# MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL PERMIT
For
PRODUCED WATER

Permit No.: MTG310000

### <u>AUTHORIZATION TO DISCHARGE UNDER THE</u> MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA), and the federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. 1251 et. seq., applicants issued an authorization letter for this Produced Water General Permit, are permitted to discharge produced water to state ephemeral waters in accordance permit compliance requirements and other conditions set forth herein.

A copy of this General Permit and a written confirmation letter of authorization from the Department must be kept on site at all times. The General Permit is not valid without a current letter of authorization from the Department.

This permit shall become effective May 1, 2015.

This permit and the authorization to discharge shall expire at midnight, April 30, 2020.

FOR THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Jon Kenning, Chief

Water Quality Bureau

Permitting and Compliance Division

Issuance Date: March 25, 2015

## TABLE OF CONTENTS

I.	EL	IGIBILITY AND APPLICATION PROCESSES	3
	A.	SOURCES ELIGIBLE FOR COVERAGE	3
	B.	SOURCES EXCLUDED FROM COVERAGE	3
	C.	MAINTAIN PERMIT COVERAGE UNDER THE 2010-ISSUED PWGP (EXPIRES 2015)	4
	D.	OBTAIN PERMIT COVERAGE UNDER THE 2015-ISSUED PWGP	
	E.	TERMINATE PERMIT COVERAGE	5
	F.	Transfer Permit Coverage	5
II.	PE	RMIT COMPLIANCE	
	A.	EFFLUENT LIMITATIONS	6
	В.	SELF-MONITORING REQUIREMENTS	
	C.	OTHER MONITORING REQUIREMENTS	
	D.	SPECIAL CONDITIONS	
III.	ST	ANDARD CONDITIONS	10
	A.	DUTY TO COMPLY	10
	В.	DUTY TO REAPPLY	10
	C.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	10
	D.	DUTY TO MITIGATE	11
	E.	PROPER OPERATION AND MAINTENANCE	11
	F.	PERMIT ACTIONS	11
	G.	PROPERTY RIGHTS	11
	H.	DUTY TO PROVIDE INFORMATION	
	I.	INSPECTION AND ENTRY	
	J.	MONITORING AND RECORDS.	12
	K.	FALSIFICATION AND TAMPERING	12
	L.	SIGNATORY REQUIREMENT	13
	M.	REPORTING REQUIREMENTS	13
	N.	TWENTY-FOUR HOUR REPORTING	14
	O.	OTHER NONCOMPLIANCE-REPORTING	14
	P.	OTHER INFORMATION	15
	Q.	BYPASS	
	R.	UPSET	16
	S.	FEES	16
VI.	DE	FINITIONS AND ABBREVIATIONS	17

#### I. ELIGIBILITY AND APPLICATION PROCESSES

#### A. <u>Sources Eligible for Coverage</u>

This Produced Water General Permit (PWGP) applies to all areas of the State of Montana, except for Indian Lands, National Parks, and the state waters in Rosebud Creek, Tongue, Powder, and Little Powder River watersheds.

This PWGP applies to oil and gas production facilities, as defined in 40 CFR Part 435 Subpart E that propose to discharge produced water into state ephemeral waters for use in agriculture or wildlife propagation. The term "use in agriculture or wildlife propagation" means that the produced water is of good enough quality to be used for wildlife or livestock watering or other agricultural uses and that the produced water is actually put to such use during periods of discharge.

"Produced water" is the water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and may include formation water, injection water, and any chemicals added downhole or during the oil/water separation process.

