Learning Aid:
Saskatchewan Public Data – Conventional Volumetrics Data Download

Dated: September, 2022

RECORD OF CHANGES

Release/Revision Date	Location of Change in this Document	Comment
September 2022	Scheduling and Timing	Updated based on Petrinex enhancements effective Aug 3/22
March 2022		Initial Release

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The goal of this document is to provide information on the Saskatchewan conventional volumetric data download accessed via the Petrinex Saskatchewan Public Data page.

Introduction

Saskatchewan conventional volumetric information referenced in this document can be accessed by the public through the Saskatchewan Public Data Access link on the Petrinex web site.

Saskatchewan current production year plus the past four production years of conventional volumetric data is provided.

This data download excludes Waste Plant volumetric reporting and is subject to current confidential and commercially sensitive data protection rules.

Note: If users require an Alberta conventional output file, they are required to access the Alberta Public Data Access link on the Petrinex web site.

Scheduling and Timing

The process to generate Saskatchewan conventional volumetric data will be run monthly following the Volumetric and Pipeline Split Reporting Deadlines.

A conventional volumetric data file for a production month will be regenerated immediately when for the production month

- A facility's subtype is changed to 505, 506, 516, 517, 519, 501 or 511 from other subtypes

    - 505 – Underground Gas Storage
    - 506 – Thermal In-Situ Injection
    - 516 – Underground Oil Storage
    - 517 – Underground LPG Storage
    - 519 – Underground CO2 Storage
    - 501 – Enhanced Recovery Scheme
    - 511 – Enhanced Recovery Scheme (Temporary)

- A facility is changed to be tied to a Storage facility (subtype 505, 506, 516, 517 or 519)

    - 505 – Underground Gas Storage
    - 506 – Thermal In-Situ Injection
    - 516 – Underground Oil Storage
    - 517 – Underground LPG Storage

- 519 – Underground CO2 Storage

- A well is added to a project (of any type).

An enhancement was implemented to Petrinex in August 2022 to add a trigger to monitor UWI changes and refresh the public data volumetric downloads accordingly. This ensures data consistency between Petrinex and Public Data. When a UWI change is made in Petrinex, the impacted volumetric downloads are refreshed overnight.

Downloads

This data download is available from the Saskatchewan Public Data Access web page in Comma-Separated Value (CSV) and Extensible Markup Language (XML) formats. Select the desired production month(s), choose a file format and click the "Download" button to obtain the download(s).

Petrinex functionality allows users to request this report using a separate API address rather than the "download" process. Your report request should follow the following criteria:

https://www.petrinex.gov.ab.ca/publicdata/API/Files/{Jurisdiction}/Vol/{FileName}/{FileFormat}

Examples:
    https://www.petrinex.gov.ab.ca/publicdata/API/Files/SK/Vol/2022-01/CSV

    https://www.petrinex.gov.ab.ca/publicdata/API/Files/SK/Vol/2022-01/XML

Note: the report results will be the same no matter which of the request processes you use.

Users downloading reports for personal use should request the CSV format. This format can be imported to and exported from programs that store data in tables, such as Microsoft Excel. For further information on creating an excel spreadsheet from CSV see the section below titled "Open and Save CSV Document as Excel Spreadsheet".

Users downloading the data to upload into other systems should request the XML format. This format shares both the format and the data using standard ASCII text. A XML format is similar to HTML.

Data Fields

Data Element Name	Data Type	Length	Description	Data Protection
Production Month	gYearMonth	7	Year month (YYYY-MM) for production month	
Operator BA ID	String	20	Operator ID (Code) of the reporting facility for the production month	
Operator Name	String	150	BA name of the reporting facility operator for the production month	
Reporting Facility ID	String	20	Unique identifier of the reporting facility	Row based rules applied
Reporting Facility Province/State	String	2	Province/State for the Reporting Facility	
Reporting Facility Type	String	2	Type for the Reporting Facility	
Reporting Facility Identifier	String	7	Numeric component of the unique identifier for the Reporting Facility	
Reporting Facility Name	String	60	Facility Name of the reporting facility	
Reporting Facility Subtype	String	3	Sub-Type Code indicating purpose of facility	
Reporting Facility Subtype Desc	String	60	Sub-Type description	
Reporting Facility Location	String	20	Facility Location is made up of: legal subdivision-section-township-range-meridian.	
Facility Legal Subdivision	String	2	The DLS Legal Subdivision designation for the location of a facility.	
Facility Section	String	2	The DLS Section designation for the location of a facility.	
Facility Township	String	3	The DLS Township designation for the location of a facility.	
Facility Range	String	2	The DLS Range designation for the location of a well.	
Facility Meridian	String	2	The DLS Meridian designation for the location of a facility.	
Submission Date	Date	10	Last updated date (YYYY-MM-DD)	
Activity ID	String	12	Activity code	
Product ID	String	12	Product code	
From/To ID	String	20	Unique identifier of the From/To facility or well	From/To ID rules applied
From/To ID Province/State	String	2	Province/State for the From/To ID	
From/To ID Type	String	2	Type for the From/To ID	

