

Corrective Action Plan #34999 & 35000

Corner Store (former P&M Convenience Store)

330 West Central Avenue

Browning, MT 59417

Facility ID# 18-05813, Release# 2909 & 3001, WPID# 34999 & 35000

Prepared for:

Hi-Noon Petroleum

1420 1st Avenue East

Kalispell, MT 59901

Prepared by:

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WCEC Project No. 2501-1177

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Emergency Response



Industrial Services

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1.0 Introduction

West Central Environmental Consultants (WCEC) has prepared this Corrective Action Plan (CAP_AC-01) for the Corner Store (former P&M Convenience Store) facility (Facility ID# 18-05813, Release# 2909 and 3001, Work Plans 34999 and 35000) as requested by the Montana Department of Environmental Quality (MTDEQ) on January 27, 2025.

1.1 Site Location

The Corner Store (former P&M Convenience Store) is located at 330 West Central Avenue, Browning, Montana. A site location map is included as Figure 1 and a site details map is included as Figure 2. The Public Land Survey System (PLSS) description for the site is the NE/4, NE/4, NW/4 of Section 10, T32N, R11W. The approximate geographic coordinates are N 48.5558°, W -113.0202°. Township, range, and section information was obtained using the United States Geological Survey (USGS) Browning, Montana 1:24,000 Quadrangle. The site is located within the Cut Bank Creek Hydrologic Unit.

1.2 Geologic/ Hydrogeologic Setting

The surficial geology in Browning consists of gravelly to clayey till in lateral, terminal and recessional moraines deposited during the Pleistocene epoch. Some areas include gravel deposits in narrow buried channels and meltwater channels (Cannon, 1996). Till thickness are typically from 1 to 15 feet thick. The recorded well lithology from MW8 indicates that clay is present from ground surface to a depth of 9 feet below grade. From 9 feet below grade to the bottom of the boring at 13 feet below grade, the lithology changed to sand and gravel. The recorded groundwater interface at the facility in monitoring well has been between 4 and 7 feet below grade depending on location and time of year. The site is located 0.4 miles south of Willow Creek and 0.75 miles northwest of Depot Creek. The confluence of these two creeks is located 1.5 miles east of the facility.

2.0 Scope of Work

2.1 Scope of Work

The scope of work requested by the MTDEQ consists of:

- Complete a DEQ AC-08 form indicating you elect to maintain or abandon wells according to Montana Department of Natural Resources and Conservation (DNRC) regulations¹.
- Submit a letter report that includes a description of the well abandonment method and a copy of the well abandonment form for each well abandoned.
- The letter report must be submitted to DEQ within 30 days of well abandonment and a copy submitted to DNRC according to their regulations.
- Use standardized DEQ WP and report formats found under the Forms dropdown at the Petroleum Tank Cleanup Section (PTCS) webpage².
- Submit WP and reports electronically following the PTCS submittal requirements found online under the Guidance dropdown at the PTCS webpage².

2.2 Monitoring Well Abandonment

WCEC will complete monitoring well abandonment of MW3, MW4, MW5, MW6, MW7, and MW8. The monitoring wells will be abandoned in accordance with ARM 36.21.810 and the Montana Board of Water Well Contractors requirements. If possible, the casing will be completely removed from the ground. The abandoned well will be completely filled with bentonite sealing material to within 6 inches of the ground surface, with any remaining void space filled with concrete to match the current grade of the paved surface. If the casing cannot be completely removed from the ground, it will be cut off at least 3 feet below the ground surface.

Details regarding monitoring well abandonment will be recorded for each well for preparation and submittal of monitoring well abandonment logs. Monitoring well abandonment will be overseen by WCEC's DNRC licensed well driller. All abandonment logs will be submitted to the DNRC within 30 days of well abandonment and abandonment logs will be included as an appendix to the well abandonment report.

2.3 Report Preparation

WCEC will prepare and submit a monitoring well abandonment report following the completion of work detailed in this work plan. This letter report will include the date of monitoring well abandonment, method of abandonment, maps depicting the location of the former monitoring wells, and copies of the monitoring well abandonment forms submitted to the Montana DNRC. It is anticipated that monitoring well abandonment will be completed in May or June of 2025.

