

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

FILED

APR 22 2010

Jim Ruby, Executive Secretary
Environmental Quality Council

IN THE MATTER OF THE APPEAL OF)
POWDER RIVER BASIN RESOURCE)
COUNCIL, BERNADETTE BARLOW,)
BERNADETTE BARLOW TRUST,)
WILLIAM L. BARLOW TRUST AND)
ERIC BARLOW FROM WYPDES)
PERMIT NO. WY0052299)

Docket No. 09-3802

**BILL BARRETT CORPORATION'S RESPONSE IN OPPOSITION TO
PETITIONERS' MOTION FOR SUMMARY JUDGMENT**

Bill Barrett Corporation (BBC) respectfully submits this Response in Opposition to Petitioners' Motion for Summary Judgment. The lynchpin of Petitioners' argument is that BBC and WDEQ cannot prove by a preponderance of evidence that the water discharged under the Permit has not and will not cause a measurable decrease in crop production on the Barlows' lands. Petitioners' Motion for Summary Judgment at 13. In simple terms, Petitioners' motion should be denied because: (1) BBC has not been given the opportunity to provide the Environmental Quality Council (EQC) with the relevant factual evidence that will show that the discharge has not and will not cause a measurable decrease in crop or livestock production; (2) the motion is based on selected pieces of a technical report rather than the report as a whole, and the Permit is consistent with the report as a whole; and (3) there is monitoring, historic beneficial use of the discharge water, water quality, ground and surface water quality and other relevant data BBC should have the right to present to the EQC at the scheduled hearing. Put in legal terms, there are material facts at issue which require denial of Petitioners' motion for summary judgment.

CORRECTIONS AND ADDITIONS TO ASSERTIONS IN PETITIONERS' BACKGROUND

In the "BACKGROUND" section of their brief, Petitioners begin by erroneously asserting that WYPDES Permit No. WY0052299 (the Permit) was issued to BBC on November 25, 2008. This Permit was actually issued on June 8, 2005. The Permit was modified to include Tier 2 on November 25, 2008. Therefore, the Permit had been in effect for 3½ years prior to Petitioners' request to revoke the Permit. (Affidavit of Paul McElvery (McElvery Aff.) attached, ¶ 6.)

Pre-dating both Permit issuance by the WDEQ and Permit appeal by the Petitioner, BBC proactively entered into discussion with the Barlows to receive their input about how to craft a more agreeable Water Management Plan (WMP) for BBC's proposed Beaver Creek Plan of Development (Beaver Creek POD). (McElvery Aff. ¶ 11.)

At a meeting in December 2004, BBC understood the Barlows' main concern to be, quite simply, they did not want produced water from BBC operations on their property. (McElvery Aff. ¶ 11, 14.) Another concern was discharge to Double Tanks Draw. Based on their concerns, BBC agreed to contain all produced water and eliminate all discharges that were planned for Double Tanks Draw. (McElvery Aff. ¶ 14.) To formally cement BBC accountability by adding an enforcement component to POD approval, the Bureau of Land Management (BLM) included BBC's promised actions as a Condition of Approval for BBC's Beaver Creek POD. (Ex. 2, p.7, #19; McElvery ¶ 14.) The Barlows were still concerned about sub-surface migration of water from reservoirs. Through consensus, it was decided that BBC would establish a downstream groundwater monitoring program to observe any effect of water seepage from the

reservoirs and any subsequent migration toward the Barlow lands. (McElvery Aff. ¶ 15.) This monitoring program has yielded data which is extremely relevant to this case and should be presented at the scheduled hearing.

It is important to note that the agreements reached at this meeting were not driven by law but rather by BBC's desire to operate responsibly and in concert with landowner wishes. The concerns presented by the Barlows, the POD Conditions of Approval, and issuance of the discharge Permit were all prior to WDEQ including Tier 2 methodology. (McElvery Aff. ¶¶ 10-16.)

The Petitioners are correct in stating that the Permit places no limitation on infiltration. That would be difficult to put in a permit; water in reservoirs does infiltrate. The Petitioners are incorrect in stating that the Permit does not require groundwater monitoring between the reservoirs and the Barlow lands. (Petitioners' Motion for Summary Judgment, p.6.) The Permit does require groundwater monitoring. (Petitioners' Ex. 1, pp.12-13 (attached to McElvery Aff.)) This is in addition to the groundwater monitoring that was mutually agreed on by the Barlows and BBC six months prior to WDEQ permit issuance and approximately four years prior to the Petitioners' request to revoke the Permit.

As it relates to Petitioners' summary judgment motion, the facts alone create a genuine dispute as to material facts that Petitioners rely on in support of their motion. *See e.g.*, Petitioners' Motion for Summary Judgment, pp.6 and 13.

BBC'S STATEMENT OF MATERIAL FACTS

The Permit issued to BBC on June 8, 2005 had an EC limit of 7,500 micromhos/cm and no containment requirements. (McElvery Aff. ¶ 7.) It was only the

voluntary agreement that BBC made with the Petitioners that precluded produced water from running onto Barlow lands during dry operating conditions, something that BBC has honored to this day. (McElvery Aff. ¶ 10.) This original Permit with an EC limit of 7,500 micromhos/cm and no containment requirements was not appealed by any party at the time of issuance.

The Permit requires daily monitoring on Dead Horse Creek to determine whether effluent reaches the established irrigation monitoring point (IMP). (Petitioners' Ex. 1.) The irrigation monitoring point is located on the fence line between Barlow lands and Nisselius Ranch exactly where two of BLM's alluvial monitor wells are located. (McElvery Aff. ¶ 9.) When there is flow at the IMP, a sample is taken and analyzed for EC and SAR. (McElvery Aff. ¶ 9.) BBC has several years of IMP monitoring data it would like to – and is entitled to - share with the EQC at the scheduled hearing.

After receiving a WDEQ discharge permit, BBC spent in excess of \$40,000,000 to develop the Beaver Creek POD. BBC continues to work closely with all landowners in the Beaver Creek POD area. (McElvery Aff. ¶¶ 10, 17.)

Over the nearly five years during which the Permit has been active, EC limits imposed on BBC's activities in the Beaver Creek POD have actually become more stringent when compared to those at original Permit issuance. (McElvery Aff. ¶ 17.) Counter intuitively, the Petitioners only chose to appeal the Permit now.

The monitoring data accrued since Permit inception (the data to be presented at the scheduled hearing) shows no adverse effects from CBM produced water on Barlow lands. (McElvery Aff. ¶ 18, 19).

The Hendrickx & Buchanan report commissioned by the EQC concluded that the Tier 2 assumptions are erroneous because “(i) effluent water quality that is better than the pre-existing background water quality could still cause severe soil salinity [and] (ii) *effluent water quality that is worse than the pre-existing background water quality may be used beneficially on artificially irrigated lands. . . .*” (Hendrickx & Buchanan, Expert Scientific Opinion on the Tier-2 Methodology – Report to the Wyoming Environmental Quality Council, May 2009, p. 10, previously provided to the EQC. – “the Report”) (emphasis added.) This is an important point to note since a recurring theme of the Report is that CBM produced water has beneficial use.

The Report further notes that “[s]everal landowners clearly have suffered flood damage by unmanaged releases of CBM water and not recognizing the duration and volume of CBM waters to be received. Although these issues are serious, *they can be resolved by proper engineering of CBM water release infrastructure and by developing management plans for the use of CBM water on artificially and naturally irrigated lands.*” *Id.* at 19 (emphasis added).

Additionally, the EQC was presented feedback from Drs. Hendrickx and Buchanan during a conference call April 8, 2009, prior to report submission. (Audio file available at <http://deq.state.wy.us/eqc/audio.html>.) In this discussion acting as a question-and-answer session between the experts and the EQC members, Dr. Hendrickx said, “Our main conclusion there is that it [Tier 2] is not scientifically valid; however, the way it works out is, in fact is, it seems to be quite reasonable.” (Audio file at 13:10.)

This statement was further investigated during the conference call in an exchange between Dennis Boal and Dr. Hendrickx as noted here:

Boal to Hendrickx (24:48): “I understand you to say that even given that problem, if you’ll allow me to use that word, if you use the Tier 2 approach and you take **monitoring** into account and **water management**, this may be a reasonable approach to regulating coal methane water. I guess that’s kind of what I hear you saying. Am I correct with that?”

Hendrickx to Boal (25:18): “Yes – you see, one of the considerations that we have been discussing is this is not science – this is a reality in Wyoming. The reality is that there are many landowners that have currently no or few water resources. And sometimes it may be better to use less-quality water and get some economic gain than not doing that at all.”

(Audio file at 24:48 and 25:18.) (emphasis added.)

Dr. Buchanan added the following comment to Mr. Boal specific to this exchange:

Buchanan to Boal (26:45): “I want to emphasize that I think the way you stated that summary of what was said earlier is very accurate in describing how we have approached this problem, that, although not scientifically-based or at least there are problems with the science and the assumptions that are made, that because of management and monitoring that the Tier 2 system will actually work.”

