

MR

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EXHIBITS

TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 1 (Brad Truett)	Structure map top Bangor Limestone Coffee Creek Field	34	35
Exhibit No. 2 (Brad Truett)	Isopach net Carter Sand, Coffee Creek Field	34	35
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TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 3 (Item 9)	Affidavit of John Carter	37	38
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Exhibit No. 3 (Items 11 & 12)	Affidavit of notice for 4-2-874 and 4-2-875	40	40
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Exhibit No. 1 (Lindsey Stewart)	Structure map Millerella Limestone Coal Fire Creek Field	57	57
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Exhibit No. 3 (Lindsey Stewart)	Structural cross section A-A', Coal Fire Creek Field	57	57
Exhibit No. 4 (Lindsey Stewart)	Carter Sand type log Coal Fire Creek Field	57	57

EXHIBITS
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TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 5 (Lindsey Stewart)	Well location plat Mary Marko 24-11 Pickens County	57	57
Exhibit No. 6 (Lindsey Stewart)	Form OGB-9 Mary Marko 24-11 No. 1	57	57
Exhibit No. 7 (Item 13)	Affidavit of notice by Steven Harrison	57	57
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Exhibit No. 27 (Item 16)	Affidavit of notice by William T. Watson	59	59
Exhibit No. 1 (Andy Sylte)	Blowhorn Creek Oil Field limit map	95	95
Exhibit No. 2 (Andy Sylte)	Type log Blowhorn Creek Field	95	95
Exhibit No. 3 (Andy Sylte)	Cross section A-A' Blowhorn Creek Oil Field	95	95
Exhibit No. 4 (Andy Sylte)	Cross section B-B' Blowhorn Creek Oil Field	95	95
Exhibit No. 5 (Andy Sylte)	Cross section AA-AA' Blowhorn Creek Oil Field	95	95
Exhibit No. 6 (Andy Sylte)	Cross section C-C' Blowhorn Creek Oil Field	95	95

EXHIBITS
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TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 7 (Andy Sylte)	Cross section D-D' Blowhorn Creek Oil Field	95	95
Exhibit No. 8 (Andy Sylte)	Cross section E-E' Blowhorn Creek Oil Field	95	95
Exhibit No. 9 (Andy Sylte)	Cross section F-F' Blowhorn Creek Oil Field	95	95
Exhibit No. 10 (Andy Sylte)	Structure map top Millerella Sand, Blowhorn Creek Field	95	95
Exhibit No. 11 (Andy Sylte)	Structure map base Millerella Sand, Blowhorn Creek Field	95	95
Exhibit No. 12 (Andy Sylte)	Net isopach map Millerella Sand Blowhorn Creek Field	95	95
Exhibit No. 13 (Andy Sylte)	Net hydrocarbon pore volume map, Blowhorn Creek Field	95	95
Exhibit No. 14 (Andy Sylte)	Net oil pore volume map, Blowhorn Creek Field	95	95
Exhibit No. 15 (Emil Pawlik)	Production history Blowhorn Creek, Millerella Oil Pool	95	95
Exhibit No. 16 (Emil Pawlik)	Bottom hole pressure history, Millerella Oil Pool Blowhorn Creek Field	95	95
Exhibit No. 17 (Emil Pawlik)	Oil reserve data Millerella oil Pool Blowhorn Creek Field	95	95

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(Contd.)

TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 18 (Emil Pawlik)	Tract participation formula, Blowhorn Creek Field, Millerella Oil Pool	95	95
Exhibit No. 19 (Emil Pawlik)	Net oil pore volume tracts, Blowhorn Creek Field	95	95
Exhibit No. 20 (Emil Pawlik)	Tract factors based on net oil pore volume Blowhorn Creek Field Millerella Oil Pool	95	95
Exhibit No. 21 (Emil Pawlik)	Tract factors based on usable well bore credit, Blowhorn Creek Field, Millerella Oil Pool	95	95
Exhibit No. 22 (Emil Pawlik)	Tract factors proposed Blowhorn Creek, Millerella Oil Unit	95	95
Exhibit No. 23 (Emil Pawlik)	Proposed waterflood plan Blowhorn Creek Field Millerella Oil Pool	95	95
Exhibit No. 24 (Russell Grant)	Unit Agreement Blowhorn Creek Millerella Oil Unit	95	95
Exhibit No. 25 (Russell Grant)	Unit Operating Agreement Blowhorn Creek, Millerella Oil Unit	95	95
Exhibit No. 1 (Item 18)	Affidavit of notice by Steven F. Harrison	101	101
Exhibit No. 2 (Item 18)	Affidavit of Kathryn Clayton	101	101

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TITLE	DESCRIPTION	OFFERED	RECEIVED
Exhibit No. 1 (Item 19)	Affidavit of notice by James J. Sledge	--	--
Exhibit No. 2 (Item 19)	Affidavit of Edward N. Kramer	--	--
Exhibit No. 8 (Item 20)	Affidavit of notice by William T. Watson	108	108
Exhibit No. 1 (Philip Reeves)	Field limit map Foshee Field, Escambia County	122	122
Exhibit No. 2 (Philip Reeves)	Type log Foshee Field	122	122
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Exhibit No. 4 (Philip Reeves)	Structure map Lower Tuscaloosa "Pilot Sand"	122	122
Exhibit No. 5 (Philip Reeves)	Structural cross section A-A'	122	122
Exhibit No. 6 (Philip Reeves)	Daily production plot No. 1 ATIC 35-14	122	122
Exhibit No. 7 (Philip Reeves)	Form OGB-9 ATIC 35-14 No. 1	122	122

STATE OIL AND GAS BOARD OF ALABAMA

Tuscaloosa, Alabama

April 2, 1987

Testimony and proceedings before a Hearing Officer in the Board Room of the State Oil and Gas Board Building, University Campus, Tuscaloosa, Alabama, pursuant to adjournment, on this the 2nd day of April, 1987.

BEFORE:

Mr. Marvin Rogers.....Hearing Officer

BOARD STAFF

Dr. Ernest A. Mancini..... Secretary & Supervisor

Mr. Gary Wilson.....Assistant Supervisor

Mr. Jay Masingill.....Assistant Supervisor

Mr. Doug Hall..... Geologist

Mr. Frank Hinkle..... Geologist

Mr. Richard Hamilton.....Petroleum Engineer

Mr. Tom Sexton.....Geologist

(Reported by Jean W. Smith)

APPEARANCES

	NAME	REPRESENTING
1.	Hazel M. Coleman P. O. Box 60252 New Orleans, LA 70160	Getty/Texaco
2.	Walter D. Cornelius P. O. Box 60252 New Orleans, LA 70160	Getty/Texaco
3.	Emil Pawlik 1100 Capital Towers Jackson, MS	Hughes Eastern Corp.
4.	Russell P. Grant, Jr. 1100 Capital Towers Jackson, MS 39211	Hughes Eastern Corp.
5.	Andrew Sylte 1100 Capital Towers Jackson, MS 39211	Hughes Eastern Corp.
6.	Brad Truett 1330 Capital Towers Jackson, MS 39211	Morrow Oil & Gas Co.
7.	Philip R. Reeves Jackson, MS	Hughes Eastern
8.	Nick Kramer Fayette, AL	Terra Resources
9.	Steve Harrison Tuscaloosa, AL	Morrow, Browning & Welch
10.	Robert P. Roark Birmingham, AL	Not listed
11.	Jim Sledge Tuscaloosa, AL	Not listed

APPEARANCES
(Contd.)

	<u>NAME</u>	<u>REPRESENTING</u>
12.	Dudley Hughes Jackson, MS	Hughes Eastern
13.	Willson H. Green Point Clear, AL	Self
14.	Robert W. Hammons Mobile, AL	Self
15.	Tom Watson Tuscaloosa, AL	Hughes Eastern
16.	N. Sanders Houston, Texas	Enserch Exploration, Inc.
17.	Mark Redditt Mobile, AL	C. A. Wallace
18.	C. A. Wallace Mobile, Alabama	Self
19.	Linda McDonald Mobile, AL	C. A. Wallace
20.	Richard Brewer	C. A. Wallace
21.	Ward Pearson Tuscaloosa, AL	Anderman/Smith
22.	Lindsey Stewart Jackson, MS	Browning & Welch, Inc.

PROCEEDINGS

(The hearing was convened at 10 a.m. on Thursday, April 2, 1987, at Tuscaloosa, Alabama, before a Hearing Officer)

MR. ROGERS: Ladies and gentlemen, this hearing is in session. Dr. Mancini, has proper notice of this hearing been provided?

DR. MANCINI: Mr. Hearing Officer, proper notice of today's meeting has been provided. A copy of today's meeting has been transmitted to the recording secretary.

NOTICE OF MEETING

"The State Oil and Gas Board of Alabama will hold its regular monthly meeting on Thursday and Friday, April 2 and 3, 1987, at 10:00 a.m. in the Board Room of the State Oil and Gas Board Building, University of Alabama Campus, Tuscaloosa, Alabama, to consider among other items of business the following petitions and applications.

1. DOCKET NO. 11-20-861

Continued petition by B. William Payne, Robert B. Payne, Peggy Payne Johnston, Robert B. Payne as Independent Executor of the Estate of Lyle C. Johnston, deceased and Robert B. Payne as Independent Executor of the Estate of Nellie S. Johnston, deceased, all individuals or estates created under the laws of the State of Texas seeking an Order of the Board requiring Alatex Energy, Inc. and StraGo Petroleum Corporation to comply with the terms and conditions of Order No. 84-272(E) which Order force integrated the interests of the Petitioners with respect to the drilling of the Container Corporation 34-16 Well (Permit No. 4200) in Monroe County, Alabama and further seeking an Order requiring the said Alatex Energy, Inc. and StraGo Petroleum Corporation to cease and desist from withholding Petitioners' funds with respect to the Bertha C. Quimby 34-1 Well located in the Northeast Quarter of Section 34, Township 4 North, Range 6 East, Monroe County, Alabama.

2. DOCKET NO. 12-18-8619

Continued petition by Tucker Operating Company, Inc., a domestic corporation qualified to do and doing business in the State of Alabama, asking the Board to designate a unit consisting of the Southwest Quarter of Section 8, Township 16 South, Range 16 West and all that part of the

South Half of Section 7, Township 16 South, Range 16 West lying East of the Alabama-Mississippi state line, Lamar County, Alabama, said unit consisting of 380.7 acres, more or less.

3. DOCKET NO. 2-26-875A

Continued amended petition by TXO Production Corp., 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 Petitioner's request for the drilling of a gas well at an exceptional location 395 feet from the South Line and 1,030 feet from the East line in a 320 acre drilling and production unit consisting of the South Half of Section 36, Township 16 South, Range 16 West, in Mud Creek Field, Lamar County, Alabama. This Petition is filed pursuant to Section 9-17-12, Code of Alabama, (1975) and as an exception to the Special Field Rules for the Mud Creek Field, Lamar County, Alabama, which require each well to be located no closer than 660 feet from each unit line and 2,000 feet from each producing well in the pool.

4. DOCKET NO. 2-26-876

Continued petition by TXO Production Corp., 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 a 320 acre drilling and production unit consisting of the South Half of Section 36, Township 16 South, Range 16 West, in Mud Creek Field, Lamar County, Alabama. This Petition is filed pursuant to Section 9-17-13, Code of Alabama, (1975) and Rule 400-1-13-.01 of the State Oil and Gas Board of Alabama Administrative Code.

5. DOCKET NO. 2-26-8713

Continued petition by Morrow Oil & Gas Co., a foreign corporation authorized to do and doing business in the State of Alabama, to amend Rule 1 of the Special Field Rules for the Coffee Creek Field, Fayette and Marion Counties, Alabama, by adding to the field limits for said field the West Half of Section 17, Township 13 South, Range 13 West, Marion County, Alabama.

6. DOCKET NO. 2-26-8714

Continued petition by Morrow Oil & Gas Co., a foreign corporation authorized to do and doing business in the State of Alabama, to amend Rule 2 of the Special Field Rules for the Coffee Creek Field, Fayette and Marion Counties, Alabama, by defining the Lewis Sand Gas Pool as that portion of the Lewis Sand productive of hydrocarbons in the interval from 2676 feet to 2694 feet as indicated on the Dual Induction Log for the Carless Resources, Inc.-McGowan 17-8 No. 1 Well, Permit No. 5116, located in the North Half of Section 17, Township 13 South, Range 13

West, Marion County, Alabama.

7. DOCKET NO. 2-26-8722

Continued petition by Anderman/Smith Operating Company, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order force pooling all tracts and interests in a 320-acre gas drilling unit consisting of the East Half (E 1/2) of Section 6, Township 17 South, Range 15 West, Lamar County, Alabama, in the Mud Creek Field. This Petition is in accordance with Section 9-17-13, Code of Alabama (1975), and Rule 400-1-13-.01 of the State Oil and Gas Board of Alabama Administrative Code.

8. DOCKET NO. 4-2-871

Petition by Triad Oil & Gas Co., Inc., a foreign corporation authorized to do and doing business in the State of Alabama, or any successor operator approved by the Supervisor, requesting the State Oil and Gas Board to enter an order force pooling all tracts and interests in the Southeast Quarter of Section 11, Township 3 North, Range 9 East, Escambia County, Alabama, all pursuant to Section 9-17-13, Code of Alabama, (1975) and Rule 400-1-13 of the State Oil and Gas Board of Alabama Administrative Code. Said unit would be drilled as a productive extension of the Appleton Field.