### B. Sources Excluded from Coverage

The following sources are excluded from coverage under this PWGP:

- 1. Facilities proposing to discharge produced water into the Rosebud Creek, Tongue, Powder, and Little Powder River watersheds are not eligible for coverage under this PWGP and must apply for coverage under a MPDES individual permit.
- 2. Facilities proposing to discharge produced water into intermittent or perennial waters are not eligible for coverage under this PWGP and must apply for an individual MPDES permit
- 3. The discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the PWGP. Specifically, the national Effluent Limitation Guidelines (ELGs) specified in 40 CFR Part 435, Subpart E were promulgated for traditional oil and gas production, but not for coal bed natural gas (CBNG) production. CBNG discharges are considered different in degree and nature and are excluded from coverage under the PWGP.
- 4. The discharge to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, *et seq.*, MCA.
- 5. The point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

Permit No.: MTG310000

## C. <u>Maintain Permit Coverage under the 2010-Issued PWGP (Expires 2015)</u>

All existing facilities with effective coverage under the 2010 PWGP are eligible for coverage under the renewed PWGP unless they are excluded according to the rules in Section I.B of this permit. Eligible facilities seeking continued coverage must submit a complete NOI package 30 days prior to the expiration of the 2010 PWGP for review and approval. A complete NOI package for renewal consists of:

- a) Produced Water Notice of Intent (NOI-31) Form;
- b) Produced Water-1 (PW-1) Form (Storage Capacity Self-Evaluation Worksheet) with supporting documents (required Attachment I, and optional Attachments II and III as necessary);
- c) Certification on the NOI that the discharged produced water meets the water quality requirements and the submission of a water quality analysis for the parameters specified in Section II.D within six months of the expiration date of the 2010 permit (sample date must be within two years prior to analysis submission date); and
- d) Applicable Fees as required under ARM 17.30.201 Schedule I.B.

Permit coverage will be extended under the 2010 PWGP to facilities that submit the above materials 30 days prior to the expiration of the 2010 PWGP and a water quality analysis within six months of the permit expiration date unless notified by the Department that the coverage has been terminated. Once a complete NOI package is received and reviewed, the Department will make a determination whether to reissue a confirmation letter for coverage under this permit or deny coverage. The facility is authorized to discharge upon receiving the confirmation letter, which must be accompanied by a copy of the PWGP to be considered valid.

#### D. Obtain Permit Coverage under the 2015-Issued PWGP

New dischargers seeking to obtain coverage to discharge under the PWGP must submit a complete NOI package at least 30 days prior to commencing operation, including:

- a) Produced Water Notice of Intent (NOI-31) Form;
- b) Produced Water-1 (PW-1) Form (Storage Capacity Self-Evaluation Worksheet) with supporting documents (required Attachment I, and optional Attachments II and III as necessary):
- c) A water quality analysis for the parameters specified in Section II.D (sample date must be within two years prior to NOI submission date); and
- d) Applicable Fees as required under ARM 17.30.201 Schedule I.B.

The Department will review the application and determine whether to deny coverage or issue a confirmation letter to the owner or operator of the PWGP facility after receiving a complete NOI package. The facility is authorized to discharge upon receiving the confirmation letter, which must be accompanied by a copy of the PWGP to be considered valid. If the facility does not meet the requirements of the PWGP and the coverage is denied, the Department will start to process the NOI package as an MDPES individual

PART I Page 5 of 20 Permit No.: MTG310000

permit once applicable fees for an individual permit are received, unless the applicant modifies the proposed discharge to meet the requirements of the PWGP, or withdraws the application. If the applicant withdraws the application, they must reapply with a full NOI package and applicable fees should coverage under the PWGP be sought in the future.

#### E. Terminate Permit Coverage

Permit coverage remains in effect until the expiration date of this PWGP or the Department receives notice from the permittee that the point source discharge has been eliminated. To terminate the coverage, the permittee must submit a complete Request for Termination (RFT) Form to the Department indicating the produced water discharge activity has ceased and will not continue in the future. The RFT must be signed and certified in accordance with ARM 17.30.1323 and all applicable fees must be paid. Permittees will continue to accrue annual fees until the Department receives a complete RFT.

If an individual produced water MPDES permit is issued to the owner or operator of a facility already covered under the PWGP, coverage under the PWGP will be terminated on the effective date of the individual MPDES permit.

#### F. <u>Transfer Permit Coverage</u>

The owner or operator of a facility covered under this PWGP may request to transfer coverage under the PWGP to a new owner or operator. To transfer permit coverage, the permittee must submit a complete Permit Transfer Notification (PTN) Form to the Department at least 30 days prior to the effective date of the proposed transfer. The PTN constitutes written notice to the Department under the Montana Water Quality Act that the new owner or operator assumes responsibility and liability for all the terms and conditions in the permit, including permit fees. The PTN form may not be used to transfer permit coverage to a new or different site location or to modify the terms and conditions of the permit.

