



Ag & Environmental Services Labs

Soil, Plant, and Water Laboratory
 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

(CEC/CEA Signature)

Sample ID

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #2 Type: Household Well	Lab Information Lab #4470 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 246 ppm (14.4 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	148 ppm		Magnesium (Mg)	8.1 ppm	No Set Maximum
Aluminum (Al)	negligible	0.2 ppm (S)	Manganese (Mn)	0.08 ppm ^c	0.05 ppm (S)
Boron (B)	negligible	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	85.2 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	4.10 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	4.49 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	negligible	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	555 µS/cm ^b (µS/cm = µmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
			Potassium (K)	4.6 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	44.06 ppm	No Set Maximum
			Sodium (Na)	14.4 ppm	No Set Maximum
Iron (Fe)	negligible	0.30 ppm (S)	Sulfate (SO ₄)	125.48 ppm	250 ppm (S)

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

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Results continued

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 246 ppm (14.4 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	439 ppm	500 ppm (S)			
Turbidity	0.6 NTU	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

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Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #2 Type: Household Well	Lab #4470 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

^a Hardness

The calculated hardness of this water sample exceeds 120 parts per million (ppm). The water is, therefore, considered hard. Water hardness is related to the amount of calcium, magnesium and other minerals in the water. Hard water does not pose a threat to health, but it can cause scale formation in pots, water pipes and water heaters. It can also interfere with the cleaning action of soaps and detergents, forming film on skin, clothing and fixtures.

Water can be softened by installing an ion-exchange water softener which removes calcium, magnesium, etc. by exchanging them for sodium. Drinking softened water may not be recommended for individuals on sodium restricted diet because of the increased sodium concentrations.

^b Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^c Manganese (Mn)

The concentration of manganese in this sample exceeds EPA's secondary maximum contaminant level of 0.05 parts per million (ppm) for drinking water. Manganese does not pose a threat to health, but can cause bitter or metallic taste and dark brown or black stains in laundry and plumbing fixtures. Water treatment is recommended only if these particular symptoms are causing a problem.

An ion-exchange water softener can be used to remove up to 5.0 ppm combined manganese and iron, but is not normally used unless water softening is also desired. Any oxidized manganese and/or iron should be removed by filtration ahead of the water softener.

An oxidizing filter may be used to remove up to 10.0 ppm combined manganese and iron. To work properly, some oxidizing filters require the pH of the water to be above 7.0. If pH adjustment is required, this can be accomplished by a neutralizing tank or soda ash injection ahead of oxidizing filter.

If the combined concentrations of iron and manganese exceed 10.0 ppm, or if disinfection is also desired, removal can be accomplished by chlorination followed by filtration. If desired, the chlorine residual may be removed with an activated carbon filter.

All parameters tested are within the permissible limits established for drinking water.



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Water Analysis Report

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Sample ID

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #1 Type: Household Well	Lab Information Lab #4471 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 242 ppm (14.2 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	127 ppm		Magnesium (Mg)	6.7 ppm	No Set Maximum
Aluminum (Al)	negligible	0.2 ppm (S)	Manganese (Mn)	0.05 ppm	0.05 ppm (S)
Boron (B)	negligible	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	85.9 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	3.20 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	3.52 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	negligible	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	543 µS/cm ^b (µS/cm = µmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
			Potassium (K)	4.2 ppm	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Silica (SiO ₂)	40.04 ppm	No Set Maximum
			Sodium (Na)	13.8 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Sulfate (SO ₄)	136.90 ppm	250 ppm (S)
Iron (Fe)	negligible	0.30 ppm (S)			

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ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

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Results continued

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 242 ppm (14.2 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	382 ppm	500 ppm (S)			
Turbidity	0.6 NTU	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

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^a Hardness

The calculated hardness of this water sample exceeds 120 parts per million (ppm). The water is, therefore, considered hard. Water hardness is related to the amount of calcium, magnesium and other minerals in the water. Hard water does not pose a threat to health, but it can cause scale formation in pots, water pipes and water heaters. It can also interfere with the cleaning action of soaps and detergents, forming film on skin, clothing and fixtures.

Water can be softened by installing an ion-exchange water softener which removes calcium, magnesium, etc. by exchanging them for sodium. Drinking softened water may not be recommended for individuals on sodium restricted diet because of the increased sodium concentrations.

^b Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

All parameters tested are within the permissible limits established for drinking water.



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<i>Client Information</i>	<i>Lab Information</i>	<i>Contact</i>
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #5 Type: Household Well	Lab #4472 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

Results

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 234 ppm (13.7 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	144 ppm		Magnesium (Mg)	7.6 ppm	No Set Maximum
Aluminum (Al)	negligible	0.2 ppm (S)	Manganese (Mn)	0.05 ppm	0.05 ppm (S)
Boron (B)	negligible	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	81.2 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	3.54 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	2.70 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	1 units	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	518 μS/cm ^b (μS/cm = μmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Potassium (K)	4.1 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	36.85 ppm	No Set Maximum
Iron (Fe)	0.11 ppm	0.30 ppm (S)	Sodium (Na)	13.9 ppm	No Set Maximum
			Sulfate (SO ₄)	112.24 ppm	250 ppm (S)

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Results continued

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 234 ppm (13.7 gr/gal) - Very Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	368 ppm	500 ppm (S)			
Turbidity	1.8 NTU	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

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Sample Address City of Monticello Feldspar Groundwater Wells	Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
Sample: Feldspar Well #5 Type: Household Well		

^a **Hardness**

The calculated hardness of this water sample exceeds 120 parts per million (ppm). The water is, therefore, considered hard. Water hardness is related to the amount of calcium, magnesium and other minerals in the water. Hard water does not pose a threat to health, but it can cause scale formation in pots, water pipes and water heaters. It can also interfere with the cleaning action of soaps and detergents, forming film on skin, clothing and fixtures.