9. DOCKET NO. 4-2-872

Petition by Anderman/Smith Operating Company, a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order force pooling all tracts and interests in a 320 acre gas drilling unit consisting of the North Half (N 1/2) of Section 6, Township 15 South, Range 14 West, Lamar County, Alabama. Because of the proximity of this well unit to adjacent fields, the well is being drilled as a possible productive extension of the East Watson Creek Field and/or the Oakes Chapel Field. This Petition is in accordance with Section 9-17-13, Code of Alabama (1975) and Rule 400-1-13-.01 of the State Oil and Gas Board of Alabama Administrative Code.

10. DOCKET NO. 4-2-873

Petition by Terra Resources, Inc., a foreign corporation authorized to do and doing business in the State of Alabama requesting that the Board enter an order pursuant to Ala. Code Section 9-17-1, et seq., and in particular Section 9-17-12 and Section 9-17-14 and State Oil and Gas Board of Alabama Administrative Code Rule 400-1, and in particular Rule 400-1-2, amending the Special Field Rules for the Corinth Field, Lamar County, Alabama, by adding the West Half of Section 1, Township 15 South, Range 14 West, Lamar County, Alabama, to the field limits as

defined for the Millerella Sand Gas Pool for said Corinth Field and approving the Morrison 1-4 No. 1 Well (Permit No. 5042) as the unit well for the production unit consisting of said West Half of said Section 1 in the Corinth Field. The West Half of Section 1 is currently within the field limits as defined for the Blooming Grove Field and the Jones 1-14 Well (Permit No. 2920) located thereon is completed in the Carter Sand Gas Pool as defined for the Blooming Grove Field which is a separate and distinct reservoir from the Millerella Sand Gas Pool as defined for the Corinth Field and in which the Morrison 1-4 No. 1 Well is completed.

11. DOCKET NO. 4-2-874

Petition by C. A. Wallace, an individual, who is a resident citizen of Mobile County, Alabama, requesting the State Oil and Gas Board to enter an order establishing a 640-acre drilling unit consisting of the following described lands:

W 1/2 of Section 25;
W 1/2 of NE 1/4 of Section 25;
SE 1/4 of Section 26;
S 1/2 of NE 1/4 of Section 26;
Township 1 South, Range 1 West;
Mobile County, Alabama, said unit containing
640 acres, more or less.

Said drilling unit is an exception to Rule 400-1-2-.02 of the State Oil and Gas Board of Alabama Administrative Code.

12. DOCKET NO. 4-2-875

Petition by C. A. Wallace, an individual, who is a resident citizen of Mobile County, Alabama, requesting the State Oil and Gas Board to enter an order granting an exceptional location for a well to be drilled at a location 660 feet North of a point that is the Northeast corner of Section 35 and the Northwest corner of Section 36; said location being on the section line dividing Section 25 and Section 26, and being in Township 1 South, Range 1 West, Mobile County, Alabama. Said exceptional location is an exception to Rule 400-1-2-.02 of the State Oil and Gas Board of Alabama Administrative Code. The proposed exceptional location would be 660 feet from the Southern exterior boundary of a proposed drilling unit which is described as follows:

W 1/2 of Section 25;
W 1/2 of NE 1/4 of Section 25;
SE 1/4 of Section 26
S 1/2 of NE 1/4 of Section 26;
Township 1 South, Range 1 West; Mobile
County, Alabama; said unit containing 640
acres, more or less.

13. DOCKET NO. 4-2-876

Petition by Browning & Welch, Inc., a foreign corporation authorized to do and doing business in the State of Alabama, to name a new oil field in Pickens County, Alabama the Coal Fire Creek Oil Field, or such

other name as the Board may deem appropriate, and to adopt Special Field Rules therefor. Said field is proposed to consist of the South Half of Section 24, Township 18 South, Range 14 West, Pickens County, Alabama, as underlain by the Carter Sand Oil Pool, and all productive extensions thereof. The Carter Sand Oil Pool is defined as those strata of the Carter Sand productive of hydrocarbons in the interval between 4608 feet and 4625 feet as indicated on the Density-Neutron log for the Mary Marko 24-11 No. 1 Well, Permit No. 5080, including those strata of hydrocarbons which can be correlated therewith. Petitioner is requesting 80-acre spacing and the establishment of allowables for said field.

14. DOCKET NO. 4-2-877

Petition by Browning & Welch, Inc., a foreign corporation authorized to do and doing business in the State of Alabama, to reform the unit for the Mary Marko 24-11 No. 1 Well, Permit No. 5080, as to the Carter Sand Oil Pool only, from a 320-acre gas unit consisting of the South Half of Section 24, Township 18 South, Range 14 West, Pickens County, Alabama, in the Coal Fire Creek Field, to an 80-acre oil unit consisting of the East Half of the Southwest Quarter of said Section 24, in the proposed Coal Fire Creek Oil Field. Said

well has also been completed as a gas well in the Lewis Sand Gas Pool of the Coal Fire Creek Field, and will remain on a 320-acre unit as to said Lewis Sand Gas Pool.

15. DOCKET NO. 4-2-878

Petition by Hughes Eastern 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, entitled "Field Limits", of the Special Field Rules for the Blowhorn Creek Oil Field, Lamar County, Alabama, so as to add the following described parcels:

SW/4 of SW/4 of SE/4, all in Section 23, and the W/2 of W/2 of NE/4 of Section 26, all in Township 14 South, Range 14 West, Lamar County, Alabama.

If approved, Rule 1 of the Special Field Rules for the Blowhorn Creek Oil Field, will read as follows:

"Rule 1: Field Limits.

The Blowhorn Creek Oil Field as used herein is that area described as the East Half of Southwest Quarter, and the Southeast Quarter, all in Section 22; the Southwest Quarter, and the Southwest Quarter of Southwest Quarter of Southeast Quarter, all in Section 23; the Northwest Quarter, and the West Half of West Half of Northeast Quarter, and the Southwest Quarter, all in Section 26; and the Northeast Quarter of Section 27 and the South Half of Section 27, all in Township 14 South, Range 14 West, Lamar County, Alabama, underlain by the Millerella and Carter Sand Oil Pools, as

hereinafter defined, and all productive extensions thereof."

16. DOCKET NO. 4-2-879

Petition by Hughes Eastern 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 pursuant to Sections 9-17-1 through 9-17-32 and 9-17-80 through 9-17-88, Code of Alabama (1975) approving and establishing a unit for the Millerella Oil Pool for a portion of the Blowhorn Creek Oil Field, as last amended, to be known as the "Blowhorn Creek Millerella Oil Unit", consisting of the hereinafter described "Unit Area" in Lamar County, Alabama, and requiring the operations of said unit as a single unit for secondary recovery, development and production of oil, gas, gaseous substances, sulphur, condensate, distillate, and all associated and constituent liquid or liquefiable substances within or produced from the unitized interval in order to prevent waste, to maximize recovery of unitized substances, to avoid the drilling of unnecessary wells and to protect the coequal and correlative rights of interested parties. The "Unitized Formation" is to be designated as the Millerella Oil Pool, and is defined as the productive interval found between the Dual Induction-SFL Log depths of 2,510 feet and 2,526 feet

in the Weyerhaeuser 26-6 No. 1 Well, Permit No. 2819, located in Section 26, Township 14 South, Range 14 West, Lamar County, Alabama, and including those strata productive of unitized substances which can be correlated therewith, or such other enlarged interval as may be ordered by the State Oil and Gas Board. Said petition further seeks an order from the Board approving the Unit Agreement, the Ratification Agreement, and the Unit Operating Agreement for the proposed Unit and the proposed amendments to the Special Field Rules for the "Blowhorn Creek Millerella Oil Unit" so as to provide for unitized operations in conformity with the provisions of said Unit Agreement and Unit Operating Agreement.

Said petition further seeks entry of an order by the State Oil and Gas Board unitizing, pooling and integrating the "Unit Area", as underlain by the above defined Unitized Formation, into said Unit so as to require all owners or claimants of royalty, overriding royalty, mineral, leasehold and all other leasehold interests within said Unit to unitize, pool and integrate their interests and develop their lands or interests within said "Unit Area" as a single unit, and designating Hughes Eastern Corporation, as Unit Operator of the "Unit Area" in accordance with the laws

of the State of Alabama. The proposed "Unit Area" consisting of the following described area containing ten Tracts:

The Southeast Quarter of Section 22; the Southwest Quarter, and the Southwest Quarter of Southwest Quarter of Southeast Quarter, all in Section 23; the Northwest Quarter, and the West Half of West Half of Northeast Quarter all in Section 26; and the Northeast Quarter of Section 27, all in Township 14 South, Range 14 West, Lamar County, Alabama.

17. DOCKET NO. 4-2-8710

Petition by V. Monta Currie, Jr., an independent operator, 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 an irregular 160-acre, more or less, gas drilling unit in the Swift's Landing Field, described as follows:

Commencing at the Southwest corner of Township 8 South, Range 4 East, Baldwin County, Alabama; run thence North 00 degrees 03' 58" East along Range line for 1314.83 feet; Thence North 89 degrees 47' 46" East for 1326.60 feet to a point; Said point here-in-after referred to as the point of beginning; Run thence North 00 degrees 03' 58" East for 2640.00 feet; Thence North 89 degrees 47' 46" East for 2650.85 feet; Thence South 00 degrees 00' 54" West for 2640.00 feet; Thence South 89 degrees 47' 46" West for 2653.20 feet to the point of beginning.

The above described tract is situated in fractional Sections 31 and 38, Township 8

South, Range 4 East, Baldwin County, Alabama, and contains 160.73 acres.

This petition is filed in accordance with Section 9-17-13, Code of Alabama (1975) and Rule 400-1-13-.01 of the State Oil and Gas Board of Alabama Administrative Code.

18. DOCKET NO. 4-2-8711

Petition by Taurus Exploration, Inc., a foreign corporation authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to force pool all tracts and interests in a 320-acre gas drilling unit consisting of the North Half of Section 16, Township 14 South, Range 14 West, Lamar County, Alabama, in the Fairview Field, pursuant to Section 9-17-13, Code of Alabama (1975), and Rule 400-1-13-.01 of the State Oil and Gas Board of Alabama Administrative Code.

19. DOCKET NO. 4-2-8712

Petition by Terra Resources, 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 1, Township 14 South, Range 16 West, Lamar County, Alabama, all pursuant to Section 9-17-13, Code of Alabama (1975), and Rule 400-1-13 of the State Oil and Gas Board of Alabama Administrative Code.

20. DOCKET NO. 4-2-8713

Petition by Hughes Eastern 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 the "Foshee Oil Field", or some other name deemed appropriate by the Board, as a new oil field and promulgate Special Field Rules for said field in accordance with the State Oil and Gas Board of Alabama Administrative Code.

Petitioner requests that the field limits for the new field consist of the North Half of the North Half of Section 2, Township 1 North, Range 8 East; the South Half of Section 34, and the South Half of Section 35, all in Township 2 North, Range 8 East, all in Escambia County, Alabama. The new oil pool for said field is to consist of the Lower Tuscaloosa - "Pilot Sand" Oil Pool defined as those strata of said pool productive of hydrocarbons in the interval between 6,042 feet to 6,160 feet as defined on the Dual Laterolog-Gamma Ray Log for the A.T.I.C. 35-14 No. 1 Well, Permit No. 5062-A, located 615 feet from the South line and 1,685 feet from the West line of Section 35, Township 2 North, Range 8 East, Escambia County, Alabama, and the strata productive of hydrocarbons which can be correlated therewith and all productive extensions

thereof. Petitioner is also requesting that the Special Field Rules specify that wells are to be drilled on units consisting of 40 contiguous surface acres and for the establishment of allowables. Finally, Petitioner is requesting that the 40-acre wildcat drilling unit for the A.T.I.C. 35-14 No. 1 Well, consisting of the Southeast Quarter of the Southwest Quarter of Section 35, Escambia County, Alabama, be approved as the production unit for said well.

21. DOCKET NO. 4-2-8714

Motion by the Board to approve the replacement of a segment of the existing gathering line in Choctaw and Washington Counties, Alabama, associated with the Copeland Gas Plant and operated by Collet Ventures, Inc. The proposed replacement line will be located in existing right of ways from the compressor station in Section 17, Township 9 North, Range 4 West, in Choctaw County, Alabama, to a point identified as the W. J. Britton #1 Well "tee" in the southern half of Section 19, Township 8 North, Range 4 West in Washington County, Alabama.

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

22. DOCKET NO. 11-1-8424PD

Continued application by TRW, Inc. for a new natural gas determination under Section 107(c)(3) (High Cost Natural Gas) of the NGPA for the Gulf States Paper Corp. 25-14 #18 well (Permit No. 4166-C) in Section 25, Township 20S, Range 9W, Tuscaloosa County, Alabama in the Deerlick Creek Coal Degasification Field, Pottsville Coal Interval.

23. DOCKET NO. 4-17-8511PD

Continued application by Coaltech, Inc. for a new natural gas determination under Section 107(c)(3) (High Cost Natural Gas) of the NGPA for the Reichhold Chemical 3-9 #5 well (Permit No. 4379-C) in Section 3, Township 21S, Range 9W, Tuscaloosa County, Alabama in the Holt Coal Degasification Field, Pottsville Coal Interval.

24. DOCKET NO. 11-20-864PD

Continued application by Black Warrior Methane Corp. for a new natural gas determination under Section 107(c)(3) (High Cost Natural Gas) of the NGPA for

the Horizontal Degas. Boreholes Unit 6C well (Permit No. 5049C) in Section 35, Township 19S, Range 8W, Tuscaloosa County, Alabama in the Brookwood Coal Degasification Field, Pottsville Coal Interval.

