

May 10, 2019

Mr. Dean Kinney  
Montana Department of Environmental Quality  
655 Timberwolf Parkway, Suite 3  
Kalispell, MT 59901-1215

Re: **Corrective Action Plan 33828** for the Arnie's Gas and Tire Center, Inc., Ronan, MT, Facility ID# 24-05517, Release# 482, Work Plan# 33828

Dear Mr. Kinney:

Enclosed for your review is the **Corrective Action Plan 33828** for Arnie's Gas and Tire Center, Inc., Ronan, Montana. Thank you for your time and consideration of this corrective action plan.

If you have any questions or concerns, please call or contact me via email at [nolson@wcec.com](mailto:nolson@wcec.com).

Sincerely,



Nathan Olson  
Project Manager, WCEC

Enclosure

cc: Kim Aipperspach, Arnie's Gas and Tire Center, Inc., 63145 Hwy. 93, Ronan, MT 59864

# Corrective Action Plan 33828

**Arnie's Gas and Tire Center**

**63146 US Highway 93**

**Ronan, MT 59864**

**Facility ID# 24-05517, Release# 482**

**Work Plan# 33828**

**Prepared for:**

**Mr. Kim Aipperspach**

**63146 US Highway 93**

**Ronan, MT 59864**

**Prepared by:**

**West Central Environmental Consultants, Inc.**

**1030 South Ave. W.**

**Missoula, MT 59801**

**May 10, 2019**

**WCEC Project No. 11-8288-70**

# WCEC

West Central Environmental Consultants, Inc.

Nationwide Services

[www.wcec.com](http://www.wcec.com)

Environmental



Emergency Response



Industrial Services

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## **1.0 Introduction**

West Central Environmental Consultants (WCEC) has prepared this Corrective Action Plan (CAP\_AC-07) for the Arnie's Gas and Tire Center facility (Facility ID# 24-05517, Release# 482, Work Plan# 9992) as requested by the Montana Department of Environmental Quality (MTDEQ) on April 22, 2019.

### **1.1 Site Location**

Arnie's Gas and Tire Center facility is located at 63146 US Highway 93 in Ronan, 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 the NE/4, NE/4, NE/4 of Section 02, T20N, R20W. The approximate geographic coordinates are N 47.52952°, W -114.09736°. Township, range, and section information was obtained using the United States Geological Survey (USGS) Ronan, Montana 1:24,000 Quadrangle. The site is located within the Lower Flathead River Hydrologic Unit.

### **1.2 Geologic/ Hydrogeologic Setting**

The surficial geology of the Mission Valley is dominated by Quaternary glacial and alluvial deposits. The alluvial deposits are underlain and interbedded with outwash, till, and glacio-lacustrine silts and clays associated with the Pleistocene glaciation. Valley margins in the area consist of thinning layers of alluvium and glacio-lacustrine sediments underlain by Tertiary basin-fill and bedrock comprised of the Belt Supergroup [LaFave et al., 2004]. Lithological data obtained from monitoring well installation conducted at the site indicate that the Arnie's Gas and Tire Center facility lies on fine-grained silts derived from Glacial Lake Missoula sedimentation processes and deposition from flood events from Spring Creek.

## **2.0 Scope of Work**

### **2.1 Required Scope of Work**

The Scope of Work requested by the MTDEQ consists of:

- Discuss ongoing WP tasks and results with DEQ's project manager; submit written agreed-upon WP modifications as required to complete the WP objectives
- Conduct quarterly operation and maintenance of the air sparge system for one year.
- Perform one year of semiannual groundwater monitoring during low and high groundwater conditions at the facility. Groundwater monitoring should be completed by the low-flow method. Measure depth to water and product in all site wells. Assess groundwater concentrations semiannually in selected wells (MW-3, MW4, MW5, MW6, MW7, MW8, MW9, and MW13). Submit groundwater samples from each of these wells for VPH analysis. In wells MW-3, MW-5 and MW-7 submit samples for analysis of lead scavengers (1,2-dichloroethane, ethylene dibromide). If lead scavengers are detected during initial event contact DEQ's project Manager to discuss results.
- Validate all laboratory analytical data using DEQ's Data Validation Summary Form.
- Update the Release Closure Plan (RCP); discuss results with DEQ 's project manager.
- Prepare and submit a Standardized Generic Applications Report (AR-07) after completion of the second semiannual groundwater monitoring event. The report should include documentation of maintenance of the air sparge system, site detail maps drawn to scale, and cumulative field and analytical data.

