



Resource Technologies, Inc.

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April 1, 2024

Mr. William Bergum
MDEQ-PTCS
P. O. Box 200901
Helena, MT 59620-0901

Subject: Groundwater Monitoring Corrective Action Plan; Former Gallatin Farmers Company Cenex, 310 South Front Street, Townsend, Broadwater County, Montana; Facility ID 04-07862 (TID 18051), Release 2560, Work Plan 34832.

Responsible Party: Rocky Mountain Supply
P.O. Box 129
Belgrade, Montana 59714

Contact: Jason Rorabaugh
(406) 388-4008

Dear Mr. Bergum:

On behalf of Rocky Mountain Supply, Resource Technologies, Inc. (RTI) is submitting the following workplan and budget for groundwater monitoring at the former Gallatin Farmers Company Cenex located at 310 South Front Street, in Townsend, Montana (Figure 1). Proposed activities are intended to provide information to aid in determining the need for future corrective actions or to facilitate site closure associated with Release 2560. This workplan was prepared pursuant to the Montana Department of Environmental Quality-Petroleum Tank Cleanup Section (MDEQ-PTS) letter to Mr. Jason Rorabaugh dated February 20, 2024.

BACKGROUND

The former Gallatin Farmer's Company Cenex operated as a retail fuel dispensing facility and agricultural supply store since 1975. Prior to renovation activities starting in April 1995, fuel at the facility was stored in five aboveground storage tanks (ASTs) located at the southern end of the facility. They were connected to the dispenser area via approximately 250 feet of underground piping. The piping connecting the tanks to the dispensers was constructed of two-inch diameter plastic-coated steel. Fuel was dispensed

through suction-type dispensers from two dispenser islands located at the north end of the site. Because of the hydraulic head existing in the ASTs, the system was classified as “pressurized” and therefore was required to have line leak detection in place. As a result, Gallatin Farmer’s Co. opted to replace the existing system. The fuel delivery system was reported to be 21 years old at the time of upgrade. Fuel dispensed at the facility included regular and premium unleaded gasoline, and clear and red diesel.

The site operated as a fuel station until summer 2022 and included a 10,800 square foot commercial building, four dispenser islands, an overhead canopy covering three of the dispensers, and six underground storage tanks. The canopy, all dispensers, and storage tanks were removed during the late summer/early fall of 2022. The building remains but the site will no longer function as a petroleum supply site.

On April 10, 1995, free product (red diesel fuel) was discovered in an excavation immediately south of the former dispenser islands during installation of new USTs and dispensers by D&L Services of Helena, Montana. Gallatin Farmers Co. notified Montana Department of Health and Environmental Services (currently Montana Department of Environmental Quality) of the release on the same day and retained RTI of Bozeman, Montana, to provide response services.

During station renovation, RTI supervised installation of three free-product recovery trenches. Over 10,000 gallons of free product (mostly clear and red diesel) were recovered at the site before free-product accumulation was no longer measurable. All free product recovery sumps and appurtenances were abandoned in 2019.

In 1995, during station renovation, RTI identified soil impacts at the junction where AST piping branched to the individual dispensers. This soil mass appeared to be the last remaining vadose-zone contaminant source. In November 2022, 293 cubic yards of petroleum contaminated soil were excavated and disposed at the Tri-Valley Disposal Landfill in East Helena. During excavation, monitoring well MW-8A was destroyed. Confirmation samples indicated that impacts at the limit of the excavation zone were minor and that excavation was successful at removing soil impacts above the zone of groundwater fluctuation where impacts extended beyond the limit of excavation. RTI returned in December 2023 and installed three new groundwater monitoring wells, and collected soil samples that indicated residual soil impacts in the zone of groundwater fluctuation.

SCOPE OF WORK

The scope of this proposed workplan includes the following tasks:

- Collect groundwater samples on a semi-annual basis for one year from groundwater monitoring wells MW-4, MW-8B, MW-9, MW-10, MW-16, MW-17 and MW-18, using low-flow sampling methods,

- Collect groundwater elevation data from all site groundwater monitoring wells during each sampling event,
- Submit all samples for volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbon screen (EPH Screen), lead scavengers (1,2 dichloroethane and ethylene dibromide) analyses,
- Additionally, analyze groundwater samples for intrinsic biodegradation indicators (IBIs) including sulfate, nitrate + nitrite as N, dissolved iron and manganese, and methane,
- Validate analytical data using DEQ Data Validation Summary Form,
- After first sampling event, submit Interim Data Submittal,
- Update site Release Closure Plan if necessary, and
- After second sampling event, Prepare Groundwater Monitoring Report.