(Audio file at 26:45.)

As the attached Affidavit of Gib Bell states, Mr. Bell is responsible for day-to-day operations under a joint venture on the Nisselius Ranch. (Affidavit of Gib Bell (Bell Aff.) attached, ¶ 2.) BBC discharges CBNG water under the Permit on the ranch and has for 3½ years. (Bell Aff. ¶ 3.)

The Nisselius Ranch owns and operates a twenty-acre subsurface irrigation system and an extensive year-round stock watering system with approximately 32,000 feet of buried pipeline. (Bell Aff. ¶ 6.) The joint venture has invested a considerable

amount of time and money into these systems and depends on the water produced under the Permit for these systems. (Bell Aff. ¶ 6.)

Notably, Mr. Bell has not found the water discharged under the Permit to cause a measurable decrease in crop or livestock production on the ranch. (Bell Aff. ¶ 4.) In fact, Mr. Bell has actually noted a measurable increase in crop and livestock production from the water discharged under the Permit. (Bell Aff. ¶ 5.)

LEGAL STANDARD

BBC agrees with the legal standard for summary judgment set out in Petitioners' motion and will not repeat it here. It is important to note in addition, however, that "[t]he movant bears the initial burden of establishing a prima facie case for summary judgment. If the movant carries his burden, the party who is opposing the motion for summary judgment must present specific facts to demonstrate that a genuine issue of material fact exists." *Metz Beverage Co. v. Wyo. Beverages, Inc.*, 39 P.3d 1051, 1055 (Wyo. 2002). All favorable inferences that may be fairly drawn from the record viewed in the light most favorable to the party opposing summary judgment. *Hull v. D'Arcy*, 202 P.3d 417, 420 (Wyo. 2009) (citing *Stevens v. Elk Run Homeowners' Ass'n, Inc.*, 90 P.3d 1162, 1165 (Wyo. 2004). "Summary judgment procedures apply to administrative cases." *Rollins v. Wyo. Tribune-Eagle*, 152 P.3d 367, 369 (Wyo. 2007).

ARGUMENT

BBC has demonstrated its willingness to craft a proactive WMP for the Permit in concert with the Petitioners and, as the sworn affidavit testimony of Mr. Bell indicates, this WMP has resulted in the beneficial use of BBC's discharge water by a landowner, whose lands are located upstream of the Barlows. This is exactly the kind of water

management and beneficial use of water that the Buchanan and Hendrickx report noted and encouraged, and BBC would like the opportunity to provide further testimony at the scheduled hearing regarding these issues and their effect on protecting crop and livestock production.

Moreover, with regard to Petitioners' motion for summary judgment, Mr. Bell's affidavit testimony contains material facts refuting a key element of Petitioners' first claim – that BBC and WDEQ cannot prove by a preponderance of the evidence that the water discharged under the Permit has not or will not cause a “measurable decrease” in crop or livestock production. *See* Petitioners' Motion for Summary Judgment at 13.

As the Permit history and sworn statements demonstrate, there are material issues which affect whether or not this discharge permit is protective pursuant to Chapter 1, Section 20, and BBC is anxious to, and should be entitled to, present that evidence and testimony to the EQC.

This Permit was issued long before Tier 2 was ever employed. So, Tier 2 should not be on trial here. As Petitioners themselves concede, “(a)t issue in this case is Chapter 1, Section 20 of the WQRR which provides a narrative water quality standard for the protection of agricultural uses (quoting the no measurable decrease provisions).” *See* Petitioners' Motion for Summary Judgment at 9. The unrefuted evidence thus far is that this Permit has not and will not cause a measurable decrease to crop and livestock production in the watershed, that BBC has acted as a prudent water manager, has monitored its surface and groundwater flows and has worked with the landowner upstream of the Barlows to assure that the water is beneficially used. There is not one shred of evidence from Barlows in the Petitioners' motion about actual or even

threatened harm, and no evidence or even any assertion that the 3½ years of discharges have caused ANY problems to date.

BBC has operated as promised and has not allowed CBNG produced water to flow onto Barlow lands during dry operating conditions. Whenever there has been surface flow in Dead Horse Creek at the irrigation monitoring point at the Barlows' fence, BBC has collected a sample as required by the permit and the data shows no ill effect from CBNG discharge. BBC has also continued to monitor groundwater per Barlows' request, and data shows no adverse effect of sub-surface migration from BBC reservoirs located upstream. BBC can only logically conclude that the Petitioners' current protest of the Permit has less to do with BBC's actual real-world operations and more to do with the scientific invalidity of Tier 2 methodology used in the most recent iteration of the Permit.

Under these facts and circumstances, it would be wrong for the EQC to hold BBC hostage based upon Tier 2 methodology - to simply revoke a Permit that was not originally issued under Tier 2 and that has operated from its inception under a comprehensive, mutually agreeable WMP. In short, while Tier 2 methodology might not work, the Permit and associated WMP do.

CONCLUSIONS

Petitioners raise two legal issues in their motion for Summary Judgment: 1) Do the Permit's effluent limits meet statutory and regulatory requirements? and 2) Is it the Petitioners' burden to prove discharges authorized under the Permit will result in a measurable decrease in crop production?

As to the first issue, BBC has demonstrated that the Permit's effluent limits meet statutory and regulatory requirements in the context of Chapter 1, Section 20. Since BBC has successfully and legally operated prior to Tier 2 methodology, since the Permit's effluent limits have actually become more stringent over time, and since BBC (with the prior cooperation of the Petitioners) improved the Beaver Creek WMP by putting additional management and monitoring safeguards in place at the inception of this project, it would seem that Tier 2 methodology is irrelevant to the validity and protectiveness of BBC's Permit under Chapter 1, Section 20.

BBC has spent considerable time, effort, and money to ensure that there is no measurable decrease in crop or livestock production. BBC is anxious to share pertinent monitoring data from the irrigation monitoring point and the groundwater monitor wells associated with this Permit. Ultimately, BBC would like to show the EQC that effective water management and monitoring – as suggested by Drs. Hendrickx and Buchanan – can and does ensure no measurable decrease in crop or livestock production independent of the validity of Tier 2 methodology.

At a minimum, BBC has met its legal burden of refuting one of the essential elements of Petitioners' motion.

With regard to the second issue, the burden of proof, while Petitioners may want to argue about who bears the burden of proof, in this case it doesn't matter. BBC will present facts demonstrating that the Permit, including its water management, containment, and monitoring requirements, has been and will continue to be protective of crop and livestock production. And, Mr. Bell will testify that virtually all the water is being beneficially used upstream of the Barlows. Moreover, in their motion, Petitioners

have not provided any evidence of actual or threatened harm under the Permit. BBC has done everything it was required to do under its discharge permit and more. It has attempted to work with the Barlows. It has agreed to more stringent discharge permit limits than were originally issued when the Permit was first issued which, importantly, was prior to Tier 2, therefore making the Tier 2 argument irrelevant. At the end of the day, BBC can and will carry any burden of demonstrating that the Permit is protective. At that point, as a legal matter, the burden of proof shifts to the Petitioners. It will then be up to the Petitioners to place evidence in the record to sustain their position. *Knight v. Environmental Quality Council*, 805 P.2d 268, 273 (Wyo. 1991).

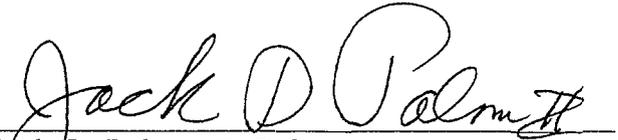
In sum, BBC understands that the Hendrickx/Buchanan Report questions the validity of WDEQ's Tier 2 methodology used in BBC's current Permit. BBC does not intend to debate the validity of Tier 2 methodology. Rather, BBC would prefer to continue effective management and monitoring of produced water that fulfills its goals and keeps multiple landowners happy by both providing water for beneficial use for those who want it and refraining from allowing produced water to reach the lands of those who don't.

Revocation of the Permit in question seems counterintuitive considering BBC has done the right thing all along by taking additional steps independent of WDEQ requirements and in conjunction with the Petitioners to ensure a successful WMP in the Dead Horse Creek drainage. To punish BBC for the perceived shortcomings of Tier 2 through permit revocation without taking BBC's extensive WMP into consideration, without taking into account the protective terms and conditions in the Permit itself, and without taking historical, real-world data into consideration, advances no reasonable

goal or policy and is in direct conflict with the expert findings of Drs. Hendrickx and Buchanan regarding the use of monitoring and water management as underpinnings of a credible, workable discharge permit program.

BBC therefore requests that the EQC deny Petitioners' Motion for Summary Judgment to revoke Permit WY0052299 and allow the scheduled hearing to continue.

