

Persulfate Soil Oxidant Demand Testing

Soil Oxidant Demand testing, or SOD, can be used to estimate the amount of oxidant consumed during persulfate-based in-situ chemical oxidation (ISCO) applications including PersulfOx®. The test is a quantitative measurement of the amount of sodium persulfate consumed by reactions with the soil matrix over time. SOD testing results are reported in units of g/kg (grams of persulfate consumed per kilogram of soil). The results of SOD tests can be used alone or in combination with site characterization data to estimate the quantity of sodium persulfate required to remediate a given contaminated aquifer.

Regenesis offers SOD testing services at our laboratory in southern California. The cost of each SOD analysis is \$400 for the first soil sample. Additional samples can be run at a price of \$150 per sample. This testing requires 500 grams of site soil. HDPE containers are recommended to decrease chance of breakage during shipping. Samples are to be shipped overnight in a cooler packed with wet ice or ice-packs. Standard turnaround time is 4 weeks upon sample receipt.

The persulfate SOD for each sample soil will be determined by a batch test method containing site groundwater (or distilled water) and site soil. The water phase, dosed with sodium persulfate, will be sampled after 48 hours and analyzed for persulfate concentration. All samples will be kept in an incubator set to 15°C, which is representative of a typical groundwater temperature.

All samples for SOD analysis must be sent with a Regenesis COC (chain of custody) form to the attention of the contact listed below.

Soil and Groundwater Requirements: 500 g of site soil

1 L of site groundwater (optional)

Cost of SOD Test: \$400 per soil sample, \$150 per additional sample

Shipping/Contact Information: Regenesis Lab

1011 Calle Sombra San Clemente, CA 92673

949.366.8000 lab@regenesis.com

P: 949-366-8000 / F: 949-366-8090 / Hours: M-F 8-5pm, PST / www.regenesis.com

CHAIN OF CUSTODY FORM

Step 1) Alert your Regenesis Sales Representative of the shipping and arrival information of your samples.

Regenesis Lab
1011 Calle Sombra

Ship samples to:

Step 2) Send this completed Chain of Custody form along with the samples.

				San Clemente, CA 92673 949.366.8000
Consulting Firm				
Project name				
=				
Regenesis technical man	nager or contact			
Sample Name	Date	Туре	Analysis	Notes
+ specify "S" for soil or "W" for	r water			
Please send a copy of this C lab@regenesis.com Fax: 949.366.8090	OC by fax or email to	Regenesis.		
For lab use only:				
Condition upon receipt (include Acceptable Unacceptable	es completeness of CO			
Received by:				te Received: