

**Groundwater Monitoring Work Plan
Former Dodson Conoco
Facility ID 60-15101 (TID 30860), Release 3912, Work Plan 34856
Barrett Avenue and US Highway 2, Dodson, Montana**

Prepared for:

Montana Department of Environmental Quality
Petroleum Tank Cleanup Section
P.O. Box 200901
Helena, MT 59620-0901



Prepared by:

Montana Department of Transportation
Environmental Services Bureau
2701 Prospect Ave
Helena, Montana 59620-1001

April 15, 2024

Introduction

The Montana Department of Transportation (MDT) provides this Groundwater Monitoring Work Plan for the Former Dodson Conoco site (Facility). This work plan is in response to DEQ's Work Plan Request letter, dated April 10, 2024. The general scope of work to be conducted per this workplan includes one year of semi-annual groundwater monitoring at all Facility monitoring wells, static water level collection at all Facility monitoring wells, analysis of field and laboratory data associated with the sample collection, and reporting.

Facility History/Site Background

The Facility previously operated as a gasoline filling station. Two gasoline tanks were discovered in MDT Right-of-Way during an MDT construction project on US Highway 2. The two USTs were removed (one, 1,000 gallons, one, 560 gallons) in 2008. The site buildings were demolished, and a remedial investigation was completed in 2008. The RI indicated that gasoline, diesel and waste oil were present as contaminants at the Facility. In October 2015 an excavation of the source area was completed and prior to backfill, an oxidant was placed into the bottom of the excavation. The oxidant proved to be successful in reducing contaminant concentrations so, in 2021, an ORC injection event was completed. Contaminant concentrations continue to show a decreasing trend.

The known contaminants of concern are VPH and lead scavengers. EPH appears to be present on site, however, at levels below RBSLs. The average depth to groundwater across the site typically varies from 5 to 8 feet below ground surface. Additional delineation and monitoring of the groundwater plume is necessary to ensure public safety.

Objectives

The objective of this work plan is to complete compliance and performance monitoring to determine the best cleanup method to advance this Facility to site closure.

Scope of Work

The scope of work will consist of:

- Two semi-annual groundwater sampling events in 2024.
 - One sampling event during high groundwater conditions (April-June).
 - One sampling event during low groundwater conditions (September-November).
- The sampling will consist of depth to groundwater measurements, field parameter measurements, and groundwater sampling of all Facility monitoring wells.
- Complete one Interim Data Submittal (IDS) and one Groundwater Monitoring Report.

Work Plan Tasks

Groundwater Monitoring

Groundwater monitoring will be conducted during seasonally high and low groundwater conditions in 2024. Groundwater monitoring and sampling will be collected for all Facility monitoring wells (MW-1, MW-2R, MW-3, MW-4, MW-5, MW-6R, MW-7, MW-8, MW-9R, MW-10, MW-11, MW-12, MW-13, MW-14).

Monitoring well sampling will be conducted using low flow sampling methodologies in accordance with MT DEQ requirements. New disposable tubing will be used for each monitoring well. Groundwater quality parameter data (conductivity, pH, salinity, dissolved oxygen, temperature, ORP, and turbidity) will be measured from all site wells sampled during each event using a flow through cell. Groundwater sample collection from each well will be completed following stabilization of groundwater quality parameters. Groundwater quality parameters, purge rate, well drawdown, and stabilization data for each well will be recorded in the field on individual well sampling forms. Depth to water measurements will be recorded from all the site wells during each groundwater monitoring event to provide an accurate potentiometric surface plot, flow direction, and gradient.

Groundwater samples will be preserved in accordance with required laboratory methods, packed on ice, and delivered/sent to Energy Laboratory in Helena, Montana under chain of custody. All groundwater samples collected will be submitted for VPH and lead scavengers. EPH screen with fractionation will be completed for monitoring wells MW-6R, MW-12, MW-13 and MW-14. A duplicate sample will be submitted for VPH and a trip blank will be submitted for each sampling event.

