

# HW-27

## EPA Validated Data Summary Report

### Dimock Residential Sampling

Sample Date: 2/13/2012

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	1-Butanol	10,000.00 U ug/L	1,500.00 ug/L				
HW27z	1-Butanol	10,000.00 U ug/L	1,500.00 ug/L				
HW27	1-Propanol	10,000.00 U ug/L					
HW27z	1-Propanol	10,000.00 U ug/L					
HW27	2-Butanol	10,000.00 U ug/L					
HW27z	2-Butanol	10,000.00 U ug/L					
HW27	Ethanol	10,000.00 U ug/L					
HW27z	Ethanol	10,000.00 U ug/L					
HW27	Methanol	10,000.00 U ug/L	7,800.00 ug/L				
HW27z	Methanol	10,000.00 U ug/L	7,800.00 ug/L				
HW27	Anionic Surfactants	0.01 U mg/L					
HW27z	Anionic Surfactants	0.01 U mg/L					
HW27	Heterotrophic Plate Count	R cfu/1mL					
HW27z	Heterotrophic Plate Count	R cfu/1mL					
HW27	Total Coliform Bacteria	1.00 U cfu/100mL	0.00 cfu/100mL	5.00 %*			
HW27z	Total Coliform Bacteria	1.00 U cfu/100mL	0.00 cfu/100mL	5.00 %*			
HW27	Ethane	1.20 U ug/L					
HW27z	Ethane	1.20 U ug/L					
HW27	Ethene	1.10 U ug/L					
HW27z	Ethene	1.10 U ug/L					
HW27	Methane	4.20 ug/L	28,000.00 ug/L				
HW27z	Methane	2.40 ug/L	28,000.00 ug/L				
HW27	2-Butoxyethanol	5.00 U ug/L					
HW27z	2-Butoxyethanol	5.00 U ug/L					