DATED this 22nd day of April, 2010



Jack D. Palma, II, P.C.
Mark R. Ruppert
Matt J. Micheli
HOLLAND & HART LLP
P. O. Box 1347
Cheyenne, WY 82003-1347
Telephone: (307) 778-4200

ATTORNEYS FOR BILL BARRETT
CORPORATION

CERTIFICATE OF SERVICE

I certify that on April 22, 2010, a copy of the foregoing document was filed with the Environmental Quality Council, and served on the following by e-mail delivery:

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Wyoming Attorney General's Office
123 State Capitol Building
Cheyenne, WY 82002
Jburbl@state.wy.us
Attorney for WDEQ

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Attorneys for Petitioners
422 W. 26th Street
Cheyenne, Wyoming 82001
kate@davisandcannonchey.com
mark@davisandcannonchey.com



Jack D. Palma, II

November 15, 2004

RECEIVED

Leah Krafft
DEQ/WQD
Herschler Bldg.-4W
Cheyenne, WY 82002

NOV 17 2004

WATER QUALITY DIVISION
WYOMING

RE: WY0052299, Bill Barrett Corporation

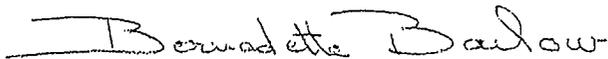
Dear Ms. Krafft,

We protest the issuance of this permit based on the following reasons:

1. There is considerable disparity between the NPDES permit application and the Water Management Plan (WMP) being developed by the Bureau of Land Management (BLM) in conjunction with the operator (BBC) and landowners. Prior to its issuance, we request the NPDES permit accurately reflect the content and spirit of the WMP.
2. We request any alterations to the NPDES permit or WMP be effective upon and reflected in both authorizing documents and require a public comment period prior to approval.
3. The irrigation compliance points (ICP) are outside the Plan of Development (POD) boundaries and in fact are on lands for which BBC does not have access. We request the ICP's be placed at or within the POD boundaries.
4. We request that all storage facilities have appropriate down gradient monitoring of ground water quality with established mitigation plans prior to approval of the NPDES permit.
5. We request that all in- channel containment facilities allow for the bypass of naturally occurring flows.

We appreciate your addressing these concerns and will assist in any way we can.

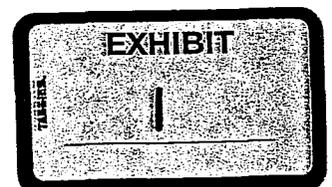
Sincerely,



Bernadette Barlow
1625 Buffalo Cutacross Rd.
Gillette, WY 82718
307 682 9858



Eric Barlow





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Buffalo Field Office
1425 Fort Street
Buffalo, Wyoming 82834-2496

3160 (070)

Beaver Creek POD

WYW35758 WYW66409 WYW71536
WYW127793 WYW134894 WYW143150
WYW143553 WYW145181 WYW145182
WYW145183 WYW145184 WYW145185
WYW145187 WYW145189 WYW145190
WYW145191 WYW146277 WYW147296
WYW147297 WYW149963 WYW150756
WYW040581D WYW041522 WYW041522A

Bill Barrett Corporation
1901 Energy Ct. Suite 170
Gillette, WY 82718

JAN 13 2005

RE: Beaver Creek POD

Gentlemen:

Enclosed with this cover letter are one hundred fifty eight (158) Applications for Permit to Drill (APDs) and the Plan of Development (POD) for the referenced project, which have been approved by the Bureau of Land Management (BLM). This approval is subject to the General Conditions of Approval (COAs), as well as the project-specific Drilling Plan COAs and Surface Use Plan COAs (attached). A copy of the APD, the POD and the COAs must be supplied to your contractors and must be on the site during all authorized operations.

Approval of this project POD and the APDs constitute a final decision by the BLM. In accordance with 43 CFR 3165.3(b), you or any other adversely affected party have the right to request an administrative review before the State Director regarding these decisions, or an informal review of the technical or procedural aspects may be requested of this office before initiating a formal review request. You must request a State Director Review prior to appealing to the Interior Board of Land Appeals (IBLA).

If you, or any other adversely affected party, choose to request a State Director Review, the request must be received in the Wyoming State Office, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after receipt of this letter. The request must include all supporting documentation unless a request is made for an extension for the filing of supporting documentation. For good cause, such extensions may be granted. You will also have the right to appeal the decision issued by the State Director to IBLA.

If you have any questions concerning the drilling or engineering aspects of the COAs or BLM requirements, please contact Steve Klimetz-Petroleum Engineer at (307)684-1198. If you have questions concerning the surface use or environmental aspects of the COAs or BLM requirements, please contact Casey Freise (NRS) at (307) 684-1189.

Sincerely,

for 
Michael Madrid
Acting Field Manager

Attachments- List of Approved Wells
Conditions of Approval
APDs (158)



cc: Land Owners

Gary C. Marquiss
Mngr. - Little Buffalo Ranch, LLC
2535 Clarkelen Road
Wright, WY 82732

Trigg Marquiss
P.O. Box 668
Gillette, WY 82717

Flying T. Land Company LP
Doris Wagensen
602 W 11th St.
Gillette, WY 82716

Nisselilus Ranch Co. & C. D. Rice – Partnership
220 Napier Rd.
Gillette, WY 82718

CONDITIONS OF APPROVAL FOR THE APPLICATION
FOR PERMIT TO DRILL

POD Name: Beaver Creek POD
Lease No'(s): WYW35758 WYW66409 WYW71536 WYW127793 WYW134894 WYW143150
WYW143553 WYW145181 WYW145182 WYW145183 WYW145184 WYW145185
WYW145187 WYW145189 WYW145190 WYW145191 WYW146277 WYW147296
WYW147297 WYW149963 WYW150756 WYW040581D WYW041522 WYW041522A
Location: T47N R74W Sec. 6; T47N R75W Sec 1-6, 9-18, 24
Operator Bill Barrett Corporation

A COPY OF THESE CONDITIONS OF APPROVAL MUST BE FURNISHED TO YOUR FIELD REPRESENTATIVE

Government Contacts

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834

Office Telephone Number: 307-684-1100

After hours numbers:

Minerals Chief: Richard Zander	Home Telephone: 307-684-9359
Petroleum Engineer: Barney Whiteman	Home Telephone: 307-683-3038
Petroleum Engineer: Steve Klimetz	Home Telephone: 307-684-2247

General Conditions of Approval

1. Approval of this APD does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease that would entitle the applicant to conduct operations thereon. In addition, approval of this APD does not imply that the operator has legal access to the drilling location. When crossing private surface 43 CFR 3814 regulations must be complied with and when crossing public surface off-lease the operator must have an approved rights-of-way.
2. This POD is valid for one year from the date of approval or until the oil and gas lease expires/terminates, whichever occurs first. If this well intends to earn a lease extension, diligent operations (actual drilling) must be in progress over the lease expiration date, advance lease rentals must have been paid, and a letter stating drilling operations were in progress must be submitted to this office no later than five days past the expiration date. If the APD terminates, any surface disturbance created under the application must be reclaimed according to an approved plan.
3. All applicable local, state and/or federal laws, regulations, and/or statutes must be complied with.
4. A complete copy of the approved APD must be at the drill site during the construction of the roads and drill pad, the drilling of the well, and the completion of the well.
5. The spud date will be reported orally to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.
6. Verbal notification shall be given to the Authorized Officer at least 24 hours before formation tests, BOP tests, running and cementing casing, and drilling over lease expiration dates.
7. A progress report must be filed a minimum of once a month starting with the month the well was spudded continuing until the well is completed. The report must be filed by the 25th of each month on a Sundry Notice (Form 3160-5). The report will include the spud date, casing information such as size, grade, weight, hole size, and setting depth, amount and type of cement used, top of cement, depth of cementing tools, casing test method,

intervals tested, perforated, acidized, fractured and results obtained and the dates all work done.

In the event abandonment of the hole is desired, an oral request may be granted by this office but must be timely followed within 5 days with a "Notice of Intention to Abandon" (Form 3160-5). The "Subsequent Report of Abandonment" (Form 3160-5) must be submitted within 30 days after the actual plugging of the well bore, reporting where the plugs were placed, and the current status of the surface restoration. If surface restoration has not been completed at that time, a follow-up report on Form 3160-5 should be filed when all surface restoration work has been completed and the location is considered ready for final inspection. Attach to this sundry notice a landowner acceptance of reclamation if the location is on private surface.

Whether the well is completed as a dry hole or as a producer, two copy of all logs run, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations will be filed with Form 3160-4. A gamma ray log shall be run from T.D. to ground surface.

8. The operator is responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects on site. If archaeological, historical, or vertebrate fossil materials are discovered, the operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations are not to resume until written authorization to proceed is issued by the Authorized Officer.

Within five (5) working days, the Authorized Officer will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant cultural or scientific values.

