

Corrective Action Plan

34953

**Town Pump Inc. Eureka
10 Dewey Avenue
Eureka, MT
Facility ID 27-08699 (TID 24240),
Release 6674, Work Plan 34953**

Prepared for:

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Environmental



Emergency Response



Industrial Services

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1.0 Introduction

West Central Environmental Consultants (WCEC) has prepared this corrective action plan (CAP) for Remedial Investigation at the Town Pump in Eureka (Facility ID 27-08699 (TID 24240), Release 6674, Work Plan ID 34953). The corrective action plan was generated in response to the request by the Montana Department of Environmental Quality (MTDEQ) on October 16, 2024.

1.1 Site Location

The Town Pump facility in Eureka, MT is operated as a gas station and stop convenience store. The release occurred on August 4, 2024, when the premium gasoline product line leak detection equipment shut down the product line. Due to this automated leak detection shut down event, Town Pump completed a 3.0 gallon/hour line test, which did not pass protocols. Following this test Town Pump contracted a UST vendor to run additional manual tests on the premium gasoline line. These tests showed a pressure drop in the line indicative of a line leak.

A site location map and a site details map are included as Figure 1 and 2. The Public Land Survey System (PLSS) description for the site is the NE/4, SW/4, of Section 14, T61N, R27W. The approximate geographic coordinates are Latitude 48.8785°, Longitude -115.0523°. Township, range, and section information was obtained using the United States Geological Survey (USGS) Eureka North, Montana 1:24,000 Quadrangle. The site is located within the Tobacco River Hydrologic Unit.

1.2 Geologic/ Hydrogeologic Setting

The surficial geology at the site consists of glacial and fluvioglacial deposits gravel and large cobble. This surficial layer is underlain by bedrock of the Purcell Lava and the Snowslip Formation from the Middle Proterozoic. Outcrops of these bed rock formations are visible to the east and west approximately 200 yards from the site. It is anticipated that these bedrock formations are at relatively shallow depths and that they may be encountered during soil boring or well installation activities. Groundwater at the site is anticipated to be present at 5 to 10 feet below ground surface and will likely fluctuate with seasonal flows in Sinclair Creek and the Tabacco River.

2.0 Scope of Work

2.1 Scope of Work

The scope of work required by the MTDEQ consists of completing a Remedial Investigation Work plan to define the extent and magnitude of petroleum contamination at the facility:

- Prepare a remedial investigation work plan for the facility.
- Validate all laboratory analytical data using DEQ's Data Validation Summary Form.
- Discuss ongoing WP tasks and results with DEQ's project manager; submit written agreed-upon work plan modifications as required to complete the work plan objectives.
- Prepare a Release Closure Plan (RCP); discuss results with DEQ's project manager.
- Prepare and submit a Remedial Investigation Report detailing the results of the investigation and all groundwater monitoring events. The RI Report must include all format sections, content, tables, figures, and appendices outlined under the RI Guidance document.
- Use standardized DEQ WP and report formats found under the Guidance dropdown at the PTCS webpage.
- Submit work plans and reports electronically following the PTCS submittal requirements.

2.1 Soil Boring & Field Screening

WCEC will direct a soil boring investigation of hydrocarbon impacts surrounding and downgradient of the known release location. Initial investigation will concentrate around the pump islands where the release occurred and include 5 soil borings to a depth of 20 feet. Based on the impacts identified through field screening, up to an additional 13 soil borings will be completed at downgradient locations in the direction of Sinclair Creek or the Tobacco River. All soil borings will be completed using dual tube boring methods. Soils from each boring will be field screened using a Rae Systems MiniRae™ 3000 photoionization detector (PID), as well as visual and olfactory evidence to determine which horizons may be impacted. The PID will be calibrated using fresh air and span gas calibration points. Isobutylene span gas at a concentration of 100 parts per million (ppm) will be used in the calibration procedure. Soil samples for on-site screening will be placed in plastic zip lock bags. Each bag will be one third filled with soil and sealed trapping volatile organic compounds in the headspace. Headspace development will be allowed to proceed for a minimum of 2 minutes; each bag will be shaken for 15 seconds before and after this period. The PID probe will then be inserted into the head space of the bag to measure the hydrocarbon compounds that have volatilized into the contained head space. The maximum PID response over a 5 second period will be considered the result of this field screening technique. Following the installation of borings around the dispensing island, additional boring locations will be completed based on hydrocarbon impacts identified in previous borings.

Each individual soil boring will be logged in the field using the Unified Soil Classification System (USCS). Field logs will include details of depth, soil recovery, USCS code, sample depth, and PID reading.

Soil sampling will be based on field screening results. If field screening exhibits hydrocarbon impacts in the soil horizons of 0-2ft, 2-10ft (anticipated groundwater interface), and or the bottom of soil boring, a soil sample will be collected. A maximum of 3 soil samples could be collected from each boring under this sampling protocol if all three soil horizons are impacted. If no hydrocarbon impacts are identified in the field screening process, one soil sample will be collected from the groundwater interface. One soil boring location near the release location will be selected for a duplicate soil sample. This soil sample will be assessed for relative percent difference to demonstrate effective analytical quality control.

Soil samples will be collected using WCEC Standard Operating Procedures (SOPs), and in accordance with MTDEQ requirements. Soil samples will be collected in pre-preserved vials with pre-weighed and measured volumes of methanol noted on the sample vials. A laboratory provided volumetric soil sampling syringe will be used to collect the soil from the soil boring core. If any methanol is lost during sampling from a spill, splash, etc. it will be discarded, and replacement sample will be collected. Following sample collection, samples will be packed on ice and submitted under chain of custody to Energy Laboratory, Inc. (Energy) in Helena, Montana.

All soil samples will be analyzed for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbon (EPH) screen. Soils that exceed the EPH screening limit of 200 mg/kg will be analyzed for TEH fractions. In addition the initial 5 soil borings will be analyzed for lead scavengers on the sample collected from the 2-10 ft interval.

2.2 Monitoring Well Installation & Surveying

WCEC will install a minimum of three monitoring wells at the facility. If the area of impacts extends off the property, then up to an additional 3 monitoring wells may be installed in downgradient locations. A source well will be installed at the closest possible location to the release location on the southwest side of the dispenser islands. An additional well will be installed near the southern corner of the dispensing canopy near the property boundary adjoining Riverside Ave. One additional upgradient well will be installed between the convenience store and pump islands. These proposed monitoring well locations are depicted in Figure 2.

WCEC will install these monitoring wells in conjunction with the soil boring investigation using hollow stem auger tooling. The groundwater monitoring wells will be constructed using a 2-inch schedule 40 PVC riser and 0.010 slot PVC screen. Each monitoring well will be screened from 3 to 18 feet below ground surface (bgs) with solid riser extending from 3 feet bgs to near ground surface. The well annulus will be filled with 10/20 silica sandpack from the bottom of the boring to 6 inches above the screened interval, with the remainder of the boring annulus consisting of a bentonite seal. Surface completions will be constructed using 8-inch flush mount monuments set in concrete. Soil cuttings will be drummed up for disposal at the Republic Services Class II Landfill in Missoula, MT.

WCEC will survey the top of casing on all monitoring wells at the facility to The Forth Order (0.10 feet times the square root of total distance of the level loop in miles) with a level loop measurement precision of 0.01 feet. The latitude and longitude of all site wells will be surveyed using a Trimble Geo 7X GPS with 1-centimeter post processed accuracy. Site well casing elevations will be correlated to the North American Vertical Datum of 1988 (NAVD 88) using an onsite elevation control point which will be created using the Trimble Geo 7x GPS.

2.3 Monitoring Well Development

Monitoring well development will be completed using a combination of surging and over pumping. This will meet the purpose of monitoring well development, which is to ensure removal of fines from the vicinity of the well screen and allow free flow of water from the formation into the well. This well development helps reduce the turbidity during future groundwater monitoring events. Groundwater quality parameter data (conductivity, pH, salinity, dissolved oxygen, temperature, ORP, and turbidity) will be collected from each

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well prior to and following well development. This reading will be collected following an estimated displacement of three flow through cell volumes.

Surging involves raising and lowering a surge block inside the well. This generates a hydraulic surge which forces water into the formation and loosens sediments allowing them to be pulled from the formation into the well. This surging is completed for approximately 5 minutes and then is followed by pumping using a down hole pump. A total of 5 well volumes are pumped following surging, with the process being repeated up to 4 times or until water being purged from the well exhibits minimal fines.

2.5 Groundwater Monitoring

WCEC will complete semiannual groundwater monitoring events for a period of one year. It is anticipated that the initial monitoring event will be conducted in May or June 2025 during high groundwater conditions at the facility, with the second semiannual event being conducted in October or November 2025. The initial groundwater monitoring event will be conducted no sooner than one week after monitoring well installation. Groundwater samples will be collected from all the newly installed monitoring wells. Well sampling will be conducted using low flow sampling methodologies in accordance with MTDEQ requirements and WCEC SOPs. WCEC will use a peristaltic pump to purge and sample each monitoring well. Groundwater quality parameter data (conductivity, pH, salinity, dissolved oxygen, temperature, ORP, and turbidity) will be acquired 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. Static water levels, groundwater quality parameter, and purge rate for each well will be recorded in the field using WCEC's Well Sampling Form. Depth to water measurements will be used to calculate the potentiometric groundwater surface, flow direction, and gradient for each event. Planned analytical analysis is tabulated below.

