

**State of Montana
Department of Environmental Quality**

**Calculating and Reporting Data for Montana Pollution
Discharge Elimination System (MPDES) and
Montana Ground Water Pollution Control System
(MGWPCS)**

**Discharge Monitoring Report (DMR) Guidance and
Frequently Asked Questions (FAQs)**



Updated: June 2025

Introduction

The Montana Department of Environmental Quality (DEQ) has developed this guidance document to assist surface water and ground water permittees in complying with Montana Pollutant Discharge Elimination System (MPDES) and Montana Ground Water Pollution Control System (MGWPCS) reporting requirements. It is intended for the use of water and wastewater permittees and authorized representatives who hold surface or ground water discharge permits to complete permit required sampling, calculations, Discharge Monitoring Reports (DMRs), and noncompliance reporting in compliance with their MPDES or MGWPCS permit.

The definitions, descriptions, and calculations herein are not an exhaustive list for all terms or parameters that may be required by a permit. This document provides guidance for calculations and reporting requirements associated with most standard conditions of MPDES and MGWPCS permits and the Administrative Rules of Montana (ARM). Some permits have specific language that allows for deviations from common standard conditions at certain facilities. This guidance does not modify or replace permit language and/or applicable laws and regulations, and it is the permittee's responsibility to fully understand their permit requirements.

Table of Contents

- I. Discharge Monitoring Reports and Other Reporting
 - 1) Paper copies of DMRs
 - 2) Signing up for NetDMR
 - 3) Authorized document signatories
 - 4) Authorized representative for DMR submittals
 - 5) Delegation of authority to submit DMRs
 - 6) NetDMR user roles
 - 7) NetDMR access to all permits held by a permittee
 - 8) NetDMR date entry requirements do not match permit
 - 9) Properly completed DMR
 - 10) Sampling event not missed during the reporting period
 - 11) Weekly sampling definition
 - 12) Reporting frequency of sampling error
 - 13) Making up missed sample during the reporting period
 - 14) Reporting additional monthly monitoring
 - 15) Reporting additional weekly monitoring
 - 16) Submitting whole effluent toxicity (WET) tests (or any) documents in NetDMR
 - 17) Submitting DMRS for non-discharging facilities
 - 18) Reporting no discharge for surface water sampling

- 19) Reporting requirement for dry monitoring wells
- 20) Reporting non-detect values in NetDMR
- 21) Reporting calculated values when at least one of the values was not detected
- 22) Reporting and calculating values when at least one of the values was reported as a greater than (>) value
- 23) Reporting too numerous to count (TNTC) values
- 24) Most Probable Number (MPN), Colony Forming Units (CFU), #/100 ml reporting
- 25) Reporting analytical values less than (>) the method reporting limit (RL)
- 26) Reporting failed WET Tests and subsequent passed WET Tests
- 27) Changing parameter units in NetDMR
- 28) Submitting annual reports
- 29) Creating an account in Fees, Applications, and Compliance Tracking System (FACTS) database
- 30) Updating facility contact information

II. Sample Collection and Other Monitoring

- 1) Grab sample definition
- 2) Composite sample definition
- 3) Manually collecting composite samples
- 4) Onsite laboratories are not required to be certified
- 5) Reporting pH out of hold time violations
- 6) Holding times for common parameters
- 7) Meeting temperature holding times with short deliveries to the laboratory
- 8) pH calibration frequency
- 9) Three-point pH calibration requirements
- 10) Record keeping requirements for pH calibrations
- 11) Collection of two samples for one parameter in a one-day period
- 12) Requirements to land apply treated wastewater
- 13) Water rights requirements for land applying treated wastewater
- 14) Permit requirement for non-discharging facilities
- 15) Daily flow monitoring for MGWPCS
- 16) Daily flow monitoring for MGWPCS without a flow meter
- 17) Monitoring flow for MGWPCS for each drain field

III. Calculations

- 1) Calculating monthly averages with non-detect analytical results
- 2) Reporting geomean for *E. coli*
- 3) Calculating geomean with not detected analytical results

- 4) Reporting geomean for too numerous to count (TNTC) results
- 5) Mass loading definition and calculation
- 6) Calculating monthly average mass loading
- 7) Calculating mass loading for not detected values
- 8) Reporting weekly samples for weeks that are split between two months
- 9) Reporting weekly average and weekly maximum analytical results
- 10) Calculating percent removal

IV. Flow Monitoring

- 1) Flow monitoring accuracy requirements
- 2) Converting flow rate units
- 3) Flow meter requirements
- 4) Bucket test flow monitoring
- 5) Flow meter calibration requirements
- 6) Manually measure flows in weirs

V. Records Management

- 1) Monitoring records requirements
- 2) pH calibration documentation requirements
- 3) pH analysis record requirements
- 4) Total suspended solids laboratory records requirements
- 5) Keeping records on a calendar
- 6) Hard copy calculation record keeping requirements

VI. Noncompliance Reporting

- 1) 24-Hour and five-day noncompliance reporting requirements
- 2) Reporting sanitary sewer overflows (SSOs)
- 3) Reporting lagoon overflows
- 4) Planned treatment system bypass reporting
- 5) Permit limit exceedance consequences

Attachments

- A. No Data Indicator (NODI) Codes
- B. Frequency of Analysis Codes
- C. MT DEQ Contacts
- D. Common Acronyms



I. Discharge Monitoring Reports (DMRs) and Other Reporting

Sample collection and analytical results required by Montana discharge permits must be reported to DEQ at frequencies identified in the discharge permit. DMR data is submitted to DEQ utilizing the United States Environmental Protection Agency (EPA) Network Discharge Monitoring Report (NetDMR) reporting system.

DMRs must be submitted by the 28th day of the month following the reporting period and they must be submitted through the NetDMR reporting system. Only in limited circumstances, with prior approval, can paper DMRs be submitted to DEQ.

To obtain login credentials permittees need to obtain an account and register in the EPA CDX – Central Data Exchange online access (<https://cdx.epa.gov/>). You will also need credentials to access your permit through NetDMR site (<https://npdes-ereporting.epa.gov/net-netdmr>). ,

The State of Montana also maintains the Fees, Applications, Compliance Tracking System (FACTS) database. The FACTS database is for permittees to manage their permit(s). FACTS must be used for all permit applications and renewals. All permit fees can also be paid by using FACTS. All permit required reports, and other correspondence should also be submitted to DEQ using FACTS. FACTS website is located here: <https://svc.mt.gov/deg/factspermitting>.

For reporting purposes permittees must have quality assurance/quality control (QA/QC) procedures in place to ensure reported data is accurate and timely. The reported data is available to the public and is compared to your permit limits to verify your facility is in compliance with your permit requirements. Failure to report accurate and timely data will result in violations which can include enforcement actions. Reporting procedures and data integrity will be verified during Compliance Evaluation Inspections (CEIs) conducted by DEQ.

MPDES and MGWCS permits require permittees to self-report all monitoring data and submit reports and information at specified frequencies in the permit. All permit applications must be signed and certified by the Signatory Authority which is either a principal executive officer or ranking elected official (see ARM 17.30.1323(1)). All reports required by the permit or other information requested by DEQ must be submitted by one of these officials or by a duly authorized representative of that person (see ARM 17.30.1323(2)).

The following information is provided as guidance for DMR reporting and other reporting that may be required by your permit.

1) Does DEQ send paper copies of DMRs to permittees?

No. All DMR reporting must be done through the NetDMR reporting system. Only in very limited circumstances does DEQ accept paper copy submissions of DMRs. You must request paper copies of DMRs from DEQ if you are unable to report through the NetDMR reporting system. You must meet eligibility requirements to submit paper DMRs. Contact DEQ Compliance Training and Technical Assistance (CTTA) section if you have questions about submitting paper DMRs. **See Attachment C**

2) How do I sign up for NetDMR?

You must have or create an account in the EPA Central Data Exchange (CDX) system. Navigate to the NetDMR homepage to login or open a new account here:

<https://npdes-ereporting.epa.gov/net-netdmr>. You can find additional guidance on creating a NetDMR account here:

https://usepa.servicenowservices.com/oeca_icis?id=netdmr_homepage You can contact MT DEQ if you need additional assistance. **See Attachment C**

3) Who can sign documents submitted to DEQ?

Other than permit applications, official documents submitted to DEQ must be signed by the Authorized Signatory or a duly authorized representative of the facility (**See FAQ 4 below**). Individuals or positions can be duly authorized by the Signatory Authority to submit documents on their behalf (**See FAQ 5 below**). Most documents such as noncompliance reports, sanitary sewer overflow (SSO) reports, and DMRs can be signed by the duly authorized representative. All permit applications and Notice of Intent (NOI) packages must be signed by the Authorized Signatory. Duly authorized individuals cannot submit applications or NOIs.

4) Who can submit DMRs using NetDMR?

DMRs (and other reports submitted to DEQ) must be submitted by the Authorized Signatory. The authorized Signatory must include one of the following:

- For a corporation: by a responsible corporate officer;
- For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
- For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

For specific definitions of the authorized representatives see ARM 17.30.1323(1 and 2).

5) I am not a corporate or elected official; can I still submit DMRs using NetDMR?

Maybe. If you are not a corporate or elected official (or other Authorized Signatory identified in FAQ 4), you can submit DMRs on their behalf if you have been assigned or delegated as a duly authorized representative. The Authorized Signatory can designate an authorized representative during the permit application process. To become a duly

authorized representative if not previously identified, the Authorized Signatory must submit a written request to the Data Management Team (see Attachment C) (preferably utilizing the FACTS database) to submit the request which identifies you as a duly authorized representative (ARM 17.30.1342(2)).

The Authorized Signatory can also assign a position within the company or municipality as a duly authorized representative. For example, a mayor can duly authorize the Public Works Director position as a duly authorized representative.

6) My company wants me to prepare the DMRs in NetDMR, but a corporate official is required to submit them. Can I enter data in NetDMR, but have authorized official submit the DMR?

Yes. The CDX system allows for different user roles in the system such as Data Provider, Permittee (signature), and Permittee (no signature). Choose the appropriate user type when creating a CDX account for employees and/or third-party affiliates. An authorized signatory can sign and submit DMRs. Permit administrators can enter data and view data, but they cannot submit DMRs.

7) My company has more than one MPDES permit, but I can't see all of them when I log into NetDMR. How do I get access to the missing permits?

On the home page of NetDMR, you need to choose the "Request Access" link and follow the process to obtain access for each permit. You will need to select your role during the setup process. Contact the CTTA Section data administrators if you need additional information. *See Attachment C*

8) I have a new permit and NetDMR reporting requirements do not match the requirements in the permit. What should I do?

You need to contact a DEQ data management team member (see Attachment C) to report the discrepancy. Corrections can be made so your data can be properly reported to DEQ. If NetDMR is missing a requirement, you are still responsible for complying with all conditions of your permit and reporting requirements.

9) How do I properly fill out the DMR in NetDMR?

NetDMR forms have fillable boxes and pull-down lists for required parameter reporting. Enter data in all empty boxes on the DMR form. Report all data in the units that the NetDMR form is expecting. There are pull-down lists for the parameter units (such as µg/L), **DO NOT** change the units on the NetDMR form. For example, if data was reported to you in mg/L, and NetDMR is expecting µg/L, convert the reported mg/L to µg/L for DMR reporting. Changing the parameter units results in inaccurate data transferring to the EPA Integrated Compliance Information System (ICIS) database and will cause

reporting violations. You can change other pull-down menus such as changing the equal (=) sign to a less than (<) sign without issue.

10) I missed a sample or don't have data to enter for a parameter for the current monitoring period. What should I report?

For any analyses that were missed, you will need to use a No Data Indicator (NODI) Code for the missed parameter(s). The missed parameter NODI Code is "E – Failed to Sample/Required Analysis Not Conducted."

If data is missing for any other reasons, you can choose and apply the appropriate NODI code for any missing data associated with specific parameters. (See list of NODI Codes in Attachment A). If you are unsure which NODI code is appropriate contact a DEQ compliance inspector or data management specialist for directions.

11) I am required to collect weekly samples, what days are considered a week?

For compliance monitoring purposes, a week is from Sunday to Saturday each week. For example, if you are required to collect three samples per week, you must collect three samples on three separate days between Sunday through Saturday. You cannot collect more than one sample a day to try to make up for a missed sample.

12) I am required to collect three samples per week, but I missed one and only sampled twice. How do I report the weekly value on my DMR?

When one or more samples are not collected at the required frequency, the noncompliance should be reported to DEQ in accordance with noncompliance reporting requirement (see part VI.1 of this document). For reporting purposes on the DMR, you need to report the data that you have as you normally would for such things as daily maximum, weekly average, monthly average, monthly maximum, etc. On the DMR form you will need to update the frequency of analysis from the default value to the actual frequency that the sample was collected. For example, if you missed one of your three required samples, the default frequency of 03/DW (three days every week) should be changed to the closest frequency value of the actual frequency. In this case, you could report 11/30 (11 times for the month) to indicate a missed sample. See Frequency of Analysis Table. *See Attachment B*

13) Can I make up a missed sample during a monitoring period early in the next monitoring period?

No. You must collect samples during the required reporting period. Missed samples must be reported as indicated in **FAQ I.10 or I.12** above.

14) I am required to monitor once a month, but I monitor for some parameters weekly. Do I need to report the additional analysis?

Yes. Any monitoring done more frequently than required by the permit, using approved analytical methods as specified in your permit, must be included in calculating and reporting data submitted on the DMR. Refer to your permit to determine how to determine the value reported on your DMR. Generally, if your permit has an average reporting requirement, include all the data when calculating the average value. If the permit does not specify that an average is to be reported, report the maximum value of the data collected. The increase in frequency shall also be indicated. See Frequency of Analysis Table. **See Attachment 2**

15) I am only required to collect 1 sample per week, but I collected more than 1, how do I report the additional data?