Reporting

MDT will complete an IDS following the MT DEQ IDS Expectations guidance document. The IDS will be completed after the first groundwater monitoring event and will include a brief summary of the groundwater monitoring event; cumulative groundwater elevation, groundwater parameter and contaminant concentration data tables; potentiometric and isopleth figures; field sheets, laboratory data package and completed Data Validation Summary Form (DVSF)

MDT will complete a Groundwater Monitoring Report following the MT DEQ Groundwater Monitoring – Report Expectations guidance document. The groundwater monitoring report will be completed after the second and final groundwater monitoring event. The report will include all applicable sections and information/data required in the guidance document, including, summary of site work, data analysis and interpretation, cumulative data tables, Facility figures, updated RCP, field sheets, laboratory data package and DVSF.

Schedule and Reporting

MDT will conduct two semi-annual groundwater monitoring events in 2024 as part of this scope of work.

- MDT will conduct the first groundwater monitoring event in May and complete the Interim Data Submittal by July.
- MDT will conduct the second groundwater monitoring sampling event in September and complete the Groundwater Monitoring Report by December.

Appendices

A site figure and the groundwater monitoring worksheet are attached as appendices to this work plan.

If you require additional information or details regarding this Groundwater Monitoring Work Plan, please do not hesitate to call me at (406) 461-2193.

Sincerely,

A handwritten signature in blue ink, appearing to read 'K. Gustafson', with a long horizontal flourish extending to the right.

Kendall Gustafson
Montana Department of Transportation
Environmental Services Bureau



- ◆ Monitoring Well
- Soil Boring
- Manhole
- Hydrant
- Phone Line
- Sewer Line
- Water Line
- Building
- Former Building
- Former Tank Location
- 2015 Excavation
- Property Boundary

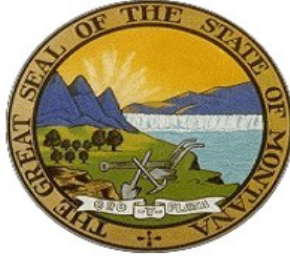


NO	DESCRIPTION	DATE	BARRETT		REVIEW	
			KK	LB	RS	AS
1	REMOVE BENZENE, LABELS, MW#12	11/13/22	KK	LB		
2	BUILDINGS, UTILITY LINES, LABELS	11/13/22	KK	LB		
3	PROP BOUNDARY, LABELS	10/27/23	KK	RS		
4						
5						

NOTES

SITE FEATURES	
FORMER DODDSON CONOCO - DODDSON, MT	
JOB#: MDTM23	
DATE: 2/13/2024	
FIGURE 1	
Path: W:\MDT\MDTM23 - Doddson Conoco\MDT23 - Doddson Conoco\WDT_Doddson Revv_Author_Mike.mxd	





Petroleum Tank Release Compensation Board

STATE OF MONTANA

P.O. Box 200902 • Helena, MT 59620-0902 • (406) 444-9710

Version: 7/28/2022

Cost Estimate Expl.

Site Information

Site Information

Unit Cost Worksheet

Helpful Sites	Links
Petroleum Tank Release Compensation Board (PTRCB)	https://deq.mt.gov/cleanupandrec/programs/ptrcb
DEQ - Petroleum Tank Cleanup Section (DEQ-PTCS)	https://deq.mt.gov/cleanupandrec/Programs/ptrocleanup
DEQ Guidance Documents	https://deq.mt.gov/cleanupandrec/Programs/ptrocleanup#accordion1-collapse5
Groundwater Monitoring Work Plan and Report Guidance	https://deq.mt.gov/files/Land/LUST/Documents/downloadables/GWM_WP_Rpt-Guidance_24Mar21.pdf
Groundwater Sampling Guidance	https://deq.mt.gov/files/Land/LUST/Documents/downloadables/GWSamplingGuidance-FINAL.pdf
Purge Water Disposal Flowchart	https://deq.mt.gov/files/Land/LUST/Documents/downloadables/PurgeWater7_27_15.pdf
Data Validation Guidelines	https://deq.mt.gov/files/Land/LUST/Documents/downloadables/2018-01-26%20DV%20Guidance%20Checklist%20PDF%20Version%201.3.0%20Distributed.pdf
Data Validation Summary Form	https://deq.mt.gov/files/Land/LUST/Documents/TechGuidDocs/2018-01-26%20DV%20Guidance%20Checklist%20PDF%20Version%201.3.0%20Distributed.pdf