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A 26

July 26, 2000

Hand Delivered

David R. Catanach
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Case No. 12401; application of Ocean Energy Resources, Inc.

Case No. 12374; application of Yates Petroleum Corporation

Dear Mr. Catanach:

Enclosed are the following:

1. Ocean's proposed order in the above matters, in hard copy and on disk.

2. Ocean's reserve calculations on the Townsend State Well No. 5. (A copy is being provided to Yates' attorney with this letter.)

3. The results of Ocean's maximum efficient rate study, performed after the hearing with the permission of the Hobbs District Office. (This data was supplied to Yates' attorney on Monday.)

4. The most recent production data from the Townsend State Well No. 5. (A copy is being provided to Yates' attorney with this letter.)

The pressure data shows that it is virtually impossible for the Townsend State Well No. 5 to be in communication with Yates' Shell Lusk ANB Well No. 2, as Yates asserted at hearing. See Finding Paragraph 6(d) of Ocean's proposed order. The excellent pressure communication in these Strawn reservoirs would not allow a thousand

pound differential between the Townsend State Well No. 5 and the Shell Lusk ANB Well No. 2. (Also, Yates claimed that the Schenck Well No. 1 was in communication with the Townsend State Well No. 5. However, Yates failed to supply any pressure data on that well, although it promised to do so at the May 4th hearing.)

Please call me if you need any further information in this matter.

Very truly yours,

James Bruce

Attorney for Ocean Energy Resources, Inc.

cc: William F. Carr w/encl. (hand delivered)

STATE OF NEW MEXICO
ENERGY, MINERAL AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARINGS CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF YATES PETROLEUM CORPORATION FOR AMENDMENT OF THE SPECIAL RULES AND REGULATIONS FOR THE SOUTH BIG DOG-STRAWN POOL, LEA COUNTY, NEW MEXICO. **Case No. 12374**

APPLICATION OF OCEAN ENERGY RESOURCES, INC. FOR POOL CREATION AND SPECIAL POOL RULES, POOL CONTRACTION, AND CANCELLATION OF OVERPRODUCTION, LEA COUNTY, NEW MEXICO. **Case No. 12401**
ORDER NO. R-_____

OCEAN ENERGY RESOURCES, INC.'S
PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

These causes came on for hearing at 8:15 a.m. on May 4, 2000 at Santa Fe, New Mexico before Examiner David R. Catanach.

NOW, on this _____ day of August, 2000, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of these causes and the subject matter thereof.

(2) The applicant in Case No. 12374, Yates Petroleum Corporation ("Yates") seeks an order amending the Special Rules and Regulations for the South Big Dog-Strawn Pool, including adoption of a special gas:oil ratio of 6000 cubic feet of gas for each barrel of oil produced.

(3) The applicant in Case No. 12401, Ocean Energy Resources, Inc. ("Ocean"), originally sought the following:

(a) Contraction of the horizontal boundaries of the South Big-Dog Strawn Pool by deleting therefrom the S½SE¼ of Section 2, the NE¼ of Section 11, and the NW¼ of Section 12, Township 16 South, Range 35 East, N.M.P.M.

(b) Creation of a new pool, designated the East Townsend-Strawn Pool, comprised of the acreage described in subparagraph (a) above.

(c) Promulgation of special pool rules for the proposed East Townsend-Strawn Pool, including:

(i) 80 acre spacing, with well locations no closer than 330 feet to a quarter section line and no closer than 1020 feet to another well in the pool;

(ii) a special depth bracket allowable of 750 barrels of oil per day, with a gas:oil ratio of 6000 cubic feet of gas for each barrel of oil produced; and

(iii) cancellation of overproduction from wells in the proposed East Townsend-Strawn Pool.

At the hearing in this matter, Ocean withdrew those portions of its application requesting new pool creation and a special depth bracket allowable. Ocean requested:

a. A gas:oil ratio of 6000 cubic feet of gas for each barrel of oil produced for the South Big Dog-Strawn Pool; and

b. Cancellation of overproduction in the Townsend State Well No. 5, or in the alternative that Ocean be allowed to make up overproduction in the well at a rate higher than the 150 BOPD currently allowed by the Division.

(4) Case Nos. 12374 and 12401 were consolidated for purposes of hearing, and one order should be entered for both cases.

(5) The South Big Dog-Strawn Pool was created by Division Order No. R-9722-C, and currently covers the following lands:

Township 15 South, Range 35 East, N.M.P.M.

Section 32:	W½SE¼

Township 16 South, Range 35 East, N.M.P.M.