Work tasks are described in the following sections.

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 update the Site Health & Safety Plan for the planned field activities. A work zone will be established around the wells and support vehicle during sampling to reroute traffic and provide pedestrian control.

Groundwater Sampling

Groundwater samples will be collected from site monitoring wells MW-4, MW-8B, MW-9, MW-10, MW-16, MW-17 and MW-18, on a semi-annual basis for one year. Samples will be collected in late spring 2024 (high groundwater) and late fall 2024 (low groundwater).

Depth to water measurements will be collected from all site monitoring wells with an electronic water level sounder to facilitate determination of groundwater flow direction and gradient.

Groundwater samples will be collected using low flow collection methodologies. Monitoring wells will be purged and sampled with a 2-inch variable-speed, stainless steel submersible sampling pump and clean vinyl tubing. The pump intake will be situated three to four feet below the measured water level within the screened interval. Prior to sampling, each well will be purged at the lowest sustainable pumping rate. Purge water will be discharged to a flow cell where water quality parameters including temperature, pH, conductivity, dissolved oxygen (DO), oxidation/reduction potential (ORP), and turbidity are continuously monitored. Water-quality-indicator parameters will be recorded every two to four minutes on a sampling log. An electronic water level sounder will be inserted in the well and suspended just above the static water level to facilitate water level monitoring throughout purging to determine drawdown. Purge volume will

be measured in a graduated cylinder from the flow cell. When water quality parameters stabilize for two successive readings of the water quality field parameters, the sample line will be severed at the flow cell inlet for sample collection into laboratory provided containers.

Groundwater samples will be submitted to Energy Laboratories of Billings, for VPH, EPH Screen, and lead scavengers (1,2 dichloroethane and ethylene dibromide) analyses. Samples exhibiting a total extractable hydrocarbon (TEH) concentration greater than 1,000 micrograms per liter ($\mu\text{g/L}$) will be further analyzed for EPH aliphatic and aromatic fractions. Additionally, groundwater samples will be analyzed for intrinsic biodegradation indicators (IBIs) including sulfate, nitrate + nitrite as N, dissolved iron and manganese, and methane.

If lead scavengers are not detected in samples during the first sampling event, RTI will confer with DEQ whether lead scavengers analysis during the second monitoring event will be required.

Purge water will be handled in accordance with the Options for Discharge of Hydrocarbon Contaminated Wastewater Technical Guidance Document. Disposable vinyl tubing and latex gloves will be disposed of in an onsite dumpster.

Decontamination

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, and cables, will be decontaminated by cycling the pump in a detergent wash, tap water rinse and distilled water final rinse.

Data Validation

All laboratory data generated under this workplan will be validated using the DEQ Data Validation Summary Form.

Release Closure Plan

If sampling data indicates additional corrective action may be necessary, RTI will update the existing site Release Closure Plan (RCP) to evaluate potential corrective actions.

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 the second semi-annual groundwater sampling event and receipt of analytical data, RTI will prepare and submit a Groundwater Monitoring Report that will incorporate data generated under this work plan. The report will include the following:

- Facility map(s) showing site layout, locations of monitoring wells, potentiometric surface, dissolved contaminant distribution, and dissolved contaminant plumes,
- Tabulated summaries of the new and cumulative groundwater sampling data (laboratory analytical results and data validation checklists will be appended to the report),
- RCP will be updated if necessary and a copy of the RCP will be appended to the report,
- Recommendations for additional remediation work required to resolve the Release.

The original reports (hard copy) will be submitted to the Responsible Party. Electronic versions will be submitted as required by MDEQ.

Schedule

Groundwater sampling will be scheduled for late spring 2024 (high groundwater) and late fall 2024 (low groundwater).

