

Approved by  
Board 6-3-81

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EXHIBITS

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Affidavit (Exxon)	Affidavit of James D. Leal	46	47
Exhibit No. 2 (Exxon)	Plat-Scott Paper Co. G.U. 2, Flomaton Field	47	47
Exhibit A (Charles Haynes)	Proposed Scruggs Commingling Facility, Gilberttown	52	52
Exhibit No. 1 (Evelyn Etter)	Dual completion schematic No. 1 Sarah C. Sprouse 30-10, McGee Lake	61	61
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Exhibit No. 4 (Evelyn Etter)	Type log for Sarah C. Sprouse, Lewis Sand	61	61
Exhibit No. 5 (Evelyn Etter)	Type log for Sarah C. Sprouse, Carter Sand	61	61
Exhibit No. 1 (Evelyn Etter)	Isopach Net Permeable Sand, McGee Lake, No. 1 Ellen Rogers 25-1	65	65
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Affidavit (Enserch Explo- ration, Inc.)	Affidavit of Jerry C. Taylor	69	69

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(Contd.)

TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 1 (Walt Henley)	Unit map, Blowhorn Creek, Millerella Sandstone Gas Pool Units	82	82
Exhibit No. 2 (Walt Henley)	Carter Sandstone Gas Pool Units, Blowhorn Creek Field	82	82
Exhibit No. 3 (Walt Henley)	Carter Sandstone Oil Pool Units, North Blowhorn Creek	82	82
Exhibit No. 4 (Walt Henley)	Structure Map, Millerella Limestone, Blowhorn Creek	82	82
Exhibit No. 5 (Walt Henley)	Net Pay Isopach-Upper Lobe, Carter Sandstone Blowhorn Creek Field	82	82
Exhibit No. 6 (Walt Henley)	Net Pay Isopach-Lower Lobe, Carter Sandstone Blowhorn Creek Field	82	82
Exhibit No. 7 (Walt Henley)	Cross section index map Blowhorn Creek Field	82	82
Exhibit No. 8 (Walt Henley)	Stratigraphic cross section, North Blowhorn Creek Field and Blowhorn Creek Field	82	82
Exhibit No. 9 (Walt Henley)	Carter Sandstone Oil Pool Units, North Blowhorn Creek Field	88	88
Exhibit No. 10 (Walt Henley)	Net Pay Isopach-Upper Lobe, Carter Sandstone Blowhorn Creek Field	88	88
Exhibit No. 11 (Walt Henley)	Net Pay Isopach, Lower Lobe, Carter Sandstone, Blowhorn Creek Field	88	88

EXHIBITS  
(Contd.)

TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 12 (Walt Henley)	Stratigraphic cross section, North Blowhorn Creek and Blowhorn Creek Fields	88	88
Affidavit (Grace Petroleum)	Affidavit of Tom Watson	--	--
Exhibit No. 1 (John McLain)	Portion of electrical log of International Paper 20-9 No. 1	94 129	94 129
Exhibit No. 2 (John McLain)	Plat of Proposed Blacksher Field	94 129	94 129
Exhibit No. 3 (John McLain)	Isopach Net Oil Pay Blacksher Field	94 129	94 129
Exhibit No. 4 (John McLain)	Structure Map Blacksher Field	94 129	94 129
Exhibit No. 5 (John McLain)	Production performance International Paper 20-9 No. 1	94 129	94 129
Exhibit No. 6 (John McLain)	Reservoir Properties Wells in Blacksher Field	94 129	94 129
Exhibit No. 7 (John McLain)	Well Economics Blacksher Field	94 129	94 129
General Exhibit A (John McLain)	Special Field Rules for Blacksher Field	94 129	94 129

STATE OIL AND GAS BOARD OF ALABAMA

Tuscaloosa, Alabama

May 1, 1981

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 1st day of May, 1981.

BEFORE:

BOARD MEMBERS

Dr. Ralph Adams..... Chairman  
Mr. Gaines C. McCorquodale..... Associate Member  
Mr. James G. Lee..... Associate Member

BOARD STAFF

Mr. Richard N. Raymond..... Acting Secretary & Supervisor  
Mr. Ken Hanby..... Assistant Supervisor  
Mr. John Carey..... Attorney  
Mr. Dale Smith.....Geologist  
Mr. Doug Hall.....Geologist  
Mr. Ralph Hellmich.....Geologist  
Mr. Chuck Weems.....Southern Regional Supervisor

(Reported by Jean W. Smith)

APPEARANCES

NAME	REPRESENTING
1. Melinda Stewart New Orleans, La.	Shell Oil Company
2. John McLain New Orleans, La.	Shell Oil Company
3. Fulton J. Olivier P. O. Box 60626 New Orleans, La. 70160	Exxon
4. Chap Burroughs Tuscaloosa, Alabama	Not listed
5. T. K. Wallis Jackson, Mississippi	Texaco
6. Neal McGough Dothan, Alabama	Royalty owner
7. Mike Dunaway Columbus, Mississippi	Royalty owner
8. Charles Haynes Tuscaloosa, Alabama	Belden & Blake
9. Mark Wyatt Mobile, Alabama	FNB
10. Hooper Matthews, Jr. Atmore, Alabama	Not listed
11. Evelyn Etter Houston, Texas	Southland Royalty Co.
12. Walt Henley Jackson, Mississippi	Pruet Oil Company
13. Louis Sanantonio P. O. Box 50879 New Orleans, La. 70150	Amoco Production Co.

APPEARANCES  
(Contd.)

<u>NAME</u>	<u>REPRESENTING</u>
14. Hugh Craig Forshner P. O. Box 50879 New Orleans, La. 70150	Amoco Production Company
15. Jack Wilhelm P. O. Box 50879 New Orleans, La. 70150	Amoco Production Company
16. Stan Posey Tuscaloosa, Alabama	P. E. LaMoreaux & Associate
17. William T. Watson	Grace, Pruet Production, Morrow Oil, Exxon, Hughes & Hughes, Moon & Hines, Belden & Blake, Southland Royalty, Enserch, et al
18. Steve Harrison Tuscaloosa, Alabama	Watson and Harrison

PROCEEDINGS

(The hearing was convened at 10:05 a.m. on Friday,  
May 1, 1981, at Tuscaloosa, Alabama)

CHMN. ADAMS: Let the record reflect that the State Oil and Gas Board is now in session. I have a resolution, proposed resolution, by the Board that I would like to read before we get started on other business.

"BEFORE THE STATE OIL AND GAS BOARD OF ALABAMA

PURSUANT TO A DECISION RENDERED DURING A  
REGULAR SESSION OF THE STATE OIL AND GAS  
BOARD OF ALABAMA ON MAY 1, 1981, AT  
TUSCALOOSA, ALABAMA, THE FOLLOWING RESOLUTION  
IS HEREBY PROMULGATED:

RESOLUTION

"KNOW ALL MEN BY THESE PRESENTS: - That, WHEREAS, Thomas J. Joiner resigned his positions as State Geologist, State Oil and Gas Supervisor, and Secretary to the State Oil and Gas Board on the 30th day of April, 1981, after having served since the 25th day of August, 1976, and

WHEREAS, Thomas J. Joiner distinguished himself through twenty years of dedicated service to his state by serving as the Chief of Paleontology, Stratigraphy and Geophysics Division of the Geological Survey, as

Assistant State Geologist, as Assistant Oil and Gas Supervisor, and as State Geologist and Oil and Gas Supervisor, and

WHEREAS, Thomas J. Joiner has served with honor and distinction and has been dedicated to the principles of oil and gas conservation in the State of Alabama, and

WHEREAS, his service on numerous boards and committees both within and outside the state has enhanced the stature and prestige of the State Oil and Gas Board.

NOW, THEREFORE, BE IT RESOLVED by the State Oil and Gas Board that the members of the Board, the Supervisor, and the entire Oil and Gas Board staff pay tribute to Mr. Joiner by expressing their admiration for his efforts, for his years of faithful service, direction and guidance, and for his wise counsel and advice, and

BE IT FURTHER RESOLVED that the members of the Board sign this resolution in their official capacity and that this resolution be incorporated into the official minutes of the Board, and further, that

an executed copy be presented to Mr. Joiner.

ALL OF THE ABOVE IS HEREBY RESOLVED on this  
the 1st day of May, 1981.

STATE OIL AND GAS BOARD OF ALABAMA

By /s/Ralph Adams  
Dr. Ralph Adams, Chairman

By /s/Gaines McCorquodale  
Gaines C. McCorquodale, Member

By /s/James G. Lee  
James G. Lee, Member

ATTEST:

/s/Richard Raymond  
Richard N. Raymond  
Acting Secretary"

MR. MCCORQUODALE: Mr. Chairman, I move the granting of  
the resolution.

MR.LEE: I second.

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

(All Board members voted "aye")

CHMN. ADAMS: It is adopted. Mr. Supervisor, has this  
meeting been properly advertised?

MR. RAYMOND: Mr. Chairman, with the exception of

Items 6, 7, 16, 17, 30, 43, 44, and 52, today's meeting has been properly advertised, and I transmit a copy of that advertising to the recording secretary.

#### NOTICE OF MEETING

"The State Oil and Gas Board of Alabama will hold its regular monthly meeting on Friday, May 1, 1981, 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 and applications:

"1. DOCKET NO. 1-16-813A

Continued amended petition by Grace Petroleum Corporation, 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 approving a well completion without a packer for the Delaney 11-5 Well, Permit No. 2971, located on a unit consisting of the North Half of Section 11, Township 13 South, Range 15 West, Lamar County, Alabama, in the Beaverton Field, as an exception to

Rule D-3 of the General Rules and Regulations of the State Oil and Gas Board of Alabama.

"2. DOCKET NO. 3-20-814

Continued petition by Charles L. Cherry & Associates, Inc., 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 amending Rule 1 of the Special Field Rules for the West Fayette Field, Fayette County, Alabama, by deleting therefrom the following parcels, to-wit: Sections 5, 6, 7, 8, and the West Half of Section 9, all in Township 16 South, Range 13 West, Fayette County, Alabama.

"3. DOCKET NO. 3-20-815

Continued petition by Charles L. Cherry & Associates, Inc., 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 establishing a new gas field for the Carter Sand Gas Pool and to promulgate Special Field Rules for

320-acre spacing for the following described parcels, to-wit: Sections 5, 6, 7, 8, and the West Half of Section 9, all in Township 16 South, Range 13 West, Fayette County, Alabama, and all productive extensions thereof.

"4. DOCKET NO. 3-20-817

Continued petition by Pruet Production Co., 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 amending Rule 1 of the Special Field Rules for the Beaverton Field by adding the West Half of Section 20, Township 12 South, Range 15 West, Lamar County, Alabama.

"5. DOCKET NO. 5-1-812

Petition by Shell Oil Co., a foreign corporation authorized to do and doing business in the State of Alabama, requesting the Board to enter an order establishing Special Field Rules for a new Smackover discovery in the International Paper Co. 20-9 No. 1 Well, Permit No. 3039, Baldwin County, Alabama, to be known as the

Blacksher Field, with spacing of 160 contiguous acres, said field limits to include an area described as all of Sections 19 and 20; SW/4 of Section 21; N/2 of Section 29; N/2 of Section 30, all in Township 3 North, Range 4 East, Baldwin County, Alabama; the E/2 of Section 24 in Township 3 North, Range 3 East, Baldwin County, Alabama, underlain by the Smackover Oil Pool defined as an interval between 15,663 feet and 15,999 feet in said International Paper Co. 20-9 No. 1 Well, Permit No. 3039, and all productive extensions thereof. Petitioner also requests the Board to establish an allowable for said field.

"6. DOCKET NO. 5-1-813

Petition by Shell Oil Company, a foreign corporation incorporated in Delaware and authorized to do and doing business in the State of Alabama, requesting the Board to reform the 40-acre drilling unit consisting of the West 1/2 of the Northeast 1/4 of the

Southeast 1/4 (W/2 of the NE/4 of the SE/4) and the E 1/2 of the Northwest 1/4 of the Southeast 1/4 (E/2 of the NW/4 of the SE/4) Section 20, Township 3 North, Range 4 East, Baldwin County, Alabama, for the Shell-International Paper Company 20-9 #1 Well, Permit No. 3039, to a 160-acre unit consisting of the Southeast 1/4 (SE/4) of Section 20, Township 3 North, Range 4 East, Baldwin County, Alabama, in conformity with the proposed Special Field Rules for the Blacksher Field, Baldwin County, Alabama.

"7. DOCKET NO. 5-1-814

Petition by Shell Oil Company, a foreign corporation incorporated in Delaware, and authorized to do and doing business in the State of Alabama, requesting the Board to reform the 40-acre drilling unit consisting of the southeast one-quarter of the northwest one-quarter of the northwest one-quarter (SE/4, NW/4, NW/4), the southwest one-quarter of the northeast one-quarter of the northwest one-quarter (SW/4, NE/4, NW/4), the

northeast one-quarter of the southwest one-quarter of the northwest one-quarter (NE/4, SW/4,NW/4), and the northwest one-quarter of the southeast one-quarter of the northwest one-quarter (NW/4, SE/4, NW/4) of Section 29, Township 3 North, Range 4 East, Baldwin County, Alabama, for the Shell-Wefel No. 2 Well, Permit No. 2925, to a 160-acre unit consisting of the northwest one-quarter (NW/4) of Section 29, Township 3 North, Range 4 East, Baldwin County, Alabama, in conformity with the proposed Special Field Rules for the Blacksher Field, Baldwin County, Alabama.

"8. DOCKET NO. 5-1-815

Petition by Morrow Oil & Gas Co., 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 amending Rule 1 of the Special Field Rules for the West Fayette Field, Fayette County, Alabama, by deleting therefrom the following parcels: Sections 5, 6, 7, 8, and the West Half of

Section 9, all in Township 16 South,  
Range 13 West, Fayette County, Alabama.

"9. DOCKET NO. 5-1-816

Petition by Morrow Oil & Gas Co., 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 establishing a new gas field, to be named by the Board, for the Millerella, Carter and Lewis Sand Gas Pools, and to promulgate Special Field Rules for 320-acre spacing for the following described parcels and all productive extensions thereof: Sections 5, 6, 7, 8, and the West Half of Section 9, all in Township 16 South, Range 13 West, Fayette County, Alabama.

"10. DOCKET NO. 5-1-817

Petition by Exxon Corporation, a New Jersey corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order approving an exceptional location for a well to be drilled 660' FWL and 660' FSL of Section 6, Township 1

North, Range 8 East, Escambia County, Alabama, as a productive extension of the Big Escambia Creek Field, said well to be designated the Lambeth Gas Unit 6-2.

