Approved baseline and monitoring methodology / methodological tool clarification response form (Version 03.0)

INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL / WG	
Date and number of Panel / WG meeting:	20-24 Sep 2021 / MP 86
Title/Subject of the request for clarification:	The application of the Approved Methodology AM0009 for the Project implemented at the Gas Condensate Field
Reference number of the request for clarification:	AM_CLA_0294
Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:	AM0009: Recovery and utilization of gas from oil fields that would otherwise be flared or vented --- Version 7.0
Fast track or Regular track:	☐ Fast track ☒ Regular track

Summary of the request for clarification

Original text from the DOE:

We have received the following request for clarification by a client, which we would like to forward for your kind consideration on fast-track.

The objective of the clarification is to assure that the scope and applicability of the approved large-scale methodology AM0009 v07.0 is applicable for oil fields with different compositions (or different types mixtures) of light liquid hydrocarbons including gas condensate fields, whereas the remaining applicability criteria, requirements, baseline- and monitoring methodology, etc. remain unchanged.

The authors of the request have sought clarification regarding the following issues:

(1) Bearing in mind that crude oil is a mixture of many hydrocarbons that have different numbers of carbon atoms clarification is sought whether an oil field referred in the applicability criteria of this methodology is related to any specific mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities as per the definition of the Crude oil in the UNFCCC Glossary (Glossary (http://unfccc.int/resource/cd_roms/na1/ghg_inventories/english/8_glossary/Glossary.htm)

(2) Whether a mixture of light liquid hydrocarbons usually called as condensate, which is similar to a very light (high API) crude oil also complies with the applicable requirement of this methodology

Causality:

The rationale behind this clarification is based on the fact that the source of the recovered and utilized gas (such as gas condensate fields or oil fields) has no impact on the emission reduction methodology and the corresponding calculation approach.

The light liquid hydrocarbons e.g. gas condensate, just like oil, is a liquid mixture of high-boiling hydrocarbons of various structures, produced from hydrocarbon deposits. The chemical composition of oil and e.g. gas condensate is identical, they are basically the same hydrocarbons, starting from gases dissolved in a liquid (methane, ethane, propane, etc.) and ending with heavy aromatic hydrocarbons.

Oil and gas condensate treatment technologies can be also considered as identical. Separation is used in gas and oil production facilities in gas and oil fields, resulting in the formation of unstable gas condensate (crude oil). Unstable gas condensate is characterized by saturation with light hydrocarbon fractions and, in some fields, with hydrogen sulfide compounds or carbon dioxide. The transportation of such a product is not recommended, since when the pressure decreases, a gas phase is released, which restricts the movement of the liquid.

Figure 1. The Crude Oil Treatment Scheme

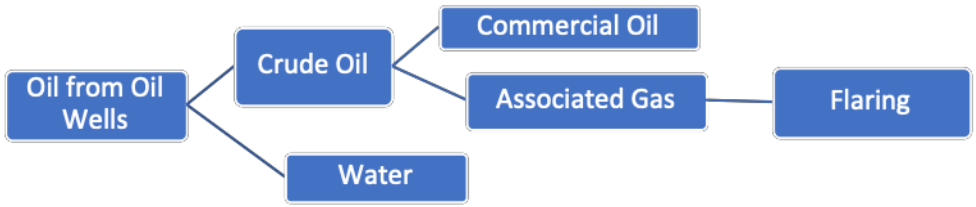
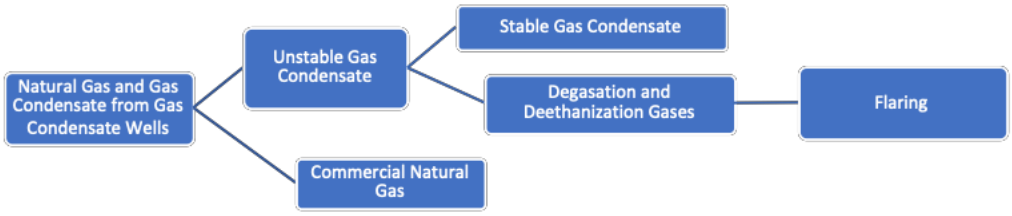


Figure 2. Light liquid hydrocarbons e.g. Gas Condensate Treatment Scheme



Hydrocarbon condensates must be stabilized before further processing, and when processing sulfur condensate - and hydrogen sulfide also. The essence of oil stabilization is to separate volatile hydrocarbons (propane-butane fraction) from it, as well as associated gases soluble in oil, such as hydrogen sulfide, carbon dioxide and nitrogen. This process leads to the reduction of the oil losses from evaporation, reduces the intensity of the corrosion process of the facilities, equipment and pipelines along the path of oil movement from the field to the refinery, and also allows obtaining valuable raw materials for petrochemicals. A wide fraction of hydrocarbons is obtained by the oil and gas condensate stabilization starting from CH4 up to C7H16, depending on the stabilization method and the properties of the raw material.

The properties of gas condensate are very close to light oil, they consist of the same hydrocarbons. Gas condensate is often classified as light oil.

A Tabular comparison of the relevant criteria for oil fields (existing AM0009 v07.0) against the relevant criteria for gas condensate fields is provided as attachment to the clarification request.

Clarification by the secretariat or Panel / WG

The Methodologies Panel (Meth Panel) would like to thank the stakeholder for the submission. The Meth Panel would like to clarify as follows.

The current version of the methodology AM0009 v.7.0 limits its applicability to “project activities that recover and utilize the associated gas and/or gas-lift gas from **oil fields** …”.

The methodology cannot be applied to gas condensate fields as it currently stands because it applies to projects that recover and utilize the associated gas and/or gas-lift gas from oil fields only (i.e. crude oil being the main product, and associated gas as a by-product), and in the baseline situation, the associated gas would have been vented or flared. The proposed revision could involve the recovery and utilization of non-associated gases such as natural gas, dry gas, LPG, condensate, etc. Although the request refers to “gas condensate field”, the distinction of such fields from a natural gas field is not explicit from the proposal.

For the project intended, the stakeholder may wish to submit a request for revision or a new draft methodology. In doing so, it may wish to refer to an earlier request for revision (AM_REV_248) whose conclusion provided by the Meth Panel states that “If the proposed project activity includes recovery of non-associated gases, provision to exclude such gases from baseline calculation, or to conclude that such gases would have been released needs to be included in the methodology” .

Version(s) of the approved methodology / methodological tool to which the clarification is applicable:
AM0009: Recovery and utilization of gas from oil fields that would otherwise be flared or vented --- Version 7.0

- - - - -

Document information

Version	*Date*	*Description*
03.0	13 May 2016	Revised to include the row "Version(s) of the approved methodology / methodological tool to which the clarification is applicable"
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG (in case of clarification by Panel/WG)"
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: • Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1) • Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1)

Decision Class: Regulatory
Document Type: Form, Clarification
Business Function: Methodology
Keywords: applying methodologies and tools