Corrective Action Plan

34898

Valier Co-op Supply Center

10 North Main

Valier, MT 59486

Facility ID# 37-10231, Release# 4383

Work Plan ID# 34898

Prepared for:

CityServiceValcon, LLC

640 W Montana St.

Kalispell, MT 59901

Prepared by:

West Central Environmental Consultants, Inc.

1030 South Ave. W.

Missoula, MT 59801

September 24, 2024

WCEC Project No. 2408-0342

TABLE OF CONTENTS

List of Figures

1.0 Introduction

West Central Environmental Consultants (WCEC) has prepared this corrective action plan (CAP) for remedial excavation and groundwater monitoring for the Valier Co-op facility (Facility ID# 37-10231, Release# 4383, Work Plan ID# 34898). The CAP was generated in response to the requested by the Montana Department of Environmental Quality (MTDEQ) on July 8, 2024.

1.1 Site Location

The Valier Co-op facility is located at 2085 Montana St., Valier, Montana. A site location map is included as Figure 1 and a current site details map is included as Figure 2. The Public Land Survey System (PLSS) description for the site is located in the NE/4, SE/4, SE/4 of Section 33, T30N, R05W. The approximate geographic coordinates are N 48.3117°, W -112.2503°. Township, range, and section information was obtained using the United States Geological Survey (USGS) Valier West, Montana 1:24,000 Quadrangle. The site is located within the Schultz Coulee-Marias River Hydrologic Unit.

1.2 Geologic/ Hydrogeologic Setting

The surficial geology in Valier, Montana consists of quaternary glacial till deposited during the last ice age. [MT MBMG, 2002]. Historical soil boring logs completed at the facility, indicate that the subsurface soils consist of clay to a depth greater than 20 feet below grade. Groundwater is expected to have very slow recovery in monitoring wells. An irrigation canal is located approximately 75 yards east of the site and this canal is expected to influence groundwater elevations underlying the facility when it is in use during the summer months.

2.0 Scope of Work

2.1 Scope of Work

The scope of work required by the MTDEQ consists of:

- Complete the appropriate sections in the Cleanup Guidance for performing excavation remediation.
- Abandonment of monitoring wells located in proposed excavation area as needed according to Montana Department of Natural Resources and Conservation {DNRC) regulations (ARM 36.21.810}.
- Install replacement monitoring wells after performing the excavation in order to assess any remaining groundwater petroleum contamination.
- Validate all laboratory analytical data using DEQ's Data Validation Summary Form (DVSF).
- Discuss ongoing WP tasks and results with DEQ's project manager; submit written agreed-upon WP modifications as required to complete the WP objectives.
- Prepare an updated Release Closure Plan (RCP), discuss the results with DEQ's project manager. DEQ expects the RCP to cover the Release investigation, cleanup, and monitoring information.
- Prepare and submit Cleanup Report detailing the results of the investigation. The Report is expected to include all the content outlined in the Cleanup Report format and the following:
  - Append groundwater monitoring field forms, laboratory analytical data, completed DVSFs, and the RCP.
- Use standardized DEQ WP and Report formats.
- Submit WP and Reports electronically following the PTCS submittal requirements.

2.2 Remedial Excavation & Field Screening

Stokes Contracting, LLC submitted the low bid for subcontracted excavation and concrete work associated with the remedial excavation. WCEC will use historical data from the initial remedial excavation in 2021, soil boring investigation in 2022, field observations, and photoionization detector (PID) headspace readings to delineate hydrocarbon impacts and direct Stokes Contracting in the removal of impacted soils. The area of planned excavation is depicted in Figure 3. The total surface area of the planned excavation is approximately 2,200 square feet. The estimated depth of excavation is 10 feet. Based on these measurements the total volume of soil delivered to the landfill will be 815 cubic yards of material. WCEC estimates that each cubic yard of material will weigh approximately 1.5 tons, yielding an estimate of 1225 tons of material for disposal. The excavation will be coordinated for completion in October of 2025. This will allow for the highest probability of being completed during a low groundwater period without encountering issues with winter conditions. Spring rain and leakage from the irrigation canal 75 yards east of the site indicate that late September through October 2025 will be the optimal timing to complete the remedial excavation.

Monitoring wells MW-3N is located adjacent to the excavation area. It is anticipated that this well will not need to be abandoned during the excavation. In the event that soil impacts are identified in the field in this area WCEC will submit a Form 8 for well abandonment and replacement.

