

GRAVITY BANK ADJUSTMENTS

1.1 Gravity Bank Adjustments

1.1.1 General Provisions, applicable to Common Stream Shipments and Upstream Common Stream Shipments. In Order to provide a means whereby Shippers will not materially be disadvantaged or allowed to benefit due solely to changes in gravity as the result of commingling Petroleum or Crude Oil of different gravities within the Common Stream or Upstream Common Stream in the system, Carrier has established a gravity bank to calculate, collect and remit just and nondiscriminatory monetary adjustments among all Shippers Tendering within a stream for changes in gravity which result from Common Stream or Upstream Common Stream operations. Each Shipper Tendering Petroleum or Crude Oil to the Common Stream or Upstream Common Stream Facilities is required to participate in the gravity bank. Each Shipper agrees that the Carrier is not liable under any circumstances whatsoever for the payment of any gravity bank adjustment for which another Shipper(s) has failed to make its required payment under this provision.

Each Shipper authorizes the Carrier to compute the adjustments among all Shippers for gravity differences. Each Shipper agrees to pay the Carrier the computed adjustments due by such Shipper in accordance with these Rules and Regulations.

Petroleum will be received by Carrier and commingled in the appropriate Common Streams as determined acceptable by Carrier. The current commingled Common Streams maintained by Carrier are:

Asphalt Sour
Platte Sweet

Applicable to Platte's Upstream Common Stream Shipments, Crude Oil will be received by Carrier and commingled in the appropriate Upstream Common Streams as determined acceptable by Carrier. The current commingled Upstream Common Streams that are transported on Platte's Upstream Common Stream Facilities maintained by Carrier are:

Asphalt Sour
Platte Sweet

Each Common Stream and Upstream Common Stream will have at least one receipt bank and one Delivery bank as shown:

STRUCTURE OF GRAVITY BANKS FOR COMMON STREAM SHIPMENTS

COMMON STREAM	RECEIPT LOCATIONS	DELIVERY LOCATIONS
Asphalt Sour	Guernsey	Guernsey
Banks	1	1
Platte Sweet	Guernsey to	Guernsey
Banks	1	1

STRUCTURE OF GRAVITY BANKS FOR UPSTREAM COMMON STREAM SHIPMENTS

COMMON STREAM	RECEIPT LOCATIONS	DELIVERY LOCATIONS
Asphalt Sour	Casper to	Casper
Banks	1	1
Platte Sweet	Casper to	Casper
Banks	1	1

1.1.2 Gravity Value Formulae Gravity values used herein are for the sole purpose of making the required calculations to effect the adjustments required and in no way affect or determine the price of Petroleum or Crude Oil. Gravity value formulae for use in determining differentials for gravity adjustments hereunder are as follows:

GRAVITY VALUE FORMULAE

CRUDE GROUP	GRAVITY RANGE, °API	GRAVITY VALUE, \$/BARREL
Asphalt Sour	10.0 - 33.9	2.000 + (°API-10.0)(0.20)
	34.0 - 35.9	6.800 + (°API-34.0)(0.04)
	36.0 - 39.9	6.880 + (°API-36.0)(0.02)
	40.0 - 44.9	6.960
	45.0 and above	6.945 + (°API-45.0)(0.15)
Platte Sweet	10.0 - 39.9	1.400 + (°API-10.0)(0.02)
	40.0 - 44.9	2.000
	45.0 and above	1.985 + (°API-45.0)(0.15)

These formulae represent the gravity adjustment schedules used by the majority of the Petroleum or Crude Oil purchasers who have published postings for the listed Petroleum or Crude Oil transported by Carrier. The format used is independent of the price of Petroleum or Crude Oil.

All Petroleum or Crude Oil gravities are to be recorded to the nearest one-tenth degree API for use in the formulae.