### **2.2 Air Sparge System Operation & Maintenance**

The air sparge (AS) system consists of a 2-horse power single phase explosion proof motor with a Gast 2567-V103 compressor. The compressor is manifolded to the two sparge wells north of the service station and the six sparge points installed on the south and east side of the 2016 excavation. These three lines are each equipped with gate valves to allow for control of air flow in each line. The sparge points installed following the excavation are not individually controlled with valves at each location. One line is manifolded to the sparge points located on the south and eastern edge of the facility property, with the other two lines individually manifolded to the wells north of the convenience/auto repair shop. Operational pressures will be balanced and recorded during each quarterly operation and maintenance event. Two of the quarterly system operation and maintenance events will coincide with the semiannual groundwater monitoring events to minimize mobilization costs.

### **2.3 Groundwater Monitoring**

WCEC will conduct semiannual groundwater monitoring of monitoring wells MW3, MW4, MW5, MW6, MW7, MW8, MW9, and MW13. Depth to water measurements will be recorded from all site monitoring wells to provide potentiometric surface plot data, flow direction, and gradient. Purging will be conducted using a peristaltic pump prior to sampling. All site wells will be purged and sampled using the same methodology. Groundwater quality parameters (pH, DO, conductivity, temperature, salinity, and ORP) will be obtained using a flow through cell attached to a peristaltic pump. All groundwater samples collected will be submitted for analysis of volatile petroleum hydrocarbons (VPH). Additional analysis of lead scavengers (1,2-dichloroethane, and ethylene dibromide) will be submitted for monitoring wells MW-3, MW5, and MW7. WCEC will contact the DEQ's Project Manager with analytical results to discuss results if lead scavengers are detected during the initial event. WCEC will assess if free product is present in MW8 using an oil water probe. If monitoring well MW8 contains free product WCEC will collect the free product from this well and no field parameters or analytical sample will be collected during the event.

WCEC will discuss ongoing WP tasks and results with DEQ's project manager. WCEC will submit written agreed-upon work plan modifications and PTRCB form 8 cost adjustments as required to complete the work plan objectives

### **3.0 Report Preparation**

Following receipt of analytical data from the second semiannual sampling event, WCEC will submit a single Generic Corrective Action Report (AR-07) that will include scaled maps depicting well location, system details, utilities, and structures. The report will also include cumulative groundwater elevation, groundwater field chemistry, and analytical data for the facility. Based on this information WCEC will complete an updated Release Closure Plan (RCP) and include recommendations for additional remedial actions.

