



Resource Technologies, Inc.

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August 12, 2025

Grace Miller
Environmental Project Officer
Montana Department of Environmental Quality
Petroleum Tank Cleanup Section
1520 E 6th Avenue
Helena, Montana 59601

Subject: Revised Groundwater Monitoring Workplan for the Petroleum Release at
Park Farmer's Coop, 114 S Elliot Street, Wilsall, Park County Montana;
Facility ID 34-06686 (TID 26034), Release 1790, Workplan 35020

Responsible Party: Mr. Don Scott
Park Farmers Co-Op
P.O. Box 129, Wilsall, MT 59086
Contact: (406) 578-2543

Dear Ms. Miller,

On behalf of Park Farmers Co-Op, Resource Technologies, Inc. (RTI), is submitting the following workplan for semi-annual groundwater monitoring for a period of one year. This work is associated with the petroleum release at the Park Farmers Co-Op located in Park County, Wilsall, Montana (Figure 1). This revised work plan was prepared pursuant to the Montana Department of Environmental Quality (MDEQ) – Petroleum Tank Cleanup Section (PTCS) letter to Mr. Scott dated March 5, 2025; and addresses MDEQ comments on the workplan provided via e-mail on August 4, 2025.

BACKGROUND

Cumulative groundwater analytical data from previous groundwater sampling events demonstrate that the dissolved hydrocarbon plume is shrinking in area; however, elevated benzene concentrations persist in the source area (around MW-6). RTI applied ORC AdvancedTM to the former excavation in 2019 to increase DO levels within the dissolved groundwater plume and accelerate attenuation of contaminants in the source area.

Beginning in late July 2022 and ending in late June 2023, 2,000 to 2,400 gallons of water were pumped into the release area that was excavated in 1998 on a monthly basis. Water was injected via a 25-foot-long perforated pipe laid diagonally across the excavation floor, which was bedded in washed gravel. Water was provided by the Wilsall Fire

Department and was sourced from one of the municipal wells. Water was drawn from the municipal well with elevated nitrate concentrations. Nitrate in the injected water is expected to enhance biodegradation. The water was brought to the site and pumped into the subsurface with a 4,000-gallon capacity water truck. The tank was brought to the site full, and at least half of the tank contents were pumped into the lateral line during each event.

The most recent groundwater sampling events (January 2023 and July 2023) indicate that there has been substantial increase in dissolved contaminant concentrations, particularly in benzene and VPH aliphatic and aromatics, in wells MW-6, MW-10, and MW-15 since the previous sampling event (November 2021). Contaminant concentrations at wells WMW-4 and WMW-5 were below RBSLs during both 2023 sampling events. Contaminant concentrations (benzene and C5-C8 aliphatics) at source-area well MW-6 have increased since 2016.

In July 2023, when water injection was discontinued, groundwater elevation at MW-6 was the highest measured since April 2019. It is not known if the increasing water levels were due to water injection or seasonal fluctuation.

Since the final sampling event occurred concurrently with the last water injection, the effectiveness of the water injection has not been assessed; however, the increased contaminant concentrations in wells MW-6, MW-10, and MW-15 suggest that water injection did result in increased leaching of contaminants in the source area, which was the goal of the treatment.

SCOPE OF WORK

The preferred corrective action, as documented in the most recent groundwater monitoring report (August 31, 2023) is sampling of wells WMW-4, WMW-5, MW-6, MW-10, MW-11, and MW-15 on a semiannual basis for one year to further evaluate the effectiveness of the unamended water injections (Between July 2022 & June 2023) and to determine if dissolved contaminant concentrations exceeding RBSLs are limited to the immediate source area or if downgradient contaminant concentrations persist.

Specific objectives of the investigation described herein are to:

- Collect groundwater samples from Facility wells WMW-4, WMW-5, MW-6, MW-10, MW-11, and MW-15 during seasonally high groundwater and seasonally low groundwater (semi-annual) in spring and fall 2025 and analyze samples for volatile petroleum hydrocarbons (VPH);
- Collect groundwater level measurements from all site monitoring wells during each sampling event (5 wells);
- Conduct vapor monitoring of former church basement with a photoionization detector (PID);
- Validate laboratory data;
- Discuss ongoing WP tasks and results with the DEQ project manager;
- Following the first round of groundwater sampling, submit interim data submittal (IDS),

- Following the second semi-annual sampling event, prepare and submit Standardized Groundwater Monitoring Report (MR-01).

