



Petrinex British Columbia Inclusion Project Industry Readiness Handbook

Version 1.4

PBCIP Industry Readiness Handbook Change Log

Version	Release Title	Key Changes	Release Date
V1.0	Initial Release		
V1.1	Major updates: Section 1.3, Section 2.6, Section 3.5.2, Appendix 5, Appendix 8, Appendix 11 and Appendix 14	Updated information in Sections 1.3, Section 2.6, Section 3.5.2, and Appendix 5 – highlighted in yellow New Content - Appendix 8, Appendix 11 and Appendix 14 Additional minor updates throughout highlighted in yellow.	February 13/18
V1.2	Appendix 12	New content	May 16, 2018
V1.3	Major updates: Section 2.6, Section 3.3.3, Section 3.4.2, Section, 3.4.5, Appendix 8, 10, Appendix 11, Appendix 13, Appendix 14, Appendix 15	Updated information in Sections 2.6, 3.3.3, 3.4.2, 3.4.5, and Appendix 8, 11, 13, 14 – highlighted in yellow New Content – Appendix 10, Appendix 15 Additional minor updates throughout highlighted in yellow.	June 13/18
V1.4	Major Updates: Appendix 8, 9, 11, 14, 15	Updated information in Appendix 8, 11, 15. Updated IIO testing production month in Appendix 12. Updated deadline for existing BC-11 reporting in Appendix 14. New Content – Appendix 9 Additional minor updates throughout highlighted in yellow.	
Notes			
<ul style="list-style-type: none"> BC Change Leaders will be notified of all available updates to this Guide. 			

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1.0 Overview

1.1 The Petrinex British Columbia Inclusion Project (PBCIP)

British Columbia, represented by the Ministry of Finance (MOF), the BC Oil and Gas Commission (Commission), and the Ministry of Energy, Mines and Petroleum Resources (MEMPR), has initiated a project to move several aspects of oil and gas reporting to Petrinex starting in November 2018. This project is expected to provide significant benefits to the Ministries, the Commission, and to the upstream oil and gas industry in British Columbia. This initiative was first announced by the MOF and MEMPR in a joint news release on December 20, 2016. See [Appendix 1: British Columbia Communication to Stakeholders](#) to see a copy of this release.

Petrinex is an internet-based, joint strategic organization supporting Canada's upstream oil and gas industry and is represented by both Government and Industry. Currently government stakeholders are represented by Alberta Energy, The Alberta Energy Regulator (AER), and the Saskatchewan Ministry of the Economy (ECON). Going forward, the Ministry of Finance, the Commission, and the Ministry of Energy, Mines and Petroleum Resources will all be stakeholders representing British Columbia. Industry is represented by the Canadian Association of Petroleum Producers (CAPP) and the Explorers and Producers Association of Canada (EPAC).

Petrinex contributes to substantial improvement in the efficiency, accessibility and quality of information communicated between operators, producers, Government and Industry partners. For more information about Petrinex and the PBCIP project structure, see [Appendix 2: About Petrinex and the BC Inclusion Project](#), and visit the Petrinex website at www.petrinex.ca.

Oil and gas operators have been using Petrinex for volumetric, infrastructure and royalty-related reporting since October 2002 in Alberta and since March 2012 in Saskatchewan. Petrinex reporting includes mandated reporting to ministries and regulators, as well as non-mandatory reporting related to Industry-to-Industry business processes (e.g. partner reporting). Industry stakeholders have seen significant benefits from the move to Petrinex, including:

- Having a single venue for access to timely, accurate and secure data.
- Standardization of interfaces with company production accounting, financial and other systems.
- Tools to assure submissions for Government and Industry processes are timely, correct and complete.
- The ability to conduct paperless partner reporting in a standard and effective electronic venue.
- Petrinex consultation mechanisms that provide opportunities for Industry and Government to work together to achieve the best possible administrative processes for all stakeholders.

Individual companies as well as Industry associations CAPP and EPAC have been strong advocates for the extension of Petrinex and its benefits to other Canadian jurisdictions, including British Columbia.

1.2 About this Handbook

This handbook is intended to be a focal point in helping your organization prepare for PBCIP Go-Live. All individuals within your company who will be required to use Petrinex in the future for administrative or BC reporting purposes should review this handbook.

We recognize that there is a wide range in experience levels between companies and individual users; from those who have extensive Petrinex knowledge through reporting in Alberta or Saskatchewan to those who have never used Petrinex before.

It is recommended that everyone review sections 1-3 in this handbook. These sections provide an overview of the project, steps to readiness, and provide a synopsis of what is changing for BC reporting.

All of the other information in this handbook is organized into Appendices that provide supplemental information in a variety of topic areas including:

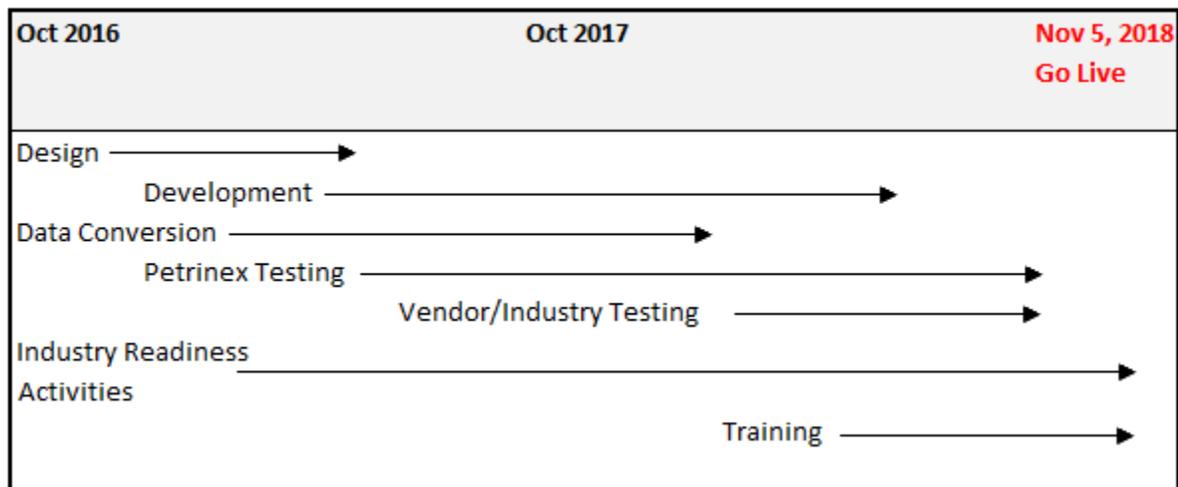
- Changes from current BC reporting processes.
- Existing Petrinex reporting processes, concepts, and technical information.
- Information/instructions relating to readiness activities.
- Information related to data conversion and systems cutover.
- Testing instructions.
- Information on available training resources.
- Frequently asked questions.

This handbook is an evolving document that will continue to be updated as new information becomes available. New releases will continue to provide information on key activities such as Industry testing and training. Company Change Leaders will be notified when new releases are available; as well, all new changes will be documented in the change log on page 2 of this document.

We encourage everyone to review the changes in the most current versions of this document as they become available.

1.3 High Level Scope, Timing and Organization

Reporting of volumetric and royalty-related information, along with the reporting of the supporting well and facility infrastructure information will begin in Petrinex starting on November 5, 2018 (for the October production month). In advance of that timing there are activities for detailed design, development, testing and Industry readiness planned within the general timeframes identified below.



A key “success factor” for PBCIP is the active involvement of Industry stakeholders at each stage of the project. A number of producers, oil and gas facility operators, service providers, marketers, software vendors and other stakeholders have been actively involved in detailed design workshops and committees, such as the British Columbia Business Change Committee (BCBCC). The PBCIP team will continue to look to these individuals for input related to testing, training and other Industry readiness activities.

The ***Change Leader*** program is a key component of the industry readiness strategy for this initiative. Each company impacted by PBCIP is asked to identify a *Change Leader* to be the primary point of contact with Petrinex and take the lead in preparing their company for the forthcoming changes. More information on *Change Leaders* is provided in the “[Recommended Steps to Readiness](#)” section.

Data conversion will be happening throughout the design and development phases of this project. The vast majority of data conversion will come from government systems; however, there are some items that will require Industry involvement:

- Identification of gas gathering systems and pipelines. Currently the Commission does not track or licence gas gathering systems or pipelines. Going forward, Industry will need to use gathering systems and pipelines in their volumetric and allocation reporting. Industry subject matter experts in the design meetings have said that they do use these facilities for reporting in their PA systems. Enbridge refers to gathering systems that deliver to their gas plants as Receipt Points. As part of data conversion, it will be necessary to determine what gathering systems and pipelines currently exist in BC today and who operates them.
- Identification of mid-stream meter stations. Certain meter stations will need to be identified and set up in Petrinex to facilitate volumetric reporting. Marketable gas moving onto a pipeline and gas that comes off of a pipeline and is returned to the field (ex: return fuel) is done through a meter station. Meter stations do not require a licence and can be set up by Industry users; however, there is value in identifying existing meter stations operated by mid-stream companies in advance for conversion purposes.
- Cross-referencing/identification and addition of PCOS Gathering Lines. MOF will be converting all PCOS equipment types to Petrinex with the exception of gathering lines (pipeline segments).. The Commission will be responsible for loading licensed gathering lines into Petrinex both for conversion purposes and beyond Go-Live.
 - The Commission identifies gathering lines differently than MOF. The Commission tracks gathering lines by their own Project & Segment IDs. One gathering line in the old MOF systems could be multiple segments with separate identifiers (Project & Segment ID) in the Commission’s systems.
 - Industry will need to update their old MOF gathering line IDs with the new Commission IDs in their internal systems as well as update the equipment linkages in Petrinex. Industry has the opportunity to begin updating their internal records prior to Go-Live. A copy of the gathering line data being loaded into Petrinex for conversion has been posted on the Industry Zone of the Commission website. Please see [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#) for more information. The Commission also currently keeps a listing of their pipeline project details in the Data Downloads area of the Commission website. Those BAs who do not have access to the

Commission website can obtain a user name and password through the following link:
https://iris.bcogc.ca/generic_ogc/Ext_Accnt.Logon

- The Commission will not be providing any of the non-licensed Alberta/NEB gathering lines. Industry will be responsible for creating these lines in Petrinex after Go-Live. More information on this can also be found in **Appendix 11.**

Splitting of Mixed Measurement Facilities: There are currently batteries in BC that have both oil and gas producing wells attached. There is currently no battery facility subtype in other Petrinex jurisdictions that allows for both oil and gas wells to be attached to the same facility. While the Commission has created a Mixed Measurement subtype as a placeholder, they will be working with Industry operators prior to Go-Live to try and split up these facilities into separate oil and gas batteries. **Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders** contains a detailed Industry conversion plan that all Change Leaders should become familiar with. Change Leaders should also review **Appendix 14: Important Dates for Industry** for a summary of dates that will impact their companies.

Other Industry readiness activities will also be ongoing throughout the project. Examples of readiness activities include but are not limited to:

- BCBC Meetings
- Change Leader and Software Vendor Meetings

Providing communications and materials intended to clarify or provide instructions in regards to reporting changes and Petrinex processes. Software vendors and individual companies will have a period of time in which they can submit batch files for testing in Petrinex. This is to ensure that their systems are creating the correctly formatted submission files. This period of time is referred to as interoperability testing. More information about this can be found in **Appendix 12: Instructions for Industry Testing.**

Several training resources will be made available to help new users become familiar with Petrinex reporting processes. This includes the release of “hands on” learning modules a few months prior to Go-Live. More information on training resources can be found in **Appendix 13: Instructions for Industry Training.**

1.4 Key Contact Information

- For **Industry questions** relating to **PBCIP and Petrinex**, contact **Steve Freeman**, Industry Coordinator, 403-297-2311, steve.freeman@gov.ab.ca
- For questions relating to **Petrinex Industry Policy**, contact **Ross Weaver**, Industry Team Manager, 403-297-4411, ross.weaver@gov.ab.ca
- For **BC Policy related queries related to PBCIP**, please contact one of the following:
 - **The BC Oil & Gas Commission:** Mike Janzen, 250-419-4464, mike.janzen@bcogc.ca
 - **Ministry of Finance:** 1-800-667-1182, Oil&GasRoyaltyQuestions@gov.bc.ca
 - **Ministry of Energy, Mines & Petroleum Resources:** Geoff Turner, Geoff.Turner@gov.bc.ca

2.0 PBCIP Steps to Readiness

Petrinex implementation will introduce significant changes for the regulatory authorities in BC (Finance, the Commission, and Energy, Mines & Petroleum Resources) and for Industry companies reporting to them. The purpose of this Handbook is to help accomplish this in the most efficient and effective manner possible. All companies are strongly encouraged to follow the outlined “PBCIP Steps to Readiness” to ensure that they are ready for the move from the current reporting system to Petrinex.

Steps to Readiness
2.1 Identify and Register a Change Leader for your Company
2.2 Understand the impacts of PBCIP on your Company
2.3 Have a Plan to respond to New Changes
2.4 Prepare your Systems
2.5 Ensure your staff members are trained
2.6 Implement required Pre-Go-Live activities
2.7 Go-Live and get the benefits

Detailed Steps to Readiness

2.1 Identify and Register a Change Leader for you Company

The Change Leader Program is a central readiness and communications strategy for PBCIP. Every company should register a Change Leader (CL) to ensure that they receive all important information related to new business processes and reporting requirement changes.

The CL has two primary roles:

a) Be the Primary Point of Contact with Petrinex

- Pass on information received from Petrinex to the appropriate parties in your company, and ensure that the information is understood.
- Attend all Change Leader meetings scheduled by the PBCIP team. All CLs will be notified with dates and venues for change leader meetings as they are scheduled.

b) Be the Leader for PBCIP Implementation

- Develop a PBCIP implementation plan for your company. Track and report progress against that plan and make adjustments as appropriate.
- Be the “go-to” person in terms of understanding what PBCIP is all about and how it will impact your company.
- Ensure all of the “Steps to Readiness” are implemented efficiently, effectively and on a timely basis at your company.

Register your Change Leader: If you have not already done so, please provide Petrinex with the name, telephone number and e-mail address of the PBCIP Change Leader for your company. Petrinex already has CLs on file for companies reporting in Alberta and Saskatchewan. Let Petrinex know if you currently have operations in Alberta or Saskatchewan and wish to have your existing CL be the contact for British Columbia as well. You can register your CL by contacting Petrinex at petrinexadmin@petrinex.ca.

2.2 Understand the impacts of PBCIP on your Company

PBCIP impacts different stakeholder groups in significantly different ways. Stakeholders typically fall into one or more of the segments described below. Once you have identified which segment(s) your company belongs to, carefully review Section 3 “What’s Changing” to understand the impacts of PBCIP implementation as well as [Appendix 5: Information by Specific Stakeholder Group](#).

a) Oil & Gas Operating Producers

These are companies that operate wells (including licensees), batteries, gathering systems or other oil and gas facilities. For the purposes of PBCIP, operators fall into one of two categories:

- Multiple Jurisdictions – Companies that have operations in Alberta and/or Saskatchewan as well as British Columbia. These companies will have individuals that are familiar with Petrinex functionality and reporting procedures.
- British Columbia Only – Companies that have operations in British Columbia only and do not have prior experience with Petrinex.

b) Oil & Gas Non-Operating Producers/Royalty Tax Payers

These are companies that have an interest in oil and gas production, but do not operate any wells, batteries or other facilities. Non-operating producers fall into two subgroups:

- Take-in-kind Producers – Non-Operating Producers that pay their own royalties/taxes.
- Non Take-in-kind Producers – Non-Operating Producers that do not pay their own royalties/taxes. This group relies on their operating partner to pay their share of royalties/taxes.

c) Gas Midstream Facility Operators

These are companies that operate gas midstream facilities and pipelines where raw gas is processed into residue gas and NGL liquids and moved downstream. Most sales take place at these points.

- Gas Plants, Sales Meter Stations, Pipelines (Gas & NGL)

d) Oil Midstream Facility Operators

These are companies that operate oil midstream facilities where most sales take place. In BC these facilities receive deliveries of oil and/or field condensate.

- Oil Terminals (trucking and rail) and Pipelines
- NGL Hubs receiving field condensate

e) Marketers and Purchasers

These are companies that may be required to report sales volumes, energy, pricing, or other information required for royalty purposes.

f) Waste Plant & Custom Treater Facility Operators

These are companies that operate facilities that handle and treat emulsion or other chemical and solid waste materials. These facilities may also report recovered oil volumes.

g) LNG Plant Operators

These are companies that operate facilities that create LNG from gas through a liquefaction process.

h) Service Providers

These companies provide services to one or more of the other segments identified in this list (i.e. production accounting services). Most often these service providers are contracted by producers/facility operators.

i) Production Accounting Software Providers

These companies are third party software providers to oil & gas producers who may have to alter or design their product to accommodate new reporting requirements.

Companies not specifically identified in any of the segments above should contact Petrinex to determine if there are any PBCIP impacts to their operations.

2.3 Have a Plan to respond to New Changes

A company's plan to manage change may vary in detail and scope depending on the size and the number of segments the company is engaged in. Regardless of size, each company is strongly encouraged to have a plan in place that will assess the impact of change on each of its business segments, outline steps to implement any needed changes (both before and after Go-Live), and track progress against the plan. If you would like assistance in considering what elements should be included in your PBCIP plan, please contact Steve Freeman at Petrinex (steve.freeman@gov.ab.ca or 403-297-2311) to discuss.

2.4 Prepare your Systems

a) Minimum Computer Specifications

Devices used to access Petrinex must meet certain minimum specifications, as well as to access the online learning modules. Details of these specifications can be found in [Appendix 7: Technical & Security Considerations](#).

b) System Interfaces

Companies may have a variety of systems that will need to interface with Petrinex including:

- Third Party Production Accounting Software Vendors – Petrinex is working with production accounting software providers that currently interface with Petrinex in other jurisdictions. Petrinex will be providing the specifications necessary to interface with Petrinex for British Columbia. Each company is encouraged to discuss PBCIP with their software providers to ensure they are preparing for Petrinex reporting.
- Third Party Royalty/Tax System Software Vendors – Petrinex will be receiving invoices and other royalty/tax documents from MOF in the Ministry Invoices & Statements section. Industry BAS may go in and open/download these documents as they become available. Petrinex does not use or interpret the data in these files. Royalty/Tax software vendors can review [Appendix 8: British Columbia Business Process Changes](#) or contact MOF to discuss specification requirements.

- Internally Developed Applications – If you have internally developed production accounting systems (other than simple spreadsheets) and require documentation with Petrinex specifications, please contact Sheryl Moody, 403-297-5575, sheryl.moody@gov.ab.ca.
- Internally Developed Spreadsheets – Petrinex has the ability to efficiently upload information from CSV spreadsheet files using batch upload functionality. Information pertaining to specific instructions on mapping and formatting internal spreadsheets for upload to Petrinex will be added to [Appendix 12: Instructions for Industry Interoperability Testing](#) later on in the project.
- Third Party Marketing/Pricing Software – Modifications to these systems may also be required. You are encouraged to discuss this with your software providers as required.

c) Take the Opportunity to Test your Upload Files

Petrinex has a comprehensive plan for testing uploads for all applicable functionality. All interested companies and software providers will have the opportunity to have samples of various CSV/XML upload files run in the Petrinex test system.

Interested parties will create these sample upload files and email them to Petrinex. The files will be uploaded into the test system by a Petrinex staff member. The results will be evaluated and feedback will be returned. This allows a company to ensure that they understand what information is required and that files are formatted properly.

Additional information regarding testing, including the upload templates, is provided in [Appendix 12: Instructions for Industry Interoperability Testing](#).

2.5 Ensure your staff members are trained

a) Identify the Petrinex users in your company

A company (Business Associate) determines how many users are required depending on its size, segment(s), and complexity. Petrinex requires that a Business Associate have at least two user accounts, and it is strongly recommended that you have at least three user accounts. Specifically:

- Primary User Security Administrator (USA): Every Business Associate (BA) using Petrinex must have a Primary USA. The USA is responsible for managing user accounts including account creation and deactivation. The USA also creates User Security Roles and assigns these roles to the appropriate users within the company. User Security Roles define which functions a user can perform in Petrinex.
- Backup User Security Administrator: It is strongly recommended that each BA have a Backup USA with authority to perform the functions of the Primary USA should that individual not be available.
- Users: The Primary and Backup USA roles cannot perform any functions in Petrinex other than setting up user security roles and granting specific access to users. As such, at least one other user must be created to carry out the company's required reporting activities in Petrinex.

Instructions for setting up your USA have been communicated to Change Leaders and are documented in [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#). Training information will be provided to USA's on how to set up users, including how to specify the tasks each user is permitted to perform in Petrinex.

b) Petrinex Learning Resources

Petrinex uses a number of approaches to help BAs ensure their users are fully trained in Petrinex functionality. Here are some of the Learning Resources that will be available for the PBCIP project:

- [PBCIP Industry Readiness Handbook](#)
This handbook is an evolving document which will be continually updated as Go-Live approaches. It is meant to provide useful information and tips to assist Industry with the transition to Petrinex. Anyone identified as a future Petrinex user at your company is encouraged to keep current with the most recent updates to this guide as they become available.
- [Change Leader Meetings](#): A number of Change Leader meetings will be scheduled over the life of the PBCIP project at different locations. Change Leaders are a key focal point for Petrinex communications. The primary purpose of these meetings is to keep Change Leaders aware of ongoing project and implementation changes, demonstrate Petrinex BC functionality, and provide a forum for having your questions answered. Change Leaders should communicate information shared in these meetings with the appropriate users in their companies.
- [Learning Modules](#)
All Petrinex functionality has associated web-based learning modules available on the Petrinex website under the Learning Centre. Existing learning modules will be updated with BC content and new modules will be created for new functionality developed exclusively for BC. Learning modules are scheduled to begin release in Q3 of this year..
- [Tips and Job Aids](#)
Change Leaders will be alerted to new Tips and Job Aids posted to the Petrinex website in the coming months.

Job Aids are created to provide examples, templates, shortcuts, and other information that make using certain functions within Petrinex easier and more efficient.

Tips are communications intended to provide up-to-the-minute information and updates dealing with a variety of Petrinex issues.

- [Online Help](#)
Online help screens will be available for PBCIP functionality at Go-Live. While logged into Petrinex, a user can access Online Help on any page by clicking on the Help symbol. Online Help is context sensitive and provides step-by-step “how to” information as well as related background information relating to the page.

All Change Leaders and future Petrinex users can access many of the resources listed above and more on the Petrinex website under Initiatives under the Petrinex British Columbia Inclusion Project (follow the link below): <http://www.petrinex.ca/205.asp>

Examples of what can be found on this page include:

- The most recent update of the PBCIP Industry Readiness Handbook
- Updates and links related to Training, Tips and Job Aids
- Materials presented at Change Leader meetings
- Announcements/New Releases related to this project

2.6 Implement required Pre-Go-Live activities

As the PBCIP timeline moves forward, Petrinex will communicate specific activities that should be performed prior to the go-live date. These activities will be communicated to Change Leaders well in advance. Some specific “Pre-Go-Live” activities have been identified below.

- Data Conversion & Clean-Up
 - i. Mixed Measurement Facilities with both Oil & Gas Wells

In Petrinex all wells must be attached to a battery (Petrinex Facility Type BT). Petrinex does not currently have a BT subtype that allows for a mix of wells with different primary products. Subtypes are specifically for oil or gas. BC, however, does currently have a few batteries with both oil and gas wells attached.

The Commission has created a BT subtype for oil/gas mixed measurement as a placeholder. While some facilities may be converted to this subtype, the Commission will be working with Industry operators prior to Go-Live to try and split up these facilities into separate oil and gas batteries.

- ii. Identification of Gas Gathering Systems (Petrinex Facility Type GS)

Gathering systems are defined as flow line networks and process facilities that, together, transport and control the flow of gas from its origin (the BT in Petrinex), to a processing plant or sales point.

Gathering systems do not report S2 volumes in BC today and, although physically existing in the field, they are not licensed by the Commission. Petrinex requires these facilities in volumetrics to show the movement of gas from various batteries to the processing/sales point (a gas plant or sales meter station). They are also required in Petrinex for gas allocations where a plant operator would be allocating a volume back to a non-operated gathering system. Enbridge (formerly Spectra) currently refers to these as Receipt Points for their allocation purposes.

Petrinex must identify existing gathering systems in the field. This includes all Enbridge receipt points and other gathering systems not delivering to Enbridge. Most BAs do have

gathering systems or receipt points set up in their Production Accounting systems currently.

The Industry Team will coordinate with various operators to ensure gathering systems are created and operatorship assigned before Go-Live. We will also be asking operators to identify any third parties delivering to their gathering systems as well. This is to help ensure that gathering systems are set up once under the appropriate operator.

iii. Identification of Mid-Stream Meter Stations (Petrinex Facility Type MS)

Meter stations are not currently used to report gas volumes in BC, but are used in Petrinex to facilitate volumetric reporting of gas.

Meter stations are commonly used to measure volumes of marketable gas moving onto a pipeline from a gas plant or dry gas source. They are also used for volumes of gas coming off of the pipeline going to upstream facilities (ex: for return fuel).

The Industry Team will be in contact with mid-stream companies to ensure that meter stations are created in Petrinex prior to Go-Live. Industry also has the ability to create any other needed meter stations in Petrinex post Go-Live.

iv. Identification of Sales Pipelines (Petrinex Facility Type PL)

Pipelines are not currently licensed by the Commission and, as such, are not part of the conversion upload from the Commission's systems. Petrinex requires pipelines in volumetrics to show the movements of oil, gas, or NGL products from upstream facilities to the pipelines. In the case of oil and field condensate, deliveries to a pipeline necessitate the need for pipeline splits/oil valuation reporting.

The Industry Team will be in contact with pipeline operators to ensure that these facilities are created in Petrinex prior to Go-Live with the appropriate facility subtypes.

v. Review of Conversion Files

Certain spreadsheet files are available to Industry BAs containing listings of information that is being converted into Petrinex from the Commission and MOF. All BAs should review these lists to identify any missing data or possible errors in their data. Conversion files will be shared for the following items:

- Business Associate
- Well
- Facility
- PCOS Equipment (MOF & Commission)
- Royalty Tax Payer & Royalty Tax Attributes

Industry conversion files are currently posted on the Commission website at the following address: <https://www.bcogc.ca/industry-zone/petrinex-bc-inclusion-project>

- Primary User Security Administrator (USA) Identification

Business Associates will need to identify their Primary USA prior to Go-Live. Those who already have a Primary USA for other Petrinex jurisdictions may choose to use the same person for BC as well.

The Commission is collecting Primary & Backup USA information through the **BA Data Collection Form** found on the same website as the conversion files mentioned above. Each Business Associate must fill out the form and return it to the email address listed on the website: BAUPDATE@bcogc.ca

The BA Data Collection Form has additional sections for information that the Commission is requesting for their records:

- Name, Mem ID, Incorporation ID, BN9#
- Mailing Address Update
- Company Administrator
- ePay Financial Administrator
- General Finance Email
- Transfer Administrator

Permit Holders must complete the entire form. Other companies who are not permit holders (but require access to Petrinex) only need to complete the primary/backup USA and address sections.

Upon Go-Live, the Primary USA must create any required User IDs and assign User Security Roles before anyone will be able to commence reporting on Petrinex.

- Other activities as identified during the project

A detailed Industry conversion plan is provided in [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#). This plan includes all required Pre & Post Go-Live activities along with associated deadlines. Change Leaders should review this plan to ensure that pre-go-live activities are completed on time.

2.7 Go-Live and get the benefits

Petrinex has provided significant benefits to users in Alberta and Saskatchewan for many years. These benefits are now extending to users in British Columbia. It is important, especially during the early months after implementation, to monitor how Petrinex processes are working for your company and to investigate any issues that may arise that could detract from the benefits expected from the project. It is also important that your users are aware of and make full use of the various tools and reports provided through Petrinex to help them do their work efficiently and effectively.

The Petrinex Service Desk is an important resource for Petrinex users. The Service Desk serves as the single point-of-contact for queries related to the business functionality and operations of Petrinex. It supports both Industry and Ministry users by providing telephone and email support and providing

management, coordination, analysis and response to user queries.

The Industry Team at Petrinex will also tell you how you can participate in directing the ongoing evolution and enhancement of Petrinex through participation in various committees such as the Petrinex Advisory Committee and the Industry Benefits Committee, a user group that meets monthly with Petrinex staff.

Change Leaders should review [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#) for a list of activities that must be completed after Go-Live.

3.0 What's Changing

In conjunction with this section, readers may also want to review the following appendices:

- [Appendix 4: Linking Existing BC Forms to Petrinex Processes](#)
- [Appendix 5: Information by Specific Stakeholder Group](#)

3.1 User Administration

Each Business Associate (BA) in Petrinex requires a User Security Administrator (USA). The USA is responsible for the creation and maintenance of the BA's User IDs and User Security Roles. The User Security Roles assigned to a specific user determines which reporting functions the user will have access to in Petrinex. Access to these specific functions in Petrinex determines:

- What types of data submissions can be performed.
- What types of data can be queried.
- What informational notifications the user will receive.
- What types of reports can be generated.

Existing BAs in Petrinex may want to utilize the same User IDs that they have in other jurisdictions. It should be noted that while BC shares much of the same functionality as Alberta and Saskatchewan, each jurisdiction's information resides in separate databases. The USA will have to set up separate user profiles for the BC jurisdiction.

3.2 Data Management

3.2.1 Submission Processes

Petrinex is comprised of web-based reporting and data retrieval processes. Information can be submitted to Petrinex via online screens or by batch processes.