"11. DOCKET NO. 5-1-818

Petition by Exxon Corporation, a New Jersey corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order approving a replacement well for the St. Regis Paper Company Gas Unit 9-7, Permit No. 1858, said replacement well to be designated the St. Regis Paper Company Gas Unit 9-4 located as an exceptional location, namely 660' FWL and 660' FNL of Section 9, Township 1 North, Range 7 East, Escambia County, Alabama, in the Big Escambia Creek Field.

"12. DOCKET NO. 5-1-819

Petition by Exxon Corporation, a New Jersey 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

all tracts and interests in Section 2, Township 1 North, Range 7 East, Escambia County, Alabama, in the Flomaton Field, and designating petitioner as operator of said unit, all pursuant to Section 9-17-13, Code of Alabama (1975), and Rule M-1 of the Rules and Regulations of the State Oil and Gas Board of Alabama.

"13. DOCKET NO. 5-1-8110

Petition by Hughes & Hughes, a partnership authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order amending Rule 1 of the Special Field Rules for the Blowhorn Creek Gas Field by adding to the field limits all of Section 3, Township 14 South, Range 14 West, Lamar County, Alabama, and all productive extensions thereof.

"14. DOCKET NO. 5-1-8111

Petition by Hughes & Hughes, a partnership authorized to do and doing business in the State of Alabama, requesting the State Oil

and Gas Board to enter an order reforming the Sizemore 3-10 No. 1 Well (Permit No. 3113) from an 80-acre oil unit consisting of the West Half of SE/4, Section 3, Township 14 South, Range 14 West, Lamar County, Alabama, in the North Blowhorn Creek Oil Field, into a 320-acre gas unit consisting of the South Half of said Section 3 in the Blowhorn Creek Gas Field.

"15. DOCKET NO. 5-1-8112

Petition by Hughes & Hughes, a partnership authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order approving an exception to Rule 3 of the Special Field Rules for the Blowhorn Creek Gas Field, Lamar County, Alabama, so as to allow for a gas unit consisting of the SW/4 and the West Half of SE/4 of Section 3, Township 14 South, Range 14 West, Lamar County, Alabama, containing approximately 240 acres, on which is located the Sizemore 3-10 No. 1

well (Permit No. 3113) completed in the Carter Sand Gas Pool, and located 2310' FSL and 1650' FEL of said Section 3.

"16. DOCKET NO. 5-1-8113

Petition by Hughes & Hughes, a partnership authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order amending Rule 1 of the Special Field Rules for the North Blowhorn Creek Oil Field, Lamar County, Alabama, by adding the following parcels to the field limits as productive extensions thereof: East Half of SE/4 of Section 34 and the W/2 of SW/4 of Section 35, all in Township 13 South, Range 14 West, Lamar County, Alabama..

"17. DOCKET NO. 5-1-8114

Petition by Moon & Hines, a partnership authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order amending Rule 1 of the Special Field Rules for the

Blowhorn Creek Oil Field by adding to the field limits the East Half of SW/4, Section 22, Township 14 South, Range 14 West, Lamar County, Alabama, and all productive extensions thereof.

"18. DOCKET NO. 5-1-8115

Petition by Belden & Blake Corporation, 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 approving the commingling of production into the Scruggs Commingling Facility from the Steve Scruggs 32-10 Well (Permit No. 3096) located in the NW/4 of SE/4, Section 32, Township 11 North, Range 4 West, Choctaw County, Alabama, in the Gilbertown Field.

"19. DOCKET NO. 5-1-8116

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 enter an order approving a dual completion

in the Carter and Lewis Sand Gas Pools in accordance with Rule 4-F of the Special Field Rules for the McGee Lake Field, Lamar County, Alabama, for the Sarah C. Sprouse 30-10 No. 1 Well (Permit No. 2886) said well being located 1430' FSL and 1850' FEL, of Section 30, Township 16 South, Range 15 West, Lamar County, Alabama, said unit being the South Half of said Section 30.

"20. DOCKET NO. 5-1-8117

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 enter an order amending Rule 1 of the Special Field Rules for the McGee Lake Field, Lamar County, Alabama, by adding the North Half of Section 25, Township 16 South, Range 16 West, Lamar County, Alabama, as a productive extension, said productive extension having been established by the completion of the Ellen Rogers 25-1 No.1

Well (Permit No. 2976) located 1100' FNL  
and 720' FEL of said Section 25.

"21. DOCKET NO. 5-1-8118

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 enter an order amending Rule 1 of the Special Field Rules for the Star Field, Lamar County, Alabama, by adding the South Half of Section 24, Township 16 South, Range 16 West, Lamar County, Alabama, as a productive extension, said productive extension having been established by the completion of the C. C. Cunningham 24-10 No. 1 Well (Permit No. 3045) located 2100' FEL and 1700' FSL of said Section 24.

"22. DOCKET NO. 5-1-8119

Petition by Enserch Exploration, Inc., 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 all tracts and interests in the North

Half of Section 11, Township 16 South,  
Range 13 West, Fayette County, Alabama,  
West Fayette Field, and designating  
petitioner as operator of said unit, all  
pursuant to Section 9-17-13, Code of Alabama  
(1975) and Rule M-1 of the Rules and Regulations  
of the State Oil and Gas Board of Alabama.

"23. DOCKET NO. 5-1-8120

Petition by Enserch Exploration, Inc., a  
foreign corporation authorized to do and  
doing business in the State of Alabama, re-  
questing the State Oil and Gas Board to enter  
an order approving the reformation of the  
Horace E. Berry 18-4 No. 1 Well (Permit No.  
3015) from a 320-acre gas unit consisting of  
the West Half of Section 18, Township 17 South,  
Range 12 West, Fayette County, Alabama, in the  
McCracken Mountain Field, to a 40-acre wildcat  
oil unit consisting of the South Half of the  
NW/4 of NW/4 and the North Half of the SW/4  
of NW/4, all in Section 18, Township 17 South,  
Range 12 West, Fayette County, Alabama, and

Petitioner requests the establishment of a temporary allowable for said well.

"24. DOCKET NO. 5-1-8121

Petition by Pruet Production Co., 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 approving the conversion of an abandoned oil well to a salt water disposal well, namely the Federal Land Bank 17-11 No. 1 Well (Permit No. 2372) said well located 1980' FWL and 1980' FSL of Section 17, Township 9 North, Range 4 West, Choctaw County, Alabama, in the Zion Chapel Field. Said salt water disposal is proposed for the Upper Tuscaloosa Zone.

"25. DOCKET NO. 5-1-8122

Petition by Pruet Production Co., 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 reforming the #2 Coats 10-9 Well (Permit No. 3058) from an 80-acre oil unit consisting

of the N/2 of SE/4 of Section 10, Township 14 South, Range 14 West, Lamar County, Alabama, in the North Blowhorn Creek Field, to a 320-acre gas unit consisting of the E/2 of Section 10, Township 14 South, Range 14 West, Lamar County, Alabama, in the Blowhorn Creek Field, said well being in the Carter Sand Gas Pool.

"26. DOCKET NO. 5-1-8123

Petition by Grace Petroleum Corporation, 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 all tracts and interests in the West Half of Section 34, Township 14 South, Range 16 West, Lamar County, Alabama, as a productive extension of the Cut Bank Creek Field, and designating Petitioner as operator of said unit.

"27. DOCKET NO. 5-1-8124

Petition by Grace Petroleum Corporation, 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 amending Rule 1 of the Special Field Rules for the Cut Bank Creek Field, Lamar County, Alabama, by adding to said field limits the West Half of Section 34, Township 14 South, Range 16 West, Lamar County, Alabama.

"28. DOCKET NO. 5-1-8125

Petition by Grace Petroleum Corporation, 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 amending Rule 1 of the Special Field Rules for the Hubbertville Field, Fayette County, Alabama, by deleting therefrom the North Half of Section 13, and all of Sections 11 and 12, all in Township 14 South, Range 12 West, Fayette County, Alabama.

"29. DOCKET NO. 5-1-8126

Petition by Grace Petroleum Corporation, 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 establishing a new gas field, to be named by the Board, for the Carter Sand Gas Pool, and to promulgate Special Field Rules for 320-acre spacing for Sections 1, 2, 11, 12, and the North Half of Section 13, all in Township 14 South, Range 12 West, Fayette County, Alabama.

"30. DOCKET NO. 5-1-8127

Petition by American Quasar Petroleum Co. of New Mexico, 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 reforming a wildcat 40-acre drilling unit consisting of the SW/4 of SE/4, Section 26, Township 16 South, Range 9 West, Fayette County, Alabama, to a wildcat 320-acre drilling unit consisting of the South Half of said Section 26. Petitioner further requests that an exceptional location be

granted for the Bradie Gurganus 26-15 No. 1 Well, Permit No. 3129, located 100' FWL and 313' FSL of SW/4 of SE/4 of said Section 26. (An exceptional location was granted by Board Order 80-236 on December 12, 1980, for this well on a 40-acre unit.)

APPLICATIONS FOR NATURAL GAS POLICY ACT  
OF 1978 (NGPA) WELL STATUS DETERMINATIONS

"31. DOCKET NO. 10-3-805PD-A

Continued amended application by Southland Royalty Company for new natural gas determination under Section 102(c)(1)(B) (new onshore well) of the NGPA for the A. A. Chandler 2-6 #1 well (Permit No. 2882), Section 2, Township 16 South, Range 16 West, Lamar County, Alabama, Star Field, in the proposed Nevins Sand.

"32. DOCKET NO. 1-16-811PD-A

Continued amended application by Skelton Operating Company, Inc., for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Airline Mfg. Co., Inc., #2 well (Permit No. 3026),

Section 4, Township 14 South, Range 14  
West, Lamar County, Alabama, Fairview Field,  
in the Carter Sand Oil Pool.

"33. DOCKET NO. 1-16-812PD-A

Continued amended application by Skelton Operating  
Company, Inc., for new natural gas determination  
under Section 103(new onshore production well)  
of the NGPA for the Airline Mfg. Co., Inc. #2  
well (Permit No. 3026), Section 4, Township  
14 South, Range 14 West, Lamar County, Ala-  
bama, Fairview Field, in the Carter Sand Oil  
Pool.

"34. DOCKET NO. 1-16-814PD

Continued application by Grace Petroleum  
Corporation for new natural gas determination  
under Section 102(c)(1)(C)(new onshore reservoir)  
of the NGPA for the Perry 12-14 well (Permit No.  
2946), Section 12, Township 14 South, Range 12  
West, Fayette County, Alabama, Hubbertville  
Field, in the Carter Sand.

"35. DOCKET NO. 3-20-813PD-A

Continued amended application by Clayton W. Williams, Jr., for new natural gas determination under Section 103 (new onshore production well) of the NGPA for the Mattie M. Smith 9-13 No. 1 well (Permit No. 2673), Section 9, Township 1 South, Range 2 West, Mobile County, Alabama, Chunchula Field, in the Smackover Gas Pool.

"36. DOCKET NO. 3-20-8113PD

Continued application by Pruet Production Co. for new natural gas determination under Section 102(c)(1)(C) (new reservoir rule) of the NGPA for the Cunningham-Taylor 20-13 No. 1 Well, Permit No. 3044, Section 20, Township 12 South, Range 15 West, Lamar County, Alabama, as a productive extension of the Beaverton Field, in the Carter Sand Gas Pool.

"37. DOCKET NO. 3-20-8115PD-A

Continued amended application by Pruet Production Co. for new natural gas determination under Section 102(c)(1)(C) (new reservoir rule) of the

NGPA for the Rogers 3-8 No. 1 Well, Permit No. 3069, Section 3, Township 14 South, Range 14 West, Lamar County, Alabama, North Blowhorn Creek Oil Field, in the Carter Sand Oil Pool.

"38. DOCKET NO. 3-20-8116PD

Continued application by Pruet Production Co. for new natural gas determination under Section 102(c)(1)(C) (new reservoir rule) of the NGPA for the Rogers 3-16 No. 1 Well, Permit No. 2999, Section 3, Township 14 South, Range 14 West, Lamar County, Alabama, North Blowhorn Creek Oil Field, in the Carter Sand Oil Pool.

"39. DOCKET NO. 3-20-814PD-A

Continued amended application by George G. Anderman for new natural gas determination under Section 103 (new onshore production well) of the NGPA for the #1 Airhart-Watkins 6-16 well (Permit No. 2957), Section 6, Township 16 South, Range 13 West, Fayette County, Alabama, West Fayette Field, in the Carter Sand Gas Pool.

"40. DOCKET NO. 5-1-8110PD

Application by Grace Petroleum Corporation for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Ogden 10-4 well (Permit No. 2518), Section 10, Township 13 South, Range 15 West, Lamar County, Alabama, Beaverton Field, in the Carter Sand Gas Pool.

"41. DOCKET NO. 5-1-8111PD

Application by Grace Petroleum Corporation for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Cummings 36-15 well (Permit No. 2070), Section 36, Township 12 South, Range 15 West, Lamar County, Alabama, Beaverton Field, in the Carter Sand Gas Pool.

"42. DOCKET NO. 5-1-8112PD

Application by Grace Petroleum Corporation for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Delaney 1-6 well (Permit No. 1970), Section 1, Township 13 South,

Range 15 West, Lamar County, Alabama,  
Beaverton Field, in the Carter Sand Gas Pool.

"43. DOCKET NO. 5-1-8113PD

Application by Grace Petroleum Corporation  
for new natural gas determination under  
Section 102(c)(1)(C) (new onshore reservoir)  
of the NGPA for the Sizemore 17-15 well  
(Permit No. 3024), Section 17, Township 13  
South, Range 14 West, Lamar County, Alabama,  
Armstrong Branch Field, in the Carter Sand  
Gas Pool.

"44. DOCKET NO. 5-1-8114PD

Application by Grace Petroleum Corporation  
for new natural gas determination under  
Section 102(c)(1)(C) (new onshore reservoir)  
of the NGPA for the Woods 2-9 well (Permit  
No. 1925), Section 2, Township 13 South,  
Range 15 West, Lamar County, Alabama,  
Beaverton Field, in the Carter Sand Gas  
Pool.

"45. DOCKET NO. 5-1-8115PD

Application by Grace Petroleum Corporation for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Delaney 11-5 well (Permit No. 2971), Section 11, Township 13 South, Range 15 West, Lamar County, Alabama, Beaverton Field, in the Carter Sand Gas Pool.

"46. DOCKET NO. 5-1-8116PD

Application by Grace Petroleum Corporation for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Austin 10-11 well (Permit No. 2831), Section 10, Township 13 South, Range 15 West, Lamar County, Alabama, Beaverton Field, in the Carter Sand Gas Pool.

"47. DOCKET NO. 5-1-8117PD

Application by Southland Royalty Company for new natural gas determination under Section 102(c)(1)(B) (new onshore well) of the NGPA for the C. C. Cunningham 24-10 #1 well (Permit No. 3045), Section 24, Township 16

South, Range 16 West, Lamar County, Alabama,  
Star Field, in the Carter Sand Gas Pool.

"48. DOCKET NO. 5-1-8118PD

Application by Southland Royalty Company for  
new natural gas determination under Section  
102(c)(1)(B) (new onshore well) of the NGPA  
for the E. L. Bradford 19-15 #1 well (Permit  
No. 3061), Section 19, Township 16 South,  
Range 15 West, Lamar County, Alabama, Star  
Field, in the Carter Sand Gas Pool.

"49. DOCKET NO. 5-1-8119PD

Application by Grace Petroleum Corporation  
for new natural gas determination under  
Section 108 (stripper well) of the NGPA  
for the Hubbert 24-14 well (Permit No. 2390),  
Section 24, Township 14 South, Range 12 West,  
Fayette County, Alabama, Hubbertville Field,  
in the Gilmer Sand Gas Pool.

"50. DOCKET NO. 5-1-8120PD

Application by Warrior Drilling & Engineering  
Co., Inc., for new natural gas determination  
under Section 102(c)(1)(C) (new onshore reservoir)

of the NGPA for the Gordon 11-5 well  
(Permit No. 2751), Section 11, Township  
14 South, Range 14 West, Lamar County, North  
Blowhorn Creek Oil Field, in the Carter Sand  
Oil Pool.

"51. DOCKET NO. 5-1-8121PD

Application by Amoco Production Company for  
new natural gas determination under Section  
102(c)(1)(C) (new onshore reservoir) of the  
NGPA for the Roy A. Amos 32-12 #1 (Permit No.  
2524), Section 32, Township 7 South, Range 4  
East, Baldwin County, Alabama, Foley Field, in  
the Amos Sand Gas Pool.

"52. DOCKET NO. 5-1-8122PD

Application by Amoco Production Company for  
new natural gas determination under Section  
102(c)(1)(C) (new onshore reservoir) of the  
NGPA for the F. L. Irwin 32-5 #1 well (Permit  
No. 2872), Section 32, Township 7 South, Range  
4 East, Baldwin County, Alabama, Foley Field,  
in the Amos Sand Gas Pool.

"53. DOCKET NO. 5-1-8123PD

Application by Amoco Production Company for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the L. R. Barner 31-10 #1 well (Permit No. 2873), Section 31, Township 7 South, Range 4 East, Baldwin County, Alabama, Foley Field, in the Amos Sand Gas Pool.

"54. DOCKET NO. 5-1-8124PD

Application by Amoco Production Company for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the Foley Dairy Unit 31-11 #1 well (Permit No. 2967), Section 31, Township 7 South, Range 4 East, Baldwin County, Alabama, Foley Field, in the Amos Sand Gas Pool.

"55. DOCKET NO. 5-1-8125PD

Application by Amoco Production Company for new natural gas determination under Section 102(c)(1)(C) (new onshore reservoir) of the NGPA for the John Krupinski 31-1 No. 2 well (Permit No. 2986), Section 31, Township 7

South, Range 4 East, Baldwin County,  
Alabama, Foley Field, in the Amos Sand  
Gas Pool.

"56. DOCKET NO. 5-1-8126PD

Application by Pruet Production Co., for a new  
natural gas determination under Section 102(c)  
(1)(C) (new reservoir rule) of the NGPA for the  
Jones 23-13 No. 1 Well (Permit No. 3098), located  
in Section 23, Township 14 South, Range 14 West,  
Lamar County, Alabama, in the Blowhorn Creek  
Field, in the Millerella Sand Oil Pool.

"57. DOCKET NO. 5-1-8127PD

Application by Morrow Oil & Gas Co., for a new  
natural gas determination under Section 102(c)  
(1)(C) (new reservoir rule) of the NGPA for the  
Fowler 8-12 No. 1 Well (Permit No. 3012), located  
in Section 8, Township 16 South, Range 13 West,  
Fayette County, Alabama, in a new gas field to  
be named by the Board in the Carter Sand Gas  
Pool.

"58. DOCKET NO. 5-1-8128PD

Application by Morrow Oil & Gas Co. for a new natural gas determination under Section 102(c) (1)(C) (new reservoir rule) of the NGPA for the McDavid 7-1 No. 1 Well (Permit No. 3057), located in Section 7, Township 16 South, Range 13 West, Fayette County, Alabama, in a new gas field to be named by the Board, in the Carter Sand Gas Pool.

"Petitions before the State Oil and Gas Board of Alabama must be represented in person by the Petitioner or his duly authorized agent or attorney, unless proceeding in accordance with Rule L-17. Affidavits, or a combination of affidavits, must be in proper form constituting evidence of all material allegations contained in the petition. In the absence of such representation, the petition before the Board shall be subject to dismissal. Petitioners and Applicants for NGPA price determinations are advised to closely review the rules of practice and procedure of the Board. Price determination applicants should also closely review Rules N-1 through N-9.

"The public is advised that the Board may promulgate an order regarding a petition which may differ from that requested by the Petitioner concerning the land described in this notice, so long as this notice shall constitute due and proper notice of the action ultimately taken by the Board; therefore, pursuant to this hearing, the provisions of the Code of Alabama (1975) hereinafter set forth, and the rules and regulations promulgated thereunder, the Board will enter such order or orders as in its judgment may be necessary in keeping with the evidence submitted. Further, the Board invites the submission of legal briefs regarding any petition on behalf of any interested person.

"DEADLINE FOR FILING OF PETITIONS OR NOTICES. Meetings of the Board are generally scheduled for the first Friday in each month. However, there are occasional exceptions where the subsequent meeting date is set by the Board on the day of the then current meeting. Petitioners and Applicants are advised that in order to have a petition or application advertised and heard for any particular meeting, such petition or

application, or proposed notice thereof, should be filed in accordance with the Board's Rules of Procedure with the Board on the last Thursday before 21 days prior to such meeting. A GENERAL RULE OF THUMB IS THAT SUCH PETITIONS AND APPLICATIONS MUST BE FILED BY THE END OF THE DAY ON THURSDAY FOLLOWING A MEETING OF THE BOARD IN ORDER TO BE HEARD AT THE NEXT SCHEDULED MEETING. The June meeting of the Board will be held on Wednesday, June 3, 1981. Petitions and applications for the June meeting should be filed on or before May 14, 1981.

"The Board was originally established by Act No. 1 of the Legislature of Alabama in the Regular Session of 1945. The applicable law pertaining to the establishment of the Board now appears in Sec. 9-17-1 et seq., Code of Alabama (1975), as last amended.

"The public is invited to attend this meeting.

Thomas J. Joiner  
Secretary to the Board  
State Oil and Gas Supervisor"

MR. RAYMOND: In accordance with the procedure of the Board, we will sound the docket. Those items unopposed requiring 15 minutes or less will be heard first; those unopposed items requiring 15 minutes or more will be heard next; all opposed items will be heard last. Item 1, Docket No. 1-16-813A, petition by Grace Petroleum Corporation.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Docket--Item No. 2, Docket No. 3-20-814, petition by Charles L. Cherry & Associates, Inc.

MR. WATSON: Mr. Supervisor, I'd like to dismiss Items 2 and 3.

CHMN. ADAMS: Is there an objection to the dismissal of Items 2 and 3? Hearing none, your request is granted.

MR. RAYMOND: Item No. 4, Docket 3-20-817, petition by Pruet Production Co.

MR. WATSON: I'd like to continue this to the next regular meeting.

CHMN. ADAMS: Is there an objection to the continuance of this item? Hearing none, your request is granted.

MR. RAYMOND: Item No. 5, Docket No. 5-1-812, petition by Shell Oil Company.

MS. STEWART: This should take about 15 to 20 minutes.

MR. WATSON: Mr. Supervisor, are you going to sound that for more than 15 minutes then because we have...

MR. RAYMOND: Yes, it will be. More than 15 minutes. Items No. 6 and No. 7 have been improperly advertised and cannot be heard today. Item No. 8, Docket No. 5-1-815, petition by Morrow Oil & Gas Co.

MR. WATSON: I ask that you continue 8 and 9, petitions by Morrow.

CHMN. ADAMS: Is there an objection to continuing Items 8 and 9? Hearing none, your request is granted.

MR. RAYMOND: Item No. 10, Docket No. 5-1-817, petition by Exxon Corporation.

MR. WATSON: I ask that you continue Items 10 and 11 for Exxon.

CHMN. ADAMS: Is there an objection to the continuance of Items 10 and 11? Hearing none, your request is granted.

MR. RAYMOND: Item No. 12, Docket No. 5-1-819, petition by Exxon Corporation.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item No. 13, Docket No. 5-1-8110, petition

by Hughes & Hughes.

MR. WATSON: Items 13, 14, 15, and 16 for Hughes & Hughes, I'd ask that those be continued.

CHMN. ADAMS: Is there an objection to the continuance of these items? Hearing none, your request is granted.

MR. RAYMOND: Items 16 and 17 were improperly advertised and can't be heard today. Item 18, Docket No. 5-1-8115, petition by Belden & Blake Corporation.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item No. 19, Docket No. 5-1-8116, petition by Southland Royalty Company.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item No. 20, Docket No. 5-1-8117, petition by Southland Royalty Company.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item 21, Docket No. 5-1-8118, petition by Southland Royalty Company.

MR. WATSON: I ask that that item be dismissed.

CHMN. ADAMS: Is there any objection to the dismissal of this item? Hearing none, your request is granted.

MR. RAYMOND: Item No. 22, Docket No. 5-1-8119, petition

by Enserch Exploration, Inc.

MR. WATSON: Less than 15.

MR. RAYMOND: Item 23, Docket No. 5-1-8120, petition by Enserch Exploration, Inc.

MR. WATSON: Less than 15.

MR. RAYMOND: Item 24, Docket No. 5-1-8121, petition by Pruet Production Company.

MR. WATSON: I ask that that item be dismissed. It's been submitted on application.

CHMN. ADAMS: Is there an objection to the dismissal of this item? Hearing none, your request is granted.

MR. RAYMOND: Item 25, Docket No. 5-1-8122, petition by Pruet Production Company.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item 26, Docket No. 5-1-8123, petition by Grace Petroleum Corporation.

MR. WATSON: Less than 15 minutes.

MR. RAYMOND: Item 27, Docket No. 5-1-8124, petition by Grace Petroleum Corporation.

MR. WATSON: I ask that you continue Items 27, 28, and 29.

CHMN. ADAMS: Is there an objection to the continuance of these items? Hearing none, your request is granted.

MR. RAYMOND: Item No. 30 was improperly advertised and cannot be heard today.

MR. WATSON: We will dismiss that also.

MR. RAYMOND: And then we have the remainder of the agenda is applications for Natural Gas Policy...

CHMN. ADAMS: Is there any objection to the dismissal of Item 30? Hearing none, your request is granted.

MR. RAYMOND: That brings us back to Item No. 1, Docket No. 1-16-813A, petition by Grace Petroleum Corporation. Petitioner please come forward.

MR. WATSON: Mr. Supervisor, at our, at a regular meeting, Docket No. 1-16-813A, Grace's petition for completion of a well without a packer, testimony was presented at that time. I would ask that that particular docket number and the items presented in accordance with that docket be incorporated into the testimony, into the record of this hearing.

CHMN. ADAMS: Would you say that again?

MR. WATSON: The testimony and the exhibits presented in connection with Docket No. 1-16-813A, I would ask that

you receive that into the evidence of this hearing.

CHMN. ADAMS: Unless there is an objection from someone, your request is granted. Hearing none, it is granted.

MR. WATSON: This item has been presented to the Board and staff at a previous hearing. It was continued by the Board after taking testimony for study and deliberation by the staff. We have been in contact with the staff on this matter. We have nothing further to present on this and I would submit it to the Board for approval.

CHMN. ADAMS: Any comments from the staff?

MR. RAYMOND: Mr. Chairman, the staff has reviewed this well for some time and would like to have an opportunity to review the records from it, production from it, for another six months. We would recommend to you that you continue the matter for a six-month period. This continuance would be under the stipulation that the item will not appear on the agenda until the November, 1981, meeting of the Board, and that Grace is to record the daily tubing and casing pressures and to report to the Board in tabular form at the same time as their production report is submitted.

MR. MCCORQUODALE: I so move.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

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

MR. RAYMOND: That brings us to--that brings us to Item 12, Docket No. 5-1-819, petition by Exxon Corporation.

MR. WATSON: This petition by Exxon is to force pool all tracts and interests in Section 2, Township 1 North, Range 7 East, Escambia County, Alabama, as a productive extension of the Flomaton Field. This matter was advertised as the Flomaton Field although the well would be drilled as a productive extension of the Flomaton Field. Previously presented to the Board was the original affidavit of Mr. James D. Leal, showing we have 25 percent or 163 acres in this unit outstanding. I submit the matter on the affidavit and ask that it be approved.

CHMN. ADAMS: Are you offering the affidavit into evidence?

MR. WATSON: Yes, sir. The original affidavit that I think Mr. Carey has.

CHMN. ADAMS: It is admitted.

MR. CAREY: Mr. Watson, do you want to admit this into

evidence.

MR. WATSON: That's for your purposes. You may admit that too as Exhibit 2 to the testimony of Mr. Leal.

CHMN. ADAMS: Exhibit 2 is admitted.

(Whereupon, the affidavit and Exhibit 2 were received in evidence)

MR. LEE: Is the affidavit in order?

MR. RAYMOND: Yes, the affidavit is in order. It has been reviewed and ready for action.

MR. MCCORQUODALE: I move we grant the petition.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

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

MR. RAYMOND: That brings us to Item 18, Docket No. 5-1-8115, petition by Belden & Blake Corporation.

MR. WATSON: I have one witness and I'd like to have him sworn.

MR. RAYMOND: State your name and address clearly for the record please.

MR. HAYNES: Charles Haynes, Tuscaloosa, Alabama.

(Witness was sworn by Mr. Raymond)

MR. WATSON: Mr. Haynes, you've appeared before this Board before and have had your qualifications as a petroleum engineer accepted?

MR. HAYNES: I have.

MR. WATSON: Mr. Chairman, I tender Dr. Haynes to the Board and staff as an expert petroleum engineer.

CHMN. ADAMS: He's accepted.

