

**Wyoming Department of Environmental Quality
Water Quality Division
WYPDES Program**

STATEMENT OF BASIS

Major Modification

APPLICANT NAME: Petro-Canada Resources (USA), Inc.

MAILING ADDRESS: 1099 18th Street, Suite 400
Denver, CO 80202

FACILITY LOCATION: Wild Turkey CBM Treatment Facility, located in the SESW of Section 17 and the SWSE Section 21, Township 49 North, Range 77 West and SWNW of Section 6, Township 48 North, Range 76 West in Johnson County. The produced water will be treated and discharged to Van Houten Draw (class 3B) tributary to and directly to the Powder River (class 2ABWW) via pipeline. The daily maximum permitted flow rate for this facility is 10.8 MGD. This permit does not regulate which coal seam(s) may contribute to the discharge.

NUMBER: WY0050270

Upon approval of this major modification, the terms of permit WY050270 are hereby modified as follows:

1. *Add one (1) new outfall (003). See Section 12, Table 1.*
2. *In accordance with current WDEQ policy, the effluent limit and monitoring requirements for total petroleum hydrocarbons (TPH) are removed.*
3. *The initial monitoring list is updated to 24 constituents.*

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 judgment 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 to enhance 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. The permit establishes effluent limits for the end of pipe, which are protective of all the designated uses defined in Chapter 1 of Wyoming Water Quality Rules and Regulations. This may include drinking water, game and non-game fish, fish consumption, aquatic life other than fish, recreation, agriculture (including irrigated agriculture), wildlife, industry and scenic value. Based on a review of this permit application, it has been determined that active irrigation uses of surface water do occur downstream from this facility on the Powder River within Wyoming.

The Wyoming DEQ has determined through review of the permit application and available scientific information that effluent discharged from this facility will be put to beneficial use. The permittee has

submitted certified statements that demonstrate discharged effluent will be put to beneficial use for wildlife watering in this project area.

Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. This permit originally established a total petroleum hydrocarbons (TPH) limit of 10 mg/l at the end of pipe. A review of discharge monitoring report data for this facility and other CBM facilities in Northeast Wyoming indicates that the maximum reported concentrations for total petroleum hydrocarbons (TPH) in the discharge were well below the water quality standard of 10 mg/l established in Chapter 1 of the Wyoming Water Quality Rules and Regulations. Therefore, WDEQ has removed the effluent limit and monitoring requirements for TPH in this permit. Based on evaluation of the available data, it is WDEQ's determination that removing the total petroleum hydrocarbons limits from this permit conforms to the anti-backsliding requirements established in Section 402(o).2.B.4 of the Clean Water Act. The daily maximum effluent flow limit for this facility is 10.8 MGD. The pH is adjusted to remain within 6.5 and 9.0 standard units. Effluent limits for total dissolved solids (5,000 mg/l) 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 2 and apply to discharge from any permitted outfall. In addition, the permit establishes a radium 226 limit of 1 pCi/l, a dissolved iron limit of 299 µg/l, a dissolved manganese limit of 629 µg/l, a total barium limit of 1800 µg/l, a total arsenic limit of 7 µg/l, and a chlorides limit of 46 mg/l. These limits are based on standards for class 2AB waters which are intended to protect for the above listed designated uses and reflect the application of the antidegradation provisions required under Chapter 1 of the Wyoming Water Quality Rules and Regulations. Also this permit includes effluent limits for specific conductance (2,000 micromhos/cm) and Dissolved Sodium (325 mg/L), which are intended to protect for downstream irrigation uses on the Powder River within Wyoming and are established in accordance with Chapter 1, Section 20 of the Wyoming Water Quality Rules and Regulations.