Water can be softened by installing an ion-exchange water softener which removes calcium, magnesium, etc. by exchanging them for sodium. Drinking softened water may not be recommended for individuals on sodium restricted diet because of the increased sodium concentrations.

^b **Conductivity**

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

All parameters tested are within the permissible limits established for drinking water.



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Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #3 Type: Household Well	Lab #4473 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

Results

pH: 7.6 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 173 ppm (10.1 gr/gal) - Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	141 ppm		Magnesium (Mg)	4.6 ppm	No Set Maximum
Aluminum (Al)	negligible	0.2 ppm (S)	Manganese (Mn)	0.10 ppm ^c	0.05 ppm (S)
Boron (B)	negligible	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	61.9 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	7.09 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	1.97 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	negligible	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	376 µS/cm ^b (µS/cm = µmhos/cm)	1.0 ppm (S) 1.3 ppm (P)	Phosphorus (P)	0.03 ppm	No Set Maximum
			Potassium (K)	3.6 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	37.69 ppm	No Set Maximum
			Sodium (Na)	8.8 ppm	No Set Maximum
Iron (Fe)	0.16 ppm	0.30 ppm (S)	Sulfate (SO ₄)	43.24 ppm	250 ppm (S)

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Water Analysis Report

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Sample ID

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #3 Type: Household Well	Lab Information Lab #4473 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results continued

pH: 7.6 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 173 ppm (10.1 gr/gal) - Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	271 ppm	500 ppm (S)			
Turbidity	5.0 NTU	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

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Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4473	Soil, Plant, and Water Laboratory
Sample Address	Received: Apr 27, 2017	2400 College Station Road
City of Monticello Feldspar	Completed: May 9, 2017	Athens, GA 30602
Groundwater Wells	Printed: May 9, 2017	ph: 706-542-5350
Sample: Feldspar Well #3	Tests: W33	e-mail: soiltest@uga.edu
Type: Household Well		

^a **Hardness**

The calculated hardness of this water sample exceeds 120 parts per million (ppm). The water is, therefore, considered hard. Water hardness is related to the amount of calcium, magnesium and other minerals in the water. Hard water does not pose a threat to health, but it can cause scale formation in pots, water pipes and water heaters. It can also interfere with the cleaning action of soaps and detergents, forming film on skin, clothing and fixtures.

Water can be softened by installing an ion-exchange water softener which removes calcium, magnesium, etc. by exchanging them for sodium. Drinking softened water may not be recommended for individuals on sodium restricted diet because of the increased sodium concentrations.

^b **Conductivity**

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^c **Manganese (Mn)**

The concentration of manganese in this sample exceeds EPA's secondary maximum contaminant level of 0.05 parts per million (ppm) for drinking water. Manganese does not pose a threat to health, but can cause bitter or metallic taste and dark brown or black stains in laundry and plumbing fixtures. Water treatment is recommended only if these particular symptoms are causing a problem.

An ion-exchange water softener can be used to remove up to 5.0 ppm combined manganese and iron, but is not normally used unless water softening is also desired. Any oxidized manganese and/or iron should be removed by filtration ahead of the water softener.

An oxidizing filter may be used to remove up to 10.0 ppm combined manganese and iron. To work properly, some oxidizing filters require the pH of the water to be above 7.0. If pH adjustment is required, this can be accomplished by a neutralizing tank or soda ash injection ahead of oxidizing filter.

If the combined concentrations of iron and manganese exceed 10.0 ppm, or if disinfection is also desired, removal can be accomplished by chlorination followed by filtration. If desired, the chlorine residual may be removed with an activated carbon filter.

All parameters tested are within the permissible limits established for drinking water.



Ag & Environmental Services Labs

Soil, Plant, and Water Laboratory
 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

(CEC/CEA Signature)

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4474	Soil, Plant, and Water Laboratory
Sample Address City of Monticello Feldspar Groundwater Wells	Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
Sample: Feldspar Well #4 Type: Household Well		

Results

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 167 ppm (9.8 gr/gal) - Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	115 ppm		Magnesium (Mg)	5.5 ppm	No Set Maximum
Aluminum (Al)	negligible	0.2 ppm (S)	Manganese (Mn)	negligible	0.05 ppm (S)
Boron (B)	negligible	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	57.9 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	2.90 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	2.34 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	1 units	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	382 µS/cm ^b (µS/cm = µmhos/cm)		Phosphorus (P)	0.03 ppm	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Potassium (K)	3.6 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	39.98 ppm	No Set Maximum
Iron (Fe)	0.28 ppm	0.30 ppm (S)	Sodium (Na)	10.9 ppm	No Set Maximum
			Sulfate (SO ₄)	65.52 ppm	250 ppm (S)

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

Learning for Life

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Ag & Environmental Services Labs

Soil, Plant, and Water Laboratory
 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

(CEC/CEA Signature)

Sample ID

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Groundwater Wells Sample: Feldspar Well #4 Type: Household Well	Lab Information Lab #4474 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Results continued

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 167 ppm (9.8 gr/gal) - Hard Water ^a

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	276 ppm	500 ppm (S)			
Turbidity	8.6 NTU ^c	5 NTU (P)			
Zinc (Zn)	0.05 ppm	5.0 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Comments are listed on the next page

Learning for Life

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Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample: Feldspar Well #4 Type: Household Well	Lab #4474 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

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The calculated hardness of this water sample exceeds 120 parts per million (ppm). The water is, therefore, considered hard. Water hardness is related to the amount of calcium, magnesium and other minerals in the water. Hard water does not pose a threat to health, but it can cause scale formation in pots, water pipes and water heaters. It can also interfere with the cleaning action of soaps and detergents, forming film on skin, clothing and fixtures.