Section 1:	Lots 11-14
Section 2:	Lots 2-16, SE¼
Section 3:	Lots 9, 10, 15, 16, SE¼
Section 11:	NE¼
Section 12:	NW¼

Well spacing in the South Big-Dog-Strawn Pool is 80 acres, with a depth bracket allowable of 445 BOPD and a limiting gas:oil ratio of 2000:1.

SEPARATION OF RESERVOIRS

(6) Ocean presented geologic and engineering evidence showing that:

(a) Ocean is operator of the Townsend State Well No. 5, located at an unorthodox location 330 feet from the South line and 1520 feet from the East line (Unit W) of irregular Section 2, Township 16 South, Range 35 East, N.M.P.M., approved by Division Administrative Order NSL-3870-A. The Townsend State Well No. 5 is completed in and producing from the Strawn formation, with the S½SE¼ of Section 2 dedicated to the well.

(b) The porosity pod in which the Townsend Well No. 5 is located is surrounded by the following dry holes in the Strawn formation:

Well Name	Location
Field APK St. No. 3	NE¼SW¼ Section 2
Townsend St. No. 3	NE¼SW¼ Section 2
Townsend St. 2 No. 1	Lot 15 Section 2
St. D No. 9	SW¼SW¼ Section 1
Shell Lusk ANB No. 1	SE¼NW¼ Section 11

(c) The producing Strawn wells nearest to the Townsend Well No. 5, described below, are not in pressure communication with the Townsend Well No. 5:

Well Name	Location
Runnels ASP No. 3	E½NE¼ Section 11
Townsend St. No. 1	Lot 16/NE¼SE¼ Sec. 11

(d) Pressure data from Strawn wells in this area, by date, is as follows:

	Pressure (psi)				
Well Name	10/98	3/99	5/99	7/99	5/00
Townsend St. No. 5	4100	**3000**			
Runnels ASP No. 3			4150		1900
Lusk ANB No. 2				**3800**[1]	

[1]The pressure data on the Shell Lusk ANB Well No. 2 was submitted by Yates after the hearing.

(e) Strawn reservoirs in this area consist of discrete algal mounds.

(f) Well control and seismic data in this area shows that the Townsend State Well No. 5 is in a reservoir separate from any other well in the South Big Dog-Strawn Pool.

(7) Yates presented no geological evidence regarding the location or extent of Strawn reservoirs in the South Big Dog-Strawn Pool.

(8) Yates admitted that the Runnels ASP Well No. 3, located approximately 900 feet from the Townsend State Well No. 5, was not in pressure communication with the Townsend Well No. 5.

(9) Yates claimed to have pressure data showing that the two wells described below, located approximately one mile from the Townsend State Well No. 5, were in pressure communication with the Townsend State Well No. 5:

Well Name	Location
Shell Lusk ANB No. 2	SW¼NW¼ Section 11
Schenck No. 1	NW¼NW¼ Section 11

Yates submitted pressure data on the Shell Lusk ANB Well No. 2, summarized in paragraph 6(d) above. Yates has not submitted any data on the Schenck Well No. 1, although it committed to do so at the hearing in this matter.

(10) The pressure data submitted by both parties shows a substantial difference in pressures between the Townsend State Well No. 5 and the Shell Lusk ANB Well No. 2. This data, and the geological evidence submitted by Ocean, shows that the Townsend State Well No. 5 is in a porosity pod separate and distinct from any other well producing from the South Big Dog-Strawn Pool, or from any adjoining Strawn pool.

PRODUCTION FROM THE TOWNSEND STATE WELL NO. 5

(11) Ocean also presented the following engineering evidence:

(a) The Townsend State Well No. 5 had produced approximately 278,000 BO by March 2000, and was approximately 54000 BO overproduced. The well is currently about 25000 BO overproduced.

(b) The Townsend State Well No. 5 was shut-in during March 2000, in order to make up overproduction. Ocean was allowed by the Division's Hobbs District Office to resume

producing the well at a reduced rate in order to prevent damage to the reservoir. It took Ocean several days to bring the well back on production after it had been shut-in. The well commenced producing approximately 150 BOPD in mid-April 2000.

(c) It is difficult to control production at low oil rates. Shutting-in a well completely may damage the well, and the well may not be able to be brought back into production at the same rate at which it was previously producing.

(d) Producing the Townsend State Well No. 5 at rates below 200 BOPD resulted in a substantial increase in the well's gas:oil ratio.

(e) The porosity pod in which the Townsend State Well No. 5 is located contains oil in place of approximately 1.17 MMBO.

(12) After the hearing, Ocean received approval from the Division's Hobbs District Office to conduct maximum efficient rate studies on the Townsend State Well No. 5. The tests show that increasing the oil production rate in this pool above 150 BOPD leads to a decrease in the gas:oil ratio.