**Corrective Action Plan 33828**

Arnie's Gas and Tire Center  
Ronan, MT

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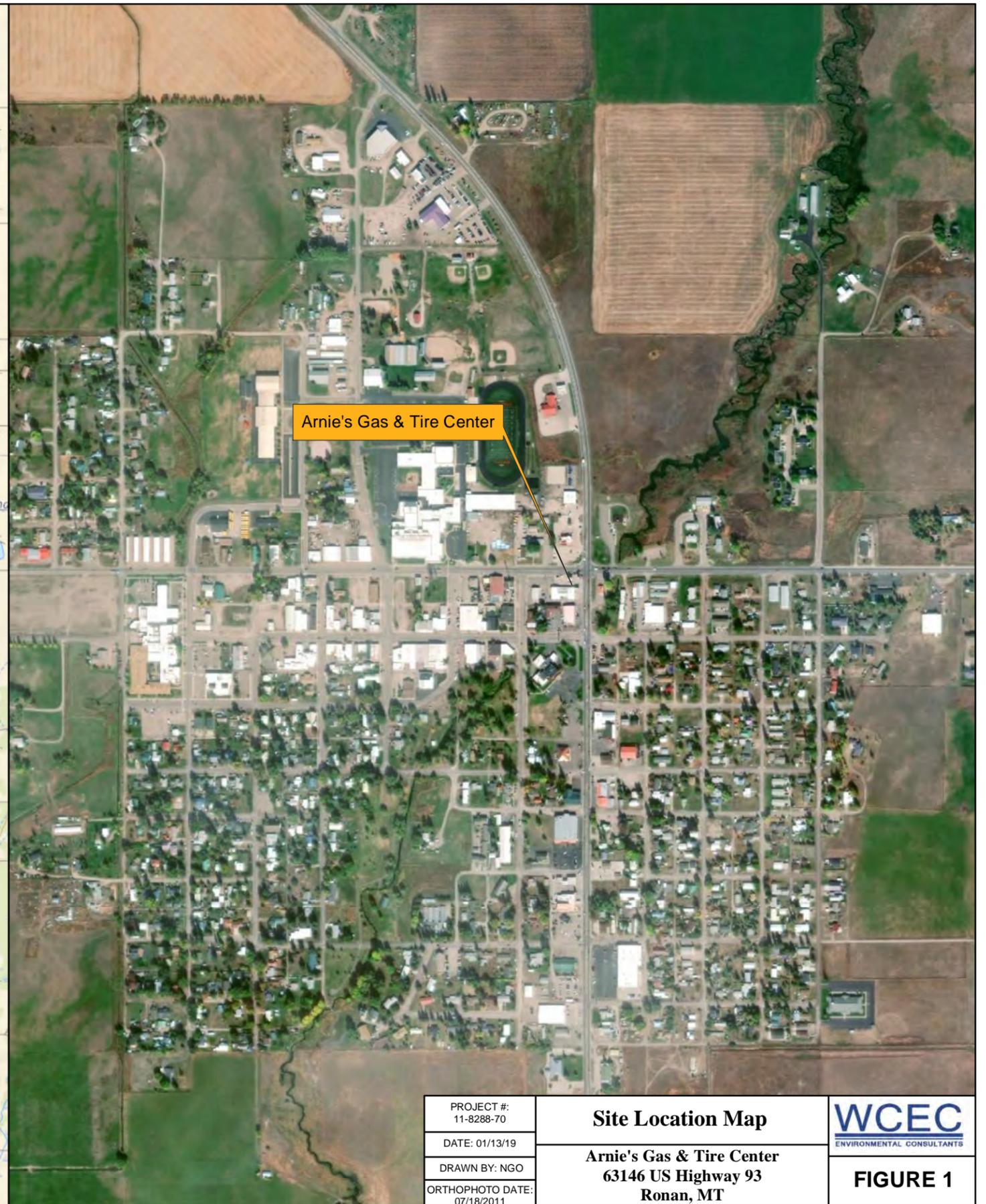
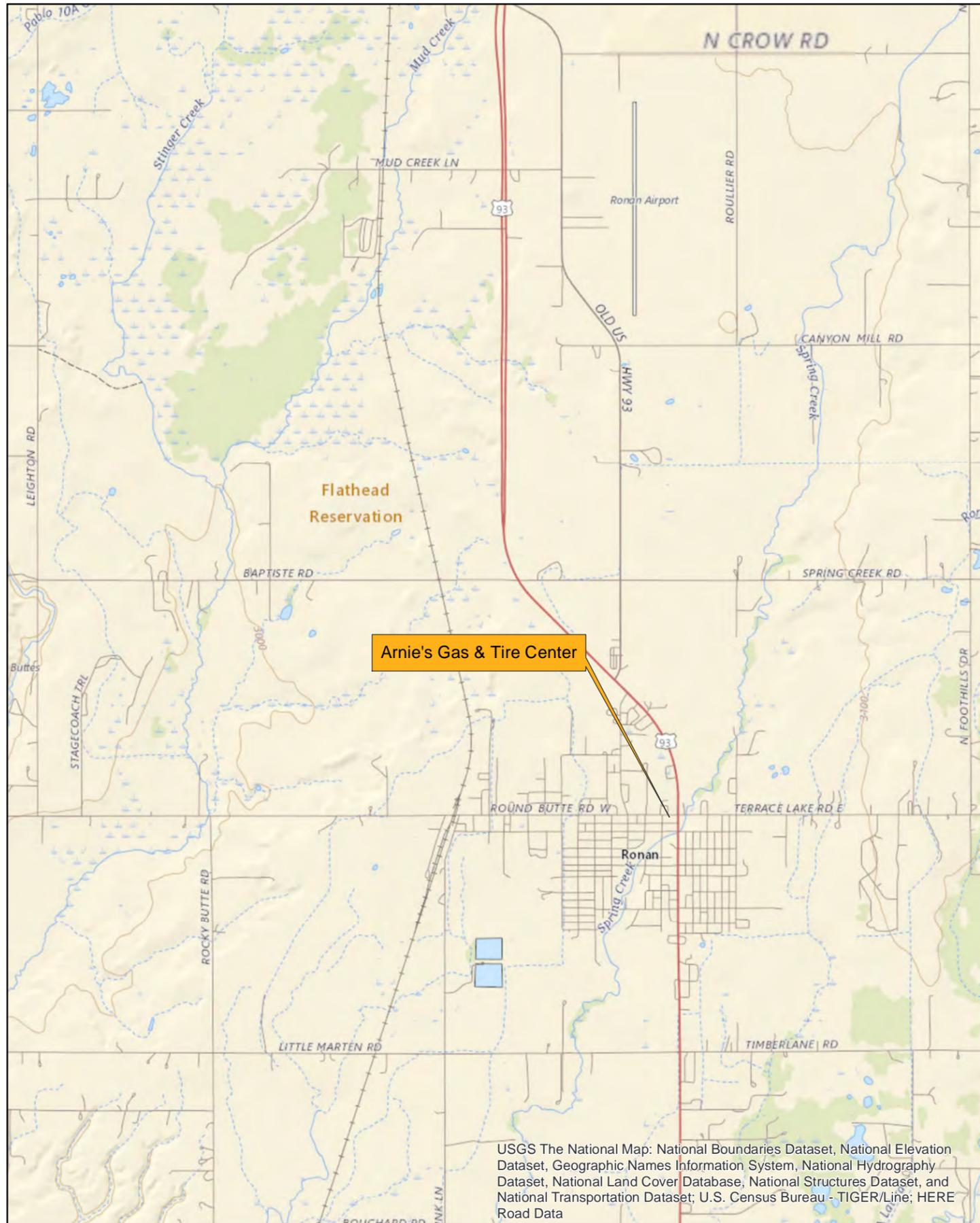
#### **4.0 Time Line and Cost**

