

Petroleum Production Reporting System (PPRS)

Submission Guidance and Quick Start Guide

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1.INTRODUCTION

The OGA's Petroleum Production Reporting System (PPRS) collects monthly data from the reporting of hydrocarbon production from both onshore and offshore fields and terminals in the UK Continental Shelf (UKCS). This data is submitted by operators to PPRS via the OGA's Energy Portal¹ and then placed in the public domain on the OGA's website after two months.

Key features of PPRS are:

- the Energy Portal's PPRS interface offers operators three methods for data upload :
 - o XML upload
 - o web service
 - o online form upload
- Standard data validation rules to ensure high quality data
- Accountability and processes for data quality and data submission
- Tools for the OGA to monitor data quality and data submissions
- a dashboard for operators to allow them to view their due returns as well as submit data to the OGA.

Any queries on PPRS should be directed to ukop@ogauthority.co.uk

Expectations

The OGA has some key expectations. These are defined in more detail in this document, but a summary of these are:

- Data should be submitted by the 25th of the month.
- Operators must notify the OGA of upcoming field or terminal start-ups, <u>3 months</u> ahead of First Production.
- Data must be of the best possible quality.

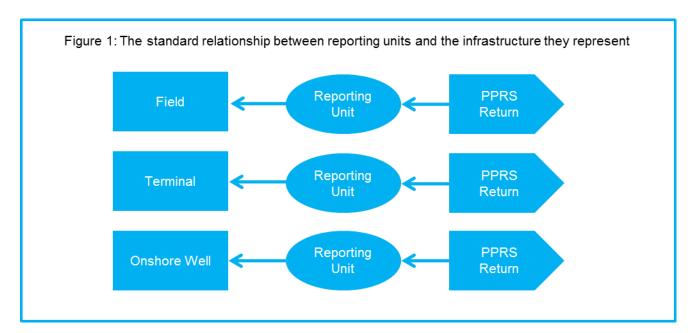
1.1 Common Terms

- Field An oil or gas field as defined by the OGA's field determination process, or a defined development area within a determined field as defined by the OGA's system of record (currently DEVUK)
- 2. **Terminal** An onshore facility which is the destination of oil or gas from a field.
- 3. Asset A platform or installation in a field
- 4. **Reporting Unit** Either a field, terminal or other entity that is reported on.
- 5. **Return** A document containing information about production of a reporting unit in a month.
- 6. **Operator** A company that operates a reporting unit that provide returns to the OGA.

¹ https://www.ogauthority.co.uk/site-tools/energy-portal-guidance/

2. REPORTING UNITS

A reporting unit represents an entity within the UK Continental Shelf (and onshore) that is required to submit production returns through PPRS. Generally, a reporting unit corresponds to a terminal, field, hub, pipeline, or onshore well however there are exceptions (different parts of a field may have different operators, also the OGA has some legacy reasons for exceptions for a small number of other fields).



2.1 Return Types

Each reporting unit will have a return type associated with it. There are a possible 8 return types. These are:

- 1. Field reporting units
 - a. P Oil field exporting to pipeline
 - b. OTL Offshore tanker loader
 - c. T Onshore oil field
 - d. G Dry gas field
- 2. Well reporting units
 - a. W Onshore well (unconventional)
- 3. terminal reporting units
 - a. O Oil pipeline terminal
 - b. A Associated gas terminal
 - c. D Dry gas terminal

Each return type will have a defined structure that the returns will have and a set of validation rules for the data in the return. These are defined in the appendices of this document.

2.2 Reporting Periods

Operators will provide returns for each month a reporting unit is active for. This period is known as the reporting period. The deadline for returns will be the 25th of the month following the reporting period. New reporting units should be created in advance of first production, as a guideline, this should be three months. In the event a reporting unit is transferred between operator's midway through a reporting period, the new operator will be responsible for providing the return for that reporting period.

3. OPERATOR SCREENS OVERVIEW

This section provides an overview of the available functionality, section 5 provides a quick guide to the use of the solution.

3.1 Operator Dashboard

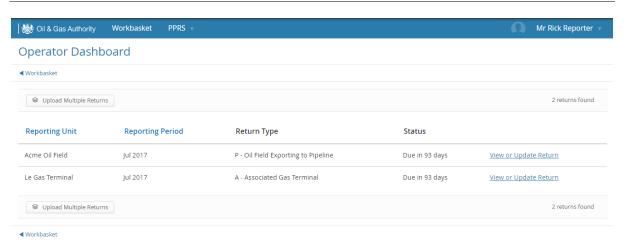


Figure 3.1.1: Example dashboard for the operator Repsol

To alert operators to returns that require their attention, the first screen they will be presented with once accessing PPRS is the operator dashboard. This dashboard will present a list of returns that require attention so that operators know exactly what is required of them.

There are a few actions that the operator can perform on this page:

- 1. Clicking "View or Update Return" will bring them to the "View Return" screen
- 2. Clicking the "Upload Multiple Returns" link will take them to the screen in 3.1.1.

There are also several links that operators will have access to in the PPRS dropdown in the navigation bar.

- Dashboard This link will take them back to their dashboard as seen in Figure 3 1 1
- 2. **Returns** This link will take the operator to a complete list of returns as seen in figure 3.1.1
- 3. **Reporting Units** This link will take the operator to a search screen that will allow them to view standing data related to their reporting units.

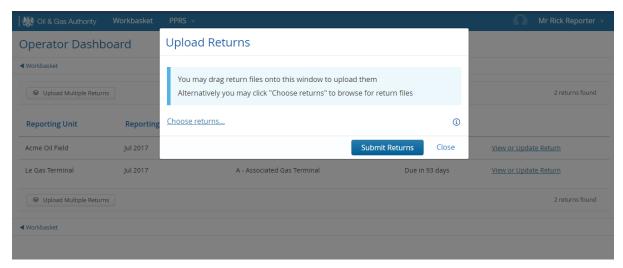


Figure 3.1.2: Multi upload screen

To cater for operators that have large numbers of returns prepared in XML, the multi-upload screen will allow them to upload them all at once. This screen has a few features (as shown in figure 3.1.2:

- 1. The operator can drag and drop up to 30 XMLs into this window before clicking "Submit Returns"
- 2. The operator can select "Choose returns" to browse for their XMLs before clicking "Submit Returns".

3.2 View Return

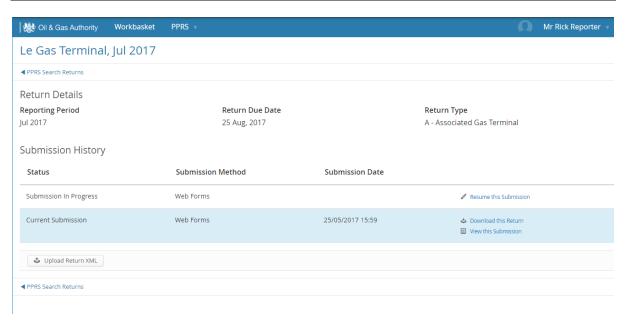


Figure 3.2.1: A return with 2 submissions.

The return screen provides an overview of a return's status. From here an operator will be able to submit, fill out and update their return. They can also view a history of automated emails PPRS has sent regarding that return as well as a submission history.

The actions that an operator can perform on this page are:

- 1. Upload an XML return
- 2. Start or resume a web form submission
- 3. Correct an XML based submission using a web form
- 4. Copy and edit previous submissions
- 5. Download submitted returns

3.3 Return Forms

There will be 3 submission methods for returns in the new PPRS. The first will be by uploading XML file uploads to the PPRS system via a screen (shown in figure 3.1.2). The second will be by filling out an online form for the specific report (shown in figure 3.3.1). The third will be via a web service that operators can use to upload directly from their systems (see Section 8).

The new forms offer an alternative submission method that does not require an understanding of XML. Guidance will also be provided in the form of field descriptions and hover-over information icons.



Figure 3.3.1: An example submission form for a dry gas field

There will be a submission form for each return type that a reporting unit may have. Each form will have different data capture requirements. The forms will be broken down into related sections.

Once the forms are filled out, a preview will be shown with any validation errors for each field shown. There are two levels of validation errors, orange and red. The user can choose to submit the form with orange level errors. They will be prevented from submitting the return if red level errors are present.

3.4 Returns Overview

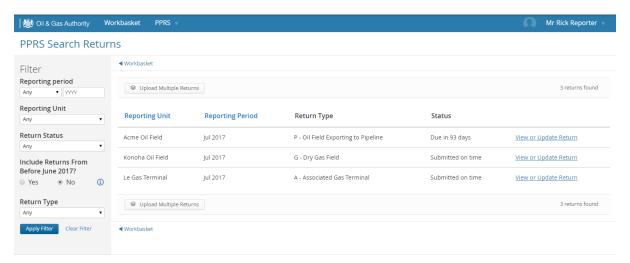


Figure 3.4.1: Returns for the operator

The returns overview screen will provide a paginated list of all the operator's returns. This list can be filtered on status, reporting unit and period. This will allow operators to update returns that they have submitted, view older returns as well as view any due returns.

3.5 Reporting Units

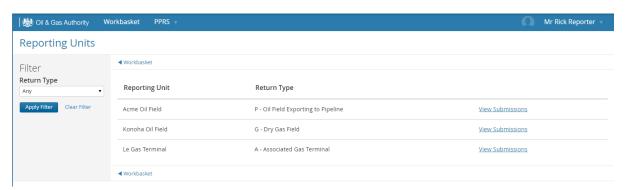


Figure 3.5.1: Reporting unit overview screen

Operators will be able to view any standing data for any reporting units for their organisation. This will allow operators to check the standing data and alert the OGA if there are any errors. Operators will also be able to view any returns for a reporting unit. Clicking the view link will take the user to the view return screen in figure 3.2.1.

3.6 Notifications

The application will have several notifications that are sent out to primary and secondary contacts. These will include:

- Reminders sent 5 days before a required submission
- Reminders sent every 2 days after a submission is due, but has not be submitted
- A note will be sent when data has been submitted successfully

4. QUICK START GUIDE

This quick start guide provides more detail on some of the key features of the solution, including:

- Submitting returns data
- · Managing teams

4.1 Submitting a Return

4.1.1 XML Submission

To upload a return click "Upload Multiple Returns" as shown in figure 4.1.1.1

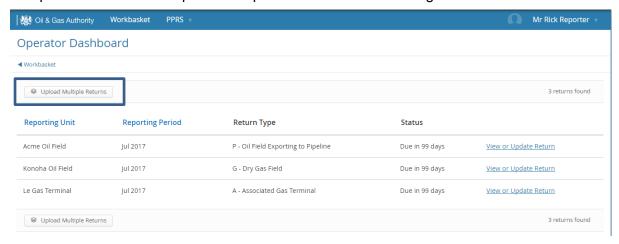


Figure 4.1.1.1 – Operator Dashboard

You will then be presented with a pop up explaining that you can drag and drop files into the window or choose them from your browser.

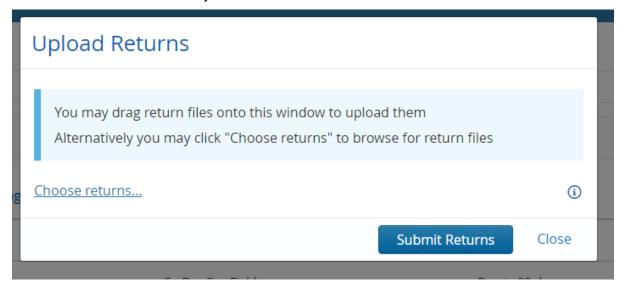


Figure 4.1.1.2 - Multi-upload screen

As you can see in the figure 4.1.1.3, you can upload multiple returns at once (up to 30) before clicking "Submit Returns".

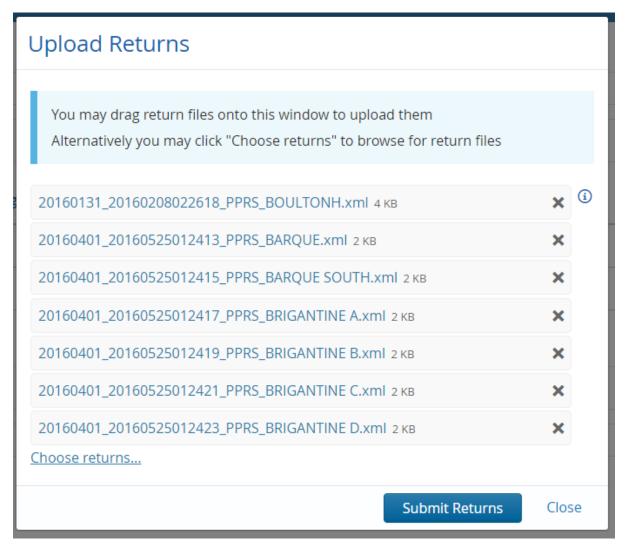


Figure 4.1.1.3 – Multiple XMLs uploaded to the multi upload screen

For any XMLs that

- Pass the schema validation.
- Contain data that falls within the threshold rules defined in Appendix B.

you will receive a message stating that your submission was successful.

If your XML does not pass the schema validation you will receive an error message with an explanation as to what went wrong and you will need to amend the XML.

If your XML does not pass the rule validation you will be either presented with one of two error types.

Red Level Errors – These must be corrected before your XML can be submitted.

Orange Level Errors – These can be overridden by providing an explanation if you believe that the data is correct.

4.1.2 Web Form Submission

Instead of uploading an XML with your return, you can now complete the data via a web form.

From the dashboard, you can click "view or Update Return" from the dashboard as shown in figure 4.1.2.1.

