

**STANDARDIZED CLEANUP REPORT
FOR
SPILLS OR RELEASES THAT IMPACT SOIL**

The Enforcement Division (ENFD) of the Montana Department of Environmental Quality (DEQ) oversees the cleanup of spills or releases of hazardous or deleterious substances from non-regulated entities, and pipelines and mobile sources that do not require long-term remediation. This Standardized Cleanup Report (Report) format was developed to provide a guideline for the information ENFD requires for closure of spills and releases.

ENFD applies DEQ's Tier 1 Risk-Based Corrective Action (RBCA), Risk-Based Screening Levels (RBSLs) when evaluating petroleum release or spill sites for closure. DEQ's RBCA documents are available at: <http://deq.mt.gov/Land/lust/rbca>.

ENFD uses U.S. Environmental Protection Agency's (EPA) Region IX Regional Screening Levels (RSLs) to determine site-specific levels of cleanup for spills or releases of other chemical (non-petroleum) products. EPA Region IX RSLs can be found at: <http://www.epa.gov/region9/superfund/prg/>.

The cleanup requirements of a non-petroleum spill or release should be discussed with the ENFD project manager (PM) before any remedial activity is conducted. DEQ has developed a flowchart that is useful in screening soils for contaminants of potential concern at release or spill sites. The flowchart, Attachment C, is available at:

http://deq.mt.gov/Portals/112/Land/StateSuperfund/Documents/VCRA_Guide/ss_flowchart.pdf.

It is recommended that the ENFD PM be contacted prior to conducting assessment or remedial activities to discuss the sample collection methodology and sample analytical requirements. If you do not know who the ENFD PM is, please call (406) 444-0379.

Assessment and remedial activity information should be provided as outlined in the following ENFD Standardized Report Format and submitted to ENFD so the PM can evaluate compliance with applicable laws and rules, and determine what further actions are warranted or if "no further action" is appropriate for the spill or release site.

ENFD feels that it is appropriate that the final report discussing assessment and remedial actions be submitted within 90 days from the date the release or spill occurred.

In instances where state waters are impacted or threatened to be impacted, it is appropriate that more immediate removal/response actions be initiated in order to protect state waters. Please note that spills or releases that impact or threaten to impact state waters may be referred to DEQ's Groundwater Remediation Program for appropriate follow up.

Please note that other DEQ programs and other state agencies may have different report format requirements.

Reports not submitted in the following format or provide the required information will not be accepted by ENFD.

ENFD Standardized Report Format

1. Introduction

Provide a summary of events surrounding the incident that caused the release or spill, including a description of, and the accurate volume of, the material spilled or released. Provide a description of how the volume of material was determined.

2. Site Contact Information

Provide the name, mailing address, email address and telephone number of:

- The responsible party;
- The contact person if different than the responsible party;
- The person submitting the Report; and
- Any landowner whose property was impacted as a result of the release or spill.

3. Site Description

Provide an accurate description of the incident location, including:

- Incident site street address, city, and county where the incident is located. If the incident occurred on a highway or county road, provide the highway or county road name and reference the nearest mile marker.
- Incident site Township, Range and Section.
- Incident site latitude and longitude coordinates reported in **decimal degrees** and a discussion on how the coordinates were acquired.

4. Site History

Provide a brief site history if the incident occurred at a residence, business, or facility. Site history isn't required if the incident occurred along a roadway or vacant field. However, a discussion on the surrounding land use should be provided, e.g., ranching, commercial, agriculture operation, or oil field, if applicable. If the incident occurred in an oil field, provide the proper name of the oil field and well name. This information can be obtained by either contacting the Montana Board of Oil and Gas at (406) 656-0040 or online at: <http://www.bogc.dnrc.mt.gov/WebApps/DataMiner/Wells/Wells.aspx/>

5. Hydrogeologic Conditions

a. Geology

Provide a discussion on site geology, including a description of geology encountered, e.g., soil and/or rock types, and lithology. In addition, soil boring logs should be provided if available.

