footage limitation which would extend and could extend from section to section as this proposed unit, and the Board did not see fit, if I'm recalling correctly, to grant such petition, and did, however, I believe, say they would entertain such a motion on an emergency basis, which this seems to...

MR. BROOKER: That's not what they said, Mr. Sistrunk. They said the Board would consider an exceptional unit such as what we're asking for today. At that point in time, I, myself, Mr. Knight, I don't know if Mr. Mason knew, that this particular unit was going to be proposed.

- Q If, Mr. Mason, in the event this unit as requested were approved, it would then alter the spacing in that from thereon going in either northly or easterly directions, it would be necessary to make units out of part of two sections, would it not? Well, if not, would you explain why not?
- A It's possible that this would be a nonproductive well and in that event the development in that direction would stop.
- Q Yes, sir, that would be true. In the event it produced, as you hope it will, it would then require...
- A In the event that, as I mentioned to the Board, that the next location in that area would be probably an exception unit comprising the Northeast of 7 and the Northwest of 8, but at that point I do not see any additional units that would be made there.
- Q But if units continued and the field developed, would not everyone be partly in one section and partly in another? On 320-acre rectangularly shaped units?
- A I don't know. There's no way to answer that question.
- MR. SISTRUNK: I would say to the Board that they would be. It's pretty obvious they would be, and I could see no

way unless Mr. Mason could demonstrate it, how it could fail to be that way.

MR. MASON: I don't understand the objection. I really don't understand what is the problem in crossing section lines. Every other state commission that we do business with gives you the latitude of doing this. However, some states are more specific on geologic interpretation. I feel that if we are hampered in certain matters it ties our hands in doing what we are all trying to do, which is to adequately drill the field in the most economical manner possible and drain the gas in an equitable manner, and that's all we're trying to do here.

Q You have stepped out again crossing two 40's. You went from one 40, jumped a 40, and went to another 40, which would be about 2600 feet, approximately, on several occasions in this field, have you not?

A That's correct.

Q Did you not drill a well in the SE/4 of SE/4 of Section 1?

A Yes, that's correct.

Q You referred to drilling a well in the NE/4 of Section 7 as a possibility, and if you were to do that, would it not require taking in acreage in Section 6 to make a unit or acreage in Section 18 to make a unit, again crossing

section lines?

A Yes, the point is that if the well, the unit we're asking for now, is successful, we will probably require a second unit embraced in almost identical manner to get a, to form a unit, if it were successful. At that point I would not speculate how other units would be formed ...

Q If, however, you were to take in the SE/4 of Section 6 with the NE/4 of Section 7 to make a unit, then the only remaining alternative would be the West Half of Section 6 as a 320 unit within, wholly within a section, would it not?

A That's true.

Q And you own the west offset well to that or operate that well. Again you would be spacing the wells closer than the 3300 feet that you have mentioned between wells, and Gibraltar's pattern here and the pattern in other places has not been to extend units from section to section, and the State of Alabama, in its determination, has long since indicated its preference for units lying, half section units lying completely within a section. Is it not possible to use the NE/4 with the SE/4 and make a unit and be in the East Half of Section 7?

MR. FREEMAN: Excuse me, a minute. Mr. Chairman, if I might express a thought here. This matter is not on the agenda and it appears it may take an undue amount of the Board's time, and I wonder if we might...

MR. SISTRUNK: I'm through, Mr. Chairman.

MR. FREEMAN: I wonder if we might, the Board and the staff, consider this following this meeting or something. Additionally, I think Mr. Sistrunk may be doing what amounts to testifying without having been sworn.

MR. SISTRUNK: That's what I'm trying to avoid and just in conclusion I'm going to make the statement that the reason my objection was made at this time is that such acres approaching leases which I own to the north puts me in the same position of having to form such units myself, as I go, you go northward... Thank you, Mr. Chairman.

DR. MATHEWS: Mr. Chairman, do you require a motion to take this matter under advisement? Since it's not on the docket I don't think we need a motion but if you require one, I'd be pleased to make one. If not, I'd move on the item before the Board.

CHMN. ADAMS: Would you make the motion?

DR. MATHEWS: I move we take this under advisement.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. BROOKER: Thank you for giving us the extra time.

MR. HANBY: O.K. That takes us to Item No. 6, Docket No. 12-2-77--excuse me, that item was withdrawn. Item 4, Docket No. 11-4-774A, petition by Warrior Drilling & Engineering. Will the Petitioner please come forward?

MR. CROWE: May I address the Board, Mr. Chairman? I'm Rae Crowe representing Terra Resources. Item No. 4 shown on the docket is an emergency order granted on October 7 to be made permanent on petition of Warrior today seeking to establish permanent allowables in the West Fayette Field based on 30 percent of absolute open flow of the well. We would like at this time to file with the Board--I think there are four copies there, Mr. Freeman--a motion to continue this cause until the next regularly scheduled meeting of this Board on January 6, 1978, on grounds that this is a petition that Warrior has filed and it seeks to set the allowables on a fieldwide basis. The petition alleges, and we take issue with this, that Warrior is the field operator. Terra has, at the present time, three wells in this field which are connected to a pipeline. A

fourth well was recently completed but has not been tested as of yet, and is not connected, so that we do have the matter of being an interested party, three connected wells and one unconnected well. We have not had sufficient time to study and analyze and complete the test data much less the other factors which will be involved in this allowable hearing. As I say, we do take issue with the fact that 30 percent of the absolute open flow of the well is a proper allowable based on the data that we hope to assemble and be able to present to this Board on January 6. In this energy-short period of time, absolute waste, which we hope to be able to show at the next hearing, we see no reason to leave this gas in the ground. At any rate we would request that at this time the allowable hearing on the petition of Warrior be continued until the January meeting, and it is my understanding that Warrior has no objection to the granting of this motion.

MR. WATSON: Mr. Chairman, we've discussed that. I would ask Mr. Tucker if he would have anything to add to that.

MR. TUCKER: I would like to add that the fact that these wells have really been connected only since October and they had a full month's production in November, and December the production should be even more heavy, and I believe that we

will have more data in January to properly evaluate and recommend an allowable. We are prepared today, since we have petitioned the Board in October and have been operating under an emergency allowable, and have been operating under the patience of the Board, we are willing to testify, but it is our feeling that more meaningful data would be available in January if the Board would have the patience to continue and extend our emergency order.

CHMN. ADAMS: Any opposition to the request for continuance? (No response)

DR. MATHEWS: I move a continuance, Mr. Chairman.

MR. MCCORQUODALE: I second.

CHMN. ADAMS: All in favor say "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

MR. CROWE: Thank you, gentlemen.

MR. HANBY: Mr. Chairman, that brings us to the end of the advertised items on the agenda. We have one other item, that being the approval of the October 7, 1977, minutes.

MR. MCCORQUODALE: I move they be approved.

DR. MATHEWS: I second.

CHMN. ADAMS: All in favor say "aye".



(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it and so ordered.

DR. MATHEWS: Do we have to make a motion to adjourn?

I move we adjourn, Mr. Chairman.

MR. MCCORQUODALE: I second that motion.

CHMN. ADAMS: We're adjourned.

(Whereupon, at 12:42 P.M. the hearing was adjourned)

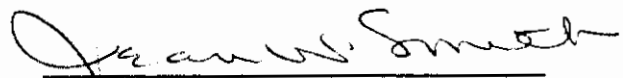
REPORTER'S CERTIFICATE

STATE OF ALABAMA       ()

COUNTY OF TUSCALOOSA ()

I, Jean W. Smith, Hearings Reporter in and for the State of Alabama, do hereby certify that on Thursday, December 15, 1977, in the Board Room of the State Oil and Gas Board Building, University Campus, Tuscaloosa, Alabama, I reported the proceedings before the State Oil and Gas Board of Alabama in Regular Session; that the foregoing 117 typewritten pages contain a true and accurate verbatim transcription of said proceedings to the best of my ability, skill, knowledge, and belief.

I further certify that I am neither of kin or counsel to the parties to said cause, nor in any manner interested in the results thereof.

  
\_\_\_\_\_  
Jean W. Smith  
Hearings Reporter  
State of Alabama