

Wyoming Department of Environmental Quality
Water Quality Division
NPDES Program

STATEMENT OF BASIS
NEW

APPLICANT NAME: Pennaco Energy, Inc.

MAILING ADDRESS: 3601 Southern Drive
Gillette, WY 82718

FACILITY LOCATION: Rucki 15 Non-Discharging POD, which is located in the NWNW and SWSW, Section 4, the NWNE, SENE, NESE, and SESE, Section 5, the SWNW, Section 9, the SENW, Section 26, the SWNW and SWSE, Section 27, and the NENE, Section 28, Township 57 North, Range 82 West, the SESE, Section 31, and the NWSW and SESW, Section 32, Township 58 North, Township 82 West, Sheridan County. The produced water will be discharged into various named, on-channel reservoirs (3B) located in unnamed ephemeral tributaries (3B) of Little Badger (3B) and the West Fork, Little Badger Creek (3B), which are both tributary to the Tongue River (2AB), via Badger Creek (3B). The permit requires that the produced water be contained within the on-channel reservoirs except during periods of time when stormwater runoff from a storm equal to or larger than a 100 year, 24 hour storm causes the reservoirs to overtop and spill. The permit also establishes a total maximum daily flow limit of 1.5 million gallons per day, (MGD), which is to be calculated as the sum of all discharge from all outfalls authorized for discharge, and requires that the produced water being discharged by this facility originate in one or more of the following formations: the Dietz 1, Dietz 3, Monarch, Smith, and/or Carney coal seams.

NUMBER: WY0052485

This permit has been modified from the version that appeared in public notice to include Part I.C, which establishes requirements related to groundwater monitoring of the reservoirs proposed for containment of CBM produced water.

This facility is a typical coal bed methane production facility in which groundwater is pumped from a coal bearing formation resulting in the release of methane from the coal bed. The permit authorizes the discharge to the surface of groundwater produced in this way provided the effluent quality is in compliance with effluent limits that are established by this permit. In developing effluent limits, all federal and state regulations and standards have been considered and the most stringent requirements incorporated into the permit. The EPA Effluent Guidelines and Standards for Oil and Gas Extraction Point Source Category (Part 435, Subpart E) predate the development of coal bed methane extraction technology; however the technology is similar enough to conventional gas extraction that, in the professional judgement of the WDEQ, this effluent limit guideline is appropriately applied to coal bed methane gas production. The guideline limits oil and grease effluent concentrations to less than 35 mg/l and requires that discharges of produced water be used for agricultural production and/or wildlife propagation. This permit does not cover activities associated with discharges of drilling fluids, acids, stimulation waters or other fluids derived from the drilling or completion of the wells.

The permittee has chosen option 2 of the coal bed methane permitting options. Under this permitting option, the produced water is immediately discharged to a class 2 or 3 receiving stream which is eventually tributary to a class 2AB perennial water of the state. While some option 2 CBM discharge permits establish limits that are protective of the downstream class 2 water(s), this permit prohibits discharge to class 2 water (the Tongue River).

This permit authorizes discharge of CBM effluent to on-channel reservoirs located in ephemeral tributaries of Little Badger Creek. A tributary monitoring location below the reservoirs (TRIB1) has been established to ensure that effluent from the reservoirs does not reach the Tongue River except in the event of a 100-year / 24-hour storm event or greater. The permit establishes effluent limits for the end of pipe, which are protective of all designated uses of the class 3B receiving waters defined in Chapter 1 of Wyoming Water Quality Rules and Regulations. This may include aquatic life other than fish, recreation, agriculture (livestock watering), wildlife, industry and scenic value.

