

# Enhanced Oil Recovery Commission



## Enhanced Oil Recovery Commission

### MEETING MINUTES

December 15, 2023 – 9:00 AM  
IMPACT 307, Casper, Wyoming

#### **Commission Members Present**

Robert King, Chairman  
Dave True, University of Wyoming Trustee  
Representative Don Burkhart

#### **Commission Members joining via ZOOM**

Eli Bebout, Commissioner  
Erin Campbell, State Geologist  
Chad Brister, Vice Chairman  
Holly Krutka, Director SER  
Randall Luthi, Representing Governor Mark Gordon (via Telephone)

#### **Commission Members Excused:**

Ken Hendricks, Commissioner

#### **Commission Staff Present:**

Brian Marvel, Attorney General's Office

#### **Other:**

Esther Wagner, SER

#### **Enhanced Oil Recovery Institute Staff Present:**

Lon Whitman  
Roger Hillibush  
Gabe Tullis  
Steve Whitaker  
Eric Robertson  
Shane Singleton

#### **Enhanced Oil Recovery Institute Staff via Zoom:**

Kellie Vlastos

### **I. Call to Order**

**9:01 AM Chairman King called the meeting to order; roll was taken, and a quorum was established.**

## II. Minutes

**Motion:** Commissioner True moved to approve the minutes from August 28, 2023, Enhanced Oil Recovery Commission (EORC) meeting as published. Commissioner Bebout seconded the motion.

Commissioner Bebout asked if Commissioner Chad Brister's concern of out of state residency would be a problem with the Vice-Chair position on the Commission. Chairman King verified there was no concern from the Commission for Vice Chairman Brister residing out of state and will be clearly reflected in the minutes.

**\*\*Motion to approve the minutes passed unanimously and the minutes were approved.**

## III. Director's Focus

Director Whitman mentioned the EORI Team is doing well and is focused on our mission through collaborative project work to help put "Oil in the Tank" through increased production thusly increased severance taxes to the state.

Diversity training provided by the Wyoming Workforce services was completed on November 28<sup>th</sup>, 2023.

EORI Christmas party is scheduled for December 22, 5:30pm at Racca's, all Commissioners are invited.

Director Whitman states that EORI is in the process of hiring an office assistant with responsibilities including outreach, press releases and composing EORC meeting minutes. Director Whitman also mentioned hiring a full-time geologist and senior geologist after the new year. EORI will utilize contract help as we continue our search for a staff geologist compatible with EORI. Contract employees include Jimmy Goolsby, Randi Martinsen and Scott Ellingson.

## IV. Financial Report - Overview

Director Whitman mentions our Biennium FY25 -26 budget report and that he and Chairman King had a good meeting with Governor Gordon.

At the Governor's Budget Hearing, State Budget Director, Kevin Hibbert, suggested the EORI budget be revised to include allocations that currently go directly to University of Wyoming. Mr. Hibbert prefers the allocations go directly to EORC budget to increase clarity and for ease of operation for EORI. This would give our '25 - '26 budget a slight increase from roughly \$4.2MM to almost \$4.75MM. The addition of \$549,000 in the FY25-26 biennium

budget adjusts for allocations from the governor's raise program totaling \$355,000. An additional \$194,000 was added to adjust for potential reversion of roll any unencumbered, unspent budget at the end of the current budget cycle. By statute, it isn't possible for the EORC to rollover funding.

Director Whitman and Chairman King plan to attend the JAC hearing on January 8, 2024. The hearing can be watched livestream if anyone chooses.

Commissioner Bebout verifies that the money is already allocated in the budget table and shows no supplemental requests. Kevin Hibbert revised the budget booklet with the raise allocation increase of \$355,000 plus an additional \$195,000 to address the inability to roll over dynamic. Commissioner Bebout verified it will show up in our budget when the JAC reviews it.

Commissioner Bebout asked to be reminded what the money is used for and to verify that it covers website hosting, EORC meetings, operations for EORI, the cleaning crew, rent, phones, and office supplies, etc..

Representative Burkhart verifies that EORC reports to the School of Energy Resources and that currently our budget is under the university and goes to the university. Representative Burkhart worries that the university will abscond the money and do something else with it. Director Whitman reassures Representative Burkhart that he is working diligently to prevent any issues on how the money is handled.

**\*\*Executive Director Krutka joined the meeting via Zoom at 9:15AM.**

Director Whitman asks Representative Burkhart for suggestions for EORI to return or revert back the unspent funds at the end of the budget cycle. Representative Burkhart answers that it automatically reverts back, typically to the general fund. If it is to be kept it could take legislation to state it does not revert and is only good for one budget period. If you want to keep it for ongoing projects, it would have to not revert and the process to roll over must be done during a budget session. Representative Burkhart suggests letting it revert because it would cause fewer problems.