Soil data information may be found at:

<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

b. Hydrology

Provide a discussion on site-specific ground water and surface water to the extent known. Include well depth, static water level, location, and use of any ground water wells located in close proximity (within 1/4 mile) to the site location. Provide the distance to the nearest surface water and ground water well, regardless of use. A discussion on surface gradient and assumed ground water flow direction should also be provided.

The depth to ground water is determined using the measured static water level in ground water wells located within 500 feet of the release or spill. If ground water data within 500 feet is unavailable, or difficult to obtain, describe the difficulty obtaining the ground water data and apply the most conservative RBCA, RBSL. Ground water information is not required if the most conservative RBCA, RBSLs are applied to the site and residual contaminant concentrations do not exceed the RBSLs.

Well logs may be available online from the Montana Bureau of Mines and Geology Ground Water Information Center at: <http://mbmggwic.mtech.edu/>

6. Assessment, Remedial, and Sampling Activities

Please refer to ENFD's Soil Sampling Guidelines at: <http://deg.mt.gov/Portals/112/DEQAdmin/ENF/Documents/Reports/SoilSamplingGuidance.pdf> for the number and types of required soil samples.

Provide a detailed description of assessment, remedial activities and sample collection activities, including, but not limited to, the following:

- A description of pre-excavation onsite assessment and sample collection activities.
- A description of soil removal activities including the final dimensions of all excavations **Note:** If the depth of the excavation is greater than two feet, it is considered subsurface contamination and requires that the lateral, as well as the vertical, extent and magnitude of contamination be defined. ENFD requires that soil samples be collected from the excavation sidewalls if the depth of the excavation exceeds two feet. See ENFD's Soil Sampling Guidelines.
- A description of field screening methods, if applicable. The description should include:
 - Type, make and model of equipment used;
 - Calibration procedures used and type of calibration standard;
 - Date and time of last calibration; and
 - Method used and field screening results. If heated headspace is used as a field screening method, a description of the procedure is required. The field screening results should be presented in table form. **Field screening analysis is not adequate for site closure.** Laboratory sample analysis is required and the sample analytical results, from a DEQ-approved laboratory, should be provided in the Report. DEQ's approved analytical laboratory list is available at: <http://deg.mt.gov/Portals/112/DEQAdmin/ENF/Documents/ANALYTICAL%20LABORATORIES.pdf>
- A description of sample collection activities, including the sample collection methodology, sample collection location, and the depth where each sample was collected.
- A description of assessment activities to define the lateral and vertical extent of contamination. The extent and magnitude of a release or spill is defined when the investigation, through laboratory data obtained from samples collected from excavations, test pits, or soil borings, etc., demonstrates that the contamination is attenuating both horizontally and vertically to where there are no RBCA, RBSL exceedances.
- A description of impacted soil disposal, including receipts identifying where and how much contaminated soil was disposed. Note: Petroleum hydrocarbon-impacted soil is a Group II waste requiring disposal at a permitted solid waste disposal facility or licensed landfarm. The solid waste disposal facility should be contacted prior to initiating remedial activities to obtain its requirements for waste profiling and disposal.

DEQ regulates produced water-impacted soil as a "Special Waste" that must be disposed at a licensed Class II disposal facility. Depending on contaminant concentrations, produced water-impacted soils may require disposal at a Class II disposal facility permitted to accept Special Wastes.

For a list of licensed solid waste disposal facilities or permitted special waste disposal facilities, contact DEQ's Solid Waste Program at (406) 444-5300.

DEQ guidelines for licensing one-time landfarms is available at:
<http://deq.mt.gov/Portals/112/Land/SolidWaste/Documents/newapplications/onetimeLandfarm.pdf>

7. Sample Analytical Results

Provide a discussion of the laboratory analytical methods and the sample analytical results, and summarize the sample analytical results in table format. The table should include, at a minimum, the sample identification number, applicable RBSLs, and the sample collection date, time and sample collection depth. See Page 6 for examples of sample analytical tables.