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^b **Conductivity**

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^c **Turbidity**

Under EPA surface water treatment rules, turbidity (cloudiness of water) should not go above 5 nephelometric units (NTU). Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of microorganisms such as bacteria, viruses, and parasites.

All parameters tested are within the permissible limits established for drinking water.



3535 Gray Highway
Gray Georgia 31032-5119
478-986-3192

April 3, 2017

Mary Wilson, PG
Gresham, Smith, & Partners
2095 Lakeside Center Way
Knoxville, TN 37922

Email: mary_wilson@gspnet.com

RE: CITY OF MONTICELLO, FELDSPAR PROJECT

Dear Mary,

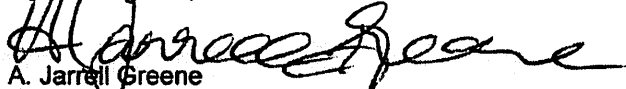
I am pleased to offer Greene's Water Wells proposal for your water. The sampling project of the referenced location represents the highest quality materials available, as well as, the professional and dependable service we have offered our customers throughout our 52 years of serving the Middle Georgia area.

Please review the proposal and call with any questions that you may have.

**WATER SAMPLES FROM GROUNDWATER WELLS
& SURFACE WATER SYSTEM**

Groundwater Wells: Samples per scope of work 5 ea. @ Lump Sum	\$1,925.00
Surface Water: Sample per scope of work 4 ea. @ Lump Sum	\$2,990.00
Equipment Rental: 75 KW Generator 1 wk. @ \$765.00	\$ 765.00
Labor & Service: Collection, 5 groundwater samples, 4 surface water samples 12 hrs. @ \$150.00 per/hr.	\$1,800.00
Shipping & delivery of samples 1 ea. @ Lump Sum	<u>\$ 550.00</u>
Estimated Total	\$8,030.00

Kindest regards,


A. Jarrell Greene
Greene's Water Wells, Inc.

GA Water Well Contractor, License No. 29
AL Water Well Contractor, License No. 536
SC Water Well Contractor, License No. B 1385

AJG/hd

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-127165-1
Client Project/Site: City of Monticello Feldspar

For:
Greenes Water Wells, Inc.
3535 Gray Highway
Gray, Georgia 31032

Attn: Mr. Donald Greene

Kathryn Smith

Authorized for release by:
4/29/2017 11:08:38 PM

Kathryn Smith, Manager of Project Management
(912)354-7858
kathy.smith@testamericainc.com

Designee for

Sheila Hoffman, Project Manager II
(912)354-7858 e.3004
sheila.hoffman@testamericainc.com

LINKS

Review your project
results through
Total Access

Have a Question?

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The
Expert**

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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TestAmerica Savannah
 5102 LaRoche Avenue
 Savannah, GA 31404
 Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

4/29/2017

Client Information		Sampler: Jarrell Greene		Lab PM: Hoffman, Sheila B		Carrier Tracking No(s):		COC No: 680-83491-33980.1		
Client Contact: Ms. Jennifer Nunn		Phone: 478 986 3192		E-Mail: sheila.hoffman@testamericainc.com				Page: Page 1 of 1		
Company: Greenes Water Wells, Inc.				Analysis Requested						Job #:
Address: 3535 Gray Highway		Due Date Requested:		Loc: 490 127165						Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
City: Gray		TAT Requested (days):								
State, Zip: GA, 31032		Normal - 10 bus days								
Phone: 478 986 3192		PO #: Purchase Order not required								
Email: jennifer@greeneswaterwells.com		WO #:		Field Filled Sample (Yes or No): 6316A - Formaldehyde						Total Number of containers:
Project Name: City of Monticello Feldspar		Project #: 68018068								
Site:		SSOW#:								Other:
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil/sed, BT=Tissue, A=Air)	Field Filled Sample (Yes or No)	6316A - Formaldehyde	Total Number of containers	Special Instructions/Note:	
Feldspar Malone Lake L1		4-26-17	10AM		Water					
Feldspar Malone Lake L2		4-26-17	10:35AM		Water					
Feldspar Malone Lake L3		4-26-17	10:50AM		Water					
Feldspar Malone Lake L4		4-26-17	10:15AM		Water					
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological								
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:				
Relinquished by: Jarrell Greene		Date/Time: 4-26-17 1245pm		Company: Greenes WW		Received by: [Signature]		Date/Time: 4/27/17 0945		Company: AN
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:						

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Sample Summary

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-127165-1	Feldspar Malone Lake L1	Water	04/26/17 10:00	04/27/17 09:45
490-127165-2	Feldspar Malone Lake L2	Water	04/26/17 10:35	04/27/17 09:45
490-127165-3	Feldspar Malone Lake L3	Water	04/26/17 10:50	04/27/17 09:45
490-127165-4	Feldspar Malone Lake L4	Water	04/26/17 10:15	04/27/17 09:45



Case Narrative

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Job ID: 490-127165-1

Laboratory: TestAmerica Nashville

Narrative

CASE NARRATIVE

Client: Greenes Water Wells, Inc.
Project: City of Monticello Feldspar

Report Number: 490-127165-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 04/27/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.3 C.

