

VISCOUS OIL PUMPING TECHNOLOGY AND ANNULAR WATER LUBRICATION TECHNIQUES

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Abstract*. Great advancements have been made with the tools and techniques available for responders to pump extremely high viscosity oils and emulsions. The Joint Viscous Oil Pumping System (JVOPS) workshop in December 2003 demonstrated to the oil spill response industry that existing pump technology could be used to transfer very high viscosity oils over operational distances and at safer discharge pressures by employing simple techniques and a relatively small investment in new technology. Industry has started to implement many of the recommended upgrades and improvements to the existing inventory. Modern pumps, with higher torque motors and integrated Annular Water Injection technology are making their way into the market. However, there is still work to be done to enable responders to get the maximum benefit from these techniques. This presentation will review the results from JVOPS and the current state of the art of positive displacement Archimedes' screw pump design and annular water lubrication systems. It will also highlight some areas in need of further development.

Keywords: pumping technology, oil spill response, lubrication techniques

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* Full presentation available in PDF format on CD insert.