Wyoming Department of Environmental Quality
Water Quality Division
WYPDES Program

STATEMENT OF BASIS

NEW

APPLICANT NAME:	Pennaco Energy, Incorporated
MAILING ADDRESS:	3601 Southern Drive Gillette, WY 82718
FACILITY LOCATION:	Petersen 29 Extension POD CBM Facility, which is located in the NWNW, NESW, NESE, NWSW, SWSE, SESW of Section 22, the NESW, SESE of Section 23, the NWNW, NENW, NESW of Section 26, the NENE, SWNE, NESW of Section 27, the NENE of Section 28, the NENE of Section 33, the NESW, SWSW, SESW of Section 34, the SWNW, NWSE, NESE, NWNE, SENW of Section 35, the SWSW, SWSE of Section 36, Township 58 North, Range 82 West; the NENW, SWNE, SWNW of Section 1, the SWNW, SESW, NWNE of Section 2, the SWNE, NENE of Section 3, the NWNE, SWNW of Section 11, the SWNW, NENW of Section 12, Township 57 North, Range 82 West; the SESW of Section 31, Township 58 North, Range 81 West; the SWNE, NWSW of Section 6, Township 57 North, Range 81 West, all in Sheridan County. The wastewater will be discharged to and contained in seven man-made, off-channel containment units (class 4C) which are within, but not tributary to, the Badger Creek (class 3B) drainage of the Tongue River (class 2AB) watershed. Wastewater will also be discharged to and contained in 39 on-channel reservoirs (class 3B) located on various unnamed, ephemeral tributaries to Badger Creek. This permit requires that discharge produced at this facility originate from the Smith, Dietz 1, Dietz 2, Dietz 3, Monarch, and/or Carney coal seams.
NUMBER:	WY0054453

General Facility Description

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. 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.

Outfall Description (001-039)

The permittee has chosen option 1B of the coal bed methane permitting options for discharges from outfalls 001-039. 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. This permit prohibits discharge to the nearest class 2 water (Tongue River) from outfalls 001-039. This permit authorizes discharge of CBM effluent into headwater on-channel reservoirs from outfalls 001-039. Flow monitoring stations, located below each of the on-channel headwater reservoirs proposed for containment of CBM produced waters (FM1-FM39) have been established to ensure that effluent from the reservoirs does not reach the Tongue River except in the event of a 50-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. Neither the reservoirs nor their spillways will constitute regulated discharge points under this permit.

Outfall Description (040-046)

The permittee has chosen option 1A of the coal bed methane permitting options for outfalls 040-046. Under this permitting option, the produced water from outfalls 040-046 is immediately discharged to a confined, off-channel pit, stock pond or other man made containment unit (class 4C water) that will not flow into any other waters of the state. The permittee has demonstrated through a water balance study that, considering CBM well inflow, natural precipitation, evaporation and infiltration, the off-channel containment units associated with outfalls 040-046 will be adequate to contain all CBM discharge water from outfalls 040-046 and stormwater up to a 50-year/24 hour event. In addition, the permittee has committed to the complete containment of all discharged water from outfalls 040-046. The permit establishes effluent limits for the end of pipe, which are protective of recreation, agriculture, industry, scenic value, and livestock and wildlife watering.

Effluent Limits and Monitoring Requirements, Outfalls 001-039

Effluent Limits: For outfalls 001-039, the permit establishes the following effluent limits. Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. The permit requires that the pH remains within 6.5 and 9.0 standard units. Effluent limits for total dissolved solids (5,000 mg/l) and specific conductance (7,500 micromhos/cm) are included to protect for stock and wildlife watering. These limits are based upon Wyoming Water Quality Rules and Regulations, Chapter 1 and apply at the end of pipe. This permit also establishes a total recoverable arsenic limit of 150 µg/l, a dissolved iron effluent limit of 1000 µg/l, a total recoverable barium effluent limit of 1800 µg/l, and a chlorides limit of 230 mg/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 level of protection which applies to all waters of the state, as described in the *Wyoming Surface Water Quality Standards "Implementation Policies for Antidegradation.*" Based upon the results of the initial monitoring, this permit may be reopened and more stringent limits and/or monitoring and reporting required.

The reservoirs being utilized for containment of the CBM produced water at 001-039 were described by the permittee in their application materials as being able to effectively contain all estimated produced water from outfalls 001-039, in addition to the stormwater runoff from up to a 50 year/24 hour precipitation event. Should the volume of water within either reservoir associated with outfalls 001-039

exceed the freeboard needed to contain runoff from a 50 year/24 hour precipitation event under normal operating conditions, the permittee is required to cease discharge into these reservoirs until the volume of water within the reservoirs drops back below the 50 year/24 hour freeboard reserve.

Monitoring Requirements: Results are to be reported twice-yearly and if no discharge occurs at the outfall then "no discharge" is to be reported. 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 reservoirs, this permit (Part I.A.2.c) requires routine sampling, analysis, and reporting for the following constituents within the reservoirs at 001-039: total dissolved solids, specific conductance, total radium 226, dissolved manganese, total recoverable arsenic, chlorides, total recoverable barium, sulfates, and total recoverable selenium. Sampling for these constituents within the reservoir 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 below as “R1-R39”. 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 monitoring of the effluent within the reservoirs at outfalls 001-039 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.

This permit requires daily monitoring year-round at the flow monitoring stations located immediately downstream of the reservoirs containing discharges from outfalls 001-039 in order to determine if any effluent from this facility is reaching an established flow monitoring station (FM1-FM39). The established flow monitoring stations are located on unnamed, ephemeral tributaries of Badger Creek, which is tributary to the Tongue River (see locations as described in Part I.B.12 (Table 1) of the permit below). This permit prohibits discharge of effluent from the reservoirs associated with outfalls 001-039 except in the event of a 50-year/24-hour storm event or greater. If a reservoir overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from the reservoir(s) associated with outfalls 001-039 resulting from a 50-year/24-hour precipitation 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 the reservoir(s) is not authorized. If any effluent discharged from this facility does reach a flow monitoring station (FM1-FM39), this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer reaching the flow monitoring station(s). Any effluent from this facility that reaches an established flow monitoring station, except as the direct result of reservoir(s) overtopping during a 50-year / 24-hour storm event or greater, will be considered a violation of this permit and must be corrected by the permittee immediately.

Effluent Limits and Monitoring Requirements, Outfalls 040-046

Effluent Limits: For outfalls 040-046, the permit establishes the following effluent limits. Permit effluent limits are based on state regulations and are effective as of the date of issuance. The permit requires that the pH must remain within 6.5 and 9.0 standard units. Effluent limits for total dissolved solids (5,000 mg/l), chlorides (2,000 mg/l) and specific conductance (7,500 micromhos/cm) are included to protect for livestock and wildlife watering. These limits are based upon *Wyoming Water Quality Rules and Regulations, Chapters 1 and 2* and apply to discharge from any permitted outfall. Based upon the results of the initial monitoring, this permit may be reopened and more stringent limits and/or monitoring and reporting required.

Monitoring Requirements: Results are to be reported twice-yearly and if no discharge occurs at the outfall then "no discharge" is to be reported. 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 effluent contained within the off-channel, man-made containment units to ensure that the effluent does not exceed water quality standards for livestock and wildlife watering as the result of concentration due to evaporation, the permittee is required to monitor the effluent contained within the pits and report the results to the WDEQ on an annual basis. The reservoir monitoring locations have been identified in Table 1, Part I.B.13 of the permit below as “CU40-CU46”.

General Requirements Applicable to All Permitted Outfalls

The estimated discharge water quality was based upon representative water quality from the following formations in the immediate geographic area of the proposed facility: the Smith, Dietz 1, Dietz 2, Dietz 3, Monarch, and/or Carney coal seams. Therefore, the permit requires that the produced water being discharged at this facility originate in one or more of the following formations: Smith, Dietz 1, Dietz 2, Dietz 3, Monarch, and/or Carney coal seams.

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. Discharge water is to be released at a rate which does not cause significant erosion to the channel or receiving lands.

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 December 31, 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.

Jennifer Zygmunt
Water Quality Division
Department of Environmental Quality
Drafted: October 8, 2006

AUTHORIZATION TO DISCHARGE UNDER THE WYOMING 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, Incorporated

is authorized to discharge from the wastewater treatment facilities serving the

Petersen 29 Extension POD,

located in the

the NWNW, NESW, NESE, NWSW, SWSE, SESW of Section 22, the NESW, SESE of Section 23, the NWNW, NENW, NESW of Section 26, the NENE, SWNE, NESW of Section 27, the NENE of Section 28, the NENE of Section 33, the NESW, SWSW, SESW of Section 34, the SWNW, NWSE, NESE, NWNE, SENW of Section 35, the SWSW, SWSE of Section 36, Township 58 North, Range 82 West; the NENW, SWNE, SWNW of Section 1, the SWNW, SESW, NWNE of Section 2, the SWNE, NENE of Section 3, the NWNE, SWNW of Section 11, the SWNW, NENW of Section 12, Township 57 North, Range 82 West; the SESW of Section 31, Township 58 North, Range 81 West; the SWNE, NWSW of Section 6, Township 57 North, Range 81 West, all in Sheridan County,

to receiving waters named

seven man-made, off-channel containment units (class 4C) which are within, but not tributary to, the Badger Creek (class 3B) drainage of the Tongue River (class 2AB) watershed. Wastewater will also be discharged to and contained in 39 on-channel reservoirs (class 3B) located on various unnamed, ephemeral tributaries to Badger Creek,

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 December 31, 2009, at midnight.

John F. Wagner
Administrator - Water Quality

2/9/07
Date

John V. Corra
Director - Department of Environmental Quality

2/14/07
Date

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effective immediately and lasting through December 31, 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 outfall(s) serial number(s) 001-046.

1. **Effluent Limits:** The quality of the effluent discharged by this facility shall, at a minimum, meet the limitations set forth below at the end of pipe.

   a. Such discharges shall be limited as specified below for **outfalls 001-039 (on-channel headwater reservoirs)**:

Effluent Limits

Effluent Constituent	Daily Maximum, Each Outfall
Chlorides, mg/l	230
Dissolved Iron, µg/l	1000
pH, standard units	6.5 – 9.0
Specific Conductance, micromhos/cm	7500
Total Dissolved Solids, mg/l	5000
Total Recoverable Arsenic, µg/l	150

Note: 1) '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.