FORMALDEHYDE

Samples Feldspar Malone Lake L1 (490-127165-1), Feldspar Malone Lake L2 (490-127165-2), Feldspar Malone Lake L3 (490-127165-3) and Feldspar Malone Lake L4 (490-127165-4) were analyzed for formaldehyde in accordance with EPA SW-846 Method 8315A. The samples were prepared on 04/28/2017 and analyzed on 04/29/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

TestAmerica Job ID: 490-127165-1

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Greenes Water Wells, Inc.
 Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Client Sample ID: Feldspar Malone Lake L1

Lab Sample ID: 490-127165-1

Date Collected: 04/26/17 10:00

Matrix: Water

Date Received: 04/27/17 09:45

Method: 8315A - Carbonyl Compounds by HPLC									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	<50		50	13	ug/L		04/28/17 06:12	04/29/17 02:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Butyraldehyde	85		54 - 128				04/28/17 06:12	04/29/17 02:20	1



Client Sample Results

Client: Greenes Water Wells, Inc.
 Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Client Sample ID: Feldspar Malone Lake L2

Lab Sample ID: 490-127165-2

Date Collected: 04/26/17 10:35

Matrix: Water

Date Received: 04/27/17 09:45

Method: 8315A - Carbonyl Compounds by HPLC										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Formaldehyde	<50		50	13	ug/L		04/28/17 06:12	04/29/17 02:43	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
Butyraldehyde	78		54 - 128				04/28/17 06:12	04/29/17 02:43	1	



Client Sample Results

Client: Greenes Water Wells, Inc.
 Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Client Sample ID: Feldspar Malone Lake L3

Lab Sample ID: 490-127165-3

Date Collected: 04/26/17 10:50

Matrix: Water

Date Received: 04/27/17 09:45

Method: 8315A - Carbonyl Compounds by HPLC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	<50		50	13	ug/L		04/28/17 06:12	04/29/17 03:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Butyraldehyde	78		54 - 128				04/28/17 06:12	04/29/17 03:06	1

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Client Sample Results

Client: Greenes Water Wells, Inc.
 Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Client Sample ID: Feldspar Malone Lake L4

Lab Sample ID: 490-127165-4

Date Collected: 04/26/17 10:15

Matrix: Water

Date Received: 04/27/17 09:45

Method: 8315A - Carbonyl Compounds by HPLC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	<50		50	13	ug/L		04/28/17 06:12	04/29/17 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Butyraldehyde	75		54 - 128				04/28/17 06:12	04/29/17 03:30	1



QC Sample Results

Client: Greenes Water Wells, Inc.
 Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Method: 8315A - Carbonyl Compounds by HPLC

Lab Sample ID: MB 490-425759/1-A						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 425953						Prep Batch: 425759			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Formaldehyde	<50		50	13	ug/L		04/28/17 06:12	04/28/17 22:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Butyraldehyde	88		54 - 128			04/28/17 06:12	04/28/17 22:04	1	

Lab Sample ID: LCS 490-425759/2-A						Client Sample ID: Lab Control Sample			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 425953						Prep Batch: 425759			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Formaldehyde			100	112		ug/L		112	47 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Butyraldehyde	88		54 - 128						

QC Association Summary

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

HPLC/IC

Prep Batch: 425759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-127165-1	Feldspar Malone Lake L1	Total/NA	Water	8315_W_Prep	
490-127165-2	Feldspar Malone Lake L2	Total/NA	Water	8315_W_Prep	
490-127165-3	Feldspar Malone Lake L3	Total/NA	Water	8315_W_Prep	
490-127165-4	Feldspar Malone Lake L4	Total/NA	Water	8315_W_Prep	
MB 490-425759/1-A	Method Blank	Total/NA	Water	8315_W_Prep	
LCS 490-425759/2-A	Lab Control Sample	Total/NA	Water	8315_W_Prep	

Analysis Batch: 425953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-127165-1	Feldspar Malone Lake L1	Total/NA	Water	8315A	425759
490-127165-2	Feldspar Malone Lake L2	Total/NA	Water	8315A	425759
490-127165-3	Feldspar Malone Lake L3	Total/NA	Water	8315A	425759
490-127165-4	Feldspar Malone Lake L4	Total/NA	Water	8315A	425759
MB 490-425759/1-A	Method Blank	Total/NA	Water	8315A	425759
LCS 490-425759/2-A	Lab Control Sample	Total/NA	Water	8315A	425759

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Lab Chronicle

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Client Sample ID: Feldspar Malone Lake L1

Lab Sample ID: 490-127165-1

Date Collected: 04/26/17 10:00

Matrix: Water

Date Received: 04/27/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	425759	04/28/17 06:12	ET	TAL NSH
Total/NA	Analysis	8315A		1			425953	04/29/17 02:20	ET	TAL NSH

Client Sample ID: Feldspar Malone Lake L2

Lab Sample ID: 490-127165-2

Date Collected: 04/26/17 10:35

Matrix: Water

Date Received: 04/27/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	425759	04/28/17 06:12	ET	TAL NSH
Total/NA	Analysis	8315A		1			425953	04/29/17 02:43	ET	TAL NSH

Client Sample ID: Feldspar Malone Lake L3

Lab Sample ID: 490-127165-3

Date Collected: 04/26/17 10:50

Matrix: Water

Date Received: 04/27/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	425759	04/28/17 06:12	ET	TAL NSH
Total/NA	Analysis	8315A		1			425953	04/29/17 03:06	ET	TAL NSH

Client Sample ID: Feldspar Malone Lake L4

Lab Sample ID: 490-127165-4

Date Collected: 04/26/17 10:15

Matrix: Water

Date Received: 04/27/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8315_W_Prep			100 mL	1 mL	425759	04/28/17 06:12	ET	TAL NSH
Total/NA	Analysis	8315A		1			425953	04/29/17 03:30	ET	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Method	Method Description	Protocol	Laboratory
8315A	Carbonyl Compounds by HPLC	SW846	TAL NSH

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



Accreditation/Certification Summary

Client: Greenes Water Wells, Inc.
Project/Site: City of Monticello Feldspar

TestAmerica Job ID: 490-127165-1

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

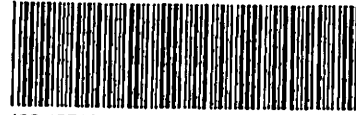
Authority	Program	EPA Region	Identification Number	Expiration Date
Georgia	State Program	4	N/A	12-31-17

Laboratory: TestAmerica Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Georgia	State Program	4	803	06-30-17

COOLER RECEIPT FORM



490-127165 Chain of Custody

Cooler Received/Opened On 4/27/2017 @ 0945

Time Samples Removed From Cooler 1129 Time Samples Placed In Storage 1219 (2 Hour Window)

1. Tracking # 178 1391 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 5.3 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 FRONT

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (Initial) JS

7. Were custody seals on containers: YES NO and intact YES...NO... NA

Were these signed and dated correctly? YES...NO... NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES... NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO... NA

14. Was there a Trip Blank in this cooler? YES...NO... NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (Initial) HKG

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO... NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (Initial) HKG

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (Initial) HKG

I certify that I attached a label with the unique LIMS number to each container (Initial) HKG

21. Were there Non-Conformance issues at login? YES... NO Was a NCM generated? YES... NO...# _____

Montice 116, Ga August 1986

Well Locations: Feldspar Corp.