It depends on the reporting requirement in your permit and the expected requirement on the DMR. For example, if you are required to report a daily maximum, you would report the highest value of all daily samples collected during the month. If you are required to report an average weekly value, you would calculate the average (or geometric mean (geomean) if appropriate) of the samples collected each week (Sunday-Saturday) and report the highest weekly calculated value.

16) I am required to submit WET tests (or other documents) with my DMR, can I submit them in NetDMR?

Yes. You can attach documents to your NetDMR submittal. Toggle the “attach document” button at the bottom of the DMR and navigate to your document to upload. Documents can also be submitted to DEQ through the FACTS database. DEQ recommends submitting documents using the FACTS database to ensure the document will be seen and reviewed by DEQ in a timely manner. DEQ can only locate documents in NetDMR when they are searched for. FACTS notifies DEQ employees when a new document is uploaded.

17) I don’t discharge. Do I still need to submit a DMR?

Yes. DMRs must be submitted at the required frequency. If you do not discharge for a monitoring period, you must report a no discharge NODI Code. (NODI Code “C – No Discharge). Choose the NODI code pull-down menu at the top of the DMR to associate a NODI code to the entire DMR.

18) I am required to sample surface water upstream of my outfall, but it is dry most of the year. How do I report that on my DMR?

Samples must be collected at frequencies required in your permit. If no flow occurs in surface water during a monitoring period, you can report the NODI Code E, indicating that monitoring is not possible due to environmental conditions. NODI Code E - Environmental Conditions - Monitoring Not Possible. **See Attachment A**

19) How do I report monitoring well data when my monitoring well is dry?

Samples must be collected at the frequencies required in your permit. If a monitoring well is dry during the monitoring period, you can report the NODI Code W, indicating that the well was dry. NODI Code W – Dry Lysimeter/Well. **See Attachment A**

20) How do I report values below the detection limit on my DMR?

When an analytical result is reported below the detection limit of the method reporting limit (RL) you have two options for reporting the value on your DMR. One option is to utilize the NODI Code B to indicate the value is below the detection limit. Preferably, you can report the RL value if the method on the DMR and utilize the pull-down menu on your DMR to change the default equal “=” sign to a less than “<” sign.

21) I used a “non-detected (ND)” value in a reporting calculation. How do I report the result on my DMR?

When a non-detected (ND) value is calculated in accordance with **FAQ III.1** in this document, report the calculated value on the DMR and utilize the pull-down menu to change the default equal “=” sign to a less than “<” sign.

22) I had a 5-Day Biochemical Oxygen Demand (BOD₅) value that was reported as a greater than “>” value. How do I calculate and report the data?

If the laboratory did not prepare the sample with a proper dilution, new sample should be collected so a valid analysis can be conducted. If there is not sufficient time to collect a new sample before the end of the monitoring period, you need to use the greater than “>” value the laboratory provided in any calculation.

As in FAQ I.21 above, change the default equal “=” sign to a greater than “>” sign on the NetDMR form to report to the data.

23) The laboratory reported *Escherichia coli* (*E. coli*) results as too numerous to count (TNTC). How do I report that on my DMR?

If the laboratory reported TNTC, do not report TNTC on the DMR. The laboratory should also include a value that the count exceeded (i.e., >5,000 #/100 ml). You need to use the greater than value provided by the laboratory on your DMR and in the geometric mean calculation. If the analytical report does not include a numeric value, you must use a value of >20,000 #/100 ml as the value for reporting and calculation purposes.

24) The laboratory reported *E. coli* as a most probable number (MPN), but my permit specifies colony forming units (CFU). Can I report MPN instead of CFU?

No. MPN and CFU are different test methods. If your permit specifies a specific analysis, you must comply with your permit conditions. Specify with your contract laboratory the

analysis that is required by your permit. If your permit requires “#/100 ml”, you can report either MPN or CFU.

25) I have a permit limit that is lower than the analytical reporting limit (RL) and lower than the required reporting value in DEQ Circular 7. How do I analyze and report the data?

Verify reporting requirements in your permit. In most cases, you can use the No Data Indicator (NODI) Code B = Below Detection Limit on the DMR. If a calculation is required, use the RL provided by the laboratory to conduct any calculations and report a less than “<” value of the result on the DMR (see FAQ I.21 above).

26) I failed a whole effluent toxicity (WET) test, then retested within 14 days as required by my permit. The second test passed. Do I report that I passed WET testing on my DMR?

No. You must report the failed routine WET test on your DMR. WET tests are reported as either 0=Pass or 1=Fail. All WET Test result documentation must be submitted with the DMR for the reporting period.

27) The laboratory reports results in µg/L but the DMR expects the value to be in mg/L. Can I use the pull-down menu on the DMR to change the units to match the laboratory report?

No (See FAQ I.9 above). Do not change the expected units in NetDMR. The changed units do not transfer into the ICIS database and will result in reporting errors and possible violations. If the DMR is expecting a certain reporting unit such as mg/L but the laboratory reported µg/L, you will need to convert the µg/L value to a mg/L value and report the converted value (for example 1000 µg/L = 1 mg/L). This is also true for other reporting units such as gallons per minute (GPM) and million gallons per day (MGD).

28) My permit requires that I submit an annual report to DEQ. How and where do I submit it?

All reports and correspondence should be submitted to DEQ by uploading a signed PDF into the FACTS database. Authorized representative must upload the document. When submitting an annual report using FACTS, be sure to choose the correct document type in the document manager. For example, permit required annual report document type is Permit – Annual Report. If the wrong document type is chosen, the report will not be registered as received. If the FACTS database cannot be used, correspondence to DEQ can be mailed to:

Montana DEQ
Attention: Data Management
P.O. Box 200901
Helena, MT 59320

29) How do I create a FACTS account?

Navigate to the FACTS website at <https://svc.mt.gov/deq/factspermitting>. Click on “New User” to start the registration process. If you have any questions as you set up your account, contact the DEQ Data Management contact. **See Attachment 3**

30) Do I need to notify DEQ when the site contact has changed?

Yes. DEQ must be notified when an authorized individual (or position) responsible for overall operation of a regulated facility has changed. Submit facility notification changes to the DEQ Data Management Team. The employee needs to be duly authorized as well if they are not a corporate officer or ranking elected official (**see FAQ 1.3 above**).

II. Sample Collection and Other Monitoring

Factors that affect the quality of environmental data include sample collection, sample preservation, analysis, and reporting. Improper execution of any one of the factors can result in poor data quality. Obtaining representative samples and following standard methods are critical to the integrity of any compliance monitoring program. Samples collected for compliance purposes must be representative of the volume and nature of the monitored discharge and must be collected at outfalls or sampling locations identified in the permit.

The following information is provided for information for collecting compliance samples.

1) My permit requires a grab sample. What is a grab sample?

A grab sample is defined as a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.

A grab sample is collected at the permit identified point in the influent, effluent, or receiving waters. Grab samples consist of either a single discrete sample or individual samples collected over a period of time not to exceed 15 minutes. The sample should be representative of the typical conditions of the influent into, or effluent discharged by the facility.

2) My permit requires a composite sample. What is a composite sample?

A composite sample is a sample composed of four or more discrete aliquots (subsamples). The aggregate sample will reflect the average quality of the water or wastewater in the compositing or sample period.

