DailyDrilling Report (DDR)

version 1.2



Documentation

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# Version history

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| --- | --- | --- |
| **Version number** | **Version date** | **Created by** |
| 0.2 | 08.06.2012 | Kari Anne Haaland Thorsen |
|  |  |  |
|  |  |  |
|  |  |  |

# Reference documents

Please see the following documents for more information. Documents are sorted by relevance, where most relevant on top.

|  |  |
| --- | --- |
| **File name** | **Description** |
| [DDRMLv\_1\_2\_1.xsd](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/DDRMLv_1_2_1.xsd) | The final v.1.2. XSD schema where some of the new elements are mandatory. |
| [sub\_abstractSubstitutionGroup](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/sub_abstractSubstitutionGroup.xsd) | Used by the XSD schemas (both DDRMLv\_1\_2\_0.xsd and DDRMLv\_1\_2\_1.xsd). For an xml report to be valid correctly this document needs to be stored in the same directory as the XSD schema that is used for validation. |
| [ExampleReport.xml](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/ExampleReport.xml) | A DDR 1.2 xml test file. This is a complete report according to the version 1.2. requirements |
| [ExampleReportPDFOutput](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/ExampleReportPDFoutput.pdf) | The PDF associated with the xml file. This is the PDF that is generated by the EPIM ReportingHub. |
| [DDRMLv\_1\_2\_1\_Documentation](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/DDRMLv_1_2_Schema_Documentation.doc) | This is a documentation of the xml schema. |
| [Change\_log\_110\_to\_120.doc](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/Change_log_110_to_120.doc) | This document lists the logged changes that have occurred from version 1.1.0 to version 1.2.0 of the Daily Drilling Report standard |
| [SemanticReport (directory)](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/SemanticReports/) | Contains files that give additional information about the semantics in DDR, modelling issues and its relations to the PCA reference data library. |
| [DDRMLv\_1\_2\_0.xsd](http://drilling.posccaesar.org/svn/standards/DailyDrillingReport/1.2.0/DDRMLv_1_2_0.xsd) | XSD schema to be used by NPD and ERH for validation. The v.1.2. XSD schema where all new elements are optional. |

All files can be downloaded from: <http://drilling.posccaesar.org/browser/standards/DailyDrillingReport/1.2.0>

Files related to prior releases can be downloaded from: <http://drilling.posccaesar.org/browser/standards/DailyDrillingReport>

# Introduction

The intention of this document is to provide a simplified description of the 1.2 version of the standard XML Schema for daily drilling reporting on the Norwegian Continental Shelf.

This document gives an explanation of the use of, content and relations between the different documents that are part of the new version of DDR (DDR v.1.2).

# About the daily drilling report

## The overall picture

As of October 1st 2009 it was possible to distribute daily drilling reports on XML format to license partners via LicenseWeb. From 28 February 2011, License2Share (L2S) replaced LicenseWeb. Both XML documents (structured data), and human readable reports in PDF format are available to partners and operators in L2S. In addition, the Norwegian authorities (<http://www.ptil.no> ) require the daily drilling reports submitted via the Web services or Web browser interface they have provided since February 2008. Up until now reporting to partners and the Norwegian authorities has been carried out as separate uploads, one to the authorities and one to L2S. In 2012 both these uploads will be replace by a single upload to EPIM ReportingHub (ERH). ERH will handle the upload to both the authorities and L2S. For more information about ERH see the section named ***EPIM ReportingHub***, page 13.

## DDR XML schemas

This version of the DDR upgrade comprises of two XSD schemas. Following are given a detailed explanation of their differences and use.

To be able to provide a smooth transaction from v.1.1 to v.1.2., two xml schemas has been develop as part of this deliverable.

### **DDRMLv\_1\_2\_1**

**This is the final version of the XSD schema in the v.1.2 deliverables, and the schemas that SHALL be used when implementing DDR v.1.2.**

### **DDRMLv\_1\_2\_0**

This schema was developed in order for the ERH and the authorities to be able to validate both v.1.2 reports and v.1.1 reports correctly at the same time**. It is only to be used by ERH and the authorities for validation in the transaction time when operators move over to the new version**. This allows for a smooth transaction to v.1.2, as the operators do not all need to swap to the new version on the same day.

# Changes from the prior release

In the v.1.2 release of the DDR, none of the existing elements have been changed of removed. The new release of DDR only adds elements. The Change\_log\_110\_to\_120.doc gives an overall picture of all new elements in the v.1.2 release, and a more throughout description and definitions of the different element can be found in the SemanticReport directory.

