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DUAL ROTARY'S OVER-WASH CAPABILITIES

Advantages of using Dual Rotary

 **BOART LONGYEAR™**

DUAL ROTARY

OVERWASHING CAPABILITIES

Boart Longyear's Dual Rotary Overwashing technique washes over existing well casings to any depth. The process:

- Completely removes any seal or filter pack up to or beyond original diameter
- Creates a complete 100% seal
- Produces either an annular or borehole seal

ABANDONED WELL OVERWASHING

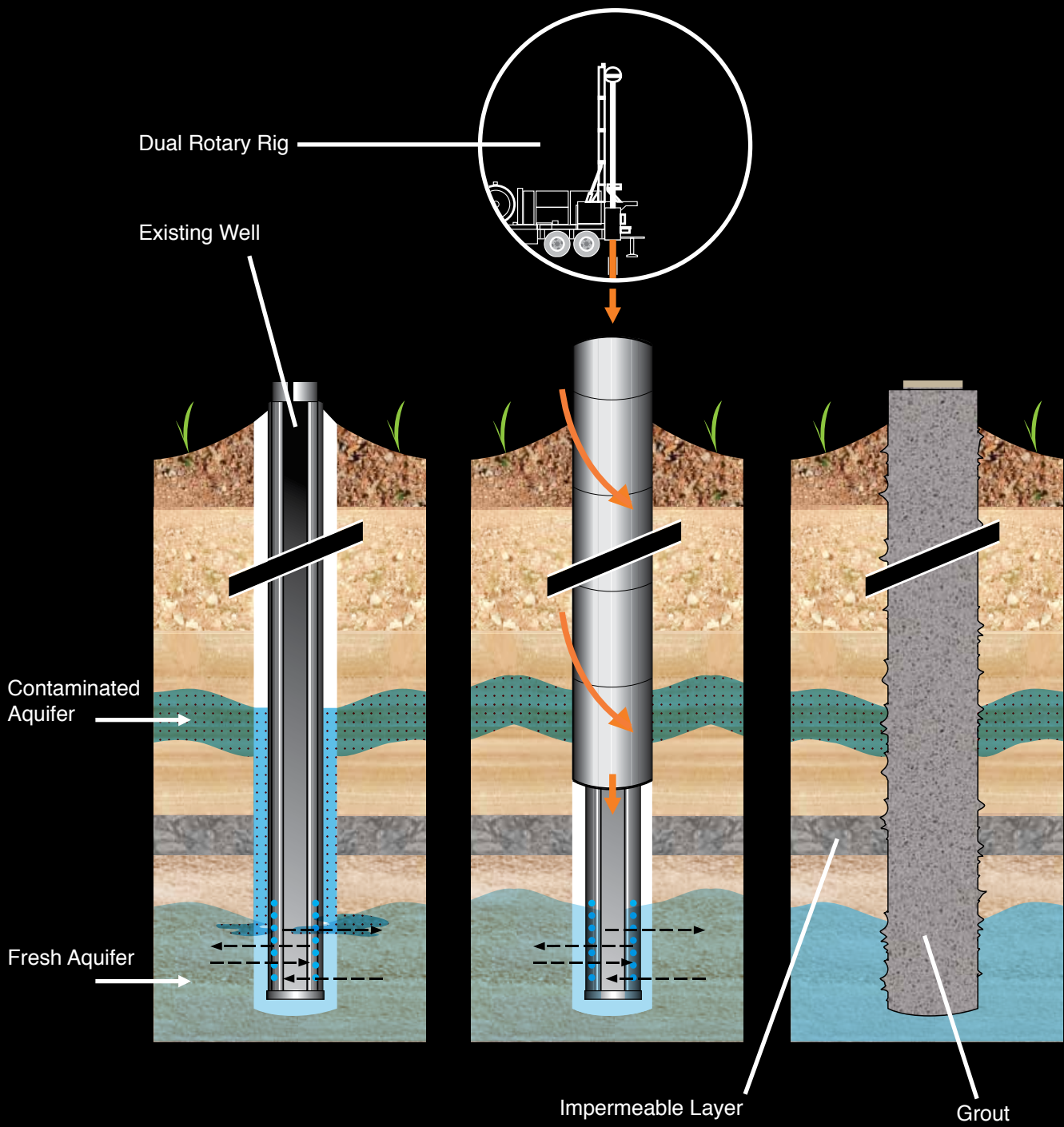
In many cases, multiple aquifers are contaminated due to a single well. This is caused by vertical communication between aquifers via water flow through and around the well casing. Traditional methods of abandonment typically leave the original sand pack around the well intact, which serve as a continued form of vertical communication.

- Overwash drilling advances a larger diameter casing over the original well, removing the entire gravel pack and any original annular material.
- The original well can be removed and the entire hole filled with grout.
- A new partial or complete annular seal can be installed around the existing casing.
- This process greatly reduces liability to the well owner.

WELL REPLACEMENT OVERWASHING

Boart Longyear's Dual Rotary Overwashing method is also ideal for Municipal wells that are either obsolete or breached. When relocation or new well permits are not available or likely, we can overwash existing wells, completely reconstructing them using the same borehole.

- Completely reconstruct the original or new well design
- Replace sanitary seal
- Replace partial borehole or casing / screen
- Prolong the use of a single well site
- Completely replace well



1. Contamination spreads through vertical communication with other aquifers.

2. Casing is overwashed (over original well) completely removing any seal or filter pack.

3. Entire annulus or borehole is grouted to the surface, effectively sealing off communication paths for contamination.

ARIZONA SUPERFUND SITE

SUPERFUND SITE / OVERWASH A 400 FT, 16 INCH WATER SUPPLY WELL

Project:

Superfund site in Arizona

Technical:

The project called for the decommissioning of a 400 foot, 16-inch water supply well in a contaminated aquifer.

Problem:

The contaminated aquifer was communicating with a clean aquifer, outside the casing within the annular space. Previous attempts were made to perforate and grout the inside of the well; however vertical communication on the back side of the casing was not stopped.

Solution:

Dual Rotary was used to overwash a 21-inch diameter casing around the well. This created a 2.5-inch annulus around the original 16-inch casing and 20" borehole, completely removing the old seal and annular material.

The new annulus was completely sealed with grout, effectively isolating the clean zone from the contaminated zone. The original casing was then filled with grout to create a completely encapsulated well.





U.S. OFFICE LOCATION

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Huntsville, AL

Peoria, AR

Upland, CA

Yuba City, CA

Ocala, FL

Indianapolis, IN

Northborough, MA

Flint, MI

Little Falls, MN

Marietta, OH

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New Ellenton, SC

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Fife, WA

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