



andy_blair@faculty.nols.edu

01/23/2006 03:36 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject Atlantic Rim Natural Gas Development Project

Mr. David Simons

Dear Mr. Simons,

E3-1 | I am writing to you to comment on the Draft Environmental Impact Statement for the Atlantic Rim Natural Gas Development Project. I urge you to support Alternative C that directs the reinjection of CBM water below the surface. I also urge you to ensure that whatever development takes place uses Best Available Control Technology to limit impacts to our air quality and water quality. As you drive around Wyoming there is a spreading brown haze directly related to the drilling in the gas fields. We need to put a stop to this by mandating that oil and gas companies take the measures necessary to limit emissions from drilling rigs, use more efficient dehydrators, and reduce the amount of dust that is kicked up by the endless truck traffic.

In addition to this, I hope that the FEIS contains strong language ensuring the protection of wildlife habitat in the Atlantic Rim area. Here in Wyoming we are fast losing wildlife habitat to oil and gas development. This is especially true with respect to winter habitat. Wildlife viewing and hunting opportunities are true renewable resources for Wyoming. Oil and gas will only be around for so long. If we do not maintain our wildlife habitat in the face of the "drill at all costs" philosophy, our children will inherit a poorer Wyoming.

Thank you for your time,

Sincerely,

Andrew Blair
344 AMORETI
LANDER, Wyoming 82520



djduerr@hotmail.com
01/23/2006 08:53 PM

To Atlantic_Rim_EIS_WYMail@blm.gov
cc
bcc
Subject Atlantic Rim Natural Gas Development Project

Mr. David Simons

Dear Mr. Simons,

I am writing to comment on the Draft EIS for the Atlantic Rim Natural Gas Development Project.

E4-1 | I have lived in Wyoming for about 20 years -- most of my adult life. I live here because of wild places including the public lands in the Atlantic Rim area. Wyoming is a harsh place, even for wildlife. The Atlantic Rim area is important for many species, including the Greater sage-grouse and Columbian sharp-tailed grouse. I am strongly opposed to the construction of roads, wells, and related facilities in this area. Please evaluate the Atlantic Rim area for possible ACEC's, roadless areas, scenic areas, leks, rare and sensitive plants, and other important biological resources. These resources should be fully protected in any decision affecting the Atlantic Rim area.

Thank you for considering my comments. Sincerely,

Donald J. Duerr P.O. Box 1668 / 133 South Fremont Pinedale, WY 82941

Sincerely,

Donald Duerr
133 S. Fremont
P.O. Box 1668
Pinedale, Wyoming 82941



"Jane Robinett"
<jane_robinett@bresnan.net>

01/28/2006 04:30 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Project

Good Morning:

I am writing to express my concern about coal bed methane drilling in sensitive habitats and watersheds in the Red Desert. Specifically, I think it is important to

- keep roads and drilling away from streams to that the salt wastewater does not get into surface drainage.
- Allow no industrial activity in the proposed Wild Cow Creek wilderness area, and
- To be sure that the drilling and road building does not harm native sage grouse, raptor, and prairie dog populations. There need to be special protections for nesting sites and prairie dog colonies.

These things are important to me. I support the recommendations of the Biodiversity Conservation Alliance.

Thank you.

Jane Robinett

E6-2

E6-1

E6-3



Daniel A Dale
<ddale@uwyo.edu>
01/28/2006 10:58 AM

To Atlantic_Rim_EIS_WYMail@blm.gov
cc
bcc
Subject Cow Creek Roadless Area

To whom it may concern,

EN | As a hunter, angler, and general outdoor enthusiast, please do what you can to protect the Cow Creek Roadless Area. My family and I have spent a lot of time in the Red Desert, including an overnight trip in the Cow Creek Area. It is a fantastic wild area, and I hope it can be preserved for my daughters generation and longer. I ask you to please put the wildlife and watersheds ahead of the proposed CBM drilling.

Thank you for listening,
Danny Dale
Laramie, WY



"Jeffrey Alan Lockwood"
<Lockwood@uwyo.edu>

02/02/2006 08:59 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Project

David Simons

Rawlins BLM

P.O. Box 2407

Rawlins, WY 82301

Dear Mr. Simons:

I would like to voice my concern with regard to the plan to allow extensive drilling for coalbed methane along the Atlantic Rim on the eastern edge of the Red Desert. The current proposal to allow 2,000 coalbed methane and gas wells to be built as densely as 8 to a square mile (double the customary spacing), along with a spiderweb of new roads totaling 1,000 miles is profoundly worrisome. There are other biologists who can more expertly address the likely detrimental effects on sage grouse, sharp-tailed grouse, mountain plovers, ferruginous hawks, and other raptors. And there are surely highly trained hydrologists who can more expertly speak to the risk that the drilling would have to streams and water quality. However, as an entomologist who has conducted an insect faunal survey of the Red Desert (2006) and managed an insect (grasshopper) biodiversity database for many years, I would like to address this often overlooked element of the region's fauna.

Few people realize that the Red Desert is a biodiversity hot-spot for insect life. We have documented 54 species of Acrididae (grasshoppers) in the Red Desert, which amounts to nearly half of the state's fauna - and one-seventh of the known grasshopper species in the United States. Indeed, this area appears to be the most diverse ecosystem for this ecological indicator taxon in the state and perhaps the region. In addition, a colleague in the USDA has collected what appears to be a new species of *Aeoloplides* from the Red Desert. In more general terms, our collections in 2006 yielded 3,364 specimens which comprised a phenomenal 463 species. Based on standard calculations to determine sample coverage, we estimate that during the time of year and within the habitats that we sampled, there were actually 861 species. If we very conservatively estimate that the habitats we sampled represented one-third of the diversity (we did not even make collections

E11-1-1

E11-1-2

E11-1

E11-1-3

E11-1

from the big sage or streams, for example) and the temporal window of our sampling revealed one-third of the species (we know that many species are highly ephemeral, appearing for only a few days or weeks), then the insect diversity of the Red Desert exceeds 7,000 species. And in light of: 1) the relative paucity of knowledge concerning insect taxonomy, 2) the near-lack of collecting effort from the Red Desert, 3) the highly heterogeneous nature of habitats within the Red Desert, and 4) the isolation and duration of these habitats which would support allopatric speciation, I believe it is very safe to say that this ecosystem has a remarkably high rate of endemism and surely supports dozens of species unknown to science. The primary ecological reason for such staggering diversity is the highly heterogeneous and insular nature of habitat (and even microhabitat) types within the Red Desert. For example, consider that the proportion of insect species in common between the greasewood and sand dune habitats was just 1.5%. And even within the sand dunes, for example, our sampling of the vegetation on the dunes versus wetlands along the base of the dunes revealed only a 1.2% overlap in insect species. Thus, disturbances of the kind and amount being proposed are virtually certain to severely alter the insect ecology of habitats and microhabitats comprising the Atlantic Rim - and it would not be in the least hyperbolic to propose that such a project would be almost certain to result in the loss of species which have never been discovered or named.

E11-2-1

E11-2-2

E11-2-3

E11-2

Of course, mineral development is important to Wyoming's economy so a complete suppression of drilling in the Red Desert is not politically or economically viable. However, I would strongly advocate that steps be taken to mitigate the environmental harm. In particular, directional drilling to cluster well facilities would minimize disturbance to the ecosystem. If only a small proportion of the project area was in development at any one time, this would likely allow the insect fauna to recolonize (micro)habitats following disturbance (many species are quite adept at re-establishing populations, but there must be sources for such recovery), while widespread, simultaneous drilling would be far more likely to wipe out entire faunas. And finally, I would advocate removing the Wild Cow Creek proposed wilderness from the project to prevent all industrial uses in this area as means of conserving a viable insect fauna and a potentially critical resource for future restoration efforts in disturbed areas.

Thank you for your consideration of my concerns.

Sincerely,

Jeffrey A. Lockwood

Professor of Natural Sciences & Humanities

University of Wyoming

College of Agriculture (Renewable Resources)

Dept. 3354

1000 E. University Ave.

Laramie, WY 82071

(307) 766-4260 [work]

(307) 721-2081 [home]

(307) 766-5025 [fax]

email: lockwood@uwyo.edu

If you stumble on mere believability,

what are you living for? . . .

Love is hard to believe, ask any lover.

Life is hard to believe, ask any scientist.

God is hard to believe, ask any believer.

What is your problem with hard to believe?

From: Yann Martel's *Life of Pi*



"Martha Christensen"
<martchris@charter.net>

02/02/2006 03:31 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Project

Dear David Simons (Rawlins BLM),

Please let me remind you that that is Federal Land - - the property of ALL American citizens. Have you held hearings east of Cheyenne ? YOU must then represent us. I know because I lived in WY for 40 years that the Continental Divide Desert and surrounding Red Desert are UNIQUE in the Nation !! That Desert is UNIQUE ! My students and I have described seven (perhaps more) species of microfungi NEW TO SCIENCE from those Desert soils (see Christensen et al. 1969 through 2000). And Dorn has described a genus of flowering plants NEW TO SCIENCE from the Atlnatic Rim. I URGE you to see to it that portions of that vast area be preserved as WILDERNESS. - - Please stay away from the Wild Cow Creek area proposed for wilderness, protect other areas that conservationists in the State have described to you (especially Biodiversity Conervation Associates and the Wyoming Outdoor Council). and require drilling and road construction techniques that MINIMIZE human impact ! Especially, protect sage grouse territories and ferruginous hawk nesting areas with 2 - 3 mile buffer zones. HELP US PROTECT WYOMING'S UNIQUE LANDSCAPES !!

E13-2 | E13-1

Thank you, Martha Christensen 1713 Frisch Rd Madison WI 53711



"Gordon James"
<gtjames1940@yahoo.com>

02/09/2006 05:52 PM

To "Atlantic_Rim_EIS_WYMail@blm.gov"
<Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Withdraw the Atlantic Rim drilling project

February 09, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Project Manager Simons,

E33-1 Re: the Atlantic Rim Project. Please revise it and include protections to the environment including wildlife e.g. sage grouse nesting areas. Thank you.

Sincerely,

Gordon James
3036 S. Cherry Way
Denver, CO 80222-6744
USA
gtjames1940@yahoo.com



"Mark Jenkins"
<mark@thehardway.com>

02/10/2006 12:04 PM

Please respond to
<mark@thehardway.com>

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Protect the Atlantic Rim from Coalbed Methane Drilling

BLM-

I am completely against all coalbed methane drilling in the Red Desert region, particularly in the super-sensitive Atlantic Rim area. We don't need more energy in this country, we need more energy conservation. No matter what happens though, by law(!), it is your responsibility to protect the sage grouse leks, the sharp-tailed grouse leks, the ferruginous hawk nests, the Overland Trail, the Cherokee Trail and the Wild Cow Creek proposed wilderness (which should be entirely removed from the region of industrialization).

E381

If you must drill, directional drilling is the only solution.

Remember, you will be held personally responsible for the damage you do to Wyoming.

Cheers,

Mark Jenkins
www.thehardway.com
1102 Grand
Laramie, WY 82070
307-745-0010



Linda Costello
<strega@adelphia.net>

02/10/2006 06:28 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Our Priceless Public Lands

Dear Project manager Simons,

E39-1 I urge you to protect with a large buffer zone the breeding and nesting areas of the species that find their habitat in the Atlantic rim region. Our lust for oil and gas has caused us to undervalue our national heritage of wild places and the species that live in them. Roads with their pollution and drilling will destroy this fragile desert environment unless there is extraordinary care taken to prevent it.

Soon we will have nothing to pass on to our children but industrial waste unless become aware of the damage we have caused in the past and can inflict upon the land in the near future.

Linda Costello



"Jonathan Madsen"
<JMadsen@uwyo.edu>

02/12/2006 11:10 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject FW: Atlantic Rim Project

From: Jonathan Madsen
Sent: Sun 2/12/2006 11:01 AM
To: Atlantic_Rin_EIS_WYMail@blm.gov
Subject: Atlantic Rim Project

Sir or MS

It is hard for me to know where to start. I do not believe this project should be done at all if roads and drilling pads are not far enough away from current wildlife uses so as not to disturb sage grouse, ferruginous hawks, plover habitat (100 year flood plain of water sheds).

Does the entire oriject have to happen at the same time? Why not stage it so impacted wildlife can find undisturbed habitat near that they are displaced from?

I believe that directional drilling should be used so that well footprints and service road disturbance are confined to small clusters of land rather than allowed to fragment the entire habitat. Also the water pumped from aquifiers should be reinjected rather than allowed to make its way into surface watersheds where it will most likely damage native species and perhaps water used by grazeing agriculture. The proposed wilderness of "Wild Cow Creek" should be off limits completely.

I know that all these ideas will be seen as economically impractical but cheap energy has really be the main cause of the greed and wastefulness which has put us in our current dependence situation. There is no good reason to use up all this energy as fast as we can, which cheap prices always encourage. There will be nothing left for future generations.

If we developpe this field at the cost of enviornment and wildlife when the gas is gone the land will be doubly worthless, no gas and no real sustainable wildlife communities.

As a state Wyoming should not only be putting money into a mineral trustfund but also land into a wildlife trustfund.

Thank you for your time in reading this.
I hope it will influence your decisions

Jon Madsen
Laranie, WY

E42-4
E42-2
E42-3
E42-1



"David Ludlam"
<fishforlife8@hotmail.com>

02/13/2006 03:52 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject Atlantic Rim

BLM

Here are some letters we collected for the Atlantic Rim EIS comments after the hearing in Rawlins.

Can you please reply back and let us know these went through because the file might be kinda big?

Is your PC infected? Get a FREE online computer virus scan from McAfee® Security. <http://clinic.mcafee.com/clinic/ibuy/campaign.asp?cid=3963>



Atlantic RIM EIS Comments.pdf



February 8, 2006

Rawlins Bureau of Land Management
1300 North Third
PO Box 2407
Rawlins, WY 82301

Dear Wyoming BLM:

Anadarko has the resources to make sure they develop our resources responsibly. I would like the BLM to make sure they require responsible mitigations in the Atlantic Rim EIS while allowing the project to remain economical.

Anadarko is the 8th largest publicly traded oil and gas company in the US and in Wyoming alone employs 225 employees directly and contracts with 500. Granting Anadarko's Proposed Alternative for extracting natural gas from the Atlantic Rim will create many benefits for Carbon and Sweetwater Counties in Wyoming, and our nation. If you accept Anadarko's Proposed Alternative, 578 local jobs will be created and over \$1 billion in total regional expenditures will be made. What's more its operation in the area will generate \$253 million for schools and \$96 million for county government through property tax revenue. Clearly, there is a fantastic economic benefit of Anadarko conducting its operations in our state.

The economic benefits above in conjunction with the value of clearly support your adoption of the Proposed Alternative. I respectfully speak for our community and state when I ask that you remove your restrictive guidelines currently in Alternatives B and C of the EIS. The combination of Alternatives B and C that you are currently contemplating is highly damaging to both Anadarko and Wyoming's economy. Alternative B will delay Phase 3 drilling by 14 years and Alternative C is infeasible because 160 acre spacing renders successful drilling difficult to impossible – proven by previous pilot drilling. Grant Anadarko its proposed phased alternative. It is respectful of the environment, will leave a permanent footprint on only 2% of the area, and will generate millions for Wyoming's economy. I appreciate your concern for my opinion.

E45A-1

Truly,

A handwritten signature in black ink that reads "Bud Alley". The signature is written in a cursive, slightly slanted style.

Bud Alley
1208 Energy Street
Gillette WY
82716



February 8, 2006

Rawlins Bureau of Land Management
1300 North Third
PO Box 2407
Rawlins, WY 82301

Dear Rawlins BLM:

Please register my objection to the adoption of the BLM's preferred alternative in the proposed Atlantic Rim DEIS, specifically the BLM's call for 160 acres spacing. I support Anadarko's proposed action with both 80 acre spacing and phased development.

E45B-1

The proposed action is based on over 100 wells previously drilled by Anadarko. The successful wells are on 80 acre spacing patterns while the testing areas using 160 acres have only produced water and very little gas. I believe the BLM must bring the actual results of previous work into the record of decision.

I support the nation's energy plan and feel the preferred alternative in the Atlantic Rim DEIS is heading the Rawlins BLM in the wrong direction and I hope the document will be amended to allow 80 acre spacing.

Thank you much,

A handwritten signature in cursive script that reads "Ivan Martinez".

Ivan Martinez
1624 East Murray
Rawlins Wyoming
82301



February 8, 2006

Rawlins Bureau of Land Management
Rawlins, WY 82301

Dear BLM Compliance Team:

Participating in a NEPA process such as the Atlantic RIM is not easy for industry. Unlike environmental groups, we have jobs to do. The BLM held a hearing on the project and I am frustrated to see the BLM has not found the temporary oil and gas development in this area to be "undesirable for hunting or wildlife viewing." This has not been the case in many other natural gas development areas in our state. Also, where is the science that shows industry is so detrimental for wildlife?

In fact, hunting and other recreational activities often proceed as they always have or even increase in areas of natural resource extraction. What's more, the temporary presence of oil and gas activities on federal land to support the need for domestic energy supplies is extremely honorable. It should not be treated as a burdensome albatross on the environment, because, in fact, it is not when conducted by companies like Anadarko.

Anadarko has volunteered to fund the mule deer migration study. After this wonderful gesture, I think you should give Anadarko far more credit for off-site mitigation. In fact, we are very fortunate to have such a company attempting to supply our nation with the energy sources it desperately requires.

Please remove your well restriction and "undesirable" quotation on recreation and hunting from this EIS. They are blatantly untrue and exaggerated beyond all logic.

Sincerely

A handwritten signature in black ink that reads "Don D. Hockett". The signature is fluid and cursive, with a horizontal line extending from the end.

Don Hockett
Wyoming Resident

E45C-1



FEBRUARY 8, 2006

RAWLINS BUREAU OF LAND MANAGEMENT
1300 NORTH THIRD
PO BOX 2407
RAWLINS, WY 82301

DEAR BLM,

WYOMING IS SUCH A BIG STATE THAT IT IS HARD FOR ALL OF US WHO WORK IN THE INDUSTRY TO BE ABLE TO TRAVEL TO RAWLINS FOR A HEARING. THIS IS WHY I WOULD LIKE TO SUBMIT THIS COMMENT AS MY SUPPORT FOR ANADARKO'S PREFERRED ALTERNATIVE.

THIS IS A COMPANY WITH SOME OF THE WORLD'S BEST ENGINEERS. THESE PEOPLE HAVE STUDIED THIS AREA FOR 1/2 A DECADE AND I BELIEVE THAT THEIR PILOT DRILLING PROGRAM PROVES THAT THE PROJECT CANT BE DONE ON 160 ACRE + SPACING.

EVEN YOUR AGENCY'S OWN MINERALS GROUP OUT OF CASPER SUPPORTS 80 ACRE SPACING. PLEASE LET SCIENCE RULE THE DAY AND NOT ARBITRARY SPACING REQUIREMENTS.

THANKS SO MUCH

A handwritten signature in black ink that reads "Shawn Darlow". The signature is written in a cursive, flowing style.

SHAWN DARLOW
GILLETTE WYOMING 82716

E45E-1



February 8, 2006

Rawlins Bureau of Land Management
1300 North Third
PO Box 2407
Rawlins, WY 82301

Bureau of Land Management:

First, let me say thank you for taking public comment for this very important decision you are about to make in regards to the development of the Atlantic Rim.

I have to say, that I, as an average American, find it exceedingly difficult when I have to open my mailbox to an outrageously expensive energy bill every month. I am sure you experience the same frustration as well. The fact is, Americans everywhere are suffering from the financial burdens of high natural gas prices caused by ever tightening supplies of this important natural resource. The situation only stands to worsen as businesses, homes, and electricity production facilities continue using natural gas as their fuel of choice due to convenience, safety and performance.

In fact, after researching natural gas, I found that 62 Million American homes use natural gas for winter heating. Clearly, we need to make every effort to keep costs low for you, I and these millions of other natural gas users. How can we accomplish this you may ask? The answer lies right within your own office.

One of the many contributing factors to high prices is restricted access to new supplies such as those found in the Atlantic Rim production area. Anadarko has worked with your agency since 2001 to bring a new source to market and can only do so with reasonable mitigations. Unfortunately, Alternatives B and C in this EIS do not appear to be reasonable in any way shape or form. Anadarko has already agreed to make take a phased approach to development in its Proposed Alternative, yet you are asking for an unreasonable amount more concessions such as a 135 day seasonal access period. Please save the American citizen the money they deserve to keep in their pockets. Support Anadarko's Proposed Alternative.

E45F-1

Thanks,

A handwritten signature in cursive script that reads "Brad Hubbard".

Brad Hubbard



February 8, 2006

RE: ATLANTIC RIM

To whom it may concern,

I had the privilege of reviewing the Environmental Impact Statement you are working on right now for the Atlantic Rim development by Anadarko. I wanted to comment on some areas I think could use a little work and a great deal further thought. More specifically, I am worried that the two BLM preferred alternatives are lacking a perspective of the big picture. Please take a moment to ponder the following:

E45G-1

1. Well spacing at distance of 160 acres is unnecessary and unfeasible for Anadarko to be successful. I have experience in this industry, and I can tell you with all certainty that 80-acre well spacing development has minimal environmental impact and produces far more natural gas. That is my first concern – allow 80 acres well spacing.

E45G-2

2. Allowing 4 livestock quality water wells per section is not damaging to the environment and will allow Anadarko to wet the roads in order to prevent dust. This needs to be allowed for the quality of life for surrounding property owners.

E45G-3

3. Seasonal restrictions should be lifted, because Anadarko is already proposing a reasonable phased approach to drilling, that will leave a footprint on only 2% of the land when drilling is completed.

Please adopt Anadarko's Proposed Alternative. It is a reasonable development plan that completely follows the Multiple Use Mandate. It also will help lower burdensome energy costs to millions of consumers by bringing more natural gas supply to market. Thank you for your consideration.

Best,

Todd Wawrzyniak
Wyoming Resident



February 8, 2006

Rawlins Bureau of Land Management
Rawlins, WY 82301

Dear Land Management Team,

E45H-1

I am concerned the proposed alternative will reduce jobs in our region and cut tax revenue for schools and local governments in Wyoming. This is because proposed 160 acre spacing will render the project non-cost effective.

What is the true socioeconomic cost of the preferred alternative, especially the restrictions on 160 acre spacing? How much of the Natural Gas resource will remain in the ground under the with 160 acre spacing? What is the value of the lost commodity? Is the spacing consistent with what Anadarko has found for economic recovery of the resource? Is 160 acre spacing consistent with other findings within the BLM specific to the project area? Is the spacing requirement suggested consistent with all Presidential Executive Orders, the President's Energy Policy or the recently passed Energy Bill?

I hope you will consider my questions and concerns in the development of a new preferred alternative. I request the BLM resend the Atlantic Rim DEIS proposed alternative and adopt the proposed action as presented by Anadarko and their partners.

Thank you in advance for your hard work and I appreciate the consideration of my comments.

Thanks for your work,

A handwritten signature in black ink, appearing to read "Gilbert Medina". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Gilbert Medina
Concerned Resident Rawlins WY



February 8, 2006

Rawlins Bureau of Land Management
1300 North Third
PO Box 2407
Rawlins, WY 82301

Dear Rawlins BLM,

Please don't tell me that you are carving to the interests of the environmental community. Proposing to adopt your "preferred" Alternatives B and C would be such a move. Please take a moment to consider the other side.

Anadarko is a company made up of consummate professionals whose work benefits the entire United States. Anadarko is also extremely sensitive to the environment, which is reflected in their project analyses. It is also reflected through gestures like funding the mule deer migration study. Nonetheless, my worry is that both Anadarko test results and a significant amount of data collected by BLM technical experts from the Resource Management Group in Casper have been ignored in the preferred alternatives of this DEIS.

E451-1 | Alternatives B and C will be an unfeasible financial and logistical burden on Anadarko. This is flat out wrong given the fact that Anadarko will bring with its drilling efforts 578 new local jobs and a tremendous amount in tax revenue through property taxes. So let's ask ourselves again, are Alternatives B and C fair? Absolutely not is our answer. Please support Anadarko's Preferred Alternative. Doing so is a thumbs up to Wyoming's economic well being and America's energy success.

Please let me extend my kind thanks to you for taking the time to read this.

Truly,

A handwritten signature in black ink that reads "Michael J. Ulanski". The signature is written in a cursive, flowing style.

Mike Ulanski
908 Stanley Ave
Gillette WY
82716



"Amy Lowichik"
<AmyLowichik@lycos.com>

02/13/2006 05:12 PM

To "Atlantic_Rim_EIS_WYMail@blm.gov"
<Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Withdraw the Atlantic Rim Project

February 13, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Project Manager Simons,

As a citizen and taxpayer of the west I oppose your current preferred alternative for the Atlantic Rim Project, and request proper revision and balance of this currently lopsided proposal, favoring industry; this proposal should protect the rights of western taxpayers like myself and future generations to recreation, clean air and water, and preservation of desert wildlife.

E51-2 E51-1

I have already written that your decision should protect critical bird nesting areas and water quality in streams and remove the Wild Cow Creek proposed wilderness from the project.

Please do your job properly and ethically and do not sacrifice the few remaining protected, environmentally safe areas to the greed of energy development.

Sincerely,

Amy Lowichik
1607 Princeton Ave.
Salt Lake City, UT 84105-1737
USA
AmyLowichik@lycos.com



"LAURA M CHRIS NAUMANN
RYAN" <jcnlmr@msn.com>

02/13/2006 10:22 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject Red Desert Comments

February 13, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Mr. Simons,

I am writing in regards to the massive Atlantic Rim Project within the Red Desert. Several years ago I spent several days sage grouse hunting with my father (Laramie, WY) and grandfather (Columbia, MO) in the Jack Morrow area of the Red Desert. Besides the memories of a three-generation hunt, I have never forgotten the truly unique natural resources of the Red Desert. The grouse hunting was exceptional but, the highlight of the weekend was watching the herds of elk and wild horses. I have hunted throughout Montana and I can honestly say that the Red Desert is the most unique and diverse environment that I have ever hunted.

I recognize that the development of the oil and gas reserves held within the Atlantic Rim Project is an unavoidable reality. But, I urge you to revise your proposal to include responsible environmental protections to strike a balance between resource extraction and the needs of public recreation, clean air and water, and desert wildlife.

E66-1 | I understand that the extraction companies have proposed drilling over 2,000 wells involving 1,000 miles of new roads. Widely accepted studies have shown time and time again that this scale of development will have a tremendous negative impact on the sage grouse and elk populations. Of particular concern is the density of the drilling sites. The Atlantic Rim Project proposal involves constructing pads at double the usual density found in similar types of developments.

E66-2 | I would also request that you impose strict protective requirements to prevent the degradation of all streams, springs and seeps in the Red Desert.

These sources of water are critical to all wildlife species, but in particular the sage grouse. Underground injection of drilling wastewater would increase the salinity of these fresh water sources and negatively impact all wildlife.

E66-3 | With all of these concerns in mind, I think it would be prudent to require the project to employ directional drilling and concentrat well facilities into cluster to ultimately minimize the footprint of drilling pads and reduce the road mileage.

E66-4 | And finally, considering the enormous amount of land available to this extraction project, I think that the Wild Cow Creek proposed wilderness must continue to be treated as such and protected from any development.

As our economy demands that we seek new sources of energy, public land managers such as yourself have the opportunity to assure that extractive resource developments be carried out in an environmentally responsible manner.

Thank you for the tremendous amount of time and energy that you have invested in this project and thank you for considering my comments. I hope

to visit the Red Desert again in the future and have another unique
expeirence.

Chris Naumann
603 South 10th Avenue
Bozeman MT 59715

jcnlmr@msn.com



"Gloria McClain"
<GMcinSJ@webtv.net>

02/13/2006 11:02 PM

To "Atlantic_Rim_EIS_WYMail@blm.gov"
<Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Withdraw the Atlantic Rim Project

February 13, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Project Manager Simons,

Only a few days ago in his State of the Union speech, Mr. Bush declaired his determination to break our dependance on oil, and concentrate on developing alternative

energy. How is it then, that oil drilling is even being considered here?

Just

one more of his lies. I ask you to include alternative energy proposals in your

report, since that is the direction he declaired in his speech. Nothing else is sufficient!

Sincerely,

Gloria McClain
2828 Monte Cresta Wy
San Jose, CA 95132-2245
USA
GMcinSJ@webtv.net

E67-1



"Candace Makowski"
<holywonderland@yahoo.com>
>

02/14/2006 01:42 PM

To "Atlantic_Rim_EIS_WYMail@blm.gov"
<Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Withdraw the Atlantic Rim Project

February 14, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Project Manager Simons,

I'm writing to encourage you to rethink your recent proposal for the Atlantic Rim Project. Again some of the last Wild expanses threatened by oil drilling. The Greater Yellow stone is the largest relatively intact ecosystems in the temperate

U.S. and this is why it needs protection.

It's no wonder why this area is home to such a diverse amount of species including

some of last surviving land mammals like: bighorn sheep, wild buffalo, and grizzlies.

Which leads us to the fact that this is a fragile ecosystem and it's unfortunate

we cannot pursue other means of energy sources.

The jurisdiction/protection for certain endangered species in the dessert area will have to be properly enforced for the animal to function vital life processes

such as reproduction, without interuptions from oil developements.

It is also very crucial that the wild Cow creek wilderness be completely removed

from the proposal.

I hope you will take a positive initiative to protect this historic and spiritual land.

Sincerely,

Candace Makowski
728 Hayes
apt 1
San Francisco, CA 94102-4132
USA
holywonderland@yahoo.com

E70-1



Wmswanton@aol.com

02/16/2006 07:54 AM

To Atlantic_Rim_EIS_WYMail@blm.gov

kgobble@warrenep.com, lloyddavies@earthlink.net,
cc evwarren@qwest.net, rhedlund@warrenep.com,
trichardson@warrenep.com,
tlarkin@warrenresourcesinc.com

bcc

Subject Comments on Atlantic Rim DEIS

Please see attached file for our comments.

Norman F. Swanton
Chairman & CEO,
Warren Resources, Inc.
489 Fifth Avenue
New York, NY 10017
(212) 697-9660

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February 15, 2006

Mr. Robert Bennett
State Director, Wyoming
United States Bureau of Land Management
5353 Yellowstone
Cheyenne, Wyoming 82003

Mr. Mark Storzer
Manager, Rawlins Field Office
United States Bureau of Land Management
P.O. Box 2407
Rawlins, Wyoming 82301

Mr. Davis Simons
Project Lead, Rawlins Field Office
United States Bureau of Land Management
P.O. Box 2407
Rawlins, Wyoming 82301

Re: Draft Environmental Impact Statement for the Atlantic Rim Natural Gas Project, Carbon County, Wyoming

Gentlemen,

I am writing in response to the United States Bureau of Land Management's (BLM) proposed alternatives in the current draft environmental impact statement (DEIS) for the development of natural gas in the Atlantic Rim area principally by the Warren Resources, Inc., /Anadarko E&P, Joint Venture the other independent operators holding leases in the study area. Warren Resources, Inc. (Warren) is a growing independent energy company engaged in the exploration and development of domestic onshore natural gas and oil reserves. We are one of the leading owners of coalbed methane natural gas or CBM properties in the Rocky Mountain Region with interests in approximately 279,814 gross (154,679 net) acres, of which 215,871 gross (113,691 net) acres are in the Atlantic Rim Project area EIS.

Beginning in 1999, Warren acquired most of the federal and state acreage covering the Atlantic Rim Project. In 2000, Warren Resources, Inc. (Warren) and its partners drilled 22 permitted wells throughout the Atlantic Rim Project area to the base of the Mesaverde to test the potential productivity of the Project area for full scale CBM development.

Warren's Casper, Wyoming based operating subsidiary, Warren E&P, Inc. (previously named Petroleum Development Corporation), was the original proponent of the Atlantic Rim Project EIS to the Rawlins BLM Field Office on June 14, 2001. Warren worked with the Rawlins BLM Field Office to produce the Interim Drilling Policy under which all the operators would be allowed to drill, complete and sell gas from up to 24 test wells per Township up to a maximum of 200 producing wells in the Atlantic Rim Project during the preparation of the Atlantic Rim Project area EIS, which was estimated to take 24 to 36 months to complete. In December 2002, Warren

entered into a joint venture with Anadarko E&P to jointly develop the Atlantic Rim CBM Project and by mutual agreement Anadarko took over for the Joint Venture as proponent of the Project. The Warren/Anadarko joint venture participants have drilled 123 wells and Double Eagle Petroleum Company has drilled 14 wells under in the Atlantic Rim Project Interim Drilling Policy to-date, including 78 CBM wells that are completed and placed on continuous production for 12 to 48 months.

Based on the drilling and production results over the past six years from the Atlantic Rim CBM project area, we have concluded as follows:

1. The 50 CBM wells drilled on 80-acre spacing (24 in the Doty Mountain Pilot, 12 in the Sun Dog Pilot and 14 in the Cow Creek Pilot) are producing at an average daily rate of approximately 248 Mcf per day per well gross for a total of 12,400 Mcf per day. All of the Pilots drilled to-date on 80-acre spacing are producing at commercial rates of production, even though it appears these wells are in the early stages of dewatering. The foregoing 50 wells are producing approximately 40,000 barrels of water per day and the produced water is re-injected into lower formations using 6 water injection wells.
2. The 28 CBM wells drilled on 160-acre spacing (16 in the Red Rim Pilot and 12 in the Blue Sky Pilot) are producing at non-commercial average daily rates of approximately 7 Mcf per well for a total of 200 Mcf per day from the 28 wells. The foregoing 28 wells are producing approximately 20,000 barrels of water per day and the produced water is re-injected into lower formations using 3 water injection wells.
3. Based on 6 years of drilling, testing and production, there can be no doubt that 80-acre spacing is not only the preferred alternative but is essential for commercial rates of production throughout the Atlantic Rim CBM Project area.
4. Additionally, after drilling a total of 137 wells throughout the entire Atlantic Rim Project area, we have established that the shallow Almond coals blanket the entire project area. Consequently, we believe the Atlantic Rim CBM Project area constitutes one contiguous gas reservoir with a preferential drilling fairway that runs 48 miles north to south and 3 to 8 miles wide with a potential to produce trillions of CBM natural gas, if properly developed. For efficient and effective development to maximize production, it will be necessary to develop the project in a manner that best draws down the formation pressure throughout the entire Atlantic Rim CBM gas reservoir. Contemporaneous development will allow operators to efficiently dewater the coals to achieve optimum production results. A staged development approach would inhibit achieving this goal.

In conclusion, we urge the BLM to eliminate Alternatives B and C in the current DEIS and accept the Proposed Alternative as requested by the operators to efficiently develop on a timely basis this most important domestic gas resource. We also urge the BLM to complete its analysis and findings in a timely manner and without further delays or extensions. The preparation of the Atlantic Rim Project area EIS has entered its fifth year of existence and any further delays will eliminate the 2006 drilling window and delay the project to 2007 or beyond. Warren and the other independent operators have committed a substantial proportion of their financial assets to the successful development of the Atlantic Rim CBM Project. The independent operators would be severely impacted by further delays in the issuance of a Record of Decision on an EIS that would allow full development of the Atlantic Rim CBM project based on the sound engineering and science provided to the BLM by the independent operators.

Sincerely,

Norman F. Swanton
Chairman and Chief Executive Officer



"Joan E Binder"
<JEBinder@uwyo.edu>

02/14/2006 04:34 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

<hmarti2@state.wy.us>, "Rodney H Debruin"
cc <RDebruin@uwyo.edu>, "Ronald C. Surdam"
<RSurdam@uwyo.edu>

bcc

Subject Atlantic Rim Coalbed Natural Gas Development

Dear David,

I have attached the Wyoming State Geological Survey's comments on the Atlantic Rim Coalbed Natural Gas Development Draft EIS.

Sincerely,

Joan

Joan E. Binder
Executive Assistant
Wyoming State Geological Survey
P.O. Box 1347
Laramie, WY 82073
307-766-2286 ext. 227
jebinder@uwyo.edu



Atlantic Rim.doc



WYOMING STATE GEOLOGICAL SURVEY

P.O. BOX 1347 • LARAMIE, WYOMING 82073-1347
307/766-2286 • FAX 307/766-2605

E-MAIL: wsgs-info@uwyo.edu • WEB: www.wsgs.uwyo.edu

STATE GEOLOGIST – Ronald C. Surdam

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Wallace L. Ulrich

David Simons
Project Manager
BLM
Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301

February 14, 2006

RE: Atlantic Rim Coalbed Natural Gas Development

Dear David,

Rod De Bruin, Manager/Natural Resources Division of the Wyoming State Geological Survey, has the following comments on the draft EIS of the Atlantic Rim Coalbed Natural Gas Development.

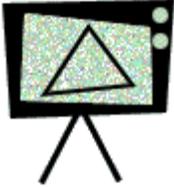
In the executive summary for this document, BLM states that it favors a combination of Alternatives B & C. This effectively means that they will allow phased development beginning in the central part of the area, proceeding to the northern part and finally the southern part. This may not be the most efficient way to develop the resource. It also means that a large part of the area will be limited to four pads and less than 20 acres of total disturbance per section. I believe that the evidence shows that the only economic way to dewater the coals and to develop coalbed natural gas in this part of the state is with 80-acre well spacing (the BLM's own Reservoir Management Group agrees). Anything significantly farther apart results in inefficient dewatering of the coals and subeconomic recovery of coalbed natural gas. The only way to develop on 80-acre spacing when pads are limited to four per section (160-acre spacing) is to utilize directional drilling. For the most part, directional drilling of shallow coals is technically unfeasible or economically prohibitive, which translates into significant natural gas resources left in the ground. The requirement for phased development seems unnecessary because it dictates how the resource is developed, which may be inefficient based on the geology and planned infrastructure. There is also some evidence that the availability of drill rigs will require the companies to develop this resource at a pace that is not significantly different than that required in Alternative B (in fact it may be slower), especially when the requirements for drill rigs in the Continental Divide/Creston area are factored in.

E85-1
E85-2
E85-3

Sincerely,

Joan Binder
Executive Assistant

Cc: Ronald C. Surdam, Director/State Geologist
Rodney H. De Bruin, Manager/Natural Resources Division
Governor's Planning Office



Missy Cook/RFO/WY/BLM/DOI

02/14/2006 12:33 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject Fw: AGA Comments on Draft Environmental Impact Statement (DEIS) for the Atlantic Rim Natural Gas Development Project



"Wegner, Susan"
<swegner@aga.org>

02/08/2006 02:04 PM

To <rawlins_wymail@blm.gov>

cc

Subject AGA Comments on Draft Environmental Impact Statement (DEIS) for the Atlantic Rim Natural Gas Development Project

To Whom It May Concern:

Attached and embedded below are the comments of the American Gas Association regarding the Draft Environmental Impact Statement (DEIS) for the Atlantic Rim Natural Gas Development Project. We appreciate the opportunity to comment.

Regards,

Susan Wegner
Legal Research Specialist
American Gas Association

Ladies and Gentlemen:

The American Gas Association (AGA) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Atlantic Rim Natural Gas Development Project prepared by the Bureau of Land Management (BLM). That DEIS provides direction and guidance for the management of a natural gas development project on the 270,080 acres of the Atlantic Rim project area. We understand that the Atlantic Rim area is located between Rawlins and Baggs Township 12 –20 North, Ranges 89-93 West, Sixth Principal Meridian, Carbon County, WY.

The American Gas Association, founded in 1918, represents 197 local energy utility companies that deliver natural gas to more than 56 million homes, businesses and industries throughout the United States. AGA's members account for roughly 83 percent of all natural gas delivered by the nation's local natural gas distribution companies. AGA is an advocate for local natural gas utility companies and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international gas companies and industry associates. Natural gas meets nearly one-fourth of the United States' energy needs. Our Association is sharply focused on assisting its member utilities obtain and deliver stable supplies of clean-burning natural gas, safely and reliably. For more information, go to www.aga.org.

Over the past five years American consumers of natural gas have borne the brunt of ever increasing prices, the natural outcome of an increasingly tight balance between supply and demand. During that time the price for natural gas has increased over 400 percent, causing

severe financial hardship for manufacturers, farmers, homeowners and other consumers throughout the land.

To address this situation, it is critical that the federal government expand access to natural gas supplies. AGA therefore has a substantial interest in the Atlantic Rim DEIS process.

By way of background, we understand that the DEIS addresses several issues pertaining to the Atlantic Rim Project Area, including land use management; air quality, biological and physical resources, transportation, socio-economics, and cumulative effects of the proposed natural gas exploration and development project.

Anadarko Petroleum is the lead proponent of a proposal to explore for and develop natural gas resources from coal and other formations in the project area. Several other companies are participating in the proposal as well. The proposal includes drilling up to 2000 wells, 1800 completed to coal formations and 200 to other geologic targets for natural gas. Over the next 20 years, the proposers will explore and develop the oil and gas resources held through their existing leases with the project area. The extent of the project is expected to be 30 to 50 years. Well density complete in coal formations would be 8 wells per 640 acre sections of land, wells in other geologic formations would be spaced no closer together than 4 wells per section.

This proposal seems to arise from the results of exploratory drilling under an interim drilling plan. Under this plan, 325 oil and gas wells have been drilled or approved for drilling within the project area. As noted above, up to 2000 additional wells could be drilled over the next 20 years.

The DEIS considers and analyzes four alternatives, including the No Action alternative (which means the project as proposed would be rejected by BLM) BLM developed these alternatives based on extensive public input during the scoping and NEPA process (during 2001).

The Proposed Action Alternative and Alternatives A and B allow for varying levels of oil and gas exploration and development. Alternative A provides for the sequential development of the proposed action, but in three phases – each 6 to 7 years over the 20 year period. Alternative B would allow the development as in the proposed action, but would intensively mitigate or limit such development where sensitive resource values exist or overlap. Such sensitive resources include threatened, endangered and sensitive wildlife; fish and plant species; fragile soils and unique cultural values.

We will not comment on the technical details of the Alternatives evaluated in the DEIS. Instead, we raise an important policy concern that you should weigh carefully when you decide which alternative to select.

AGA believes that there are ways to balance the critical need for increased gas supplies while at the same time being good environmental stewards of the planning area through technologically advanced coalbed and natural gas modern drilling techniques and environmental best management practices (BMPs). By balancing the varied uses in the planning region, natural gas supplies can be increased prudently. This will ease the imbalance in energy supply and demand that is driving up natural gas prices for consumers.

Summary of AGA's Position

Natural gas prices are soaring and, given the projected 40 percent growth in demand by 2025, the AGA strongly urges the U.S. Department of the Interior BLM to expand access to supplies of natural gas production in non-wilderness areas of the inter-mountain West. Specifically, in this proceeding, we urge BLM to allow the greatest possible access for production in the Atlantic Rim Project Area, by moving forward with the proposed natural gas exploration and development operation.

This DEIS process is of importance for obtaining natural gas supplies needed to meet growing

demand for energy. AGA understands that the Rawlins Field Office has assessed various alternatives for the Atlantic Rim Project Area and supports an alternative that allows for some oil and gas activities.

Furthermore, AGA understands that in this proceeding, BLM will address key public land issues, including, but not limited to, biological, historical, cultural, and socio-economic values of the project area, while upholding the principles of multiple use and sustained yield. The AGA believes that at the same time, BLM must consider the following important policy concerns as it evaluates the public comments and finalizes the DEIS.

Balancing Multiple Uses Under the FLPMA

Nearly one-third of the United States is owned in common by its citizens, but is managed by BLM for divergent purposes -- including conservation of natural resources, recreation, resource extraction, and grazing. The Federal Land Policy and Management Act of 1976 (FLPMA) directs land managers to promote multiple use of federal lands in a manner that will ensure sustained yields from natural resources. The FLPMA requires land managers to balance the needs of the American public for open space and preservation, but also for natural resources that maintain and improve our quality of life. Multiple use management is a complicated task, requiring BLM to strike a balance among many competing uses in order to sustain the health, diversity, and *productivity* of the public lands for the *use* and enjoyment of present and future generations.

Within the context of the FLPMA, in the Atlantic Rim DEIS, BLM's Field Office has prepared different combinations of land management to address issues and resolve conflicts among uses. The alternatives represent possible management scenarios and reflect a reasonable range of potential future land use and resource management scenarios.

Supply and Demand Imbalance Leads to High & Volatile Prices

Natural gas is the cleanest fossil fuel, which has made it increasingly desirable for home heating, appliances, and electric generation. As a result, demand has been steadily rising in recent years. The "gas bubble" of the late 1980s and '90s, is gone. No longer is demand met while unneeded production facilities sit idle. The valves are wide open, yet demand has been outpacing supply, and the result has been both higher and more volatile prices. See AGA's Study *Avoiding the Wild Ride – Ways to Tame Natural Gas Price Volatility* (<http://www.aga.org/WildRide>).

Furthermore, this tight supply/demand balance makes the natural gas market even more sensitive to supply disruptions, such as the ones that have occurred with Hurricane Katrina and Hurricane Rita. Our economic security often depends on the timely expansion, or repair of energy related facilities that enable the nation to have access to existing and new reserves of oil and natural gas. In fact, a study completed by the Interstate Natural Gas Association of America Foundation (INGAA Foundation) last year, researched the economic impact to American consumers that a two-year delay in constructing needed natural gas infrastructure would create. See <http://www.ingaa.org/Documents/Final%20Capacity%20Update.pdf>.

That study revealed that it would cost American consumers \$200 billion by 2020. Again, this points out just how critical and costly any disruption, delay, or denial of access to needed energy supplies can be to the American consumer. Natural gas utilities and customers are in the same boat when prices go up—we are all hurt. Higher and more volatile prices have made customers shocked and angered by their monthly natural gas bills. Our member companies have borne the brunt of that anger, even though we simply pass the costs we pay for that gas on to the customer— with *no* mark-up or profit.

There are only two ways to solve this problem. We must decrease demand *and* increase supply. Americans have already significantly decreased their per capita use of energy—by

around 20 percent per person during the past decade. Yet overall demand for natural gas is rising due to population increases and regulatory pressure for using clean natural gas for electric power production. Conservation alone is not the answer. Instead, we must also increase supplies of natural gas to meet rising demand. We need *both* conservation and increased supplies to ensure a healthy, vibrant economy with sustained growth. See AGA study *From the Ground Up – America's Natural Gas Supply Challenge* (<http://www.aga.org/FromTheGroundUp>).

This two-pronged policy approach was advocated in the National Commission on Energy Policy's December 2004 report. In order to provide the ample, secure, clean and affordable energy supplies the nation requires, the Commission recommended "policies to expand and diversify available supplies of natural gas" among other things. Furthermore, the Commission notes that natural gas is a "fuel that is critically important to the nation's energy supply and that is likely to play a substantial role in the transition to a lower-carbon energy future." See *Ending the Energy Stalemate, A Bipartisan Strategy to Meet America's Energy Challenges* (<http://www.energycommission.org>).

Public health and welfare is also at stake. Poor families have had to struggle to pay to heat their homes in recent winters. Applications for charitable assistance and federal assistance under the Low Income Home Energy Assistance Program (LIHEAP) soared in recent winters. And many working poor families do not qualify for such assistance. Many poor families have to make hard choices between being warm and being fed. This tough fact often seems forgotten in the debate over natural gas drilling in the West.

From a broader public welfare perspective, if the current supply-demand imbalance and the resulting price volatility are allowed to continue, it could cause natural gas customers to switch to other less efficient, less secure and less environmentally friendly fuel sources. An AGA study estimates that a 50 percent increase in natural gas use could reduce oil imports by approximately 2.6 million barrels a day, while reducing emissions of our principal greenhouse gas, carbon dioxide, by some 930 million tons every year. See *Fueling the Future – Natural Gas & New Technologies for a Cleaner 21st Century (2001 Update)* at page 1 (<http://www.aga.org/FuelingTheFuture>).

In January 2005, a coalition of major manufacturers, three environmental groups and energy-efficiency groups wrote to President Bush and Congress calling for new U.S. natural gas policies to strike a much needed balance between growing natural gas demand and limited supply while ensuring that gas development takes place in an environmentally responsible manner. See *Letter to President Bush and Congress, January 3, 2005* (<http://aceee.org/energy/natgasprinciples.pdf>).

Indeed, the U.S. Department of Energy pledged more than \$15 million to fund research and development projects focused on recovering large, unconventional oil and natural gas resources. For the foreseeable future, U.S. energy security will hinge upon our ability to increase production of both conventional and unconventional oil and gas resources domestically. This latest R&D initiative especially, focuses on achieving higher energy yields in the most environmentally-sensitive fashion possible. According to the Clinton Administration's 1999 marquee energy report, advanced technologies have made America the cleanest energy producer in the world. The report offers detailed analyses on the use of technology as an environmental benefit in exploration, drilling and completion, production, site restoration, and protection of sensitive areas. According to the report, advanced technologies in the energy industry led to reduced energy consumption, reduced greenhouse gas emissions, better protection of water resources and wildlife habitat and increased worker safety. See

E86-1-2
E86-1-3
E86-1-1
E86-1

To ensure that the United States has adequate supplies of natural gas to meet demand and to moderate prices, it must pursue new gas supply options in a timely and environmentally responsible manner and diversify domestic sources of gas supply. BLM has an opportunity at this juncture to do just this. BLM could consider, for example, developing a coordinated transportation plan to minimize impacts so that the agency could allow greater access than would otherwise be the case. Year-round drilling also should be allowed in more areas, taking into consideration modern drilling techniques and environmental BMPs. By balancing the varied uses in the planning region, it can increase natural gas supply and ease the nation's energy burden and natural gas demands.

We recognize that it is not easy to balance other competing interests with the public interest in obtaining a reliable, clean, domestic supply of energy. We believe that BLM can propose workable and well thought out alternatives in its Atlantic Rim DEIS, while giving appropriate weight to the vital energy, environmental, economic, national security, and public health impacts of its proposals. AGA urges you to allow the greatest possible access to natural gas supplies at a time when we clearly need to increase supply to meet rising demand.

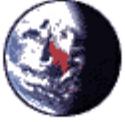
If you should have any questions, please call Pam Lacey at 202-824-7340.

Respectfully submitted,

American Gas Association

By Pamela A. Lacey
Senior Managing Counsel
American Gas Association
400 North Capitol Street N.W.
Washington, D.C. 20001
placey@aga.org





Barbara Dobos
<bdobos@bresnan.net>

02/15/2006 03:34 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Written Comments AMRP

Attention:

David Simons, Project Lead
Bureau of Land Management
Rawlins Field Office
Rawlins, WY 82301

Please find attached Microsoft Word document with Alliance for Historic Wyoming comments on Draft Environmental Impact Statement for the Atlantic rim Natural Gas Field Development Project (ARMP).

Barbara Dobos
Alliance for Historic Wyoming
bdobos@bresnan.net
(307) 235-1034



ARMP Comments

David Simons, Field Manager
Rawlins Field Office
U.S. Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301
Atlantic_Rim_EIS_WYMail@blm.gov

February 12, 2006

Dear Mr. Simons:

The Alliance for Historic Wyoming appreciates the opportunity to comment on the Draft Environmental Impact Statement for the Atlantic Rim Natural Gas Field Development Project in Carbon County, Wyoming. AHW is a statewide nonprofit organization dedicated to helping citizens advocate for Wyoming's unique and irreplaceable prehistoric, historic and cultural resources. Your office has addressed many of our concerns with the project. However, we raise the following concerns.

OVERVIEW

We view this project as a major Federal action with adverse effects that may well be cumulative over time. Anadarko Petroleum and others are proposing to drill approximately 2,000 coal bed methane wells over the next 20 years, with production extending 30 to 50 years into the future. Present surface disturbance alone will cover over 15,000 acres and will include well pads, roads, pipelines, utility corridors and ancillary facilities. At its peak the project will have 1,000 workers, all living in the vicinity of Rawlins and the two drilling and construction camps near Dad and Wamsutter. Increased human activity alone will stress wildlife, hunting, recreation and range resources. Energy development cannot help but impact the historic trails landscape and other cultural resources. None of these factors can be easily mitigated out of existence.

BEST MANAGEMENT PRACTICES

The scale, breadth and intensity of this development will adversely affect some of Wyoming's known paleontologic resources, vestiges of ancient Native American cultures, historic pioneer trail routes, and historic ranches. Any federal authorization of this project must comply with the specific directives of the National Historic Preservation Act of 1966 as amended and Sections 106 and 110 of NHPA as well as the Great Divide Resource Management Plan and Wyoming SHPO.

Even though NEPA regulations require that EIS alternative analyses include the "no action" alternative (40 CFR 1502.14(d)), development has been taking place since 2001 when interim exploration drilling began. Therefore, the only action that AHW supports is Alternative C – since Alternative A is meaningless.

EXTANT OF CULTURAL RESOURCES

To date, the cultural resources fieldwork would seem to be limited to inventories of surface finds. Three hundred twenty-seven prehistoric sites were documented in the ARMP prior to 2003 (3.11.4). No sites have been extensively tested or excavated in the project area (3.11.5). We would encourage continued ongoing paleontological and archaeological surveys, test excavations, examination of ethnographic records, and historic research.

BLM approval of the Atlantic Rim project requires compliance with Section 106 of the NHPA that states all affected historic resources eligible for or on the National Register of Historic Places be taken into account, including adverse effects that would diminish the integrity of the

E88-1-1

E88-1

E88-2-1

E88-2

E88-2-2

E88-2-2

E88-2

property's location, design, setting, materials, workmanship, feeling or association. Since many of these historic properties are as yet unidentified we would encourage a broad range of alternative strategies allowing for later, unspecified site preservation.

AFFECTED ENVIRONMENT

The ARMP includes approximately 73 miles of total historic trail segments including 10 miles of the Overland Trail (48CR932), 12 miles of the Cherokee Trail (48SW3689) and 44 miles of the Rawlins to Baggs Stage Road (48CR36480). All are eligible for National Register of Historic Places. Six stage stations on the Overland trail, including Washakie Stage Station, Sulphur Stage Station and Duck Lake Stage Station and seven historic ranches lie within the project area. Historic inscriptions, cairns, irrigation ditches and other indicators of early ranching and herding are in evidence.

E88-3

BLM notes there are a significant number of prehistoric sites and artifact materials located within the Atlantic Rim project area. These include prehistoric campsites, lithic scatters, quarries, burials, rock art, rock shelters, stone circles and pottery/ceramic sites. Prehistoric sites in the region date from the early Paleoindian period of 12,000 years ago to the introduction of the horse or even until Historic Contact.

E88-3-1

In addition to the eight paleontologic finds documented in the ARMP, precautions should be made to make sure rare and scientifically significant fossil resources are not destroyed during the project lifetime.

ANALYSIS OF ENVIRONMENTAL CONSEQUENCES

The enormous quantity of prehistoric, historic and cultural material already identified in the ARMP would indicate significant undiscovered resources in situ. This abundance of cultural resources presents an excellent opportunity to enrich and preserve our record of the past. It is incumbent on the BLM and oil and gas operators to protect and preserve these sensitive resources for future generations of Americans.

E88-4-1

E88-4

The vestiges of our historic trails are rapidly disappearing, yet your document references only "contributing segments" for protection, while "non-contributing segments" are excluded. We take the position that ALL segments of the trail should be included in your analysis and criteria for "contributing segments" and "non-contributing segments" should be clarified.

E88-4-3

We also believe the 1/4 buffer surrounding the historic trails is not sufficient to protect the physical trace of the trails from development and should be substantially expanded to as much as three miles. At the same time, the two-mile analysis area around the buffer should be expanded to better protect "the view shed, air quality and all elements relevant to location, feeling and association that contribute to NRHP eligibility of the trails and/or associated sites."

IMPACT SIGNIFICANCE CRITERIA

The historic significance of this area is unquestioned. The Code of Federal Regulations 936 CFR 60.4 defines Impact Significance Criteria for meeting site eligibility as " associated with events that have made a significant contribution to the broad patterns of our history" (Criterion A) and "have yielded, or may be likely to yield information important in prehistory or history" (Criterion D). These criteria are clearly met in the ARMP area.

E88-5-1

E88-5

E88-5-2

BLM, as the land management agency charged with the protection and preservation of existing (known and unknown) prehistoric, historic and cultural materials within the ARMP, must comply with existing environmental law to insure that history is preserved.

E88-6-1
E88-6-2
E88-6-3
E88-6-4
E88-6-5
E88-6-6
E88-6-7
E88-6-8
E88-6

PROPOSED ACTION

AHW supports the ARMP **Alternative C** action plan, with stipulated reservations found in 4.11.5 Additional Mitigation Measures, and our specific recommendations.

1. Continue ongoing paleontological and archaeological surveys, test excavation, examination of ethnographic records and historic research.
2. Encourage a broad range of alternative strategies allowing for later, unspecified site preservation.
3. Increase the 1/4 mile buffer surrounding the historic trails and the two-mile analysis area around the buffer.
4. Include both “contributing segments” and “non-contributing segments “ in the historic trails analysis.
5. Utilize existing roads, power lines, and associated infrastructure.
6. Initiate reclamation concurrently with development.
7. Encourage cooperation from private landowners to preserve the entire historic trails segment.
8. Disallow operator use of historic trails or historic roads.

Please retain AHW in all future communications on this project.

Thank you for the opportunity to comment on the ARMP.

/s/

Barbara Dobos
Alliance for Historic Wyoming
1036 Monte Vista Drive
Casper, WY 82601
307.235.1034
bdobos@bresnan.net



"John Greer"
 <jgreer@GreerServices.com>
 02/16/2006 04:54 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>
 cc "Mavis Greer" <Mavis@GreerServices.com>, "Lesley
 Wischmann" <lesleywisch@earthlink.net>
 bcc
 Subject Public comment, Atlantic Rim EIS, Cultural

Atlantic Rim EIS, Cultural Concerns.

Experience in this area has shown that the majority of the most important archeological sites, those containing the most important cultural and research information, are not exposed on the surface. Such sites contain buried hearths, complex configurations of firepits, concentrated cultural deposits, numerous artifacts, an abundance of ecological information, and most importantly numerous houses and other kinds of occupational features usually not recognizable on the surface. It is recommended that all earth disturbing activities be monitored by an archeologist, with activities including but not limited to well pads, access roads, pipelines, powerlines, buried cables, compressor stations, and POD buildings. In the event of findings of buried cultural materials or features, it is recommended that all recognizable features and concentrated cultural deposits within the disturbance zone, including a reasonable buffer area, be fully excavated and the results analyzed, including special studies as necessary. It is estimated that there will be numerous significant subsurface findings located during construction monitor throughout the Atlantic Rim project area, and planned construction should take into consideration the high likelihood for delays due to such findings.

E91-1
 E91-2

In the event that buried cultural materials are recognized in any particular area, additional subsurface prospecting will be necessary to locate related, unexposed significant cultural features and deposits. It is recommended that a flexible methodology be developed to meet the needs of both archeological research and energy exploration that will maximize data recovery and related searching for more materials and minimize time spent in the search and related excavation. Various approaches based on careful and selective use of heavy equipment combined with hand sampling have been developed relative to kinds of studies necessary for such features and expected kinds of information.

E91-3

As a further reflection on this last point, for BLM upper management consideration, there is a broad schism within the archeological community in Wyoming about what should be done relative to oil and gas exploration in general, and how buried archeological sites should be explored specifically. Just as there are polar attitudes that there should be no energy exploration at all because it disturbs the land, or that energy exploration is necessary for the nation and therefore should be allowed to go about unchecked, with no archeological

consideration, there exist equal opposites of how to find and deal with buried sites. Some say that all searching for sites should be done slowly and carefully with a small brush and tweezers, while others propose intensive use of heavy construction machinery. In arriving at a reasonable methodology of how to investigate buried sites in a responsible and responsive manner, one should anticipate what kinds of materials are likely to be found, what kinds of information those materials are likely to yield, and how that information most efficiently can be gathered and analyzed. In the extreme example, if the only important information a site is likely contain is the size and shape of the projectile points, then the obvious responsive methodology is to bulldoze up all the projectile points, with deposits quickly processed through massive screens, and take them to a distant lab for processing. Resulting time would be a matter of a few hours, at most. For the Atlantic Rim area, archeological and ecological context and intrasite arrangement are important aspects of the significant information each site has to offer, and it is the cumulative information from all sites that is of overpowering importance. Within a site, the most important information may be judged to be the absolute and relative location of cultural features, their form, and content. Location cannot be determined with any kind of auger or shovel test, and hand excavation of all of southern Wyoming would not be a responsible management recommendation. It has been shown that careful use of selective heavy equipment and specific equipment operators will locate cultural features with minimal destruction of context, form, or content. Opponents of the use of such equipment point out that blading destroys the occupational surface from which firepits and pithouses were excavated, and that observation is true part of the time. While it would be ideal to retain original occupational surfaces intact, information from those surfaces is overall less rewarding than other information that the site has to offer, specifically relative to cultural features such as hearths, firepits, houses, and concentrations of cultural deposits. In some cases sites could be investigated and studied in an intact context, with minimal disturbance to ascertain what kinds of information are lost by use of heavy equipment. That would provide a baseline for further investigative decisions or designs. What appears necessary, however, is some kind of compromise between what is possible and what is most rewarding scientifically, and further what is a reasonable balance between preservation of important, useful archeological information and the legal rights of energy exploration corporations responding to the energy needs of the nation. It is our contention that carefully selected methodologies, based on consideration of all available tools and approaches, together with an understanding of present and future research questions, are best served by utilizing a combination of heavy equipment and more traditional, slower and costlier excavation.

E91-4

Discussions of these considerations can be done by invitation of written comments, as is common, or public forums in which people can openly express concerns over destruction of the country, or support for energy and jobs. Part of the process of

E91-5

careful consideration of possible investigative approaches, however, should be meetings between management and archeological specialists with specific experience in a variety of approaches and studies.

Thank you for your consideration.

John Greer, Ph.D.

Dr. John Greer jgreer@GreerServices.com

Dr. Mavis Greer mavis@GreerServices.com

Greer Services

2599 S Paradise Dr

Casper, WY 82604 USA

off. 307-473-2054

fax 307-473-1574



"Chuck Mollica"
<chuckmollica@wyoming.com>
>

02/15/2006 06:35 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Comment on proposed development of CBM

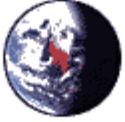
Dear Sir,

While I feel that we need oil and gas for our country, I would support the **no action alternative** on the CBM development in the Atlantic Rim. I do this because we need a better thought-out set of proposals. They would include areas within the project to be completely protected (Wild Cow Creek and important Sage hen and large animal breeding, wintering and migration areas). We need to use best available practices that absolutely minimize the impact of the drill sites and linking roads (phased development that includes complete restoration of disturbed land before the next development phase is initiated, directional drilling, etc). Protection of cultural and geologic resources is also imperative.

I do not see these features in any of the proposed alternatives. We need to go back and shape a truly low impact plan. I know you can do this and it would be a superb example of best use, best practices as well as resource recovery. We could have it all - if you do you best to keep our public lands healthy.

Chuck Mollica
1003 W. Maple
Rawlins, WY 82301
307-321-1524

E95-2 E95-1



"Steve Liles"
<sliles@warrenep.com>

02/16/2006 07:34 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Anadarko Atlantic Rim Letter of Support

Please accept this letter on behalf of Anadarko's Atlantic Rim Project.

Thanks,



Steve Liles Atlantic Rim Ltr.pdf

February 15, 2006

Rawlins Field Office
1300 North Third
PO Box 2407
Rawlins, WY 82301

Dear Rawlins Staff:

Please include this letter in your draft Environmental Impact Statement for the Atlantic Rim proposal by Anadarko. I personally know that Anadarko is the top company in its field. In every one of its projects, it has placed safety and respect for the environment as a top priority in its natural gas production. I feel that you may not be granting them the fairness they deserve in this process.

It would be very unfortunate to not allow them the guidelines they need to succeed in developing the Atlantic Rim. I know that Anadarko has drilled 112 pilot wells, and out of these 112 wells, only the ones drilled with a spacing pattern of 80 acres have been producing natural gas consistently. Yet the draft EIS is proposing a 160 acre spacing pattern. All the pilot wells constructed with this amount of space between them are producing only water. Therefore, I think it would be imprudent to ask Anadarko to develop the pattern you have presented.

E100-1 | Please reconsider the 160 acre spacing proposal before you finalize this EIS, and allow wells to be drilled every 80 acres. The NEPA process is designed to produce balance to both environmental interests and natural resource extraction efforts. Given the projected potential for 1.5 cubic feet of natural gas available for consumer use from the Atlantic Rim, it simply would not make sense to demand a development pattern with the potential of huge financial waste and little development in an area with this huge potential.

Sincerely,



Steve Liles

301 E. Ocean Blvd., Suite 1010
Long Beach, CA



"Mary Lou Morrison"
<mamorrison@vcn.com>

02/16/2006 10:03 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Comments

Dear Mr. Simons:

Thank you for this opportunity to comment on the Atlantic Rim Coal Bed Natural Gas Project. I consider the Red Desert a veritable mammoth outdoor museum, replete with paleontology, early Native American historical and religious sites with floors of fossils, lithic remains, and in this specific area, 73 miles of historic trails in this particular area. I support Alternative C as the best alternative being offered. I am deeply concerned that this project cannot help but damage the significant paleontological, archaeological and historic sites which have already been documented in the project.

E102-2 E102-1 | I am particularly concerned that the proposed plan does not provide sufficient protection for the Overland Trail, the Cherokee Trail and the Rawlins to Baggs Road, historic trails running through this region. The designated 1/4 mile buffer and two mile analysis area for these irreplaceable historic trails should both be increased significantly to protect these resources. In addition, I would hope that the BLM could issue a comprehensive survey of what they consider to be the contributing segments of these historic trails. How can any of these segments be classed as non-contributing?

E102-3 | I also hope that you will continue paleontological and archaeological surveys so that we can better understand the resources present. In my visits to portions of the Red Desert, I have been astounded at the lithic remains strewn everywhere, signifying its historical and cultural past. To know that these remains will be sacrificed for a misguided, greedy administration that cares nothing for the future is sinful to say the least. This is to say nothing about the cumulative damage to vegetation and related fauna put at risk, or the destruction of glorious uncluttered view sheds.

Sincerely,
Mary Lou Morrison, 845 East Third Street, Casper, WY 82601



"Bob Solomon"
<bsolomon@tower-energy.com>

02/17/2006 09:20 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

"Pat D O'Brien" <pobrien@tower-energy.com>, "Ken
Tholstrom" <ktholstrom@tower-energy.com>, "Wayne
Neumiller" <wneumiller@wyoming.com>

bcc

Subject EIS COMMENTS

PLEASE CONSIDER THE ATTACHED COMMENTS REGARDING THE PROPOSED ATLANTIC RIM
PROJECT...



BOB SOLOMON Atlantic Rim EIS Letter 02-17-2006.doc

February 17, 2006

Re: Draft Atlantic Rim EIS

Mr. David Simons, Project Manager
Bureau of Land Management
Rawlins Field Office
P. O. Box 2407
Rawlins, Wyoming 82301

Dear Mr. Simons:

With regard to the Atlantic Rim EIS, it is most important that you adequately consider the substantial benefits of managed development of this great resource with respect to the common benefits of additional gas supply for our nation and economic benefits for Wyoming and the Rawlins/Baggs area.

There are literally trillions of cubic feet of natural gas in the Atlantic Rim area that along with other projects around the state can have great impact on controlling natural gas prices for our fellow citizens (maybe your mother or grandmother) and provide job and economic benefits for the area. This development can be done with moderate impact on the environment in this area but should be allowed in a managed fashion that makes sense for the type of reservoir and production characteristics present.

Existing oil and gas leases are issued with stipulations that preclude development during critical habitat seasons as well as many, many other imposed regulations. If anything we are in danger of totally regulating away any ability to effectively manage our abundant natural resources. Such is the case with the Atlantic Rim project. These venues should be used to control and regulate activity, but not prohibit reasonable development activities.

E105-1 | Future wildlife monitoring should be done in cooperation with Fish and Wildlife, Animal Control, ranching, hunting, and oil & gas explorationists, as all will benefit in the long run. But, the costs must be shared by all; and not solely borne by oil and gas companies.

The Proponents of the Atlantic Rim Project have proposed and continue to propose orderly technical and economic development in the form of phased development. The BLM's phased development alternative will waste millions of dollars and withhold needed resources from our citizens. Let's allow development at an adequate pace to exploit the resource, and reclaim the area in a reasonable time frame, not prolong development for the next quarter century or more.

E105-2 | Alternative "C" is unworkable in that it effectively calls for 160-acre spacing in the project area. The original development of the Blue Sky pod clearly shows 160-acre spacing will not allow the coals to properly de-water to economically maximize the methane recovery. The SunDog and

E105-2

Doty Mountain pods clearly show that 80-acre spacing, at the least, is the most viable, technical and economic development plan.

The mitigation measures further stated in the Alternatives are arbitrary and onerous. Again, it does not realistically address the economic impacts; nor does it acknowledge that existing regulations are in place to govern the drilling and reclamation of the project area.

E105-4 E105-3

Water disposal is a prime consideration. Re-injection of water will probably remain as the main disposal option. However, surface disposal of produced water must be considered. Surface disposal at the Cow Creek field demonstrates the usefulness of this water to wildlife and livestock. Finally, the BLM should recognize the state and local authority to control and govern the project at the most grass roots level. Water disposal should conform to existing EPA standards, but barring EPA violations, the Wyoming Department of Environmental Quality should be the final authority (See Onshore Order Number 7, Section G).

The Proponents have spent millions in investigations, studies, and scenarios to propose the most workable, technically feasible, economically viable, and ultimately unintrusive development plan possible. The BLM has a congressionally mandated multiple-use mission. This mandate must consider the aspect of a future self-sufficient energy supply and economic well-being of the areas affected by this development as well as the nation as a whole. I urge the Bureau of Land Management to accept the Proponents proposed action rather than those proposed by your agency.

Very truly yours,

Bob Solomon
1050 17th Street, Suite 1850
Denver, CO 80265



"Lloyd Davies"
<lloydavies@earthlink.net>

02/17/2006 09:34 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Natural Gas Development Project

Attached are my comments regarding the DEIS for the Atlantic Rim Gas Development Project.

Lloyd M Davies



DEISCOMMENT.doc

Warren E&P Inc.
3340 Creekview Drive
Bonita Springs, FL 34134
Telephone (239) 498-0775

February 17, 2006

David Simons, Project Lead
BLM - Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301

Re: Atlantic Rim Draft EIS

Dear Mr. Simons,

The following is in response to the BLM's proposed alternatives in the current Draft Environmental Impact Statement (DEIS) for the development of coal bed methane natural gas in the Atlantic Rim field in Carbon County, Wyoming.

Warren E&P Inc. is submitting a separate detailed formal response covering the entire DEIS and there no doubt will be several responses from individuals on the Warren team. For this reason, this letter is focused on one single item that I feel is probably one of the most important issues yet is entirely ignored in the DEIS. That item is MAXIMIZING RECOVERY.

Perhaps this is due to almost my entire career being dedicated to developing and producing oil and gas fields with the goal of maximizing recovery and optimizing the financials. It therefore comes as a real shock to me to plan the development of a major field without any consideration to the effect on recovery from the various alternatives suggested. Ignoring the economic impact of recovery on the U. S., the State, its people as well as the companies is a major omission. In fact, it wasn't ignored, the Reservoir Management Group in Casper made a reasonable analysis complete with recommendations but that analysis was totally ignored in the DEIS report. My reasons for considering this a serious oversight are presented below:

In order to maximize coal bed methane gas recovery the entire coal bed must be depleted to the lowest pressure possible to permit the maximum amount of gas to escape from the coal. The rate of gas breakout is best depicted by the gas desorption curve which shows that gas breakout does not evolve at a constant rate as pressure decreases but sharply accelerates at the lowermost pressures. The attached representative desorption curves from the Atlantic Rim illustrate this point. When the pressure is dropped from the original pressure by 50%, only

24% of the gas is liberated whereas the subsequent pressure drop of only 33% liberates 40% of the total gas. Since recovery is almost directly proportional to the amount of gas released, achieving a low bottom hole pressure is most critical.

Achieving the lowest possible coal bed pressure throughout the field is not easy. Working against this goal are several factors which include the following: 1) vertical water migration into the coal from over/under water bearing formations, 2) discontinuities or faults within the coal that restrict uniform drainage and 3) low permeabilities within the coal that limit pressure drawdown within the drainage area. All of these factors exist in almost any field; the question is to what degree.

E107-1

Without question, Alternative B restricts our ability to deplete to the lowest possible pressure. Field data already shows that it is difficult if not impossible to reduce the coal bed pressures satisfactorily when on 160 acres spacing. Logically, wide spacing also promotes further restrictions or lower recoveries caused by coal discontinuities and low permeability barriers.

E107-2-3 E107-2-2 E107-2-1

E107-2

Alternative C presents the same recovery restrictions as Alternative B but in a less uniform manner and sometimes with more serious results. Any spatial restriction will have a harmful effect on recovery both within and outside of the developed area as communication between the areas will hinder maximum pressure drawdown. Directional wells, besides presenting an operational nightmare with diminishing water and higher gas production, can in no way reach the areas being considered off-limits thereby reducing recovery. The EIS goals for the environment are indeed lofty, but has adequate consideration been given to the fact that this system will operate almost entirely electronically after it is developed and, during development, equipment will occupy only a temporary minimal portion of the entire field? This company fully intends to be a good corporate citizen and supports goals such as early and complete remediation and minimizing road and location footprints where practical.

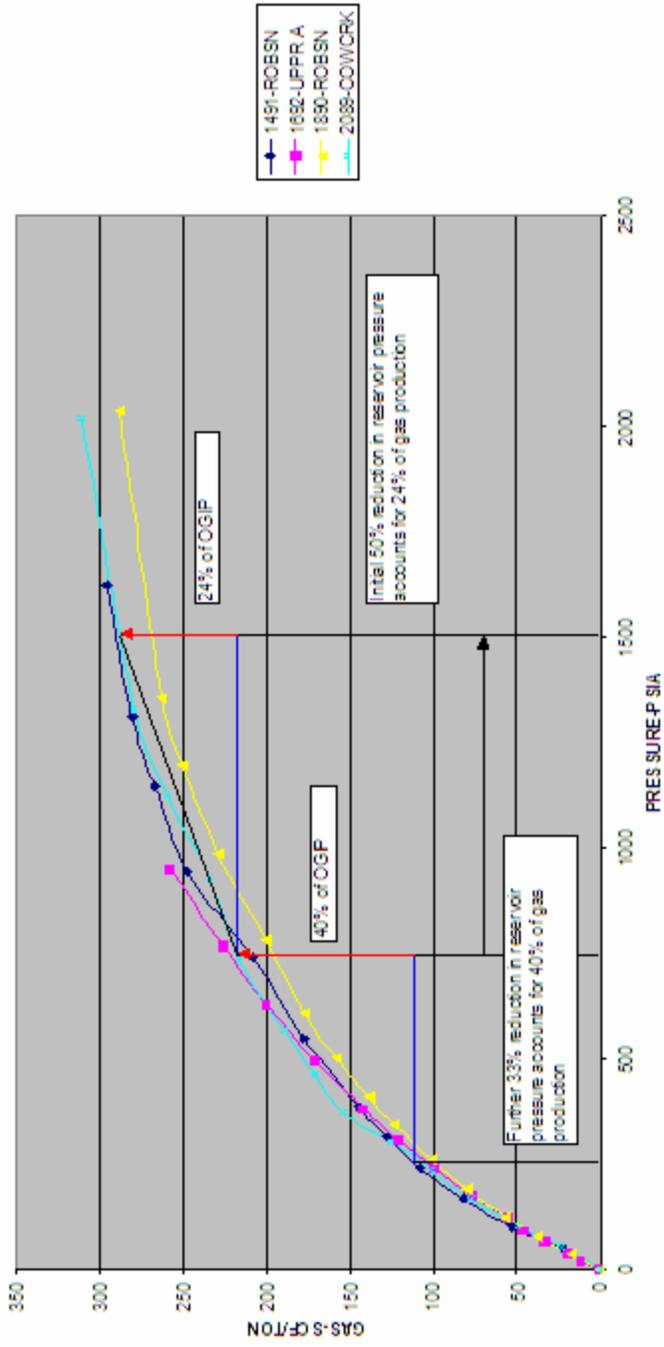
In closing, I respectfully request that you seriously consider the goal of maximizing recovery for this project. To ignore recoverable reserves in a project of this magnitude is truly a waste of resources not just for the companies involved but also for the Nation.

Very truly yours,



Lloyd G. Davies
Chairman and Chief Executive Officer
Warren E&P Inc.

ATLANTIC RIM GAS ADSORBED





"Mike Neumiller"
 <mikeneu@wyoming.com>
 02/17/2006 09:38 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>
 cc
 bcc
 Subject AR EIS General Comments

February 17, 2006

Mr. David Simons
 Project Manager
 Bureau of Land Management
 Rawlins Office
 P. O. Box 2407
 Rawlins, WY 82301

RE: Draft EIS Atlantic Rim

Email Atlanic_Rim_EIS_WYMail@blm.gov

Ladies and Gentlemen:

The Atlantic Rim Natural Gas Field Development Project (Atlantic Rim Project) has been in process for five years. Finally, the draft EIS has been released for comment. The BLM has seen fit to develop their own "Alternatives" in conflict with the Operators' (Anadarko and Double Eagle) plan of development. The delay has cost millions of dollars and is preventing the development of necessary gas resources critical to the United States energy supply

E108-1

The Draft EIA is flawed in many respects including typographical errors, unfinished sentences, misplaced figures and tables and inconsistent descriptions of alternatives and their potential impacts. It is also based on unsubstantiated bias against development of the coalbed methane resource.

E108-3 E108-2

The "Alternatives" proposed by the BLM do not mimic those of the Proponent, Anadarko and other operators, and are fabricated with arbitrary and capricious requirements. The Phased (Alternative B) is unrealistic and will cause the resources to be developed in an unworkable pattern. Alternative C forces unnecessary mitigation that is already covered by lease stipulations and existing NEPA requirements and requires spacing regulations that have been proved to be uneconomical to the production of methane gas reserves.

E108-4

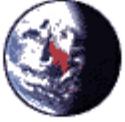
Your proposals are clearly in conflict policies set forth in the Energy Policy Act of 2005. The technologically and economically viability of the project is in jeopardy under you plans. Those with interests in the area both economic and sociologic will be deprived of their fortunes and well-being. The federal government will suffer from loss in revenues, drainage, and from potential liability for takings claims.

You must allow the Operators, Anadarko and others, to develop the resources as their expertise and experience will allow.

Also as an operator North Finn, LLc tried to develop the Carbon Basin just south of Hanna, WY. We spend considerable amount of money and time to buy the leases and Stake the wells. Four days were taken to map the proposed pipelines and water Lines. After North Finn sent the development of one section to the BLM office

In Rawlins you instructed NF that an IES had to be done, and this was after we were Told that if only one section was proposed no IES was necessary. Then the BLM office in Rawlins said they would do the EIS for this area. After waiting Over a year the BLM said they did not have the time to do the EIS. After all of the time had expired the surface agreements with the surface owner expired and the surface was sold to another Coal Mine. It was very clear to us that the Rawlins district did not want CBM development in this area. As a small operator we did not have the man power or Resources needed to fight this battle. We have let most of the leases expire and have gone To other areas away form this district.

Thank you,
Mike Neumiller
North Finn LLC



"Robert W. Schafer"
<RobertS@hdgold.com>

02/17/2006 10:42 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc "Mark Dolar" <dolarenergy@yahoo.com>, "Lane Lasrich"
<llasrich@utah-inter.net>

bcc

Subject Wyoming EIS Opinion Letter

<<WY EIS letter>>

Thanks you for considering my letter explaining my views on the draft EIS now under consideration. The file may be opened using Microsoft Word.



Robert W. Schafer WY EIS letter

February 17, 2006

Mr. David Simons
Project Manager
Bureau of Land Management
Rawlins Office
P. O . Box 2407
Rawlins, WY 82301

Email Atlanic_Rim_EIS_WYMail@blm.gov

RE: Draft Environmental Impact Statement for the Atlantic Rim Natural Gas Field
Development Project (Carbon County, Wyoming)

Ladies and Gentlemen:

As a working interest partner in the Atlantic Rim Natural Gas Field Development Project (Atlantic Rim Project), my wife and I have waited five years for the Rawlins BLM field office to develop the Draft Environmental Impact Statement (DEIS) necessary for coalbed methane development on our leased federal lands. BLM directives upon completing a DEIS requires the planning documents to be written and released for public comment within an 18 month period, and it is disappointing the your office as taken so long to complete the environmental documentation for the Atlantic Rim Project. Since our leased interests will be the first lands developed upon approval of the final EIS, the delay has cost us several hundred thousands of dollars in income. In conclusion on this issue, the delay in preparing the DEIS has not stopped the field from being developed since Anadarko has drilled the fee minerals it owns in the area outline of the DEIS, it has only stopped development on the federal minerals in the Doty Moutain and Sun Dog Units.

E110-1-1

E110-1

We have carefully reviewed the DEIS, and have discovered it has numerous typographical errors, unfinished sentences, misplaced figures and tables and inconsistent descriptions of alternatives and their potential impacts. Furthermore, the DEIS, in our opinion, is drafted with an unfounded bias against coalbed methane development. It almost seems the Rawlins Field Office is attempting to derail the development of the reserves, by delaying the release of the document, and not releasing a comprehensive plan in the release of this DEIS.

Applicable laws require BLM to analyze the potential impacts from the proposed action, and to also consider a “no action” alternative along with any other reasonable alternatives that meet the purpose and need of the project, which for this project BLM identified as a “...proposal [] to drill for, remove and sell natural gas resources.” The DEIS as currently drafted analyzes the proposed action, a no action alternative, a phased drilling alternative (Alternative B) and what BLM has termed a “spatial alternative” (Alternative C). The latter is little more than a compilation of additional mitigation measures. BLM has identified its preferred alternative as both B and C; however, BLM has failed to clearly state what this means. Alternatives B and C both fail to meet the purpose and need of the project, while the no action alternative unaccountably fails to address drilling on both fee and state lands that would likely occur even if BLM were to deny the proposal for federal lands.

E110-1-2
E110-1-3
E110-1

Alternative B would require development to occur in three separate phases. As described in the DEIS, BLM has divided the project area into three sections, and drilling would only be allowed in one section at a time. Operators would be prohibited from moving onto the next section until interim reclamation is completed in the previous section. If BLM adopts this alternative, the ability to maximize the recovery of coal bed natural gas (CBNG) resources will be severely restricted in direct opposition to policies set forth in the Energy Policy Act of 2005. This alternative and BLM’s analysis of its potential impacts is problematic in that: 1) BLM has failed to address whether this proposal is technologically or economically viable; 2) BLM fails to account for the economic impact on lessees both from the perspective that some of the subject leases could be suspended for over fourteen years and that those with interests in the second and third phases will be deprived of revenues for seven to fourteen years; 3) BLM has failed to address the potential economic impact to the federal government both from the perspective of a loss of revenues, drainage, and from potential liability for takings claims; 4) BLM has failed to define what constitutes “interim reclamation” thereby failing to fully analyze both the environmental and economic impacts of phasing drilling in this fashion.

E110-2-2
E110-2-3
E110-2-1
E110-2

Alternative C is problematic for two major reasons. It does not appear this plan stages development, but is more a list of mitigation measures that limits develops to a 60 day drilling window. Secondly and most disconcerting is the fact that under this alternative, BLM would effectively impose 160 acre spacing across ninety-five (95%) of the project area (DEIS at 4-51), despite the fact that current information indicates that these CBNG resources can not be developed under this spacing scenario.

E110-3-2
E110-3-1
E110-3

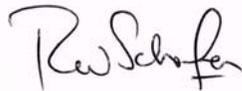
The analyses for potential impacts to air, soil, water and wildlife are similarly flawed. Those sections are characterized by analyses of impacts that are often general in nature; do not sufficiently integrate the effectiveness of engineering designs and operating practices and procedures; do not fully integrate existing information on environmental conditions into the analysis and are severely lacking in qualitative analyses despite the ready availability of such tools (e.g. soil loss models) or are based on dated information.