Check the specific definition of composite sample in Part V (5) of your permit. Some composite samples may be composed of constant volume aliquots collected at regular intervals (simple composite). Other permits require flow proportioned samples.

A flow proportioned sample must also be composed of four or more samples collected over the compositing period. The time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than twenty-four (24) hours.

3) I don't have an automated composite sample device. How do I collect flow proportioned composite samples manually?

To collect flow proportioned samples, using clean sample bottles, one method is to fill a separate sample bottle at each required frequency and record the flow rate at the time the sample was collected. Store the individual samples on ice during the composite time. Once all the aliquots have been collected over the sampling period, fill a bottle to be transported to the laboratory with a proportional amount of each sample according to the flow rate at the time the sample was collected.

For example, the following is an illustration of a 1000 ml flow proportioned sample:

Collection Bottle	Interval (hours)	Flow Rate (GPM)	Proportion to be used <i>flow/total flow</i> (%)	Milliliters of Aliquot for Final Sample <i>1000*Proportion %</i> (ML)
1	0	55	27.5	275
2	2	35	17.5	175
3	4	65	32.5	325
4	6	45	22.5	225
Total		200	100%	1000

There are other acceptable methods for manually collecting composite samples. If you have any questions regarding a composite sampling method, contact the Compliance, Training, and Technical Assistance Section (see Attachment C).

4) We want to analyze samples at our onsite laboratory. Does our laboratory require certification?

No. You can conduct your own water quality analyses but only if an approved method is used to conduct the analysis. Acceptable analytical methods are listed in Part 136.3, Title 40 of the Code of Federal Regulations (40 CFR 136.3).

When implementing in-house sample analysis, you must develop a standard operating procedure (SOP) to be used for each analysis. The SOP must include the steps taken to complete the analysis as well as all quality control/quality assurance (QA/QC) required

by the method you are using. The SOP and all calibration records must be maintained for at least three years.

5) Why did I get a violation for having a contract laboratory analyze my reported pH value?

All analyses must be conducted in accordance with 40 CFR 136.3; pH analysis is required to be conducted immediately after sample collection, which is defined as within 15-minutes of sample collection. A contract laboratory can conduct pH analysis for you, but to be a valid sample result for reporting purposes, the sample must be transported to the laboratory and analyzed within 15 minutes of the time you collected the sample. You must analyze pH on-site if you do not have immediate access to a laboratory with a pH meter.

6) What are the holding times and preservation requirements for my samples?

Holding times and preservation requirements can be found in 40 CFR 136.3. Holding times and preservation requirements for common permit required samples include, but are not limited to the following:

Parameter	Holding Time Limit	Preservation
pH	Analyze w/in 15 minutes	none required
Temperature	Analyze w/in 15 minutes	none required
Specific Conductance	28 Days	Cool ≤6°C
Ammonia	28 Days	Cool ≤6°C, H ₂ SO ₄ to pH <2
Kjeldahl Nitrogen and Total Nitrogen	28 Days	Cool ≤6°C, H ₂ SO ₄ to pH <2
Nitrate	48 Hours	Cool ≤6°C
Nitrate/Nitrite	28 Days	Cool ≤6°C, H ₂ SO ₄ to pH <2
Oil and Grease	28 Days	Cool ≤6°C, H ₂ SO ₄ or HCl to pH <2
Phenols	28 Days	Cool ≤6°C, H ₂ SO ₄ to pH <2
Phosphorus, Total	28 Days	Cool ≤6°C, H ₂ SO ₄ to pH <2
TSS and TDS	7 Days	Cool ≤6°C
Sulfate	28 Days	Cool ≤6°C
Turbidity	48 Hours	Cool ≤6°C
<i>E. coli</i> , Coliform, and Fecal	8 hours*	Cool <10°C, 0.008% Na ₂ S ₂ O ₃
*Incubation is required to begin w/in 8 hours of sample collection, but rural areas with limited laboratory availability are allowed up to 24 hours in Montana		

7) I drive my samples to the laboratory, and they receive the samples in less than an hour – how can I meet the preservation requirements of $\leq 6^{\circ}\text{C}$?

Samples must be cooled to $\leq 6^{\circ}\text{C}$ or be in the process of cooling to $\leq 6^{\circ}\text{C}$ when they are delivered to the laboratory. Your chain of custody will indicate when you collected your sample, and when the laboratory received the sample. If there was a short time difference between sample collection and subsequent delivery to the lab, it will be taken into consideration when determining if the samples were properly preserved and valid. When delivering samples to the laboratory, even if it is a short time, the samples must be delivered on ice if the method requires the samples to be cooled to $\leq 6^{\circ}\text{C}$.

8) How often should I calibrate my pH meter?

Your pH meter should be calibrated in accordance with the owner's manual of your device. Generally, a pH meter should be calibrated every day before it is used, especially for meters that are used infrequently. The pH meter calibration needs to be checked periodically to verify accuracy if not calibrated before use. Do this by checking the value of a known pH buffer solution and comparing it to the meter reading. Be sure to replace all buffer solutions or mix packets before their expiration date.

9) Am I required to conduct a three-point calibration on my pH meter?

Not always. Your pH meter must be calibrated using buffers that bracket the expected pH of the sample you are analyzing. For example, if your pH values are consistently over 7.0, you can do a two-point calibration with 7 and 10 buffers. A three-point calibration with 4, 7, and 10 buffers may be done for all expected pH values.

10) What records do I need to have for my pH calibrations and analytical results?

All records used for permit compliance purposes must be maintained in accordance with the permit and 17.30.1342(10)(b) of ARM. For calibration records this includes the type of meter (serial number, brand/model), buffers used, the expiration date and lot numbers of the buffer solutions, date and time of the calibration, name or initials of person conducting the calibration, and the result of the calibration. A calibration verification check also needs to be documented, preferably with a buffer not used as part of the calibration process. See **FAQ V.2 below** for more information.

11) I am required to collect samples three times a week. Can I collect two samples in one day and count that as two of my three samples?

No. Limits and reporting are based on daily discharges and the three samples must be collected on different days during the week. For reporting purposes, a week is from Sunday through Saturday each week. If two separate samples are collected and analyzed the same day, the average of the results will be considered the daily discharge value.

12) Can I irrigate or land apply treated wastewater from my lagoon to lower lagoon levels without being required to meet my discharge permit requirements?

Wastewater can be used for irrigation and land applications, but it requires prior approval from DEQ. Approval to land apply wastewater must meet all requirements in [Circular DEQ-2 – Design Standards for Public Sewage Systems](#) and be approved by the DEQ Engineering Bureau. The land applied wastewater shall not discharge off the land application site to state waters. A facility that proposes the land application of wastewater may also be required to obtain a water right from the Montana Department of Natural Resources and Conservation (DNRC) under Title 85.

13) When would I require a water right to land apply my wastewater?

Contact your regional DNRC office for specific information for determination under Title 85 about your proposed land application project. Generally, if a facility wants to put wastewater effluent to use after the water right holder has finished treatment of the wastewater, then a new water right is required. It does not matter if the ground on which it is applied is located inside or outside of the place of use.

14) Do I still need a permit if we don't discharge wastewater from our treatment facility?

If your treatment facility is designed to be a total retention system that does not have the potential to discharge, you do not need an MPDES permit (*this does not apply to Concentrated Animal Feeding Operations (CAFOs) and certain industrial sites*). If your facility has a constructed outlet to discharge wastewater, even if it has never had a discharge, you are required to have MPDES permit coverage. See Montana Code Annotated (MCA) 75-5-605(2)(b).

15) Do I need to be able to measure the effluent flow on a daily basis at my MGWPCS?

Yes, to report the daily maximum flow, effluent flow needs to be measured daily using a recording device or totalizing meter. If your system uses a totalizer without a digital recording device, a daily flow value needs to be manually recorded from the totalizer at a consistent time each day.

16) My MGWPCS does not have flow meters installed but has digital recorders that measure the pump run times in the effluent dose tank. Is this acceptable for monitoring and reporting flow rates?

Yes, effluent dose tank pumps with run time recording devices are acceptable, with the effluent flow being calculated using a performance curve comparing the head (ft.) to the flow (gallons per minute). Pump run time recording devices must be installed for all effluent dose tank pumps. Montana DEQ may require you to verify that all flow-measuring and flow-recording devices indicate values within 10 percent of the actual flow being measured.

17) Do I need to measure the effluent flow for all drain field(s) / zones in my MGWPCS?

Yes, the measured effluent flow rate must be representative of the total volume discharged from the dose tank. Depending on how your system operates, a flow meter or flow measuring device needs to be installed on all effluent lines leaving the dose tank. If a single line leaves the dose tank prior to branching out to separate drain fields / zones from a splitter valve, then one flow meter installed on the single line between the dose tank and the splitter valve is sufficient.

III. Calculations

Read your permit to verify all required reporting calculation requirements. Required calculations or normally found in Part 1.C – Monitoring Requirements of the permit and further defined in Part V – Definitions section of the permit.

1) I am required to collect 3 samples per week, how do I calculate the monthly average values when some of the reported values are non-detected (ND)

When a facility is required to calculate averages and some of the reported values are ND, the reporting limit (RL) of the parameter being reported must be used in the calculation. For example, if you are averaging multiple total suspended solids values and some analytical results are not detected, you would use the RL (normally 10 mg/L) as the value for the ND values.

Sample #	Reported Result (RL = 10)	Calculation
1	12	12
2	11	11
3	ND	<10
4	ND	<10
5	14	14
6	ND	<10
7	13	13
8	12	12
9	16	16
10	ND	<10
Average		<12

2) How do I calculate the average (mean) for *E. coli*?

When averaging multiple analytical values for *E. coli* (or any other bacterial concentration) you must use the geometric mean (geomean) of the results to report the mean. The geomean is an average or mean that demonstrates the central tendency of a group of numbers and is expressed as the n th root of the product of the n values for the set of numbers.

Microsoft Excel can automatically calculate geomean for you by using the following formula: = geomean (*value1, value2, etc.*)

When using a calculator, use the following steps:

- Calculate the log value of each sample result (log button on the calculator).
- Add the log value of each sample together.
- Divide the result by the number of samples to get an average.
- Take the antilog of the averaged number for the geometric mean result (second/shift, then 10^x button on the calculator).
- Report as a whole number.

For Example:

Colonies #/100 ml	Log value
10	1
100	2
300	2.477
15	1.176
4	0.602

Add together = 7.255

Divide by 5 = 1.451

Take Antilog = 28.252 colonies/100mL

Report as whole number = 28
colonies/100mL

3) How do I calculate geometric mean (geomean) when I have a not detected analytical result?

When calculating geometric mean and one or more of the analytical results was not detected (ND) you must use a value of one (1) #/100 ML in the place of the ND value.

4) How do I report the *E. Coli* results that are too numerous to count (TNTC) when reported and how do I calculate the geomean?

If the laboratory reported an *E. coli* value of TNTC, they should have also included a value that the count exceeded (i.e., >5,000 #/100 ml). You need to use the greater than value ">" provided by the laboratory on your DMR and in the geometric mean calculation. If the analytical report does not include a numeric value, you must use a value of >20,000 #/100 ml as the value on your DMR and in the geometric mean calculation.

5) What is mass loading and how is it calculated?

Mass Loading (loading), in lbs/day – is a calculation to determine the quantity of a pollutant entering a system over a given time period.

Your permit will define how you are required to calculate the loading values for reporting purposes. Most permits use a form of the following definition:

Effluent limitations or monitoring requirements that are expressed in terms of load (lbs/day) must be based on total mass of the discharge in accordance with the definition of daily discharge in Part V (definitions) of this permit. The total mass shall be calculated using the following equation:

Load (lb/day)	=	Daily Discharge (mg/L)	X	Daily Flow (MGD)	X	8.34
Load (lb/day)	=	Daily Discharge (mg/L)	X	Daily Flow (GPM)	X	0.012

The daily flow used to calculate the load must be measured in the same calendar day or 24-hour period in which the effluent sample is collected for either method.

6) How do I calculate monthly average mass loading?

For most permits, when calculating monthly average mass loading, calculate the daily load and average those values (see example below). Do not use the average monthly flow rate and the average monthly concentration to calculate monthly average loading unless your permit specifically directs you to use that method.

Date Sample Collected	Concentration mg/L	Flow Rate MGD	Daily Loading lbs/day
4/1	24	0.0126	2.5
4/4	45	0.0256	9.6
4/8	30	0.0015	0.4
4/11	67	0.0214	12.0
4/15	54	0.0123	5.5
4/18	34	0.0234	6.6
4/22	76	0.01236	7.8
4/25	56	0.02365	11.0
4/29	45	0.03541	13.3
monthly average			7.6 lbs/day

7) How do I calculate daily mass loading when I have not detected analytical concentration results?

When calculating loading values and an analytical result for the daily discharge is reported as not detected (ND), you must use the reporting limit RL of the parameter you are reporting. For example, if you are calculating total suspended solids (TSS) loading and the reported value is ND with a RL of 10 mg/L you use the 10 mg/L to calculate the loading value.

8) I Monitor three times (or more) a week, how do I report weekly samples when a week is split by a new month?

For monitoring purposes, a week runs from Sunday through Saturday. When a week is split by the end of one month and the beginning of the next month, you calculate the weekly average value from all three samples and use the value in the month with 4 or more days for reporting purposes. Monthly average values are still only calculated with results reported during the month they were collected.

For example, if you collect three weekly samples toward the end of August on Monday, Wednesday, and Friday, and August ends on Tuesday, you calculate the weekly average from all three samples, but use the result to report the weekly average in the month of September since September has 4 days in the week and August had 3 days. You still use the sample collected in August to calculate the August **monthly** average reporting value.

Month	Date	Day	Analytical Value mg/L
August	30th	Monday	15
September	1st	Wednesday	22
September	3rd	Friday	21
Weekly Ave			19

19 mg/L to be used for **September** weekly average reporting purposes

9) How do I report weekly average and weekly maximum analytical results?