Data Element Name	Data Type	Length	Description	Data Protection
From/To ID Identifier	String	16	Numeric component of the unique identifier for the From/To ID	
Volume	Decimal	(13,3)	Volume of product (m3 for liquids, e3m3 for gas)	
Energy	Decimal	(13,3)	Energy of gas (GJ)	In SK this will be blank
Hours	Integer	3	Hours of production or injection.	Hours rules applied in AB
CCI Code	string	1	Consecutive Concurrent Injection indicator.	
Proration Product	string	12	Product which Proration Factor is applied to	
Proration Factor	Decimal	(6,5)	Proration Factor for the product	
Heat	Decimal	(5,2)	Wellhead heat value of gas, if reported (MJ/m3)	In Alberta this will be blank

Row based rules:

- If a reporting facility type is a TM (Terminal), MS (Meter Station), PL (Pipeline), CT (Custom Treating), RF (Refinery), BT linked to a Storage IF (subtype 505, 506, 516, 517 and 519)
  - 505 – Underground Gas Storage
  - 506 – Thermal In-Situ Injection
  - 516 – Underground Oil Storage
  - 517 – Underground LPG Storage
  - 519 – Underground CO2 Storage

  or storage/EOR facility IF with subtypes:
  - 505 – Underground Gas Storage
  - 506 – Thermal In-Situ Injection
  - 516 – Underground Oil Storage
  - 517 – Underground LPG Storage
  - 519 – Underground CO2 Storage
  - 501 – Enhanced Recovery Scheme
  - 511 – Enhanced Recovery Scheme (Temporary)

  the facility identification information and the volumetric data will not be included in the extract file as per Security Blanket

- Volumetric rows that are for a well event linked to a project (of any type) and activity of STINJ or STREC will not be included in the extract file.
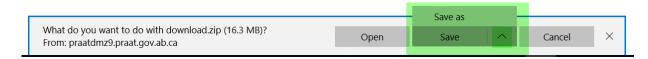
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<u>From/To ID rules:</u>

- If a reporting facility type is GP only the facility information, "***" From/To and volumetric volumes for the submission (production month and reporting facility ID) summed up by product and activity will be included in the extract file.

- For activity DISP, the From/To ID field will be displayed as "***" and the volumes for the submission (production month and reporting facility ID) will be summed up by product when the From/To IDs are either:
  - Facility type TM, MS, GP, PL, CT, WP or RF (as per security blanket).
  - 4- or 2-character miscellaneous code (e.g. SK, TX, SKRC, MBMC).

Open and Save Document as Excel Spreadsheet

If you have selected the Conventional Volumetrics Report and your download format is CSV, you should save your report to an appropriate folder. Click the "arrow" beside the "Save As" option to save this report to the selected folder.

		Save as		
What do you want to do with download.zip (16.3 MB)? From: praatdmz9.praat.gov.ab.ca	Open	Save	∧	Cancel ×

Note: The file that you save will be a zipped file (.zip). When you click on the file name it will open the zip file and present the requested report(s) which you will need to save to a folder you have access to.

When you open your csv report, you will notice that all of the preceding zero's in any of the data has been lost. Example BA Code 01234 would show as 1234, Facility Identifier 0000123 would show as 123. You need to create a worksheet in text in order to sort and filter your report as necessary.

     a. Open a new Excel worksheet, and click on **Data** to import your saved report into this new worksheet.
     b. Click **From Text** to open the Import Text file window
     c. Highlight the document that you previously saved and click **Import.**
     d. This opens the Text Import Wizard:
          1. Click the radio button – **Delimited** and click **Next**
          2. Change the radio button under Delimiters from Tab to **Comma** and click **Next**.
          3. You will want to change all of the columns to be Text rather than General. To do this – Hold down the Shift Key and using the scroll bar on the bottom bring it as far to the right as you can. This will highlight all of the columns.
          4. Click the radio button **Text**
          5. Click **Finish**
          6. You are now asked where you want to put the data? Click the radio button – **Existing Worksheet** and click **OK**.
          7. Save the new worksheet as a .XLSX or .XLS file.