Project Management

RTI will manage and coordinate all aspects of the project including planning, collection of samples, analysis of data, and reporting. Work plan tasks and laboratory reports will be discussed with DEQ's project manager; agreed upon work plan modifications will be submitted in writing as required to complete the work plan objectives. RTI will notify Ms. Ryan of upcoming field activities.

Groundwater Monitoring

Groundwater monitoring will be conducted semi-annually for two events during spring and fall of 2025. During each sampling event, water level measurements will be obtained from all Facility wells using an electronic water level indicator.

Groundwater samples will be collected from monitoring wells WMW-4, WMW-5, MW-6, MW-10, MW-11, and MW-15 (Figure 2). The wells will be sampled with a stainless-steel low-flow submersible pump and clean Teflon lined poly tubing. During sampling, groundwater stabilization parameters including pH, water temperature, specific conductance, dissolved oxygen, oxidation/reduction potential, and turbidity will be monitored and recorded on a groundwater sampling log. When groundwater parameters have stabilized in accordance with Section 2.5 of *Groundwater Sampling Guidance* (DEQ, 2018), groundwater samples will be collected in laboratory provided containers and appropriately preserved as specified by the analytical method. The sample containers will be placed in iced coolers to maintain a temperature of 4°C and transported under chain-of-custody procedures to the laboratory. Groundwater samples will be submitted to Energy Laboratories of Billings for Volatile Petroleum Hydrocarbons (VPH) analysis.

After each water level measurement, the probes will be decontaminated using a detergent wash followed by a distilled water rinse. Following sample collection at each location, sampling pumps, cables, and flow-through cell with probes, will be decontaminated by cycling the pump in a detergent wash, tap water rinse and distilled water final rinse. Purge water will be handled and disposed of in accordance with the MDEQ Purgewater Disposal Flow Chart. RTI Standard Operating Procedures for low flow sampling and equipment decontamination are attached.

Organic Vapor Monitoring

RTI will conduct indoor-air monitoring in the basement of the former Wilsall Community Church. Vapor monitoring will be conducted in the small, dirt-floored room at the west end of the basement. Vapor monitoring will be conducted with a Honeywell Mini-Rae PID calibrated with 100 part per million isobutylene standard span gas according to PID manufacturer's instructions.

Data Validation

Following receipt of the analytical reports from the laboratory, RTI will validate the analytical data using MDEQ's Data Validation Summary Form (DVSF.) Any data qualifications will be indicated in data tables and will be discussed in the sampling report.

Evaluation and Reporting

Following the first semi-annual groundwater sampling event, RTI will prepare an Interim Data Submittal that will include:

- Tabulated groundwater analytical and elevation data,
- Potentiometric surface maps,
- Contaminant distribution maps, and,
- Field data sheets, laboratory analytical reports, and data validation summary forms.

Upon completion of all work tasks described in the previous sections and receipt of analytical data from the second groundwater sampling event, RTI will prepare and submit a Standardized Groundwater Monitoring Report (MR-01) that will incorporate all data generated under this work plan. The report will include the following:

- Discussion of hydrogeology, groundwater and vapor monitoring results, and contaminant trends including analysis of contaminant attenuation in well MW-6;
- Conclusion section that summarizes current site conditions, identifies data gaps that may exist following proposed groundwater sampling, and the observed effects from the unamended water injection including ;
- An updated RCP (if deemed necessary) and recommendation for future work to resolve the release, supported by the discussion, conclusion(s), and RCP;
- Tabular presentation of cumulative groundwater data;
- Potentiometric map, plume maps, and map with utilities and water wells;
- Laboratory reports and groundwater sampling logs;
- Discussion of vapor monitoring data; and
- Data validation checklists.

Electronic versions of the report will be submitted as required by MDEQ. A hard copy of the report will be submitted to Mr. Scott.

SCHEDULE AND BUDGET

Following approval of this work plan by MDEQ, we anticipate the groundwater sampling event will be completed in October 2025 and the second event will be completed in March 2026, approximately six months following the first.