25. DOCKET NO. 11-20-865PD

Continued application by Black Warrior Methane Corp. for a new natural gas determination under Section 107(c)(3) (High Cost Natural Gas) of the NGPA for the Horizontal Degas. Boreholes Unit 6D well (Permit No. 5050C) in Section 35, Township 19S, Range 8W, Tuscaloosa County, Alabama in the Brookwood Coal Degasification Field, Pottsville Coal Interval.

26. DOCKET NO. 2-26-871PD

Continued application by Black Warrior Methane Corp. for a new natural gas determination under Section 107(c)(3) (High Cost Natural Gas) of the NGPA for the U.S. Pipe & Foundry 11-15-28 well (Permit No. 5130CG) in Section 11, Township 20S, Range 8W, Tuscaloosa County, Alabama in the Brookwood Coal Degasification Field, Pottsville Coal Interval.

27. DOCKET NO. 2-26-873PD

Continued application by Black Warrior Methane Corp. for a new natural gas determination under Section

107(c)(3) (High Cost Natural Gas) of the NGPA for the E.L. Hendrix 12-11-10 well (Permit No. 5117CG) in Section 12, Township 20S, Range 7W, Tuscaloosa County, Alabama in the Brookwood Coal Degasification Field, Pottsville Coal Interval.

28. DOCKET NO. 4-2-871PD

Application by Exxon Corporation for a new natural gas determination under Section 107 (High Cost Natural Gas) of the NGPA for the T.A. Graham et ux 06-07 #2 well (Permit No. 5053) in Section 6, Township 1N, Range 8E, Escambia County, Alabama in the Flomaton Field, Norphlet Sand Pool.

29. DOCKET NO. 4-2-872PD

Application by Exxon Corporation for a new natural gas determination under Section 107 (High Cost Natural Gas) of the NGPA for the R.E. Loper et al 13-6 #2 well (Permit No. 5052) in Section 13, Township 1N, Range 8E, Escambia County, Alabama in the Flomaton, Norphlet Sand Pool.

30. DOCKET NO. 4-2-873PD

Application by TXO Production Corp. for a new natural gas determination under Section 102(c)(1)(B)(i) (2.5 Mile Rule) of the NGPA for the

U.S. Steel 31-13 #1 well (Permit No. 4913) in
Section 31, Township 14S, Range 10W, Fayette County,
Alabama in the Northeast Davis Chapel, Carter Sand
Gas Pool.

"The public is invited to attend this meeting and to present
to the Board their position concerning these matters.

"The public is advised that the Board may promulgate orders
concerning a petition which may differ from that requested by
the petitioner concerning the lands described in the notice.
Pursuant to this hearing, Section 9-17-12, et seq. of the Code
of Alabama (1975) hereinafter set forth, and the rules and regu-
lations promulgated thereunder, the Board will enter such order
or orders as in its judgment may be necessary based upon the
evidence presented.

"The State Oil and Gas 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 Section 9-17-1 et seq. of the Code of
Alabama (1975), as last amended. The applicable rules pertaining
to the conduct of hearings by the Board are found in Rule 400-1-
12-.01 et seq. of the State Oil and Gas Board of Alabama Admini-
strative Code. The applicable rules pertaining to NGPA price

determinations are found in Rules 400-2-X-.01 through 400-2-X-.09 of the State Oil and Gas Board of Alabama Administrative Code.

"The May meeting of the Board will be held on Tuesday and Wednesday, May 19 and 20, 1987. The notices for the May meeting must be filed on or before April 28, 1987. Petitions, exhibits, affidavits and proposed orders must be filed on or before May 5, 1987.

"Dr. Ernest A. Mancini
Secretary to the Board
Oil and Gas Supervisor"

MR. ROGERS: The State Oil and Gas Board has appointed me as Hearing Officer to conduct this hearing on behalf of the Board. The procedure is as follows: The Hearing Officer and the staff will hear the uncontested items today and the State Oil and Gas Board will hear the contested items and

certain other items beginning at 10 o'clock a.m. on Friday, April 3, 1987. When an item is called on the docket, parties will state whether the items are contested. We have identified the following items as contested: Items 3 and 4, petitions by TXO Production Corporation. In addition to those contested items, the following item will be heard by the Board: Item 21, a motion by the Board concerning replacement of a segment of the existing gathering line in Choctaw and Washington Counties, Alabama, associated with the Copeland Gas Plant and operated by Collet Ventures, Inc. Are there any other items that are contested? (No response) When an item is called you may state whether you wish to request a continuance or a dismissal of the item. The Hearing Officer will make a recommendation to the Board on all items when the Board convenes tomorrow at 10 o'clock a.m. Dr. Mancini will call the first item.

DR. MANCINI: Item 1, Docket No. 11-20-861, continued

petition by B. William Payne, et al.

MR. ROGERS: That item was continued at a prior hearing of the Board and we will recommend it be continued.

DR. MANCINI: Item 2, Docket No. 12-18-8619, continued petition by Tucker Operating Company.

MR. ROGERS: I received a letter from the attorney for Tucker Operating Company, Inc., requesting a dismissal of that item and we'll make that recommendation to the Board.

DR. MANCINI: Items 3 and 4 are continued petitions by TXO Production Corporation, as mentioned previously will be heard by the Board tomorrow. Item 5, Docket No. 2-26-8713, continued petition by Morrow Oil & Gas Company.

MR. HARRISON: Mr. Hearing Officer, Steve Harrison of Tuscaloosa representing Morrow. We are prepared to go forward.

MR. ROGERS: Proceed.

MR. HARRISON: I would like for hearing purposes to consolidate Items 5 and 6, please.

MR. ROGERS: Your request is granted.

MR. HARRISON: I have one witness I'd like to have sworn.

MR. ROGERS: Sir, would you state your name and address?

WITNESS: Yes. I'm Brad Truett, 920 Briarfield, Jackson, Mississippi.

(Witness was sworn by Mr. Rogers)

MR. HARRISON: Gentlemen, these are two petitions to amend the Special Field Rules for the Coffee Creek Field in Fayette and Marion Counties, Alabama. In one petition we're asking to add the W/2 of Section 17 of Township 13 South, Range 13 West, in Marion County. In the other petition we are asking to define the Lewis Sand Gas Pool as a separate and distinct gas producing pool in the Coffee Creek Field. Mr. Truett, have you previously testified before this Board?

MR. TRUETT: Yes, I have.

MR. HARRISON: And is there an affidavit of your qualifications on file with the Board?

MR. TRUETT: Yes, there is.

MR. HARRISON: I tender Mr. Truett as an expert petroleum geologist.

MR. ROGERS: He's so recognized.

BRAD TRUETT

Appearing as a witness on behalf of Petitioner, Morrow Oil & Gas Company, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Harrison:

Q Mr. Truett, have you prepared exhibits in support of these petitions?

A Yes, I have, nine exhibits.

Q All right. Could you explain your Exhibit 1 to the staff, please?

A Yes, I will. Exhibit 1 is a structure map of the Coffee Creek Field area contoured on the top of the Bangor Limestone which immediately underlies the Carter Sandstone in

the Coffee Creek Field area. The present outline of Coffee Creek Field consisting of all of Section 21, 13 South, 13 West, Fayette County, and all of Section 16, and the E/2 of Section 17, of 13 South, 13 West, Marion County, have been shown. The proposed addition of the W/2 of Section 17 is also highlighted. Three productive wells presently exist in the Coffee Creek Field area. Two Carter wells shown in green, which are the Moon and Hines-No. 1 Taylor 16-14 and the Morrow Oil and Gas-No. 1 Taylor 17-16, are Carter producing wells, and then the Lewis well shown in orange, the Carless-McGowan 17-8. Two wells in Section 17 have presently productive units consisting of a N/2 unit and S/2 unit respectively. Therefore, portions of both of those units are presently out of the boundaries of the Coffee Creek Field. By adding the W/2 of Section 17 to the field, these portions of these two units not presently in the field will be included in the field limits. Structurally, at the Carter interval, as shown on the top

of the Bangor Limestone, the two productive Carter wells, the Taylor 17-16 and the Taylor 16-14, are upthrown on a northwest-southeast trending down-to-the-northeast normal fault. Downdip at the Moon & Hines-Cole 21-6 the Carter Sand is wet but present. The gas-water contact for the Carter Sand has been estimated slightly above the structural position of this downdip wet well. The down-to-the-northeast fault accompanied by an updip pinchout of the Carter Sand forms the trapping mechanism. The--this map shows that the Morrow-Taylor 17-16 and the Moon & Hines-Taylor 16-14 both to be productive from the Carter Sand on the same structural feature, and are, therefore, believed to be in communication. Exhibit 2 is an isopach of the net Carter Sand, and that's showing the Carter Sand is a northwest-southeast trending body. Approximate gas-water contact from the previous map has been superimposed. This map shows the two Taylor wells with approximately four net

feet of sand each to be productive in the updip portion of the sand body while the downdip portion of the sand is wet. The Carter Sand is absent in the Carless-McGowan 17-8 as shown. However, it is likely that a portion of this N/2 unit of Section 17 is productive in the Carter Sand.

Q All right, your Exhibit 3, please?

A Exhibit 3 is a structure map on the top of the Lewis Lime. At this interval all three wells in the field are upthrown on the down-to-the-northeast fault, and are therefore on the same structural feature. The gas-water contact for the Lewis Sand has been estimated just above the structural position of the Moon & Hines-Taylor 16-14 which tested a small amount of gas and water from the Lewis Sand. However, updip approximately 22 feet at the McGowan 17-8 the Lewis Sand is gas productive. As shown on this map, it is likely that portions of Section 16 presently within the field are above the gas-water contact in the Lewis Sandstone.

Q All right, your Exhibit 4, please?

A Exhibit 4 is an isopach of the gross Lewis Sandstone. The approximate gas-water contact from the previous map has been superimposed. As shown, the Moon & Hines-Taylor 16-14 and the Moon & Hines 21-2 contain permeable sand that is wet. However, in the updip portions of the Carless-McGowan--of the updip portions of the sand as in the Carless-McGowan 17-8, the Lewis Sand is productive. This map again shows the likelihood that areas in Section 16 presently in the Coffee Creek Field are productive from the Lewis Sandstone.

Q All right, your Exhibit 5, please?

A Exhibit 5 is a cross section A-A' as mapped on the previous maps. It goes from the Morrow Oil & Gas-No. 1 Taylor Heirs 17-16 to the Moon & Hines-No. 1 Taylor 16-14, and over to the Carless-McGowan 17-18. At the Carter interval, the two Taylor wells are shown to be in communication in the

Carter Sandstone. However, the Carless-McGowan 17-8 is downthrown at this interval and at the same time the Carter Sand interval is shaled out. The Carless-McGowan 17-8 cuts the fault between the Carter interval and the Lewis interval, and at the Lewis interval all three wells are upthrown. However, the Morrow-Taylor Heirs 17-16 has no Lewis Sand. The Taylor--the Moon & Hines-Taylor 16-14 is shown to be wet where it tested a small amount of gas and water and in its updip position at the Carless-McGowan 17-18 the Lewis Sand is gas productive.

Q All right, your Exhibit 6, please?

A Exhibit 6 is a xerox portion of the dual induction log from the Morrow Oil & Gas Company-No. 1 Taylor Heirs 17-16. It shows the Carter Sandstone interval and the perforated interval between the interval--between 2011 and 2015.

Q Exhibit 7?

A Exhibit 7 is a copy of the OGB-9 for the Morrow Oil & Gas-No. 1 Taylor Heirs 17-16. It shows the perforated interval

in the Carter Sandstone of 2011 to 2015, and the well tested 1350 MCF/PD on a 20/64 choke with a flowing tubing pressure of 550 psi.

Q Your Exhibit 8?

A Exhibit 8 is the recommended type log for the Lewis Sandstone for the Coffee Creek Field. It's taken from the dual induction log from the Carless Resources-No. 1 McGowan 17-8. The Lewis Sandstone interval is shown between 2676 and 2694 and the perforated interval is shown between 2679 and 2690.

Q And your Exhibit 9, please?

A Exhibit 9 is a copy of the OGB-9 from the Carless-McGowan 17-8, and it shows the perforated interval in the Lewis Sandstone between 2679 and 2690, and a initial potential of 375 MCF/PD, 12 barrels of water PD, 16/64 choke with a flowing tubing pressure of 240 psi.

MR. HARRISON: All right. I would ask that Exhibits 1 through 9 to the testimony of Mr. Truett be admitted into

evidence.

MR. ROGERS: They're admitted into the record.

(Whereupon, Exhibits 1 through 9
were received in evidence to the
testimony of Mr. Truett)

MR. HARRISON: I have also previously submitted an affidavit of notice in this matter and request that that be made a part of the record.

MR. ROGERS: I've reviewed that. It's in order and it's admitted into the record also.

(Whereupon, the affidavit of notice
was received in evidence)

Q Mr. Truett, are you familiar with the term "waste" as defined by the statutes of the State of Alabama?

A Yes, I am.

Q And in your opinion will the granting of these petitions prevent waste?

A Yes, I believe it will.

Q Will it protect the coequal and correlative rights of

all owners in this field?

A Yes, I believe they will.

MR. HARRISON: All right. We have nothing further. I tender Mr. Truett to the Hearing Officer and staff.

DR. MANCINI: Mr. Hearing Officer, we have no questions.

MR. ROGERS: Is there anything else, Mr. Harrison?

MR. HARRISON: No, sir.