The operator is responsible for the cost of any mitigation required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the operator will be allowed to resume operations.

9. The operator shall be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors or subcontractors. During conditions of extreme fire danger, surface use operations may be limited or suspended in specific areas.
10. All survey monuments found within the area of operations shall be protected. Survey monuments include, but are not limited to: General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U. S. Coast and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any survey monuments, the incident shall be reported in writing to the Authorized Officer.
11. If any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligation determined by the authorized officer.
12. Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever first occurs, without the prior written approval of the authorized officer. If gas is vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

SITE SPECIFIC CONDITIONS OF APPROVAL

- See attached Surface Use Stipulations.
- See attached Drilling Program Stipulations

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 Buffalo Field Office
 Buffalo, Wyoming

SURFACE USE
 CONDITIONS OF APPROVAL

POD Name: Beaver Creek POD

Operator: Bill Barrett Corp.

List of Wells:

<u>Name</u>	<u>Number</u>	<u>Section</u>	<u>TWP/RNG</u>			<u>Lease Number</u>
	<u>Well</u>					
<u>Well Name</u>	<u>Number</u>	<u>Township</u>	<u>Range</u>	<u>Section</u>		<u>Lease</u>
NISSELLIUS RANCH	12-6BG*	47N	74W	6		WYW134894
NISSELLIUS RANCH	12-6W	47N	74W	6		WYW134894
NISSELLIUS RANCH	14-6BG	47N	74W	6		WYW149963
NISSELLIUS RANCH	14-6W	47N	74W	6		WYW149963
NISSELLIUS RANCH	21-6BG	47N	74W	6		WYW127793
NISSELLIUS RANCH	21-6W	47N	74W	6		WYW127793
NISSELLIUS RANCH	23-6BG	47N	74W	6		WYW143553
NISSELLIUS RANCH	23-6W	47N	74W	6		WYW143553
NISSELLIUS RANCH	12-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	12-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	14-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	14-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	21-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	21-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	23-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	23-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	32-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	32-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	34-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	34-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	41-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	41-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	43-1BG	47N	75W	1		WYW145181
NISSELLIUS RANCH	43-1W	47N	75W	1		WYW145181
NISSELLIUS RANCH	12-2BG	47N	75W	2		WYW145182
NISSELLIUS RANCH	12-2W	47N	75W	2		WYW145182
NISSELLIUS RANCH	21-2BG	47N	75W	2		WYW145182
NISSELLIUS RANCH	21-2W	47N	75W	2		WYW145182
FEDERAL	23-2BG	47N	75W	2		WYW146277
FEDERAL	23-2W	47N	75W	2		WYW146277
FEDERAL	32-2BG	47N	75W	2		WYW145182
FEDERAL	32-2W	47N	75W	2		WYW145182

FEDERAL	34-2BG	47N	75W	2	WYW145182
FEDERAL	34-2W	47N	75W	2	WYW145182
FEDERAL	41-2BG	47N	75W	2	WYW145182
FEDERAL	41-2W	47N	75W	2	WYW145182
FEDERAL	43-2BG	47N	75W	2	WYW146277
FEDERAL	43-2W	47N	75W	2	WYW146277
LITTLE BUFFALO	12-3BG	47N	75W	3	WYW145183
LITTLE BUFFALO	12-3W	47N	75W	3	WYW145183
FEDERAL	21-3BG	47N	75W	3	WYW145183
FEDERAL	21-3W	47N	75W	3	WYW145183
LITTLE BUFFALO	23-3BG	47N	75W	3	WYW145183
LITTLE BUFFALO	23-3W	47N	75W	3	WYW145183
LITTLE BUFFALO	32-3BG	47N	75W	3	WYW145183
LITTLE BUFFALO	32-3W	47N	75W	3	WYW145183
NISSELIUS RANCH	41-3BG	47N	75W	3	WYW145183
NISSELIUS RANCH	41-3W	47N	75W	3	WYW145183
LITTLE BUFFALO	43-3BG	47N	75W	3	WYW145183
LITTLE BUFFALO	43-3W	47N	75W	3	WYW145183
LITTLE BUFFALO	12-4BG	47N	75W	4	WYW145184
LITTLE BUFFALO	12-4W	47N	75W	4	WYW145184
LITTLE BUFFALO	21-4BG	47N	75W	4	WYW66409
LITTLE BUFFALO	21-4W	47N	75W	4	WYW66409
LITTLE BUFFALO	32-4BG	47N	75W	4	WYW66409
LITTLE BUFFALO	32-4W	47N	75W	4	WYW66409
LITTLE BUFFALO	41-4BG	47N	75W	4	WYW66409
LITTLE BUFFALO	41-4W	47N	75W	4	WYW66409
MARQUISS	12-5BG	47N	75W	5	WYW147296
MARQUISS	32-5BG	47N	75W	5	WYW147296
MARQUISS	32-5W	47N	75W	5	WYW147296
MARQUISS	41-6BG	47N	75W	6	WYW145185
LITTLE BUFFALO	12-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	12-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	14-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	14-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	21-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	21-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	23-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	23-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	32-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	32-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	34-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	34-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	41-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	41-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	43-9BG	47N	75W	9	WYW35758
LITTLE BUFFALO	43-9W	47N	75W	9	WYW35758
LITTLE BUFFALO	14-10BG	47N	75W	10	WYW041522A
LITTLE BUFFALO	14-10W	47N	75W	10	WYW041522A
LITTLE BUFFALO	23-10BG	47N	75W	10	WYW041522A
LITTLE BUFFALO	23-10W	47N	75W	10	WYW041522A

LITTLE BUFFALO	32-10BG	47N	75W	10	WYW041522A
LITTLE BUFFALO	32-10W	47N	75W	10	WYW041522A
LITTLE BUFFALO	34-10BG	47N	75W	10	WYW041522
LITTLE BUFFALO	34-10W	47N	75W	10	WYW041522
LITTLE BUFFALO	43-10BG	47N	75W	10	WYW041522
LITTLE BUFFALO	43-10W	47N	75W	10	WYW041522
LITTLE BUFFALO	21-11BG	47N	75W	11	WYW145181
LITTLE BUFFALO	21-11W	47N	75W	11	WYW145181
LITTLE BUFFALO	23-11BG	47N	75W	11	WYW147296
LITTLE BUFFALO	23-11W	47N	75W	11	WYW147296
LITTLE BUFFALO	14-11BG	47N	75W	11	WYW040581D
LITTLE BUFFALO	14-11W	47N	75W	11	WYW040581D
FEDERAL	12-12BG	47N	75W	12	WYW147296
FEDERAL	12-12W	47N	75W	12	WYW147296
FEDERAL	14-12BG	47N	75W	12	WYW145189
FEDERAL	14-12W	47N	75W	12	WYW145189
NISSELIUS RANCH	21-12BG	47N	75W	12	WYW143150
NISSELIUS RANCH	21-12W	47N	75W	12	WYW143150
NISSELIUS RANCH	23-12BG	47N	75W	12	WYW145187
NISSELIUS RANCH	23-12W	47N	75W	12	WYW145187
NISSELIUS RANCH	32-12BG	47N	75W	12	WYW143150
NISSELIUS RANCH	32-12W	47N	75W	12	WYW143150
LITTLE BUFFALO	34-12BG	47N	75W	12	WYW145187
LITTLE BUFFALO	34-12W	47N	75W	12	WYW145187
NISSELIUS RANCH	41-12BG	47N	75W	12	WYW143150
NISSELIUS RANCH	41-12W	47N	75W	12	WYW143150
NISSELIUS RANCH	43-12BG	47N	75W	12	WYW145187
NISSELIUS RANCH	43-12W	47N	75W	12	WYW145187
LITTLE BUFFALO	12-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	12-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	14-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	14-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	21-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	21-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	23-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	23-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	32-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	32-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	34-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	34-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	41-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	41-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	43-13BG	47N	75W	13	WYW145187
LITTLE BUFFALO	43-13W	47N	75W	13	WYW145187
LITTLE BUFFALO	14-14BG	47N	75W	14	WYW145187
LITTLE BUFFALO	14-14W	47N	75W	14	WYW145187
LITTLE BUFFALO	21-14BG	47N	75W	14	WYW150756
LITTLE BUFFALO	21-14W	47N	75W	14	WYW150756
LITTLE BUFFALO	23-14BG	47N	75W	14	WYW145187
LITTLE BUFFALO	23-14W	47N	75W	14	WYW145187