Well # 7 at Plant
605 Ft.
15 HP

Well # 5
455 Ft.
15 HP
Ground Fes

Well # 6
655 Ft.
3 HP
Jacuzzi

Well # 2
430 Ft.
9 1/2 HP
Ground Fes

Well # 1
500 Ft.
10 HP
Ground Fes

Well # 3
455 Ft.
15 HP
Ground Fes

Well # 4
505 Ft.
15 HP
Ground Fes

Date - April 5, 1977

BAC - T 4/5/77

- [A] = PW-60 11:40 am
- [B] = PW-59 12:35 pm
- [E] = PW-63 2:13 pm
- [C] = PW-61 3:35 pm
- [D] = PW-62 4:59 pm

CREEK

CREEK

L-1

41.7 Acres
LAKE

DAM

3050 ft

2.2 Mi. to Monticello City

Hywy #11 To Monticello

Cedar
Creek

L-2

LEGEND

Feldspar Lake
Scale: 1" = 660'

Property
of

Gwendolyn K. Malone

Josephine K. Bridges

Claire K. Goolsby

Prepared By

Feldspar Corp.

Copied From

Aerial Photo #272-A1

Dated 3/6/73 - P-10

WELLS
PLANT
MILE
SLIGHT

CREEK

PIPE LINE
R/W

WELLS

Note

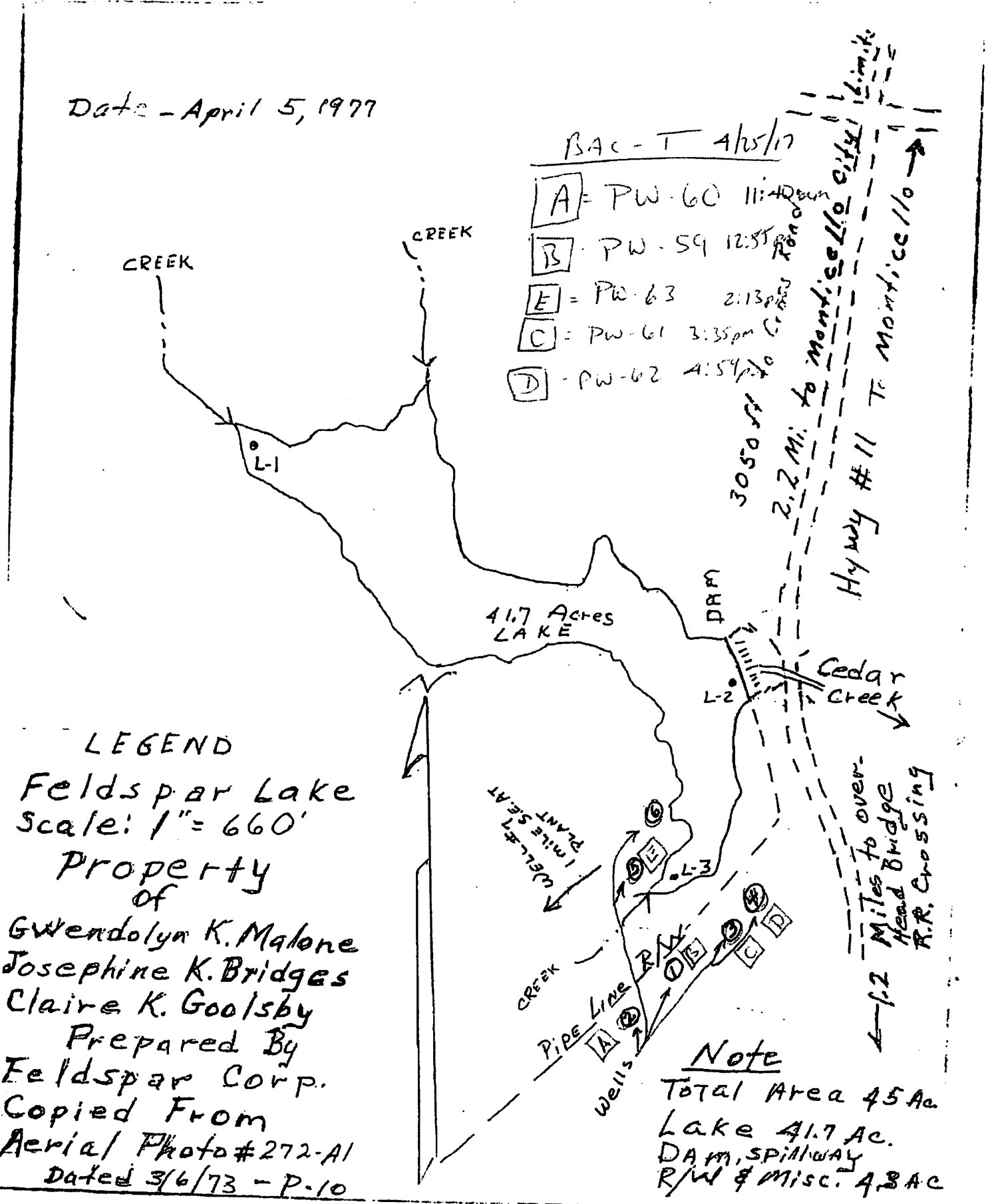
Total Area 45 Ac

Lake 41.7 Ac.