Budget

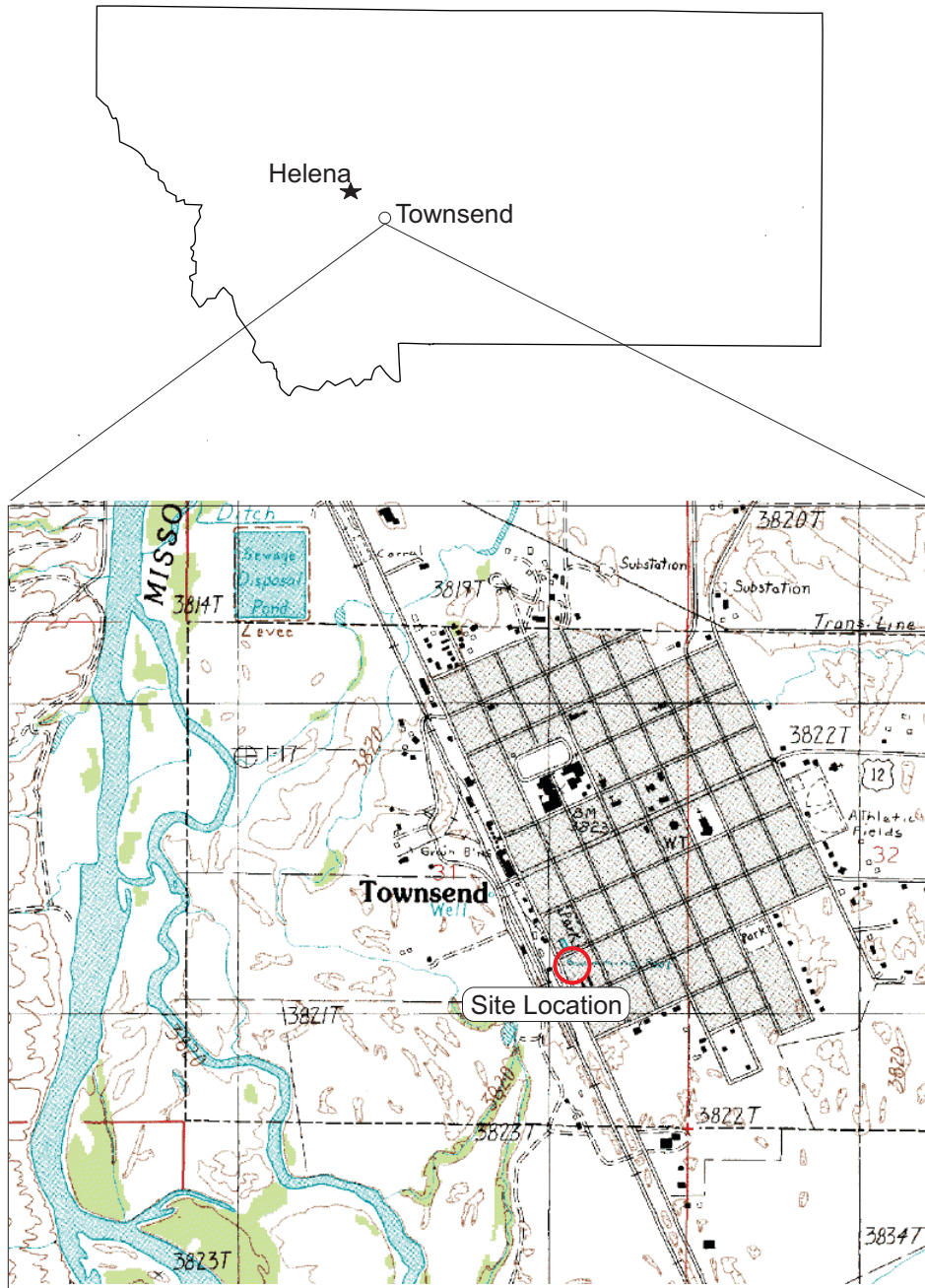
Costs associated with workplan preparation, and groundwater sampling, and reporting are being provided on a unit cost basis and are included in the attached Groundwater Monitoring Unit Cost worksheet. The total cost for workplan preparation, groundwater sampling (two events), and reporting is \$18,958.00. If you have any questions or comments regarding this workplan, please do not hesitate to call.

Respectfully Submitted,
Resource Technologies, Inc.