LITTLE BUFFALO	32-14BG	47N	75W	14	WYW145187
LITTLE BUFFALO	32-14W	47N	75W	14	WYW145187
LITTLE BUFFALO	34-14BG	47N	75W	14	WYW145190
LITTLE BUFFALO	34-14W	47N	75W	14	WYW145190
LITTLE BUFFALO	41-14BG	47N	75W	14	WYW145187
LITTLE BUFFALO	41-14W	47N	75W	14	WYW145187
LITTLE BUFFALO	12-15BG	47N	75W	15	WYW041522A
LITTLE BUFFALO	12-15W	47N	75W	15	WYW041522A
LITTLE BUFFALO	14-15BG	47N	75W	15	WYW147297
LITTLE BUFFALO	14-15BW	47N	75W	15	WYW147297
LITTLE BUFFALO	21-15BG	47N	75W	15	WYW041522
LITTLE BUFFALO	21-15W	47N	75W	15	WYW041522
LITTLE BUFFALO	23-15BG	47N	75W	15	WYW041522A
LITTLE BUFFALO	23-15W	47N	75W	15	WYW041522A
LITTLE BUFFALO	41-15BG	47N	75W	15	WYW041522A
LITTLE BUFFALO	41-15W	47N	75W	15	WYW041522A
FLYING T	12-17BG	47N	75W	17	WYW145191
FLYING T	14-17BG	47N	75W	17	WYW145191
FLYING T	21-17BG	47N	75W	17	WYW145191
FLYING T	23-17BG	47N	75W	17	WYW145191
FLYING T	12-18BG	47N	75W	18	WYW71536
FLYING T	21-18BG	47N	75W	18	WYW145191
LITTLE BUFFALO	32-24BG	47N	75W	24	WYW145187
LITTLE BUFFALO	32-24W	47N	75W	24	WYW145187
LITTLE BUFFALO	34-24BG	47N	75W	24	WYW145187
LITTLE BUFFALO	34-24W	47N	75W	24	WYW145187

I Applicable PRB FEIS ROD Programmatic Mitigation Measures

1. In order to address the potential impacts from infiltration on shallow ground water, the Wyoming DEQ has developed a guidance document, "Compliance Monitoring for Ground Water Protection Beneath Unlined Coalbed Methane Produced Water Impoundments" (June 14, 2004) which can be accessed on their website. This guidance document became effective August 1, 2004. For NPDES permits received by DEQ after the August 1st effective date, the BLM will require that operators comply with the latest DEQ standards and monitoring guidance.
2. The operator may be required to provide reclamation bonds in the amount specified by a qualified Professional Engineer for the impoundments to be used for the management of CBNG water.
3. The operator will supply a copy of the complete approved SW-4, SW-3, or SW-CBNG permits to BLM as they are issued by WSEO for these impoundments.
4. The Companies, on a case by case basis depending upon water and soil characteristics, will test sediments deposited in impoundments before reclaiming the impoundments. Tests will include the standard suite of cations, ions, and nutrients that will be monitored in surface water testing and any trace metals found in the CBM discharges at concentrations exceeding detectable limits.

5. To reduce adverse effects on existing wetlands and riparian areas, water discharge should not be allowed if increased discharge volumes or subsequent recharge of shallow aquifers will inundate and kill woody species, such as willows or cottonwoods.
6. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM authorized officer. To reduce adverse effects on existing wetlands and riparian areas, water discharge should not be allowed if increased discharge volumes or subsequent recharge of shallow aquifers will inundate and kill woody species, such as willows or cottonwoods.
7. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
8. The Companies will locate aboveground power lines, where practical, at least 0.5 mile from any sage grouse breeding or nesting grounds to prevent raptor predation and sage grouse collision with the conductors. Power poles within 0.5 mile of any sage grouse breeding ground will be raptor-proofed to prevent raptors from perching on the poles. This applies to the proposed overhead powerlines T47N:R75W:S16.
9. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-4 entitled Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations.

II Site Specific Conditions of Approval

1. The following 2 track access roads may need some surface graveling to fill in excessive ruts; the existing 2 track that runs north/south in Sec. 1 T47N R75W, the existing 2 track to the Little Buffalo Fed 14-11 and 12-13, and the proposed 2 track corridors to the Little Buffalo Feds 41-4 & 14-15.
2. Due to sandy soils, the following wells and associated infrastructure will require mulching, straw crimping, or erosion blankets, etc. to help achieve successful reclamation: the Nisselius Ranch Fed 12-2 & 21-12 locations and access/pipeline corridor, the pipeline connecting the Nisselius Ranch Fed 12-2 and 41-3, all locations and infrastructure in Sec.3 T47N R75W, Little Buffalo Feds 32-4, 34-12, & 14-13 locations and associated infrastructure.
3. The pipeline leaving the Fed 23-2 location to the SW will require erosion blankets and water bars up the steep slope to top of ridge.
4. To minimized impacts to sagebrush habitat the following locations and infrastructure must have minimal brush hogging and surface disturbance. Pipeline and access corridors

can only be brush hogged and disturbed to a width of 30' and locations can only be brush hogged to the minimum amount necessary. Any brush hogging or disturbance outside the specified amount will be subject to an Incidence of Noncompliance (INC): Fed 43-2 & 14-12 locations, pipeline corridor along existing 2 track in Sec. 3 T47N R75W, Little Buffalo Fed 12-9, 23-10, 23-13, 41-13, 43-13, 23-14, & 32-14, locations and associated infrastructure, Nisselius Ranch Fed 32-12 & 41-12 locations and associated infrastructure, and Flying T Fed 12-17 location and associated infrastructure.

5. The drilling pits for the Little Buffalo Feds 12-9 and 34-12 must be lined.
6. There has been a past saltwater spill adjacent the Little Buffalo Fed 14-11 location, during the time of reclamation, the entire spill area must be cultivated, mixed with straw, and reseeded with the approved seed mix.
7. The engineered access to the Nisselius Ranch 43-12 and Flying T Fed 14-17 must be slope staked and reviewed by the BLM authorizing officer and engineer during the pre-construction on-site.
8. Access to the Little Buffalo Fed 21-13 will need an 18" culvert off Schoonover Road.
9. Access to the Flying T Fed 23-17 must have a low water crossing (LWC) constructed in the drainage crossing. The LWC must follow design criteria provided by the BLM Goldbook.
10. The culvert locations will be staked prior to construction. The culvert invert grade and finished road grade will be clearly indicated on the stakes. Culverts will be installed on natural ground, or on a designed flow line of a ditch. The minimum cover over culverts will be 12" or one-half the diameter whichever is greater. Drainage laterals in the form of culverts or waterbars shall be placed according to the following spacing:

<u>Grade</u>	<u>Drainage Spacing</u>
2-4%	310 ft
5-8%	260 ft
9-12%	200 ft

11. The operator is responsible for having the licensed professional engineer(s) certify that the actual construction of the roads meets the design criteria and is constructed to Bureau standards as stated in the Coal Bed Natural Gas Guidebook APD to Drill and P.O.D. Preparation Guide.
12. Provide 4" of aggregate where grades exceed 8%.
13. All required right-of-ways must be approved by the BLM Realty Specialist prior to any disturbance or access across BLM surface.
14. The access located on the embankment of Reservoir 10-2 (SENW Sec. 10 T47N R76W) must be rocked and have a 12' running surface.
15. The large headcut located in the existing reservoir 17-1 spillway must be remediated as per SEO application design.

16. The headcut (HC 14-2) will be modified as per Figure 4. found in the *Headward Erosion* section of the Beaver Creek POD Water Management Plan.
17. The following headcuts must be monitored by installing a stake, outside the channel, in line with the active headcut; HC 11-3, HC 11-2, HC 14-3, HC 14-2, HC 1-13, HC 1-9, HC 5-2, HC 5-3, and HC 5-1. The stake will be the fixed point. If headcut migration is evident, the BLM authorizing officer must be notified. Remediation may be required of the migrating headcut.
18. All headcuts and reservoirs must be monitored as discussed under the *Monitoring and Mitigation* section in the Beaver Creek Water Management Plan.
19. All CBNG discharge water must stay on Nisselius Ranch surface. Bill Barrett Corp. is required to monitor downstream surface flows. Any water leaving Nisselius Ranch will result in shut-in of water production until other alternatives can be identified or adequate storage is regained.
20. The operator will be required, with the cooperation of BLM, to establish a downstream groundwater monitoring program. This will include, but is not limited to; obtaining an access agreement, performing appropriate resource inventories, supplying materials and funding water analysis. BLM will help select and manage the site.
21. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for the Beaver Creek POD is Carlsbad Canyon, 2.5Y 6/2.
22. The operator will drill seed on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, use the following on all locations and infrastructure except for the sandy sites which is identified below:

Species - Cultivar	Full Seeding (lbs/ac PLS*)	% in Mix	Lbs PLS*
Western Wheatgrass - <i>Rosana</i>	12	25	3
Sideoats grama	12	25	3
Green needlegrass - <i>Lodorm</i>	12	25	3
Purple Prairie Clover - <i>Bismarck</i>	12	10	1.2
Prairie coneflower	12	10	1.2
Fourwing Saltbush - <i>Open Range</i>	12	5	.6
Totals		100%	12 lbs/acre

*PLS = pure live seed (this seeding rate has not been doubled).