2.3 Soil Disposal

Petroleum hydrocarbon impacted soils will be hauled to the Northern Montana Joint Refuse class II landfill in Valier, Montana. The total estimated volume of the excavation is estimated to be 815 cubic yards/ 1225 tons. It is anticipated that the historic soil analytical from the site will be adequate for the landfill approval process.

2.4 Confirmation Soil Sampling

VPH soil analysis will include collection of a single discrete soil sample from each excavation sidewall at a depth of 0-2 feet below grade (3 samples). EPH soil sample across this soil horizon will be field composited to quantify potential risks human health. Discrete VPH and EPH soil samples will be collected from 2-10 feet below grade (9 sample locations). A total of 6 discrete samples will be collected from the excavation pit bottom to quantify risks to groundwater from any residual impacts that remain following the excavation. The volume of samples may be decreased if groundwater intrusion prevents effective discrete soil sample collection from the bottom of the excavation.

Soil samples will be packed on ice and submitted to Energy Laboratory, Inc. (Energy) in Helena, Montana. Samples will be analyzed for VPH and EPH screen using the Montana Method, as required by the MTDEQ Risk-Based Corrective Action Guidance for Petroleum Release (MTDEQ, 2016). All samples that exceed 200 mg/kg EPH screen will be analyzed for total extractable hydrocarbons. (TEH). In addition, the discrete soil samples collected from the excavation sidewalls and pit bottom will be analyzed for lead scavengers (EDB & DCA). The locations of sample collection will be surveyed using a Trimble centimeter grade GPS unit.

2.4 Groundwater Monitoring

Groundwater sampling of the monitoring wells will be performed on a semiannual basis for a period of one year during seasonally high and low groundwater periods. Semiannual monitoring will be initiated following the remedial excavation. Groundwater samples will be collected from all site wells (MW-1R, MW-2R, MW-3N, and MW4). 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. Groundwater quality parameter, purge, and stabilization data for each well will be recorded in the field using WCEC's Well Sampling Form. 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 analytical method, packed on ice, and shipped to Energy in Helena, Montana under chain of custody. All groundwater samples collected will be submitted for VPH, EPH and lead scavenger (EDB &DCA) analyses. Additionally, EPH fraction analysis will be performed for any samples which exceed the EPH screening limit of 1,000 µg/L. A duplicate sample will be collected from MW-2R during each sampling event.

2.5 Data Validation

WCEC will complete the MTDEQ – Waste Management and Remediation Division Data Validation Summary Form (DVSF). WCEC will submit one trip blank and one field duplicate sample for analysis of relative percent difference (RPD) of groundwater laboratory results for each event. WCEC will collect duplicate samples from monitoring well MW-2R. The completed data validation form will be included as an appendix to the monitoring report.

2.6 Reporting

A single comprehensive report will be prepared following the completion of all corrective actions covered under this work plan. The report will contain a detailed description of the remedial excavation and groundwater monitoring events. Cumulative data tables including all new and historical data will be included in the report. Figures will detail the locations of monitoring wells on an aerial photo. Excavation maps will include excavation boundaries and soil sample locations. A map depicting the groundwater potentiometric surface will be created for each semiannual monitoring event.

The remedial activities report will include a 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 reports, groundwater monitoring field data sheets, and data validation summary forms.

3.0 Timeline and Costs

The attached *Estimated Costs for Corrective Action Plan #34898* 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 has tentatively scheduled the remedial excavation to be conducted during the fall 2025 to coincide with low groundwater at the facility with the second semiannual groundwater monitoring being completed in fall of 2026.

3.1 Planned Workflow & Cost Explanations

The estimated costs in Appendix A include completion of the remedial excavation and groundwater monitoring tasks included in this work plan. WCEC will complete these tasks during 2025 and 2026 during a total of three individual events as follows:

Event 1: Remedial excavation – October 2025 (1 staff, 1 vehicle)

