

# TRANS MOUNTAIN PIPELINE ULC

## TMEP Inventory Settlement Procedure

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## **Trans Mountain Pipeline ULC TMEP 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**

**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, for a given Month.

**In-transit Line Fill:** Remaining Physical Inventory after removing Static Line Fill. These are volumes that have been received at the Receipt Point but have yet to deliver at the Delivery Point.

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<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 Canada Energy Regulator and can be located on the Carrier's website at <https://www.transmountain.com/tolls-tariffs>.



Inventory Settlement Adjustment: Settlement Volume as it appears on the Shipper Balance Statement.

Petroleum Loss Allowance: A fraction (expressed as a percentage) of Tendered volume withheld by Carrier to cover the cost of losses inherent in the transportation and settlement of Crude Petroleum inventory.

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 In-transit Line Fill and Static Line Fill.

Settlement Price: The price assigned to each commodity as further detailed in Schedule B. Price quotes may take the form of an average index price such as CalRock or other form of pricing agreeable to Carrier. Schedule B will be updated as new commodities are approved from time to time. In the event CalRock is 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.

Static Line Fill: Typically pertains to volume associated with tank bottoms, tank lines and station piping that are necessary to operate the pipeline and thus unavailable for day to day commercial transactions. Static Line Fill will be assigned pursuant to the TMEP Line Fill Procedure.

### **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 apply the average monthly CalRock pricing for each commodity identified in Schedule B. These prices are converted into Canadian per m<sup>3</sup> using the conversion factors listed in Schedule B.

#### 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 invoiced 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. Carrier's Petroleum Loss Allowance percentages in effect are provided in the Trans Mountain Pipeline ULC Tariff: Tolls Applying on Petroleum.

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



## **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 and Net Settlement Value.

In Month 1 the Shipper's Physical Inventory is greater than its Book Inventory, resulting in a Settlement Volume of 181 m<sup>3</sup>. A financial transaction is required to balance this Book to Physical Inventory discrepancy. The Cold Lake Crude Petroleum ("CL") average price is determined to be \$300/m<sup>3</sup>. The Net Settlement Value is therefore \$54,180 which is payable to Carrier.

The Settlement Volume (181 m<sup>3</sup>) is recorded on Month 2 of Shipper's Balance Statement as an Inventory Settlement Adjustment.

In Month 2 the Shippers Physical Inventory is less than its Book Inventory, resulting in a Settlement Volume of 126 m<sup>3</sup>. A financial transaction is required to balance this Book to Physical Inventory discrepancy. The CL average price is determined to be \$320/m<sup>3</sup>. The Net Settlement Value is therefore \$40,448, payable to Shipper.

## Shipper Balance Statement

(units as noted below)

### A. Shipper:

### Westridge Marine Terminal Shipper

Period		Month 1		Month 2	
B. Book Inventory (m3)	Notes	Commodity	Volume	Commodity	Volume
Opening Inventory		CL	99,800	CL	96,619
Inventory Settlement Adjustment		CL	0	CL	181
<b>Subtotal Opening Inventory</b>	1	<b>CL</b>	<b>99,800</b>	<b>CL</b>	<b>96,800</b>
Receipts (+):	2	CL	80,600	CL	73,600
Transfers In (+):	3	CL	10,000	CL	30,000
Transfers Out (-):	4	CL		CL	10,000
Deliveries (-):	5	CL	93,700	CL	90,500
Petroleum Loss Allowance (-):	6	CL	81	CL	74
<b>Book Inventory Total:</b>		<b>CL</b>	<b>96,619</b>	<b>CL</b>	<b>99,826</b>
<b>C. Physical Inventory (m3)</b>					
Static Line Fill		CL	6,200	CL	6,200
In-transit Line Fill		CL	90,600	CL	93,500
<b>Physical Inventory Total:</b>		<b>CL</b>	<b>96,800</b>	<b>CL</b>	<b>99,700</b>
<b>Settlement Volume (m3)</b>			<b>181</b>		<b>(126)</b>
<i>(Physical Inventory Total less Book Inventory Total)</i>					
<b>D. Net Settlement Value</b>					
Price (\$CAD/m3) * Settlement Volume (m3)	7	\$300.00	<b>\$54,180</b>	\$320.00	<b>(\$40,448)</b>
<i>(Price as set out in Schedule B)</i>					

### Notes:

- [1] Opening Inventory is the Book Inventory total for the prior month adjusted for the prior month Settlement Volume
- [2] Monthly volumes received from feeder pipeline or terminals
- [3] Transfer (purchase) from another Shipper
- [4] Transfer (sale) to another Shipper
- [5] Monthly Deliveries per custody transfer tickets and invoiced to Shipper
- [6] Petroleum Loss Allowance equals Receipts \* 0.1% (or as set per Trans Mountain Pipeline ULC Tariff)
- [7] Net Settlement Value equals commodity Settlement Price \* Settlement Volume in Section C above

**Schedule B: List of Commodity Prices**

<b>Product Code</b>	<b>Description</b>	<b>Grade</b>	<b>Index Indicator (CalRock)</b>
HTD	High Tan Dilbit Crudes	H	AWB/WCS
HTS	High Tan Synbit Crudes	H	CLK-EDM/WCS
LTD	Low Tan Dilbit Crudes	H	CLK-EDM/WCS
MSR	Mixed Sour Crudes	L	SW
MSW	Mixed Sweet Crudes	L	SW
SPEC	Specialty Crudes	H	AWB/WCS
SYN	Light Synthetic Crudes	L	SYN

**Legend:**

L = Light Crude Petroleum

H = Heavy Crude Petroleum

**Conversion Factors:**

USD to CAD from CalRock

BBL to M3 per Trans Mountain Tariff = 6.2898108

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