Facility Codes

Facility Code	Description
BT	Battery
CS	Compressor Station
CT	Custom Treating Facility
GP	Gas Plant
GS	Gas Gathering System
IF	Injection/Disposal Facility
MS	Metering Station
OS	Oil Sands Processing Plant
PL	Pipeline
RF	Refinery
TM	Terminal
WP	Waste Plant
WS	Water Source

Volumetric Product Codes

General Information		
Product Code	**Unit of Measurement**	**Description**
ACGAS	10^3m^3	Acid Gas
AIR	10^3m^3	Air
BRKWTR	m^3	Brackish Water
C1-MX	m^3	Methane Mix
C2-MX	m^3	Ethane Mix
C2-SP	m^3	Ethane Spec
C3-MX	m^3	Propane Mix
C3-SP	m^3	Propane Spec
C4-MX	m^3	Butane Mix
C4-SP	m^3	Butane Spec
C5-MX	m^3	Pentanes Mix
C5-SP	m^3	Pentanes - Spec
C6-MX	m^3	Hexane Mix
C6-SP	m^3	Hexane Spec
CO2	10^3m^3	Carbon Dioxide
CO2-MX	m^3	Carbon Dioxide Mix
COND	m^3	Condensate
DIESEL	m^3	Diesel Oil
ENTGAS	10^3m^3	Entrained Gas
FSHWTR	m^3	Fresh water
GAS	10^3m^3	Gas
IC4-MX	m^3	Iso-Butane Mix
IC4-SP	m^3	Iso-Butane Spec
IC5-MX	m^3	Iso-Pentane Mix
IC5-SP	m^3	Iso-Pentane Spec
LITEMX	m^3	Lite Mix
N2	10^3m^3	Nitrogen
NC4-MX	m^3	Normal Butane Mix
NC4-SP	m^3	Normal Butane Spec
NC5-MX	m^3	Normal-Pentane Mix
NC5-SP	m^3	Normal-Pentane Spec
O2	10^3m^3	Oxygen
OIL	m^3	Crude Oil, Crude Bituman
SAND	m^3	Sand
SBASE	tonnes	Sulphur – Basepad

General Information		
Product Code	**Unit of Measurement**	**Description**
SBLOC	tonnes	Sulphur – Block
SFORM	tonnes	Sulphur – Formed
SLATE	tonnes	Sulphur – Slate
SMOLT	tonnes	Sulphur – Molten
SOLV	10^3m^3	Solvent
SPRILL	tonnes	Sulphur – Prill
STEAM		Steam
SUL	tonnes	Sulphur
SYNCRD	m^3	Synthetic Crude
WASTE	m^3	Waste
WATER	m^3	Water

Activity Codes

Activity Code	Description	Valid Facility Types
DIFF	*Difference*	*All except WP*
DISP	*Disposition*	*All*
EMIS	Emission	*All except WP*
FLARE	Flare	All except WP
FLARWAST	Flared or Wasted	OS
FRAC	Fractionate	GP
FUEL	Fuel	All
FURPROC	Further Processing	OS
IMBAL	*Imbalance*	*All*
INJ	Injection	IF
INVADJ	Inventory Adjustment	All
INVCL	Inventory Close	All
INVOP	*Inventory Open*	*All*
LDINJ	Load injection	BT, GS
LDINVADJ	Load inventory adjustment	BT, GS
LDINVCL	*Load inventory close*	*BT, GS*
LDINVOP	*Load inventory open*	*BT, GS*
LDREC	Load recovered	BT, GS
MINED	Oil Sands Mined	OS
PLTUSE	Plant Use	IF, OS
PROC	*Process to create product*	*GP, GS, OS*
PROD	Production	BT, GS, OS
PURDISP	*Purchase Disposition*	*All except WP*
PURREC	Purchase Receipt	*All except WP*
REC	Receipt	All
RECYC	Recycle	IF
*ROYALTY *	*ROYALTY*	*WI*
SHR	*Shrinkage*	*BT, CT, GP, PL, TM*
SHUTIN	Shut in	All
UTIL	Utilities	IF
VENT	Vent	All except WP

* ROYALTY is the portion of total production designated by the company as royalty. It does not represent the actual royalty calculated by the Province.

Glossary Terms

CONFIDENTIALITY: Saskatchewan's confidentiality rules for oil and gas are described in Section 112 of the Oil and Gas Conservation Regulations, 2012. For potash well confidentiality, refer to Section 5 of the Subsurface Mineral Conservation Regulations and MRO291/21

PUBLIC DATA: Also known as "non-operator data" refers to Petrinex data available to non-operators in Petrinex.