- **On-line:** Information can be input directly through user-friendly screens. Infrastructure data is updated in Petrinex immediately upon submission. There are also certain transactional submissions that, when entered on-line, may initially be saved to a "work-in-progress" (WIP) area where the user can "park" information for further editing before making a final submission to the Petrinex database.
- **Batch:** Batches of data can be uploaded using either a Comma Separated Values (CSV) file (e.g. using an Excel spreadsheet); or an Extensible Markup Language (XML) file generated from a company's production accounting software system.

Note: Companies may need to use a combination of the data entry methods to meet their reporting requirements.

3.2.2 Frequency and Approach to Data Submission

Currently, form-based data is typically transmitted once per month in large batches. Petrinex, however, is designed to accept data as soon as it is available. Users can submit information as they receive it as

opposed to waiting until they have all information for one submission. One significant advantage of Petrinex is that volumetric receipts reported at a facility are auto-populated as dispositions at the upstream delivering facility, thereby reducing the data entry effort and chance of error. Auto-population even extends to cross-border deliveries between BC, Alberta, and Saskatchewan. In order to maximize the benefits of the auto-population process for all Industry partners, users are encouraged to submit data as early as possible.

With the flexibility that Petrinex provides, a BA could consider one or more of the following data submission approaches:

- **By Product:** The data for each product can be submitted as soon as it is available. Often the gas volumes are not available as early as the oil and water volumes so facility operators may report the oil first.
- **By Activity:** As the data regarding an activity becomes available it should be reported to Petrinex. Examples of activities are: Production, Injection, Closing Inventory, Receipts, etc.
- **By Facility:** Operators may submit data for each facility as it is completed.

3.2.3 Petrinex Edits

Petrinex contains thousands of edits (rules regarding what data can be successfully submitted) that are intended to validate data, to the greatest extent possible, as it is received. The error messages that are generated by these edits are immediately relayed to the BA in order to correct any errors and avoid penalties and fees related to invalid reporting. For this reason, it is in the operator's best interest to submit data early in the reporting cycle. As discussed above, this is also in the best interest of other Industry stakeholders who may need the data to complete and validate their own reporting requirements for the month.

3.3 Infrastructure

3.3.1 Business Associate

BC Forms Replaced:

OGC New Company Form
OGC Company Change Form

Data Conversion:

The MEM ID assigned by MOF will be converted into Petrinex as the BA ID (not the Organization ID assigned by the Commission). Those companies that do not currently have a MEM ID will be assigned one. Most MEM IDs in BC are 4 digit numeric codes; however, in Petrinex all BA IDs will be 5 digit numeric codes. A leading zero will be added to each existing 4 digit ID (i.e. MEM ID 1234 becomes BA ID 01234 in Petrinex).

Impacts to BC Processes:

- Business Associate information will be maintained on Petrinex.
- New applicants who do not have an existing client code will apply for a BA ID by filling out the

online application form found on the Petrinex website.

- The Commission will approve or reject new applications or changes to existing BA information through Petrinex.
- The Commission will set Amalgamation Dates for BA IDs in Petrinex. However, communication with the Commission regarding required amalgamation details is still conducted outside of Petrinex.

NOTE: The Commission is collecting Primary USA and Backup USA information from all Industry Business Associates so that passwords can be communicated prior to Go-Live. Industry BAs need to fill out the BA Data Collection Form found on the Industry Zone of the Commission website. More information on the collection of BA information is provided in [Appendix 11: Pre& Post Go-Live Readiness Activities for Companies/Change Leaders](#).

3.3.2 Well Infrastructure

BC Forms Replaced:

BC-11 Notice of Suspension/Commencement of Operations
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NOTE: Even though the BC-11 form is being replaced, there will still be a process through the Commission to collect some of the same information, including Gross Completion Interval and Field/Pool that is currently reported on the BC-11 today. This information is needed so that the Commission can create the UWIs needed for reporting and load them to Petrinex in a timely manner.

An eSubmission form for Well/Completion Events will be made available through the Commission's Online Services webpage at Petrinex Go-Live. Industry must submit the form in order for the Commission to push the well event to Petrinex. This process will allow permit holders to view existing, and add new CEs, for a well in eSubmission and obtain an associated UWI to allow volumetric reporting in Petrinex.

Further communication and training on this new process will be made available when it is ready.

Data Conversion:

The Commission will be converting all well permit (well authorization) and well attribute information to Petrinex.

Petrinex will be changed to handle both DLS and NTS locations in BC. Converted well identifiers will consist of 20 characters. The first 4 characters represent the jurisdiction and type (BC WI) followed by a 16 character location. See the following 2 examples:

- DLS Example – BC WI 100101000110W600
- NTS Example – BC WI 200A001E001J0100

Well statuses will be converted to the Petrinex method used in Alberta and Saskatchewan. Petrinex well statuses are described in the sequence of Fluid/Mode/Status/Type (ex: GAS ACTIVE PROD N/A).

A Well Status spreadsheet conversion is posted for all Industry BAs to review on the Industry Zone of the Commission website. This file contains a list of all wells and their statuses being converted into Petrinex. More details are available in [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#).

Impacts to BC Processes:

- The Commission is adopting the Petrinex self-serve model that exists in Alberta and Saskatchewan. As such, Industry will be responsible for changing and maintaining the well statuses in Petrinex from the point of completion throughout the life of the well. Zonal abandonment, abandonment, and observation statuses are controlled by the Commission.
- The Commission will be collecting Gross Completion Interval and Field/Pool information through the new process mentioned above. As such, this information will be provided to Petrinex through the Commission as opposed to having Industry submit it in Petrinex as is done in Alberta. Where the Commission receives a completion report for a UWI that does not yet exist, the Commission will proactively create the UWI. The Commission will correct/amend the Field/Pool and GCI values over the life of the well within their internal systems, which will be populated into Petrinex.
- The Commission will also be collecting depth information through this new process (see below). This information is used by MOF to determine eligibility for the marginal and ultra-marginal royalty rate reduction programs.
- All wells must be linked to a facility in order to report monthly volumetrics (production, injection, and disposal). Industry will submit the facility linkage when an active producing or injecting status is selected in Petrinex. Wells may only be linked to batteries (for reporting production volumes), or injection facilities (for reporting injection volumes).
- Industry can commingle well events in Petrinex; however, the process for getting Commission approval for commingling remains outside of Petrinex.
- For Area Based commingling and Multi-Lateral scenarios, Industry will attach/commingle well events to a single reporting well event. The reporting event is used for all volumetric reporting. For Single Well commingling scenarios, the well will have a commingled status; however, Industry will not attach/commingle additional well events.
- Well/Well Event Information sent to Petrinex will include some new attributes not currently seen in Alberta and Saskatchewan. Examples include Re-Entry and Completion dates, Commingling approval, effective and terminated dates, and many new depths required for BC royalty programs:
 - True Vertical Depth to Top of Pay (TVD)
 - True Vertical Depth to Completion Point (TVDCP)
 - Measured Depth to Top of Pay (MDTP)
 - Measured Depth to Completion Point (MDCP)
 - Top Cut Depth (TCD)
 - Total Measured Depth (TMD)
 - Incremental Distance Drilled (IDD)

- The Commission will not be sending all of the same information that is currently seen in Alberta and/or Saskatchewan today. Some of the notable attributes that are not being sent to Petrinex in BC include:
 - Packer Information
 - Drill Stem Test data
 - Directional Drilling data
- The Volumetric Gas Well Liquid (VGWL) classification that exists in Alberta is not required in BC. This is because the associated hydrocarbon liquid with all gas wells is considered to be condensate in BC. The Commission will continue to monitor Liquid-Gas Ratios for correct primary-product well designation.
- Well/Well Event Information is provided to Petrinex by the Commission. Existing Commission processes and systems will continue to be used for all Industry reporting requirements such as permit applications, authorizations, engineering data, and any other required well information.

3.3.3 Facility Infrastructure

BC Forms Replaced:

KERMIT processes to apply for facilities and Notice of Intent (NOI) linkage changes formerly requested on forms BC-20 and BC-21.

Data Conversion:

The Commission will be converting facility permits, facility IDs, and facility information over to Petrinex. The Commission will be adopting all of the applicable Petrinex Facility Types and Subtypes that exist in Alberta today. A complete list of facility types and subtypes can be found in [Appendix 6: Petrinex Facility Types & Subtypes for BC Reporting](#).

Converted facility IDs will consist of 11 characters. The first 4 characters represent the jurisdiction and facility type (battery, gas plant, etc.) followed by a 7 character numeric identifier. The following is an example of what a Petrinex battery ID would look like.

- Battery – BC BT 1234567

Currently, a Commission Facility ID can be assigned to more than one physical facility. Petrinex only allows for one facility to be tied to one unique Facility ID. In order to map Petrinex Facility IDs to Commission Facility IDs the following process has been developed:

- The Commission will continue to generate their internal Commission Facility ID, which will be listed in Petrinex as the Facility Licence number.
- Industry would create any required facilities in Petrinex (ex: a battery and an injection facility) under the Facility Licence Number (Commission Facility ID). This allows Petrinex to generate multiple unique Facility IDs that link to one Commission Facility ID.
- The actual Commission Facility Permit number will be listed as an informational attribute of the Facility Licence (Commission Facility ID) in Petrinex.

All facilities that have reported activity within the last 3 years will be converted to Petrinex along with any well linkages (if applicable). Wells will be linked to facilities based on the S1/S2 reporting sent to the

Ministry of Finance.

As mentioned in Section 1.3, Petrinex is working with Industry to identify all gas gathering systems, sales pipelines, and mid-stream meter stations to be utilized in volumetric and allocations reporting. Many BAs have already submitted a list of these facilities to be created in Petrinex.

Gathering systems are not reported in BC today, but certain Industry subject matter experts have indicated that they already use gathering systems for reporting in their PA systems. As reference, Enbridge refers to certain points that deliver to their gas plants as Receipt Points (RPs). Petrinex requires the use of actual Facility IDs for reporting purposes. Most Enbridge RPs are common gathering points that Petrinex would classify as a gathering system. It may also be necessary to identify gathering systems delivering into plants that aren't operated by Enbridge as well.

A Facility conversion spreadsheet file has been posted for all Industry BAs to review on the Industry Zone of the Commission website. This file contains a list of all facilities being converted into Petrinex. BAs are encouraged to check all of their operated facilities to see how their old Commission Facility IDs are being converted into new Petrinex Facility Types and Subtypes. More information collecting and sharing facility information is described in detail in [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#)

Impacts to BC Processes:

- Under the Petrinex self-serve model, Industry will now be responsible for the following tasks:
 - Creating Petrinex Facility IDs.
 - Editing Petrinex facility information.
 - Creating and changing well to facility links.
 - Initiating Petrinex facility operator changes.
- BC will adopt the same Petrinex concurrence process that exists in Alberta and Saskatchewan for facility operator changes and linking wells to other operators' facilities. Under this process, Petrinex notifies other operators of the intended operator change or link change. The new operator can then go into Petrinex and either accept or reject the requested change. Once accepted, the new operator assumes responsibility of filing any required submissions for the facility.
- A new Facility Type will be added for LNG facilities (BC LN).

Batteries:

- The Commission has created a new Facility Subtype for Mixed Oil & Gas Measurement facilities as a place holder. This is for facilities that currently have both oil wells and gas wells linked to the same facility. The Commission is working with Industry to split the oil and gas wells into separate batteries prior to Go-Live; however, facilities that can't be split in time will be converted to the new subtype.
- The Commission will follow the Alberta & Saskatchewan method of having only measured or prorated battery subtypes. Existing batteries will be converted to either a measured or prorated subtype based on the current S1/S2 submissions. In cases where existing batteries have both

types of wells, they will be defaulted to a prorated subtype.

- There are certain facilities in BC referred to as “Super Batteries.” The Commission currently classifies these as PG (Pipeline Gathering) facilities. These are comprised of multiple gas wells (sometimes hundreds) delivering to multiple facilities that, for reporting purposes, have been listed as one PG Facility ID. It should be noted that these facilities will be converted to Petrinex as battery (BT) facilities. The battery subtypes used for super batteries are “OGC Only” meaning that only the Commission can create them. Industry will have to request these types of facilities going forward after Go-Live.
- A new Primary Gas Plant field has been added as a facility information attribute for batteries. The Primary Gas Plant ID will be mandatory for all battery subtypes. For conversion purposes, the Primary Gas Plant will be provided for all existing batteries prior to Go-Live. The Ministry of Finance will use the identified gas plant for situations where the primary plant is not provided in a Petrinex process, but is necessary for the weighted average royalty rate used in calculating the Producer Cost of Service (PCOS) deduction. Situations identified thus far include:
 - Field condensate that goes through the Pipeline Splits/Oil Valuation process (see Section 3.4.5).
 - Allocations of C5 that is processed out of a gathering system as opposed to a gas plant.
 - Allocations of gas that is sold upstream of the gas plant.
 - To assign cost curves to pipeline segments in calculating a PCOS rate.
- All batteries that are eligible for a Royalty Volume Credit for return fuel that is received from a meter station will utilize the Returned Fuel flag and associated Returned Fuel Gas Plant field in the Facility Infrastructure screen in Petrinex. Operators will set the Returned Fuel flag to “Yes” and enter an associated gas plant ID. The gas plant ID provided in this field can be different than the Primary Gas Plant ID. The credit will not be able to be determined if this information is missing. This information is not part of conversion for existing batteries. Operators will need to go in and enter the information after Go-Live.

Gas Meter Stations:

- Gas meter stations have a facility attribute for gas pipeline operators to identify a Common Stream Operator (CSO) for meter stations delivering onto their pipeline. There is also an attribute to state whether the disposition of gas from the upstream facility (i.e. the gas plant) will be auto populated or not. The CSO is quite often the operator of the gas plant.
- All meter stations are being setup with the auto-population option defaulted to No. Meter station operators or CSOs can optionally change this option after Go-Live in Facility Infrastructure.
- More information on meter station auto-population is provided in [Appendix 11: Pre& Post Go-Live Readiness Activities for Companies/Change Leaders](#)

Oil Terminals:

- Terminals have a facility attribute to indicate whether the terminal is physically connected to a pipeline. If so, the pipeline Facility ID is also entered. This information is optional for operators

to provide. It is not needed for any reporting purposes.

3.3.4 Royalty Tax Attributes

BC Forms Replaced:

None

Data Conversion:

Royalty tax information is created and maintained in Ministry of Finance systems. However, some royalty tax information will be provided to Petrinex for query purposes only. Information will be available for the following types of entities:

- Wells
- Units
- Net Profit Royalty Projects
- Long Term Royalty Agreements
- Revenue Sharing Agreements

A Royalty Tax Attributes spreadsheet file has been posted for all Industry BAs to review on the Industry Zone of the Commission website. More details on shared files are available in [Appendix 11: Pre& Post Go-Live Readiness Activities for Companies/Change Leaders.](#)

Impacts to BC Processes:

There is no impact to Industry reporting processes.

3.3.5 Royalty Tax Payer

BC Forms Replaced:

BC-12 Royalty Interest Statement

Data Conversion:

The Ministry of Finance will be converting all existing royalty tax payer (royalty interest) information associated with each stream (wells and units) for both gas and oil to Petrinex.

A Royalty Tax Payer spreadsheet file has been posted for all Industry BAs to review on the Industry Zone of the Commission website. This file will contain a listing of the most recent royalty tax payer information for each stream that MOF currently has (based on BC12 submissions). More details on shared files are available in [Appendix 11: Pre& Post Go-Live Readiness Activities for Companies/Change Leaders.](#)

Impacts to BC Processes:

- BC will utilize the same Petrinex Royalty Tax Payer functionality as exists in Saskatchewan with some minor changes.
- Royalty tax payer information is required for each stream (well and unit) and applicable product (oil/gas). The information collected for each stream/product includes:

- Tract Number & Tract Factor (for units only).
 - Royalty tax payer IDs (companies must have Petrinex BA IDs).
 - Ownership Type (crown, freehold) associated with each royalty tax payer.
 - The royalty tax payer's ownership percentage (to 7 decimal places).
- Royalty tax payer information is only collected for the products of Oil and Gas. This information is used for the following purposes:
 - Product Oil: To assess oil royalties to the appropriate royalty tax payers based on the valuation provided in the Oil Valuation functionality (see Section 3.4.5).
 - Product Gas: To assess field condensate royalties to the appropriate royalty tax payers based on the valuation provided in the Oil Valuation functionality.
 - Product Gas: To apply the Producer Cost of Service (PCOS) Deduction against the appropriate royalty tax payers for their share of production volumes.
 - The Industry operator of each stream is responsible for updating and submitting new royalty tax payer information.
 - Industry can perform stream operator changes using the same concurrence process utilized for facility operator changes.
 - For new wells, the Licensee will be considered the stream operator. The Licensee will be responsible for either submitting royalty tax payer information or transferring operatorship of the stream to someone else. For conversion purposes, the stream operator will be set as the Licensee for wells. The stream operator for a unit will be the same as the operator provided in the Royalty Tax Attributes.
 - Petrinex balances each stream/product's sum of Ownership Types (crown, freehold) against the information provided by the Ministry of Finance in Royalty Tax Attributes.
 - Ex: If the **CROWN** Ownership Type = **60%** for the product **GAS** pertaining to a stream in Royalty Tax Attributes, then the sum total of all CROWN percentages for all Royalty Tax Payers must total 60% of the stream (product GAS) in Royalty Tax Payer.

3.4 Monthly Processes

3.4.1 Volumetrics & Waste Plants

BC Forms Replaced:

BC-S1 Monthly Production Statement
BC-S2 Monthly Disposition Statement
BC-S18 Monthly Injection/Disposal Statement
BC-19 Monthly Natural Gas Plant & Processing Statement (1 st half of form)
BC-35 Crude Oil & Condensate Monthly Pipeline Statement
BC-36 Monthly Treating Plant Statement
Form 15A Monthly Gas Injection Operations Report

Form 20 Monthly Crude Oil & Condensates/Pentanes Plus Purchasers' Statement
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Data Conversion:

There will be no monthly volumetric or waste plant submission data converted to Petrinex for periods prior to the production month at Go-Live. Any prior period amendments made for production periods prior to Go-Live will be filed outside of Petrinex.

Impacts to BC Processes:

Volumetrics:

- BC will utilize the same Petrinex volumetric reporting processes that exist in Alberta and Saskatchewan. Forms are replaced with standardized reporting based on facility type (i.e. by battery, gas plant, injection facility, etc.).
- Different views (screens) are used to accommodate all of the required reporting at each facility:
 - Well View – used to report all relevant activities for wells attached to the facility if applicable (ex: production, injection, etc.) and associated hours. This includes the injection and recovery of load oil.
 - Facility View – used to report all relevant activities associated with the facility (ex: receipts, dispositions, fuel, etc.)
 - Proration Factors – used to enter proration factors for oil, gas, and water for proration applicable facilities.
 - Summary – provides balancing summaries by product along with a listing any non-compliance errors/warnings associated with the reporting.
- Wells must be attached to a battery in order to report production related volumes or to an injection facility to report injection related volumes (with the exception of load oil).
- The Petrinex volumetric reporting process is based on the following principles. See [Appendix 3: Important Petrinex Concepts & Processes](#) for a description of certain concepts mentioned below.
 - Reporting is required for all active wells and facilities.
 - The use of auto-population or auto-calculation to derive certain data elements for balancing purposes and to reduce the risk of input error. (i.e. populating the opening Inventory based on previous month closing Inventory value or populating a facility disposition based on another facility's reported receipt.)
 - Balancing for all products at the facility level and between facilities (receipts and dispositions across the province).
 - Cross-Border balancing for all products (receipts and dispositions across Petrinex jurisdictions).
 - Full-form amendments to reduce the risk of error.
 - Non-compliance reporting rules, algorithms, and processes to ensure monthly reporting are balanced and valid.
- The ability to submit and query volumetric information is subject to the standard Petrinex security model. See [Appendix 7: Technical & Security Considerations](#) for more information on

Petrinex security.

- The Volumetric reporting deadline is intended to align with Alberta and Saskatchewan (approximately the 18th-21st of the following month).
- A summary of the volumetric reporting changes for BC is presented below.

SUMMARY OF VOLUMETRIC REPORTING CHANGES FOR BC	
REPORTING SUBJECT	SUMMARY OF CHANGES
General Well/Facility	<ul style="list-style-type: none"> • Test values currently collected on the S1 are no longer required. In Petrinex, production and injection volumes/hours are reported as one monthly total. • The S2 receipt/delivery types are replaced with the Petrinex standard of reporting a Product, Activity, From/To Facility ID, and Volume for each transaction. • Waste Oil is reported as part of the oil production volume. <i>When the waste plant operator reports the oil receipt from a battery, there will be an auto-populated disposition of oil created at that battery. In order to balance oil reporting, the volume disposed to the waste plant must also be included in production.</i> • Gas In-Stream Components (ISCs) currently reported in Alberta will not be required in BC. • Heat values (MJ/m3) associated with gas production volumes currently reported in Saskatchewan will not be required in BC.
Trucked Field Condensate	<ul style="list-style-type: none"> • Field condensate that is trucked to a terminal, pipeline, gas plant or waste plant will be reported as a disposition of OIL. This is necessary to ensure that Petrinex recognizes that this volume requires Pipeline Splits/Oil Valuation reporting for royalty purposes. <i>Production at well level can still be reported as condensate. Petrinex will group these products for balancing purposes.</i>
Load Fluids	<ul style="list-style-type: none"> • Load oil will be reported in BC in the same manner as Alberta and Saskatchewan. • Load oil injection is reported at the well level. All load oil must be recovered before new production is reported. • Load Water is NOT reported in BC. There is no injection of load water. All recovered water from a well should be reported as production.
Injection Facilities	<ul style="list-style-type: none"> • Input fields have been added to capture Max Well-Head Pressure at all wells attached to injection/disposal facilities and to capture Well-Head Injection Temperature for injection/disposal of acid gas and CO2.

<p>Cross-Border Receipts/Deliveries</p>	<ul style="list-style-type: none"> • Petrinex accommodates the movement of product across multiple jurisdictions. • Generally the facility reporting the receipt will auto-populate the disposition to the upstream cross-border facility. • Transactions between BC and Alberta/Saskatchewan require the use of the actual Facility IDs used in the corresponding province. • BC users can use Petrinex facility lookups to find Facility IDs for Alberta/Saskatchewan facilities. • BC users cannot query volumetric submissions made in other jurisdictions.
<p>LNG Facilities</p>	<ul style="list-style-type: none"> • LNG facility operators will report volumetric activity through Petrinex. • LNG will be a new product code in Petrinex. • LNG product can be delivered to terminals (tank or rail) and to marine vessels (domestic or offshore). • LNG product reporting requires both volume and energy (GJs). LNG volumes are reported in the 103M3 Natural Gas Equivalent (unconverted). • Refrigerant will be reported as C2-MX or C3-MX as appropriate. • Incinerate activity will be reported as Flare in Petrinex.

Waste Plants:

- BC will utilize the same Petrinex waste plant reporting processes that exist in Alberta and Saskatchewan.
- Reporting waste plant volumes/activity embraces the same basic principles of volumetric reporting for other facilities:
 - Reporting required for every active waste plant.
 - Use of auto-population/auto-calculation.
 - Facility & Cross-Border balancing for all products.
 - Full-form amendments.
 - Non-compliance reporting to ensure correct monthly reporting.
- Waste plants are reported on a different screen than volumetrics due to the need to capture some different types of information. Receipts and deliveries at waste plants require the following information to be reported:
 - A waste code that determines the nature of the waste.
 - Classification of the waste as dangerous or non-dangerous.
 - Each receipt/disposition is broken out into the volumes of Oil, Solids, and Water that comprise the total volume.
- The waste plant reporting deadline will be the same day as the volumetric reporting deadline (approximately the 18th-21st of the following month).

3.4.2 Allocations

BC Forms Replaced:

BC-08 Marketable Gas & By-Product Allocation Report
BC-19 Monthly Natural Gas Plant & Processing Statement (2 nd half of form)

NOTE: The allocations process in Petrinex will handle most items currently reported in the BC-08 form; however, there are a couple of items that are handled by other Petrinex processes:

- NGL/Sulphur valuation is handled by new valuation functionality (see Section 3.4.4).
- Field Condensate valuation is handled by the Pipeline Splits/Oil Valuation process (see Section 3.4.5).

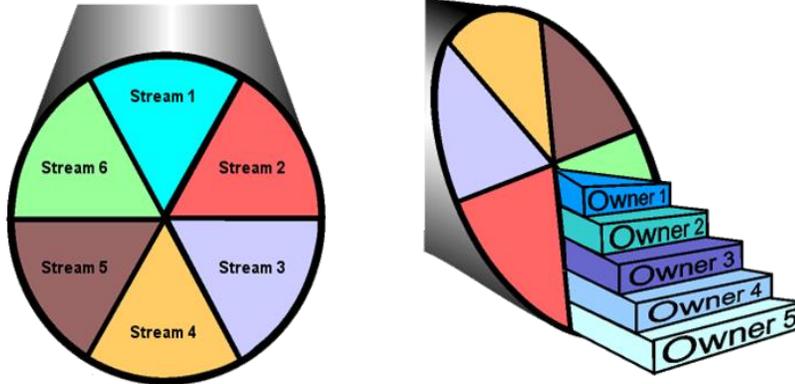
Data Conversion:

There will be no monthly allocations submission data converted to Petrinex for periods prior to the production month at Go-Live. Any prior period amendments made for production periods prior to Go-Live will be filed outside of Petrinex.

Impacts to BC Processes:

General:

- BC will utilize the same basic Petrinex allocation reporting processes that exist in Alberta where submitted volumetric transactions (product/activity/volume) can be allocated back to the various owners or royalty tax payers of that volume.
- Allocations for some volumetric activities involving gas, liquids, or sulphur must be reported as they are required by ministry. These activities are referred to as Allocations Triggers. An example of a required trigger allocation would be the marketable gas and energy delivered from a gas plant to a meter station (delivering onto a pipeline) for the determination of gas royalties. A description of all required BC Allocations Triggers is provided below.
- In addition to the mandatory trigger reporting that must be done, Petrinex also allows for Industry partner to partner allocations reporting for any volumetric transaction. This creates benefits to Industry by eliminating the need to report volumes to partners outside of Petrinex.
- In general, a volume to be allocated is first broken down into the individual streams (wells, units) that contributed to the total volume and energy (if applicable). Each stream is then broken down into the various owners' and royalty tax payers' shares of the volume and energy (if applicable).



- Facility operators are responsible for submitting stream/owner allocations in Petrinex. These submissions must balance to the total volume and energy (if applicable) associated with the volumetric (ex: The disposition of gas from a gas plant to a meter station).
- The operator may not always know all of the individual streams that make up volumes delivered to them from non-operated facilities. In this case, the facility operator can cascade shares of the total volume back to the operators of those upstream delivering facilities. These operators are then responsible for completing their portion of the allocation by either cascading volumes back upstream to other facility operators or by submitting the stream/owner information. The cascade process continues until the entire volume and energy (if applicable) associated with the volumetric has been allocated to the stream/owner level.
- The Petrinex allocations reporting process is based on the following principles.
 - All required Allocations Triggers must be reported.
 - All cascaded allocations associated with required Allocations Triggers must also be reported.
 - Full-form amendments to reduce the risk of error.
 - A monthly Ensure Complete process that reports outstanding triggers that still require an allocation.
- The ability to submit and query allocations information is subject to the standard Petrinex security model. See [Appendix 7: Technical & Security Considerations](#) for more information on Petrinex security.
- Petrinex will allow for the reporting of cross-border allocations between BC and Alberta. More information on cross-border reporting is provided below.
- Trigger allocations are extracted monthly on the allocations deadline (the 25th of month following production) and sent to Ministry. Non-trigger allocations (partner to partner) are not included on the extract.

Royalty Triggers:

- The table below provides a description of the 8 Royalty Trigger Types for BC and what they are required for. Ministry needs to know all of the royalty tax payers' shares of volumes for each stream associated with the allocation volume and energy (if applicable).

SUMMARY OF REQUIRED ALLOCATIONS TRIGGERS		
TRIGGER TYPE	REQUIRED FOR	DESCRIPTION
Inlet COS	Allowable Costs or Cost of Service	<ul style="list-style-type: none"> A trigger is created for any volumetric disposition of raw gas from an upstream facility (battery, gathering system, etc.) to a gas plant.
Gas Royalty	Royalty	<ul style="list-style-type: none"> A trigger is created for any volumetric disposition of marketable gas from a gas plant to a meter station (delivering onto the pipeline). The trigger applies to all BC-produced gas processed at a BC or AB gas plant.
Dry Gas	Royalty	<ul style="list-style-type: none"> A trigger is created for any volumetric disposition of BC-produced marketable gas from a dry gas source (BT/GS) directly to a meter station (BC or AB)
Royalty (GP/COS) <i>Younger</i>	Royalty	<ul style="list-style-type: none"> The movement of gas from one gas plant to a second gas plant (deep cut plant) is generally only triggered for Inlet COS purposes. This trigger type is an exception for plants that deliver to the Younger plant as there can be royalties due on the outlet of the delivering plant or the Younger plant depending on the contract. This can lead to trigger volumes that are comprised of both royalty due and royalty paid gas. Reporting code BCRP9999 was created to identify gas that has been royalty paid.
Field Sales	Royalty	<ul style="list-style-type: none"> A trigger is created for any volumetric purchase disposition (PURDISP) of gas upstream of the meter station. The trigger also applies to a purchase disposition of gas from a gas plant to a battery (sale of gas from the plant to a battery).
Royalty Vol Credit & Returned Gas COS <i>Return Fuel</i>	Royalty Volume Deduction, Royalty Credit, or Allowable Costs	<ul style="list-style-type: none"> <i>Royalty Vol Credit:</i> A trigger is created for any receipt of gas at a facility upstream of the gas plant (battery, gathering system) from a meter station (coming off the pipeline). <i>Returned Gas COS:</i> A trigger is created for any volumetric receipt of gas at a facility upstream of the gas plant (battery, gathering system) from the gas plant.
NGL Royalty	Royalty	<ul style="list-style-type: none"> A trigger is created for any processed volumes of NGL or sulphur products at the gas plant.