The attached *PTRCB Groundwater Monitoring and Sampling Unit Cost Work Sheet* covering the semiannual groundwater monitoring events and quarterly AS system operation and maintenance events is included in [\[Appendix A\]](#). The scope of work outlined in this work plan will be conducted following approval of the MTDEQ and obligation of funds by the PTRCB.

## List of Figures

Figure 1: Site Location Map

Figure 2: Site Details Map

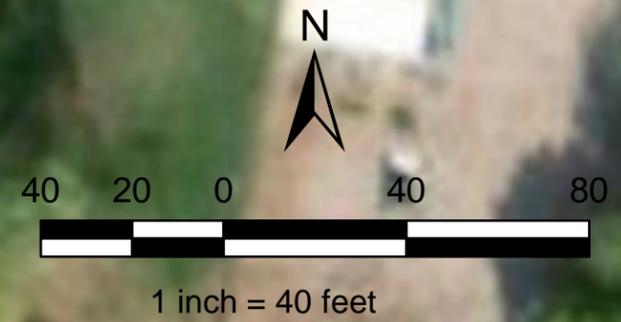


PROJECT #: 11-8288-70	<b>Site Location Map</b>	<b>WCEC</b> ENVIRONMENTAL CONSULTANTS
DATE: 01/13/19		
DRAWN BY: NGO	<b>Arnie's Gas &amp; Tire Center</b> <b>63146 US Highway 93</b> <b>Ronan, MT</b>	<b>FIGURE 1</b>
ORTHO PHOTO DATE: 07/18/2011		



### Legend

- Historic\_Monitoring\_Well
- Monitoring Well
- Air Sparge Well
- AS System Lines
- AS System Shed
- Fiber Optic - Telephone
- Sewer
- Sewer Manhole
- Electric
- Water
- UST System Electrical Lines
- Electric - Cathodic Protection
- Petroleum
- Elevation Control Point
- MDT Survey pin



PROJECT #: 11-8288-70	<b>Site Details Map</b>	<b>WCEC</b> <small>ENVIRONMENTAL CONSULTANTS</small>
DATE: 01/14/19	<b>Arnie's Gas &amp; Tire Center</b>	<b>FIGURE 2</b>
DRAWN BY: NGO	<b>63146 US Highway 93</b>	
ORTHO PHOTO DATE: 07/18/2011	<b>Ronan, MT</b>	

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USD

**Corrective Action Plan 33828**

Arnie's Gas and Tire Center

Ronan, MT

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## **Appendix A**

PTRCB Groundwater Unit Cost Work Sheet

## Petroleum Tank Release Compensation Board Groundwater Monitoring and Sampling Unit Cost Worksheet

### Contractor Information

Company Name:   
 Address:   
 City, State, Zip:   
 Cost Estimator:

Phone:

Signature:

Date:

### Project Information

Site Name:   
 Address:   
 City:

Facility ID#   
 Release #   
 WP ID#

### Monitoring Well Details

Total Number of Wells at Site   
 Number of Water Level Measurements Only <sup>(2)</sup>   
 Number of Wells to be Monitored/Sampled <sup>(3)</sup>   
 Well Casing Diameter (inches)   
 Average Depth to Groundwater (ft)   
 Average Depth of Wells (ft)

### Well Purging Method

- Hand Bailing
- Peristaltic Pump
- Submersible Pump
- Micropurge
- No Purge
- Other (please specify)

### Monitoring/Sampling Interval

Estimated Start Date:   
 Quarterly # of events   
 Semi-annual # of events   
 Annual # of events   
 Other # of events  (specify)

### Other Services

- Free Product Recovery
- Groundwater Well survey
- Wellhead retrofit/reconstruction
- Other (please specify)

### Cost Estimate Explanation:

<sup>(1)</sup> Mobilization/Demobilization: Includes all costs and mileage to transport equipment, materials, and personnel to and from the site location. More than one mobilization event will require justification and pre-approval by the DEQ-PTCS and Board staffs. This item should be on a per mile unit rate.