This is a recommended seed mix based on the native plant species listed in the NRCS Ecological Site descriptions, U.W. College of Ag. and seed market availability.

- Slopes too steep for machinery may be hand broadcast and raked with twice the specified amount of seed. Complete fall seeding after September 15 and prior to prolonged ground frost. To be effective, complete spring seeding after the frost has left the ground and prior to May 15.

Sandy Seed Mix

Use the following seed mix for the following locations and infrastructure: Nisselius Ranch Fed 12-2 & 21-12 locations and access/pipeline corridor, the pipeline connecting the Nisselius Ranch Fed 12-2 and 41-3, all locations and infrastructure in Sec.3 T47N R75W, Little Buffalo Feds 32-4, 34-12, & 14-13 locations and associated infrastructure.

Species - <i>Cultivar</i>	Full Seeding (lbs/ac PLS*)	% in Mix	Lbs PLS*
Western Wheatgrass - <i>Rosana</i>	12	20	2.4
Sideoats grama	12	20	2.4
Prairie Sandreed - Goshon	12	20	2.4
NeedleandThread Grass	12	20	2.4
Purple Prairie Clover - <i>Bismarck</i>	12	10	1.2
Prairie coneflower	12	5	.6
Fourwing Saltbush - <i>Open Range</i>	12	5	.6
Totals		100%	12 lbs/acre

23. Please contact Casey Freise Natural Resource Specialist, @ (307) 684-1189 Bureau of Land Management, Buffalo, if there are any questions concerning these surface use COAs.

24. No surface disturbing activity shall occur within ½ mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This includes the following wells and their associated infrastructure located in T47N:R75W; well #'s Little Buffalo Feds 21-13, 23-13, 32-13, 34-13, 41-13, 43-13, 32-24, 34-24, Flying T Feds 12-17, 21-17, 23-17, Marquis Federal 41-6, Nisselius Ranch Feds 21-1, 23-1, 32-1, 41-1, 43-1, 12-6, 21-6 and the pipeline corridor for the Little Buffalo Fed 14-9 well (the well head is excluded),

- Nest occupancy and production checks shall be completed for the first five years following construction for the following nests;

Species	UTM E	UTM N	Legals
FEHA	434895	4881265	T47N:R75W:S1
FEHA	434862	4881534	T47N:R75W:S1
FEHA	435011	4881534	T47N:R75W:S1
FEHA	426735	4881817	T48N:R75W:S31
FEHA	434182	4880697	T47N:R75W:S1
FEHA	434515	4877810	T47N:R75W:S13
RTHA	436586	4881220	T47N:R74W:S6
RTHA	429248	4878025	T47N:R75W:S16
GOEA	427568	4878109	T47N:R75W:S17
UNK	426852	4878147	T47N:R75W:S18

- The occupancy check shall be conducted in May and the production check shall be conducted in late June. Survey results will be submitted to a Buffalo BLM biologist in writing no later than July 31, of each survey year.

25. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
26. Upgrading of the single phase overhead power line to a three phase line located in T47N:R75W:S1, will occur outside the breeding/nesting season (February 1st through July 31st).
27. No surface disturbing activities are permitted within 2 miles of the Cottonwood lek and the new lek between March 1 and June 15, prior to completion of a greater sage grouse lek survey. This affects the following wells and their associated infrastructure located in T47N:R75W; All surface disturbing activities in Sections 8, 9, 10, 15, 16, 17, and 18. All surface disturbing activities in Section 11, **EXCEPT** the Little Buffalo Fed 21-11 well. All surface disturbing activities in Section 4, **EXCEPT** the Little Buffalo Feds 21-4, 12-4, 32-4, and the 41-4 well. **This condition will be implemented on an annual basis for the duration of surface disturbing activities.** Surveys for new leks will be conducted throughout the entire project area, with emphasis in close proximity of the following well heads; Little Buffalo Fed 41-9, 32-14, 12-13, and the Nisselius Ranch Fed 21-12.
 - a. If the Cottonwood Lek (T47N:R75W:S16) and the new lek identified by Big Horn (T47N:R75W:S18) are active, a 2 mile timing restriction (March 1- June 15) will be applied and surface disturbing activities will not be permitted until after the nesting season. If surveys indicate that the identified leks are inactive during the current breeding season, surface disturbing activities may be permitted within the 2 mile buffer until the following breeding season (March 1). **The above will also be applied to any new lek sites identified within the project area.** The required sage grouse survey will be conducted by a biologist following WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities.
28. The Little Buffalo Fed 41-9, 32-14, 12-13, and the Nisselius Ranch 21-12 wells and their associated infrastructure will not be constructed until survey results for lek sites are completed and reviewed by the BLM. If a sage grouse lek is identified within 0.25 miles of these wells, the wells and their infrastructure will be relocated or removed from the project.
29. Well metering, maintenance and other site visits within 0.5 miles of documented sage grouse lek sites shall be minimized as much as possible during the breeding season (March 1- June 15), and restricted to between 0900 and 1500 hours.
30. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
31. The Companies will locate aboveground power lines, where practical, at least 0.5 mile from any sage grouse breeding or nesting grounds to prevent raptor predation and sage grouse collision with the conductors. Power poles within 0.5 mile of any sage grouse breeding ground will be raptor-proofed to prevent raptors from perching on the poles.
32. Archeological Monitoring Stipulation: All earth moving activity related to construction on alluvial terraces will be monitored by an archeologist who meets or exceeds the

qualification standards recommended by the Secretary of the Interior. These locations include:

- 1: Alluvial deposits along Beaver Creek in T47N R75W Section 15. The length of the pipeline between the 41-15 well and the 21-15 well must be monitored.
- 2: The construction of water outfall 016 in T47N R75W Section 24 must be monitored. All earth moving activity related to construction of the water outfall and the pipeline to approximately 50 feet west of the outfall on the alluvial terrace of Charlie Draw must be monitored.

II Standard Conditions of Approval

A. General

1. If any cultural values [sites, artifacts, human remains (Appendix L FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
2. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.
3. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside two-track roadway, etc.).
4. The first well drilled to each targeted coal zone will be designated as the POD reference well. Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples will be collected by the operator and submitted for analysis using WDEQ NPDES criteria within 30-60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM Authorized Officer as they become available.

5. The Companies will provide georeferenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, reservoirs, discharge points, and other related facilities to the BLM upon completion of POD construction and development.
6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the U.S. Fish and Wildlife Service's Wyoming Field Office (307-772-2374), their law enforcement office (307-261-6365), and the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours. If any dead or injured sensitive species is located during construction or operation, the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
7. Wildlife species are dynamic and new individuals may have moved into the Beaver Creek POD area after the initial wildlife surveys were completed. The Record of Decision for the PRB FEIS includes a programmatic mitigation measure that states, "The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time". The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by January 15, and surface disturbance is planned for that year, a Bill Barrett representative will coordinate with the BLM to discuss required surveys.

B. Construction

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer Casey Freise @ 307-684-1189 at least 4-days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.
2. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
3. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
4. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
5. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
6. Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.

7. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
8. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).
9. To minimize electrocution potential to raptors, all overhead electrical power lines will be constructed to Avian Power Line Interaction Committee (1996) standards and additional standards identified in the PRB FEIS Biological Opinion (Volume 3, Appendix K, page 43).
10. The operator shall utilize wheel trenchers or ditchers to construct all pipeline trenches, except where extreme topography or other environmental factors preclude their use.
11. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
 - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
 - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
12. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
13. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than 10⁻⁷ cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
14. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
15. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
16. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.

17. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
18. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.
19. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
20. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
21. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
22. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.
23. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.
24. Weed educational material will be reviewed with operators during pre-construction on-site meetings with operators, subcontractors, and landowners and will also be attached to approved APDs and PODs.
25. Companies will contact the counties to pursue development of maintenance agreements to ensure county roads are adequately maintained for the projected increase in use.

C. Operations/Maintenance

1. The operator shall complete coal bed natural gas wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM Authorized Officer.
2. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.
3. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
4. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site

immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

5. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
6. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
7. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
8. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of these wells will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
9. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
10. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
 - drilling muds & cuttings
 - rigwash
 - excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

- spent hydraulic fluids
- used engine oil
- used oil filter
- empty cement, drilling mud, or other product sacks
- empty paint, pipe dope, chemical or other product containers
- excess chemicals or chemical rinsate

Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

11. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must

be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.

12. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.
13. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping fire fighting equipment readily available when drilling, etc.