MR. ROGERS: We'll make a recommendation on this matter tomorrow to the Board.

MR. HARRISON: Thank you.

DR. MANCINI: Item 7, Docket No. 2-26-8722, continued petition by Anderman/Smith Operating Company.

MR. ROGERS: We received a request from the--go ahead, Ward.

MR. PEARSON: Mr. Hearing Officer, we would ask that that item be dismissed without prejudice.

MR. ROGERS: That recommendation will be made to the Board.

DR. MANCINI: Item 8, Docket No. 4-2-871, petition by Triad Oil & Gas Co., Inc.

MR. ROGERS: We received a letter from Mr. Sledge representing Triad and he has requested that that item be dismissed and we'll make that recommendation to the Board.

DR. MANCINI: Item 9, Docket No. 4-2-872, petition by Anderman/Smith Operating Company.

MR. PEARSON: We're ready to go forward with that item, Mr. Hearing Officer.

MR. ROGERS: Proceed.

MR. PEARSON: This is an uncontested force pooling petition that has been submitted on prefiled affidavits, the affidavit of John Carter concerning testimony, and the affidavit of Bill W. Newton, which is a supplemental affidavit concerning proof of notice, and my own affidavit concerning proof of notice. I would ask that the petition be granted on the basis of those prefiled affidavits, and would ask that all of those affidavits be admitted into the record.

MR. ROGERS: The affidavits are in order and they're admitted into the record.

(Whereupon, the described affidavits
were received in evidence)

MR. PEARSON: We have nothing further. We would simply ask that the petition be granted.

MR. ROGERS: We will make a recommendation to the Board on this item tomorrow.

MR. PEARSON: Thank you.

DR. MANCINI: Item 10, Docket No. 4-2-873, petition by Terra Resources, Inc.

MR. ROGERS: We have received a letter from the attorney representing Terra requesting a continuance of that item and we'll make that recommendation to the Board.

DR. MANCINI: Item 11, Docket No. 4-2-874, petition by C. A. Wallace.

MR. REDDITT: We're ready to move forward with that.

MR. ROGERS: Please proceed, Mr. Redditt.

MR. REDDITT: We have one witness to be sworn.

MR. ROGERS: All right. I might say at the outset we received letters on this item and in one of the letters there was a request for a continuance, but Mr. Redditt discussed the matter with the gentlemen, Mr. Bretzman, that had written the letter, Mr. Carl F. Bretzman, and Mr. Bretzman informed me by telephone that he was withdrawing his request for a continuance. Those letters from Mr. Bretzman will be made a part of the record of this item.

(Whereupon, the letters from Mr.
Bretzman were received in evidence)

MR. REDDITT: Mr. Hearing Officer, I'm Mark Redditt representing C. A. Wallace in this matter and we would ask that Docket No. 4-2-874 and 4-2-875 be consolidated for hearing purposes today.

MR. ROGERS: Your request is granted.

MR. REDDITT: We would also ask that an affidavit of notice, or actually two affidavits of notice which I have

submitted, be introduced into the record and admitted into evidence.

MR. ROGERS: Those affidavits are admitted and also my letter to you dated March 18 in which I state the notice required in these items is admitted.

(Whereupon, the affidavits and
letter were received in evidence)

MR. REDDITT: We have one witness.

MR. ROGERS: Yes, sir, would you state your name and address for the record?

WITNESS: My name is Richard Brewer and I live in Houston, Texas, 111 Paul Revere Drive.

(Witness was sworn by Mr. Rogers)

MR. REDDITT: Mr. Brewer, have you testified before this Board on a previous occasion?

MR. BREWER: Yes, I have.

MR. REDDITT: Do you have an affidavit of your qualifications on file with the Board?

MR. BREWER: Yes, I do.

MR. REDDITT: In what field is that in?

MR. BREWER: In geophysical interpretation.

MR. REDDITT: We would tender Mr. Brewer as an expert in the field of geophysics.

MR. ROGERS: He is acknowledged to be an expert.

RICHARD BREWER

Appearing as a witness on behalf of Petitioner, C. A. Wallace, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Redditt:

Q Mr. Brewer, have you reviewed the petitions by C. A. Wallace, Docket Nos. 4-2-874 and 4-2-875?

A Yes, I have.

Q Are you aware that those petitions, 4-2-874 requests to establish a 640-acre drilling unit consisting of approximately 640 acres, those being the W/2 of Section 25; the W/2 of the NE/4 of Section 25; the SE/4 of Section 26;

and the S/2 of the NE/4 of Section 26, Township 1 South, Range 1 West, Mobile County?

A Yes.

Q And you've also reviewed petition 4-2-875 requesting an exceptional location for a proposed well to be drilled 660 feet north of a point that is the northeast corner of Section 35 and the northwest corner of Section 36 on the section line dividing Sections 25 and Sections 26 in Township 1 South, Range 1 West, Mobile County?

A I have.

Q Mr. Brewer, can you briefly give us your background with the Hatter's Pond Field?

A Yes, I first worked in the Hatter's Pond Field in early 1976, at which time I reviewed a possible farmout from Getty to Robert Mosbacher in Houston. At that time, I made an interpretation of Getty's seismic data and studied their maps. They gave me a copy of their map, and at that time Getty had mapped the Hatter's Pond prospect as an

anticline, and after being briefed on the prospect and studying the data, I was convinced that it was not an anticline, that it was a west-dipping fault trap, and I made a map accordingly in which we showed it to be just that.

Q Have you had any subsequent experience with the Hatter's Pond Field?

A Yes, I also reviewed an area down in the south end of the field, and I've forgotten the year that was. I think that was about 1982 or thereabouts, and prior to Exxon drilling their Wilkie Gas Unit there in Section 28. Then later, I guess in 1983, I was asked by Dr. Gerald Wallace to review some seismic data that he had purchased in the north end of the Hatter's Pond area, and he didn't tell me what he had in mind and I didn't know even where his acreage was, but I studied those data and I made a map and submitted it.

Q Have you prepared exhibits in connection with the petitions filed today?

A Yes, I have.

Q Could we look at the first of those exhibits, please?

A Yes, sir, this is a---

Q Tell us what it is.

A I have a map here on the top of the Smackover--a map on top of the Smackover Formation.

Q When did you originally prepare this map?

A This map was prepared in 1984.

Q And was this previously submitted in the earlier hearing, Exhibit B-1A?

A That's correct.

Q In the 1984 hearings on this matter?

A That's correct.

Q What changes have you made to this map for today's hearing?

A Well, subsequent to this earlier work, another well was drilled and the Primary Fuels--this would be the Primary Fuels-Newman 21-11 well in Section 21 of 1 South, 1 West.

Q O.K. Your earlier map in 1984, which is Exhibit 1, what was it based on?

A It was based on subsurface from earlier wells and also on a seismic line that was run for Dr. Wallace.

Q I see that you've drawn a unit configuration on this exhibit. Is this the unit configuration that C. A. Wallace is requesting in 4-2-874?

A That is correct.

Q Can you explain why this unit configuration is--can you explain the shape of this unit configuration?

A Well, yes, we--the configuration was designed to properly test the area that we have determined to be prospective on the basis of our seismic work, and as a consequence of that study we determined that we did not think that a simple 640-acre square unit would be a fair test of what we were trying to do.

Q I see that included in that unit is the W/2 of the NE/4 of Section 25?

A Right.

Q Along the fault? Can you explain why that was included in the unit?

A We included that because we feel that the most prospective area involved in this thing is that just upthrown on the down-to-the-east fault there, and we feel that that acreage is highly prospective.

Q From your involvement in the 1984 hearings on the Hatter's Pond Field, is it your opinion and your recollection that the fault was uniformly placed in that location by all parties?

A That's correct.

Q Let's turn to Exhibit 2 now. Can you tell me when this map was prepared?

A Yes, this map was prepared in March of 1987.

Q Can you describe the additional, any additional information you had on this map that you did not have on Exhibit 1?

A Yes, we had, subsequent to the preparation of Exhibit 1,

the Primary Fuels-R. J. Newman 21-11 well in Section 21 and 1 South, 1 West, was drilled and it was drilled to the Smackover, through the Smackover, and we had a top of Smackover subsurface pick on that well. The Wallace line 1 well runs quite close to that well and so we revised the map to fit that near subsurface point.

Q Have you drawn the unit configuration on this map as well?

A Yes.

Q Is it your opinion that this configuration is still appropriate even with the results of the PFI well?

A Yes, I do.

Q O.K. Turning now to the exceptional location, which is marked on the map, that being 660 feet from the unit boundary, can you explain to the Board, or to the Hearing Officer, why the well location is needed there?

A Well, if we had used the regular distance from the south line of Sections 25 and 26, we would have been a little farther north than we wanted to be. We felt that this

proposed location here, which is an exceptional location, 660 feet from the south line of those two sections, would be structurally higher and, therefore, more prospective than a location farther north.

MR. REDDITT: O.K. Mr. Hearing Officer, I'd ask that Exhibits 1 and 2 be admitted into evidence.

MR. ROGERS: They're admitted into the record.

(Whereupon, Exhibits 1 and 2 were received in evidence to the testimony of Mr. Brewer)

Q Mr. Brewer, is it your opinion that the granting of these petitions will prevent waste as that term is defined in the statutes of Alabama, protect the coequal and correlative rights of all the interest owners, and prevent the drilling of unnecessary wells?

A Yes, I do.

MR. REDDITT: I would tender Mr. Brewer to the staff for questions.

MR. ROGERS: We'll take a brief recess.

MRS. COLEMAN: We'd like to make a statement.

MR. ROGERS: You can go ahead now. This would be an appropriate time, Hazel. Go ahead.

MRS. COLEMAN: My name is Hazel Coleman. I'm representing Getty Oil Company, a wholly owned subsidiary of Texaco, Inc. Getty Oil Company has no objection to the Wallace requests in Docket Nos. 4-2-874 and 4-2-875 and actively encourages the drilling of the proposed well. In the event the well is drilled into the stratigraphic equivalent of and proven productive from the unitized formation of the Hatter's Pond Unit, Getty Oil Company, as unit operator, will support inclusion of the proven productive acreage in the unit on a fair and equitable basis, such inclusion to be in accordance with the provisions of Section 9-17-85 of the Oil and Gas Laws of Alabama. Thank you.

MR. ROGERS: Thank you. Does anyone else wish to make a statement on this petition, or these petitions? (No response) All right, we'll take a brief recess.

(The hearing was recessed approximately 10 minutes)

MR. ROGERS: The hearing is in session again. Dr. Mancini?

DR. MANCINI: Yes, Mr. Hearing Officer, we do have a few questions.

EXAMINATION BY BOARD OR STAFF

Questions by Dr. Mancini:

Q Mr. Brewer, on your exhibit depicting the structure of the Smackover Formation it shows a large down-to-the-east fault along the east boundary of the proposed unit. Given your interpretation of the location of this fault and your interpretation of the structural dip to the west from the fault, does your proposed drilling unit include the acreage you interpret to be potentially productive in Sections 25 and 26?

A Yes, sir, it does.

Q Is your proposed exceptional location at the optimum location in the proposed drilling unit?

A Yes, sir.

Q Would moving the proposed well location to the north

increase the risk of drilling a nonproductive well?

A Yes, sir.

DR. MANCINI: Thank you. Mr. Redditt?

MR. REDDITT: Yes, sir.

DR. MANCINI: I have a question for you. It's our understanding that what you're asking for here is the unit, drilling unit for the Smackover/Norphlet, of course. I'm pretty sure you're aware that if it would come in oil we would have a situation where we'd be dealing with a 40-acre unit and if it would become a unit other than Smackover/Norphlet we also would potentially have some problems, so what I would ask is would you have a problem if we would provide a stipulation which would read thusly: "That an alternate 40-acre unit be designated in the permit application for said well and further that if the well is completed as an oil well or is completed in a productive zone other than the Smackover/Norphlet Formation that the unit for the well shall automatically revert to the alternate 40-acre unit as designated in the permit application."

MR. REDDITT: No, sir, and in our application for permit to drill we will, of course, designate that alternate 40-acre unit.

DR. MANCINI: O.K. That's all I have, Mr. Hearing Officer.

MR. ROGERS: Do you have anything else, Mark?

MR. REDDITT: I do not, sir.

MR. ROGERS: Does anybody have any comments and so forth?
(No response) Then we'll make a recommendation to the Board on this matter tomorrow.

MR. REDDITT: Thank you.

DR. MANCINI: Item 13, Docket No. 4-2-876, petition by Browning & Welch, Inc.

MR. HARRISON: We're prepared to go forward with that item and would request that Items 13 and 14 be consolidated for hearing purposes.

MR. ROGERS: Your request is granted.

MR. HARRISON: I have one witness I'd like to have sworn, please.

MR. ROGERS: Will you state your name and address?

WITNESS: Lindsey Stewart, Jackson, Mississippi.

(Witness was sworn by Mr. Rogers)

MR. HARRISON: Gentlemen, we have before you today two petitions dealing with the Coal Fire Creek Oil Field. We're asking that the field be established as a new oil field in Pickens County, Alabama, to consist of the S/2 of Section 24 of Township 18 South, Range 14 West, as underlain by the Carter Sand Oil Pool. We are also asking that the unit for the Mary Marko 24-11 No. 1 well, Permit No. 5080, be reformed as to the Carter Sand Oil Pool to an 80-acre oil unit consisting of the E/2 of the SW/4 of Section 24. This well has also been completed in the Lewis Sand Gas Pool of the Coal Fire Creek Field and would remain on this 320-acre gas unit as to the Lewis Sand Gas Pool. Mr. Stewart, have you previously testified before this Board?