The permittee has submitted information to demonstrate that the permitted produced effluent volume from this facility will be contained in 15 on-channel reservoirs. The water budget for this facility confirms that these reservoirs will have sufficient capacity to contain all of the permitted effluent volume from this facility as well as storm run-on from up to a 100-year / 24-hour event. This permit requires daily monitoring year-round on Badger Creek below the on-channel reservoirs in order to determine if any effluent from this facility is reaching the established tributary monitoring point (TRIB1). The established tributary monitoring point is located on Badger Creek, between the reservoirs and the Tongue River, as described in Table 1, Part I.B.12 of the permit below. This permit prohibits discharge of effluent from the reservoirs except in the event of a 100-year / 24-hour storm event or greater (equivalent to 3.6 inches of precipitation occurring upstream of the reservoirs within a 24-hour period). The permittee is required to maintain sufficient freeboard to contain stormwater runoff from a 100 year, 24 hour storm event. Should the level of water within a reservoir exceed the 100 year, 24 hour freeboard level during periods of time in which a 100 year, 24 hour storm or greater has not occurred, the permittee will cease discharge into the reservoir until such time that the level of water within the reservoir falls below the 100 year, 24 hour freeboard level. If a reservoir overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from reservoir(s) resulting from a 100-year / 24-hour storm event or greater is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. Additional release from reservoir(s) is not authorized. If any effluent discharged from this facility does reach the downstream tributary monitoring point (TRIB1), this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer reaching the tributary monitoring point(s). Any effluent from this facility that reaches the established tributary monitoring point, except as the direct result of reservoir(s) overtopping during a 100-year / 24-hour storm event or greater, will be considered a violation of this permit and must be corrected by the permittee immediately. This permit does not establish effluent limits that are protective of designated uses associated with or the Tongue River (class 2AB waters).

This permit authorizes discharge of CBM produced water from outfalls 001 through 015. These outfalls will discharge into fifteen on-channel reservoirs as described in Table 1 (Part I.B.12) of the permit. Neither the reservoirs nor their spillways will constitute regulated discharge points under this permit.

Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. The permit limits total petroleum hydrocarbons to 10 mg/l and the pH must remain within 6.5 and 8.5 standard units. Effluent limits for total dissolved solids (5,000 mg/l), Specific Conductance (7,500 micromhos/cm), and sulfates (3,000 mg/l) are included to protect for stock and wildlife watering. These limits are based upon Wyoming Water Quality Rules and Regulations, Chapter 7 and apply to discharge from any permitted outfall. In addition, the permit establishes a radium 226 limit of 60 pCi/l, a dissolved iron limit of 1000 µg/l, a dissolved manganese limit of 1755 µg/l, a total barium limit of 1800 µg/l, a total arsenic limit of 150 µg/l, a chlorides limit of 230 mg/l, and a total selenium limit of 5 µg/l. These limits are based on standards for class 3B waters which are intended to protect for the above listed designated uses and reflect the application of "tier 1" antidegradation protection. Tier 1 antidegradation protection is the basic level of protection which applies to all waters of the state, as described in the Wyoming Surface Water Quality Standards "Implementation Policies for Antidegradation." The permit also requires that the produced water being discharged by this facility originate in one or more of the following formations: the Monarch, Smith, Carney, Dietz1 and/or Dietz3 coal seams, and establishes a total maximum daily flow limit of 1.5 MGD, which is to be calculated as the sum of all discharge from all permitted outfalls.

Results are to be reported twice-yearly and if no discharge occurs at a particular outfall for an entire sampling period, then "no discharge" is to be reported for that outfall during that period. The permit also requires that an

initial monitoring of the effluent be conducted within the first 60 days of discharge and the results submitted to WDEQ and the U.S. Environmental Protection Agency within 120 days of the commencement of discharge.

In order to monitor potential accumulation of pollutants within the receiving on-channel reservoirs, this permit (Part I.A.2.c) requires routine sampling, analysis, and reporting for the following constituents within the reservoirs themselves: total dissolved solids, specific conductance, total radium ²²⁶, dissolved iron, dissolved manganese, total arsenic, chlorides, and total selenium. Sampling for these constituents within the reservoirs is to occur a minimum of 50 feet from the location where the CBM effluent enters the reservoir. The reservoir monitoring locations have been identified in Table 1, Part I.B.13 of the permit as "R001" through "R015." This monitoring requirement is intended to aid in the protection of the uses associated with the class 3B on-channel reservoirs (aquatic life other than fish, recreation, livestock watering, wildlife, industry and scenic value). If this monitoring of the effluent within the reservoirs reveals an exceedence of any applicable standards for class 3B waters, then this permit may be modified in order to protect all uses of the receiving water bodies.

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of visible deposits of iron, hydrocarbons or any other constituent on the bottom or shoreline of the receiving water. In addition, erosion control measures will be implemented to prevent significant damage to or erosion of the receiving water channel at the point of discharge.

The discharge of wastewater and the effluent limits that are established in this permit have been reviewed to ensure that the levels of water quality necessary to protect the designated uses of the receiving waters are maintained and protected. An antidegradation review has been conducted and verifies that the permit conditions, including the effluent limitations established, provide a level of protection to the receiving water consistent with the antidegradation provisions of Wyoming surface water quality standards.

