HUMMER 22

The geomagnetic scanning device HUMMER 22 is a multi-uses system which detects and search for data, sewage tubes, cables of electricity and telephone land lines.

This device is characterized by electronic advanced programs which work with the unit of processing to give results and data in a simple way.

The electronic programs show the scanned magnetic field in an advanced 3D system.

Studying the state of the project of developing and constructing in a historical area, and finding tubes in the ground by the use of HUMMER 22

Goals:

1. Drawing a map for a (Y) sewage tank connected to two houses.

2. Determining a location for an old sewage tank and making a connection between it and the new one.

3. Determining the direction of the initial electric tubes network from the stable to inside the house.

4. Determining 3 main lines for irrigation to the major source of water
5. Determining the places of water leakage from which water is poured out of them, where the low water pressure from the beginning of the main water valve, and so the pressure increases by the end of the detecting.

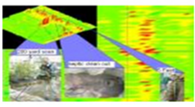
6. Determining the difference between the major center of irrigation water and the reserve by distributing water.

7. System of sequencing the infiltrate which determines the bottom of the irrigation sprinkler's head to the consumed or surplus water.

Tools Used:

1. The HUMMER unit with 20 sensors connected to the device.

2. Metal device for vibration from SSP series.
3.

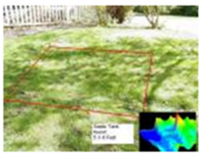


- Initial Scanning

Start with cleaning the impurities and follow the connection (Y) and the distance of the original tank, dig using a shovel to the target (Y) till you notice the signs of the tubes, after the first cleansing besides (Y) you will find a slow progress in digging with hands, so use a crusher stick for 8 feet to reach for the expected targets.

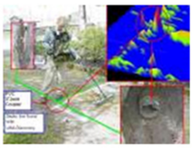
- The 2nd Scanning

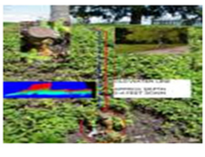
A connection to (Y) with a new sewage tank will lead to abandoning the old tank and keeping on the flow of wastes to the tank's lines. Determine the original tank in order to the best conditions for the new sewage tank floor.



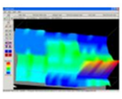
- The 3rd Scanning

Determine 3 main lines as a source of irrigation water valve. Search accurately with the device in a direct position, and 20 sensors appear a PVC line in the form of a red straight line which can be distinguished from the colors of the background. At the end of the line (irrigation line), the red straight line stops, and the colors becomes as they were in the beginning. Find a valve box and several lines run from the same line which cuts the way to the irrigation field.

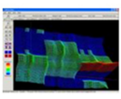




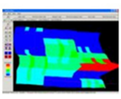
A layered analytical scanning using a 3-D program shows a sewage tank and water tubes lines



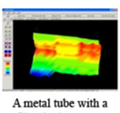
Photographing the line of water tubes



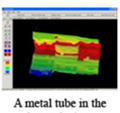
Photographing the tube in the shape of wires



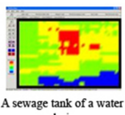
Photographing the details of the tube



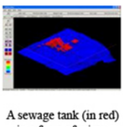
A metal tube with a filter in the center



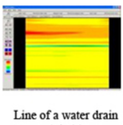
A metal tube in the form of wires



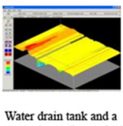
A sewage tank of a water drain



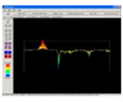
A sewage tank (in red) in a form of wires



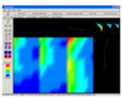
Line of a water drain tank in blue



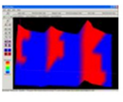
Water drain tank and a metal tube in the form of wires



The tank line and the end of the metal tube



Irrigation field of water drain



Irrigation field of water drain shows the strongest point