MR. STEWART: I have.

MR. HARRISON: And is there an affidavit of your qualifi-

cations on file with the Board?

MR. STEWART: Yes, there is.

MR. HARRISON: I tender Mr. Lindsey Stewart as an expert petroleum geologist.

MR. ROGERS: He's so recognized.

LINDSEY STEWART

Appearing as a witness on behalf of Petitioner, Browning & Welch, Inc., testified as follows:

DIRECT EXAMINATION

Questions by Mr. Harrison:

Q Mr. Stewart, have you prepared exhibits in support of these petitions?

A Yes, I have.

Q Could you explain those to the Hearing Officer and staff, please?

A Exhibit No. 1 is a structure map on the base of the Millerella Limestone. This map shows a closed structure which dips to the northeast and is bound on the south by

a down-to-the-south fault. The Browning & Welch-Mary Marko well was drilled on the southeast flank of this field and is oil productive, whereas the rest of the field is mainly gas productive. The proposed oil unit is outlined in red and the proposed limits for Coal Fire Creek Oil Field is outlined in blue. Now if you will, please, note the line of section from A-A' from the south of the Hammond well in Section 23 down to the Browning & Welch-Mary Marko well in Section 24.

Q All right, your Exhibit No. 2?

A Exhibit No. 2 is a net sand isopach map of the Carter Sand, which shows that the Carter Sand ranges in thickness from 10 to 35 feet, and the Browning & Welch-Mary Marko well has 17 feet of net sand.

Q Exhibit No. 3?

A Exhibit No. 3 is a structural cross section from A-A' as you'll note on both the structure and net sand isopach map, and this cross section shows that the Carter Sand is

gas productive in the south in the Hammond well in Section 23, and as you lose structure down to the Browning & Welch-Mary Marko well the Carter Sand becomes oil productive.

Q All right, your Exhibit 4, please?

A Exhibit No. 4 is a Carter Sand type log for the Mary Marko well, and it simply shows the development of Carter Sand in the well and the perforations that's indicated by slash marks adjacent to the sand where it was perforated.

Q All right, your Exhibit 5?

A Exhibit No. 5 is simply a well location plat. It shows the location of the Browning & Welch-Mary Marko well, and again the proposed oil unit is outlined in red and the proposed limits for the Coal Fire Creek Oil Field is outlined in blue.

Q And your Exhibit 6, please?

A And Exhibit No. 6 is simply an Oil and Gas Board Form No. 9, and it simply states that the Browning & Welch-Mary Marko well was completed in the Carter Sand with perforations

from 4611 to 4621 with an IP of 18 barrels of oil per day with 25 MCF per day and 8 barrels of water per day on an open choke with tubing pressure of 40 pounds.

MR. HARRISON: All right. I would ask that Exhibits 1 through 6 to the testimony of Mr. Stewart be admitted into evidence.

MR. ROGERS: They're admitted into the record.

(Whereupon, Exhibits 1 through 6
were received in evidence to the
testimony of Mr. Stewart)

MR. HARRISON: Also the affidavit of notice that I've previously filed in this matter.

MR. ROGERS: Let's see, there are two of them, so both of them are admitted into the record.

(Whereupon, the affidavits were
received in evidence)

MR. HARRISON: O.K. Are those admitted?

MR. ROGERS: Yeah. No questions.

MR. HARRISON: I have one thing further. Mr. Stewart, are

you familiar with the term "waste" as defined by the statutes of the State of Alabama?

A Yes, I am.

Q And in your opinion will the granting of these petitions prevent waste?

A Yes, it will.

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

A Yes, it would.

Q Are you familiar with the Special Field Rules that we are proposing for this new oil field?

A Yes, I am.

Q And in your opinion are these rules appropriate for this Carter Sand Oil Pool?

A Yes, it is.

Q We're proposing 80-acre spacing in this field. In your opinion is that appropriate for this well?

A Yes, it is our opinion the well will sufficiently drain

the 80 acres.

MR. HARRISON: O.K. We have nothing further.

MR. ROGERS: There are no questions from the staff, and so we'll make recommendations to the Board on these matters tomorrow.

MR. HARRISON: Thank you.

DR. MANCINI: Item 15, Docket No. 4-2-878, petition by Hughes Eastern Corporation.

MR. WATSON: Mr. Rogers, at the outset I'd like to consolidate for hearing purposes Items 15 and 16.

MR. ROGERS: Your request is granted.

MR. WATSON: I'd like for you to admit into the record of this hearing the prefiled affidavits of notice for the two items that we've just consolidated, please.

MR. ROGERS: Your request is granted. The affidavits are admitted.

(Whereupon, the affidavits were
received in evidence)

MR. WATSON: And now I have three witnesses that I'd like to ask that they all stand and identify themselves, and starting with Mr. Sylte, and ask at the end of that that you swear them in, please.

MR. ROGERS: Go ahead, gentlemen.

FIRST WITNESS: I'm Andy Sylte, a geologist with Hughes Eastern.

MR. ROGERS: And state your address, please.

MR. SYLTE: Jackson, Mississippi.

SECOND WITNESS: I'm Emil Pawlik. I reside at 125 Rolling Meadows in Jackson, Mississippi.

THIRD WITNESS: And I'm Russell Grant, Jackson, Mississippi.

(Witnesses were sworn by Mr. Rogers)

MR. WATSON: Also as a preliminary I would ask each of these gentlemen, starting with Mr. Sylte, Mr. Sylte, you've appeared before the Board and have testified and have on file an affidavit of your qualifications as a petroleum geologist?

MR. SYLTE: I have.

MR. WATSON: Mr. Pawlik, you've appeared before the Board and have on file an affidavit of your qualifications as a petroleum engineer?

MR. PAWLIK: Yes, I have.

MR. WATSON: And Mr. Grant, you've appeared before the Board and testified and have on file an affidavit of your qualifications as a land manager and a landman, is that correct?

MR. GRANT: That's correct, yes.

MR. WATSON: I tender each of these witnesses, Mr. Rogers, as experts in their fields.

MR. ROGERS: They are so recognized.

MR. WATSON: We're here asking today that the Board consider amending the special field limits for the Blowhorn Creek Oil Field so as to add two tracts that we'll describe in more detail in a minute. Following that and as a part of that, we're asking that the Board create a unit for a portion of the Blowhorn Creek Oil Field for the Millerella Oil Sand.

Our evidence and testimony will show that we have very, very limited production from the Millerella Oil in the Blowhorn Creek Field at this time. We are proposing a waterflood that will substantially increase recoverable hydrocarbons from this field. We feel like our plan is a prudent plan and one that we can recommend to this Board for approval. We'll also be presenting testimony and evidence concerning the ratifications of the agreements that we'll be presenting here today in support of this unit. That testimony will show that in excess of 75 percent of the working, royalty, and overriding royalty owners within the proposed unit have ratified this. The testimony will further show that that percentage of sign-up is in accordance with the formula and in accordance with the mineral ownership in the proposed unit. My first witness will be Mr. Sylte.

ANDY SYLTE

Appearing as a witness on behalf of Petitioner, Hughes Eastern Corporation, having been previously sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q I've handed up to each member of the staff, Mr. Sylte, a red exhibit booklet. Are you familiar with the petitions on file here today by Hughes Eastern Corporation?

A Yes, I am.

Q And have you prepared exhibits in support of those petitions?

A Yes, I have.

Q I would ask then that you turn in the booklet of exhibits to Exhibit No. 1 and tell the staff what's shown on this exhibit, please.

A All right. Exhibit No. 1 is a base map. It shows the present Blowhorn Creek Oil Field limits as being highlighted in orange and the proposed Millerella Oil Pool unit highlighted in red. The orange shaded area indicates the proposed Blowhorn Creek Oil Field extension.

Q All right, and that's what's contained in our Item 15 on

today's docket, the amendment of the rules, is that correct?

A That is correct.

Q Also shown on this exhibit are the tracts that we proposed to be included in this Millerella Oil unit, is that correct?

A That's correct.

Q Tracts 1 through 10?

A Yes, sir.

Q All right, sir. Once we have identified the area, the unit area, as we've just done on Exhibit 1, Mr. Sylte, we need now to identify for the record the unitized interval that we're requesting. Would you turn to Exhibit 2 and tell us what this exhibit is and what it shows?

A Exhibit 2 is a type log. It's a dual induction log from the Pruet-Hughes and Hughes-Warrior Drilling No. 1 Weyerhaeuser 26-6. It shows the Millerella Sand Oil Pool with a top of 25--depth value of 2510--and it also indicates the perforations in red. The interval to be unitized consists of 2510 to 2526.

Q All right, and I believe our petition also says all zones in communication therewith, is that correct?

A Yes.

Q All right. And now for the purpose of defining the limits of the pool that we're unitizing, you have prepared a series of cross sections, is that correct?

A That is correct.

Q Would you tell us what you intend to show with these cross sections?

A Well, I'm planning on showing three things. First of all, to define the Millerella Oil Pool, to show a difference between this stratigraphic horizon and another sand within the stratigraphic equivalent, and finally to show the association of a gas cap to the oil pool.

Q All right, sir. Let's then turn to your Exhibit 3, the cross section A-A' and let's describe that cross section for the staff, please.

A All right. This is a structural cross section made from

density neutron logs. If you'll refer to the reference map to your far right, it goes from south to north, starting with the Pruet-No. 1 Weyerhaeuser 26-11, which is a Carter oil producer; and the Pruet-No. 1 Weyerhaeuser 26-6, which is a Millerella oil producer; the Pruet-No. 1 Jones 26-3, which is a Millerella oil producer; the Pruet-No. 1 Jones 23-13, which is a Millerella oil producer, and also contains a gas-oil contact at -2031; and finally the No. -- Pruet-No. 1 Airlines 23-3, which is a Millerella gas producer.

Q All right, sir. We're also showing at this gas-oil contact a contact value of 2027. You'll be discussing that in subsequent exhibits, will you not, Mr. Sylte?

A That is correct. Also, the perforations are colored in red and the initial production are noted next to the perforations.

Q All right, sir. Let's go to Exhibit No. 4, which is your cross section B-B'.

- A All right. Exhibit 4 is also a structural cross section made from density neutron logs. Again, if you refer to the map, it goes from northeast to southwest, beginning with the Pruet-No. 2 Younghance 22-15. This well has a-- apparent gas-oil contact at -2027 and it is a Millerella oil producer. And structurally downdip you get the Enserch Operating Company-No. 2 Black 27-3, which is a Millerella gas producer; and finally, you get the Alagaso-No. 1 Thomas Woodward Estate 27-13, which is a Millerella oil producer. Again the perforations are colored in red and the initial flow rates are noted next to the perforations.
- Q All right, sir, let's go to Exhibit 5, which is your line of cross section AA-AA'.
- A All right. Exhibit 5 is a stratigraphic cross section made from dual induction logs. It starts with the Pruet-No. 1 Weyerhaeuser 26-11, which is a Carter producer. It does not contain a Millerella Sand. Then there's the Pruet-

No. 1 Weyerhaeuser 26-6, which is a Millerella oil producer; the Pruet-No. 1 Jones 26-3, which is a Millerella oil producer; the Pruet-No. 1 Jones 23-13, which is a Millerella oil producer, and finally the Pruet-No. 1 Airline Manufacturing 23-3, which is a Millerella gas producer. Again the perforations are colored in red and the initial flow rates are next to the perforations.

Q It should be clear that we're not unitizing Millerella gas. We're only unitizing Millerella oil, is that correct, Mr. Sylte?

A That's correct.

Q All right, sir. Let's then turn to your Exhibit 6, which is line of cross section C-C'.

A All right. Again if you note the orientation of the cross section going from south to north on your map, you start with the Pruet-No. 1 Turner 27-9, which does not contain Millerella Sand. You have the Terra-No. 1 Turner 27-8,

which is a Millerella oil producer; and the Anderman-No. 1 Younghance 27-1, which is a Millerella oil producer; you have the Pruet-No. 1 Younghance 22-16, which is a Millerella oil producer; and you have the Moon & Hines-No. 1 Hankins-Younghance, which is a gas producer; and the Pruet-No. 1 Kimbrough 22-1, which is a Millerella gas producer. Again the perforations are colored in red and the initial flow rates are noted next to the perforations.

Q All right, let's look at an east-west cross section, which is your Exhibit 7, D-D'.

A That's correct. Exhibit 7 is also a stratigraphic cross section, As you mentioned, it goes from east to west. It consists of the Pruet-No. 1 Weyerhaeuser 26-6, which is a Millerella oil producer; and the Terra-No. 1 Turner 27-8, which is a Millerella oil producer. Again the perforations are colored in red and the initial flow rates are noted next to perforations.

Q Moving one tier of units further north, another line of east-west cross section is your Exhibit 8, line E-E'. Describe that line for us, please.

A This is a--if you look at the map, it does go from east to west. It is a stratigraphic cross section starting with the Pruet & Hughes-No. 1 Jones 26-1, which does not contain a Millerella Sand; the Pruet-No. 1 Jones 26-3, which is a Millerella oil producer; the Anderman/Smith-No.1 Younghance 27-1, which is a Millerella oil producer; and finally, the Enserch-No. 2 Black 27-3, which is a Millerella gas producer. And the perforations are colored in red. Initial flow rates are noted next to perforations.

Q Exhibit No. 9, please.