The attached cost estimate and groundwater sampling worksheet provides a breakdown of costs for groundwater monitoring and reporting. The total estimated cost for workplan preparation, groundwater sampling, and reporting is \$10,449.80.

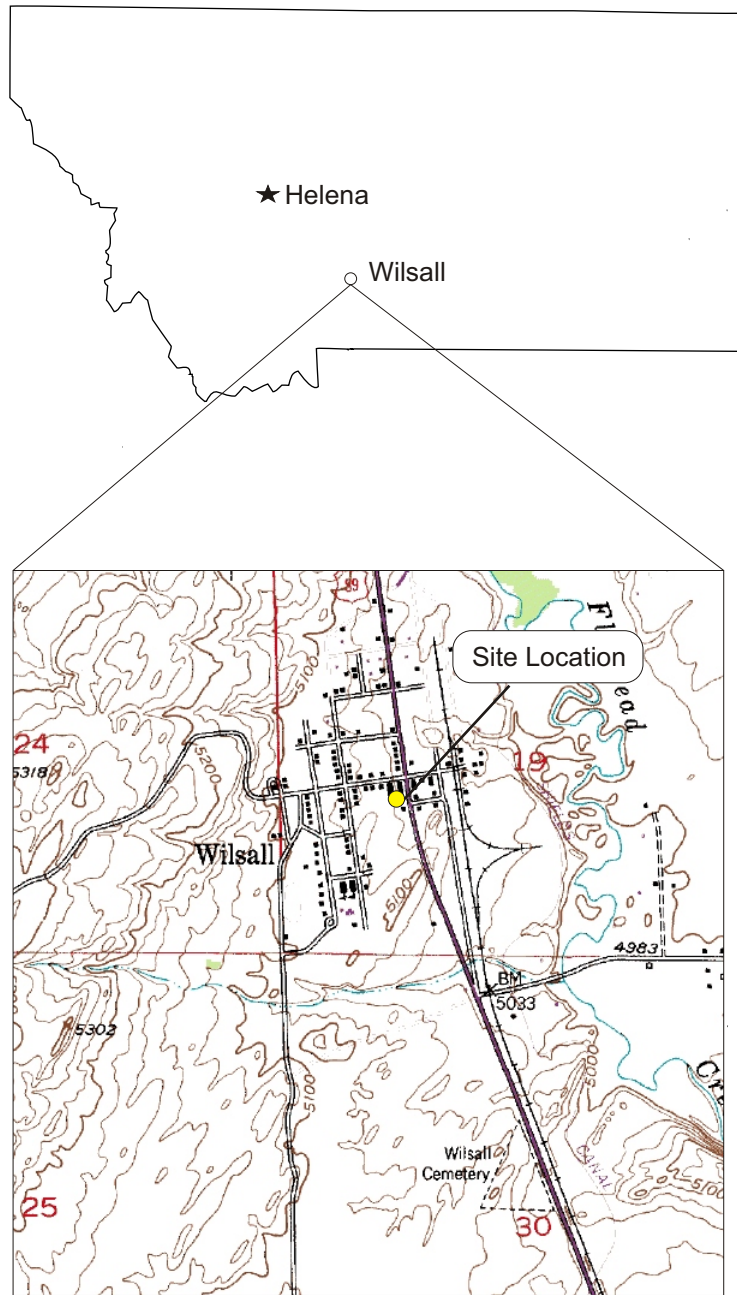
Respectfully Submitted,
Resource Technologies, Inc.

A handwritten signature in black ink, appearing to read 'Meredith Pepka', is written over a light gray horizontal line.