Joe Laudon
Hydrogeologist

Attachments



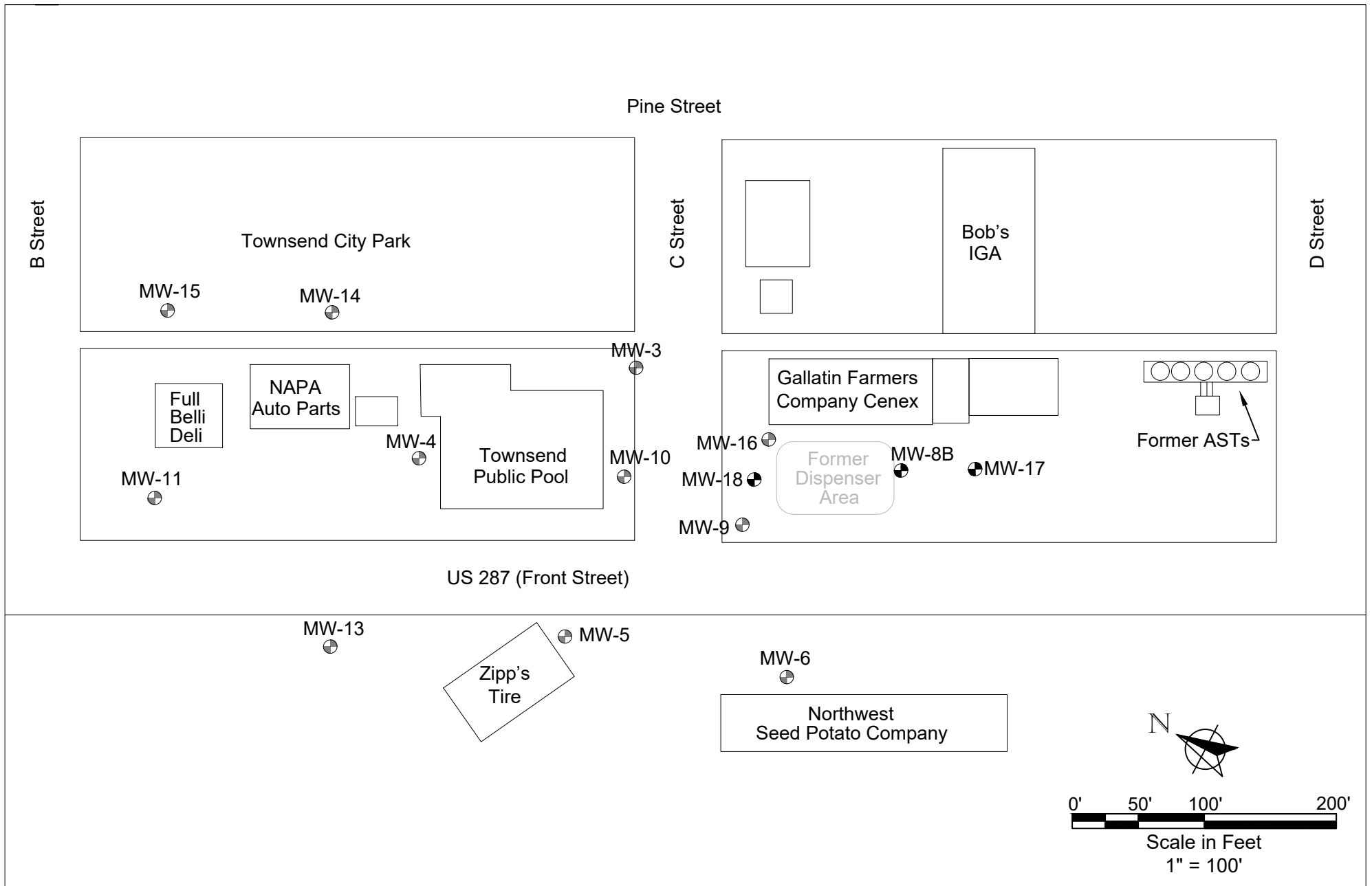
Base Map: U.S.G.S. Townsend Quadrangle, 7.5 Minute Series - Scale: 1:24,000

Figure 1

Site Location Map
Gallatin Farmers Co. Cenex
Townsend, Montana

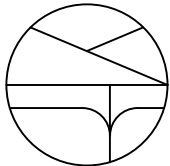


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Legend		Existing monitoring well
		Newly installed monitoring well

Figure 2
Site Map
Gallatin Farmers Co. Cenex
Townsend, Montana



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