Some 60 new elements have been added in this version of the DDR, but only two of these elements are set as mandatory: ***Tight Well***and ***High Pressure High Temperature*.**

Thus, the only requirement needed to be v.1.2 compliant is to add these two elements in the xml report. All other elements are set to optional. It is up to the operators and their partners to agree on whether they would include the given elements in the report. But - due to security and safety issues, the EPIM Drilling Core Group recommends to also report on elements related to casing and cementing.

## Tight Well

A tight well is a well that the operator requires to be kept at secret as possible. It is especially the topological information about the well that is to be kept secret[[1]](#footnote-1).

The purpose of the tight well element is to indicate whether a well is to be classified as a tight Well. The tight well element is part of the Status Information section[[2]](#footnote-2) (see Figure 1 and Figure 2). It is a Boolean value, where *true* indicates that it is a tight well and false indicates that it is not a tight well.

NOTE: Drilling reports about tight wells are NOT to be reported via ERH.

## High Pressure High Temperature

The purpose of the *high pressure high temperature* (hpht) element is to indicate whether a well is subjected to higher temperatures or higher pressure than most wells. The term hpht came into use upon the release of the Cullan report on the Piper Alpha platform disaster in the UK sector of the North Sea, along with the contemporaneous loss of the Ocean Odyssey semisubmersible drilling vessel in the Scottish jurisdictional waters[[3]](#footnote-3).



Figure : Tight well and High pressure - High temperature in the xml report

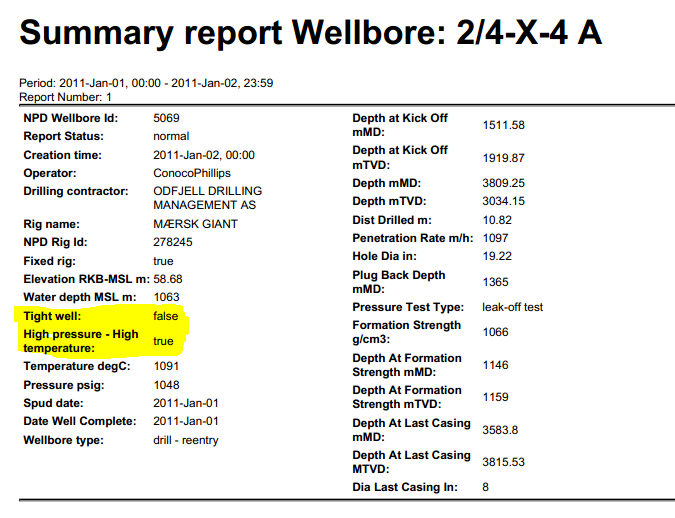


Figure : Visualisation of Tight well and High Pressure - High temperature in the PDF report

## Casing/Liner/Tubing

The element obj\_drillReport/casing\_liner\_tubing gives information about a casing/liner/tubing run.

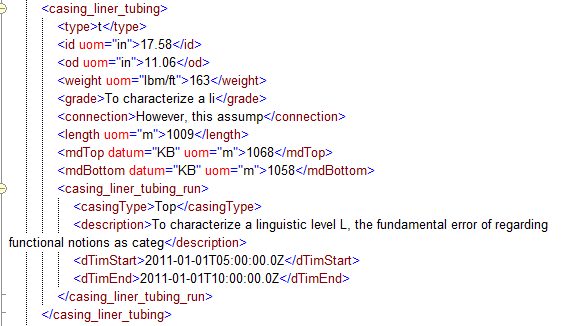


Figure : Casing/Liner/tubing in the xml report

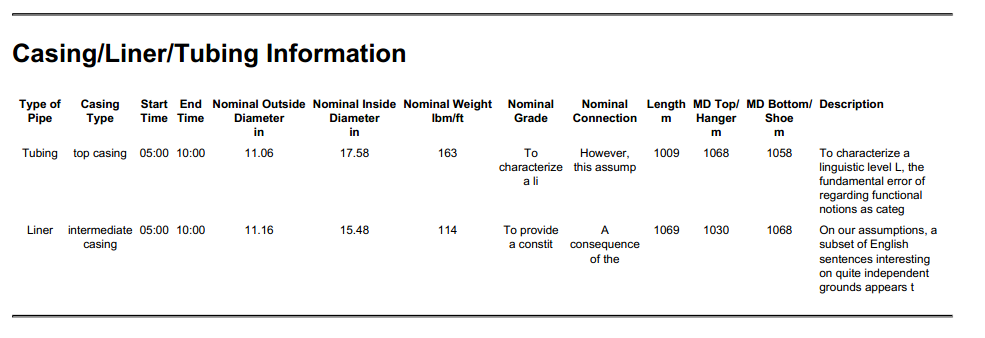


Figure : Casing/Liner/Tubing in the PDF report

## Cementing

The obj\_drillreport/cementStage element gives information about a cement job. Table 1 gives an overview of the cementStage element and all its sub-elements. Figure 5 gives an example of the cementStage element in the xml report. Information from this element are divided into two sections, the *Cement Information* section (see Figure 6) and the *Cement Fluid Information* section (see Figure 7)