NOTE: A complete table of the volumetric transactions associated with each of the 8 trigger types is provided in [Appendix 15: Allocations Trigger Tables](#).

Changes for BC:

- The allocations screen in Alberta provides the volume and energy numbers that must be allocated. The user has input fields for stream (or cascaded facility ID), an owner BA ID, allocated volume, and allocated energy.
- BC requires additional information to be captured in allocations reporting. The following is a summary of data attributes that will be reported in BC allocations:
 - Petrinex will provide the volume and energy that must be allocated.
 - Where possible, Petrinex will identify the Royalty Trigger Facility (generally the first gas plant or dry gas facility associated with the allocation) and maintain the linkage on screen throughout the cascade process.
 - User input rows will capture the following data
 - Stream (Well/Unit ID) or Cascaded Facility ID
 - Owner – identifies the working interest owner BA ID for partner to partner reporting purposes.
 - Royalty Tax Payer (RTP) – identifies the RTP BA ID as required by MOF for royalty purposes. It should be noted that RTP BA ID is a required field for all allocations (including partner to partner). For non-trigger allocations, the operator can simply use their own BA ID or the same BA ID as was provided for Owner. Non-trigger allocations are not on the extract sent to Ministry.
 - Shipper – identifies the shipper BA ID as required by MEMPR for pricing purposes.
 - Allocated volume and energy (if applicable)
 - Petrinex will provide the Linked Pipeline ID and the Royalty Type (royalty, inlet COS, etc.) as read only information.

NOTE: A table of how Petrinex will populate the Royalty Trigger Facility and Linked Pipeline by Royalty Type is provided in [Appendix 15: Allocations Trigger Tables](#).

- There are two definitions of a shipper associated with the new Shipper ID input field:
 - If raw gas is delivered on to Enbridge’s McMahan, Fort Nelson or Pine River raw gas transmission (RGT) system, then the BA who has RGT contract with Enbridge is designated as the shipper in Petrinex.
 - If residue gas is delivered to a mainline transportation system from a BT, GS or GP (that is not the McMahan, Fort Nelson or Pine River gas plant), then the BA who has the residue gas transportation contract with the mainline transportation system is designated as the shipper in Petrinex.
- Allocations can only be filed by SAF/OAF volumes in BC.
 - In AB and SK allocations can be filed by volumes or factors. BC requires that all

allocations be filed by volumes.

Cross-Border Allocations:

- Petrinex will allow for cross-border allocations between BC and Alberta. This new functionality was necessary to address BC's need to have allocations for BC produced gas that is processed at an Alberta gas plant.
- Allocations for NGL products and sulphur processed from BC gas at cross-border plants are also reported.
- Generally, Petrinex allows a plant or facility operator to allocate volumes directly to streams at other facilities if that information is known. However, Petrinex can't allow allocations directly to the stream level of a cross-border facility. The cross-border facility operator will need to complete the allocation in the appropriate Petrinex jurisdiction.
- The table on the next page provides a list of cross-border gas allocations that will need to be reported in Petrinex.

CROSS BORDER GAS ALLOCATIONS SCENARIOS		
ALLOCATION TYPE	SCENARIO	PETRINEX ACTION REQUIRED
Raw Gas (AB Plant)	Alberta gas plant receives gas that was produced in BC directly from BC facility.	<ul style="list-style-type: none"> Raw gas received directly from BC should be cascaded back to the BC Facility IDs that delivered the gas. BC facility operators will then complete allocations to the stream/royalty tax payer level. Raw gas received from Alberta facilities (containing Alberta produced gas) does not require an allocation for Alberta royalty purposes.
Raw Gas (AB Plant)	Alberta gas plant receives gas from another AB facility delivering both AB and BC produced gas.	<ul style="list-style-type: none"> An example of this scenario is an Alberta gathering system that receives gas from both AB and BC batteries and delivers it to the gas plant. Raw gas allocations are only required for the BC portion of gas, but the plant operator may not know the BC volume. The plant operator should cascade the entire volume of gas back to the delivering AB facility. The delivering facility operator would then cascade the BC portion of gas back to the appropriate BC Facility IDs.
Marketable Gas (AB Plant)	Alberta gas plant processes BC gas and delivers marketable volume/energy downstream.	<ul style="list-style-type: none"> BC portions of marketable gas and energy should be cascaded back to the BC Facility IDs that delivered the gas. BC facility operators will then complete allocations to the stream/royalty tax payer level.
Raw Gas (BC Plant)	BC gas plant receives gas that was produced in Alberta.	<ul style="list-style-type: none"> BC plant/facility operators will cascade Alberta volumes of raw gas back to AB Facility IDs to balance the allocation submission. Raw gas cascades are not required for Alberta royalty purposes. The AB facility operator does not have to respond to the cascade unless there is BC-produced gas to cascade further.

<p>Marketable Gas (BC Plant)</p>	<p>BC gas plant processes Alberta gas and delivers marketable volume/energy downstream.</p>	<ul style="list-style-type: none"> • Alberta portions of marketable gas and energy are cascaded back to the AB Facility IDs that delivered the gas. AB facility operators can then complete allocations to the stream/owner level for partner to partner reporting purposes only. • Marketable gas allocations are not required for Alberta royalty purposes and are not part of the allocations data sent to Alberta Energy.
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NOTE: Industry must work together to complete allocations in a timely manner. BC requires allocations to be reported by the 25th day of the following month; however, Alberta doesn't require allocations to be reported until the 45th day. Allocation information is generally available to Industry before the 25th day. Communication between partners is encouraged to ensure all necessary reporting is done in time to accommodate the BC reporting deadline.

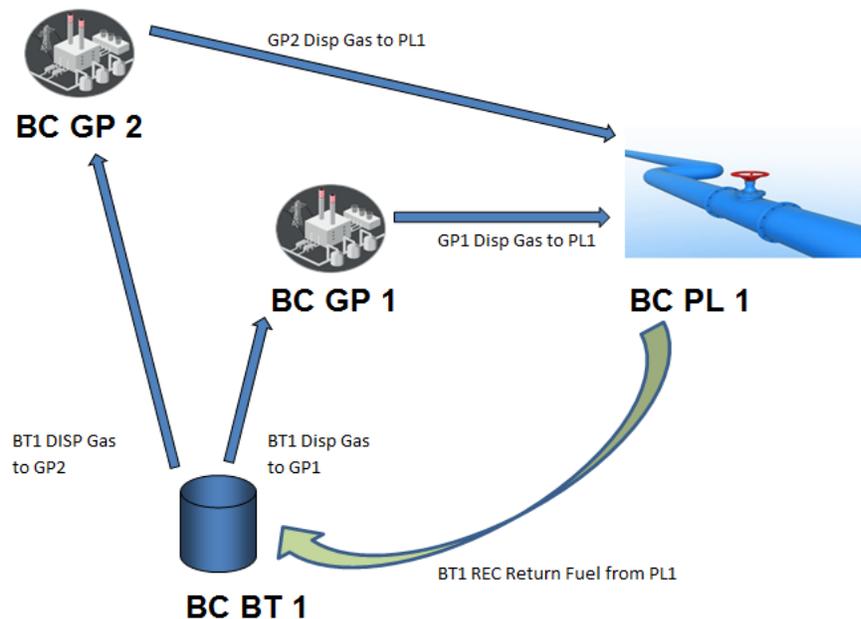
Return Fuel:

- Return fuel delivered directly from the gas plant to a facility upstream of the plant (battery, gathering system, etc.) is subject to a reduction in the plant raw inlet volume used to calculate the **Cost of Service Reduction**. Currently, this return gas volume is allocated to the royalty tax payer level and the volume is grossed up to reflect the plant inlet volume. The grossed up volume is then deducted from the plant inlet volume.
- Allocations in Petrinex are reported on volumetric transactions (i.e. the disposition of gas from the plant to the upstream facility). An allocation will be required for the actual return fuel volume back to the stream/royalty tax payer level. The grossed up calculation for the plant inlet deduction will be done through BC Ministry systems.
- There may be situations where gas delivered from a gas plant to a battery or gathering system is not for return fuel purposes. For example, a plant could deliver gas to a gathering system which then delivers that gas to a second gas plant. In these situations, a miscellaneous code (BCNF9999) can be input into the Stream ID field that indicates that this gas is not return fuel and no further allocation is necessary.
- Return fuel delivered from a meter station (coming off the pipeline) to a battery upstream of the gas plant is eligible for a **Royalty Volume Credit**. An allocation is required for the return fuel volume back to the stream/royalty tax payer level.
- Return fuel from a meter station to an upstream facility is a scenario where Petrinex can't determine the gas plant linkage from the allocation. Because of this, Industry must utilize the

“Returned Fuel” flag and associated “Returned Fuel Gas Plant” field mentioned in the Facility Infrastructure section above.

- Facilities eligible for a return fuel credit will check “Yes” for the Returned Fuel flag in facility infrastructure and enter an associated gas plant facility ID.
 - BC Ministry systems will determine the plant linkage associated for the return fuel based on the gas plant provided.
 - The battery facility ID must be used in the allocations in order for BC systems to determine the linkage. If return fuel from the meter station is received at a gathering system and then subsequently distributed to a battery, the gathering system operator should cascade the volume to the battery and not allocate directly to the stream/royalty tax payer level.
- The Returned Fuel Flag/Returned Fuel Gas Plant ID will also be used to determine the plant linkage in situations where the fuel could be associated with more than one gas plant.
 - The diagram on the next page is an example of return fuel associated with more than one plant. In this case, the battery delivers gas to more than one plant. Both plants deliver onto the same pipeline. The battery receives return fuel from that pipeline. Which plant should the fuel be associated with? In this case BC will use the gas plant listed in the Returned Fuel Gas Plant ID field.

Example: Return Fuel Associated with Multiple Gas Plants



Allocations Ensure Complete Process:

- If Ministry does not receive an allocation for all trigger volumes with royalty implications, the

operator may be charged a deemed royalty.

- If a stream ID or BA ID reported on the allocation is not valid, then the allocation is considered to be incomplete. The volume associated with that row is also subject to a deemed royalty.
- A deemed royalty is a financial charge to operators for the estimated royalty on the volumes that have not been allocated to a stream/owner level. The charge is calculated using the highest royalty rate for the product in question and no deduction for operating costs, etc. is allowed.
- The Petrinex Allocations Ensure Complete helps operators understand where there are problems in allocations.
 - Users may request the report online at any time.
 - Auto-generated report is sent to operators 2 days before deadline.
 - Final report is sent to operators after the deadline.
- The Ensure Complete report checks all trigger allocations and notifies the operator responsible for the allocation if there are any applicable error/warning messages:
 - Missing allocation submissions
 - Missing responses to cascades
 - Invalid Stream IDs (facilities, wells, units)
 - Invalid BA ID (owner, shipper, RTP)
 - Use of BA ID for owner or RTP that does not have a WIO role
- Incomplete allocation submissions due to the use of invalid streams or BA IDs are identified in the ensure/complete process. Petrinex does not reject the submissions up front. This is because the objective is to ensure that all stakeholders in the submission (cascaded to operators, owners, RTPs, etc.) are not adversely affected by errors in only a portion of the submission.
- Petrinex will auto-balance the submission. If submitted volumes/energy do not balance to the trigger volume/energy, Petrinex will auto-adjust the submission rows proportionately to match the trigger figures.

3.4.3 Gas Production-Allocation Discrepancy (PAD) Report

BC Forms Replaced:

None

Data Conversion:

Not Applicable

Impacts to BC Processes:

- The PAD report is a tool to compare production volumes reported at the wellhead to allocations reported at the stream level for the purposes of ensuring that gas royalties have been assessed correctly.
- The report accounts for liquids that are stripped out at the plant. It does so using the standard

Gas Equivalent Factors (GEFs) that are set in Petrinex.

- BC will not adopt the monthly Petrinex PAD reporting process that exists in Alberta. In Alberta, the monthly PAD report flags any discrepancy outside the pre-established tolerance threshold of 20%. Royalties are automatically recalculated if the discrepancy isn't fixed within an established time frame.
- In BC, both Industry and MOF will have access to a PAD report that can be run on an On-Demand basis in which the tolerance threshold is set as a report variable.
- The current plan is for Industry and MOF to take a year to analyze the kind of data that is being returned in the report under various tolerance thresholds. After that time, there would be a future discussion to develop a guideline approach to discrepancy tolerances.

3.4.4 NGL/Sulphur Valuation

BC Forms Replaced:

BC-08 Marketable Gas & By-Product Allocation Report
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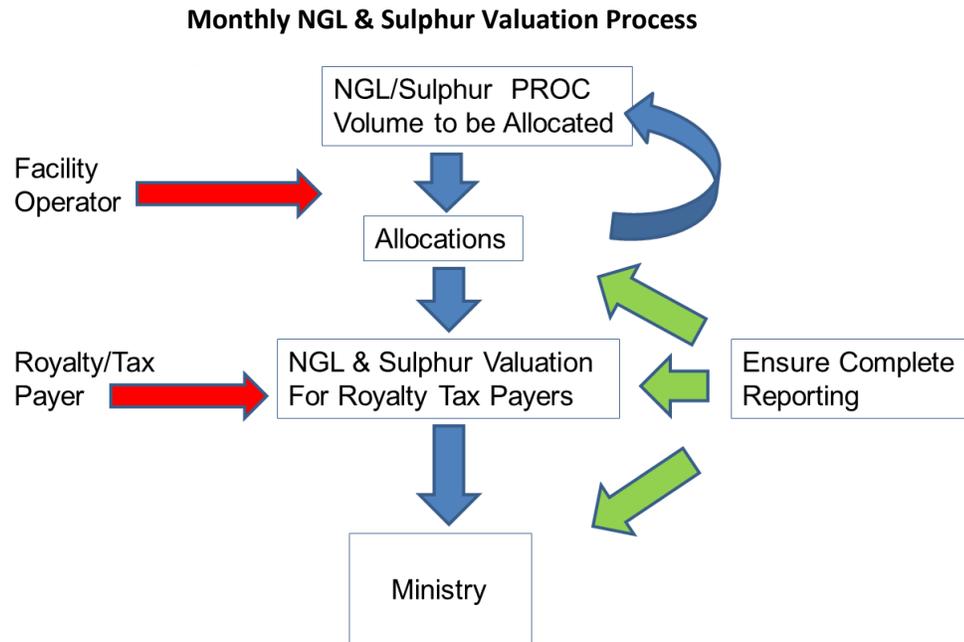
Data Conversion:

There will be no monthly valuation submission data converted to Petrinex for periods prior to the production month at Go-Live. Any prior period amendments made for production periods prior to Go-Live will be filed outside of Petrinex.

Impacts to BC Processes:

- The NGL/Sulphur Valuation functionality is new in Petrinex. It was designed specifically for BC reporting needs.

The following diagram provides an overview of the monthly NGL/Sulphur valuation process to be referenced when reviewing the points below.



- As mentioned in the allocations section, any processed volumes of NGL products or sulphur creates a royalty trigger. Allocations must be completed back to the stream/royalty tax payer level.
- Allocations to the royalty tax payer auto-populate the NGL/Sulphur Valuation screen. Each royalty tax payer is then responsible for submitting valuation data for their share of NGL and sulphur volumes.
- Royalty tax payers enter pricing information for each product at the plant level.
 - A royalty tax payer could be allocated volumes of one product at several wells that all deliver to the same plant, but all of these volumes are rolled up to one volume at the plant level.
 - Each royalty tax payer enters pricing once for each product associated with a particular gas plant.
 - The submitted price is net of eligible deductions (just as supplied on the BC-08 today).
 - Royalty tax payers may only submit and review their own valuation data.
- Allocations of NGLs/sulphur back to the stream/royalty tax payer for volumes processed at Alberta plants are also included.
- Valuation information must be reported for all royalty trigger products:
 - Products include LITEMX, CO2-MX, C1-MX, C2-C5 MX/SP & Sulphur
 - Field condensate is not included here. It is handled through the Pipeline Splits/Oil Valuation functionality described in section 3.4.5.

- Royalty tax payers must submit the sales volume and sales value for each product at the plant so that a unit price can be calculated.
 - If a royalty volume exists, but there were no sales during the month (all inventory), there is a No Sales flag that can be set.
 - The No Sales flag can't be set if pricing information is provided.
 - If no valuation submission is provided (either pricing entered or no sales indicated), MOF may assign a fair market value price to the royalty volume.
- The No Sales flag indicates that there were no sales in the month the royalty volume was processed. The flag also ensures the ability to provide valuation in the next month. This covers the very rare circumstance where:
 - There is a processed royalty volume in the first month, but there are no sales.
 - There is no processed royalty volume in the second month to be valued, but there are sales of inventory.
- There is also a Fair Market Value (FMV) flag. This flag should be set anytime the pricing provided by the royalty tax payer is a fair market price and not an actual sales value. This would be most commonly used in situations where NGLs are injected and not sold.
- The Petrinex NGL/Sulphur valuation reporting process also embraces the following concepts:
 - Full-form amendments to reduce the risk of error.
 - Amendments in allocations made by the facility operator that change the volume of a product allocated to the royalty tax payer will automatically change the volume for valuation.
 - A monthly Ensure Complete process that reports any missing valuation submissions (no pricing information entered or no sales flag set).

3.4.5 Oil Pipeline Splits & Oil Valuation

BC Forms Replaced:

BC-09 Monthly Oil Sales Statement
BC-30 Oil Purchases Summary (note: this form was discontinued in 2015)

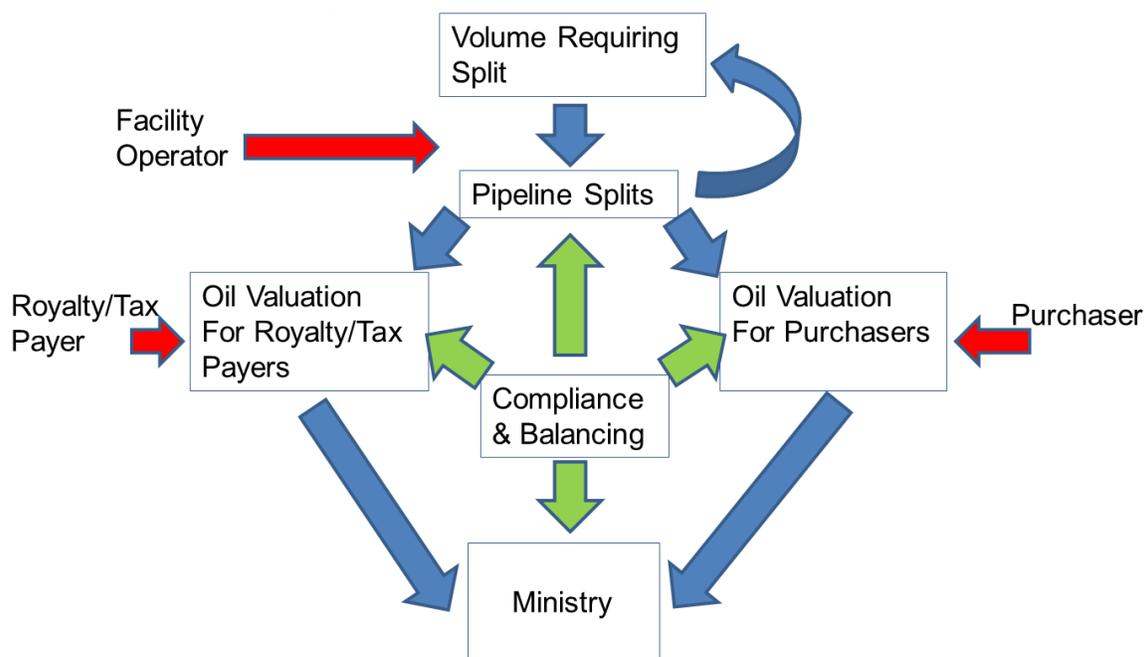
Data Conversion:

There will be no monthly oil sales/purchases submission data converted to Petrinex for periods prior to the production month at Go-Live. Any prior period amendments made for production periods prior to Go-Live will be filed outside of Petrinex.

Impacts to BC Processes:

- The following diagram provides an overview of the monthly Oil Pipeline Splits & Oil Valuation processes to be referenced when reviewing the points below.

Monthly Oil Pipeline Splits & Oil Valuation Process



NOTE: Field condensate that is trucked from the battery will be reported as a disposition of oil to accommodate oil pipeline splits/oil valuation processes. Any reference to oil in this section refers to BOTH oil and field condensate.

Oil Pipeline Splits:

- BC will utilize the same Petrinex oil pipeline splits reporting process that exists in Saskatchewan today.

Volume Requiring Split

- Volumetric dispositions of oil to certain facility types will auto-create a Volume Requiring Split (VRS) in oil pipeline splits.
- The facility types that auto-create a VRS are referred to as Custody Transfer Point (CTP) facilities in pipeline splits. The CTP is the final sales point for the oil. CTP facilities include Terminals, Pipelines, Gas Plants and Waste Plants.
- A VRS is also created for dispositions of BC produced oil to out-of-province locations and for field purchase dispositions of oil (situations where a battery sells oil directly to another facility or non-reporting entity).
- The VRS is created and reported in oil pipeline splits as pertaining to a combination of the Delivering/Receiving/CTP facilities for particular production month.

Reporting Responsibility, Cascading, and Cross-Border

- The entire VRS must be split, by shipper, into the take-in-kind owners and purchasers of the

volume.

- Delivering facility operators are responsible for submitting split information in Petrinex. These submissions must balance to the total VRS.
- Much like allocations, the facility operator cascades shares of the VRS back to the upstream operators of facilities that have delivered oil to their facility. These operators are then responsible for completing their portion of the split by either cascading volumes upstream to other facility operators or by submitting the shipper/owner/purchaser information. The cascade process continues until the entire VRS created from volumetrics has been split.
- Volumes can be cascaded to out-of-province facilities. However, cascades to facilities in other Petrinex jurisdictions are not auto-populated in those jurisdictions. The pipeline splits process does not have cross-border reporting like volumetrics or allocations.
- Waste plants delivering to a Terminal or Pipeline are required to report pipeline split information. These volumes are not cascaded upstream to the facilities that delivered to them.

Reporting Splits

- Volumes are split by shippers of the oil. The volume associated with each shipper ID is then further split into the various owners and purchasers of the oil.
- The objective of oil pipeline splits reporting is to determine who is responsible for submitting oil valuation information. Both the royalty tax payer and the purchaser of a specific volume reported in the split must submit valuation information. These two valuations are then compared to ensure reporting accuracy.
- An Oil Valuation Royalty Tax Payer record is created for each owner BA ID identified in the split.
 - There is a First POS (Point of Sale) flag that is set by default. Most of the time, the CTP facility is the first point of sale, but sometimes there are in-field sales between facilities. If the delivering facility operator has actually purchased the split volume of oil from another facility, the First POS flag should be unchecked to tell the system that the CTP facility is NOT the first point of sale. In this case, there will be no oil valuation royalty tax payer record created.
- An Oil Valuation Purchaser record is created for each purchaser BA ID identified in the split.
 - In some cases, the owner BA ID and the purchaser BA ID are the same. This is considered a non-arm's length transaction. In these cases where the royalty tax payer and the purchaser are the same, there is no value in comparing the two valuation records. As such, there will be no oil valuation purchaser record created.
 - There is also functionality in Petrinex for a BA to identify other 'Related BA IDs' for pipeline splits reporting. A related BA ID is also considered to be non-arm's length. If the owner BA ID and purchaser BA ID are related, there will be no oil valuation purchaser record created. Companies will need to set up any related BA IDs in Petrinex after Go-Live.
- Oil pipeline splits are submitted by the operator of the delivering facility; but in some cases the

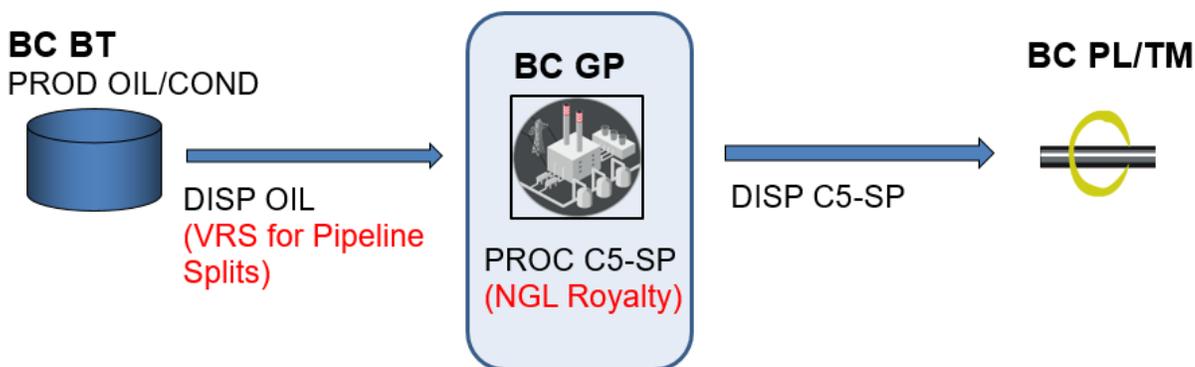
split volume should be associated with a unit as opposed to a facility. There is a Stream ID field where a Unit ID can be entered for a specific owner/purchaser split. If a Unit ID is entered, the oil valuation royalty tax payer record will be created for the Unit ID as opposed to the Facility ID.

- The deadline for Oil Pipeline Splits reporting is the same date as the Volumetric & Waste Plant reporting deadline (approximately the 18th-20th of the following month).
- The Petrinex pipeline splits reporting process is based on the following principles:
 - All auto-created VRS records must be reported.
 - All cascaded volumes associated with a VRS must also be reported.
 - Full-form amendments to reduce the risk of error.
 - A monthly Missing/Incomplete reporting process that identifies any VRS where the split information is missing or incomplete (doesn't balance) as well as any split that has been submitted without a matching VRS.
- The ability to submit and query pipeline splits (and oil valuation) information is subject to the standard Petrinex security model. See [Appendix 7: Technical & Security Considerations](#) for more information on Petrinex security.

Gas Plants as Custody Transfer Points

- In some cases the gas plant is the custody transfer point for oil/field condensate delivered to the plant and in some cases it isn't. When the oil is combined with the C5-SP and leaves the plant as C5-SP, then the plant must be a custody transfer point. When the oil passes through the plant and leaves as oil then the plant is not the custody transfer point. The custody transfer point is further on downstream in this case.
- Petrinex must designate a facility type as a custody transfer point facility absolutely (yes/no). There is not ability for a "sometimes yes, sometimes no" designation. The following diagrams illustrate how deliveries to the plant should be handled under both scenarios:

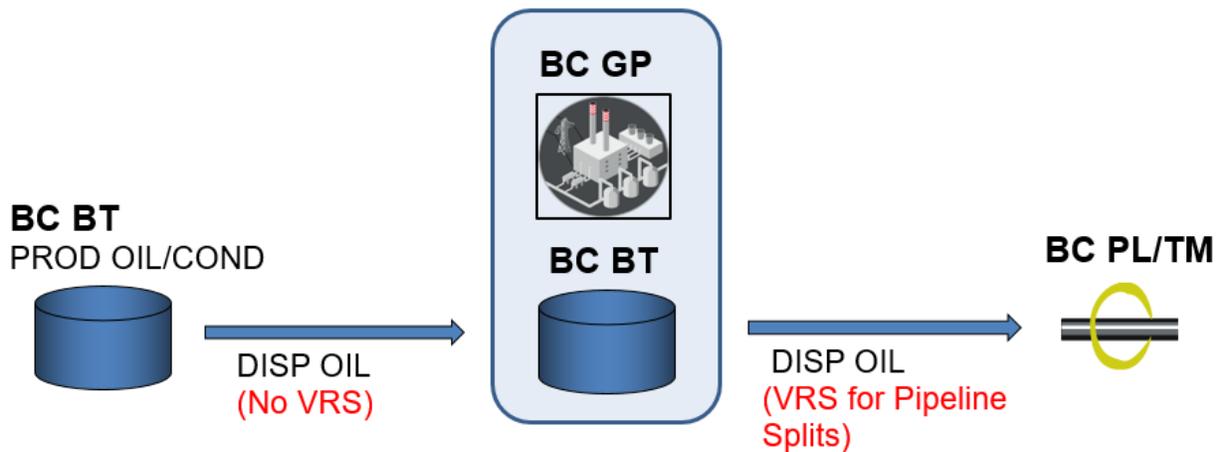
Gas Plant is the Custody Transfer Point



- Oil/Field condensate is received at the plant as product OIL. The plant combines oil with C5-SP that is processed out of the gas. The entire volume then leaves the plant as C5-SP.

- Plant receives OIL from the battery which triggers a volume requiring split (VRS) for pipeline splits.
- VRS volumes are split/cascaded until entire delivered volume is split into owners/purchasers at producing facilities.
- Owners/RTPs of volumes submit oil valuation pricing for their share of volumes.
- NGL royalties are triggered for PROC volumes of C5-SP processed from the gas.
- C5-SP PROC volumes are allocated back to producing streams & RTPs.
- RTPs named on allocation submit NGL valuation for their share of C5-SP PROC volume.

