



Diver-NETZ[®]

Wireless Groundwater Monitoring Networks



Diver-NETZ[®]

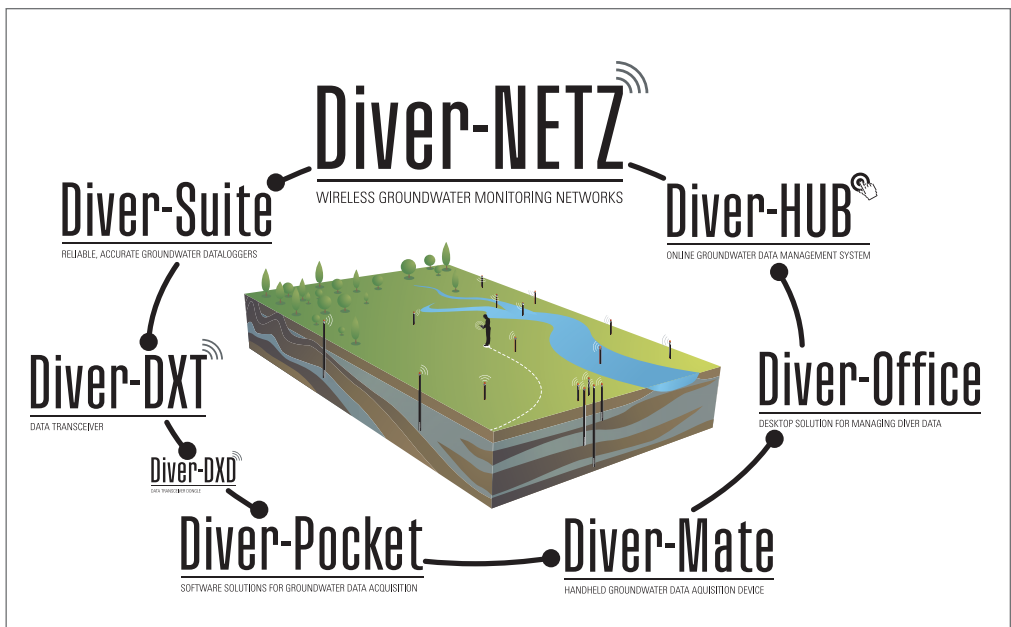
Monitor your groundwater without boundaries

A COMPLETE WIRELESS GROUNDWATER MONITORING SYSTEM

From wireless field data collection and recording, to project execution in the office, Diver-NETZ[®], from Schlumberger Water Services, is a complete network of first-class technologies that integrates superior field instrumentation with the industry's latest communication and data management capabilities. All Diver-NETZ components are designed to streamline project workflows, enabling you to effectively manage your groundwater resources for the long-term.

THE DIVER-NETZ ADVANTAGE

- Connect wirelessly to your groundwater monitoring networks
- Enjoy a complete solution of groundwater dataloggers, transceivers, acquisition instrumentation, and software
- Dramatically improve data collection in the field - up to 70% more efficient than traditional methods
- Completely expandable, built on reliable, industry proven technologies for improved data accuracy
- Virtually anyone can now collect groundwater monitoring data
- Manage, analyze, visualize, and report your monitoring data using the best technology in the industry



Diver-NETZ integrates a full suite of first-class technologies

- **Diver-Suite** - Achieve precise measurements of groundwater levels, temperature, and conductivity[†]. The Mini-Diver[®], Cera-Diver[®], Micro-Diver[®], CTD-Diver[®], and Baro-Diver[®] are industry recognized, offering reliability and accuracy.
- **Diver-DXT** - Acquire data and adjust Diver settings wirelessly. The Diver-DXT connects directly to Diver dataloggers in the well and instantly links to your handheld device.
- **Diver-DXD** - Wirelessly connect to the Diver-DXT in the field and instantly download Diver data. A detachable "antenna" offers secure data streaming to the handheld device or portable computer.
- **Diver-Pocket** - This Personal Digital Assistant (PDA) software offers a graphical user interface to find deployed Divers, adjust sample method/frequency, and visualize data.
- **Diver-Mate** - Plug-in, download, and store Diver data right in the field. Diver-Mate is a simple storage device that connects directly to Diver Data Cables.
- **Diver-Office** - Readout and program multiple Diver dataloggers in the office and prepare your data for advanced analysis using the Waterloo Hydrogeologic Software suite.
- **Diver-HUB** - Centrally view and share Diver data online. Diver-HUB facilitates storing, visualizing, and reporting via a secure, online data management service.



