

# **TRANS MOUNTAIN PIPELINE ULC**

## **Inventory Settlement Procedure**

---

**Issued:** April 24, 2019

**Effective:** May 1, 2019

---

**Issued By:**  
Shipper Services  
Trans Mountain Pipeline ULC.  
Suite 2700, 300 – 5th Avenue SW  
Calgary, Alberta T2P 5J2  
<https://www.transmountain.com/>

## Trans Mountain Pipeline ULC Inventory Settlement Procedure

### 1. INTRODUCTION

Inventory gains and losses between commodities are a normal part of transporting unlike materials in a batched pipeline. These gains and losses can be attributed to interfacial batch cuts, shared tank movements and the normal intermixing of commodities as they transit the pipeline system. Due to differences in quality between commodities, inventory gains or losses cannot be settled through the reallocation of Physical Inventory. To maintain a proportional balance of Physical Inventory relative to Book Inventory, Carrier requires Shippers to settle such gains and/or losses through financial transactions. All Shippers are required to participate in this process. Carrier's goal is to minimize physical gains or losses between commodities, and ensure that financial transactions utilize transparent pricing. This document describes the Inventory Settlement Procedure as applicable to Trans Mountain Pipeline ULC as general partner of Trans Mountain Pipeline LP ("Trans Mountain").

Capitalized terms that are not defined in this procedure are as defined in Trans Mountain Pipeline ULC's Petroleum Tariff: Rules and Regulations.<sup>1</sup>

Refined Petroleum is not subject to this procedure. Inventory gains and losses for Refined Petroleum are subject to the Refined Petroleum Reconciliation Procedure.

### 2. DEFINITIONS

Batches in Transit: Remaining Physical Inventory after removing Working Stock and Linefill.

Book Inventory: The sum of opening inventory, Inventory Settlement Adjustments, receipt volumes and volumes transferred in and out, less Delivered volumes and Petroleum Loss Allowance, in a given Month.

Inventory Settlement Adjustment: Settlement Volume as it appears on the following Month's Shipper Balance Statement.

Petroleum Loss Allowance: A fraction (expressed as a percentage) of Delivered volume withheld by Carrier to cover the cost of losses inherent in the transportation and settlement of Crude Petroleum inventory. The Petroleum Loss Allowance Percentages ("PLAPs") in effect are provided in the Trans Mountain Pipeline ULC Tariff: Tolls Applying on Petroleum<sup>1</sup>.

Net Settlement Value: Net Settlement Value is the value of the financial transaction required to balance Book Inventory to Physical Inventory and is the product of the Settlement Price times Settlement Volume.

Physical Inventory: Physical volumes within the Mainline System that are assigned to a Shipper, normally comprising of Working Stock and Line Fill and Batches in Transit.

---

<sup>1</sup> The Trans Mountain Pipeline ULC Tariffs: Tolls Applying on Petroleum and Rules and Regulations Governing the Transportation of Petroleum are on file with the National Energy Board and can be located on the Carrier's website at <https://www.transmountain.com/tolls-tariffs>.



**Settlement Price:** The price assigned to each commodity based on the average of all accepted price quotes received from Shippers. Carrier requires Shippers to provide a price quote for their commodities at time of Nomination.

Shippers are not required to provide quotes for those commodities identified as “Widely Traded” in Schedule B. All price quotes shall be prepared in accordance with Schedule B. Price quotes may take the form of an index price such as Natural Gas Exchange Postings (“NGX”), NYMEX differential postings (“NYMEX”), or other form of pricing agreeable to Carrier. Carrier reserves the right to reject any price quote that it deems misrepresents current market conditions. Schedule B will be updated as new commodities are approved from time to time. In the event NGX or NYMEX are no longer (i) available, (ii) in existence, or (iii) provide adequate pricing information on the commodities listed in Schedule B, Carrier will discuss with Shippers an appropriate replacement.

**Settlement Volume:** The difference between each Shipper’s Book Inventory and Physical Inventory.

**Shipper Balance Statement:** A summarized Monthly statement provided to each Shipper that shows Book Inventory, Physical Inventory, Settlement Volume, Settlement Price and Net Settlement Value.

**Working Stock and Linefill:** As defined in Carrier’s Petroleum Tariff: Rules and Regulations, typically pertains to volume associated with tank bottoms, tank lines and station piping that are necessary to operate the pipeline. Working Stock and Linefill is assigned on a monthly basis.

### **3. INVENTORY SETTLEMENT PROCEDURE**

#### **Step 1: Determination of Book Inventory**

At the close of each Month, Carrier determines the Book Inventory for each commodity and each Shipper.

#### **Step 2: Determination of Physical Inventory**

At the close of each Month, Carrier determines the Physical Inventory of each commodity by Shipper.

#### **Step 3: Determination of Settlement Volume**

At the close of each Month, Carrier determines the Settlement Volume for each commodity by Shipper.

#### **Step 4: Determination of Monthly Settlement Price**

Carrier will determine the Settlement Price for each commodity as follows:

- (a) For commodities identified in Schedule B as “Widely Traded”: Carrier will apply the average monthly NGX price for each commodity;
- (b) For commodities identified in Schedule B as “Narrowly Traded”: Carrier will use the NGX supplied calendar month average WTI price, adjusted by the average of all Shipper supplied differential price quotes for such commodity.
- (c) For crudes not identified in Schedule B or for proprietary crude streams that do not normally trend to either NGX or NYMEX pricing, Carrier will accept price bids from



Shippers of these commodities. Such price bids will be averaged among Shippers of identical commodities. Carrier reserves the right to limit its exposure to this pricing mechanism, and as a consequence, may request documentation in support of Shipper price bids such as a verified price statement, completed sales contract or agreement, or other verifiable document. Carrier will hold such documents in confidence.