E110-4-4
E110-4-3
E110-4-2
E110-4-1
E110-4

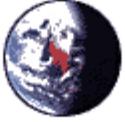
Anadarko has generated a develop plan for seven years of staged drilling to develop the reserves on 80 acre spacing, in a manner based on conservation of reserves and accessing the surface systematically. Keep in mind there may be as much as 3 trillion cubic feet of gas to be produced from this field, and the BLM is required to take into account the economic viability of a project, as well as the protecting the surface of the lands. We suggest and request the Rawlins BLM to adopt the development program as defined by Anadarko to Alternative B, and approve the EIS based on a document that will allow the development of gas reserves, as well as protect the other resources of concern in the area.

Thank you for the opportunity to submit these comments.

Sincerely,

A handwritten signature in black ink that reads "Robert W. Schafer". The signature is written in a cursive style with a large, prominent "R" and "S".

Robert W. Schafer
6287 Vintage Oak Lane
Salt Lake City, UT 84121

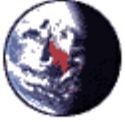


runkayak@aol.com
02/17/2006 12:40 PM

To Atlantic_Rim_EIS_WYMail@blm.gov
cc remoteusa@union-tel.com, jean.runner@wy.nacdnet.net
bcc
Subject ARPA



Attached are comments from Arla Strasser with SERCD ARIM Draft EIS comments 2_16_06.doc



"Guthrie, Linda"
<Linda.Guthrie@dvn.com>

02/17/2006 01:11 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Draft EIS comments

Dave-

Attached are Devon's comments regarding the draft EIS document. Please let me know if you have any problems opening the document

Linda Guthrie

Sr. Regulatory Specialist <<Atlantic Rim DEIS comments.pdf>>

Devon Energy

20 N Broadway

Oklahoma City, OK 73102-8260

Direct: 405-228-8209

Fax: 405-552-1319



Cell: 405-245-4195 Atlantic Rim DEIS comments.pdf



Devon Energy Corporation
20 N Broadway
Oklahoma City, OK 73102-8260

February 17, 2006

Via e-mail **Atlantic-Rim-EIS-WYMail@blm.gov**

Mr. David Simons
Bureau of Land Management
Rawlins Field Office
PO Box 2407
Rawlins, WY 82301

Re: Atlantic Rim Project Area Draft EIS

Dear Mr. Simons:

Devon Energy is herewith submitting our comments regarding the Draft EIS for the Atlantic Rim Project Area. While we generally support the efforts of the BLM to address many complex issues and multiple uses, we believe the preferred alternative is overly restrictive and does not provide sufficient opportunities to use and develop oil and gas resources while still protecting cultural and natural resources.

E114-1

Devon believes that the current document does not clearly identify what is intended by the statement "The BLM preferred alternative in this case is a combination of alternatives **B** and **C**." We interpret this to mean the implementation of Alternative B with the addition of a myriad of mitigation measures. This layering of restrictions would severely limit the ability to economically develop the resources in the area.

E114-2

With respect to Alternative B, Devon believes that "phased" activities may be appropriate when looking at an area and deciding not to lease certain portions of it until a later time due to various considerations. However, to take a lease that has already been approved and then impose "phased" drilling restrictions in that area for a period of 12-14 years (in this case) plus reclamation time prior to allowing development activity is totally inappropriate for currently leased lands. The impacts of such a requirement could be far-reaching and include such things as correlative rights, loss of federal revenue as well as potential liability for "takings" claims.

E114-3

Some of the restrictions in Alternative C would limit development to a surface disturbance not to exceed 20 acres per section. In the DEIS at pg 4-51, the BLM states "Since about 95 percent of the ARPA is affected by one or more restrictions for sensitive values, the total acres disturbed would be reduced by about 64%, with impacts in different plant communities affected to varying degrees." While efforts should always be made to minimize surface impact, the determination of the spacing throughout the project should be determined by the technical aspects of the reservoir and the ability to economically develop the natural gas reserves. Restricting the spacing in over 95% of the area to 4 wells per section could impair the ability to adequately produce the reservoir as well as preclude the project from being economically viable.

Devon has significant concerns regarding the preferred alternative, its apparent disconnect in meeting the purpose and need of the project and the overall impact it will have in effectively managing the resources in the ARPA. Even more concerning is the precedent of over-reaching restrictions due to surface concerns that compromise the ability to develop the domestic natural gas reserves in order to reduce the country's dependence on foreign sources of energy.

Devon appreciates the opportunity to comment on this draft and we request the BLM to re-evaluate their decision and seek to provide a balanced approach to the management of the oil and gas resources with the other surface resource values. We believe that the current preferred alternative is neither economically viable nor in line with the policies recently set forth in the Energy Policy Act of 2005 as to the importance of developing our domestic oil and gas resource base. We believe the proposed action would provide the most balanced and effective development of the area.

Sincerely,



Linda Guthrie
Sr. Regulatory Specialist



"Richard Currit"
<RCURRI@state.wy.us>

02/17/2006 01:53 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc "Temple Stevenson" <TSTEVE1@state.wy.us>

bcc

Subject ARPA

Attached. Hard copy to follow.



1203SAH022.doc

February 17, 2006

David Simons, Project Lead
U.S.D.I. Bureau of Land Management
Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301

re: Atlantic Rim Natural Gas Project Draft Environmental Impact Statement (SHPO File # 1203SAH022)

Dear Mr. Simons:

Thank you for consulting with the Wyoming State Historic Preservation Office (SHPO) regarding the above referenced project.

The inclusion of the cumulative impacts this project may have on cultural resources, (Chapter 5, Section 5.3.11), is helpful in understanding the effects of this project on historic trails. However, this section needs to be expanded.

As noted in Section 1.3.2, there are several other large projects occurring in the immediate vicinity of the Atlantic Rim Project. These projects, in combination, present the potential to cumulatively adversely affect a lengthy, and continuous, segment of these historic trails. A more thorough analysis of this impact, in terms of total adverse affects, is warranted. Additionally, the ability of the public to visit these resources due to safety considerations associated with development activities should be addressed.

While the cumulative impact on historic trails is discussed, the section should be expanded to include other resource types. These should include, but not be limited to, Traditional Cultural Properties, archaeological sites, ranching sites and early energy development sites.

Please refer to SHPO project #1203SAH022 on any future correspondence regarding this project. If you have any questions, please contact me at 307-777-5497.

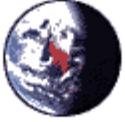
Sincerely,

Richard L. Currit
Senior Archaeologist

E115-1

E115-2

E115-3



"Ericka S. Cook"
<Ericka@pawyo.org>

02/17/2006 03:08 PM

Please respond to
ericka@pawyo.org

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

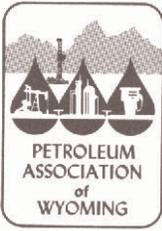
Subject Atlantic Rim Comments

Attached please find comments on behalf of the Petroleum Association of Wyoming.

Thank you.



Ericka S. Cook Atlantic Rim Comments Feb 2006.doc



PETROLEUM ASSOCIATION OF WYOMING

951 Werner Court, Suite 100
Casper, Wyoming 82601
(307) 234-5333

fax (307) 266-2189
e-mail: paw@pawyo.org
www.pawyo.org

VIA EMAIL: [Atlantic Rim EIS WYMail@blm.gov](mailto:Atlantic_Rim_EIS_WYMail@blm.gov)

February 17, 2006

Mr. Dave Simons
Rawlins Field Office Manager
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

RE: Atlantic Rim Project Area Draft Environmental Impact Statement

Dear Mr. Simons:

The Petroleum Association of Wyoming (PAW) would like to thank the Bureau of Land Management (BLM) for the opportunity to comment on the Atlantic Rim Project Area Draft Environmental Impact Statement (DEIS). PAW is Wyoming's largest and oldest oil and gas trade association, the members of which account for over ninety percent of the natural gas and eighty percent of the crude oil produced in the State of Wyoming. This project will directly affect members of PAW.

PAW has the following comments about the EA:

1. The Notice published December 12, 2005 by BLM is representative of the numerous deficiencies of the DEIS. The Notice incorrectly identifies not only the alternatives, but also BLM's preferred alternative. The Notice states BLM analyzed four alternatives: the proposed action, a no action alternative, Alternative A (Phased development), and Alternative B (special protection of sensitive resources). However, the DEIS describes the alternatives as follows: Alternative A no action, Alternative B phased development, and Alternative C development protection measures. The Notice then identified BLM's preferred alternative as Alternative B, which, as described, is the special protection of sensitive resources. The DEIS, on the other hand, identifies the BLM's preferred alternative as a combination of alternatives B and C. Additionally, the Environmental Protection Agency's (EPA) notice of availability of the DEIS incorrectly stated the comment period would close on January 30, 2006. The clear lack of attention to detail is representative of the DEIS which is full of mistakes and conflicting

E117-1-1

E117-1

E117-1-2

E117-1

statements. While many of the errors found in the document are not substantive issues, they do highlight the poor drafting of the document and lend credence to the fact that BLM has not provided scientific evidence to support the many of the conclusions reached in the document.

E117-2-1

2. The DEIS does not provide a full and fair discussion of significant environmental impacts and inform all interested parties of the reasonable alternatives as required by law. Not only does the document fail to present a full and fair discussion of the impacts, the two alternatives analyzed by BLM fail to meet the requirements of NEPA and its guiding regulations. The applicable regulations require BLM to rigorously explore and objectively evaluate all *reasonable* alternatives. In addition, case law requires BLM to consider alternatives that accomplish the intended purpose of the proposed action that are technically and economically feasible. In this DEIS BLM has analyzed two alternatives to the proposed action and the no action alternative. The two alternatives analyzed are a phased drilling alternative (Alternative B) and a spatial alternative (Alternative C). Neither of these alternatives meets the requirements of NEPA, case law and BLM guidance.

E117-2-2

E117-2-3

While Alternative B may be technically feasible, it is questionably economically feasible. The DEIS does not analyze this issue. More importantly, PAW questions whether or not BLM has the authority to suspend the subject leases for such lengthy periods without potentially raising takings claims or breach of contract claims. Alternative B is not reasonable in that a key term for this alternative is not defined or analyzed in the document. Specifically, operators will not be allowed to move from one phase to the next until the completion of interim reclamation; however, this term is not defined in the document. Appendix B contains the reclamation plan for the Project, and it defines Short-Term (Temporary) Reclamation and Long-Term (Final) Reclamation, but it does not define interim reclamation. In the absence of a definition for this key term, the document lacks a thorough discussion of the potential impacts relative to this alternative.

E117-2-4

E117-2

In addition, BLM did not address the fact that the Proposed Action is a phased approach and that the effects from both the Proposed Action and Alternative B are substantially similar. The operators proposed drilling approximately 200 wells per year. The wells would be drilled in essentially a concentric pattern. Moreover, drilling would be naturally phased given both the standard seasonal timing mitigation measures that would be applied to the project and the availability of sufficient drill rigs and attendant services and supplies. Although the operators have proposed drilling 200 wells per year, it may not be feasible to achieve such levels, and the drilling would certainly not occur all at once. Given all of the constraints on the project, it is clear that the Proposed Action will be phased in over time instead of geographically as proposed by BLM. The effects will therefore be similar to those under the Proposed Action, and under BLM's own guidance should not be analyzed as a separate alternative.

E117-2-5

E117-2-6

Alternative C is essentially a No Action Alternative. BLM characterizes this alternative as one in which drilling would occur as in the Proposed Action but would be subject to

E117-2-7

all of the development protection measures set out in Appendix L. Given the limitations in Appendix L, it is unclear how BLM determined drilling would occur as in the Proposed Action. Alternative C would likely reduce those wells that could be drilled by as much as 50% given that it would impose 160-acre well spacing across 95% of the study area. This renders Alternative C the functional equivalent of the No Action alternative.

E117-2-8

Even if one were to accept that Alternative C is not the functional equivalent of the no action alternative, it is neither technically nor economically feasible. Under this alternative, BLM would impose 160 acre spacing across ninety-five percent of the project area despite the fact that the Reservoir Management Group (RMG) prepared a memorandum analyzing the economic and technical viability of 160 acre spacing and concluded that it would not be technologically viable given the resource being developed nor would it be economically viable. It is worth noting that the DEIS does not even *discuss* the RMG conclusions with respect to 160 acre spacing, although BLM does cite the memorandum to support its elimination of directional drilling as an analyzed alternative.

E117-2-9

E117-2

Additionally, BLM's analysis of Alternative C does not take into account the directives of the Great Divide Resource Management Plan (Great Divide RMP) which provides: "In cases where federal oil and gas leases are or have been issued (1) without stipulated restrictions or requirements that are later found to be necessary; or (2) with stipulated restrictions or requirements that are later found to be insufficient, the needed restrictions or requirements may be included in approving subsequent exploration and development activities. These restrictions or requirements may *only be included as reasonable measures* or as conditions of approval (COA) in the authorizing applications for permits to drill (APD), sundry notices, or plans of development (POD)." Again, BLM has failed in the DEIS to provide any discussion regarding the reasonableness of the measures listed in Alternative C. Alternative C simply fails to accomplish the intended purpose and need of the proposed action. If BLM issues a record of decision adopting its preferred alternative, the project would likely be rendered economically unfeasible.

E117-2-10

E117-3-1

3. There are several other general issues with respect to both alternatives. As to Alternative B, the DEIS is lacking in the following respects: 1) BLM has failed to account for the economic impact on lessees both from the perspective that some of the subject leases could be suspended for over fourteen years and that those with interests in the second and third phases will be deprived of revenues for seven to fourteen years; 2) BLM has failed to address the potential economic impact to the federal government both from the perspective of a loss of revenues and from potential liability for takings claims; and 3) BLM has failed to address the issue of correlative rights both from the perspective of adjacent landowners and drainage of federal resources.

E117-3-2

E117-3-3

E117-3

E117-3-4

As to Alternative C: 1) BLM has failed to address its authority to impose non-surface occupancy (NSO) in the absence of a stipulation in the lease designating all or a portion of the lease as an area of NSO; 2) the DEIS assumes that all 1800 of the proposed coalbed natural gas (CBNG) wells would be drilled in the same 20 year period, while in others it assumes less than the full 1800 wells would be drilled. Despite the fact that the

E117-3-5

E117-3-5

E117-3

stated purpose of this project is to drill for, extract, remove and market gas products, the document lacks an analysis the amount of gas that will be generated by the development, and the magnitude of this production in understandable terms, such as how many homes could be heated and for how long. Nor is there any analysis that compares how these figures would be affected by each alternative.

E117-4

4. 1.1.2 Alternative A - No Action. The description of this alternative fails to include any reference to the fact that drilling would occur on both state and fee lands. Although BLM may choose not to authorize drilling on its lands, it has no authority to prohibit drilling on either fee or state lands. Therefore, the no action alternative should recognize this possibility and address the potential impacts to federal lands from any such drilling.

E117-5-1

E117-5

5. 1.1.4 Alternative C. In describing the parameters of Alternative C, BLM states: Development for natural gas would occur as in the proposed action. Given the number and scope of measures provided in this alternative, development would not occur as in the Proposed Action. Notably, the proposed action contemplates development of the project area on the basis of 80-acre spacing. As noted previously, Alternative C would impose 160-acre spacing across most of the project area. This will severely limit the number of wells that can be drilled. In addition, many of the proposed protection measures identified for this alternative cover significant portions of the project area thereby severely restricting drilling opportunities. PAW recommends that Alternative C should be removed from consideration due to the fact that it fails to meet the requirements of NEPA.

E117-5-2

E117-6

6. 1.2.1 2.6 Soils, Water Resources, Vegetation and Wildlife. In the description of these resources, the DEIS states that the impacts from the Proposed Action are significant, while the impacts to these resources under Alternative C would be insignificant. However, as happens throughout this document, BLM failed to provide scientific evidence to support this conclusion.

E117-7

7. 1.2.10 Socioeconomics. This section is states that Alternative C would likely result in less than 2,000 wells, depending on the specific sites proposed for development. This misleading statement sets the tone for the entire section, which is a disjointed presentation of the potential economic impacts that could result under each of the alternatives. Compounding the problems in this section is BLM's misuse of the word "impact" when describing the economic effects of each alternative. As drafted, the statement has a negative connotation that is difficult to reconcile with the fact that BLM has just stated the Proposed Action and Alternative B could generate in \$6.4 billion dollars.

E117-8

8. 1.3 Agency Preferred Alternative. Although BLM has identified a preferred alternative, it has failed to clearly define the parameters of its preferred alternative. The DEIS merely states its preferred alternative is a combination of alternatives B and C. PAW strongly encourages BLM to clearly define this alternative in terms of the number of wells that would be drilled in light of the limits proposed under Alternative C to permit a reasoned analysis of the potential impacts from this alternative.

9. In BLM's analysis of environmental consequences (Chapter 4) we note again that although BLM has identified a preferred alternative, it has not provided any analysis in this Chapter of the potential effects attendant with its preferred alternative. BLM must provide a clear discussion of those potential impacts in the final document for all alternatives.

In conclusion, PAW urges BLM to adopt the Proposed Action. The preferred alternative chosen by BLM is based on pure speculation and is not justified by technically or scientifically sound evidence. PAW also hereby adopts, by reference, any comments submitted by the project proponent, Anadarko Petroleum Corporation.

Thank you for your time and careful consideration.

Very truly yours,

/s/ Ericka S. Cook

Ericka S. Cook
Vice President



"Jason Blake"
<jason@titanenergyresources.com>

02/17/2006 04:09 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Comments on EIS final draft

Via email: Atlantic_Rim_EIS_WYMail@blm.gov

February 17, 2006

Mr. David Simons

Project Manager

Bureau of Land Management

Rawlins Field Office

P. O. Box 2407

Rawlins, Wyoming 82301

Re: Comments on the Draft
Atlantic Rim Environmental Impact
Statement

Dear Mr. Simons

The Rawlins Field Office of the Bureau of Land Management has requested comments on the Draft Atlantic Rim Environmental Impact Statement. The final decision issued by the Bureau of Land Management will affect the development of this prolific oil and natural gas producing area for the next two decades. I urge you to modify your plan to allow the orderly development of these resources.

People rely on natural resources within the planning area for their livelihoods. Probably the most dominant natural resource in this area is oil and natural gas, and especially coalbed methane. The current alternatives listed by the BLM impose unrealistic requirements on the developers' ability to utilize and maximize the resources and related economic benefits for this desolate area of south central Wyoming.

The estimated recovery of more than 1.5 TCF of coalbed methane natural gas will create economic benefits in the local area with jobs, increased tax base, severance tax, income tax, and royalties, bolstering the local, state and federal economies. Failure to allow development under your "Alternatives" will very well result in an unorganized, unregulated, and unmanageable pattern of development, with most of the development on private and state lands. Wyoming needs to continue to be a pro-business and development state. Development can, and should be done in an environmentally conscious manner. Most of the existing oil and gas leases were issued with stipulations that preclude development during mating, nesting, brooding, calving, critical habitat seasons as to additional imposed environmental regulations, so the issues have already been addressed.

The BLM has set forth their preferred alternatives for the project. Anadarko and the other operators within the Atlantic Rim envisioned a plan that they proposed to the BLM. However, it appears the BLM has formulated direct and distinctive alternatives that do not match that of the Proponents. The mitigation measures stated in the Alternatives are arbitrary and onerous. The Proponents proposed and continue to propose orderly technical and economic development in their phased development plan. The BLM's phased development alternative will waste millions, prolong the environmental exposure, and leave much of a valuable resource in the ground and unattainable. Titan's position is to allow full development at the operator's pace to get in, exploit the resource, and reclaim the area in the shortest time, not prolong development (with related environmental exposure) for the next quarter century or more.

E118-1

Alternative "C" is unworkable in that it effectively calls for 160-acre spacing in the project area. The original development of the Blue Sky pod clearly shows 160-acre spacing will not allow the coals to properly de-water to economically maximize the methane recovery, therefore leaving considerable tax revenue in the ground. The SunDog and Doty Mountain pods clearly show that 80-acre spacing is a

E118-2-2 E118-2-1
E118-2
E118-1

minimum viable spacing and development plan for realistic exploitation of the resource.

Water disposal is a prime consideration. Re-injection of water will probably remain as the main disposal option. However, surface disposal of produced water must be considered. Surface disposal at the Cow Creek field demonstrates the usefulness of this water to wildlife and livestock. Finally, the BLM must recognize the state and local authority to control and govern the project at the most grass roots level. Water disposal must conform to existing EPA standards, but barring EPA violations, the Wyoming Department of Environmental Quality must be the final authority (See Onshore Order Number 7, Section G).

The Proponents have spent millions in investigations, studies, and scenarios to propose the most workable, technically feasible, economically viable, and ultimately un-intrusive development plan possible. The BLM has a congressionally mandated multiple-use mission. This mandate must consider the aspect of a future self-sufficient energy supply and economic well being of the areas affected by this development as well as the nation as a whole. I urge the Bureau of Land Management to accept the Proponents proposed action rather than the alternatives proposed by your agency.

Sincerely,

Signed

Jason Blake
President



"Harold Schultz"
<harolds@wyoming.com>

02/17/2006 04:42 PM

To Atlantic_Rim_EIS_Wymail@blm.gov

cc

bcc

Subject Atlantic Rim EIS Comments

To Whom It May Concern:

These are my personal comments on the Atlantic Rim CBM project and reflect only my own ideas and not those of any particular organization. These comments are based on my experiences in this area that span over a 40 year period and as one who understands the beauty and value of this area.

First of all, I'll point out the obvious: this area has tremendous wildlife values. While it harbors different types of wildlife all during the year, it's main value is as winter range for pronghorns and mule deer as well as holding many sage grouse leks.

E121-1-1 | It is my view that the BLM needs to safeguard the wildlife values of
E121-1 | this area for future generations. It can start doing this by adhering
to the Wyoming Game and Fish Dept. standards for the minimum habitat
standards for each species. Other things that need to be done are as
follows:

E121-2 | 1. Limit the spacing of wells to 160 acres OR MORE, depending on the
needs of wildlife.

E121-3 | 2. Each area developed needs to be reclaimed before another area is
opened for development. This will give game animals and other species
places to go to when any one area is developed and avoid turning this
area into a western Appalachia.

E121-4 | 3. Development needs to be sensitive to the needs of wildlife. I
specifically refer to such things as not drilling on crucial winter
range during the winter and to avoid noise/development near sage grouse
leks in the spring.

E121-5-1 | 4. The BLM must not subscribe to the idea that this area needs to be
E121-5 | developed for CBM extraction no matter what the cost to other interests
or values. The USA will emphatically not go into a crisis if the CBM
resource is developed a little slower and more systematically than is
proposed by the extraction industry. While there will be pressure to
drill/develop CBM in a destructive manner, your organization was tasked
specifically to manage these lands so that one use doesn't
significantly harm other resources. To develop the CBM resource at the
pace, and in the way, the developers would prefer would be as
irresponsible as allowing no drilling at all.

E121-6 | Of all of your proposed alternatives, alternative C comes the closest
to what I believe should be done. However, I feel that other
precautions need to be added to adequately address the problems this
development could cause wildlife. It is your job to protect the
wildlife habitat of this area. I don't believe I'm out of line in
expecting you to do just that.

Thank you for the opportunity to comment

Signed,

Harold Schultz
1502 E. Lincoln
Riverton, WY 82501
307-856-4555



"Shawna Hamilton"
<sshwarren@qwest.net>

02/17/2006 04:50 PM

Please respond to
<sshwarren@qwest.net>

To Atlantic_Rim_EIS_WYMail@blm.gov

"Norman Swanton" <Wrnswanton@aol.com>, "David E. Fleming Esq. (E-mail)"

<dfleming@warrenresourcesinc.com>, "Ken Gobble"
cc <kgobble@warrenep.com>, "Lloyd Davies"
<lloydavies@earthlink.net>, "Scott Hedlund"
<shedlund@warrenep.com>, "Timothy A. Larkin"
<tlarkin@warrenresourcesinc.com>

bcc

Subject Atlantic Rim Natural Gas Development Project

Mr. Simons:

Attached is a letter from Warren Resources of California, Inc. containing comments to the Atlantic Rim Natural Gas Development Project. Thank you for your consideration.

Ellis G. Vickers
Senior Vice President - Land Management &
Regulatory Affairs
Warren Resources, Inc.
105 West 3rd Street, Suite 302
Roswell, NM 88201
Phone: 505.622.5141
Fax: 505.622.5144

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Ltr to Simons.doc

WARREN RESOURCES OF CALIFORNIA, INC.

105 West 3rd Street, Suite 302

Roswell, New Mexico 88201

(505) 622-5141

February 17, 2006

DAVID SIMONS, Project Lead
Bureau of Land Management
Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301

Re: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE
ATLANTIC RIM NATURAL GAS FIELD DEVELOPMENT
PROJECT

Dear Mr. Simons:

Warren Resources of California, Inc. ("WRC") has received the December 5, 2005, Draft Environmental Impact Statement ("DEIS") for the Atlantic Rim Natural Gas Field Development Project ("Atlantic Rim Project" or "Project"). WRC is a wholly-owned subsidiary of Warren Resources, Inc. and a sister company of Warren E&P, Inc. (formerly Petroleum Development Corporation). WRC, Warren Resources, Inc. and Warren E&P, Inc. may be referred to collectively herein as "Warren" or "We" unless the context otherwise provides. WRC owns, and Warren E&P, Inc. operates, various oil and gas producing properties in the Los Angeles Basin – particularly in the cities of Los Angeles and Long Beach, California. WRC's properties are located in highly populated residential and commercial areas in the second largest city in the United States. Such properties are unitized properties with hundreds, even thousands, of royalty interest owners, overriding royalty interest owners and working interest owners, including various city, county and state governmental authorities. These properties primarily produce oil, but certain wells also produce natural gas. As producing oil properties, these unitized areas contain pumping units that are located immediately adjacent to residential areas and commercial shopping centers, and are highly visible from adjacent and nearby streets, roads and freeways. In addition, our central processing facilities contain oil storage facilities, separation facilities, electrical facilities, pipeline transportation facilities and related surface infrastructure that are visible and accessible from the same streets, road and freeways.

WRC is subject to a myriad of local, neighborhood, city, county, state and federal statutes, rules, regulations and ordinances concerning its drilling, development and producing operations in the cities of Los Angeles and Long Beach, California. WRC, and Warren E&P, Inc. as the operator, are very familiar with extensive governmental regulations concerning oil

and gas activities in California and have always been able to comply with those regulations. The regulatory authorities in southern California exercise their authority and apply the applicable rules and regulations in an even-handed, fair and reasonable manner. WRC and Warren E&P, Inc. operate these properties in full and complete compliance with such regulations, and with due regard for adjacent land owners, surface owners, individual residents, commercial businesses and other interested parties. WRC has been required to conduct various environmental reviews, assessments and other studies in connection with its construction, drilling, development and production activities. Such environmental studies involve air quality, water quality, ground water, subsidence, surface water, run-off, harbor concerns, air emissions, noise, dust, lighting, emissions, access, traffic, zoning, vegetation and a myriad of other concerns that are generally more extensive than those applicable to the Atlantic Rim Project. Surprisingly enough, the last several environmental reviews and assessments that were required to be conducted by WRC took approximately two to six months to fully complete prior to commencing any activity.

As you are aware, Warren E&P, Inc. (formerly Petroleum Development Corporation) has been involved in the Atlantic Rim Project and the DEIS from its inception in 2001 through a current date. Based on a joint venture transaction with Anadarko E&P Company LP (“Anadarko”) in late 2003, Warren agreed that Anadarko would become the lead proponent of the Atlantic Rim Project. Warren, as a working interest owner with Anadarko, is still currently very much involved in the Atlantic Rim Project and the DEIS.

Warren and WRC are very disappointed that the Rawlins Field Office of the Bureau of Land Management (“BLM”) has taken over four years to prepare the DEIS. The DEIS contains various discrepancies, inaccuracies, unsubstantiated statements and positions by the BLM, incorrect assumptions and a host of other errors and problems in the BLM’s analysis. Regardless of these discrepancies, the DEIS discusses the proposed action, as well as three additional alternatives: Alternative A – no action, Alternative B – phased or temporal development, and Alternative C – spatial restrictions or layered mitigation measures. Our comments in this letter are intended to be both general and somewhat specific in nature, as well as brief. However, if a comment addresses one particular issue that appears in a certain chapter of or appendix attached to the DEIS, but does not specifically address the same issue in a different portion thereof, then our comment will be deemed to address the same substantive concept, regardless of how many times it appears in the DEIS.

The DEIS states that the BLM’s preferred alternative is a combination of Alternatives B and C. After reviewing the DEIS, WRC believes that Alternative B and Alternative C, or any combination thereof, are, for all practical purposes, the equivalent of a “no action” alternative. Such an alternative violates the requirements of the National Environmental Policy Act (“NEPA”). NEPA generally requires that the DEIS should provide a fair discussion of environmental impacts associated with the proposed action and requires the BLM to objectively evaluate reasonable alternatives. The implementation of Alternatives B and/or C, or a combination thereof, essentially render the Atlantic Rim Project unfeasible and uneconomic on behalf of Warren, Anadarko and other operators in the area. The BLM’s position appears to be based on the incorrect assumption that the proposed action will result in an immediate, substantial disturbance of the entire Atlantic Rim Project, rather than a gradual, increased disturbance, followed by a gradual, decreased disturbance, which is the method by which

E122-1-1

E122-1-2

E122-1

E122-1-2

E122-1

“reasonable” development of the Atlantic Rim Project would, in fact, occur. The DEIS appears to reflect the BLM’s assumption that any development under the Proposed Action would be “unreasonable”.

Our general and specific comments are set forth in more detail below and under headings employed for easy reference.

GENERAL COMMENTS

WRC’s and Warren’s primary concerns with the DEIS are as follows:

E122-2

1. Phased Development (Alternative B) is economically unfeasible because it may require unnecessary wells be drilled in a given area before development occurs in the second or third areas.

E122-3

2. Alternative C requires 160 acre spacing across the entire Atlantic Rim Project and a layering of a series of mitigation measures; both of which, for all practical purposes, result in the no action alternative and make the Project uneconomical.

E122-4

3. No surface occupancy and unnecessary surface disturbance restrictions in Alternative C unilaterally modify the contractual terms of the Lease Agreement between the United States and the lessees, and constitute a breach of contract and unilateral “takings” issue.

E122-5

4. The DEIS fails to analyze the adverse economic impact on the lessors (federal, state and fee), lessees, service companies, individual citizens, and cities and towns that will benefit from economic development.

E122-6-2 E122-6-1

E122-6

Alternative B, the phased drilling alternative, essentially states that the initial development of the Project would occur in the middle one-third, followed by development of the northern one-third (approximately seven years later), and lastly, development of the southern one-third (approximately fourteen years later). This alternative also provides that development would not occur in the second or third areas until “interim reclamation”, which is not defined in the DEIS, occurs. Warren does not believe the BLM has the authority to suspend the leases covering lands in the northern third or southern third of the Project for at least 7 and 14 years, respectively. Such an action constitutes a breach of contract of the terms of the leases themselves, as well as a unauthorized taking by the federal government. Lastly, the BLM’s analysis in the DEIS fails to account for and realize that the proposed action is, in and of itself, a form of phased development because not all 2,000 wells will be simultaneously drilled. Such wells will be drilled over a period of time in the form of concentric circles around existing developments.

E122-7-1

E122-7

Alternative C attempts to impose 160 acre spacing on approximately 95% of the Atlantic Rim Project, as well as layer numerous additional mitigation measures and stipulations on the same area. Warren is surprised that the BLM disregarded the recommendation of the Reservoir

E122-7-1

E122-7-2

E122-7-3

E122-7

Management Group (one of its sister agencies) concerning well spacing. A 2005 Memorandum from the Reservoir Management Group generally concluded that the Atlantic Rim Project is not economically viable and cannot be economically developed by drilling wells on 160 acre spacing, and that 80 acre spacing, based upon existing data, is the most efficient method of extracting coalbed methane gas from the Project. We are also surprised that the BLM has misquoted or mischaracterized the 2005 Memorandum. As stated above, Alternative C is merely a list of additional mitigation measures, no surface occupancy restrictions and surface disturbance matters that go far beyond the stipulations attached to the leases at the time they were issued and exceed the standards imposed by best management practices and conditions of approval at the time permits for drilling are granted. The combination of 160 acre spacing and the additional, excessive mitigation measures contained in Alternative C serve as the equivalent of a no action alternative; and, if implemented, essentially result in a position by the BLM that no development in the project area should occur. This approach by the BLM is directly contrary to NEPA requirements. NEPA generally requires that the BLM analyze reasonable alternatives to the Proposed Action after taking into account various considerations, in order to accomplish the purpose of the Proposed Action in a reasonable manner. The BLM's position in Alternative C is directly contrary to the duty imposed on it by the Mineral Leasing Act of 1920, as amended. Under that Act, the BLM has a duty to develop and extract the oil and gas resources of the United States in a reasonable manner, for the benefit of the public good, and in order to generate a profit for the United States. Frankly, WRC is surprised that the BLM is willing to disregard its responsibility by proposing, and apparently endorsing, Alternative C.

SPECIFIC COMMENTS

Chapter 2

Chapter 2 contains a discussion of the Proposed Action and the three alternatives. Since WRC has already generally discussed these alternatives under our comments above, we see no reason to reiterate the same comments or expand upon them herein. However, it is interesting to note that various of the BLM's calculations in the DEIS concerning disturbed acres associated with drilling, roads and related matters appear to be incorrect. Furthermore, it appears that the proponents of the Proposed Action are being penalized by the disturbance associated with existing county, state and other roads that are used for multiple purposes.

Chapter 3

E122-8

1. BLM has failed to address or has disregarded existing soil disturbances (Section 3.3.5) caused by non-oil and gas activities, including recreational, hunting, ranching, grazing and pleasure activities.

E122-9

2. BLM's discussions concerning the Colorado River Basin, Great Divide Basin, Missouri River Basin and waters of the United States appear to be based on incorrect acreage calculations, older information and mischaracterizations of the impact on the water resources within the project area.

E122-10

3. The BLM’s statements in the DEIS concerning wildlife and fisheries (Section 3.7) appears to mischaracterize wildlife resources within the Atlantic Rim Project, as compared to other areas. The DEIS also contains unsupported statements or lacks scientific data supporting claims that 92% of the area is suitable for game birds. Implementation of restrictions concerning protection of sage grouse in 92% of the Atlantic Rim project would essentially restrict operations to only four months out of each year.

E122-11

4. In its discussion concerning plant, wildlife and fish species (Section 3.8), the BLM discusses a number of fish species that do not even exist in the Project. This appears to be a further attempt to mischaracterize the Proposed Action and adopt a no action alternative. The same appears to be true with the BLM’s discussions concerning certain plants that do not exist in the Project area. Lastly, the BLM discusses nine wildlife species that do not exist in the Project area.

E122-12

5. In its discussion concerning Visual Resources, the BLM has miscalculated the number of acres disturbed by oil and gas operations by an amount ten times greater than the actual calculations. The BLM states that the total disturbance from oil and gas activities in the entire project area is .2%, when in fact the total disturbance is .02% - a ten-fold increase.

E122-13

6. In Section 3.17, the BLM discusses Special Management Areas (“SMA”). The BLM mischaracterizes the Rawlins to Baggs geographic area as an SMA, when, in fact, it has not been designated as such in the Great Divide Resource Management Plan. Likewise, the BLM mischaracterizes the Cow Butte/Wild Cow area as an SMA, when, in fact, that is not the case. Once again, these statements evidence the BLM’s bias against the Proposed Action and in favor of a no action alternative.

CHAPTER 4

E122-14-2 E122-14-1

E122-14

1. In Chapter 4, the BLM appears to emphasize the Wyoming Game and Fish Department’s recommendations concerning oil and gas development and the impact on wildlife habitats as being applicable to other uses and activities within the Project area. Instead, the BLM should consider the much broader provisions contained in the Great Divide Resource Management Plan. In Section 4.3 (Soils), the BLM discusses the concept of “interim reclamation”; however, that term is not defined in the DEIS. The BLM also states that the additional mitigation measures contained in Alternative C would reduce disturbance by 64% compared to the Proposed Action. The DEIS contains no substantiation for such an assumption.

E122-15-2 E122-15-1

E122-15

2. The BLM’s discussion concerning ground water significance fails to take into account non oil and gas activities, natural occurrences such as droughts, and other non oil and gas impacts. Once again, there appears as an unfounded bias against the Proposed Action. In its discussions concerning roads and surface disturbance associated therewith, the BLM appears to attempt to attribute the surface disturbance associated with existing county and state roads to oil and gas development activities conducted within the Project. The BLM appears to mischaracterize the existence of such roads as additional surface disturbance caused by the Proposed Action, when, in fact, such roads were already in existence and serve multiple purposes and uses. Anadarko, as the lead proponent, intends to use the existing roads to the greatest extent

E122-15-2

E122-15

possible, and only build new roads to the extent reasonably necessary; and therefore, should not be charged with the surface disturbance attributable to existing state and county roads that are used for multiple purposes, including hunting, travel and recreation.

E122-16-1

E122-16

3. Chapter 4 contains a number of statements concerning surface water impacts, surface hydrology, roads, ground water impacts, erosion, degradation of creeks (including the Muddy Creek), impacts to vegetation, effects on grazing and livestock use, impacts to wildlife, effects of dust, numerous effects on big game (including pronghorn antelope and mule deer), and other items that are not supported by evidence, lack scientific background or are unsupported by any other documentation. Once again, these positions appear to evidence the BLM's bias against the Proposed Action. The BLM also places too much significance on the Wyoming Game and Fish Department's Significance Criteria in determining the surface disturbance impact attributable to numerous activities. However, the BLM appears to gloss over the mitigation policies contained in the same criteria.

E122-16-2

E122-17

4. In its discussion in Section 4.9 concerning Recreation (specifically hunting), the BLM fails to acknowledge that the proposed action would only affect a maximum of 7% of the total Project area. The BLM also states that oil and gas operations will cause a large displacement of and will have a great impact on wildlife, even though the DEIS does not contain an analysis of the ability of surrounding areas to absorb any displacement.

E122-18

5. In its discussion concerning Cultural Resources (Section 4.11), the BLM states that the Rawlins to Baggs road and the Cherokee Trail are historic trails, when, in fact, such is not the case.

E122-19

6. Section 4.12 of the DEIS discusses Socioeconomics. In this section, the BLM's analysis of economic effects, local attitudes and related issues contains incorrect information, erroneous calculations and a lack of financial analysis to lessors, lessees, the federal government and surrounding cities and towns.

APPENDICES

E122-20

1. The Reclamation Plan attached as Appendix B to the DEIS contains provisions that are unnecessarily restrictive, stifle development, and do not account for natural occurrences.

E122-21

2. Appendices D, E and G contain lists of wildlife and fish species, and provide for a monitoring plan and an assessment of threatened or endangered species. Interestingly enough, several of the species discussed in these appendices do not appear or are not present in the Atlantic Rim Project; and, therefore, would not be affected.

E122-22

3. Appendix L contains a list of additional protection measures proposed under Alternative C. These protection measures, as a whole, appear to greatly exceed those measures set forth in best management practices and conditions of approval of applications for permits to drill. Surprisingly enough, the Resource Management Group has dismissed directional drilling as a viable alternative to extract coalbed methane resources from the Atlantic Rim Project; however, various of the additional protection measures listed in Appendix L lead the reader to

E122-22

believe that the BLM is attempting to impose directional drilling requirements on the Project area. Such measures include, but are not limited to, multiple well locations per pad, no surface disturbance provisions, limited surface disturbance provisions (total acres per section), use of subsurface facilities, road densities (including already existing state and county roads), and various other measures. These special protection measures also deal with historic trails that have not been established as Special Management Areas or designated for additional protection.

E122-23

4. The overlapping protection measures contained in Appendix L appear to exceed the authority of the BLM based upon stipulations attached to the leases when they were granted to the lessees, as well as other normal and reasonable regulations regarding operations and disturbance. Once again, it appears the BLM’s view in the DEIS is slanted against the Proposed Action and in favor of a no action alternative.

CONCLUSION

E122-24

Although WRC is not directly involved, WRC is familiar with extensive environmental, business and related regulations, stipulations and requirements applicable to conducting oil and gas drilling, development, producing and transportation operations in sensitive areas, especially in the cities of Los Angeles and Long Beach, California. As stated earlier, WRC and Warren E&P, Inc. have been involved in various environment reviews and assessments concerning construction, drilling, completion and surface facilities installation operations and projects in the cities of Los Angeles and Long Beach, California, and are extremely familiar with the myriad of regulations associated with such projects. After reading the DEIS, one would think it was directed toward a massive project within an urban area such as the City of Los Angeles – not in a sparsely populated, untraveled and scarcely used rural area with limited and primitive public access. The environmental assessments, reviews and documents required for our California operations are not and have not been nearly as extensive as this DEIS and cover more regulations, statutes, rules and ordinances that are imposed by local, neighborhood, city, county, state and federal governmental authorities. Even in the State of California, those governmental regulatory authorities approach their regulatory duties in a reasonable, fair and even-handed fashion. This DEIS appears to be an attempt by the BLM to exceed its authority concerning the remotely located, rural nature of the Atlantic Rim Project by imposing unreasonable, unnecessary, overly restrictive, burdensome and unsubstantiated rules and restrictions on the drilling, development and extraction of oil and natural gas resources from an area viewed, inhabited and accessed by a very small minority of United States citizens. As an entity that deals with highly complex environmental and business regulations in the State of California, WRC is appalled at the stifling and chilling effects associated with and resulting from the actions the BLM is attempting to impose in this DEIS. WRC, Warren Resources, Inc. and Warren E&P, Inc. have approached and currently approach the extraction of natural resources from a reasonable approach with due regard for the rights of third parties, adjacent owners, other users of public and private lands, as well as in compliance with their duties and obligations to the same public and private individuals and entities. WRC certainly hopes that the BLM will adopt a reasonable approach to its regulatory authority during its preparation of the final EIS.

E122-24-1

E122-24-2

Thank you for allowing us to comment on the DEIS. If you have any questions, or if we can provide you with any additional information, please do not hesitate to contact us.

Sincerely,

WARREN RESOURCES OF CALIFORNIA, INC.

Ellis G. Vickers, Vice President



"Ken Gobble"
<kgobble@warrenep.com>

02/17/2006 04:56 PM

Please respond to
"Ken Gobble"
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To "ARDEIS" <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject ARPA comments

Mr. Simons

Attached are comments on the draft of the Atlantic Rim EIS .

Sincerely,
Ken Gobble
Warren E & P, Inc.

The message is ready to be sent with the following file or link attachments:
Warren E&P Atlantic Rim Comments

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to



determine how attachments are handled. Warren E&P Atlantic Rim Comments.pdf

 **Warren E & P Inc.**
123 W 1st Ste 505
Casper, Wyoming 82601

February 17, 2006

Mr. David Simons, Project Lead
Bureau of Land Management
Rawlins Field Office
P.O. Box 2407
Rawlins, Wyoming 82301

Re: Warren E&P, Inc. Comments on Atlantic Rim Natural Gas Development Project Draft Environmental Impact Statement

Dear Mr. Simons:

Warren E&P, Inc. welcomes the opportunity to comment on the draft of the Environmental Impact Statement (DEIS) for the proposed Atlantic Rim Natural Gas Development Project (Project). As you know, our company has been involved in the Project since its inception over seven years ago. The preliminary technical data we have obtained suggests that the Project has a high chance of success. Warren is a small growing company and the Project is paramount to achieving the goals of the company, both in the short term and for many years ahead. Warren looks forward to working with the Bureau of Land Management (BLM) Rawlins Field Office (RFO) to complete the required environmental work in a timely fashion. Warren is also looking forward to working with the RFO to assure the ultimate success of the Project.

The DEIS presented very little information regarding the value of the CBNG resources in and under the Project and the relationship of those resources to the “human environment”. According to the Energy Information Administration findings in its 2001 Residential Energy Consumption Survey: Household Energy Consumption and Expenditures Tables, 56.5% of the homes in the country are heated by natural gas. The average home in the United States consumes 43,900 cubic feet of gas for heating purposes on an annual basis. Recoverable natural gas reserves from the Project are estimated to be approximately 1.5 trillion cubic feet. This indicates that produced natural gas from the Project would be sufficient to heat 1,000,000 homes in the United States for over 34 years.

Electricity is the second most common energy source used to heat homes in the country. Approximately 41% of the total homes are heated by electricity. If one assumes electricity is consumed in the absence of the natural gas, the affect on air quality is astonishing. The majority of electricity and electrical power in the United States is generated by burning coal. The table below illustrates the additional pollutants that would be emitted into the earth’s atmosphere by

burning coal, as to opposed to natural gas from the Project. The mitigation totals are based on a comparison of the energy from the total estimated recoverable reserves from the project of 1.5 TCF of natural gas to the equivalent energy from coal. The table reflects this comparison with both Western Coals and Eastern Coals. Success of the Project would result in a total reduction of 194.3 million tons of air pollutants being placed into the atmosphere when compared to consuming Western Coal.

Estimated Emissions Mitigation From Using Atlantic Rim Natural Gas vs. Coal for Power Generation

(Notes: Assumes 1GWh = 3.4095x10⁹ BTU = 3100 Mcf; Atlantic Rim Reserves = 1.5 Tcf)

	SO2	NOx	PM10	CO2	VOCs	
Western Coal	0.810	2.20	0.06	1,039	0.09	Tons per Gigawatthour
Gas	0.003	0.57	0.02	640	0.05	Tons per Gigawatthour
Difference	0.807	1.63	0.04	399	0.04	Tons per Gigawatthour
Mitigation	390,484	788,710	19,355	193,064,516	19,355	Tons

	SO2	NOx	PM10	CO2	VOCs	
Eastern Coal	1.740	2.90	0.10	1,000	0.06	Tons per Gigawatthour
Gas	0.003	0.57	0.02	640	0.05	Tons per Gigawatthour
Difference	1.737	2.33	0.08	360	0.01	Tons per Gigawatthour
Mitigation	840,484	1,127,419	38,710	174,193,548	4,839	Tons

Info based on EIA Feature Article "Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change" by John Carlin, 1995

The effect of high energy prices on consumers, especially those on fixed incomes and that are impoverished, should be taken into account. According to the Natural Gas Factors Affecting Prices and Potential Impacts on Consumers, published by the General Accounting Office dated February 13, 2006: "The effect of high natural gas prices has already been especially severe on low-income individuals". The GAO goes on to state that: "Because energy costs account for a relatively large share of overall costs for some consumers ... any price increases can present significant difficulties. In particular, low-income residential consumers appear likely to encounter the greatest impact." This clearly suggests that the failure to develop natural gas bearing areas like the Atlantic Rim in a timely fashion is significantly impacting the country's population, with low-income consumers feeling the brunt of the force.

Warren concludes that Alternative B analyzed by the DEIS is unacceptable, primarily due to questionable legality issues that would occur if it were to be implemented. Warren also concludes that Alternative C is not a legitimate alternative, but rather a list of mitigation measures which could be applied to any of the action alternatives. The surface disturbance restrictions proposed in Alternative C take no notice of the data acquired by the interim drilling program or the recommendations provided by the BLM Reservoir Management Group (RMG). The RMG recommendations on both spacing and directional drilling are based on sound science and are irrefutable. The RMG recommendations should have been presented in the DEIS in their entirety as they were presented to the RFO. The omission of this document leaves the DEIS lacking in available science and reasoning.

E123-1

The following pages contain Warren’s detailed comments on the DEIS. Warren’s specific comments to the proposed mitigation measures associated with Alternative C are included in our comments set forth in Appendix A attached to this letter. Our comments below appear in bold print and follow the applicable page, section or reference in or to the DEIS.

E123-2-1	E123-2	December 5, 2005 Transmittal Letter The Mineral ownership percentage in the letter are incorrect and conflict with the percentages in the DEIS. Using acreage figures provided, the correct percentages are: 64% - Federal minerals, 5% - State minerals, and 31% - Fee minerals.
E123-3-1	E123-3	Page S-3, 1.1.3 Construction, drilling and development would last from 6 –to 7 years per zone (each 1/3 area) and would include completion of interim reclamation. BLM does not define “interim reclamation”.
E123-4-2	E123-4	Page S-3, 1.1.4 Development for natural gas would occur as in the proposed action... Alternative C would significantly reduce the number of wells by limiting well locations to 4 per acre (160 acre spacing) and limiting disturbance to less than 20 acres per section across 95% of the project area. In addition, there would be no surface occupancy of a large portion of the project area. This alternative renders the project technically unfeasible and development would not occur. However, many of the protective measures could be implemented under the Proposed Action.
E123-5-1	E123-5	Page S-3, 1.1.4 These types of areas are unique enough to require additional protective measures beyond what is already provided by applying required BMPs. This area is not unique to the State of Wyoming and certainly not unique to other areas managed under the Great Divide Resource Management Plan; and therefore does not require additional protective measures beyond BMPs and COAs.
E123-6-2	E123-6	Page S-4, 1.2.2 For the proposed action and Alternative B many areas are expected to exceed the significance criteria for soils. The DEIS has failed to support a claim that a gradual initial disturbance of approximately 6% of the project area and a long term disturbance of 2% of the project area would exceed the significance criteria for soils. The DEIS fails to take into account the operator committed measures, BMPs, COAs, and reclamation plan.
E123-7-1	E123-7	Page S-4, 1.2.2 Soils: states “ While no biological crusts are mapped or known to exist with (sic) the ARPA, some crusts, if they do exist, may be damaged...”. Change “with” to “within”.
E123-8-1	E123-8	Page S-4, 1.2.3 Impacts to waterbodies with impairment or threats of impairment to the State of Wyoming’s 303d list (Muddy Creek) are expected from the proposed action and alternative B. The DEIS has failed to prove this by analysis.
E123-9-2	E123-9	Page S-4, 1.2.3 Under the proposed action and alternative B changes in hydrologic function in wetlands would occur, and indirect impacts could be significant. The DEIS fails to provide evidence of the expected level of change above background levels that may occur as a result of the project. The DEIS also fails to take into account operator committed measures, BMPs, COAs, and reclamation plans.

Page S-4, 1.2.3 The Standard for Healthy Rangelands for water resources would continue to fail in areas due to indirect impacts and would be significant for the proposed action and alternative C. For alternative B effects are not likely to be significant. **With respect to water resources or watershed health and the Standard for Healthy Rangelands, the Upper Colorado River Basin Standards & Guidelines Assessment (the Standards Assessment) states that within the Atlantic Rim development area (Upper and Lower Muddy Creek): “The few locations that do not meet Standard #1 contain large, active head cuts due to gradient readjustment processes.”**

While oil and gas activity may create the potential for increased runoff, and subsequently increased erosion, the Standards Assessment states in Standard #1: “Short and long-term sources of erosion are increasing with this development (oil and gas), but can often be mitigated with good reclamation practices. This is especially true for pipelines and more recently for active and reclaimed pads involving BP America. However, most other companies are not performing the quality of pad reclamation to reduce impacts of mineral development on soil erosion. The key question is how to elevate the attention to reclamation by all mineral development companies to that achieved by BP America.” Not only does this statement show the effectiveness of established practices on reducing soil erosion, but it presents the perfect opportunity for the BLM to prescribe similar practices in the Atlantic Rim development area.

In addition, Standard #1 in the Standards Assessment states: “Erosion from roads, both improved and unimproved, is the second most important factor relating to watershed health (after livestock grazing.” However, the document goes on to state: “The principal problem with improved roads is inadequate water control features, such as culverts, wing ditches, and water bars, to mitigate the effects of roads on upland runoff hydrology”; as well as stating: “Many...two-tracks do not cause increased erosion, but where it does occur there is usually no maintenance to correct the problem.” Again, these statements indicate that erosion from roads can be successfully mitigated with the correct management practices, which presents an opportunity for the BLM to prescribe these practices in the Atlantic Rim development area.

Page S-5, 1.2.5 “For those aspen and mountain shrub communities that have failed rangeland health standards,...”. **The DEIS should identify the specific areas involved and should cite the rangeland health report indicating these areas have failed.**

Page S-5, 1.2.5 Reduced surface disturbance under should result in reduced spread and infestation of weeds under Alternative C. **This is an incomplete sentence.**

Page S-6, 1.2.7“Under all action alternatives displacement of wildlife and the loss of a natural appearing setting would make the ARPA undesirable for hunting or wildlife viewing.” **This may be less desirable, but not undesirable, and the DEIS lacks criteria for this statement.**

E123-14-1 | E123-14 | Page S-7, 1.2.10 “Municipalities may not receive direct project related revenues in sufficient amount of (sic) offset the costs of needed expansion in some cases.” **This is a direct conflict with the prior sentence that states revenue should be adequate.**

E123-15-1 | E123-15 | Page S-7, 1.2.11 Impacts to county roads would include additional maintenance cost, increased property tax revenues from production with the possibility of a lag time between the need for work and the realization of revenue. **Improvements and maintenance of the county roads has been a co-operative effort between the county and working interest owners in the AR project. The working interest owners have invested significant capital in county roads since the project began. This fact is totally ignored throughout the DEIS.**

E123-16-2 | E123-16-1 | E123-16 | Page 1-1, 1.0 Interim Exploration Drilling Program (IEDP). The operators have not submitted proposals to the BLM for the three remaining PODs. **This is not factual. The operators have submitted a proposal for the Muddy Creek POD, which was rejected by the BLM RFO. Table 1-1 should also reflect a proposal for Muddy Creek POD was submitted.**

E123-17-1 | E123-17 | Page 1-3, 1.1.2 Surface ownership does not always correspond to mineral ownership. As detailed in Tables 1-2 and 1-3 the Federal government manages more mineral estate than surface estate. The BLM does not control or authorize mineral development on private or state lands except for those areas where BLM owns the mineral rights. In those cases where private or state land developments impact BLM through actions such as access across federally managed lands the BLM must analyze those proposals under NEPA prior to approving such actions. **Page 4-139 4.12.3.3.1.1 “It is the policy of BLM to: D. Allow owners of non-federal lands surrounded by public lands managed under FLPMA a degree of access across public lands which would provide for the reasonable use and enjoyment of the non-federal land.” The BLM has no authority to suspend state or fee oil and gas leases. In the “checkerboard” area of federal, state and fee lands, BLM would only be required to approve rights-of-way for access and production facilities related to development of the state and fee minerals, but not the development itself. There is no plan in the DEIS to deal with these issues in a material manner.**

E123-18-1 | E123-18 | Page 2-2, 2.2.3 During the first phase of development approximately 925 well locations would be developed. Once completed and in production the second phase of development is proposed to occur in the northern third of the project area, near and including the Jolly Roger and Red Rim PODs. The third and final phase of development would occur near and including Brown Cow and Muddy Mountain PODs (Alternative M: Alternative B Map - Phases of Drilling and Drilling PODs). Under this alternative previously authorized exploration and drilling activities would continue as described in the following EAs: Sun Dog POD, Red Rim POD, Doty Mountain POD, Cow Creek POD, Jolly Roger POD, Blue Sky POD, Brown Cow POD. **This paragraph is misleading. There are no additional exploration and drilling activities currently associated with or being conducted in the EAs referred to above, with the exception of the Brown Cow POD.**

E123-19-2 | E123-19-1 | E123-19 | Page 2-2, 2.2.3 **Alternative B does not address the issue of access to fee and state minerals in any of the three areas. All of these leases have time sensitive terms which the BLM has**

E123-19-2

E123-19-3

E123-19-4

E123-19

no authority to suspend for 7 to 14 years. The ARPA contains sizable areas where fee, state, and federal minerals are intermixed on the railroad strip. This area is commonly referred to as the “checkerboard”. Federal action is required by the proponents to access the fee and state minerals in the area. The BLM has taken a position that development on the fee and state minerals falls into its realm of authority due to the necessity of approving access across federal surface. This position is questionable at best, as was pointed out above; and is contrary to BLM policy. These fee and state mineral leases are subject to expiring terms, as the BLM continues to delay federal action to permit access to these leases. These continued delays are harming and will continue to harm both the mineral lease holders and the mineral owners themselves, as they are being denied the reasonable use and enjoyment of their property.

E123-20-2

E123-20-1

E123-20

Proper CBNG reservoir science suggests that development and production are most efficient when done over the entire reservoir, as opposed to bits and pieces thereof. Attempting to develop and produce only the fee and state minerals on the checkerboard area (every other square mile) is not the most effective means of development--regardless of mineral ownership. Alternative B could lead to significant drainage of the federal minerals in the checkerboard area. This drainage issue would harm all citizens due to the reduction in royalty payments to the federal government. On a larger scale, division of the project into three large areas will create artificial boundaries in the reservoir, which will promote additional problems with efficient production of the reservoir and drainage across lease lines.

E123-21-1

E123-21-2

E123-21

How was the decision made in relationship to what area is developed first? The oil and gas lease holders, mineral and royalty owners, and overriding royalty owners in areas two and three will be denied the economic enjoyment of their property for years under this alternative. Although the proposed phased development of the Atlantic Rim Project sounds reasonable, it will not provide fairness to owners due to the diverse ownership of the project. This alternative also presents significant legal issues due to the ownership diversity and the BLM’s arbitrary judgment of when development would be allowed.

E123-22-1

E123-22-2

E123-22

Page 2-4, 2.2.3 POD boundaries would remain the same as they exist and were originally proposed. No additional development would occur outside the POD boundaries in inactive zones. BLM would authorize suspension of operations and production for all leases within the no-activity areas except for where existing oil and gas development has already occurred. Proposals to develop leases within non-active zones would be denied until the zone in which it is located becomes active for development under the Atlantic Rim ROD. For those leases suspended by the BLM no lease rental fees would accrue and the lease term would be tolled during the period the zone remained in a “no activity” status. Active status would last from 6-7 years per zone and would include completion of interim reclamation. **The BLM does not control or authorize mineral development on private or state lands except for those areas where BLM owns the mineral rights. The BLM does not have the authority to suspend “all” leases in the project area. This statement is a misrepresentation. Furthermore, “It is the policy of BLM to allow owners of non-federal lands surrounded by public lands managed under FLPMA a degree of access across public lands which would provide for the reasonable use and enjoyment of the non-federal land.”** Is the reader to assume that the

E123-22-5
E123-22-3
E123-22-4
E123-22-2

BLM will prevent development on the fee and state minerals by virtue of the required action or approval of rights-of-way to these minerals? The expiration of these leases would be the result. If BLM denies access across federal lands to allow development of state and fee minerals, the leaseholder and/or mineral owners would be significantly harmed and deprived of the use and enjoyment of those minerals. There is no plan in this document to deal with these issues in a material manner. In addition, the DEIS does not define interim reclamation. The originally proposed POD boundaries were drawn closely around the existing development. It would be more appropriate to modify the description of the boundaries for clarification. The description above does not match the “Alternative B Map” included in Appendix M of the document.

E123-23-2
E123-23-1

Page 2-4, 2.2.4 Alternative Need to add “C” so it will read Alternative C. Alternative C is not an alternative, but a list of additional mitigation measures; many of which could be applied to all of the action alternatives. Detailed comments with regard to the list of proposed mitigation measures presented in Appendix L of the DEIS have been attached to this response as Appendix A.

E123-24-2
E123-24-3
E123-24-1

This alternative would result in the failure of the project due to the unwarranted restrictions on surface disturbance across the majority of the ARPA. Results from the interim drilling program clearly demonstrates that 160 acre spacing of wells does not produce economic success in the project. The data from the interim drilling program also demonstrates that 80 acre spacing does produce economic results in the area. With respect to spacing, this production data has been entirely ignored and omitted from the DEIS. The data from the interim drilling program also clearly demonstrates that directional drilling is not technically feasible. These specific issues are addressed in detail below.

E123-24-5
E123-24-4
E123-24-6

Page 2-4, 2.2.4 Development for natural gas would occur as in the proposed action, but would be conditioned with the application of required development protection measures in those areas with sensitive or crucial resource values (Appendix L). Generally, constraints would focus on surface disturbance limits, limited operating periods, modification of drilling and construction practices and, in some cases, no surface occupancy. Resource data, in the form of GIS layers, would be used to identify specific areas of resource concern. Examples of such areas are sensitive wildlife and fish habitat, and areas with sensitive soils. These types of areas are unique enough to require additional protective measures beyond what is already provided by applying Required Best Management Practices (BMPs) (Appendices H and J), lease stipulations, and Conditions of Approval (COAs) (Appendix K). As an end product geographic information system (GIS) layers would be available to operators for development of site specific proposals for their planning of the annual program of work during the Application for Permit to Drill (APD) process. **The proposed surface disturbance limits are restrictive to the point that they would prevent development and economic success of the project. Directional drilling has been eliminated as a viable option for the project. BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands” as its significance criteria. These are *recommendations* from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi-use responsibility to manage, among other things, leasing, exploration,**

E123-24-11 E123-24-9 E123-24-7
E123-24-12 E123-24-10 E123-24-8 E123-24-6
E123-24-13

and development of oil and gas. Although it may be appropriate to consider *recommendations* from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with management goals of the Resource Management Plan, nor is it appropriate to apply recommended measures that are not geographically, technically or economically feasible. The DEIS selected the lowest level of impact even though moderate numbers were available. The Wyoming Game and Fish recommendation and the DEIS fail to take into account differences in oil and gas development projects. An example of this difference is a deep gas development project that would require months to drill and complete each well. In the Atlantic Rim project, drilling and completion time is closer to two weeks per well. The DEIS has misapplied the Game and Fish recommendations by attempting to utilize them without regard to the specific project details involved. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable alternative (BLM RMG 2005) and 80 acre spacing is needed for economic production. The DEIS fails to provide evidence that oil and gas related impacts above background limits would significantly affect Muddy Creek. Soils in the project area are not unique to the State of Wyoming and certainly not unique to other areas managed under the Great Divide Resource Management Plan. Limited operating periods would be in force for all action alternatives. Limited operating periods and wildlife timing stipulations are already in effect and should not be presented as unique to this alternative. To imply that restrictions on operating periods do not exist or are unique to this alternative is considered a misrepresentation of fact.

E123-24

Page 2-4, 2.2.4 Water and Soil Management No pad, compressor or water transfer sites would be located in areas with predominately steep slopes, close to perennial waters or wetlands. Interim reclamation would be completed within one year of the spud date in areas with soils with excess salts and poor top soils, since these areas are more difficult to reclaim. Low impact road design would be implemented in soils with excess salts, high runoff potential, and severe road rating to reduce impacts from roads. This should reduce salt and sediment loading in the Colorado River Basin, of concern since the 1930s. Specifications for road construction and annual maintenance to reduce dust would be implemented in areas with soils with excess salts, and in areas with a severe road rating, since these areas would generally have a higher clay or salt content in the soils and hence be more prone to dust problems. Special measures would be implemented in areas with high runoff potential to reduce surface water concentration, increase infiltration, reclamation success, and effective precipitation. Areas with high runoff potential would also have reduced surface disturbance (less than 20 acres and 4 locations per section). **Successful reclamation is influenced by several factors, one of which is precipitation and timing of seeding. Reclamation is an important component of all the action alternatives. Low impact road designs could be implemented in soils with excess salts, and in areas with severe road ratings. This is a mitigation measure which can be applied to all the action alternatives. The DEIS has not identified the “special measures” that would be implemented in areas with high runoff potential and it is unclear how the special measures would affect reclamation success since the same are based on effective precipitation rates. The limitation of 4 locations (160 acre spacing) and less than 20 acres per section of disturbance is too restrictive for the areas with high runoff potential, and other areas. This proposed protective measure ignores the data obtained from the interim drilling program.**

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E123-25-2 E123-25-1

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E123-25

This proposed protective measure also ignores the BLM’s own findings that directional drilling is not an acceptable alternative and 80-acre spacing is needed for economic production (BLM RMG 2005). The DEIS fails to take into consideration operator committed measures, BMPs, and reclamation plans designed to reduce impacts to an acceptable level.

E123-26-4 E123-26-2

E123-26-3 E123-26-1

E123-26

Page 2-5, 2.2.4 Vegetation Resources In vegetation communities that would be difficult to reclaim and are in country with greater than 8% slopes, surface disturbances would be limited to less than 20 acres and 4 locations per section. In vegetation communities with high wildlife values or rare vegetation communities, no surface disturbance would be allowed (roughly 0.6% or 1,500 acres). Silver sagebrush/bitterbrush communities would have limited surface disturbance. All these communities within crucial winter range failed the Standards assessment for the Upper Colorado River Basin (BLM, 2002c). These areas would continue to fail standards without additional development protection measures. **The DEIS fails to support the significance of the 8% slopes with science. The 8% slope cut off value is arbitrary. Difficult to reclaim is undefined and therefore unenforceable. Rare vegetation is also not defined. Service berries and Aspen trees should not be considered rare. The DEIS should clarify whether no surface disturbance and no surface occupancy have the same meaning. A limited surface disturbance of 4 locations and less than 20 acres per section is too restrictive and would prevent success of the project. This proposed protective measure ignores the data obtained from the interim drilling program. This proposed protective measure also ignores the BLM’s own findings that directional drilling is not an acceptable alternative and 80-acre spacing is needed for economic production (BLM RMG 2005). The DEIS does not disclose why areas have failed the Standards assessment for the Upper Colorado River Basin. The reference to the specific Standard that failed would be helpful to the reader. The statement in the DEIS that “All these vegetative communities within crucial winter range failed...” is misleading. Reviewing the 2002 Standard assessment indicates that only mule deer crucial winter habitat failed the assessment for Standard #4. The primary reasons for the mule deer CWR failure rating were sub-standard fence design, placement of fences, an overall negative effect of fire suppression on browse conditions resulting in species composition and age class diversity, potential for wildfire as a result of years of fire suppression, and seasonal disruptions of deer from human contact. The relationship of the statement above to the cited reference is either unclear or marginal in regard to crucial winter range. The 2002 Standard assessment section titled Standard 3 – Upland Vegetation Health, when discussing oil and gas disturbances, clearly states that “Short-term vegetation losses occur with every pad and access road that is constructed, but can be mitigated comparatively quickly with adequate reclamation after the initial activity subsides, sometimes to the point of increasing vegetative production over predisturbance levels. This can also be an opportunity to beneficially impact species composition and age class diversity.” This would lead the reader to believe that not only is this suggested development protection measure too restrictive, but the impact has also been overstated.**

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Page 2-5, 2.2.4 Range Resources To protect range resources, operators shall abide by speed limits and erect signs warning drivers of livestock concentration areas such as lambing grounds and shipping pastures. Annual planning efforts would provide data to allow planning specific to pastures or allotment boundaries to facilitate livestock planning. Construction specifications will

be put in place to reduce dust. **These measures would apply to all action alternatives and are not unique to Alternative C.**

Page 2-5, 2.2.4 Wildlife Resource Management In grouse brood rearing or nesting habitat and big game crucial winter range, surface disturbance would be limited (less than 20 acres, 4 locations per section, and roads would be limited to less than 3 miles/mi²), based on programmatic standards recommended by the Wyoming Game and Fish Department. No surface disturbance would be allowed in severe winter relief habitats for greater sage-grouse; these areas are refuges, small patches of high sagebrush that generally will not drift in during severe winters. No surface disturbance would be allowed in identified wintering areas (serviceberry patches) for Columbian sharp-tailed grouse. **How does “no surface disturbance” differ from “no surface occupancy”? The statement “small patches of high sagebrush” is vague. Have these areas been mapped? BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands” as its significance criteria. These are recommendations from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi-use responsibility to manage, among other things, leasing, exploration, and development of oil and gas. Although it may be appropriate to consider recommendations from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with the management goals of the Resource Management Plan, nor is it appropriate to apply recommended measures that are not geographically, technically or economically feasible. The DEIS selected the lowest level of impact even though moderate numbers were available. The Wyoming Game and Fish recommendation and the DEIS fail to take into account differences in oil and gas development projects. An example of this difference is a deep gas development project that would require months to drill and complete each well. In the Atlantic Rim project, drilling and completion time is closer to two weeks per well. The DEIS has misapplied the Game and Fish recommendations by attempting to utilize them without regard to the specific project details involved. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production. This proposed protective measure ignores the data obtained from the interim drilling programs.**

Page 2-5, 2.2.4 Visual Resources In Visual Resource Management (VRM) Class 111 visible from State, County or BLM roads (Appendix M: Areas Visible from Main Roads in VRM Class 111): Drilling pads would not be located on ridgelines; Resource roads would not be located directly off these public roads, unless it is shown to be visibly less obtrusive than creating a new collector road; Low impact road design would be used in topography with less than 5% slope (see Appendix L, for a description of low impact road design); Also in these same areas, pad sizes would be minimized by using pitless, shared pit or closed system drilling; Where topography would allow, interim reclamation for pits and pads would occur within one year of the spud date. **Decisions for the locations of well pads, access roads, pipelines and other facilities should be made at the APD level, not at this DEIS level. There may be situations where locating facilities on ridgelines would be preferred in order to protect other sensitive resources.**

E123-29-2
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Prohibiting the construction of resource roads directly off public roads could lead to the unnecessary construction of additional roads and associated surface disturbances. The DEIS does not define interim reclamation. Limiting the use of pits on drilling locations could result in operational safety issues. An area to reclaim or dispose of drill cuttings would need to be provided. Wildlife timing stipulations could prevent the prescribed reclamation efforts. This is an issue that should be addressed since spring is one of the most preferable times of the year to re-seed areas in order to improve reclamation success.

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E123-30-7
E123-30-5
E123-30-3
E123-30-1
E123-30

Page 2-5, 2.2.4 Sand Hills SMA This area is a popular hunting spot and is generally isolated from development. There is currently an extensive road network in this area, mostly two tracks. The gently rolling terrain has stabilized sand dunes and unique vegetation communities contribute to high wildlife values. This area would need reduced road densities and restrict some public access conditions, especially on newly constructed roads. To develop additional roads, operators would need to reclaim mile for mile current roads in the area, plus do reclamation on existing roads to reduce road density to 3 mile/mi². Fences would be converted to BLM standards for improved wildlife passage. Surface disturbance would be limited in silver sagebrush/ bitterbrush communities in addition to those identified for vegetation resources. No surface disturbance would be allowed within the 18 acres surrounding the historical JO Ranch buildings. **The DEIS should specifically address the status of each SMA mentioned. Are these approved or proposed SMAs? The operator may not have the legal authority to prevent access to public lands. Reclaiming existing roads and converting existing fences to BLM standards would be compensatory mitigation and the operator would need to approve and voluntarily agree to these reclamation activities. The DEIS fails to explain why the existing fences do not meet BLM standards. It is unclear what the DEIS means by “Surface disturbance would be limited in silver sagebrush/bitterbrush communities in addition to those identified for vegetation resources.” Is there a difference between no surface occupancy and no surface disturbance? Road density of 3 mile/mi² is too restrictive; and would prevent success of the project. The project requirements are 4 mi/mi² for proper development. Lastly, the operator may be being penalized in the road density calculations by including existing roads used by the public that would also be used by the operator.**

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E123-31-4
E123-31-6
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E123-31-3
E123-31-1
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E123-31

Page 2-5, 2.2.4 Cow Butte/Wild Cow SMA This area is a popular hunting spot and is generally isolated from development. There is currently an extensive road network in this area, mostly two tracks and improved dirt roads. Terrain is generally steep, with highly erosive soils. The area has high wildlife values due to the vegetation communities. Road densities would not exceed 3 mile/mi². Development protection measures would reduce well pad density. Fences would be converted to BLM standards for improved wildlife passage. **The DEIS should specifically address the status of each SMA mentioned. Are these approved or proposed SMAs? Warren cannot find reference to this area as an SMA in the GDRMP or the Draft EIS for the RRMP. It appears this is not a proposed or designated SMA and this section should be removed. The DEIS refers to the ARPA as an area that has “...had extensive exploratory development for natural gas and oil” (Section 3.4.6.3; pg 3-55); however, in later remarks, the statement above is contradictory. Standard BLM regulations restrict development on slopes over 25%. The statement above concerning slopes in this specific area is vague. Reducing well pad density will prevent project success and is too restrictive. Road density**

E123-31-9 E123-31-7
E123-31-8 E123-31-6
E123-31

of 3 mile/mi² is too restrictive and would preclude success of the project. The project requirements for roads are 4 mi/mi² for proper development. Converting existing fences to BLM standards would be compensatory mitigation and the operator would need to approve and voluntarily agree to this reclamation activity. The DEIS fails to explain why the existing fences do not meet BLM standards. Lastly, the operator may be being penalized in the road density calculations by including existing roads used by the public that would also be used by the operator.

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E123-32-3 E123-32-1
E123-32

Page 2-6, 2.2 Historic Trails SMA Historical trails are unique cultural resource documenting the difficult journeys made in the early West. Three trails are eligible for the National Register of Historic Places in the ARPA. These areas would receive the following development protection measures: Low impact road design would be used and interim reclamation would be completed within one year of the spud date on the well; no surface disturbance would be allowed within ¼ mile of contributing segments; road or pipeline collocation would be required and trail crossings permitted only in areas of previous disturbance. Extensive efforts would be made to minimize the visual impact and surface disturbance. **Warren is not opposed to the concept of low impact roads but does have concerns with drainage characteristics and other aspects of these types of roads. The DEIS has not defined the term interim reclamation; however, any reclamation attempts may be limited by seasonal wildlife timing stipulations. The DEIS fails to define what “extensive efforts” would be made to minimize the visual impact. The trails generally referred to have not been designated historic trails.**

E123-33-2
E123-33-4 E123-33-3
E123-33-5 E123-33-1
E123-33

Page 2-6, 2.2.4 Upper Muddy Creek Muddy Creek contains critical habitat for BLM sensitive fish species. The area is generally isolated from development, with almost no legal public access. There is currently an extensive road network in this area comprised of mostly two tracks. In general it has poor soils and high wildlife values. Current road densities and public access conditions would be maintained. To develop additional roads, operators would need to reclaim mile for mile current roads in the area, plus do reclamation on existing roads to reduce road density to 3 mi/mi². Fences would be converted to BLM standards for improved wildlife passage. Detailed planning, specific to this area would be required, and roads in general would require more mitigation and design than in other areas. Where slopes are generally steeper than 8%, no surface disturbance would be allowed (44% of the SMA in the project area). No new road crossings of Muddy Creek would be allowed. **The DEIS refers to the ARPA as an area that has “...had extensive exploratory development for natural gas and oil” (Section 3.4.6.3; pg. 3-55); however, in later remarks, the statement above is contradictory. Reclaiming existing roads and converting existing fences to BLM standards would be compensatory mitigation and the operator would need to approve and voluntarily agree to these reclamation activities. The DEIS fails to explain why the existing fences do not meet BLM standards. Road density of 3 mile/mi² is too restrictive; and would prevent success of the project. The project requirements for roads are 4 mi/mi² for proper development. The DEIS fails to explain why roads would require more mitigation and design than in other areas, and should be specific in the required mitigation and design measures. BLM’s ability to impose no surface occupancy restrictions is limited by the lease terms and the rights granted therein to the lessees. Typically, federal oil and gas leases contain a stipulation that slopes in excess of 25 percent may require special attention to prevent damage to surface and/or other resources. The action of limiting surface disturbance**

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E123-33

where slopes are generally steeper than 8% is arbitrary, capricious and too restrictive. This limitation would result in large artificial boundaries in the reservoir and would significantly affect resource recovery. BLM has issued oil and gas leases for the federal minerals in this area and a no surface occupancy limitation would amount to a takings situation. A large proportion of the land in this area is state and fee owned, and BLM does not control or authorize mineral development on private or state lands, except for those areas where it owns the mineral rights. Warren is not opposed to minimizing the number of crossings to Muddy Creek; however, at least one road crossing for access and one crossing for the main gas lateral and infrastructure would be considered the minimum acceptable number of crossings for success of the project.

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E123-34-1
E123-34

Page 2-6, 2.3 All three alternatives envision the same ultimate extent of development. Under alternative C, development would not be similar to the proposed action because 95% of the project area would be limited to 4 locations per section (160 acre spacing) and less than 20 acres of surface disturbance per section. In addition, there would be no surface occupancy applied to a large portion of the project area. This alternative renders the project technically unfeasible and development would not occur. Therefore, we believe this statement in the DEIS to be untrue.

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E123-35-1
E123-35

Page 2-7, 2.4 Compared to the Proposed Action and Alternative C, Alternative B has unique provisions. Alternative B proposes that development within the ARPA occurs in three distinct phases, with construction activities limited to one of the areas at a time. Each of the three areas would be developed separately, and in turn, after construction of oil and gas facilities and interim reclamation in the preceding area is completed. **The DEIS does not define the term interim reclamation. In the next paragraph of this section the sentence "...where reclamation is expected to be difficult such and..." appears to be incomplete.**

E123-36-3
E123-36-2
E123-36-1
E123-36

Page 2-7, 2.4 Compared to the Proposed Action and Alternative B, Alternative C's unique provisions are the use of development protection measures designed to reduce adverse impacts to important resource values such as crucial winter range, sage grouse nest and brood rearing habitats, and areas of sensitive visual and cultural resources. Another example of sensitive resource values is found in areas where reclamation is expected to be difficult such and areas of high run-off potential and soils with excess salts. In addition, the extent and scale of the various development protection measures would limit surface disturbance and pad locations to 4 or less across broad expanses of the ARPA. **The DEIS appears to be implying that reclamation is not possible in areas of high run-off potential and/or soils with excess salts. These soils grades and types are typical of soils present in most sedimentary basins in the Rocky Mountains and have been successfully reclaimed in those areas. Alternative C would significantly reduce the number of wells by limiting well locations to 4 per acre and limiting disturbance to less than 20 acres per section across 95% of the project area. In addition, there would be no surface occupancy applied to a large portion of the project area. This alternative renders the project technically unfeasible and development would not occur. This proposed spatial restriction protective measure ignores the data obtained from the interim drilling program. The proposed spatial restriction protective measure also ignores**

E123-36-3

E123-36

the BLM’s own findings that directional drilling is not an acceptable alternative and 80-acre spacing is needed for economic production (BLM RMG 2005).

E123-37-2 E123-37-1

E123-37

Page 2-7, 2.5.1 During the scoping process, which was initiated in June of 2001, the Operators believed that a maximum of 3,880 gas wells from 3,880 well locations would be required to fully develop the ARPA. During the timeframe between scoping and the preparation of this EIS, BLM authorized a limited amount of exploration wells to allow for the acquisition of data necessary to determine which coals are gas productive, what density of wells is needed, which drilling and completion techniques are economical, and if dewatering of coals can be achieved. **Information from this program clearly indicates that 80 acre spacing is required for economic recovery of natural gas resources, as reflected by the RMG’s own memorandum on the subject (BLM RMG 2005). This data, along with the BLM’s analysis and recommendation, has been completely omitted from and ignored in the DEIS. Information also shows that neither horizontal nor directional drilling is feasible, and that effective reservoir response is not possible on 160 acre spacing.**

E123-38-1

E123-38

Page 2-8, 2.5.2 Requiring that the operators use directional drilling as a technique was considered. In a June, 2005 memorandum, the Reservoir Management Group (RMG) of the Wyoming Bureau of Land Management stated that extensive directional drilling does not appear to be a viable technical or economic alternative for natural gas extraction in the Atlantic Rim EIS area. Requiring the operators to use directional drilling throughout the project area was suggested in comments to scoping from the public, based on the premise that reduced numbers of wells, and corresponding roads, pipelines and infrastructure would reduce habitat loss and wildlife disturbance. **The next paragraph states “Requiring the operators to use directional drilling for all wells regardless of surface conditions, topography, or subsurface geology would not be reasonable.”(Emphasis added). The RMG recommendation clearly states directional drilling is not technically feasible. This is due in part because the Atlantic Rim CBNG project is targeting gas at shallow depths. The other primary factor that prevents directional drilling in the project is the necessity to use downhole pumps to remove water from the coal. These two aspects in the Atlantic Rim CBNG project lead to significant development and operational differences in comparison to conventional deep gas projects where directional drilling technology is being utilized. The words “extensive” and “all” are never used to describe the technical feasibility of directional drilling in the RMG’s recommendation. The statement above would lead the reader to believe that some level of directional drilling would be feasible, which is an incorrect conclusion based on the RMG’s recommendation. This statement is a misrepresentation of the RMG’s findings.**

E123-39-1

E123-39

The BLM RMG also concluded that 160 acre well spacing was not adequate to achieve commercial results and that 80 acre spacing was closer to the optimal well spacing. The surface disturbance limitations proposed in Alternative C completely ignore this recommendation. The production data acquired from the interim drilling program also

E123-39-2

clearly shows that 160 acre spacing does not yield economic results in the project. The omission of this fact in the DEIS has led to the proposal of Alternative C, which is unworkable.

E123-40-1

Page 2-9, 2.5.3 The second paragraph is a duplicate of the first. Remove second paragraph.

E123-41-1

Pages 2-10 through 2-23 Table It appears the DEIS addresses issues with the tables presented on these pages. The DEIS fails to support the claim that a gradual initial disturbance of approximately 6% of the project area and a long term disturbance of 2% of the project area would significantly impact any of the soils, water, or vegetation resources listed in the table.

E123-42-1

Page 3-8, 3.1.1.3 Pyrophoricity Although spontaneous combustion of coal is unlikely to occur in naturally exposed outcrops of coal, because by the time coal is exposed by erosion it is already too degassed to ignite spontaneously (Coats and Mcffern 1999), the presence of naturally occurring outcrops of clinker and baked shales show that it has happened in the past in the ARPA. This statement leads the reader to believe that geologic evidence of past coal combustion or burning in the ARPA was ignited by spontaneous combustion. This is an undocumented assertion by the author, and it is far more likely these fires were caused by lightening.

E123-43-1

Page 3-22, 3.3.3 Project area soil properties and limitations are discussed below. The topsoil category of poor and fair with “excess salt” as rationale (41,215 acres) provides good indication where potential reclamation problems may occur (Appendix M: Topsoils with Excess Salts). Severe wind and water erosion from these excess salt soils may increase the total salt load to the individual watershed and eventually to the Upper Colorado River System. A soil with a moderate of severe limitation or a fair or poor suitability does not mean the soil can not be used for a particular use. It does mean that if the soil is used, it may be more costly and difficult to accomplish the particular use. The DEIS fails to provide evidence supporting the assumption that erosion resulting from oil and gas activities would increase the total salt load to the Upper Colorado River System above background levels. These areas should be the focus of careful reclamation efforts to ensure that reclamation measures are successful. This does not prevent successful reclamation in areas of poor or fair soil types, which cover a great deal of not only the ARPA, but also the high plains and northern Rocky Mountain states in general. Poor and fair soils should not be used as a foundation to arbitrarily limit surface access.

E123-43-2

Page 3-24, 3.3.3 Reclamation potential is predominantly poor to fair in the ARPA. Poor and fair topsoils occupy approximately 210,992 acres, or 79% of the total land surface area of the ARPA (Appendix M: Soils with Poor/Fair Topsoil Rating). High clay content soils occur on about 158,833 acres (61%) and saline soils on about 41,215 acres (16%). In these areas, successful revegetation may require additional efforts to meet BLM reclamation guidelines and time requirements. Warren would agree that difficult areas can be reclaimed successfully with the proper effort, and that poor and fair soils should not be used as a foundation to arbitrarily limit surface access. However, Warren should not be penalized for naturally existing conditions.

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E123-47-1
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E123-48-1
E123-48-1
E123-49-2
E123-49-1
E123-49-1
E123-50-1
E123-50-1
E123-51-1
E123-51-1

Page 3-25 Table 3-10 Categories and acreage figures under Water Erosion and Runoff Potential are confusing and may be incorrect.

Page 3-26 Table 3-11 Water Erosion and Runoff Potential column headings may not be correct. Acreage figures also do not make sense and may be incorrect.