#### II. PERMIT COMPLIANCE

### A. <u>Effluent Limitations</u>

Beginning on the effective date of the permit and lasting through the duration of the permit, the permittee is authorized to discharge from the outfall(s) specifically described in the authorization letter at the effluent limits in Table 1.

Table 1: Final Numeric Effluent Limits					
Parameter	Units	Average Monthly <sup>(1)</sup>	Maximum Daily <sup>(1)</sup>		
Oil and Grease <sup>(2)</sup>	mg/L	Not Applicable	10		
Total Dissolved Solids (TDS)	mg/L	5,000	Not Applicable		

#### Footnotes

There shall be no discharge of waste pollutants into state waters other than ephemeral drainages from any source (other than produced water) associated with production, field exploration, drilling, well completion, or well treatment (including but not limited to drilling muds, drilling cuttings, and produced sands).

#### B. <u>Self-Monitoring Requirements</u>

All analytical procedures must comply with the specifications of 40 CFR Part 136 and the analysis must meet any Required Reporting Values (RRVs) listed in Circular DEQ-7 unless otherwise specified.

Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR Part 136. Monitoring of the effluent must be representative of the volume and nature of the discharge. Effluent quality will be monitored at the discharge location (outfall) after all treatment has occurred prior to produced water entering the receiving ephemeral drainage and/or impoundment. Monitoring is required semiannually, and samples must be collected at least 5 months apart.

Monitoring is only required during periods of discharge. If no discharge occurs, permittees shall indicate "no discharge" on the DMRs for the effluent. Monitoring requirements are presented in Table 2.

<sup>1.</sup> See definition section at end of permit for explanation of terms.

<sup>2.</sup> EPA Method 1664A, 40 CFR, Part 136, Table IB.

PART II Page 7 of 20

Permit No.: MTG310000

Table 2: Outfall Monitoring Requirements							
Parameter	Units	Frequency	Sample Type <sup>(1)</sup>				
Effluent Flow	gpm	Semiannual <sup>(2)</sup>	Instantaneous				
Oil and Grease, mg/L <sup>(3)</sup>	mg/L	Semiannual <sup>(2)</sup>	Grab				
Total Dissolved Solids (TDS)	mg/L	Semiannual <sup>(2)</sup>	Grab				
Sulfate	mg/L	Semiannual <sup>(2)</sup>	Grab				
Electrical Conductivity (EC)	μS/cm <sup>(4)</sup>	Semiannual <sup>(2)</sup>	Instantaneous				

#### Footnotes:

- See definition section at end of permit for explanation of terms. Monitoring is only required during periods with discharge to the receiving water.
- 2. Monitoring must be conducted at least five months apart.
- 3. EPA Method 1664A, 40 CFR, Part 136, Table IB.
- 4. μS/cm microSiemens/cm.

### C. Other Monitoring Requirements

The Department may adjust monitoring frequency for parameters on a case-by-case basis. Changes will be specified in the authorization letter.

#### D. Special Conditions

The applicant must meet the following prerequisites to be authorized to discharge under the PWGP:

#### 1. Produced Water Storage Capacity Self-Evaluation

Completion of a storage capacity self-evaluation and submission of the results on Form PW-1 must be included in the application package. As discussed in Section I, this PWGP only authorizes produced water discharges that can be contained within ephemeral drainages and/or impoundments. The PW-1 Form is designed to allow a permittee to evaluate the storage capacity of the receiving ephemeral drainage and/or impoundment to ensure adequate storage for their produced water discharge. Using the PW-1 Form, permittees must demonstrate adequate storage capacity for the discharged produced water as a prerequisite for authorization under the PWGP.