Gas Plant is NOT the Custody Transfer Point



- Plant operator should create a new Battery ID in order to bypass the Plant ID. The new Battery ID represents the tank at the plant and exists solely for receiving/disposing oil. Battery is the best facility type to create here as it is not considered to be a custody transfer point facility.
- Oil/Field condensate is received at the battery (not the plant) as product OIL. The facility downstream of the plant receives OIL from the battery (not the plant). It is important that the downstream facility operator is aware of this.
 - No VRS is triggered at the battery (representing the plant).
 - The VRS is triggered when the oil is received at a true custody transfer point facility downstream of the plant (pipeline/terminal).
 - Volumes will be cascaded back to the battery (representing the plant).
 - VRS volumes are split/cascaded until entire delivered volume is split into owners/purchasers at producing facilities.
 - Owners/RTPs of volumes submit oil valuation pricing for their share of volumes.

Oil Valuation:

- BC will utilize the same Petrinex oil valuation reporting process that exists in Saskatchewan today.
- The deadline for oil valuation reporting (both royalty tax payer and purchaser) is the last day of

the month following production.

Royalty Tax Payer Valuation

- Royalty tax payers must submit the Gross Price/m³ and total Clean Oil Transportation costs associated with each facility or unit in which they were identified as an owner in pipeline splits.
- Petrinex will calculate the Average Well-Head Price/m³ (used by MOF) based on the royalty tax payer's submission.
 - MOF will use the operator's price for Non-Take-In-Kind royalty tax payers.
- The royalty tax payer can't add or delete any valuation rows or change any volumes in the valuation screen. Only an amendment to pipeline splits can change the oil valuation information.
- Oil valuation is not required for cross-border deliveries of oil into BC. Oil valuation is required, however, for deliveries of BC produced oil to out-of-province locations.
- An associated gas plant is not identified in either pipeline splits or oil valuation for the purposes of calculating the weighted average royalty rate for the PCOS deduction. MOF will use the plant ID provided in the Primary Gas Plant field discussed in the Facility Infrastructure section.

Purchaser Valuation

- Purchasers must submit the Density, Sulphur Content, Submitted Volume, and Gross Price/m³ associated with the facilities in which they were identified as a purchaser in pipeline splits.
- The purchaser does not value each cascaded facility in the same way the royalty tax payer does. Volumes are rolled up to the facility that directly delivered to the CTP facility for the same source producer (owner).
- Even though Petrinex auto-populates the volumes associated with the pipeline splits, the purchaser still submits their own volume as well in case their records are different than what the operator submitted in pipeline splits.
- The purchaser can't delete any valuation rows or change the volumes for records that were auto-created. Only an amendment to pipeline splits can change auto-created oil valuation information.
- The purchaser can add manual valuation rows. This sends a message to the royalty tax payer listed that something is wrong. The royalty tax payer must then follow up to determine if the row was added in error or whether there is a missing pipeline split or volumetric submission.

Compliance & Balancing

- It is the responsibility of the royalty tax payer to report the correct sales volume (reported through pipeline splits) and the correct pricing. The royalty tax payer submission is used in the calculation of royalties.

- The purchaser valuation is not used for royalty calculations. It is used as an audit function. The purchaser price and submitted volume is compared to the royalty tax payer submission.
- The onus is on the royalty tax payer to follow up on any discrepancies between prices or volumes to determine whose record needs to be amended.
- There is a monthly compliance and balancing report process that identifies any outstanding reporting errors:
 - Missing valuation submissions for both the royalty tax payer and purchaser.
 - Discrepancies between the royalty tax payer/purchaser gross price or volume.
 - Manually created purchaser valuation rows for which there is no matching royalty tax payer valuation.

Reporting Waste Oil:

- Currently waste oil is not reported as part of a well's production. Going forward, waste oil would have to be included in the well's production volume to balance the auto-populated disposition from the waste plant.
- The disposition from the battery to the waste plant will create a VRS that must be responded to in pipeline splits.
- The facility operator can use the code WO in the contract field of the pipeline split screen to signify that the volume is waste oil that they were not paid for.
- For valuation purposes, the royalty tax payer would enter a price of zero for the waste oil volume in order to lower the Average Well-Head Price/m3. This is to compensate for having to report the waste oil as part of production (the royalty volume), but receiving no payment for it.

3.4.6 Net Profit Allowable Costs

BC Forms Replaced:

BC-51 Net Profit Monthly Allowable Costs

Data Conversion:

There will be no previous net profit allowable costs submissions converted to Petrinex.

Impacts to BC Processes:

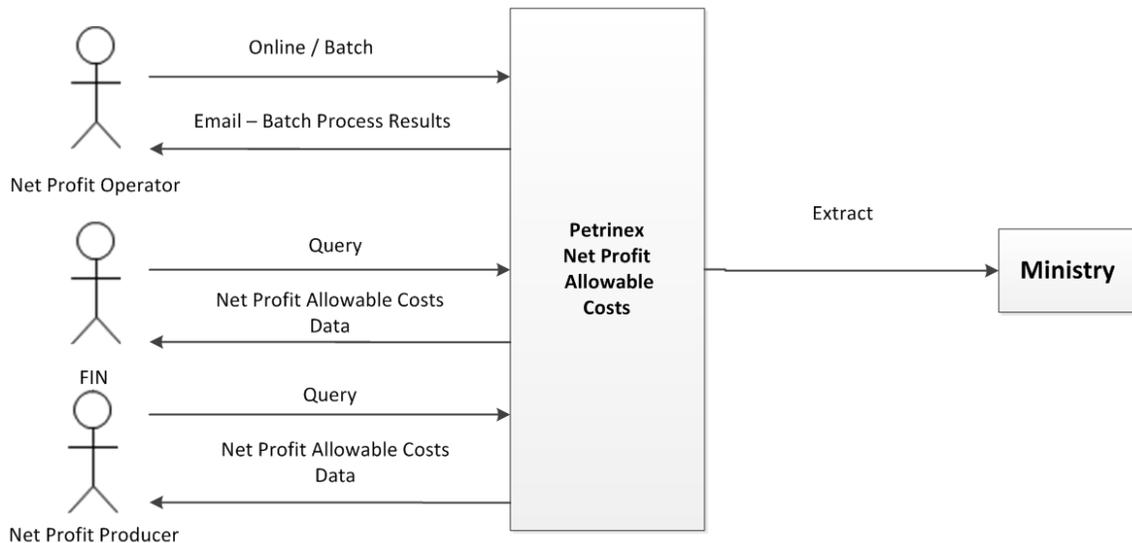
NOTE: Net profit impacts few companies in BC. In mid-2017, there were only 4 net profit projects in which 7 companies were required to file a BC-51: **Apache Canada, Encana Corporation, EOG Resources Canada, EOG Canada Oil & Gas, Devon Canada Corporation, Nexen Energy ULC, and Chevron Canada Ltd.**

- The BC Net Profit Allowable Costs functionality is new in Petrinex. It was designed specifically for BC reporting needs.
- MOF provides Net Profit Project information via the Royalty Tax Attributes section of Petrinex

(discussed in Section 3.3.4). The royalty attributes determine:

- All of the royalty tax payers associated with the project.
- The net profit operators who are responsible for reporting in Petrinex (based on the Operator flag in the attributes screen). Note that each project can have multiple operators.
- The net profit project operators are responsible for submitting eligible monthly capital and operating costs for required royalty tax payers (under the net profit royalty program).
- The royalty tax payers may query their assigned costs.
- The following diagram provides an overview of the monthly submission process for net profit projects to be referenced when reviewing the points below.

Monthly Net Profit Allowable Costs Submission Process



3.4.7 Shippers' Balance (Alberta)

NOTE: It is believed there are less than 10 BC facilities that would be required to do shippers' balance reporting. During shippers' balance development in Alberta in 2015, it was determined all required BC reporting facilities as being operated by **Tervita**, **Secure Energy**, and **Pembina**.

BC will utilize the same Petrinex shippers' balance reporting processes as are used in Alberta and Saskatchewan today.

- Shippers' balance reporting is required by the Alberta Petroleum Marketing Commission (APMC) for oil produced in Alberta. This extends to Alberta produced oil that is delivered to certain facilities in Saskatchewan and BC.

- Currently, BC facilities are being reported within the Alberta Petrinex jurisdiction. BC pipeline operators are estimated to begin reporting shippers' balances for BC pipelines, terminals, and custom treater facilities in the BC Petrinex jurisdiction (just as Saskatchewan is reporting in the SK reporting jurisdiction) in **February 2019**. Until then companies should continue to report in the Alberta jurisdiction.
- For more information on shippers' balance reporting, please follow the link below to the Alberta Crown Shippers' Balance Reporting Project initiatives page found on the Petrinex website.
<http://www.petrinex.ca/193.asp>
- The following documents are recommended for reading on the initiatives page:
 - Industry Readiness Guide (POs)
 - DOE Information Letter 2015-18
 - Both documents under the Job Aids for Pipeline Operators section.

3.5 Annual Processes

3.5.1 BC Allowable Costs

BC Forms Replaced:

BC-23 Application for Gas Cost Allowance
BC-26 Coalbed Methane Producer Cost of Service

Data Conversion:

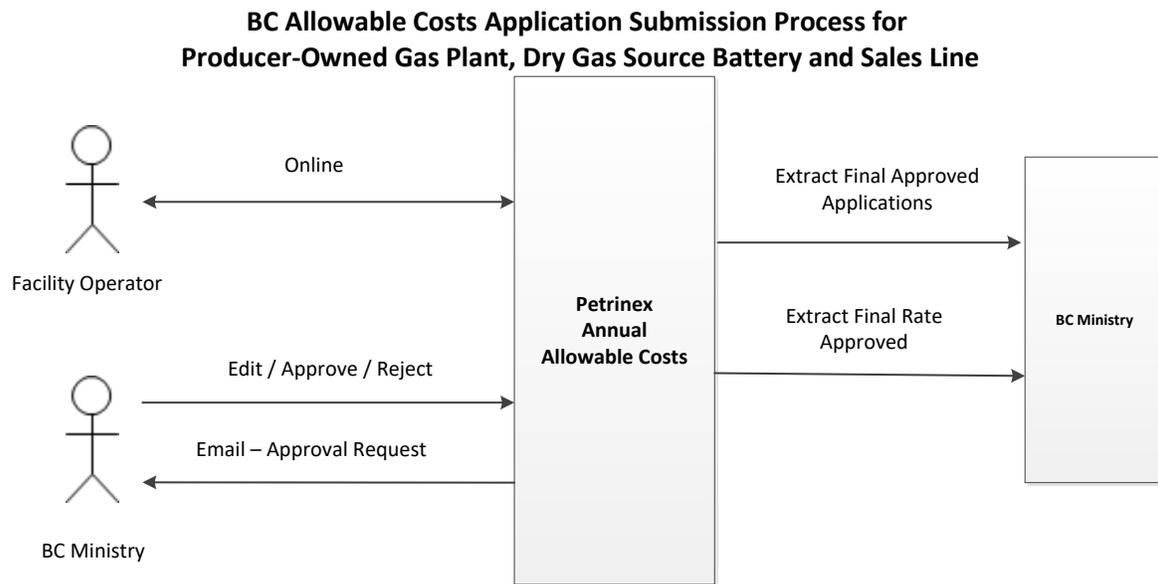
There will be no previous gas cost allowance submissions converted to Petrinex.

Impacts to BC Processes:

- The BC Allowable Costs functionality is new in Petrinex. It was designed specifically for BC reporting needs. It is not patterned after the allowable costs functionality that currently exists for Alberta.

Application Submission Process:

- The following diagram provides an overview of the BC Allowable Costs application submission process to be referenced when reviewing the points below.



- BC Allowable Costs will be an online only submission in Petrinex comprised of both user input and auto-calculated fields that provide the same required information found in the BC-23 today.
- Application submissions can be made for a Facility or a Sales Line.
 - Facility applications can be for either a Gas Plant or Dry Gas Source Battery and must list any related Sales Lines.
 - Sales Line applications must include the receiving Facility ID and list any related facilities that tie into the line.
- The application year is always set to the Calendar Year – 1.
- Applications require that a product be selected (Gas, Oil, or NGL).
- It is assumed that the application is for 12 operating months; however, this value can be changed to determine the actual months of operations (e.g. new facilities coming on , shut-in or decommission).
- Prior year data is displayed as read-only and any current year data will be pre-populated if available.
- BC Allowable Cost supporting documentation items are to be included (as an attachment) with the online application. If any documents are not available at the time of submission, industry may request an extension to follow-up.
- The MOF will review the application online via Petrinex and approve or reject the submission. On approval the submission will be extracted and sent to MOF systems. If rejected, Industry will have the ability to update and resubmit the application.

- A new application starts in an Open status and progresses through various statuses until eventually reaching an Approved status. The table on the following page provides a list of all statuses, who has the ability to set these statuses, and who can edit the submission while in that status.

ALLOWABLE COST STATUSES					
Status	Description	Set Status		Edit Submission	
		MOF	Industry	MOF	Industry
Open	This is the initial status of the application. It is under edit by Industry (work in progress).	N	Y	N	Y
Submitted	Application is complete and has been submitted for Approval. MOF is notified that application is ready for review.	N	Y	Y	Y*
Rejected	Application has been reviewed by Ministry and is rejected. Notification is sent to Industry. Industry may change Status to Open and update the application for resubmission.	Y	N	Y	Y*
Complete	Application approved by MOF.	Y	N	Y	Y*
Approved	Application has received Ministry Final Approval. Notification is sent to Industry. Submission data is sent to MEMPR and MOF.	Y	N	Y	Y*
Rate Change	Rate adjusted by MOF because the difference between the estimated allowable cost rate claimed and the actual allowable cost for a year was significant.	Y	N	Y	N
Audit Adj.	An Audit Adjustment has been made by MOF. Notification sent to Industry.	Y	N	Y	N
* Industry may reset status to Open in order to edit the application and resubmit.					

- Allowable costs information can be viewed by the following parties:
 - The current facility operator.
 - Previous operators who were operator at any time during the submission year.
 - Any BA listed as an owner in the submission can view their approved rate.

Submission Timeline:

- Jan-Mar 10: Industry submits allowable costs applications for facilities and sales lines.
- Jan-Mar 20: Allowable costs submissions are reviewed and approved or rejected by MOF.

- Industry corrects rejected applications and re-submits.
- On or before March 20 – all approved rates are to be deployed to Ministry of Energy, Mines and Petroleum Resources (MEMPR) Pricing Section for inclusion in the Producer Price calculation for crown invoice.
- April-Dec: MOF makes audit adjustments after consulting with Industry.

Allowable Costs Reports:

- Industry will have both a Detailed and Summary report that can be requested on-demand.
- Users have option to request a report with amendment history.
- The Detailed report provides all of the same details that would be seen in the online submission.
- The Summary report rolls up certain information:
 - Related Sales Lines/Facilities are not listed.
 - Net Depreciable Capital is summed up (no listing of individual AFEs).
 - Total Operating Costs is summed up (no listing of individual cost items).

3.5.2 Producer Cost of Service (PCOS)

BC Forms Replaced:

BC-22 Application for Producer Cost of Service

Data Conversion:

All eligible PCOS equipment will be converted to Petrinex. There will be no prior year PCOS submissions with rate and cost data converted to Petrinex; however, the initial equipment linkages to PCOS eligible facilities and the H2S values (based on the previous year submissions) will be converted to Petrinex as a starting point for the first Petrinex PCOS submission.

MOF will be converting all equipment types with the exception of gathering lines (pipeline segments). Industry will be responsible for creating any Alberta/NEB pipeline segments that are not licensed by the Commission after Go-Live. They will not be included in the MOF equipment conversion.

The Commission will be responsible for loading licensed gathering lines into Petrinex both for conversion purposes and beyond Go-Live.

The Commission identifies gathering lines differently than MOF. The Commission tracks gathering lines by their own Project & Segment IDs. One gathering line in the old MOF systems could be multiple segments with separate identifiers in the Commission’s systems.

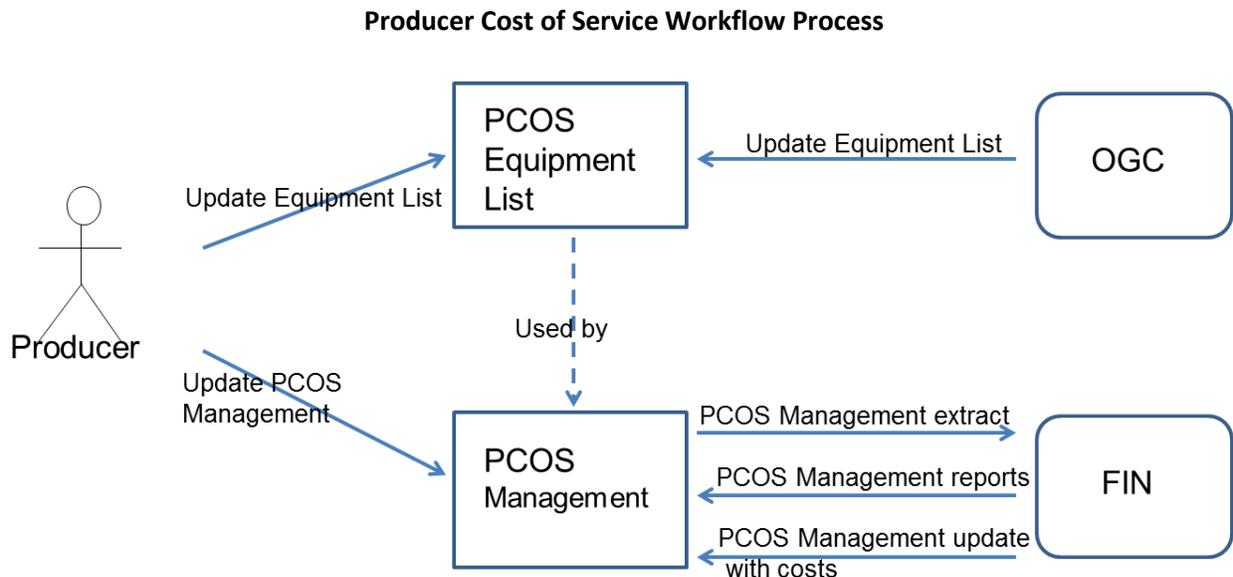
NOTE: Industry will need to update their old MOF gathering line IDs with the new Commission IDs in their internal systems as well as update the equipment linkages in Petrinex. Industry has the opportunity to begin updating their internal records prior to Go-Live. The Commission currently keeps a listing of their pipeline project details in the Data Downloads area of the Commission website. Those BAs who do

not have access to the Commission website can obtain a user name and password through the following link: https://iris.bcogc.ca/generic_ogc/Ext_Accnt.Logon

Spreadsheet files containing all PCOS Equipment being converted to Petrinex have also been posted for all Industry BAs to review on the Industry Zone of the Commission website. This includes equipment being converted by MOF and the Commission. More details on shared files are available in [Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders](#).

Impacts to BC Processes:

- PCOS reporting on Petrinex involves 2 main screens:
 - The PCOS Equipment List is where all equipment is entered and maintained.
 - The PCOS Management screen is where Industry submits information and attaches equipment to obtain an annual PCOS rate for their facilities.
 - Equipment is attached to a facility’s PCOS submission from the PCOS Equipment List.
- The PCOS Equipment List and PCOS Management screens are new functionality for Petrinex, created specifically for BC reporting needs.
- The following diagram provides an overview of the PCOS workflow process to be referenced when reviewing the points below.



PCOS Equipment List:

- There are 5 categories of equipment that each have their own data attributes applicable to that

equipment type:

- Gathering Lines (Pipeline Segments)
 - Dehydration Units
 - Compressors
 - Field Processing Units
 - Lineheaters
- The Commission will supply all BC gathering lines on an “as licensed” basis to Petrinex.
 - Gathering lines are identified by the Commission Project & Segment ID.
 - The Licensee is the owner of the equipment in Petrinex.
 - Industry will create all new equipment items for all equipment types other than the Commission licensed gathering lines.
 - Industry will create Alberta/NEB gathering lines not licensed by the Commission.
 - The BA who creates the equipment item is the owner of the item in Petrinex.
 - All items are assigned a unique Petrinex Equipment ID #.
 - BAs can transfer ownership of equipment items to another BA.
 - This does not include gathering lines provided by the Commission.
 - Can't transfer equipment for periods prior to the current PCOS year.
 - The equipment list is global. Any BA can query the entire list of BC equipment. Only owners, however, may edit items in the equipment list.
 - Equipment items can be shared.
 - Any BA can use another BAs equipment item in their facility's PCOS submission.
 - Petrinex displays which facilities are using a particular piece of equipment in the equipment list.
 - A notification is sent to the owner of the equipment when another BA uses it in their PCOS submission.
 - A BA can delete any piece of equipment that they own as long as it has not been used in any facility's PCOS submission. For items that have been used in a PCOS submission, the BA may set an end date. The end date indicates that equipment is at the end of its life cycle and may no longer be used beyond that date.

PCOS Management Screen:

- PCOS submissions are created by the operator of each eligible facility (same as today).
 - Batteries are the only valid facility types for PCOS in Petrinex.
- The PCOS Management screen collects the following information for each facility for the current PCOS year:
 - Estimated Annual Production Volume of Raw Gas

- Industry will input an estimate for new facilities added during the current year.
 - Existing facilities will have the estimate pre-populated with the previous year's actual volume. Industry does have the ability change this estimate, but it will be subject to a review and PCOS recalculation if the current year actual is not within ten percent of the estimate.
- Actual Annual Production Volume of Raw Gas for the previous year (updated automatically throughout the year by Petrinex using the production volumes reported in volumetrics).
- Weighted Average H2S content of the inlet stream to the facility (input by Industry).
- All applicable Equipment Linkages.
- Linked equipment items are grouped by equipment type (gathering line, compressor, etc.).
 - Industry can add equipment items to any grouping via a Petrinex lookup that accesses the global Equipment List.
 - New equipment items must exist in the Equipment List. Users do not create new equipment items in this screen, only linkages.
- A listing of the PCOS Management screen equipment data fields is presented on the following page:

PCOS MANAGEMENT EQUIPMENT LINKAGE DATA FIELDS		
DATA FIELDS	INPUT BY	DESCRIPTION
BA ID	Petrinex	<ul style="list-style-type: none"> Owner of the equipment item.
Equipment ID	Petrinex	<ul style="list-style-type: none"> The unique Petrinex ID# of the equipment item or the Project & Segment ID for gathering lines provided by the Commission.
Equipment Information	Petrinex	<ul style="list-style-type: none"> Several data fields listing attributes populated from the Equipment List. Attributes differ for each equipment type.
Well ID	Industry	<ul style="list-style-type: none"> Pertains to gathering lines only. List of Petrinex Well IDs (if any) that the line is connected to.
Delete Flag	Industry	<ul style="list-style-type: none"> User checks flag if equipment item is no longer associated with facility. Item is marked as deleted upon submission.
Add/Delete/Change Indicator	Petrinex	<ul style="list-style-type: none"> Add (A) indicates the equipment item is a new addition starting in the current PCOS year. Delete (D) indicates the equipment item was part of the previous year's PCOS submission but is no longer associated with this facility. The record remains visible and marked as deleted to indicate that a rate change is needed. Change (C) indicates that equipment item has been modified in some way since MOF last approved it.
Approved Indicator	MOF	<ul style="list-style-type: none"> MOF can pre-approve any Adds/Changes/Deletions prior to the deadline by checking the indicator flag and submitting. Industry may make subsequent changes to an equipment item that has already been approved. The indicator is then switched off.
In Service Indicator	Industry	<ul style="list-style-type: none"> Flag that indicates the equipment item is in service for the current PCOS year. Industry would uncheck flag if equipment item is not in service. Allows item to remain active even though not in service (no need to delete or end date).
Shared With	Petrinex	<ul style="list-style-type: none"> Petrinex lists any other facility that shares the piece of equipment.
Comments	Industry	<ul style="list-style-type: none"> Text field where Industry users can add any related comments in regards to the equipment item if needed.

- Only the current facility operator can edit a PCOS submission (with the exception of the Approved Indicator which is set by MOF). The following stakeholders, however, are able to view submission data in the Query PCOS Management screen:
 - The current Facility Operator can query any year including prior years when they were not the operator.
 - Any prior operator for the selected year can query that year.
 - The current Licensee of any wells associated with the gathering lines listed on the submission.
 - Royalty Tax Payers for wells linked to the facility.

PCOS Submission Timeline:

- Feb 1 – Jan 31: Industry enters equipment linkage changes at facilities for the current PCOS year. MOF can go in and pre-approve changes.
 - Ex: Period of Feb 1, 2017 – Jan 31, 2018 would be for 2018 PCOS year.
- Jan 31: Deadline for PCOS submissions.
 - Submission data is extracted to MOF systems.
 - Applicable data is rolled over to next year's submission:
 - Weighted Average H2S content.
 - Equipment linkages that were not ended in the current year.
 - Well IDs associated with gathering lines.
 - All current PCOS submissions are locked for editing.
 - MOF can unlock submissions so that adjustments and resubmissions can be made if necessary.
- Jan 1 – Feb 28: MOF approves PCOS submissions and returns information to Petrinex:
 - PCOS reports generated in MOF systems are sent to Ministry Invoices & Statements.
 - Approved facility PCOS rates are populated in the Query PCOS Management screen.
- Industry can still submit Interim PCOS Allowance Requests:
 - Interim requests are applications for new facilities that come on production after the submission deadline for the current PCOS year.
 - Petrinex will recognize submissions for new facilities and extract them to MOF.
 - MOF will review and, if approved, return rate and report information to Petrinex.

PCOS Reports:

- There will be 2 reports available to be generated in Petrinex:
 - PCOS Equipment List Report: This report will allow users to run filtered lists of equipment including a parameter that will list equipment items that are currently not linked to any facility in PCOS Management.
 - PCOS Management Report: This report will allow users to run reports for any Facility ID that they are entitled to see under the security rules. Report details are a summary of

the same information that is seen on the PCOS Management screen.

- There are currently PCOS reports that are generated in MOF systems and sent to Industry. After Go-Live, these reports will be sent to Industry via the Ministry Invoices & Statements section of Petrinex. The MOF reports will incorporate the following changes:
 - MOF agreed to add Cost Factors and Inflator/Deflator factors to the existing Cost Summary report.
 - MOF agreed to the creation of a new Cost Factor Summary report which would list each equipment type's cost factor by year.
- The changes to the MOF reports are expected to benefit Industry by providing increased transparency in how PCOS rates are calculated and allow for better estimates for accruals and forecasting.

3.6 Other Petrinex Processes

3.6.1 Ministry Invoices & Statements

BC invoices and supporting summary reports for Oil & Gas Royalties/Taxes, Non-Compliance reporting, and PCOS will be provided on-line through the Ministry Invoices & Statements section of Petrinex. Examples include but are not exclusive to:

- Client Monthly Invoices & Reports
 - Gas & By-Product Invoices
 - Oil Invoices
 - Royalty/Tax Billing Calculation Details
 - Marginal/Ultra-Marginal Reports
 - Net Profit Project Invoices
- Non-Compliance & Penalty Reporting
 - Non-Compliance Penalty Invoices
 - Provisional Assessment Invoices (New)
- MOF generated PCOS Reports

Pricing reports from MEMPR will not be available on Petrinex. Having these reports available in Petrinex is something that may be re-visited in the future.

With the introduction of the ministry's new royalty invoicing and payment system in October 2018, oil and gas royalty payers will also be able to retrieve invoices and reports, as well as remit payment through the ministry's electronic account and payment portal – eTaxBC.

3.6.2 Reports & Queries

Queries are online requests for information relating to a single event (i.e. single facility for a specific production month) and do not span multiple production months or multiple facilities. Queried data can be viewed online or printed.

Reports are of a predefined layout but allow user-defined parameters (i.e. a list of facilities) to control what information is retrieved. In general, Petrinex generates report requests right away the same day; but some requests can be moved to the overnight queue depending on the size of the report being requested. Reports can span multiple production months and multiple facilities. Reports are available in Portable Document Format (PDF), Comma Separated Value (CSV), and Extensible Markup Language (XML) formats.

Access to report information is subject to the standard Petrinex security model. [See Appendix 7: Technical & Security Considerations](#) for more information on Petrinex security.

A full listing of reports that will be available to BC users in Petrinex will be added to the handbook when it is available.

3.7 User Support Services

3.7.1 Petrinex Business Desk

Petrinex has fully trained Business Desk personnel to address any questions or concerns relating to Petrinex functionality.

Business Desk Contact Information:

Phone: 403-297-6111 (Calgary)

Toll Free: 1-800-992-1144 (Other Locations)

Email: petrinexsupport@petrinex.ca

3.7.2 Petrinex Website

Petrinex communication protocols include many different tools available to communicate with Petrinex users, including the Petrinex Website. The website provides stakeholders with access to:

- Login to the client area of Petrinex
- The Petrinex BC Reporting Calendars
 - Petrinex will have posted calendars outlining when data submissions must be completed (i.e. Volumetric or Valuation submission deadlines).
 - Petrinex calendars identify when automated reporting related activities occur (i.e. Warning notices that data is incomplete, incorrect, or missing prior to the associated submission deadline).
- Infrastructure Code Reports that can be used for Industry reference purposes:
 - Activity Codes
 - BA Identifiers
 - Facility Identifiers, Types, and Subtypes
 - Field, Pool, and Formation Codes
 - Product Codes
- Broadcast Messages
- User Tips & Alerts

- The Petrinex Learning Resource Centre (see section 3.7.5)
- Business Desk Contact Information
- Information on current major Petrinex initiatives

3.7.3 Industry Liaison & Support (Industry Team at Petrinex)

The Industry Team is funded by Industry and is comprised of a team of senior Industry Subject Matter Experts (SME's) and a manager. The Industry Team at Petrinex provides:

- An Industry voice on the Petrinex management team.
- Industry Subject Matter Expert (SME) support to the Petrinex Service Desk and contribution to user training; Petrinex change management and testing; Industry liaison, consultation and communications.
- Industry consultation and support for changes initiated by ministries.
- Industry support to the Industry Benefits Committee, and as well, to the Industry members of the Petrinex Advisory Committee and Petrinex Steering Committee.
- Ongoing focus on enhancing the level of benefits realized by Industry users of Petrinex.
- The Industry Team works with Industry and Government committees to identify, prioritize, advocate, and if approved, support implementation of potential Petrinex enhancement projects of benefit to Industry.

