

REGENESIS Soil Oxidant Demand Testing

Soil Oxidant Demand (SOD) testing can be used to assess the suitability of an *in situ* chemical oxidation (ISCO) approach at a given site and further estimate the amount of oxidant consumed by the soil matrix during ISCO applications. REGENESIS offers SOD testing for their ISCO product lines: PersulfOx[®], a persulfate-based oxidant, and RegenOx[®], a percarbonate-based oxidant. The quantitative SOD test measures oxidant consumption by any oxidant sinks present in the soil matrix (ex. reduced minerals, organic materials). The results of the SOD test can be used alone or in combination with site characterization data to aid in determining the oxidant dose required to successfully remediate a given contaminated aquifer.

REGENESIS offers oxidant demand testing services at their R&D laboratory in Southern California. The cost of SOD analysis is \$400 for the first soil sample and an additional four samples can be run at a discounted price of \$150 per sample. The pricing cycle starts over after every 5th sample (i.e. the 6th sample will cost \$400 and samples 7-10 will cost \$150 each).

The oxidant demand for each soil sample will be determined by a batch test method using site soil with either site groundwater or distilled water. The oxidant is allowed to react with the soil matrix for a finite time, then the residual oxidant concentration is measured. All samples are kept in an incubator set to 15°C, which is representative of a typical groundwater temperature. Test results are reported in units of g/kg (grams of oxidant consumed per kilogram of soil).

Soil and Groundwater Requirements

- 500 g site soil
- 1 L site groundwater (optional)

Cost of SOD Test

- \$400 per soil sample
 - \$150 per sample for up to 4 additional samples (Pricing cycle starts over after every 5th sample)

Sample Shipping Info

Samples are to be shipped overnight in a cooler packed with wet ice or ice packs. All samples for treatability studies must be sent with a REGENESIS COC (chain of custody) form to the address below. Sampling containers and coolers will be provided by REGENESIS upon request. HDPE containers are recommended to decrease chance of breakage during shipping.

Shipping/Contact Information

REGENESIS Lab
1011 Calle Sombra
San Clemente, CA 92673
949.366.8000
lab@regenesisc.com

For additional testing services offered by REGENESIS, please see "REGENESIS Treatability Testing" on our website.