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	2-Methoxyethanol	10.00 U ug/L	78.00 ug/L				
HW27	2-Methoxyethanol	60.00 U ug/L	78.00 ug/L				
HW27z	2-Methoxyethanol	60.00 U ug/L	78.00 ug/L				
HW27z	2-Methoxyethanol	10.00 U ug/L	78.00 ug/L				
HW27	Diethylene Glycol	25.00 U ug/L	8,000.00 ug/L				
HW27z	Diethylene Glycol	25.00 U ug/L	8,000.00 ug/L				
HW27	Ethylene Glycol	10,000.00 U ug/L	31,000.00 ug/L				
HW27z	Ethylene Glycol	10,000.00 U ug/L	31,000.00 ug/L				
HW27	Tetraethylene glycol	25.00 U ug/L	8,000.00 ug/L				
HW27z	Tetraethylene glycol	25.00 U ug/L	8,000.00 ug/L				
HW27	Triethylene glycol	25.00 U ug/L	8,000.00 ug/L				
HW27z	Triethylene glycol	25.00 U ug/L	8,000.00 ug/L				
HW27	Bromide	0.50 U mg/L					
HW27z	Bromide	0.50 U mg/L					
HW27	Chloride	3.46 mg/L			250.00 mg/L		250.00 mg/L
HW27z	Chloride	3.46 mg/L			250.00 mg/L		250.00 mg/L
HW27	Fluoride	0.10 U mg/L	0.62 mg/L	4.00 mg/L	2.00 mg/L	2.00 mg/L	
HW27z	Fluoride	0.10 U mg/L	0.62 mg/L	4.00 mg/L	2.00 mg/L	2.00 mg/L	
HW27	Sulfate	11.60 mg/L			250.00 mg/L		250.00 mg/L
HW27z	Sulfate	11.60 mg/L			250.00 mg/L		250.00 mg/L
HW27	Mercury	0.20 U ug/L	4.30 ug/L	2.00 ug/L		2.00 ug/L	
HW27-F	Mercury	0.20 U ug/L	4.30 ug/L	2.00 ug/L		2.00 ug/L	
HW27z	Mercury	0.20 U ug/L	4.30 ug/L	2.00 ug/L		2.00 ug/L	
HW27z-F	Mercury	0.20 U ug/L	4.30 ug/L	2.00 ug/L		2.00 ug/L	
HW27	Aluminum	30.00 U ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW27-F	Aluminum	30.00 U ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW27z	Aluminum	30.00 U ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW27z-F	Aluminum	30.00 U ug/L	16,000.00 ug/L		200.00 ug/L		200.00 ug/L
HW27	Antimony	2.00 U ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27-F	Antimony	2.00 U ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	
HW27z	Antimony	2.00 U ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	
HW27z-F	Antimony	2.00 U ug/L	6.00 ug/L	6.00 ug/L		6.00 ug/L	
HW27	Arsenic	1.70 J ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW27-F	Arsenic	1.70 ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW27z	Arsenic	1.50 ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW27z-F	Arsenic	1.50 ug/L	4.50 ug/L	10.00 ug/L		10.00 ug/L	
HW27	Barium	122.00 ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW27-F	Barium	132.00 ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW27z	Barium	121.00 ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW27z-F	Barium	125.00 ug/L	2,900.00 ug/L	2,000.00 ug/L		2,000.00 ug/L	
HW27	Beryllium	1.00 U ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW27-F	Beryllium	1.00 U ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW27z	Beryllium	1.00 U ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW27z-F	Beryllium	1.00 U ug/L	16.00 ug/L	4.00 ug/L		4.00 ug/L	
HW27	Boron	50.00 U ug/L	3,100.00 ug/L				
HW27-F	Boron	50.00 U ug/L	3,100.00 ug/L				
HW27z	Boron	50.00 U ug/L	3,100.00 ug/L				
HW27z-F	Boron	50.00 U ug/L	3,100.00 ug/L				
HW27	Cadmium	1.00 U ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW27-F	Cadmium	1.00 U ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW27z	Cadmium	1.00 U ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW27z-F	Cadmium	1.00 U ug/L	6.90 ug/L	5.00 ug/L		5.00 ug/L	
HW27	Calcium	28,800.00 ug/L					
HW27-F	Calcium	28,600.00 ug/L					
HW27z	Calcium	29,600.00 ug/L					
HW27z-F	Calcium	28,600.00 ug/L					
HW27	Chromium	2.00 U ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	
HW27-F	Chromium	2.00 U ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Chromium	2.00 U ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	
HW27z-F	Chromium	2.00 U ug/L	3.10 ug/L	100.00 ug/L		100.00 ug/L	
HW27	Cobalt	1.00 U ug/L	4.70 ug/L				
HW27-F	Cobalt	1.00 U ug/L	4.70 ug/L				
HW27z	Cobalt	1.00 U ug/L	4.70 ug/L				
HW27z-F	Cobalt	1.00 U ug/L	4.70 ug/L				
HW27	Copper	4.70 ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW27-F	Copper	3.20 ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW27z	Copper	5.20 ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW27z-F	Copper	3.00 ug/L	620.00 ug/L	1,300.00 ug/L**	1,000.00 ug/L	1,000.00 ug/L***	
HW27	Iron	100.00 U ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L
HW27-F	Iron	100.00 U ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L
HW27z	Iron	100.00 U ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L
HW27z-F	Iron	100.00 U ug/L	11,000.00 ug/L		300.00 ug/L		300.00 ug/L
HW27	Lead	1.00 U ug/L	15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW27-F	Lead	1.00 U ug/L	15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW27z	Lead	1.00 U ug/L	15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW27z-F	Lead	1.00 U ug/L	15.00 ug/L	15.00 ug/L**		5.00 ug/L***	
HW27	Lithium	200.00 U ug/L	31.00 ug/L				
HW27-F	Lithium	200.00 U ug/L	31.00 ug/L				
HW27z	Lithium	200.00 U ug/L	31.00 ug/L				
HW27z-F	Lithium	200.00 U ug/L	31.00 ug/L				
HW27	Magnesium	5,700.00 ug/L					
HW27-F	Magnesium	5,700.00 ug/L					
HW27z	Magnesium	5,860.00 ug/L					
HW27z-F	Magnesium	5,670.00 ug/L					
HW27	Manganese	1.00 U ug/L	320.00 ug/L		50.00 ug/L		50.00 ug/L
HW27-F	Manganese	1.00 U ug/L	320.00 ug/L		50.00 ug/L		50.00 ug/L
HW27z	Manganese	1.00 U ug/L	320.00 ug/L		50.00 ug/L		50.00 ug/L

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z-F	Manganese	1.00 U ug/L	320.00 ug/L		50.00 ug/L		50.00 ug/L
HW27	Nickel	1.20 ug/L	300.00 ug/L				
HW27-F	Nickel	1.20 ug/L	300.00 ug/L				
HW27z	Nickel	1.20 ug/L	300.00 ug/L				
HW27z-F	Nickel	1.10 ug/L	300.00 ug/L				
HW27	Potassium	2,000.00 U ug/L					
HW27-F	Potassium	2,000.00 U ug/L					
HW27z	Potassium	2,000.00 U ug/L					
HW27z-F	Potassium	2,000.00 U ug/L					
HW27	Selenium	5.00 U ug/L	78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27-F	Selenium	5.00 U ug/L	78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27z	Selenium	5.00 U ug/L	78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27z-F	Selenium	5.00 U ug/L	78.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27	Silver	1.00 U ug/L	71.00 ug/L		100.00 ug/L		100.00 ug/L
HW27-F	Silver	1.00 U ug/L	71.00 ug/L		100.00 ug/L		100.00 ug/L
HW27z	Silver	1.00 U ug/L	71.00 ug/L		100.00 ug/L		100.00 ug/L
HW27z-F	Silver	1.00 U ug/L	71.00 ug/L		100.00 ug/L		100.00 ug/L
HW27	Sodium	10,000.00 ug/L	20,000.00 ug/L				
HW27-F	Sodium	10,100.00 ug/L	20,000.00 ug/L				
HW27z	Sodium	10,300.00 ug/L	20,000.00 ug/L				
HW27z-F	Sodium	10,000.00 ug/L	20,000.00 ug/L				
HW27	Strontium	334.00 ug/L	9,300.00 ug/L				
HW27-F	Strontium	335.00 ug/L	9,300.00 ug/L				
HW27z	Strontium	344.00 ug/L	9,300.00 ug/L				
HW27z-F	Strontium	335.00 ug/L	9,300.00 ug/L				
HW27	Thallium	1.00 U ug/L	0.16 ug/L	2.00 ug/L		2.00 ug/L	
HW27-F	Thallium	1.00 U ug/L	0.16 ug/L	2.00 ug/L		2.00 ug/L	
HW27z	Thallium	1.00 U ug/L	0.16 ug/L	2.00 ug/L		2.00 ug/L	
HW27z-F	Thallium	1.00 U ug/L	0.16 ug/L	2.00 ug/L		2.00 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	Tin	200.00 U ug/L	9,300.00 ug/L				
HW27-F	Tin	200.00 U ug/L	9,300.00 ug/L				
HW27z	Tin	200.00 U ug/L	9,300.00 ug/L				
HW27z-F	Tin	200.00 U ug/L	9,300.00 ug/L				
HW27	Titanium	200.00 U ug/L					
HW27-F	Titanium	200.00 U ug/L					
HW27z	Titanium	200.00 U ug/L					
HW27z-F	Titanium	200.00 U ug/L					
HW27	Uranium	3.00 ug/L	47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW27-F	Uranium	3.20 ug/L	47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW27z	Uranium	2.90 ug/L	47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW27z-F	Uranium	3.00 ug/L	47.00 ug/L	30.00 ug/L		30.00 ug/L	
HW27	Vanadium	5.00 U ug/L	78.00 ug/L				
HW27-F	Vanadium	5.00 U ug/L	78.00 ug/L				
HW27z	Vanadium	5.00 U ug/L	78.00 ug/L				
HW27z-F	Vanadium	5.00 U ug/L	78.00 ug/L				
HW27	Zinc	2.00 U ug/L	4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L
HW27-F	Zinc	2.00 U ug/L	4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L
HW27z	Zinc	2.00 U ug/L	4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L
HW27z-F	Zinc	2.00 U ug/L	4,700.00 ug/L		5,000.00 ug/L		5,000.00 ug/L
HW27	Oil and Grease	5.20 UJ mg/L					
HW27z	Oil and Grease	5.20 UJ mg/L					
HW27	Total Dissolved Solids	71.00 J mg/L			500.00 mg/L		500.00 mg/L
HW27z	Total Dissolved Solids	106.00 mg/L			500.00 mg/L		500.00 mg/L
HW27	Total Suspended Solids	10.00 U mg/L					
HW27z	Total Suspended Solids	10.00 U mg/L					
HW27	1-Methylnaphthalene	5.00 U ug/L	97.00 ug/L				
HW27z	1-Methylnaphthalene	5.00 U ug/L	97.00 ug/L				
HW27	Acenaphthene	5.00 U ug/L	400.00 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Acenaphthene	5.00 U ug/L	400.00 ug/L				
HW27	Acenaphthylene	5.00 U ug/L					
HW27z	Acenaphthylene	5.00 U ug/L					
HW27	Acetophenone	5.00 U ug/L	1,500.00 ug/L				
HW27z	Acetophenone	5.00 U ug/L	1,500.00 ug/L				
HW27	Anthracene	5.00 U ug/L	1,300.00 ug/L				
HW27z	Anthracene	5.00 U ug/L	1,300.00 ug/L				
HW27	Atrazine	5.00 U ug/L	26.00 ug/L	3.00 ug/L		3.00 ug/L	
HW27z	Atrazine	5.00 U ug/L	26.00 ug/L	3.00 ug/L		3.00 ug/L	
HW27	Benzo(a)anthracene	5.00 U ug/L	2.90 ug/L				
HW27z	Benzo(a)anthracene	5.00 U ug/L	2.90 ug/L				
HW27	Benzo(a)pyrene	5.00 U ug/L	0.29 ug/L	0.20 ug/L		0.20 ug/L	
HW27z	Benzo(a)pyrene	5.00 U ug/L	0.29 ug/L	0.20 ug/L		0.20 ug/L	
HW27	Biphenyl	5.00 U ug/L					
HW27z	Biphenyl	5.00 U ug/L					
HW27	Bromophenyl-4 Phenyl Ether	5.00 U ug/L					
HW27z	Bromophenyl-4 Phenyl Ether	5.00 U ug/L					
HW27	Butylbenzyl phthalate	5.00 U ug/L	1,400.00 ug/L				
HW27z	Butylbenzyl phthalate	5.00 U ug/L	1,400.00 ug/L				
HW27	Caprolactam	5.00 U ug/L	7,700.00 ug/L				
HW27z	Caprolactam	5.00 U ug/L	7,700.00 ug/L				
HW27	Carbazole	5.00 U ug/L					
HW27z	Carbazole	5.00 U ug/L					
HW27	Chlorobenzeneamine-4	5.00 U ug/L	3.20 ug/L				
HW27z	Chlorobenzeneamine-4	5.00 U ug/L	3.20 ug/L				
HW27	Chloronaphthalene-2	5.00 U ug/L	550.00 ug/L				
HW27z	Chloronaphthalene-2	5.00 U ug/L	550.00 ug/L				
HW27	Chlorophenol-2	5.00 U ug/L	71.00 ug/L				
HW27z	Chlorophenol-2	5.00 U ug/L	71.00 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	Chlorophenyl-4 phenyl ether	5.00 U ug/L					
HW27z	Chlorophenyl-4 phenyl ether	5.00 U ug/L					
HW27	Chrysene	5.00 U ug/L	290.00 ug/L				
HW27z	Chrysene	5.00 U ug/L	290.00 ug/L				
HW27	Cresol, parachloro meta-	5.00 U ug/L					
HW27z	Cresol, parachloro meta-	5.00 U ug/L					
HW27	Cresol-4,6-dinitro-ortho	60.00 U ug/L					
HW27z	Cresol-4,6-dinitro-ortho	60.00 U ug/L					
HW27	Cresol-o	5.00 U ug/L	720.00 ug/L				
HW27z	Cresol-o	5.00 U ug/L	720.00 ug/L				
HW27	Cresol-p	5.00 U ug/L	72.00 ug/L				
HW27z	Cresol-p	5.00 U ug/L	72.00 ug/L				
HW27	Dibenz(a,h)anthracene	5.00 U ug/L	0.29 ug/L				
HW27z	Dibenz(a,h)anthracene	5.00 U ug/L	0.29 ug/L				
HW27	Dibenzofuran	5.00 U ug/L					
HW27z	Dibenzofuran	5.00 U ug/L					
HW27	Dichlorobenzidine-3,3'	60.00 U ug/L	11.00 ug/L				
HW27z	Dichlorobenzidine-3,3'	60.00 U ug/L	11.00 ug/L				
HW27	Dichlorophenol-2,4	5.00 U ug/L	35.00 ug/L				
HW27z	Dichlorophenol-2,4	5.00 U ug/L	35.00 ug/L				
HW27	Dimethylphenol, 2,4-	5.00 U ug/L	270.00 ug/L				
HW27z	Dimethylphenol, 2,4-	5.00 U ug/L	270.00 ug/L				
HW27	Dinitrophenol-2,4	60.00 U ug/L	30.00 ug/L				
HW27z	Dinitrophenol-2,4	60.00 U ug/L	30.00 ug/L				
HW27	Dinitrotoluene-2,4	5.00 U ug/L					
HW27z	Dinitrotoluene-2,4	5.00 U ug/L					
HW27	Dinitrotoluene-2,6	5.00 U ug/L					
HW27z	Dinitrotoluene-2,6	5.00 U ug/L					
HW27	Ether, bis(2-chloroethyl)	5.00 U ug/L	1.20 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Ether, bis(2-chloroethyl)	5.00 U ug/L	1.20 ug/L				
HW27	Ether-bis(2-chloroisopropyl)	5.00 U ug/L					
HW27z	Ether-bis(2-chloroisopropyl)	5.00 U ug/L					
HW27	Fluoranthene	5.00 U ug/L	630.00 ug/L				
HW27z	Fluoranthene	5.00 U ug/L	630.00 ug/L				
HW27	Fluoranthene benzo(k)	5.00 U ug/L	29.00 ug/L				
HW27z	Fluoranthene benzo(k)	5.00 U ug/L	29.00 ug/L				
HW27	Fluoranthene-benzo(b)	5.00 U ug/L	5.60 ug/L				
HW27z	Fluoranthene-benzo(b)	5.00 U ug/L	5.60 ug/L				
HW27	Fluorene	5.00 U ug/L	220.00 ug/L				
HW27z	Fluorene	5.00 U ug/L	220.00 ug/L				
HW27	Hexachlorobenzene	5.00 U ug/L	4.20 ug/L	1.00 ug/L		1.00 ug/L	
HW27z	Hexachlorobenzene	5.00 U ug/L	4.20 ug/L	1.00 ug/L		1.00 ug/L	
HW27	Hexachlorobutadiene	5.00 U ug/L	26.00 ug/L				
HW27	Hexachlorobutadiene	0.50 U ug/L	26.00 ug/L				
HW27z	Hexachlorobutadiene	0.50 U ug/L	26.00 ug/L				
HW27z	Hexachlorobutadiene	5.00 U ug/L	26.00 ug/L				
HW27	Hexachlorocyclopentadiene	5.00 U ug/L	22.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27z	Hexachlorocyclopentadiene	5.00 U ug/L	22.00 ug/L	50.00 ug/L		50.00 ug/L	
HW27	Hexachloroethane	5.00 U ug/L	5.10 ug/L				
HW27z	Hexachloroethane	5.00 U ug/L	5.10 ug/L				
HW27	Isophorone	5.00 U ug/L	6,700.00 ug/L				
HW27z	Isophorone	5.00 U ug/L	6,700.00 ug/L				
HW27	Methane, bis(2-chloroethoxy)	5.00 U ug/L	47.00 ug/L				
HW27z	Methane, bis(2-chloroethoxy)	5.00 U ug/L	47.00 ug/L				
HW27	Methylnaphthalene-2	5.00 U ug/L	27.00 ug/L				
HW27z	Methylnaphthalene-2	5.00 U ug/L	27.00 ug/L				
HW27	Naphthalene	5.00 U ug/L	14.00 ug/L				
HW27	Naphthalene	0.50 U ug/L	14.00 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Naphthalene	5.00 U ug/L	14.00 ug/L				
HW27z	Naphthalene	0.50 U ug/L	14.00 ug/L				
HW27	Nitroaniline, ortho	5.00 U ug/L	150.00 ug/L				
HW27z	Nitroaniline, ortho	5.00 U ug/L	150.00 ug/L				
HW27	Nitroaniline-3	5.00 U ug/L					
HW27z	Nitroaniline-3	5.00 U ug/L					
HW27	Nitrobenzenamine-4	5.00 U ug/L	61.00 ug/L				
HW27z	Nitrobenzenamine-4	5.00 U ug/L	61.00 ug/L				
HW27	Nitrobenzene	5.00 U ug/L	12.00 ug/L				
HW27z	Nitrobenzene	5.00 U ug/L	12.00 ug/L				
HW27	Nitrophenol-2	5.00 U ug/L					
HW27z	Nitrophenol-2	5.00 U ug/L					
HW27	Nitrophenol-4	10.00 U ug/L					
HW27z	Nitrophenol-4	10.00 U ug/L					
HW27	Nitrosodimethylamine-n	5.00 U ug/L	0.04 ug/L				
HW27z	Nitrosodimethylamine-n	5.00 U ug/L	0.04 ug/L				
HW27	Nitrosodiphenylamine-n	5.00 U ug/L	1,000.00 ug/L				
HW27z	Nitrosodiphenylamine-n	0.01 J ug/L	1,000.00 ug/L				
HW27	Pentachlorophenol	60.00 U ug/L	17.00 ug/L	1.00 ug/L		1.00 ug/L	
HW27z	Pentachlorophenol	60.00 U ug/L	17.00 ug/L	1.00 ug/L		1.00 ug/L	
HW27	Perylene-benzo(ghi)	5.00 U ug/L					
HW27z	Perylene-benzo(ghi)	5.00 U ug/L					
HW27	Phenanthrene	5.00 U ug/L					
HW27z	Phenanthrene	5.00 U ug/L					
HW27	Phenol	5.00 U ug/L	4,500.00 ug/L				
HW27z	Phenol	5.00 U ug/L	4,500.00 ug/L				
HW27	Phthalate, bis(2-ethylhexyl) (DEHP)	5.00 U ug/L	7.10 ug/L	6.00 ug/L		6.00 ug/L	
HW27z	Phthalate, bis(2-ethylhexyl) (DEHP)	5.00 U ug/L	7.10 ug/L	6.00 ug/L		6.00 ug/L	
HW27	Phthalate, Dimethyl	5.00 U ug/L	1,400.00 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Phthalate, Dimethyl	5.00 U ug/L	1,400.00 ug/L				
HW27	Phthalate, di-n-butyl-	5.00 U ug/L	670.00 ug/L				
HW27z	Phthalate, di-n-butyl-	5.00 U ug/L	670.00 ug/L				
HW27	Phthalate, di-n-octyl	5.00 U ug/L					
HW27z	Phthalate, di-n-octyl	5.00 U ug/L					
HW27	Phthalate-diethyl	5.00 U ug/L	11,000.00 ug/L				
HW27z	Phthalate-diethyl	5.00 U ug/L	11,000.00 ug/L				
HW27	Propylamine,n-nitroso di-n-	5.00 U ug/L	0.93 ug/L				
HW27z	Propylamine,n-nitroso di-n-	5.00 U ug/L	0.93 ug/L				
HW27	Pyrene	5.00 U ug/L	87.00 ug/L				
HW27z	Pyrene	5.00 U ug/L	87.00 ug/L				
HW27	Pyrene-indeno(1,2,3-cd)	5.00 U ug/L	3.00 ug/L				
HW27z	Pyrene-indeno(1,2,3-cd)	5.00 U ug/L	3.00 ug/L				
HW27	Tetrachlorobenzene, 1,2,4,5-	5.00 U ug/L	1.20 ug/L				
HW27z	Tetrachlorobenzene, 1,2,4,5-	5.00 U ug/L	1.20 ug/L				
HW27	Tetrachlorophenol, 2,3,4,6-	5.00 U ug/L	170.00 ug/L				
HW27z	Tetrachlorophenol, 2,3,4,6-	5.00 U ug/L	170.00 ug/L				
HW27	Trichlorophenol-2,4,5	5.00 U ug/L	890.00 ug/L				
HW27z	Trichlorophenol-2,4,5	5.00 U ug/L	890.00 ug/L				
HW27	Trichlorophenol-2,4,6	5.00 U ug/L	9.04 ug/L				
HW27z	Trichlorophenol-2,4,6	5.00 U ug/L	9.04 ug/L				
HW27	TPH - Diesel Range Organics	250.00 U ug/L					
HW27z	TPH - Diesel Range Organics	250.00 U ug/L					
HW27	TPH - Gasoline Range Organics	50.00 U ug/L					
HW27z	TPH - Gasoline Range Organics	50.00 U ug/L					
HW27	TPH - Oil Range Organics	1,000.00 U ug/L					
HW27z	TPH - Oil Range Organics	1,000.00 U ug/L					
HW27	1,2-Dibromo-3-chloropropane (DBCP)	2.00 U ug/L	0.03 ug/L	0.20 ug/L		0.20 ug/L	
HW27z	1,2-Dibromo-3-chloropropane (DBCP)	2.00 U ug/L	0.03 ug/L	0.20 ug/L		0.20 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	4-Methyl-2-pentanone	2.00 U ug/L	1,000.00 ug/L				
HW27z	4-Methyl-2-pentanone	2.00 U ug/L	1,000.00 ug/L				
HW27	Acetone	2.00 U ug/L					
HW27z	Acetone	2.00 U ug/L					
HW27	Benzene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27z	Benzene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27	Bromobenzene	0.50 U ug/L					
HW27z	Bromobenzene	0.50 U ug/L					
HW27	Bromoform	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27z	Bromoform	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27	Butylbenzene	0.50 U ug/L					
HW27z	Butylbenzene	0.50 U ug/L					
HW27	Butylbenzene, sec-	0.50 U ug/L					
HW27z	Butylbenzene, sec-	0.50 U ug/L					
HW27	Butylbenzene, tert-	0.50 U ug/L					
HW27z	Butylbenzene, tert-	0.50 U ug/L					
HW27	Carbon disulfide	0.50 U ug/L					
HW27z	Carbon disulfide	0.50 U ug/L					
HW27	Carbon Tetrachloride	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27z	Carbon Tetrachloride	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27	Chlorobenzene	0.50 U ug/L		100.00 ug/L			
HW27z	Chlorobenzene	0.50 U ug/L		100.00 ug/L			
HW27	Chlorobromomethane	0.50 U ug/L					
HW27z	Chlorobromomethane	0.50 U ug/L					
HW27	Chloroethane	0.50 U ug/L					
HW27z	Chloroethane	0.50 U ug/L					
HW27	Chloroform	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27z	Chloroform	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27	Chlorotoluene	0.50 U ug/L	180.00 ug/L				