Results are to be reported twice-yearly and if no discharge occurs at a given outfall for an entire sampling period, then "no discharge" is to be reported for that outfall. 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 and regulate coal bed methane discharge for compliance with Chapter 1, Section 20 (protection of agricultural water supply), effluent limits for specific conductance and dissolved sodium are included in this permit. The Wyoming DEQ has determined that a specific conductance (EC) limit of 2,000 at the end of pipe and a dissolved sodium limit of 325 mg/l at the end of pipe will protect for downstream uses of irrigation on the Powder River within Wyoming. The specific conductance effluent limit of 2,000 micromhos/cm is based on the threshold value for alfalfa which appears to be the most salt sensitive plant irrigated downstream from this facility in Wyoming (USDA George E. Brown Jr. Salinity Laboratory, Salt Tolerance Database, Grasses and Forage Crops). The application identifies active irrigation of alfalfa approximately 60 miles downstream from this discharge on the Powder River in Townships 54 and 55 North, Range 77 West. The dissolved sodium limit of 325 mg/l is intended to maintain an average SAR of 6 in the Powder River downstream during critical low flow periods in the Powder River (100-300 cubic feet per second) as well as during periods of higher flows in the Powder River. The effluent limit of 325 mg/l for dissolved sodium is based on mass balance calculations (for dissolved sodium, dissolved calcium, and dissolved magnesium) that use a critical low flow for the Powder River of 200 cubic feet per second (cfs). This critical low flow for the Powder River was used because the application determined through field interviews and modeling that irrigation does not occur downstream on the Powder River within Wyoming when flows are below 200 cfs. Background levels for specific conductance and background concentrations for dissolved sodium, dissolved calcium, and dissolved magnesium were obtained from historic data (1947 through 2001) collected at USGS gauging station 06317000 on the Powder River at Arvada, Wyoming. A downstream SAR of 6 and specific conductance of 2,000 micromhos/cm will maintain the baseline C3-S2 irrigation suitability category for the Powder River (see Figure 25, of Diagnosis and Improvement of Saline and Alkali Soils, US Dept. of Agricultural Handbook No. 60, 1954).

The permit also requires sampling at designated water quality monitoring stations located on the receiving stream (Powder River). Water quality monitoring stations on the Powder River will be located upstream

and downstream of the confluence of this discharge with the Powder River. Effluent samples at the designated water quality monitoring stations must be collected on a monthly sampling period and are to be reported semiannually. If no effluent is discharged from this facility, then "no discharge" is to be reported and samples need not be collected at the two water quality monitoring stations for that monthly sampling period. At the designated water quality monitoring stations, monitoring will be required for calcium, chlorides, magnesium, sodium, sodium adsorption ratio, specific conductance, bicarbonate, and pH. Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the mainstem.

The designated water quality monitoring stations are located upstream on the Powder River in the SWSE of Section 8, Township 48 North, Range 77 West and downstream on the Powder River in the SWSW of Section 17, Township 50 North, Range 77 West. These water quality monitoring stations are to be located outside the mixing zone of the outfalls with the Powder River.

This discharge facility will consist of the associated CBM wells, gathering lines for raw produced water, in-line reverse osmosis treatment unit(s), and a pipeline to transport the treated effluent directly to the Powder River. The wells at this facility may also discharge to outfalls authorized under NPDES permit WY0050288 (Wild Turkey CBM Containment Facility). That facility receives CBM produced water from the same wells associated with this permit (WY0050270) in several on-channel reservoirs located within the Dead Horse Creek drainage. Those reservoirs are designed to contain a significant portion of the effluent from this facility plus a 100-year / 24-hour storm event. The containment facility will serve as a back-up discharge location during any periods of servicing or malfunction of the treatment unit(s). If the reservoirs have become full to their design capacity and the treatment unit is not operational, then this permit requires that the discharging wells be shut in immediately in order to avoid overfilling of the reservoirs or bypass of the treatment works.

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 July 31, 2008.