### 2. Livestock and Wildlife Drinking Water Requirements

40 CFR Part 435, Subpart E, specifies that produced water for beneficial use must be "good enough quality to be used for wildlife or livestock watering or other agricultural uses." Therefore, as a prerequisite for coverage under this PWGP, the applicant must demonstrate the produced water is of high enough quality for beneficial use through a water quality analysis. The applicant must conduct a water quality analysis for the parameters listed in Table 3 below; ensuring the maximum allowable concentrations are not exceeded. The applicant must complete the Water Quality Analysis Section of the NOI-31 and submit a lab

analysis report demonstrating the quality of the produced water in accordance with the compliance schedule in Table 4.

Table 3: Wildlife and Livestock Drinking Water Requirements						
Parameter	Units	Type <sup>(1)</sup>	Maximum Allowable Concentration			
Arsenic, total recoverable	mg/L	Grab	0.5			
Boron	mg/L	Grab	5.0			
Copper, total recoverable	mg/L	Grab	0.5			
Electric Conductivity (EC)	μS/cm <sup>(2)</sup>	Grab	11,000			
Fluoride	mg/L	Grab	3.0			
Lead, total recoverable	mg/L	Grab	0.1			
Nitrate, as Nitrogen (N)	mg/L	Grab	. 100			
Nitrite, as Nitrogen (N)	mg/L	Grab	10			
Oil and Grease	mg/L	Grab	10			
рН	s. u.	Grab	6.0 - 9.0			
Selenium, total recoverable	mg/L	Grab	0.05			
Sodium	mg/L	Grab	2,250			
Sodium Adsorption Ratio (SAR)	None	Calculated	NA <sup>(3)</sup>			
Sulfate	mg/L	Grab	2,500			
Total Dissolved Solids (TDS)	mg/L	Grab	5,000			
Zinc, total recoverable	mg/L	Grab	25.0			

#### Footnotes:

#### 3. Compliance Schedule

The permittee shall meet and report on the following milestones by the dates specified in Table 4. Table 4 summarizes the dates by which renewing and new dischargers must submit a water quality analysis of the parameters outlined in Table 3.

<sup>1.</sup> See Definition section at end of permit for explanation of terms.

<sup>2.</sup>  $\mu$ S/cm – microSiemens/cm.

<sup>3.</sup> NA – Not applicable. No maximum allowable concentration in permit.

Table 4: Compliance Schedule Requirements					
Applicant Type	Compliance Event	Due Date			
2010 Dischargers Renewing	Submission of a water quality analysis for the parameters specified in Table 3, ensuring that none of the maximum allowable concentrations are exceeded.	Within 6 months of the expiration date of the 2010 PWGP; sample date must be within two years prior to analysis submission date			
New Dischargers	Submission of a water quality analysis for the parameters specified in Table 3, ensuring that none of the maximum allowable concentrations are exceeded.	Included with NOI package; sample date must be within two years prior to NOI submission date.			

Permit No.: MTG310000

#### III. STANDARD CONDITIONS

The permittee shall meet the following standard conditions of MPDES permits.

### A. <u>Duty to Comply</u>

The permittee shall comply with all standard conditions in 40 CFR 122.41 and all conditions of this permit. Any permit noncompliance constitutes a violation of the 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 comply with effluent standards or prohibitions established under the Act and rules adopted thereunder including limitations for toxic pollutants in ARM 17.30.1206; section 307(a) of the federal Clean Water Act; and, with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act, within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

The Act provides that any person who violates a permit condition or limitation is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who willfully or negligently violates 75-5-605, MCA including a permit condition or limitation is subject to criminal penalties not to exceed \$25,000 per day of violation, imprisonment for not more than one year, or both. In the case of a second or subsequent conviction for a willful or negligent violation, a person is subject to a fine of not more than \$50,000 per day of violation, imprisonment of not more than two years, or both.

The Act provides that any person who violates a permit condition or limitation may be assessed an administrative penalties by the department not to exceed \$10,000 per violation per day with the maximum penalty assessed not to exceed \$100,000 for any related series of violations.

#### B. <u>Duty to Reapply</u>

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must first apply for coverage 180 days prior to permit expiration and obtain a new permit or authorization under the applicable general permit.

#### C. Need to Halt or Reduce Activity Not a Defense

It is not 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.