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Chlorotoluene	0.50 U ug/L	180.00 ug/L				
HW27	Chlorotoluene-p	0.50 U ug/L	190.00 ug/L				
HW27z	Chlorotoluene-p	0.50 U ug/L	190.00 ug/L				
HW27	Cyclohexane	0.50 U ug/L					
HW27z	Cyclohexane	0.50 U ug/L					
HW27	Dibromochloromethane	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27z	Dibromochloromethane	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27	Dibromoethane-1,2	0.50 U ug/L	0.65 ug/L	0.05 ug/L		0.05 ug/L	
HW27z	Dibromoethane-1,2	0.50 U ug/L	0.65 ug/L	0.05 ug/L		0.05 ug/L	
HW27	Dibromomethane	0.50 U ug/L					
HW27z	Dibromomethane	0.50 U ug/L					
HW27	Dichlorobenzene-1,2	0.50 U ug/L	280.00 ug/L	600.00 ug/L		600.00 ug/L	
HW27z	Dichlorobenzene-1,2	0.50 U ug/L	280.00 ug/L	600.00 ug/L		600.00 ug/L	
HW27	Dichlorobenzene-1,3	0.50 U ug/L					
HW27z	Dichlorobenzene-1,3	0.50 U ug/L					
HW27	Dichlorobenzene-1,4	0.50 U ug/L	42.00 ug/L	75.00 ug/L		75.00 ug/L	
HW27z	Dichlorobenzene-1,4	0.50 U ug/L	42.00 ug/L	75.00 ug/L		75.00 ug/L	
HW27	Dichlorobromomethane	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27z	Dichlorobromomethane	0.50 U ug/L		80.00 ug/L		80.00 ug/L	
HW27	Dichlorodifluoromethane	0.50 U ug/L					
HW27z	Dichlorodifluoromethane	0.50 U ug/L					
HW27	Dichloroethane-1,1	0.50 U ug/L	240.00 ug/L				
HW27z	Dichloroethane-1,1	0.50 U ug/L	240.00 ug/L				
HW27	Dichloroethane-1,2	0.50 U ug/L	15.00 ug/L	5.00 ug/L		5.00 ug/L	
HW27z	Dichloroethane-1,2	0.50 U ug/L	15.00 ug/L	5.00 ug/L		5.00 ug/L	
HW27	Dichloroethene-1,2 trans	0.50 U ug/L		100.00 ug/L		100.00 ug/L	
HW27z	Dichloroethene-1,2 trans	0.50 U ug/L		100.00 ug/L		100.00 ug/L	
HW27	Dichloroethylene-1,1	0.50 U ug/L		7.00 ug/L		7.00 ug/L	
HW27z	Dichloroethylene-1,1	0.50 U ug/L		7.00 ug/L		7.00 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	Dichloroethylene-1,2 cis	0.50 U ug/L		70.00 ug/L		70.00 ug/L	
HW27z	Dichloroethylene-1,2 cis	0.50 U ug/L		70.00 ug/L		70.00 ug/L	
HW27	Dichloropropane, 1,2-	0.50 U ug/L	38.00 ug/L	5.00 ug/L		5.00 ug/L	
HW27z	Dichloropropane, 1,2-	0.50 U ug/L	38.00 ug/L	5.00 ug/L		5.00 ug/L	
HW27	Dichloropropane, 1,3-	0.50 U ug/L	290.00 ug/L				
HW27z	Dichloropropane, 1,3-	0.50 U ug/L	290.00 ug/L				
HW27	Dichloropropane, 2,2-	0.50 U ug/L					
HW27z	Dichloropropane, 2,2-	0.50 U ug/L					
HW27	Dichloropropene, 1,1-	0.50 U ug/L					
HW27z	Dichloropropene, 1,1-	0.50 U ug/L					
HW27	Dichloropropene, 1,3 cis-	0.50 U ug/L					
HW27z	Dichloropropene, 1,3 cis-	0.50 U ug/L					
HW27	Dichloropropene, 1,3 trans-	0.50 U ug/L					
HW27z	Dichloropropene, 1,3 trans-	0.50 U ug/L					
HW27	Ethylbenzene	0.50 U ug/L		700.00 ug/L		700.00 ug/L	
HW27z	Ethylbenzene	0.50 U ug/L		700.00 ug/L		700.00 ug/L	
HW27	Freon 113	0.50 U ug/L					
HW27z	Freon 113	0.50 U ug/L					
HW27	Hexanone, 2-	2.00 U ug/L	34.00 ug/L				
HW27z	Hexanone, 2-	2.00 U ug/L	34.00 ug/L				
HW27	Isopropylbenzene	0.50 U ug/L					
HW27z	Isopropylbenzene	0.50 U ug/L					
HW27	Isopropylbenzene-4,methyl-1	0.50 U ug/L					
HW27z	Isopropylbenzene-4,methyl-1	0.50 U ug/L					
HW27	m,p-Xylene	1.00 U ug/L		10,000.00 ug/L		10,000.00 ug/L	
HW27z	m,p-Xylene	1.00 U ug/L		10,000.00 ug/L		10,000.00 ug/L	
HW27	Methyl acetate	0.50 U ug/L					
HW27z	Methyl acetate	0.50 U ug/L					
HW27	Methyl bromide	0.50 U ug/L					

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27z	Methyl bromide	0.50 U ug/L					
HW27	Methyl chloride	0.50 U ug/L					
HW27z	Methyl chloride	0.50 U ug/L					
HW27	Methyl cyclohexane	0.50 U ug/L					
HW27z	Methyl cyclohexane	0.50 U ug/L					
HW27	Methyl ethyl ketone	2.00 U ug/L	4,900.00 ug/L				
HW27z	Methyl ethyl ketone	2.00 U ug/L	4,900.00 ug/L				
HW27	Methyl tertiary butyl ether (MTBE)	0.50 U ug/L					
HW27z	Methyl tertiary butyl ether (MTBE)	0.50 U ug/L					
HW27	Methylene chloride	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27z	Methylene chloride	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27	Propylbenzene-n	0.50 U ug/L					
HW27z	Propylbenzene-n	0.50 U ug/L					
HW27	Styrene	1.00 U ug/L		100.00 ug/L		100.00 ug/L	
HW27z	Styrene	1.00 U ug/L		100.00 ug/L		100.00 ug/L	
HW27	Tetrachloroethane, 1,1,1,2-	0.50 U ug/L	50.00 ug/L				
HW27z	Tetrachloroethane, 1,1,1,2-	0.50 U ug/L	50.00 ug/L				
HW27	Tetrachloroethane, 1,1,2,2-	0.50 U ug/L	6.60 ug/L				
HW27z	Tetrachloroethane, 1,1,2,2-	0.50 U ug/L	6.60 ug/L				
HW27	Tetrachloroethylene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27z	Tetrachloroethylene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27	Toluene	0.50 U ug/L		1,000.00 ug/L		1,000.00 ug/L	
HW27z	Toluene	0.50 U ug/L		1,000.00 ug/L		1,000.00 ug/L	
HW27	Trichlorobenzene-1,2,3	0.50 U ug/L	5.20 ug/L				
HW27z	Trichlorobenzene-1,2,3	0.50 U ug/L	5.20 ug/L				
HW27	Trichlorobenzene-1,2,4	0.50 U ug/L	5.20 ug/L	70.00 ug/L		70.00 ug/L	
HW27z	Trichlorobenzene-1,2,4	0.50 U ug/L	5.20 ug/L	70.00 ug/L		70.00 ug/L	
HW27	Trichloroethane-1,1,1	0.50 U ug/L	7,500.00 ug/L	200.00 ug/L		200.00 ug/L	
HW27z	Trichloroethane-1,1,1	0.50 U ug/L	7,500.00 ug/L	200.00 ug/L		200.00 ug/L	

