



Customer Requirements

An automatic water pumping station requires monitoring of remotely located automatic pumps. Previously chart recorders were used to log various properties such as flow and pressure, but this requires too much manual effort to maintain. It has also become necessary in the event of operational failure, to send warnings to mobile phones carried by maintenance personnel so that any problems can be rectified as soon as possible.



Pumping stations: Autonomously pump water from remote areas with little human interaction.

dataTaker DT82E

- 1 A cost effective data logger designed with the environmental market in mind
- 2 Up to 6 analog ($\pm 30V$) sensor inputs
- 3 Built-in web and FTP server allows for remote access to logged data, configuration and diagnostics
- 4 Modbus slave functionality allows connection to SCADA systems
- 5 Smart serial ports capable of interfacing to RS232 and SDI-12 sensors or modems
- 6 Rugged design and construction provides reliable operation under extreme conditions
- 7 Includes USB memory stick support for easy data and program transfer



dataTaker Solution

Equipment

dataTaker DT82E Enviro-logger
dataTaker SMSX GSM Modem

Sensors

Water level
Flow rate
Pressure
Current

Implementation Notes

dataTaker DT82E data loggers can be installed in place of chart recorders at automatic pumping stations to monitor pump operation and performance. Operational limits can be entered into the dataTaker so that if these levels are exceeded alarms are generated. When connected to a GSM modem such as the dataTaker SMSX, these alarms can be transmitted as SMS text messages via the mobile network to mobile phones worn by maintenance staff. Alarms include reporting when tank levels are too low, problems in the chlorine rooms, pump operation, etc.

To further reduce the manual effort required for system maintenance, the dataTaker DT82E also collects and stores data to memory in lieu of paper (as used in a chart recorder). This results in less wastage and longer recording periods. Up to 10,000,000 readings can be stored at any one time which can be downloaded to a computer for visualization, reporting, etc