GRAVITY VALUE FORMULAE

Asphalt Sour

Examples

Tender "A" Gravity is 17.5°, which is between 10.0° and 33.9°API.
Gravity Value is: $2.000 + (17.5 - 10.0) (0.20) = \3.50

Tender "B" Gravity is 23.1°, which is between 10.0° and 33.9°API.
Gravity Value is: $2.000 + (23.1 - 10.0) (0.20) = \4.62

The difference in Gravity Value between Tender "A" and Tender "B" is: $\$4.62 - \$3.50 = \$1.12$

This can be derived in another manner:

Gravity Adjustment below 34° is $\$0.02/0.1^\circ$ API

$(23.1 - 17.5) (0.02/0.1) = \1.12

GRAVITY VALUE DIFFERENCE = $\$1.12$

DENSITY VALUE FORMULAE

CRUDE GROUP	DENSITY RANGE, kg/m ³	DENSITY VALUE, \$/m ³
Asphalt Sour	1000 - 855.0	$(2 + ((1000 - \text{Density}) * ((-3.596 \times 10^{-5} * \text{Density}) + 0.0637269)))) * 6.2898108$
	854.9 - 845.0	$(6.800 + ((854.9 - \text{Density}) * (0.0067)))) * 6.2898108$
	844.9 - 825.0	$(6.880 + ((844.9 - \text{Density}) * (0.0038)))) * 6.2898108$
	824.9 - 801.4	$6.960 * 6.2898108$
	801.3 and lower	$(6.945 + ((801.3 - \text{Density}) * (0.0337)))) * 6.2898108$
Platte Sweet	1000 - 825.0	$(2 + ((1000 - \text{Density}) * ((-3.596 \times 10^{-5} * \text{Density}) + 0.0637269)))) * 6.2898108$
	824.9 - 801.4	$2.000 * 6.2898108$
	801.3 and lower	$(1.985 + ((801.3 - \text{Density}) * (0.0337)))) * 6.2898108$

These formulae represent the gravity adjustment schedules used by the majority of the Petroleum or Crude Oil purchasers who have published postings for the listed Petroleum or Crude Oil transported by Carrier. The format used is independent of the price of Petroleum or Crude Oil.

All Petroleum or Crude Oil gravities are to be recorded to the nearest one-tenth kg/m³ for use in the formulae.

DENSITY VALUE FORMULAE

Asphalt Sour

Examples

Tender "A" Density is 950kg/m³, which is between 1000kg/m³ and 855kg/m³.

Density Value is:

$$(2+((1000-\text{Density})*((-3.596 \times 10^{-5} \times \text{Density})+0.0637269)))*6.2898108 = \$21.88$$

Tender "B" Density is 915kg/m³, which is between 1000kg/m³ and 855kg/m³.

Density Value is:

$$(2+((1000-\text{Density})*((-3.596 \times 10^{-5} \times \text{Density})+0.0637269)))*6.2898108 = \$29.06$$

The difference in Density Value between Tender "A" and Tender "B" is: \$29.06- \$21.88 = \$7.18

1.1.3 Adjustments among Shippers of Petroleum or Crude Oil for differences in gravity will be made for Petroleum or Crude Oil received into and Delivered from the commingled Common Stream or Upstream Common Stream operations of the Carrier's Common Stream Facilities or Upstream Common Stream facilities. Adjustments will be made for each commingled Common Stream or Upstream Common Stream by location as set forth in Item 1.1.2, with such adjustments being effected by a process of debits and credits and interchange of funds among the Shippers involved in a particular gravity bank.

Where Petroleum or Crude Oil receipts and individual Shipper can segregate Deliveries, the applicable Tender gravity will be the one used in determining the gravity value. Where, however, Petroleum or Crude Oil is received or Delivered through common measuring points (for example, connecting common carriers) and more than one Shipper is shipping in the commingled Common Stream or Upstream Common Stream through such points, Carrier will determine if such receipt or Delivery can be segregated by individual Shipper. If such segregation cannot be made, then all Shippers shipping through such common measuring points in the commingled Common Stream or Upstream Common Stream will be credited with the weighted average gravity of the total commingled Common Stream or Upstream Common Stream at that location.

Adjustments will be made for each Shipper's volumes transported in a commingled Common Stream or Upstream Common Stream in the following manner:

The weighted average gravity value of a gravity bank will be determined for all Petroleum or Crude Oil being received into each commingled Common Stream or Upstream Common Stream and similarly for the Petroleum or Crude Oil being Delivered out of the Carrier's Common Stream Facilities or Upstream Common Stream Facilities from each commingled Common Stream or Upstream Common Stream. This value will be determined by dividing the total number of Barrels received (Barrels Delivered out for the Delivery calculations) in each commingled Common Stream or Upstream Common Stream into the sum total of the products obtained by multiplying each receipt (Delivery) volume in such stream by its appropriate gravity value. Each Shipper's gravity value will be determined by multiplying the quantity of Barrels received (or Delivered for Delivery calculations) in the applicable bank of the commingled Common Stream or Upstream Common Stream by the gravity value per Barrel obtained from the appropriate Petroleum or Crude Oil gravity value formulae.