DAM, SPILLWAY

R/W & Misc. 4.3 Ac

1.2 Miles to over-
Head Bridge
R.R. Crossing



Login Sample Receipt Checklist

Client: Greenes Water Wells, Inc.

Job Number: 490-127165-1

Login Number: 127165

List Number: 1

Creator: Gundi, Hozar K

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4478	Soil, Plant, and Water Laboratory
Sample Address City of Monticello Feldspar Malone Lake	Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
Sample: Malone Lake L-4 Type: Household Well		

Results

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 35 ppm (2.0 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	42 ppm		Magnesium (Mg)	3.3 ppm	No Set Maximum
Aluminum (Al)	0.19 ppm	0.2 ppm (S)	Manganese (Mn)	negligible	0.05 ppm (S)
Boron (B)	0.02 ppm	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	8.8 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	1.05 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	9.56 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	15 units	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	133 μS/cm ^a (μS/cm = μmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Potassium (K)	3.3 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	8.66 ppm	No Set Maximum
Iron (Fe)	0.26 ppm	0.30 ppm (S)	Sodium (Na)	11.8 ppm	No Set Maximum
			Sulfate (SO ₄)	7.30 ppm	250 ppm (S)

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

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 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-1 Type: Household Well	Lab Information Lab #4475 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results

pH: 7.5 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 37 ppm (2.2 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	44 ppm		Magnesium (Mg)	3.4 ppm	No Set Maximum
Aluminum (Al)	0.47 ppm ^a	0.2 ppm (S)	Manganese (Mn)	0.18 ppm ^c	0.05 ppm (S)
Boron (B)	0.03 ppm	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	9.3 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	2.65 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	10.03 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	23 units ^b	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	138 µS/cm ^c (µS/cm = µmhos/cm)		Phosphorus (P)	0.03 ppm	No Set Maximum
			Potassium (K)	3.8 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	10.80 ppm	No Set Maximum
			Sodium (Na)	12.4 ppm	No Set Maximum
Iron (Fe)	0.72 ppm ^d	0.30 ppm (S)	Sulfate (SO ₄)	7.07 ppm	250 ppm (S)

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

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 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-1 Type: Household Well	Lab Information Lab #4475 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results continued

pH: 7.5 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 37 ppm (2.2 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	110 ppm	500 ppm (S)			
Turbidity	10.9 NTU ^f	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Comments are listed on the next page

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Water Analysis Report

Sample ID

Client Information	Sample Address	Lab Information	Contact
Greene's Water Wells, Inc.	City of Monticello Feldspar Malone Lake	Lab #4475 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
Sample: Malone Lake L-1 Type: Household Well			

^a Aluminum (Al)

The EPA recommends that the concentration of aluminum in drinking water not exceed 0.2 parts per million (ppm) of aluminum because of taste and odor problems. Aluminum occurs naturally as a constituent of soils. Acidic water may dissolve aluminum. Adjusting the drinking water pH to 7 or higher will reduce the dissolved aluminum levels. Low level exposure to aluminum from water is not thought to harm human health.

^b Color

EPA has established a National Secondary Drinking Water Standard of 15 color units. It is established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health. Color may be indicative of dissolved organic material, high disinfectant demand and the potential for the production of excess amounts of disinfectant by-product. Inorganic contaminants such as metals are also common causes of color. Most people find color objectionable over 15 color units.

^c Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^d Iron (Fe)

The concentration of iron in this sample exceeds EPA's secondary maximum contaminant level of 0.3 parts per million (ppm) for drinking water. Iron does not pose a threat to health, but can cause bitter or metallic taste and reddish brown stains in laundry and plumbing fixtures.

Iron can be removed by chlorination, ion-exchange softening, oxidizing filters, or aerating the water. Contact your local water treatment professional for selecting an appropriate treatment system.

Comments continued on next page

Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-1 Type: Household Well	Lab #4475 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

^e **Manganese (Mn)**

The concentration of manganese in this sample exceeds EPA's secondary maximum contaminant level of 0.05 parts per million (ppm) for drinking water. Manganese does not pose a threat to health, but can cause bitter or metallic taste and dark brown or black stains in laundry and plumbing fixtures. Water treatment is recommended only if these particular symptoms are causing a problem.

An ion-exchange water softener can be used to remove up to 5.0 ppm combined manganese and iron, but is not normally used unless water softening is also desired. Any oxidized manganese and/or iron should be removed by filtration ahead of the water softener.

An oxidizing filter may be used to remove up to 10.0 ppm combined manganese and iron. To work properly, some oxidizing filters require the pH of the water to be above 7.0. If pH adjustment is required, this can be accomplished by a neutralizing tank or soda ash injection ahead of oxidizing filter.

If the combined concentrations of iron and manganese exceed 10.0 ppm, or if disinfection is also desired, removal can be accomplished by chlorination followed by filtration. If desired, the chlorine residual may be removed with an activated carbon filter.

^f **Turbidity**

Under EPA surface water treatment rules, turbidity (cloudiness of water) should not go above 5 nephelometric units (NTU). Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of microorganisms such as bacteria, viruses, and parasites.

All parameters tested are within the permissible limits established for drinking water.