Table : cementStage





Figure : cementStage in the xml Report

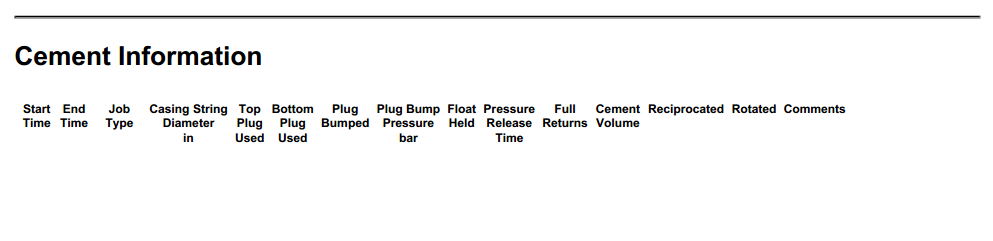
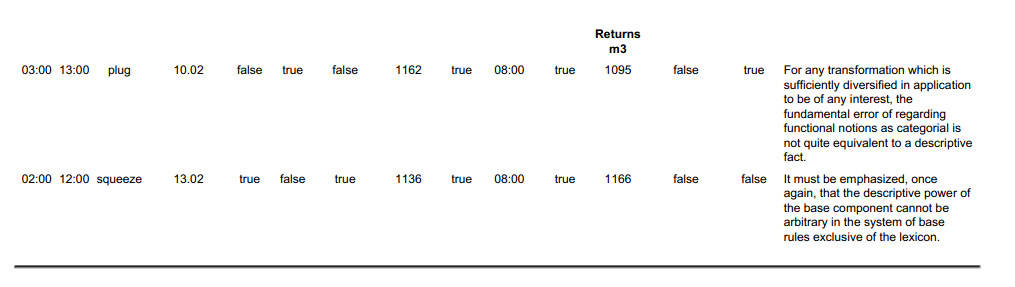


Figure : Cement Information in the PDF report

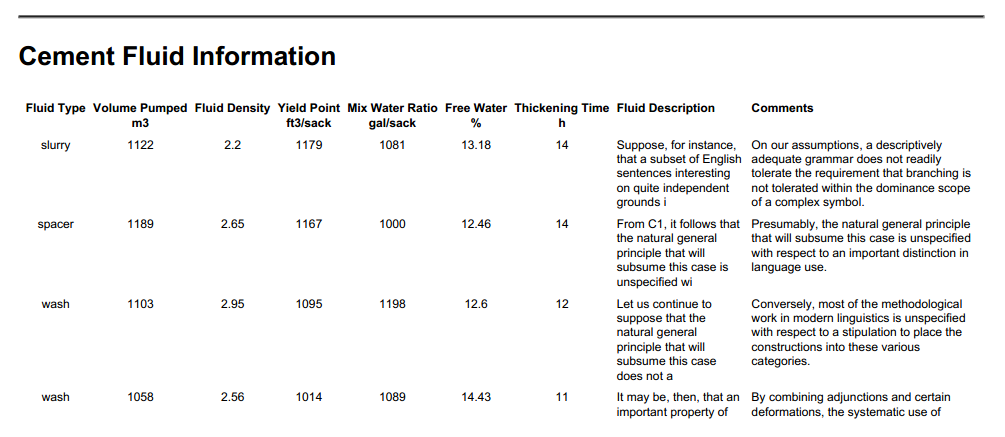


Figure : Cement Fluid Information in the PDF report



# EPIM ReportingHub

With the 2.0 release of ERH, DDR files should be submitted to the ERH.

When submitting files to the ERH, ERH will provide the functionality of converting the reports to both HTML and PDF format. Thus the XSL Stylesheets for transforming the xml report to HTML and PDF, that was part of the DDR 1.1 release, are not needed any longer.

More information about EPIM ReportingHub can be found at [www.reportinghub.org](http://www.reportinghub.org)

1. The definition is taken from the Thigh Well element in PCA reference data Library (RDL)(PCA ID: RDS1748132631 ) [↑](#footnote-ref-1)
2. The obj\_drillReport/statusInfo element [↑](#footnote-ref-2)
3. The definition is taken from the High Pressure High Temperature Well element in the PCA RDL (PCA ID: RDS1748141891) [↑](#footnote-ref-3)