A Exhibit No. 9 is a stratigraphic cross section running from east to west, and the first well is the Pruet & Hughes-No. 1 Airline 23-9, which does not contain any Millerella Sand. You go to the Pruet-No. 1 Jones 23-13, which is a Millerella oil producer; you have the Pruet-No. 1 Younghance

22-16, which is a Millerella oil producer; you have the Pruet-No. 2 Younghance 22-15, which is a Millerella oil producer; then you have the Moon & Hines-No. 1 Black 22-14, which is a Carter gas producer and contains a tight Millerella Sand.

Q All right, sir.

A Again the perforations are colored in red and flow rates are noted next to the perforations.

Q Now, with the aid of all these lines of cross section, we come to our Exhibit No. 10, which is a structure map on the top of the Millerella Sand. Let's describe this map to the staff, please.

A This is a structure map with the tops being picked by the Geologic Subcommittee along with the assistance of a third party log analyst. It is contoured on a 20-foot contour interval. It shows a gentle nosing down to the southwest. The line highlighted in yellow indicates a zero net sand

limits. The green dashed line with a subsea of 2027 and 2031 indicates the gas-oil contact picked from the two logs mentioned in cross section A-A' and cross section B-B'. And the red line highlighting the proposed Millerella oil unit.

Q All right. I also notice in the center of this proposed unit area a brown line. Describe that for us, Mr. Sylte.

A That is a perm barrier inferred in the top of the Carter Sand. If you refer back to the cross section C-C', you'll note that there is a two-foot shale break between the two, between the top of the Carter--Millerella Sand and the main part of the Millerella Sand. There is no indication that this well has a gas-oil contact in it, and based on production history there is no indication that it is associated into the gas-oil transitional zone.

Q All right, sir. So you've shown that as a permeability barrier?

A That is correct.

Q All right. Let's go to Exhibit No. 11, which is a structure map on the base of the Millerella Sand.

A This is contoured on 20-foot contour intervals. Again the yellow line indicates the zero net sand limits. The green dashed line shows the upper oil limits, which is, beyond that point you should have zero oil. You should be totally out of the oil column. And again, the red line indicates the highlighted proposed Millerella oil unit.

Q All right. Let's go to the net isopach map on the Millerella Oil Pool, which is your Exhibit 12.

A This is contoured--this is a net isopach based on 9 percent porosity or greater. It is contoured on five-foot intervals, and the rules used to determine--the Committee established the rules to determine the zero line as being 100 foot out for every foot of sand existence. In other words, if you go 100 foot out you pinch out one foot of net sand. So

if you have 18 feet of sand then you would go out 1800 foot unless there is a well with zero sand, and then you would use a midpoint rule or whichever the two is less, the lesser.

Q All right. So we're showing by this exhibit the Millerella Oil Pool that we're proposing to unitize completely contained within the proposed unit area, is that correct?

A That is correct.

Q All right, let's continue our evolutionary description here of our pool with Exhibit 13, your net hydrocarbon pore volume map.

A The net hydrocarbon pore volume map is contoured on .5 foot intervals. For the zero line--zero contour line in this map you use the zero net sand map, and then you contour it accordingly to the net hydrocarbon pore volume values.

Q All right, so it's showing, as I read this map, our thickest pay into the center of this proposed unit area, is that correct?

A That is correct.

Q All right. Let's go to Exhibit 14 now, which is our net oil pore volume map, and tell us how this map was constructed.

A The net oil pore volume map was constructed taking the zero line, which was established from the net sand map, and you, below the gas contact you would use the net hydrocarbon pore volume map because you're dealing with 100 percent oil. In the gas-oil transitional zone we had to take the density neutrons and establish where the last gas occurred within the well, and the hydrocarbon pore volume calculations were made on a foot-per-foot basis so that all the values beneath, below this gas-oil contact were used in the net oil pore volume map, and the zero line to the north is the upper oil limits, and you just wedge this out to your upper oil limits.

Q All right. When we were going through our exhibits, in

Exhibit No. 10 we showed this gas-oil contact of -2027 in one well and we also saw that gas-oil contact at -2031 in another well. Do I understand you correctly in looking at this net oil pore volume map that you've used, when you encountered that difference in the gas-oil contact, you've used the actual values encountered in the well in coming up with this net oil pore volume map rather than taking a mean or an average or anything else?

A That is correct.

Q All right, sir.

A And again highlighted in red is the proposed Millerella Oil unit, and this map was taken and given to the engineers to be planimetered to determine what the net oil pore volume tract factors are.

Q All right. But your understanding from our petitions and from your work with the Committee and your work with Hughes Eastern in preparing for this that we're proposing, as we'll

testify to a little later, a two-part formula, and 50 percent of that formula is going to come from this net oil pore volume map, is that correct?

A That is correct.

Q All right, sir. Mr. Rogers, my next witness will be Mr. Emil Pawlik, and if you would turn in the exhibit booklet to Exhibit No. 15, this will be Mr. Pawlik's first exhibit. It's the production history for the Blowhorn Creek Field.

EMIL PAWLIK

Appearing as a witness on behalf of Petitioner, Hughes Eastern Corporation, having been previously sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Pawlik, would you tell Mr. Rogers and members of the staff what's shown on this Exhibit No. 15, please?

A Yes, Exhibit No. 15 is a production history of the

Blowhorn Creek Millerella Oil Pool. You'll note that the reservoir was discovered in 1979. As the field was developed, the oil production increased to a maximum of approximately 8,000 barrels of oil per month and then it declined very rapidly, or rapidly, to its present producing rates of approximately 500 barrels per month, which is less than four barrels of oil per day per well, you know, averaging the five producing wells that are still on production. There are five wells producing at this time. Another thing I'd like to note on this graph is the gas production. The gas production early in life was slightly over 1,000 cubic feet per barrel. This increased to over 6,000 cubic feet per barrel in 1982. This is due to the fact that this is a solution gas drive reservoir, depletion type, pressure depletion type, and gas will liberate from the oil that is the primary driving force for production until you lose the pressure, which has occurred over the last couple of years.

Q I note also from this graph that there is no water production from this field, is that correct?

A That is correct.

Q All right, let's look at our Exhibit 16, Mr. Pawlik, which is your bottom hole pressure history.

A Like you say, Exhibit 16 is the bottom hole pressure history. The initial reservoir pressure was 1177 psi in the Jones 26-3 well, which was the discovery well. The pressure, as you will note, has declined to its present pressure or the pressure--the last pressure on the well was taken in September of 1985, at which time this pressure was 138 pounds. This reservoir is essentially pressure depleted.

Q All right. Let's look at Exhibit 17 and tell us about the characteristics of this oil reservoir.

A Exhibit No. 17 are reservoir data and oil reserve information. The Millerella Oil Pool contains 435.99

productive acres. Its net oil pore volume is 347.16 acre feet. We calculate an original oil in place for this reservoir to be 2,448,000 barrels, of which to 10-1-86 198,861 barrels were recovered. Assuming a recovery of 9 percent of the original oil in place, which is generally accepted to be that type of recovery you might expect from a depletion type reservoir, we should recover to abandonment some 220,000 barrels of oil. Therefore, there's a remaining 21,497 barrels yet to be recovered. With secondary oil recovery initiated in this unit, and the proposed secondary being waterflooding, we anticipate recovering an ultimate amount of 734,000 barrels of oil, which means that waterflooding should recover an additional 514,000 barrels of oil.

Q Without secondary recovery this field is very, very close to abandonment, is that correct?

A That is correct.

Q All right, now for purposes of explaining the participation

in the proposed Millerella unit, your Exhibit 18 is a highlight of the participation formula. Would you explain that briefly to the staff, please?

A Exhibit 18 is a method in which the tract participation is calculated. As we have mentioned earlier, the field will be unitized based on 50 percent contribution from net oil pore volume and the other 50 percent of the formula will be from usable wells which will contribute to the project, and this exhibit shows how this is calculated and I don't believe I'll go into anymore on that unless somebody has any questions on it.

Q O.K. We're going to go through the mechanics of how this participation formula is actually used when we put the numbers to it in the subsequent exhibit, so let's turn then to Exhibit 19, Mr. Pawlik.

A Exhibit 19 is a tabulation of the net oil pore volume which has been computed for each of the 10 tracts. We've

taken the geological net oil pore volume map, which is the Exhibit 14, and have planimetered each of the tracts. This work was done by Engineering Services, which is a third party in Jackson, Mississippi. Each of the net oil pore volume volumes are stated on this exhibit for each of the tracts.

Q All right, sir. Now with that acre footage, let's turn to our Exhibit No. 20 and show how we've come up with a factor here.

A O.K. Exhibit 20 is the calculation of tract factor based on net oil pore volume. Tract factor is computed by taking the tract net oil pore volume for each of the tracts and dividing it by the total net oil pore volume of the oil reservoir to arrive at the number in the right-hand column, which is the net oil pore volume tract factor participation.

Q And that represents 50 percent of our proposed formula, right?

A That is correct. We'll take 50 percent of each of those

tract factors later for determination of the working interest in the unit.

Q All right. Now let's go to Exhibit 21 and talk about the usable wellbore credit factor.

A Exhibit 21 is calculations for the usable wellbores which are being contributed by seven of the tracts. The tract factors are computed by dividing 1 by the sum total of the 7 producing wells in the oil field to arrive at the tract factor shown in the right-hand column.

Q All right, sir. Now we'll put the two together and come up with our tract participation factor which is shown on Exhibit 22. Describe that for us, please.

A Exhibit 22 is the tract factors for the unit and this is arrived at by summing the 50 percent net oil pore volume, which was calculated in Exhibit No. 20, to 50 percent usable wellbore tract factor, which was calculated in Exhibit 21 to arrive at the total tract factor for that particular tract.

Q All right, Mr. Pawlik, let me stop here and summarize just a minute before we go to our description of our unit operations. We have, through the assistance of the geological work of the Committee and Mr. Sylte, we've described the unit boundaries, we've described the Millerella Oil Pool, and you have now taken that information and have worked out a tract participation factor. Is it your testimony that this tract participation factor represents the relative contribution which each tract is expected to make to total unit production?

A I do.

Q All right, sir. Let's then look at your Exhibit No. 23, which is your proposed waterflood plan, and I'd ask that you describe in some detail this plan to the staff.

A O.K. Exhibit 23 is our proposed waterflood plan, and the reason for this exhibit is primarily to show how we propose to manage this project to prevent any drainage or

any migration of oil from the oil column up into the gas cap. First of all, I'd like to say that our plan is to convert the two most southerly wells in the proposed unit, this being the Turner 27-8 and the Weyerhaeuser 26-6, to water injection. We will propose the drilling of a producing well in Tract 4, which is shown in the green circle on your exhibit. In order now to prevent oil from being displaced up into the gas cap, plans are to purchase the Moon & Hines-Hankins-Younghance well in Tract No. 9, which is completed in the Carter and Millerella Sands. Plans are to squeeze off the Carter Sand and make a Millerella injection well at that point. There are two reasons for doing it. (1) By injecting water at that point at the gas-oil contact interface, we feel like that we will, and we have experience that will show this, that we will impose a pressure barrier or water barrier at that point that would prevent any migration northward of that particular contour, and secondly, it will displace

oil that exists between that injection well and the wells, producing wells, just south of it, being the Younghance No. 2 and the Younghance No. 1, and also the Jones 23-13 in Section 23. Further, we propose to drill another injection well in Tract No. 7, as shown in yellow, at such time as it becomes necessary, and the way that we would try to determine that is by monitoring the production in the Jones 23-13 well, and in addition to that we will shoot fluid levels in the well on a monthly basis after the well has been shut in for 24 hours to determine when that area is being subjected to the, you know, drive from the injection well. We think that this is a good plan. The injection of the water at the gas-oil contact should not be detrimental. It ought to be an asset also to the gas cap if some water migrates northward, and there are no gas cap producing wells within several thousand feet of those proposed injection wells.

Q Mr. Pawlik, your source of water for the waterflood would

be the fresh water well or wells that you will develop in the area, is that correct?

A That is correct. We are operator of the North Blowhorn Creek Unit and the source of water for that waterflood project is fresh water. We have no reason to believe that fresh water cannot be used in this project also. The sands, mineralogy and all are practically identical.

Q All right, sir, now, we're asking in our petition that if the Board sees fit to approve this that unit operations be effective May 1, 1987. How soon after that would you be commencing water injection?

A We feel like by the time we get approval from the working interest owners to make expenditures necessary it will be approximately three months from the effective date in order to initiate water injection.

Q And about what are the capital costs involved in this waterflood project that you expect to expend, Mr. Pawlik?

A Our total estimated capital expenditures are in the order of \$650,000.

Q All right, and I believe, referring back to your Exhibit No. 17, you're anticipating in excess of 500,000 barrels of additional oil recovery. My question to you then is would the costs incidental to this waterflood exceed the additional costs that you expect to receive from the additional oil?

A No, it will not.

Q All right, so one of our requirements in our statute is that we not institute any secondary recovery project that wouldn't make money. It appears to me that this project would make an overwhelming amount of money for the working interests and royalty operators, is that correct?

A That's correct.

Q Is it also your testimony, Mr. Pawlik, that if this plan of operations is approved and if this formula consisting

of the two parts that you've discussed, if all of that is approved, that the coequal and correlative rights of both the working and royalty interest owners, as well as overriding royalty interest owners, in this proposed unit will be protected?

A Yes, I do.

MR. WATSON: My next witness is Mr. Russ Grant. Let me pass the mike down to Mr. Grant.

RUSSELL GRANT

Appearing as a witness on behalf of Petitioner, Hughes Eastern Corporation, having been previously sworn, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q Mr. Grant, it has been your responsibility in this unitization process and working with the committees and in your capacity with Hughes Eastern to prepare and circulate the Unit Agreement, Unit Operating Agreement, and

Ratification Agreements to the working royalty and overriding royalty interests in the proposed unit area, is that correct?