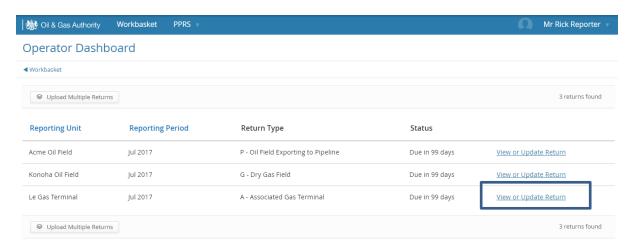


Figure 4.1.2.1 – Highlighting the "View or Update Returns" button on the Operator Dashboard

You can now select "Create Return via Web Form" as shown in figure 4.1.2.2.

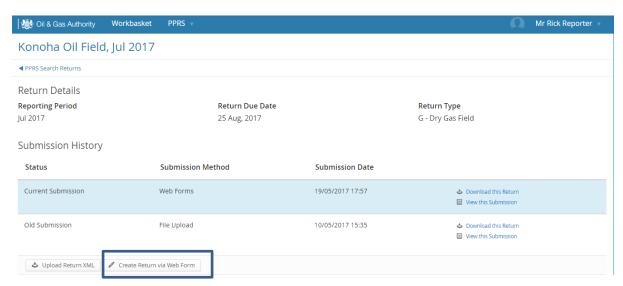


Figure 4.1.2.2 – Return screen highlighting the "Create Return Via Web Form" button

You will be presented with a series of web forms as shown in figure 4.1.2.3.

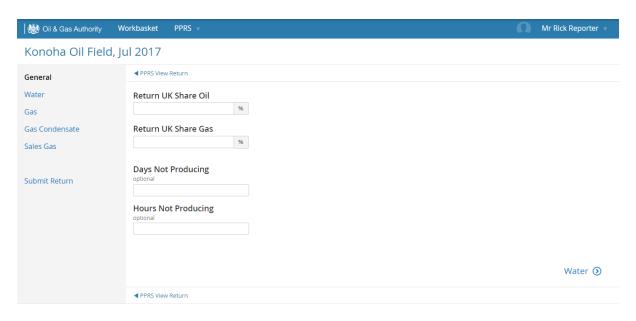


Figure 4.1.2.3 - Web form example

If you enter any values that do not meet the validation rules laid out in Appendix B you will receive an error message informing you of the validation that must be met.



Figure 4.1.2.4 - Example of a validation error in a Web Form

As shown in figure 4.1.2.5

- 1. Completed sections are marked with a green tick.
- 2. Incomplete sections, including those containing validation errors are marked with a red cross.
- 3. Any orange level errors are identified on the "submit Return" page and you are given the opportunity to override the error and provide an explanation before submitting the return.

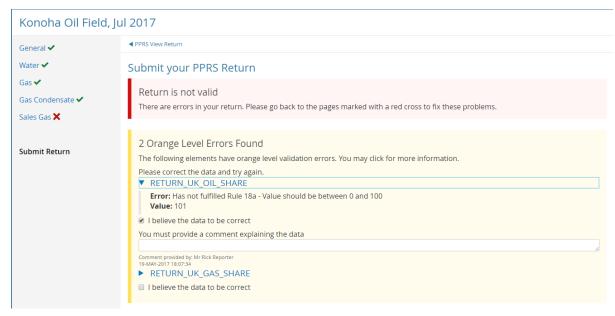


Figure 4.1.2.5 – Return submission screen showing red and orange level errors

4.2 Managing Teams

As a Team Coordinator, you can manage who within your organisation has access to your PPRS dashboard as well as setting their privileges.

From the PPRS menu at the top of the screen you can select "Maintain Teams" as per figure 4.1.3.1. You will only see this if you are assigned as the Team Coordinator.

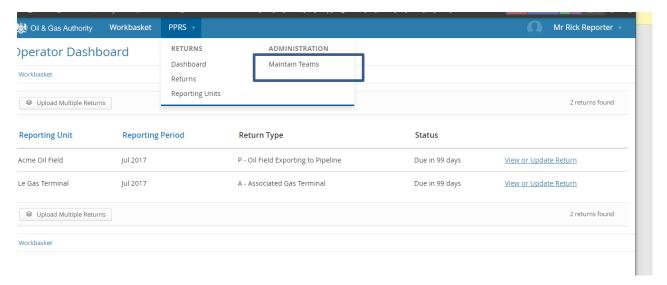


Figure 4.1.3.1 – Highlighting the "Maintain Teams" link on the PPRS dropdown menu

As shown in figure 4.1.3.2, from the Maintain Teams screen you can:

- 1. Add new members to your team (they must already have a UK Energy Portal account).
- 2. Assign them to any of the following roles in your PPRS team.

Team Coordinator – Able to manage teams in PPRS.

Primary Contact – Primary point of contact, will receive reminder emails for due returns, cannot be a shared account.

Secondary Contact – Secondary point of contact, will be copied on reminder emails.

Operator User – Can submit returns for reporting units owned by your company group.

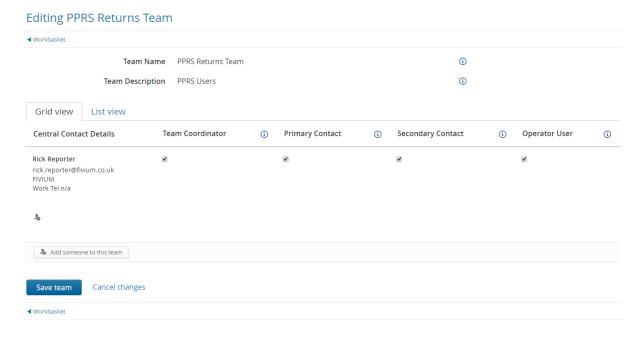


Figure 4.1.3.2 – The PPRS Maintain Teams Screen

5.NEW DATA ATTRIBUTES

The OGA introduced several new data attributes in July 2017. The table below provides a summary of these.

Reporting Unit Type	Data/Stream Description	Data Item
P,T OTL,W	Associated Gas Production	ASSOCIATED_GAS_NON_HYDROCARBON_GAS_CONTENT
P,T OTL,	Inter Field Transfer of Associated Gas (* Repeating Group)	INTERFIELD_TRANSFER_OF_ASSOCIATED_GAS NON_HYDROCARBON_GAS_CONTENT
P,T OTL,W	Associated Gas to Pipeline	ASSOCIATED_GAS_TO_PIPELINE_NON_HYDROCARBON_GAS_CONTENT
G, W	Dry Gas Field Production	DRY_GAS_NON_HYDROCARBON_GAS_CONTENT
G	Inter Field Transfer of Dry Gas (* Repeating Group)	INTER_FIELD_TRANSFER_OF_DRY_GAS NON_HYDROCARBON_GAS_CONTENT
G, W	Dry Gas to Pipeline	DRY_GAS_TO_PIPELINE_DENSITY
		DRY_GAS_TO_PIPELINE_NON_HYDROCARBON_GAS_CONTENT
P,T, OTL,G,W	Gas Flared at Field	GAS_FLARED_AT_FIELD_NON_HYDROCARBON_GAS_CONTENT
P,T, OTL,G,W	Gas Vented at Field	GAS_VENTED_AT_FIELD_NON_HYDROCARBON_GAS_CONTENT
P,T, OTL,G,W	Gas Utilised in Field	GAS_UTILISED_AT_FIELD_NON_HYDROCARBON_GAS_CONTENT
P,T, OTL,G,W	Gas Injected	GAS_INJECTED_NON_HYDROCARBON_GAS_CONTENT
G,W	Gas Utilised from Inter Field Transfer	GAS_UTILISED_FROM_INTERFIELD_TRANSFER_ NON_HYDROCARBON_GAS_CONTENT
P,T, OTL, G, W	Time Not producing	DAYS_NOT_PRODUCING
		HOURS_NOT_PRODUCING

How does the OGA use the new data fields?

- Non-HC content of export gas will help the OGA assess the impact of increasing amounts of off spec gas entering the offshore network
- Non-HC content of produced, flared and vented gas will allow the OGA and operators to compare production reported via PPRS with the maximum volumes allowed in the Consent, giving early warning of the need for a review of the Consent
- Time not producing will give early indications of potential issues with Production Efficiency (PE) (PE is a key indicator in the OGA's annual Stewardship survey)

NOT PRODUCING EXAMPLE

Begin by calculating the hours not producing for the full month, then enter corresponding days/hours.

Say a field is **not** producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing.

Operators should be reporting 1 against the field DAYS_NOT_PRODUCING and 6 against the field HOURS_NOT_PRODUCING

Reporting of non-HC content should be as follows:

- Non-HC gas content should be reported as a mole percentage (equivalent to a volume percentage)
- The OGA expects the non-HC gas content of gas exported to pipeline to be measured according to "good oil field practice". (The OGA accepts that older platforms may not have on line chromatographs or the ability to sample routinely, in which case the field data may need to be back allocated from terminal measurements)
- The OGA understands that the non-HC content of produced, flared and vented gas may be calculated rather than measured values.

6.WORKFLOW & VALIDATION

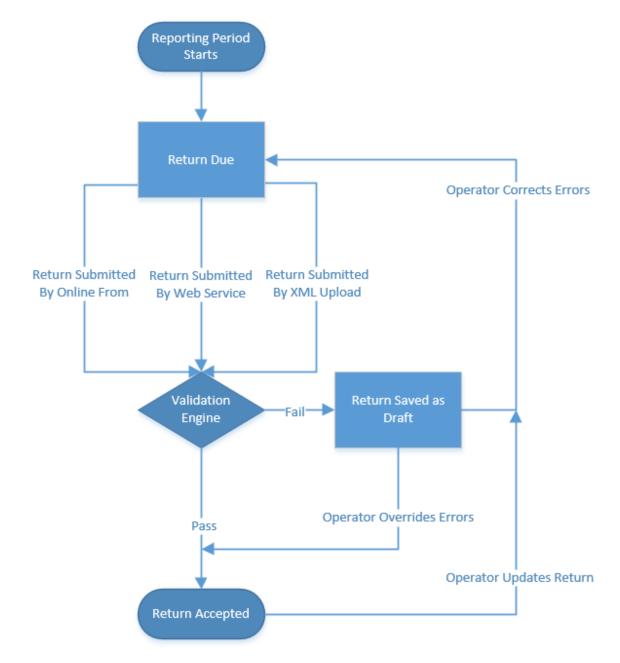


Figure 6.1: Returns Workflow

Figure 6.1 shows the process for submitting and accepting a return. The validation is automated and if the return fails any of the validation, the returns stays with the operator.

6.1 Validation Engine

The validation engine checks several conditions for a return.

- 1. Every submission is checked to ensure a valid XML document (if using the xml method of submission).
- 2. Once the submission is verified as XML, the format of the XML is checked against the XML schema definition for a return. This will check that all the fields are present and of the correct type.
- 3. The data contained within the fields is then checked against the validation rules. If any of the validation rules fail, the return will be rejected unless it's an orange level error. If this is the case, then the operators will be able to override this if they provide a comment. Examples include:
 - a. **Red** must be fixed before loading (e.g., number between a range)
 - b. **Orange** can be overridden by the submitter (e.g., tolerance of previous submission(s))

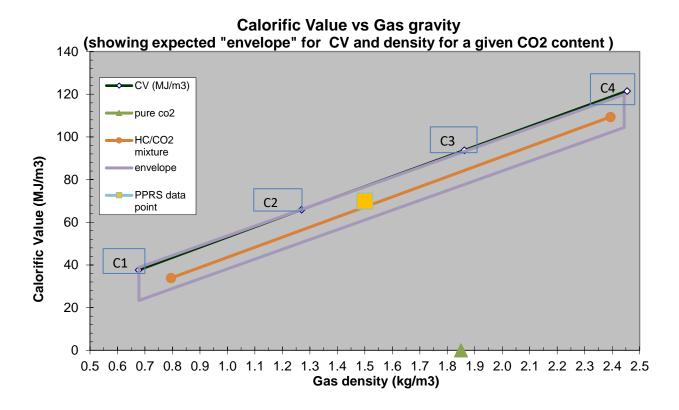
6.1.1 Calorific Value Thresholds

The OGA and BEIS require gas calorific values for economic evaluations, as gas is traded in therms rather than volumes.

As the non-hydrocarbon content of gas is recorded, the expected calorific value can be calculated based on the theoretical calorific value for an ideal gas. The maximum CV bound will be based on the expected CV of hydrocarbon gases no non hydrocarbon impurities. The minimum CV bound will be based on the expected CV of hydrocarbon gases mixed with the heaviest impurity: carbon dioxide gas.

The density of the mixture will also have to fall between the expected density of the lightest and heaviest mixtures – expected range is 0.65 to 5.0 kg/m3 as defined in the validation rules in appendix B.

These calculations are based on ideal gas laws. A tolerance will be added to the minimum and maximum bounds to allow for measurement and allocation uncertainties. This tolerance is configurable by the OGA to allow fine tuning of this validation.



Measurement / reporting specification

- All hydrocarbons are to be reported on a water dry basis at Standard Conditions (15C and 1.01325 bara)
- Calorific values should be Gross, and should be for the exported gas stream including non-hydrocarbon components

7. WEB SERVICE SUBMISSION

The web service submission method allows operators that use their own systems to audit their production to upload directly to PPRS. With the PPRS application they can automatically upload these returns via this web service at the 25th of each month. Returns that are uploaded in this manner will be passed through the same validation engine as any other submission method so there is no risk that incorrect returns can be submitted in this way.