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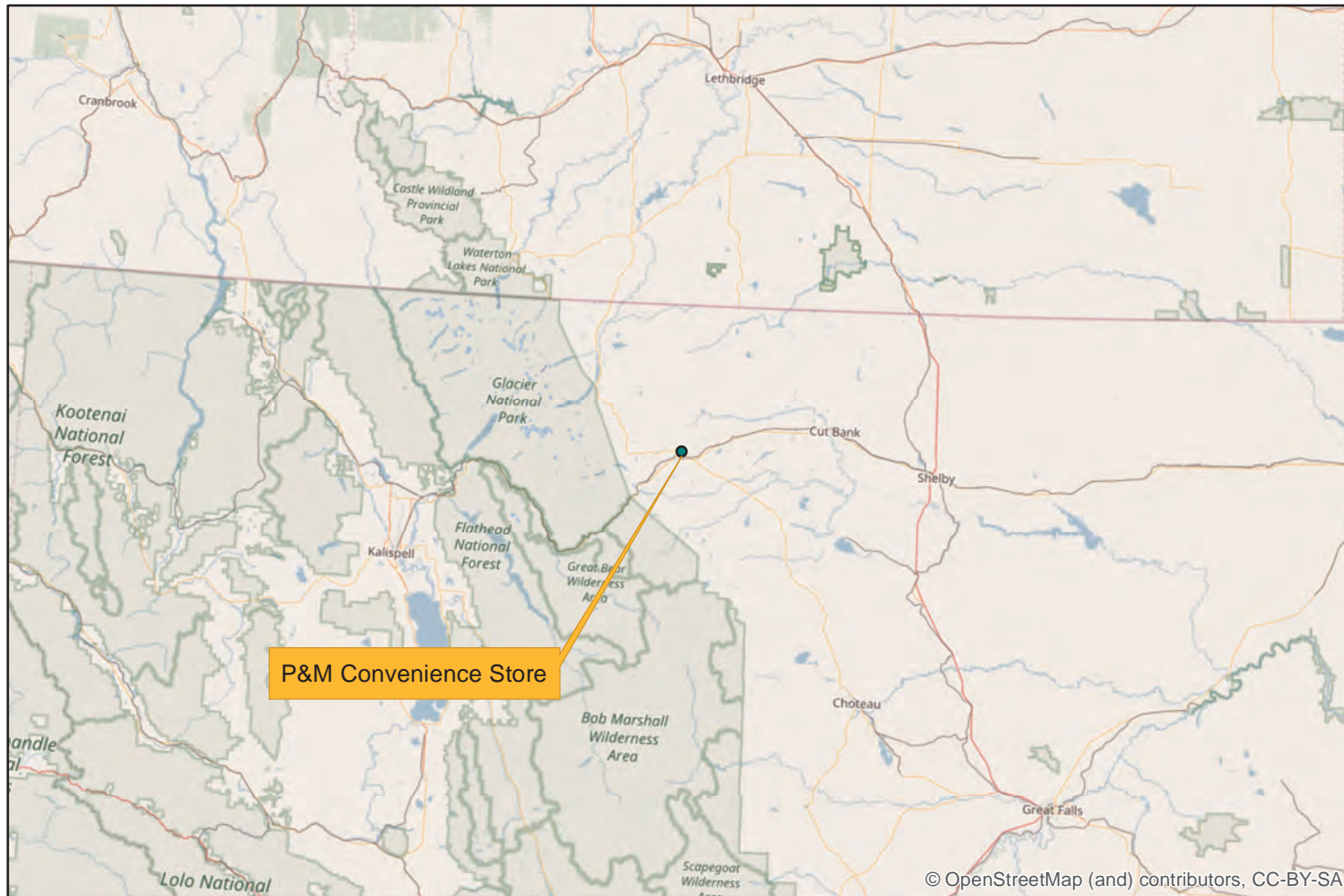
3.0 Time Line and Costs

The attached *Estimated Cost Spreadsheet – Corrective Action Plan 34999 & 35000* is based on typical project costs to complete the MTDEQ required scope of work. Three subcontractor bids are included with the estimated cost sheet. The scope of work outlined in this work plan will be conducted following approval of the MTDEQ. It is anticipated that this work will be completed in May or June of 2025.

List of Figures

Figure 1: Site Location Maps

Figure 2: Site Details Map



P&M Convenience Store 330 West Central Avenue Browning, Montana	Site Location Maps			
	Source: ESRI World Imagery	Orthophoto date July 10, 2011	Resolution: 30cm	
1 inch = 100 feet	Drawn By: NGO	DATE: 11/20/15	Project #: 12-8918-70	FIGURE 1



Legend

- A Monitoring well
- ⋈ Control point
- K Sewer Manhole
- Phone
- Overhead power
- Gas
- ⦿ Fire Hydrant
- Water
- Sewer



P&M Convenience Store 330 West Central Avenue Browning, Montana	Site Details Map			 ENVIRONMENTAL CONSULTANTS www.wcec.com
	Source: ESRI World Imagery	Orthophoto date: July 30, 2011	Resolution: 30cm	
1 inch = 40 feet	Drawn By: NGO	DATE: 11/12/14	Project #: 12-8918-70	FIGURE 2

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USG

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DEQ AC-08 Monitoring Well Abandonment Work Plan and Budget Format Sheet



AC-08
MONITORING WELL ABANDONMENT WORK PLAN
and BUDGET FORMAT

This Monitoring Well Abandonment Work Plan (WP) is for the routine abandonment of monitoring wells no longer needed for petroleum release investigation or cleanup, or needed by the owner/operator for their own purposes. Monitoring wells to which this WP applies include groundwater monitoring wells, soil vapor extraction wells, recovery wells, observation wells, sparge/injection wells, and piezometers.