This permit prohibits discharge of effluent from the reservoirs associated with outfalls 001-039 except in the event of a 50-year / 24-hour storm event or greater. If a reservoir overtopping event occurs, verification of storm magnitude will be the responsibility of the permittee. Discharge from reservoir(s) resulting from a 50-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 a downstream flow monitoring point (FM1-FM39), this permit requires the permittee to cease all discharge of effluent from the contributing wells until the effluent is no longer reaching the flow monitoring point(s). Any effluent from this facility that reaches a flow monitoring point, as described in Table 1, Part I.B.12 of the permit below, except as the direct result of reservoir(s) overtopping during a 50-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 Powder River (class 2AB waters). The permittee is required to maintain freeboard within the reservoirs equivalent to that necessary to contain a 50 year/24 hour storm event. Should the volume of water within the reservoir(s) exceed the 50 year/24 hour freeboard reserve under

normal operating conditions, the permittee is required to cease discharge to the reservoir(s) until the volume of water within the reservoirs falls below the 50 year/24 hour freeboard reserve.

b. Such discharges shall be limited as specified below for **outfalls 040-046 (off-channel pits)**:

Effluent Limits

Effluent Characteristic	**Daily Maximum**
Chlorides, mg/l	2000
pH, standard units	6.5 – 9.0
Specific Conductance, micromhos/cm	7500
Total Dissolved Solids, mg/l	5000

Intentional discharge from the off-channel reservoirs (associated with outfalls 040-046) being utilized for produced water containment at this facility is prohibited. Discharge from the off-channel reservoirs is not allowed except during those periods of time that a precipitation event equal to or greater than a 50 year, 24 hour storm event causes the reservoirs to fill and overtop, and discharges under such circumstances will be limited to natural overtopping only. In the event of discharge from the reservoirs, it shall be the permittee's responsibility to demonstrate whether or not the discharge was related to a 50 year, 24 hour storm event. Discharges from the reservoirs not directly related to a 50 year, 24 hour storm event will be considered a violation of this permit.

c. Such discharges shall be limited as specified below for **all outfalls 001-046**:

The permittee may, if so desired, discharge effluent from any authorized well to any permitted outfall, as long as all permit limits and requirements can be met. Upon renewal, this facility consisted of 46 outfalls and 77 wells. The produced water being discharged at this facility must originate from the Smith, Dietz 1, Dietz 2, Dietz 3, Monarch, and/or Carney coal seams.

Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the tributary and the mainstem.

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.

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.

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 all constituents specified below, at the required detection limits. Within 120 days of commencement of discharge, a summary report, including copies of the laboratory analysis reports, 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 constituents specified below. 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 effluent limits and monitoring requirements established in this permit may be modified.

Parameter	Required Detection Limit	Sample Type
Total Recoverable Aluminum	50 µg/l	Grab
Dissolved Cadmium	0.1 µg/l	Grab
Dissolved Calcium	as mg/l	Grab
Chlorides	5 mg/l	Grab
Dissolved Copper	1 µg/l	Grab
Dissolved Iron	30 µg/l	Grab
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 Mercury	0.06 µg/l	Grab
pH	to 0.1 pH unit	Grab
Total Recoverable Radium 226	0.2 pCi/l	Grab
Total Recoverable Selenium	5 µg/l	Grab
Dissolved Sodium	as mg/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 Recoverable Arsenic	1 µg/l	Grab
Total Recoverable Barium	100 µg/l	Grab
Dissolved Zinc	10 µg/l	Grab
Bicarbonate	1 mg/l	Grab
Total Dissolved Solids	5 mg/l	Grab

TOTAL: Value is expressed in terms of total recoverable metal in the water column.
NOTE: Except for aquatic life values for metals and where otherwise indicated, the values given refer to the total recoverable (dissolved plus suspended) amount for each substance. For the aquatic life values for metals, the values refer to the dissolved amount.

DISSOLVED: Volume is based on the dissolved amount which is the amount that will pass through a 0.45 µm membrane filter prior to acidification to pH 1.5 - 2.0 with nitric acid.

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 – 001-039

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.

Parameter	Measurement Frequency	Sample Type
Dissolved Calcium (mg/l)	Annually	Grab
Total Flow (MGD)	Monthly	Continuous
Dissolved Iron (µg/l)	Annually	Grab
Dissolved Magnesium (mg/l)	Annually	Grab
pH (standard units)	Annually	Grab
Total Dissolved Solids (mg/l)	Annually	Grab
Dissolved Sodium (mg/l)	Annually	Grab
Sodium Adsorption Ratio (unadjusted)	Annually	Calculated
Specific Conductance (micromhos/cm)	Annually	Grab
Chlorides (mg/l)	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 End of Pipe – 040-046

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. Reporting will be based on semi-annual time frames, from January through June, and from July through December.

Parameter	**Measurement Frequency**	**Sample Type**
Chloride (mg/l)	Annually	Grab
pH (standard units)	Once Every Six Months	Grab
Specific Conductance (micromhos/cm)	Once Every Six Months	Grab
Total Arsenic (µg/l)	Annually	Grab
Total Flow – (MGD)	Monthly	Continuous
Total Dissolved Solids (mg/l)	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.

d. Routine Monitoring Within Reservoirs (R1-R39)

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.