Calculating and reporting values of weekly averages and monthly maximum values depends on the number of samples that are collected each week. Follow the guidance below for your monitoring situation:

- If you only monitor once a month for a parameter – the single analytical result is both the weekly average and monthly average values.
- If you monitor once a week for a parameter – report the highest weekly analytical result of that parameter as the weekly average.

- c) If you monitor a parameter multiple times a week - average the analytical results for each week and report the highest weekly average value as the weekly average.

See FAQ III.8 above for calculating averages for weeks that are split between two separate months

10) My permit requires me to report the percent removal of 5-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS). How do I calculate the percent removal?

Your permit defines the method you need to calculate percent removal. To calculate percent removal – use the following formula:

$\begin{array}{c} \% \\ \text{Removal} \end{array} = \frac{[\text{Influent Concentration}] - [\text{Effluent Concentration}]}{[\text{Influent Concentration}]} \times 100\%$

Your permit will define the influent and effluent values to use in the equation. Most commonly if you collect multiple influent and effluent samples every month, you will use the 30-day average of the influent and effluent values for the reporting period.

IV. Flow Monitoring

Influent and/or effluent flow monitoring is required by most MPDES and MGWPCS permits. Permittees are required to accurately measure the quantity of wastewater being discharged. Discharge flow monitoring is an integral part of the MPDES program, and it is important that accurate data is reported. Flow monitoring also provides data for mass loading calculations, provides operating and performance data, calculation of treatment costs based on wastewater volume, long term planning, and provides information on infiltration and inflow (I&I) conditions.

There are two types of wastewater flow: closed-channel and open-channel. Closed-channel flow occurs under pressure in a liquid-filled conduit, such as a pipe, where flow rates are measured with a metering device installed in the conduit. Open-channel flow occurs in conduits that are not liquid full and not under pressure. Open-channel flows are typically measured using primary and secondary devices. Primary devices are standard hydraulic structures, such as flumes and weirs that are inserted in the open-channel. Secondary devices are used in conjunction with primary devices to automate the flow measuring process. Typically, secondary devices measure the liquid depth in the primary device and convert the depth measurement to a corresponding flow, using established mathematical relationships.

1) How accurate does my flow meter have to be?

Most permits specify flow monitoring accuracy to be within $\pm 10\%$ of the actual flow being measured. To verify flow accuracy of your monitoring equipment you will need to take a manual reading of your monitoring device (such as the height of water going through a V-notch weir) and compare it to the electronic flow monitoring device that is measuring the flow. The difference between the two numbers is required to be within $\pm 10\%$ of each other.

To calculate the percent difference between two numbers, use the following equation:

$\frac{(V1-V2)}{(V1+V2)/2} \times 100$
Where: V1 = Value 1 V2=Value 2

For example, if your flow monitoring device is reading 23 GPM (V1) and your manual measurement of the V-notch weir calculates to 19 GPM (V2), the percent difference would be 19% difference, which is out of compliance with the $\pm 10\%$ of the actual flow required by the permit.

Where
23-19 = 4
and
$(23+19)/2 = 21$
Then
$4 \div 21 = 0.1905$
$0.1905 \times 100 = 19\% \text{ Difference}$

2) How do I convert MGD to GPM?

The following are common flow measurement conversions:

CFS: Cubic Feet per Second, GPM: Gallons per Minute, GPH: Gallons per Hour, GPD: Gallons per Day, MGD: Million Gallons per Day

- a. MGD to GPM: $\text{MGD} \times 694.4 = \text{GPM}$
- b. GPM to MGD: $(\text{GPM} \times 1440) \div 1000000 = \text{MGD}$
- c. GPD to MGD: $\text{GPD} / 1000000$
- d. GPD to GPM: $\text{GPD} \div 24 \div 60$
- e. CFS to MGD: $\text{CFS} \times 22.82 = \text{MGD}$

3) What kind of flow meter is required to meet permit flow monitoring requirements?

Most permits do not require a specific flow monitoring method to be used, but flow monitoring devices do need to meet the $\pm 10\%$ monitoring accuracy required by most permits. If the permit requires continuous flow monitoring frequency, the flow meter will need to be able to log the daily flow rate.

4) What are the best practices for conducting bucket tests?

Bucket test flow monitoring is useful for monitoring low wastewater flows. For a bucket test you will need a bucket with appropriate volume markings and a stopwatch. The container you use should be of sufficient volume to fill in a minimum of 10 seconds. Use a stopwatch to measure the time it takes to fill your container to a specific volume. Three consecutive measurements should be made, and the results should be averaged for reporting purposes. Keep all records of bucket test monitoring in accordance with your permit (**see FAQ V.1 and V.6 below**).

Fill Volume (Fv) Gallons	Fill Time (S) Seconds	Flow Rate GPM (Fv*60/S)
2.5	14	10.71
2.5	13	11.54
2.5	16	9.38
Average:		10.5

5) How often do I need to calibrate my flow meter?

Refer to the owner's manual of your meter or refer to your facility's Operation and Maintenance (O&M) Manual for calibration requirements of the equipment. Generally, if you have a primary structure only, an inspection of the structure must be done on an annual basis to ensure the meter stick hasn't moved, eroded, or has become unreadable, the bottom and sides of the structure haven't changed, and the restricting plate hasn't corroded or been compromised. Inspections must be documented to show completion. Any maintenance required must also be documented. Secondary meters must be calibrated against the primary device on an annual basis and documented accordingly.

6) The permanent staff gage on my weir is corroded and is illegible, how do I document the height of water going through the weir?

Staff gages on monitoring equipment must be maintained and cleaned periodically. If the staff gage is corroded or stained to a point where it is not legible, it must be replaced. To measure the height of water going through the weir, a manual measurement with a tape measure needs to be taken from the same location as the

permanent staff gage. If you are using a tape measure with inches, be sure to convert the measurement to tenths of feet to match most flow rate conversion tables.

V. Records Management

Permittees are required to maintain records associated with their permit. Permits stipulate all record-keeping and reporting conditions and requirements. Records need to be maintained so DEQ can verify permit conditions are being met. Record keeping requirements are standard conditions in all MPDES and MGWPCS permits defined in ARM 17.30.1342(10)(b). The standard conditions include the requirement to retain 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 the permit, and records of all data used to complete the application for the permit. Specifically, these records include, but are not limited to, analytical lab reports, chain of custodies, spreadsheets, field sheets, logbooks, in-house laboratory bench sheets, and flow monitoring records. All records must be maintained and be made available for a minimum of three years. Data collected on site, copies of DMRs, and a copy of the permit must also be maintained on site for the duration of the activity at the permitted location. These records can be maintained on site as hard copies or digital files.

1) What information needs to be included on my monitoring records?

Standard conditions that apply to all permits require permittee's monitoring records to include:

1. The date, exact place, and time of sampling or measurements;
2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

This applies to all analytical data, bench sheets, calibration logs, and sample collection records.

2) What information do I need to include with my pH calibrations?