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Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-2 Type: Household Well	Lab #4476 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

Results

pH: 7.8 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 36 ppm (2.1 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	41 ppm		Magnesium (Mg)	3.3 ppm	No Set Maximum
Aluminum (Al)	0.16 ppm	0.2 ppm (S)	Manganese (Mn)	0.05 ppm	0.05 ppm (S)
Boron (B)	0.02 ppm	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	8.9 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	1.19 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	9.60 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	14 units	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	133 μS/cm ^a (μS/cm = μmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Potassium (K)	3.4 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Silica (SiO ₂)	8.64 ppm	No Set Maximum
Iron (Fe)	0.22 ppm	0.30 ppm (S)	Sodium (Na)	11.8 ppm	No Set Maximum
			Sulfate (SO ₄)	7.39 ppm	250 ppm (S)

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

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Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-3 Type: Household Well	Lab Information Lab #4477 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results

pH: 7.8 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 37 ppm (2.2 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Alkalinity	42 ppm		Magnesium (Mg)	3.4 ppm	No Set Maximum
Aluminum (Al)	0.14 ppm	0.2 ppm (S)	Manganese (Mn)	0.18 ppm ^d	0.05 ppm (S)
Boron (B)	0.02 ppm	No Set Maximum	Molybdenum (Mo)	negligible	No Set Maximum
Calcium (Ca)	9.1 ppm	No Set Maximum	Nickel (Ni)	negligible	No Set Maximum
Carbon Dioxide (CO ₂)	1.34 ppm		Nitrate+Nitrite as N	negligible	10.0 ppm (P)
Chloride (Cl)	9.35 ppm	250 ppm (S)	Nitrate-Nitrogen (NO ₃ ⁻ -N)	negligible	10.0 ppm (P)
Chromium (Cr)	negligible	0.1 ppm (P)	Nitrite-Nitrogen (NO ₂ ⁻ -N)	negligible	1.0 ppm (P)
Color	16 units ^a	15 Units (S)	Phosphate (PO ₄)	negligible	
Conductivity (Specific Conductance @ 25°C)	134 μS/cm ^b (μS/cm = μmhos/cm)		Phosphorus (P)	negligible	No Set Maximum
			Potassium (K)	3.2 ppm	No Set Maximum
Copper (Cu)	negligible	1.0 ppm (S) 1.3 ppm (P)	Silica (SiO ₂)	9.09 ppm	No Set Maximum
			Sodium (Na)	11.5 ppm	No Set Maximum
Fluoride (F)	negligible	2.0 ppm (S) 4.0 ppm (P)	Sulfate (SO ₄)	7.45 ppm	250 ppm (S)
Iron (Fe)	0.42 ppm ^c	0.30 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Report continued on next page

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Ag & Environmental Services Labs

Soil, Plant, and Water Laboratory
 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. <div style="text-align: right;">Sample Address</div> City of Monticello Feldspar Malone Lake Sample: Malone Lake L-2 Type: Household Well	Lab Information Lab #4476 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results continued

pH: 7.8 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 36 ppm (2.1 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	93 ppm	500 ppm (S)			
Turbidity	4.2 NTU	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Comments are listed on the next page

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Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-2 Type: Household Well	Lab #4476 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu

^a Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

All parameters tested are within the permissible limits established for drinking water.



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 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. Sample Address City of Monticello Feldspar Malone Lake Sample: Malone Lake L-3 Type: Household Well	Lab Information Lab #4477 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results continued

pH: 7.8 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 37 ppm (2.2 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	81 ppm	500 ppm (S)			
Turbidity	6.6 NTU ^c	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Comments are listed on the next page

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Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4477	Soil, Plant, and Water Laboratory
Sample Address	Received: Apr 27, 2017	2400 College Station Road
City of Monticello Feldspar	Completed: May 9, 2017	Athens, GA 30602
Sample: Malone Lake L-3	Printed: May 9, 2017	ph: 706-542-5350
Type: Household Well	Tests: W33	e-mail: soiltest@uga.edu

^a Color

EPA has established a National Secondary Drinking Water Standard of 15 color units. It is established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health. Color may be indicative of dissolved organic material, high disinfectant demand and the potential for the production of excess amounts of disinfectant by-product. Inorganic contaminants such as metals are also common causes of color. Most people find color objectionable over 15 color units.

^b Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^c Iron (Fe)

The concentration of iron in this sample exceeds EPA's secondary maximum contaminant level of 0.3 parts per million (ppm) for drinking water. Iron does not pose a threat to health, but can cause bitter or metallic taste and reddish brown stains in laundry and plumbing fixtures.

Iron can be removed by chlorination, ion-exchange softening, oxidizing filters, or aerating the water. Contact your local water treatment professional for selecting an appropriate treatment system.

Comments continued on next page

Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4477	Soil, Plant, and Water Laboratory
Sample Address	Received: Apr 27, 2017	2400 College Station Road
City of Monticello Feldspar	Completed: May 9, 2017	Athens, GA 30602
Sample: Malone Lake L-3	Printed: May 9, 2017	ph: 706-542-5350
Type: Household Well	Tests: W33	e-mail: soiltest@uga.edu

^d **Manganese (Mn)**

The concentration of manganese in this sample exceeds EPA's secondary maximum contaminant level of 0.05 parts per million (ppm) for drinking water. Manganese does not pose a threat to health, but can cause bitter or metallic taste and dark brown or black stains in laundry and plumbing fixtures. Water treatment is recommended only if these particular symptoms are causing a problem.

An ion-exchange water softener can be used to remove up to 5.0 ppm combined manganese and iron, but is not normally used unless water softening is also desired. Any oxidized manganese and/or iron should be removed by filtration ahead of the water softener.

An oxidizing filter may be used to remove up to 10.0 ppm combined manganese and iron. To work properly, some oxidizing filters require the pH of the water to be above 7.0. If pH adjustment is required, this can be accomplished by a neutralizing tank or soda ash injection ahead of oxidizing filter.

If the combined concentrations of iron and manganese exceed 10.0 ppm, or if disinfection is also desired, removal can be accomplished by chlorination followed by filtration. If desired, the chlorine residual may be removed with an activated carbon filter.