Operators must ensure their internal software allows the submission of returns via webservice. Operators that do not have an existing production auditing system are advised to use the online forms to produce their returns.

The web services function using the SOAP standard for XML exchange. There are two web services provided. The first is for obtaining a list of due returns; the second is for submission of returns. These web services are authenticated using the same credentials for the rest of the EDU portal and security rules are in place to make sure that operators can only submit returns if they have the correct roles. They need to be provided in the username and password HTTP headers on the SOAP requests.

8.OPERATOR REMINDERS, SUBMISSION DATE & HELP

Email reminders are sent out at the beginning of the following reporting period to alert operators that their returns are due for the past reporting period. Another email reminder will be sent 5 days before the end of the reporting period alerting them that their returns are still due. If the returns are not submitted in this timeframe, emails will be sent every 2 days reminding operators that their returns are overdue.

These reminder emails contain a list of returns and their status (due, overdue or submitted) rather than having an email per reporting unit. This reduces the amount of emails that operators are receiving from PPRS.

Once a return has been submitted on time, a confirmation email is sent to the Operator as confirmation. This email confirms which return was submitted, if it was submitted on time and which other returns are still yet to be submitted if any.

Return submissions must be made by the close of business on the <u>25th</u> of each month. This submission date is primarily due to:

- The submission deadline to the Office of National Statistics to calculate GDP needs to be considered. BEIS need to submit numbers that are based on real data and not estimates.
- With the challenges and opportunities that exiting the EU brings, it's vital that government and industry is in possession of the most accurate data as early as possible.

8.1 Help

All help requests should be submitted through the usual UK Operations helpdesk -

Email - ukop@ogauthority.co.uk

Phone - 0300 067 1682

9. REPORTING UNITS

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New Reporting Units

New reporting units can only be created by the OGA. An operator should request the creation of a new reporting unit ca 3 months before expected first production

Correction of returns

Circumstances may arise in which the operator (or operators) need to rerun their hydrocarbon allocation system and production reporting system to correct for historic misallocations. Such a reallocation may or may not require PPRS returns to be resubmitted. Revised PPRS field or well returns will be required if:

- Reported sales quantities change by more than 0.5 %
- Reported produced quantities change by more than 1 % for a terminal
- Reported produced quantities change by more than 2% for an individual field or well
- Reported injected, flared or vented quantities change by more than 5%

Median Line Fields

To improve consistency in reporting, and subsequently data quality, as of 1st January 2018, the OGA requests that Operators of Median Line fields report these fields in the following way:

- All data should be reported as UK Share only, not total field.
- The UK Share % attributes for Oil and Gas should be input to reflect the percentages relating to the UK Share held.

If this information is filled in correctly, this will enable the OGA to gross up data when necessary for field performance reviews, but will prevent the ongoing requirement to manage this in the OGA's reporting tools.

Permanent Cessation of Production

When a reporting unit permanently ceases production, the operator should notify the OGA a month before production ceases. PPRS will then be updated so that it will not expect further returns.

10. ACCESS CONTROL

10.1 Operators

Operators log in using an Energy Portal login. Every reporting unit will have its own set of contacts. Management of these teams will be delegated to members of the team.

Role	Description
Primary Contact	This person will be the sole point of contact for the organisation. This person is accountable for all data submissions by that company. Notification emails will be addressed to this person. Please note that no generic emails will be allowed, the OGA needs a named person as the primary contact.
Secondary Contact	This person will be a backup contact should the primary contact be unreachable. All notifications to the primary contact will be copied to this contact. Generic emails are allowed for secondary contacts.
Operator User	Many users may be in this role including the primary and secondary contacts. This user will be able to submit, update and view returns on behalf of the organisation. Security rules will be put in place to make sure that an Operator User will not be able to view, submit or update returns of other operators. This user will receive a link in the energy portal to access the operator dashboard. Users in this role will also be allowed to submit returns via the web service submission method.
Operator Team Coordinator	Many users may be in this role. Users in this role are able to update and manage their team and add or remove users from their roles.

10.2 Responsibilities

Operators

- Responsible for submitting returns in a timely fashion
- Responsible for submitting the best possible quality data

The OGA

- Undertake checks on the quality of the data
- Liaise with operators on any issues that may arise
- Disclose in accordance with the provisions of the Oil and Gas Authority (Offshore Petroleum) (Disclosure of Protected Material after Specified Period) Regulations 2018 (see https://www.legislation.gov.uk/uksi/2018/898/contents/made)

11. HISTORIC DATA QUALITY

With the predecessors to the current PPRS, the OGA (DECC and DTI beforehand) have experienced several common issues with the xml files that have been supplied over the years. These issues are defined below to give operators submitting data to PPRS for the first time a "heads up" on potential issues they might need to address

- **Blank values** where there are no values given, not even "Zero" values but just blanks. At the very least we must enter zero values.
- Inter field transfers errors Where only Zero values are given (see below) –

<INTER FIELD TRANSFER OF OIL REPEATING GROUP>

<INTER_FIELD_TRANSFER_OF_OIL>

<INTER_FIELD_TRANSFER_OF_OIL_VOLUME>0</INTER_FIELD_TRANSFER_OF_OIL_
VOLUME>

<INTER_FIELD_TRANSFER_OF_OIL_DENSITY>0.0/INTER_FIELD_TRANSFER_OF_OI
L DENSITY>

<INTER_FIELD_TRANSFER_OF_OIL_ORIGIN></INTER_FIELD_TRANSFER_OF_OIL_O
RIGIN>

<INTER_FIELD_TRANSFER_OF_OIL_DESTINATION></INTER_FIELD_TRANSFER_OF_
OIL DESTINATION>

</INTER_FIELD_TRANSFER_OF_OIL>

</INTER_FIELD_TRANSFER_OF_OIL_REPEATING_GROUP>

In the past, the OGA have corrected this, however going forward operators should provide an empty list as such:

<INTER_FIELD_TRANSFER_OF_OIL_REPEATING_GROUP></INTER_FIELD_TRANSFE
R_OF_OIL_REPEATING_GROUP>

- Character Encoding Issues When submitting a return, the return may be rejected as invalid XML with no obvious error. This may be caused by a character encoding issue. Returns should be submitting with an ASCII compatible character encoding such as Unicode UTF-8 or ASCII win-1252. Please ensure the file you are uploading uses a compatible encoding.
- **System parameters** Where a PPRS return file loads but indicates that the values on that return fall outside the validation parameters set by the system.
- **Date Format** A lot of operators have been providing shorthand months' names in the return date i.e. Jun, Jul, Aug. The RETURN_DATE_MONTH element should contain an integer between 1 and 12 inclusively but never alphabetical characters.

12. APPENDIX A - SUBMISSION GUIDANCE

12.1 Explanatory Notes - Fields

12.1.1 Oil Field Exporting to Pipeline

'Oil Production'. Oil produced from an offshore Field. It will usually contain a few percent of NGLs but the revised PPRS does not seek separate values for SCO and NGLs here, only the 'Oil Production' by volume and density.

'Interfield Transfer of Oil'. For oil exported by pipeline, this is when the oil is co-mingled with oil on another Installation en route to the onshore Terminal. The convention is for the donor to report a positive quantity and the recipient a negative value.

'Oil Production to Pipeline'. Oil pipelined to an onshore Terminal.

'Associated Gas Production'. The 'Associated Gas Production' is defined as the 'Total Field wellhead Hydrocarbon Production' less the oil that has been produced (Stream 1). Under this definition of 'Associated Gas Production', NGLs that will be measured with the oil in the pipeline will therefore not be included in this gas stream calculation.

'Inter Field Transfer of Associated Gas'. These will usually only be needed where one reporting unit transfers gas to another reporting unit for re-injection. Where a hub facility processes oil and gas from several fields, the OGA prefers export, fuel, flare and vent gas volumes to be allocated back to the individual reporting units. However Inter Field Transfers may also be used where such an allocation is not straightforward (eg where gas is imported to the UKCS host facility from a non-UKCS source or where there is an "offshore sale") – this should be discussed with the OGA prior to finalising the PPRS reporting arrangements for new reporting units. Where existing reporting units have historically used inter field transfers to document offshore gas sales, the OGA may accept that this reporting convention can continue – this should be discussed with the OGA. Note that Inter Field Oil and Associated Gas Transfers may not necessarily go to the same other Field Unit- operators can enter several Inter Field Transfers for each monthly return, one for each donor/recipient combination. The donor and recipient should both report the transfer in this section. The donor should report the volume of gas/oil as a positive value and the recipient should report the volume as a negative value

'Associated Gas to Pipeline'. If 'NGL/Condensate' drops out of the 'Associated Gas to Pipeline' during transportation to the Terminal, it should be reported in the PPRS as if it were still a single phase Gas. (This is different from the way Dry Gas Fields are reported).

'Gas Flared at Field'. Gas flared, may include inert gases.

'Gas Vented at Field'. Any gas cold vented to atmosphere, including inert gases.

'Gas Utilised in Field'. Gas utilised during operations. Most gas utilisation is Fuel Gas, but gas can be used for other process purposes, such as stripping.

'Gas Injected'. The Gas Injected into the Field can originate both from the Field reservoir and/or from another Field after Inter-Field Transfer.

'Produced Water'. Water produced from each Field but there is no distinction here between native reservoir water and previously injected water. Water produced from an aquifer (eg for injection into a reservoir where sea water is incompatible with formation water) should not be reported via PPRS if the aquifer is not connected to the oil bearing reservoir. (The operator should retain information on aquifer water production should this be requested by the OGA or BEIS). Water produced from the aquifer connected to the oil bearing reservoir (eg for reservoir "blow down") should be reported via PPRS

'Produced Water to Sea'. Does not necessarily have to be reported per Field; it can be from several Fields serviced from the same Installation and reported from there.

'Injected Water'. In most instances this will be treated seawater, but exceptionally could be water obtained from another source. Only water injected into the hydrocarbon reservoir for pressure maintenance should be reported. Water injected into an aquifer for disposal or power water for Hydraulic Submersible Pumps (HSPs) should not be included

'Re Injected Produced Water'. The Re Injected Produced Water may not necessarily originate from the Field receiving the water. Only water injected into the hydrocarbon reservoir for pressure maintenance should be reported. Water injected into an aquifer for disposal or power water for Hydraulic Submersible Pumps (HSPs) should not be included

'Stock of Oil in Field' at Month End. Although offshore storage with pipeline export is not typical, there are some Fields with such tanks in operation.

Time Not Producing. say a field is **not** producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing. You should be reporting 1 against the field DAYS_NOT_PRODUCING and 6 against the field HOURS NOT PRODUCING

12.1.2 Offshore Tanker Loader

'Oil Production'. Oil produced from a Field.

'Inter Field Transfer of Oil'. A typical example of Inter Field Transfer of Oil occurs when a FPSO vessel or equivalent hosts more than one Field. The convention is for the donor to report a positive quantity and the recipient a negative value.

'Associated Gas Production'. The 'Associated Gas Production' is defined as the 'Total Field wellhead Hydrocarbon Production' less the oil that has been produced (Stream 1). Under this definition of 'Associated Gas Production', NGLs that will be measured with the oil in the pipeline will therefore not be included in this gas stream calculation.

'Inter Field Transfer of Associated Gas'. These will usually only be needed where one reporting unit transfers gas to another reporting unit for re-injection. Where a hub facility processes oil and gas from several fields, the OGA prefers export, fuel, flare and vent gas volumes to be allocated back to the individual reporting units. However Inter Field Transfers may also be used where such an allocation is not straightforward (eg where gas is imported to the UKCS host facility from a non-UKCS source or where there is an "offshore sale") – this should be discussed with the OGA prior to finalising the PPRS reporting arrangements for new reporting units. Where existing reporting units have historically used inter field transfers to document offshore gas sales, the OGA may accept that this reporting convention can continue – this should be discussed with the OGA. Note that Inter Field Oil and Associated Gas

Transfers may not necessarily go to the same other Field Unit - operators can enter several Inter Field Transfers for each monthly return, one for each donor/recipient combination. The donor and recipient should both report the transfer in this section. The donor should report the volume of gas/oil as a positive value and the recipient should report the volume as a negative value

'Associated Gas to Pipeline'. If 'NGL/Condensate' drops out of the 'Associated Gas to Pipeline' during transportation to the Terminal, it should be reported in the PPRS as if it were still a single phase Gas. (This is different from the way Dry Gas Fields are reported).

'Gas Flared at Field'. Gas flared, may include inert gases.

'Gas Vented at Field'. Any gas cold vented to atmosphere, including inert gases.

'Gas Utilised in Field'. Gas utilised during operations. Most gas utilisation is Fuel Gas, but gas can be used for other process purposes, such as stripping.

'**Gas Injected**'. The Gas Injected into the Field can originate both from the Field reservoir and/or from another Field after Inter-Field Transfer.

'Produced Water'. Water produced from each Field but there is no distinction here between native reservoir water and previously injected water. Water produced from an aquifer (eg for injection into a reservoir where sea water is incompatible with formation water) should not be reported via PPRS if the aquifer is not connected to the oil bearing reservoir. (The operator should retain information on aquifer water production should this be requested by the OGA or BEIS). Water produced from the aquifer connected to the oil bearing reservoir (eg for reservoir "blow down") should be reported via PPRS

'Produced Water to Sea'. Does not necessarily have to be reported per Field; it can be from several Fields serviced from the same Installation and reported from there.

'Injected Water'. In most instances this will be treated seawater, but exceptionally could be water obtained from another source. For onshore fields, all injected water should be reported, whether into the producing reservoir or another formation but power water for Hydraulic Submersible Pumps (HSPs) should not be reported.

