Bradshaw Mountain Environmental, Inc.
3050 N Windsong Dr. Ste 105, Prescott Valley, AZ 86314

ORDER # [redacted]
08/28/2023 12:09

Owner				Operator
NAME	[redacted]			Alcorn Pump 3000 W. Shadow Valley Ranch Rd. Prescott, AZ 86305 Phone: (928) 237-4372
CONTACT	Alcorn Pump			
ADDRESS	[redacted]			
CITY	[redacted]	**STATE** [redacted]	**ZIP** [redacted]	
PHONE		**FAX**		

Water Source			
PWSID		**NAME**	[redacted]
SAMPLE DATE/TIME	08/28/2023 11:30 AM	**RECEIVED DATE/TIME**	08/28/2023 11:54 AM
TEMPERATURE	Cool	**PREVIOUS ORDER #**	

Test #	Name		Result
020604	Arsenic EPA	Fail	Arsenic EPA : Present (11) ppb (parts per billion). Acceptable result is 0 to 10 ppb
020600	Coliform and E.coli	PASS	E. Coli : Absent Total Coliform : Absent
020608	Lead EPA	PASS	Lead EPA : Absent
020606	Nitrate EPA	PASS	Nitrate EPA : Present (5.76) mg/L. Acceptable result is 0 to 10 mg/L

Our water testing facility is certified to perform Present/Absent potable water testing, which includes and is limited to detecting bacteria only (Coliform and E-Coli.) We do not provide detection for the following: Leads, Nitrates, Nitrites, Arsenic, Minerals, or Softeners, that may be present in water samples that are provided. Bradshaw Mountain Environmental currently holds Arizona Department of Health Services Certification #AZ0782. Our facility follows both Arizona Department of Environmental Quality (ADEQ) and Environmental Protection Agency (EPA) guidelines when conducting environmental water testing.

Thank you for choosing Bradshaw Mountain Environmental for your water testing needs.

IAS Laboratories
2515 East University Drive
Phoenix, Arizona 85034
(602) 273-7248
Fax (602) 275-3836

Work Order: 23H0546

Submitted By: [redacted]
Report To:
Project:

Sample Results

Sample Name: [redacted]
IAS Lab ID:

Sampled By: Alcorn Pump

	Client Data					
	Result	Units	Qual	MDL	EPA Limit	Method
Inorganic						
Nitrate-N (NO3-N) **Time Analyzed:** 8/30/2023 11:26:00AM	5.76	mg/L	Pass	<0.100	<10.0	EPA 353.2
Metals						
Arsenic (As) **Time Analyzed:** 8/30/2023 11:01:00AM	0.011	mg/L	Fail	<0.001	<0.010	EPA 200.8
Lead (Pb) **Time Analyzed:** 8/30/2023 11:01:00AM	ND	mg/L	Pass	<0.001	<0.015	EPA 200.8

*Water Hardness based on USGS Hardness scale. https://www.usgs.gov/special-topics/water-science-school/science/hardness-water

Arizona Department of Health Services License#: AZ0815

MDL: Minimum Detection Limit

ND: None Detected

The EPA does not regulate private wells, private well owners are responsible for the safety of their water. **Source:** https://www.epa.gov/privatewells

Water Test Explanation of Results

Conversion: 1 mg/L = 1000 ppb (part per billion); 1 ppb = 0.001 mg/L; 1 mg/L = 1 ppm (part per million)

All water can be treated and made safe for consumption (potable). Options are available depending on water contamination levels but realize there are costs associated with different types and levels of treatment.

Arsenic: The EPA limit for arsenic is 10 parts per billion (0.010 mg/L, milligram per liter) Arsenic is a heavy metal that is often found in ground water sources. Arsenic in high concentrations is associated with several health problems and can cause cancer.

Water over **10 ppb (0.010 mg/L)** should be treated before consumption.

Water over **35 ppb (0.035 mg/L)** should not be consumed by young children, especially infants, because this level has been associated with health effects in children after very short-term exposures (2 weeks or less). [1]

Water over **100 ppb (0.100 mg/L)** should not be used for pet consumption.

Water over **200 ppb (0.200 mg/L)** should not be used for cooking, drinking, irrigation, or large animal consumption.

Water over **500 ppb (0.500 mg/L)** should not be used for washing dishes, clothing, or have any bodily contact.

Source: https://www.cdc.gov/healthywater/drinking/private/wells/disease/arsenic.html for more information.

[1] Source: www.oregon.gov/oha/PH/HealthyEnvironments/DrinkingWater/Monitoring/Documents/health/arsenic.pdf

Nitrates: The EPA limit for **nitrate is 10 mg/L** and **nitrite is 1.0 mg/L**. Sources of nitrates include wastewater treatment plants, runoff from fertilized lawns and cropland, failing septic systems, or runoff from animal/manure storage areas. Nitrates make it hard for your red blood cells to carry oxygen. This can be dangerous for infants and some adults. Nitrates are a form of nitrogen, to include ammonia (NH_3), nitrates (NO_3), and nitrites (NO_2). Excess nitrates can cause hypoxia (low levels of dissolved oxygen) and can become toxic to warm-blooded animals at higher concentrations (10 mg/L or higher) under certain conditions.

Source: https://archive.epa.gov/water/archive/web/html/vms57.html

Lead: The EPA limit for lead is **15 ppb (0.015 mg/L)** but the maximum contaminant level goal is zero since it can bioaccumulate in the body. The most common sources of lead in drinking water are lead pipes, faucets, and plumbing fixtures. Certain pipes that carry drinking water from the water source to the home...household plumbing fixtures, welding solder, and pipe fittings made prior to 1986 may also contain lead.

Source: https://www.cdc.gov/nceh/lead/prevention/sources/water.htm

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

Source:https://www.epa.gov/sites/default/files/202104/documents/consumer_notice_lead_tap_water_results_mgl_ppm.pdf

Fluoride: The current maximum drinking water standard for **fluoride is 4.0 mg/L**. Fluoride can occur in drinking water naturally as a result of the geological composition of soils and bedrock. Some areas of the country have high levels of naturally occurring fluoride which can dissolve easily into ground water as it moves through gaps and pore spaces between rocks.

It is set to meet the current public health goal for protection against increased risk of crippling skeletal fluorosis, a condition characterized by pain and tenderness of the major joints. EPA also has a secondary standard for fluoride of 2.0 mg/L, which is recommended to protect children against the tooth discoloration and/or pitting that can be caused by excess fluoride exposures during the formative period prior to eruption of the teeth.

Source: https://www.epa.gov/sites/default/files/201510/documents/2011_fluoride_questionsanswers.pdf

Bradshaw Mountain Environmental makes no endorsements, recommendations for treatment methods, or conclusions. All information presented is from cited sources and we recommend individual research for your specific needs. The limits listed above are not enforceable for private residences and are for information only pertaining to water contaminants and human health.