D. Dry Hole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
2. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
3. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to re-contour the site.
4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
6. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
 - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
 - Configuration of reshaped topography, drainage systems, and other surface manipulations

- Waste disposal
 - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
 - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
 - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
 - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
 - Decommissioning/removal of all surface facilities
 - Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc
7. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
 8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
 9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
 10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
 11. Any mulch utilized for reclamation needs to be certified weed free.
 12. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
≤ 2	200
2 – 4	100
4 – 5	75
≥ 5	50

E. Producing Well

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring and reseeding of any subsidence areas that develop from closing a pit before it is completely dry.
2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
4. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
5. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
6. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage ditches, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
7. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
8. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access. This requirement does not supercede or apply where specific road requirements are addressed in the APD/POD surface use plan (e.g., two track road, spot upgrade, etc.)
9. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in D #12.

McElvery Aff.

**BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

IN THE MATTER OF THE APPEAL)
OF POWDER RIVER BASIN)
RESOURCE COUNCIL,)
BERNADETTE BARLOW,)
BERNADETTE BARLOW TRUST,)
WILLIAM L. BARLOW TRUST)
AND ERIC BARLOW FROM)
WYPDES PERMIT NO. WY0052299)

Docket No. 09-3802

**AFFIDAVIT OF PAUL MCELVERY IN SUPPORT OF BILL BARRETT
CORPORATION'S BRIEF IN OPPOSITION TO PETITIONERS' MOTION FOR
SUMMARY JUDGMENT**

I, Paul McElvery, do hereby state and affirm as follows:

1. I am over 18 years of age, have personal knowledge of the facts set forth in this affidavit, and am competent to testify regarding the matters contained herein.
2. I reside in Gillette, Wyoming.
3. I received a Bachelor's Degree in Watershed Science from Colorado State University in 1998.
4. I have worked with Bill Barrett Corporation (BBC) since 2003. I am currently the Water Resources Engineer for BBC in the Powder River Basin (PRB), and as Water Resources Engineer, I am responsible for managing and monitoring all water produced and discharged by BBC in the PRB. In my capacity, I consult directly with all PRB landowners who own the surface on which BBC operates to promote open communication and to ensure BBC's water management efforts comply with landowner wishes. I was directly responsible for planning, designing, and permitting all discharges associated with Permit No. WY0052299.

5. BBC operates approximately 900 coal bed methane wells in the Powder River Basin of Wyoming, discharges from which are permitted by the Wyoming Department of Environmental Quality (WDEQ).

6. The permit at issue in this case is WYPDES Permit No. WY0052299 (Permit). The Permit was originally issued to BBC on June 8, 2005. The effective date of the Major Modification which is being appealed is November 25, 2008. Therefore, the Permit was in effect for three and one-half (3½) years before the Petitioners filed their appeal.

7. As originally issued to BBC on June 8, 2005, the Permit had an EC limit of 7,500 micromhos/cm and no containment requirements. The Permit was not appealed by any party at the time of issuance.

8. The Permit requires groundwater monitoring. (Permit, p.12-13 attached hereto). This is in addition to the groundwater monitoring that was mutually agreed on by the Barlows and BBC six (6) months prior to WDEQ permit issuance and approximately four (4) years prior to the Petitioners' request to revoke the Permit.

9. The Permit required, and still requires, daily monitoring on Dead Horse Creek to determine whether effluent reaches the established irrigation monitoring point (IMP). The IMP is located on the fence line between Barlow lands and Nisselius Ranch exactly where two (2) of BLM's alluvial monitor wells are located. If there is flow at the IMP, a sample is taken and analyzed for EC and SAR. BBC has several years of IMP monitoring data.

10. As part of the permitting process, BBC works with landowners. BBC conducts effective management and monitoring of produced water to fulfill its goals

and keep multiple landowners happy by both providing water for beneficial use for those who want it and refraining from allowing produced water to reach the lands of those who don't. In this case, BBC has been in frequent communication with the Barlows, and an agreement between the parties resulted. It was this voluntary agreement that BBC made with the Petitioners that precluded produced water from running onto Barlow lands, and is something BBC has honored to this day. BBC has taken additional steps independent of WDEQ requirements and in conjunction with the Petitioners to ensure a successful Water Management Plan (WMP) in the Dead Horse Creek drainage.

11. In December 2004, pre-dating both Permit issuance by the WDEQ and Petitioners' request for Permit issuance reversal, I met with the Bureau of Land Management (BLM) (Casey Friese, Buffalo Field Office), Bernadette Barlow and Eric Barlow (Barlows), at the Barlow residence outside Gillette, Wyoming.

12. This meeting was prompted by a letter from the Barlows on November 15, 2004, to the WDEQ (Ex. 1 to BBC's opposition) protesting issuance of a discharge permit related to BBC's Beaver Creek Plan of Development (Beaver Creek POD) and from verbal communication between the Barlows and the BLM. BBC was not a direct participant in the verbal communication between the Barlows and the BLM.

13. Based on the BLM's assessment that approval of the Beaver Creek POD would be disputed by the Barlows due to their concerns about Beaver Creek POD's WMP, BBC proactively entered into discussion with the Barlows to hear their concerns and to receive their input about how to craft a more agreeable WMP. BBC, with

Barlows' cooperation, improved the Beaver Creek WMP by putting additional management and monitoring safeguards in place at the inception of this project.

14. BBC understood the Barlows' main concern to be that they did not want produced water from BBC operations on their property. An additional concern was possible discharge to Double Tanks Draw and the risk they felt was associated by this discharge to their spring-fed pond in this drainage. Based on Barlows' concerns, BBC agreed to eliminate all discharges that were planned for Double Tanks Draw. To formally cement BBC accountability by adding an enforcement component to POD approval, the BLM included BBC's promised actions as a Condition of Approval for BBC's Beaver Creek POD. (Ex. 2, p.7, #19 to BBC's opposition).

15. Another concern presented by the Barlows during this December 2004 meeting dealt with sub-surface migration of water from the other reservoirs that remained in BBC's WMP. Through consensus, it was decided at this meeting that BBC would be responsible for establishing a downstream groundwater monitoring program to observe any effect of water seepage from the reservoirs and any subsequent migration toward the Barlow lands. This was also put in the BLM Conditions of Approval. (Ex. 2, p.7, #20 to BBC's opposition). This monitoring program has been conducted in cooperation with the BLM.

16. The agreements reached at the December 2004 meeting represented BBC's desire to operate responsibly and in concert with landowner wishes. The concerns presented by the Barlows, the POD Conditions of Approval, and issuance of the discharge Permit were all prior to WDEQ's inclusion of Tier 2 methodology, which

illustrates responsible and successful water management and monitoring that works independently of Tier 2 science.

17. BBC spent in excess of \$40,000,000 to develop the Beaver Creek POD after issuance of the Permit. Over the five years during which this Permit has been active, EC limits imposed on BBC's activities in the Beaver Creek POD have actually become more stringent when compared to those at original Permit issuance.

18. BBC has operated as promised and has not allowed CBNG produced water to flow onto Barlow lands during dry operating conditions. During runoff events, whenever there has been surface flow in Dead Horse Creek at the IMP at the Barlows' fence, BBC has collected a sample as required by the Permit and the data shows no ill effect from CBNG discharge.

19. BBC, in cooperation with the BLM, has also continued to monitor groundwater per Barlows' request, and data shows no adverse effect of sub-surface migration from BBC reservoirs located upstream.

DATED this 21 day of April, 2010.

Paul McElvery
Paul McElvery
Water Resources Engineer
Bill Barrett Corporation

STATE OF WYOMING)
)
COUNTY OF CAMPBELL) ss.

The foregoing Affidavit was signed and sworn to before me this 21 day of April, 2010, by Paul McElvery.

Witness my hand and official seal.

Rachel L. Garcia
NOTARY PUBLIC

My Commission Expires:



Wyoming Department of Environmental Quality
Water Quality Division
WYPDES Program

STATEMENT OF BASIS

MAJOR MODIFICATION

APPLICANT NAME: Bill Barrett Corporation

MAILING ADDRESS: 1901 Energy Ct., Suite 170
Gillette, WY 82718

FACILITY LOCATION: BBC Dead Horse Creek Option 2, which is located in the NENW of Section 2, the SWNW of Section 1, and the NENW of Section 12, all in Township 47 North, Range 75 West; and in the SWNW, and SWSW of Section 6 Township 47 North, Range 74 West in Campbell County. The produced water will be discharged into seven on-channel reservoirs (class 3B) located in ephemeral tributaries (class 3B) to Dead Horse Creek (class 3B), which is tributary to the Powder River (class 2ABWW). The wells at this facility will discharge effluent originating from the Big George and Wyodak coal seams.

NUMBER: WY0052299

The following Statement of Basis only includes information that has changed with this modification. For a complete Statement of Basis, please see previously issued modifications or renewals for this permit.

The terms of permit WY0052299 are hereby modified as follows:

- 1. Update irrigation protection limits and monitoring requirements to WDEQ drainage standards.*
- 2. Remove ICPI.*
- 3. Correct outfall 005 to its as-built location.*

With the exception of items explicitly delineated in this major modification, all terms and conditions of Permit No. WY0052299, including Parts II and III of the renewed permit, shall remain unchanged and in full force and effect.