Produced water that is re-injected should be reported as 'Re-Injected Produced Water- and not be reported under 'injected water'.

'Re Injected Produced Water'. The Re Injected Produced Water injected into the hydrocarbon reservoir for pressure maintenance should be reported. For onshore fields, all produced water that is injected should be reported, whether into the producing reservoir or another formation but power for Hydraulic Submersible Pumps (HSPs) should not be included.

'Stock of Oil in Tanker' at Month End. Oil stocks in the FPSO or FSU and in partially loaded tanks and Tankers. If the Tanker breaks moorings/ connection, the cargo is reported as a disposal.

'Stock in Pipeline' at Month End. Stocks in pipeline attached to offshore Tanker.

'Total Oil Tanker Disposals' during the Month.

'Individual Oil Tanker Disposals' during the Month. For Marine Tankers, the number of entries equals the number of individual cargoes loaded and detached from moorings. If a tanker is being loaded on the last day of the month, the disposal should be reported in the month tanker loading is completed.

Time Not Producing. say a field is **not** producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing. You should be reporting 1 against the field DAYS_NOT_PRODUCING and 6 against the field HOURS_NOT_PRODUCING

12.1.3 Onshore Oil Fields

'Oil Production'. Oil produced from a Field.

'Inter Field Transfer of Oil'. A typical example of Inter Field Transfer of Oil occurs when a FPSO vessel or equivalent hosts more than one Field. The convention is for the donor to report a positive quantity and the recipient a negative value.

'Associated Gas Production'. The 'Associated Gas Production' is defined as the 'Total Field wellhead Hydrocarbon Production' less the oil that has been produced (Stream 1). Under this definition of 'Associated Gas Production', NGLs that will be measured with the oil in the pipeline will therefore not be included in this gas stream calculation.

'Inter Field Transfer of Associated Gas'. These will usually only be needed where one reporting unit transfers gas to another reporting unit for re-injection. Where a hub facility processes oil and gas from several fields, the OGA prefers export, fuel, flare and vent gas volumes to be allocated back to the individual reporting units. However Inter Field Transfers may also be used where such an allocation is not straightforward (eg where gas is imported to the UKCS host facility from a non-UKCS source or where there is an "offshore sale") - this should be discussed with the OGA prior to finalising the PPRS reporting arrangements for new reporting units. Where existing reporting units have historically used inter field transfers to document offshore gas sales, the OGA may accept that this reporting convention can continue - this should be discussed with the OGA. Note that Inter Field Oil and Associated Gas Transfers may not necessarily go to the same other Field Unit. - operators can enter several Inter Field Transfers for each monthly return, one for each donor/recipient combination. The donor and recipient should both report the transfer in this section. The donor should report the volume of gas/oil as a positive value and the recipient should report the volume as a negative value. The convention is for the donor to report a positive quantity and the recipient a negative value.

'Associated Gas to Pipeline'. If 'NGL/Condensate' drops out of the 'Associated Gas to Pipeline' during transportation to the Terminal, it should be reported in the PPRS as if it were still a single phase Gas. (This is different from the way Dry Gas Fields are reported).

'Gas Flared at Field'. Gas flared, may include inert gases.

'Gas Vented at Field'. Any gas cold vented to atmosphere, including inert gases.

'Gas Utilised in Field'. Gas utilised during operations. Most gas utilisation is Fuel Gas, but gas can be used for other process purposes, such as stripping.

'Gas Injected'. The Gas Injected into the Field can originate both from the Field reservoir and/or from another Field after Inter-Field Transfer.

'Produced Water'. Water produced from each Field but there is no distinction here between native reservoir water and previously injected water. Water produced from an aquifer (eg for injection into a reservoir where sea water is incompatible with formation water) should not be reported via PPRS if the aquifer is not connected to the oil bearing reservoir. (The operator should retain information on aquifer water production should this be requested by the OGA or BEIS). Water produced from the aquifer connected to the oil bearing reservoir (eg for reservoir "blow down") should be reported via PPRS

'Produced Water to Sea'. This will be zero for onshore fields but needs to be entered for compatibility with earlier versions of PPRS

'Injected Water'. In most instances this will be treated seawater, but exceptionally could be water obtained from another source. . For onshore fields all injected water should be reported, whether into the producing reservoir or another formation but power water for HSPs should not be reported. Produced water that is re-injected should be reported as "Re Injected Produced Water" and not be reported under "Injected water".

'Re Injected Produced Water'. The Re Injected Produced Water injected into the hydrocarbon reservoir for pressure maintenance should be reported. For onshore fields, all produced water that is injected should be reported, whether into the producing reservoir or another formation but power for Hydraulic Submersible Pumps (HSPs) should not be included.

'Stock of Oil in Tanker' at Month End. Oil stocks in the FPSO or FSU and in partially loaded tanks and Tankers. If the Tanker breaks moorings/ connection, the cargo is reported as a disposal.

'Stock in Pipeline' at Month End. Stocks in pipeline attached to offshore Tanker.

'Total Oil Tanker Disposals' during the Month.

'Individual Oil Tanker Disposals' during the Month. For onshore disposal, the entries will equal the number of different destinations. If a tanker is being loaded on the last day of the month, the disposal should be reported in the month tanker loading is completed.

'Time Not Producing'. say a field is not producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing. You should be reporting 1 against the field DAYS_NOT_PRODUCING and 6 against the field HOURS_NOT_PRODUCING

12.1.4 Onshore Well

'Oil Production'. Oil produced from a Well.

'Associated Gas Production'. The 'Associated Gas Production' is defined as the 'Total wellhead Hydrocarbon Production' less the oil that has been produced ('Oil Production'). Under this definition of 'Associated Gas Production', NGLs should be included with the oil.

'Associated Gas to Pipeline'. Associated Gas pipelined to an onshore Terminal.

'Dry Gas Well Production'. Total wellhead gas production. 'Dry Gas' reported as a separate Stream from the 'Dry Gas Well Condensate Production'.

'Dry Gas to Pipeline'. Dry Gas pipelined to an onshore Terminal.

'Dry Gas Well Condensate Production'. Condensate production that is measured after separation.

'Gas Flared at well'. Gas flared, may include inert gases.

'Gas Vented at well'. Any gas cold vented to atmosphere, including inert gases.

'Gas Utilised in well'. Gas utilised during operations. Most gas utilisation is Fuel Gas, but gas can be used for other process purposes.

'Gas Injected'. The Gas Injected into the well can originate both from the Field reservoir and/or from another Field after Inter-Field Transfer. This does not include lift gas.

'Gas Utilised from Inter Field Transfer'. A special case when gas is injected into a partially depleted gas reservoir for storage purposes. There would then be two sources of gas for utilisation, native reservoir gas and gas imported through Inter Field Transfer.

'Produced Water'. Water produced from each well but there is no distinction here between native reservoir water and previously injected water.

'Injected Water'. Water obtained from another source. All injected water should be reported, whether into the producing reservoir or another formation but power water for HSPs should not be reported. Produced water that is re-injected should be reported as "Re Injected Produced Water" and not be reported under "Injected water".

'Re Injected Produced Water'. The Re Injected Produced Water injected into the hydrocarbon reservoir should be reported. All produced water that is injected should be reported, whether into the producing reservoir or another formation but power for Hydraulic Submersible Pumps (HSPs) should not be included.

'Stock of Oil in Tanker' at Month End. Oil stocks in partially loaded tanks and Tankers.

'Sales Gas to NTS'. This is for onshore Dry Gas wells only, and not necessarily always applicable.

'Individual Sales Gas Non NTS' during the Month. Sales Gas through dedicated pipelines directly to power stations, refinery, or other users.

'Time Not Producing'. If a well is not producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing. You should be reporting 1 against the well DAYS_NOT_PRODUCING and 6 against the well HOURS_NOT_PRODUCING

12.1.5 Dry Gas Fields

'Dry Gas Field Production'. Total Field wellhead gas production. Historically, the convention is for 'Dry Gas' here to be reported as a separate Stream from the 'Condensate', which is reported separately as Stream 17.

'Inter Field Transfer of Dry Gas'. These will usually only be needed where one reporting unit transfers gas to another reporting unit for re-injection. Where a hub facility processes oil and gas from several fields, the OGA prefers export, fuel, flare and vent gas volumes to be allocated back to the individual reporting units. However Inter Field Transfers may also be used where such an allocation is not straightforward (eg where gas is imported to the UKCS host facility from a non-UKCS source or where there is an "offshore sale") – this should be discussed with the OGA prior to finalising the PPRS reporting arrangements for new reporting units. Where existing reporting units have historically used inter field transfers to document offshore gas sales, the OGA may accept that this reporting convention can continue – this should be discussed with the OGA. Note that Inter Field Gas Transfers may not necessarily go to the same other Field Unit- operators can enter several Inter Field Transfers for each monthly return, one for each donor/recipient combination. The donor and recipient should both report the transfer in this section. The donor should report the volume of gas as a positive value and the recipient should report the volume as a negative value.

'Dry Gas to Pipeline'. Dry Gas pipelined to an onshore Terminal.

'Dry Gas Field Condensate Production'. Condensate production that is measured after separation but will then be co-mingled back into the pipeline gas.

'Inter Field Transfer of Condensate'. In practice, the exceptional case where Dry Gas Fields and Oil Fields co-exist on the same Installation. The convention is for the donor to report a positive quantity and the recipient a negative value.

'Gas Flared at Field'. Gas flared, may include inert gases.

'Gas Vented at Field'. Any gas cold vented to atmosphere, including inert gases.

'Gas Utilised in Field'. Gas utilised during offshore operations. Most gas utilisation is Fuel Gas, but gas can be used for other process purposes.

'Gas Injected'. The Gas Injected into the Field can originate both from the Field reservoir and/or from another Field after Inter-Field Transfer. The Injected Gas CV is only required on those Fields that inject sales gas for storage.

'Gas Utilised from Inter Field Transfer'. A special case when gas is injected into a partially depleted gas reservoir for storage purposes. There would then be two sources of gas for utilisation, native reservoir gas and gas imported through Inter Field Transfer.

'Produced Water'. Water produced from each Field

'Produced Water to Sea'. Produced Water may be recovered from the Dry Gas offshore but, more typically, is sent onshore in the pipeline gas with no offshore discharge.

'Sales Gas to NTS'. This is for onshore Dry Gas Fields only, and not necessarily always applicable. If a number of onshore Fields transport to a gathering station, then 'Stream 9' to a Dry Gas Terminal may be the more appropriate model.

'Individual Sales Gas Non NTS'. Only applies to Onshore Fields and is the direct Gas Sales through dedicated pipelines to power stations, refineries or other end users. The number of entries will equal the number of different destinations.

Time Not Producing. say a field is **not** producing for 10 hours on the 1st of the month, 10 hours on the 2nd, 10 hours on the 3rd and produced for the rest of the month. In total that is 30 hours not producing. You should be reporting 1 against the field DAYS_NOT_PRODUCING and 6 against the field HOURS_NOT_PRODUCING

12.2 Terminals

12.2.1 Oil Pipeline Terminal

'Pipeline Oil Entering Terminal'. Pipeline Oil from offshore or onshore Fields.

'NGLs Condensate Entering Terminal'. Where one Terminal provides process, storage and despatch facilities for a Stream of NGLs/ Condensate produced from another Terminal.

'SCO Receipts'. This is a calculation resulting from when all the liquids entering the Terminal are designated as either SCO Receipts or NGL Receipts for DTI purposes. (This data is required on the 16th of the Month but may be revised in End of Month Report.)

'NGL Receipts'. Calculated as for 'SCO Receipts' above. (This data is required on the 16th of the Month but may be revised in End of Month Report.)

'SCO Losses'. Accounting losses of SCO across the Pipeline and Terminal system. Essentially, the difference between 'SCO Receipts' and oil to storage with the losses expressed in terms of final oil product rather than pipeline entry conditions.

'Condensate and NGL Losses'. Accounting losses of NGLs across Pipeline and Terminal system.

'SCO Stock' at Month End. Stocks in Tanks, pipelines and partially loaded Tankers still moored at the Terminal.

'Gas Flared at Terminal'. Gas flared, may include inert gases.

'Gas Vented at Terminal'. Any gas cold vented to atmosphere, may include inert gases.

'Gas Utilised in Terminal'. Gas used as Fuel and for any other purposes at the Terminal.

'NGL Production' during the Month. The sum of the Ethane, Propane, Butane, and C5+ Condensate to storage or directly exported.

'Ethane Stock' at Month End. Ethane is typically delivered direct by pipeline without storage and, in such a case, there is zero stock.

'Propane Stock' at Month End. Refers to both liquefied refrigerated storage and pressure storage. If propane is delivered directly into pipeline for disposal, without intermediate storage at the Terminal, a zero stock should be reported.

'Butane Stock' at Month End. Refers to liquefied refrigerated storage and pressure storage. If Butane is delivered directly into pipeline for disposal, without intermediate storage at the Terminal, a zero stock should be reported.

'C5 Condensate Stock' at Month End. If C5+ Condensate is delivered directly into pipeline for disposal without storage at Terminal, zero stock should be reported.

'Total SCO Disposal' during the Month. Total Stabilised Crude Oil leaving the Terminal in the Month.

'Individual SCO Disposal' during the Month. The individual cargoes leaving the Terminal during the Month. For Marine Tankers, the number of entries equals the number of individual cargoes loaded and detached from moorings during the Month. For Road, Rail Tanker and pipeline disposal, the number of entries will equal the number of different destinations.