Going forward the team will work closely with the Commission, MOF, MEMPR and any other groups focused on the needs of BC users of Petrinex.

3.7.4 Change Management Process

Petrinex is always evolving to meet changing needs and technology. Petrinex Change Management protocols and processes ensure that Industry and Government technological and functionality enhancements are identified, vetted, prioritized, tested and implemented, and communicated in a timely manner that meets stakeholder approved and closely monitored Key Performance Indicators. All Petrinex stakeholder groups collaboratively participate in the Change Management process.

3.7.5 Learning Centre

The Petrinex Learning Centre provides access to Petrinex Learning Modules, Job Aids, Tips & Alerts and FAQs.

Petrinex has a suite of approximately one hundred online learning modules and job aids that will include updates to existing learning modules and the development of new learning modules for new BC related functionality to incorporate changes required for BC reporting purposes.

Appendix 1: British Columbia Communication to Stakeholders



NEWS RELEASE

For Immediate Release
2016MNGD0100-002805
Dec. 20, 2016

Ministry of Natural Gas Development
Ministry of Finance

Interprovincial collaboration increased as B.C. joins Petrinex

VICTORIA – British Columbia is joining Petrinex to improve how information about the oil and natural gas industry is recorded and managed, Minister of Natural Gas Development Rich Coleman announced today.

Petrinex is a proven system in managing and exchanging key volumetric, royalty billing, regulatory activities and commercial information associated with the petroleum sector.

The Province consulted industry before determining the Petrinex system meets the needs of government and B.C.'s oil and gas industry. The benefits include:

- Standardized reporting processes across jurisdictions.
- Enhanced completeness and accuracy of reporting with reduced errors, rework and penalties.
- All stakeholders (industry partners and BC Ministries) view the same data.
- Opportunity for greater transparency in terms of information and business processes between all stakeholders.

The adoption of Petrinex will harmonize data submissions between Canada's three western provinces and industry using the program. Inter-provincial collaboration will be increased, traceability across jurisdictions will improve, and royalty compliance costs in B.C. will be reduced. Petrinex will replace B.C.'s system, which has been in place for 28 years.

Petrinex is owned by the Government of Alberta and is collectively governed, managed, operated and funded by Alberta, the Government of Saskatchewan and industry partners. It provides a standardized and accurate system to manage petroleum sector information from the system B.C. has been using. Petrinex has been operating since 2002.

Quotes:

Rich Coleman, Deputy Premier and Minister of Natural Gas Development –

"Petrinex provides us with a better way to monitor natural gas and oil produced in the province and improves how we account for revenues owed to government. We are adopting this system because it has a proven track record and the support of both industry and our neighbouring provinces."

Margaret McCuaig-Boyd, Alberta Minister of Energy –

"We are excited that our western neighbour will be joining Petrinex, a world-class, made-in-Alberta means to manage valuable data in the oil and gas sector. This collaboration will lead to

greater efficiencies and support economic activity in this important industry that provides tens of thousands of jobs across Western Canada.”

Brad Herald, vice-president, Western Canada operations, Canadian Association of Petroleum Producers –

“We are pleased to see the Government of British Columbia adopt Petrinex. This adoption will allow the collection of standardized data that is consistent with Alberta and Saskatchewan, helping Canadian producers enhance competitiveness in an increasing competitive continental and global market.”

Gary Leach, president, Explorers and Producers Association of Canada (EPAC) –

“As president of EPAC, we welcome British Columbia’s decision to join Petrinex. Petrinex has significantly improved reporting and administrative processes and greatly enhanced access to timely and accurate information. On behalf of our member companies operating in BC, we appreciate the support of the B.C. government in this initiative.”

Quick Facts:

- Active users: 30,000
- Page hits: 3.5 million per month
- Batches/reports: 125,000 per month
- Transactions: 1.5 million per month
- Security: Annual American Institute of Certified Public Accountants (AICPA) service organization control reports (SOC) certification
- Performance: Managed against 37 stakeholder approved key performance indicators (KPI) with a successful 15-year track record of on-time/ on-budget growth

Learn More:

For more information on Petrinex: www.gov.bc.ca/petrinex

For more information about B.C. royalties and royalty programs:

<http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/oil-gas-royalties/royalties-royalty-programs>

Media Contact:

Lindsay Byers
Ministry of Natural Gas Development
250 952-0617

Connect with the Province of B.C. at: www.gov.bc.ca/connect

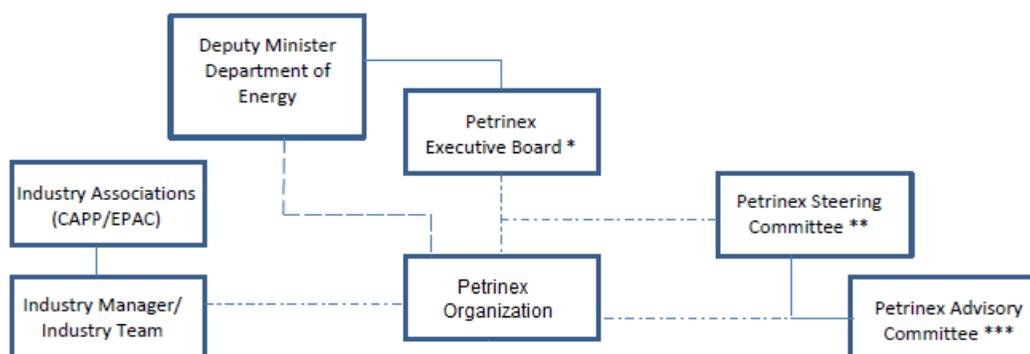
Appendix 2: About Petrinex and the BC Inclusion Project

1. PETRINEX GOVERNANCE, OPERATIONS AND ADMINISTRATION

Petrinex is a joint strategic organization supporting Canada’s upstream, midstream and downstream petroleum industry, and is currently represented by government (Alberta Department of Energy (DOE), Alberta Energy Regulator [AER], and Saskatchewan Ministry of Economy [ECON]), and Industry (represented by Canadian Association of Petroleum Producers [CAPP] and Explorers and Producers Association of Canada [EPAC]). Petrinex operates under a unique and proven Crown-industry governance, management and funding structure. Serving multiple stakeholders across multiple jurisdictions, Petrinex facilitates efficient, standardized, safe and accurate management /exchange of "data of record" information essential to the operation of the petroleum sector. Petrinex is currently engaged in inclusion projects with the Province of British Columbia (this project) and Indian Oil and Gas Canada.

Petrinex is governed and managed in a manner reflecting its multi-stakeholder sponsorship:

Petrinex Governance and Organizational Structure



* Chaired by ADOE Deputy Minister, comprised of executive representatives from the Canadian upstream oil and gas industry (CAPP/EPAC), Alberta Energy Regulator, Alberta Department of Energy, Saskatchewan Ministry of the Economy, British Columbia Ministries of Finance and Natural Gas Development and BC Oil and Gas Commission.

** Chaired by ADOE Assistant Deputy Minister, comprised of senior representatives from the Canadian upstream oil & gas Industry (CAPP/EPAC), Alberta Energy Regulator, Alberta Department of Energy, Saskatchewan Ministry of the Economy, British Columbia Ministries of Finance and Natural Gas Development and BC Oil and Gas Commission.

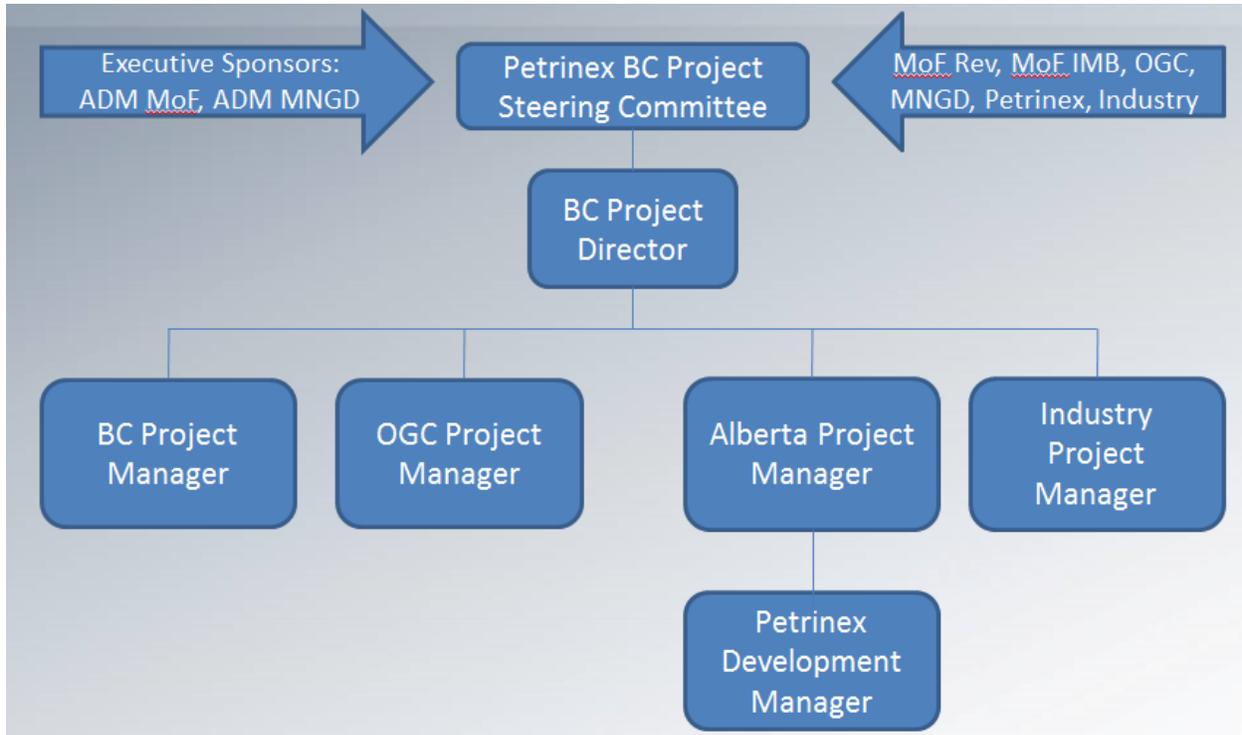
*** Chaired by Industry, comprised of line management representatives from the Canadian upstream oil & gas Industry and the Government sectors.

Petrinex has other multi-jurisdictional /multi-stakeholder committees focused on initiatives related to the Petrinex Executive Board sponsored Central Hub initiative. This initiative will expand the role of Petrinex in acting as a central collaborative hub for information management in the sector.

2. PBCIP PROJECT STRUCTURE

The Petrinex BC Inclusion Project (PBCIP) also reflects multi-stakeholder participation:

Petrinex BC Inclusion Project Organization Chart



3. INDUSTRY REPRESENTATION AND OPPORTUNITIES FOR INPUT

a. Petrinex Industry Team

The Industry Team is made up of the Industry Manager who participates on the Petrinex Steering Committee and is a member of the Petrinex Management Team, and a small number of senior subject matter experts that represent Industry's interests and contribute Industry expertise to the Petrinex management, operations and evolution. The Industry Team is also charged with ensuring that all BC stakeholders, including oil and gas operators, are aware and fully prepared for this significant change which is scheduled for November 2018.

While the initial development and ongoing operations of Petrinex are funded by Government, Industry funds the Petrinex Industry Team. This funding is provided through a voluntary annual billing of Alberta and Saskatchewan operators, the amount of which is based on the number of wells each company operates. BC operators will be included in the annual Petrinex Industry Team billing starting for the 2018 funding cycle.

With respect to PBCIP, the Industry Team is responsible to help ensure that:

- **“Petrinex is ready for BC Industry”**

- The Industry Team contributed Industry subject matter expertise to design workshops (along with BC industry, regulator and government stakeholders and Petrinex technical representatives) and reviewed specification documentation of changes that are required to Petrinex for BC inclusion.
- The Industry Team takes the lead in engaging Industry companies and various committees to get broad Industry stakeholder input with respect to functionality design and key implementation decisions.
- The Industry Team plays a key central role in testing Petrinex functionality associated with PBCIP changes.
- More broadly, the Industry Team works with the rest of the Petrinex Team, industry reps and BC regulator and government stakeholders to ensure PBCIP delivers the benefits identified for Industry in the PBCIP business case.

- **“BC Industry is ready for Petrinex”**

- The Industry Team is responsible for working as part of the Petrinex Team and with BC government and regulator stakeholders to ensure that Industry was aware and fully prepared for the implementation of Petrinex in BC. As such, the Industry Team is actively involved in the following (among other) readiness activities:
 - Communication with stakeholders in the various Industry segments (including managing the *Change Leader* program).
 - Development of content for learning modules and other readiness vehicles, including this handbook.
 - Working with production accounting software vendors to help these companies prepare for the change.

b. BC Business Change Committee (BC BCC)

The BC BCC is a committee of representatives from the various Industry stakeholder groups and is chaired by the Industry Manager. Key design issues and decisions related to PBCIP were reviewed with this committee. After the design phase of the project the BC BCC may be called upon to provide input and advice on matters such as Industry and Vendor Interoperability Testing, Industry Readiness and Training. The BC BCC will remain as a venue for consultation with respect to any issues and opportunities that arise post-implementation. Meetings of the BC BCC are called on an “as needed” basis.

c. Industry Benefits Committee

The Industry Benefits Committee (IBC) is a standing committee of Alberta, Saskatchewan and (post-implementation) BC company representatives. The IBC has met monthly since 2000. The IBC is a user group of managers or senior subject matter experts that provides Industry input on the operation and evolution of Petrinex with the objective of assuring that Industry obtains the most benefits possible from Petrinex.

4. KEY CONTACT INFORMATION

- For **Industry queries related to PBCIP and Petrinex** contact Steve Freeman, Industry Coordinator, 403-297-2311, steve.freeman@gov.ab.ca
- For Petrinex Industry Policy queries, contact Ross Weaver, Industry Team Manager, 403-297-4411, ross.weaver@gov.ab.ca
- For **BC Policy related queries related to PBCIP**, please contact one of the following:
 - **The BC Oil & Gas Commission:** Mike Janzen, 250-419-4464, mike.janzen@bcogc.ca
 - **Ministry of Finance:** 1-800-667-1182, Oil&GasRoyaltyQuestions@gov.bc.ca
 - **Ministry of Energy, Mines & Petroleum Resources:** Geoff Turner, Geoff.Turner@gov.bc.ca

Appendix 3: Important Petrinex Concepts & Processes

Petrinex has current concepts and processes that may be new terminology to some users. Key concepts and processes are briefly described below.

- **Auto-population:** As business processes and transactions are performed in Petrinex, key data and information may be automatically populated using data supplied by other processes or other individuals. This is referred to as auto-population. Auto-populated data appears on Petrinex pages as you work through business transactions. For example: opening inventories are auto-populated from the previous month's closing inventories, and disposition volumes are auto-populated by the receipts reported by the receiving facilities. Auto-population reduces work for BAs, alleviates discrepancies, and provides continuity for smoother business processes.
- **Automatic Calculations:** Petrinex calculates or derives information wherever possible from other submitted information, eliminating the need for it to be reported manually. This data is then applied in all relevant Petrinex business processes. Examples of derived data include:
 - Facility totals
 - Opening Inventories
 - Shrinkage
 - Metering differences for gas
 - Imbalances for oil
 - Average Well-Head Price/m³ for oil valuation

Users will verify and confirm the auto-calculated data, but do not need to re-enter or re-calculate it.

- **Work in Progress (WIP):** The Work-in Progress (WIP) utility is a staging/holding area for online submissions where incomplete work can be stored and edited until it is ready for submission to Petrinex. WIP is available for most monthly reporting processes in Petrinex, including Volumetrics, Allocations, NGL/Sulphur Valuation, Oil Pipeline Splits and Oil Valuation. As long as data remains in WIP, it is not considered a Petrinex submission. Only valid data that has been submitted in Petrinex is included when determining if a deadline has been met.

Only the BA that stored the data in WIP may view the data. Once monthly data has been successfully submitted from WIP to Petrinex, it is available for other authorized BA users.

- **Allocations Triggers:** Allocations triggers are events caused by certain volumetric transactions that require a mandatory allocations filing. Specific triggers can differ by jurisdiction and are determined by Ministry requirements. Most triggers are necessary for a Ministry to calculate and invoice a royalty on a quantity of product to the correct royalty tax payers. However, triggers may require allocations for other purposes as well.
- **Volume Requiring Split (VRS):** The VRS is a volume copied from volumetric reporting or can be created by a cascade, to which pipeline splits should balance. In volumetrics, dispositions to Custody Transfer Point (CTP) facilities are copied to pipeline splits as the VRS, identifying the delivering, receiving, and CTP Facility IDs. In general, CTP facilities for oil pipeline split reporting are terminals, pipelines, or waste plants.
- **Cascade:** To cascade is to allocate product from one facility to an upstream facility, as a result of the product ownership not being known by the downstream operator. The products being

allocated are referred to as cascaded volumes. This process applies to both the allocations and pipeline splits functions in Petrinex.

- **Validation Reports:** Petrinex generates different types of validation reports that are called by different names for different functions in Petrinex (Non-Compliance, Compliance & Balancing, Ensure Complete, or Missing/Incomplete). All of these reports are automatically generated 2 days prior to their applicable Ministry deadlines to allow users to make corrections. They are also generated at the deadline to advise users of outstanding problems that may be subject to penalties or default pricing for royalty/tax calculations. These reports can also be run online by request by users.
- **Concurrence:** In some Petrinex processes, all relevant parties must agree before a change is accepted. This online process is called concurrence and is required for Well and Facility Operator changes, and Well to Facility Link changes (between two operators). When concurrence is requested, the parties can respond online by accepting or rejecting the proposed change.
- **Batch File:** A batch file is a data submission that is uploaded to Petrinex (as opposed to being entered online). Most batch files are created using a Business Associate's internal system, but can be manually created as well. Batch uploading is available for most reporting processes. Acceptable upload formats for a batch file are Comma Separated Value (CSV) and Extensible Markup Language (XML).
- **Full-Form Amendment:** Full-form amendment is a submission method used in Petrinex whereby original data submissions are replaced by any subsequent submissions (amendments). This concept is important to keep in mind when making submission by batch upload. Each subsequent submission made to Petrinex completely overwrites the previous upload. This means that each new submission must include all data reported for the month (not just new or updated records).
- **Inbox and Notifications:** The Petrinex Inbox contains electronic notifications that are sent by e-mail to Business Associates. Petrinex uses notifications to inform BA users of successful submissions, errors, and other items or processes requiring action. Notifications are triggered by:
 - User actions initiated online
 - Calendar events
 - Data changes
 - Validation processes
 - System processes
 - Concurrence requests

All notifications are sent to a BA user's external email address as well as to the BA's Petrinex Inbox. This guarantees that all notifications are received by the BAs. All users can access notifications in their Petrinex BA Inbox. If there are any attachments to the notification, the notification will include a secure hypertext link, accessible only by the appropriate users. If a user is accessing this information from an external email address, the user is brought directly to Petrinex login page after clicking on the hyperlink. After logging into Petrinex, the user is brought directly to the applicable Petrinex page.

- **Contacts:** The Contacts button on Petrinex menu identifies the user who made the submission you are viewing, along with that user's contact information, including e-mail address and phone number.
- **Online Help:** Just one click away from any Petrinex page, the online Help system is a convenient utility that:
 - Provides immediate, context-specific information.
 - Provides detailed step-by-step instructions.
 - Provides a glossary and index of key words.
- **Tips:** Tips contain valuable advice for using Petrinex most effectively. Tips are accessible from the Petrinex website. You do not have to have access (user id and password) to view this information.
- **Alerts:** Alerts contain instructive work-arounds to resolve short-term problems in Petrinex. Alerts are accessible from the Petrinex website. You do not have to have access (user id and password) to view this information.

Appendix 4: Linking Existing BC Forms to Petrinex Processes

BC Form Number/Name	Form Purpose	Petrinex Functionality Replacement
<p>BC-08 Marketable Gas & By-Product Allocation Report</p>	<p>For a royalty tax payer to report their allocated volume of raw & marketable gas; as well as their allocated volume and sales value of NGL products, Sulphur, and Field Condensate at the well level.</p>	<p>Allocations - To determine the royalty tax payer's volume of raw & marketable gas, NGL products, and Sulphur at the well level. NGL & Sulphur Valuation - For the royalty tax payer to report the sales value of their NGL products & Sulphur. Oil Pipeline Splits - To determine the royalty tax payer's volume of Field Condensate at a facility level. Oil Valuation Royalty Tax Payer - For the royalty tax payer to report the sales value of their Field Condensate at a facility level (the royalty tax payer module lists all royalty tax payers at the well level).</p>
<p>BC-09 Monthly Oil Sales Statement</p>	<p>For each royalty tax payer to report their clean oil sales (facility, volume, purchaser code, gross sales value, & clean oil transportation cost).</p>	<p>Oil Pipeline Splits - To determine each TIK royalty tax payer's volume of Clean Oil at a facility level. Oil Valuation Royalty Tax Payer - For each TIK royalty tax payer to report the sales value and clean oil transportation cost of their Clean Oil at a facility level.</p>
<p>BC-11 Notice of Suspension/Commencement of Operations</p>	<p>To initiate or suspend any and all operations on a well.</p>	<p>Well Status - Industry will submit initial/well completion event to the Commission to allow for production reporting in Petrinex. This creates a well/completion event prior to an engineering completion report to the Commission. Industry will manage well statuses from commencement Industry will manage well statuses from commencement of production to suspension (Observation status restricted).</p>

<p>BC-12 Royalty Interest Statement</p>	<p>For a royalty tax payer to declare their proportionate interest of production (oil or gas) those royalties must be paid on at a well/tract level.</p>	<p>Royalty Tax Payer - The stream (well/unit) operator will report and maintain the list of associated royalty tax payers for each product (oil or gas).</p>
<p>BC-15 Petroleum & Natural Gas Remittance Advice</p>	<p>To explain how to allocate royalty payments made (REN, Interest, Penalty, or Estimate).</p>	<p>Not Reported in Petrinex</p>
<p>BC-19 Monthly Natural Gas Plant & Processing Statement</p>	<p>To provide information on gathering, disposition and sales of natural gas and NGL/Sulphur products.</p>	<p>Volumetrics - For gas plant or dry gas facility operators to report raw & marketable gas volumes, plant losses, and NGL volumes processed. Allocations - To determine gas and NGL/Sulphur splits to the well/royalty tax payer level.</p>
<p>BC-20 Application for Production Facility (now done in Kermit)</p>	<p>Kermit process to apply for a Facility ID for a reporting facility from the Commission. This is outside of the permitting process for facilities under the Application Management System.</p>	<p>Request Facility ID - Industry will create all new facilities for reporting purposes. Licensed facilities must be linked to an appropriate Commission Facility ID (provided in Petrinex).</p>
<p>BC-21 Application for a Well-Facility Linkage (now done in Kermit)</p>	<p>Kermit process for filing a Notice of Intent linkage change request.</p>	<p>Request Well to Facility Link Change - The facility operator will initiate a linkage change of a well to a new facility. Concurrence (acceptance) is required if new facility is operated by another BA.</p>
<p>BC-22 Application for Producer Cost of Service</p>	<p>To apply for a PCOS allowance when a reporting facility starts operations and to report any equipment added or removed from an existing reporting facility.</p>	<p>PCOS Management - The facility operator will submit annually all necessary information including equipment linkages/changes for new or existing facilities. Note that equipment is added from the PCOS Equipment List.</p>
<p>BC-23 Application for Gas Cost Allowance</p>	<p>For a facility operator to report costs in applying for GCA annually.</p>	<p>Allowable Costs - The facility operator will submit an application annually.</p>

BC-25 Application for Summer Drilling Credit	To apply for a summer drilling credit.	Not Reported in Petrinex
BC-26 Coalbed Methane Producer Cost of Service	For a facility operator to report costs in applying for a CBM PCOS rate.	Allowable Costs - The facility operator will submit an application annually.
BC-30 Oil Purchases Summary (former)	For oil purchasers to report all purchase information (facilities, volumes, unit prices). Not Reported since 2015-03.	Oil Pipeline Splits - To determine each purchaser's volume of Clean Oil associated with a delivery to a Custody Transfer Point facility. Oil Valuation Purchaser - For each purchaser to report purchase information associated with each oil purchase (density, sulphur, volume, unit price).
BC-35 Crude Oil & Condensate Monthly Pipeline Statement	For pipeline operators to report their monthly crude oil & condensate receipts.	Volumetrics - All monthly receipt/disposition information for all products and facilities must be reported.
BC-36 Monthly Treating Plant Statement	To report monthly oil and condensate volumes (receipts, dispositions, inventory) processed through an oil treatment plant.	Volumetrics - For oil processed through a Custom Treater facility. Waste Plant - For oil processed through a Waste Plant facility.
BC-51 Net Profit Monthly Allowable Costs	For operators to report monthly operating and capital costs on an approved project under the Net Profit Royalty Program.	Net Profit Allowable Costs - Each operator will report their monthly share of operating and capital costs. Note that net profit operators are determined by the Royalty Tax Attributes in Petrinex.
BC-S1 Monthly Production Statement	To report monthly production of oil, field condensate, natural gas and water for one or more well events linked to a reporting facility.	Volumetrics (Well & Proration Factor View) - The facility operator reports all monthly well related activities including proration factors (if applicable) for all active wells linked to the facility.
BC-S2 Monthly Disposition Statement	To report monthly receipts and dispositions of oil, condensate, natural gas and water to and from a reporting facility.	Volumetrics (Facility View) - The facility operator reports all monthly facility activity.

<p>BC-S18 Monthly Injection/Disposal Statement</p>	<p>To report the monthly activities related to injection, storage, and disposal (including EOR and LPG storage).</p>	<p><u>Volumetrics</u> - All monthly activities associated with injection facilities (injection/recovery, inventory, well-head pressures/temperatures, and receipt/disposition) must be reported.</p>
<p>Form 15A Monthly Gas Injection Operations Report</p>	<p>To report receipts and withdrawals of natural gas volumes into storage areas.</p>	<p><u>Volumetrics</u> - All monthly activities associated with injection/recovery, production, inventory and receipt/disposition for all products and facilities must be reported.</p>
<p>Form 20 Monthly Crude Oil & Condensates/Pentanes Plus Purchasers' Statement (former)</p>	<p>For oil purchasers to report inventory and disposition related information associated with oil, condensate, and pentanes plus. Not Reported since 2015-03.</p>	<p><u>Volumetrics</u> - All monthly production/processing, inventory, and receipt/disposition for all products and facilities must be reported.</p>

Appendix 5: Information by Specific Stakeholder Group

Readers are encouraged to read the stakeholder sections below that pertain to their BA.

1. General for All Stakeholders

This Appendix should be read in conjunction with **Section 3.0 “What’s Changing”** to ensure you have an overview of the broad changes being introduced. We also encourage you to review the other appendices as needed to help you understand new reporting structure and requirements through Petrinex.

Users are also strongly encouraged to review the Petrinex learning modules applicable to their prospective use of Petrinex as well as review the additional resources related to PBCIP implementation that are posted on the Petrinex website under Initiatives under the Petrinex British Columbia Inclusion Project (follow the link): <http://www.petrinex.ca/205.asp>

User Administration:

- All stakeholder groups will require valid British Columbia BA identifiers.
- All stakeholder BAs must set up a User Security Administrator (and optionally a Back-Up User Security Administrator) and security profiles for all of their users. Instructions on how and when these user administrator activities are to be performed will be communicated later in the project timeline.

Royalty Invoices & Statements:

BC invoices and supporting summary reports for Oil & Gas Royalties/Taxes, Non-Compliance reporting, and PCOS will be provided on-line through the Ministry Invoices & Statements section of Petrinex as well as through the ministry’s new royalty invoicing and payments system, eTaxBC.

Please see **section 3.6.1** and **Appendix 8** for more information.

Service Providers

Many companies use a service provider (ex: a Production Accounting Service Provider) to perform their Petrinex reporting responsibilities on behalf of them. BAs utilizing a service provider will need to:

- Ensure that your service provider has authority to complete work in Petrinex on your behalf. There are two ways to grant this authority:
 - You can set up individual users from your service provider as users within your BA. Effectively, you are treating these users as if they were users within your company. As with any Petrinex user that you manage at your company, your User Security Administrator can assign specific roles and facilities to those users.
 - Alternately, if the service provider already has a BA ID on Petrinex, you may assign a Designated BA role to that BA. The service provider can then log on to Petrinex under their own BA code and perform work for multiple clients. Under the Designated BA approach, the service provider will not be able to act as your User Security Administrator or Backup User Security Administrator.

Note: You may elect to engage a service provider to perform some Petrinex functions on your behalf, but not others. For example, you may have a service provider perform Monthly Reporting, but not activities related to well status or well to facility link changes. You are strongly encouraged to review this Handbook with your service provider to fully understand which functions they will and will not perform.

Data Management:

- All stakeholder groups will be able to submit data to Petrinex using online or batch (XML or CSV files) upload processes.
- All stakeholder groups will be able to access their information, and other public information on Petrinex through online queries and reports.