Meredith Pepka, EIT
Associate Environmental Engineer

Attachment

cc: Mr. Don Scott; Park Farmers Co-Op



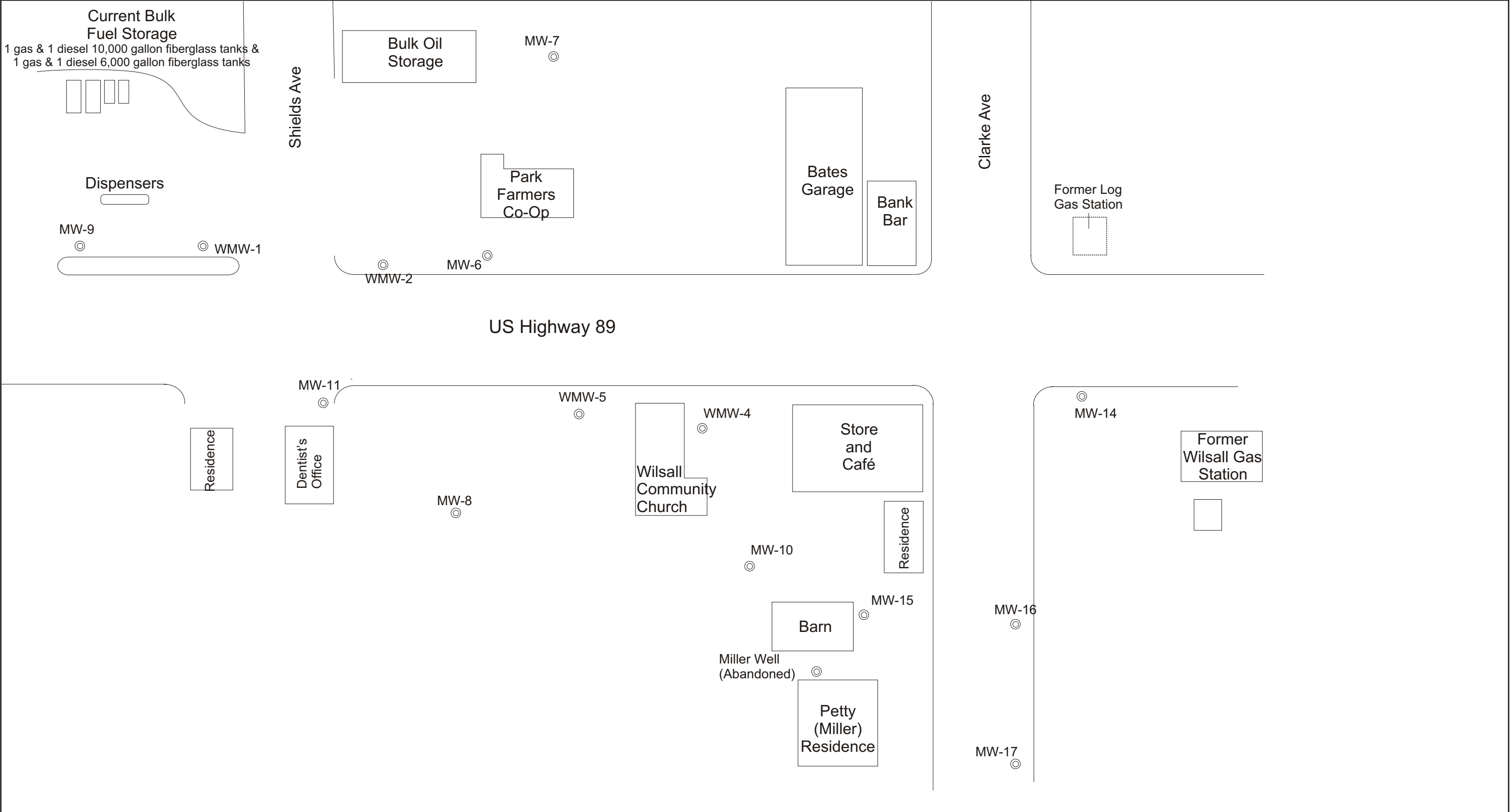
Base Map: U.S.G.S. Wilsall Quadrangles, 7.5 Minute Series - Scale: 1:24,000

Figure 1

Site Location Map
Park Farmers Co-Op
Wilsall, Montana



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LEGEND

MW-6
Groundwater Monitoring Well

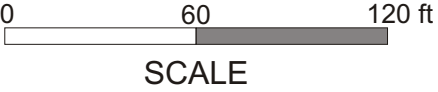
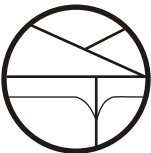


Figure 2

Site Map
Park Farmers Co-Op
Wilsall, Montana



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