



March 19, 2024

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

RE: Groundwater Monitoring Work Plan (WP) for the Petroleum Release at
Bell Motors Quick Lube, 122 East Main Street, Cut Bank, Glacier County, Montana
Facility ID #18-01267 (TID 21921), Release 3820, Work Plan 34818

Dear Mr. McCurry,

Big Sky Civil & Environmental, Inc. (BSCE) has prepared this Groundwater Monitoring Work Plan (WP) for completion of additional groundwater sampling and laboratory analytical testing at the subject petroleum release site. In accordance with the Montana DEQ request letter dated February 20, 2024, two monitoring events will be completed.

Facility History and Release Background

The subject site is located at 122 East Main Street on the southwest corner of East Main Street and Second Avenue Southeast in Cut Bank, Montana. Nearby petroleum releases are as follows: Bell Motor Company (across Main Street to the north/northeast) and former Flying J (west of Bell Motor Company). During previous monitoring and investigation, it was noted that commingling of the contaminant plumes may be occurring.

Site history is summarized by a previous consultant as follows:

Contamination was discovered at the site in October 1999 during closure of three (3) 1000-gallon gasoline UST's. The tanks, which were removed in October 1999, were newly installed in December 1988. During closure, visual staining and odor were noted. DEQ requested excavation within the safe reach of the backhoe and collection of a final soil sample before backfilling the excavation. Approximately 12 cubic yards of soil were removed.¹

Following UST removal, six monitoring wells were installed. One well (MW-3) has since been abandoned, and two other wells (MW-2 and MW-4) appear to have damaged/removed or covered with concrete surfacing, and were not located during previous fieldwork.

Average depth to groundwater at the site is 10'-18' below ground surface (bgs).

Objectives of Groundwater Monitoring

- The objective of groundwater monitoring is to assess the viability of facility wells for sampling, to quantify levels of petroleum contamination, and to evaluate natural attenuation trends, if any, at the subject site.

Work Plan Tasks

- Prior to sampling, a well assessment will be completed at the subject facility. The assessment will include locating all facility wells, assessing the condition and viability for sampling, and making recommendations for repairs, abandonment, or installation of new wells, as necessary. For the purposes of this work plan, facility wells are considered to be the following: MW-1, MW-2, MW-4, MW-6 and CBFJ-12; refer to **Figure 1** attached which shows the approximate location of the ‘facility wells,’ other nearby monitoring wells, and features of the site.
- After the well assessment, two groundwater monitoring events will be completed at the subject site. For monitoring, first the fluid levels will be measured and recorded at all facility wells (described previously) using an oil/water interface probe. Then samples will be collected from wells: MW-1, MW-2, MW-4, MW-6 using low-flow techniques recommended by DEQ. MW-2 and MW-4 were not found during a previous sampling event, but are included in the event they are found during the well assessment. Sampling will generally be completed as follows:
 - Wells will be purged using a peristaltic pump and field parameters (dissolved oxygen, pH, temperature, conductivity, oxidation-reduction potential and turbidity) will be measured and recorded in approximately five minute intervals. After stabilization of field parameters, samples will be collected and sent to Energy Laboratories, Inc. in Helena, MT, for analysis of volatile petroleum hydrocarbons (VPH).
- As part of work for release #4725 (Bell Motor Company, north/northeast of the subject release site), groundwater monitoring is scheduled with sample collection and analysis from MW-1, MW-5R and CBFJ-9. However, BSCE proposes that MW-1 is considered a facility well for the subject facility, and sampling and analysis is completed as part of the subject work plan. Moving forward, monitoring efforts will be completed at both the Bell Motor Company and Bell Motors Quick Lube in the same mobilization where possible to avoid duplication of sampling efforts and to minimize costs.
- Purge water will be disposed of according to DEQ’s Purge Water Disposal Flowchart.

Schedule & Reporting

- Following receipt of analytical results, reporting will be completed as follows:
 - After completion of the first groundwater monitoring event, an Interim Data Submittal Report will be prepared following the Groundwater Monitoring Report guidance document

- After completion of the second and final monitoring event, a Groundwater Monitoring Report will be prepared following the above-mentioned guidance. At a minimum the report will include: scaled map(s) showing the location of all sampling points and physical features of the site, tabular presentation of cumulative groundwater data, a discussion section identifying results of the completed monitoring and conclusions & recommendations to resolve the release. The following will be appended to the report: field data sheets, analytical lab reports, data validation summary forms (DVSFs) and an updated release closure plan (RCP).
- Reports and supporting documentation will be submitted following DEQ submittal requirements.

All sampling will be completed in strict accordance with BSCE's standard QA/QC procedures. The following procedures will be used during sample collection to provide quality assurance and quality control (QA/QC), to minimize loss of volatiles, and to maintain the suitability of samples for analysis. Sample collection and analytical procedures were consistent with SW-846: *Test Methods for Evaluating Solid Waste*, November 1986, and updates published by the U.S. EPA. QA/QC methods used are defined below:


- All sample containers/preservatives will be supplied by a state-certified laboratory. Analyses will be performed by a state-certified laboratory.
- All samples will be handled in a manner which minimizes the loss of organic compounds to volatilization and biodegradation.
- All samples for analyses will be placed in a cooler on ice (at a temperature of 4° C) immediately following collection.
- Chain-of-custody procedures will be utilized during sampling and delivery.
- Documentation of the sampling and QA/QC procedures including notes will be available for DEQ inspection. These notes will document the procedures for sampling and all other routine activities, along with field notes describing the sequence of activities that took place during the corrective action cleanup and the following monitoring well construction and sampling.