Permittee pH calibration documentation must include the information in **FAQ V.1** above. Specific requirements for pH calibration records include the date and time the calibration was performed and the person conducting the calibration. Additional information includes the pH buffers that were used to calibrate the meter and

associated lot number of the buffers. The meter being used also needs to be included. Calibration verification is also required for quality control/quality assurance (QA/QC) purposes. The calibration verification is preferably checked with a buffer that was not used in the calibration and could be a buffer from a different lot or a different pH value such as an 8.0 buffer solution if 4.0, 7.0, and 10.0 buffers were used to calibrate the meter. For QA/QC purposes, you should conduct pH verifications before analyzing pH if a calibration has not been performed.

Example pH calibration log:

Town of Anywhere Wastewater Treatment Plant

pH calibration log for

MT000000

Hach HQ1110 - Model# 23E234 Serial# 6994RE0P994

			Lot#324309	Lot#96954	Lot#34590	Lot#56743
			Buffer 4.0	Buffer 7.0	Buffer 10.0	Buffer 8.0
Date	Time	Initials	Calibrated Reading	Calibrated Reading	Calibrated Reading	Verification
5/1/2022	1500	SRT	4.1	7	10.3	8.1
5/2/2022	900	SRT	-	-	-	8

3) What records do I need to keep for pH analysis?

Permittee pH analytical documentation must include the information in **FAQ V.1** above. When conducting pH analysis in the field, permittees should maintain a field log of pH analysis with standard record keeping conditions. Jotting down pH readings on scrap paper and transferring the information into a spreadsheet or to another document back at the office and disposing of the scratch paper does not meet the records retention requirements of the permit. In this case, the scratch paper would need to contain all record keeping requirements and be maintained for a minimum of three years.

4) We conduct total suspended solids (TSS) onsite, what records am I required to keep?

Analytical records (bench sheets) for TSS analyses must include all standard record keeping requirements identified in **FAQ 1** above. Standard Method 2540-D for TSS analysis also requires that duplicate samples be analyzed for QA/QC purposes. Duplicate samples must be run at least once a day and if more than 20 analyses are run in a day, every 20th analysis will need to have a duplicate sample run. Most permittees only analyze TSS once a day, so each day a duplicate must be run and documented on the bench sheet. Standard Method 2540-D requires the QA/QC precision duplicate to be within 5 times the reporting limit (RL) to be a valid sample. Since the RL is 10 mg/L for TSS, if the duplicate is off by more than 50 mg/L, the test is invalid and TSS will need to be reanalyzed.

5) I keep all monitoring information in a daily planner calendar book, is that OK?

Keeping facility operating information and monitoring data in a daily planner or calendar book is acceptable if all standard condition record keeping documentation is included with the entries. However, this method of record keeping is not recommended. Records maintained in a daily planner or calendar book has proven to be more difficult for permittees to readily produce requested information during compliance evaluation inspections (CEIs) conducted by DEQ. Logbooks and field sheets tend to be better record keeping methods to verify compliance with permit conditions.

6) I do all the permit required calculations with pen and paper, do I need to keep that information?

Yes. All documents used to calculate data for reporting purposes are required to be maintained for a minimum of three years as a standard condition requirement. It is also important to keep calculation records in the event a reporting violation is discovered during a compliance evaluation inspection so the permittee can identify the cause of the violation and take corrective actions to eliminate future violations.

VI. Noncompliance Reporting

Standard conditions in MPDES and MGWPCS permits require permittees to report any serious incident of noncompliance affecting the environment. Examples of serious incidents include any noncompliance which may endanger health or the environment, unanticipated bypass which exceeds any effluent limitation, and any upset which exceeds any effluent limitations in the permit. When noncompliance is discovered, the permittee is required to notify DEQ as soon as possible, but no later than 24-hours from the time the permittee becomes aware of the noncompliance. A written submission must also be provided to DEQ within 5-days from the time the permittee becomes aware of the noncompliance.

The following information is provided for reporting noncompliance:

1) What information is required when submitting a 5-day noncompliance report?

Once DEQ has been orally notified of noncompliance, The 5-day written submission must include the following information:

- a description of the noncompliance and its cause
- the period of noncompliance including exact dates and times, estimated time the noncompliance is expected to last if it has not been corrected
- The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance



Permittees can utilize the [DEQ Noncompliance Reporting Form \(Form NCR\)](#) for reporting instances of noncompliance.

2) We had a sewer overflow in town that was caused by a blockage in a city line, do I need to report that to DEQ?

Yes. Backups of sanitary sewer referred to as sanitary sewer overflows (SSOs) must be reported to DEQ in accordance with the 24-hour 5-day reporting requirements identified above. SSOs typically release untreated sewage into basements or out manholes onto city streets and into streams. SSOs are a threat to health and the environment. SSOs only need to be reported to DEQ when the overflow occurs due to problems with city owned or operated infrastructure. SSOs caused by faulty or plugged private service lines into homes are not required to be reported to DEQ.

[DEQ Sanitary Sewer Overflow Event Form \(Form SSO\)](#) can be used to submit written reports of noncompliance.

3) Our lagoons experienced an unexpected overflow, what do we need to do?

Bypasses or overflows need to be stopped as soon as possible and reported to DEQ. Bypasses are prohibited and DEQ may take enforcement action against permittees for a bypass unless it was unavoidable to prevent loss of life, personal injury or severe property damage, and there were no other feasible alternatives.

Permittees can utilize the DEQ [Form NCR](#) for reporting unanticipated bypasses.

4) We are planning maintenance at the wastewater treatment plant which will require the bypass of some treatment systems. Do we need to notify DEQ?

Yes. When a permittee is aware of an anticipated bypass, DEQ needs to be notified at least 10-days before the date the bypass is possible (ARM 17.30.1342 (12(b))). Bypasses are allowed for essential maintenance to assure efficient operations and that do not cause effluent limit violations. DEQ does not have a standard form for notification of anticipated bypasses. The permittee needs to identify treatment that will be bypassed, the type of work being completed and the timeframes to complete the work and return to normal operations.

Notify a member of the CTTA Section of any anticipated bypasses.

5) What are the consequences of exceeding permitted effluent limits?

Permittees are expected to meet all required permit limits as well as all other permit requirements. Reporting permit limit exceedances disqualifies the permittee from annual fee discounts.



Persistent effluent limit violations and/or continuing noncompliance may result in a formal enforcement action by DEQ. Formal enforcement actions can result in administrative penalties of up to \$10,000 per day, per violation, and cannot exceed \$100,000 for any related series of violations.

