INTRODUCTION

Other changes in groundwater contamination levels, such as changes in flow pattern in groundwater can be detected by means of multiparameter probes. These monitors permanently monitor the measuring wells with an online vertical lag in this paper a number of these devices are presented, where chemical and physical parameters were at first obtained using multiparameter measuring devices and have been confirmed afterwards by chemical analysis. The results in this paper present plant samples, biological and environmental systems, etc.

MATERIAL AND METHODS

Groundwater monitoring has been carried out through a set of multiparameter probes that are able to detect water level, electrical conductivity, temperature, dissolved oxygen, ion concentration, redox potential and pH. The frequency of data capture was performed range from 10 minutes to 24-hour intervals. Early detection of physical anomalies through these instruments is easier to be monitored and validated by chemical determinations in water samples.

RESULTS

Groundwater monitoring has been carried out through a set of multiparameter probes, that are able to detect water level, electrical conductivity, temperature, dissolved oxygen, ion concentration, redox potential and pH. The frequency of data capture was performed range from 10 minutes to 24-hour intervals. Early detection of physical anomalies through these instruments is easier to be monitored and validated by chemical determinations in water samples.

CONCLUSIONS

The results clearly indicate that monitoring of groundwater parameters such as temperature, electrical conductivity, pH, dissolved oxygen and ion concentration can be used to detect and determine leading phenomena of flow and transport of water at early stages. This procedure is a very useful tool to identify and select those monitoring points where data can be used for further investigations (for instance through chemical analysis) and, in general, for the optimization of monitoring networks.

-SPATIAL PATTERN-

-Spatial pattern-

-GROUNDWATER AND NATURAL IRON-

-formation.

-Groundwater and natural iron-

-Connection between river and water table-

-Connection between aquifer and production cycles-

-Connection between groundwater and production cycles-

-VERTICAL CONTAMINATION-

-Vertical contamination-

-GROUNDWATER MONITORING OF CONTAMINANT SPECIES-

-Groundwater monitoring of contaminant species-

-References:


5. Silva Bertoldo, Nicola De Zorzi, Roberto Pedron, Andrea Soltani. Sinergeo srl. Vicenza, Italy. Mail: info@sinergeo.it - www.sinergeo.it