Analytical Analysis Chart					
Sample Location	VPH	EPH	Lead Scavengers	IBI or Injection parameters	Depth to Water only
New Well 1	x	x	x		
New Well 2	x	x	x		
New Well 3	x	x	x		
New Well 4	x	x	x		
New Well 5	x	x	x		
New Well 6	x	x	x		
Duplicate sample	x	x	x		
Analysis per event	7	7	7	0	0
Total all events	14	14	14	0	0

Purge water will be properly handled according to the MTDEQ Purge Water Disposal Flowchart. WCEC does not anticipate any of the new wells to contain free product or RCRA listed or characteristic waste. Water will be collected from the shallowest aquifer and based on the current known impacts at the site it is not anticipated that purge water will contain enough petroleum hydrocarbons to result in exceedances of soil screening cleanup levels if it is disposed of on the ground surface. The distance to surface water from the facility does not present a potential for purge water directly reaching these streams if applied to unpaved surfaces. Based on these anticipated realities, WCEC plans to dispose of purge water on a permeable ground surface at the site. If free product is identified in any of the purge water obtained from site wells, WCEC will purchase portable gasoline containers for containment and transport back to their office in Missoula, MT. In this event WCEC will submit a Form 8 adjustment to cover disposal costs associated with proper disposal through an oil recycler.

Groundwater samples will be preserved in accordance with analytical methods, packed on ice, and shipped to Energy in Helena, Montana under chain of custody. All groundwater samples collected will be submitted for VPH, EPH screen, and lead scavengers. One filed duplicate sample will be collected from the well closest to the release location for QA/QC assessment of relative percent difference laboratory analytical.

2.6 Data Validation

WCEC will complete the MTDEQ – Waste Management and Remediation Division Data Validation Summary Form for all laboratory analytical reports. The complete laboratory analytical report and associated DVSF will be included as appendices to each report.

2.7 Reporting

An interim data submittal (IDS) will be generated following the receipt of analytical data from the soil boring and monitoring well installation event. This IDS will include a map detailing the location of soil borings, groundwater monitoring wells, and soil analytical tables. Data validation will be included for each analytical report. A remedial investigation report will be completed following the receipt of the groundwater analytical report from the second semiannual sampling event. The report will detail the remedial investigation at the facility and will discuss the soil boring, monitoring well installation, and groundwater monitoring events. Cumulative data tables will include all new and historical soil and groundwater analytical data associated with the facility. Figures will detail the locations of monitoring wells and buried utilities at the facility.

The remedial activities report will include discussion and recommendations to bring the site to closure. These recommendations will be based on the results of the analysis in the Release Closure Plan that will be included as an appendix to the report. Additional appendices will include soil and groundwater analytical

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reports, groundwater monitoring field data sheets, soil boring and monitoring well installation logs, and data validation summary forms.

3.0 Timeline and Costs

The attached *Estimated Costs for Corrective Action Plan #34953* and *PTRCB Groundwater Monitoring and Sampling Unit Cost Work Sheet* [Appendix A] details anticipated project costs to complete the MTDEQ required scope of work. The scope of work outlined in this work plan will be conducted following approval of the MTDEQ. WCEC tentatively expects remedial actions to be initiated in the spring or early summer 2025, with the initial groundwater monitoring event being conducted within one month following the drilling event.

3.1 Planned Workflow & Cost Explanations

The estimated costs in Appendix A include completion of monitoring well installation and semiannual groundwater monitoring events included in this work plan. WCEC will complete these tasks during 2025. Events are expected to occur as follows:

Event 1: Soil boring, monitoring well installation, well development, and surveying (staff – Staff scientist & drilling staff. (Driller, Driller helper, Staff Scientist. (3 staff)

Events 2: Initial Semiannual Groundwater monitoring event (1 staff)

Events 3: Second Semiannual Groundwater monitoring event (1 staff)

This workflow is outlined in sequential order of tasks outlined in this CAP. The attached PTRCB Groundwater Monitoring and Sampling Unit Cost Worksheet includes groundwater sampling costs with a corresponding cost total for all remedial action outside groundwater monitoring detailed on the *Estimated Cost Spreadsheet for Corrective Action Plan #34953*.

List of Figures

Figure 1: Site Location Map

Figure 2: Site Details Map



X Site Location

Site Location Maps

Town Pump - Eureka
 10 Dewey Ave
 Eureka, MT 59917

DRAWN BY: NO
 DATE: 11/05/24
 SCALE: 1:12,000



PROJECT NUMBER: 2410-0538 IMAGE SOURCE: ESRI BASEMAPS

FIGURE 1



LEGEND

- Potential downgradient investigation area
- Proposed well locations
- Proposed boring locations



Town Pump - Eureka
 10 Dewey Ave,
 Eureka, MT 59917

Site Details Map

JOB NO.: 2410-0532	DATE: 10/28/24	DRAWN BY: TCP
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FIGURE 2