Sample Number	Analyte	Result	Trigger Levels	EPA Primary MCLs	EPA Secondary MCLs	DEP Primary MCLs	DEP Secondary MCLs
HW27	Trichloroethane-1,1,2	0.50 U ug/L	0.41 ug/L	5.00 ug/L		5.00 ug/L	
HW27z	Trichloroethane-1,1,2	0.50 U ug/L	0.41 ug/L	5.00 ug/L		5.00 ug/L	
HW27	Trichloroethylene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27z	Trichloroethylene	0.50 U ug/L		5.00 ug/L		5.00 ug/L	
HW27	Trichlorofluoromethane	0.50 U ug/L					
HW27z	Trichlorofluoromethane	0.50 U ug/L					
HW27	Trichloropropane-1,2,3	0.50 U ug/L	0.07 ug/L				
HW27z	Trichloropropane-1,2,3	0.50 U ug/L	0.07 ug/L				
HW27	Trimethylbenzene-1,2,4	0.50 U ug/L	15.00 ug/L				
HW27z	Trimethylbenzene-1,2,4	0.50 U ug/L	15.00 ug/L				
HW27	Trimethylbenzene-1,3,5	0.50 U ug/L	87.00 ug/L				
HW27z	Trimethylbenzene-1,3,5	0.50 U ug/L	87.00 ug/L				
HW27	Vinyl acetate	0.50 U ug/L					
HW27z	Vinyl acetate	0.50 U ug/L					
HW27	Vinyl chloride	0.50 U ug/L		2.00 ug/L		2.00 ug/L	
HW27z	Vinyl chloride	0.50 U ug/L		2.00 ug/L		2.00 ug/L	
HW27	Xylene-o	1.00 U ug/L		10,000.00 ug/L		10,000.00 ug/L	
HW27z	Xylene-o	1.00 U ug/L		10,000.00 ug/L		10,000.00 ug/L	
HW27	Nitrogen, Nitrite + Nitrate	0.61 mg/L		10.00 mg/L		10.00 mg/L	
HW27z	Nitrogen, Nitrite + Nitrate	0.61 mg/L		10.00 mg/L		10.00 mg/L	
HW27	Total Nitrogen	1.00 U mg/L					
HW27z	Total Nitrogen	1.00 U mg/L					
HW27	Total Phosphorus as P	0.05 U mg/L					
HW27z	Total Phosphorus as P	0.05 U mg/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.

