

Hydrocarbon management

HM 93

A guide to manual sampling of hydrocarbon liquids

HM 93
A GUIDE TO MANUAL SAMPLING OF HYDROCARBON LIQUIDS

First edition

January 2020

Published by
Energy Institute, London

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Registered charity number 1097899

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The EI gratefully acknowledges the financial contributions towards the scientific and technical programme from the following companies:

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Nexen CNOOC	Vitol Energy
Ørsted	Woodside
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Phillips 66	

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ISBN 978 1 78725 166 3

Published by the Energy Institute

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FOREWORD

This publication is issued by the Energy Institute (EI) Joint Sampling Work Group (JSWG) which consists of representatives from the EI Hydrocarbon Management Committee (EI HMC), the EI Test Methods and Standardisation Committee (EI TMS) and the aviation Joint Inspection Group (JIG).

The JSWG was established to produce guidance relating to manual sampling to supplement and complement the requirements of the various sampling standards and test methods. The guidance documents produced, including this document, are subject to approval of the groups noted above which comprise technical specialists representing oil companies, equipment manufacturers, service companies, terminal and ship owners and operators.

The EI encourages international participation and when producing publications its aim is to represent the best consensus of international expertise and good practice.

The guidelines in this publication are recommended for general adoption but should be read and interpreted in conjunction with safety, environmental, weights and measures, customs and excise and other regulations in force in the particular country in which they are to be applied. Such regulatory requirements have precedence over corresponding clauses in this publication except where the requirements of the latter are more rigorous, when its use is recommended. Users should also consider any contractual constraints that may apply.

Although it is believed that adoption of the recommendations of this handbook will assist the user, the EI cannot accept any responsibility, of whatsoever kind, for damage or alleged damage arising or otherwise occurring where this document has been applied.

It is the intent of the JSWG to review this document regularly and to update it as required. Suggested revisions are invited and should be submitted to:

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ACKNOWLEDGEMENTS

The EI wishes to record its appreciation of the work carried out by the following individuals:

Abid Dunghawala	Inspectorate
Alister Jackson	ExxonMobil
Anthony Kitson-Smith	Vitol
David Bleser	
Harry Read	
Karl Peakall	Chevron
Kevin Bower	BP
Malcolm Aylieff	Shell
Mark Harrison	Intertek
Martin Barnes	BP
Michael Green	Intertek
Naeem Javaid	Lloyd's Register
Paul Harrison	Melvcon
Paul Hebb	Phillip66
Pete Rooney	
Ravinder Sharma	Marine Cargo Experts
Richard Couling	AmSpec
Steve Allen	Shell
Steve Aylieff	SGS
Steve Robinson	Chevron
Tim Wilson	Lloyd's Register
Bruce Nicholls	13N Oil Consulting (Editorial)
Jim Crighton	Energy Institute (Editorial)
Kerry Sinclair	Energy Institute (Editorial)
Kishan Kansara	Energy Institute (Editorial)
Rattanjit Gill	Energy Institute (Editorial)
Richard Heins	Energy Institute (Editorial)

The EI would also like to thank the EI's Microbiology Committee; Shell P&T Lab Pacesetting Group for permitting the committee to adapt Section 6.8 from FPM Sampling Compressed and Liquefied Petroleum Products, Good Practice Guide; UK Sampling Gauges for providing images, and the individuals who made comments during review and ballot stages.

1 INTRODUCTION

Anyone involved in oil production, transportation, refining, storage or distribution will be aware of the importance of sampling and testing to ensure that crude oil and products meet the required specifications. In addition to quality testing for fuels etc., tests also provide the basic density (and sometimes water and sediment content) information necessary for calculation of quantities for custody transfer.

Whilst testing is often a complex business involving sophisticated analytical methods and equipment, this testing is wholly reliant on the 'quality' of the samples supplied for testing – whether they are representative, free of contamination and have maintained their integrity, see Figure 1.

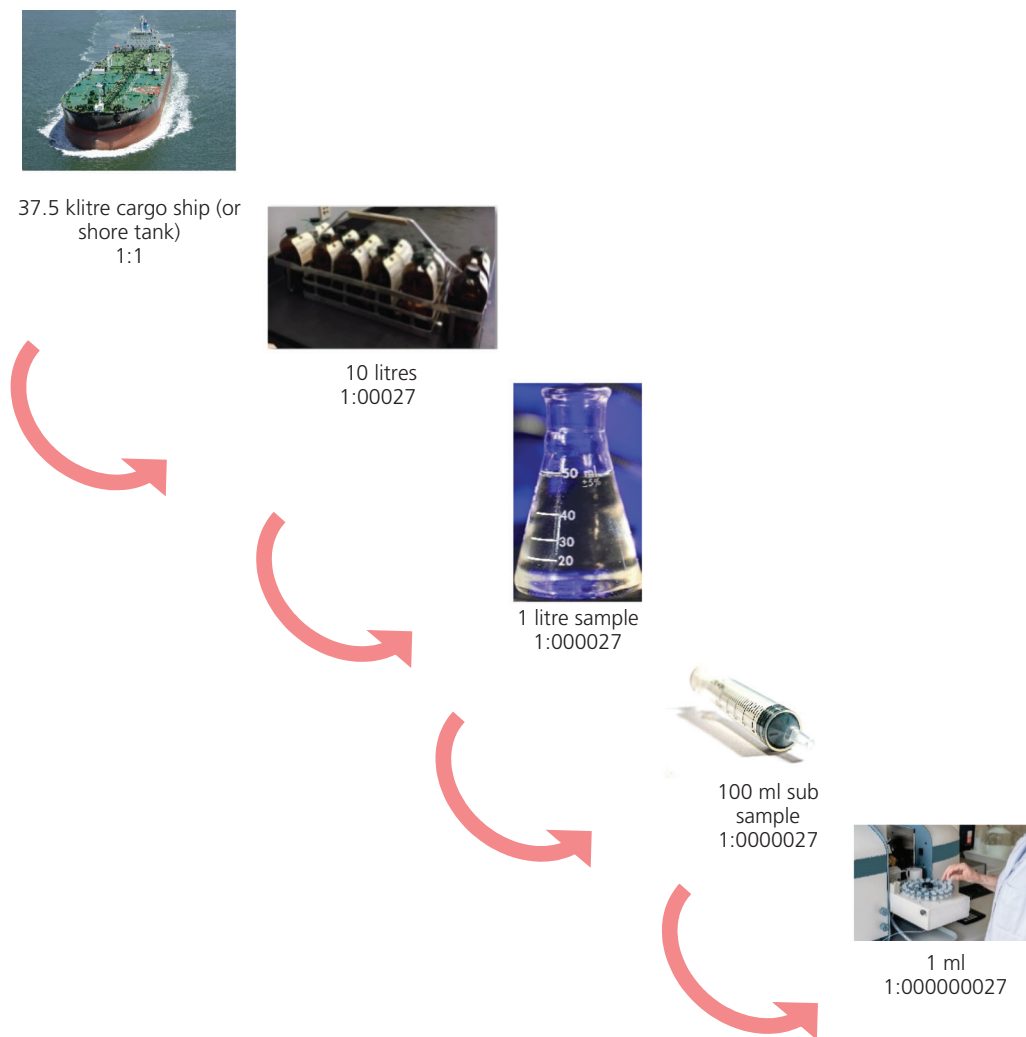


Figure 1: 100 ml subsample Ratio of samples from a 37.5 cbm oil tanker to 1 ml sample for testing