#### D. <u>Duty to Mitigate</u>

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

### E. <u>Proper Operation and Maintenance</u>

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that 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 that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

### F. Permit Actions

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.

### G. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

#### H. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information that the Department 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 Department, upon request, copies of records required to be kept by this permit.

#### I. <u>Inspection and Entry</u>

The permittee shall allow the head of the Department, or an authorized representative, including an authorized contractor acting as a representative of the Department, 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;

PART III
Page 12 of 20

Permit No.: MTG310000

 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 Act, any substances or parameters at any location.

#### J. Monitoring and Records

### 1. Representative Sampling

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

#### 2. Retention of Records

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 Department at any time.

#### 3. Records Contents

Records of monitoring information must include:

- a) the date, exact place, and time of sampling or measurements;
- b) the individual(s) who performed the sampling or measurements;
- c) the date(s) analyses were performed;
- d) the individual(s) who performed the analyses;
- e) the analytical techniques or methods used; and,
- f) the results of such analyses.

#### 4. Test Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless another method is required under 40 CFR 503.8 or Subchapter N.

### K. Falsification and 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 \$25,000, imprisonment for not more than six months, or both.

### L. Signatory Requirement

All applications, reports or information submitted to the Department shall be signed and certified as required by ARM 17.30.1323.

### M. Reporting Requirements

#### 1. Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a) The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source under ARM 17.30.1340(2); or
- b) The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under ARM 17.30.1343(1)(a).

### 2. Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

#### 3. Transfers

This permit is not transferable to any person except after notice to the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary or mandatory as required by ARM 17.30.1360 and the Act.

## 4. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit and is subject to the following additional requirements:

- a) Monitoring results must be reported on a Discharge Monitoring Report (DMR) form;
- b) If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 using procedures specified in the permit for any pollutant for which an analytical method is not established by 40 CFR Part 136, or by another method required for an industry-specific waste stream under 40 CFR 503.8 or subchapter N, the results of such monitoring must be included in the calculation and reporting of the data submitted in the DMR; and,
- c) Calculations for all limitations that require averaging of measurements must use an arithmetic mean unless otherwise specified by the Department in the permit.

#### 5. 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.

#### N. Twenty-Four Hour Reporting

The permittee shall report any noncompliance that might endanger health or the environment. Any information must be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

- a) A description of the noncompliance and its cause;
- b) The period of noncompliance, including exact dates and times;
- c) The estimated time noncompliance is expected to continue if it has not been corrected; and,
- d) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following are included as information that must be reported within 24 hours under this provision:

- a) Any unanticipated bypass that exceeds any effluent limitation in the permit;
- b) Any upset that exceeds any effluent limitation in the permit; and,
- c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in this permit to be reported within 24 hours [see 40 CFR 122.44(g)].

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080. Written reports shall be submitted to the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

### O. Other Noncompliance-Reporting

The permittee shall report all instances of noncompliance not reported under section 4.14 of this permit, at the time monitoring reports are submitted. The reports shall contain the information listed above for written submissions under "Reporting Requirements—Twenty-four Hour Reporting."

#### P. Other Information

Where 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 Department, it shall promptly submit such facts or information.

#### Q. Bypass

#### 1. Bypass Not Exceeding Limitations

The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. Bypasses are not subject to the provisions under "Notice" and "Prohibition of Bypass" below.

#### 2. Notice

Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under "Reporting Requirements—Twenty-four Hour Reporting" above.

### 3. Prohibition of Bypass

Bypass is prohibited and the Department 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 in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
- c) The permittee submitted notices as required under "Notice" above.

The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet these three conditions.

#### R. Upset

### 1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements outlined below under "Conditions Necessary for Demonstration of an Upset" below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

### 2. Conditions Necessary for a Demonstration of Upset.

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

- a) An upset occurred and that the permittee can identify the cause(s) of the upset;
- b) The permitted facility was at the time being properly operated;
- c) The permittee submitted notice of the upset as required under "Reporting Requirements—Twenty-four Hour Reporting" above and
- d) The permittee complied with any remedial measures required under "Duty to Mitigate" above.