Z – Identifies a duplicate sample. Duplicate samples are collected for every ten samples collected to test the reproducibility of sampling and analytical procedures.

P – Indicates that the sample was collected at the kitchen tap. In some cases this may be following any treatment that the residence may have.

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).

RO – Indicated that the sample was collected from a residence containing a reverse osmosis treatment system.

N – Designates that the sample was collected from the new well for locations with multiple wells.

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.

TPH - Total Petroleum Hydrocarbons

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.

mg/L – Milligrams per liter (abbreviated as mg/L) measurements of the mass of the substance per liter of water. This measurement is commonly known as parts per million or ppm.

cfu/100 mL – Total Coliform Bacteria results are reported as colony forming units (cfu) per milliliters of water. Coliform bacteria is not a health threat in itself; it is used to indicate whether other potentially harmful bacteria may be present.

cfu/1mL – Heterotrophic Plate Count Bacteria (HPC) are reported as colony forming units (cfu) per milliliter of water. HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.

Absent or Present – Fecal Coliform Bacteria are reported as either being Absent or Present. Fecal Coliform Bacteria are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Disease-causing microbes (pathogens) in these wastes can cause diarrhea, cramps, nausea, headaches,

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.

\* No more than 5.0% samples total coliform-positive in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliforms or E. coli if two consecutive TC-positive samples, and one is also positive for E.coli fecal coliforms, system has an acute MCL violation.

\*\* EPA has not established an MCL for lead or copper. Lead and copper are regulated by a Treatment Technique that requires public drinking water systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water system must take additional steps. For lead, the action level is 15 ug/L, and for copper is 1,300 ug/L.

\*\*\* The DEP Primary MCLs for lead (5 ug/L) and copper (1,000 ug/L) are applicable only to bottled, vended, retail and bulk water hauling systems, otherwise the DEP uses the federal action levels for lead (15 ug/L), and for copper (1,300 ug/L).

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.

UJ - The U before the J means that the analyte was not detected in the sample, but this result may be inaccurate. Some analyte may be present.

R – Indicates that the data has been rejected. For glycol analyses, data with detected concentrations above the Method Detection Limit (MDL) and less than the Reporting Limit (RL) were rejected due to the laboratory not using a second column and/or gas chromatography with mass spectrometry to confirm the identity of the compound listed. For Heterotrophic Plate Count analysis, data were rejected if the laboratory did not run a method blank (i.e. sterility control) for each series of samples plated to determine whether the test samples could have been contaminated during analysis. For semivolatiles organic compound analysis, non-detect data have been rejected due to low recoveries of required method quality control checks.

MDL – Is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the concentration of the substance is greater than zero.

RL – Is the lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions, typically set at the lowest standard in the calibration curve