2. Oil & Gas Operating Producers (Including Well Licensee/Permit Holder)

The functionality used by this group can vary significantly depending on the number, type and complexity of the facilities a BA operates. The points below capture different reporting aspects of several types of operators. Not every point will pertain to every operator.

It should be noted that the Well Licensee in Petrinex is the BA who is the Well Permit Holder with the Commission.

Infrastructure:

Oil & gas facility operators and/or well licensees will maintain current well and facility infrastructure records in Petrinex. Through the Petrinex Self-Serve mode, operators and licensees will perform the following functions:

- Well Status Changes (Licensee)
- Creating Petrinex Facility IDs (Facility Operator)
- Editing Petrinex facility information (Facility Operator)
- Creating initial well to facility links (Licensee)
- Changing well to facility links (Facility Operator)
- Initiating facility operator changes (Facility Operator)

Stream operators are required to maintain royalty tax payer information by stream (well or unit) and applicable product (oil/gas) in Petrinex. When a new well initially comes on production the well licensee is assigned as the stream operator. A stream operator may transfer operatorship to another BA, if necessary, using the Operator Change functionality in Petrinex.

Stream operators will be able to query the royalty tax attributes information associated with a stream in Petrinex. Royalty tax attributes are provided by MOF for query purposes only. A stream operator may query the royalty tax attributes for any stream (operated or non-operated); however, stream operators are only permitted to edit or query royalty tax payer information for their operated streams.

Monthly Reporting:

Volumetrics

Facility operators must report balanced volumetrics on a monthly basis for each product at any active facility they operate:

- All relevant well-related activities (ex: production, injection) and associated hours.
- Facility level activities such as receipts (dispositions are auto-populated), inventory and fuel. This includes receipts from cross-border facilities.
- Proration factors for oil, gas, and water (if applicable).
- See **section 3.4.1** for a summary of BC reporting changes.

Allocations

Facility operators will use allocations to report splits of raw and marketable gas, NGL products, and sulphur back to the well/royalty tax payer/working interest owner level. Producer-Operators will be able to submit and query applicable allocations information associated with the production they manage.

- All transactions considered to be required Allocations Triggers must be reported for ministry purposes (see **section 3.4.2** for a table of required trigger).
 - All cascaded volumes from downstream facilities associated with required triggers must be reported (including cascades from cross-border facilities).
- Operators can submit allocations for any volumetric transaction for partner to partner reporting purposes.
- Allocations for return fuel purposes are submitted in Petrinex.
 - Both for the Allowable Cost Reduction and the Royalty Volume Credit.

NGL/Sulphur Valuation

Any BA identified as a royalty tax payer in an allocation for processed volumes of NGL products or sulphur from a gas plant must submit valuation information at the plant level. Producer-Operators that are royalty tax payers (for themselves and for silent partners) will be able to submit and query valuation information for the volumes in which they are the identified royalty tax payer only.

- The royalty tax payer must submit a total sales volume and value or set the No Sales flag for each product in which they were allocated processed volumes from the plant.
- The FMV flag should be set if the royalty tax payer is required to use a fair market value price for valuation purposes.

Oil Pipeline Splits & Oil Valuation

Oil pipeline split reporting will be mandatory for any dispositions of oil or field condensate to a Custody Transfer Point (CTP) facility. Producer-Operators will be able to submit and query applicable oil pipeline split information associated with the production they manage.

- Dispositions to a CTP facility create a Volume Requiring Split (VRS) in pipeline splits.
- The VRS must be split to the owner/purchaser level at each producing facility or unit.
 - All cascaded volumes from downstream facilities must be reported.
- Pipeline splits are necessary to determine the take-in-kind royalty tax payers for oil valuation purposes.

Any BA identified as an owner in pipeline splits must submit oil valuation royalty tax payer information at the facility or unit level. Producer-Operators that are take-in-kind royalty tax payers will be able to submit and query valuation information for the volumes in which they are the identified royalty tax payer (owner) only.

- The royalty tax payer must submit the gross price/m3 and total clean oil transportation costs associated with the split volume.
- Purchasers also submit valuation information. The volume and price of the royalty tax payer valuation must match to the purchaser's volume and price.

Net Profit Allowable Costs

Any producer-operator that is considered to be an operator in a net profit project (under the net profit royalty program) is required to submit their monthly allowable capital and operating costs for any required royalty tax payers.

Annual Reporting:

BC Allowable Costs

Facility operators of a gas plant, dry gas source battery, or oil/ngl sales line will be able to submit an annual allowable costs submission in Petrinex.

- Any related sales lines must be identified.
- Submission is approved or rejected by MOF in Petrinex.

Producer Cost of Service (PCOS)

Facility operators of eligible batteries will submit and query PCOS information in the PCOS Management area of Petrinex.

- Submissions include the following information:
 - Estimated Annual Production Volume of Raw Gas (input by Operator)
 - Actual Annual Production Volume of Raw Gas for the previous year (updated automatically throughout the year by Petrinex using the production volumes reported in volumetrics).
 - Weighted Average H2S content of the inlet stream to the facility (input by Operator).
 - All applicable Equipment Linkages (updated/maintained by Operator).
- Equipment is linked to a PCOS submission via the equipment list maintained in Petrinex.
- The final approved rate will be visible on the query screen once it has been sent by MOF.

Royalty tax payers associated with any wells linked to a facility as well as current licensees of any wells associated with gathering lines listed on a facility's PCOS submission will be able to query that facility's PCOS information in the Query PCOS Management screen.

3. Oil & Gas Non-Operating Producers/Royalty Tax Payers

Infrastructure:

Royalty tax payers (who are not operators) will be able to query their interest by stream (well or unit) and applicable product (oil/gas) in Petrinex.

Non-operators will be able to query the royalty tax attributes information associated with a stream in Petrinex. Royalty tax attributes are provided by MOF for query purposes only.

Monthly Reporting:

Volumetrics

Non-operators will be able to query gross volumetric information once it has been filed by the operator.

Allocations

Non-operators will be able to query their ownership share of raw and marketable gas, NGL products, and sulphur submitted by the operator.

- Includes all submitted allocations (whether mandatory for required allocations triggers or for partner to partner reporting purposes only).

NGL/Sulphur Valuation

Any BA identified as a royalty tax payer in an allocation for processed volumes of NGL products or sulphur from a gas plant must submit valuation information at the plant level. Non-operators that are royalty tax payers will be able to submit and query valuation information for the volumes in which they are the identified royalty tax payer only.

- The royalty tax payer must submit a total sales volume and value or set the No Sales flag for each product in which they were allocated processed volumes from the plant.
- The FMV flag should be set if the royalty tax payer is required to use a fair market value price for valuation purposes.

Oil Valuation

Any BA identified as an owner in a pipeline splits submission must submit oil valuation royalty tax payer information at the facility or unit level. Non-operators that are take-in-kind royalty tax payers will be able to submit and query valuation information for the volumes in which they are the identified royalty tax payer (owner) only.

- The royalty tax payer must submit the gross price/m³ and total clean oil transportation costs associated with the split volume.
- Purchasers also submit valuation information. The volume and price of the royalty tax payer valuation must match to the purchaser's volume and price.

Net Profit Allowable Costs

Any BA that is listed as a royalty tax payer for a net profit project (under the net profit royalty program) will be able to query their share of monthly allowable capital and operating costs submitted by the operator.

Annual Reporting:

Producer Cost of Service (PCOS)

Royalty tax payers associated with any wells linked to a facility as well as current licensees of any wells associated with gathering lines listed on a facility's PCOS submission will be able to query that facility's

PCOS information in the Query PCOS Management screen. Wells are listed as attributes of gathering lines in equipment linkages.

- Submissions include the following information:
 - Estimated Annual Production Volume of Raw Gas
 - Actual Annual Production Volume of Raw Gas for the previous year.
 - Weighted Average H2S content of the inlet stream to the facility.
 - All applicable Equipment Linkages.
 - The final approved rate will be visible once it has been sent by MOF.

4. Gas Midstream Facility Operators

This section is focused on operators of facilities and pipelines where raw gas is processed into residue gas and NGL liquids and moved downstream. Most sales take place at these points. For reporting purposes, this group also includes cross-border operators in other Petrinex jurisdictions that receive/process gas that was produced in BC.

Infrastructure:

Operators will maintain the appropriate facility infrastructure records in Petrinex. Through the Petrinex Self-Serve mode, operators will perform the following functions:

- Creating Petrinex Facility IDs
- Editing Petrinex facility information
 - Gas pipeline operators must identify a CSO (Common Stream Operator) for meter stations and whether the upstream facility will be auto-populated. Quite often the CSO is the gas plant operator.
- Initiating facility operator changes

Monthly Reporting:

Volumetrics

Facility operators must report balanced volumetrics on a monthly basis for each product at any active facility they operate:

- Facility level activities such as receipts (dispositions are auto-populated), inventory and fuel. This includes receipts from cross-border facilities.
- Processed volumes of NGL products at a gas plant are auto-calculated by Petrinex.

Allocations

Gas plant operators will use allocations to report splits of marketable gas, NGL products, and sulphur back to the well/royalty tax payer/working interest owner level. Gas plant operators will be able to submit and query applicable allocations information associated with their plant.

- All transactions considered to be required Allocations Triggers must be reported for ministry purposes (see **section 3.4.2** for a table of required triggers). This includes BC gas produced received at cross-border gas plants as well as NGL products and sulphur processed from BC gas.

- Plant operators can allocate directly to the well/royalty tax payer/working interest owner level if that information is known. If not, volumes will be cascaded to upstream facilities.
- Cross-border plant operators must cascade BC volumes back to a BC Facility ID. Direct allocation to the well level is not permitted in this case.

5. Oil Midstream Facility Operators

This section is focused on operators of facilities that are generally considered points of custody transfer (i.e. terminals and oil pipelines). For reporting purposes, this group also includes cross-border operators in other Petrinex jurisdictions that receive product that was produced in BC.

Infrastructure:

Operators will maintain the appropriate facility infrastructure records in Petrinex. Through the Petrinex Self-Serve mode, operators will perform the following functions:

- Creating Petrinex Facility IDs
- Editing Petrinex facility information
 - Terminal operators may indicate whether the terminal is physically connected to a pipeline.
- Initiating facility operator changes

Monthly Reporting:

Volumetrics

Facility operators must report balanced volumetrics on a monthly basis for each product at any active facility they operate:

- Facility level activities such as receipts (dispositions are auto-populated), inventory and fuel. This includes receipts from cross-border facilities.

Oil Pipeline Splits

Oil pipeline split reporting will be mandatory for any dispositions of oil or field condensate to a Custody Transfer Point (CTP) facility. Terminals and pipelines are considered to be CTP facilities. CTP facility operators will be able to query applicable oil pipeline split information associated with oil receipts at their facilities.

Shippers' Balance (Alberta)

Shippers' balance reporting is required by the Alberta Petroleum Marketing Commission (APMC) for oil produced in Alberta. This extends to Alberta produced oil that is delivered to certain CTP facilities in Saskatchewan and BC.

It is believed that there are less than 10 facilities in BC that would be required to do shippers' balance reporting. Those who must will utilize the same reporting processes that are used in Alberta and Saskatchewan today.

See **section 3.4.7** to find more information on shippers' balance reporting.

6. Marketers & Purchasers

Monthly Reporting:

Oil Valuation

Any BA identified as a purchaser of oil or field condensate in pipeline splits must submit oil valuation purchaser information. Volumes for valuation are rolled up to the facility that directly delivered to the Custody Transfer Point facility (terminal, pipeline, waste plant) for the same source producer (owner). The rolled up volume could include production from several upstream producing facilities.

- The purchaser must submit density, sulphur content, submitted volume, and gross price/m³ associated with oil deliveries made to a Custody Transfer Point facility (terminal, pipeline or waste plant) by a source producer (royalty tax payer).
- The purchaser may add manual rows that weren't populated from pipeline splits if they feel that a transaction is missing.
- The source producer (royalty tax payer) must also submit valuation information.
- The volume and price of the royalty tax payer valuation must match to the purchaser's volume and price.
 - It is the onus of the source producer to ensure that volumes and prices match and to communicate with the purchaser when they do not.
- In some cases, both the source producer (royalty tax payer) and purchaser identified in a pipeline split are the same. This is considered a non-arm's length transaction. In these cases where the royalty tax payer and the purchaser are the same, there is no value in comparing the two valuation records. As such, there will be no oil valuation purchaser record created.
- There is also functionality in Petrinex for a BA to identify other 'Related BA IDs' for pipeline splits reporting. A related BA ID is also considered to be non-arm's length. If the royalty tax payer BA ID and purchaser BA ID are related, there will be no oil valuation purchaser record created. Companies will need to set up any related BA IDs in Petrinex after Go-Live.

7. Waste Plant & Custom Treater Facility Operators

Infrastructure:

Facility operators will maintain the appropriate facility infrastructure records in Petrinex. Through the Petrinex Self-Serve mode, operators will perform the following functions:

- Creating Petrinex Facility IDs
- Editing Petrinex facility information
- Initiating facility operator changes

Monthly Reporting:

Volumetrics

Custom Treater facility operators must report balanced volumetrics on a monthly basis for each product at any active custom treater they operate:

- Facility level activities such as receipts (dispositions are auto-populated), inventory and fuel. This includes receipts from cross-border facilities.

- Proration factors for oil, gas, and water.

Waste Plant

Waste Plant facility operators must report balanced volumetrics on a monthly basis using the waste plant reporting functionality in Petrinex (separate from the standard volumetrics functionality).

- Waste plant reporting captures different information than standard volumetrics:
 - Receipts/dispositions are broken out into volumes of oil, solids, and water that make up the total volume.
 - Waste codes are used to determine the nature of the waste.
 - Classification of waste as dangerous/non-dangerous.

Oil Pipeline Splits

Oil pipeline split reporting will be mandatory for any dispositions of oil or field condensate to a Custody Transfer Point (CTP) facility. Waste plants are considered to be CTP facilities. Waste plant operators will be able to query splits associated with oil receipts at their plant and will be required to submit certain splits as well.

- Waste plants delivering to a Terminal or Pipeline are required to report pipeline split information. These volumes are not cascaded upstream to the facilities that delivered to them.
- Custom treaters will cascade volumes of oil received to the upstream facilities that delivered to them.

8. LNG Plant Operators

Infrastructure:

LNG plant operators will maintain the appropriate facility infrastructure records in Petrinex (i.e. LNG Plant Facility IDs). Through the Petrinex Self-Serve mode, operators will perform the following functions:

- Creating Petrinex Facility IDs
- Editing Petrinex facility information
- Initiating facility operator changes

Monthly Reporting:

Volumetrics

LNG plant operators must report balanced volumetrics on a monthly basis for each product at any active plant they operate:

- Facility level activities such as receipts, dispositions, inventory and fuel.
 - LNG is a new product code for use at LNG plants.
 - LNG product requires both volume and energy (GJs). LNG volumes are reported in the 103M3 Natural Gas Equivalent (unconverted).
 - LNG can be delivered to terminals (tank or rail) and to marine vessels (domestic or offshore).
 - Refrigerant will be reported as C2-MX or C3-MX as appropriate.
 - Incinerate activity is reported as activity FLARE in Petrinex.

9. Service Providers

Service providers may be engaged to perform various Petrinex functions on behalf of their client. It is important to review the other stakeholder categories above with your client to determine which are applicable.

- Ensure the client reviews the User Administration points for setting up service providers in section 1 of this appendix (General for All Stakeholders).
- Most service providers would be engaged in activities for sections 2 (Oil & Gas Operating Producers) and/or 3 (Oil & Gas Non-Operating Producers) in this appendix. Service providers are encouraged to review these sections.

10. Production Accounting Software Providers

Petrinex has and will continue to work closely with PA software companies to assure they are fully informed and have every opportunity to be ready for PBCIP implementation. PA software companies are encouraged to contact the Industry Team at Petrinex directly if they have any questions that have not already been covered in meetings with respect to:

- Specification documents and updates
- Vendor Interoperability (VIO) Testing
- Industry Interoperability (IIO) Testing
- Other Petrinex Activities

Appendix 6: Petrinex Facility Types & Subtypes for BC Reporting

The following table provides a listing of facility types and subtypes that will be available for Petrinex reporting in BC. This table will continue to be updated with any changes that may be made prior to Go-Live.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Battery (BT)	311	Crude Oil Single-Well Battery	A production facility for a single oil well.
Battery (BT)	321	Crude Oil Multiwell Group Battery	A production facility consisting of two or more flow-lined oil wells having individual separation and measuring equipment but with all equipment sharing a common surface location.
Battery (BT)	322	Crude Oil Multiwell Proration Battery	A production facility consisting of two or more flow-lined oil wells having common separation and measuring equipment. Total production is prorated to each well based on individual well tests. Individual well production tests can occur at the central site or at remote satellite facilities.
Battery (BT)	351	Gas Single Well Battery	A production facility for a single gas well where production is measured at the wellhead. Production is delivered directly and is not combined with production from other wells prior to delivery to a gas gathering system or other disposition.
Battery (BT)	361	Gas Multiwell Group Battery	A production reporting entity consisting of two or more gas wells where production components are separated and measured at each wellhead. Production from all wells in the group is combined after measurement and then delivered to a gas gathering system or other disposition.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Battery (BT)	362	Gas Multiwell Effluent Measurement Battery	A production reporting entity consisting of two or more gas wells where estimated production from gas wells in the battery is determined by the continuous measurement of multiphase fluid from each well (effluent measurement). Commingled production is separated and measured then prorated back to wells based on the estimated production.
Battery (BT)	364	Gas Multiwell Proration Battery (Issued by OGC Only)	A production facility and reporting entity consisting of two or more gas wells where production from the wells in the battery is commingled before measurement. Battery (group) production must be prorated to the individual wells based on test data. This battery configuration must be approved by the OGC Operations Group before commencing operation.
Battery (BT)	365	Gas Multiwell Group Battery (Issued by OGC Only)	A production reporting entity consisting of two or more gas wells where production components are separated and measured at each wellhead. Production from all wells in the group is combined after measurement and then delivered to a gas gathering system or other disposition. When a license is not required according to OGC guidance, this facility subtype will be issued by OGC only.
Battery (BT)	371	Gas Test Battery	A production facility for gas well testing gas production prior to commencement of regular production. Wells with a gas test status can only report for a maximum of 3 months. Gas tests that occur after 3 months require a well status change to the new start date of the test well status. Multiple wells can be linked to a Facility ID with this status as long as the well's status is Gas Test.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Battery (BT)	381	Drilling & Completing	A Facility ID issued to an operator to facilitate the reporting of one or more drilling wells that recover product during swabbing or drill stem tests prior to the completion of a well. Wells must have a drilling & completing status and can only report for a maximum of 3 months. Drilling & completing means the well is still drilling and has not completed or reached total depth. A new Facility ID is required for each well after completion.
Battery (BT)	393	Mixed Oil & Gas (Placeholder)	A legacy production facility that reports both gas and oil volumes at the same reporting facility. This facility must be set up by the OGC.
Battery (BT)	395	Water Hub	Water storage sites, or pits, constructed at and to be used at facility sites, for reclaimed, blended, or produced water (including frac flow back water).
Battery (BT)	902	Water Source Battery	A facility type set up to link OGC permitted source water wells. Permitted wells may produce either freshwater (non-saline above base of fish scales) or saline (deep formation water below base of fish scales).
Compressor Station (CS)	601	Compressor Station	No supplemental description.
Custom Treater (CT)	611	Custom Treating Facility	A facility that has a system or arrangement of tanks and other surface equipment receiving oil/water emulsion exclusively by truck for separation prior to delivery to market or other disposition. A facility licence is required.
Gas Gathering System (GS)	621	Gas Gathering System	A facility consisting of gas lines used to move products from one facility to another. The facility may also include compressors and/or lineheaters. A gas gathering system can also have equipment such as separators and dehydrators that are located on the system but not associated with any well sites.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Gas Plant (GP)	401	Gas Plant Sweet	Gas Processing/Fractionation facility receiving gas that is less than 0.01M/KM H2S. (Note - OGC classifies sweet as containing no H2S)
Gas Plant (GP)	402	Gas Plant Acid Gas Flaring <1T/D Sulphur	Gas Processing/Fractionation facility/Acid gas flaring receiving gas that is greater than 0.01M/KM H2S & less than 1T/D sulphur.
Gas Plant (GP)	403	Gas Plant Acid Gas Flaring >1T/D Sulphur	Gas Processing/Fractionation facility/Acid gas flaring receiving gas that is greater than 1T/D sulphur.
Gas Plant (GP)	404	Gas Plant Acid Gas Injection	Gas Processing/Fractionation facility/Acid gas injection receiving gas that is greater than 0.01 & less than 1T/D sulphur.
Gas Plant (GP)	405	Gas Plant Sulphur Recovery	Gas processing facility with sulphur recovery.
Gas Plant (GP)	406	Gas Plant Mainline Straddle	Mainline straddle plants are usually located near the border of the province. Residue gas is delivered to a transporter pipeline, and then to a mainline straddle plant for processing (a second extraction of liquids, primarily ethane) before it leaves the province.
Gas Plant (GP)	407	Gas Plant Fractionation	Gas processing plant where spec product such as propane or butane is produced.
Gas Plant (GP)	408	Gas Plant Field Straddle	Field straddle plants are usually located near the producing area gathering system. Residue gas is delivered to multiple pipelines and then to a field straddle plant for processing (a second extraction of liquids, primarily ethane) before it leaves the province.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Injection Facility (IF)	501	Enhanced Recovery Scheme	An injection facility consisting of a system or arrangement of surface equipment associated with the injection of any substance through one or more wells for the purpose of hydrocarbon recovery. Enhanced recovery involves the improvement of hydrocarbon recovery through the injection of fluid into a hydrocarbon reservoir to maintain reservoir energy pressure and displace hydrocarbons to production wells and/or alter the reservoir fluids so that hydrocarbon flow and recovery are improved.
Injection Facility (IF)	502	Concurrent Production/Cycling Scheme	Concurrent production is defined as the production of an oil accumulation and its associated gas cap at the same time.
Injection Facility (IF)	503	Disposal	Disposal refers to the injection of fluids for purposes other than enhanced recovery or gas storage. This scheme is required for the gathering, storage and disposal of water produced in conjunction with oil and gas and disposal of any fluid or other substance to an underground formation through wells based on the type of injection fluid. A facility licence is required.
Injection Facility (IF)	504	Acid Gas Disposal	Acid gas disposal has become a cost effective means to dispose of uneconomic quantities of H ₂ S and CO ₂ into underground formations. The formation types that are typically considered suitable for disposal are depleted hydrocarbon-bearing zones or unusable water-bearing zones. The disposal of these waste by-products can reduce public concern from sour gas production and flaring.
Injection Facility (IF)	505	Underground Gas Storage	Underground storage is used where products are stored in an underground formation or cavern until a market for the product is available. Products are received from other facilities and injected into the wells associated with the storage facility.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
LNG Plant (LN)	451	LNG Plant	A facility that processes natural gas and produces liquefied natural gas. This includes large scale LNG export facilities and smaller scale regional LNG facilities
Meter Station (MS)	631	Field Receipt Meter Station	This subtype of meter station handles field Receipts from producing facilities, the linked pipeline receives the gas from the MS. The linked PL operator (MS Operator) will report the MS DISP to the linked PL and Petrinex will auto populate the REC at the linked PL. When the auto populate flag is set to No the CSO must report the MS REC from the producing (field/upstream) facility(s) Petrinex will auto populate the DISP at the producing facility(s). When the auto populate flag is set to Yes Petrinex will auto populate the REC at the MS from the producing facility (auto flow through) and the DISP at the producing facility. Gas DISP to this type of MS is a Royalty Trigger and requires an SAF/OAF to be submitted for Crown Royalty purposes.
Meter Station (MS)	632	Interconnect Receipt Meter Station	This subtype of meter station handles gas leaving the pipeline it is linked to. The linked PL operator (MS Operator) will report the MS REC from the linked PL and Petrinex will auto populate the DISP from the linked PL. When the auto populate flag set is set to No the CSO must report the MS DISP to the facility(s) other than the linked PL Petrinex will auto populate the REC at the other facility(s). When the auto populate flag is set to Yes Petrinex will auto populate the DISP to the other facility (auto flow through) and the REC at the other facility. Gas REC from this type of MS is not a Royalty Trigger and does not require an SAF/OAF for Crown Royalty purposes.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Meter Station (MS)	633	Interconnect Disposition Meter Station	This subtype of meter station handles gas leaving the pipeline it is linked to. When the auto populate flag set is set to No the linked PL operator (MS Operator) will report the MS REC from the linked PL and Petrinex will auto populate the DISP from the linked PL. The CSO must report the MS DISP to the facility(s) other than the linked PL Petrinex will auto populate the REC at the other facility(s). When the auto populate flag is set to Yes the CSO reports the DISP to the other facility(s) Petrinex will auto populate the REC at the other facility(s) and will also auto populate the MS REC from the linked PL and the DISP at the linked PL to the MS. Gas REC from this type of MS is not a Royalty Trigger and does not require an SAF/OAF for Crown Royalty purposes.
Meter Station (MS)	634	Interconnect Non-Reconciled Meter Station	This subtype of meter station is used when gas is leaving or entering the Pipeline it is linked to and the gas is from or to a non-reporting entity (e.g. non-Petrinex jurisdiction). The facility on the other side of the MS (not the linked PL) is not reporting in Petrinex. For example Gas from or gas to the Yukon Territories. It should always be 100% out of balance. Only the linked PL can be reported in the from/to field at this type of MS. CSO is not permitted. Gas REC or DISP to/from this type of MS is not a Royalty Trigger and does not require an SAF/OAF for Crown Royalty purposes
Meter Station (MS)	635	Petrinex Summary Non-Reporting Meter Station	This subtype of meter station is not used for volumetric reporting in Petrinex.
Meter Station (MS)	636	Non-Reporting Meter Station	This subtype of meter station is not used for volumetric reporting in Petrinex.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Meter Station (MS)	637	NEB Regulated Field Receipt Meter Station	This subtype of meter station handles field Receipts from producing facilities. When the MS is reporting in Petrinex the same rules as a 631 subtype apply. When the MS is not reporting in Petrinex the other facility(s) operator(s) report the GAS DISP to the MS when reporting their facility(s). The GAS DISP to this type of MS is a Royalty Trigger and requires an SAF/OAF to be submitted for Crown Royalty purposes.
Meter Station (MS)	638	NEB Regulated Interconnect Receipt Meter Station	This subtype of meter station handles gas leaving the pipeline it is linked to. When the MS is reporting in Petrinex the same rules as a 632 subtype apply. When the MS is not reporting in Petrinex the other facility(s) operator(s) report the GAS REC from the MS when reporting their facility(s). The GAS REC from this type of MS is not a Royalty Trigger and does not require an SAF/OAF to be submitted for Crown Royalty purposes.
Meter Station (MS)	639	NEB Interconnect Disposition Meter Station	This subtype of meter station handles gas leaving the pipeline it is linked to. When the MS is reporting in Petrinex the same rules as a 633 subtype apply. When the MS is not reporting in Petrinex the other facility(s) operator(s) report the GAS REC from the MS when reporting their facility(s). The GAS REC from this type of MS is not a Royalty Trigger and does not require an SAF/OAF to be submitted for Crown Royalty purposes.
Meter Station (MS)	640	Interconnect PL to PL Disposition Meter Station	This subtype of meter station handles gas received from the pipeline it is linked to and disposes gas to another PL. At this type of meter station the auto populate flag is always set to Yes. The auto-populate facility will always be a PL different than the linked PL. CSO is not permitted. The linked PL operator (MS Operator) reports the MS DISP to the linked PL Petrinex will auto populate the REC at the linked PL it will also auto populate the REC at the MS from the other PL (auto flow through) and the DISP at the other PL.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Pipeline (PL)	204	Gas Transporter	A facility type that consists of a network of interconnected gas pipelines that move gas within and out of the province of British Columbia.
Pipeline (PL)	206	Gas Distributor	A facility type that engages in the selling of gas to ultimate customers through distribution pipelines (distribution systems). It covers the receipts, distribution, imports, and exports by end user delivery and customer sectors.
Pipeline (PL)	207	Oil Pipeline	A facility type that consists of a network of interconnected pipelines that move oil and liquid products within and out of the province of British Columbia.
Pipeline (PL)	208	NGL Pipeline	A facility type that consists of a network of interconnected pipelines that moves NGLs within and out of the province of British Columbia. Sometimes NGLs are referred to as LPGs.
Pipeline (PL)	209	NEB Regulated Pipeline	A facility type regulated by NEB consisting of a network of interconnected pipelines that move oil, liquid, and gas products within and out of the province of British Columbia.
Refinery (RF)	651	Refinery	A hydrocarbon distillation facility.
Terminal (TM)	671	Tank Farm Loading & Unloading Terminal	A system or arrangement of tanks or other surface equipment associated with the operation of a pipeline and is licenced as part of the pipeline that may include measurement equipment and line heaters, but does not include separation equipment or storage vessels at a battery approved under the oil and gas conservation act.
Terminal (TM)	672	NEB Regulated Terminal	A facility type regulated by NEB used to receive liquids from trucks or pipelines for further disposition.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Terminal (TM)	673	Third Party Tank Farm Loading & Unloading Terminal	A system or arrangement of tanks or other surface equipment receiving liquids by truck for the purpose of delivering liquids into or removing oil from a pipeline. The facility is operated independently from the pipeline and requires an OGC facility licence.
Terminal (TM)	675	Railcar Loading & Unloading Terminal	A system or arrangement of tanks or other surface equipment associated with the operation of a rail line.
Terminal (TM)	676	NGL Hub Terminal	A facility where produced hydrocarbons and/or produced water is delivered by truck, rail, or pipeline, from or to the facility, and typically includes fluid storage tanks and/or pumping equipment. Gas Processing Plants can also deliver to this facility type. This type is a reporting facility, and includes all previously identified Pipeline Terminal facilities in BC.
Waste Location (WL)	904	Waste Location	A reporting entity used in waste plant reporting related to waste generated or waste received at non-regulated locations. This subtype is not required to report on Petrinex.
Waste Plant (WP)	701	Surface Waste Facility	Waste processing processes applies any method, technique, or process that is designed to change the physical, chemical, or biological character or composition of a substance. Defined as surface equipment designed for the purpose of collecting and treating oilfield waste material from any gas, oil, oilfield, or oil sands operation. Other waste processing facilities include those designed to collect oilfield waste and apply methods or techniques to reduce volumes, alter chemical characteristics, and/or remove dangerous components prior to final disposal. Waste processing facilities accepting waste generated within the upstream petroleum industry only require approval from the OGC. Facilities that accept a combination of upstream and downstream waste or industrial waste may require approval from the MOE and OGC.