'Total Ethane Disposal' during the Month

'Total Propane Disposal' during the Month

'Total Butane Disposal' during the Month

'Total C5 Condensate Disposal' during the Month

'Individual Ethane, Propane, Butane, and C5 Condensate Disposal' during the Month. For Marine Tankers, the number of entries equals the number of individual cargoes loaded and detached from moorings. For Road, Rail Tanker and pipeline disposal, the number of entries will equal the number of different destinations for each product.

12.2.2 Associated Gas Terminals

If an Onshore Oil Field has surplus gas available after utilisation and flare, such gas will be deemed to then enter an Associated Gas Terminal.

'NGLs Condensate Entering Terminal'. Where one Terminal provides process, storage and despatch facilities for a Stream of NGLs/ Condensate produced from another Terminal.

'Associated Gas Entering Terminal'. Pipeline Gas entering Terminal.

'Condensate and NGL Losses'. Accounting losses across Pipeline and Terminal System.

'Gas Losses'. Accounting losses across the Pipeline and Terminal system.

'Gas Flared at Terminal'. Gas flared, may include inert gases.

'Gas Vented at Terminal'. Any gas cold vented to atmosphere, may include inert gases.

'Gas Utilised at Terminal'. Gas used as Fuel and for any other purpose in Terminal.

'NGL Production' during the Month. The sum of the Ethane, Propane, Butane, and C5+ Condensate to storage or directly exported.

'Ethane Stock' at Month End. Ethane is typically delivered direct by pipeline without storage and, in such a case, there is zero stock.

'Propane Stock' at Month End. Refers to both liquefied refrigerated storage and pressure storage. If propane is delivered directly into pipeline for disposal, without intermediate storage at the Terminal, a zero stock should be reported.

'Butane Stock' at Month End. Refers to liquefied refrigerated storage and pressure storage. If Butane is delivered directly into pipeline for disposal, without intermediate storage at the Terminal, a zero stock should be reported.

'C5 Condensate Stock' at Month End. If C5+ Condensate is delivered directly into pipeline for disposal without storage at Terminal, zero stock should be reported.

'Total Ethane Disposal' during the Month

'Total Propane Disposal' during the Month

'Total Butane Disposal' during the Month

'Total C5 Condensate Disposal' during the Month

'Individual Ethane, Propane, Butane, and C5 Condensate Disposal' during the Month. For Marine Tankers, the number of entries equals the number of individual cargoes loaded and detached from moorings. For Road, Rail Tanker and pipeline disposal, the number of entries will equal the number of different destinations for each product.

'Total Mixed Condensate Disposal' during the Month. This mixed Condensate is a Stream sent by pipeline from one Terminal that is not equipped to produce specification NGL products, to another Terminal that is.

'Individual Mixed Condensate Disposal' during the Month. The number of entries will equal the number of different destinations.

'Sales Gas from UK Production' during the Month. Gas originating from UKCS or onshore production delivered to UK customers.

'Sales Gas from Non UK Production' during the Month. Gas originating from Non UK supply delivered to UK customers.

'Total Sales Gas to NTS' during the Month. Sales Gas irrespective of origin.

'Individual Sales Gas Non NTS' during the Month. Sales Gas through dedicated pipelines directly to power stations, refinery, or other users. The number of entries will equal the number of different destinations.

12.2.3 Dry Gas Terminals

The OGA require all Dry Gas Terminals handling offshore gas to provide a PPRS return in order that there is full segregation of Field and Terminal reporting. One possible exception may be made for onshore Dry Gas Fields.

'Pipeline Dry Gas Entering Terminal'. The Stream entering the Terminal but excluding the quantity of 'Condensate', a convention for Dry Gas Fields.

'Dry Gas Condensate Entering Terminal'. Condensate that is carried in the Pipeline Stream co-mingled with the Dry Gas (cf.: Figure 3).

'Gas Losses'. Accounting losses across the Pipeline and Terminal system.

'Dry Gas Condensate Losses'. Accounting losses across Pipeline and Terminal System.

'Gas Flared at Terminal'. Gas flared, may include inert gases.

'Gas Vented at Terminal'. Any gas cold vented to atmosphere may include inert gases.

'Gas Utilised at Terminal'. Gas used as Fuel and for any other purpose in Terminal.

'Dry Gas Condensate Stock' at Month End. Stocks of Condensate across Pipeline, Terminal system and Storage. If the Dry Gas Condensate product is delivered directly into a pipeline for disposal without intermediate storage at the Terminal then a zero stock should be reported

'Sales Gas from UK Production' during the Month. Gas originating from UKCS or onshore production delivered to UK customers.

'Sales Gas from Non UK Production' during the Month. Gas originating from Non UK supply delivered to UK customers.

'Total Sales Gas to NTS' during the Month. Sales Gas irrespective of origin.

'Individual Sales Gas Non NTS' during the Month. Sales Gas through dedicated pipelines directly to power stations, refinery, or other users. The number of entries will equal the number of different destinations.

'Dry Gas Condensate Disposal' during the Month. Total Dry Gas Condensate leaving Terminal.

'Individual Dry Gas Condensate Disposal' during the Month. For Marine Tankers, the number of entries equals the number of individual cargoes loaded and detached from moorings. For Road, Rail Tanker and pipeline disposal, the number of entries will equal the number of different destinations for each product.

13. APPENDIX B - ATTRIBUTES & VALIDATION RULES

13.1 Field Data Attributes

Reporting Unit Types

P – Oil Field Exporting to Pipeline
T – Onshore Oil Field
OTL - Offshore Tanker Loader
G - Dry Gas Field
W – Onshore Well

Data Types

Character (x) = UPPER CASE ALPHANUMERIC not longer than (x) characters Number (x) = Number with no more than (x) decimal places Integer = whole number, no decimal point

		Data Item Blue Data Items = Mandatory	Units	Data Type	Validation / Rules
Туре	Description	Green Data Items = Optional until Sep 2017			Ruics
P, T, G, OTL, W	Return Date	RETURN_DATE_MONTH RETURN_DATE_YEAR		Integer Integer	
	Reporting Unit	REPORTING_UNIT_NAME		Character (3)	
·		RETURN_UK_SHARE_OIL RETURN_UK_SHARE_GAS		Number(5) Number(5)	Rule 18, 34 Rule 18,34
P,T, OTL, W	Oil Production	OIL_PRODUCTION_VOLUME OIL_PRODUCTION_DENSITY	m ³ Kg/m ³	Integer Number(1)	Rule 1,34
	Oil	INTER_FIELD_TRANSFER_OF_OIL_VOLUME INTER_FIELD_TRANSFER_OF_OIL_DENSITY INTER_FIELD_TRANSFER_OF_OIL_ORIGIN INTER_FIELD_TRANSFER_OF_OIL_DESTINATION	m ³ Kg/m ³ Field Name Field Name	Integer Number(1) Character(30) Character(30)	Rule 2,2a,34 Rule 30
	Oil Production to Pipeline	OIL_PRODUCTION_TO_PIPELINE_VOLUME OIL_PRODUCTION_TO_PIPELINE_DENSITY	m ³ Kg/m ³	Integer Number(1)	Rule 1,34

,	Associated Gas Production	ASSOCIATED_GAS_PRODUCTION_VOLUME ASSOCIATED_GAS_PRODUCTION_DENSITY ASSOCIATED_GAS_PRODUCTION_NON_HYDROCARBON_PERCENTAGE	Ksm³ Kg/sm³ Mole percent	Integer Number(3) Number (3)	Rule 3,34 Rule 35
P,T OTL,	Inter Field Transfer of Associated Gas (* Repeating Group)	INTER_FIELD_TRANSFER_OF_ASSOCIATED_GAS_ORIGIN INTER_FIELD_TRANSFER_OF_ASSOCIATED_GAS_DESTINATION INTER_FIELD_TRANSFER_OF_ASSOCIATED_GAS_NON_HYDROCARBON_PERC	Ksm³ Kg/sm³ Field Name Field Name Mole percent	Integer Number(3) Character(30) Character(30)	Rule 4,4a,34 Rule 30
,	Associated Gas to Pipeline	ENTAGE ASSOCIATED_GAS_TO_PIPELINE_VOLUME ASSOCIATED_GAS_TO_PIPELINE_DENSITY ASSOCIATED_GAS_TO_PIPELINE_CV ASSOCIATED_GAS_TO_PIPELINE_NON_HYDROCARBON_GAS_CONTENT	Ksm ³ Kg/sm ³ MJ/sm ³ Mole percent	Integer Number(3) Number(2)	Rule 5,34
,	Dry Gas Field Production	DRY_GAS_FIELD_PRODUCTION_VOLUME DRY_GAS_FIELD_PRODUCTION_DENSITY DRY_GAS_FIELD_PRODUCTION_NON_HYDROCARBON_PERCENTAGE	Ksm3 Kg/sm3 Mole percent	Integer Number(3)	Rule 3,34
	Inter Field Transfer of Dry Gas (* Repeating Group)	INTER_FIELD_TRANSFER_OF_DRY_GAS_VOLUME INTER_FIELD_TRANSFER_OF_DRY_GAS_DENSITY INTER_FIELD_TRANSFER_OF_DRY_GAS_ORIGIN INTER_FIELD_TRANSFER_OF_DRY_GAS_DESTINATION INTER_FIELD_TRANSFER_OF_DRY_GAS_NON_HYDROCARBON_PERCENTAGE	Ksm3 Kg/sm3 Field Name Field Name Mole percent	Integer Number(3) Character(30) Character(30)	Rule 4,4a Rule 30
G, W	Dry Gas to Pipeline	DRY_GAS_TO_PIPELINE_VOLUME DRY_GAS_TO_PIPELINE_CV DRY_GAS_TO_PIPELINE_DENSITY	Ksm3 MJ/sm3 Kg/sm3 Mole percent	Integer Number(2)	Rule 5,34
	Dry Gas Field Condensate Production	DRY_GAS_FIELD_CONDENSATE_PRODUCTION_VOLUME DRY_GAS_FIELD_CONDENSATE_PRODUCTION_DENSITY	m3 Kg/m3	Integer Number(3)	Rule 19,34
G	Inter Field Transfer of Condensate (* Repeating Group)	INTER_FIELD_TRANSFER_OF_CONDENSATE_VOLUME INTER_FIELD_TRANSFER_OF_CONDENSATE_DENSITY INTER_FIELD_TRANSFER_OF_CONDENSATE_ORIGIN INTER_FIELD_TRANSFER_OF_CONDENSATE_DESTINATION	m3 Kg/m3 Field Name Field Name	Integer Number(1) Character(30) Character(30)	Rule 20,20a Rule 30

БТ	One Flavori et Field	CAC FLADED AT FIELD VOLUME	1/0	luta sa	
	Gas Flared at Field	GAS_FLARED_AT_FIELD_VOLUME	Ksm3	Integer	Rule 3
OTL,G,		GAS_FLARED_AT_FIELD_DENSITY	Kg/sm3	Number(3)	
W		GAS_FLARED_AT_FIELD_NON_HYDROCARBON_PERCENTAGE	Mole percent		
	Gas Vented at Field	GAS_VENTED_AT_FIELD_VOLUME	Ksm3	Integer	Rule 3
OTL,G,		GAS_VENTED_AT_FIELD_DENSITY	Kg/sm3	Number(3)	
W		GAS_VENTED_AT_FIELD_NON_HYDROCARBON_PERCENTAGE	Mole percent		
	Gas Utilised in Field	GAS_UTILISED_IN_FIELD_VOLUME	Ksm3	Integer	Rule 3
OTL,G,		GAS_UTILISED_IN_FIELD_DENSITY	Kg/sm3	Number(3)	
W		GAS_UTILISED_IN_FIELD_NON_HYDROCARBON_PERCENTAGE	Mole percent		
P,T,	Gas Injected	GAS_INJECTED_VOLUME	Ksm3	Integer	Rule 32,34
OTL,G,	-	GAS_INJECTED_CV	MJ/sm3	Number(2)	
W		GAS_INJECTED_NON_HYDROCARBON_PERCENTAGE	Mole percent		
G,W	Gas Utilised from Inter	GAS_UTILISED_FROM_INTER_FIELD_TRANSFER_VOLUME	Ksm3	Integer	Rule 3
	Field Transfer	GAS_UTILISED_FROM_INTER_FIELD_TRANSFER_DENSITY	Kg/sm3	Number(3)	
		GAS UTILISED FROM INTER FIELD TRANSFER NON HYDROCARBON PERC	Mole percent		
		ENTAGE			
P,T,	Produced Water	PRODUCED WATER VOLUME	m3	Integer	Rule 7,34
OTL,G,					110.10 7 /0 1
W					
P,T,	Produced Water to	PRODUCED_WATER_TO_SEA_VOLUME	m3	Integer	Rule 7
	Sea				
P,T	Injected Water	INJECTED_WATER_VOLUME	m3	Integer	Rule 7,34
OTL,W					·
		RE_INJECTED_PRODUCED_WATER_VOLUME	m3	Integer	Rule 7
,	Water				
P,W	Stock of Oil in Field	STOCK_OF_OIL_IN_FIELD_VOLUME	m3	Integer	Rule 1
		STOCK_OF_OIL_IN_FIELD_DENSITY	Kg/m3	Number(1)	
T,OTL,	Stock of Oil in Tanker	STOCK_OF_OIL_IN_TANKER_VOLUME	m3	Integer	Rule 37, 37a
W		STOCK_OF_OIL_IN_TANKER_DENSITY	Kg/m3	Number(1)	
T,OTL,	Stock of Oil in Pipeline	STOCK_OF_OIL_IN_PIPELINE_VOLUME	m3	Integer	Rule 1
W	-	STOCK_OF_OIL_IN_PIPELINE_DENSITY	Kg/m3	Number(1)	
T,OTL,	Total Oil Tanker	TOTAL OIL TANKER DISPOSALS VOLUME	m3	Integer	Rules 1
, ,	Disposals	TOTAL_OIL_TANKER_DISPOSALS_DENSITY	Kg/m3	Number(1)	and 26
	'			` ,	and 20