Attachments

- A. NODI Codes**
- B. Frequency of Analysis Codes**
- C. MT DEQ Contacts**
- D. Common Acronyms**

Attachment A - No Data Indicator (NODI) Codes

NODI Code	NODI Desc	Violation?
1	Wrong Flow	Y
2	Operation Shutdown	N
3	Special Report Attached	N
4	Discharge to Lagoon/Groundwater	N
5	Frozen Conditions	N
6	State-specific No Data Indicator - Invalid	Y
7	No Influent	N
8	Other (See Comments)	Y
9	Conditional Monitoring - Not Required This Period	N
A	General Permit Exemption	N
B	Below Detection Limit/No Detection	N
C	No Discharge	N
D	Lost Sample/Data Not Available	Y
E	Failed to Sample/Required Analysis Not Conducted	Y
F	Insufficient Flow for Sampling	N
G	Sampling Equipment Failure	Y
H	Invalid Test	Y
I	Land Applied	N
J	Recycled - Water-Closed System	N
K	Natural Disaster	N
L	DMR Received but not Entered	Y
M	Laboratory Error	Y
N	Not Constructed	N
P	Laboratory Error or Invalid Test	Y
Q	Not Quantifiable	N
R	Administratively Resolved	N
S	Fire Conditions	N
T	Environmental Conditions - Monitoring Not Possible	N
V	Weather Related	N
W	Dry Lysimeter/Well	N
X	Parameter/Value Not Reported	Y
Y	State-specific No Data Indicator - Valid	N
Z	COVID19 valid Mar-Aug 2020 monitoring	N

Table Created June 2025

B. FREQUENCY OF ANALYSIS

<u>FREQUENCY</u>	<u>DESCRIPTION</u>	<u>FREQUENCY</u>	<u>DESCRIPTION</u>
N/A	NOT APPLIC	01/5Y	ONCE/5 YEARS
N/R	NOT REPORTD	01/60	ONCE/2 MONTHS
N/V	NOT VALID	01/7M	ONCE/7 MONTHS
CL/OC	CHLRNTN/OCCURS	01/90	QUARTERLY
DL/DS	DLY WHNDISCHRG	01/99	INSTNT
REPR	REPORT	02/BA	TWICE/BATCH
WH/DS	WHEN DISCHRG	02/DS	TWICE/DISCH
WH/MN	MEASRD WHN MON	02/DW	TWICE/DSCHWK
01/BA	ONCE/BATCH	02/SH	TWICE/SHIFT
01/DD	ONCE/DSCHDY	02/YR	SEMI-ANNUAL
01/DM	ONCE/DSCHMN	02/01	TWICE/DAY
01/DQ	ONCE/DSCHQTR	02/07	TWICE/WEEK
01/DS	ONCE/DISCHG	02/12	TWICE/12 DAYS
01/DW	ONCE/DSCHWK	02/30	TWICE/MONTH
01/RN	ONCE/RN EVNT	02/90	TWICE/QTRLY
01/SH	ONCE/SHIFT	02/99	SEE PERMIT
01/SN	ONCE/SEASON	03/BA	THREE/BATCH
01/YR	ANNUAL	03/DS	THREE/DISCHG
01/01	DAILY	03/DW	3 DAYS/WEEK
01/02	ONCE/2 DAYS	03/YR	THREE/YEAR
01/03	ONCE/3 DAYS	03/01	THREE/DAY
01/04	ONCE/4 DAYS	03/05	THREE/5 DAYS
01/05	ONCE/5 DAYS	03/07	THREE/WEEK
01/06	ONCE/6 DAYS	03/08	THREE/8 DAYS
01/07	WEEKLY	03/30	THREE/MONTH
01/08	ONCE/8 DAYS	03/5Y	THREE/5 YEARS
01/09	ONCE/9 DAYS	03/99	SEE PERMIT
01/10	ONCE/10 DAYS	04/BA	FOUR/BATCH
01/11	ONCE/11 DAYS	04/01	FOUR/DAY
01/12	ONCE/12 DAYS	04/07	FOUR/WEEK
01/13	ONCE/13 DAYS	04/30	FOUR/MONTH
01/14	ONCE/2 WEEKS	04/99	SEE PERMIT
01/21	ONCE/3 WEEKS	05/BA	FIVE/BATCH
01/28	ONCE/4 WEEKS	05/DW	5 DAYS/WEEK
01/30	ONCE/MONTH	05/WK	5 TIMES/WEEK
01/4M	ONCE/4 MONTHS	05/01	5 TIMES/DAY
01/5M	ONCE/5 MONTHS	05/07	WEEK-DAYS

<u>FREQUENCY</u>	<u>DESCRIPTION</u>	<u>FREQUENCY</u>	<u>DESCRIPTION</u>
05/08	FIVE/8 DAYS	09/99	SEE PERMIT
05/30	5 TIMES/MONTH	10/30	TEN/MONTH
05/90	FIVE/QRTLY	10/99	SEE PERMIT
05/99	SEE PERMIT	12/01	TWELVE/DAY
06/SH	SIX/OPRSHIFT	12/30	12 PER MONTH
06/01	SIX/DAY	15/30	FIFTEEN/MONTH
6/07	SIX/WEEK	16/01	SIXTEEN/DAY
06/30	6 TIMES/MONTH	16/30	SIXTEEN/MONTH
06/99	SEE PERMIT	18/01	EIGHTEEN/DAY
07/30	7 TIMES/MONTH	18/30	EIGHTEEN/MONTH
07/99	SEE PERMIT	24/01	HOURLY
08/BA	EIGHT/BATCH	48/01	EVERY ½ HR
08/01	EIGHT/DAY	66/66	WPC PLAN
08/30	EIGHT/MONTH	77/77	CONTIN-GENT
08/99	SEE PERMIT	88/88	CLEANING
09/01	NINE/DAY	99/99	CONTINUOUS
09/30	NINE/MONTH		

Attachment C - Contacts

Compliance Training and Technical Assistance Section (CTTA)

Section Supervisor

- Chris Romankiewicz – 406-475-2737

Helena Inspectors

- Austin Jaynes – 406-513-8951

Missoula Inspector

- Jon O'Bannon – 406-218-7412

Billings Inspector

- Dan Freeland – 406-256-7655

Data Management and FACTS Team

- Gina Self – 406-444-5388
- Wendy Simons – 406-444-0574

MPDES Permitting Supervisor

- Alana Shaw – 406-444-3967

MGWPCS Permitting Supervisor

- Erik Englebert – 406-444-4806

Montana DEQ General Phone Number – 406-444-5546

Updated June 2025

Attachment – D – List of Common Acronyms

ARM – Administrative Rules of Montana

BOD₅ – 5-Day Biochemical Oxygen Demand

CEI – Compliance Evaluation Inspection

CFS – Cubic Feet Per Second

DEQ – Montana Department of Environmental Quality

DMR – Discharge Monitoring Report

EPA – United States Environmental Protection Agency

FACTS – Fees, Applications, and Compliance Tracking System

FAQ – Frequently Asked Questions

GPD – Gallons Per Day

GPM – Gallons Per Minute

ICIS – Integrated Compliance Information System

MCA – Montana Code Annotated

MDL – Method Detection Limit

MGD – Million Gallons Per Day

MGWPCS – Montana Ground Water Pollution Control System

MPDES – Montana Pollutant Discharge Elimination System

NCR – Noncompliance Report

ND – Non-Detected / Not Detected

NODI – No Data Indicator

O&M – Operations and Maintenance

pH – negative log of the concentration of hydrogen ions in solution

RL – Reporting Limit

RRV – Required Reporting Value

SOP – Standard Operating Procedure

TSS – Total Suspended Solids

WET – Whole Effluent Toxicity Testing