Facility Type	Facility Subtype	Facility Subtype Title	Facility Subtype Description
Water Source (WS)	901	Water Source	The source of fresh (non-saline) water can either come from a shallow-drilled source well without a BCOGC well permit number, river, lake or other surface locations. In all cases, the location/source of water is reflected by specific geographic location and requires a water license under the Water Sustainability Act.

Appendix 7: Technical & Security Considerations

Technical Configuration:

To use Petrinex properly, stakeholders must ensure they (or their service provider) have access to the internet. Any device used to access Petrinex must meet the following minimum technical configuration:

SOFTWARE

- An Operating System that supports the use of the browsers listed in the next point.
- Browsers supported include Internet Explorer 10 & 11, Microsoft Edge, and the 3 most recent versions of Firefox.

NOTE: For the best results, it is recommended that clients upgrade to the most recent browser versions.

- Whichever Internet browser you choose must have a minimum **128-bit encryption**. Without this level of encryption, clients will not be able to access the work area of Petrinex. This encryption level provides security for those using the system and for the information contained in Petrinex.
- JavaScript enabled
- Session Cookies must be enabled
- Screen resolution 1280x1024

Petrinex Security:

Petrinex contains effective processes to access information. Immediate access to definitive, shared data is available through Petrinex query and report functionality. Petrinex users can access this information, subject to authorization and confidentiality considerations. Reports can be viewed, printed, and downloaded electronically

Conceptually, Petrinex security is managed at three levels:

- 1. The System Level:** This level is managed by the Petrinex Team in conjunction with the Alberta Department of Energy (DOE). This level is focused on assuring that only those parties that are entitled to have access to Petrinex are able to gain access. Parties that are entitled to access Petrinex are called Business Associates (BA's). To become a Petrinex BA, companies must demonstrate through a formal application process that they have a legitimate requirement to access Petrinex (e.g. in BC, they are required to report to MOF or the Commission.) In order to utilize the Petrinex application a user must have a valid Business Associate code, user id, and password. The Petrinex team has implemented Industry best practices around its technical architecture to ensure that only authorized BA users can access Petrinex.
- 2. The BA Level:** This level is managed by Petrinex and is focused on ensuring that BA's using Petrinex are only able to view data that they are entitled to see. Certain information is considered confidential and falls under the Petrinex "Security Blanket". A brief summary of security by business function is listed below:
 - **Facility and Well Infrastructure:** All data associated with a confidential well, and the associated facility the well is linked to, will be available only to the facility operator or licensee of the

associated well and to specific individuals within the BA's organization (as determined by the BA).

- **Royalty Tax Payer:** Only the stream operator can see all of the royalty tax payers associated with the stream. Individual royalty tax payers can only view their own interest in the stream.
- **Volumetrics & Waste Plant:** Generally gross volumetric data is viewable by all BAs in Petrinex with the following exceptions:
 - Terminal, Pipeline, LNG Plant, Meter Station, Refinery, Custom Treater & Waste Plant volumetrics are only viewable by the users at the operating BA. Non-operators cannot query these facility types.
 - Dispositions to the above facility types are masked for the non-operators (e.g. a battery disposition to a terminal is masked for non-operators of the battery).
 - Dispositions to the above facilities types are viewable for users at the operating BA (e.g. A disposition to a terminal can be viewed by users at the BA operating the battery)
 - The battery operator can grant access for certain non-operators to see masked data using the Volumetric Distribution List functionality in Petrinex.
 - Volumetric information related to storage facilities can only be viewed by the submitting BA.
- **Allocations:** There are 3 different stakeholders in BC that can access owner split information in allocations:
 - The facility operator, who submits the splits, sees all owner and royalty tax payer volumes and energy (if applicable).
 - Royalty tax payers who are not the facility operator can see all volumes/energy associated with any owner for which they are the royalty tax payer. The gross volume/energy for the facility is displayed as well, but no other royalty tax payer/owner details.
 - Owners who are not the facility operator or the royalty tax payer for other companies can see their own shares of the volume/energy only. The gross volume/energy for the facility is displayed but no other owner details.
- **NGL/Sulphur Valuation:** Royalty tax payers can only see their own valuation information.
- **Oil Pipeline Splits:** Pipeline split volumes are split by Purchaser ID and Owner ID at the facility/unit level. A BA can only see the information for which their BA was named as either a purchaser or an owner.
- **Oil Valuation:** BAs may only see their own valuation information:
 - Royalty tax payers can't see other royalty tax payer submissions or purchaser valuation.
 - Purchaser can't see other purchaser submissions or royalty tax payer valuation.
- **Net Profit Allowable Costs:** A net profit project can have multiple operators reporting on behalf of multiple royalty tax payers.
 - Net profit operators can only see their own submitted costs.
 - Royalty tax payers can only see their assigned costs.

- **Allowable Costs:** Allowable costs submission details can be viewed by the facility operator (current or any previous operator that operated the facility at any point during that year).
 - Any BA listed as an owner on the submission can view their approved rate only.
- **PCOS Equipment List:** Any BA can view the global list of equipment in BC. A BA may select any piece of equipment to link to their facility submission in PCOS Management.
 - Only the owner can edit equipment information.
 - Only the Commission can edit information for licensed BC gathering lines.
- **PCOS Management:** The following stakeholders have access to PCOS information for a facility:
 - The current facility operator can see all the PCOS information for a facility, including prior years when that BA was not the operator.
 - Any prior operator that operated the facility at any point during that year.
 - The current licensee of any well listed with the gathering lines.
 - Royalty tax payers for any well linked to the facility

3. The User Level: This level is managed by the BA and is focused on permitting the BA to assign specific access rights to individual users (e.g. one user may be given a comprehensive role, meaning that user can make submissions and read information for all facilities operated by that BA. Another user may be given “Read-Only” rights for specifically identified facilities). The assignment of user access “rights” for a BA is managed by the BA’s User Security Administrator (BA USA). Only one BA USA and one Backup BA USA can be assigned for each BA.

Petrinex security assurance is provided through:

- Industry best practice security technical and business design.
- Industry best practice security operations and maintenance.
- Regular third party penetration testing.
- Regular review by the Alberta Office of the Auditor General.

In addition to the above, Petrinex is SysTrust certified. SysTrust certification is an extremely comprehensive internationally recognized annual certification process managed by accredited public accounting firms. Click on the SysTrust logo on the homepage of the Petrinex Website for more information.

Appendix 8: British Columbia Business Process Changes

This section is reserved as a placeholder for MOF, MEMPR, or the Commission to communicate any changes in their business processes to Industry stakeholders. It will be updated as needed throughout the project leading up to Go-Live.

1. Ministry of Finance, Mineral Oil and Gas Revenue Branch

This information concerns changes to Ministry of Finance business process that impact Industry stakeholders. It is applicable for production reporting through Petrinex.

Royalty tax estimate

Currently, oil and gas royalty payers must maintain an estimate deposit equal to the expected royalty due for each production month. With the introduction of Petrinex, oil and gas royalty payers will no longer be required to maintain an estimate deposit. **If you have an estimate deposit, review the Ministry of Finance Royalty Estimate Deposit Notice for information on how the estimate deposit will be retired.** This change is subject to regulatory approval. The Ministry of Finance will advise oil and gas royalty payers on any changes. **Further information is now available on this change in the Oil & Gas Transition Notice 005, Royalty Estimate Deposits (PDF) Notice.**

Royalty invoice date

Currently, oil and gas royalty payers may receive two consolidated royalty or tax invoices for each production month for each type of product. With the introduction of Petrinex, oil and gas royalty payers will receive one consolidated royalty or tax invoice for each product for each production month. Royalty or tax invoices will be issued on the 23rd day of the month, two months following the production month. This change is subject to regulatory approval. **Further information is now available on this change in the Oil & Gas Transition Notice 001, reporting invoicing and payment due dates (PDF) Notice.**

Payment due dates

Currently, oil royalty payers must pay their royalty or tax invoice on or before the 25th day of the month, two months following the production month. Gas royalty payers must pay their royalty or tax invoice on or before the 25th day of the month, three months following the production month. With the introduction of Petrinex, oil and gas royalty payers will pay their royalty or tax invoice on or before the last day of the month, two months following the production month. This change is subject to regulatory approval. **Further information is now available on this change in the Oil & Gas Transition Notice 006, Payments (PDF) Notice.**

Royalty or tax payment process

Currently, oil and gas royalty payers may remit their royalty or tax payment electronically, by mail or in-person. Mail and in-person tender options include cheque, bank draft or money order. Payment must be accompanied by a completed BC-15 form. With the introduction of the ministry's new royalty invoicing

and payment system in October 2018, oil and gas royalty payers will be able to remit payment through the ministry’s electronic account and payment portal – eTaxBC. A completed BC-15 will no longer be required. **An eTaxBC registration letter will be mailed to you on November 14, 2018 providing you with information on how to register and use eTaxBC. Other payment options will include payment by mail, electronic funds transfer including bill payment through a financial institution and wire transfer. Instructions for these options are available in the *Ministry of Finance Payment Notice Oil & Gas Transition Notice 006, Payments (PDF)*.** This change is subject to regulatory approval. The Ministry of Finance will advise oil and gas royalty payers on any changes.

Prior period adjustments

Currently, oil and gas royalty payers are provided up to 72 months (6 years) to submit reporting data adjustments for a production period. Oil and gas royalty payers make the amendment request by submitting revised volumes and values using the same forms used for the initial reporting. These submissions may either be in electronic or paper format. Oil and gas royalty payers will not be able to submit revised production data through Petrinex for production periods prior to October 2018 (Petrinex Go-Live). **Information on how to submit changes is available in the *Ministry of Finance Amending Prior Production Periods Notice Oil & Gas Transition Notice 008, Amending Prior Production Periods (PDF)*.** Oil and gas royalty payers are encouraged to submit any prior period changes before the introduction of Petrinex to reduce the number of transactions through an alternative system.

Oil and gas producer reporting deadlines

Currently, oil and gas royalty payers must report volumetric and allocation data, gas sales invoice data, cost of service data and valuation and sales data at specified times. With the introduction of Petrinex, the reporting deadlines are expected to change as follow:

Data	Current process Due By	Change expected Due By
Volumetric data	25 th day of the month (Prod + 1)	21 st day of the month (Prod + 1)
Allocation data	End of the month (Prod + 2)	25 th day of the month (Prod + 1)
Gas Sales Invoice data	10 th working day of the month (Prod + 2)	9 th day of the month (Prod + 2)
Cost of Service data	10 th working day of the month (Prod + 2)	9 th day of the month (Prod + 2)
Valuation and Sales data	End of month NGL/Sulphur (Prod + 2) Oil: Prod + 1	10 th day of the month (Prod + 2)

Further information on reporting deadlines is available in the *Ministry of Finance Reporting, Invoicing and Payment Due Dates Notice Oil & Gas Transition Notice 001, reporting invoicing and payment due dates (PDF)*.

Invoices

Invoices are changing as well as their method of delivery. Further information is available in the *Ministry of Finance Electronic Invoice Formats Notice Oil & Gas Transition Notice 009, Invoices (PDF)*. Information about your Oil & Gas Commission Invoice is available in the *Ministry of Finance Oil & Gas Commission Invoice and Payment Notice Oil & Gas Transition Notice 002, Oil & Gas Commission Invoice and Payment (PDF)*. Electronic invoice file formats are available if you require them to configure your accounting system, if needed. Contact Oil&GasRoyaltyQuestions@gov.bc.ca to request them.

Click on each of the documents to review the information notices related to the sections above.

- [Oil and Gas Transition Notice 001 - Reporting, Invoicing and Payment Due Dates](#)
- [Oil and Gas Transition Notice 002 - Oil & Gas Commission Invoice and Payment](#)
- [Oil and Gas Transition Notice 005 - Royalty Estimate Deposits](#)
- [Oil and Gas Transition Notice 006 - Payments](#)
- [Oil and Gas Transition Notice 008 - Amending Prior Production Periods](#)
- [Oil and Gas Transition Notice 009 - Invoices](#)

Additional Transition Notices are available in Appendix 9.

Further information

More information about the British Columbia transition to Petrinex will be posted as it becomes available on the Government of British Columbia web site at <https://www2.gov.bc.ca/gov/content/petrinex>

[Subscribe](#) To receive email updates when information changes.

BC's Revenue Transformation Initiative (RTI - Gentax) interface inquiries

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2. BC Oil and Gas Commission

Below is a summary of the amendments that are proposed for the Drilling and Production Regulation (DPR). These are intended to align reporting deadlines with the requirements of Petrinex.

- 1) Amend DPR Section 43 to state that gas flared at a well must be reported by the 20th day following the end of the month in which the activity occurred.
- 2) Amend DPR Section 72 to state that water produced at a well must be reported by the 20th day following the end of the month in which the activity occurred.
- 3) Amend DPR Section 75 to state that the quantity of fluid injected or disposed, including pressure and hours, must be reported by the 20th day following the end of the month in which the activity occurred.

The Commission has outlined Commission system and process changes related to the implementation of Petrinex in a new Industry Bulletin. These changes relate to:

- Well Infrastructure reporting
- Facility and Pipeline Infrastructure reporting
- Company Administration
- Training associated with new processes in eSubmission

Commission permit holders are encouraged to review Industry Bulletin [INDB 2018-21 Changes to Commission Systems in Preparation for Petrinex](#) for more information.

Appendix 9: Changes to Non-Compliance Fees & Penalties

(Contains all new Content)

Deemed Royalties

The Ministry of Finance is introducing a deemed royalty on reporting facility operators where certain Petrinex reporting errors occur that prevent the issuance of a Crown invoice to the producer.

Oil & Gas Transition Notice 004, Deemed Royalty (PDF), explains why a deemed royalty may be assessed and how it is calculated.

Penalties

New penalties apply to the October 2018 Oil and Gas production month forward as well as pricing data for the September Oil and Gas production month. Penalties will be based on the following:

- \$500 for each calendar month a person does not file complete information by the date required and in the form and manner required. These penalties will be applied every month until the data that created the error message is completed or corrected.
- \$100 for each data discrepancy in the information submitted that is not corrected by the due date of the information.

Oil & Gas Transition Notice 003, Penalties and Reporting Errors (PDF), provides important information about new penalty rules associated with the implementation of Petrinex.

Transitional Penalty Period

Penalties will not initially be assessed for the oil and gas production months of October, November and December 2018. This provides time for royalty taxpayers and facility operators to transition to reporting in Petrinex. The Petrinex reporting errors that are associated with Ministry of Finance penalties need to be corrected in a timely manner. If a designated reporting error is not corrected, you may be assessed the penalty. Details are available in the *Transitional Penalty Period notice Oil & Gas Transition Notice 010, Transitional Penalty Period (PDF)* on the Ministry of Finance web page.

Interest

The methods and rates used to calculate interest on amounts payable are changing. The interest rate is decreasing from the prime lending rate to prime less 2%. Interest will accrue from the 61st day after the amount becomes due to you. You will be charged interest if you do not pay your invoice by the due date, which is generally the last day of the calendar month. Interest will not apply to corrections related to deemed royalty assessments.

Further information is now available on this change in the **Oil & Gas Transition Notice 007, Interest (PDF) Notice**.

Click on each of the documents to review the information notices related to the sections above.

- [Oil and Gas Transition Notice 003](#) - Penalties and Reporting Errors
- [Oil and Gas Transition Notice 004](#) - Deemed Royalty
- [Oil and Gas Transition Notice 007](#) - Interest
- [Oil and Gas Transition Notice 010](#) - Transitional Penalty Period

Additional Transition Notices are available in Appendix 8.

Appendix 10: Change Leader Questions

This section will be updated with questions and responses asked by Industry Change Leaders throughout the project leading up to Go-Live.

Communications Questions

1. Will there be a BC Reporting Calendar published showing deadlines and non-compliance report timing?

Answer: Yes, the communications team has finalized the November 2018 and December 2018 BC Reporting Calendars for publishing. These calendars include (but are not limited to):

- Industry reporting deadlines (ex: Pipeline Split Deadlines and warning reports)
- EMPR pricing deadlines (not part of Petrinex)
- Volumetric, Allocation and Valuation Deadlines and timing of warning reports

These calendars can be found on the Petrinex website under the Calendars tab – British Columbia Reporting Calendars. <https://www.petrinex.ca/Calendars/Pages/default.aspx>

Calendars for 2019 are being finalized and approved. They will be posted to the Petrinex website upon final approval.

BC is also working on a publication illustrating changes to reporting deadlines for July (gas) and August and September (oil and gas) production periods. These revised reporting deadlines are designed to support the efficient transition to Petrinex reporting and the transition to BC's new invoicing and payment system.

Infrastructure Questions

1. Water Storage Ponds/Pits: Will we need to set our water storage pond/pit up in Petrinex as a reporting facility? If so, what kind of facility is this?

Answer: Yes, a produced water storage pond or pit will need to be permitted under a facility permit and set up as a reporting battery in Petrinex (water hub – subtype 395).

As per the Commission: A water storage/frac pond or water pit should be set up as a water hub facility when it is permitted as a facility under the Oil and Gas Activities Act for the storage of produced water. This doesn't include fresh water storage sites (ponds, pits, C-Rings, etc.), nor does it include short term C-Ring storage of fresh or produced water at a well pad.

Legislation Questions

- 1. Has all required legislation been passed in the legislature? There is concern that often plans are announced without legislation which leads to retroactive work if that legislation doesn't end up passing.**

Answer:

Commission Response: The regulatory changes required for the Commission to implement Petrinex are limited to changes to the Drilling and Production Regulation and the Fee, Levy, and Security Regulation to align reporting dates with Petrinex. These are two board regulations, meaning the Commission board of directors has the ability to amend the regulations. The required changes have been reviewed by legislative drafters and will be presented to the board of directors for approval in August for November implementation.

Finance Response: The Ministry must make a number of regulatory changes for deemed royalties, compliance penalties, interest, and other minor items under the Petroleum and Natural Gas Royalty and Freehold Production Tax Regulation and the Net Profit Royalty Regulation, to further support royalty revenue administration and the implementation of the Petrinex. The government is support of these changes and they will be presented to Cabinet for approval in September for November implementation.

The Ministry is committed to providing information regarding these changes to Industry sooner with the understanding that they are subject to regulatory approval. Information can be found currently on the Petrinex B.C. Inclusion Project webpage as well a Ministry of Finance webpage is currently under development, available late July, describing details of the changes.

Monthly Reporting Questions

- 1. Unique Reporting Scenarios: (Example) How do I report a condensate delivery from one plant to another plant to be used for injection into the pipeline for corrosion purposes?**

Answer: While we have tested our monthly reporting processes against many identified scenarios, there may be cases we have not considered. If you believe you have an uncommon scenario (such as the example above), please contact us so that we can capture all of the relevant reporting details and determine whether any specialized reporting is needed. You can communicate these scenarios to steve.freeman@gov.ab.ca.

- 2. Recovered Load Condensate: We have load condensate that is recovered at the well and recombined with the gas being delivered to the plant. How do I ensure that I am not charged royalties on the processed (PROC) volume of C5 that is attributable to the load condensate?**

Answer: There are 3 aspects of reporting involved in this scenario.

Volumetrics – Load fluid is reported on the Well View at the battery. Fluid is loaded at the well using activity code LDINJ. Fluid is recovered at the well using activity code LDREC. Once load fluid has been injected at the well, it must all be recovered before there can be any new production (PROD) of the

loaded product. In this scenario, the fluid is recovered at the well and the plant is just receiving a volume of gas that includes recombined load fluid. The plant is going to process (PROC) a volume of C5 out of the gas that includes the load fluid.

Allocations – NGL royalties are triggered by the processing (PROC) of NGL products for royalty purposes. In this scenario an allocation must be submitted for the entire PROC volume of C5 at the plant. Ordinarily the volume would be allocated back to all of the streams and royalty tax payers that make up the volume. In this case, the volume of C5 attributable to the load fluid should be reported with the Stream ID as RP9999. This code was developed for allocations royalty trigger volumes that are already royalty paid. No royalty tax payer information is required when using this code.

NGL Valuation – No valuation data is required for volumes allocated to RP9999.

3. Gas for Drilling Wells: How should a battery report gas that is delivered to a well for drilling purposes?

Answer: A battery can actually report a disposition (activity DISP) of gas to a well event (BC WI...) in Petrinex as long as the well is not yet linked to a reporting facility. As soon as the well status is moved to a producing status, the well must be linked to a facility and can no longer be used in such a transaction.

4. Frac Pond Reporting: We deliver water from other reporting facilities to frac ponds. We also deliver water from frac ponds to custom treaters or waste plants where there can be recovered oil. How do we report that?

Answer: As per Infrastructure Question 1, a frac pond that exists for the storage of produced water would be permitted and set up in Petrinex as a water hub battery (subtype 395). As a reporting facility in Petrinex, the water hub can receive water from other facilities and other facilities can receive water from the hub. Petrinex volumetric balancing rules would require that all products reported at the hub balance monthly.

Any recovered oil that is spun out of the water at a custom treater or waste plant will be reported by the operator of the custom treater/waste plant as a receipt of oil from the water hub facility. To balance the oil, the water hub facility would balance the disposition of oil by reporting a receipt of oil from the producing battery.

When the recovered oil is received at a custody transfer point facility (waste plant, terminal, pipeline, gas plant), this will trigger a pipeline splits requirement. The recovered oil will get cascaded back to the water hub facility in the split. The water hub facility would then cascade the oil back to the producing facility where the split will be completed. Depending on whether the producer was paid for the oil or not, the oil may require pricing information in oil valuation reporting or may be included in the valuation at a zero price if the oil is considered to be waste oil. More on pipeline splits/oil valuation reporting can be found in **section 3.4.5**.

Appendix 11: Pre & Post Go-Live Readiness Activities for Companies/Change Leaders

The Petrinex Industry Team, along with the Commission and MOF, has developed an Industry Conversion Plan that outlines all aspects of Industry involvement in regards to data conversion and setup.

There are 3 major components of the plan:

- 1) Information Collected from Industry
 - Business Associate: Commission BA Data Collection Form
 - Facility: gas gathering systems, mid-stream meter stations, sales pipelines
- 2) Conversion Information Shared with Industry
 - Business Associate
 - Well
 - Facility
 - PCOS Equipment (MOF & Commission)
 - Royalty Tax Payer & Royalty Tax Attributes
- 3) Activities at Go-Live
 - Primary USA must Create Users
 - Opening Inventories
 - Infrastructure Updates
 - Related Business Associates (for oil valuation purposes)
 - PCOS Gathering Line Linkages
 - Meter Station Auto-Populate settings

1. Information Collected from Industry

All information that is to be collected from Industry must be done prior to Go-Live. This to ensure there is sufficient time to create conversion files and test the data so that the correct information is in place and ready to use at Go-Live.

Business Associate

The Commission is collecting Primary & Backup USA information through the BA Data Collection Form found on the Industry Zone of the Commission website: <https://www.bcogc.ca/industry-zone/petrinex-bc-inclusion-project>

Each Business Associate must fill out the form and return it to the email address listed on the website: BAUPDATE@bcogc.ca

The BA Data Collection Form has additional sections for information that the Commission is requesting for their records:

- Name, Mem ID, Incorporation ID, BN9#
- Mailing Address Update
- Company Administrator
- ePay Financial Administrator
- General Finance Email
- Transfer Administrator

The Primary USA is required in order for a BA to have access to Petrinex. It is the Primary USA that must login at Go-Live to create users and set them up with user security roles. As such, the Primary USA must be identified prior to Go-Live so that login/password information can be communicated ahead of time. Providing a Backup USA is optional, however it is recommended that BAs have one in the event the Primary USA is not available.

NOTE: Permit Holders must complete the entire form. Other companies who are not permit holders (but require access to Petrinex) only need to complete the primary/backup USA and address sections.

Any BAs that have not already done so are encouraged to complete any required sections of the BA Data Collection Form immediately!

USA passwords are scheduled to be generated on November 2. These passwords will be communicated to the identified USAs for each company prior to Go-Live (from Nov 2-4).

Facility

The Petrinex Industry Team has been collecting certain facility information from Industry BAs. This is necessary because certain facility types that are used for volumetric/allocation reporting in Petrinex are not licensed by the Commission. This means they would not be a part of the facility conversion information being converted from Commission systems. In particular, the following facility types are required from Industry:

- Gas Gathering Systems
- Mid-Stream Meter Stations
- Sales Pipelines (Gas, Oil, NGL)

Note: A spreadsheet template for collecting gathering system and pipeline information was sent out to change leaders in an email on March 1, 2018. More information on the template is provided below.

Gas Gathering Systems are defined as flow line networks and process facilities that, together, transport and control the flow of gas from its origin (the BT in Petrinex), to a processing plant or sales point. Gathering systems do not report S2 volumes in BC today although they physically exist in the field.

The best examples of where gathering systems are required in Petrinex are the Receipt Points (RPs) that Enbridge currently uses in their allocations. Enbridge cascades volumes back to RPs in their system, but Petrinex must cascade back to an actual Facility ID. As such, all Enbridge RPs will be converted to gathering systems in Petrinex.

Petrinex must also identify the gathering systems required for non-Enbridge allocations as well. Each company will have the opportunity to provide a list of their operated gathering systems for conversion into Petrinex. To build off of Enbridge as an example, a BA would need to provide any gathering systems that would be necessary in allocations to facilitate the cascading of volumes from the plant back to the various producing facilities. Examples include:

- Operated gathering systems receiving gas from third party upstream facilities. Gas volumes would have to be cascaded back to those facilities by the gathering system operator.
- Where the plant operator would need to cascade volumes back to the point of common gathering. Much like an Enbridge RP, this is the point that directly delivers to the plant. The volume is the sum of various upstream facilities' production. The plant would allocate back to the gathering system. The gathering system operator would then cascade upstream to the appropriate facilities.

During design it was indicated that many BAs already use gathering systems in their Production Accounting systems today. It is recommended that BAs use the same number identifier for their Petrinex facility that they have in their internal system. It should be noted, however, that any duplicate numbers received from various BAs would have to be assigned a different Petrinex code.

Update: Enbridge identified all RPs to be set up (with input from Industry) and there were a number of non-Enbridge gathering system requests as well. Nearly 250 gathering systems have been identified for setup.

Midstream Meter Stations are used in Petrinex reporting to facilitate the movement of gas onto and off of a pipeline. Examples include:

- Residue gas moving from a gas plant or dry gas source to a downstream sales pipeline.
- Gas returned from a pipeline to the field for Industry use (ex: return fuel).

Meter stations are an integral part of volumetrics and allocations reporting in Petrinex as certain volumetric transactions reported at meter stations trigger a need for an allocations split. See section 3.4.2 for a list of allocations triggers.

Meter stations are operated by the operator of the pipeline in which that meter station is connected. Work has been conducted with Enbridge and TransCanada Pipelines (TCPL) to identify any required meter stations for conversion. Meter stations have also been identified for Alliance and PNG. It is believed that there are currently no producers that operate gas sales pipelines/meter stations.

Update: Almost 150 meter stations have been created, including both delivery and return fuel subtypes. Meter station/pipeline operators have identified the Common Stream Operators (CSOs) associated with each meter station. All meter stations are being created with auto-populate options set to No. More information on setting the auto-population after Go-Live is provided in Section 3.

Sales Pipeline information must be collected from Industry as well. Petrinex requires all gas transporter, gas distributor, oil, and NGL pipelines for reporting purposes.

Pipelines are used in volumetric reporting. Pipelines are also Custody Transfer Points for oil. Volumes of oil received by pipelines from upstream producing facilities are triggered for pipelines splits and oil valuation purposes (see section 3.4.5).

Update: There have been 9 pipeline facilities identified for setup to date. Only 1 gas transporter pipeline has been created for each of the major gas transporters (Enbridge, TCPL, Alliance, and PNG). All meter stations associated with these companies will be connected to their one pipeline.

Facility Spreadsheet Template

Gathering System Template Example

Facility ID	Location	Facility Name	Operator
BCGS0000123	A-001-E/001-J-01	Jones Creek	Global Oil Ltd.
BCGS0000541	01-01-001-10W6	Blue Jay South	Global Oil Ltd.

Pipeline Template Example

Facility ID	Pipeline Type (Gas Transporter, Gas Distributor, Oil, NGL)	Location	Pipeline Name	Operator
BCPL0000111	Gas Transporter	A-001-E/001-J-01	Global Gas	Global Oil Ltd.
BCPL0000789	Oil	01-01-001-10W6	Global Oil	Global Oil Ltd.

As can be seen in the template, the Petrinex Facility ID must begin BCGS (gathering system) or BCPL (pipeline) followed by a seven digit numerical identifier. BAs can use the same numerical identifier as is set up in their PA system (leading zeroes must be provided if the identifier is less than 7 digits).