A That's correct, yes, sir.

Q Would you give us, please, a brief overview, if you would, of what the agreements call for? And you may start with the Unit Agreement if you would like and tell us what's provided for in the Unit Agreement.

A All right, sir. The Unit Agreement, of course, is Exhibit 24 to my testimony. The duplicate original of that is on record in Lamar County, Alabama. Basically, Article 1 covers definitions, specifically the unitized interval, and what unitized substances are. They define working interest ownership, royalty ownership, and so forth. Unit participation, of course, is defined in that article. Article 2, the exhibits, Exhibit A is a map of the unit area showing each tract. Exhibit B is a schedule showing

each tract and that tract participation as derived from the tract participation formula. Exhibit C is a net oil pore volume map of the Millerella Oil Pool, and Exhibit D is a computed pore volume of each tract expressed in acre feet. There is a provision in Article 2 for the correction of any mechanical miscalculation or clerical error. Article 3 actually creates the unit subject to the approval of the Board and unitizes the oil and gas rights, unitizes substances within the boundaries of the unit area. It also covers the costs and the expense of unit operations, how they will be charged, in accordance with the laws of the State of Alabama; provides that leases and other contracts are continued in effect but subject to the provisions of the unit agreement; preserves prior tracts as units, prior producing units are incorporated in the unit area as a tract of the unit. Briefly, Article 4 covers a plan of operations. Article 5 is the tract participation formula which has already been discussed by Mr. Pawlik. Article 6

talks of the fashion of the allocation of unitized substances or distribution within tracts, taking unitized substances in kind, failure to take in kind, who is responsible for royalty settlements, and so forth. Article 7 says what happens on the effective date of the unit should the Board approve the same. Article 8 talks about the use and sale of unitized substances, use in unit operations, the sale of same, settlement for royalties, and so forth. Titles are covered in Article 9. Article 10 gives the unit operator and working interest owners certain easements on the surface and restricts them in the case of surface damages, and use of water. Article 11 covers enlargement of the unit area in accordance with Section 9-17-85 of the Alabama Code. Article 12 covers what happens in the event any titles are affected, or changed rather, or conveyances are made during the period that the lands are unitized. Article 13 talks about the legal status of the parties. Of course, the whole matter

is subject to both state and federal regulation in Article 14. Article 15 talks about force majeure. Article 16 is the actual effective date and how that would be implemented on the records in Lamar County. Article 17 talks, of course, the term, as long as unit operations remain in effect. That basically, Mr. Watson, other than the exhibits themselves, covers the Unit Agreement. I might point out that Exhibit C to the Unit Agreement is the same as Exhibit 14, Emil Pawlik's testimony, and Exhibit D to the Unit Agreement is the same as Exhibit 19 to Mr. Pawlik's testimony.

Q This Unit Agreement, Mr. Grant, has been submitted for ratification. What percent of the owners have ratified this Unit Agreement?

A All right, sir. The working interest owners, 91 percent of working interest owners have executed the Unit Agreement that's in hand. An additional seven percent have advised us that they have executed it but we don't actually have

the signature pages in hand. As to royalty ownership, we have 88 percent, almost 89 percent royalty owners have executed the Unit Agreement.

Q All right, sir. Now if you briefly would describe, and you can be very brief in describing the Unit Operating Agreement that we have submitted.

A All right, sir. Basically, the Unit Operating Agreement covers, governs the rights and responsibilities of the Unit Operator and of the working interest owners within the confines of the unit. It talks generally in terms of development of the unit area. It gives the rights, certain rights of access and so forth to other working interest owners, obligates the Unit Operator to keep them informed, in various fashion, and covers how the costs and expenditures will be computed and assessed among the working interest owners.

Q And this agreement too has been submitted for ratification, and would you give us the percentages of---

A Yes, sir, it has been accepted by 98 percent of the working interest owners.

Q All right, sir. And you also have ratification documents that you have, we have prefiled, and I've submitted additional ratification documents this morning to Mr. Rogers.

A Yes, sir.

MR. WATSON: Mr. Rogers, I would ask at this point in time if you would receive into the evidence of this hearing the exhibits that we've just testified to through Exhibit 25, please.

MR. ROGERS: The exhibits are admitted into the record.

(Whereupon, the exhibits were received in evidence to the testimony of Messrs. Sylte, Pawlik, and Grant)

Q I would ask each of my witnesses, and you may all answer this together, in your opinions would the granting of these two petitions amending the Special Field Rules and approving the unit in your opinion prevent waste and protect coequal and correlative rights of the owners in the proposed unit?

(All witnesses answered affirmatively)

MR. WATSON: That's all we have, Mr. Rogers. I tender my witnesses to the staff for any questions.

EXAMINATION BY BOARD OR STAFF

EMIL PAWLIK

Questions by Mr. Rogers:

Q I suppose it could go to you, Tom, but maybe one of the other witnesses can answer it. In the Unit Agreement concerning the participation or the allocation formula on Article 5, you state, you used the term "usable wellbore credit" to be 50 percent of the allocation formula. Am I correct in stating that in this instance a usable wellbore is a well that had actually produced oil, or was producing oil from the proposed unitized interval on July 30, 1986?

MR. WATSON: I'll ask Mr. Pawlik to answer that.

A Would you restate the question? I wasn't too sure about the date.

Q In the Unit Agreement you used the term "usable wellbore credit" for 50 percent of the allocation formula. We've

reviewed the definition in Article 5. Am I correct that the usable wellbore credit applies where there was a well producing oil from the unitized formation on July 30, 1986?

A That is not correct. Due to the fact that there are two wells, one of which is the Younghance No. 1, which has been temporarily abandoned, the well is, has tubing in the hole and is still a usable wellbore but was not producing at the time. We feel like this well is certainly a usable wellbore. It was not producing.

Q Am I correct that usable wellbore credit does include wells that did produce at some time?

A That is correct. Those which can still be utilized, and I point out at this time also that the Younghance No. 2 well has cement plugs set in it. If this unit is approved, the operator, which is Moon & Hines, will remove the plugs and put that well back in condition where it could be produced. It will not have to be redrilled. This is, are two items that will--it has not been done at this time.

We're awaiting approval from the Board, and at that time those two wells will be put back in a condition where they can be operated again.

Q Is it correct then that usable well bore means that each well actually produced at some time during the history-- during the life of the field?

A That is correct. That would be the correct definition.

Q Well, then would there be any objection--I guess this would go to Tom--to simply changing the term "producible well credit"--I mean "usable well credit" to some term such as "producible well credit" or some other appropriate term for clarification?

MR. WATSON: Well, we don't have any problem with any clarification that the Board or the staff wants to make on this, Mr. Rogers. The Unit Agreements, of course, have been submitted and have been ratified, but any clarification that comes out of this hearing or any testimony submitted in support of this, certainly we have no objection to any clari-

fication that the staff would want to recommend.

MR. ROGERS: All right. Exhibit C to the Unit Agreement is a net oil pore volume map. I guess, I think the answer is clear but I'll ask this anyway. Is this the exhibit that was used for calculation of the pore volume under the formula? Mr. Sylte?

MR. PAWLIK: That is correct. It is the same exhibit. I believe Mr. Grant testified to that as it is the same as the Exhibit 14.

MR. ROGERS: All right.

MR. PAWLIK: And I've used the map that was used to determine the net oil pore volume of each tract.

MR. ROGERS: All right. The next question: Was the pore volume that was used in the calculations derived from using a minimum or a cutoff of 9 percent porosity? That was my understanding.

MR. PAWLIK: That is correct.

MR. ROGERS: All right. That's all the questions. Do you

have any questions? (No response) That's all the questions we have.

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

MR. ROGERS: All right. We'll make a recommendation to the Board on this matter tomorrow.

MR. WATSON: Thank you.

MR. ROGERS: Thank you.

DR. MANCINI: Item 17, Docket No. 4-2-8710, petition by V. Monta Currie, Jr.

MR. HARRISON: We would ask that that item be continued, please.

MR. ROGERS: We will make that recommendation to the Board.

DR. MANCINI: Item 18, Docket No. 4-2-8711, petition by Taurus Exploration, Inc.

MR. HARRISON: Mr. Rogers, I'd like to be sworn in this matter, please.

MR. ROGERS: All right. State your name and address for the record, Mr. Harrison.

MR. HARRISON: Steven F. Harrison, Tuscaloosa, Alabama.

(Mr. Harrison was sworn by Mr. Rogers)

MR. HARRISON: Gentlemen, this is a force pooling petition by Taurus Exploration concerning the N/2 of Section 16, Township 14 South, Range 14 West, in Lamar County, in the Fairview Field. I would ask that the affidavit of notice that I have previously submitted be admitted into evidence.

MR. ROGERS: It is admitted.

(Whereupon, the affidavit of notice
was received in evidence)

MR. HARRISON: Also the affidavit of testimony of Ms. Kathy Clayton.

MR. ROGERS: That affidavit is also admitted.

(Whereupon, the affidavit was re-
ceived in evidence)

MR. HARRISON: At the time of the filing of this petition, we only had approximately 50 percent of the proposed, or 44 percent of the proposed unit signed up. At the present time, we now have 73.9 percent of the outstanding working interest

owners signed in agreement to the formation of this unit. We have an additional commitment orally from 17 percent of the working interest owners but they have not yet submitted their written consent to this unit. Therefore, at the present time we have approval from 90.9 percent of the working interest owners in this unit and we would be force pooling the remainder of those owners. So I have nothing further at this time and would request that the petition be granted on the basis of the affidavits and my testimony.

MR. ROGERS: We'll make a recommendation to the Board on this matter tomorrow.

MR. HARRISON: Thank you.

DR. MANCINI: Item 19, Docket No. 4-2-8712, petition by Terra Resources, Inc.

MR. SLEDGE: Mr. Rogers, I need to be sworn and I have a witness to be sworn.

MR. ROGERS: All right. Would you state your names and addresses for the record?

MR. SLEDGE: James J. Sledge, Tuscaloosa, Alabama.

WITNESS: Nick Kramer, Fayette, Alabama.

(Witnesses were sworn by Mr. Rogers)

MR. SLEDGE: Mr. Rogers, I have to beg the Board, the staff's discretion and indulgence in this matter. We have a permit application for this force pooling that apparently is caught somewhere in express mail or courier service delay. It may be here by noon. If not, a new one will be filed, and I would ask that you--that at this time you listen to the testimony we would like to submit and then hold the record open so that the Board might be able to make a ruling subject to your recommendation.

DR. MANCINI: Mr. Sledge, if it's not here by 10 o'clock, then we're just gonna dismiss the item.

MR. SLEDGE: You're talking about tomorrow? It will be--if it does not arrive at noon, I'll prepare a new one and file it myself. My client had mailed it, rather sent it by express mail on Tuesday. I don't know where it is. We're trying to

find it. This is a force pooling matter and I have submitted an affidavit of notice. Mr. Kramer has submitted an affidavit detailing the outstanding interests. We have had difficulty locating one person, and so I want to ask Mr. Kramer a few questions regarding that matter. Mr. Kramer, you have previously testified before this Board and your qualifications as an expert petroleum landman have been accepted by the Board?

MR. KRAMER: Yes, sir, they have.

NICK KRAMER

Appearing as a witness on behalf of Petitioner, Terra Resources, Inc., testified as follows:

DIRECT EXAMINATION

Questions by Mr. Sledge:

Q One of the outstanding owners in this unit is Mrs. Pauline Fleming, also known as Polly Fleming, is correct?

A Yes.

Q Did you attempt to contact Mrs. Fleming and secure a lease or her consent to the drilling of this well?

A Yes, I did.

Q Did you meet with Mrs. Fleming?

A Yes.

Q When did you first meet with her?

A I met with her on March 9, 1987.

Q And where was this meeting?

A At her home, Sulligent, Alabama, Route 2.

Q That's the address, Route 2, Sulligent, Alabama?

A Correct.

Q And did she agree to lease or consent to the drilling of the unit at that time?

A She refused to lease.

Q Later you furnished that address to me, and my affidavit, Mr. Rogers, reflects that we sent notice to her at that address. Mr. Kramer, did you later receive correspondence indicating that Mrs. Fleming might be at a different address?

A Yes, sir, I did.

Q And what was that address?

A It was Box 121, Gatman, Mississippi.

Q And did you furnish that information to me?

A Yes, I did.

MR. SLEDGE: Mr. Rogers, I would further enter testimony in the record that I attempted to give notice to Mrs. Fleming at that address also, and therefore, we attempted to notify her at two locations, the location in Sulligent where Mr. Kramer met with her, which is her home, and another place, actually a post office box in Gatman, Mississippi, and I would submit this evidence in addition to the affidavits that have been prefiled and ask for permission to modify my pre-filed order to reflect a diligent effort to try to give notice to this person under the rules. That is all we have at this time.

DR. MANCINI: Mr. Sledge, we just--we request that you tell your people you're representing, Terra Resources, this

puts a real burden on us.

MR. SLEDGE: They're aware of that and they do apologize. We simply had an oversight and did not get the material, did not get the survey ordered until too late. That was the reason for it. And I don't know what happened to it in the last two days.

DR. MANCINI: And you said that it will be in here this afternoon?

MR. SLEDGE: Yes, sir. If it doesn't arrive--I'm gonna wait until noon--if it doesn't arrive, I'm gonna do a new one myself.

DR. MANCINI: Mr. Hearing Officer, then I'd ask that this item remain open for the submission of the--the record on the item remain open for the submission of the permit application.

MR. ROGERS: All right, and depending on what happens, we'll make a recommendation to the Board on the matter tomorrow, accordingly.

MR. SLEDGE: Thank you, sir.

DR. MANCINI: Item 20, Docket No. 4-2-8713, petition by Hughes Eastern Corporation.

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

MR. ROGERS: Would you state your name and address for the record?

WITNESS: Philip Reeves, Jackson, Mississippi.

(Witness was sworn by Mr. Rogers)

MR. WATSON: Mr. Rogers, let's admit into the record the affidavit of notice that was prefiled, and I think you also have a letter to me on notice. Let's get those in the record first, please.

MR. ROGERS: Those items are admitted into the record.

(Whereupon, the affidavit was received in evidence. There was no letter)

MR. WATSON: Mr. Reeves, you've testified many times before this Board and have on file with the Board an affidavit

of your qualifications as a petroleum geologist?

MR. REEVES: That's correct.

MR. WATSON: He's tendered as an expert petroleum geologist, Mr. Rogers.

MR. ROGERS: He's so recognized.

PHILIP REEVES

Appearing as a witness on behalf of Petitioner, Hughes Eastern Corporation, testified as follows:

DIRECT EXAMINATION

Questions by Mr. Watson:

Q We're here requesting today that the staff recommend to the Board the approval of a new oil field in Escambia County, Alabama, and we're recommending that that new field be named the Foshee Oil Field in the Lower Tuscaloosa Formation, and we're requesting that the oil pool be named the Pilot Sand Oil Pool, and we're requesting spacing for that field. In connection with this petition, Mr. Reeves, have you prepared exhibits?

A I have.

Q Let's turn in the booklet of exhibits to Exhibit No. 1 and tell the staff what's shown there.

A Exhibit No. 1 is a map showing the proposed field limit for the Foshee Field. The area is outlined in red, and is composed of the S/2 of Section 34 and the S/2 of Section 35, 2 North, Township 2 North, Range 8 East, and also the N/2 of the N/2 of Section 2, Township 1 North, Range 8 East, all in Escambia County, Alabama. The discovery well for the field, the ATIC No. 1 35-14 unit, is circled in red. The 40-acre unit outlying that is shown in a dashed line. There's also the immediate offset to that discovery well, the ATIC 35-13 No. 2, is shown to the west of that, and also the drilling well at the present time, the No. 1 ATIC 34-16, is also, the 40-acre unit is outlined in red.

Q All right, sir, let's go to Exhibit No. 2, which is the type log for this new discovery and tell us what's shown

on there, Mr. Reeves.

- A This is a portion of the dual laterolog gamma ray on the Hughes Eastern-No. 1 ATIC 35-14, which is located in Section 35 of Township 2 North, Range 8 East, Escambia County, Alabama. It shows the top of the Lower Tuscaloosa Formation, which is also the top of the Pilot Sand, at a depth of 6,042 feet or a subsea depth of 5873 feet. It also shows the base of this Pilot Sand at a depth of 6160 or a subsea of 5991 feet. It also identified an oil-water contact in this well that's so labeled. That's at a depth of 6,078 feet or a subsea of 5909, and that is determined both by the resistivity on this log and also by sidewall core samples. This also identifies the top of the Massive Tuscaloosa Sand which is at a depth of 6214 feet. The interval that we're asking for this field to be identified is for the Pilot Sand between a depth of 6,042 and 6160 feet. It also shows the perforations, shown in green. The well was perforated 6,042 to 6,048

feet. On a 12-hour test it flowed at the rate of 185 barrels of oil per day, 21,000 cubic feet of gas per day, with a flowing tubing pressure of 445 pounds. The gravity of the oil was 40.5 and we had 4 percent BS&W. It's definitely, from this test, an oil well with a GOR of 114 to 1.

Q All right, sir. Let's look at our Exhibit 3 which is a sidewall core analysis, and tell us what's shown on this exhibit, Mr. Reeves.

A Exhibit 3 basically is showing the type of reservoir that we're looking at. You see the permeability, porosity, oil saturations and water saturations, probable production is called oil down through 6,078. Below 6,078 it's called low perm because the permeability there is less than 10 millidarcies, and the people who analyzed the core determined that anything below 10 they considered to be low perm. However, you will note that there are no shows or

no oil cookout or anything below this point, and we have used that point based on these sidewall cores, and as I testified, also on the resistivity of the log that this would be an oil-water contact.

Q All right, sir. Let's go then to our structure map on top of the Lower Tuscaloosa. Describe that.

A O.K. Again the area that we propose to be enclosed in this field is shown in red. The color green is shown for that part that we suppose to be underlain by hydrocarbons. The dark green circle is the discovery well, the ATIC 35-14 No. 1. The control is from several wells in the area. On the northwest side of the field we see the Justiss-Mears-No. 1 Sullivan well that encountered the top of the Lower Tuscaloosa, also the top of the Pilot Sand, at a subsea of 5983 feet. The discovery well is also shown. Also in Section 2 we have the No. 1 Barnes that encountered the Lower Tuscaloosa at a subsea of 6100 feet, which is interpreted to be downthrown to the

fault which is shown in blue. The blue fault is, in our interpretation, extends on to the west but it is encountered in the Sullivan--Justiss-Mears-Sullivan well as a 250-foot fault at a subsea of 4280. That does cut that well in the Chalk Formation. Then we also encountered a fault cut in the discovery well, the ATIC 35-14, which is a 240-foot fault at a subsea of 5,016 feet. We interpret also a fault cut in the No. 2 Barnes, a 145-foot cut at 61--a subsea of 6149. This fault is interpreted to be downthrown to the south-southwest. We have well control or a subsea control on the Pilot Sand also in Section 1, but in our interpretation these wells do not cut the fault, but they are contoured using the subsea data. One well that is completely downthrown and we do not have a fault pick in it is the No. 1 Barnes well in Section 2 where the top of the Pilot Sand was encountered at a subsea of 6128 feet. Since this exhibit was prepared, we have completed drilling the ATIC 35-13 No. 2. Basically, from

the log interpretation on that we, it fits the map almost exactly. The subsea top of the Pilot Sand there was 5817, and we encountered the fault in that well approximately 350 to 60 feet above the top of the Lower Tuscaloosa/Pilot Sand. We're using a 45 degree fault in our interpretation and this would place a fault right at the section line, so we would not change this map any at all using that well control.

Q So in the truest sense of the word then your western offset has been a confirmation of the discovery, is that correct?

A That's correct. We have, well, so far we have run pipe on the well. We have not completed it. Completion will be later on, possibly this week or early next week, and we're in the process of drilling the No. 1 34-16 at the present time.

Q Maybe I would be more correct in saying of all that you've seen thus far it appears to confirm the initial discovery?

A That's correct.

Q All right, sir. Now we have a line of cross section, your Exhibit No. 5. Let's describe that to the staff, Mr. Reeves.

A O.K. The cross section is labeled A-A'. It begins on the northwest side of our Foshee area and continues across the discovery well, across a major graben system, and then we have made an attempt to tie this into Pollard Field, which is the other Lower Tuscaloosa producing field in the area, located approximately 1½ miles south of the Foshee area. The Justiss-Mears well, as I've testified earlier, cut the fault in the Chalk, which would be above our cross section area shown here. The Eutaw Formation is shown but no colors. The Marine Shale is shown in a dark gray. The Pilot Sand is shown in a blue, and the Massive Sand is shown in yellow. The next well on the cross section is the discovery well, the No. 1 ATIC 35-14. The fault cut is shown in this well that faults out the portion of the Eutaw Formation. The Marine Shale again

is shown in a dark gray. The oil-water contact in that part of the No. 1 ATIC 35-14 underlain by oil is shown in green. The balance of the Pilot Sand is shown in blue, and the Massive Sand is also shown in yellow. You'll note that the Pilot Sand is interpreted as being faulted up against the Marine Shale and this is forming the trap for this well in our opinion. The Sunnyland-No. 1 Miller-Citizens is a well located in the graben and we do not show this to scale in the graben to make the cross section as short as possible, but again the different formations are shown in the colors, and as you can see, this well is considerably low to, structurally, to both Pollard Field and the Foshee to the north. The next well on the cross section is the Humble-No. 6 Crosby, a producer at Pollard Field. Again you see a fault cut in this well, the fault here being down-to-the-north or the opposite direction from that at Foshee. The Marine Shale again is in a dark gray. The oil-water contact for the Pilot Sand at

Pollard Field is shown with the green being that underlain by oil, the blue that being underlain by water. Again here the Massive Sand has encountered oil production and is also shown in green and an oil-water contact shown for it. In both cases of the Pilot Sand and the Massive Sand you can see that these two zones have been faulted up against the Marine Shale forming the trap at Pollard Field.

Q No oil found in the Massive Sand in the Foshee area?

A Not to date.

Q Not to date. O.K.

A The next exhibit is Exhibit No. 6, which is showing the daily production. It's a daily production plot of the discovery well. At the time that we filed these exhibits, we had produced a cumulative of 6,055 barrels of oil. As you can see, it's basically a straight line curve as far as production is concerned, and we plotted it out through March 24. However, through March 31 of this

year the well has produced 9,173 barrels of oil and it's continuing to flow at a steady rate of between 185 and 200 barrels of oil per day.

Q And we're producing that well, are we not, Mr. Reeves, on a temporary test allowable granted by the Supervisor to get us to this hearing today to make this presentation?

A That's correct. We have a temporary allowable of 200 barrels of oil per day.

Q All right. Your last exhibit, No. 7?

A This is strictly a copy of OGB-9 that was filed with the Oil and Gas Board. It shows the perforated interval from 6,042 to 48. The test, again, was 12 hours with a flow rate of 185 barrels of oil per day and 21 MCF gas per day, gas-oil ratio of 114 to 1, and this was on an 8/64 choke with 445 pounds flowing tubing pressure and we were also getting about 4 percent BS&W with gravity of the oil 40.5 degrees.

Q In our initial recommendation in our petition, Mr. Reeves,

we requested spacing for this field of 40 acres. I have amended my petition, with your concurrence, to ask that the spacing in the field be on the basis of a governmental quarter-quarter section containing approximately 40 acres. Is it your belief that this field can be developed primarily on governmental quarter-quarter sections?

A Primarily.

Q Is it also your belief that as we continue to develop this field it may be necessary for us to come back to the Board to ask the Board to create a 40 contiguous acre unit that may not be a governmental quarter-quarter to locate the well at the optimum location to protect coequal and correlative rights?

A There is a possibility.

Q And to avoid the drilling of an unnecessary well?

A Yes.

Q All right, sir. Is it also your understanding, Mr. Reeves, that in our petition we're requesting as a standard measure

that's usually presented to this Board, the establishment of allowables and that the procedure for the establishment of the allowable is that we would request, if the Board sees fit to approve this new field, that we would request an allowable from the Supervisor, and once we have sufficient production history we'd come back to the Board to establish a permanent allowable?

A Correct.

Q Is it also your understanding that we have requested administratively from the Supervisor's office a temporary test allowable that will keep these--will keep this one well on production until such time as we come back for a permanent allowable?

A Right.

Q And what is that allowable? Is it still the 200 barrels of oil per day?

A Two hundred barrels of oil per day.

MR. WATSON: All right. Mr. Rogers, I would ask that you

receive into the record of this hearing Exhibits 1 through 7 to the testimony of Mr. Reeves.

MR. ROGERS: They're admitted into the record.

(Whereupon, Exhibits 1 through 7
were received in evidence to the
testimony of Mr. Reeves)

Q Mr. Reeves, is it your testimony to the staff that if the Board sees fit to grant this petition establishing this new field that waste will be prevented and coequal and correlative rights protected?

A That's correct.

Q Mr. Reeves, this is, this discovery has received quite a bit of publicity, both in the technical journals and elsewhere. As I understand it, this is the first Lower Tuscaloosa discovery of any significance since the Pollard Field and maybe a field in Choctaw County, is that correct?

A That's correct.

Q Is Hughes Eastern in requesting these Special Field Rules on a course of developing this Lower Tuscaloosa Formation in the area we're calling the Foshee Field?

A Correct.

MR. WATSON: I have nothing further, Mr. Rogers. I submit my witness to the staff for any questions you may have.

DR. MANCINI: Mr. Hearing Officer, we have no questions.

MR. ROGERS: Is there anything else, Tom?

MR. WATSON: That's all we have.

MR. ROGERS: We will make a recommendation on this matter tomorrow.

MR. WATSON: Thank you.

DR. MANCINI: As mentioned previously, Item 21 will be heard by the Board tomorrow.

MR. ROGERS: This hearing is adjourned. Thank you.

(Whereupon, at 12 o'clock the hearing was adjourned)

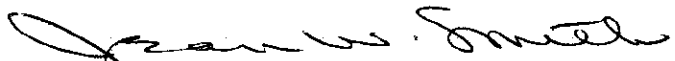
REPORTER'S CERTIFICATE

STATE OF ALABAMA ()

COUNTY OF TUSCALOOSA()

I, Jean W. Smith, Hearings Reporter in and for the State of Alabama, do hereby certify that on Thursday, April 2, 1987, in the Board Room of the State Oil and Gas Board Building, University of Alabama Campus, Tuscaloosa, Alabama, I reported the proceedings before a Hearing Officer; that the foregoing 123 typewritten pages contain a true and accurate verbatim transcription of said proceedings to the best of my ability, skill, knowledge, and belief.

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



Jean W. Smith
Hearings Reporter
State of Alabama