

## 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: <u>http://www.mtrules.org/gateway/RuleNo.asp?RN=36.21.810</u>.

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 FORMER CHS AGRON	OMY Facility ID# 15-09705	Release # 6241
Facility Address 55 4th Ave. EN	Kalispell	59901
Owner/Operator Name (Street) Molly McCabe (Glacier SPE 2,		(Zip)
Owner/Operator mailing address, if different fro	om above: PO Box 1162, Bigfork, M	IT 59911
Consultant's name, address, and phone number: 1111 E Broadway St, Missoula, MT 598	Tyler Etzel, WGM Group, Inc. 02, 406-728-4611	
List monitoring wells by name and number to be MW-9, MW-10, and MW-11	e abandoned:	
List monitoring wells by name and number to be none	e maintained:	
Specify the method by which the monitoring we Abandonment of the monitoring wells according to Montana De		NRC) regulations (ARM 36,21,810).
<ul> <li>Target date for abandonment of the monitoring of Unit cost per monitoring well for abandonment equipment, and consultant or contractor labor contractor labor of abandoning the above-listed monit</li> <li>Total cost of abandoning the above-listed monit</li> <li>I elect to maintain the monitoring wells loog least every three years and in accordance work Natural Resources &amp; Conservation Division</li> <li>I elect to abandon the monitoring wells loog referenced monitoring wells are to be propriated and other applicable requirements of the Monitoria Division.</li> </ul>	(include mobilization, Portland cement osts): \$_1/568.35 /well \$_1/2 oring wells: \$_4,706.55 ***********************************	<i>14</i> , <i>79</i> /ft ************************************
(Signature of Facility owner or operator or authorized representati	ive)	(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 nonbiodegradeable 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 <u>36.21.671</u> 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: <u>37-43-202</u>, MCA; <u>IMP</u>, <u>37-43-202</u>, MCA; <u>NEW</u>, 1990 MAR p. 739, Eff. 4/13/90; <u>AMD</u>, 1991 MAR p. 913, Eff. 6/14/91; <u>AMD</u>, 1997 MAR p. 65, Eff. 1/17/97; <u>AMD</u>, 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.