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids (mg/l)	Annually	Grab
Specific Conductance (µmhos/cm)	Annually	Grab
Dissolved Manganese (µg/l)	Annually	Grab
Total Radium 226 (pCi/l)	Annually	Grab
Dissolved Iron (µg/l)	Annually	Grab
Total Arsenic (µg/l)	Annually	Grab
Chlorides (mg/l)	Annually	Grab
Total Selenium (µg/l)	Annually	Grab
Sulfate (mg/l)	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, Part I.B.12 of the permit below (R1-R39). 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.

e. Containment Unit Monitoring –CU40-CU46

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. Monitoring will be based on six-month time frames, and reported annually.

Parameter	Measurement Frequency	Sample Type
Specific Conductance (micromhos/cm)	Once Every Six Months	Grab
Total Arsenic (µg/l)	Annually	Grab
Total Recoverable Selenium (µg/l)	Annually	Grab
Chlorides (mg/l)	Annually	Grab
Total Dissolved Solids (mg/l)	Annually	Grab
Sulfate (mg/l)	Annually	Grab
pH (standard units)	Once Every Six Months	Grab
Dissolved Fluoride (µg/l)	Annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): within the individual containment units, outside of the mixing zone of the outfall and the containment unit, at least 50 feet from the location that the discharge enters the containment unit. See Part I.B.12 of the permit for additional information regarding containment unit locations.

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 and submitted with a copy of the laboratory analysis report for each outfall, clearly marked with

permit and outfall numbers, 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 containment unit 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. When required, whole effluent toxicity (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 following the issuance of this permit renewal is due on August 15, 2007.

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 WYPDES 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 WYPDES 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 WYPDES 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 and Containment Unit Monitoring Locations

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

SEE TABLE 1 FOR A LIST OF OUTFALL AND CONTAINMENT UNIT MONITORING LOCATIONS

Table 1: WY0054453 Petersen 29 Extension POD

Discharge Point	Qtr/Qtr	SECTION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater approval required for discharge?	Reservoir Bonding to WDEQ Required Prior to Discharge?
001	NESW	26	58	82	44.9715	-106.7140	Discharge to on-channel headwater reservoir "ER11-26"	Yes	Yes
002	NENE	33	58	82	44.9644	-106.7426	Discharge to on-channel headwater reservoir "R1-33"	Yes	Yes
003	NESW	34	58	82	44.9560	-106.7362	Discharge to on-channel headwater reservoir "R11-34W"	Yes	Yes
004	NESW	34	58	82	44.9567	-106.7332	Discharge to on-channel headwater reservoir "R11-34E"	Yes	Yes
005	SWSW	34	58	82	44.9545	-106.7397	Discharge to on-channel headwater reservoir "R13-34"	Yes	Yes
006	SESW	34	58	82	44.9552	-106.7349	Discharge to on-channel headwater reservoir "R14-34"	Yes	Yes
007	SWNW	35	58	82	44.9620	-106.7182	Discharge to on-channel headwater reservoir "R5-35"	Yes	Yes
008	NWSE	35	58	82	44.9574	-106.7089	Discharge to on-channel headwater reservoir "R10-35"	Yes	Yes
009	NESE	35	58	82	44.9582	-106.7056	Discharge to on-channel headwater reservoir "R9-35"	Yes	Yes
010	SWSW	36	58	82	44.9557	-106.6976	Discharge to on-channel headwater reservoir "R13-36"	Yes	Yes
011	NENW	1	57	82	44.9511	-106.6946	Discharge to on-channel headwater reservoir "ER6-1"	Yes	Yes
012	SWNE	1	57	82	44.9476	-106.6889	Discharge to on-channel headwater reservoir "ER7-1"	Yes	Yes
013	SESW	31	58	81	44.9539	-106.6742	Discharge to on-channel headwater reservoir "R14-31"	Yes	Yes
014	SWNE	6	57	81	44.9471	-106.6717	Discharge to on-channel headwater reservoir "R7-6"	Yes	Yes
015	NWSW	6	57	81	44.9432	-106.6764	Discharge to on-channel headwater reservoir "R12-6"	Yes	Yes
016	SWNE	3	57	82	44.9482	-106.7314	Discharge to on-channel headwater reservoir "R6-3"	Yes	Yes
017	NENE	3	57	82	44.9494	-106.7259	Discharge to on-channel headwater reservoir "R2-3"	Yes	Yes
018	SWNW	2	57	82	44.9457	-106.7206	Discharge to on-channel headwater reservoir "R12-2"	Yes	Yes
019	SESW	2	57	82	44.9407	-106.7148	Discharge to on-channel headwater reservoir "R11-2"	Yes	Yes
020	NWNE	11	57	82	44.9374	-106.7095	Discharge to on-channel headwater reservoir "R2-11"	Yes	Yes
021	NWNE	2	57	82	44.9377	-106.7077	Discharge to on-channel headwater reservoir "R15-2"	Yes	Yes
022	NWNE	11	57	82	44.9378	-106.7065	Discharge to on-channel headwater reservoir "R1-11"	Yes	Yes
023	SWNW	12	57	82	44.9338	-106.6990	Discharge to on-channel headwater reservoir "R4-12"	Yes	Yes
024	NENW	12	57	82	44.9349	-106.6921	Discharge to on-channel headwater reservoir "ER6-12"	Yes	Yes
025	NWNW	22	58	82	44.9932	-106.7385	Discharge to on-channel headwater reservoir "R4-22"	Yes	Yes

