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PINEDALE FIELD OFFICE
AREA OFFICE

January 28, 2008

Bureau of Land Management
Pinedale Field Office
PAPA RDSEIS Project Manager
1625 West Pine St
P O Box 768
Pinedale, WY 82941

RE: PAPA RDSEIS
INJECTION WATER DISPOSAL WELLS

I appreciate the opportunity to comment on the Revised Draft Supplemental Environmental Impact Statement (RDSEIS). An area of concern is regarding Injection Water Disposal Wells in the Pinedale Anticline Proposed Area (PAPA). While re-injection would seem to be a natural solution to the produced water problem, this disposal approach is not risk free. Please refer to D J Duerr's June 15, 2007, examination of the DSEIS: "Just as oil and gas casing can fail, so too can injection well casings. In fact, given the additional pressure injection wells produce and the highly corrosive nature of concentrated produced water, injection well casings are likely more prone to failure."

GW-1

I-13-1

The produced waters that will be injected into disposal wells throughout the PAPA come from natural gas wells permitted by the Bureau of Land Management (BLM) on federal leases. The need to handle and dispose of produced waters appropriately, no matter where they end up, come as a consequence of a federal action that is subject to the legal requirements of the National Environmental Policy Act (NEPA). Yet the NEPA document that covers the source wells for the produced waters, the RDSEIS or the current 2000 Record of Decision (ROD) for the PAPA, does not analyze the environmental impacts from production and disposal of these produced waters. The only discussion from BLM regarding environmental consequences from an injection well is "considered to be insignificant because injection wells must be permitted with the Wyoming Oil and Gas Conservation Commission (WOGCC)." WOGCC's Chapter 4, Section 5. Underground Disposal of Water covers technical issues such as pressure

gauges, well casing, injectable formation and depth, amounts of injected waters, disposal pressure, the mechanical reliability of the well, etc.

GW-2 I-13-2 What has not been covered in the RDSEIS are the impacts from widespread injection; what level of ground water contamination is expected to occur; what aquifers would be affected; what is the communication between the target aquifer(s) and potable water aquifers; will water from the targeted aquifer be hydraulically forced into places such as faults or fissures leading to adjacent aquifers? These questions demonstrate that there are significant impacts . This was covered in depth in D J Duerr's June 15, 2007, examination of the DSIES. I trust his questions will be analyzed and covered in the Final SEIS.

GW-3 I-13-3 There are also no rules for disclosing or discussing thrust faults in close proximity to injection wells. In the Spring 2005, Volume 11, Number 2, issue of "Gas Tips", page 27, there is an article: "Regulatory Consideration in the Management of Produced Water" which discusses Class II wells (injection wells related to oil and gas operations) and covers injecting produced water under the Underground Injection Control (UIC) program. Construction requirements states: "All new Class II wells must be sited to inject into a formation separated from USDW (underground source of drinking water) by a confining zone free of known faults or fractures with in the AOR (area of review)." It further states: "....injection pressure will not initiate new fractures or propagate existing fractures..." In addition to no rules regarding faults, there is no analyses, and if over time, the injected water could lubricate faults and thereby enable the injection fluid or formation fluid to enter the fresh water strata.

GW-4/W-1 I-13-4 Furthermore, not discussed is the location of injected water disposal wells in conjunction with wildlife issues. For instance, are injection wells being proposed in wildlife migration corridors? Or are injection wells being proposed on oil companies' "flank leases" where they have voluntarily committed to postpone development?

GW-5 I-13-5 Another subject not covered regarding injection water disposal wells are regulations for testing and monitoring of domestic water wells in close proximity to disposal wells as there is concerning gas well drilling sites.

I-13-6 As the number of gas wells increase, obviously the amount of produced water will also increase. The BLM can not continue to take the approach that has been used in the past, which is, permit the well and we (BLM) will let them (the oil and gas companies) figure out what to do with such things as produced water. Figuring out what to do with produced water and associated impacts is part of the proposed action. Under NEPA regulations, proposed actions must be complete and include all operations dealing with production. BLM can not excuse itself from compliance with the NEPA by stating impacts are insignificant because injection wells must be permitted with the WOGCC. Nor can the BLM excuse itself from compliance with the NEPA just because that is the way it has always been done. For example, the BLM in Idaho is yet to win, in recent memory, a single range management litigation case due to NEPA flaws. The existing

GW-6 G-1 I-13-6 analysis for this document shares similar, if not more, blatant flaws. I encourage you to research the Environmental Protection Agency's (EPA) position on disposition of produced water from oil and gas production. You will find a much more reasoned approach in considering environmental consequences. As written, this draft document fails to comply with many sections of the new, yet to be finalized, BLM regulations for implementing NEPA. Finally, the document fails to use best science available.

Thank you for considering my comments.

Sincerely,

Rose Sanchez

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