Executive Director Krutka comments that little action is needed because the money sent by EORC to UW never reverts because UW policy prefers that state money is spent first. Action may be needed if it's your standard budget and that maybe one-time funding may be different and may account for the \$2.2MM that wasn't reverted. Director Whitman replied that it will be investigated more before the upcoming budget hearings.

## **V. Technical Project Highlights**

Director Whitman mentions the RFPs for Polymer Pilots (Minnelusa and Muddy) launched in November with the deadline for proposals on December 15, 2023. EORI has received responses allowing us to move forward. This comes out of the \$2.1MM re-allocated funds within EORI RFP, perhaps around \$300,000 out of the \$2.1MM. We'll continue to provide RFPs regularly.

Director Whitman had no update on the WY Gas Injection Initiative: Gas/Foam EOR Pilot Projects with Piri Tech but believes the proposals will be announced on December 15<sup>th</sup>. Director Whitman mentions he was not involved or asked to be involved in the selection process. Executive Director Krutka reminds Director Whitman that EORI was asked to be involved in the selection process by the JAC. Director Whitman mentions he was never contacted or provided the proposals to review.

Commissioner Bebout feels it's not exactly in our purview. Issues with Dr. Piri and people that he has hired or where they are located could cause issues. He feels it's important to stay informed and asks if other commissioners have any comments. Representative Burkhart has no insight and Executive Director Krutka doesn't understand Commissioner Bebout's reference. Commissioner Bebout concludes he'll research on his own and get back to the commission. Representative Burkhart asked to talk to Commissioner Bebout later over the phone.

The Cost-Share Pilot for a Microbial EOR (MEOR) project with Amplify is moving forward. An EORI contract template has been finalized for "Agreements for Services". This should allow EORI projects to move through the UW system more efficiently and reduce contract approval time. The contract has been reviewed by the General Counsel. The operator of the field decided that project commencement shouldn't start in the middle of winter and has scheduled the pilot to begin in spring with the draft contract currently in review by Amplify.

Representative Burkhart asked if Amplify has stopped injecting CO<sub>2</sub> into the Lost Soldier/Wertz fields and was wondering if there are still reserves. Director Whitman assures the Commission there are still ample reserves.

Eric Robertson adds that he is not aware of Amplify stopping CO<sub>2</sub> injection and that the project is on track. It is possible Amplify has stopped purchasing CO<sub>2</sub>, but recycling and injection is still ongoing.

Representative Burkhart was curious if there would be a better result with CO<sub>2</sub> than the microbial process. Eric Robertson explains that microbes have better sweep efficiency and we are trying to improve sweep efficiency of the water with the flood.

Director Whitman will provide an informal update to Representative Burkhart at a later date.

Denbury Hartzog Draw is advancing but has been slowed down with the Exxon acquisition. Their plan is to complete a 6-well pilot CO<sub>2</sub> EOR project with an anticipated start date in the 1st Quarter 2024.

Representative Burkhart extended a formal invitation to EORC's dinner to Jenny Maze (Exxon) and confirmed that she and other Exxon people would be at the EORC dinner on January 16<sup>th</sup>.

Director Whitman asks Representative Burkhart to update the Commission on Using Severance Taxes to level the 45Q Playing Field: WY CO<sub>2</sub> EOR Field Study and Full-State CO<sub>2</sub> Upside. Representative Burkhart requests the Commissions' input on the draft bill prior to the subcommittee subgroup working on it. He proposed the concept of a power plant taking CO<sub>2</sub> to sell for EOR with a 50% reduction in severance tax; half will go back to the power plant to pay the difference between sequestration and EOR. Representative Burkhart struggles with two constitutional provisions that say that state can't give money or credit to a private entity that includes a caveat for public benefit. Giving state money to 5 power producers may be a constitutional issue proposed through potentially multiple third parties.

The work done by Tim Considine on the Severance Tax project suggests EOR using CO<sub>2</sub> generated in Wyoming receive a severance tax break. Representative Burkhart prefers making EOR more economical and letting the marketplace control price but he's not sure if there isn't a constitutional issue with giving money to a select group. Representative Burkhart feels Exxon gets nothing out of it but would like to know the Commission's thoughts through a general discussion.