Table 1: WY0054453 Petersen 29 Extension POD

Discharge Point	Qtr/Qtr	SECTION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater approval required for discharge?	Reservoir Bonding to WDEQ Required Prior to Discharge?
026	NESW	22	58	82	44.9870	-106.7343	Discharge to on-channel headwater reservoir "R11-22"	Yes	Yes
027	NESE	22	58	82	44.9858	-106.7244	Discharge to on-channel headwater reservoir "R9-22"	Yes	Yes
028	NWSW	22	58	82	44.9847	-106.7366	Discharge to on-channel headwater reservoir "R12-22S"	Yes	Yes
029	SWSE	22	58	82	44.9838	-106.7298	Discharge to on-channel headwater reservoir "R15-22"	Yes	Yes
030	NESW	23	58	82	44.9862	-106.7144	Discharge to on-channel headwater reservoir "R11-23"	Yes	Yes
031	SESE	23	58	82	44.9822	-106.7062	Discharge to on-channel headwater reservoir "R16-23"	Yes	Yes
032	NWNW	26	58	82	44.9792	-106.7175	Discharge to on-channel headwater reservoir "R4-26"	Yes	Yes
033	NENE	27	58	82	44.9798	-106.7240	Discharge to on-channel headwater reservoir "R1-27"	Yes	Yes
034	SWNE	27	58	82	44.9764	-106.7308	Discharge to on-channel headwater reservoir "R7-27N"	Yes	Yes
035	SWNE	27	58	82	44.9740	-106.7289	Discharge to on-channel headwater reservoir "R7-27S"	Yes	Yes
036	NESW	27	58	82	44.9721	-106.7360	Discharge to on-channel headwater reservoir "R12-27"	Yes	Yes
037	NESW	27	58	82	44.9708	-106.7331	Discharge to on-channel headwater reservoir "R11-27"	Yes	Yes
038	NENE	28	58	82	44.9790	-106.7423	Discharge to on-channel headwater reservoir "R1-28"	Yes	Yes
039	NENW	26	58	82	44.9781	-106.7141	Discharge to on-channel headwater reservoir "R3-26"	Yes	Yes
040	NWNE	35	58	82	44.9662	-106.7069	Discharge to off-channel pit "P2-35N"	Yes	No
041	NWNE	35	58	82	44.9662	-106.7081	Discharge to off-channel pit "P2-35S"	Yes	No
042	SENW	35	58	82	44.9629	-106.7143	Discharge to off-channel pit "P6-35"	Yes	No
043	SWSE	36	58	82	44.9526	-106.6891	Discharge to off-channel pit "P15-36"	Yes	No
044	SWNW	1	57	82	44.9484	-106.6964	Discharge to off-channel pit "P5-1"	Yes	No
045	SWNW	11	57	82	44.9337	-106.7166	Discharge to off-channel pit "P6-11"	Yes	No
046	SESW	22	58	82	44.9839	-106.7353	Discharge to off-channel pit "P14-22"	Yes	No
FM001	NESW	26	58	82	44.9713	-106.7168	Flow monitoring station for 001	N/A	N/A
FM002	NENE	33	58	82	44.9657	-106.7435	Flow monitoring station for 002	N/A	N/A
FM003	NESW	34	58	82	44.9589	-106.7364	Flow monitoring station for 003	N/A	N/A
FM004	NESW	34	58	82	44.9580	-106.7327	Flow monitoring station for 004	N/A	N/A
FM005	SWSW	34	58	82	44.9551	-106.7407	Flow monitoring station for 005	N/A	N/A
FM006	NESW	34	58	82	44.9563	-106.7340	Flow monitoring station for 006	N/A	N/A
FM007	SWNW	35	58	82	44.9623	-106.7198	Flow monitoring station for 007	N/A	N/A
FM008	NWSE	35	58	82	44.9582	-106.7101	Flow monitoring station for 008	N/A	N/A
FM009	NESE	35	58	82	44.9573	-106.7039	Flow monitoring station for 009	N/A	N/A
FM010	SWSW	36	58	82	44.9543	-106.6989	Flow monitoring station for 010	N/A	N/A
FM011	NENW	1	57	82	44.9485	-106.6947	Flow monitoring station for 011	N/A	N/A
FM012	SWNE	1	57	82	44.9469	-106.6886	Flow monitoring station for 012	N/A	N/A
FM013	SESW	31	58	81	44.9551	-106.6749	Flow monitoring station for 013	N/A	N/A
FM014	SWNE	6	57	81	44.9471	-106.6691	Flow monitoring station for 014	N/A	N/A
FM015	SWSW	6	57	81	44.9412	-106.6771	Flow monitoring station for 015	N/A	N/A