MR. WATSON: In this matter, Mr. Chairman, we're requesting permission on behalf of Belden & Blake Corporation to commingle production into a common facility, that production coming from the Steve Scruggs 32-10 well located in the NW/4 of the SE/4 of Section 32, 11 North, 4 West, Gilbertown Field, Choctaw County, Alabama. Dr. Haynes, have you prepared exhibits in connection with this commingling petition?

MR. HAYNES: Yes, I have.

MR. WATSON: I would ask, Mr. Chairman, that the exhibits handed up to you, marked Exhibit A, be marked for identification purposes please.

CHMN. ADAMS: It will be marked for identification purposes as Exhibit A.

(Whereupon, the described exhibit was marked for identification as Exhibit A)

CHARLES HAYNES

Appearing as a witness on behalf of Petitioner, Belden & Blake Corporation, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q All right, sir. Dr. Haynes, would you tell the Board please what your Exhibit A is intended to portray?

A Yes. All of you are quite familiar now with me coming to the Board for commingling in the Gilberttown Field. We continue to drill wells and re-enter wells and attempting to consolidate a lot of small tank batteries that are becoming quite outdated. The Scruggs Tank Battery is one that we have attempted to move quite a few wells into. The Steve Scruggs well has recently been drilled and cased and we're ready to complete this well. It's located essentially, location west of the Scruggs Battery. We would like to bring this well into the Scruggs commingling tank battery as a matter of course and incorporate the same type of accounting procedures and well testing for this well that we have done for the other wells shown. So it's more

of the same you might say.

Q Dr. Haynes, briefly explain how you account for the production from the Steve Scruggs 32-10 and keep it separately accounted for as it's commingled into that common facility.

A All right, if you'll look at the second page, this is a typical work sheet that we use to allocate production from these wells. We put each well on a 24-hour well test each month, and then based on the number of hours that the well operates during that month we allocate production to it. So therefore we subdivide the actual production at the end of the month and check against the theoretical to see if we, of course, have a decent test. We don't normally wait that long. In most cases if the pumper doesn't think he has a good test in that 24-hour period, he simply runs it another 24 hours. That's been our practice.

Q I believe you've testified before to this Board that in your attempts, previous attempts, to put mechanical devices into the flowlines to measure this as opposed to this method those devices proved unworkable and

the results faulty, so this is a proven tested method of allocating back to that well the accurate production, is that correct?

A Well, this is still about the most idiot-proof system that we can think of for producing these high water cut fluids. We've attempted net oil computers, capacitance probes, and so forth, and generally speaking we spend more time and effort in chasing them than we do in keeping up with the oil, so in this instance, I still think it's by far the best thing we could do.

Q The alternative would be to put in a separate tank battery for each of these wells in addition to the other methods, is that correct?

A That would be true. A separate tank battery would take care of it, and in the case of the Steve Scruggs, we would have a one-well tank battery but at the same time the well is drilled in a rather tender location with regard to putting a battery in it. It's in a deep valley with a creek flowing right by the battery. It's accessible but it's in a position to where we wouldn't want to put a lot of heavy traffic in from time to time.

Q All right, sir, and your method that you're proposing here, in your opinion, would that protect the coequal and correlative rights of the owners in the Steve Scruggs well?

A In my opinion it would.

Q And this method would also prevent waste as that term is defined in the oil and gas laws of Alabama?

A That's correct.

MR. WATSON: I tender Dr. Haynes to the Board and staff for any questions you may have on this item.

MR. RAYMOND: No questions of the staff, Mr. Chairman.

MR. WATSON: I would ask then that you receive into evidence Exhibit A to the testimony of Dr. Haynes.

CHMN. ADAMS: Exhibit A is admitted.

(Whereupon, Exhibit A was received in evidence to the testimony of Dr. Haynes)

MR. CAREY: Mr. Watson, if you do have an original, could you get that to me? I have a copy and some of these figures are hard to read.

MR. WATSON: We will. That's the best copy that I had

for you. I will get you a better copy.

EXAMINATION BY BOARD OR STAFF

MR. LEE: As I understand what you're saying, you're saying a 24-hour test once a month has proven more accurate than a constant flow test set up in the pipeline?

DR. HAYNES: That's correct. And I won't say it's more accurate. You couldn't be more accurate than continually metering, but when you get to that if you have a problem, and we have had frequent problems with, say, positive displacement flow meters as well as what we call net oil computers, if you don't monitor those instruments, and you can't, literally speaking, 24 hours a day, then you get false readings from those as well. Most of these wells are very low output anyway with a very high water cut and it biases capacitance type probes to an area of inaccuracy. I'll put it that way. It's not really designed for a high water cut heavy oil. Just by their very nature, and as I said, the maintenance associated with them is generally pretty heavy. So we...

MR. LEE: You mean you'd have to have someone there every day checking it to make sure it's operating correctly?

DR. HAYNES: Right. When we were using these in the

South Carlton Field, we were having to maintain people on location 24 hours a day for years with the usual disastrous results, budget-wise. It just wasn't practical and finally ripped them all out.

MR. LEE: I just didn't quite follow the connection between a battery and the heavy traffic. I don't know--what causes a heavy traffic? You're talking about one person aren't you?

DR. HAYNES: Well, if you're talking about establishing a tank battery for one well, first of all, let's say this well might produce eight to twelve barrels per day, you build a tank battery for it in, as I said, a tender area. We built this particular well on extensive field right next to a creek. Building a tank battery there is certainly possible and operating it is possible. The road to it would be, on one hand suitable for a pumper pumping a well, but it would take considerably more effort if you install a tank battery back in the hollow, so to speak, for that one well, and then had to move equipment in and out that you normally need to maintain tank batteries, and that's what I cause waste. Is building roads that are essentially unnecessary when we could bring this well to the Scruggs battery which is well positioned and we have quite a

few other wells already in it on this basis.

MR. LEE: Oh, yes.

MR. RAYMOND: Mr. Chairman, the staff has thoroughly reviewed this matter and everything appears in order and we recommend to you granting of this petition.

MR. LEE: I so move.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

DR. HAYNES: Thank you.

MR. RAYMOND: That brings us to the next item on the agenda, Item No. 19, Docket No. 5-1-8116, petition by Southland Royalty Company.

MR. WATSON: I have one witness. I'd like to have her sworn please.

MR. RAYMOND: Please state your name and address clearly for the record.

WITNESS: Evelyn Etter, Houston, Texas.

(Witness was sworn by Mr. Raymond)

MR. WATSON: Miss Etter, this is your first appearance before the Oil and Gas Board, is that correct?

MISS ETTER: Yes, sir.

MR. WATSON: You have, however, previously submitted to the Board an affidavit of your qualifications, is that correct?

MISS ETTER: Yes, sir, that was more than a year ago.

MR. WATSON: And have you been notified by the Board that those qualifications were accepted?

MISS ETTER: Yes.

MR. WATSON: Your position with Southland Royalty is an exploration geologist, is that correct?

MISS ETTER: Yes.

MR. WATSON: Your area of responsibility includes the items on this docket today?

MISS ETTER: Yes, it does.

MR. WATSON: I tender Miss Etter to the Board and staff for any questions you may have on her qualifications as an expert petroleum geologist.

CHMN. ADAMS: Would you tell us what school you went to and what degree you got and what was your major?

MISS ETTER: I obtained a bachelor's degree from Rutgers

University in New Jersey and a master's degree from the University of Kentucky.

CHMN. ADAMS: And you majored in...

MISS ETTER: Geology.

CHMN. ADAMS: You majored in geology. You're accepted as an expert.

MR. WATSON: In this item, Mr. Chairman, we're requesting the Board to approve a dual completion in the McGee Lake Field for the Sarah Sprouse 30-10 No. 1 well.

EVELYN ETTER

Appearing as a witness on behalf of Petitioner, Southland Royalty Company, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q You're familiar with this matter, Miss Etter?

A Yes.

Q And exhibits have been prepared by you or under your supervision concerning this?

A Yes.

MR. WATSON: All right. I would like, Mr. Chairman, to go through these exhibits. They may be marked in numerical order

for identification if you like. At the end of our presentation, I will ask that they be incorporated.

Q Let's take what we have here on the front page of this package, Miss Etter, and am I correct in saying that this is the well configuration for the Sarah Sprouse?

A Yes, it is.

Q All right. Tell the Board what we have here insofar as a dual completion and how this well was physically completed dually.

A The well was perfed through the Lewis, which is the lower of the two formations, and it produces through the tubing from the Lewis. The Carter is the shallower of the two formations, and the perms there produce through the annulus.

Q The two producing zones are sealed off then by a packer, is that correct?

A Yes, they are.

MR. WATSON: I might state, Mr. Chairman, that the Special Field Rules for the McGee Lake Field unlike many of the Special Field Rules for the North Alabama fields requires the Board to approve dual completions, whereas in many of

our other rules these matters are approved by the Supervisor, so we're presenting this in accordance with that particular special provision in the Special Field Rules. Go then to our page 2 marked as Exhibit 2, Miss Etter. This is a net permeable Carter Sand. Tell the Board please what this exhibit shows.

A It shows that McGee Lake Field is a structural feature located on the upthrown side of a down-to-the-northeast fault. The general structural dip is towards the southwest away from the fault. As far as the Carter Sand is, although there is from 40 to nearly 60 feet of gross Carter Sand covering most of the map area, the net permeable sand here is confined to a narrow zone close to the fault.

MR. LEE: Maybe I'm missing it but I don't see where you've got these numbered.

MR. WATSON: We don't, sir. I'm asking him to mark these. They're just in numerical sequence by page numbers, Mr. Lee. This would be then our Exhibit 2 that she's testifying to, page 2.

Q O.K. So you're showing the Sarah Sprouse having 17 feet of net permeable Carter Sand, is that correct?

A Yes.

Q All right, let's go to page 3, Exhibit 3.

A The structural configuration is almost identical to that shown for the Carter map. Again it is on the upthrown side of the down-to-the-northeast fault with a regional dip towards the southwest, and the Lewis zone of permeability also appears confined to a zone close to the fault. This Lewis zone is much more narrow and much thinner.

Q Showing in this exhibit four feet of net permeable Lewis Sand?

A For the Sprouse well, yes.

Q All right, let's go to the next page, page No. 4, and it may be upside down. This is a type log for the Sarah Sprouse. Describe to the Board please what this shows.

A This shows the zone within the Lewis Sand where the lower of the two dual completions was made.

Q And the last page of the exhibit, flipping back over?

A This shows the Carter Sand interval and shows the two intervals within the Carter Sand that were perforated for the Carter completion.

MR. WATSON: All right. Now, Mr. Chairman, I would ask then that you receive into evidence Exhibits 1 through 5 to the testimony of Miss Etter.

CHMN. ADAMS: Exhibits 1 through 5 are admitted.

(Whereupon, Exhibits 1 through 5 were received in evidence to the testimony of Miss Etter)

Q You're familiar, Miss Etter, with the fact that the McGee Lake Field requires 320-acre spacing?

A Yes.

Q And that the Special Field Rules require that dual completions be approved by this Board?

A Yes.

Q In your opinion, will the granting of this petition protect the coequal and correlative rights of the owners in the Sarah Sprouse unit?

A Yes.

Q And prevent waste as that term is defined by the oil and gas laws of Alabama?

A Indeed, yes.

MR. WATSON: I tender Miss Etter to the Board and staff for any questions you may have.

MR. RAYMOND: Mr. Chairman, there are no questions of the Board or the staff.

MR. LEE: I move we grant the petition.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: That brings us to Item 20, Docket No.5-1-8117, petition by Southland Royalty Company

MR. WATSON: The same witness. I'll remind her that she remains under oath.

CHMN. ADAMS: And she's still qualified.

MR. WATSON: And she's still qualified. Mr. Chairman, in this item we're asking the Board to amend the field limits for the McGee Lake Field by adding to the field limits the N/2 of Section 25, Township 16 South, Range 16 West. The well named the Ellen Rogers 25-1 was drilled as a productive extension to the McGee Lake Field. In this connection, Miss Etter, have you also prepared exhibits, two exhibits, as a matter of fact, concerning the Rogers 25-1 well?

MISS ETTER: Yes, I have.

MR. WATSON: All right, I have handed those up. Those can be marked in the numerical order in which they appear, and I would ask you to please tell the Board what your page 1 or Exhibit 1 shows?

EVELYN ETTER

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:

A It is a structural map of the portion of McGee Lake Field surrounding the Rogers 25-1 well. It again shows the McGee Lake Field as being on the upthrown side of the down-to-the-northeast fault with a regional dip away from the fault in a southwesterly direction. The Carter Sand zone of permeability appears to be confined close to the fault within a mile or two of the fault with the wells in the extreme west having no permeability.

Q All right, and we're showing a net permeable Carter Sand in the Rogers of 16 feet, approximately?

A Yes.

Q Tell the Board from the point of the well bore of the Rogers 25-1, we're showing this isopach map falling off, if you will, to the west. We're showing a 10-foot, these are 10-foot intervals I take it?

A Un-huh.

Q We're showing a zero foot interval or zero net pay. Is that an absolute or an inferred net pay?

A That is an inferred value but based on the shape of the contours and the fact that the wells in Section 26 and 35 have no permeability at all.

Q All right. Let's go to page 2 of your exhibit. I have that marked as Exhibit 2. Tell the Board what this log shows.

A This log shows the Carter Sand interval and the three zones in which the Carter Sand was perforated for the production in this well.

Q All right, and you're familiar with the zones or the pools designated in the McGee Lake Field. In your opinion does the Rogers 25-1 communicate with the McGee Lake Field, and therefore, is a part of that field?

A Yes, it is.

Q All right. In your opinion, will the granting of this petition protect the coequal and correlative rights of the owners in the Rogers 25-1 unit?

A Yes.

Q And prevent waste as that term is defined by the oil and gas laws of Alabama?

A Yes.

MR. WATSON: Mr. Chairman, I would ask that you receive into evidence Exhibits 1 and 2 to the testimony of Miss Etter.

CHMN. ADAMS: Exhibits 1 and 2 are admitted.

(Whereupon, Exhibits 1 and 2  
were received in evidence to  
the testimony of Miss Etter)

MR. WATSON: I tender her for any questions the Board and staff may have.

EXAMINATION BY BOARD OR STAFF

MR. HANBY: One question I have is with regard to the Exhibit 1. Are there any plans to drill any wells in the South Half of Section 25?

MISS ETTER: We probably will in this year.

MR. HANBY: You do have plans to drill one probably

this year?

MISS ETTER: Probably.

MR. LEE: Southland has the lease on the South Half?

MISS ETTER: We do hold acreage in there, yes.

MR. RAYMOND: Mr. Chairman, there are no further questions of the staff.

MR. MCCORQUODALE: I move we grant the petition.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: Item 22, Docket No. 5-1-8119, petition by Enserch Exploration, Inc.

MR. WATSON: This is a request submitted on affidavit for forced pooling.. I just noticed, John, it doesn't have a docket number on it. If you would make a docket number notation at the top of your copy, I think it has it on the original. Here Enserch Exploration is asking for the forced pooling of all tracts and interests in the North Half of Section 11 of 16 South, 13 West, Fayette County, Alabama, in the West Fayette Field. We have submitted previously the original affidavit of Jerry C.

Taylor wherein Mr. Taylor states that there is approximately one percent, less than one acre, of this 320-acres outstanding that has not been voluntarily pooled or leased with the unit, and I submit this matter on affidavit.

MR. LEE: Tom, it says approximately one percent. One percent of 320 acres would be 3.2 acres. It says approximately one percent or less than one acre.

MR. WATSON: Yes, sir. Yes, sir, I noticed that. What they do, they don't break this down into the percentages of decimal points, Mr. Lee. That should have been a decimal point. So the accurate figure is one acre. There's one acre outstanding, yes, sir. And I'd be glad to amend that affidavit if you would like, and work that down to the actual percentage.

MR. LEE: Well, I don't know if that's necessary. It just appeared to be a contradiction between approximately one percent and the one acre figure.

MR. WATSON: I would read that approximately as less than one.

MR. LEE: But--.25 percent of something, huh? O.K.

MR. MCCORQUODALE: Just as a matter of curiosity, Mr. Watson, is this information on Mr. Taylor's affidavit correct,

that is that he got a B. S. in Physical Education from the University of Wyoming in 1951 and another B. S. in Physical Education from Mississippi State in 1954?

MR. WATSON: I wouldn't be at all surprised.

(Laughter from audience)

MR. MCCORQUODALE: I just found that interesting.

CHMN. ADAMS: What's the connection between that and being a landman?

MR. WATSON: Dr. Adams, we're finding that landmen, somewhat like, if some of these guys that I see here from Amoco will excuse me, we find all disciplines working as landmen. They understand this business; they learn the business; and really it's a P.R. job to sell somebody on signing a lease. I say it's a P.T. Barnum job but they may disagree with me on that.

MR. MCCORQUODALE: I don't doubt Mr. Taylor's ability in this area, but I just thought that was kind of interesting that he had two B.S.'s in P.E. from two different schools.

MR. WATSON: Yes, sir.

MR. CAREY: Mr. Watson, do you want the affidavit to be put into evidence?

MR. WATSON: I would ask that the original affidavit be received into evidence.

CHMN. ADAMS: It's admitted.

(Whereupon, the affidavit of  
Jerry C. Taylor was received  
in evidence)

MR. RAYMOND: Mr. Chairman, the staff has reviewed the affidavit of testimony and it appears in order and the staff has no further questions on this matter.

MR. LEE: I move the petition be granted.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: Item 23, Docket 5-1-8120, petition by Enserch Exploration, Inc.

MR. WATSON: You will recall at the last regular meeting of this Board, Mr. Chairman, we presented a petition to reform the Horace Berry well, which was permitted as a 320-acre gas well, down to a 40-acre wildcat oil unit. That location on a regular governmental quarter quarter section would put the

Horace Berry well on an extreme exceptional location, and you may also recall that we said that realizing that was the situation nonetheless we followed the practice of this Board in reducing down to the quarter quarter section on which the well was permitted as an alternative if the well comes in as an oil well. After presenting that testimony, this Board, by emergency order, set up a unit consisting of two half quarter quarter sections to make one 40-acre wildcat section. That was approved on an emergency basis. This item is presented today after having been properly advertised. I would ask that you receive into the evidence of this hearing Docket Nos., and Mr. Carey, I'll have to refer to you for the docket numbers on that.

MR. CAREY: This would be Items 11 and 12 by Enserch at the Board hearing of March 20, 1981.

MR. WATSON: Docket Nos. being...

MR. CAREY: I don't have that with me but it would be Items Nos. 11 and 12.

MR. WATSON: All right, sir. This matter was thoroughly presented at that time. Enserch concurs in the unit that was formed by the Board on emergency order, and I would ask that

you receive into evidence this reference material and would ask that you approve this emergency order.

CHMN. ADAMS: Unless there is an objection, the previous testimony that you have referred to is incorporated into this hearing on Item 23. Hearing none, it is done.

MR. WATSON: I have nothing further.

MR. LEE: I move we grant the petition.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: That brings us to Item 25, Docket No. 5-1-8122, petition by Pruet Production Company.

MR. WATSON: I have one witness and I'd like to have him sworn please.

MR. RAYMOND: Would you please state your name and address clearly for the record?

MR. HENLEY: Walt Henley, Jackson, Mississippi.

(Witness was sworn by Mr. Raymond)

MR. WATSON: Mr. Henley, you've appeared before this Board and had your qualifications as a petroleum geologist accepted, is that correct?

MR. HENLEY: Yes, sir.

MR. WATSON: Mr. Chairman, I tender Mr. Henley to the Board and the staff as an expert petroleum geologist.

CHMN. ADAMS: Mr. Henley is accepted as an expert.

MR. WATSON: In this petition, Mr. Chairman, we're asking the Board to reform an 80-acre oil unit completed in the North Blowhorn Creek Field to a 320-acre gas unit in the Blowhorn Creek Field, that well being the No. 2 Coats 10-9 well.

WALT HENLEY

Appearing as a witness on behalf of Petitioner, Pruet Production Company, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q You're familiar with this petition, Mr. Henley, and the subject matter therein?

A Yes, sir.

Q In that connection have you prepared exhibits to support this petition?

A I have.

MR. WATSON: All right, I have handed up in package form the exhibits prepared by Mr. Henley. I would like to have him

(Mr. McCorquodale left the room)

go through these exhibits, and they are marked in their sequence.

Q I'll ask you first, Mr. Henley, to tell the Board what your Exhibit No. 1 portrays.

A First of all let me explain these exhibits were prepared the first part of March of this year before another well on the East Half of Section 10, the Rogers 10-8, operated by ourselves, was drilled, and does not incorporate that evidence into these exhibits. We have previously been over this with the staff and since you will find in the back of your booklet I believe four more exhibits updating these exhibits. I don't intend to introduce this as evidence but just for your reference to show you what the input of the Rogers well did to the information I'm presenting here today. Exhibit No. 1 is a unit map showing the Millerella Sandstone Gas Pool units. First, actually the first three exhibits are just to show the field outlines of both North Blowhorn Creek Field limits and the dark gray line, and Blowhorn Creek Field limits in the dashed line, and respectively, the Millerella Sandstone Gas Pool units, Exhibit 1, and the Carter Sandstone Gas Pool units in Exhibit 2, and the Carter Sandstone Oil

Pool units in Exhibit 3. Just to orient yourselves as to where the fields are and the units they're in.

Q Let's before we leave that, let's zero in on this No. 2 Coats well on your Exhibit No. 1.

A O.K. (Mr. McCorquodale returned to the room) The No. 2 Coats well is located in the SE/4 of Section 10. This unit that is illustrated here is the Millerella Sandstone Gas Pool unit for the Coats No. 1 just to the east of the No. 2 well.

Q So we see a funny little symbol there. It looks like a dividing cell would you say?

A Those are two locations. Let me briefly go through the history of it so you can try to understand what was going on at the time. Warrior and Pruet drilled the No. 1 Coats 10-9. This was before North Blowhorn Creek was developed, and discovered pay in the Millerella Sandstone and pay in the Carter Sandstone. At that time we had not broken the sands down into individual units, Millerella and Carter, and the well was completed in both sands over a period of two or three days. Neither one, they were not tested separately, and of course, the further development of the field, North Blowhorn Creek to the north was

discovered and has since been developed definitely showing a difference between the oil reservoir to the north and the gas Carter reservoirs to the south. We had anticipated that we may not be able to test the Carter separately in the No. 1 Coats well, so upon the, after advising, talking to the staff of the Oil and Gas Board, we decided to drill a twin well being the No. 2 Coats well, completing the No. 1 in the Millerella and the No. 2 in the Carter. Upon doing that in anticipation of finding oil in the Carter Sandstone in the No. 2 Coats, we found gas instead.

Q Let me interrupt you and say we have been before this Board, I know Mr. Stafford at least two times, in keeping the Board posted on our plans for doing just what we have done here is offsetting this No. 1 Coats, correct?

A Yes, sir.

Q All right, sir. The Board has been, we've been watching this well because of this peculiar characteristic for some time?

A Yes, sir.

Q All right, go ahead.

A So as I stated, the No. 1 Coats has since been squeezed in the Carter and completed only in the Millerella. So it is a Millerella Sandstone gas unit. The No. 2 Coats was permitted on an 80-acre unit, as I said, looking for oil in the Carter hoping that it was an extension of North Blowhorn Creek, and upon drilling that well we encountered two lobes of Carter Sandstone. The upper lobe appears to be the Carter Oil reservoir in North Blowhorn Creek. There was microlog separation in the No. 1 Coats well but there was not in the No. 2 Coats in the upper lobe. I know this is a little bit confusing and I think it may help for you to look at the last exhibit, Exhibit No. 8. It shows the logs of both of those wells and the two lobes I'm talking about. This is a stratigraphic cross section hung on the top of the Millerella Limestone from north to south through North Blowhorn Creek and down into Blowhorn Creek Gas Field. The two wells we're talking about are in the middle of the cross section labeled the No. 1 Coats and the No. 2 Coats. The No. 1 Coats has a gas symbol in the first

sand lobe below the Millerella Limestone. That's the Millerella Sand, and as I said, it has been completed only in that sand at the present time. The No. 2 Coats, if you'll notice, has two lobes of sand below the Millerella. Both of those are Carter Sandstone. The upper one appears to be, to correlate with the North Blowhorn Creek Oil Field, and the lower one is only found in the No. 1 Coats and the No. 2 Coats and is not found in any of the other wells in North Blowhorn Creek, and since we did not find microlog separation or permeability in the upper Carter lobe we completed in the lower Carter lobe and came away with a gas well. I think we have since filed a production test, and I hope you've received, to illustrate that. I hope that's a little less confusing. O. K. Exhibit No. 4 is simply a structure map on the top of the Millerella Limestone and shows generally a southwest dip on top of that formation. The structure does not appear to play much of a role in trapping in either Blowhorn Creek or North Blowhorn Creek. It's entirely a stratigraphic trap and just wanted to include this evidence for your reference. You'll notice that the Rogers well

is located updip. At the time it was not drilled, but the subsea elevation for the Millerella Limestone was -1819, which is some 49 feet higher than the No. 2 Coats, and the Rogers was completed as an oil well in the upper lobe of the Carter. So we're talking about, definitely, oil in the upper lobe of the Carter which is updip 47 feet in the nearest well from the No. 2 Coats, which is a gas well in the lower lobe of the Carter. So there's definitely some kind of separation between the two. Exhibit No. 5 is a net pay isopach of the upper lobe of the Carter. This is the oil reservoir in North Blowhorn Creek. You'll notice that there is five feet of pay listed in the No. 1 Coats well. Again, as I said, that's been squeezed off and completed only in the Millerella. The No. 2 Coats was drilled as a twin to that well and encountered no microlog separation in that lobe. Exhibit No. 6 is a net pay isopach of the lower lobe. The only two wells that that sand is present in is the No. 1 Coats and the No. 2 Coats. You can see that the sand thickens although this is a net pay isopach and it's based on microlog separation, you can also see on

the cross section that total sand, gross sand, thickens, is thicker in the No. 1 Coats to the east suggesting that the sand body is thicker in that direction. And Exhibit No. 7 is simply a cross section index map of the stratigraphic cross section we've previously looked at.

Q What's your theory of the geological deposition of this Carter? What's happening here to explain what we have presented in your cross section as Exhibit 8?

A I'm not really sure there's enough evidence to come up with an interpretation of the environmental deposition. There's been several theories put forward. My own personal theory is that it's barrier bar type deposits, reworked sands, at the distal limit of a delta prograding from the southwest, but there is much interpretation and disagreement on those ideas. But, obviously, in this area of the basin we're talking about discontinuous sands, discrete pods of sand, that form excellent stratigraphic traps, and also much confusion in permitting and developing these wells.

MR. WATSON: I might say at this point, Mr. Chairman,

that presently scheduled for the next regular meeting of this Board, although not yet advertised, will be a thorough rehashing of these problems that we're having. Problems in development more than problems in completion in this area, and a geological picture will be presented in much more detail in other fields with the same kinds of problems that we're seeing here.

Q Do you have any additional information obtained from the last drilling program that you want to put in here now, Mr. Henley?

A Yes, sir, I would just like to call your attention to the four exhibits in the back of your booklet. These are the same exhibits. I intended to show the same things as the first, well, it's the net pay isopachs in your original exhibits and the cross section, and includes all of the data on the wells that have been drilled, completed, and logged since the time that the original exhibits were prepared. Again you'll see in the net pay isopach of the upper lobe not much has been done to change the picture in the East Half of Section 10 which is what we're talking

about. The Rogers was drilled and as expected we encountered net pay in the upper lobe of the Carter Sand in that well. It was completed as an oil well flowing approximately 63 barrels a day and about 120 MCF a day, and I'm not sure if a production test has been filed on that yet and that's not meant to be the definitive test, but it is definitely an oil well. Exhibit, the next exhibit, is a net pay isopach of the lower lobe and again shows the two Coats wells are the only wells that have penetrated the lower lobe of the Carter Sand, or have encountered the lower lobe. The Rogers did not. However, again with the No. 1 Coats being thicker both the net pay and gross sand, this is my interpretation of the areal extent of that lobe. And finally, the cross section in the back. This plugs in the Rogers well to the Coats. Again shows that the Rogers was completed as an oil well in the upper lobe and as you can see it correlates with the upper lobe in the, both of the Coats wells. The gas well, we're talking about the No. 2 Coats, completed in the lower lobe, and again, it's not found in any of the other wells. Just the two Coats wells.

MR. WATSON: All right, sir. At this point, let me ask you to receive into evidence Exhibits 1 through 8 to the testimony of Mr. Henley.

CHMN. ADAMS: Exhibits 1 through 8 are admitted.

(Whereupon, Exhibits 1 through 8 were received in evidence to the testimony of Mr. Henley)

Q This 320-acre unit that we are proposing for the Coats well, Mr. Henley, is a part of the Blowhorn Creek Gas Field limits, correct?

A Yes, sir.

Q So our proposal to reform the 80 to a 320, the entire 320 proposed for the Coats, the No. 2 Coats 10-9, would fall within the boundaries of the Blowhorn Creek Field, correct?

A Yes, sir.

Q In your opinion, would the granting of this petition reforming this No. 2 Coats unit protect the coequal and the correlative rights of the owners in the unit as reformed?

A In my opinion it would.

Q And prevent waste as that term is defined by the oil

and gas laws?

A Yes, sir.

MR. WATSON: I tender Mr. Henley to the Board and the staff for any questions you have on his exhibits or his testimony.

MR. RAYMOND: Mr. Chairman, there are no questions of the staff at this time.

EXAMINATION BY BOARD OR STAFF

MR. LEE: What is the unit for the Coats No. 1?

MR. HENLEY: The Coats No. 1 is the East Half of Section 10 unit, but it's completed in the Millerella Gas Pool, which has previously been separated from the Carter Gas Pool.

MR. LEE: And you're proposing the same unit for this?

MR. HENLEY: Yes, sir.

MR. WATSON: Yes, sir, but there are two planes.

MR. HENLEY: Right, they are two separate entities, two separate pools.

MR. WATSON: Each metered, each handled separately. It could be one 10 miles from the other, but just in this case they overlap.

MR. HENLEY: I may point out that problem, the overlapping

of the two units, we've gone over that with the Board before and that was the reason for twinning the well, drilling the No. 2 Coats, so that we could complete out of the Carter in a separate well and keep the two pools metered and tested separately, and that was the reason we went back to squeeze the Carter in the No. 1 well and complete only in the Millerella, so that now both of those sands are completed in separate wells and handled completely different or separate from each other.

MR. WATSON: Those pools...

MR. LEE: Could you not have drilled the first well deeper and had dual production?

MR. HENLEY: Well, sir, we did drill the first well through all of the sands, but at that time the pools were not separated and we did not expect to have such diverse production from the pools so that the entire interval was perforated all at the same time or nearly at the same time, within a period of two or three days, and we never were able, for technical reasons that I don't think I'm qualified to explain, never were able to get a good test from one without some interference or communication from the other. If that makes sense.

MR. LEE: You mean the sands run together? Are you telling

me there's no separation of the sands?

MR. WATSON: We're telling you that there is separation. There's two separate pools.

MR. HENLEY: There is separation, but they were completed, perforated, all at the same time in the first well so that if it had been produced, it would have been produced all at the same time. For technical reasons, cement broke down behind pipe, we believe. There was thought to be communication between the two pools behind pipe and there was no technical way that we could see, feasible, to separate the two pools and dually complete one well, so we proposed to drill a twin well, squeeze off the Carter in the first well, complete it in the Millerella, complete the second well in the Carter.

MR. WATSON: But it came up gas.

MR. LEE: Right. I'm not sure I understand. I'll just take your word for it. I'm not sure I understand about why they run together. I'm not--I didn't follow you there exactly. You went on through the Millerella in the Coats 1? You went through the Millerella...

MR. HENLEY: Through the Millerella and the Carter.

MR. LEE: Into the Carter?

MR. HENLEY: Yes, sir.

MR. LEE: So you knew what was there?

MR. HENLEY: We knew that there appeared to be production there, yes, sir.

MR. LEE: There appeared to be production, but you didn't know whether it was gas or oil at that time?

MR. HENLEY: Well, there was some oil on the test and the well was classified as a gas well because it was, I don't have the figures in front of me, but obviously, a lot more gas than there was oil. We later fraced the Millerella Sand and at that time we felt that the cement broke down behind pipe causing a communication behind pipe, just behind pipe at this one well, between those two sands...

MR. WATSON: Separate sands. Between those two separate sands.

MR. HENLEY: Separate sands, right. And because they were all completed at the same time and because we had communication between the two, we never got a really good individual test or a test on each individual sand in that well. Since that time we drilled and developed most of the North Blowhorn Creek and feel that one of those sands was indeed an oil sand,

the upper lobe of the Carter Sand, and apparently, the other lobe of the Carter Sand is a gas well, is a gas sand, excuse me. And the Millerella Sand is a gas sand. So you have in that well, the No. 1 Coats, three distinct and separate sands, three distinct reservoirs that have different capabilities of production.

MR. LEE: But you're not saying there's oil in the upper Carter?

MR. HENLEY: In the No. 1 Coats?

MR. LEE: In the No. 2 Coats.

MR. HENLEY: The No. 2 Coats has got the upper lobe of the Carter but it doesn't have microlog separation. It doesn't have any permeability in it, so we couldn't complete in the upper lobe. We completed in the lower lobe only and that's when we encountered the gas production. It was drilled as an oil well on an 80-acre unit looking for the upper lobe of the Carter, what we thought would be more production, but since we completed in the lower lobe, encountered gas, we have to come before the Board and reform the unit. I think it's confusing to anybody that's ever worked with it as it is to you, but we hopefully are in the process of working out the

problems in North Blowhorn Creek and Blowhorn Creek, and probably you're still not through with the problem.

MR. LEE: Sounds like a good problem though. You've got a lot of oil and gas. More oil and gas than you know what to do with. Sounds like you've got a good problem.

MR. HENLEY: It's a good one to have, yes, sir.

MR. CAREY: Mr. Watson, what I want to ask you, since you did speak to these other four exhibits, do you want to go ahead and just introduce them as 9 through 12?

MR. WATSON: That will be fine. I would then tender 9 through 12 in addition to the exhibits previously...

CHMN. ADAMS: Exhibits 9 through 12 are admitted.

(Whereupon, Exhibits 9 through  
12 were received in evidence  
to the testimony of Mr. Henley)

MR. MCCORQUODALE: I move we grant the petition.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: Item 26, Docket No. 5-1-8123, petition by Grace Petroleum Corporation.

MR. WATSON: This petition by Grace, submitted on application and affidavit, the original having been previously filed to force pool all tracts and interests in the West Half of Section 34, 14 South, 16 West, Lamar County, as a productive extension of the Cut Bank Creek Field. Approximately 6 acres or two percent, Mr. Lee, outstanding, that have not been voluntarily pooled or have not voluntarily, or have not leased their acreage, having been contacted and offered the same or a better offer than the others. I submit this on affidavit and ask that it be approved.

MR. RAYMOND: Mr. Chairman, the staff does have one question.

MR. HANBY: Mr. Watson, the affidavit that has been filed states that this is in the Cut Bank Field and our records reflect that it's not. Is Mr. Ford here that he could address this statement in the affidavit?

MR. WATSON: Obviously, Mr. Ford is not here since I'm presenting this on affidavit. No, sir.

MR. RAYMOND: Mr. Chairman, the staff recommends that you take this under advisement with the stipulation that Mr. Ford submit a new affidavit reflecting the proper location of the acreage.

MR. WATSON: We'd be glad to do that, sir.

MR. MCCORQUODALE: I so move.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: That brings us back to Item 5 on the agenda,  
Docket No. 5-1-812, petition by Shell Oil Company.

MS. STEWART: My name is Malinda Stewart. I'm an attorney  
for Shell Oil Company and I have one witness who needs to be  
sworn.

CHMN. ADAMS: Where are you from, Ms. Stewart?

MS. STEWART: I'm from the New Orleans office.

MR. RAYMOND: State your name and address clearly for  
the record please.

WITNESS: John M. McLain, Metairie, Louisiana.

(Witness was sworn by Mr. Raymond)

MS. STEWART: Mr. McLain, you've already stated your  
name and place of residence. Would you please state your pro-  
fession and by whom you are employed?

MR. MCLAIN: I'm a petroleum engineer employed by Shell

Oil Company as a senior staff engineer.

MS. STEWART: Have you previously testified before this Board as an expert in the field of petroleum engineering and geology?

MR. MCLAIN: Yes, ma'am, in about 1961.

MS. STEWART: Because of the length of time since your earlier testimony, would you please state your education and background for the Board?

MR. MCLAIN: Yes, ma'am. I graduated from L.S.U. in 1948 with a B.S. degree in Petroleum Engineering and a minor in Geology. I was employed by Shell Oil Company in August of 1948. After an 18-month training program, I was assigned to West Texas from early 1950 to 1952. In 1952 I was transferred to Calgary, Alberta, Canada, for three years as district engineer responsible for all drilling and production operations for the province of Saskatchewan. Upon my return to the United States in 1955, I was assigned to Shell's research center to teach petrophysics, which is electrical log interpretation, to other Shell engineers. In 1956 I moved to Shell's New Orleans area where I served two years as both petrophysical and reservoir engineer in the Donaldsville

division. In 1958 I transferred to Jackson, Mississippi, as division coordinator supervising all engineers and geologists in the division. In 1964 I transferred to New Orleans, and have been there ever since, primarily concerned with sour oil and gas production and serving as a senior advisement, advisor, to Shell management. I have testified as an expert witness in, before regulatory bodies, in Texas, New Mexico, Louisiana, Mississippi, and Canada. I have been an expert witness in law suits, both federal and state court. I was one of two industry members to help draft oil and gas regulations for the province of Saskatchewan and in addition I served as lead draftsman for the U. S. Geological Survey in drafting their offshore sour oil and gas rules. I have published many papers internally with Shell and several articles in trade publications, primarily World Oil and Oil and Gas Journal, primarily concerned with waterflood. I have been a guest lecturer to the Jackson, Mississippi Geological Society and the Mississippi Oil and Gas Lawyers Association. I serve on the Executive Committee of the Mississippi Petroleum Council and I'm on the Technical and Board of Directors of the Alabama-Mississippi Mid-Continent Oil and Gas Association.

MS. STEWART: Mr. McLain, have you previously submitted a copy of your resume to the Board?

MR. MCLAIN: I have.

MS. STEWART: And are you generally familiar with the rules and regulations of this Board?

MR. MCLAIN: I am.

MS. STEWART: Mr. Chairman, I'd like to submit Mr. McLain's qualifications as an expert witness in the field of petroleum engineering.

CHMN. ADAMS: Mr. McLain's accepted as an expert.

MR. LEE: Do you have a degree in physical education?

(Laughter from audience)

MR. MCLAIN: Believe it or not, I did go to Mississippi State one year but I wasn't going to mention it.

(Laughter from audience)

JOHN MCLAIN

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

DIRECT EXAMINATION

Questions by Ms. Stewart:

Q Mr. McLain, are you generally familiar with the petition

filed by Shell Oil Company in this cause for the Special Field Rules for the Blacksher Field?

A Yes, I am.

Q Have you made a geological study of the area proposed as the Blacksher Field?

A I have.

Q Based on this study, have you prepared or had prepared exhibits in connection with and in support of your testimony today?

A Yes, I have seven exhibits and one general exhibit.

Q Could we hand those out at this time?

A Yes. Shall I hand them out for you?

(Exhibits were distributed)

Q Mr. McLain, were each of these exhibits labeled, numbered, 1 through 7 and the General Exhibit A prepared by you or under your supervision and control?

A They were.

MS. STEWART: Mr. Chairman, subject to further identification by the witness, I'd like to submit these exhibits into evidence.

CHMN. ADAMS: The exhibits that you have offered are admitted.

(Whereupon, Exhibits 1 through 7 and General Exhibit A were received in evidence to the testimony of Mr. McLain)

Q Mr. McLain, how many wells has Shell previously drilled in the area of the proposed Blacksher Field?

A We have drilled three wells, Ms. Stewart, and have a pending application for a fourth well before the Board.

Q Would you identify please, explain your Exhibit No. 1, which is on page 1?

A Yes. Exhibit 1 is a portion of the electrical log of the Shell-International Paper Co. 20-9 No. 1 located in the SE/4 of Section 20, Township 3 North, Range 4 East, Baldwin County, Alabama. The well was drilled under Permit No. 3039 and reached a total depth of 16,276 feet.

Q Mr. McLain, how would you define the productive formation for the proposed field?

A As shown on the log, I recommend the Smackover Oil Pool be defined as the interval 15,663 feet to 15,999 feet electric log depths in the International Paper Co. 20-9 No. 1. The Smackover Oil Pool consists of interbedded limestone and dolomite with the pay occurring in the dolomite. The International Paper Co. 20-9 No. 1 found

22 feet of net pay in the gross interval 15,666 feet to 15,704 feet. There's a zone of high water saturation at about 15,745 to 15,570 feet but this zone of high water saturation is separated from the oil productive zones by some 41 feet of tight limestone dolomite. Thus at this time, I cannot firmly establish a field water level as we have not seen high water saturation within the porous rock within the oil bearing interval.

Q Mr. McLain, would you please explain your exhibit labeled Exhibit No. 2?

A Yes, ma'am. Exhibit No. 2 is a plat showing the area we recommend be defined as the Blacksher Field. This area is enclosed by the stippled line and consists of all of Sections 19 and 20, the SW/4 of Section 21, the N/2 of Section 29, the N/2 of Section 30, all in Township 3 North, Range 4 East, and the E/2 of Section 24, Township 3 North, Range 3 East, all in Baldwin County, Alabama. I have also shown by dashed lines the proposed 160-acre units and how they would fit into the field area. As shown by this exhibit, we have completed

two wells and have an application for a third pending. Those lands adjacent to the field limits, if found productive, would be covered by the productive extension language in our proposed Special Field Rules. This is the area I recommend be defined as the Blacksher Field.

Q Would you explain your exhibit labeled Exhibit No. 3 please?

A Yes. Exhibit 3 is my interpretation of the isopach of the net oil pay in the Blacksher Field. We have two control points for this isopach, being Wefel No. 2, which had 14 net feet of pay, and International Paper Co. 20-9 No. 1 well, which had 22 feet of pay. Using these control points and the structural configuration, the isopach shown is the net results. Comparing this isopach with the previous outline, which was the field limits, you can see that the field outline we have recommended includes every quarter section of each section that has any net pay with one exception. The extreme NW/4 of Section 28 is shown to have some net pay, maybe one or two feet, but it's such a small area with only a

minor amount of pay that I did not include this in the field definition. Again, if it's ever drilled in that quarter, it would be covered by the productive extension language in the proposed rules.

Q Mr. McLain, would you please explain your exhibit labeled Exhibit No. 4?

A Yes, ma'am. Exhibit 4 is the structural interpretation of the Blacksher Field. The structure can be described as either a gentle anticline or a gentle southwest plunging nose. The oil accumulation is bound on the north and northeast by a down-to-the-north fault. The fault has not been encountered in any well as the fault dies out shortly above the top of the Smackover. Rather, the fault is placed where shown based on seismic information. In my opinion, the oil accumulation is bound on the east and west flanks by a lack of porosity development. The boundary on the south, in my opinion, is absent of net pay as shown on the isopach which was the previous Exhibit No. 3.

Q Would you explain Exhibit No. 5 please?