Attached is a cost estimate for completing the above-mentioned groundwater monitoring, analytical testing and report writing.

Donnie, thank you for your cooperation and assistance with this site. Please feel free to contact us with any questions or concerns you may have regarding this Work Plan.

Respectfully,
Big Sky Civil & Environmental, Inc.


Joseph N. Murphy, P.E.


Paxton Ellis, P.E.

encl. Fig. 1 – Site Map
Cost Estimate

cc: Jackson Bell

References

1. Neil Consultants, Inc. (2005). *Remedial Investigation Report, Bell Motors Quicklube, 122 East Main, Cut Bank, MT 59427.*

Figure 1 – Site Map

PROFESSIONAL SEAL

BY: CJM
 DATE: 8/8/11

OWNER:

BELL MOTOR
 COMPANY
 OWNER

PROJECT NAME:

BELL MOTORS
 FACILITY ID #1800856
 RELEASE #4725

SHEET TITLE:

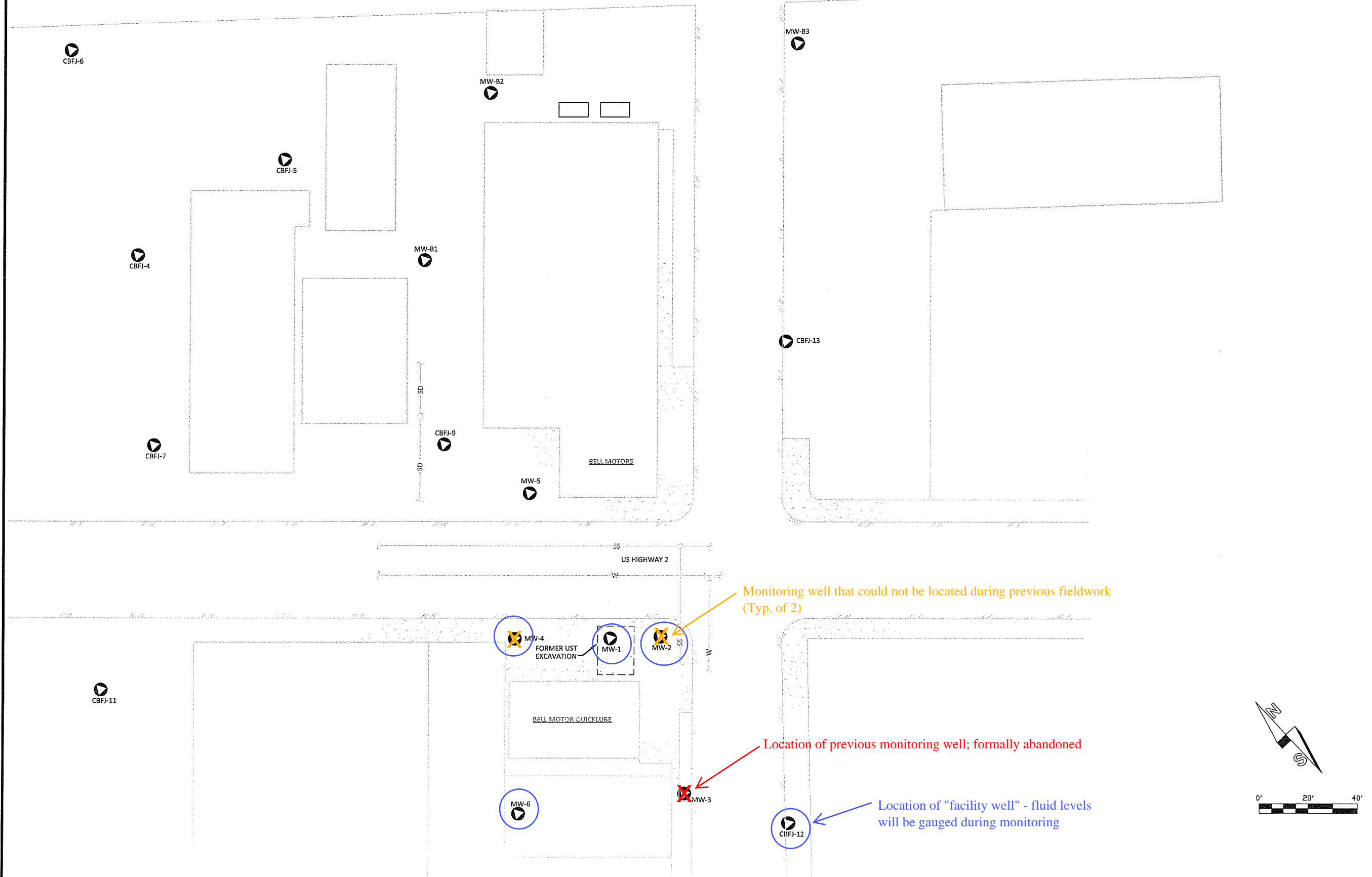
SITE MAP

DRAWING INFORMATION:

OFFICE PROJECT NUMBER: 0908
 OWNER FILE NUMBER: XXXX
 CADD FILE NAME: FIG-7/17/11
 ASSOCIATED PROJECTS: XXXX

FIGURE:

FIG. 1





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