<sup>(2)</sup> Water Level Measurements: Includes all costs (labor, equipment, materials, and well consumables) to measure groundwater depth, collect other groundwater information from well, and decontaminate equipment. The well monitoring costs should be on a per well basis and does not include purging and sampling of the well.

<sup>(3)</sup> Well Monitoring/Purging/Sampling: Includes all costs (labor, equipment, materials, and well consumables) to monitor (see above), purge, sample groundwater, decontaminate equipment, take water level measurements and handle disposal of contaminated purge water. The cost should be on a per well basis.

<sup>(4)</sup> Laboratory Analysis: Includes all laboratory costs for all wells, for duration of project. It is realized that some laboratory analyses will not be conducted for every event and that the well sampling frequency may change.

<sup>(5)</sup> PTRCB Sampling Fee: Includes all costs related to management of the sample including: sample container, cooler, packing, shipping, handling, sample preservation, and office related handling charges. The sample is defined as the laboratory ID number on the laboratory invoice.

<sup>(6)</sup> Report Preparation and Project Management: Includes all costs (labor and materials) project management, report preparation, and report submittal, including all office related costs, per groundwater sampling event.

## Groundwater Monitoring and Sampling Unit Cost Worksheet

Task	Unit Cost	Number of Units	Total Cost
<b>Work Plan Preparation</b>	\$130.00	5	\$650.00
<b>Project Management</b>	\$130.00 /hr	9	\$1,170.00
<b>Mobilization/Demobilization <sup>(1)</sup></b>	\$3.05 /mile	480	\$1,464.00
<b>Field Work</b>			
Water Level Measurements <sup>(2)</sup>	\$42.25 /well	8	\$338.00
Well Monitoring/Purging/Sampling <sup>(3)</sup>	\$186.00 /well	16	\$2,976.00
Other Service (please specify) <input type="text" value="Free product recovery MW8 if present"/>	\$186.00	2	\$372.00
Other Service (please specify) <input type="text" value="AS System O&amp;M (Staff Scientist - 4 events)"/>	\$110.00	12	\$1,320.00
<b>Lodging &amp; Per Diem (Lodging – actual only)</b>			
Lodging: # of people <input type="text" value=""/>	/person per day	<input type="text" value=""/>	\$0.00
Food: # of people <input type="text" value="1"/> (\$23.00 max a day allowed)	\$23.00/person per day	4	\$92.00
<b>Laboratory Analysis <sup>(4)</sup></b>			
Volatile Petroleum Hydrocarbons (VPH)	\$125.00 /sample	16	\$2,000.00
Extractable Petroleum Hydrocarbons (EPH)			
EPH "screen"	<input type="text" value=""/> /sample	<input type="text" value=""/>	\$0.00
EPH "fractions"	<input type="text" value=""/> /sample	<input type="text" value=""/>	\$0.00
BTEX/MTBE/Naphthalene only-method:	<input type="text" value=""/> /sample	<input type="text" value=""/>	\$0.00
Polyaromatic Hydrocarbons (PAHs)	<input type="text" value=""/> /sample	<input type="text" value=""/>	\$0.00
PTRCB sampling fee (\$10.00 allowed) <sup>(5)</sup>	\$10.00 /sample	16	\$160.00
Other (please specify) <input type="text" value="lead scavenger (EDB &amp; EDC)"/>	\$110.00 /sample	6	\$660.00
Other (please specify) <input type="text" value=""/>	<input type="text" value=""/> /sample	<input type="text" value=""/>	\$0.00
<b>Report Preparation <sup>(6)</sup></b>			
Quarterly	<input type="text" value=""/> /report	<input type="text" value=""/>	\$0.00
Semi-annual	<input type="text" value=""/> /report	<input type="text" value=""/>	\$0.00
Annual	\$1,760.00 /report	1	\$1,760.00
Other (Please specify) <input type="text" value="RCP"/>	\$650.00	1	\$650.00
<b>Monitoring &amp; Sampling Total:</b>			<b>\$13,612.00</b>

**Additional Conditions/Comments/Costs:**

If you require assistance, call 406-444-9710  
 Submit completed form to:  
 Petroleum Tank Release Compensation Board  
 PO Box 200902, Helena MT 59620-0902