A Exhibit No. 5 shows the production performance of the Shell-International Paper Co. 20-9 No. 1 and is the

basis of my recommendation of a per well allowable of 500 barrels of oil per day. This well flowed 503 barrels of oil with a gas-oil ratio of 1193 with zero water through a 9/64-inch choke with flowing tubing pressure of 2750 psi on February 23, 1981. On March 25, 1981, the well flowed 88 barrels of oil with a gas-oil ratio of 1250 with zero water through a 2/64-inch choke with flowing tubing pressure of 3150 psi. In other words, an increase in flow rate of this well from 88 to 503 barrels of oil per day or a difference of 415 barrels per day results in only a decrease of 400 psi in the flowing tubing pressure. Of this 400 psi I estimate some 200 psi is due to friction due to the increased volume, thus this well will flow an additional 415 barrels of oil with only a 200 pound psi decrease in tubing. In practical terms, this means this well flows efficiently at 500 barrels of oil per day as it does at 88 barrels of oil per day. In fact, it might flow somewhat more efficiently as the higher rate, as at the higher the rate, the produced gas-oil ratio is slightly lower than at the low rate,

but not too much. It's not in there, but there's no increase in gas-oil ratio or water at the higher rate. A bottom hole pressure was run on this well on January 26, 1981, showing a shut-in bottom hole pressure of 7660 psi and a calculated permeability of 23 millidarcies zero skin factor. This means, the zero skin factor, means that there's no downhole impairment to flow and that our completion procedure is very efficient. In summary, the International Paper Co. 20-9 No. 1 is one of the strongest flowing oil wells I have personally seen in the Smackover.

Q Would you explain your Exhibit No. 6 please?

A Yes, ma'am. Exhibit No. 6 shows the reservoir properties of the two wells which have been completed today. I previously testified that Wefel No. 2 had 14 feet of net pay and International Paper Co. 20-9 No. 1 had 22 net feet of pay. The Wefel well has 10 percent porosity with 36 percent water saturation and core permeability of nine millidarcies. The International Paper Co. 20-9 No. 1 well has 11 percent porosity, 27 percent water saturation, and 31 millidarcies core permeability.

When you consider that this Smackover Oil Pool is buried at a depth of 15,600 feet, I consider this porosity and permeability at that depth to be much larger than usual. I think that these excellent reservoir properties show the well can drain 160 acres.

Q Would you explain your Exhibit No. 7, please?

A Yes, ma'am. Exhibit No. 7 shows the well economics of 80-acre spacing vs. 160-acre spacing. I have shown the present value profit of various amounts of net pay ranging from 5 to 25 feet, both on 80-acre and 160-acre spacing. As shown by the exhibit, the operator cannot make a profit on 80-acre spacing until each well contains 25 net feet of pay. Recalling that we have drilled two wells which encountered 14 and 22 feet of net pay, respectively, you can see that on 80-acre spacing 14 feet of net pay will result in a loss, as will 22 feet. However, on 160-acre spacing both wells will return a profit. We have taken the oil isopach and planimetered this area and determined that the average pay over the field will average 16 feet.

You can see from this exhibit that an average of 16 feet of pay resorts in an net loss on 80-acre spacing but is profitable on 160-acre spacing. This exhibit and the excellent reservoir characteristics as shown on Exhibit 5 show that 160-acres is the proper spacing for this field.

Q Mr. McLain, would you turn now to your General Exhibit A, the proposed Special Field Rules for the Blacksher Field, in Baldwin County, Alabama? Would you please provide the Board with a summary, a review, of these rules?

A A very short summary unless the Board has other questions. These rules, I consulted with the staff and these rules, in great deal, are patterned after the Stove Field, I believe that is the correct name, but I thoroughly agreed with the rules and changed them only slightly. Rule 1 merely defines the field limits that I testified as to on Exhibit 2. Rule 2 defines the Smackover Oil Pool, and you will recall I testified on that as to Exhibit 1. Rule 3 provides for 160-acre spacing with wells located 660 feet from unit boundaries and 1320 feet between wells. Rule 4 is drilling and completion operations.

This is in effect Statewide Rule C-3. I would point out to the Board here that in the Blacksher Field the base of the fresh water is 1300 feet. I provided for at least casing to be set at 1800 feet but I will point out to you that Shell, itself, will set casing at 3500 feet, which better suits our safety requirements, but it has nothing to do with the fresh water. The fresh water is adequately protected at 1800. We prefer 3500 feet of surface casing. I don't know what another operator might prefer. That's why I used 1800. Rule 5 provides for a bottom hole pressure survey every October. Rule 6 provides that allowable hearings may be held at anytime on the order of the Board or on the application of any interested party. Rule 7 is where I request an allowable of 500 barrels of oil per day, and I showed by that one exhibit how strong this well is. Rule 8, permissible tolerance, is your Statewide Rule F-8. The adjusted oil well allowable is what I patterned after the Stove Field and I think it's a good rule, and therefore, I incorporated it into these field rules. Rule 10

is measurement of production. In part, this rule is a paraphrase of your Rule F-3, but I further provided for common storage after metering, whereas Rule F-3 does not permit for common storage, but I will discuss the metering below. Rule 11 provides that wells be equipped so that gas-oil ratio and other tests may be run. Rule 12, the use of meters. Only a volume-type displacement meter may be used and these meters will be used after the oil and gas and water are separated in three-phase vessels. This oil will pass through a volume-type meter which will be calibrated at least once a month by means of a calibration tank or a calibrated meter prover, or a master meter. When a meter is found to deviate more than 2 percent it will be adjusted. I would point out to the Board that other states uniformly recognize the use of meters and when I proposed the use of meters in Mississippi, we ran a test consisting of over a half million barrels of production. The difference between the meter readings and the oil as measured in the tank was less than one percent, and considering how you measure oil in a tank and a meter,

I think in that case the meter was the correct one. These oil, these positive displacement meters, are extremely accurate. Rule 13 provides for semi-annual gas-oil ratio and water cuts to be performed each April and October. As a practical matter for our own records we perform these once a month. Rule 14, surveys and tests of new wells, I again used the Stove Field rules as a model. I think it's a fine rule and have no objection to it. Rule 15 is the general boiler plate or grandfather clause covering all other matters.

Q Mr. McLain, do each of these exhibits accurately and correctly depict the matters and facts which they purport to portray?

A They do in my opinion.

Q Based upon your testimony, if the Board grants the relief sought by Shell by the creation of these Special Field Rules, would such action safeguard, protect and enforce the coequal and correlative rights of all owners and interests in the field?

A Yes, they would.

Q If the relief sought by Shell is granted, would waste

as defined by the Alabama laws be prevented?

A Yes, ma'am.

Q Do you recommend the adoption of these Special Field Rules?

A I do.

Q Will the creation of the Special Field Rules promote the orderly and full development of the area known as the Blacksher Field?

A Yes, they will.

Q Mr. McLain, the characteristics of the Smackover Oil Pool, as you have defined them and as defined by the Special Field Rules proposed for adoption, are such that a well located as set forth in these Special Field Rules and drilled upon a unit consisting of 160 surface acres conforming to the requirements of the rules, will effectively drain such a unit and the production therefrom and economically recover the recoverable oil in the Smackover Oil Pool without avoidable waste?

A Yes, in my opinion.

Q Is there anything further you want to add?

A Unless I could say a few kind words about L.S.U.

(Laughter from audience)

MS. STEWART: I have no further questions. I tender him to the Board.

EXAMINATION BY BOARD OR STAFF

CHMN. ADAMS: What community are these two wells located near?

MR. MCLAIN: Mr. Chairman, I'm not too familiar with the area. Only from a map. They're north of Mobile. Do you know, Ms. Stewart? It was the staff of the Oil and Gas Board that suggested Blacksher the topographical feature. As a matter of interest, it's approaching an area that the Alabama Historical Society says is one of the oldest forts in the state of, in the whole United States. I don't know what that would be. It's north of Mobile.

FROM AUDIENCE: It's north of Bay Minette, in Baldwin County.

CHMN. ADAMS: North of Bay Minette? That's what I wanted to know.

MR. MCLAIN: I'm sorry I didn't know that.

FROM AUDIENCE: Twenty-five miles north of Bay Minette.

MR. MCLAIN: I didn't know the answer, Mr. Chairman. I'm not too familiar with the towns yet.

MR. RAYMOND: Mr. Chairman, we have a question from the staff.

MR. HANBY: Mr. McLain, on Exhibit 1, I note at the top of your Smackover there are two lines. Clearly, for the record, which of those is the...

MR. MCLAIN: I'm so sorry, Mr. Hanby, that was an oversight on my part. When I had the original exhibit made, the draftsman inadvertently put the top of the Smackover at a depth equal to 15,553. That's the little line you see. When I found the error and discussed it with the staff, as the staff pointed out to me, I revised the exhibit to put the words "Top of Smackover 15,563" so please disregard the little line at 15,553. It has no significance, if that makes sense to the Board. It's the line going through the well file.

MR. HANBY: Yes, sir, Mr. McLain, that was 15,663.

MR. MCLAIN: I'm so sorry, Mr. Hanby. It's 15,663, the top of the Smackover. The little line shows at 15,653. Disregard that line.

MR. HANBY: One other question. On Rule 10 of your proposed Special Field Rules, on the commingling and common storage system with metering devices after you've separated, of course, this is in common practice where notice to the Supervisor will be given on the commingling of this production and a copy of the schematic of your surface vessels and where you do your metering. That's just a common procedure for doing this.

MR. MCLAIN: Yes, sir, and I have submitted that to you, Mr. Hanby.

MR. HANBY: Right.

MR. MCLAIN: I wanted to bring it to the Board's attention.

MR. HANBY: One other comment for the record, that is Stave Creek Field that you were referring to...

MR. MCLAIN: Did I call it Stove?

MR. HANBY: Yes, sir.

MR. MCLAIN: I'm stove up. It's Stave.

(Laughter from audience)

MR. RAYMOND: Mr. Watson.

MR. WATSON: I have some questions for Mr. McLain if you're through.

MR. RAYMOND: Come forward.

CROSS-EXAMINATION

MR. WATSON: Mr. Chairman, I represent Mr. Hooper Mathews and his interest in this proposed Blacksher Field and two trusts. I call them Wefel trusts. They are involved in the ownership here and with the exception of the ownership of International Paper and Mobil, I think my clients own the rest of the acreage in the proposed field, and I have some questions for Mr. McLain.

Q Let's go to this corrected Exhibit 1 that you've just mentioned on top of the Smackover, and then refer to your structure map and tell me if your Smackover as you're now correcting Exhibit 1 corresponds with the structure map, and my exhibits are labeled different than yours, but your Smackover structure. Is that at 15,663 the well, the top of the Smackover as portrayed on this...

A Careful, Mr. Watson, this is a subsea...

Q All right.

A All structure plats are subsea. Yes, sir, it is.

Q O.K. So this as you've corrected in the record does

correspond with...

A This is electric log depth.

Q I understand that.

A These are subseas.

Q Subsea, but they are correlatable and they...

A Yes, sir.

Q I might say at the very outset so you can follow, hopefully, what I'm going to try to get into the record here, my client does not oppose the Special Field Rules that are being proposed here. We support the 160-acre spacing for the Smackover as we understand that. My position will be to insure that these Special Field Rules that you are considering are developed and implemented in such a way as to properly develop this field and to protect the interest of my client. His coequal and correlative rights, and the rights of these trusts. Mr. McLain, which of these two wells completed in the proposed field was drilled first?

A The Shell-Wefel No. 1.

Q Tell the Board if you would please about the Shell-Wefel No. 1 well, it's characteristics, if you would.

A All right, sir. The Wefel has 14 net feet of pay in the interval 15,585 to 15,599, which was the perforated zone. The well flowed 120 barrels of oil per day with 192 barrels of salt water. We did not think the salt water came from the formations and the well with this supersaturated salt water plugged with salt after six hours. We got in and cleaned the well out. We squeezed it at 15,620, and it flowed clean oil. It's now producing a small amount of salt water, about six barrels per day.

Q What about the completion of this well? Is it completed to your satisfaction?

A Yes, sir, if I didn't have the supersaturated salt water problem it would be. I don't like the salt water but there's nothing I can do about that.

Q Does your company have a workover plan for this well?

A I don't know of any immediate plans but workovers are an ongoing thing with us when we're not satisfied with the production or when we think the well will do better. Yes, sir, we're looking very seriously at applying to the Board for a packerless completion so that we can keep this salt plug from forming. That is the one thing

that gives us the most trouble with this well. This well, you can see it by watching the production performance, will plug within a very short time, so we do have that workover in. This well has been acidized and after acid job flowed, I believe, 286, but it's very cyclic due to the salt problem. In fact, Mr. Watson, I had in the Special Field Rules to ask for a packerless completion for this well. The staff thinks in their judgment this would be better handled after notice and hearing, so I took it out.

MR. LEE: Tom, could I ask you a question so I might gear into where you're leading. Are you concerned with the proposed field rules, are you concerned with the allowable per day, or are you concerned with the 160-acre unit?

MR. WATSON: I'm concerned with the allowable per day in that the Wefel well is not properly completed, as I will try to point out to you in a minute. I am concerned because as they have testified today they are permitting a third well which directly offsets the Wefel well on the north. My client has been led to believe that within three weeks the Wefel well will be worked over so as to try to take care of a cementing

job that was poor. I'm concerned that that be done before the offset to the north is completed and is put on production because, in our opinion, that will affect the reservoir pressure and the ultimate recovery of the Wefel well. I particularly...

MR. LEE: Is No. 1 a Wefel well or is it an International Paper?

MR. WATSON: International Paper and that's what you heard the testimony about today, so I'm trying to get into the record some of the background information on the Wefel well.

Q You understand my concern now in directing this?

A I do. I question who told you the well would be worked over. I have no knowledge of that, Mr. Watson.

Q That's the reason I'm asking you and you've testified. I don't question what you're saying, you understand?

A I see.

Q You can hear anything in the field. You've testified to this Board that you're a part or you advised Shell senior management.

A That is correct.

Q So I am convinced that what you're telling us is Shell's position in this matter. My client had been led to believe,

rather strongly, and because of the poor performance of the Wefel well, you might tell the Board at this point what the Wefel well is producing on a daily basis as opposed to the International Paper well.

A The Wefel well at this time is plugged up with salt because we're waiting for a high pressure injection pump to get more water down and give us this bottom hole pressure. It has produced at varying rates from 96 to as high as 286. It normally produces around 100 barrels per day. At this time it is off production waiting on a high pressure water injection pump, which we've ordered.

Q Do you have any idea when that would be available?

A I'm sorry I don't, Mr. Watson, but I think we can say within a week, less than a week. We're trying to get it now. We were trying to get it two days ago, so we're as conscious as you to get the well back on production.