,	•	INDIVIDUAL_OIL_TANKER_DISPOSAL_DENSITY INDIVIDUAL_OIL_TANKER_DISPOSAL_DESTINATION	Kg/m3 Code	Number(1)	Rule 21 Rule 31 Rule 30
G,W			Kg/sm3	Integer Number(3) Number(2)	Rule 13
,		INDIVIDUAL_SALES_GAS_NON_NTS_CV	Kg/sm3 MJ/sm3	N (0)	Rule 9,9b Rule 30
P,T, OTL, G, W			,	INTEGER INTEGER	Rule 39

13.2 Terminal Data Attributes

Reporting Unit Types

O – Oil Pipeline Terminal

A – Associated Gas Terminal

D - Dry Gas Terminal

Data Types

Character (x) = UPPER CASE ALPHANUMERIC not longer than (x) characters

Number (x) = Number with no more than (x) decimal places

Integer = whole number, no decimal point

Reporting	Data/Stream Description	Data Item	Units	Data Type	Validation
Unit Type					/Rules
O,A,D	Return UK Share	RETURN_UK_SHARE_OIL		Number(5)	Rule 18
		RETURN_UK_SHARE_GAS		Number(5)	Rule 18
0	Pipeline Oil Entering Terminal	PIPELINE_OIL_ENTERING_TERMINAL_MASS	Tonnes	Integer	Rule 7
O,A	NGLs Condensate Entering Terminal	NGLS_CONDENSATE_ENTERING_TERMINAL_MASS	Tonnes	Integer	Rule 22
		NGLS_CONDENSATE_ENTERING_TERMINAL_DENSITY	Kg/m ³	Number(1)	
0	SCO Receipts	SCO_RECEIPTS_MASS	Tonnes	Integer	Rule 10
		SCO_RECEIPTS_DENSITY	Kg/m ³	Number(1)	
0	NGL Receipts	NGL_RECEIPTS_MASS	Tonnes	Integer	Rule 7
Α	Associated Gas Entering Terminal	ASSOCIATED_GAS_ENTERING_TERMINAL_MASS	Tonnes	Integer	Rule 11
		ASSOCIATED_GAS_ENTERING_TERMINAL_DENSITY	Kg/sm ³	Number(3)	
D	Pipeline Dry Gas Entering Terminal	PIPELINE_DRY_GAS_ENTERING_TERMINAL_MASS	Tonnes	Integer	Rule 11
		PIPELINE_DRY_GAS_ENTERING_TERMINAL_DENSITY	Kg/sm ³	Number(3)	
D	Dry Gas Condensate Entering	DRY_GAS_CONDENSATE_ENTERING_TERMINAL_MASS	Tonnes	Integer	Rule 22
	Terminal	DRY_GAS_CONDENSATE_ENTERING_TERMINAL_DENSITY	Kg/m ³	Number(3)	
0	SCO Losses	SCO_LOSSES_MASS	Tonnes	Integer	Rule 23
O,A	Condensate and NGL Losses	CONDENSATE_AND_NGL_LOSSES_MASS	Tonnes	Integer	Rule 23
A,D	Gas Losses	GAS_LOSSES_MASS	Tonnes	Integer	Rule 24
		GAS_LOSSES_DENSITY	Kg/sm ³	Number(3)	
D	Dry Gas Condensate Losses	DRY_GAS_CONDENSATE_LOSSES_MASS	Tonnes	Integer	Rule 25
		DRY_GAS_CONDENSATE_LOSSES_DENSITY	Kg/sm ³	Number(3)	

O,A,D	Gas Flared at Terminal	GAS_FLARED_AT_TERMINAL_MASS	Tonnes	Integer	Rule 11
		GAS_FLARED_AT_TERMINAL_DENSITY	Kg/sm3	Number(3)	
O,A,D	Gas Vented at Terminal	GAS_VENTED_AT_TERMINAL_MASS	Tonnes	Integer	Rule 11
		GAS_VENTED_AT_TERMINAL_DENSITY	Kg/sm3	Number(3)	
O,A,D	Gas Utilised in Terminal	GAS_UTILISED_IN_TERMINAL_MASS	Tonnes	Integer	Rule 11
		GAS_UTILISED_IN_TERMINAL_DENSITY	Kg/sm3	Number(3)	
0	SCO Stock	SCO_STOCK_MASS	Tonnes	Integer	Rule 10
		SCO STOCK_DENSITY	Kg/m3	Number(1)	
O,A	NGL Production	NGL_PRODUCTION_MASS	Tonnes	Integer	Rule 7
O,A	Ethane Stock	ETHANE_STOCK_MASS	Tonnes	Integer	Rule 7
O,A	Propane Stock	PROPANE_STOCK_MASS	Tonnes	Integer	Rule 7
O,A	Butane Stock	BUTANE_STOCK_MASS	Tonnes	Integer	Rule 7
O,A	C5 Condensate Stock	C5_CONDENSATE_STOCK_MASS	Tonnes	Integer	Rule 7
D	Dry Gas Condensate Stock	DRY_GAS_CONDENSATE_STOCK_MASS	Tonnes	Integer	Rule 22
		DRY_GAS_CONDENSATE_STOCK_DENSITY	Kg/m3	Number(1)	
0	Total SCO Disposal	TOTAL_SCO_DISPOSAL_MASS	Tonnes	Integer	Rule 10
		TOTAL_SCO_DISPOSAL_DENSITY	Kg/m3	Number(1)	
0	Individual SCO Disposal	INDIVIDUAL_SCO_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
		INDIVIDUAL_SCO_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
	(* Repeating Group)	INDIVIDUAL_SCO_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30, 33
O,A	Total Ethane Disposal	TOTAL_ETHANE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		TOTAL_ETHANE_DISPOSAL_DENSITY	Kg/m3	Number(3)	
O,A	Total Propane Disposal	TOTAL_PROPANE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		TOTAL_PROPANE_DISPOSAL_DENSITY	Kg/m3	Number(3)	
O,A	Total Butane Disposal	TOTAL_BUTANE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		TOTAL_BUTANE_DISPOSAL_DENSITY	Kg/m3	Number(3)	
O,A	Total C5 Condensate Disposal	TOTAL_C5_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		TOTAL_C5_CONDENSATE_DISPOSAL_DENSITY	Kg/m3	Number(3)	
O,A	Individual Ethane Disposal	INDIVIDUAL_ETHANE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
		INDIVIDUAL_ETHANE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
	(* Repeating Group)	INDIVIDUAL_ETHANE_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30

					Rule 33
O,A	Individual Propane Disposal	INDIVIDUAL_PROPANE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
		INDIVIDUAL_PROPANE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
	(* Repeating Group)	INDIVIDUAL_PROPANE_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30
					Rule 33
O,A	Individual Butane Disposal	INDIVIDUAL_BUTANE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
		INDIVIDUAL_BUTANE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
	(* Repeating Group)	INDIVIDUAL_BUTANE_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30
					Rule 33
O,A	Individual C5 Condensate Disposal	INDIVIDUAL_C5_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
		INDIVIDUAL_C5_CONDENSATE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
	(* Repeating Group)	INDIVIDUAL_C5_CONDENSATE_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30
					Rule 33
Α	Total Mixed Condensate Disposal	TOTAL_MIXED_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		TOTAL_MIXED_CONDENSATE_DISPOSAL_DENSITY	Kg/sm3	Number(1)	
Α	Individual Mixed Condensate	INDIVIDUAL_MIXED_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
	Disposal	INDIVIDUAL_MIXED_CONDENSATE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
		INDIVIDUAL_MIXED_CONDENSATE_DISPOSAL_DESTINATION	Code	Character(3)	Rule 30
	(* Repeating Group)				Rule 33
A,D	Sales Gas from UK Production	SALES_GAS_FROM_UK_PRODUCTION_MASS	Tonnes	Integer	Rule 13
		SALES_GAS_FROM_UK_PRODUCTION_DENSITY	Kg/sm3	Number(3)	
		SALES_GAS_FROM_UK_PRODUCTION_CV	MJ/sm3	Number(2)	
A,D	Sales Gas from Non UK Production	SALES_GAS_FROM_NON_UK_PRODUCTION_MASS	Tonnes	Integer	Rule 13
		SALES_GAS_FROM_NON_UK_PRODUCTION_DENSITY	Kg/sm3	Number(3)	
		SALES_GAS_FROM_NON_UK_PRODUCTION_CV	MJ/sm3	Number(2)	
A,D	Sales Gas to NTS	SALES_GAS_TO_NTS_MASS	Tonnes	Integer	Rule 13
		SALES_GAS_TO_NTS_DENSITY	Kg/sm3	Number(3)	
		SALES_GAS_TO_NTS_CV	MJ/sm3	Number(2)	
A,D	Individual Sales Gas Non NTS	INDIVIDUAL_SALES_GAS_NON_NTS_MASS	Tonnes	Integer	Rule 9,9b
		INDIVIDUAL_SALES_GAS_NON_NTS_DENSITY	Kg/sm3	Number(3)	Rule 30
		INDIVIDUAL_SALES_GAS_NON_NTS_CV		Number(2)	Rule 31

		INDIVIDUAL_SALES_GAS_NON_NTS_DESTINATION	MJ/sm3	Character(3)	
	(* Repeating Group)		Code		
D	Dry Gas Condensate Disposal	DRY_GAS_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 22
		DRY_GAS_CONDENSATE_DISPOSAL_DENSITY	Kg/m3	Number(3)	
D	Individual Dry Gas Condensate	INDIVIDUAL_DRY_GAS_CONDENSATE_DISPOSAL_MASS	Tonnes	Integer	Rule 12,12a
	Disposal	INDIVIDUAL_DRY_GAS_CONDENSATE_DISPOSAL_DELIVERY	Method	Character(1)	Rule 31
		INDIVIDUAL_DRY_GAS_CONDENSATE_DISPOSAL_DESTINATIO	Code	Character(3)	Rule 30
	(* Repeating Group)	N			Rule 33

13.3 Validation Rules

Blue text are existing quality checks already used in the current solution. Green text are new quality checks.

Validation Rule	Rule Definition	Rule Scope	Severity	Field	Terminal
Rule 1 – Oil volume reporting	(volume > 0 and < 999999 and density >500 and < 1050) OR (volume = 0 and density = 0)	Within Data/Stream Description	Red	Yes	
Rule 2 – Oil volume transfers	(volume > -999999 and < 999999 and density > 500 and < 1050 and origin is not blank and destination is not blank) The convention is that transfers from the reporting unit are positive, and transfers in are negative	Within Data/Stream Description	Red	Yes	
Rule 2a – Oil volume transfers empty values	(volume <> 0 or density <> 0)	Within Data/Stream Description	Orange	Yes	
Rule 3 – Gas volume reporting	(volume > 0 and < 999999 and density > 0.65 and < 5.0) OR (volume = 0 and density = 0)	Within Data/Stream Description	Red	Yes	
Rule 4 – Gas volume transfers	(volume > -999999 and < 999999 and density > 0.65 and < 5.0 and origin is not blank and destination is not blank) The convention is that transfers from the reporting unit are positive, and transfers in are negative	Within Data/Stream Description	Red	Yes	
Rule 4a – Gas volume transfers empty values	(volume <> 0 or density <> 0)	Within Data/Stream Description	Orange	Yes	
Rule 5 – Gas volume reporting with CV	(volume > 0 and < 999999 and density > 0.65 and < 5.0 and calorific value (CV) > 0 and < 99) OR (volume = 0 and density = 0 and CV = 0)	Within Data/Stream Description	Red	Yes	

Rule 6 – Gas volume reporting with CV only	(volume >0 and < 999999 and CV > 0 and < 99) OR (volume = 0 and CV = 0)	Within Data/Stream Description	Red	Yes	
Rule 7 – volume/ mass reporting only	(value >= 0 and < 999999999)	Within Data/Stream Description	Red	Yes	Yes
Rule 9 – Individual Gas mass disposals	(mass > 0 and < 9999999 and density > 0.65 and < 5.0 and CV > 0 and < 99 and Destination is not blank)	Within Data/Stream Description	Red	Yes	Yes
Rule 9a – Individual Gas mass disposals - negative mass	(mass > -9999999 and < 9999999 and density > 0.65 and < 5.0 and CV > 0 and < 99 and Destination is not blank)	Within Data/Stream Description	Red	Yes	Yes
Rule 9b – Individual Gas mass disposals empty values	(volume <> 0 or density <> 0 or cv <> 0)	Within Data/Stream Description	Orange	Yes	Yes
Rule 10 – Oil mass reporting	(mass > 0 and < 9999999 and density > 500 and < 1050) OR (mass = 0 and density = 0)	Within Data/Stream Description	Red		Yes
Rule 11 – Gas mass reporting	(mass > 0 and < 9999999 and density > 0.65 and < 5.0) OR (mass = 0 and density = 0)	Within Data/Stream Description	Red		Yes
Rule 12 – Mass disposal	(mass > 0 and < 9999999 and delivery not blank and destination is in Rule 31)	Within Data/Stream Description	Red		Yes
Rule 12a – Mass disposal empty value	(mass <> 0)	Within Data/Stream Description	Orange		Yes
Rule 13 – Gas mass reporting with CV	(mass > 0 and < 9999999 and density > 0.65 and < 5.0 and CV > 0 and < 99) OR (mass = 0 and density = 0 and CV = 0)	Within Data/Stream Description	Red	Yes	Yes
Rule 18 – UK Share	This represents the share of production attributable to UK, which may differ from the UK equity due to an underlift/ overlift situation. Values for Median line fields may result in negative values or values > 100. There is therefore limited validation: Value > -100 and < 200	Individual Data Item	Red	Yes	Yes
Rule 18a – UK Share	This represents the share of production attributable to UK,: Value >0 and <= 100	Individual Data Item	Orange +Rule 34 for field returns	Yes	Yes
Rule 19 – NGL/ Condensate volume reporting	(volume > 0 and < 9999999 and density > 300 and < 800) OR (volume = 0 and density = 0)	Within Data/Stream Description	Red	Yes	
Rule 20 – NGL/ Condensate volume transfers	(volume > -999999 and < 999999) and density > 300 and < 800 and origin is not blank and destination is not blank	Within Data/Stream Description	Red	Yes	