Denbury and PAW would like to benefit the power producer that captures the CO<sub>2</sub>. The discussion needs to be about starting a \$10MM fund to kick it off. Opinions are requested. If the decision must be made today, Representative Burkhart will say it's unconstitutional and will not move forward but would like input from the other Commissioners.

Commissioner Bebout mentioned that part of it is constitutional, however the severance tax is split in half; one half going to normal distribution and the other half towards power plants to make up for what they don't receive from 45Q. Commissioner Bebout doesn't like the optics of us giving five companies money and other companies none. Tim Considine feels Wyoming produced EOR receive a severance tax break. A decision needs to be made by Monday.

Commissioner Bebout feels that an incentive for EOR is a good idea. He questions incentivizing CO<sub>2</sub> capture that may not be completely funded and feels the incentive should go to the producer and produce CO<sub>2</sub> from the ground rather than the power plants. Commissioner Bebout requested clarification.

Representative Burkhart clarifies that we aren't incentivizing EOR but carbon capture at the power plants which would interfere with the free market. He asks the commission if the goal is to enhance carbon capture off power plants and not enhance EOR; he prefers the latter.

Commissioner Bebout mentions the allocation of \$60 vs \$85 gives the feds leeway for how much is required for reporting. Commissioner Bebout feels the feds are not in favor of CO<sub>2</sub> for EOR because they are not in favor of producing more oil and gas. They are trying to design the 45Q allocation differently and may involve unions and movement away from fossil fuels. Commissioner Bebout believes it will ensure the coal-fired plants can continue to rely on coal to produce electricity and to capture the CO<sub>2</sub> for tertiary recovery.

Commissioner True asks if there is a difference between actual payment of money versus credit to offset property tax. Representative Burkhart agrees with Chairman King in that credit or money is handled the same. Representative Burkhart would rather enhance EOR than give power companies more money for only one useful technology. Spoken testimony says there's a 30% parasitic loss on the power plant and we would need to add another power plant to make up for it and would create a cyclic effect. He asks the commission to give him a call if there are any other ideas.

Director Whitman mentions the Developing CO<sub>2</sub>-EOR and Associated Storage Within the Residual Oil Zone Fairways of the Powder River Basin, Wyoming (DOE). Contango received the drilling permit and drilled the project well and core was taken in early October. The core is being evaluated by Core Labs and the University of Wyoming and Director Whitman feel there will be interesting results following the study.

Eric Robertson gave an update on Unlocking the Tight Oil Reservoirs of the Powder River Basin, Wyoming (DOE) and explains the project is about getting a better understanding of emerging shale plays in primarily in the Niobrara, Mowry and Turner. Three wells were drilled: one vertical and two horizontals with data on three horizontals that Oxy shared with EORI. We are collecting interesting data using fiber optic cable to get specific stage-level completions data that we are taking an experiment approach to be able to optimize the fracture and completion design based on the geology and the well location. We anticipate an advantage for the operators working in the same area with horizontal wells. The results could help design better wells. With one year left, most of the data collection has been completed at the field level. Laboratory work is still on going with Piri Tech writing results and fine-tuning the modeling.

Director Whitman discussed York North Field – 3D seismic for Field Development (True Oil). Director Whitman says it is similar to the Alpha project focusing on how 3D seismic shot in the field could improve development in the field and well technology. We will incorporate an EOR 3D seismic into a reservoir model and look for the best drilling locations for North

York field. Chairman King verifies the EORI is partnering with True Oil and Director confirms and mentions the project will be complete at the end of January.

The Wyoming Trails Carbon Hub – (WyoTCH) CO<sub>2</sub> Pipeline Feed Study (DOE) for a CO<sub>2</sub> pipeline from nearby Kemmerer to Glenrock is moving forward. The DOE awarded \$3MM to the project which is being led by Carbon Solutions and EORI's Eric Robertson as co-PI.

Skull Creek, a Muddy field, is a nearly completed NGL EOR project with Sunshine Valley and Steve Whitaker. There was a need for re-correlation of Muddy members and then correlation of units in the underlying Skull Creek and overlying Mowry formation. This project falls into the regional Muddy work that we are currently doing.

Kitty Field (Muddy) – Full Field Evaluation and Development of a Brine for Waterflooding (Contango) is moving forward. Director Whitman and Steve Whitaker visited Contango in Dallas/Ft. Worth. Contango is pleased with our geologic work and will develop new wells and pods that have never been waterflooded. Because there are major waterflood issues with the Muddy, we are researching alternative successful methods. This field is identified as a Carbon SAFE III project with SER.