^e **Turbidity**

Under EPA surface water treatment rules, turbidity (cloudiness of water) should not go above 5 nephelometric units (NTU). Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of microorganisms such as bacteria, viruses, and parasites.

All parameters tested are within the permissible limits established for drinking water.



The University of Georgia

College of Agricultural and Environmental Sciences
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Sender: Greene's Water Well
City Of Monticello

SAMPLE #	DESCRIPTION	ANALYSIS	LEVEL	DETECTABILITY LIMIT
ASL 910	Lake Water L1	CYANIDE	ND	20 ppB

Distilled: 04/27/2017
Colormetric: 04/28/2017 & 05/08/2017

N.D. = NOT DETECTABLE AT LIMIT INDICATED

NB
ANALYST

Teresita O. Ona
Dr. Teresita Ona
Research Professional III



Ag & Environmental Services Labs

Soil, Plant, and Water Laboratory
 2400 College Station Road
 Athens, Georgia 30602-9105
 Website: <http://aesl.ces.uga.edu>

Water Analysis Report

Sample ID

(CEC/CEA Signature)

Client Information Greene's Water Wells, Inc. <div style="text-align: right;">Sample Address</div> City of Monticello Feldspar Malone Lake Sample: Malone Lake L-4 Type: Household Well	Lab Information Lab #4478 Received: Apr 27, 2017 Completed: May 9, 2017 Printed: May 9, 2017 Tests: W33	Contact Soil, Plant, and Water Laboratory 2400 College Station Road Athens, GA 30602 ph: 706-542-5350 e-mail: soiltest@uga.edu
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Results continued

pH: 7.9 (Desired pH range 6.5 to 8.5)

Calculated Hardness: 35 ppm (2.0 gr/gal) - Slightly Hard Water -

(Water hardness is due to the presence of certain dissolved minerals, primarily calcium and magnesium.)

Parameter	Concentration in Sample	EPA Maximum Level*	Parameter	Concentration in Sample	EPA Maximum Level*
Total Dissolved Solids (TDS)	92 ppm	500 ppm (S)			
Turbidity	5.2 NTU ^b	5 NTU (P)			
Zinc (Zn)	negligible	5.0 ppm (S)			

* The letter (P) beside an EPA Maximum Level indicates that EPA has established a primary drinking water standard for this parameter. These are parameters which have been shown to cause adverse health effects. The letter (S) indicates that EPA has established a secondary drinking water standard for this parameter. These parameters are not generally considered threats to health, but can cause nuisance problems such as staining, tastes or odors.

ppm: Stands for parts per million. One part per million is equivalent to 1 pound of an element dissolved in 1,000,000 pounds of water. One part per million is the same as one milligram per liter (mg/L).

NOTE: This test does not imply that this water is safe from bacteria or other chemicals that may be present. If you have concerns in these areas, contact your County Extension Agent.

Comments are listed on the next page

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Water Analysis Report

Sample ID

Client Information	Lab Information	Contact
Greene's Water Wells, Inc.	Lab #4478	Soil, Plant, and Water Laboratory
Sample Address	Received: Apr 27, 2017	2400 College Station Road
City of Monticello Feldspar	Completed: May 9, 2017	Athens, GA 30602
Sample: Malone Lake L-4	Printed: May 9, 2017	ph: 706-542-5350
Type: Household Well	Tests: W33	e-mail: soiltest@uga.edu

^a Conductivity

Conductivity is the measure of the ability of the water to conduct electricity. The units for conductivity are usually expressed either as micro-Siemens (μS) or micro-mhos (μmhos) per centimeter ($\mu\text{S}/\text{cm} = \mu\text{mhos}/\text{cm}$). Conductivity increases as the amount of dissolved ionic solids increases and is sometimes called "soluble salts". Dissolved inorganic compounds are relatively good conductors; conversely, dissolved organic compounds are poor conductors. The conductivity of distilled water usually ranges from 0.5 to 3 $\mu\text{S}/\text{cm}$ and most drinking water in the United States ranges from 50 to 1500 $\mu\text{S}/\text{cm}$.

^b Turbidity

Under EPA surface water treatment rules, turbidity (cloudiness of water) should not go above 5 nephelometric units (NTU). Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of microorganisms such as bacteria, viruses, and parasites.

All parameters tested are within the permissible limits established for drinking water.



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College of Agricultural and Environmental Sciences
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Sender: Greene's Water Well
City Of Monticello

SAMPLE #	DESCRIPTION	ANALYSIS	LEVEL	DETECTABILITY LIMIT
ASL 911	Lake Water L2	CYANIDE	ND	20 ppB

Distilled: 04/27/2017
Colormetric: 04/28/2017 & 05/08/2017

N.D. = NOT DETECTABLE AT LIMIT INDICATED

NB
ANALYST

Teresita C. Ona
Dr. Teresita Ona
Research Professional III



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Sender: Greene's Water Well
City Of Monticello

SAMPLE #	DESCRIPTION	ANALYSIS	LEVEL	DETECTABILITY LIMIT
ASL 912	Lake Water L3	CYANIDE	ND	20 ppB

Distilled: 04/27/2017
Colormetric: 04/28/2017 & 05/08/2017

N.D. = NOT DETECTABLE AT LIMIT INDICATED

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ANALYST

Teresita C. Ona
Dr. Teresita Ona
Research Professional III



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Sender: Greene's Water Well
City Of Monticello

SAMPLE #	DESCRIPTION	ANALYSIS	LEVEL	DETECTABILITY LIMIT
ASL 913	Lake Water L4	CYANIDE	ND	20 ppB

Distilled: 04/27/2017
Colormetric: 04/28/2017 & 05/08/2017

N.D. = NOT DETECTABLE AT LIMIT INDICATED

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ANALYST

Teresita C. Ona
Dr. Teresita Ona
Research Professional III