#### Step 5: Determination of Net Settlement Value

At the close of each Month, Carrier determines the Net Settlement Value for each commodity by Shipper. The Net Settlement Value is shown on the Shipper Balance Statement and invoice as either a debit (charge) or credit (refund), and is payable under terms set out in Carrier's Petroleum Tariff: Rules and Regulations.

This financial transaction allows the Settlement Volume to be recorded on the next Shipper Balance Statement as an Inventory Settlement Adjustment, thus ensuring Book to Physical Inventory balancing for all commodities and Shippers on the System.

An example of the Inventory Settlement Procedure is shown in Schedule A.

Commodities that are subject to either NGX or NYMEX pricing are listed in Schedule B. Carrier's PLAPs in effect are provided in the Trans Mountain Pipeline ULC Tariff: Tolls Applying on Petroleum.

#### **Schedule A: Example of Inventory Settlement Procedure and Illustrative Shipper Balance Statement**

A simplified example of a Shipper Balance Statement is shown below.

The first half of the statement (Section B) shows the calculations used to determine Book Inventory.

The second half of the statement (Section C and D) shows the calculations used to determine Settlement Volume (Net (Over)/Short) and Net Settlement Value.

In Month 1 the Shipper's Physical Inventory is greater than its Book Inventory, resulting in a Settlement Volume of 172 m<sup>3</sup>. A financial transaction is required to balance this Book to Physical Inventory discrepancy. The Cold Lake Crude Petroleum ("CLK") price is determined to be \$440/m<sup>3</sup>. The Net Settlement Value is therefore \$75,460 which is payable to Carrier.

The Settlement Volume (172 m<sup>3</sup>) is recorded on Month 2 of Shipper's Balance Statement as an Inventory Settlement Adjustment (Net Short).

In Month 2 the Shippers Physical Inventory is less than its Book Inventory, resulting in a Settlement Volume of 422 m<sup>3</sup>. A financial transaction is required to balance this Book to Physical Inventory discrepancy. The CLK price is determined to be \$460/m<sup>3</sup> (Net Over). The Net Settlement Value is therefore \$194,120, payable to Shipper.

## Shipper Balance Statement

(units as noted)

### A. Shipper:

### Single Point Destination Refinery

Period		Month 1		Month 2	
B. Book Inventory (m <sup>3</sup> )	Notes	Commodity	Volume	Commodity	Volume
Opening Inventory:	1	CLK	50,000	CLK	54,929
Net Over / (Short):	1	CLK		CLK	172
<b>Subtotal</b>		<b>CLK</b>	<b>50,000</b>	<b>CLK</b>	<b>55,100</b>
<b>Inventory Settlement Adjustment</b>					
Receipts (+):	2	0.0	50,000	0.0	50,000
Transfers In (+):	3	0.0	10,000	0.0	10,000
Transfers Out (-):	4	0.0	0	0.0	0
Deliveries (-):	5	0.0	55,000	0.0	60,000
Petroleum Loss Allowance (-):	6	0.0	72	0.0	78
<b>Book Inventory Total:</b>		<b>0.0</b>	<b>54,929</b>	<b>0.0</b>	<b>55,022</b>
<b>C. Physical Inventory (m<sup>3</sup>)</b>					
<i>(settlement included in tariff invoice)</i>					
Less Working Stock:	7	0.0	3,600	0.0	3,600
Less Batches In Transit	8	0.0	51,500	0.0	51,000
<b>Physical Inventory Total:</b>			<b>55,100</b>		<b>54,600</b>
<b>Settlement Volume (m<sup>3</sup>)</b>			<b>(172)</b>		<b>422</b>
<b>D. Net Settlement Value</b>					
Price * Settlement Volume	9	\$440.00	<b>(\$75,460)</b>	\$460.00	<b>\$194,120</b>
<i>(Price as set out in Procedure)</i>					

### Notes:

- [1] Opening Inventory is the Book Inventory total for the prior month. See Part B & C of prior month.
- [2] Monthly volumes received from feeder pipeline.
- [3] Transfer from another shipper.
- [4] Transfer to another shipper.
- [5] Monthly deliveries as invoiced to Shipper.
- [6] Petroleum Loss Allowance equals Deliveries \* 0.13%.
- [7] Carrier assigned working stock = inventory in tanks and lines.
- [8] Physical batches in the pipeline at month end.
- [9] Net Settlement Value = Commodity Settlement Price times Settlement Volume in Section C above.

**Schedule B: List of Commodity Prices**

Product Code	Description	Material Grade Code	Benchmark	Index	Reference Crude/Post	Differential
<b>1. Widely Traded</b>						
C5	Condensate	L	WTI	NGX	C5	N/A
CL	Cold Lake Blend	SH	WTI	NGX	CL	N/A
KOC	Central Alberta KOC – (MSR)	L	WTI	NGX	CAL	N/A
PCSR	Peace River Sour – (MSR)	L	WTI	NGX	PSO	N/A
MSW	Mixed Sweet Blend	L	WTI	NGX	MSW	N/A
SSP	Syncrude	L	WTI	NGX	SYN	N/A
<b>2. Narrowly Traded</b>						
HEAVY/SUPER HEAVY CRUDES (Non-Pooled)		H/SH	WTI	NGX	WCS	Shipper Supplied
LSO	Light Sour Oil – (MSR)	L	WTI	NGX	CAL	Shipper Supplied

**Legend:**

**L**        *Light*  
**M**        *Medium*  
**H**        *Heavy*  
**SH**      *Super Heavy*

For Trans Mountain Approved Commodity List, in effect at the time, please refer to the following website:  
<https://www.transmountain.com/tolls-tariffs>