Page 3-46, 3.4.5.2 However, habitat degradation has been identified by the BLM and LSRC as a serious water quality concern on Muddy Creek, from Red Wash downstream to the Little Snake River. The habitat degradation is likely caused by season long riparian grazing, exacerbated by accelerated erosion associated with oil and gas activities. Several grazing management BMPs are being implemented in much of this lower watershed, including changes in length, timing and duration of grazing and cross fencing (USDI-BLM 2004a). **The DEIS provides no support that oil and gas activities have exacerbated degradation to the Muddy Creek from Red Wash downstream to the Little Snake River. If the DEIS cannot provide support, the paragraph should be removed. It is stated that implemented water development projects have been successful in improving riparian condition and bank stability in the Muddy Creek drainage. This clearly indicates that mitigation measures can be used to maintain or improve drainage area conditions.**

Page 3-48, 3.4.5.3 In a study of mechanisms affecting salt pickup and transport in surface runoff, and possible means of reducing salinity in runoff from rangelands in the upper Colorado River Basin, Bentley and other (1978) determined that properly implemented control measures may be able to reduce erosion and salinity (Lowham et al. 1982). **This clearly indicates that mitigation measures could be successfully used to reduce impacts. Surface disturbance limitations are not necessary to achieve the desired result.**

Page 3-48, 3.4.5.4 Culverts were generally placed on drainages with very no armoring on the downhill side, this would lead to gullying downstream of the culverts. **During the APD on-site process, the BLM staff approved the size and location of the culverts installed during the construction phase of this POD. The operators were not directed by BLM to install armoring on the downhill side. Obvious grammatical errors exist in this statement.**

Page 3-48, 3.4.5.4 Weeds were present in many locations, especially at the older Jolly Roger PODs, where interim reclamation was generally unsuccessful. **“Were” should be “where”.**

Page 3-48, 3.4.5.4 Most of the poorer examples of pad sites were on private or fee land and therefore it should not be assumed that BLM standards will apply to all types of land ownership. **The DEIS is not specific as to why these pad sites were poorer. On private lands, surface use and management agreements are entered into between the operator and private landowner. These agreements include measures for weed control. On State lands, the operator is required to conduct operations pursuant to rules and regulations of the Board of Land Commissioners.**

Page 3-52, 3.4.6.1 The Mesaverde Group aquifers generally are deeply buried in the ARPA. Although the ability of moderate pumping to readily affect recharge and discharge of the system is somewhat limited, significant groundwater withdrawals from these units would result in large water-level declines that could eventually propagate updip into overlying unconfirmed Tertiary units. **This statement lacks foundation and specific reasoning as to how this could possibly occur, and either should be supported or removed.**

Page 3-52, 3.4.6.1 Groundwater generally flows west-southwest from the higher elevations along the Sierra Madre Uplift toward the low-lying Washakie Basin center and the major streams (Collentine et al. 1981). It would be prudent to obtain quarterly water levels from a few selected wells completed in the Almond formation, the Brown Park Formation and the Little Snake River Alluvium between Dixon and Savory prior to development to establish baseline conditions and to demonstrate natural climatic variations and patterns of irrigation usage. **Groundwater issues are regulated by the SEO and DEQ. An expanding concentric circle technique is used. All permitted ground water sources in the vicinity of development must be identified and monitored for baseline conditions. If at any time the baseline conditions change, the required area to be monitored expands until the boundary of effect is determined. The operator is responsible to mitigate any reduction in groundwater supply. These regulations are currently in place and work well. This method also will provide better information than what is proposed in the draft, due to the extreme distances from development, as well as other numerous possibly unknown parameters involved.**

The BLM RMG has required that groundwater monitoring wells be used in the ARPA to obtain additional groundwater data. Two groundwater monitoring wells and a third pending well have been drilled to acquire groundwater data at considerable expense to the working interest owners in the project. These wells will provide valuable information from zones below and above the producing horizons, as well as from the Almond Coal Formation. It would take many years to demonstrate natural climatic variations and would be unreasonable to expect this information to be acquired prior to development.

Page 3-55, 3.4.6.2 The confining beds slow the movement of water, and hence, movement of potential contaminants between aquifers. Although there is some downward movement of the water from the surface units, most of the groundwater movement, if any, is upward from the deeper aquifers to the shallower aquifers. Concerns have been raised for several gas field projects in southwest Wyoming regarding groundwater quality degradation due to the piercing of confining layers and vertical and horizontal migration and mixing of water of variable qualities. Data suggesting this is a current problem in the ARPA are not available. Improperly completed injection wells could be a potential source of contamination. The integrity of the annular seals of existing water supply wells is also crucial in preventing groundwater mixing where multiple aquifers are penetrated. **There are significant data that clearly indicate this problem does not exist in the ARPA. The WOGCC has mandated that injection surveys be conducted on each injector well in the ARPA in order to unequivocally determine where injected water is moving. The WOGCC also requires continuous scheduled casing integrity tests on all injector wells to ensure that cross-contamination does not occur.**

E123-53-1	E123-53 Page 3-67, 3.6 Most ranchers have lived and worked within the project <u>are</u> for three to four generations. Are should be “area”.
E123-54-1	E123-54 Page 3-71, 3.7.1.4. The Upper Colorado River Basin Standards and Guideline Assessment (2002) failed Standard #4, Wildlife Habitat Health, and addressed mule deer range as follows. It would be helpful to the reader if the criteria for the failed assessment was specified. A review of the 2002 Standard assessment indicates that only mule deer crucial winter habitat failed the assessment for Standard #4. The primary reasons for the mule deer CWR failure rating were sub-standard fence design, placement of fences, an overall negative effect of fire suppression on browse conditions resulting in dominate species composition and age class diversity, potential for wildfire as a result of years of fire suppression, and seasonal disruptions of deer from human contact.
E123-55-1	E123-55 Page 3-72, 3.7.1.5 Upland Game Birds Greater sage-grouse populations in Wyoming have stabilized in recent. Years should be inserted at the end of the sentence.
E123-56-2	E123-56 Page 3-73, 3.7.1.5 Third paragraph “All research indicates that greater sage-grouse nest in suitable habitat beyond the two-mile buffer.” This statement is misleading. The DEIS states 45% of hens nest inside established buffer zones of 2 miles around leks. The DEIS should state “some” sage grouse nest outside the buffer zone. This reasoning lacks relevance due to the fact the lek buffer zones overlap to the point that a grouse could travel tens of miles from the lek and remain in a protected area during the timing stipulation period (refer to map in Appendix M).
E123-57-1	E123-57 Page 3-73, 3.7.1.5 It is likely that hens from the active leks use most of they project area for nesting and brood-rearing, which in terms of suitable habitat amounts to 92% of the ARPA. The DEIS cites no support for this assertion and it should be removed.
E123-58-1	E123-58 Page 3-74, 3.7.1.6. The total number of nest sites located on and within one mile of the ARPA is 542 (Appendix M: Raptor nest locations). Nest sites actually within the project boundary are 357. The nest sites included: burrowing owl (2), Cooper’s hawk (6), ferruginous hawk (132), golden eagle (67), great horned owl (12), northern goshawk (1), American kestrel (7), long-eared owl (1), northern harrier (3), prairie falcon (23), red-tailed hawk (51), Swainson’s hawk (7), sharp-shined hawk (1), and unknown raptor (44). The BLM also identified 60 additional nests that have deteriorated and are no longer present that are classified as historical. It is possible that some of the older raptor nests in the BLM records that have not been checked for many years may have also deteriorated beyond being suitable for raptor nesting. The nests that have deteriorated beyond suitability should be removed from the map in Appendix M and timing stipulations should not apply to those areas.
E123-59	E123-59 Page 3-75, 3.7.1.7 The ARPA falls entirely within the Rawlins-to-Baggs Geographical Area described in the RFO draft RMP, 2004. The species richness and habitat diversity in this area is one of the greatest in the RFO. The areas within the ARPA where wildlife resource concerns overlap are illustrated on Appendix M: Overlapping Wildlife Concerns. One hundred thirteen combinations of overlapping wildlife resource concerns were identified within the ARPA. The

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majority (over 90%) of the ARPA contains at least one wildlife resource concern. **The document should specifically address the status of each SMA mentioned. Are these approved or proposed SMAs? Warren strongly objects to this attempted management action by the BLM RFO. Please refer to the comments on the Special Management Areas sections, which further detail our comments on this point.**

The statement concerning overlapping wildlife resource concerns is vague. These concerns should be specifically identified to have credibility. The word “overlapping” is used to tie this reasoning to the existing overlapping big game crucial winter range argument. If these concerns are significant enough to be mentioned, they need to be documented. Each wildlife species of concern in the ARPA currently is protected by timing stipulation or other measures, which results in significant restrictions to mineral development. Where these current protective measures overlap in the most restrictive manner, wildlife-timing stipulations alone would prevent development from November 15th through September 15th. That would allow 60 days per year that mineral development could occur. This only accounts for timing restrictions and does not address the myriad of other restrictions that this draft would attempt to implement. This level of restriction will hinder mineral development to the point of impracticality. To imply that these overlapping wildlife concerns are not addressed under existing restrictions is a misrepresentation of the facts.

Page 3-77, 3.8.1.2 There are no recorded sightings of black-footed ferrets within the project area (WGFD 2003a, WYNDD 2003). A total of 6,309 acres of white-tailed prairie dog colonies were identified within the ARPA (Appendix M: White-tailed prairie dog colonies). In addition, 115 acres of prairie dog towns connected to towns within the ARPA or towns located adjacent to the ARPA were identified. Aerial mapping and ground surveys indicated that the area and density of active prairie dog colonies may be sufficient to support black-footed ferrets and that the species could theoretically be present within the ARPA. Black-footed ferret surveys would be necessary prior to ground disturbing activities within prairie dog towns that meet FWS requirements for black-footed ferret surveys (Biggins et al. 1989, USDI-FWS 1989). **On February 2, 2002, the FWS issued a letter to interested parties that indicated it had developed an initial list of blocks of habitat that were not likely to be inhabited by black-footed ferrets. In those areas, take of individual ferrets and effect on a wild population were not an issue and surveys for ferrets were no longer recommended. With the exception of the Dad complex, the entire ARPA has been block cleared.**

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Page 3-89, Table 3-34 **The DEIS should use more current information. The data used is from the year 2002.**

Page 3-90, 3.1 Visual Resources Previous on-site visits, recent photographs, filed notes compiled by other ID team members, conversations with BLM personnel and interpretive work from topographic maps was used to characterize visual resources within the affected environment. **Warren believes this sentence clearly demonstrates the subjective nature of the visual resource management concept. Warren would recommend the agency consider the old cliché that “beauty is in the eye of the beholder”. A good number of people would consider that the sight of a productive oil or gas well is a beautiful sight to behold.**

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Although this could be interpreted as an extreme example, it clearly demonstrates the subjectiveness of this concept. The DEIS should define what a VRM Specialist is and what criteria is used to determine visual classifications. Page 3-55, Section 3.4.6.3 states the area has had extensive exploratory development for natural gas and oil. Why and how could it be designated into a VRM class that would be used to restrict or preclude additional development?

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Page 3-95, 3.11.2 A Class III block inventory was completed in conjunction with preparation of the Atlantic Rim EA (Goodrick 200). A 1600 ac block survey was conducted of the Dry Cow Creek area, and two 40 ac blocks and one 10 ac block sample inventories were conducted in Deep Creek area for a total of 90 acre, ... **A 3200 ac block survey was conducted for the Dry Cow Creek Pod EA in May and June of 2000. There has been no Atlantic Rim EA.**

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Page 3-100, 3.11.6 The Rawlins to Baggs Stage Road (48CR3648) was a route used to freight goods, mail, and passengers from Rawlins to Baggs Wyoming, and further south into northern Colorado. According to Rosenberg (1994) the route was first used in 1881 and was known as the Rawlins to White River, The Rawlins, and the Snake River Road. The route was later labeled the Baggs to Rawlins Road (1916). The road is depicted on Masi's Itinerary Map of Wyoming (1875) and Holt's Map of Wyoming (1883). **Explain how the route can be depicted on Masi's Itinerary Map of Wyoming (1875) when the route was first used in 1881.**

Page 3-104, 3.11.6 This general economic contraction reflects both a loss of jobs and a shift in jobs from higher paying mining jobs to generally lower paying agricultural and service jobs. **The overlying theme from the public hearing held by the BLM in Rawlins on 2/12/06 was the need for good paying, long term jobs in the area.**

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Page 3-114, 3.12.6 A 1996 survey conducted in conjunction with the preparation of the Carbon County Land Use Plan investigated resident attitudes and opinions regarding land use, oil and gas development, natural resource conservation and use, and other topics. Just over 300 residents completed the survey (Carbon County Board of Commissioners and Carbon County Plannin Commission 1998). **The 1996 survey is very dated and may not accurately reflect today's attitudes and opinions. More recent polling data is available that endorses the AR project by over 70% of survey participants.**

Page 3-116, 3.13.2 A number of Carbon County roads provide access to and within the ARPA. The traditional use of these county roads is to access federal, state and private lands for livestock management, recreation and more recently, oil and gas exploration and production purposes. The county has improved several county roads, including CCR 608 (Wild Cow Road) and CCR 605N (Twenty Mile Road – North), to better serve oil and gas development and production. Except for these two roads, county roads within the project area are minimally maintained and are not plowed during winter (Evans 2002). **Improvement of the county roads has actually been a co-operative effort between the county and working interest owners in the AR project. A significant direct investment from the working interest owners has been made toward public roads in the ARPA.**

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Page 3-119, 3.17.1 Special Management Areas, Rawlins to Baggs Geographic Area. Warren strongly objects to the attempt of the BLM RFO to propose this area as a Special Management Area (SMA). The BLM RFO has not communicated that this area was being proposed as an SMA. This area is not mentioned in the existing GDRMP (1990) or the Creston/Blue Gap Natural Gas Project EIS (1994). This area was not mentioned or proposed in the South Baggs Area Natural Gas Development Project EIS (1999, 2000). This proposal was not mentioned during the scoping process of the AR EIS (June 2001). This proposal was not mentioned publicly until the draft of the Rawlins RMP was released for comment recently. Warren views this as an attempt to place additional restrictions on mineral development after the project was proposed and appeared to have high potential for success. In the draft of the RRMP, this area is first mentioned in a section titled “Other Management Areas.” This would give the reader the perception that the area was not at the same level of a Special Management Area. We are unable to determine exactly what “Other Management Areas” means because the term was not defined in the draft of the RRMP. Warren also objects to the fact that it was moved to the top of the list of the Special Management Areas section in the DEIS. The action by the BLM RFO to attempt to throw this designation around such a large area that is described in the draft as an area that has “...had extensive exploratory development for natural gas and oil” (Section 3.4.6.3; pg 3-55) is questionable at best. We would also suggest that this type of management strategy will produce a significant dilution in the relevance of areas designed or proposed as Special Management Areas. The Rawlins to Baggs Geographic Area contains the entire area of the SMA’s mentioned in the draft Cow Butte/Wild Cow Area, Upper Muddy Creek Watershed/Grizzly Area, Sand Hills ACEC and proposed JO Ranch Expansion and Red Rim/Daley Area. We strongly recommend the BLM RFO reconsider this management strategy, as it appears to limit the historical multi-use strategy for this project area. The statement (Section 3.17.1: pg 3-20) “... piecemeal protection of the higher value areas would not adequately protect all the wildlife species that use and depend on this area” clearly demonstrates that RFO management has lost focus of its multi-use mandate throughout the ARPA. This is not a designated SMA and it should be removed from the DEIS.

Page 3-119, 3.17.1 The area is bounded on the north by Interstate 80, on the east by State Highway 71 and Carbon County road 401, on the south by State Highway 70, and on the west by State Highway 789. This area contains unique and valuable vegetation and wildlife resources that require special management emphasis. The natural resources within the area draw a high number of recreationists, who enjoy the area for its wildlife, historic and cultural values and being able to get away to secluded places. **This statement is an exaggeration. Section 3.9.1 accurately states ”...there are no counts of recreational visits to the ARPA, overall use is believed to be low, except during and just prior to hunting season...low visitation during the rest of the year is due to low population densities in proximity to the area...”** We concur that the area attracts a good number of hunters who participate in hunting activities on a seasonal basis. However, to suggest that a high number of recreationists use the area for other purposes is a misrepresentation of fact.

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Page 3-120, 3.17.2 Cow Butte/Wild Cow Area **Warren cannot find reference to this area as an SMA in the GDRMP or the Draft EIS for the RRMP. It appears this is not a proposed or designated SMA and this section should be removed.**

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Page 3-121, 3.17.2 The Rawlins to Baggs freight road was a 19th century road connecting Rawlins and the town of Baggs to the southwest and continuing on to the White River Ute Indian Agency at Meeker, Colorado. Originally the route was used for freight, but mail and passenger services were added as the region became more populated. The military used the road to transport troops and supplies from Fort Steele to Meeker during a massacre in 1879. The Rawlins to Baggs freight road parallels the 20-mile road out of Rawlins. Portions of the road are in excellent condition with deep swales and ruts present. **The DEIS should note that portions of the 20-mile road actually travel the same segments of the freight road.**

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Page 4-1, 4.0 Introduction The purpose of this chapter is to determine the potential for significant impact of the “federal action” on the “human environment.” The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) states that the “human environment” shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment [40 Coe of Federal Regulation (CFR) sub chapter 1508.14]. The “federal action” is the Bureau of Land Management’s (BLM) selection of an alternative plan on which future land use actions would be based. **The DEIS is not BLM’s selection of an alternative plan on which future land use actions would be based; it is an analysis of the Atlantic Rim Natural Gas Project. This runs afoul of NEPA requirements.**

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Page 4-1, 4.0.1 BLM manages public lands for multiple uses in accordance with the Federal Land Policy and Management Act (FLMPA). Land use decisions are made that protect the resources while allowing for multi-use of those resources, such as livestock grazing, energy development, and recreation. Where there are conflicts between resource uses, or a land use activity may result in irreversible or irretrievable impacts to the environment, BLM may restrict or prohibit some land uses in specific areas. **It should be noted that APC, Warren and other operators hold valid oil and gas leases to these lands.**

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Page 4-4, 4.1.3.1.3 Excavation of pipeline trenches and construction of well pads, access roads and ancillary facilities associated with the proposed action or its alternative could result in the exposure and possible destruction of fossil resources of scientific significance either directly as a consequence of construction or indirectly as a result of increased erosion rate. Increased access resulting from development may increase the visibility of fossil resources and lead to increased poaching. **It should be noted that a standard condition of approval for a federal application to drill requires that any cultural and/or paleontological resource that is discovered be immediately reported to the authorized officer. All operations are suspended in the immediate area until written authorization to proceed is issued by the authorized officer.**

E123-73

Page 4-9, 4.2.2 Direct and Indirect Impacts The far-field analysis also assessed regional emission sources located within the model domain illustrated in Appendix M: PSD Class I and

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E123-74-1
E123-73-1

Class III Sensitive Areas and Sensitive Lakes to predict cumulative potential impacts at in-field and far-field locations. **Class III should be changed to Class II.**

Page 4-17, 4.3.3.1 **The last sentence in the last paragraph on the page is incomplete.**

Page 4-17, 4.3.2 Impact Significance Criteria Interim reclamation is not successful within three years of implementation. **The DEIS has not provided any definition for the term Interim Reclamation.**

Page 4-17, 4.3.3.1 This section suggests that large portions of the ARPA are covered with soils that are too sensitive to successfully reclaim. **We agree generally that soils in the ARPA are naturally substandard. Actually, this is also true for a significant portion of the sedimentary basins in the Rocky Mountain region. This condition has not historically been used as a basis to restrict oil and gas development in other basins. We are not opposed to implementing mitigation measures to ensure successful reclamation of the project area.** The DEIS itself states this is workable in Chapter 3, in areas of poor to fair soils "...successful revalidation may require additional efforts to meet BLM reclamation guidelines..." Also in the draft in Appendix B reclamation Plan - significant levels of revegetation is required which would reduce the impact of surface disturbance in these areas. **We urge the BLM not to adopt the surface disturbance limits mentioned in the DEIS for these soil sensitivities. We would refer to the BLM RMG memo (June 2005) that clearly states the project requires 80 acre spacing and that directional drilling is not feasible. We have attached additional specific comments to the balance of the mitigation measures in relation to soils proposed in the draft's Appendix L as our Appendix A.**

Page 4-17, 4.3.3.1 Proposed Action Last sentence on the page "With these measures implemented, and" **The sentence is incomplete.**

Page 4-18, 4.3.3.1 Surface disturbing activities have the potential to disturb or destroy biological crusts, if they are present. **On page 3-24 BLM states "In general, biological soil crusts are poorly developed or absent within the ARPA." Add this language to the beginning of this paragraph. The table in Chapter 2 should also represent this fact.**

Page 4-18, 4.3.3.1 Many areas would exceed the significance criteria for soils; therefore the project would exceed the significance criteria. **This appears to be an assumption. The DEIS provides no support or explanation why many areas currently exceed the significance criteria for soil, and fails to tie this to development. Without documentation, this statement should be removed from the DEIS.**

Page 4-19, 4.3.3.3 Alternative B This concentration of development would likely increase runoff and sediment/salt yields beyond the water resources significance criteria. Impacts would exceed the significance criteria for soils. **The DEIS fails to support its assumption that a gradual initial disturbance of approximately 6% of the project area and a long term disturbance of 2% of the project area would result in an increase in runoff and sediment/salt yields beyond the water resources significance criteria. The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.**

4-21, 4.4.1.1 “Potential impacts that would occur to the surface water system...” **This statement and many similar statements within the DEIS use the words *potential impacts* and *would occur* in the same statement. Potential impacts *may* occur and this should be reflected appropriately throughout the DEIS.**

4-22, 4.4.1.2 “The effects would result in...interruption of groundwater flow to existing nearby springs, seeps and flowing artesian wells receiving groundwater from the same coal aquifer.” **This statement is inconsistent with the statement on page 4-31, Section 4.4.3.1.2.3, which states, “Therefore, it is unlikely that the proposed project would have a dewatering effect on the overlying Tertiary deposits, which would diminish flows from the contact springs and seeps.”**

4-23, 4.4.1.3.1 “The analysis for surface water is based on the following specific assumptions: (including bulleted assumptions).” **Stating the assumptions in this section is appropriate. What is not appropriate is stating conclusions. Conclusions should be presented within the impact section of the document and backed up with supporting evidence. For example, the following conclusions are made in the assumptions section:**

- “...thereby degrading water quality, channel structure, overall watershed health in some locations.”
- “Increased pollutants in surface waters would degrade habitat used by aquatic life and would affect other beneficial uses (e.g. stock-watering, irrigation, and/or drinking water supplies).
- “However, properly designed roads would still alter hillslope hydrology and concentrate overland flow in some areas. In areas with steep topography, these impacts would increase.”

4-24, 4.4.2 “An adverse impact on water resources as a result of project actions would be considered potentially significant if its magnitude was such that special mitigation is warranted or it persists indefinitely....Significance can be real and supportable by fact, or perceived and perhaps not fully supportable even with rigorous study.” **These are two conflicting statements. An action would be considered significant if “its magnitude was such that special mitigation is warranted.” However, if something is perceived or not supported, than how can the magnitude of project actions be determined and mitigation prescribed? There has to be some data or precedent with which to form an opinion about significance. Only then can meaningful significance criteria be developed and supported.**

Page 4-26, 4.4.3.1.1 The main impacts of the project related to surface water resources are the removal of vegetation, increased soil surface exposure, mixing of soil horizons, soil compaction and decreased infiltration capacity, loss of topsoil productivity, and increased susceptibility of the soil to wind and water erosion. Therefore, the primary impacts of the proposed project on surface water resources are increased surface runoff, erosion and off-site sedimentation that would cause channel instability and degradation of surface water qualities. **The DEIS fails to prove that a gradual initial disturbance of approximately 6% of the project area and a long term disturbance of 2% of the project area would result in an increase in runoff and sedimentation significantly above current background levels. The DEIS fails to take into**

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E123-90-1 | E123-90
E123-91-1 | E123-91
E123-92-1 | E123-92
E123-93-1 | E123-93

account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.

Page 4-26, 4.4.3.1.1.1 Soils with the potential for severe water erosion about comprise about 85% of the ARPA. **This sentence should read “...the potential for severe water erosion comprise about 85% of the ARPA.”**

Page 4-26, 4.4.3.1.1.1see Tables 3-13 and 3-14. **Reference is given to the wrong table. Reference should be given to Table 3-11.**

4-26, 4.4.3.1.1.2 It is important to note that even successful reclamation does not necessarily return an area to its previous function for surface hydrology. This is because perennial forbs, brush and trees generally are more effective at reducing rain splash and can provide structure to soil surface that can reduce surface runoff energy, but are not required for reclamation. **According to Standard #1 of the Upper Colorado River Basin Standards & Guidelines Assessment, “Research conducted in Wyoming indicated that upland plant communities can often be maintained with ground cover of 30 percent, while sediment yield increased dramatically when cover declined to less than 30 percent (Linse, Smith and Trlica, 1992).” While “successful reclamation does not necessarily return an area to its previous function for surface hydrology”, the stated research shows reclamation with a little as 30 percent re-vegetation will drastically reduce erosion.**

Page 4-26, 4.4.3.1.1.2 Anderson (1975) in a study of 23 watersheds found that conversion of a steep forest and brush lands to a grassland had multiplied sediment yields by 5 times. **The DEIS should not compare the results from a steep forest, what it admits is an extreme case, to the Atlantic Rim project area, since the two are not the same. The reference to this study should be removed from the DEIS.**

Page 4-27, 4.4.3.1.1.2 This means that road design needs to allow for heavy truck traffic and at lease on visit per day in all kinds of weather. **“On” should be “One”.**

Page 4-29, 4.4.3.1.2.1 All injection wells would have permits prepared and submitted to the WOGCC and SEO. **The SEO does not approve injection well permits. The permitted agencies are the WOGCC and Department of Environmental Quality.**

Page 4-38, 4.4.3.2.1 As described in Chapter 2, total construction phase surface disturbance resulting from the Proposed Action would be about 17,600 acres (5.7% of the ARPA). **Chapter 2 indicates a total construction phase surface disturbance of 15,800 acres, not 17,600 acres.**

Page 4-39, 4.4.3.2.1 Increasing sediment delivery to watersheds above the 303d section of Muddy Creek (Section 3.4) would lead to habitat degradation in pools and riffles and increase salinity of these waters, resulting in significant effects. The primary watershed contributing to this segment is the Muddy Creek/Alamosa Gulch watershed (Appendix M: HUC Boundaries.) The proposed action with 8 wells/section in this watershed would lead to increases in surface runoff and sedimentation into this watershed and would result in significant impacts. **The DEIS fails to provide evidence of the expected level of increase above background levels, and that**

E123-93-2	E123-93-1	E123-93	these levels would lead to habitat degradation. BLM fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.
E123-94-1	E123-94-1	E123-94	Page 4-39, 4.4.3.2.1 According Chapter 3 the Soils section there are many topsoils that are saline or sodic in the ARPA,... The word “to” should be inserted between According and Chapter.
E123-95-1	E123-95-1	E123-95	Page 4-41, 4.4.3.4.1 Interim reclamation would be more successful due to economies of scale in terms of planting, treating for weeds, travel planning and other tasks. When these activities occur in only a portion of the project area at a time and we can assume these economies of scale would be realized. This is an assumption and is not necessarily true. Economies of scale could also be realized under the Proposed Action.
E123-96-1	E123-96-1	E123-96	Page 4-44, 4.4.5 The Required BMPs (Appendix H) and applicant committed measures (Appendix K) <u>measures</u> and procedures would be followed under all alternatives and are critical to reducing impacts to water resources. Measures is used twice, remove the word after (Appendix K).
E123-97-1	E123-97-1	E123-97	Page 4-44, 4.4.5 Drainage Crossings – These would be designed for at the minimum for the 25 year storm event and in such a way... Correct to “These would be designed, at a minimum, for the 25 year storm event ...”
E123-98-2	E123-98-1	E123-98	Page 4-45, 4.4.6 Significant impacts to surface hydrology would occur under the proposed alternative and Alternative B (Temporal Alternative). These impact including negatively impacting a waterbody (Muddy Creek West of 789) listed on the State 303d list, changing streamflow characteristics in stream channels, alteration of stream geometry and increasing sediment to the point of degrading a streams designated use (Muddy Creek, from the eastern project boundary to the confluence with the Little Snake. No significant impacts are expected to occur under Alternative A (No Action) or Alternative C (Spatial Alternative). The DEIS fails to provide evidence of the expected level of increasing sediment above background levels, the expected level of increase above naturally occurring changes in streamflow characteristics and the expected level of changing stream geometry above naturally occurring changes and that these changes would have a negative impact. The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.
E123-99-1	E123-99-1	E123-99	Pages 4-46 and 4-47, 4.5.3.1 Thirty-one percent of the aspen, juniper woodland, serviceberry, and true mountain mahogany cover types occur on private and state lands. These sites would not be protected from disturbance by any development. Loss of these communities would increase wildlife use on remaining areas within these cover types and exacerbate current declining health conditions. The DEIS fails to provide evidence supporting its statement these cover types are currently undergoing declining health conditions. If BLM cannot provide support for this statement it should be removed.

E123-101-2	E123-101-1	E123-102-1	E123-103-1	E123-104-1	E123-105	<p>Page 4-47, 4.5.3.1 There are no applicant voluntarily committed measures to control weeds; therefore the current trend of weed spread is likely to continue on private and state lands. Surface use and management agreements are entered into between the operator and private landowners. These agreements include measures for weed control. On State lands, the operator is required to control weeds pursuant to rules and regulations of the Board of Land Commissioners. BLM’s assumption may be incorrect.</p>
						<p>Page 4-48, 4.5.3.2 Indirect impacts due to dust from roads is expected to affect vegetation adjacent to roads, resulting in an additional 15 to 30% of the development area and 5 – 10% of the natural gas development area (based on estimate of 300 feet width impacted along roads). The DEIS cites no evidence to support its assumptions and it is unclear what the difference is between “development area” and “natural gas development area”. The DEIS fails to consider operator-committed measures of dust control by application of water or other chemicals.</p>
						<p>Page 4-51, 4.5.3.4 <u>Alternative B</u> This method of developing all wells, roads, pipelines and facilities at the same time may result in better planning and reduced acreage of disturbance to vegetation. This method of development would, at a minimum, result in no less disturbance than the Proposed Action and may even increase the amount of disturbance because unnecessary wells would be drilled.</p>
						<p>Page 4-52, 4.5.4 In addition, the desertification of rangelands due to changes in overland hydrology on moderate and steep slopes would negatively affect more than one-third of the ARPA. The DEIS fails to provide evidence of the expected level of increase in changes to overland hydrology above naturally occurring changes and that these changes would have a negative impact. Furthermore, the DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.</p>
						<p>Page 4-60, 4.7.3.1 Construction and drilling noise have the potential of affecting wildlife species at the project site as well as areas surrounding disturbances sites. Manmade construction such as well pads and roads can reduce use of surrounding habitat by wildlife. These impacted sites reduce foraging due to the direct loss of native vegetation from ground disturbance. In addition, there is an area surrounding these sites that tends not to be utilized due to the increased human activity. This “zone” can extend up to a half mile from the developed area. A half mile “zone” appears to be an assumption by BLM. The DEIS cites no supporting evidence for this assumption.</p>
						<p>Page 4-61, 4.7.3.1 Direct habitat loss from construction would equal approximately 6% of the project area. In addition, dust would directly and indirectly impact 15 – 30% more acreage. These impacts would include habitat avoidance. Indirectly, this may increase inter- and intra-species competition for forage and thermal cover; in areas already fully occupied, density dependant species would be further displaced, possibly outside of the project area. This may force animals to utilize lower quality habitats, which may lead to a reduction in reproduction rates or an increase in use on remaining shrub habitats. This increase of use would then lead to a long-term reduction of shrub habitats outside the immediate project disturbances. A further</p>

E123-105-1

E123-105

reduction of shrub habitat from die off caused by overuse would further reduce the habitat quantity and quality available in the long term, resulting in a significant impact. **The DEIS provides no evidence to support its assumption that dust would directly and indirectly impact 15 – 30% more acreage. The DEIS fails to consider operator-committed measures of dust control such as application of water or other chemicals.**

E123-106-1

E123-106

Page 4-64, 4.7.3.1.2 Mule Deer Prohibiting construction, drilling, and other activities potentially disruptive to pronghorn within CWR from November 15 to April 30, would reduce the probability of displacement during this critical time of the year. **Although pronghorn are described, the sentence obviously refers to mule deer.**

E123-107-1

E123-107

Page 4-64, 4.7.3.1.2 Mule Deer Mule deer, however, are adaptable and may adjust to non-threatening, predictable human activity (Irby et al. 1988, Gusey 1986). However, the Sublette mule Deer Study, using GPS collars, found that winter mule deer habitat selection and distribution patterns have been affected by development, specifically road networks and well pads. **These two studies contradict one another. A research project initiated by the BLM and WYGF in February of 2005, funded by two of the operators, should provide information concerning the distribution patterns affected by development. According to DEIS Page 4-94; 4.9.3.1 - “Acclimation and re-occupation would be expected to occur following construction and drilling when the project moves into the production phases where less noise and human activity would take place.”**

E123-108-1

E123-108

Page 4-65, 4.7.3.1.2 Elk During the production phase, there is no equivalent mitigation and animals may be displaced up one mile from the source (Rawlins Draft RMP 2004). This would lead to increased stress/decreased condition or reproductive rates of the animals as they travel farther and may have to use lower quality range. **Approximately 20% of the crucial winter/yearlong range lies within the ARPA. The elk would most likely utilize the 80% of range outside and away from the project area where they would not be affected by project activities.**

E123-109

Page 4-66, 4.7.3.1.3 Potential sources of direct impacts to greater sage-grouse include excessive noise levels proximal to occupied leks; disruptive human activities that occur during the daily time period in which courtship and breeding, nesting, brood-rearing, and foraging activities take place; and habitat loss from construction of project facilities. Noise levels interfere with bird communication during mating periods resulting in lower bird attendance at leks. Disruptive human activities alter normal bird behavior, increases nest abandonment, and may displace birds into less desirable habitat. All of these impacts lead to lower productivity and long-term decline in the population of this species. **Compressor stations would be equipped with hospital grade mufflers to reduce noise levels. If necessary, at the APD level, BLM would attach conditions of approval prohibiting drilling and construction activities during the time period of March 1 through June 30 for the protection of sage-grouse nesting areas. During the production phase less noise and human activity would occur.**

E123-110

Page 4-68, 4.7.3.2.2 Pronghorn Antelope The acreage disturbance and the actual number of pads per section would fall under a high impact post-reclamation. The direct loss/reduced usability of Wyoming big sagebrush would increase use on remaining shrubs, resulting in shrub

E123-110-2

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E123-110

E123-110-3

health decline outside the immediate project disturbances. This would have the greatest impact to antelope due to their extreme reliance upon sagebrush (96% of their diet) during winter. This level of development within pronghorn CWR, compounded by the current condition of the crucial winter habitat would exceed the significance criteria. **Approximately 43.5% of the crucial winter/yearlong range in the Baggs pronghorn herd unit is within the project area. BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands” as significance criteria. These are *recommendations* from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi-use responsibility to manage, among other things, leasing, exploration, and development of oil and gas. Although it may be appropriate to consider recommendations from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with management goals of the Resource Management Plan, nor is it appropriate to apply *recommended* measures that are not geographically, technically or economically feasible. According to DEIS Page 4-94; 4.9.3.1 - “Acclimation and re-occupation would be expected to occur following construction and drilling when the project moves into the production phases where less noise and human activity would take place.” The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.**

E123-111-2

E123-111-1

E123-111

E123-111-3

Page 4-68, 4.7.3.2.2 Mule Deer The acreage disturbance and the actual number of pads per section would fall under a high impact post-reclamation. This level of development within mule deer transitional range and CWR, compounded by the current poor condition of the crucial winter habitat would exceed the significance criteria. **Approximately 27% of the crucial winter and crucial winter/yearlong range in the Baggs mule deer herd is within the project area. BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands” as significance criteria. These are *recommendations* from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi-use responsibility to manage, among other things, leasing, exploration, and development of oil and gas. Although it may be appropriate to consider *recommendations* from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with management goals of the Resource Management Plan, nor is it appropriate to apply recommended measures that are not geographically, technically or economically feasible. According to DEIS Page 4-94; 4.9.3.1 - “Acclimation and re-occupation would be expected to occur following construction and drilling when the project moves into the production phases where less noise and human activity would take place.” The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.**

E123-112

Page 4-68, 4.7.3.2.2 Elk Although actual acreage disturbance would fall under a “high” impact post-reclamation, there would be an “extreme” impact to elk based on the actual number of pads (8 pads per section). With this level of development, impacts to elk CWR would exceed the significance criteria. **There would be no “extreme” impact to elk. Approximately 20% of**

E123-112-2

E123-112-1

E123-112

the crucial winter/yearlong range in the Sierra Madre elk herd is within the ARPA. BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats on BLM Lands” as significance criteria. These are *recommendations* from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi use responsibility to manage, among other things, leasing, exploration, and development of oil and gas. Although it may be appropriate to rely on *recommendations* from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with management goals of the Resource Management Plan, nor is it appropriate to consider recommended measures that are not geographically, technically or economically feasible.

E123-113-1

E123-113

Page 4-71, 4.7.3.5 The Spatial Development alternative would proceed with development across the ARPA similar to the Proposed Action alternative, but would be constrained by critical/sensitive resource concerns. **Under alternative C, development would not be similar to the proposed action because 95% of the project area would be limited to 4 locations per section (160 acre spacing) and less than 20 acres of disturbance per section. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

E123-113-2

E123-114-1

E123-114

Page 4-71, 4.7.3.5.1 Under this alternative, addition mitigation would be applied to minimize impacts to important CWR, important winter habitat for grouse, greater sage-grouse nesting... **Addition should be “additional”.**

E123-115-1

E123-115

Page 4-71, 4.7.3.5. The Spatial Development alternative would proceed with development across the ARPA similar to the Proposed Action alternative, but would be constrained by critical/sensitive resource concerns. **Warren disagrees with this assumption. Under Alternative C development would not be similar to the proposed action, because 95% of the project area would be limited to 4 locations per section and less than 20 acres disturbance per section. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

E123-116-1

E123-116

Page 4-77, 4.8.2 The following criteria were considered in the assessment of impacts associated with the Proposed Action and All Alternatives and are the same as those contained in the Draft Rawlins RMP (BLM 2004). **The current RMP is the Great Divide Resource Management Plan, not the Rawlins RMP; which is a draft and the Final EIS has not been released for public comment, nor has a ROD been signed.**

E123-117

Page 4-77, 4.8.2 Management actions that result in substantial disruption or irreplaceable loss of vital and high value habitats as described in the Wyoming Game and Fish Department Mitigation Policy (WGFD 2004). **As a significance criteria, BLM is applying the Wyoming Game and Fish Department “Minimum Recommendations for Development of Oil and Gas Resources**

E123-117-2 E123-117-1

E123-117

within Crucial and Important Wildlife Habitats on BLM Lands”. These are *recommendations* from the Wyoming Game and Fish Department, an agency whose single mission is to manage and protect wildlife in Wyoming. BLM has a multi-use responsibility to manage, among other things, leasing, exploration, and development of oil and gas. Although it may be appropriate to consider *recommendations* from the Game and Fish Department, it is not appropriate to apply recommended measures that are in conflict with management goals of the Resource Management Plan, nor is it appropriate to apply recommended measures that are not geographically, technically or economically feasible.

E123-118-2 E123-118-1

E123-118

Page 4-86, 4.8.3.2 Roundtail Chub Based on the impacts of new roads and other facilities on the habitat important to roundtail chubs within the upper Muddy Creek watershed as well as the effects of habitat fragmentation on the ability of roundtail chubs to access required habitats, the proposed action would significantly impact the habitat of this species within the ARPA, and may preclude improvement of their status as prescribed in the Range-wide Conservation Agreement for Bluehead Suckers, Flannelmouth Suckers, and Roundtail Chubs. **The DEIS fails to provide evidence of the expected level of increasing sediment above background levels, the expected level of increase above naturally occurring changes in streamflow characteristics, the expected level of changing stream geometry above naturally occurring conditions and that these changes would be significant. The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.**

E123-119-2 E123-119-1

E123-119

Page 4-86, 4.8.3.2 Bluehead Sucker Based on the impacts of new roads and other facilities on the habitat features found to be important to bluehead suckers within the upper Muddy Creek watershed as well as the effects of habitat fragmentation on the ability of bluehead suckers to access required habitats, the proposed action would significantly impact the habitat of this species within the ARPA, and may preclude improvement of their status as prescribed in the Range-wide Conservation Agreement for Bluehead Suckers, Flannelmouth Suckers, and Roundtail Chubs. **The DEIS fails to provide evidence of the expected level of increasing sediment above background levels, the expected level of increase above naturally occurring changes in streamflow characteristics, the expected level of changing stream geometry above naturally occurring conditions and that these changes would be significant. The DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.**

E123-120-2 E123-120-1

E123-120

Page 4-86, 4.8.3.2 Flannelmouth Sucker Based on the impacts of new roads and other facilities on the habitat features found to be important to flannelmouth suckers within the upper Muddy Creek watershed as well as the effects of habitat fragmentation on the ability of flannelmouth suckers to access required habitats, the proposed action would significantly impact the habitat of this species within the ARPA, and may preclude improvement of their status as prescribed in the Range-wide Conservation Agreement for Bluehead Suckers, Flannelmouth Suckers, and Roundtail Chubs. **The DEIS fails to provide evidence of the expected level of increasing sediment above background levels, the expected level of increase above naturally occurring changes in streamflow characteristics, the expected level of changing stream geometry above naturally occurring conditions and that these changes would be significant. The**

DEIS fails to take into account that the operator committed measures, BMPs, COAs, and reclamation plan are designed to reduce impacts to an acceptable level.

