



ENHANCED OIL
RECOVERY INSTITUTE

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TAB Ramkota Luncheon Attendee

Dear Attendee,

Thank you for joining EORI at the Annual Stakeholders Luncheon, and taking the time to visit with our new Technical Advisory Board (TAB) members. It's always good to hear what the stakeholders, operators, and those with their boots on the ground - - need and want; your willingness to share with us is very valuable.

Many of you asked if we would collect, summarize and share the topics, ideas, and concerns that were gathered from those present the luncheon. Please find, along with this letter (or email) our summarized outline; this information will also be published on our website: <http://www.uwyo.edu/eori/>. It is our intent to share everyone's ideas, listen to your concerns, then work to accomplish those ideas which can positively affect the incremental production of oil and gas in Wyoming.

We work for you! Your involvement makes it easier for us to address your concerns, and we appreciate your sharing what keeps you up at night! The more we know, the better for all of us.

We look forward to expanding on this listening aspect and are planning do so again, with outreach around the great State of Wyoming. If you have an idea, question or concern that is not on our list, please contact us. We're very glad to listen and do our best to provide a valued response to your concerns.

As Director of the Enhanced Oil Recovery Institute, I want to thank you again for your time, and for sharing your ideas with us. We're looking forward to doing this again very soon.

If you have any questions, please feel free to reach out to me directly at steven.carpenter@uwyo.edu , at 513-460-0360 (cell), or 307-315-6442 (office).

Respectfully,

Steven M. Carpenter
Director

pc: Rob Hurless, Deputy Director, EORI
Tom Fitzsimmons, Chair, EORC

Attachment: Suggestion List



Enhanced Oil
Recovery Institute

Ideas, suggestions, and topics received at the Casper TAB luncheon & listening sessions

- *Suggestion:* EORI should be conversant with all aspects of Wyoming EOR, not just technology. EORI should have expertise in policy, permitting, technical, environmental, and regulatory. EORI should be “THE SOURCE” for EOR information in Wyoming.
 - EORI agrees with the suggestion that it should expand its area of expertise beyond just technology. EORI will see how it can expand its experts by reaching out to the members of the TAB as well as to expand the expertise in-house, when and where possible.
- *Suggestion:* Federal Lands are unique to Wyoming – there are a plethora of issues, including air attainment issues that are important to Wyoming. It is suggested that EORI hold a workshop or seminar with BLM to better understand how to work with them.
 - EORI has reached out to BLM and we are discussing how best to coordinate and hold a workshop as suggested.
- *Suggestion:* Have EORI share where the growth in the State may be, by sharing case studies and access to current information.
 - EORI agrees that case studies and data that it possesses should be more accessible to the public. To help accomplish this, we will address the issue on several fronts. First, the EORI website has a technology transfer page (<http://www.uwyo.edu/eori/technology-transfer/>) which contains publically available documentation on a variety of topics and areas.
 - EORI we will evaluate how to increase awareness of the material, so that a wider audience may access it.
 - EORI will attempt to increase those who may have outside data that may be useful to Wyoming stakeholders, and get that access included in our efforts.
 - EORI will evaluate how to track permits, and possibly sort by geography, operators, etc. to better understand the State’s development.
- *Suggestions related to WyRIT:*
 - Knowledge of and access to WyRIT is lacking with operators
 - EORI plans to roll out several State-wide training sessions
 - Digitize and place pre-1978 WOGCC data on WyRIT, along with any sundries or other hand written data that may exist after 1978.
 - EORI is evaluating the necessary resources to undertake the suggestion.
 - Request for additional CO₂ pipeline data on WyRIT that includes location/terminus of CO₂ supply pipeline, diameter of the pipe, supply rate, which operators are on/access to the pipe; with the intent to be able to increase opportunity of CO₂ flooding in nearby fields. It was noted that all CO₂ pipelines in

Wyoming are private carriers and not common carriers which makes this more difficult to accomplish.

- EORI is evaluating the necessary resources to undertake the suggestion.
 - Request for geochemistry data to be added to WyRIT; and any completion data can be made digital.
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion:* EORI engage with those operating in the Turner with Tumble Weed Services and assist with short radius directional drilling with 5 ½" open hole casing. EORI to assist with issues of production and completion of these SRDD opportunities.
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestions related to Consortia ideas:*
 - Restart the Minnelusa Consortium 2.0 and perhaps add other Minnelusa consortia if other operators have interest.
 - EORI has initiated the Minnelusa consortium and is undertaking an effort to expand membership as it rolls out the next version of the group (2.0).
 - Minnelusa consortium was of great value, interested in a Tensleep consortium.
 - EORI is evaluating the option in create a Tensleep consortium.
 - In line with consortia, suggest a CO₂-EOR group that involves active CO₂ floods in Wyoming be created to evaluate options.
 - EORI is evaluating the necessary resources to undertake the suggestion.
 - Consider using the retired institutional knowledge within the State to create a Water Flooding Hotline, to provide young engineers with access to industrial & institutional expertise and Wyoming know-how.
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI expand its working relationship with WOGCC and coordinate a feedback loop to share QA/QC'ed data back to WOGCC.
 - EORI is in communication with WOGCC as to how to implement the idea.
- *Suggestions:* Water management is a huge issue and EORI needs to play a role in this aspect of production. At Frenchy Draw (Gunbarrel Unit), these issues have been an impediment to even developing on primary.
 - EORI is a member of UW's Center of Excellence for Produced Water (CE-PWM) Management. EORI will work closely with CE-PWM to expand inclusion of Wyoming stakeholders and issues.
- *Suggestion* that EORI assist with Winkleman Dome's surface discharge that was stopped by EPA with water at less than 1500 ppm, even with a permit and an existing wetland.

- EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI engage in best practices to deal with orphaned wells.
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI find a new, third Single Well Chemical Tracer Test (SWCTT), not an analog core, in a new formation to triangulate the previous two tests.
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI do a better job of helping Wyoming stakeholders better understand how the Institute provides services to industry; to let the world know what EORI does, and how is this accomplished? It is suggested that EORI prepare a new brochure, whitepaper, lunch and learn, etc. as outreach and technology transfer.
 - EORI intends to implement all or most of these suggestions and is in the process of evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI provide insight as to how our relational dataset, WyRIT, WyRIM, and other assets generate revenues for the State – how to do we show that the Institutes’ query-able data sets have great value to the State?
 - EORI is evaluating the necessary resources to undertake the suggestion.
- *Suggestion* that EORI hold additional events like this one (e.g. “speed dating sessions”) in different locations in the State
 - EORI plans to do that, and is evaluating where and when to schedule the meetings, but like in Gillette, Riverton, and Cody.
- *Suggestion* that EORI share the summary of the event with the attendees via USPS, email, and posting on the web and to allow this to be shared with those not able to be in attendance.
 - EORI is in the process of actioning this suggestion.