HW-06
EPA Validated Data Summary Report
Dimock Residential Sampling
Sample Date: 5/23/2012

Sample Number	Analyte	Result		Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW06_R2	Aluminum	184.00 J	ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW06-F_R2	Aluminum	30.00 U	ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW06_R2	Antimony	5.00 U	ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	
HW06-F_R2	Antimony	2.00 U	ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	
HW06_R2	Arsenic	**6.00**	ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW06-F_R2	Arsenic	**7.80**	ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW06_R2	Barium	72.90	ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW06-F_R2	Barium	60.80	ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW06_R2	Beryllium	2.50 U	ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW06-F_R2	Beryllium	1.00 U	ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW06_R2	Boron	507.00 J+	ug/L	3,100.00 ug/L				
HW06-F_R2	Boron	475.00	ug/L	3,100.00 ug/L				
HW06_R2	Cadmium	2.50 U	ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW06-F_R2	Cadmium	1.00 U	ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW06_R2	Calcium	1,170.00	ug/L					
HW06-F_R2	Calcium	1,090.00	ug/L					
HW06_R2	Chromium	**7.00**	ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	
HW06-F_R2	Chromium	**13.60**	ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	
HW06_R2	Cobalt	2.50 U	ug/L	4.70 ug/L				
HW06-F_R2	Cobalt	1.00 U	ug/L	4.70 ug/L				
HW06_R2	Copper	9.50	ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW06-F_R2	Copper	2.00 U	ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW06_R2	Iron	392.00	ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L
HW06-F_R2	Iron	100.00 U	ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L

Sample Number	Analyte	Result		Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW06_R2	Lead	2.90 J+ ug/L		15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW06-F_R2	Lead	1.00 U ug/L		15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW06_R2	Lithium	**356.00** J+ ug/L		31.00 ug/L				
HW06-F_R2	Lithium	**330.00** ug/L		31.00 ug/L				
HW06_R2	Magnesium	500.00 U ug/L						
HW06-F_R2	Magnesium	500.00 U ug/L						
HW06_R2	Manganese	9.20 ug/L		320.00 ug/L		50.00 ug/L		50.00 ug/L
HW06-F_R2	Manganese	3.00 ug/L		320.00 ug/L		50.00 ug/L		50.00 ug/L
HW06_R2	Nickel	2.50 U ug/L		300.00 ug/L				
HW06-F_R2	Nickel	1.00 U ug/L		300.00 ug/L				
HW06_R2	Potassium	2,000.00 U ug/L						
HW06-F_R2	Potassium	2,000.00 U ug/L						
HW06_R2	Selenium	12.50 U ug/L		78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW06-F_R2	Selenium	5.00 U ug/L		78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW06_R2	Sodium	**110,000.00** ug/L		20,000.00 ug/L				
HW06-F_R2	Sodium	**107,000.00** ug/L		20,000.00 ug/L				
HW06_R2	Strontium	200.00 U ug/L		9,300.00 ug/L				
HW06-F_R2	Strontium	200.00 U ug/L		9,300.00 ug/L				
HW06_R2	Thallium	2.50 U ug/L		0.16 ug/L	2.00 ug/L		2.00 ug/L	
HW06-F_R2	Thallium	1.00 U ug/L		0.16 ug/L	2.00 ug/L		2.00 ug/L	
HW06_R2	Tin	200.00 U ug/L		9,300.00 ug/L				
HW06-F_R2	Tin	200.00 U ug/L		9,300.00 ug/L				
HW06_R2	Titanium	200.00 U ug/L						
HW06-F_R2	Titanium	200.00 U ug/L						
HW06_R2	Uranium	2.50 U ug/L		47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW06-F_R2	Uranium	1.00 U ug/L		47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW06_R2	Vanadium	12.50 U ug/L		78.00 ug/L				
HW06-F_R2	Vanadium	5.00 U ug/L		78.00 ug/L				
HW06_R2	Zinc	114.00 ug/L		4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW06-F_R2	Zinc	2.00 U ug/L	4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L

Sample Number – Code that is used to identify the particular sample. See additional information below:

HW## – Identifies the sample location and indicates that it was collected at well head or closest point to the well head.

F – Indicates that the sample was filtered following collection. The purpose of filtering the sample is to remove any particulates in order to find what metals are actually dissolved in the water sample.

A/B – Designates which residence the sample was collected for sample locations with multiple residences using the same water source (may be a well or a spring).

_R2 - Designated the second round of sampling for this particular sampling location.

Analyte – General term for a substance in the sample. The lab does testing to find specific analytes, or substance in the water sample. The report lists each analyte that the lab tested for and what amounts were found.

Result and Units – identifies the actual result for the particular analyte and the measurement used for the particular type of sample. The results may include the following units for the various water sample analyses:

µg /L – Micrograms per liter (abbreviated as µg /L) measurements of the mass of the substance per liter of water. This measurement is commonly known as parts per billion or ppb. Drinking water results are usually reported in µg /L.

Trigger Level – established for this project, the trigger levels are based on risk-based screening levels and/or standards for public water supplies. A yellow highlighted result represents an analytical result greater than the established trigger level. Results exceeding a trigger level are referred to an EPA toxicologist for further review.

EPA Primary MCLs – the primary maximum contaminant levels (MCLs) are legally enforceable standards established under the Safe Drinking Water Act to protect public health by limiting the levels of contaminants in public drinking water systems. The MCL is the amount of an analyte (substance) that can be present in a water sample that the government considers acceptable to drink. EPA considers the MCLs when evaluating results from residential drinking water wells.

EPA Secondary MCLs - secondary MCLs are non-enforceable standards regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to public water systems, but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

DEP MCLs (Primary and Secondary) – Chapter 109, Pennsylvania Safe Drinking Water Regulations, defines MCL as the maximum permissible level of a contaminant in water which is delivered to a user of a public water system, and includes the primary and secondary MCLs established under the Federal Safe Drinking Water Act, and MCLs adopted under the act.

Validation Result Qualifiers - EPA performs a quality check on the lab results. After this quality check, EPA may mark the measurement of certain analytes with a qualifier to give additional information about the measurement. This information can apply to 1) how certain EPA is that the lab detected the analyte and 2) how certain EPA is of the measurement of the analyte once detected. If there is no qualifier by the result, the detection and measurement of the analyte are certain

U – Indicates that the analyte was not detected. If there is a number next to the U, this number is the amount of analyte that would have to be present to be detected by the lab given the particular method and/or instrumentation.

J – This means that the analyte was detected, but the value of the result is an estimate.

J+ - The result is an estimated quantity, but the result may be biased high.