Self monitoring of effluent quality and quantity is required on a regular basis with reporting of results semiannually. The permit is scheduled to expire on April 30, 2009. This expiration date was determined through review of the watershed permitting schedule which the WDEQ is implementing in order to synchronize the permitting and expiration of facilities within the same watershed. This holistic approach will provide for more efficient permitting of point-source discharges.

Kathy Shreve
Water Quality Division
Department of Environmental Quality
Drafted November 18, 2004

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act,

Pennaco Energy, Inc.

is authorized to discharge from the wastewater treatment facilities serving the

Rucki 15 Non-Discharging POD,

located in the

NWNW and SWSW, Section 4, the NWNE, SENE, NESE, and SESE, Section 5, the SWNW, Section 9, the SENW, Section 26, the SWNW and SWSE, Section 27, and the NENE, Section 28, Township 57 North, Range 82 West, the SESE, Section 31, and the NWSW and SESW, Section 32, Township 58 North, Township 82 West, Sheridan County,

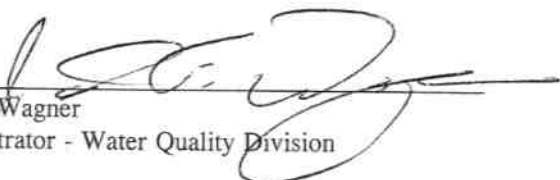
to receiving waters named

various named, on-channel reservoirs (3B) located in unnamed ephemeral tributaries (3B) of Little Badger (3B) and the West Fork, Little Badger Creek (3B), which are both tributary to the Tongue River (2AB), via Badger Creek (3B),

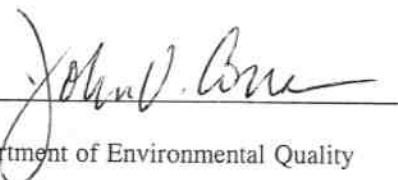
in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on the date of signature by the Director of the Department of Environmental Quality.

This permit and the authorization to discharge shall expire at midnight, April 30, 2009.


John F. Wagner
Administrator - Water Quality Division

5/31/05
Date


John V. Corra
Director - Department of Environmental Quality

6/1/05
Date

PART IA. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effective immediately and lasting through April 30, 2009, the quality of effluent discharged by the permittee shall, at a minimum, meet the limitations set forth below. The permittee is authorized to discharge from outfalls serial numbers 001 - 015.

- Such discharges shall be limited as specified below:

Effluent Limits

<u>Effluent Characteristic</u>	<u>Daily Maximum</u>
Chlorides, mg/l	230
Dissolved Iron, µg/l	1000
Dissolved Manganese, µg/l	1755
pH, standard units	6.5 - 8.5
Specific Conductance, micromhos/cm	7500
Sulfates, mg/l	3000
Total Arsenic, µg/l	150
Total Barium, µg/l	1800
Total Dissolved Solids, mg/l	5000
Total Petroleum Hydrocarbons (TPH), mg/l*	10
Total Radium 226, pCi/l	60

*Acceptable methods for this parameter are 1664 in the latest edition of Standard Methods for the Examination of Water and Wastewater and EPA SW846 Method 8015 (modified) for Total Extractable Petroleum Hydrocarbons.

- Note:
- 'Dissolved' value for metals refers to the amount that will pass through a 0.45 µm membrane filter prior to acidification to 1.5-2.0 with Nitric Acid.
 - 'Total' value for metals refers to the total recoverable amount of that metal in the water column.

The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units in any single grab sample.

The produced water will originate from the Dietz 1, Dietz 3, Smith, Monarch, and Carney coal seams. The permittee may, if so desired, discharge produced water from any authorized well to any permitted outfall, as long as all permit limits and requirements are met. As originally permitted, this facility consisted of 15 outfalls and 61 wells. The wells authorized to discharge at this facility will also be authorized to discharge at outfalls permitted under two additional CBM facilities which are yet to be permitted, which allows the permittee greater flexibility in meeting permit limits and requirements.