Duplicates will have to be assigned a different number. This is because Petrinex must have a unique identifier for each facility. For example, 2 BAs may have gathering system #1 in their system. This would translate to BCGS0000001 in Petrinex. There can only be one facility with that identifier. The other would have to be assigned a different ID.

The location can be any valid DLS or NTS location. Petrinex does require a location for pipelines even though pipelines would span many locations. Pipeline operators can assign a location in whatever manner is appropriate to them (beginning point, ending point, etc.).

The Pipeline Type in the example is required as this indicates which Facility Subtype must be assigned in Petrinex.

If the 5 digit BA ID is known, it may be included in the spreadsheet for the Operator. Otherwise just list the BA Name.

Only provide operated facilities.

All information collected from individual companies will be added to a master list that will be turned into a conversion file to be loaded into the test environment at the next major conversion test load (one in June and one in September).

Industry was initially given a deadline for providing this information by May 1, 2018 to allow enough lead time to create the conversion file for upload in June. However, Industry can continue to submit updates to add or change facility information up until **October 25**. This is to ensure that the database at Go-Live reflects the most current information.

Completed spreadsheets should be sent to steve.freeman@gov.ab.ca.

2. Conversion Information Shared with Industry

Certain infrastructure conversion files that are being loaded from BC systems into the Petrinex test environment have been shared with Industry. Industry conversion files are currently posted on Industry Zone of the Commission website at the following address: <https://www.bcogc.ca/industry-zone/petrinex-bc-inclusion-project>

An Instruction document is also posted on the website to help Industry understand the information being shared.

- Explanation of all files shared on the website.
- Instructions for the Commission BA Collection form.
- Instructions/Email Address for communicating errors in the conversion files or other conversion concerns.

Below is a list of files that are on the Commission website:

Business Associate

- Contains BA ID & Name, Corporate Status & Corporate Status Effective Date, BA Roles set and the BA Role Start Date, Petrinex Status.

Well Conversion File

- Well & Well Event tab contains Licensee, License #, License Status, Well ID & Name, Spud Date, Rig Release Date, Well Event ID (UWI), Well Event Status & Status Start Date, Commingling Status (if applicable), Field, Pool, Gross Completion Interval Top & Bottom, Various Depths
- Well Event – Facility Link tab contains well-facility linkages.

Facility Conversion File

- Facility tab contains Operator, OGC Fac ID & Facility Type, Petrinex Facility ID & Subtype, Name, Location, Operational Status, License #, Licensee, Primary Gas Plant (for BTs)
- Facility Licence tab contains Licensee, Petrinex Licence # (OGC Fac ID), OGC Permit ID, Licence Type, Status, Location
- Px Subtype Description tab contains a listing of all Petrinex Subtypes and their descriptions.
- New tabs for Industry collected information:
 - Gathering Systems & Pipelines tab contains Petrinex Facility ID, Subtype, Location, Facility Name, Operational Status, Operator
 - Meter Stations tab contains Petrinex Facility ID, Subtype, Location, Facility Name, Operational Status, Common Stream Operator, MS-PL Link, Auto-Populate, Operator
- File will include all facilities that have reported activity within the last 3 years.
- Information not included:
 - Battery - Returned Fuel Flag/Gas Plant must be provided by Industry after Go-Live.
 - Terminal – Physically Connected to Pipeline Flag/Pipeline ID may be provided by Industry after Go-Live.

PCOS Equipment Files (MOF & Commission)

- MOF information includes data for Dehydration Units, Compressors, Field Processing Units, and Line Heaters.
 - **Alberta/NEB Gathering Lines must be created by Industry after Go-Live.**
- Commission information includes data for licensed Gathering Lines (Project & Segment ID).
 - **Previous gathering line IDs used in prior submissions are no longer valid.**

PCOS Linkages File

- Information on PCOS equipment linkages for individual BTs will not be shared on the website as this information is not publicly available to everyone.
- Finance has distributed links as part of the 2018 PCOS rate approvals already.

Royalty Tax Payer & Royalty Tax Attributes Files

- Royalty Tax Payer (formerly BC12) information includes the list of Royalty Tax Payers for each Stream (well or unit) by Ownership Type (crown or freehold) and Product (oil or gas).
 - Tract information is provided for units (Tract # & Tract Factor).
- Each stream has an Operator that is responsible for maintaining RTP information in Petrinex. For conversion purposes, the RTP operator for a well will be the Licensee. For units the operator will be the operator on record provided in the Royalty Tax Attributes.
 - Operatorship can be changed online in Petrinex.
- Royalty Tax Attributes information is provided for all Wells, Units, Net Profit Royalty Projects, Long Term Royalty Agreements, and Revenue Sharing Agreements.

Change Leaders should ensure that the appropriate individuals in their company review the files that are of importance to them to identify any possible errors or missing data. Examples include:

- Wrong facility type or subtype, well-facility linkages, well statuses, PCOS linkages, etc.
- Missing wells, facilities, PCOS equipment, etc.
- Review Industry collected facility information (GS/MS/PL). Emphasis on return fuel MS (subtype 632/638)

Any errors discovered in the files (apart from errors related to PCOS gathering lines) should be sent to the following email address: Petrinex.Conversion@gov.bc.ca

Data Refresh Schedule

The last major conversion file refresh for the test system took place in early September. Refreshed data should include:

- Updated information in each file that is current as of the end of August.
- Corrections previously identified and communicated to the email address.
- Industry collected facility information (GS/MS/PL).

Although conversion files will not be refreshed again before Go-Live, Industry should continue reviewing the files and communicating any errors. Corrections will continue to be accepted up until October 25. However, it should be noted that the nature and scope of a correction could impact the conversion team's ability to make the change before Go-Live. **Companies are highly encouraged to review files and communicate errors as soon as possible to ensure there is plenty of time to accommodate corrections.**

3. Activities at Go-Live

There are a number of activities that must happen after Petrinex Go-Live. Petrinex Go-Live is scheduled for November 5, 2018 (reporting for the October production month).

Primary USA must Create Users/Roles

The Primary or Backup USA must create all User IDs and assign them User Security Roles before any reporting can commence on Petrinex. Use Security Roles define which functions a user can perform in Petrinex. At least one user must be created for each company. The Primary & Backup USA cannot perform reporting functions in Petrinex.

The Primary and Backup USA will also continue to manage user access and roles going forward in Petrinex.

USA passwords are scheduled to be generated on November 2. The Commission will be communicating the login IDs and passwords to all individuals that have been identified as the Primary or Backup USA (as collected through the Commission's online BA information form) prior to Go-Live from November 2-4.

Instructions for logging in as the USA and for creating users will be communicated closer to Go-Live.

Enter Opening Inventories in Volumetrics

Opening inventories for the October production month will not be collected prior to Go-Live as there is not much time between reporting the ending inventory for the prior month and getting that number converted into Petrinex ahead of time. **Instead, users will report opening inventories as Inventory Adjustments in Petrinex.**

- Inventory reported at the Facility level will use activity INVADJ.
- Load Inventory reported at the Well level will use activity LDINVADJ.
- Closing inventories will be reported using normal Petrinex activities (INVCL or LDINVCL for load inventory).
- Opening inventories going forward will be auto-populated from the prior month's closing inventory.

Infrastructure Updates

Batteries

Operators of batteries that are eligible for the Royalty Volume Credit MUST update the returned fuel information in Facility Infrastructure. This applies to batteries that are receiving return fuel from a meter station.

- Edit Facility Information for the battery in Petrinex Facility Infrastructure.
- Set the Returned Fuel Flag to "Yes."
- Enter the associated Returned Fuel Gas Plant ID for credit purposes.
- Credits cannot be determined if this information is not provided.

Terminals

Operators of terminals that are physically connected pipelines may optionally update pipeline link information in Facility Infrastructure.

- Edit Facility Information for the terminal in Petrinex Facility Infrastructure.
- Set the Physically Connected to a Pipeline Flag to "Yes."
- Enter the associated Pipeline ID in Terminal-Pipeline Link.

Meter Stations

All meter stations are being set up with the Auto Populate Flow Through options defaulted to No. If there is only one upstream facility that delivers gas to or receives gas from a meter station then it makes sense to set the change that setting.

Both the meter station operator (the pipeline operator) and the common stream operator (CSO) have the ability to change the Auto Populate Flow Through option if desired.

- Edit Facility Information for the meter station in Petrinex Facility Infrastructure.

- Set the Auto Populate Flow Through Flag to “Yes.”
- Enter the upstream Facility ID that either delivers gas to or receives gas from the meter station (depending on the meter station subtype) in the Meter Station – Auto Populate Facility Link field.
- Do not change this option if there is more than one upstream facility using this meter station.

The following is an explanation of how the auto-populate option changes reporting for the different meter station subtypes.

Meter Station Subtype 631 (Field Receipt, Reporting): This subtype is the most common subtype that delivers onto the pipeline. Delivery meter stations operated by Enbridge and TCPL are set up with this subtype.

When the auto-populate flow through flag is set to No:

- The CSO submits a receipt at the meter station from the upstream facility (volume/energy).
- The receipt auto-populates the disposition at the upstream facility.
- The pipeline operator submits a disposition at the meter station to the pipeline (volume/energy).
- The pipeline operator does have the ability to submit both the receipt and disposition at the meter station. The CSO can only submit the receipt.
- A non-compliance error is generated if the meter station receipts and dispositions are out of balance.

When the auto-populate flow through flag is set to Yes:

- The pipeline operator submits a disposition at the meter station to the pipeline (volume/energy).
- Petrinex auto-creates the receipt from the upstream facility (identified in the auto-populate facility link field) at the meter station and the auto-populated disposition at the upstream facility. The CSO does not have to make an entry at the meter station.
- The meter station is always balanced.

Meter Station Subtype 637 (NEB/Non-Reporting): This subtype delivers onto the pipeline and is used when the pipeline operator has elected not to report on Petrinex, but the upstream facility operator still needs a meter station to deliver to for volumetric/allocation purposes. Delivery meter stations operated by Alliance and PNG are set up with this subtype.

The auto-populate flow through flag is always set to No:

- The CSO submits a disposition at the upstream facility to the meter station (volume/energy).
- No other entries are needed.
- The disposition to the meter station will trigger necessary royalty allocations.

Meter Station Subtype 632 (Interconnect Receipt, Reporting): This subtype is the most common subtype that moves gas off of the pipeline and back into the field (i.e. return fuel). Return fuel meter stations operated by Enbridge and TCPL are set up with this subtype.

When the auto-populate flow through flag is set to No:

- The pipeline operator submits a receipt at the meter station from the pipeline (volume/energy).
- The CSO submits a disposition at the meter station to the upstream facility (volume/energy).
- The disposition auto-populates the receipt at the upstream facility.
- The pipeline operator does have the ability to submit both the receipt and disposition at the meter station. The CSO can only submit the disposition.
- A non-compliance error is generated if the meter station receipts and dispositions are out of balance.

When the auto-populate flow through flag is set to Yes:

- The pipeline operator submits a receipt at the meter station from the pipeline (volume/energy).
- Petrinex auto-creates the disposition to the upstream facility (identified in the auto-populate facility link field) at the meter station and the auto-populated receipt at the upstream facility. The CSO does not have to make an entry at the meter station.
- The meter station is always balanced.

Meter Station Subtype 638 (NEB/Non-Reporting Interconnect): This subtype moves gas off of the pipeline and is used when the pipeline operator has elected not to report on Petrinex, but the upstream facility operator still needs a meter station to receive from for volumetric/allocations purposes. Receipt meter stations operated by Alliance and PNG are set up with this subtype.

The auto-populate flow through flag is always set to No:

- The CSO/upstream facility operator submits a receipt at the upstream facility from the meter station (volume/energy).
- No other entries are needed.
- The receipt from the meter station will trigger necessary return fuel allocations.

Wells

After Go-Live you may find wells that have incorrect statuses or incorrect/missing facility linkages. Industry has the ability to correct this online in Petrinex.

- Wells can be linked to different facilities using the “Request Well to Facility Link Change” screen.
- Well statuses can be changed using the “Edit Well Status.” A facility is linked to the well when it is first put in an active producing or injecting status.

Royalty Tax Payer

Some BAs that have been identified as the Stream Operator for Royalty Tax Payer purposes may have to request an operatorship change.

The RTP operator is responsible for maintaining the list of royalty payers for that particular stream and product for the appropriate ownership type (Crown or Freehold).

For conversion purposes, the RTP operator for units will be the operator on record provided in the Royalty Tax Attributes. The RTP operator for a well will be the Licensee. This may not be who the operator should be. For example, the Licensee may have contracted the Facility Operator to be responsible for this information.

BAs can request a stream operatorship change using the Request Operator Change functionality under the Infrastructure menu in Petrinex.

Related Business Associates (for oil valuation purposes)

Oil that is delivered to a Custody Transfer Point requires a pipeline splits submission where the volume is broken out into its individual owners and purchasers. An Oil Valuation Royalty Tax Payer record is created for each owner listed in a pipeline split and an Oil Valuation Purchaser record is created for each purchaser. Both the Owner and Purchaser must submit their oil valuation pricing information. The owner's price is compared to the purchaser's price as an audit check and must match. See section 3.4.5 for more information on pipeline splits and oil valuation.

Some companies market their own volumes. In these cases, both the owner and the purchaser in the pipeline split are the same. This is considered non-arm's length. In these cases Petrinex does not create the Oil Valuation Purchaser record.

Sometimes a company's producing and marketing functions can have different Business Associate IDs. As this is still a non-arm's length sale, Petrinex must be able to determine that they are related for the purposes of oil valuation.

Companies may enter their Related Business Associates in the Audit menu section of Petrinex. By entering the related BA ID, Petrinex knows not to create an Oil Valuation Purchaser record when these 2 companies are used together in a pipeline split.

Creation of Alberta/NEB Gathering Lines for PCOS

Originally MOF had planned to provide the Alberta/NEB pipeline gathering lines in their conversion load. There has been a change to this plan. Industry will now be responsible for creating all Alberta/NEB pipeline gathering lines after Go-Live.

MOF attempts to create these as part of the conversion process have revealed that there is insufficient information to populate required fields in Petrinex. Creating these gathering lines in Petrinex means that

they will all receive new equipment IDs (as determined by Petrinex upon submission). MOF estimates that there approximately 30-40 of these lines existing today.

Linking Gathering Lines to batteries for PCOS

As mentioned previously, each BA must link the new BC Gathering Line IDs provided by the Commission to their batteries for PCOS reporting.

All Gathering Line IDs can be found in the PCOS Equipment List at Go-Live. The list will also be available to Industry prior to Go-Live to start updating internal records.

Note: Industry is now responsible for creating the Alberta/NEB gathering lines. As such, Industry must now link these lines (with their new equipment IDs) to their batteries for PCOS reporting as well.

Equipment is linked to a battery in Petrinex using the PCOS Management screen. **Industry has until January 31, 2019 to update the gathering line linkages in Petrinex.**

Appendix 12: Instructions for Industry Interoperability Testing

Industry Interoperability Testing Scope

Industry Interoperability Testing (IIO) provides BAs the opportunity to submit batch files to the Petrinex Industry Team for the purpose of testing:

- Files generated by the BA's production accounting software (in XML or CSV format)
- Spreadsheets developed for uploading data to Petrinex (in CSV format).

Note: Industry will not be engaged in testing Petrinex online functionality; this will be performed by the Petrinex Industry Team.

Each BA will have to assess how much, if any IIO testing they will conduct. The Petrinex Industry Team anticipates that:

- At least one company will submit IIO files for every PA system that will interface with Petrinex.
- All companies developing internal software with interfaces to Petrinex will test their software.
- Most companies preparing CSV spreadsheets for upload to Petrinex will want to test this capability.

IIO Testing "Window"

The Petrinex Team is currently accepting test files for all Petrinex submissions including:

- Volumetrics
- Waste Plant
- Allocations
- NGL/Sulphur Valuation
- Oil Pipeline Splits
- Oil Valuation (Royalty Tax Payer & Purchaser)
- Net Profit Allowable Costs
- PCOS Equipment Operator Change

IIO Testing Procedures

IIO test files can be submitted in either CSV or XML. Each test file submission along with the IIO transmittal form is to be emailed to Petrinex.testing@petrinex.ca with **BC Inclusion Project in the Subject Line**. If the transmittal form is incomplete or not included the batch submission will not be processed. The file will be sent back to the BA with a request for the additional required information. The transmittal form can be found on the Petrinex website under Initiatives under the Petrinex British Columbia Inclusion Project (follow the link below): <http://www.petrinex.ca/205.asp>

The target timeframe for the initial processing of a file is 3 business days, however, it may take longer depending of the volume of activity and the amount of data preparation required.

After the batch is processed the BA will be sent an e-mail with:

- The processing results
- A detailed explanation of any problems encountered
- Recommendations, as appropriate on what was needed to successfully process the file

The e-mail will include attachments, as appropriate, including the transmittal form with completed actual test results section and any Petrinex generated additional outputs or validation results.

NOTE: All submission files should be created for Production Month 2018-04.

If you have any questions related to IIO testing, please contact Steve Freeman at 403-297-2311 or email steve.freeman@gov.ab.ca.

Appendix 13: Instructions for Industry Training

Overview

As mentioned in Step 2.5 of the PBCIP Steps to Readiness, the Petrinex Team uses a number of approaches to help companies ensure their users are fully trained in how to use Petrinex. These include:

- **Change Leader Meetings:** A number of Change Leader meetings will be scheduled over the life of the PBCIP project at different locations. Dates, times, and venues will be communicated when these details are available.
- **Petrinex Learning Centre:** The following learning resources are accessed through the public Petrinex website at <http://www.petrinex.ca/>
 - **Online Learning Modules:** Learning modules provide information and “hands-on” instruction for all aspects of Petrinex, from general overview to the specifics of each function. Modules include test questions and practice in a simulated environment that has the same look and feel of Petrinex. By completing exercises within the module, learners are evaluated in terms of their understanding of the function.

Changes to existing modules along with several new learning modules will be released to help users understand using Petrinex functionality for BC. Publication dates for the new learning modules will be communicated when they have been determined.

- **Job Aids:** Job Aids are compiled to provide examples, templates, shortcuts, tips and information that make using Petrinex easier and more efficient. Unlike the Learning Modules, Job Aids do not include learner evaluation.
- **Tips & Alerts:** These communication vehicles provide up-to-the-minute information and instruction for dealing with a variety of Petrinex user issues. Tips and Alerts are catalogued for quick and easy reference. Tips and Alerts can be accessed through the Petrinex website and are also available on the Petrinex Training System in the individual user training profiles.
- **Online Help:** After logging in, a user can access the Online Help related to any Petrinex page by clicking on the HELP symbol. Petrinex Online Help is context sensitive and provides step-by-step “how to” information as well as related background and tips for that page. PBCIP related online help will be available upon Go-Live.

NOTE: Learning modules are scheduled to begin release in Q3 of this year. Availability of other training resources will be communicated to Change Leaders as they become available. Once learning modules are available, instructions on accessing these modules through the Petrinex website will also be communicated.

Appendix 14: Important Dates for Industry

A number of dates have been communicated throughout the Handbook that are important for Industry to remember. These important dates relate to:

- Readiness activities that must be complete both pre and post Petrinex Go-Live.
- Interoperability Testing windows.
- Reporting deadlines that have changed as part of the cutover process from Form Reporting and the PRMS legacy system to Petrinex Reporting and the new MOF TACS system.

The tables below provide a summary of the important dates by topic.

1. Readiness Activities and Interoperability Testing

Prior to Petrinex Go-Live		
Target	Activity	Responsibility
Now	<ul style="list-style-type: none"> • Submit Interoperability testing files for all functions. • Submit BA Data Collection Form to OGC. 	Vendors/Industry Industry
June	<ul style="list-style-type: none"> • Change Leaders receive an email that conversion files have been updated on the OGC website and are ready for review. Refreshed files to include corrections, newly created infrastructure (since Feb), Industry GS/MS/PL facilities, and all PCOS equipment types. 	Petrinex
Jun-Oct 25	<ul style="list-style-type: none"> • Review conversion files and communicate any errors or missing data. • Continue to submit additions/changes to operated GS/MS/PL facilities. 	Industry Industry
Sep	<ul style="list-style-type: none"> • Conversion files refreshed and reposted to webpage. New files should include corrections and newly created infrastructure (since June refresh). 	Project Team
Sep 4 - Oct 22	<ul style="list-style-type: none"> • End to End testing of integration between Petrinex, OGC Hub & systems, Finance Hub & Gentax. 	Project Team
Q3	<ul style="list-style-type: none"> • Begin releasing BC Learning Modules. 	Communications Team
TBD	<ul style="list-style-type: none"> • Login/Password information communicated to Primary USA. 	Commission

Post Petrinex Go-Live		
Target	Activity	Responsibility
Nov 5	<ul style="list-style-type: none"> • Petrinex Go-Live for October Production Month. • Primary USA set up users and roles for their company. 	Project Team
Early Nov	<ul style="list-style-type: none"> • Update opening inventories from September Prod Month ending inventory. • Operators of batteries eligible for return fuel credits must update the Returned Fuel settings in Facility Infrastructure. • Request an Operator Change for any stream (well, unit) in which another BA should be responsible for submitting Royalty Tax Payer information. • Enter any Related BA relationships for Oil Valuation purposes. • Set up Auto-Populate options for Meter Stations (optional). 	Industry
Jan 31, 2019	<ul style="list-style-type: none"> • Ensure all new Gathering Line IDs are attached to batteries for PCOS reporting purposes. 	Industry

2. Reporting Deadline Changes for Cutover (Jul – Oct Production Months)

PRE-PETRINEX REPORTING			
	Date	Submission Type	Significance
July Production Month			
GAS	22-Oct	Invoice Payment	3 Days Early
		BC-15 (Gas)	Early & Last Submission
August Production Month			
FORMS	22-Oct	BC-08	9 Days Early
GAS	22-Oct	Estimates (for Aug)	3 Days Early & Last Time for Estimate
	23-Nov	Invoice	1 Invoice run for 2 months
	30-Nov	Invoice Payment	(Aug & Sep same dates)
OIL	22-Oct	Invoice Payment	3 Days Early
		BC-15 (Oil)	Early & Last Submission
September Production Month			
FORMS	20-Oct	BC12	Last Submission
	22-Oct	BC-S1, BC-S2, BC-19	3 Days Early
	30-Oct	BC-09	
	15-Nov	BC-08	15 Days Early
GAS	23-Nov	Invoice	1 Invoice run for 2 months
	30-Nov	Invoice Payment	(Aug & Sep same dates)
OIL	22-Oct	Estimates (for Sep)	3 Days Early & Last Time for Estimate
	23-Nov	Invoice	Later
	30-Nov	Invoice Payment	Short Turnaround
OGC	22-Oct	BC-11	Last day to report well status changes for September Prod Month and earlier.

PETRINEX REPORTING		
	Date	Submission Type
October Production Month		
REPORTING	21-Nov	Volumetrics
	25-Nov	Allocations
	10-Dec	Valuation (Oil, NGL, Sulphur)
GAS	23-Dec	Invoice
	31-Dec	Payment
OIL	23-Dec	Invoice
	31-Dec	Payment

Appendix 15: Allocations Trigger Tables

The following table shows a list of the volumetric transactions that would trigger a mandatory allocation that must be filed for regulatory purposes for each of the 8 allocation Royalty Types in Petrinex.

Additions to the table since the last handbook update have been highlighted in yellow.

Royalty Type	Product	Activity	Submitting Facility	From/To Facility	Energy Required
Gas Royalty	GAS	DISP	BC GP	BC MS	Y
Gas Royalty	GAS	DISP	AB GP	AB MS	Y
Gas Royalty	GAS	DISP	BC BT	BC WP	Y
Gas Royalty	GAS	DISP	BC GS	BC WP	Y
Gas Royalty	GAS	DISP	BC GP	BC WP	Y
Gas Royalty	GAS	DISP	BC BT	AB WP	Y
Gas Royalty	GAS	DISP	BC GS	AB WP	Y
Gas Royalty	GAS	DISP	BC GP	AB WP	Y
Gas Royalty	GAS	DISP	AB BT	AB WP	Y
Gas Royalty	GAS	DISP	AB GS	AB WP	Y
Gas Royalty	GAS	DISP	AB GP	AB WP	Y
Gas Royalty	GAS	DISP	BC BT	BC TM	Y
Gas Royalty	GAS	DISP	BC GS	BC TM	Y
Gas Royalty	GAS	DISP	BC GP	BC TM	Y
Gas Royalty	GAS	DISP	BC BT	AB TM	Y
Gas Royalty	GAS	DISP	BC GS	AB TM	Y
Gas Royalty	GAS	DISP	BC GP	AB TM	Y
Gas Royalty	GAS	DISP	AB BT	AB TM	Y
Gas Royalty	GAS	DISP	AB GS	AB TM	Y
Gas Royalty	GAS	DISP	AB GP	AB TM	Y
Royalty (GP/COS) Younger	GAS	DISP	BC GP 0007806	BC GP	Y
Royalty (GP/COS) Younger	GAS	DISP	BC GP 0007743	BC GP	Y
Royalty (GP/COS) Younger	GAS	DISP	BC GP 0000439	BC GP	Y
Royalty Vol Credit	GAS	REC	BC BT	BC MS	Y
Royalty Vol Credit	GAS	REC	BC GS	BC MS	Y
Royalty Vol Credit	GAS	REC	BC IF	BC MS	Y
Ret. Gas COS	GAS	REC	BC BT	BC GP	N
Ret. Gas COS	GAS	REC	BC GS	BC GP	N

Royalty Type	Product	Activity	Submitting Facility	From/To Facility	Energy Required
Ret. Gas COS	GAS	REC	BC IF	BC GP	N
Dry Gas	GAS	DISP	BC BT	BC MS	Y
Dry Gas	GAS	DISP	BC GS	BC MS	Y
Dry Gas	GAS	DISP	BC BT	AB MS	Y
Dry Gas	GAS	DISP	BC GS	AB MS	Y
Field Sale	GAS	PURDISP	BC BT	BC BT	N
Field Sale	GAS	PURDISP	BC BT	BC IF	N
Field Sale	GAS	PURDISP	BC BT	BC GS	N
Field Sale	GAS	PURDISP	BC BT	BC GP	N
Field Sale	GAS	PURDISP	BC BT	BC CT	N
Field Sale	GAS	PURDISP	BC GS	BC BT	N
Field Sale	GAS	PURDISP	BC GS	BC IF	N
Field Sale	GAS	PURDISP	BC GS	BC GS	N
Field Sale	GAS	PURDISP	BC GS	BC GP	N
Field Sale	GAS	PURDISP	BC GS	BC CT	N
Field Sale	GAS	PURDISP	BC GP	BC BT	N
Field Sale	GAS	PURDISP	BC BT	BC WI	N
Field Sale	GAS	PURDISP	BC GP	BC GP	N
Inlet COS	GAS	DISP	BC BT	BC GP	N
Inlet COS	GAS	DISP	BC GS	BC GP	N
Inlet COS	GAS	DISP	BC GP	BC GP	N
Inlet COS	GAS	DISP	BC BT	AB GP	N
Inlet COS	GAS	DISP	BC GS	AB GP	N
Inlet COS	GAS	DISP	AB BT	AB GP	N
Inlet COS	GAS	DISP	AB GS	AB GP	N
NGL Royalty	C2-SP	PROC	BC GP		N
NGL Royalty	C3-SP	PROC	BC GP		N
NGL Royalty	C4-SP	PROC	BC GP		N
NGL Royalty	C5-SP	PROC	BC GP		N
NGL Royalty	LITEMX	PROC	BC GP		N
NGL Royalty	C1-MX	PROC	BC GP		N
NGL Royalty	CO2-MX	PROC	BC GP		N
NGL Royalty	C2-MX	PROC	BC GP		N
NGL Royalty	C3-MX	PROC	BC GP		N
NGL Royalty	C4-MX	PROC	BC GP		N
NGL Royalty	C5-MX	PROC	BC GP		N
NGL Royalty	SUL	PROC	BC GP		N
NGL Royalty	C5-SP	PROC	BC GS		N
NGL Royalty	C2-SP	PROC	AB GP		N

Royalty Type	Product	Activity	Submitting Facility	From/To Facility	Energy Required
NGL Royalty	C3-SP	PROC	AB GP		N
NGL Royalty	C4-SP	PROC	AB GP		N
NGL Royalty	C5-SP	PROC	AB GP		N
NGL Royalty	LITEMX	PROC	AB GP		N
NGL Royalty	C1-MX	PROC	AB GP		N
NGL Royalty	CO2-MX	PROC	AB GP		N
NGL Royalty	C2-MX	PROC	AB GP		N
NGL Royalty	C3-MX	PROC	AB GP		N
NGL Royalty	C4-MX	PROC	AB GP		N
NGL Royalty	C5-MX	PROC	AB GP		N
NGL Royalty	SUL	PROC	AB GP		N
NGL Royalty	C5-SP	PROC	AB GP		N

The following table shows how Petrinex will populate the new allocations fields (Royalty Trigger Facility, Linked Pipeline) by Royalty Type.

Royalty Type	Royalty Trigger Facility	Linked Pipeline
Gas Royalty	First GP downstream of the stream/well	PL linked to Meter Station
Royalty (GP/COS)	First GP downstream of the stream/well	N/A
Dry Gas	Submitting BT/GS	PL linked to Meter Station
Field Sale	N/A	N/A
Inlet COS	First GP downstream of the stream/well	N/A
Royalty Vol Credit	Returned Fuel GP for BT in Facility Infrastructure	PL linked to Meter Station
Returned Gas COS	Returned Fuel GP for BT in Facility Infrastructure	N/A
NGL Royalty	First GP downstream of stream/well	N/A