We have core from an adjacent field donated to EORI and now have a competitive bid in line with Core Labs for \$245,000 for core flooding work from Dr. Piri for brine solution for waterflooding in the Muddy. We are planning to move forward with Dr. Piri. Contango will meet in Spring 2024 to review geology and economics. Contango is willing to drill a well for full core over the entire Muddy interval at Kitty Field. Contango has given EORI the field as a science experiment and needs the cash to complete the experiments. Director Whitman mentions Contango has been very good to work with.

Regional Mapping of Muddy Formation continues with Jimmy Goolsby and Steve Whitaker working on improving the field. Because most of these fields have had minimal or no waterflooding, this gives an upside to Kitty field in the order of 60MM barrels from water flood. EORI appreciates the opportunity to study these formations through challenging geology and improved production in existing fields. Scott Ellingson works with Steve Whitaker on regional Minnelusa with the goal to restart a Minnelusa consortium like the Muddy Consortium. We would like to see how we move forward with Contango and our efforts to revive and reenergize the Minnelusa consortium.

## **VI. Engagement**

Director Whitman states our EOR Insights featured Director Rob Creager on November 15, 2023. This webinar spurred follow-up meetings with Director Creager and a variety of people intrigued by his plan for oil and gas within the WEA. Director Whitman believes these new interactions with industry have shown benefits.

EORI is presenting at the SPE/WGA meeting today, December 15<sup>th</sup> (11:30) in Casper. Scott Dobson of Principle Petroleum and Scott Ellingson of Zion Energy LLC will be presenting on Alpha Field. Scott Dobson will provide an operator perspective of EORI's work along with Scott Ellingson contracted to do geology. Dave Chase mentioned to Director Whitman that he's not aware of operators presenting like this and is interested to see how it goes.

Director Whitman attended the IOGCC (Interstate Oil and Gas Compact Commission) meeting in October and mentioned it was a very good meeting. Brian Jeffries and I will join the IOGCC Sub-Committee on CO<sub>2</sub> Pipeline infrastructure development. Brian has past similar experience and will take that to the IOGCC group.

Director Whitman attended the Western States Governor's meeting in November in both Gillette and Jackson and felt it was advantageous to be present. Director Whitman was pleased to see Executive Director Krutka's attendance on the panel. Director Whitman felt networking may be the most important and impactful part of the meetings.

Director Whitman continues to attend and support the Joint Minerals meetings.

Commissioner Bebout mentions his support for Director Creager and his involvement of oil and gas and EORI specifically. Commissioner Bebout requests specifics of how things will be done in the future.

Director Whitman states that the November 15<sup>th</sup> was the start of a discussion regarding the tension between the WEA and the oil and gas industry's feeling of being left out of important discussions. It was mentioned that significant funding options were presented but limited to no direct funding for oil and gas. The WEA board is developing a consciousness of the importance of oil and gas to the State's energy platform and the value it brings. Director Creager agrees and believes the first step is to engage industry directly. Many questions were received including the vision of the WEA with industry and the development of a platform where they feel supported and energized by the WEA.

Commissioner Bebout encourages Director Whitman to stay engaged with the WEA and emphasize the importance of oil and gas to the board. He requests that the Director and or the commission attend WEA meetings to push for the shift in industry involvement.

Commissioner Bebout verifies that Governor Gordon is the Chairman for the Western Governors association. Director Whitman confirmed and added that the Governor is also the chairman of the IOGCC.



Commissioner Bebout feels it's important to support Governor Gordon and help reinforce the Governor's pro fossil fuel stance while recognizing a place for wind and solar.

Commissioner Bebout requests that the commission consider ways to clarify and promote the Governor's and Wyoming's supportive position on fossil fuels.

Executive Director Krutka circles back to Commissioners Bebout's point that the WEA is actively searching for a staff member to focus on oil and gas to engage industry in a meaningful way. She feels it's important for Director Whitman to weigh in and help shape how we can add value to the state's energy sector. By participating in the job description and search, we assure the position stresses the required skill sets necessary for the position.

Chairman King requests the Director Whitman, at his convenience, contact Randall Luthi to inquire what the governor's office needs from the EORC to enhance or clarify the Governor's position. Director Whitman replied that the discussions with Randall Luthi have been ongoing but feels the EORC should drive support for the Governor rather than EORI itself. Director Whitman would like to be mindful about political positions taken or assumed.

## **VII. Financial Report**

Chairman King asks if there are any questions regarding the Financial report and none were asked.

## **VIII. IT Data Report**

Chairman King introduced Roger Hillibush to speak on the IT data report included in the EORC meeting folder. Roger Hillibush asked if a break is needed before the presentation by Shane Singleton. Chairman Kings makes a 5-minute recess before going into the presentation.