	The convention is that transfers from the reporting unit are positive, and transfers in are negative				
Rule 20a – NGL/ Condensate volume transfers empty values	(volume <> 0 or density <> 0)	Within Data/Stream Description	Orange	Yes	
Rule 21 – Individual oil volume disposal	Volume > 0 and < 9999999 and density > 500 and < 1050 and destination in Rule 31 and vessel is not blank	Within Data/Stream Description	Red	Yes	
Rule 21a – Individual oil volume disposal empty values	(volume <> 0 or density <> 0)	Within Data/Stream Description	Orange	Yes	
Rule 22 – NGL and Condensate mass reporting	(mass > 0 and < 9999999 and density > 300 and < 800) OR (mass = 0 and density = 0)	Within Data/Stream Description	Red		Yes
Rule 23 – Mass losses	(mass > -9999999 and < 9999999)	Within Data/Stream Description	Red		Yes
Rule 24 – Gas mass losses	(((mass > 0 and < 9999999) or (mass > -9999999 and < 0)) and density > 0.65 and < 5) OR (mass = 0 and density = 0)	Within Data/Stream Description	Red		Yes
Rule 25 – Condensate mass losses	(((mass > 0 and < 9999999)) or (mass > -99999999) and < 0)) and density > 300 and < 800) OR (mass = 0 and density = 0)	Within Data/Stream Description	Red		Yes
Rule 26 – Total disposals and individual values	For each terminal product type: SCO, Ethane, Propane, Butane, C5 Condensate, Mixed Condensate, Dry Gas Condensate, the sum of individual disposals must equal total disposal within plus or minus 0.5%. Similarly for field Oil Tanker Disposals. If the total value for a product type is zero, then no entries in the corresponding repeating group for the individual disposals should be included in the return. Only the tag for the repeating group should appear.	Consistency of total values and corresponding individual values	Red	Yes	
Rule 30 – How to report empty Repeating Groups	If a repeating group does not have values to be reported (e.g. a field has no Inter Field Transfer of Oil) then the XML data tags within the repeating group should be omitted. Only the tags identifying the repeating group should be included in the XML file. E.g. if there is no Inter Field Transfer of Oil then the XML entry will read: <inter_field_transfer_of_oil_repeating_group> </inter_field_transfer_of_oil_repeating_group>	Repeating Data Groups	Orange	Yes	Yes

	Similarly if there were no Individual Ethane Disposals then the entry in the XML file would read: <individual_ethane_disposal_repeating_group> </individual_ethane_disposal_repeating_group>				
Rule 31 – Valid codes for Destinations	These are in a separate part of the Manual because they may change from time to time.				
Rule 32 – Gas Injection – only report CV for fields with sales gas injection	<pre>(Reporting_Unit_Type = P or T and Volume >=0 and < 999999999 and CV is blank) OR (Reporting_Unit_Type = G and Reporting Unit injects sales gas for storage and ((Volume >0 and < 999999999 and CV > 0 and < 50) or (Volume = 0 and CV = 0)) OR (Reporting_Unit_Type = G and Reporting Unit does not inject sales gas for storage and (Volume >= 0 and < 999999999 and CV is blank))</pre>	Within Data/Stream Description	Red	Yes	
Rule 33 – Disposal Delivery Method	Value should be, R= Rail or Road P= Pipeline T= Tanker O= Other				
Rule 34 – Tolerance Level with Previous Data	All MASS and VOLUMES should be checked against the previous month's figures. Any new figure that is more than 25% different from the last month should be submitted to the user in an error message.	All MASS and VOLUME figures	Orange	Yes	Yes
Rule 35 – Non Hydrocarbon Gas content	Non-hydrocarbon gas content as percentage of volume >=0 and < 99		Red		
Rule 36 – Valid Calorific Value Ranges of Gasses	The calorific value for a gas must not exceed the theoretical maximum or minimum for a hydrocarbon gas mixture of the purity provided in the return.		Orange		
Rule 37 – Stock of Oil in Tanker Oil volume reporting	(volume > -999999 and < 999999 and density >500 and < 1050) OR (volume = 0 and density = 0)	Within Data/Stream Description	Red	Yes	
Rule 37a –Stock of Oil in Tanker volume reporting normal bounds	(volume >= 0 and < 999999)	Within Data/Stream Description	Orange	Yes	

Rule 38 Non Hydrocarbon Gas content	Non-hydrocarbon content must be provided for reporting periods after the 1st September 2017	Red	Yes	
Rule 39 Days not producing	Days not producing must not be greater than the number of days	Red	yes	
	in the reporting period.			
	Hours not producing < 24			

13.4 Onshore Wells Validation Rules

Validation Rule	Rule Definition	Rule Scope
Rule 1 – Oil volume reporting	(volume > 0 and < 9999999 and density >500 and < 1050) OR (volume = 0 and density = 0)	Within Data/Stream Description
Rule 2 – Oil volume transfers	((volume > 0 and < 9999999) or (volume <0 and > -9999999)) and density > 500 and < 1050 and origin is not blank and destination is not blank) The convention is that transfers from the reporting unit are positive, and transfers in are negative	Within Data/Stream Description
Rule 3 – Gas volume reporting	(volume >0 and < 999999999 and density > 0.65 and < 5) OR (volume = 0 and density = 0)	Within Data/Stream Description
Rule 4 – Gas volume transfers	((volume > 0 and < 999999999) or (volume < 0 and > -999999999)) density > 0.65 and < 5 and origin is not blank and destination is not blank) The convention is that transfers from the reporting unit are positive, and transfers in are negative	Within Data/Stream Description
Rule 5 – Gas volume reporting with CV	(volume > 0 and < 999999999 and density > 0.65 and < 5 and calorific value (CV) > 0 and < 50) OR (volume = 0 and density = 0 and CV = 0)	Within Data/Stream Description

Rule 6 – Gas volume reporting with CV only	(volume >0 and < 999999999 and CV > 0 and < 50) OR (volume = 0 and CV = 0)	Within Data/Stream Description
Rule 7 – volume/ mass reporting only	(value >= 0 and < 99999999)	Within Data/Stream Description
Rule 9 – Individual Gas mass disposals	(mass > 0 and < 9999999 and density > 0.65 and < 5 and CV > 0 and < 50 and Destination is not blank)	Within Data/Stream Description
Rule 10 – Oil mass reporting	(mass > 0 and < 9999999 and density > 500 and < 1050) OR (mass = 0 and density = 0)	Within Data/Stream Description
Rule 11 – Gas mass reporting	(mass > 0 and < 9999999 and density > 0.65 and < 5) OR (mass = 0 and density = 0)	Within Data/Stream Description
Rule 12 – Mass disposal	(mass > 0 and < 9999999 and delivery not blank and destination is in Rule 31)	Within Data/Stream Description
Rule 13 – Gas mass reporting with CV	(mass > 0 and < 9999999 and density > 0.65 and < 5 and CV > 0 and < 50) OR (mass = 0 and density = 0 and CV = 0)	Within Data/Stream Description
Rule 14 – Reporting month/ year	month >= 1 and <= 12 and year >= 1975	Within Data/Stream Description

Rule 15 – Reporting Unit Details	Assigned by the OGA at start of reporting – must be upper case if alphabetic.	Individual Data Item
Rule 16 – Reporting Unit Type	Reporting_Unit_Type = Well	Individual Data Item
Rule 17 – Operating Company	Agreed with OGA at start of reporting and for subsequent changes – upper case	Individual Data Item
Rule 19 – NGL/ Condensate volume reporting	(volume > 0 and < 9999999 and density > 300 and < 800) OR (volume = 0 and density = 0)	Within Data/Stream Description
Rule 20 – NGL/ Condensate volume transfers	((volume > 0 and < 9999999) or (volume < 0 and > -9999999)) and density > 300 and < 800 and origin is not blank and destination is not blank. The convention is that transfers from the reporting unit are positive, and transfers in are negative	Within Data/Stream Description
Rule 21 – Individual oil volume disposal	Volume > 0 and < 9999999 and density > 500 and < 1050 and destination in Rule 31 and vessel is not blank	Within Data/Stream Description
Rule 22 – NGL and Condensate mass reporting	(mass > 0 and < 9999999 and density > 300 and < 800) OR (mass = 0 and density = 0)	Within Data/Stream Description
Rule 23 – Mass Iosses	(mass > -9999999 and < 9999999)	Within Data/Stream Description

Rule 24 – Gas mass losses	(((mass > 0 and < 9999999) or (mass > -9999999 and < 0)) and density > 0.65 and < 5) OR (mass = 0 and density = 0)	Within Data/Stream Description
Rule 25 – Condensate mass losses	(((mass > 0 and < 9999999) or (mass > -9999999 and < 0)) and density > 300 and < 800) OR (mass = 0 and density = 0)	Within Data/Stream Description
Rule 26 – Total disposals and individual values	For each terminal product type: SCO, Ethane, Propane, Butane, C5 Condensate, Mixed Condensate, Dry Gas Condensate, the sum of individual disposals must equal total disposal within plus or minus 0.5%. Similarly, for field Oil Tanker Disposals. If the total value for a product type is zero, then no entries in the corresponding repeating group for the individual disposals should be included in the return. Only the tag for the repeating group should appear.	Consistency of total values and corresponding individual values
Rule 30 – How to report empty Repeating Groups	If a repeating group does not have values to be reported, then the XML data tags within the repeating group should be omitted. Only the tags identifying the repeating group should be included in the XML file. If there were no Individual Ethane Disposals, then the entry in the XML file would read: <individual_ethane_disposal_repeating_group> </individual_ethane_disposal_repeating_group>	Repeating Data Groups
Rule 32 – Gas Injection – only report CV for wells with sales gas injection	(Reporting_Unit_Type = W and Volume >=0 and < 999999999 and CV is blank)	Within Data/Stream Description

APPENDIX C - PPRS DESTINATION CODES

13.5 Destinations for UK disposals

Destination Names and Codes

 Albury Bacton Perenco Bacton SEAL Bacton Shell Barrow Centrica BP-Amoco Chemicals, Avonmouth BP-Amoco Chemicals, Grangemouth BP-Amoco Chemicals, Saltend BP-Amoco Refinery, Grangemouth Calor Gas, Belfast Calor Gas, Felixstowe Carless Solvents, Harwich Caythorpe Conoco Refinery, Killingholme/Immingham 	ALB BAP BAQ BAS BAR BAV BPC BPS BGA BFE CFE CSH CAY CQU CKI
CaythorpeConnah's Quay	CAY CQU
 Crosby Warren Dimlington Easington York Eastham Refinery, Eastham Elf Refinery, Milford Haven Elswick Esso Chemicals, Fife 	CRW DIM EAS ERF EMH ELS EOI
 Esso Refinery, Fawley 	EFA

•	Flotta	FLO
•	Hamble Terminal	HAM
•	Hatfield Moors	HTM
•	Holybourne Terminal	HOL
•	FPS Kinneil	KIN
•	Knapton Generating Station	KNP
•	Inter Terminals Ltd	INT
•	Lindsey Refinery, Killingholme	LSK
•	Mobil Refinery, Coryton	MCO
•	Murco Refinery, Milford Haven	MMH
•	National Transmission System	NTS
•	Navigator Terminals Seal Sands Itd	NAV
•	Not Known	NOT
•	Nynas Refinery, Dundee	NYN
•	Peterhead/Boddam Power Station	BOD
•	Petroplus, Milfordhaven	PPM
•	Phillips Imperial Refinery, North Tees	PNT
•	PowerGen gas to Killingholme Power Station	KIL
•	SABIC UK Petrochemicals Ltd	SAB
•	Shell Refinery, Stanlow/ Tranmere	SST
•	Ship to Ship	SHP
•	St Fergus SEGAL	SFF
•	St Fergus Frigg	SFT
•	St Fergus SAGE	SFS
•	Scapa Flow	FLW
•	Southwold	SOW
•	Sullom Voe	SVT
•	Teesside CATS	CAT
•	Teesside Norpipe	NRP
•	Teesside TGPP/PX	TPL
•	Tetney Marine Terminal	TMT
•	Texaco Refinery, Pembroke	TPE

•	Theddlethorpe	THE
•	Trumfleet	TRF
•	Wytch Farm gas processing/export	WFG
•	Wytch Farm	WFO