Jason Thomas
Water Quality Division
Department of Environmental Quality
May 22, 2003
Major Modification – Bob Alexander – June 8, 2005

MODIFICATION OF 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,

Petro-Canada Resources (USA), Inc.

is authorized to discharge from the wastewater treatment facilities serving the

Wild Turkey CBM Treatment Facility

located in

the SESW of Section 17 and the SWSE Section 21, Township 49 North, Range 77 West, and the SWNW of Section 6, Township 48 North, Range 76 West in Johnson County

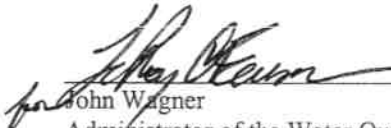
to receiving waters named

Van Houten Draw (3B) a tributary of and directly to the Powder River (class 2ABWW) via pipeline from treatment works

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

This permit became effective on July 20, 2004, and the effective date of this major modification shall be the date it is signed by the Director of the Department of Environmental Quality below. With the exception of items explicitly delineated in the major modification, all terms and conditions of permit WY0050270, including Parts II and III of the original permit, shall remain unchanged and in full force and effect.

This permit and the authorization to discharge shall expire at midnight July 31, 2008.


John Wagner
Administrator of the Water Quality Division

23 Sept 05
Date


John V. Corra
Director - Department of Environmental Quality

9/23/05
Date

PART IA. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effective immediately and lasting through July 31, 2008, 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 numbers 001, 002, 003.

1. Such discharges shall be limited as specified below:

<u>Effluent Characteristic</u>	<u>Effluent Limits</u>	
	<u>Daily Maximum</u>	
Chlorides, mg/l	46	
Dissolved Iron, µg/l	299	
Dissolved Manganese, µg/l	629	
pH, standard units	6.5 – 9.0	
Specific Conductance, micromhos/cm	2,000	
Dissolved Sodium, mg/l	325	
Sulfates, mg/l	3000	
Total Arsenic, µg/l	7	
Total Barium, µg/l	1800	
Total Dissolved Solids, mg/l	5000	
Total Radium 226, pCi/l	1	
Total Flow, MGD*	10.8	

*This shall be the combined maximum flow from outfalls 001,002, 003.

- 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.
- 2) '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 9.0 standard units in any single grab sample.

The daily maximum permitted discharge flow rate for this facility is 10.8 million gallons per day (MGD). Since this is a treatment facility, the wells at this facility may discharge from any coal seam, provided the above established effluent limits are not exceeded at the outfall.

All wells associated with this permit are authorized to discharge to any of the outfalls (001,002, 003) and may also discharge to outfalls authorized under permit WY0050288.

The wells associated with this permit (WY0050270) may also discharge to outfalls authorized under NPDES permit WY0050288, which flow into several on-channel reservoirs located within the Dead Horse Creek drainage. Those reservoirs are designed to contain a significant portion of the effluent from this facility plus a 100-year / 24-hour storm event. The containment facility will serve as a back-up discharge location during any periods of servicing or malfunction of the treatment unit(s). If the reservoirs have become full to their design capacity and the treatment unit is not operational, then this permit requires that the discharging wells be shut in immediately to avoid overfilling of the reservoirs or bypass of the treatment works.

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.

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. Initial Monitoring- end of pipe (001,002,003)

Upon approval of this modification and following commencement of discharge, an initial monitoring report (IMR) will be required for any outfall that has not yet been reported. Outfalls that have had IMRs submitted do not need to resubmit following approval of this modification.

Within 60 days of commencement of discharge following issuance of this new permit or permit renewal, 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 following issuance of this new permit or permit renewal, 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.c. may be modified to require more stringent monitoring.

<u>Parameter</u> (See notes following the table on chemical states)	<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 meq/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
Flow Volume	within 10% of actual volume	Monthly Total
Total Hardness	10 mg/l as CaCO ₃	Grab

<u>Parameter</u> (See notes following the table on chemical states)	<u>Required Detection Limit</u>	<u>Sample Type</u>
Dissolved Lead	2 µg/l	Grab
Dissolved Magnesium	as meq/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 meq/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
Total Beryllium	0.03 µg/l	Grab
Dissolved Zinc	10 µg/l	Grab
Bicarbonate	1 mg/l	Grab
Total Dissolved Solids	5 mg/l	Grab

b. Initial Monitoring- water quality monitoring stations (UPR, DPR)