(13) Producing wells in the South Big Dog-Strawn Pool at rates above 445 BOPD does not harm the reservoir.

INCREASE IN GAS:OIL RATIO

(14) Yates presented engineering evidence that:

(a) Strawn reservoirs in this area are solution gas drive reservoirs.

(b) Wells in this pool are limited by the gas allowable. Some wells may have to significantly reduce oil production in order to meet the gas allowable.

(15) Ocean presented engineering evidence that:

(a) It is difficult to control production at lower producing oil rates, and shutting-in a well may damage the well.

(b) An increase in the gas:oil ratio of the South Big Dog-Strawn Pool is necessary to produce wells at their maximum efficiency.

ACREAGE DEDICATED TO THE YATES RUNNELS ASP WELL NO. 3

(16) Yates testified that 160 acres (the NE¼ of Section 11) was dedicated to the Runnels ASP Well No. 3 because it is a horizontal well, and that the well has an oil allowable of 890 BOPD.

(17) The wellbore for the Runnels ASP Well No. 3 runs northwest from the vertical hole. Division records, and testimony at the hearing, show that the wellbore for this well is completely located within the E½NE¼ of Section 11.

(18) Although the end of the wellbore for the Runnels ASP Well No. 3 is somewhat unorthodox, Yates testified that the end of the wellbore is not presumed to be productive from the Strawn because the end of the wellbore is low in the Strawn, and the porosity development in this porosity pod is high in the Strawn.

(19) Ocean presented geologic evidence that little or none of the reservoir in which the Runnels ASP Well No. 3 is located in the W½NE¼ of Section 11.

(20) Because the wellbore of the Runnels ASP Well No. 3 is located completely within the E½NE¼ of Section 11, only 80 acres should be dedicated to the well, and the well is in an overproduced status.

CONCLUSIONS

(21) Strawn reservoirs in the South Big-Dog Strawn Pool are solution gas drive reservoirs. Producing wells at higher rates does not lead to an increase in the gas:oil ratio.

(22) The gas:oil ratio in the South Big Dog-Strawn Pool should be increased to 6000:1.

(23) The Townsend State Well No. 5 is pressure-separated from all other wells in the South Big Dog-Strawn Pool, and is in a porosity pod separate from any other Strawn well.

(24) The porosity pod in which the Townsend State Well No. 5 is located has the volume to produce the reserves attributable to the well, and has not produced an unfair share of reserves.

(25) Alternate 1: The Townsend State Well No. 5 is not pressure-connected with any other Strawn well, and the reservoir is not rate-sensitive. Therefore, overproduction in the well should be canceled.

Alternate 2: Producing the Townsend State Well No. 5 at a rate of 300 BOPD results in a reduction of the gas:oil ratio. Therefore, Ocean should be allowed to make up overproduction from the well by producing the well at a rate of 300 BOPD.

(26) Yates' Runnels ASP Well No. 3 is overproduced, and its production should be restricted in accordance with Finding paragraph (25) above.

IT IS THEREFORE ORDERED THAT:

(1) The application of Yates Petroleum Corporation in Case No. 12374, and the application of Ocean Energy Resources, Inc. in Case No. 12401, for an order amending the Special Rules and Regulations of the South Big Dog-Strawn Pool to allow a special gas:oil ratio of 6000 cubic feet of gas for each barrel of oil produced is hereby granted.

(2) The request of Ocean Energy Resources, Inc. to dismiss Case No. 12401 insofar as it requests pool contraction, pool creation, and a special depth bracket allowable is hereby granted.

(3) The application of Ocean Energy Resources, Inc. in Case No. 12401 for cancellation of overproduction from the Townsend State Well No. 5 is hereby granted as follows:

Alternate 1: Overproduction is canceled in full.

Alternate 2: Ocean shall be allowed to make up overproduction from the well by producing the well at a rate of 300 BOPD.

(4) Yates Petroleum Corporation's Runnels ASP Well No. 3 has an oil allowable of 445 BOPD.

(5) Yates Petroleum Corporation's Runnels ASP Well No. 3 is overproduced, and the well's overproduction should be made up in conformance with Ordering Paragraph No. (3).

(6) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE in Santa Fe, New Mexico on the date above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

Townsend State No.5
Reserve Calculation

Porosity	8.5%	
Water Saturation	20%	
Reservoir Volume	4,100	ac-ft
Bo @ Pi=4100 psi	1.856	RB/STB

Oil in Place

$$\frac{7{,}758 * 4{,}100 * 8.5\% * (1 - 20\%)}{1.856} = 1.17 \text{ MMBO}$$

Recovery Factor	EUR, MBO
30%	351
40%	468
50%	585

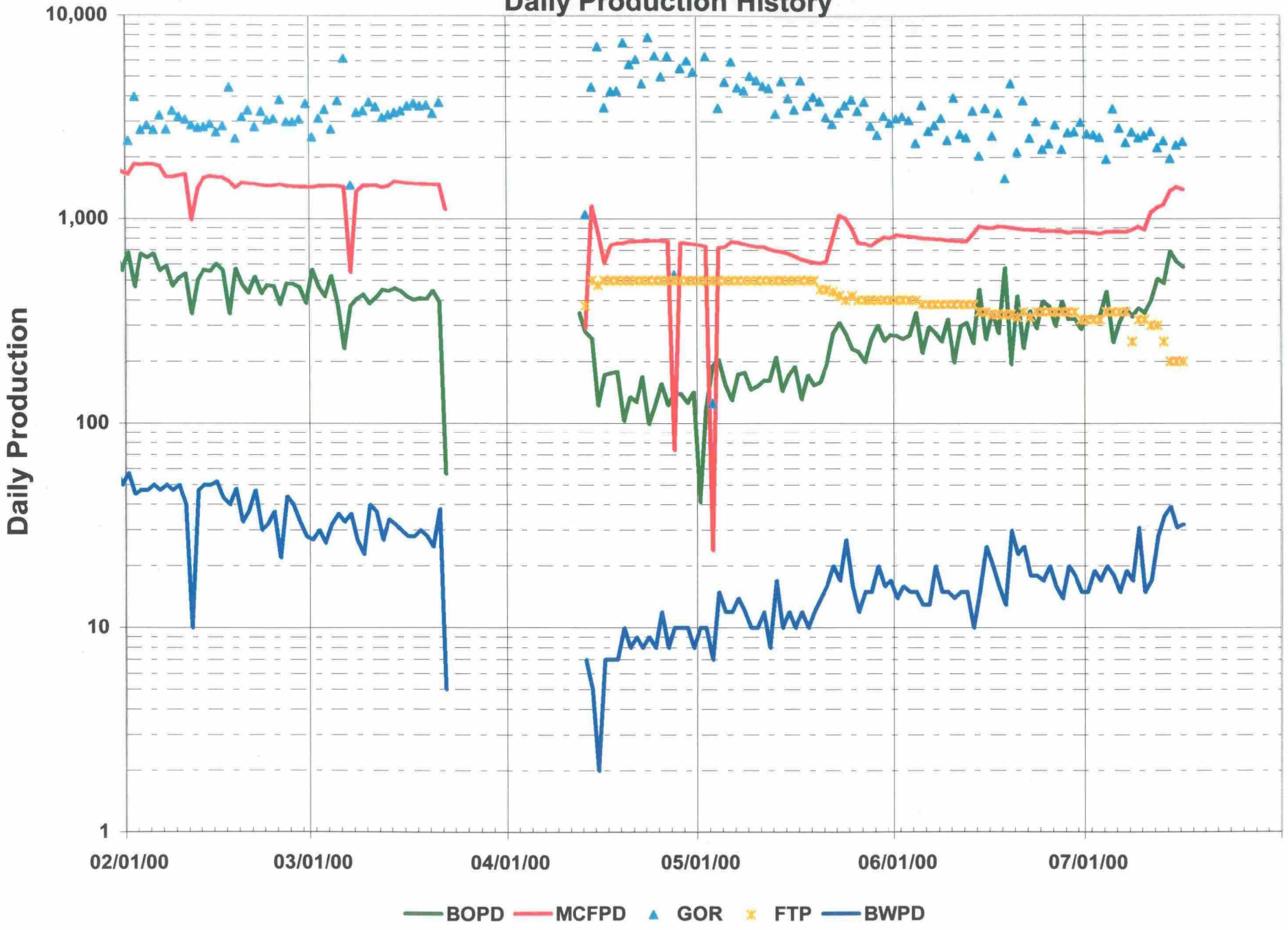
Townsend State No.5
MER Testing Summary

Average Daily Rate

BOPD	MCFD	GOR
149	691	4,638
287	842	2,934
339	870	2,566
577	1297	2,248

Townsend State 5

Daily Production History



Townsend State No.5

	Oil(BBLS)	Gas(MCF)
Jan-00	18,056	49,719
Feb-00	14,078	44,138
Mar-00	8,462	30,118
Apr-00	2,973	13,393
May-00	5,650	22,452
Jun-00	8,939*	25,987*

*Estimated from field data.