Q All right, sir. But it's a fair statement to say that with these productive intervals that you have discussed in your direct testimony and in the International Paper well, I believe that well is producing, you have 22 feet

of pay, is that entire interval producing?

A The entire gross feet of pay producing, no, that's coming out of the two middle stringers in it.

Q All right, sir, so what are we talking about there? Out of the two middle stringers, about how much of that?

A Let's see. About seven feet.

Q All right, sir, that's my understanding. Now tell me and the Board, if you will please, you've touched on the gas production, about how much gas is being produced down there now and how much gas will be produced if your request is granted increasing the allowable to 500 barrels a day?

A Well, it will obviously be the gas-oil ratio shown on Exhibit 5 times the allowable.

Q All right, sir...

A Mr. Watson, isn't the matter between me and you a matter rather for the courts rather than before this Oil and Gas Board? This is my first time over here, but I think that you're getting into lease obligations aren't you?

Q No, sir. Not at all and I certainly hope that we don't

have to approach the courts. I'm simply trying to get into the records the facts that would protect the Wefel well. You're talking about setting up a field. You have two wells in the proposed field. I've heard, if I had had answers to these questions in your direct examination I wouldn't be sitting up here asking you these questions.

A Are you suggesting that the better wells should always come down to the poorer wells?

Q Not at all, sir. I'm simply suggesting that you complete the wells in the best manner possible so that this Wefel well on the 160-acre unit that you've proposed will drain its fair share of the oil encountered. That's all I'm suggesting.

A I think your argument then is with how we complete the well. We completed it as we completed the International Paper Company.

Q All right, sir. And you're as satisfied with its completion as you're...

A No, sir, I'm not satisfied with this salt problem, Mr. Watson. It is Watson, isn't it?

Q Yes, sir.

A I'm not satisfied with the salt problem.

Q And I simply ask you then what you plan to do to correct that?

A All right, sir. We have ordered a high pressure water injection pump in which we can get greater volumes of water down to the formations, dissolving this salt, so that we are going to produce water with it but it will be supersaturated fresh water.

Q And that's not called a workover?

A I wouldn't call that a workover. I envision a workover as moving a rig in, pulling the tubing, and that type of thing.

Q Right. You complete these wells down there with a workover rig don't you?

A Yes, sir, as a matter of economics. We could use either the drilling rig or the workover rig. The workover rig is smaller and it is a cheaper rig to use in completing.

Q All right, sir. Mr. McLain, I'm not trying to harass you with these questions...

A I understand, Mr. Watson.

Q But I would appreciate your answering them for me.

A Yes, sir.

Q I think that it would be helpful to the Board. Now I would like to come back to my question on the gas production.

A Yes, sir.

Q The gas is presently being flared, right?

A It is being flared as we get, trying to get a market for it and have those negotiations ongoing now.

Q All right, sir. And my next point to that question is what will the difference in gas production be if you move from 100 barrels of oil a day to 500 as you have requested?

A Both wells?

Q Yes, sir.

A We'll use an average of 1200, which the data shows, times 200 barrels per day, 0, 0, 0, 4, 2, 1200--I believe it will be about half a million six hundred MCF a day.

Q Per well?

A No, sir, total for the two.

Q Oh, 600 MCF per day?

A Total.

Q At 500 barrels?

A Yes, sir, I used--I'd better go back if you want me to use both wells. I used 500 for the International Paper and 200 for the Wefel. That's a total of 700 times 1200 average gas-oil ratio, 840 cubic feet. Then I used 200, just 100 for each well, that's 240, the difference being 600 MCF.

Q All right, sir.

A Six-tenths of a million.

Q O.K. We've heard that. Is there a pipeline within the general area of this proposed field that you know of?

A Do you mean within three or four miles?

Q Yes, sir, five miles?

A I don't think it's within five miles. I believe the nearest one is about 20, and as I said, we have already, trying to get a contract for the sale of the gas ...

Q All right, sir, let me come back and ask you a specific question now about your plans for the Wefel. You have no present plans then on the workover to go back in and squeeze, reacidize, or do anything else other than

this pressure, this pump that you've described?

A I think the first thing to do is to get the pump in, high pressure water injection, see what the well makes, then your next step if you're not satisfied with that would be a reperforation or acidize, but you asked me right now did we have an approved AFE...

Q Yes, sir.

A I can't say that we do but I also don't know that we don't, you understand, but I know the first thing is the water injection pump, then an acid job, but you want to be very careful because you would acidize again into the water.

Q All right, sir. In the normal sequence of your planning for the development of this field then, you're planning, you have an application in to permit this International Paper well in Section 20, the second well?

A Yes, sir.

Q You would anticipate drilling that probably within a 60-day to 70-day period, about what it takes to complete these?

A Yes, sir, I believe that's about right. We would start

the location preparation as soon as the Board approved that application.

Q Yes, sir. And taking what you've said to the Board for your recompletion plans for the Wefel well then, within the time frame here it's possible that the second well in Section 20 could be completed before you were through with whatever it might require to complete the Wefel well to your satisfaction?

A It's possible but not probable.

Q All right, sir.

A You understand the difference?

Q I understand.

A It's possible but I don't think the sequence will be such. I think the work will be done on the Wefel before we get to that well.

Q All right. That's my question. And then we can anticipate, probably, that this well should come on and maybe perform more in line with the kind of Smackover production that you anticipate in this field?

A What it's capable of. I think it's...

Q Right, it's maximum efficient rate of production?

A Yes.

Q That's what you're striving for?

A Yes, and I'm also, the next well will be on your client's land over in Section 24.

Q All right, sir, over here?

A Yes, sir.

Q O.K.

A Mr. Lee, that's just to get an outer limit. It's not leaving it there. It's just outstepping.

Q Do you have enough information, Mr. McLain, from your preliminary information, to give you any idea as to the life expectancy of these wells?

A Yes, sir, our, the life expectancy comes in the profitability calculation. I estimate eight years in the absence of a secondary recovery effort.

A All right, sir. And I believe you've testified you encountered no known oil-water contact in this field. You...

A Not within the porous rock, Mr. Watson.

Q Right, but above that porous rock before...

A Below that porous rock there is a tight zone and then

there is a water, area of high water saturation, but in the porous oil bearing zone I do not see a water level.

Q All right, sir. In the cumulative production area, can you give this Board some idea as to the cumulative production through your latest report for the International Paper well? Total production since it first came on?

A Mr. Watson, I can't. The Board, I'm sorry, I never anticipate the question. You can ask me to guess and I would guess at it. I'm trying to think of when it was completed. It's...

Q Well, I'm not trying, you know, I'm not trying to test your memory.

A I'm sorry I don't have the answer. The staff could supply it from the reports we have. I'm not evading it. I just don't know.

Q Let me ask you this then. It is considerably more than the Wefel well?

A Yes, sir, in that we had that test period for 500 to get this data. I don't know that it's considerably more. I'll say that it's more.

Q Yes, sir.

- A I'm just not going to say considerably more because after we got the test data we came back to the 100 barrels in the International Paper and the Wefel has been on much longer, so I don't know what the differential is between those two.
- Q All right, sir. If a gas market exists in an area closer than 20 miles, your company then, as we understand it, we're concerned with this gas being flared...
- A Yes, sir, so are we.
- Q And so you are.
- A Yes, sir, that's plenty of income there.
- Q We understand there is a pipeline probably eight miles from this.
- A Fine.
- Q Then your plans would be to collect this gas as soon as possible because our figures give us indications they were wasting several thousands of dollars worth of gas a month. Would that be a fair statement?
- A I think so.
- Q All right, sir.

A Yes, sir, I want to assure you and the Board we, of course, made every effort. We started negotiating for the sale of the gas after the completion of the Wefel well.

Q All right, sir.

A Gas companies, as you know, before they will build lines, like some assurance of the quantity of gas they are looking for and dealing with.

MR. WATSON: All right, sir. I would like, and I appreciate your answers, I would like to state to the Board, Mr. Chairman, that we will, at this point, take no position other than what I've previously stated in that we are not opposing this. We are concerned that the development be such that wells are not completed around this 160 acres assigned to the Wefel unit, that's not the subject matter of your hearing today; you're not re-forming these units because of the misadvertisement, but we may very well, and I'd like for Shell to know this as a matter of public record, we may very well be back here depending on the completion of the well due north in Section 20 and the techniques described by Mr. McLain to you today to go back in and correct the problems encountered in this original well in the

field, our concern being that we do not have drainage across these unit lines due to some technical and mechanical problems in the well.

MR. MCLAIN: We understand your position, Mr. Watson.

MR. RAYMOND: Mr. Chairman, the staff has a few questions.

CHMN. ADAMS: Go ahead.

EXAMINATION BY BOARD OR STAFF

MR. HANBY: The first question that I have deals with the gas market as far as talking about negotiations. You have been involved in these. Can you give the Board some idea as to the status of whether someone can say that it may be three months, six months, nine months, a year, any type of idea about a gas market?

MR. MCLAIN: Mr. Hanby, my best guess is within six months. You asked me and you catch me a little bit off of guard there. I can tell you factually that when we made the discovery we opened negotiations with it. We will get to the nearest line, but as you know, as I testified, the purchaser, if he puts in the line he wants assurance that there's enough gas there to return him a profit and pay for the line. We often will put in the line ourselves to do that. I can tell you that we

have actively pursued a market and are negotiating on it, and my best guess would be less than six months.

MR. HANBY: I've got another question of Mr. Watson or his clients.

MR. WATSON: All right.

MR. HANBY: In discussing the closing statement of yours, the Board is being approached right now with a petition for field rules requesting 160-acre spacing. As you know, the two reformation petitions cannot be heard because of a misadvertisement. For these wells to continue producing, you must have some reformation if the field rules are granted, which because of, to keep them on production would cause an emergency, would your clients be opposed to the consideration of an emergency petition to reform these units?

MR. WATSON: I think, Mr. Hanby, our position would not be in opposition to that. We understand these wells to have a paraffin problem and I would think that probably the more they could produce, Mr. McLain, the less problems you would have with that rather than having them choked back, and we'd like, that's our whole point. We want these wells to produce ratably and such that our interest is protected, so if they

go ahead and do what they say they're going to try to do for the Wefel well, we have no objection to the reformation of these units on an emergency basis and I think the parties are here that are affected by that so...

MR. RAYMOND: Mr. McLain, I have one question. The Shell-International Paper Well No. 2, what is the status of that well?

MR. MCLAIN: I applied for 160-acre permit and mailed it to the Oil and Gas Board contingent upon this hearing applying for 160-acre drilling unit.

MR. RAYMOND: Mr. Chairman, the staff would recommend a short recess.

CHMN. ADAMS: We'll take a 5-minute recess.

(The Board was recessed for approximately 10 minutes)

CHMN. ADAMS: Let the record reflect that the Oil and Gas Board is again in session.

MS. STEWART: I would like to move that the exhibits be admitted into evidence.

CHMN. ADAMS: Unless there is an objection, your exhibits are admitted into evidence. I hear none, so they are admitted.

(Whereupon, Exhibits 1 through 7 and General Exhibit A were received in evidence to the testimony of Mr. McLain)

MR. RAYMOND: The Petitioner needs to be aware that the Board is concerned over the volumes of gas being produced in the proposed Blacksher Field, and as a result of this, we would like to have updates, written reports, submitted to the staff and to the Board at three-month intervals from today's meeting with a report on the status of any workover operations that may have taken place or be in progress, and also a status of the market situation for the sale of the gas at the end of this three-month period.

MR. MCLAIN: May I ask what you consider a workover? If we have the high water, the high injection pressure pump, do you consider that a workover? Do you want to know that type of thing? Does your questions go to our problem with Mr. Watson?

MR. RAYMOND: Yes. Yes, sir. I'm using workover in a very loose terminology. What you've just identified would be applicable, yes, sir. Also, the Board and the staff are concerned of, here again, the gas market and to the point that if the gas is not put on production after six months, the Board will consider the possibility of reducing the allowable. So the Petitioner needs to be fully aware of that.

MR. MCCORQUODALE: Subject to the stipulations set out

by the Supervisor, I would move that the petition be granted.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: Mr. Chairman, I believe that carries us through the regular docket. That brings us to the part on the agenda where we deal with Applications for Natural Gas Policy Act Well Status Determinations, and today we have requested action in three categories. The first category is a request for dismissal, which includes Item 35, an application by Clayton W. Williams, Jr. Is there any discussion from the floor on dismissal of this item? (No response)

MR. LEE: I move we dismiss Item 35.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: The second category are items for which a continuance has been requested. They are Items 31 and 47, applications by Southland Royalty Company; Items 32 and 33,

applications by Skelton Operating Company, Inc.; Items 34, 40 through 46, and 49, applications by Grace Petroleum Corporation; Items 36 and 56, applications by Pruet Production Company; Items 51 through 55, applications by Amoco Production Company; Items 57 and 58, applications by Morrow Oil and Gas Company. Are there any discussions from the floor on these? (No response)

MR. LEE: I move we continue the items just referred to.

MR. MCCORQUODALE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: The third category will be discussed by the attorney.

MR. CAREY: Mr. Chairman, the staff has examined applications and exhibits concerning Items 37, 38, 39, 48, and 50. They appear to be in order and I would recommend that the exhibits be admitted into evidence and the applications be approved in accordance with our Rule N-4.

CHMN. ADAMS: The exhibits that you referred to are admitted.

MR. MCCORQUODALE: I move to grant those items.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: Mr. Chairman, the minutes of the March 20, 1981, meeting have been reviewed and we recommend them to you for approval.

MR. MCCORQUODALE: I so move.

MR. LEE: Second.

CHMN. ADAMS: All in favor let it be known by saying "aye".

(All Board members voted "aye")

CHMN. ADAMS: "Ayes" have it.

MR. RAYMOND: The next regularly scheduled meeting of the Board will be June 3, 1981. Our July meeting will be July 3, 1981.

MR. MCCORQUODALE: I move we adjourn.

MR. LEE: Second.

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

(All Board members voted "aye")

CHMN. ADAMS: We are adjourned.

(Whereupon, at 12:15 p.m. the hearing was adjourned)

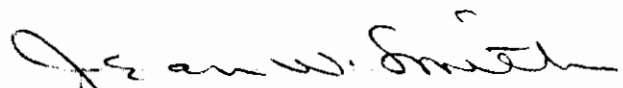
REPORTER'S CERTIFICATE

STATE OF ALABAMA        ()

COUNTY OF TUSCALOOSA()

I, Jean W. Smith, Hearings Reporter in and for the State of Alabama, do hereby certify that on Friday, May 1, 1981, 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 133 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.



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Jean W. Smith  
Hearings Reporter  
State of Alabama