INSTALL THE COMPLETE DIVER-NETZ SYSTEM WHEN:

- Monitoring groundwater levels at municipal water supply wells
- Recording potential impacts from saltwater intrusion
- Studying impacts from mine dewatering
- Assessing agricultural use of groundwater for irrigation
- Examining water quality at sanitary landfills
- Investigating contaminated sites
- Recording pumping test drawdown to estimate hydraulic properties of aquifers
- Reporting effects of groundwater mounding from aquifer storage and recovery or irrigation
- Estimating ecological impacts influenced by changes in groundwater levels

WIRELESS MONITORING IN 3 STEPS

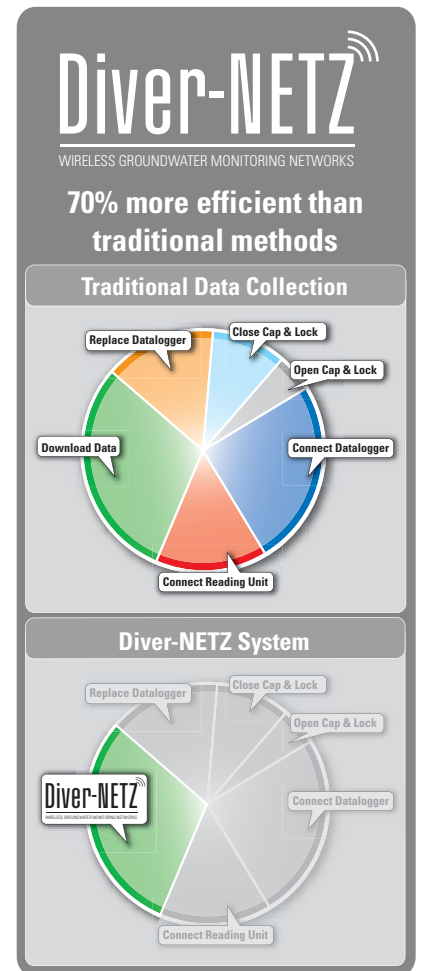
Modify Well Casing – Metal well casings can interfere with Diver-DXT transmissions. Adapt the well casing by drilling holes to accommodate Diver-DXT.

Deploy Diver-DXT – Choose from a selection of standard Diver-NETZ cable lengths, then customize each cable in the field to fit the well length, and connect to the Diver datalogger.

Get Your Data - Affix the Diver-DXT and cap to the well casing and plug Diver-DXD to your PDA (must have Diver-Pocket installed)

Once complete, Diver-DXT acts as a sentinel, continuously monitoring for the Diver-DXD to be in range (up to 150 meters). Once connected, the information is easily captured with the click of a button.

Long-term monitoring with Diver-NETZ delivers results



accelerate your project workflow from field to office

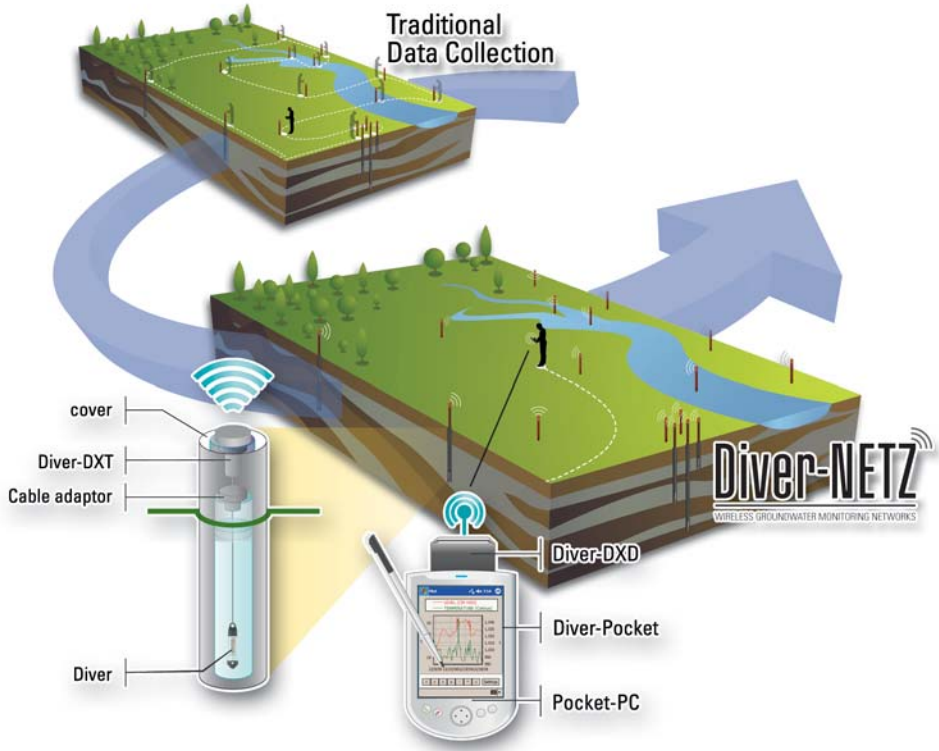
EXPAND YOUR DIVER MONITORING NETWORK - TO WIRELESS!