Page 4-87, 4.8.3.5 Alternative C The Spatial Development alternative would proceed with development across the ARPA similar to the Proposed Action, but surface disturbance would be reduced in areas with critical/sensitive resource concerns. **Under alternative C development would not be similar to the proposed action because 95% of the project area would be limited to 4 locations per section (160 acre spacing) and less than 20 acres of disturbance per section. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. This alternative renders the project technically unfeasible, and wholly uneconomic. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

Page 4-96, 4.9.3.1 The Proposed Action would likely displace some dispersed recreation use from the ARPA to areas for hunting and wildlife viewing that are farther away and are themselves likely to be under increasing pressure for development. **The DEIS provides no supporting evidence for this assumption and the sentence should be removed.**

Page 4-96, 4.9.3.2 Under the No Action Alternative, the Proposed Action would not be approved. The ARPA's recreation experience would continue to be affected by existing facilities and interim drilling, but no new impacts to recreation and hunting would be introduced by the No Action Alternative. **Under the No Action Alternative, development could continue on State and fee lands within the ARPA; however, in such case the project becomes uneconomic.**

Page 4-97, 4.9.3.4 Under Alternative C, as under the Proposed Action, a total of 2,000 new natural gas wells would be drilled and developed under this alternative during the next 20 years with an expected LOP of 30-50 years. However, development would potentially be constrained in areas that have critical resource concerns, such as fisheries, hydrology, soils and wildlife. **Under Alternative C, 95% of the APRA would be limited to 4 locations per section (160 acre spacing), and less than 20 acres of disturbance per section. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. This alternative renders the project technically unfeasible, and wholly uneconomic. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

Page 4-97, 4.9.3.4 SMAs along with requirements for prompt interim reclamation, low impact road designs, careful siting of well pads, roads and facilities, and dust abatement techniques would also contribute to preservation of the recreation setting. **These measures could be applied to all action alternatives and are not unique to Alternative C.**

Page 4-97, 4.9.3.4 Direct loss of habitat due to construction of well pads and associated roads and pipelines, would lead to some wildlife displacement in these areas. Displacement due to habitat loss can be minimized but not avoided. This type of displacement would have an adverse impact to hunting in the ARPA. This impact would be disproportionate because of the

E123-125-1

E123-125

importance of these areas to game herds and thus to hunting. **The DEIS includes a map (Appendix M Locations of Successful Hunts) illustrating successful hunts within the ARPA. However, the illustration does not identify the boundaries of GMU 82 and the successful hunts outside the ARPA. The DEIS also fails to provide evidence to support its claim that this is one of the most heavily hunted areas in the State.**

E123-126-1

E123-126

Page 4-101, 4.10.3.1 During the development phase, the Proposed Action would disturb 16,000 acres to drill wells and build roads,... **The DEIS should stay consistent with its estimate of 15,800 acres of gradual initial disturbance.**

E123-127-1

E123-127

Page 4-101, 4.10.3.1 As development progresses, facilities painted Shale Green or Brush Brown (or other non-reflective color approved by the BLM VRM specialist) would be completed, sites cleaned up, and interim reclamation activities initiated. In general, interim reclamation would occur concurrently as sections of the project are completed. Interim reclamation would reduce surface disturbance to an amount of in excess of 6,000 acres that would remain disturbed throughout the production phase of the Proposed Action. The facilities and remaining surface disturbance would be in place for 30 to 50 years, the life of the project (LOP), after which facilities would be removed and final reclamation of the LOP disturbance would occur. **The DEIS provides no definition of what “interim reclamation” is. Interim Reclamation should be defined.**

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E123-128

Page 4-104, 4.10.3.1 In conclusion, the adverse visual contrast introduced to the ARPA by the Proposed Action would be high. This level of contrast exceeds the maximum allowable in VRM Class III (96 percent of the ARPA) and is less than the maximum allowable in VRM Class IV (only 4 percent of the ARPA). Therefore, based on the criteria presented in Table 4-8, the impact of the Proposed Action as a whole to visual resources of the ARPA would be high, and thus significant. **The objective of VRM Management Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Activities may attract attention, but should not dominate the view of the casual observer. Warren agrees there would be an impact; however, it would be low to moderate and would not “dominate the view”. Well facilities would be painted Shale Green or Brush Brown (or other non-reflective color approved by BLM). In addition, access roads would be located and designed to conform as much as possible to the natural landscape and would not dominate the view.**

E123-128-2

Page 4-104, 4.10.3.2 Under the No Action Alternative, the Proposed Action would not be approved. The ARPA’s visual character would continue to be affected by existing facilities, but no new visual impacts would be introduced, nor would management objectives for VRM Class III be exceeded by the No Action Alternative. The level of contrast introduced by the No Action Alternative would be low. **As indicated above, Warren believes the impact under the Proposed Action would be low to moderate. Even under the No Action Alternative development activities may continue on State and Fee lands inside the ARPA. The northern and southern portions of the project area contain a significant proportion of fee lands to which BLM has no regulatory authority.**

Page 4-104, 4.10.3.3 Despite reducing short term impacts by phasing the development of 3 zones, Alternative B would not reduce long-term visual impacts to the ARPA remaining after the build-out of the gas fields and their operations over the life of the project. Therefore, impacts to visual resources under Alternative B would be anticipated to be high – same as the Proposed Action. **The objective of VRM Management Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Once again, activities may attract attention, but should not dominate the view of the casual observer. Warren agrees there would be an impact; however, it would be low to moderate and would not “dominate the view”. Well facilities would be painted Shale Green or Brush Brown (or other non-reflective color approved by BLM). In addition, access roads would be located and designed to conform as much as possible to the natural landscape and would not dominate the view.**

Page 4-105, 4.10.3.4 Other measures to reduce surface disturbance, prevent facility intrusion above the skyline, do reclamation promptly and maximize pad distance from main roads would also contribute to preservation of the visual character of the area. **Maximizing pad distance from main roads directly conflicts with the operators commitment of minimizing surface disturbances associated with access roads and pipelines. Is the DEIS implying longer access roads and pipeline routes are preferred in order to hide the well location from view of the main roads?**

Page 4-110, 4.11.3.2 Under the No Action Alternative, the Proposed Action would not be implemented and further drilling would be allowed on federal lands only to the extent that it would be within the scope of existing environmental analyses and individual APDs would be approved on a case-by-case basis. No additional impacts to cultural resources could be expected beyond those analyzed in the previous environmental documents for projects within the ARPA. **Under the No Action Alternative, development activities may occur on State and Fee lands of which BLM has no regulatory authority. However, in such case the project becomes uneconomic.**

Page 4-111, 4.11.5 Limit trail crossings to existing disturbance corridors. **Trail crossings should also be allowed across non-contributing portions.**

Page 4-111, 4.11.5 Mitigation of Impacts to Setting Where Contributory for Eligibility Surface all roads with gravel compatible in color with the local environment. **When taking into account the color of gravel, consideration should be given to cost, location and availability. Scoria pits are located within the project area and have been used as a supply for road surface material during the interim development.**

Page 4-111, 4.11.5 Mitigation of Impacts to Setting Where Contributory for Eligibility Relocate project or hide disturbance **The oil, gas and minerals located under the ARPA were naturally deposited millions of years ago and relocating these minerals to another area is an impossibility. Where feasible, the operators are committed to use the natural landscape to hide well locations and other facilities.**

E123-132-1

E123-132

Page 4-112, 4.11.5 Additional Mitigation Measures under Alternative B Multiple well locations per pad in order to decrease the total number of acres of disturbance. **Utilizing multiple well locations per pad would require horizontal or directional drilling. These drilling techniques are not technically or economically viable within the ARPA. However, certain mitigation measures can be applied under all action alternatives.**

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Page 4-113, 4.11.5 Additional Mitigation Measures under Alternative C Multiple well locations per pad in order to decrease the total number of acres of disturbance. **Utilizing multiple well locations per pad would require horizontal or directional drilling. These drilling techniques are not technically or economically viable within the ARPA. However, certain mitigation measures can be applied under all action alternatives.**

E123-134-1

Page 4-113, 4.11.5 Mitigation of Impacts to Segments Where Setting Contributes to Eligibility Multiple well locations per pad in order to decrease the total number of acres of disturbance. **Utilizing multiple well locations per pad would require horizontal or directional drilling. These drilling techniques are not technically or economically viable within the ARPA. However, certain mitigation measures can be applied under all action alternatives.**

E123-134-2

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Page 4-124, 4.12.3.1.3 Given that the allowable drilling period in the ARPA fields runs from June through October only, and drilling and field development in many other southwestern Wyoming gas fields are similarly limited to certain parts of the year, it is likely that many drilling and gas field service workers would continue to relocate to Carbon and Sweetwater counties on a temporary, single status basis, returning to their homes or relocating to other projects during the off season. **The allowable drilling period in the ARPA field runs from January through December; however, a majority of the ARPA is granted wildlife protection through the use of timing stipulations applied at the APD level. These wildlife timing stipulations can limit the drilling window to as few as 60 days in areas of the ARPA.**

E123-134-3

Page 4-139, 4.12.3.3.1.1 Economic and fiscal effects to leaseholders could occur under Alternative B. Federal oil and gas leases (Form 3100-11) give the leaseholders the exclusive right to drill for, mine, extract, remove, and dispose of all the oil and gas within the lease area. Rights granted are subject to applicable laws, the terms, conditions and attached stipulations of the lease. Under this alternative, federal leases within the Atlantic Rim EIS area would not be developed within inactive zones. Development activities would not be approved until the subject zone becomes active. BLM would direct suspensions of operations and production for all currently inactive leases within inactive zones. Here “inactive leases” mean where a lease does not contain active producing or service wells or where production is allocated to a lease. Proposals to develop leases within inactive zones would be denied until the zone becomes active for development under the Atlantic Rim ROD. **Many federal leases within the ARPA have currently been under a suspension of operations for up to four (4) years. When added to the seven to fourteen additional years the leases could be suspended under Alternative B, many leaseholders would be deprived of revenues for eleven to eighteen years. It is not clear if BLM has the authority to suspend federal leases under these conditions for this extended period of time, without facing a takings or breach of contract claim.**

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Alternative B does not address the issue of access to fee and state minerals in any of the three areas. All of these leases have time sensitive terms which the BLM has no authority to suspend or extend for 7 to 14 years. The ARPA contains sizable areas where fee, state, and federal minerals are intermixed on the railroad strip. This area is commonly referred to as the “checkerboard”. Federal action is required by the proponents to access the fee and state minerals in the area. The BLM has taken a position that development on the fee and state minerals falls into its realm of authority due to the necessity of approving access across federal surface. This position is questionable at best and is contrary to BLM policy. These fee and state mineral leases are subject to expiring terms, as the BLM continues to delay federal action to permit access thereto. These continued delays are harming and will continue to harm both the mineral lease holders and the mineral owners themselves, as they are being denied the reasonable use and enjoyment of their property.

Page 4-139, 4.12.3.3.1 BLM doesn’t approve or control development proposals upon state and private lands. Within inactive zones not open to development under the ARPA ROD proposals for rights-of-way authorization across federal lands for oil and gas development and production related activities could be received, be processed, and as appropriate approved or disapproved by the BLM. This authority arises from the BLM Manual, Part 2800.06 “Policy”, which states “It is the policy of BLM to: D. Allow owners of non-federal lands surrounded by public lands managed under FLPMA a degree of access across public lands which would provide for the reasonable use and enjoyment of the non-federal land.” **The BLM does not have the authority to suspend state or fee oil and gas leases. In the checkerboard area of federal, state and fee lands, the BLM would be required to approve rights-of-way for access and production facilities related to development of the state and fee minerals. There is no plan in the DEIS to deal with these issues in a material manner. During the preparation of the DEIS, the BLM has been reluctant to approve federal rights-of-way for access and pipelines to State and fee lands within the ARPA. As a result, many state and fee leases expired because they could not be developed.**

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Page 4-141, 4.12.3.4 Because the pace and level of drilling and level of production under Alternative C is assumed to be the same as under the Proposed Action, impacts to local socioeconomic conditions would be expected to be similar to those associated with the Proposed Action. However, development protection measures that resulted in lower levels of drilling or production would also result in lower values for all socioeconomic elements. **Warren believes there would be a significant difference in the impacts to local socioeconomic conditions between the Proposed Action and Alternative C. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

There would be no positive fiscal effects, other than those associated with interim development. Under Alternative C, the estimated Ad Valorem Property Tax Revenues

from production and facilities totaling \$349 million, the estimated Federal Mineral Royalties totaling \$320 million, and the estimated Wyoming Severance taxes totaling \$271 million, which would have been received under the Proposed Action, would not be received. In addition, an estimated \$4.4 million in Carbon County sales and use tax revenues would not be received.

Page 4-142, 4.12.3.4.3 Population effects of Alternative C would be anticipated to be similar to those identified under the Proposed Action. Differences could occur related to the employment effects identified above. **Warren believes there would be a significant difference in the population and employment effects between the Proposed Action and Alternative C. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

Page 4-142, 4.12.3.4.5 Housing effects of Alternative C would be anticipated to be similar to those identified under the Proposed Action. Differences could occur related to the employment and population effects identified above. **Warren believes there would be a significant difference in the housing effects between the Proposed Action and Alternative C. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

Page 4-142, 4.12.2.3.4.6 Demand for community services related to Alternative C would be anticipated to be similar to those identified under the Proposed Action. Differences could occur related to the employment and population effects identified above. **Warren disagrees with this assumption. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.**

Page 4-142, 4.12.3.4.6 Fiscal effects of Alternative C would be anticipated to be similar to those identified under the Proposed Action. Reductions in production-related property and severance taxes and Federal Mineral Royalties could occur if fewer wells were allowed or economically feasible under development protection measures. Certain facility-related property and sales tax revenues could increase if development protection measures required special production or gathering facilities. Increased operations cost could also reduce federal mineral royalty, state

severance tax and county ad valorem property tax revenues on production. **Warren disagrees with the assumption that fiscal effects under Alternative C would be similar to those identified under the Proposed Action. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acres spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production. There would be no positive fiscal effects, other than those associated with existing interim development. Under Alternative C, Ad Valorem Property Tax Revenues from production and facilities are estimated to be approximately \$349 million, Federal Mineral Royalties are estimated to be approximately \$320 million, and Wyoming Severance taxes are estimated to be approximately \$271 million. Under Alternative C, such amounts would not be received. In addition, an estimated \$4.4 million in Carbon County sales and use tax revenues would not be received.**

Page 4-143, 4.12.3.4.8 No minority or low-income populations would be directly affected by project activities associated with Alternative C; therefore Alternative C would not be anticipated to have disproportionate adverse effects upon minority or low income populations. **Alternative C would have direct adverse effects on minority or low-income populations. As indicated under Environmental Justice on page 4-136 of the DEIS, the Proposed Action would create or sustain an annual average of 578 jobs (annual job equivalents) over the 13 year drilling and field development phase of the project, and an annual average of 161 jobs during the production phase of the project. These direct, indirect and induced employment opportunities would occur in all sectors of the economy and provide additional job opportunities for unskilled, low-income residents, as well as those that might become skilled through local training programs. The increased labor demand would have the likely effect of reducing unemployment in the county and increasing labor force participation -- two factors that could also increase the incomes of low-income populations. These beneficial effects would not be recognized under Alternative C, which renders the project technically unfeasible.**

Page 4-148, 4.13.3.1 As described in Section 3.12, CCR 605N has been extensively improved by the Carbon County Road and Bridge Department to accommodate natural gas traffic. The estimated volume of traffic on CCR 605N would require a relatively high level of ongoing maintenance by the county. **Improvement to county roads has actually been a co-operative effort between the county and working interest owners in the AR project. The DEIS fails to mention the significant, direct investment the working interest owners have made toward improvements of public roads in the ARPA. This sentence gives an uninformed reader the impression taxpayers have had to bear this cost alone for industry, which is not factual. This sentence should be removed.**

Page 4-153, 4.14.3.2 Under this alternative no oil and gas related development would occur so no effects to health and safety would occur for this alternative. **Under the No Action Alternative, development activities may occur on State and Fee lands of which BLM has no**

regulatory authority; however, the project becomes uneconomic. Therefore, risks to public health and safety would be well below those anticipated under the Proposed Action.

Page 4-153, 4.14.3.4 Under this alternative effects are anticipated to be the same as the Proposed Action. This statement is untrue. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production. Effects on health and safety would be well below those anticipated under the Proposed Action.

Page 4-155, 4.15.3.2 Under this alternative there would be no noise related effects. Under the No Action Alternative, development activities may occur on State and Fee lands of which BLM has no regulatory authority; however, the project becomes uneconomic. Noise related effects would be well below those anticipated under the Proposed Action.

Page 4-155, 4.15.3.4 Under this alternative effects are anticipated to be the same as the Proposed Action. This statement is untrue. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure would be applied to a large portion of the project area. Therefore, anticipated noise levels would not be the same as those under the Proposed Action. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production.

Page 5-2, 5.2.1.1 Previous existing disturbances within the ARPA is approximately 604 acres, and interim drilling disturbance is approximately 159 acres, for a total existing disturbance of 763 acres, or around 0.28 percent of the 270,000 acres comprising the project area. During the construction phase, the Proposed Action and Alternative B would disturb 15,800 acres. Under Alternative A (No Action) no surface disturbance would occur. Under Alternative C construction disturbance would be approximately half of the proposed action, or 7,900 acres or 2.9% of the Project area. Disturbance areas within the ARPA would be reduced upon reclamation of pipeline ROWs and unused portions of drill pad and ancillary facility disturbances during the production phase for each alternative. Under the Proposed Action and Alternative B reclamation would reduce impacts to 6,240 acres for a cumulative impact of 7,003 acres or 2.6 percent of the ARPA. There would be no impacts to reduce under Alternative A (No Action). For Alternative C reclamation would reduce disturbance to about 3,900 acres or 1.4 percent of the ARPA Under the No Action Alternative, development activities may occur on State and Fee lands of which BLM has no regulatory authority. Alternative C would significantly reduce the number of wells by limiting the number of well locations to 4 per acre (160 acre spacing) and limiting surface disturbance to less than 20 acres per section across 95% of the project area. In addition, a no surface occupancy protection measure

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would be applied to a large portion of the project area. Implementation of these restrictions would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production. Page 5-8, 5.3.2 Alternative C – Far Field Cumulative Impacts As a result, Alternative B was not explicitly analyzed using the CALPUFF model and impacts... **Alternative B should be corrected to read “Alternative C”.**

Page 5-9, 5.3.3 The ARPA contains such a small portion the North Platte River drainage that even cumulative impacts are insignificant. Erosion within the Great Divide Basin is generally low and site-specific due to terrain, and since there are no drainage outlets, it does not affect any other watersheds. However, the upper Colorado River drainage has listed both salinity and sediment as significant factors for many years. Water quality sampling in the 1980’s documented the Muddy Creek drainage as the principle source of sediment for the upper Little Snake River. Conservation efforts over the last twenty years have achieved success in improving watershed cover and riparian health while reducing soil erosion, in part using 319 Clean Water funding from the EPA. These efforts have focused for the most part on livestock management; however, watershed assessments identified increased sedimentation due to oil and gas development (primarily due to runoff from roads). This project, along with other adjacent oil and gas development would only lead to increased accelerated erosion and exacerbate sedimentation (and salinity) issues within the upper Colorado River drainage. **The DEIS fails to identify who conducted the watershed assessments, when the assessments were conducted, and what resources failed the assessments. Why? Initially, the Atlantic Rim Natural Gas Project will gradually disturb approximately 6% of the project area with a long term disturbance of approximately 2% of the project area. The DEIS fails to support the assumption that these very limited disturbances, in addition to other adjacent oil and gas development, would increase sedimentation above current background levels enough to exacerbate sedimentation issues within the Colorado River drainage area. The DEIS fails to consider operator committed mitigation measures, BMPs, COAs and reclamation plans designed to reduce sedimentation levels of no consequence.**

Page 5-12, 5.3.4 Indirect effects from the action alternative would come from road issues of dust and desertification that increase in a cumulative manner with adjacent existing and proposed oil and gas development. Dust accumulation on vegetation, reduced photosynthetic activity and growth, and lower palatability for herbivores would result in long-term alteration of species composition, cover and productivity. If not mitigated, these impacts could affect 20-35 percent of the region and include all vegetation cover types. Desertification impacts from road modification of upland hydrology would also increase on a cumulative basis, but in more site-specific areas. In generally flat to gently rolling terrain these impacts would be minimal, but in the Flattops, Powder Rim and Willow Creek areas results would be similar to ARPA with one-third or more of the country affected. **The DEIS provides no evidence to support the assumption that dust from cumulative project roads would affect 20 – 35 percent of the region. The DEIS fails to consider road construction standards and operator-committed measures of dust control, such as application of water or other chemicals.**

Page 5-15, 5.3.7.1 Elk The Sierra Madre Herd Unit has 25% of its crucial winter range located within the ARPA.. No additional acreage of this herd unit’s crucial winter range lies within other oil and gas project EIS’s boundaries adjacent to the ARPA. It is assumed that a portion of this

herd's transition range is located along the eastern third of the ARPA. Current collaring studies within the ARPA by the Game & Fish show more movement of elk in a north/south direction along the eastern third of the ARPA than was originally suspected and that elk movement may not always be the most direct route from winter to summer range. It is likely that project activities will disturb elk to a degree that they may move to new areas outside the ARPA. This displacement could have consequences for livestock operators, and other wildlife habitat. **DEIS Page 4-65; 4.7.3.1.2 – “Approximately 41,000 acres or 20% of the crucial winter/yearlong range in the Sierra Madres elk herd unit is within the ARPA.” It is likely the elk would use the 80% of range outside and away from the project area where they would not be affected by construction activities. According to DEIS Page 4-94; 4.9.3.1 - “Acclimation and re-occupation would be expected to occur following construction and drilling when the project moves into the production phase where less noise and human activity would take place.” Also, according to DEIS Page 4-65; 4.7.3.1.2 Elk - “Elk would likely habituate to the physical presence of gas wells (Ward et al. 1973, Ward 1976, Hiatt and Baker 1981, Perry and Overly 1976).” To reduce human presence, remote monitoring of wells would be utilized where possible.**

Page 5-17, 5.3.8 Potential impacts to threatened, endangered, proposed and sensitive species in this area of Wyoming are likely to be primarily associated with minerals development (see Section 5.2.2). Sensitive Fish, described in Section 4.8, would be significantly impacted by the project. Since these populations are unique to this location, impacts would be cumulatively significant. Under Alternative C, development protection measures would be applied to the Muddy Creek SMA and would effectively protect these fish populations. Implementation would extend the area over which potential development impacts would occur. However, the application of monitoring and mitigation measures associated with each of the projects within the CIA area is expected to provide adequate protection for threatened, endangered, proposed and candidate species from past, present and potential future actions under ESA. The implementation of the monitoring and mitigation measures would not apply to BLM sensitive species found on private and state surface lands (34% of the project area). Furthermore, those BLM sensitive species that have high site-fidelity, such as grouse and sagebrush obligate songbirds, would be affected. Therefore, impacts from this and other projects would be cumulatively significant leading to lower productivity and a long-term decline in the populations of these species. **Implementation of the restrictions under Alternative C would render the project technically unfeasible since directional drilling is not an acceptable (BLM RMG 2005) alternative and 80 acre spacing is needed for economic production. The DEIS fails to include an expected cumulative level of increasing sediment resulting from oil and gas development activities, above background levels, or other evidence supporting the assumption that impacts would be significant. The DEIS fails to take into account operator committed measures, BMPs, COAs, and reclamation plans designed to reduce impacts to acceptable levels of no consequence.**

Page 5-19, 5.3.10 Cumulative impacts would be significant because development in the CIA would exceed VRM Class III management objectives by dominating the view of the casual observer. The establishment of mature vegetation after final reclamation would take 30 years in some parts of the CIA. Localized areas may not successfully revegetate for much longer. The

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life of the project may be up to 50 years, so the CIA is not likely to return to its predisturbance character for up to 80 years. **The objective of VRM Management Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Activities may attract attention, but should not dominate the view of the casual observer. Warren agrees there would be an impact; however, it would be low to moderate and would not “dominate the view”. Well facilities would be painted Shale Green or Brush Brown (or other non-reflective color approved by BLM). In addition, access roads would be located and designed to conform as much as possible to the natural landscape and would not dominate the view.**

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Page 5-20, 5.3.11 The majority of well locations in the ARPA is proposed to be CBNG and will have surface facilities approximately 9 feet in height. **The CBNG wells have surface facilities approximately 6’ in height.**

APPENDIX B – ATLANTIC RIM NATURAL GAS PROJECT AREA RECLAMATION PLAN

E123-150-1

Page B-1, 1.0 Special intensive land-use practices may be necessary to mitigate salt and sediment loading caused by surface-disturbing activities within the project area. **The reclamation plan fails to specify what the “special intensive land-use practices” would be.**

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Page B-2, 1.0 Residual wetland impacts that could occur after maximum avoidance and/or impact minimization have been demonstrated should be mitigated according to the following order of priority: (1) avoidance; (2) impact minimization; (3) mitigation in-kind, on-site (4) mitigation in-kind, off-site; (5) mitigation out-of-kind, on-site; and (6) mitigation out-of-kind, off-site. In addition, the following modes of mitigation could be implemented for wetland mitigation if avoidance and impact minimization were not feasible: (1) wetlands restoration; (2) wetlands creation; and (3) wetlands enhancement. The wetlands mitigation plan should be designed to replace the area of impact and functional values associated with the disturbed area. **Warren agrees avoidance of wetlands is the best measure where feasible. However, where wetlands cannot be avoided, mitigation measures would be applied to minimize impacts. Mitigation in-kind, mitigation out-of-kind, wetlands restoration, wetlands creation and wetlands enhancement would be considered compensatory mitigation and the operator would have to voluntarily agree to these measures on a case by case basis before they would be implemented.**

E123-150-2

Page B-4, 3.0 Second Year (Final Reclamation) Percent cover. Total vegetal cover will be at least 50 percent of predisturbance vegetal cover as measured along the reference transect for establishing baseline conditions. **Warren agrees this is a good performance standard, but reclamation success depends on several factors; two of which are timing of the reseeding and precipitation. There could be occasions where this standard may not be achieved within two years due to circumstances beyond the operator’s control.**

Page B-4, 3.0 By the Fifth Year (Final Reclamation) Percent cover. Total vegetal cover will be at least 80 percent of predisturbance vegetal cover as measured along the reference transect for establishing baseline conditions. **Warren agrees this is a good performance standard, but**

reclamation success depends on several factors; two of which are the timing of the reseeded and precipitation. As indicated on Page B-19 (4.7.2) “Below normal annual precipitation for an extended time during the five-year period may prevent these goals from being realized and should be documented and accounted for.”

Page B-5, 4.1 Operators are finding out that it is not always necessary to remove all vegetation and strip all topsoil within a pipeline ROW. In many areas, such as with deep soils on relatively flat smooth slopes with low gradients, it is possible to crush in-place rather than clear vegetation and leave topsoil in-place rather than blade and stockpile. This technique would reduce the magnitude and severity of disturbance impacts and hasten successful reclamation. **Warren strongly believes in the concept of adaptive management; however, we are not aware of this technique being successful in any nearby project areas whose setting is similar to the ARPA. This technique should not be a requirement within the ARPA.**

Page B-16, 4.6.2 Timing of Seeding Fall seeding will occur from about September 15 until ground freeze or snow pack prevents critical seed soil coverage. The optimum time to seed a forage or cover crop in saline-alkaline soils is late fall (mid-October to December) or during a snow-free period during the winter (Majerus 1996). Ideally, in saline-alkaline soils, the seed should be in the ground before the spring season so that it can take advantage of the diluting effects of early spring moisture. Spring seeding will be completed by 15 April or as directed by the BLM. **Timing of seeding would be dependant upon when the wells were drilled and completed and the specific wildlife timing stipulations affecting the area.**

APPENDIX E – WILDLIFE MONITORING AND PROTECTION PLAN

Warren believes the Wildlife Monitoring and Protection Plan is too open ended and has the potential to go well beyond its intended purpose. An avenue, a device, a plan should be developed between the operator and BLM that establishes a procedure to terminate the plan.

Page E-1, 1.0 Implementation of the plan will begin in 2006, and is estimated to continue for the life of the EIS; however, the plan may be terminated at the end of any year when there is sufficient evidence that wildlife populations and productivity in the ARNG have been successfully protected. The plan will receive a major review for effectiveness every 5 to 6 years or as determined by the review team. **Warren believes the plan is too open-ended and has the potential to be extended beyond the end of its intended purpose. A well defined and specific procedure for terminating the plan should be established.**

Page E-1, 2.0 Considerable efforts will be required by agency and operator personnel for plan implementation. Many of the annually proposed agency data collection activities are consistent with current agency requirements. Additionally, during annual planning (Section 2.1.2) and throughout project implementation, all efforts will be made to accommodate agency personnel schedules and responsibilities, and further agency cost-sharing approaches will be considered such that public demands and statutory directives are achieved. **The draft includes multiple references to operator provided financing for surveys, biologists, monitoring, and air craft**

rentals. The operators require they be directly involved in establishing and approving annual cost-sharing limits and distribution of the operator provided finances.

Page E-3 A portion of the project area coincides with the Dad complex, which is a non-block cleared area, requiring ferret surveys in areas that would likely result in the take of a ferret during project implementation. **According to page 3-77 (3.8.1.2) of the DEIS “There are no recorded sightings of black-footed ferrets within the project area (WGFD 2003a, WYNDD 2003).” Although the Dad complex has not been block cleared by the FWS, the likelihood that development activities would likely result in a take is extremely low.**

Warren believes that accessing the significant natural gas reserves and available resources underlying the Project in a balanced, well managed, and timely manner is essential. Warren recommends that the BLM reject Alternative A, the no action alternative. Our recommendation is based on the economic value, benefit and importance the gas resources underlying the Project will have for domestic consumers, as well as the economy and security of the United States.

Warren urges the BLM to reject Alternative B because adoption of this alternative will open the door to a multitude of legal issues and resulting litigation. The BLM does not have the legal authority to suspend “all” leases in the project area, as is proposed by the alternative and the DEIS has not contemplated how access to fee and state minerals will be addressed by the BLM. The access issue is an extremely delicate concern to say the least. To imply that no development will take place on fee and state minerals in two of the areas of the Project for a lengthy period of time fails to account for the rights, duties and obligations of all affected parties. Warren considers Alternative B unworkable.

Warren requests that the BLM RFO review the recommendations from the RMG on both directional drilling and appropriate well spacing for the Project. Warren urges the BLM RFO to review the production data from the interim drilling program with regard to well spacing. The surface disturbance limitations proposed by Alternative C completely fail to take into account the sound science from these two sources. These proposed surface limitations render the Project unfeasible and uneconomic. Alternative C offers no characteristics that are considered unique enough to be considered as an alternative. Any of the mitigation measures composing this alternative could be implemented in the other action alternatives. Warren considers Alternative C unfeasible.

The world is rapidly moving into a period of growing demand and pressure on available energy sources. Healthy and growing economies and improved standards of living in countries around the world will continue to add pressure to this demand in the coming years. The world is approaching an energy transition period where resource supply will be taxed by this expanding demand. It is imperative that the oil and gas industry work hand in hand with government agencies to provide available energy sources to bridge this transition period. The methods by which these problems are solved may be more important now than ever before. Warren requests that the BLM consider the proposed action as the only viable alternative.

Sincerely,

Ken A. Gobble
President, Chief Operating Officer
Warren E & P, Inc.

Scott Hedlund
Environmental and Regulatory Affairs
Warren E & P, Inc.

APPENDIX A

Comments to Alternative C Protection Measures

Data Source Resource Concern	Protection Measure	Justification Assumptions for Analysis/Comments	Comments
Water and Soil Management Steep Slopes >25%, From 30 meter DEM data. These less steep slopes present more complexity in planning, road design, and can require larger pads. Appendix M Maps: Alternative C--Slopes >25%	1) No, pad, compressor or water transfer sites can be located in these areas.	Wyoming Standard Mitigation Guidelines	Considered standard practice
1 Perennial Water, Wetlands, Identified on National Wetlands Inventory or PFC or PFC with 500 ft buffer on waters and PFC. Appendix M Maps: Alternative C-- Perennial Surface Waters and Wetlands	1) No pad, compressor or water transfer sites can be located in these areas.	E.O. 11990 and 11988	Considered standard Federal set back
2 Top soils with excess salts providing difficulty with reclamation. Reclamation success is essential for modification of impacts to surface hydrology, especially the interim reclamation. Increasing reclamation success has many benefits to other resources. Appendix M Maps: Top soils with Excess Salts	1) Pump reserve pit and do earth work for reclamation right after drilling, put in top soil and plant first good season, interim reclamation will be completed on year after spud date. 2) Low impact road design for resource roads (roads into individual pads) on slopes <5%, if road can be built with no side slopes. This will include ditch witching utilities within the ROW, brush beating, some type of fabric or matting and gravel. 3) Improve road surface on newly constructed or improved local and collector roads with 95% compaction on the road base and non-chlorine dust abatement product or suitable alternative treatment each year. 4) Put together seed mix that includes salt tolerant plants.	Cumulative Impacts: Salinity concerns in the Colorado River Basin	1) Would need to re-condition mud to reuse, mud disposal would be difficult, pits will still require some time to dry, Wildlife strips prevent re-seeding in best time needs to be considered; Not opposed to concept 2) Not opposed to low impact roads, some concern of specific design, erosion, and proper drainage. 3) What is significance of 95% compaction, is non-chlorine supposed to be non-chloride? Not opposed to concept. 4) Not opposed to concept.
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<p>Soils with high runoff potential contribute to higher peak flows and can cause hill slope erosion by forming rills and gullies. Appendix M Maps: Alternative C--Soils with High Runoff Potential</p>	<ol style="list-style-type: none"> 1) Reduce pad density to 4 locations per section and the associated infrastructure and limit initial disturbance (i.e. short-term) total to <20 acres per section. 2) Place waddles in any potential flow path and at culvert entrances and exits. 3) Deep ripping (18 inches or more) before planting to increase percolation. 4) Closed system, pitless, or shared pit drilling. 5) Low impact road design for resource roads (roads into individual pads) on slopes <5%. This will include ditch-watching utilities within the ROW, brush beating, some type of fabric or matting and gravel. 6) Crimped weed-free hay stubble mulch to increase surface roughness. 	<p>Cumulative Impacts: The Colorado River Basin has been a focus for sediment delivery and soil loss since the 1930's.</p>	<ol style="list-style-type: none"> 1) Effects majority of project, Not reasonable, would result in project failure, directional drilling not technically feasible, issues can be dealt with through mitigation. 2) Not opposed to concept. 3) Not opposed to concept, not certain this would improve success, may be worth testing. 4) Would need area to reclaim/dispose of drill cuttings, safety of operations may be a concern . 5) Not opposed to low impact roads, some concern of specific design, erosion, and proper drainage. 6) Not opposed to concept.
<p>Soils with severe road rating typically dominated by one soil particle size component and road bases can become very unstable with insufficient maintenance. Appendix M Maps: Soils with Severe Road Rating</p>	<ol style="list-style-type: none"> 1) Low impact road design for resource roads (roads into individual pads) on slopes <5%. This will include ditch-watching utilities within the ROW, brush beating, some type of fabric or matting and gravel. 2) Improve road surface on newly constructed or improved local and collector roads with 95% compaction on the road base and non-chlorine dust abatement product or suitable alternatives treatment each year. 	<p>Cumulative impacts: The Colorado River Basin has been a focus for sediment deliver and soils loss since the 1930s.</p>	<ol style="list-style-type: none"> 1) Not opposed to low impact roads, some concern of specific design, erosion, and proper drainage. 2) What is significance of 95% compaction, is non-chlorime supposed to be non-chloride? Not opposed to concept.
<p>Soils with poor topsoil ratings make reclamation difficult and can leave soils susceptible to erosion. Reclamation success is essential for modification of impacts to surface hydrology, especially the interim reclamation. Increasing reclamation success has many benefits to other recourses. Appendix M Maps: Soils with Poor/Fair Topsoil Ratings</p>	<ol style="list-style-type: none"> 1) Pump reserve pit and do earth work for reclamation right after drilling, put in top soil and plant first good season, interim reclamation will be completed on year after spud date. 2) Crimped weed-free hay stubble mulch to increase surface roughness. 3) Use silt fencing to reduce wind erosion during construction. 4) Apply soil amendments to increase reclamation success unless testing demonstrates no need for amendments. 	<p>Cumulative impacts: The Colorado River Basin has been a focus for sediment deliver and soils loss since the 1930s.</p>	<ol style="list-style-type: none"> 1) Would need to re-condition mud to reuse, mud disposal would be difficult, pits will still require some time to dry, Wildlife strips prevent re-seeding in best time needs to be considered, not opposed to concept. 2) Not opposed to concept. 3) Not opposed to concept. 4) Not opposed to concept.

Vegetation Resources			
<p>Vegetation communities on >8% slopes present reclamation difficulties. Appendix M Maps</p>	<p>Reduced initial surface disturbance (i.e. short-term) total to <20 acres per section</p>		<p>Could not locate map in appendix 1) 8% slope is arbitrary, not reasonable, would result in project failure, directional drilling not technically feasible, issues can be dealt with through mitigation.</p>
<p>The limited geographic extent of certain vegetation communities and their importance to a variety of wildlife species warrant special consideration. Appendix M Maps: Project Area title Vegetation Communities</p>	<p>1) Avoid surface disturbances within Aspen, Juniper-woodland, Mahogany, and serviceberry communities. 2) Limit surface disturbances within the Silver Sagebrush/Bitterbrush vegetation community to <20 acres/m2</p>	<p>Standard and Guidelines assessment for Upper Colorado River Basin (BLM 2002)</p>	<p>1) Draft is inconsistent calls for no surface occupancy and avoidance, avoiding Aspen & Mahogany should not present an issue, no set back discussed, Junipers present problems in areas, Serviceberries could also be problem in some areas. 2) Area is small, may be workable if map is correct.</p>
<p>Rangeland Resources</p>			
<p>Loss of livestock; disruption of management operations.</p>	<p>1) Operators shall establish and enforce speed limits throughout the project area. 2) Erect signs in lambing/calving areas, shipping pastures, or adjacent to working corals to warn vehicle operators.</p>		<p>1) Can only works with project worker on speed control, lack of authority, not opposed to concept. 2) Not opposed to concept.</p>
<p>Disruption of management of operations. Appendix M Maps: Project Area with Grazing Allotments</p>	<p>1) Operators shall provide a plan specific to pastures or regions so livestock operators can plan activities/work around development to reduce conflicts.</p>		<p>1) Specifics need to be laid out. Document requires annual planning, may need more flexibility, not opposed to concept.</p>
<p>Dust on vegetation and erosion</p>	<p>1) Improve road surface on newly constructed or improved local and collector roads with 95% compaction on the road base and non-chlorine dust abatement product or suitable alternative treatment each year.</p>		<p>1) What is significance of 95% compaction, is non-chlorine supposed to be non-chloride? Not opposed to concept.</p>

Wildlife Resource Management			
<p>Disturbance of greater sage grouse and Columbian Sharp tailed Grouse nesting & brood rearing habitat. Appendix M Maps: Alternative C--- Greater Sage Grouse</p>	<p>1) Limit initial disturbance (i.e. short-term) total to <20 acres per section</p>	<p>Minimum programmatic standards recommended by the Wyoming game and Fish Department to sustain wildlife habitats affected by oil and gas development (WAGED 2004)</p>	<p>1) Effects majority of project, not reasonable, would result in project failure, directional drilling not technically feasible, issues are already addressed with timing stipulations.</p>
<p>Disturbance of winter relief habitats for greater sage grouse and Columbian Sharp tailed Grouse. Appendix M Maps: Alternative C--- Grouse Severe Winter Relief Habitat</p>	<p>1) No surface disturbance</p>	<p>Vegetation and Habitat Analysis of Critical Wintering Areas for Greater Sage-Grouse (HWA 2004b)</p>	<p>1) Relatively small areas with minimal setback, could be workable.</p>
<p>Disturbance of big game crucial winter range. Appendix M Maps: seasonal Pronghorn Antelope, Mule Deer and elk ranges (3 maps)</p>	<p>1) Limit initial disturbance (i.e. short-term) total to <20 acres per section</p>	<p>Minimum programmatic standards recommended by the Wyoming game and Fish Department to sustain wildlife habitats affected by oil and gas development (WGFD 2004)</p>	<p>1) Effects large portion of project, not reasonable, would result in project failure, directional drilling not technically feasible, issues are already addressed with timing stipulations, could use other mitigation.</p>

<p>Visual Resource Management</p>	<p>Failure to use special mitigations will result in a project that will exceed VRM Class III Management Objectives and therefore be out of compliance with Land Use Planning guidance and aboveground facilities will help minimize visual impacts. Maximizing facility distance from primary roads will help minimize visual impacts. Using any topographic screening available to hide facilities and roads will help minimize visual impacts. Appendix M Maps: Alternative C-- Areas Visible from Main Roads in VRM Class III with Slopes <5%</p>	<p>In visible portions of VRM Class III areas (Map4.9), the following apply:</p> <ol style="list-style-type: none"> 1) Pads shall not be located on or near ridgetlines - use subsurface or low-profile facilities to prevent protrusion above horizon line when viewed from any State, County or BLM road. 2) Maximize pad distance from State, County or BLM roads. 3) Low impact road design for resource roads (roads into individual pads) on slopes <5%, if road can be built with no side slopes. This will include ditch-witching utilities within the ROW, brush beating, some type of fabric or matting and gravel. (see: Map 2.6) 4) Minimize pad size - use pitless, shared pit or closed system drilling. 5) Pump reserve pit and do earth work for reclamation right after drilling, put in top soil and plant first good season, interim reclamation will be completed one year after spud date. 	<p>VRM BMPs for Fluid Minerals, VRM H-8400-1, Land Use Planning H-1601-1</p>	<ol style="list-style-type: none"> 1) Ridgetlines will present flat areas on steep grades, adverse to subsurface, well locations are low profile. 2) Vague, needs to be specific setback, will increase surface disturbance with unnecessary roads. 3) Not opposed to low impact roads, some concern of specific design, erosion, and proper drainage. 4) Would need area to reclaim/dispose of drill cuttings, safety of operations may be a concern. 5) Would need to re-condition mud to reuse, mud disposal would be difficult, pits will still require some time to dry, Wildfire strips prevent re-seeding in best time needs to be considered, not opposed to concept.
15				

E123-163

<p>Cow Butte/Wild Cow SMA</p>		<p>Standard and Guidelines assessment for Upper Colorado River Basin (BLM 2002). These roads are currently known to cause accelerated erosion and hydrologic alteration. Upgrading these roads to improve or low-impact design specifications would decrease these impacts while allowing vehicular access to lease holdings. Additionally, utilization of appropriate road designs would increase the effectiveness of the existing transportation network.</p>	<p>1) Too restrictive, project success levels requires 4 mil/mi² 2) Considered off-site mitigation, agency can not require 3) Not opposed to concept</p>
<p>Existing road network. Appendix M Maps: Alternative C-- Special Managed Areas Overview</p>	<p>1) Road density within the SMA targeted for less than 3 miles/mile². 2) Where existing road paths do not provide sufficient lease access or are located within highly erosive soils or in proximity to sensitive wildlife resources, reclamation of existing roads (either inside or outside the ARPA) would provide for the construction of new road paths. 3) Improvement of existing roads or construction of new roads would be designed to minimize hydrologic alteration. Specific road design criteria would be based on site-specific review and likely include a combination of mitigation options.</p>		
<p>Human presence</p>	<p>1) Existing levels of public access would be maintained. In most cases, this would require new and improved roads be gated. 2) Remote monitoring of well locations would be required where feasible.</p>	<p>Minimum programmatic standards recommended by the Wyoming Gas and Fish Department to sustain wildlife habitats affected by oil and gas development 9WGFDD2004). There is currently no public access to the majority of the SMA. Maintaining a limited human presence within this area would help to maintain a movement corridor for big game and limit disturbance of leks and raptor nests.</p>	<p>1) Gates do not work without fences, additional fences seems sensitive. 2) All wells currently utilizing automation.</p>
<p>Wildlife movements</p>	<p>1) Convert fences to BLM standards or designs (e.g. rail top fence) to facilitate big game movement throughout the SMA and in coordination with grazing permittees.</p>	<p>Standards and Guidelines assessment of Upper Colorado River Basin (BLM 2004). Improving big game movement through or across fences would help to mitigate the additional stresses of development within the ARPA.</p>	<p>1) Considered off-site mitigation which can not be required by agency.</p>
<p>Limited vegetation communities. Appendix M Maps: Project Area with Vegetation Communities</p>	<p>1) No surface disturbances within Aspen, Mahogany, and Serviceberry communities.</p>	<p>Standards and Guidelines assessment of Upper Colorado River Basin (BLM 2002).</p>	<p>1) Conflicts with avoidance criteria above, no surface disturbance is not acceptable nor necessary.</p>

E123-165

E123-164

E123-166

Historic Trails SMA	Historic trail corridors. Appendix M Maps: Alternative C--Historic Trails and 2-Mile Visibility	Wyoming State Protocol - Approved procedures for the implementation of Section 106 NHPA and 36 CFR 800	1) Safety is an issue, timing stipulations mandates drilling in poor weather periods. 2) Wildlife timing stipulations prevent this, not opposed to concept. 3) Least visible areas are bottoms with snowdrifts, may be workable in areas. 4) May be workable 5) May be workable depending on rig foot print. 6) Not opposed to concept. 7) Directional drilling was ruled out as technically unfeasible.
20	Historic trails within the ARPA	Wyoming State Protocol - Approved procedures for the implementation of Section 106 NHPA and 36 CFR 800	1) Workable 2) Minimal crossing will be needed.
21	Upper Muddy Creek Watershed/Gritzly SMA	BLM Wyoming Sensitive Species List (USDI-BLM 2002a), BLM 6840 policy for special status species, Range-wide Conservation Agreement for Roundtail Chub, Gila robusta, Bluehead Sucker, <i>Catostomus discobolus</i> , and Flannelmouth Sucker, <i>Catostomus latipinnis</i> (UDNR 2004). These roads are currently known to cause accelerated erosion and hydrologic alteration. Upgrading these roads to improve or low-impact design	1) Too restrictive, project success levels requires 4 ml/mi ² 2) Workable 3) Considered off-site mitigation which can not be required by agency. 4) Workable 5) Workable
22	Additionally road development would alter hydrologic conditions that create and maintain key habitat features of importance to BLM sensitive fishes (Bower 2005). Given the limited distribution of these fishes, alteration of the suitability of habitats within the SMA would likely increase the validity of listing petitions under the Endangered Species Act. Appendix M Maps: Alternative C-- Special management areas Overview	BLM Wyoming Sensitive Species List (USDI-BLM 2002a), BLM 6840 policy for special status species, Range-wide Conservation Agreement for Roundtail Chub, Gila robusta, Bluehead Sucker, <i>Catostomus discobolus</i> , and Flannelmouth Sucker, <i>Catostomus latipinnis</i> (UDNR 2004). These roads are currently known to cause accelerated erosion and hydrologic alteration. Upgrading these roads to improve or low-impact design specification should decrease these impacts while allowing vehicular access to lease holdings. Additionally, utilization of appropriate road designs would increase the effectiveness of the existing transportation network.	1) Road density within the SMA targeted for less than 3 miles/mile ² . 2) Transportation and well access roads would utilize existing road paths where feasible 3) Where existing road paths do not provide sufficient lease access or are located within highly erosive soils or in proximity to sensitive wildlife resources, reclamation of existing roads within the SMA (either inside or outside the ARPA) would provide for the construction of new road paths. 4) Improvement of existing roads or construction of new roads would be designed to minimize hydrologic alteration. specific road design criteria would be based on site-specific review and likely include a combination of mitigation options. 5) Detailed development, transportation and reclamation plans, including road design, specific to those areas within the SMA will be required.