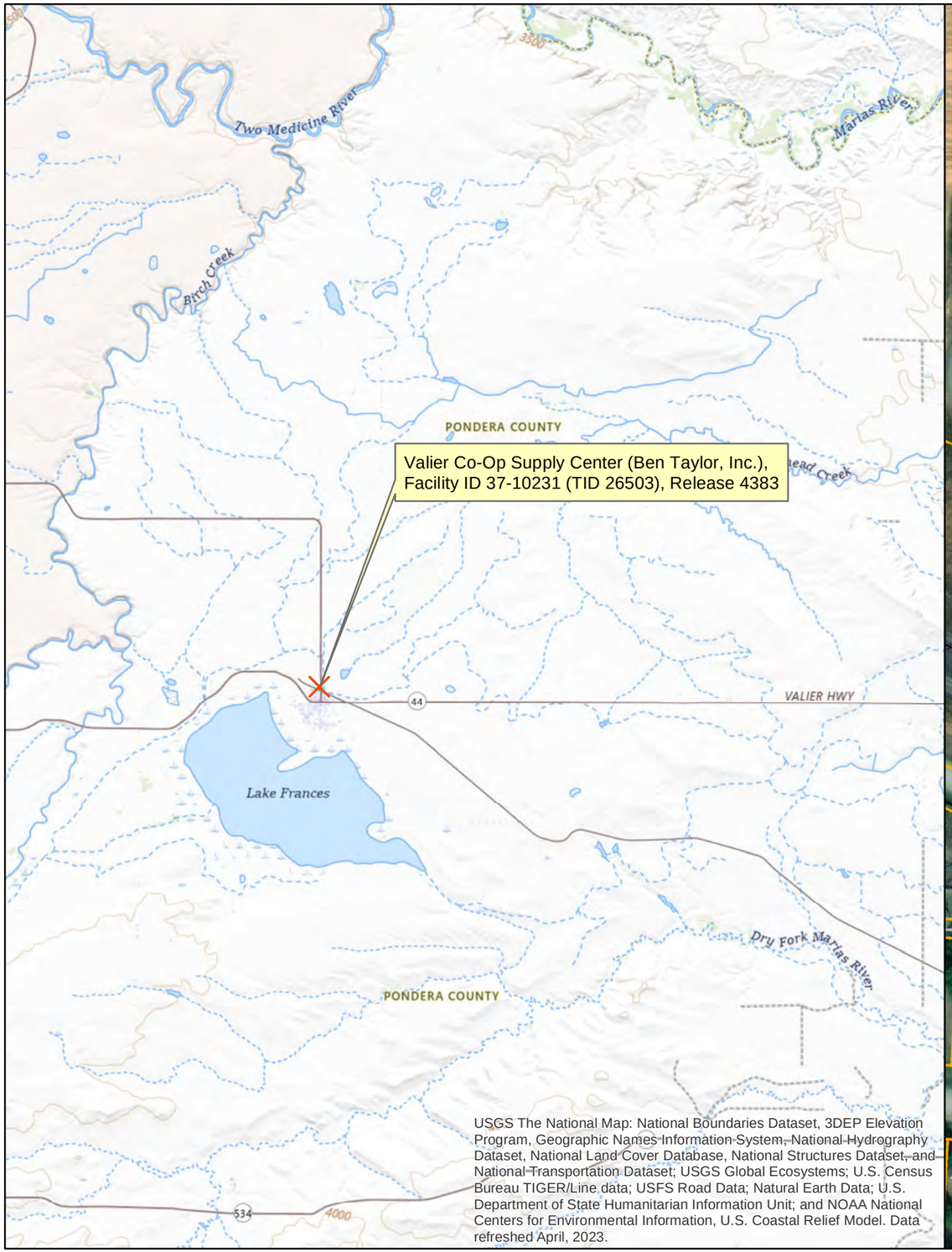
Event 2: Semiannual groundwater monitoring – High water May-June 2026, (1 staff, 1 vehicle)

Event 3: Semiannual groundwater monitoring – Low water September- October 2026, (1 staff, 1 vehicle)

Reporting/ Work Plan Completion: December 31, 2026.

This workflow is outlined in sequential order of required tasks outlined in this CAP. The attached *PTRCB Groundwater Monitoring and Sampling Unit Cost Worksheet* and *Estimated Costs for Corrective Action Plan #34898* worksheet detail all of the costs to complete the work outlined in this corrective action plan.

List of Figures



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

PROJECT #2408-0342	**Site Location Map**	WCEC ENVIRONMENTAL CONSULTANTS
DATE: 09/19/24	**Ben Taylor Inc.** **208 Montana St.** **Valier, MT**	**FIGURE 1**
DRAWN BY: NGO		
ORTHOPHOTO DATE: 04/28/2018		

PROJECT #2408-0342	**Site Details Map**	WCEC ENVIRONMENTAL CONSULTANTS
DATE: 09/19/24	**Ben Taylor Inc.** **208 Montana St.** **Valier, MT**	**FIGURE 2**
DRAWN BY: NGO		
ORTHOPHOTO DATE: 04/28/2018		

PROJECT #2408-0342	**Anticipated Excavation Area**	WCEC ENVIRONMENTAL CONSULTANTS
DATE: 09/19/24	**Ben Taylor Inc.** **208 Montana St.** **Valier, MT**	**FIGURE 3**
DRAWN BY: NGO		
ORTHOPHOTO DATE: 04/28/2018		