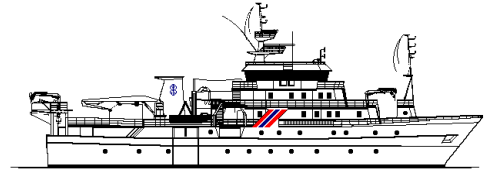


Country: Angola				
Research vessel: R/V DR. FRIDTJOF NANSEN				
Survey number: 2009404				
Number of days: 15				
General objectives: Marine Environmental Survey of bottom sediments, fauna and selected physical and chemical compounds in Cabinda and Soyo				
	Port	Date	Coverage	Specific objectives
Departure	Luanda, Angola	14 april 2009	Angola	<p>The monitoring survey will hopefully enhanced the understanding of the nature and extend the knowledge of how the offshore oil activities can affect the marine ecosystem. This first survey will hopefully contribute with valuable information especially on the benthic communities and levels of contamination by hydrocarbons and heavy metals in the sediments. The Angolan Multisectoral Group of Experts has divided activities in two phases:</p> <p>1) The first phase is to Elaboration the Angolan Environmental legislation for Monitoring of offshore oil activities. The Ministry of the Urbanism and Environment coordinates this activity with assistance from the Ministry of Petroleum and Ministry of the Fisheries.</p> <p>2) The second phase is the Monitoring Strategies which is coordinated by the Ministry of Fisheries (National Institute of Fisheries Research).</p>
Arrival	Soyo, Angola	28 April 2009		
Cruise leader: Bjørn Serigstad				
Participants:				
<p>Sediment sampling at Dr. Fridtjof Nansen: Lia Neto Sausa, Silvana Faria, Hélia Dinah Guise da Piedade, Irene Bernardo Mosambique Paulo André De Sausa Coelho, Domingos Pedro, Florencio Esteveao André (INIP), Supervised by Gisle Vassenden (UNIFOB AS) and Bjørn Serigstad (IMR)</p> <p>Seabed mapping with multibeam: Alexey Andrew (Elcom/Marimeter) and Atle Lagestrand (Statens Kartverk Sjø), Helder Rufino da CONCEIÇÃO (SAME) and Salustiano Francisco Pinto FERREIRA (Ministry of Transp)</p> <p>From IMR: Bjørn Serigstad (cruise leader), Magne Olsen, Tore Mørk, Jarle Kristiansen</p> <p>From Chevron: Gary Wolinski, Stuart Gowing (Servtech), David surveyor (Sonamet), Neil Whitehead,</p> <p>From Sonangol Benjamin surveyor (Fugro)</p>				
Summary of the results:				
<p>In Cabinda, the sediment consisted of very soft clay and silt. . Even with the light version of the 0,1 m² van-Veen grab, the sediment was in most cases compressed under the lid. In Soyo the sediment in the area of Palanca consists of sand and stones. We used a heavy 0,1 m² van-Veen grab with extra weights in this area, but even with this grab, it was difficult to get samples at some sites that meet the acceptance criteria. The sediment was very heterogeneous. In Cabinda there were observed some oil in the sediment close to Lomba (300 m North-west), Wamba Bravo (300 North) and 1000 m west of Takula Oscar. It was observed mostly Polychaeta, Crustacea, Mollusca, Sipuncula and some Echinodermata in the samples. It seems to be more animals in the samples from Soyo.</p> <p>Seabed mapping was performed in two areas, one in a relative flat area in Cabinda and one in the Congo river canyon.</p>				





NANSEN PROJECT



Report: status: final References:
NORAD – FAO PROJECT 2009404, CRUISE REPORTS "DR. FRIDTJOF NANSEN", **MARINE ENVIRONMENTAL SURVEY OF BOTTOM SEDIMENTS IN CABINDA AND SOYO PROVINCE, ANGOLA, Survey of the bottom fauna and selected physical and chemical compounds in April 2009**, Institute of Marine Research, Norway, UNIFOB AS, SAM, Norway, Instituto Investigaçao Marinha, Angola, Ministry of Petroleum, Angola, Ministry of Urbanismo e Ambiente, Angola, Agostinho Neto University, Angola, Ministry of Transportation, Chevron, Sonangol.

Constraints/Comments:

