

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

**APPLICATION OF MEWBOURNE OIL COMPANY
TO REVOKE OR MODIFY THE INJECTION
AUTHORITY GRANTED UNDER ORDER NO.
R-10139 FOR THE STATE MA COM NO. 1
OPERATED BY ENDEAVOR ENERGY
RESOURCES, LP, EDDY COUNTY, NEW MEXICO**

CASE NO. 23042



State MA COM #1 SWD

December 15, 2022

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Tab 1.

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DIRECT TESTIMONY OF BRADLEY BATES

Q: Please state your full name for the record.

A: My name is Bradley Bates.

Q: Where are you employed, for how long, and in what capacity?

A: I am employed by Endeavor Energy Resources, L.P. ("Endeavor") in Midland, Texas, as a petroleum engineer. I have been employed at Endeavor since January 1996.

Q: Please describe your responsibilities in your position at Endeavor.

A: My current responsibilities include, for the past 5 years, managing Endeavor's non-core assets such as the wells at issue in this proceeding and managing the non-core asset divestitures team.

Q: Do you seek to have your testimony in this matter admitted as an expert witness and as a fact witness?

A: Yes, I do.

Q: Please describe your education and experience prior to your work at Endeavor.

A: I received a Bachelor of Science in petroleum engineering from Texas Tech University in 1985. Prior to joining Endeavor in 1996, I worked at Parker and Parsley, Terra Resources, and Halliburton Services, among others. Prior to my current responsibilities at Endeavor, I handled day-to-day events and solved problems relating to production, regulatory, accounting, land, and legal issues.

Q: In your work for Endeavor, did you become familiar with Endeavor's interests relating to this matter and the circumstances relating to the same?

A: Yes, I did.

Q: Please describe the well at issue in this proceeding.

A: The State MA Com #1 is currently used as a produced water disposal well, API# 30-015-23709. It is located in the SE/4 NE/4 (Lot H), in Section 3, Township 25S, Range 28E, in Eddy County, New Mexico.

Q: How long has Endeavor been operating this well as a produced water disposal well?

A: Endeavor acquired this well from St. Mary Land & Exploration Company in 2010. It was originally converted from an oil well to a produced water disposal well in approximately 1996 pursuant to Order No. R-10139, issued December 7, 1994 (the "Order").

Q: Have you attached the Order hereto as an exhibit in this matter?

A: Yes, the Order is attached hereto as Exhibit 1.

Q: At what depths does the Order authorize disposal?

A: The Order authorizes disposal from approximately 7,287 feet to 7,740 feet, which is within the First Bone Spring formation

Q: Endeavor is currently injecting produced water from nine nearby wells in the State MA Com #1, correct?

A: That is correct.

Q: Can you please describe the producing wells for the hearing examiner?

A: Yes. These wells include nine vertical wells producing from the Delaware formation.

Q: Where are the producing wells located?

A: They are located in Section 1, Township 21S, Range 28E, Eddy County, New Mexico.

Q: Does Exhibit 2 show the location of the producing vertical wells and the State MA Com #1?

A: Yes, it does. The red lines indicate the pipeline that takes the produced water to the State MA Com #1.

Q: How much water per day is produced and injected?

A: Recent numbers indicate that the average amount of water produced on a daily basis is approximately 170 barrels a day, all of which is injected into the State MA Com #1.

Q: What is the production of oil and gas at this time?

A: Recent numbers indicate that approximately 24 barrels of oil and 30 mcf of gas are produced each day.

Q: When did Mewbourne Oil Company (“Mewbourne”) first reach out to Endeavor with its request to plug and abandon the State MA Com #1?

A: Endeavor was first contacted by Mewbourne on August 17, 2022.

Q: Is Exhibit 3 attached hereto related to that communication.

A: Yes, it is. On the last page of Exhibit 3, you will find an email from Mr. Harrington at Mewbourne. Endeavor immediately responded by providing him the information he had requested. As you can see on the first page of Exhibit 3, approximately one week later, Mr. Harrington informed Endeavor that Mewbourne would be filing an application seeking to rescind the order allowing produced water disposal in the State MA Com #1.

Q: Since the time that you received the first communication from Mewbourne, has Endeavor engaged in evaluating the various options?

A: Yes, we have. At this time, we have looked at numerous options. Options that could prove economically and technically viable after further investigation include (1) trucking the water for disposal by a third party, (2) recompleting the State MA Com #1 to allow disposal up hole in a formation, such as the Bell Canyon and Cherry Canyon, if approved by the Division, and (3) converting another nearby vertical well to a well capable of disposing of produced water into the Delaware formation.

Q: How much time do you estimate is needed to identify viable options?

A: Endeavor believes that four to six months are necessary to identify viable options.

Q: Have you reviewed the application filed by Mewbourne in this case?

A: Yes, I have.

Q: What does Mewbourne request in its application?

A: Mewbourne requests that the Division revoke or modify the injection authority granted by the Order.

Q: What would be the consequences if the Division revoked the authority granted by the Order?

A: If Endeavor does not have an alternative method of disposal that is economically feasible, Endeavor would be required to shut-in, or plug and abandon, the nine vertical wells that produce water currently disposed of in the State MA Com #1 well. This would result in an immediate cessation of proceeds payable to the lessors, including the State of New Mexico.

Q: In light of Endeavor’s review of the options for disposal and Mewbourne’s request to the Division, how does Endeavor propose to proceed?

A: Endeavor is still conducting further investigation into the options that may prove economically feasible, and Endeavor needs more time to determine the appropriate solution. If the Division is inclined to act on Mewbourne's request, Endeavor asks that the Division enter an order setting the deadline for ceasing disposal into the Bone Spring formation for July 1, 2023, and modifying the Order to allow disposal in an up-hole formation upon approval by the Division upon the requisite application by Endeavor.

Q: In your opinion, would setting a deadline for disposal in the Bone Spring formation for July 1, 2023, and modifying the Order to allow disposal in an up-hole formation upon approval by the Division protect correlative rights and prevent waste?

A: Yes, it would.

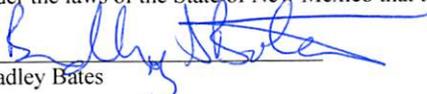
Q: Were the Exhibits attached hereto prepared by you or under your direction?

A: Yes, they were.

Q: Does this testimony conclude your direct written testimony.

A: Yes, it does. However, I may have additional direct testimony at hearing that would be helpful for the Division.

Pursuant to Rule 1-011 NMRA, by my signature below, I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing testimony is true and correct.


Bradley Bates

December 8, 2022

Tab 2.

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

2015-23709

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

CASE NO. 10968
Order No. R-10139

APPLICATION OF SIETE OIL AND GAS
COMPANY FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 26 and June 9, 1994, at Santa Fe, New Mexico, before Examiners David R. Catanach and Jim Morrow, respectively.

NOW, on this 22nd day of June, 1994, 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 this cause and the subject matter thereof.

(2) The applicant, Siete Oil and Gas Company, seeks authority to utilize its State "MA" Com Well No. 1 located 1980 feet from the North line and 660 feet from the East line (Unit H) of Section 3, Township 25 South, Range 28 East, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the Bone Spring formation through the perforated interval from approximately 7,287 feet to 7,740 feet.

(3) Testimony indicates that the subject well is currently an uneconomic producing well in the Bone Spring formation.

(4) The subject well is located approximately 1/2 mile southwest of the Willow Lake-Bone Spring Pool.

Exhibit 1

Endeavor Energy Resources

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December 15, 2022

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(5) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed injection interval.

(6) Injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer located at approximately 7,200 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(7) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(8) The injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the surface pressure on the injection well to no more than 1457 psi.

(9) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Bone Spring formation.

(10) The operator should notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the conductance of the mechanical integrity pressure test in order that the same may be witnessed.

(11) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(12) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

(13) Prior to commencing injection operations, the applicant should be required to furnish the Division a current water analysis of the Bone Spring formation water within the State "MA" Well No. 1. In addition, the applicant should be required to furnish the Division a compatibility analysis of Bone Spring and Delaware formation fluids.

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(14) The injection authority granted herein should terminate one year after the effective date of this order if the applicant has not commenced injection operations into the subject well, provided however, the Division, upon written request by the applicant, may grant an extension thereof for good cause shown.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Siete Oil and Gas Company, is hereby authorized to utilize its State "MA" Com Well No. 1 located 1980 feet from the North line and 660 feet from the East line (Unit H) of Section 3, Township 25 South, Range 28 East, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the Bone Spring formation through the perforated interval from approximately 7,287 feet to 7,740 feet.