Diver dataloggers provide a reliable and accurate source of information for describing the groundwater flow regime. Now, with the introduction of Diver-DXT and Diver-DXD, you can modernize your groundwater monitoring network to a wireless environment.

From a distance, you can capture readings from multiple groundwater monitoring wells, in any weather condition, and without having to navigate to remote areas within the network.

Expect dramatic efficiencies during groundwater data collection and improve how you deliver your projects.

The Evolution in Groundwater Monitoring Networks



Micro-Diver

CTD-Diver

TECHNOLOGY PUT TO THE TEST

In the quest to prove real-life efficiency and reliability of Diver-NETZ over other technologies, three major pilot projects were conducted in 2006. Over the course of an entire year, a total of 75 Divers were deployed in the most challenging weather conditions in France, the Netherlands and Canada to monitor groundwater levels, saltwater conditions, and the migration pathways of contaminants.

From field to office, the main objective for the study was to obtain feedback from our customers on their experience using Diver-NETZ, including deploying Diver dataloggers, monitoring and acquiring data, and reporting results.

The results were astonishing. Diver-NETZ was up to 70% more efficient than any traditional data collection method. Contact us at sws-diver@slb.com to obtain the full results.

COMMUNITY-BASED MONITORING

As concern for the environment continues to increase, entire communities now depend on sustainable approaches to collect data, and monitor groundwater levels.

Diver-NETZ makes community-based programs simple to operate by providing individuals with tools that require limited technical or environmental expertise.

Anyone can now contribute to the protection of groundwater resources and participate in the sustainable planning process. Contact us at sws-diver@slb.com to learn about community-based programs.

Diver-NETZ

WIRELESS GROUNDWATER MONITORING NETWORKS

COLLECT
COLLABORATE
COMMUNICATE

From field to office, Diver-NETZ offers a complete network of advanced technologies to help water professionals effectively manage the full cycle of their groundwater projects. Collecting and assessing vital groundwater field data is now in the palm of your hands!

Diver-Suite

RELIABLE, ACCURATE GROUNDWATER DATALOGGERS

- Compact, reliable groundwater dataloggers comprised of several models
- Micro-Diver - compact, 18mm diameter, logs water elevation and temperature
- CTD-Diver - corrosion resistant, measures water elevation, temperature, and conductivity
- Cera-Diver - an ultra resistant, reliable option for monitoring in corrosive environments
- Mini-Diver - a low cost alternative for water professionals managing large networks

Diver-DXT

DATA TRANSMITTER

- Diver-Data EXchange Transceiver expands Diver dataloggers to a wireless solution
- Built-in power supply with up to a 5-year battery life (based on typical use)
- Standard lengths (1, 2.5, 5, 10, 20, 40, 160, 320 meters) with the ability to further customize lengths in the field
- Transmits data following AES-128 data encryption

Diver-DXD

DATA TRANSMITTER DONGLE

- Diver-Data EXchange Dongle wirelessly connects to Diver-DXT for data retrieval
- Operates with most PDA compact flash drives
- Powerful transmission of up to 150 meter range (may vary due to site conditions)
- Secure data transmission using AES-128 data encryption

Diver-Pocket

SOFTWARE SOLUTIONS FOR GROUNDWATER DATA ACQUISITION

- User-friendly PDA software designed to operate with Diver dataloggers in the field
- Facilitates on-site customization of measurement frequency and method
- In-field graphing of water elevation, temperature, and conductivity†
- Requirements: Windows Mobile 2002 or 2003 or Windows Mobile 5, USB Host CF Card

Diver-Mate

HANDHELD GROUNDWATER DATA ACQUISITION DEVICE

- A Diver "dedicated" data transfer unit designed for downloading logged data
- Cost-effective, minimizes the need for carrying laptops to the field
- MiniSD Card (2 GB) stores almost an unlimited number of full Diver memory reads
- Powered by an internal rechargeable battery (charge by USB port), with time to read more than 500 Divers

Diver-Office

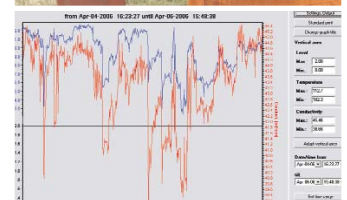
DESKTOP SOLUTION FOR MANAGING DIVER DATA

- Desktop solution simplifies readout and programming of the Diver in the office
- Built-in features include CTD-Diver Calibration Wizard, Barometric Compensation Wizard
- Export to various file formats for advanced analysis (eg. CSV, MON, NITG, etc.)
- Requirements: Windows 2000, XP and Vista, USB port and one Serial COM port

Diver-HUB

ONLINE GROUNDWATER DATA MANAGEMENT SYSTEM

- Quick, online access and retrieval of Diver data
- Convenient uploading of Diver data via the web
- On-the-fly visualization of site water level conditions
- A central data repository for groundwater monitoring networks



Collect | Collaborate | Communicate