Administrative Rules of Montana (ARM) 36.21.810 sets forth the legal requirements for properly abandoning monitoring wells. ARM 36.21.810 is attached and may be found at the following Internet address: http://www.mtrules.org/gateway/RuleNo.asp?RN=36.21.810.

Return this WP to: Petroleum Tank Cleanup Section, Montana Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901. Please note that incomplete and/or unsigned WPs will be returned and may delay processing of claims submitted to the Petroleum Tank Release Compensation Board.

Facility Name Corner Store (Former P&M Conveni Facility ID# Facility ID 18-05813 Release # 2909 & 3001
Facility Address 330 W Central Avenue, Browning, MT 59417
Owner/Operator Name HI Noon Petroleum
Owner/Operator mailing address, if different from above: Hi-Noon Petroleum PO Box 7578 Missoula, MT 59807

Consultant's name, address, and phone number: Nathan Olson, WCEC, 1030 South Ave. W. Missoula MT 59801. 406-549-8487

List monitoring wells by name and number to be abandoned: MW3, MW4, MW5, MW6, MW7, and MW8

List monitoring wells by name and number to be maintained: None

Specify the method by which the monitoring wells will be abandoned: Removal from ground, backfilled with bentonite and paved with concrete to match paved surface at facility

Target date for abandonment of the monitoring well(s): May-June 2025

Unit cost per monitoring well for abandonment (include mobilization, Portland cement, grout or bentonite, equipment, and consultant or contractor labor costs): \$ /well \$ /ft

Total cost of abandoning the above-listed monitoring wells: \$ See Attached

I elect to maintain the monitoring wells located at the above-referenced Facility and will monitor the wells at least every three years and in accordance with applicable requirements of the Montana Department of Natural Resources & Conservation Division.

I elect to abandon the monitoring wells located at the above-referenced Facility and certify that the above-referenced monitoring wells are to be properly abandoned in accordance with the provisions ARM 36.21.810 and other applicable requirements of the Montana Department of Natural Resources & Conservation Division.

(Signature of Facility owner or operator or authorized representative)

2-10-25
(date)

36.21.810 ABANDONMENT

(1) Wells which have not been monitored for more than three years shall be deemed abandoned unless written permission is obtained from the board to maintain the well.

(2) Monitoring wells that have outlived their useful purpose shall be abandoned by one of the following methods:

(a) if the casing and screen are left in place, the casing and screen shall be sealed from the bottom up by the following methods:

(i) using a pump and hose or tremie pipe to conduct the sealing material to the bottom of the well; or

(ii) by filling the casing and screen with bentonite pellets or chips placed in a manner that will prevent bridging. Metal casings shall be cut off three feet below the ground surface and the last three feet backfilled with naturally occurring soils;

(b) the department recommends that the casing be removed in all possible instances. If the casing and/or screen are removed, the hole shall be filled with sealing material, concrete, or bentonite pellets or chips from the bottom up, as the casing and/or screen is removed. From six to three feet from the surface, bentonite shall be added to the well. The last three feet shall be filled with naturally occurring soils;

(c) the sealing material shall be bentonite pellets or chips, bentonite clay grout, neat cement grout, or concrete. The material may contain nonbiodegradable fluidizing admixtures, provided they will not contaminate the groundwater. Sealing materials which settle shall be topped to provide a continuous column of grout to within three feet of the surface; or

(d) other methods for abandonment with prior board approval.

(3) For flowing wells, the abandonment procedures outlined in ARM [36.21.671](#) shall apply.

(4) A properly abandoned well shall not produce water nor serve as a channel for movement of water.

(5) A water well log report, fully describing all abandonment procedures, shall be submitted to the Ground Water Information Center (GWIC) of the MBMG within 60 days of abandoning the well.

History: [37-43-202](#), MCA; [IMP, 37-43-202](#), MCA; [NEW](#), 1990 MAR p. 739, Eff. 4/13/90; [AMD](#), 1991 MAR p. 913, Eff. 6/14/91; [AMD](#), 1997 MAR p. 65, Eff. 1/17/97; [AMD](#), 2010 MAR p. 1614, Eff. 7/16/10.

For additional information or requirements for abandoning or maintaining monitoring wells, please contact the Montana Department of Natural Resources & Conservation, Board of Water Well Contractors at (406) 444-6643.

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Estimated Cost Spreadsheet