Shane Singleton, EORI's Data Architect gives a presentation on his role and work for EORI. Questions asked include the quality of the relationship with WOGCC, the Severance Report with Tim Considine given to the Joint Minerals Committee and requested a report, and EORI's relationship with the State Geologic Survey. Mr. Singleton replied we have good and developing working relationships with both the WOGCC and WSGS, including collaborations and data improvement and corrections.

Director Whitman emphasizes the EORI continually looks for avenues and pathways to build bridges. Commissioner Campbell mentioned WSGS is open to more collaboration with EORI.

Commissioner True asks Mr. Singleton if he is using AI with regards to data science. Shane Singleton mentions he has been looking at including AI tools for improving his programming efficiency. He also mentions building data analytics into various models to partition out data

or build regression models. His work aligns closely with our geologist's work, and he predicts AI technology will become more commonplace.

Director Whitman lastly mentions EORI's Landman 101 training with Jordan Olson, General Counsel for Wold Oil Properties. The presentation was helpful and informative for integrating well and oil and gas field data with EORI's data development.

Brian Jeffries received notice from State Farm insurance policy on general liability that he was cancelled after 100 years of coverage through them. In working with his State Farm agent, who provided him with documentation from State Farm that they were canceling him due to his work in oil and gas, that they would not renew his policy. It started an extremely lengthy process of reaching out to consultant type people for general liability insurance. Eight options were proposed to investigate, none of which would provide insurance for him. Mr. Jeffries finally found one through HUB. His insurance rate, prior to this, was about \$300 a year. It's now \$3,400 a year for liability insurance which was the only option that he could find. Director Whitman felt this was important information developing in the insurance world, and oil and gas as well.

## **IX. Other Business**

Director Whitman mentioned Commissioner terms are due to expire March 1<sup>st</sup>, 2024, and include Commissioner Bebout, Chairman King, and Commissioner Hendricks. Both Commissioner Bebout and Commissioner King have willingly reapplied and submitted the paperwork through the Governor's office for a renewal on their term. Commissioner Hendricks' position on the EORC is due to his commissioner role with the Oil and Gas Commission. This is currently being processed through the governor's office and a decision will be made if Commissioner Hendricks is invited to renew it again. If not, they will look for another petroleum engineer candidate needed for that role with the Oil and Gas Commission.

Director Whitman announced that 2024 will be EORC/EORI's 20<sup>th</sup> Anniversary and we are developing artwork marking our 20 years of service and promoting our values to the state. Some of this artwork will go onto new business cards, email signatures and other options.

Commissioner Bebout inquired about the appetite of the commission to an op-ed in support of Governor Gordon which would highlight his support for tertiary recovery in oil and gas in general. He mentions comment letters are effective, especially coming from different areas and agencies. He goes on to mention the Rock Springs RMP and the withdrawal of areas that could affect more tertiary recovery. Also, the methane issue could affect many small producers that EORI works with to improve recovery methods for oil and gas extraction. Commissioner Bebout suggests we send comment letters expressing concern about the

Department of Interior's overreach on the RMP as well as EPA on methane emissions rules. Commissioner Bebout requests the other Commissioner's thoughts.

Chairman King agreed it was a good idea and suggested that Director Whitman draft comments on behalf of the EORC who would review and sign. Commissioner Bebout mentions Tom Kropatsch and the University of Wyoming would support a comment letter.

Director Whitman mentions that EORI has submitted a comment letter for the methane bonding and transportation issue. He mentioned Brian Jeffries monitors methane pipeline issues monthly and has brought attention to the issues with the WEA.

Executive Director Krutka mentions the Center for Energy Regulation & Policy Analysis here at SER have been preparing response letters which are sent to the Governor's office as a method for submitting comment letters. She urges Director Whitman to contact Esther Wagner for guidance. She also requests that if the EORC is willing to submit detailed comments to use SER as a source of information.

#### **X. Next Commission Meeting**

The next EORC meeting is scheduled for January 17, 2024, at 9:00 am. Jenna Mays and a couple of her colleagues will be attending. Representative Burkhart mentioned attending dinner on January 16 and inviting Jenna Mays and her colleagues and any available commissioners.

#### **XI. Adjournment**

Chairman King asked if there were any issues requiring executive session and none were forwarded.

Chairman King requested a motion for adjournment, Commissioner True motioned for adjournment and it was seconded by Representative Burkhart.

**Meeting adjourned at 10:50 AM\*\***

  
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Bob King, Chairman