### 3. Burden of proof

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

#### S. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may impose an additional assessment computed at the rate established under ARM 17.30.201, and suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this section. Suspensions are limited to one year, after which the permit will be terminated.

#### VI. DEFINITIONS AND ABBREVIATIONS

#### A. <u>General Definitions and Abbreviations</u>

- "Act" means the Montana Water Quality Act, Title 75, Chapter 5, MCA.
- "Arithmetic mean" or "arithmetic average" for any set of related values means the summation of the individual values divided by the number of individual values.
- "Average monthly limitation" means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- "BOD<sub>5</sub>" means the five-day measure of pollutant parameter biochemical oxygen demand.
- "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- "CBOD<sub>5</sub>" means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.
- "CFR" means the Code of Federal Regulations.
- "Clean Water Act" means the federal legislation at 33 USC 1251, et seq.
- "Composite sample" means a sample composed of two or more discrete aliquots.
- "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
- "Department" means the Montana Department of Environmental Quality (MDEQ). Established by 2-15-3501, MCA.
- "Director" means the Director of the Montana Department of Environmental Quality.
- "Discharge" when used without qualification means discharge of a pollutant.
- "Discharge of a pollutant(s)" means any additional of any pollutant or combination of pollutants to state water from any point source. This definition includes additions of pollutants into waters of the state from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by the state, municipality, or other person which do not lead to a treatment works. This term does not

include an addition of pollutants by any indirect discharger, as defined in ARM 17.30.1304.

"EPA" or "USEPA" means the United States Environmental Protection Agency.

"Geometric mean" means the value obtained by taking the Nth root of the product of the measured values.

"Grab sample" means a sample that is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.

"Instantaneous measurement", for monitoring requirements, means a single reading, observation, or measurement.

"Maximum Daily Limit" means the highest allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.

"Minimum Level" (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all method specific sample weights, volumes and processing step have been followed.

"Mixing zone" means an area established in a permit issued by the Department where water quality standards may be exceeded, subject to conditions that are imposed by the Department and that are consistent with rules adopted by the board

"Point Source" means any discernible, confined, or discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural wastes discharged into water. The terms "sewage," "industrial waste," and "other wastes" as defined in 75-5-103, MCA, are interpreted as having the same meaning as pollutant.

"Required Reporting Values" means the minimum level of quantification or detection that must be achieved in reporting all monitoring results required by this permit.

PART VI Page 19 of 20 Permit No.: MTG310000

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"State Waters" means a body of water, irrigation system, or drainage system, either surface or underground. The term does not apply to: ponds or lagoons used solely for treating, transporting, or impounding pollutants; or, irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters.

"TIE" means a toxicity identification evaluation.

"TMDL" means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.

"TRE" means a toxicity reduction evaluation.

"TSS" means the pollutant parameter total suspended solids.

"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, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Whole Effluent Toxicity" (WET) is the total toxic effect of an effluent measured directly with a toxicity test.

"WET Permit Limit" is a water quality-based effluent limitation for WET that is used to trigger accelerated WET monitoring and TREs.

"Wet Permit Trigger" means a threshold level for WET in an NPDES permit that is used to trigger accelerated WET monitoring or a TREs when there is no reasonable potential for WET and no WET permit limits.

#### B. Specialized Definitions and Abbreviations

"Ephemeral Stream" means a stream or a part of a stream, which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and whose channel bottom is always above the local water table.

PART VI Page 20 of 20 Permit No.: MTG310000

"Intermittent Stream" means a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface run-off and groundwater discharge.

"Produced Water" is the separated wastewater resulting from petroleum or natural gas producing wells not associated with coal bed methane development.

"Outfall" means the place where a point source discharges effluent into the receiving water. For each outfall, there typically is at least one monitoring location. Although the monitoring location might or might not be at the actual point of discharge, samples taken at the monitoring location should be representative of the discharge.

"Receiving ephemeral stream" means the ephemeral drainage and/or impoundment constructed in the ephemeral drainage, which receives the produced water discharge from the oil and gas activity.

"Maximum Allowable Concentration" means the maximum concentration that must not be exceeded for any parameter specified in the water quality analysis table.