Table 1: WY0054453 Petersen 29 Extension POD

Discharge Point	Qtr/Qtr	SECTION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater approval required for discharge?	Reservoir Bonding to WDEQ Required Prior to Discharge?
FM016	NENW	3	57	82	44.9493	-106.7324	Flow monitoring station for 016	N/A	N/A
FM017	NWNE	3	57	82	44.9510	-106.7265	Flow monitoring station for 017	N/A	N/A
FM018	NWSW	2	57	82	44.9447	-106.7191	Flow monitoring station for 018	N/A	N/A
FM019	NESW	2	57	82	44.9426	-106.7158	Flow monitoring station for 019	N/A	N/A
FM020	SWSE	2	57	82	44.9383	-106.7103	Flow monitoring station for 020	N/A	N/A
FM021	SWSE	2	57	82	44.9391	-106.7077	Flow monitoring station for 021	N/A	N/A
FM022	NENE	11	57	82	44.9376	-106.7044	Flow monitoring station for 022	N/A	N/A
FM023	NWNW	12	57	82	44.9361	-106.6992	Flow monitoring station for 023	N/A	N/A
FM024	SENW	12	57	82	44.9339	-106.6921	Flow monitoring station for 024	N/A	N/A
FM025	NWNW	22	58	82	44.9932	-106.7402	Flow monitoring station for 025	N/A	N/A
FM026	NESW	22	58	82	44.9863	-106.7327	Flow monitoring station for 026	N/A	N/A
FM027	NESE	22	58	82	44.9849	-106.7241	Flow monitoring station for 027	N/A	N/A
FM028	NWSW	22	58	82	44.9853	-106.7382	Flow monitoring station for 028	N/A	N/A
FM029	SWSE	22	58	82	44.9829	-106.7294	Flow monitoring station for 029	N/A	N/A
FM030	NESW	23	58	82	44.9854	-106.7140	Flow monitoring station for 030	N/A	N/A
FM031	SWSE	23	58	82	44.9839	-106.7073	Flow monitoring station for 031	N/A	N/A
FM032	NWNW	26	58	82	44.9790	-106.7198	Flow monitoring station for 032	N/A	N/A
FM033	NENE	27	58	82	44.9795	-106.7255	Flow monitoring station for 033	N/A	N/A
FM034	SENW	27	58	82	44.9771	-106.7319	Flow monitoring station for 034	N/A	N/A
FM035	SWNE	27	58	82	44.9753	-106.7290	Flow monitoring station for 035	N/A	N/A
FM036	NWSW	27	58	82	44.9727	-106.7376	Flow monitoring station for 036	N/A	N/A
FM037	NESW	27	58	82	44.9710	-106.7349	Flow monitoring station for 037	N/A	N/A
FM038	SENE	28	58	82	44.9776	-106.7438	Flow monitoring station for 038	N/A	N/A
FM039	NENW	26	58	82	44.9793	-106.7135	Flow monitoring station for 039	N/A	N/A
R1	NESW	26	58	82	44.9715	-106.7140	Reservoir monitoring station, 001/ER11-26	N/A	N/A
R2	NENE	33	58	82	44.9644	-106.7426	Reservoir monitoring station, 002/R1-33	N/A	N/A
R3	NESW	34	58	82	44.9560	-106.7362	Reservoir monitoring station, 003/R11-34W	N/A	N/A
R4	NESW	34	58	82	44.9567	-106.7332	Reservoir monitoring station, 004/R11-34E	N/A	N/A
R5	SWSW	34	58	82	44.9545	-106.7397	Reservoir monitoring station, 005/R13-34	N/A	N/A
R6	SESW	34	58	82	44.9552	-106.7349	Reservoir monitoring station, 006/R14-34	N/A	N/A
R7	SWNW	35	58	82	44.9620	-106.7182	Reservoir monitoring station, 007/R5-35	N/A	N/A
R8	NWSE	35	58	82	44.9574	-106.7089	Reservoir monitoring station, 008/R10-35	N/A	N/A
R9	NESE	35	58	82	44.9582	-106.7056	Reservoir monitoring station, 009/R9-35	N/A	N/A
R10	SWSW	36	58	82	44.9557	-106.6976	Reservoir monitoring station, 010/R13-36	N/A	N/A
R11	NENW	1	57	82	44.9511	-106.6946	Reservoir monitoring station, 011/ER6-1	N/A	N/A
R12	SWNE	1	57	82	44.9476	-106.6889	Reservoir monitoring station, 012/ER7-1	N/A	N/A
R13	SESW	31	58	81	44.9539	-106.6742	Reservoir monitoring station, 013/R14-31	N/A	N/A
R14	SWNE	6	57	81	44.9471	-106.6717	Reservoir monitoring station, 014/R7-6	N/A	N/A
R15	NWSW	6	57	81	44.9432	-106.6764	Reservoir monitoring station, 015/R12-6	N/A	N/A