For the on-channel discharges at this facility (outfalls 003,005,008,011, and 013), the permittee will be required to contain all produced water within a series of on-channel reservoirs during "dry" operating conditions. The permittee is authorized to release discharge from upstream on-channel reservoirs only. Water released from the upstream reservoirs will be allowed to cascade down to the lowermost on-channel reservoirs, identified as follows: "Dead Horse" and "35-1". This permit prohibits discharge of effluent from the lowermost reservoirs except during periods of time in which natural precipitation causes the lowermost reservoirs to overtop and spill. Intentional discharges from the lowermost reservoirs will be considered a violation of this permit. Discharge from the lowermost reservoirs is limited by the permit

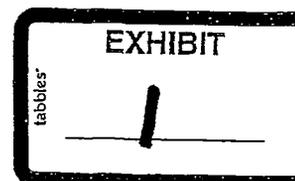


Table 1: WY0052299 - BBC Dead Horse Creek Option 2

Out-fall	Qtr/Qtr	SEC-TION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater Approval Required Prior to Discharge?	Reservoir Bond to WDEQ Required prior to Discharge?
003	NENW	2	47	75	44.08283	-105.84455	Discharges to on-channel "2-1 Reservoir" and "35-1 Reservoir" in "UET to Dead Horse Creek	Yes	No
005	SWNW	1	47	75	44.08071	-105.82803	Discharges to on-channel "P1-2 Reservoir" and "Dead Horse Reservoir" in "UET to Dead Horse Creek	Yes	Yes:Dead Horse
008	NENW	12	47	75	44.07087	-105.82272	Discharges to on-channel "P1-2 Reservoir" and "Dead Horse Reservoir" in "UET to Dead Horse Creek	Yes	Yes:Dead Horse
011	SWNW	6	47	74	44.08114	-105.80740	Discharges to on-channel "6-1 Reservoir" and "Dead Horse Reservoir" in "UET to Dead Horse Creek	Yes	Yes:Dead Horse
013	SWSW	6	47	74	44.07291	-105.80924	Discharges to on-channel "P1-1 Reservoir", "1-1 Reservoir" and "Dead Horse" in "UET to Dead Horse Creek	Yes	Yes:Dead Horse
IMP1	SENE	27	48	75	44.11072	-105.85243	Irrigation Monitoring Point on Dead Horse Creek (Serves outfalls 003, 005, 008, 011 & 013)	NA	NA
TRIB1	NESE	16	49	77	44.21737	-106.11887	Tributary monitoring station on Dead Horse Creek	NA	NA
UPR	SWSW	17	49	77	44.21598	-106.15503	Upstream Powder River monitoring station (above Dead Horse Creek)	NA	NA
DPR	SWSE	32	50	77	44.25689	-106.14790	Downstream Powder River monitoring station (below Dead Horse Creek)	NA	NA

* UET=Unnamed ephemeral tributary

The outfalls listed in the above table may be moved from the established location without submittal of a permit modification application provided all of the following conditions are satisfied:

1. The new outfall location is within 2640 feet of the established outfall location.
2. The new outfall location is within the same drainage or immediate permitted receiving waterbody.
3. There is no change in the affected landowners.
4. Notification of the change in outfall location must be provided to the WYPDES Permits Section on a form provided by the WQD Administrator within 10 days of the outfall location change. The form must be provided in duplicate and legible maps showing the previous and new outfall location must be attached to the form.

Moving an outfall location without satisfying the four above listed conditions will be considered a violation of this permit and subject to full enforcement authority of the WQD.

Outfall relocation as described above will not be allowed if the new outfall location is less than one mile from the confluence of a Class 2 waterbody and the dissolved iron limits established in the permit for the outfall are based upon Class 3 standards.

Requests for modification of the above list will be processed as follows. If the requested modification satisfies the definition of a minor permit modification as defined in 40 CFR 122.63 modifications will not be required to be advertised in a public notice. A minor modification constitutes a correction of a typographical error, increase in monitoring and/or reporting, revision to an interim compliance schedule date, change in ownership, revision of a construction schedule for a new source discharger, deletion of permitted outfalls, and/or the incorporation of an approved local pretreatment program.

A request for a minor modification must be initiated by the permittee by completing the form titled Wyoming Pollutant Discharge Elimination System Permit Modification Application for Coal Bed Methane. Incomplete application forms will be returned to the applicant.

C. RESERVOIR / IMPOUNDMENT REQUIREMENTS

1. Groundwater Monitoring Beneath Impoundments:

Table 1 of the permit above identifies which outfalls (if any) are designed to discharge into impoundments that are subject to groundwater monitoring requirements established in the latest version of the Water Quality Division guideline "*Compliance Monitoring for Groundwater Protection Beneath Unlined Coalbed Methane Produced Water Impoundments.*" These specified outfalls are not authorized to discharge until a written groundwater compliance approval has been granted by the Groundwater Pollution Control Program of the Water Quality Division. A groundwater compliance approval will consist of either a final approved groundwater compliance monitoring plan, or written authorization for an exemption thereof. Once an impoundment has been granted a written groundwater compliance approval, the contributing outfall(s) to that reservoir may commence discharge.

2. Reclamation Performance Bonds for On-Channel Reservoirs:

Table 1 of the permit above also identifies which outfalls (if any) are designed to discharge into impoundments that are subject to WDEQ bonding requirements, as set forth in the latest version of the Water Quality Division guideline "*Implementation Guidance for Reclamation and Bonding of On-Channel Reservoirs That Store Coalbed Natural Gas Produced Water.*" These specified outfalls are not authorized to discharge until the associated reservoir reclamation bond is approved by WDEQ. Once the reservoir reclamation bond is approved by WDEQ, the contributing outfall(s) to that reservoir may commence discharge.

Any discharge into an above-listed impoundment which has not been secured by the required WDEQ-approved bond, or which has not been granted the required groundwater compliance approval, will constitute a violation of this permit, and may result in enforcement action from the Water Quality Division.

Bell Aff.

**BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

IN THE MATTER OF THE APPEAL)
OF POWDER RIVER BASIN)
RESOURCE COUNCIL,)
BERNADETTE BARLOW,)
BERNADETTE BARLOW TRUST,)
WILLIAM L. BARLOW TRUST)
AND ERIC BARLOW FROM)
WYPDES PERMIT NO. WY0052299)

Docket No. 09-3802

AFFIDAVIT OF GIB BELL

I, Gib Bell, being first duly sworn upon my oath, state as follows:

1. My name is Gib Bell. I am over the age of 21 and am competent to testify to the matters I state in this Affidavit. I give this Affidavit based on personal knowledge. I reserve the right to supplement my testimony in future proceedings.

2. I own a company called Riata Ranch LLC (Riata). Riata conducts ranching operations in a joint venture with the Nisselius Ranch Co. (joint venture) on the Nisselius Ranch located in Campbell County approximately 23 miles southwest of Gillette, Wyoming. I am responsible for day to day operations on this ranch. I reside on this ranch and I have 25 years experience in ranching.

3 Bill Barrett Corporation (BBC) discharges coal bed natural gas (CBNG) water on this ranch under Permit No. WY0052299 (BBC Dead Horse Creek) and has done so for the past three and a half years.

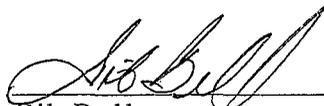
4. I have not found CBNG water discharged under WY0052299 to cause a measurable decrease in crop or livestock production on the ranch.

5. I have actually noted a measurable increase in crop and livestock production from the CBNG water discharged under WY0052299.

6. The Nisselius Ranch Co. owns and the joint venture operates a twenty (20) acre subsurface drip irrigation system (SDI) during the April-September irrigation season and an extensive year-round stock watering system with approximately 32,000' of buried pipeline. Both these systems were installed after BBC started discharging water under WY0052299. The stock watering system is used for an intense grazing management system. The joint venture has invested a considerable amount of time and money into these systems. The joint venture depends on the water produced under WY0052299 for these systems.

FURTHER AFFIANT SAYETH NOT.

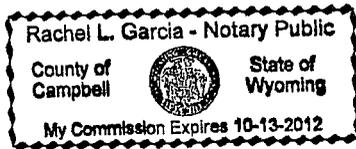
DATED this 15 day of April, 2010.

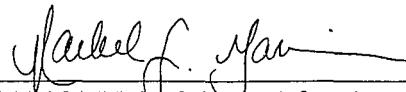

Gib Bell
Riata Ranch LLC

STATE OF WYOMING)
)
COUNTY OF Campbell) ss.

The foregoing Affidavit was signed and sworn to before me this 15 day of April, 2010^{16 RA}, by Gib Bell.

Witness my hand and official seal.




NOTARY PUBLIC in and for the State of Wyoming.

My appointment expires: 10-13-2012.