The sample identification number should correspond to the sample identification number provided on the chain of custody (CoC) and laboratory data report.

The complete laboratory analytical data package must be provided with the Report, including the CoC, sample receipt checklist or other documentation that provides the sample temperature when received at the laboratory. Samples that arrive at the laboratory with a sample temperature greater than 4°C may result in ENFD invalidating the sample analytical data.

8. Summary

Provide a summary of assessment and remedial activities, and a discussion of sample analytical results if the remaining petroleum hydrocarbon concentrations are greater than 200 PPM total extractable hydrocarbons or above the applicable RBCA, RBSLs.

9. Conclusions and Recommendations

Provide conclusions based on sample analytical data in comparison with the applicable RBCA, RBSLs or RSLs. Provide recommendations for additional assessment or remedial activities, with the rationale supporting the recommendations. The conclusion and recommendations should be based on sample analytical results, ground water information, or other site-specific information. If site closure is recommended, a justification must be provided in the Report to ENFD.

10. Site Maps

Provide the following maps:

- a. A general site location map. The map can be a USGS 7.5 Minute Quadrangle map, road map, or an aerial photograph. All maps should have the incident location clearly identified.
- b. A site map showing location of roads, buildings, waterways, etc. It is recommended that this map be drawn to scale. The location of the release or spill should be clearly identified on the site map. This map should include a north arrow, map scale, and all pertinent site features clearly labeled.

- c. A sample collection location map. This map should show the excavation outline with approximate sample collection points identified and labeled with the corresponding sample identification number. If the excavation depth is greater than two feet, a cross section of the excavation sidewall with sample collection locations is required. The sample collection map does not have to be to scale, but the actual excavation dimensions must be included in the Report text.
- d. A ground water elevation map (if applicable).

11. Photographs

Provide a photographic log documenting assessment, remedial, and sampling activities. A description of the photograph and the direction (view) the photograph was taken is required.

ENFD is now accepting submittal of the Report as a PDF file in either electronic or digital formats. Reports that are less than 10 megabytes can be emailed to the ENFD project manager. All Reports larger than 10 megabytes should be submitted on a compact disc with the project name and project location identified on the disc or accompanying cover letter.

Reports may also be submitted using Montana's File Transfer Service (FTS). For information and instructions on using FTS, please visit <https://transfer.mt.gov/Home/Instructions>

ENFD requests that consultants notify the ENFD project manager via email or telephone of the pending disc or hard copy submittal. ENFD project manager email addresses are located at: <http://deq.mt.gov/DEQAdmin/ENF/contacts>

The final Report should be submitted to the ENFD project manager via email or at the following address within 90 days from the date the release or spill occurred:

Enforcement Division
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901
(406) 444-0379

If you have any questions about this document, please contact ENFD at (406) 444-0379.

Example Sample Analytical Tables

Extractable Petroleum Hydrocarbons
Laboratory Analytical Results

Sample No.	Sample Date/time	Sample Depth and Location	EPH Screen Results mg/kg	TEH mg/kg	C9-C18 mg/kg	C19-C36 mg/kg	C11-C22 mg/kg	Naphthalene mg/kg
RBCA RBSLs	6/10/12 1400	Residential <10 feet to ground water	200	NA	2,000	100,000	400	9

Volatile Petroleum Hydrocarbons
Laboratory Analytical Results

Sample No.	Sample Date/time	Sample Depth and Location	TPH mg/kg	C5-C8 mg/kg	C9-C12 mg/kg	C9-C10 mg/kg	MTBE mg/kg	Benzene mg/kg	Toluene mg/kg	Methylbenzene mg/kg	Xylenes mg/kg	Naphthalene mg/kg
RBCA RBSLs	6/10/12 1400	Residential <10 feet to ground water		200	1,000	100	0.08	0.04	10	10	200	9

NOTE:
DEQ's RBCA RBSLs ARE UPDATED PERIODICALLY.
PLEASE ENSURE THAT THE MOST RECENT RBCA RBSLs ARE REFERENCED