Table 1: WY0054453 Petersen 29 Extension POD

Discharge Point	Qtr/Qtr	SECTION	TWP (N)	RNG (W)	LATITUDE	LONGITUDE	Drainage / Description	Groundwater approval required for discharge?	Reservoir Bonding to WDEQ Required Prior to Discharge?
R16	SWNE	3	57	82	44.9482	-106.7314	Reservoir monitoring station, 016/R6-3	N/A	N/A
R17	NENE	3	57	82	44.9494	-106.7259	Reservoir monitoring station, 017/R2-3	N/A	N/A
R18	SWNW	2	57	82	44.9457	-106.7206	Reservoir monitoring station, 018/R12-2	N/A	N/A
R19	SESW	2	57	82	44.9407	-106.7148	Reservoir monitoring station, 019/R11-2	N/A	N/A
R20	NWNE	11	57	82	44.9374	-106.7095	Reservoir monitoring station, 020/R2-11	N/A	N/A
R21	NWNE	2	57	82	44.9377	-106.7077	Reservoir monitoring station, 021/R15-2	N/A	N/A
R22	NWNE	11	57	82	44.9378	-106.7065	Reservoir monitoring station, 022/R1-11	N/A	N/A
R23	SWNW	12	57	82	44.9338	-106.6990	Reservoir monitoring station, 023/R4-12	N/A	N/A
R24	NENW	12	57	82	44.9349	-106.6921	Reservoir monitoring station, 024/ER6-12	N/A	N/A
R25	NWNW	22	58	82	44.9932	-106.7385	Reservoir monitoring station, 025/R4-22	N/A	N/A
R26	NESW	22	58	82	44.9870	-106.7343	Reservoir monitoring station, 026/R11-22	N/A	N/A
R27	NESE	22	58	82	44.9858	-106.7244	Reservoir monitoring station, 027/R9-22	N/A	N/A
R28	NWSW	22	58	82	44.9847	-106.7366	Reservoir monitoring station, 028/R12-22S	N/A	N/A
R29	SWSE	22	58	82	44.9838	-106.7298	Reservoir monitoring station, 029/R15-22	N/A	N/A
R30	NESW	23	58	82	44.9862	-106.7144	Reservoir monitoring station, 030/R11-23	N/A	N/A
R31	SESE	23	58	82	44.9822	-106.7062	Reservoir monitoring station, 031/R16-23	N/A	N/A
R32	NWNW	26	58	82	44.9792	-106.7175	Reservoir monitoring station, 032/R4-26	N/A	N/A
R33	NENE	27	58	82	44.9798	-106.7240	Reservoir monitoring station, 033/R1-27	N/A	N/A
R34	SWNE	27	58	82	44.9764	-106.7308	Reservoir monitoring station, 034/R7-27N	N/A	N/A
R35	SWNE	27	58	82	44.9740	-106.7289	Reservoir monitoring station, 035/R7-27S	N/A	N/A
R36	NESW	27	58	82	44.9721	-106.7360	Reservoir monitoring station, 036/R12-27	N/A	N/A
R37	NESW	27	58	82	44.9708	-106.7331	Reservoir monitoring station, 037/R11-27	N/A	N/A
R38	NENE	28	58	82	44.9790	-106.7423	Reservoir monitoring station, 038/R1-28	N/A	N/A
R39	NENW	26	58	82	44.9781	-106.7141	Reservoir monitoring station, 039/R3-26	N/A	N/A
CU40	NWNE	35	58	82	44.9662	-106.7069	Containment unit monitoring station, 040/P2-35N	N/A	N/A
CU41	NWNE	35	58	82	44.9662	-106.7081	Containment unit monitoring station, 041/P2-35S	N/A	N/A
CU42	SENW	35	58	82	44.9629	-106.7143	Containment unit monitoring station, 042/P6-35	N/A	N/A
CU43	SWSE	36	58	82	44.9526	-106.6891	Containment unit monitoring station, 043/P15-36	N/A	N/A
CU44	SWNW	1	57	82	44.9484	-106.6964	Containment unit monitoring station, 044/P5-1	N/A	N/A
CU45	SWNW	11	57	82	44.9337	-106.7166	Containment unit monitoring station, 045/P6-11	N/A	N/A
CU46	SESW	22	58	82	44.9839	-106.7353	Containment unit monitoring station, 046/P14-22	N/A	N/A

Requests for modification of the list below 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.

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 WDQ.

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.

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.

PART II

A. MANAGEMENT REQUIREMENTS

1. 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. For any incidence of noncompliance, including noncompliance related to non-toxic pollutants or non-hazardous substances, a written submission shall be provided within five (5) days of the time that the permittee becomes aware of the noncompliance circumstance.

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 as soon as possible, but no later than 24 hours from the time the permittee first 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 toxic pollutants or hazardous substances, or any pollutants specifically identified as the method to control a toxic pollutant or hazardous substance 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.

f. Reports shall be submitted to the Wyoming Department of Environmental Quality at the address in Part I under Reporting and to the 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.

g. The permittee shall report all instances of noncompliance that have not been specifically addressed in any part of this permit at the time the monitoring reports are due.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypass of Treatment Facilities

a. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

b. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c. and d. of this section. Return of removed substances to the discharge stream shall not be considered a bypass under the provisions of this paragraph.

c. Notice:

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice at least 60 days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.A.2.

d. Prohibition of bypass.

(1) Bypass is prohibited and the administrator of the Water Quality Division may take enforcement action against a permittee for a bypass, unless:

(a) The bypass was unavoidable to prevent loss of life, personal injury or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notices as required under paragraph c. of this section.

e. The administrator of the Water Quality Division may approve an anticipated bypass, after considering its adverse effects, if the administrator determines that it will meet the three conditions listed above in paragraph d. (l) of this section.

6. Upset Conditions

a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improper designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph c. of this section are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required under Part II.A.2; and

(4) The permittee complied with any remedial measures required under Part II.A.4.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Removed Substances

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters or intake waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state.

8. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with a schedule of compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities; or

b. If such alternative power source as described in paragraph a. above is not in existence and no date for its implementation appears in Part I, take such precautions as are necessary to maintain and operate the facility under its control in a manner that will minimize upsets and insure stable operation until power is restored.

9. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal act and the Wyoming Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the administrator of the Water Quality Division advance notice of any planned changes at the permitted facility or of any activity which may result in permit noncompliance.

10. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

11. Signatory Requirements

All applications, reports or information submitted to the administrator of the Water Quality Division shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;

(3) For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the administrator of the Water Quality Division shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above and submitted to the administrator of the Water Quality Division; and

(2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

c. If an authorization under paragraph II.A.11.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph II.A.11.b must be submitted to the administrator of the Water Quality Division prior to or together with any reports, information or applications to be signed by an authorized representative.

d. Any person signing a document under this section shall make the following certification:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

B. RESPONSIBILITIES

1. Inspection and Entry

If requested, the permittee shall provide written certification from the surface landowner(s), if different than the permittee, that the administrator or the administrator's authorized agent has access to all physical locations associated with this permit including well heads, discharge points, reservoirs, monitoring locations, and any waters of the state.

The permittee shall allow the administrator of the Water Quality Division or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

d. Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the federal act, any substances or parameters at any location.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the regional administrator of the Environmental Protection Agency and the administrator of the Water Quality Division. The administrator of the Water Quality Division shall then provide written notification to the new owner or controller of the date in which they assume legal responsibility of the permit. The permit may be modified or revoked and reissued to change the name of the permittee and incorporate such other requirements as described in the federal act.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the federal act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Wyoming Department of Environmental Quality and the regional administrator of the Environmental Protection Agency. As required by the federal act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the federal act.

4. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under Section 307 (a) of the federal act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Changes in Discharge of Toxic Substances

Notification shall be provided to the administrator of the Water Quality Division as soon as the permittee knows of, or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 µg/l);

(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/1) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21 (g) (7); or

(4) The level established by the director of the Environmental Protection Agency in accordance with 40 CFR 122.44 (f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/l);

(2) One milligram per liter (1 mg/1) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21 (g) (7); or

(4) The level established by the director of the Environmental Protection Agency in accordance with 40 CFR 122.44 (f).

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. As long as the conditions related to the provisions of "Bypass of Treatment Facilities" (Part II.A.5), "Upset Conditions" (Part II.A.6), and "Power Failures" (Part II.A.8) are satisfied then they shall not be considered as noncompliance.

7. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

8. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the federal act.

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state or federal law or regulation. In addition, issuance of this permit does not substitute for any other permits required under the Clean Water Act or any other federal, state, or local law.

10. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights nor any infringement of federal, state or local laws or regulations.

11. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.

12. Duty to Provide Information

The permittee shall furnish to the administrator of the Water Quality Division, within a reasonable time, any information which the administrator may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the administrator, upon request, copies of records required by this permit to be kept.

13. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the administrator of the Water Quality Division, it shall promptly submit such facts or information.

14. Permit Action

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

15. Permit Fees

Once this permit has been issued, the permittee will be assessed a $100.00 per-year permit fee by the Water Quality Division. The fee year runs from July 1st through June 30th. This permit fee will continue to be assessed for as long as the permit is active, regardless of whether discharge

actually occurs. This fee is not pro-rated. If the permit is active during any portion of the fee year, the full fee will be billed to the permittee for that fee year. In the event that this permit is transferred from one permittee to another, each party will be billed the full permit fee for the fee year in which the permit transfer was finalized.

PART III

A. OTHER REQUIREMENTS

1. Flow Measurement

At the request of the administrator of the Water Quality Division, the permittee must be able to show proof of the accuracy of any flow measuring device used in obtaining data submitted in the monitoring report. The flow measuring device must indicate values of within plus or minus ten (10) percent of the actual flow being measured.

2. 208(b) Plans

This permit may be modified, suspended or revoked to comply with the provisions of any 208(b) plan certified by the Governor of the State of Wyoming.

3. Reopener Provision

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary) or other appropriate requirements if one or more of the following events occurs:

a. The state water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit;

b. A total maximum daily load (TMDL) and/or watershed management plan is developed and approved by the state and/or the Environmental Protection Agency which specifies a wasteload allocation for incorporation in this permit;

c. A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit;

d. Downstream impairment is observed and the permitted facility is contributing to the impairment;

e. The limits established by the permit no longer attain and/or maintain applicable water quality standards;

f. The permit does not control or limit a pollutant that has the potential to cause or contribute to a violation of a state water quality standard.

g. If new applicable effluent guidelines and/or standards have been promulgated and the standards are more stringent than the effluent limits established by the permit.

h. In order to protect water quality standards in neighboring states, effluent limits may be incorporated into this permit or existing limits may be modified to ensure that the appropriate criteria, water quality standards and assimilative capacity are attained.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended or revoked in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

d. If necessary to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (C) and (D), 304 (b) (2) and 307 (a) (2) of the federal act, if the effluent standard or limitation so issued or approved:

(1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

(2) Controls any pollutant not limited in the permit.

5. Toxicity Limitation - Reopener Provision

This permit may be reopened and modified (following proper administrative procedures) to include a new compliance date, additional or modified numerical limitations, a new or different compliance schedule, a change in the whole effluent protocol or any other conditions related to the control of toxicants if one or more of the following events occur:

a. Toxicity was detected late in the life of the permit near or past the deadline for compliance;

b. The TRE results indicate that compliance with the toxic limits will require an implementation schedule past the date for compliance and the permit issuing authority agrees with the conclusion;

c. The TRE results indicate that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits and the permit issuing authority agrees that numerical controls are the most appropriate course of action;

d. Following the implementation of numerical controls on toxicants, the permit issuing authority agrees that a modified whole effluent protocol is necessary to compensate for those toxicants that are controlled numerically;

e. The TRE reveals other unique conditions or characteristics which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

6. Severability

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected thereby.

7. Penalties for Falsification of Reports

The federal act provides that any person who knowingly makes any false statement, representation or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance 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.