13.6 International Destinations

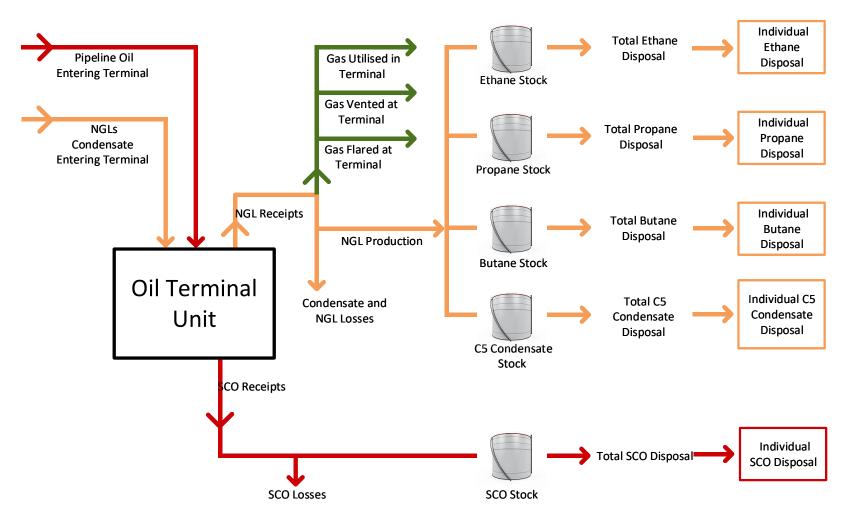
Estonia Finland France Gabon Georgia Germany Gibraltar Greece Hong Kong (China) Hungary Iceland India Indonesia Iran, Islamic Republic Iraq Ireland Israel Italy Japan Jordan Kazakhstan Korea North Kuwait Kyrgyzstan Latvia Lebanon Libya Lithuania Macedonia, Former Yugoslav Republic Malaysia Malta Mexico	E I F G G D G G H H S N D R Q E I I T P O Z F K K K L L L T F M M M
Indonesia Iran, Islamic Republic Iraq Ireland Israel Italy Japan Jordan Kazakhstan Korea North Kuwait Kyrgyzstan Latvia Lebanon Libya Lithuania Macedonia, Former Yugoslav Republic Malaysia	ID IR IQ IE IL IT JP JO KZ KP KW KG LV LT RY MY MT

•	Moldova, Republic	MD
•	Montenegro	MO
•	Morocco	MA
•	Netherlands	NL
•	Netherlands Antilles	NT
•	New Zealand	NZ
•	Nigeria	NG
•	Norway	NO
•	Oman	OM
•	Other Africa	OAF
•	Other Asia and Pacific	OAS
•	Other Europe	OEU
•	Other Former Soviet Union	OSU
•	Other Near and Middle East	OME
•	Other non-OECD Americas	OSA
•	Papua New Guinea	PG
•	Peru	PE
•	Poland	PL
•	Portugal	PT
•	Qatar	QA
•	Romania	RO
•	Russian Federation	RU
•	Saudi Arabia	SA
•	Serbia	SX
•	Singapore	SG
•	Slovak Republic	SQ
•	Slovenia	SI
•	Spain	ES
•	Sweden	SE
•	Switzerland	CH
•	Syrian Arab Republic	SY
•	Tajikistan	TJ

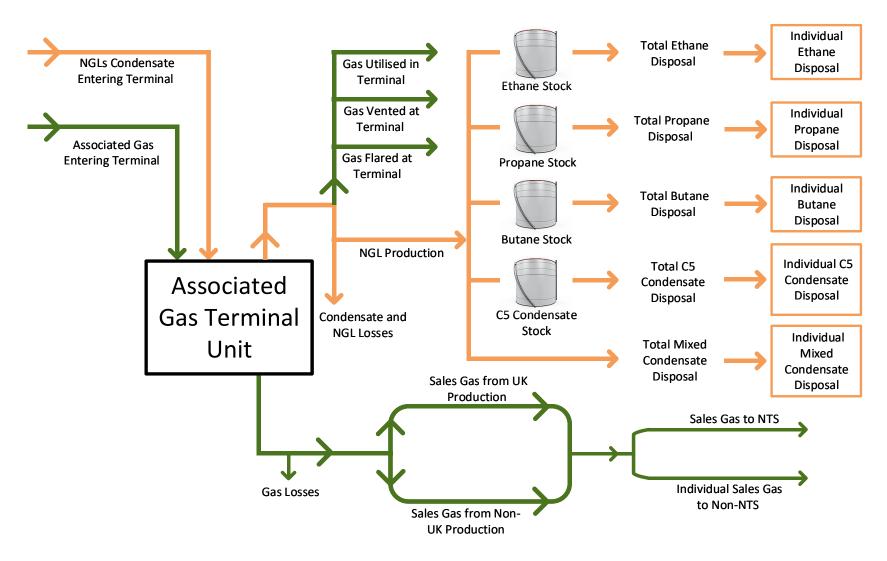
•	Thailand	ΤH
•	Trinidad and Tobago	TT
•	Tunisia	ΤN
•	Turkey	TR
•	Turkmenistan	TM
•	Ukraine	UA
•	United Arab Emirates	UE
•	United Kingdom	UK
•	United States	US
•	Uzbekistan	UΖ
•	Venezuela	VΕ
•	Vietnam	VN
•	Yemen	YΕ
•	Non-specified/Other	OT

The 2 letter country codes are based on ISO 3166 see https://www.iso.org/iso-3166-country-codes.html

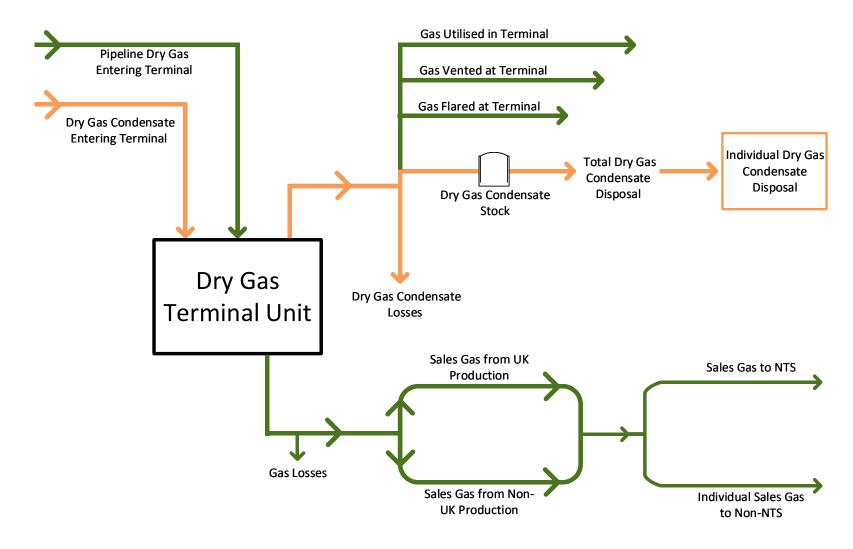
14. APPENDIX D - REPORTING TYPES FLOW CHARTS



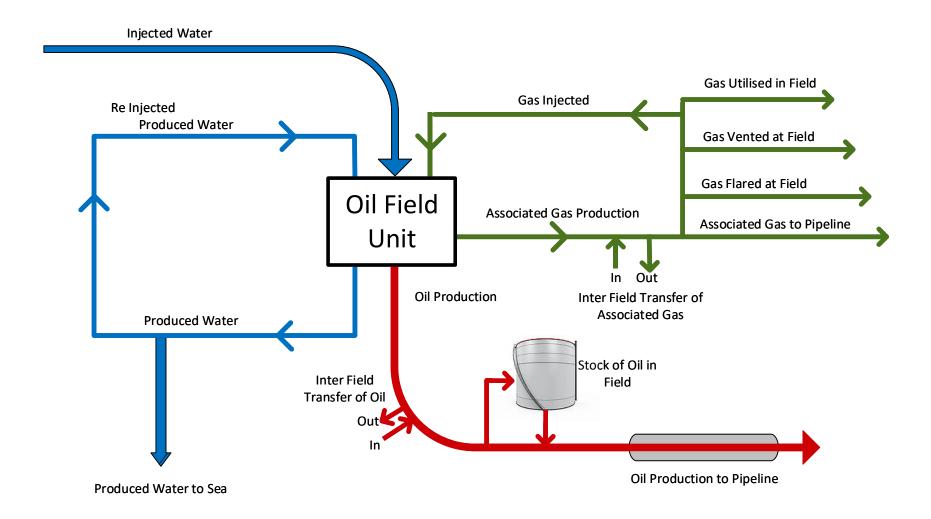
Oil Pipeline Terminal (Data Type O)



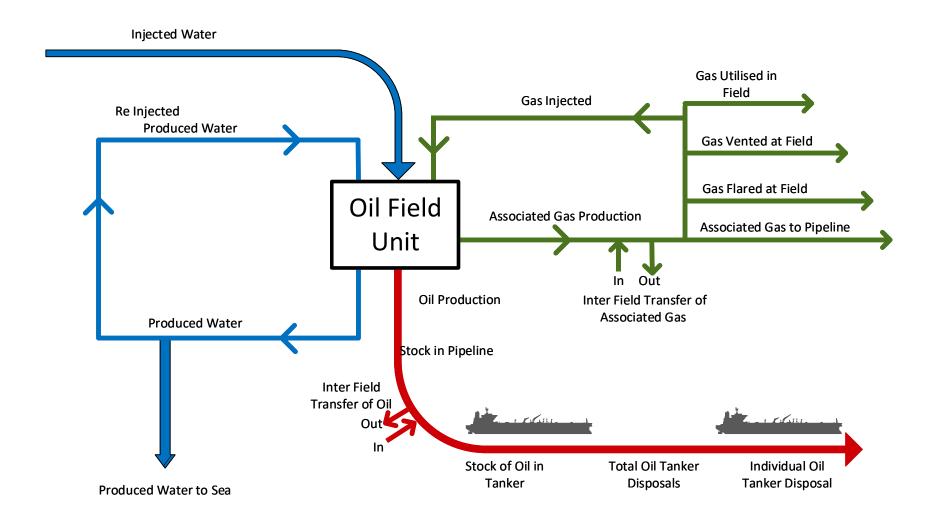
Associated Gas Terminal (Data Type A)



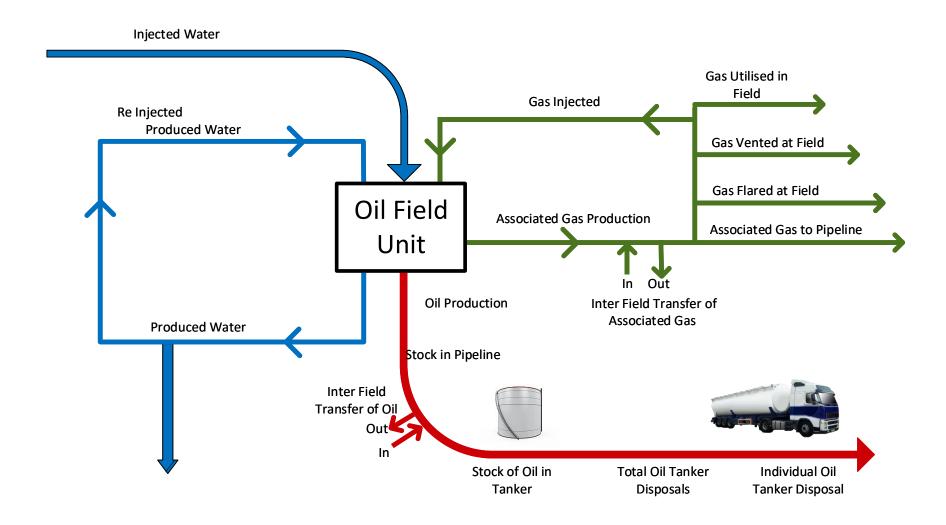
Dry Gas Terminal (Data Type D)



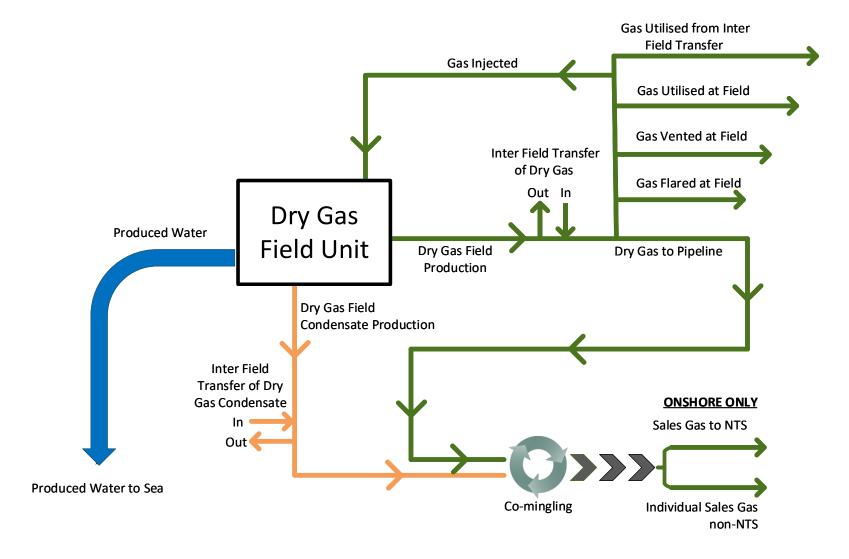
Oil Field Exporting to Pipeline (Data Type P)



Offshore Tanker Loading (Data Type OTL)



Onshore Oil Field (Data Type T)



Offshore and Onshore Dry Gas Field (Data Type G)



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