This permit prohibits discharge of effluent from the reservoirs except in the event of a 100-year / 24-hour storm event or greater (3.6 inches of precipitation occurring upstream of the reservoirs within a 24-hour period). If a reservoir overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from reservoir(s) resulting from a 100-year / 24-hour storm event or greater is limited by the permit to natural overtopping and shall not extend beyond a 48 hour period following commencement of natural overtopping. Additional release from reservoir(s) is not authorized. If any effluent discharged from this

facility does reach the downstream tributary monitoring point (TRIB1 – see Table 1 in Part 1.b.12 of the permit for location information), this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer reaching the tributary monitoring point(s). Should discharge from any of the 15 reservoirs contribute to flow at the tributary monitoring station on Badger Creek, the permittee is required to notify the WDEQ in writing within 24 hours of the circumstances surrounding the reservoir discharge at the address noted in Part I.A.2.a of the permit. The permittee is also required to collect water quality samples for the constituents listed in Part I.A.2.b (Routine Monitoring, End of Pipe) of the permit during each and every period in which discharges from any of the fifteen reservoirs contribute to flow at the tributary monitoring station (TRIB1). Water quality data related to reservoir discharge contributing to flow at the tributary monitoring station will be submitted to the WDEQ within 30 days of the date of such reservoir discharge occurrence. Any effluent from this facility that reaches the established tributary monitoring point, except as the direct result of reservoir(s) overtopping during a 100-year / 24-hour storm event or greater, will be considered a violation of this permit and must be corrected by the permittee immediately. This permit does not establish effluent limits that are protective of designated uses associated with the Tongue River (2AB waters).

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of a visible sheen or visible hydrocarbon deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring, or damage to stream banks, stream beds, ditches, or other waters of the state at the point of discharge. In addition, there shall be no deposition of substances in quantities which could result in significant aesthetic degradation, or degradation of habitat for aquatic life, plant life or wildlife; or which could adversely affect public water supplies or those intended for agricultural or industrial use.

2. Discharges shall be monitored by the permittee as specified below:

a. Monitoring of the initial discharge

Within 60 days of commencement of discharge, a sample shall be collected from each outfall and analyzed for the 24 constituents specified below, at the required detection limits. Within 120 days of commencement of discharge, a summary report on the produced water must be submitted to the Wyoming Department of Environmental Quality and the U.S. EPA Region 8 at the addresses listed below. This summary report must include the results and detection limits for each of the 24 constituents. In addition, the report must include written notification of the established location of the discharge point (refer to Part I.B.11). This notification must include a confirmation that the location of the established discharge point(s) is within 1,510 feet of the location of the identified discharge point(s), is within the same drainage, and discharges to the same landowner's property as identified on the original application form. The legal description and location in decimal degrees of the established discharge point(s) must also be provided. After receiving the monitoring results for the initial discharge, the routine monitoring requirements described in Part I.A.2.b. may be modified to require more stringent monitoring.

<u>Parameter</u>	<u>Required Detection Limit</u>	<u>Sample Type</u>
Total Aluminum	50 µg/l	Grab
Dissolved Cadmium	0.1 µg/l	Grab
Dissolved Calcium	as mg/l	Grab
Dissolved Calcium	as me/l	Grab
Chlorides	5 mg/l	Grab
Dissolved Copper	1 µg/l	Grab
Dissolved Iron	30 µg/l	Grab

<u>Parameter</u>	<u>Required Detection Limit</u>	<u>Sample Type</u>
Dissolved Manganese	10 µg/l	Grab
Total Hardness	10 mg/l as CaCO ₃	Grab
Dissolved Lead	2 µg/l	Grab
Dissolved Magnesium	as mg/l	Grab
Dissolved Magnesium	as me/l	Grab
Dissolved Mercury	0.06 µg/l	Grab
pH	to 0.1 pH unit	Grab
Total Radium 226	0.2 pCi/l	Grab
Total Selenium	5 µg/l	Grab
Dissolved Sodium	as mg/l	Grab
Dissolved Sodium	as me/l	Grab
Sodium Adsorption Ratio	not applicable	Calculated
Specific Conductance	5 micromhos/cm	Grab
Sulfates	10 mg/l	Grab
Total Alkalinity	1 mg/l as CaCO ₃	Grab
Total Arsenic	1 µg/l	Grab
Total Barium	100 µg/l	Grab
Dissolved Zinc	10 µg/l	Grab
Bicarbonate	1 mg/l	Grab
Total Dissolved Solids	5 mg/l	Grab

Initial monitoring reports are to be sent to the following addresses:

Planning and Targeting Program, 8ENF-PT
Office of Enforcement, Compliance, and Environmental Justice
U.S. EPA Region 8
999 18th St., Suite 300
Denver, CO 80202-2466

and

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002

b. Routine monitoring End of Pipe (001-015)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. The first routine monitoring for the time frame during which the monitoring of initial discharge occurs will, at a minimum, consist of flow measurements for the duration of the six-month monitoring time frame. Monitoring will be based on semi-annual time frames, from January through June, and from July through December.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
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<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Chloride	Annually	Grab
Dissolved Iron	Annually	Grab
Dissolved Manganese	Annually	Grab
pH	Once Every Six Months	Grab
Radium 226	Annually	Grab
Specific Conductance	Annually	Grab
Sulfate	Annually	Grab
Total Arsenic	Annually	Grab
Total Selenium	Annually	Grab
Total Barium	Annually	Grab
Total Flow - (MGD)	Monthly	Continuous
Total Petroleum Hydrocarbons	Annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the outfall of the final treatment unit which is located out of the natural drainage and prior to admixture with diluent waters.

c. Routine Monitoring Within Reservoirs (R001 – R015)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. Monitoring and reporting will be based on an annual time frame.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Dissolved Solids	Annually	Grab
Specific Conductance	Annually	Grab
Total Radium 226	Annually	Grab
Dissolved Iron	Annually	Grab
Dissolved Manganese	Annually	Grab
Total Arsenic	Annually	Grab
Chlorides	Annually	Grab
Total Selenium	Annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): designated reservoir monitoring stations are located within each receiving reservoir as described in

Table 1 (R001-R015), located in Part I.B.13 of the following permit. In each reservoir, monitoring locations are to be located a minimum of 50 feet away from the point where CBM effluent enters the reservoir. Reservoir sampling will only apply to reservoirs that are receiving CBM effluent or have received CBM effluent in the past. Results are to be reported annually and if a particular reservoir has not yet received any CBM effluent from this facility, then "no discharge" is to be reported for that reservoir monitoring station in the discharge monitoring report.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the permit issuing authority.

2. Reporting

Results of initial monitoring, including the date the discharge began, shall be summarized on a Monitoring Report Form for Monitoring of Initial Discharge and submitted to the state water pollution control agency at the address below postmarked no later than 120 days after the commencement of discharge.

Results of routine end of pipe and water quality station monitoring during the previous six (6) months shall be summarized and reported semiannually on a Discharge Monitoring Report Form (DMR). If the discharge is intermittent, the date the discharge began and ended must be included. The information submitted on the first semiannual DMR shall contain a summary of flow measurements and any additional monitoring conducted subsequent to the submittal of the initial monitoring report. If required, whole effluent toxicity testing (biomonitoring) results must be reported on the most recent version of EPA Region VIII's Guidance for Whole Effluent Reporting. Monitoring reports must be submitted to the state water pollution control agency at the following address postmarked no later than the 15th day of the second month following the completed reporting period. The first report is due on August 15th, 2005.

Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements contained in Part II.A.11.

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002
Telephone: (307) 777-7781

If no discharge occurs during the reporting period, "no discharge" shall be reported. If discharge is intermittent during the reporting period, sampling shall be done while the facility is discharging.

3. Definitions

- a. The "monthly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during a calendar month.

- b. The "weekly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during any week.
- c. The "daily maximum" shall be determined by the analysis of a single grab or composite sample.
- d. "MGD", for monitoring requirements, is defined as million gallons per day.
- e. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.
- f. A "composite" sample, for monitoring requirements, is defined as a minimum of four grab samples collected at equally spaced two hour intervals and proportioned according to flow.
- g. An "instantaneous" measurement for monitoring requirements is defined as a single reading, measurement, or observation.
- h. A "pollutant" is any substance or substances which, if allowed to enter surface waters of the state, causes or threatens to cause pollution as defined in the Wyoming Environmental Quality Act, Section 35-11-103.
- i. "Total Flow" is the total volume of water discharged, measured on a continuous basis and reported as a total volume for each month during a reporting period. The accuracy of flow measurement must comply with Part III.A.1.

4. Test Procedures

Test procedures for the analysis of pollutants, collection of samples, sample containers, sample preservation, and holding times, shall conform to regulations published pursuant to 40 CFR, Part 136, unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses and collected the samples;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the administrator at any time. Data collected on site, copies of Discharge Monitoring Reports and a copy of this NPDES permit must be maintained on site during the duration of activity at the permitted location.