(2) Injection shall be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 7,200 feet; the casing-tubing annulus shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(3) Prior to commencing injection operations, the casing in the subject well shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(4) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the surface pressure on the injection well to no more than 1457 psi.

(5) The Director of the Division shall be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Bone Spring formation.

(6) The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the conductance of the mechanical integrity pressure test in order that the same may be witnessed.

(7) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

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(8) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(9) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702 through 706, 708 and 1120 of the Division Rules and Regulations.

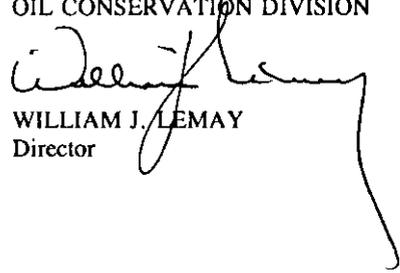
(10) Prior to commencing injection operations, the applicant shall furnish the Division a current water analysis of the Bone Spring formation water within the State "MA" Well No. 1. In addition, the applicant shall furnish the Division a compatibility analysis of Bone Spring and Delaware formation fluids.

(11) The injection authority granted herein shall terminate one year after the effective date of this order if the applicant has not commenced injection operations into the subject well, provided however, the Division, upon written request by the applicant, may grant an extension thereof for good cause shown.

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

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L

Tab 3.

State MA SWD #1 Pipeline Map

Exhibit 2
Endeavor Energy Resources
NMOCD Case No. 23042
December 15, 2022



Tab 4.

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Wednesday, August 24, 2022 3:21 PM
To: Gregg Mrotzek <GMrotzek@eeronline.com>
Subject: RE: [EXT] RE: ENDEAVOR STATE MA COM #1

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you are unsure, please contact ITHELP@eeronline.com for assistance.

Hi Gregg:

I just wanted to pass on that we have retained an attorney to represent my company at a soon to be scheduled OCD hearing for the purpose of rescinding the State MA SWD order. Your company should receive written notification of the hearing.

Tim Harrington
Reservoir Engineer
Mewbourne Oil Company
3620 Old Bullard Road
PO Box 7698
Tyler, TX 75701

W -903-534-7647
C - 832-217-6852
tharrington@mewbourne.com

From: Gregg Mrotzek <GMrotzek@eeronline.com>
Sent: Wednesday, August 17, 2022 3:30 PM
To: Tim Harrington <tharrington@mewbourne.com>
Cc: Brad Bates <bradb@eeronline.com>
Subject: [EXT] RE: ENDEAVOR STATE MA COM #1

Tim,

Thanks for getting all the information together and sending the request officially.

I have forward it to our geologist and we will investigate this per our sales package and get back with you.

Thank You

GREGG MROTZEK
Petroleum Engineer
Production Staff Engineer

Exhibit 3
Endeavor Energy Resources
NMOCD Case No. 23042
December 15, 2022



1700 East County Rd. 115
Midland, TX 79706
Office: (432) 262 - 8356
Cell: (432) 269 - 1922
gmrotzek@eeronline.com

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Wednesday, August 17, 2022 12:04 PM
To: Gregg Mrotzek <GMrotzek@eeronline.com>
Subject: ENDEAVOR STATE MA COM #1

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Hi Greg:

This email is a follow-up to our conversation earlier today. Mewbourne Oil Company has recently drilled HZ Wolfcamp wells in the same section as your State MA SWD well and we are evaluating shallower targets. While reviewing your sales package covering this disposal well, our chief geologist, in our Midland Exploration Office, determined that your SWD well is disposing into the 1st Bone Spring Sand, a proven HZ target in the area, therefore we would like your company to consider shutting-in this well.

I have attached a section of the open hole log from the State MA Com #1 with marked perforations, for your review. We assume that the produced water from your Seminole, Tirano, Osceola and Hopi wells is being piped over to this SWD. There are commercial SWD pipelines / options (NGL, Solaris) in the area that could easily replace your disposal well and we would provide you assistance in locating these options.

Please contact me if you have any further questions. Thanks.

Tim Harrington
Reservoir Engineer
Mewbourne Oil Company
3620 Old Bullard Road
PO Box 7698
Tyler, TX 75701

W -903-534-7647
C - 832-217-6852
tharrington@mewbourne.com