<p>Slopes >8% within the Upper Muddy Creek Watershed/Grizzly SMA BOUNDARY FROM 30-M DEM. Road construction on steep slopes would exacerbate the alteration of hydrologic conditions that create and maintain key habitat features of importance to BLM sensitive fish. Appendix M Maps: Alternative C--Muddy Creek SMA slopes >8%</p>	<p>1) No surface disturbance 2) Detailed transportation plan required in order to avoid areas of >8% slope.</p>	<p>BLM Wyoming Sensitive Species List (USDI-BLM 2002a), BLM 6840 policy for special status species, Range-wide Conservation Agreement for Roundtail Chub, <i>Gila robusta</i>, Bluehead Sucker, <i>Catostomus discobolus</i>, and Flannelmouth Sucker, <i>Catostomus latipinnis</i> (UDNR 2004). Improved road designs frequently result in alteration of hydrologic conditions. Given the limited feasibility of utilizing low-impact road designs on slopes greater than 8%, these areas will be avoided.</p>	<p>1) 8% slope is arbitrary; not reasonable, would result in project failure; directional drilling not technically feasible; issues can be dealt with through mitigation. 2) Too restrictive</p>
<p>1:24,000NHD within the Upper Muddy Creek Watershed/Grizzly SMA BOUNDARY. The fragmentation of fish habitats and wildlife corridors as well as risks posed by the increased probability of exotic species introductions warrant avoidance of additional road crossings of Muddy Creek</p>	<p>1) No new road crossings of Muddy Creek. 2) Detailed development and transportation plan required in order to design access routes that avoid Muddy Creek.</p>	<p>BLM Wyoming Sensitive Species List (USDI-BLM 2002a), BLM 6840 policy for special status species, Range-wide Conservation Agreement for Roundtail Chub, <i>Gila robusta</i>, Bluehead Sucker, <i>Catostomus discobolus</i> and Flannelmouth Sucker, <i>Catostomus latipinnis</i> (UDNR 2004). Sufficient access to lease holding can be provided through the transportation planning process.</p>	<p>1) Minimal crossing will be needed. 2) May be workable</p>
<p>Maintaining a limited human presence within this area would help to maintain a movement corridor for big game and limit disturbance of sage-grouse leks and raptor nests</p>	<p>1) Existing levels of public access would be maintained. In most cases, this would require new and improved roads be gated. 2) Remote monitoring of well locations would be required where feasible.</p>	<p>BMP'S Minimum programmatic standards recommended by the Wyoming Game and Fish department to sustain wildlife habitats affected by oil and gas development (WGFD 2004). There is currently no public access to the majority of the SMA</p>	<p>1) Gates will need fences; fences seem sensitive. 2) All wells currently utilizing automation.</p>

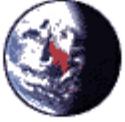
E123-169	Chloride deicing agents are toxic to a variety of plants, fish, and other aquatic organisms and tend to increase the mobility of chemical elements in soil, such as heavy metals (Amrhein 1992; National Research Council 1991).	1) Use only non-chlorine deicing and dust control agents within the Upper Muddy Creek Watershed/Grizzly SMA.	BLM Wyoming Sensitive Species List (USDI-BLM 2002a), BLM 6840 policy for special status species, Range-wide Conservation Agreement for Roundtail Chub, <i>Gila robusta</i> , Bluehead Sucker, <i>Catostomus discobolus</i> and Flannelmouth Sucker, <i>Catostomus latipinnis</i> (UDNR 2004). Alternative, non-chloride deicing and dust control products are readily available.	1) What is non-chlorine, supposed to be non-chloride? Not opposed to concept.
E123-170	26 The limited geographic extent of certain vegetation communities and their importance to a variety of wildlife species warrant special consideration.	1) No surface disturbances within Aspen, Juniper-woodland, True Mountain Mahogany, and Serviceberry communities.	Standards and Guidelines assessment for Upper Colorado River Basin (BLM 202).	1) Conflicts with avoidance criteria above, no surface disturbance is not acceptable or necessary.
E123-171	27 The combination of increased disturbance of big game resulting from development activities and existing fragmentation of movement corridors by fences would likely result in increased mortality	1) Convert fences to BLM standards or designs (e.g. rail top fence) to facilitate big game movement throughout the SMA, and in coordination with grazing permittees.	BMP's Standards and Guidelines assessment for Upper Colorado River Basin (BLM 2003). Improvements of big game movement through fences would help to mitigate the additional stresses of development within the ARPA.	1) Considered off-site mitigation which can not be required by agency.
28				

E123-172

<p>There is currently an extensive road network within the SMA including those portions within the ARPA. Reducing the density of roads within the area and incorporating appropriate designs when improving existing roads would help to reduce disturbance of the unique vegetation community important to big game, greater sage-grouse, and Columbian sharp-tailed grouse.</p>	<p>1) Net reduction in road density within the SMA to a target of less than 3 miles/mile². 2) Transportation and well access roads would utilize existing road paths where feasible. 3) Where existing road paths do not provide sufficient lease access or are located within sensitive vegetation, highly erosive soils, or in proximity to sensitive wildlife resources, reclamation of existing roads (either inside or outside the ARPA) would provide for the construction of new roads paths. 4) Improvement of existing roads or construction of new roads would be designed to minimize alteration of sensitive vegetation communities. 5) Detailed development, transportation, and reclamation plans, including road design, specific to those areas within the SMA will be required.</p>	<p>Standards and Guidelines assessment for Upper Colorado River Basin (BLM 202). These roads are currently known to cause accelerated erosion of active dune complexes and associated disturbance of rare plant communities. Creation of new road paths would increase the potential for loss of rare vegetation communities through wind erosion of active dune complexes. The use of existing roads and appropriate designs for road improvement would allow for rapid vegetation and limit the disturbance of rear plant communities. Additionally, utilization of appropriate road designs would increase the effectiveness of the existing transportation network.</p>	<p>1) Too restrictive, project success levels requires 4 mi/mi² 2) Workable 3) Considered off-site mitigation which can not be required by agency. 4) Effect will be to add unnecessary roads, not opposed to concept. 5) Workable</p>
<p>29</p> <p>Maintaining a limited human presence within this area would help to maintain a movement corridor for big game and limit disturbance of sage-grouse leks and raptor nests</p>	<p>1) Existing levels of public access would be maintained. In most cases, this would require new and improved roads be gated. 2) Remote monitoring of well locations would be required where feasible.</p>	<p>Minimum programmatic standards recommended by the Wyoming Game and Fish Department to sustain wildlife habitats affected by oil and gas development (WGFED 2004). There is currently no public access to the majority of the SMA</p>	<p>1) Gates will need fences, fences seem sensitive. 2) All wells currently utilizing automation.</p>
<p>30</p> <p>Chloride deicing agents are toxic to a variety of plants, fish, and other aquatic organisms and tend to increase the mobility of chemical elements in soil, such as heavy metals (Amrhein 1992; National Research Council 1991).</p>	<p>1) Use only non-chlorine deicing and dust control agents within the Sand Hills SMA.</p>	<p>To protect the Silver Sagebrush/bitterbrush community. Alternative, non-chloride deicing and dust control products are readily available.</p>	<p>1) What is non-chlorine, supposed to be non-chloride? Not opposed to concept.</p>
<p>31</p>			

E123-173

32	The limited geographic extent of certain vegetation communities and their importance to a variety of wildlife species warrant special consideration.	1) Limit surface disturbances within the Silver Sagebrush/bitterbrush community of the Sand Hills to <20 acres/mi ² .	Standards and Guidelines assessment for Upper Colorado River Basin (BLM 2002). The Sand hills plant community is unique within the State of Wyoming. It also provides important season and crucial winter habitats to a variety of wildlife species.	1) Area is small, may be workable if map is correct.
33	The combination of increased disturbance of big game resulting from development activities and existing fragmentation of movement corridors by fences would likely result in increased mortality	1) Convert fences to BLM standards or designs (e.g. rail top fence) to facilitate big game movement throughout the SMA, and in coordination with grazing permittees.	Standards and Guidelines assessment for Upper Colorado River Basin (BLM 2002). Improvement of big game movement through fence crossing would help to mitigate the additional stresses of development within the ARPA.	1) Considered off-site mitigation which can not be required by agency.
34	Historic Trails SMA	See Historic Trails SMA for special protective measures	Wyoming State Protocol - Approved procedures for the implementation of Section 106 NHPA and 36 CFR 800	See response above
35	JO Ranch Property. Appendix M Maps: Alternative C-- Special management Areas Overview	1) No surface disturbances within the 18 acres surrounding JO Ranch Headquarters.	Wyoming State Protocol - Approved procedures for the implementation of Section 106 NHPA and 36 CFR 800	1) Workable



**Little Snake River
Conservation District**
<lsrkd@yahoo.com>

02/17/2006 05:12 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject comments APRA



Please see attached comments Comments on ARPA.doc

Comments on ARPA:

To: Dave Simmons

From: Larry Hicks, LSRCD

General comments:

There is not discussion on what monitoring protocols, activities, or requirements will be required by the gas companies to monitor the impacts to the receiving formation for re-injected waters. Companies should be required to drill monitoring wells into the formations they are reinjecting into to assess impacts to quantity, pressure, movement, and quality of the receiving aquifer

E124-1

Reclamations Standards are not stringent enough. If reclamation is not done **and successful** within a specified time (2 years) frame no more surface damage should be allowed (APD's) should be withheld until reclamation is completed on existing and new wells. The current discussion on poor quality of the reclamation is telling. If the operators are unable or willing to do a reasonable job of reclamation on the few number of roads and pads they have drilled in the last 4 years how do you think they will do when we get to full field development. Reclamation is not only feasible but doable on all soils and sites within the ARPA. It's just a matter of cost.

E124-2-1

Also in the reclamation standard it should be include soil amendments to modify or condition the soil to improve reclamation success. Amendments could include gypsum, sulfur, manure or other sources of organic matter, tackifiers, flocculants, and fertilizers. It should also be required that to the maximum extent possible that companies are required to salvage desirable forbs and shrubs through spading on newly constructed location and transplanting them onto areas recently reclaimed. This has been done on coal mine reclamation across the west. All locations and ancillary facilities should be temporarily fenced until reclamation is successful. To facilitate reclamation supplemental water through temporary irrigation should be required to ensure reclamation success in a timely fashion. This is already being done on BLM lands in the Jonah Field.

E124-2

E124-2-2

E124-2-3

E124-2-5

E124-2-4

Existing livestock operation:

There is a lack of mitigation measures being proposed or imposed on the operators to offset the negative impacts to existing agricultural users. Seasonal stipulation on occupancy and activities should be enforced and mandatory in order to not disrupt existing areas of critical use. Upland waters in areas where none exist today should be required to mitigate the affects of lost forage thereby providing access to livestock to areas that are currently under utilized. Ag operators who incur increased death and production losses should be financially compensated by the companies not only for the value of the animal but also the entire cost incurred for replacement. Private or state AUM's should be purchased by the operators to provide forage and habitat for operators during the heaviest impacts associated with development. Non-use associated with field development by permittee's should be compensated by the operators. We suggest that project proponents establish a mitigation fund of \$5,000,000 held in escrow, with a third party overseeing the administration of funds for the life of the project to directly make payments to ag-

E124-3-1

E124-3-2

E124-3-3

E124-3-4

E124-3

E124-3-4

E124-3

operators for substantiated direct loss of livestock and production, compensate them for the lost use of their private property and facilities and property on federal lands, and conduct range improvements on fee and federal lands to mitigate the impacts of the gas development.

Page 3-30

E124-4

Average annual run-off data should be correct to that used in the Green River Basin Water Plan, WWDC. February 2001. The period of record for USGS gauging station was not only used but was incorporated into modeling flows that give a much better estimate of flow for the Little Snake, Muddy Creek, and Savery Creek. It also predicts flows for normal, average, and above average run-off years. Also the period of record listed for USGS gauging station near Baggs on Muddy Creek needs to be corrected (Typo)

E124-5

Page 3-33 It states that “three native warm water fish species listed as BLM sensitive species and co-exist in portions of both upper and lower Muddy Creek” This statement is misleading and erroneous. Bluehead suckers have not be found to exist to any extent other than one fish in all of lower Muddy Creek (Beatty 2005) Further more habitat features to support blueheads are almost nonexistent and water temperatures required for spawning of blueheads when flows exist do not occur on lower Muddy Creek (Beatty 2005). This statement is misleading and false.

E124-6

Pg 3-46 First paragraph. “Additional watershed improvement projects have been coordinated by WGFD”. This statement is incorrect. It should read Additional habitat improvement projects have occurred in the watershed. If this statement is not correct I suggest that you list in the citation section where copies of the WGFD watershed projects can be obtained and examined. 15 years of working with the WGFD on Muddy Creek and we have yet to see a **watershed** project improvement plan!

E124-7

Pg 3-84
Citation (WGFD 2004) second paragraph section 3.8.2.3 is not in the list of citation.

E124-8

Pg 3-85
The last sentence in the last paragraph of section 3.8.2.3 should be stricken. Sentence starting with “Thus, ephemeral.....”, and replaced with “However, in studies conducted by Beatty 2005, no native warm water fish were observed to move into ephemeral drainages in lower Muddy Creek

E124-9

Also the statement that blue head **suckers** were found downstream of the ARPA is incorrect it should read **one bluehead was found downstream of the ARPA (Beatty 2005).**

E124-10

Pg (3-84) – (3-86)
The whole section on 3.8.2.3 needs to be reworked. It is a gross miss justice to exaggerate the data, misquote the literature, and fabricate information about these species in Muddy Creek. It does not lend to the credibility of this document or the work by the BLM to protect these species when the information present here is inaccurate. There is entirely

E124-10

too much internal bias by specialist that not only do the studies but write this section without careful scrutiny by the BLM. While we commend the efforts of the staff and BLM to protect these species. It does not do the species any good and only alienates potential partners and the public when this EIS clearly takes liberties with both the data and literature in trying to afford protection for these species.

Dave: I sent this info on as hard copy but have included hear so you have electronic version of text.

I am forwarding on hard copies and a CD with data and supporting documentation for our comments I am sending this via the USPS. Other comments will follow electronically. Please forward information on water and soils to appropriate specialist.

While we have previously voiced our concerns as Cooperating Agency and tried to provide the appropriate nomenclature at ID Team meetings it has obviously been rejected by BLM specialist related to the soils section. Consequently we are forwarding them on as part of the official public record.

Soils:

E124-11-1

Numerous place in the EIS from the executive summary and all pertinent section the document uses the term “excessive salt soils” there is no definition of “excessive salt soils” in the glossary. Further more this terminology is not accepted within the scientific community when describing soils laden with salt. I could find no place in the document that identified with numeric values what an “excessive salt soil” was. Given the lack of appropriate scientific nomenclature and description the use of the terminology is very suspect as to just what the BLM is trying to protect or convey.

E124-11-2

If the BLM is going to use salts as a GIS data layer identifying “sensitive soils” that convey some type of surface use restriction then the appropriate soils descriptors and nomenclature should be used. Pursuant to this I am enclosing a copy of the USDA Agricultural Handbook #60 pgs 4-6 for the appropriate nomenclature to be used. Soils should either be classified as “saline, saline-alkali, or nonsaline-alkali soils”. Each of the three categories has numeric values to describe these soils including the use of electrical conductivity (EC), pH, and Exchangeable Sodium.

E124-11

In random field sampling conducted by the LSRCD and NRCS in the early 1990’s within the project area no saline soils were found (Personal communication, Norm Vigil, NRCS District Conservationist). Consequently, we strongly believe that BLM has mischaracterized the area as having saline soils when in fact the majority of the soils listed as “excess salt soils” are in fact “nonsaline-alkali soils” consistent with those soils described in the USDA Handbook #60.

E124-11-3

While we are in agreement that there is soluble salts in the soils in the ARPA we are in disagreement that the soluble salts in the soils are sufficient quantity to be classified as saline soils, and certainly not some non-descript definition of “excess salt soils”. If in fact our assumption are wrong we strongly suggest that soils sampling data from a reputable soils testing laboratory data is shown in the appendix that uses the appropriate nomenclature in describing soils, EC, pH, and exchangeable sodium to show that in fact the soils are saline and not nonsaline-alkali, or saline-alkali soils.

E124-11-4

Soils and Surface Water Quality Interactions:

Again we find that the EIS inadvertently has further compounded the mistake of using unacceptable nomenclature and subsequently results in compounded inferences to impacts. Because the document is replete in stating that because of wind and water erosion of soils that surface waters will then become salt laden because of the salts in the soils are over exaggerated. When in fact most of the soils are nonsaline-alkali soils what will happen is an increase in the SAR values in the water column with a much less increases in EC. Please find attached back ground water quality data collected from 1999 -2003 by the LSRCD as part of the Muddy Creek Watershed Clean Water Act Section 319 project. This data was submitted to WDEQ in September of 2005. The data represents background condition for Dry Cow Creek, Cow Creek, Deep Gulch, Wild Cow, Deep Creek and Cherokee Creek. When you look at this data and overlay it with those listed as in Appendix M-11 “excessive salt soils” what you see is level of SAR (sodium) in the water column more closely follows the mapped soils than does EC (measurement of salt). While the EC of all sampling dates over five years never exceeded state surface water quality standards the SAR on numerous sampling dates exceed the state standard for irrigation water. The other telling fact in addition to EC and SAR is pH, According to the USDA Handbook #60 saline soils ordinarily have a pH less than 8.5 the average pH of the water column in Cow Creek averaged 8.6 and ranged from 8.4 to 9.1 during the five year sampling period. The water column in Dry Cow Creek also averaged 8.6 during the same time period. Both the SAR and pH in the water column are indicative of the soil stratum which the water percolates and filters through to pick up these constituents. Again this would indicate that while there is some salt in the soils it is not in sufficient volume for the soils to be considered saline. We strongly suggest that you reevaluate the use of the terminology “excessive salt soils” and use scientifically accepted nomenclature. In addition, we suggest publishing in the appendix laboratory results of soil sample taken in the project area that show the EC, pH, and exchangeable sodium levels to corroborate any use of the appropriate nomenclature when describing these soils.

E124-12-1

E124-12-2

E124-12-3

E124-12-4

E124-12

Artesian Wells:

Page 3-56 second sentence inaccurately states that the “Under the direction of the NRCS, water quality sampling and analysis has been conducted on many of the flowing wells”. This Should Read LSRCD instead of NRCS. Also please find attached water quality analysis from the artesian wells in the ARPA. I have also included a copy of water quality analysis from the Cow Creek pod 1x-12 well for comparison. As you can see the water quality signatures from the flowing artesian wells and that of the producing CBM well are very similar suggesting that the flowing artesian wells in the ARPA are coming from the coal seams.

While the ground water modeling conducted by WWC suggest that their will be some impact to these flowing wells they will not go dry with the accept ion of one well in the APRA. While this may be true these prediction are exactly that, and based on assumption in the model. Further more the EIS pg 4-36 and (WWC 2005) report does indicate that “draw downs within the coal package are relatively severe” else where in the report it indicates that these draw downs will be I a cone of depression around the wells.

E124-13-1

E124-13-2

E124-13

E124-13-3

E124-13

Many of the existing artesian wells are located within the same 80 acre spacing that is proposed for CBM wells. As you are aware numerous generation of a large diversity of wildlife species have developed patterns and utilize these artesian wells for subsistence. Though either the water they provide or the wetland riparian habitat they create. In addition domestic livestock rely heavily on these water sources and in some case allotment fencing and management have utilized these water sources to develop grazing systems. Because of the prediction from the report and assumptions in the model no mitigation measures have been listed or specified to remediate the affect of loss of water and habitat if indeed these valuable water sources disappear. One of the most problematic concerns associated with the model is that it assumes that that the reason that these wells are flowing is because the formation are under hydrostatic pressure from the water in the formation rather than flow as a result of the gas pressure. All of these artesian wells are also producing gas. Therefore it is questionable that once the gas is removed if the wells are gas or hydraulically driven.

E124-13-4

We suggest that language be included to specify that if these water source disappear that the project proponents (gas companies) are require to drill and equip (power, pumps and other necessary infrastructure) other wells in the vicinity to mitigate the impacts of their activities. The other alternative that should be considered is to not allow any CBM wells drilled within 1/2 mile radius of existing artesian wells so as not to create a cone of depression (draw downs around the existing artesian wells).

E124-14-2 E124-14-1

E124-14

Surface Water Quality Monitoring Stations:

Appendix M-16 shows surface water quality monitoring stations operated by various agencies. As you are aware the LSRCD has been the project lead of the Clean Water Act Section 319 Muddy Creek Watershed Project. Associated with that is the monitoring of surface water quality throughout the watershed. Included with this comment letter is a CD that list the location and type of water quality monitoring station that the LSRCD operates and maintains in the area pursuant to this CWA project. Please include these as sites in appendix M-16. Also please correct the sites to the appropriate agency that operates and maintains these sites. In several places it list the BLM where in fact it is the LSRCD who owns, operates, and maintains equipment and data collection at these site. Specifically the stations at Dad, and Reach 3 on Muddy Creek.

MUDDY CREEK

Grab sites

Site	Site Coordinates	Elevation
Wild Cow Creek	T15N, R91W, Sec. 16, SE1/4 fo SE 1/4	6490
Wild Cow Creek	T15N, R91W, Sec.16, SE1/4 of SE1/4	6490
Dry Cow		
Dry Cow	T16N, R91W, Sec.29, NE1/4 of SW1/4	6490
Dry Cow	T15N,R91W, Sec.8, NW1/4 of NW1/4	6480
Dry Cow	T15N, R91W, Sec 8, NW1/4 of NW1.4	6480
Dry Cow	T15N, R91W, Sec.8, NW1/4 of NW1/4	6480
Dry Cow	T15N, R91W, Sec.8, NW1/4 of NW 1/4	6480
Cherokee Creek	Lat 41 14 51.98 Long 107 34 05.93	6600
Cherokee Creek	Lat 41 14 51.98 Long 107 34 05.93	6600
Cherokee Creek	Lat 41 14 51.98 Long 107 34 05.93	6600
Cherokee Creek	Lat 41 14 51.98 Long 107 34 05.93	6600
Cherokee Creek	Lat 41 14 51.98 Long 107 34 05.93	6600
Deep Creek	T13N, R91W, Sec10 SE1/4 of NE1/4	6340
Deep Creek	T13N, R91W, Sec10 SE1/4 of NE1/4	6340
Deep Gulch	T16N, R91W, Sec.27, NE1/4 of SE1/4	6600
Deep Gulch	T16N, R91W, Sec.27, NE1/4 of SE1/4	6600
Deep Gulch	T16N, R91W, Sec.27, NE 1/4 of SE 1/4	6600
MC @ Baggs	T13N, R91W, Sec. 28, SE1/4 of NE 1/4	6280
Muddy Creek at S. Bridge	T13N, R91W, Sec.28, SE 1/4 of NE 1/4	6280
Muddy Creek	T16N, R92W, Sec.29, NE 1/4 of SE 1/4	6510
Littlefield Creek	Lat 41 26 36.59 Long 107 27 03.47	7200
Muddy Creek Lake Draw	Lat 41 23 11.80 Long 107 24 09.68	7480
Muddy Creek Grizzly	Lat 41 25 10.31 Long 107 26 22.13	7280
Muddy Creek Bridger pass	Lat 41 28 00.82 Long 107 29 07.73	7080
McKinney Creek	Lat 41 28 53.42 Long 107 28 26.53	7140
McKinney Creek Eagle	Lat 41 29 40.25 Long 107 26 56.74	7320
Little Muddy Creek	Lat 41 29 28.96 Long 107 21 20.62	7860
Upper Muddy Creek	Lat 41 29 30.68 Long 107 21 18.53	7860
Muddy Creek Doty Mnt	Lat 41 28 24.41 Long 107 36 46.81	6820

Artesian sites

Duck Flow	T16N, R91W, Sec 22
Art Deep Creek	T16N, R91W, Sec 28
Art Cottonwood N	T13N, R90W, Sec 22 NE / NE
Art Cottonwood S	T13N, R90W, Sec 27 SE / NW
Gas Flow	

Macro sites

Elev (meters)

Mckinney Creek (low)	Lat 41.482 Long 107.474	2176
Littlefield Creek	Lat 41.444 Long 107.451	2195
Muddy Creek at Lake Draw	Lat 41.387 Long 107.403	2280
Muddy Creek at Bridger	Lat 41.467 Long 107.486	2158
Muddy Creek at Grizzly	Lat 41.420 Long 107.440	2219
Muddy Creek at Rock Crossing Doty Mt.	Lat 41.473 Long 107.613	2079
Little Muddy Creek	Lat 41.491 Long 107.356	2396
Mckinney Creek at Eagle	Lat 41.495 Long 107.449	2231
Mckiney Creek upper site	Lat 41.492 Long 107.355	2396

Station sites

RC-3
Dad
Mckinney Creek
Bridger

T17N, R92W, Sec 28
T16N, R92W, Sec 29
Lat 41 28 53.42 Long 107 28 26.53
Lat 41 28 00.82 Long 107 29 07.73

7140
7080



Jeff Kessler
<jkessler@xmission.com>
02/17/2006 05:26 PM

To WYMail@blm.gov, "Atlantic_Rim_EIS_WYMail"@blm.gov
cc
bcc
Subject Atlantic Rim Natural Gas Development Project

This is yet another attempt to send you my comments on the Atlantic Rim DEIS. You should know that there is an error in pdf file for the DEIS, on page 2 of the Dear Reader letter, which is page 5 of the pdf. If the reader selects and copies the email address written in the pdf and pastes the address into an email client, it is pasted thusly:

Atlantic_Rim_EIS- WYMail@blm.gov.

Note that for some reason it places a dash after EIS even though the pdf text appears as an underscore.

And, if the reader instead clicks on the address in the pdf file, it brings up yet another email address in the email client: WYMail@blm.gov

So, once again I submit my comments, below.

JK
Jeff Kessler

1504 S. 800 E.
Salt Lake City, UT 84105
February 17, 2000

David Simons,
Rawlins BLM
P.O. Box 2407
Rawlins, WY 82301

Dear Mr. Simons:

These are my comments on the Atlantic Rim Coalbed Methane Project Draft Environmental Impact Statement (EIS).

E125-1 | First, I must express my concern that the BLM has failed to produce an environmental impact statement that meets even the most basic requirements of the National Environmental Policy Act; nor does the document provide the reader

E125-1

with the most basic information required to make an informed decision about the proposed actions and alternatives. This flaw is simply stated: you don't tell the reader where the wells are to be located or where other proposed activities will take place. On its face, the draft EIS fails to meet its stated purpose, fails to meet the requirements of NEPA, and fails to give the reader (citizens, for whom BLM manages the public lands under its jurisdiction) sufficient information. While there certainly are a lot of words in the EIS and "supporting" documents, there is a fatal lack of information about the proposed activities, the various alternatives, and the potential impacts.

Given the recent studies that have shown the negative impacts of gas development on native wildlife and habitat in Wyoming (e.g., sage grouse and big game), we can conclude that the Atlantic Rim project is likely to have severe environmental impacts, especially on wildlife. And there is little doubt that the proposed actions would change forever the wide open character of the study area. However, due to the (illegal) lack of specific location information for wells, roads, ancillary facilities, and other components of the various alternatives, it is difficult to be more specific about such impacts.

E125-2

Second, I strongly urge BLM to protect the Wild Cow Creek proposed wilderness from any ground disturbing activities. Citizens have taken it upon themselves to intensively inventory this area because BLM's wilderness inventory was grossly inadequate. Citizens found a wonderful place in Wild Cow Creek that meets the full requirements of wilderness, provides outstanding quite recreation opportunities, and fully deserves complete protection.

All of the DEIS' action alternatives would result in significant and often irreparable harm to native wildlife and fish, fisheries, quiet recreation, scenic areas, and special resources like Areas of Critical Environmental Concern and the Wild Cow Creek citizens' proposed wilderness. Furthermore, the action alternatives would turn the study area into a sacrifice zone where mineral development displaces and supercedes every other use, especially nonconsumptive uses, of the land.

It is unconscionable to propose, promote, and permit activities that would destroy sensitive and critically important resources such as sage grouse lek concentration areas, important big game seasonal ranges, and wilderness resources. This clearly constitutes unnecessary and undue degradation under the FLPMA and thus is simply illegal.

E125-3

Furthermore, it is blatantly illegal for BLM to approve any coalbed methane development prior to completion of a legally adequate Resource Management Plan for the area. CBM was neither contemplated nor were its unique impacts analyzed

in the original RMP.

The only Alternative that the BLM can legally implement at this time is Alternative A, and that is the alternative I support. You can not, and should not, implement any of the action alternatives.

Sincerely,

Jeff Kessler
address shown above.



"Raney, Jim"
 <Jim_Raney@anadarko.com>
 02/17/2006 05:36 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>
 cc
 bcc
 Subject Atlantic Rim Coalbed Natural Gas Development

Mr. Mark Storzer, Field Office Manager
 and
 Mr. David Simons, Project Manager
 Rawlins Field Office
 P.O. Box 2407
 Rawlins, WY 82301

Dear Sirs,

I would like to submit the following comments on the draft Environmental Impact Statement (EIS) for the Atlantic Rim Coalbed Natural Gas Development. I am an Anadarko employee, and as such, I will be directly affected by the Bureau of Land Management's decision.

E126-1-1
 E126-1-2
 E126-1-3

E126-1

The draft environmental impact statement does not, as required by NEPA, "...provide full and fair discussion of significant environmental impacts and [] inform the decision makers and the public of the reasonable alternatives..." 40 C.F.R. § 1502.1. Not only does the document fail to present a "full and fair" discussion of the impacts, the two alternatives analyzed by BLM fail to meet the requirements of NEPA and its implementing regulations. The applicable regulations require BLM to "rigorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a). In addition to this regulatory requirement, under applicable case law, BLM must consider alternatives that accomplish the intended purpose of the proposed action and are technically and economically feasible. In this DEIS BLM has analyzed two alternatives to the proposed action and the no action alternative. The two alternatives analyzed are a phased drilling alternative (Alternative B) and what BLM has termed a "spatial alternative" (Alternative C) which is little more than a compilation of mitigation measures. However, both of these alternatives fail to meet the requirements of NEPA.

E126-2-1
 E126-2-2

E126-2

Although Alternative B may be technically feasible, it is questionable as to whether it is economically feasible, and BLM's analysis fails to analyze this issue. More importantly, I question whether BLM has the authority to suspend the subject leases for such lengthy periods, at least without potentially raising a takings claim or a breach of contract claim. Alternative B is not reasonable in that a key term for this alternative is not defined or analyzed in the document. Specifically, operators will not be allowed to move from one phase to the next until the completion of interim reclamation; however, this term is not defined in the document. Appendix B contains the reclamation plan for the Project, and it defines Short-Term (Temporary) Reclamation and Long-Term (Final) Reclamation, but it does not define interim reclamation. Appendix B at B-3. In the absence of a definition for this key term, the document lacks a thorough discussion of the potential impacts relative to this alternative.

E126-3

BLM has failed to address the fact that the Proposed Action is a phased approach. The operators proposed drilling approximately 200 wells per year. The wells could be drilled in essentially a concentric pattern over time developing around cluster drilling during the interim drilling program.. Moreover, drilling would be naturally phased given both the standard mitigation measures that would be applied to the project and the availability of sufficient drill rigs and attendant equipment.

E126-4

Alternative C in reality is equivalent to the No Action alternative. It would likely reduce those wells that could be drilled by as much as 50% given that it would impose 160-acre well spacing across 95% of the study area. This, combined with the fact that reservoir characteristics identified to date from exploratory drilling demonstrate that development under this scenario would be uneconomic renders Alternative C the functional equivalent of the No Action alternative.

E126-5-1

E126-5

E126-5-2

Additionally, Alternative C is neither technically or economically feasible. Under this alternative, BLM would impose 160 acre spacing across the ninety-five percent of the project area, despite the fact that the BLM's own Reservoir Management Group (RMG) prepared a memorandum analyzing the economic and technical viability of 160 acre spacing and concluded that it would not be technologically viable given the resource being developed nor would it be economically viable (June 16, 2005). The RMG concludes that: "160-acre well spacing for [coalbed natural gas] development in the Atlantic Rim Area (AR Area) is possible only under very special geologic conditions. As a general rule, existing production data suggests that 80-acre well spacing is the best standard well spacing. It is the local geologic setting that must be considered." The DEIS remarkably does not discuss the RMG's conclusions with respect to 160 acre spacing, although BLM does cite the memorandum to support its elimination of directional drilling as an analyzed alternative. In addition, information gathered by the operators from wells drilled during the pendency of the EIS demonstrates that 160 acre spacing does not allow for the production of the gas reserves. Anadarko tested the viability of 160 acre spacing at both the Blue Sky and Red Rim Pods. Neither of these pilot operations produced measurable amounts of gas. When compared with the results from both the Sun Dog and Doty Mountain Pods, both of which were drilled on 80 acre spacing, the results are clear. The graph attached to these comments as Exhibit A depicts the production differential between 80 acre spacing and 160 acre spacing.

<<Exhibit A.ppt>>

E126-6

Recommendation: Anadarko MUST be allowed to develop the Atlantic Rim Coalbed Natural Gas Development on 80 acre spacing.

E126-7

BLM's analysis of Alternative C does not take into account the directives of the Great Divide Resource Management Plan (Great Divide RMP) which provides as follows:

In cases where federal oil and gas leases are or have been issued (1) without stipulated restrictions or requirements that are later found to be necessary; or (2) with stipulated restrictions or requirements that are later found to be insufficient, the needed restrictions or requirements may be included in approving subsequent exploration and development activities. These restrictions or requirements may *only be included as reasonable measures* or as conditions of approval (COA) in the authorizing applications for permits to drill (APD), sundry notices, or plans of development (POD).

E126-7

Again, BLM has failed in this document to provide any discussion regarding the reasonableness of the measures listed in Alternative C.

E126-8-1

E126-8

E126-8-2

Both Alternatives B and C fail to accomplish the intend purpose of the proposed action. The purpose and needs section states that the purpose of the "...proposal is to drill for, remove and sell natural gas resources." Neither Alternative B nor Alternative C meets this objective. Although Anadarko would be able to drill under the phased alternative, it is questionable as to whether Anadarko would ultimately be able to remove and sell the natural gas given the technical and economic constraints of phased drilling. The spatial alternative, if all of the listed measures are implemented as it appears they would be from this draft, would so severely limit the available acreage, it is uncertain whether Anadarko would even be able to drill, let alone remove and sell the natural gas. Moreover, should BLM finally issue a record of decision (ROD) adopting its preferred alternative, the project would likely be rendered uneconomic by the combination of phased drilling and imposition of all of the measures enumerated in Alternative C.

E126-9-1

E126-9

E126-9-2

There are several other general issues with respect to both alternatives. For Alternative B, the DEIS, as currently drafted, is lacking in the following respects: 1) BLM has failed to account for the economic impact on lessees both from the perspective that some of the subject leases could be suspended for over fourteen years and that those with interests in the second and third phases will be deprived of revenues for seven to fourteen years; 2) BLM has failed to address the potential economic impact to the federal government both from the perspective of a loss of revenues and from potential liability for takings claims; and, 3) BLM has failed to address the issue of correlative rights both from the perspective of adjacent landowners and drainage of federal resources. For Alternative C, BLM has failed to address its authority to impose non-surface occupancy (NSO) in the absence of a stipulation in the lease designating all or a portion of the lease as an area of NSO in a number of places.

E126-10

Despite the fact that the stated purpose of this project is to drill for, extract, remove and market gas products, the document lacks an analysis the amount of gas that will be generated by the development, and the magnitude of this production in terms of how many homes could be heated and for how long. Nor is there any analysis that compares how these figures would be affected by each alternative.

E126-11

In describing the parameters of Alternative C, BLM states: "Development for natural gas would occur as in the proposed action." DEIS at S-3. Given the number and scope of measures provided in this alternative, development would not occur as in the Proposed Action. Notably, the proposed action contemplates development of the project area on the basis of 80-acre spacing. As noted above, and elsewhere in these comments, under Alternative C, BLM would impose 160-acre spacing across most of the project area. In addition, many of the proposed protection measures identified for this alternative cover significant portions of the project area thereby severely restricting drilling opportunities.

E126-12-1

E126-12

Recommendation: Because Alternative C is not truly and alternative and fails to meet the

E126-12-2
E126-12-3
E126-14-2
E126-14-1

E126-12

requirements of NEPA, this alternative should be eliminated from the analysis. BLM should analyze these mitigation measures in the context of whether the science supports their imposition, are technically and economically feasible and are the least restrictive necessary. If BLM retains the alternative as drafted, BLM should include a discussion of the mitigation measures in light of both the existing lease terms and the necessity of the measures to address unnecessary and undue degradation. As BLM itself has recognized this standard incorporates an understanding that a certain amount of disturbance would constitute necessary and due degradation.

E126-13

BLM also asserts, in its description of Alternative C that “These types of areas are unique enough to require additional protective measures beyond what is already provided” This subjective conclusion is unsupported by any of the analysis in the DEIS. Many of the areas in which BLM proposes to apply “development protection measures” (DMPs) based on the asserted “unique nature” of the area are in fact no different than other areas in the Rocky Mountain states where best management practices (BMPs), condition of approval (COAs), and lease stipulations have proven effective in protecting sensitive resources.

E126-14

Recommendation: As noted above, I believe BLM should eliminate Alternative C as an alternative in the final document. If the alternative remains in the document, BLM should provide support, with citations to appropriate scientific documents, substantiating its assertion that the resources in this area are so unique as to require protection above and beyond the standard measures. Further, BLM must fully document in its analysis why standard BMPs, COAs and lease stipulations fail to protect such resources.