8. Penalties for Tampering

The Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or both.

9. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

10. Facility Identification

All facilities discharging produced water shall be clearly identified with an all-weather sign posted at each outfall and flow monitoring locations (points of compliance). This sign shall, as a minimum, convey the following information:

- a. The name of the company, corporation, person(s) who holds the discharge permit, and the NPDES permit number;
- b. The contact name and phone number of the person responsible for the records associated with the permit;
- c. The name of the facility (lease, well number, etc.) and the outfall number as identified by the discharge permit.

11. Identification and Establishment of Discharge Points

According to 40 CFR 122.21(k)(1), the permittee shall identify the expected location of each discharge point on the appropriate NPDES permit application form. The location of the discharge point must be identified to within an accuracy of 15 seconds. This equates to a distance of 1,510 feet.

In order for the permit not to be subjected to additional public notice, the location of the established discharge point must be within 1,510 feet of the location of the discharge point originally identified on the permit application. In addition, the discharge must be within the same drainage and must discharge

to the same landowner's property as identified on the original application form. If the three previously stated requirements are not satisfied, modification of the discharge point location(s) constitutes a major modification of the permit as defined in Part I.B.12. The permittee shall provide written notification of the establishment of each discharge point in accordance with Part I.A.2.a above.

12. Location of Discharge Points

As of the date of permit issuance, authorized points of discharge were as follows:

SEE TABLE 1 FOR A LIST OF OUTFALLS

13. Location of water quality monitoring stations

As of the date of issuance, authorized water quality monitoring stations were as follows:

SEE TABLE 1 FOR A LIST OF TRIBUTARY AND RESERVOIR MONITORING STATIONS

The outfalls listed in the table below 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 NPDES 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.

An 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 National Pollutant Discharge Elimination System Permit Modification Application For Coal Bed Methane. Incomplete application forms will be returned to the applicant.

TABLE 1: OUTFALL, RESERVOIR, AND WATER QUALITY MONITORING STATION LOCATIONS,
WY0052485

Outfall #	Immediate Receiving Stream	Distance (stream miles) to class 2 water	QTR/QTR	SEC	TWNSP (N)	RNG (W)	Latitude	Longitude	Reservoir Name	Groundwater approval required before discharge?
001	Unnamed, ephemeral tributary to Little Badger Creek	7.9	NWS W	32	58	82	44.9593	-106.778	R11-32	YES
002	Unnamed, ephemeral tributary to Little Badger Creek	8.2	NWS W	32	58	82	44.9567	-106.782	R12-32	YES
003	Unnamed, ephemeral tributary to Little Badger Creek	8.3	SESE	31	58	82	44.9557	-106.7838	R16-31	YES
004	Unnamed, ephemeral tributary to Little Badger Creek	8.2	SESW	32	58	82	44.9537	-106.7761	R14-32	YES
005	Unnamed, ephemeral tributary to Little Badger Creek	8.4	NWNE	5	57	82	44.952	-106.7716	R15-32	YES
006	Unnamed, ephemeral tributary to Little Badger Creek	9	NWN W	4	57	82	44.9506	-106.7577	R4-4	YES
007	Unnamed, ephemeral tributary to Little Badger Creek	8.9	SENE	5	57	82	44.9483	-106.7662	R1-5	YES
008	Unnamed, ephemeral tributary to Little Badger Creek	9.4	NESE	5	57	82	44.9431	-106.767	R9-5N	YES

Outfall #	Immediate Receiving Stream	Distance (stream miles) to class 2 water	QTR/QTR	SEC	TWNSP (N)	RNG (W)	Latitude	Longitude	Reservoir Name	Groundwater approval required before discharge?
009	Unnamed, ephemeral tributary to Little Badger Creek	9.5	SESE	5	57	82	44.9412	-106.7672	R9-5W	YES
010	Unnamed, ephemeral tributary to Little Badger Creek	9.5	SWSW	4	57	82	44.9408	-106.7615	R13-4	YES
011	Unnamed, ephemeral tributary to Little Badger Creek	10.1	SWN W	9	57	82	44.9333	-106.761	R5-9	YES
012	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	14.7	NENE	28	57	82	44.8916	-106.7433	R1-28	YES
013	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15	SWN W	27	57	82	44.89	-106.7396	R8-28	YES
014	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15.8	SESW	26	57	82	44.8889	-106.7139	R6-26	YES
015	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15.8	SWSE	27	57	82	44.8818	-106.7277	R15-27	YES

WATER QUALITY MONITORING STATION LOCATION										
TRIB1	Badger Creek	3.4	NWNE	19	58	82	44.9952	-106.7892	N/A	
RESERVOIR MONITORING STATION LOCATIONS										
Reservoir #	Immediate Receiving Stream	Distance (stream miles) to class 2 water	QTR/QTR	SEC	TWNSP (N)	RNG (W)	Latitude	Longitude	Reservoir Name	
R001	Unnamed, ephemeral tributary to Little Badger Creek	7.9	NWS W	32	58	82	44.9593	-106.778	R11-32	
R002	Unnamed, ephemeral tributary to Little Badger Creek	8.2	NWS W	32	58	82	44.9567	-106.782	R12-32	
R003	Unnamed, ephemeral tributary to Little Badger Creek	8.3	SESE	31	58	82	44.9557	-106.7838	R16-31	
R004	Unnamed, ephemeral tributary to Little Badger Creek	8.2	SESW	32	58	82	44.9537	-106.7761	R14-32	
R005	Unnamed, ephemeral tributary to Little Badger Creek	8.4	NWNE	5	57	82	44.952	-106.7716	R15-32	
R006	Unnamed, ephemeral tributary to Little Badger Creek	9	NWN W	4	57	82	44.9506	-106.7577	R4-4	
R007	Unnamed, ephemeral tributary to Little Badger Creek	8.9	SENE	5	57	82	44.9483	-106.7662	R1-5	
R008	Unnamed, ephemeral tributary to Little Badger Creek	9.4	NESE	5	57	82	44.9431	-106.767	R9-5N	

Reservoir #	Immediate Receiving Stream	Distance (stream miles) to class 2 water	QTR/QTR	SEC	TWNSP (N)	RNG (W)	Latitude	Longitude	Reservoir Name	
R009	Unnamed, ephemeral tributary to Little Badger Creek	9.5	SESE	5	57	82	44.9412	-106.7672	R9-5W	
R010	Unnamed, ephemeral tributary to Little Badger Creek	9.5	SWSW	4	57	82	44.9408	-106.7615	R13-4	
R011	Unnamed, ephemeral tributary to Little Badger Creek	10.1	SWN W	9	57	82	44.9333	-106.761	R5-9	
R012	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	14.7	NENE	28	57	82	44.8916	-106.7433	R1-28	
R013	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15	SWN W	27	57	82	44.89	-106.7396	R8-28	
R014	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15.8	SESW	26	57	82	44.8889	-106.7139	R6-26	
R015	Unnamed, ephemeral tributary to West Fork, Little Badger Creek	15.8	SWSE	27	57	82	44.8818	-106.7277	R15-27	

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.

Any discharge into an impoundment 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 to include a notice of violation, revocation of the discharge permit, or other appropriate enforcement action.

PART IIA. MANAGEMENT REQUIREMENTS1. Changes

The permittee shall give notice to the administrator of the Water Quality Division as soon as possible of any physical alterations or additions to the permitted facility. Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29 (b); or
- b. The alteration or addition could change the nature or increase the quantity of pollutants discharged.

2. Noncompliance Notification

- a. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. The permittee shall report any noncompliance which may endanger health or the environment as soon as possible, but no later than 24 hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Quality Division, Wyoming Department of Environmental Quality at (307) 777-7781.
- c. A written submission shall be provided within five (5) days of the time that the permittee becomes aware of a noncompliance circumstance as described in paragraph c. above.

The written submission shall contain:

- (1) A description of the noncompliance and its cause;
 - (2) The period of noncompliance, including exact dates and times;
 - (3) The estimated time noncompliance is expected to continue if it has not been corrected; and
 - (4) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.
- d. The following occurrences of unanticipated noncompliance shall be reported by telephone to the Water Quality Division, Watershed Management Section, NPDES Program (307) 777-7781 by the first workday following the day the permittee became aware of the circumstances.
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - (2) Any upset which exceeds any effluent limitation in the permit; or
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
 - e. The administrator of the Water Quality Division may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Quality Division, Watershed Management Section, NPDES Program (307) 777-7781.

