

OMAN GREEN AWARDS 2011

NOMINATION FORM

Instructions for completing the nomination form:

1. Please use a separate Nomination Form for each award category.
2. You may attach extra paper as necessary
3. In the event you attach photographs, Statistical Tables and Reports to support your nomination they should be clearly labeled and marked
4. Please note that it is mandatory to provide two independent referees for the Nomination to be considered.

Organization Details:

Organization Name

(1) Sultan Qaboos University (SQU);
(2) Japan Cooperation Center Petroleum (JCCP); and
(3) Shimizu Corporation, Japan

CR No.

Organization Type (Business/NGO/Gov)

(1) government, (2) non-profit organization, (3) business

Website

(1) <http://www.squ.edu.om/>,
(2) <http://www.jccp.or.jp/english/>,
(3) <http://www.shimz.co.jp/english/index.html>

Location /Address

(1) Al-Khoudh, Oman, (2) Tokyo, Japan, (3) Tokyo, Japan

Award Category

Green Research Award/Green Innovation Award

Project Details:

Project Title

Joint Study on Evaluation & Remediation of Oil Contaminated Groundwater in Oman

Location of Project

Batinah Region

One Line Description of Project

Oman/Japan technical cooperation for the investigation and treatment of oil-contaminated groundwater

Effectiveness

What were your goals?

To identify and demonstrate suitable investigation and treatment techniques of oil-contaminated groundwater sites in Oman.

How have you measured your success?

Through detailed site investigation work and development of suitable treatment systems that were successfully operated/demonstrated at two diesel-contaminated sites. At the first site, benzene gas in soil was reduced to zero, and total petroleum hydrocarbons were reduced to below 0.5 mg/L in groundwater. At the second site, 400 liters of diesel were removed from the groundwater. The work included development and operation of a 75 cubic meter per day capacity flotation/filtration/adsorption treatment plant, and the installation and regular groundwater sampling and analysis of 87 new and 72 existing monitoring wells at five different locations.

Innovation & Creativity

How were innovative methods, strategies or ideas applied?

Combined different treatment technologies, i.e., air-sparging, soil vapor extraction, pump & treat; in a single system, for an unconfined heterogeneous aquifer. Air-sparging and soil vapor extraction techniques are normally only employed for homogeneous aquifers

Impact

How has the project/initiative/work motivated others to contribute to a greener Oman

In addition to investigating and cleaning a contaminated site, the project increased awareness, built-up appropriate experience, and developed specialized capabilities of relevant local organizations such as Ministry of Environment and Ministry of Defense, as well as SQU, to more effectively handle oil-contaminated groundwater sites throughout the country.

Originality and Leadership

How has the nominee demonstrated vision, foresight and persistence?

The project team recognized the serious problem of fuels leaking from inadequate storage facilities and contaminating precious groundwater resources in the water-scarce environment in Oman. The project contributed to the development of local expertise on investigation and treatment techniques for oil-contaminated sites throughout Oman. Project identification was



conducted during 2000-2001, clarifying the importance of this groundwater project. Based on the findings of the project identification stage, Phase I of the project was initiated in 2001 and completed in 2005. Discovery of an adjacent contaminated site during Phase 1 led to proposal and implementation of Phase 2 of the project, which ran from 2005 to 2007. After Phase 2 was completed, due to the value of continuing such work, operation of the treatment system was continued from 2007 until 2011, through other funding.

Continuity & Sustainability

How sustainable is the initiative carried out?

Explain how it will be effective in the long term Oman is heavily reliant on groundwater resources for its water needs. Ensuring that such resources are available for continued use is crucial to sustainable development pursued by the Government of Oman.