At the time of initial sampling for the above listed parameters at the outfalls, a sample shall also be collected at each of the mainstem monitoring stations (UPR, DPR) and analyzed for the 9 constituents specified below, at the required detection limits. At the same time that the initial monitoring results for outfalls 001, 002 and 003 are submitted, results for the parameters listed below (sampled from UPR and DPR) 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 9 constituents. In addition, the report must include written notification of the established location of the monitoring points (refer to Part I.B.11). The legal description and location in decimal degrees of the established monitoring point(s) must be provided. After receiving the upstream and downstream monitoring results from the time of the initial discharge, the routine monitoring requirements described in Part I.A.2.d. may be modified to require more stringent monitoring. In addition, if initial monitoring at the upstream and downstream water quality stations indicates that the discharge authorized under this permit threatens to adversely impact downstream uses of the Powder River, then the effluent limits in Part I.A.1 of this permit may be modified accordingly.

<u>Parameter</u>	<u>Required Detection Limit</u>	<u>Sample Type</u>
Radium 22	0.2 pCi/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
Flow Rate	± 10% of actual rate	Instant

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

c. Routine monitoring End of Pipe (001, 002, 003)

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>
Bicarbonate	Monthly	Grab
Dissolved Calcium	Monthly	Grab
Chloride	Monthly	Grab
Dissolved Iron	Annually	Grab
Dissolved Manganese	Annually	Grab
Dissolved Fluoride	Monthly	Grab
Dissolved Magnesium	Monthly	Grab
Dissolved Sodium	Monthly	Grab
pH	Monthly	Grab
Dissolved Potassium	Monthly	Grab
Radium 226	Annually	Grab
Sodium Adsorption Ratio	Monthly	Calculated
Specific Conductance	Monthly	Grab
Sulfate	Monthly	Grab
Total Alkalinity	Monthly	Grab
Total Arsenic	Annually	Grab
Total Barium	Annually	Grab
Total Flow - (MGD)	Monthly	Continuous

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 Water Quality Monitoring Stations (UPR, DPR)

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 monthly time frames, and reported semiannually.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Dissolved Calcium	Monthly	Grab
Chloride	Monthly	Grab
Dissolved Magnesium	Monthly	Grab
Dissolved Sodium	Monthly	Grab
Sodium Adsorption Ratio	Monthly	Calculated
pH	Monthly	Grab
Bicarbonate	Monthly	Grab
Specific Conductance	Monthly	Grab
Flow	Monthly	Instantaneous

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): designated water quality monitoring stations located upstream on the Powder River in the SWSE of Section 8, Township 48 North, Range 77 West and downstream on the Powder River in the SWSW of Section 17, Township 50 North, Range 77 West. Established water quality monitoring stations on the mainstem are to be located outside the mixing zone of the tributary with the mainstem. Results are to be reported semiannually and if no effluent is discharged from this facility, then "no discharge" is to be reported and samples need not be collected at the two water quality monitoring stations for that monthly sampling period.

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 90 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 Whole effluent toxicity testing (biomonitoring) is required, 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 approval of this major modification is due by February 15, 2006.

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

Discharge Point # (Outfall)	Immediate Receiving Stream	Mainstem	Distance From Outfall to Mainstem (stream miles)	Qtr/Qtr	Section	Twn	Rng	Latitude	Longitude	County	Reservoir Permit Application Submitted To SEO?	SEO Reservoir Permit #	Reservoir Name	SEO Reservoir Reqmts
001	Powder River	Powder River	0	SESW	17	49	77	44.21250	109.14944	Johnson	N/A	N/A	N/A	N/A
002	Powder River	Powder River	0	SWSE	21	49	77	44.19916	106.12722	Johnson	N/A	N/A	N/A	N/A
003	Van Houten Draw	Powder River	5.9	SWNW	6	48	76	44.16418	106.04990	Johnson	N/A	N/A	N/A	N/A
TRIB	Van Houten Draw			SWNE	33	49	77	44.17838	106.12751	Johnson				
WQMS - Up	Powder River			SWSE	8	48	77	44.14278	106.14333	Johnson				
WQMS - Down	Powder River			SWSW	17	50	77	44.29944	106.15750	Johnson				

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 WATER QUALITY MONITORING STATIONS

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.

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

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

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

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.