

Petrol Station Groundwater Monitoring

THE SCOPE OF PROJECT

Petrol station had a leak contaminating groundwater. After repairing the leak and remediating the site an on-line monitoring system was put in place to make continuous follow up of the site in case new contamination appeared.

THE CHALLENGE

Petrol station is a high dense city and contamination affected underground a parking and buildings threatening human health. After repair and restoration, it was important to make sure a “reboot” of the contamination did not appear. Bi-monthly manual monitoring was initially requested by Regulators. After showing SST wireless monitoring system, Regulators decided to accept this method.

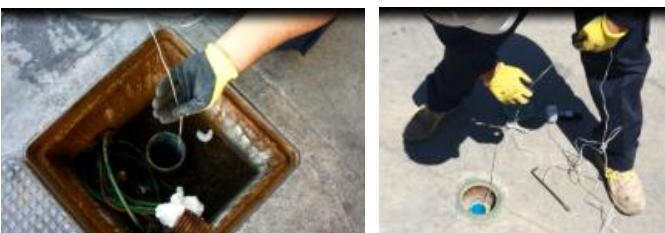


3 wells monitored with SST wireless devices

THE SOLUTION

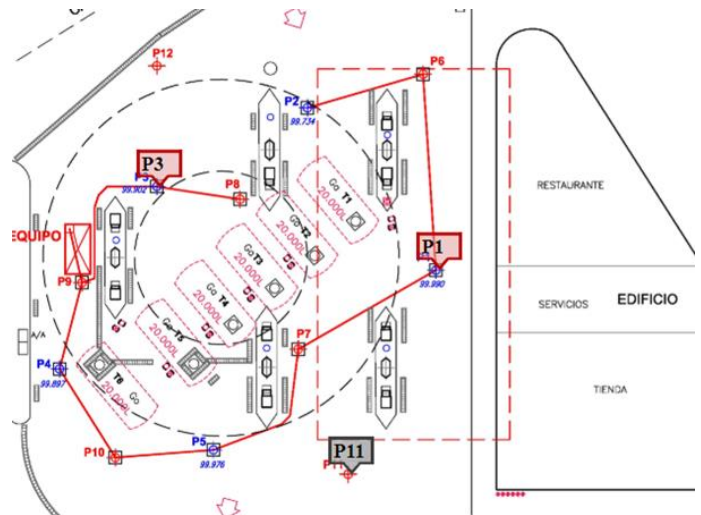
The first step was to make sure remediation was completed and no hydrocarbons were present in the groundwater. Three wells were selected for control. 2 were 2” and one was 4”. Sensors were installed in the wells and covered with the standard metal lid of the chamber. After, repeaters were installed as close as possible to their sensors ensuring a good radiofrequency communication. Finally, the gateway was in place and checked the system worked properly. Total installation took 1,5 hours.

Installation of sensors in 4” and 2” wells



THE OUTCOME

Three weeks after the implementation of the system alarm was triggered in “P3” and “P1” showing initial reboot and mobilization of the old spill. This allowed for quick intervention and recovery measurements where put in place. After sensors were put back in place to keep monitoring of any new alert. Couple of times alarm were triggered and corrective actions were taken following the introduction of sensors again.



SST sensors saved time and money allowing for a very quick detection of a reboot and correction activities could be taking at the beginning of the episode.

Sensor in well “P11” still kept monitoring in case a reboot also occurs in that area. System has been working for over 3 years without alarm in this well.