

Wyoming Water Well Contractor's Licensing News

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Unexpected Artesian Flowing Well Conditions!

Artesian Well:

An artesian well is not necessarily a flowing well. Artesian implies there is a confining bed and the water level (potentiometric surface) of the well rises above the top of the aquifer (Figure 1). A flowing well means specifically that water flows out the top of the well without the use of a pump.

Sometimes artesian conditions are not discovered until they are found at the site while drilling. Flowing artesian conditions are realized when the borehole yields an instant flow (sometimes preceded by a dramatic loss in drilling fluid). Three steps should be taken when these conditions become evident: control the flow,

secure the casing or borehole, and protect the rig.

The flow may be reduced using different techniques which can depend on the timing; during construction or after construction and what type of aquifer you are in; confined or unconfined.

Managing Flowing Wells! Flow Control After Construction.

Uncontrolled flow from the well is undesirable and in many situations violates applicable codes. Water flowing from a well normally will not have sufficient volume and/or pressure to provide for the needs of the water system for which the well was constructed. A pump is required to provide the volume and/or pressure to meet the requirements of the water system.

When the well has a limited head, extending the existing water well casing a few feet can overcome the head. The water will fill the casing to a level below the top of the casing and the flow out of the well is stopped. In areas where freezing temperatures occur, the wellhead will have to be protected from the freezing.

In situations where the head is such that it is not practical to extend the casing to the required height but the flow and head is limited, a seal-type device can be installed in the casing to eliminate the water flowing out of the casing. Normally these sealing devices will have a smaller diameter pipe, with an in-line valve on the smaller pipe, penetrating

the seal device. This arrangement allows for the opening of the valve to allow water to flow from the well. The smaller diameter pipe provides a means for controlling the flow of water from the well and significantly reduces the head pressure on the sealing device. The sealing device is installed in the casing with the valve open. That allows for the water to flow from the well, which reduces the pressure from the well to "push" the sealing device out of the well. With the pressure reduced and the water being diverted away, the sealing device can be installed and affixed in place. Once the sealing device is secure, the valve can be closed and the water is stopped from flowing out of the well. If there is an approved use for the water flowing from the well, this arrangement will provide that option. Since there will always be water in the pipe from the valve down, that area will have to be protected from freezing. In situations where the flow is substantial, a valve can be affixed to the casing to control the flow.

See full article at NGWA.org

State Board of Examining Water Well Drilling Contractors and Pump Installation Contractors

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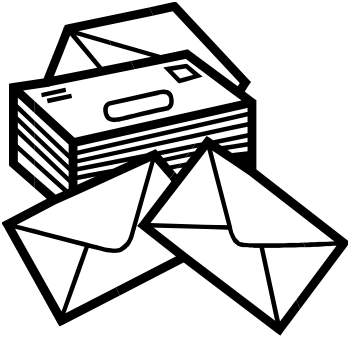
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Letter from the Executive Director



Recently I was asked about artesian wells and what can be done to control the flow. As you may have read on page one there are several factors that need to be considered but, this question was in reference to a well that was already constructed in an unconfined aquifer. I hope I helped with the information I presented on page one.

Casper was cancelled due to the winter weather. The meeting was rescheduled for April 14, 2016. We had a few new faces and some great discussion. Thank you to those who attended and gave input.

The Idaho Ground Water Association invited me to offer a presentation on Wyoming Rules and

Regulations on the 17th of March in Pocatello. It was a one day conference and I was able to meet some of Idaho's licensed contractors. The day was full of some great presentations. I look forward to the next time.

Until next month! Stay safe!

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DID YOU KNOW!

"Emergency Well Tube! "Don't Let No Power Mean No Water"

Without electricity to run the pump and no backup means to retrieve water from your well, it might as well be dry!

The Emergency Well Tube was designed to provide well owners with an essential backup tool to ensure that they have access to water in the absence of electrical service. There are similar products available from online retailers and auction sites, but these products require ALL mechanical components to be removed from the well casing. This just isn't realistic for the average well owner. Removal of pumps requires special equipment to avoid damage to piping during removal.

The user attaches a rope with a sturdy knot to the Emergency Well Tube and attaches the other end of the rope to a fixed object. The Emergency Well Tube is then lowered into the well casing until it reaches the static water level. The float valve then rises up and the tube begins to fill from the bottom. When enough water enters the tube, it will sink and finish filling from the top opening of the Emergency Well Tube. Upon retrieval, the weight of the water in the tube and gravity hold the float valve in the closed position keeping the water in the tube until the Emergency Well Tube is pulled from the well casing and the water is poured out into a clean bucket.

See full article with FAQ's at <http://emergencywelltube.com>

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New Licenses Issued.

Pump:
**Matt Sullivan, Matt's
Plumbing Service,
Dubois**

WELL:
**Preston McLagan,
Weber Drilling,
Jackson**

**Michael J. Taylor,
Hydro Resources,
Fort Lupton, CO**

Calendar

Continuing education opportunities for March and April: The codes in the first column are as follows:

WWWA – Wyoming Water Well Association

NGWA – National Ground Water Association

NWDA – Nebraska Well Drillers Association

CWWCA – Colorado Water Well Contractors Association

WARWS – Wyoming Association of Rural Water Systems

WWA- Wyoming Water Association

The topic, date, time and location are given. Please refer to each respective association's website for more information on how to register, and/or for future educational opportunities.

BIDP – Baroid Industrial Drilling Products

AGWT – American Ground Water Trust

SEDC – Shallow Exploration Drillers Clinic

ISWD – International School of Well Drilling

CPS - CPD Distributors

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CALENDAR OF EVENTS

April - May

AGWT	Educational Videos and Books	Website	www.AGWT.org
ISWD	International School of Well Drilling Online Courses	Website	welldrillingschool.com
NGWA	Groundwater Down Under: NGWA Intern. Brown Bag Series and Remediation	May 11, 2016	Online
WWWA	Spring CEU Class from 1 - 5 pm.	May 18, 2016	Gillette, WY

Next Board Meeting scheduled for September 7, 2016, State Engineer's Office, Cheyenne at 10:00 am.

Professionalism is: the skill, competence, or character expected of a highly trained profession.

Be a professional, call yourself a professional, work like a professional, and demand the same from everyone in your profession!