Thanks,

James Raney
Anadarko Petroleum
Northern Regulatory Manager
1201 Lake Robbins Drive
The Woodlands, TX 77251

Anadarko Confidentiality Notice:

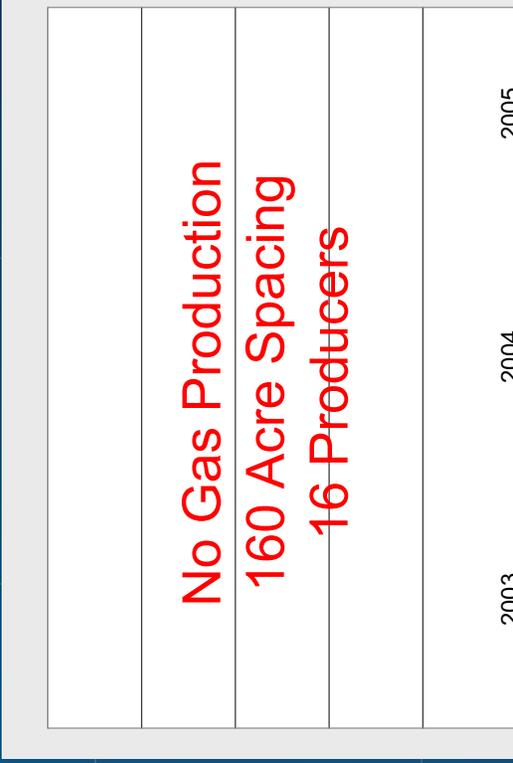
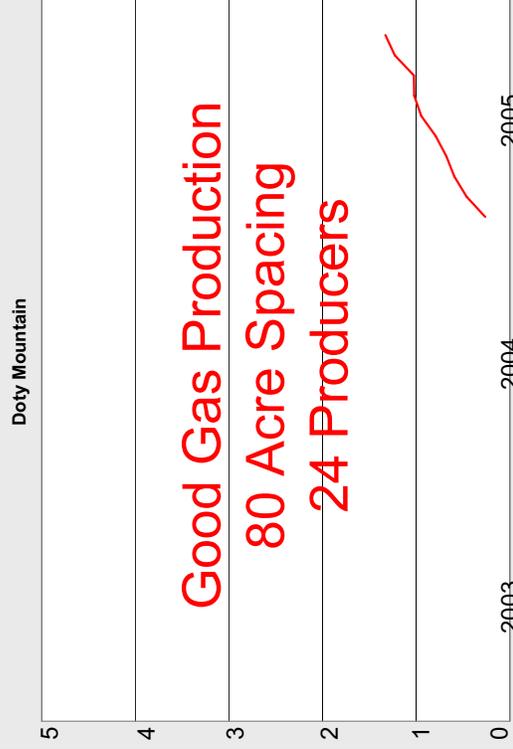
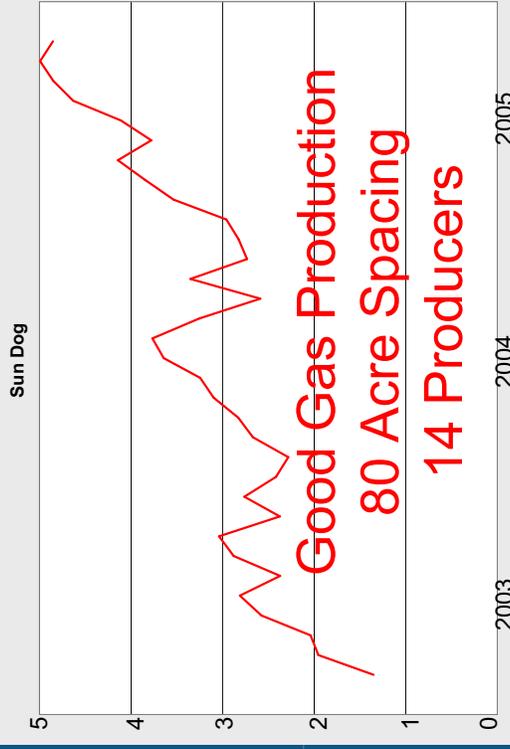
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anyone other than the named recipient is strictly prohibited. Exhibit A.ppt

Production Supports 80's Gas Production (MMcfd)





"PLA"
<Claire@publiclandsadvocacy.org>

02/17/2006 06:28 PM

To <Atlantic_Rim_EIS_WYMail@blm.gov>
cc
bcc
Subject Comments

Attached are PLA's comments on the Atlantic Rim Project DEIS. Please contact me should there be a problem with this transmission. Thank you.

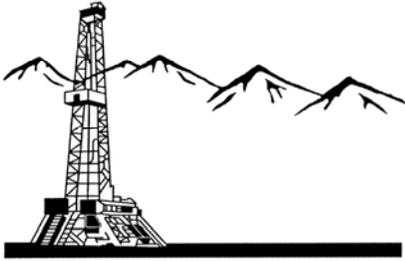
CLAIRE M. MOSELEY

EXECUTIVE DIRECTOR
PUBLIC LANDS ADVOCACY
1410 GRANT STREET, C-307
DENVER, CO 80203
303-860-0212
FAX 303-860-0310
EMAIL: CLAIRE@PUBLICLANDSADVOCACY.ORG

PLA is a nonprofit association whose purpose is to promote access to federal lands for responsible oil and gas exploration and development. For more information, visit www.publiclandsadvocacy.org



PLA_Comments-Atlantic_Rim_DEIS.com.doc



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CLAIRE@PUBLICLANDSADVOCACY.ORG

February 17, 2006

Mr. Dave Simons
Bureau of Land Management
Rawlins Field Office
1300 N. Third
P.O. Box 2407
Rawlins, WY 82301-2407

Re: Atlantic Rim Project Area Draft Environmental Impact Statement

Dear Mr. Simons:

On behalf of Public Lands Advocacy (PLA), following are comments on the Atlantic Rim Project Draft Environmental Impact Statement (DEIS). PLA is a nonprofit trade association whose members include independent and major oil and gas producers as well as nonprofit trade and professional organizations that have joined together to foster environmentally sound exploration and production on public lands. Our members have a direct interest in how BLM manages oil and natural gas development on public lands.

As noted in the Chapter on Purpose and Need, natural gas, including that derived from development of coal bed seams, is a vital source of energy and plays a crucial role in meeting the nation's economy and environmental quality goals. Over the past several years, there has been a major rift in the balance between natural gas supply and demand which is expected to continue as demand increases, while domestic production diminishes. According to the National Petroleum Council Study, *Balancing Natural Gas Policy – Fueling the Demands of a Growing Economy*, “the recent tightening of the natural gas supply/demand balance places greater urgency on addressing the future of this important energy source and resolving conflicting policies that favor natural gas usage, but hinder its supply.” The study also found that abundant natural gas resources exist in North America and identified the Rockies Region as the most prospective area for development of new natural gas supplies. Given, however, the fact that the majority of lands in the Rocky Mountain Region are managed by federal land management agencies, new and continued development of this vital resource can occur only if these agencies recognize the importance of allowing reasonable access to natural gas reserves.

In the DEIS the Rawlins Field Office also purports to recognize that the BLM's oil and gas leasing program “*encourages development of domestic oil and gas reserves. Natural gas (including coalbed natural gas) is an integral part of the United States' energy future due to its availability and the presence of the existing market delivery infrastructure. By developing domestic reserves of clean burning natural gas, the U.S. would reduce dependence on foreign energy, such as natural gas from Mexico and Canada. The environmental advantages of burning natural gas rather than oil or coal were emphasized by the U.S. Congress and by the President when the Clean Air Act Amendments of*

1990 were signed into law. In addition, the Energy Policy acts of 2001 and 2005 emphasize the development of domestic natural gas reserves for supply and economic stability.” However, the DEIS fails to demonstrate an appropriate response to this need.

In an effort to help meet the nation’s increased demand for natural gas, the project proponents submitted a proposal to develop 200 wells per year, up to 2,000 natural gas wells, 1,800 coal bed natural gas wells and 200 additional wells from other formations, utilizing spacing of up to 80 acres per well. In addition, development of pipelines, roads, and ancillary facilities are proposed as well as buried electrical power lines. All water produced from coalbed natural gas wells is proposed for sub-surface re-injection.

BLM’s handling of the public notification has caused significant confusion. According to the notice of availability published in the Federal Register last December 12, it was indicated that BLM analyzed four alternatives: the proposed action, no action, phased development and special protection of sensitive resource values. This notice identified Alternative B, phased development, as the preferred alternative. However, according to the DEIS, BLM selected a combination of Alternatives B and C as the Preferred Alternative. While a discussion of Alternatives B and C is provided, no specific combination is identified in the DEIS. Therefore, it is impossible to discern which parts of Alternative B and which parts of Alternative C have been selected. As such, the DEIS fails to provide the disclosure of information required under the National Environmental Policy Act (NEPA) because it is still unknown what the Preferred Alternative entails. Clearly, there is no analysis that discloses the impact a combined alternative would have on the proposed action. Therefore, BLM failed in the FEIS to comply with the NEPA regulations at 40 CFR § 1502.1 Purpose, “...*Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses...*” Moreover, BLM failed to ensure that the alternatives meet the objectives of the proposed action and that they are technically and economically feasible.

Due to this glaring lack of information, one might assume that BLM is selecting both alternatives in their entirety as the Preferred Alternative. This is an unconscionable approach because each Alternative has its own management design, both of which are equally onerous, but when combined would render the proposed project completely infeasible. These alternatives appear to be extremely biased against the proposed action; and adequate justification to support their selection, either separately or combined, is missing from the analysis.

It is evident BLM has not taken seriously the requirement to identify the least restrictive stipulations needed to protect many of the resource values identified for protection. Specifically, we are concerned that the resulting restrictions imposed by combining Alternatives B and C are in conflict with the 1624 Planning Handbook, Chapter III, Part A (7)(d)(1) and Part C (2)(h), "the least restrictive stipulation that effectively accomplished the resource objectives or uses for a given alternative should be used." The handbook also indicates that it is necessary to demonstrate that less restrictive measures were considered but found insufficient to protect the resources identified. A statement that there are conflicting resource values or uses does not justify the application of restrictions. Discussion of the specific requirements of a resource to be safeguarded, along with a discussion of the perceived conflicts between it and oil and gas activities must be provided. Clearly, an examination of less restrictive measures must be a fundamental element of a balanced analysis and documented accordingly in the draft EIS.

E127-1-1
E127-1-2
E127-1-3

E127-1

E127-2

E127-3-1
E127-3-2

E127-3

E127-4 | The DEIS claims that Alternative B provides for the same number and spacing of wells as in the proposed action. The entire project area would be developed over the course of 20 years; however, the drilling and development would occur in three phases. This approach would purportedly allow animals to have safe zones and would allow operators to have better planning. Unfortunately, we have found no supporting scientific data in the DEIS to justify this approach.

E127-5-1 | E127-5 | During the first phase of development approximately 925 well locations would be developed. Once completed and in production, the second phase of development is proposed to occur and then the third. Clearly, BLM chosen not to recognize the inherent phased nature of oil and gas development. It would seem BLM believes that once a record of decision is approved that industry will move in and drill all 2,000 wells at once. This is a fallacy. Industry bases its decisions on where to drill based upon a host of factors, such as timing limitations, rig availability and ancillary needs. It is literally impossible to drill all the wells at the same time. Therefore, it is unwarranted for BLM to impose arbitrary and capricious conditions on when and where this development should occur.

E127-6 | Moreover, phased development violates valid existing lease rights. The regulations authorize the lessee to use as much of the leased land as is necessary to drill for, extract and remove the oil and gas subject to stipulations attached to the lease and reasonable measures to protect other resources which are not inconsistent with the lease rights granted. 43 C.F.R. §3101.1-2. It must be noted that we object to the use of lease suspensions to accommodate BLM's plan for phased development.

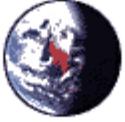
E127-7-1 | E127-7-2 | E127-7 | Alternative C, by itself, is not viable because it requires 160-acre spacing over 95 percent of the study area. This condition fails to appreciate the technical requirements clearly outlined by industry which demonstrated that 80-acre spacing is needed to economically recover the resource. Apparently, the Rawlins Field Office misunderstood the experts in the BLM Reservoir Management Group who pointed out that 160-acre spacing is successful only under certain circumstances that do not exist within the project area. As such, this alternative ignores the technical limitations of the proposed spacing and fails to acknowledge its severe economic limitations. It is incumbent upon BLM to revise the components of this alternative to ensure it does not result in excessive loss of production.

In conclusion, PLA strongly recommends that BLM revise its strategy by ensuring the Atlantic Rim Project is allowed to proceed in a technically and economically feasible manner. As discussed in these comments, this can only be accomplished by revising the analysis to eliminate the currently insurmountable restrictions on development.

Sincerely,



Claire M. Moseley



"Sharon O'Toole"
<sharon@ladderranch.com>

02/17/2006 06:34 PM

To Atlantic_Rim_EIS_WYMail@blm.gov
cc
bcc
Subject ARPA



"Sharon O'Toole"
<sharon@ladderranch.com>

02/17/2006 06:48 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject ARPA with comments

Ladder Livestock Company LLC
Salisbury Livestock Co.
Banjo Sheep Company LLC
Box 159
Savery, WY 82332
307-383-2418
Fax 307-383-2419
sharon@ladderranch.com

February 17, 2006

David Simons, Project Lead
BLM, Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301-2407

Dear David,

We conduct ranching operations that will be profoundly affected by the proposed natural gas and coalbed methane gas development in the Atlantic Rim Natural Gas Development Project. We are also life-long residents of the area, and are knowledgeable about the region, its landscape, wildlife and plant populations, and the human communities. Our concerns include the continuing economic viability of our ranching operation, the health of the resource including plants and animals, and the impact of impending oil and gas development in the region.

Our comments apply to all actions and are common to all alternatives proposed.

Our major concern is that the existing agricultural operations be protected against financial harm as a result of oil, gas and coalbed methane development. It is clear to us that the development will have a profound impact on our lives, our human community, and our businesses. It is the responsibility of the Bureau of Land Management to ensure that the existing and long-standing agricultural community does not suffer financial losses in addition to the inevitable effects to the community and the environmental resource.

We do not have to look far—to the Powder River Basin, to the Jonah Field Development and even to the contiguous activity in the Wamsutter area—to see how our ranching operation, and those in our community, can suffer major negative impacts from energy development. In fact, since our sheep graze in the Red Desert in the winter months, and we graze in the Badwater pasture (in the Filmore Creek area) in the spring and the fall, we have already suffered from unmitigated impacts.

We do not question the nation's need for domestic energy development. The development of this needed commodity should not be to the detriment of its production of food and fiber.

Our observations of the existing development lead us to make the following comments:

Water: This may be the most immediate impact upon the landscape. Coalbed methane (CBM) development produces prodigious amounts of water. It is crucial that this water be put to beneficial use, as much as

<u>E128A-1-2</u> <u>E128A-1-1</u>	E128A-1	possible. The DEIS calls for reinjection, but it is widely believed that adequate aquifers to receive this water do not exist in the Atlantic Rim area. In addition, water is a precious resource, and should not be forever put out of reach for future use. Managed beneficial uses must be allowed, both for the good of the landscape and for mitigation. This water must be cleaned so that it is in compliance with the Colorado River Compact.
<u>E128A-1-3</u>	E128A-1	It is expected that the dewatering of CBM formations will result in the loss of existing artesian wells. Many of these artesian wells have been in place for decades, and livestock and wildlife have come to depend upon them. If these wells are lost, the operating energy companies must be required to provide other water sources that are reliable and long-lasting.
<u>E128A-2-2</u> <u>E128A-2-3</u> <u>E128A-2-1</u>	E128A-2	Dust: Already, towering contrails of dust follow the trucks which are building roads and servicing energy development in the Atlantic Rim area. This dust negatively impacts not only air quality, but also forage and habitat. A covering of dust makes forage virtually unusable for a 1/4 mile perimeter of the many roads which exist, are being built, or are planned in the area. The dust alone reduces forage available for livestock and wildlife. The operators must be required to keep the roads watered in order to reduce or eliminate this hazard. If forage suffers as a result of dust, operators should financially compensate livestock operators for this loss.
<u>E128A-3-2</u> <u>E128A-3-1</u>	E128A-3	Weeds: We already observe massive weed invasions, particularly by halogeton, which is poisonous to livestock and to sheep in particular. Energy operators are not in compliance with existing regulations which require that they take steps to reduce the spread of such weeds by their vehicles and those of their contractors. These weeds must be sprayed and reseeding must be done in a timely manner, and a manner which will coincide with the growing season. Any loss of forage due to weed invasion in impacted areas should be paid to livestock operators who suffer such loss.
<u>E128A-4-2</u> <u>E128A-4-3</u> <u>E128A-4-1</u>	E128A-4	Roads: The massive road-building which takes place as a part of energy development also profoundly affects agricultural and livestock operations. Speed limits need to be established, posted and enforced. When new road-building crosses existing two-track roads, exits need to be built so that those two-track roads can be accessed with a pickup and horsetrailer or sheepwagon. Culverts need to be put in and kept operational where they are needed.
<u>E128A-5-2</u> <u>E128A-5-1</u>	E128A-5	Seasons: Seasonal livestock operations in the area need to be protected. This particularly demands consideration during lambing and calving seasons, when it is critical that mothers bonding with their young not be interfered with. Lambs and calves like to sleep on roads, and are vulnerable to heavy and speeding traffic. Livestock trailing should also be respected by the energy operating companies.
<u>E128A-6-1</u>	E128A-6	Mitigation: The energy operating companies should establish a \$5 million mitigation fund, to be held in escrow by a third party. A board could be created to oversee this fund, and if an agricultural operator can demonstrate a loss, that ranching operation could be reimbursed out of this fund.

Thank you for the consideration our comments.

Sincerely,

Patrick & Sharon O'Toole



"Sharon O'Toole"
<sharon@ladderranch.com>

02/17/2006 06:55 PM

To Atlantic_Rim_EIS_WYMail@blm.gov

cc

bcc

Subject ARPA

George R. Salisbury Jr.
Box 42
Savery, WY 82332
307-383-2430

February 17, 2006

David Simons, Project Lead
BLM, Rawlins Field Office
P.O. Box 2407
Rawlins, WY 82301-2407

Dear David,

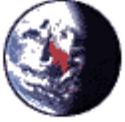
I am a long time rancher and lifelong resident of the Little Snake River Valley. I am concerned about the impacts that the proposed energy development on the Atlantic Rim will have on the agricultural community. It is my observation that a number of the impacts that arise from energy development will affect the agricultural community, the local community, livestock, wildlife and the landscape. I would like to suggest that a mitigation fund be established by the energy operating companies in order to ease payments from the operators to agricultural people in the case of damage.

E128B-1

The energy operating companies should establish a \$5 million mitigation fund, to be held in escrow by a third party. A board could be created to oversee this fund, and if an agricultural operator can demonstrate a loss, that ranching operation could be reimbursed out of this fund.

Thank you for the consideration of my comments.

Sincerely,
George R. Salisbury Jr.



"BRETT PEARSON"
<brettpearson05@msn.com>

02/19/2006 09:18 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>
cc
bcc
Subject



Bret Pearson letter.doc

February 15, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Mr. David Simons:

Did you know that the price for natural gas has doubled since last year and has been \$15 per thousand cubic feet? It would appear based on your preferred alternative for the Atlantic Rim that you are not aware of this fact. I am one of thousands of Wyoming citizens who stands to benefit from Anadarko's successful drilling of the Atlantic Rim. This is why I want you to reevaluate your preferred alternative and take another look at all of the reasonable and fair aspects recorded in Anadarko's Proposed Alternatives.

E130-1

It appears from the EIS that the Rawlins BLM wants to limit even further oil and gas production in the Atlantic Rim DEIS, with restrictive 160 acre spacing. It is absolutely critical for our country and for our economy that natural gas exploration move forward as quickly as possible. For the Atlantic Rim Project, this means a spacing requirement of 80 acres as justified by Anadarko's research in the area over 5 years.

I hope the BLM will develop a new alternative referenced in the EIS and allow for more exploration. Thanks very much for your time. Again, please look at the opportunities you have to make Wyoming a better place to live and natural gas less expensive for American's everywhere.

Best Regards,

Brett Pearson
1700 Swanson drive #167
Rock Springs, WY



Missy Cook/RFO/WY/BLM/DOI

02/21/2006 10:27 AM

To atlantic_RIM_EIS_WYMail@blm.gov

cc

bcc

Subject Fw: Comments on Atlantic Rim EIS



"Dave Welch"
<welchdj@comcast.net>

02/17/2006 06:28 PM

To

cc "Vern Gorzitze" <vergor@wasatchnet.net>, "Glenn Harrison"
<harrison@cmug.com>

Subject Comments on Atlantic Rim EIS

Mr. Simons:

E132-1

Thank you for providing a copy of the EIS for the Atlantic Rim Project. Even though I received a copy of the document, the Oregon-California Trails Association is not listed as one the public entities consulted. This is puzzling since I have commented on various documents concerning the individual pods and have discussed trail preservation issues with Debbie Johnson. Please add OCTA in the list in the final document.

E132-2

In general, we would prefer a greater degree of cultural resource protection than is provided by the preferred alternative. This concern could be addressed within the preferred alternative with improved (or clarified) terms concerning protecting setting for areas with trail integrity. In particular, there appears to be a blanket VRM classification of the entire ARPA as either VRM Class III or IV. It is my understanding that the VRM process requires a more detailed assessment of specific areas adjacent to the cultural resource in question. It is possible that there are Class II areas within the areas shown as Class III.

E132-3

The second area of concern is that a very important factor in mitigating an impact to the setting is not spelled out in the list given on page 4-111, that being the selection of a site that will minimize visual impact. In the best management practices (p H-2) it is stated that "special measures should be considered within 2 miles either side of the entire trail corridor." This should be reflected on page 4-111.

E132-4

Our specific concern is protection of the Overland and Cherokee Trails. It does not appear that the trails pass through the pods (although they may). On the other hand, specific efforts to protect these trails and their setting in the small areas where impact is possible should have little impact on the project as a whole. We encourage strong protection of the short trail sections near the pods on public land.

In the past we have provided support for Anadarko's studies of the trails in this area. The work they have sponsored has been very helpful in locating and documenting the trail. We offer our assistance to the BLM, private landowners and the developers to insure that impacts to the trails and settings are minimized.

Sincerely,

Dave Welch
National Preservation Officer
Oregon-California Trails Association
253-584-0332
welchdj@comcast.net



Missy Cook/RFO/WY/BLM/DOI

02/21/2006 10:37 AM

To atlantic_RIM_EIS_WYMail@blm.gov
cc
bcc
Subject Fw: Atlantic Rim DEIS comments



"Don Christianson"
<DCHRIS@state.wy.us>

02/17/2006 05:31 PM

To David_Simons@blm.gov
cc
Subject Atlantic Rim DEIS comments

David,
Attached are our DEIS comments. I will be putting a formal copy in the
mail next week.
Don



RawlinsARimDEIS Cmts.doc

February 17, 2006

David Simons, Project Lead
Bureau of Land management
Rawlins Field Office
P. O. Box 2407
Rawlins, Wyoming 82301

Dear David Simons:

Following are the comments of the Wyoming Department of Agriculture on your Draft Environmental Impact Statement (DEIS) for the proposed Atlantic Rim Natural gas Development Project.

Our comments are specific to our mission: to be dedicated to the promotion and enhancement of Wyoming's agriculture, natural resources, and quality of life. As this proposed project affects our agriculture industry, our natural resources, and the welfare of our citizens, it's important that we be kept informed of proposed actions and decisions and that we continue to be provided the opportunity to express pertinent issues and concerns.

Four alternatives have been proposed: Proposed Action, No Action, B - Temporal, and C - Spatial. The three action alternatives (proposed, temporal, and spatial) all create adverse impacts for grazing permittees in the Atlantic Rim Planning Area (ARPA) which could significantly reduce their current level of grazing, add costly burdens, and decrease revenues.

We understand and appreciate the need for energy development. We believe that the Proposed Action best fulfills that need. We further believe that the Proposed Action with some of the provisions of Alternative C will minimize impacts upon rangelands and grazing permittees, while optimizing energy development.

We are opposed to Alternative B.. This alternative concentrates drilling to one-third of the ARPA during each of three phases. This is a worst case scenario for livestock grazing, as the DEIS acknowledges. The DEIS notes that this alternative of timed development would double the number of gas wells in the most affected allotments, resulting in the suspension of some or all grazing in these allotments. Development in the first phase of this project is forecast to last up through seven years. For five to seven years will eliminate livestock grazing for some permittees for five or more years in those areas of concentrated development. That's unreasonable, unacceptable, and unnecessary. This concentrated-area-of-development alternative also severely restricts

the flexibility of the natural gas developers to work with grazing permittees and BLM officials on the placement of gas wells, support structures, and development activities. This alternative also would create the worst impacts on grasses, forbs, and shrubs in each area of development and would result in the greatest infestation of noxious weeds in each of these areas.

While we support the Proposed Action, the implementation of that action requires successful and timely monitoring, reclamation, and mitigation. We believe the DEIS is deficient in stating that monitoring, reclamation, and mitigation needs to occur to offset the harmful effects of implementation of this project in the ARPA.

Some of the injurious effects of energy development and operations upon livestock grazing that need to be mitigated include the following.

- Virtual elimination of essential lambing grounds for grazing permittees. These grounds are critical to the continuing operation of these permittees.

- Increased losses of livestock from collisions due to increased traffic and speeds and introduction of halogeton and other poisonous and noxious weeds.

- Unpalatable vegetation from dust created by increased road traffic and construction activities, reducing available forage by 15 to 30 percent, according to the DEIS.

- Destroyed cattle guards, open gates, and cut .

- Introduction and dispersal of undesirable non-native/noxious weeds.

- Reduction in AUMs available for livestock grazing for specific allotments.

- Failure to meet Wyoming BLM Standards and Guidelines for Healthy Rangelands

- Reduced water yield from artesian wells, seeps, and springs.

- Changes in overland hydrology and desertification impacts due to roads on moderate to steep slopes.

- Damages to range improvements.

- Increased interference with herding and animal movement.

E133-1

While the DEIS notes that these effects cause reduced stocking rates, lower weight gains, reduced animal health, and increased time and expenses by permittees, the DEIS fails to specify (1) the monitoring that needs to happen to promptly identify the occurrence of these effects, (2) the mitigation that needs to be take place to offset these effects, and (3)

David Simons

2/22/2006

Page 3 of 7

E 133.1 | the consequences that need to be imposed if monitoring and mitigation does not occur.
This project possesses the potential to critically endanger the livelihoods of grazing permittees.

For that reason, we strongly and unequivocally state that monitoring, mitigation, and consequences for this project must be identified.

We appreciate that this project will produce some benefits to livestock grazing. These benefits include additional water for self-contained troughs and tanks, additional and improved roads for grazing management, and nourishing forage if reclamation is prompt and adequate. However, these benefits do not, repeat not, compensate for the severe effects imposed by this project upon livestock grazing permittees. Monitoring, mitigation, and consequences for failure to monitor and mitigate need to be identified and reflect the Congressional intent expressed in the Federal Land Policy and Management Act of 1976 of managing federal lands in a manner that will provide adequate food and habitat for fish and wildlife and domestic animals (our emphasis).

E133-2

We are also concerned about slow and ineffective reclamation that has occurred during the development of the exploratory wells for this project. The DEIS says “adequate reclamation and weed control has been slow in being implemented” and “control of halogeton in 2004 was inadequate, forcing one operation trailing sheep to go miles out of their normal trail route to avoid this poisonous plant.” While the DEIS says weed control and prompt reclamation occurred in some locations during 2005, it is implied that weed control and prompt reclamation did not occur in other locations during that same year.

Prompt and adequate reclamation and weed control must occur throughout the life of this project. The FEIS and final decision needs to state the actions that will be taken to ensure prompt and adequate reclamation and weed control. Those assurances are not evident in the DEIS.

E133-3

Regarding reclamation, we also recommend the requirement to use locally adapted seed whenever possible. We make this recommendation because in the past energy companies have used native, but non-local seed for reclamation. Often, this seed was not adapted to the growing conditions in the ARPA. The result was unsuccessful reclamation.

E133-4

We are concerned about the cumulative impacts upon livestock grazing by the Atlantic Rim project, but we are alarmed about synergistic impacts of the many energy development projects that are or soon will be occurring in the Rawlins Field Office planning area. The cumulative impacts of these projects that nearly blanket the planning area magnify the penalties and costs of development upon grazing permittees. The impacts also severely restrict possible mitigation. The 1.1 million acre Continental Divide/Creston Blue Gap II project lies immediately adjacent to the west of the Atlantic Rim project and the projected intense development swath of that project lies immediately adjacent to that of the Atlantic Rim project. The Desolation Flats energy development lies immediately west of the Divide project. Currently, Rawlins FO planning area is or will be suffering the wrath of eight coalbed and six conventional natural gas projects, six geophysical projects, and four powerline and pipeline projects. The accumulating impacts of these many developments can be catastrophic to many resource values in the planning area, including livestock grazing.

Although the impacts of each project may not dramatically harm any particular livestock operation in the specific project area, the cumulative impacts of all of these projects may jeopardize the livelihoods of grazing permittees and livestock grazing in the greater Rawlins FO planning area. Increased road collisions injure and kill livestock. Increases in construction and road dust decrease palatability and nourishment of forage. Introduction and growth of noxious weeds weaken and kill livestock and crowd out essential forage. Damaged cattle guards, cut fences, and unlocked gates drastically raise labor costs and result in lost livestock. Loss of water from artesian wells, springs and seeps weaken livestock, reduce their weight gain, lessen forage, induce weeds, and adversely affect the environment for both livestock and wildlife.

The accumulating impacts of all of these projects point to the requirement for prompt and adequate on-site mitigation, including reclamation. However, the vast scope of these projects that cover the planning area also increases the potential for off-site mitigation. Yet, the magnitude of these projects restricts the off-site mitigation that can occur.

E133-5 | For this reason, we believe the EIS for each of these projects must consider the accumulated impacts of all of these projects upon the environment and the multiple uses, which are supposed to be supported by the Rawlins FO and the BLM.

We appreciate the increased emphasis in the DEIS on identifying the acres of disturbance, not just the number of wells, created by this project. We also agree that the emphasis needs to be on (1) minimizing the acres of disturbance, (2) prompt and successful reclamation of disturbed acres, and (3) mitigating for the loss of resource values created by those disturbed acres.

E133-6 | We believe the wording in Table 2-4, Vegetation, first row, Page 2-13 should be changed to be more accurate. The current DEIS wording is "...suspended grazing would lead to more rapid reclamation, greater ratio of grasses to shrubs..." This wording implies that BLM will suspend and not allow grazing on all lands undergoing reclamation. Given the extent of development of this project and the fact that lands undergoing reclamation often are not fenced, the adoption of this "Vegetation" alternative effectively removes livestock grazing from large areas of the ARPA. We understand that the intent of this alternative was to allow voluntary and temporary removal of livestock grazing by permittees from land undergoing reclamation. This alternative needs to be rewritten to more accurately depict this intent.

E133-7 | We recommend deleting the word "limited" in the fourth line, last bullet, Section 2.2.1, on page 2-2. This section states that an exception to re-injection of produced water is "the closed system with limited use of livestock and wildlife watering systems, with appropriate state permits." If the systems are closed and are with appropriate state permits, then there is no need for "limited" use of these systems. We believe it is essential that produced water should be available to these closed systems wherever appropriate; they should not be limited if they meet all qualifications.

E133-8

Regarding the references to the management of produced water, the DEIS imposes re-injection as the only water management tool. The reason for limiting water management to re-injection is to avoid contributing to the salinity of the Colorado River. Yet the DEIS also notes that produced water from some wells flows into the Divide Basin and the North Platte River Basin. There is no need to restrict water management to re-injection for these two basins. The water in the Divide Basin is self-enclosed, and the North Platte River desperately needs water to support endangered and threatened species downstream in Nebraska. For that reason, the FEIS and final decision need to recognize that other water management tools should be considered and implemented for the Divide Basin and the North Platte River Basin. These management tools should include consideration of piping produced waters from the Colorado Water Basin the short distance to the North Platte River Basin, and allowing this produced water to benefit livestock and wildlife.

We definitely support the two exceptions to re-injection of produced water for the Colorado River Basin. Produced water can greatly benefit livestock and wildlife and the exception that allows a closed system for produced water provides those benefits with no harm to the basin. The second exception recognizes that withdrawing water for coal bed natural gas production often reduces or eliminates production of artesian water wells for livestock and for other uses. Yet, these water wells are relied upon to provide water for livestock and can benefit wildlife, as well. Both exceptions will allow grazing permittees to contribute to meeting Wyoming BLM Standards and Guidelines for Healthy Rangelands

E133-9

The DEIS notes in Alternative C that fences needed for the project in Special Management Areas will be converted to BLM standards for improved wildlife passage. We recommend coordination with grazing permittees if these fences affect livestock grazing management. We also recommend that grazing permittees not be responsible for maintaining these fences.

E133-10

E133-11

On page 4-55, the DEIS says the mineral companies should promote a policy to contact grazing permittees or the BLM about damages. We suggest two corrections. First, the company should contact both the permittee AND the BLM, not one or the other. Both the permittee and the BLM need to know. Secondly, the mineral companies shouldn't just promote a policy, but they must actively implement a policy for contacting the grazing permittees and the BLM. Damage to livestock, cattle guards, fences, gates, and range improvements are inevitable. Notification procedures need to be in place and in use.

E133-12

We also recommend Final EIS state that energy companies be required to keep grazing permittees and landowners informed of projected and current activities. These activities will directly impact the food and habitat of livestock, the management of livestock., and the livelihoods of grazing permittees.

David Simons

2/22/2006

Page 7 of 7

E133-13

Proposed revisions to Resource Management Plans in Wyoming allow the Field Office Manager to create and consider the recommendations of Activity Working Groups.

These groups of government representatives can study critical issues and conflicts and recommend actions that will help resolve conflicts and find solutions to problems. We strongly recommend that the FEIS and final decision allow the Rawlins FO Manger the flexibility to create an AWG as necessary.

In conclusion, we appreciate the opportunity to comment on this EA, we encourage continued attention to our concerns, and we look forward to hearing about and being involved in proposed actions and decisions.



"Mike Bersch"
<mgbersch@bama.ua.edu>

02/21/2006 11:23 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Draft EIS Comment

To: Mr. David Simons

Dear Mr. Simons:

Please find a MS Word Document attached with my comments regarding the Atlantic Rim Natural Gas Field Development Project Draft EIS.

Thank you and cheer,
mgb

Michael Bersch, PhD
The University of Alabama
PO Box 870164
Tom Bevill Building - Room 105
Tuscaloosa, AL 35487-0164
(205) 348-1576
Fax: (205) 348-9561
e-mail: mgbersch@bama.ua.edu
Website: <http://bama.ua.edu/~mgbersch>

The chessboard is the world, the pieces are the phenomena of the universe,
the rules of the game are what we call the laws of nature.

The player on the other side is hidden from us.

We know that his play is always fair, and patient.

But we also know, to our cost, that he never overlooks a mistake,
or makes the smallest allowance for ignorance.



T.H. Huxley, 1868 MGB letter to blm.doc

February 21, 2006

Re: Comments on the Draft Atlantic Rim
Environmental Impact Statement

Mr. David Simons
Project Manager
Bureau of Land Management
Rawlins Field Office
P. O. Box 2407
Rawlins, Wyoming 82301

Dear Mr. Simons

I have reviewed the Draft Environmental Impact Statement for the Atlantic Rim Natural Gas Field Development Project. The Rawlins Field Office of the Bureau of Land Management has requested comments on the document; to wit I submit the following:

- Economic:
 - In these days of increased demand for oil and natural gas, it would seem to me absurd to NOT develop this significant resource. With perhaps trillions of cubic feet of recoverable gas, projects such as this are critical for meeting the Nation's energy demands without relying on foreign sources.
- Environmental:
 - Environmental protection is a must and all operations should be conducted in accordance with best practices, and minimum environmental impact. However, the overall environmental impact of this project seems fairly small, and the most significant impacts being rather short term.
 - Alternative A – No development – is without merit, given the economic significant and the relatively benign environmental impacts of the project.
 - Alternative B – I see not real benefit in mitigation of any environmental impacts under this scenario. In fact, it seems to me that this prolongs much of what would be short term impacts into much longer time frames. This alternative seems to be premised on an unproven, in fact often false, assumption that if a project just goes slower there will be less impact. This assumption sounds reasonable but is often false where most of the impact comes from the initial activities. In the case of natural gas production, most of the environmental impact occurs in the drilling of the wells and the setup of the production facilities. Once these are completed impacts decrease significantly because of the decrease in human activity coupled with mitigation efforts. I question a plan that would drag the initial impacts out over an extended period. Better to get in and get out.
 - Alternative C – It appears that the Bureau is touting this as the most environmentally responsible plan. However, it seems fairly clear that the crux of this plan is to reduce the number of wells, thus, the less disturbance the less environmental impact. This appears to be a disguised “compromise plan,” i.e.,

E134-1

“You can exploit but not fully exploit.” A few points are in order with regards to this:

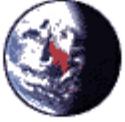
- If this plan reduces the number of wells such that the gas production is not fully utilized then we rob Peter to pay Paul. If we are going to exploit a resource we should fully exploit the resource.
- I do not find that the environmental benefits of this plan compelling.
- I find this plan vague. From a review point of view, I’m not sure what will really be done except development will be area specific. I am not sure how I really compare the benefits of this approach. The table comparing alternative (Chapter 2), there appear to be a number of apparent benefits but what is the basis? Once again, the purpose of this plan is to reduce the number of well sites we could have a plan with 25% of the proposed number of wells, or one with 10%. In each such scenario the environmental impacts would be less and less until we reach Alternative A of no action – no development.
- This, I believe, is a poor approach to environmental impacts. The better approach is to recognize the impacts and to mitigate them. For example, erosion might be lessened by less development, but it can also be lessened by proper mitigation, such as ground cover, and due diligence, i.e., continued monitoring and follow-up.
- Finally, I note that one third of the Atlantic Natural Gas Project area is in private and state hands, thus bypassing much federal oversight. As you know, resource areas must be considered as a whole, in most cases it does little good to restrict development in one parcel while the neighboring parcel is fully developed. I do not see that this plan takes such factors into account. It seems to me that this compromise plan, may save some sage and aspen, but do little else.

E134-2

I believe that the company’s development plan, properly monitored, is the best plan.

Very truly yours,

Michael Bersch
Attorney at Law
12393 Timber Heights Rd.
Ralph, AL 35480



"Bill Lee"
<blee@warrenep.com>

02/22/2006 10:27 AM

To <Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Atlantic Rim Natural Gas Development Project



Bill Lee letter.doc

February 15, 2006

Rawlins Field Office
1300 North Third
P.O. Box 2407
Rawlins, WY 82301

Dear Bureau of Land Management:

I, like most Wyoming citizens, know that oil and gas development can occur in a responsible way. If anyone can accomplish this in a responsible way, it would be the company, Anadarko. Unfortunately, I am extremely concerned the Atlantic Rim DEIS and preferred alternative will limit the development of natural gas in the Rawlins BLM.

E139-1 | Specifically, I object to the BLM's decision to limit field development to 160 acre spacing and would encourage the BLM to consider 80 acre spacing to improve gas recovery.

E139-2 | We, as citizens of Wyoming, need the jobs and our country needs the natural gas. As you are aware, it is estimated the Atlantic Rim contains 1.5 trillion cubic feet of natural gas. This is a tremendous resource that can provide natural gas to over 60 million homes. I hope the BLM will seriously investigate the loss of natural gas recovery by limiting the Atlantic Rim to 160 acres. What is the cost of 160 acres and what are the benefits of 80 acre spacing? What does the internal and external science justify for resource extraction? Has the BLM fully examined the finding of Anadarko over the 5 years of study in the Atlantic Rim area? Can the field be developed efficiently at 160 acres or will we just produce water?

It is time the BLM to deny restrictive regulation and let industry get on with providing the energy resources our nation demands. I am sure the BLM can find cost effective mitigations and still allow 80 acre spacing for beneficial gas development.

Thanks you considering my comments seriously.

Sincerely,

Bill Lee
123 West 1st Street, Suite 505
Casper, WY 82601



"David Stout"
<dstout9@bluemoon.net>

02/09/2006 06:52 PM

To "Atlantic_Rim_EIS_WYMail@blm.gov"
<Atlantic_Rim_EIS_WYMail@blm.gov>

cc

bcc

Subject Withdraw the Atlantic Rim drilling project

February 09, 2006

David Simons, Project Manager
Rawlins Field Office
Bureau of Land Management
P.O. Box 2407
Rawlins, WY 82301

Dear Project Manager Simons,

I urge you to withdraw your current preferred alternative for the Atlantic Rim Project, and to revise your proposal to include critical environmental protections and balance industrial uses of public lands with the needs of public recreation, clean air and water and desert wildlife.

Any final decision should keep roads and drilling pads safe distances away from sage grouse breeding and nesting areas (with a 3-mile buffer), sharp-tailed grouse breeding and nesting areas (1 mile), ferruginous hawk nests (2 miles), other raptor nests (1 mile), mountain plover nesting areas, 100-year floodplains, historic Overland and Cherokee trails (3 miles), and prairie dog colonies. I also urge you to require the strongest protective measures to prevent salt runoff from roads and soils, the underground injection of salty wastewater, and other activities that would harm the area's streams.

In addition, the project should use only directional drilling to cluster well facilities and truly minimize the drilling footprint, and allow only a small proportion of the project area to be in an industrialized state at any one time. It is also essential that the Wild Cow Creek proposed wilderness area be removed from the project.

The BLM should protect those few remaining places that are too special to drill, and manage remaining areas in an environmentally sensitive manner. Our natural heritage, including the Red Desert's Atlantic Rim, should be protected for future generations.

E141-1 | BLM must under NEPA consider longer-term energy capture by installing wind and/or solar electric generation equipment that will also prevent increases in the emission of carbon dioxide to the atmosphere. CO2 is a key ingredient in continuing global warming and its adverse effects on climate systems and mankind's ability to survive on this planet and cannot be ignored.

Sincerely,

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