1.1.4 Debits and Credits for Receipts by Carrier

- (a) The weighted average gravity value per Barrel of each Shipper's total Barrels received by Carrier for shipment in a commingled Common Stream or Upstream Common Stream will be computed as described in this item.
- (b) The weighted average gravity value per Barrel of all Shippers' Barrels received by Carrier for shipment as a commingled Common Stream or Upstream Common Stream will also be computed in a similar manner, subject to the following:
 - (i) If the weighted average gravity value per Barrel of a Shipper as determined under (a) is greater than that determined under (b), the Shipper will be credited an amount which shall be calculated by multiplying the differences in gravity value per Barrel by the total Barrels Delivered to Carrier by such Shipper for movement in the applicable bank of the commingled Common Stream or Upstream Common Stream.

- (ii) If the weighted average gravity value per Barrel of a Shipper as determined under (a) is less than determined under (b), the Shipper will be debited an amount as calculated in (i) above.
- (c) Calculations for receipts and Deliveries shall be made each calendar month.

**EXAMPLE OF TYPICAL RECEIPT BANK FOR ASPHALT SOUR COMMON STREAM OR
UPSTREAM COMMON STREAM**

SHIPPER	VOLUME BBLs	MEASURED GRAVITY °API	*GRAVITY VALUE \$ / BBL.	VOLUME X VALUE \$
A	10	16.4	3.2800	32.80
	20	20.8	4.1600	83.20
	10	23.4	4.6800	46.80
	40		4.0700	162.80
B	20	21.8	4.3600	87.20
	20	21.3	4.2600	85.20
	40		4.3100	172.40
C	5	14.0	2.7200	13.60
	5	16.0	3.2800	16.40
	5	20.0	4.2200	21.10
	5	25.0	5.0000	25.00
	20		3.8050	76.10
Total	100		**4.1130	\$411.30

* As calculated using the gravity value formulae

** Average Gravity Value of Receipts: \$4.1130

Shipper A's average gravity value is \$4.0700 which is lower than the \$4.1130 average.
Therefore, A pays 40 (4.0700 - 4.1130) = - \$1.72
Shipper B's average gravity value is \$4.3100 which is higher than the \$4.1130 average.
Therefore, B receives 40 (4.3100 - 4.1130) = + \$7.88
Shipper C's average gravity value is \$3.8050 which is lower than the \$4.1130 average.
Therefore, C pays 20 (3.8050 - 4.1130) = - \$6.16
The sum of payments equals the sum of receipts.

**EXAMPLE OF TYPICAL RECEIPT BANK FOR ASPHALT SOUR COMMON STREAM OR UPSTREAM
COMMON STREAM**

SHIPPER	VOLUME m ³	MEASURED DENSITY kg/m ³	*DENSITY VALUE \$/kg/m ³	VOLUME X VALUE \$
A	10	959	20.1200	201.20
	20	927	26.5300	530.60
	10	913	29.4900	294.90
	40		25.6675	1026.70
B	20	923	27.3700	547.40
	20	928	26.3300	526.60
	40		26.8500	1074.00
C	5	972	17.6500	88.25
	5	959	20.1200	100.60
	5	933	25.3000	126.50
	5	904	31.4300	157.15
	20		23.6250	472.50
Total	100		**25.732	2573.20

* As calculated using the Density value formulae

** Average Density Value of Receipts: \$25.7320

Shipper A's average density value is \$25.6675 which is lower than the \$25.7320 average.

Therefore, A pays 40 (25.6675 – 25.7320) = - \$2.58.

Shipper B's average density value is \$26.8500 which is higher than the \$25.7320 average.

Therefore, B receives 40 (26.8500 – 25.7320) = + \$44.72

Shipper C's average density value is \$23.6250 which is lower than the \$25.7320 average.

Therefore, C pays 20 (23.6250 – 25.7320) = - \$42.14

The sum of payments equals the sum of receipts.

1.1.5 Payments The calculation of each Shipper's debits and credits will be made and a statement provided for each calendar month. The credit and debit balances will be adjusted between all Shippers by collecting funds from those Shippers having debit balances and by thereafter remitting funds so collected to the Shippers having credit balances. Carrier may, at its option, require the Shipper to pay all estimated obligations in advance or to provide an irrevocable letter of credit satisfactory to the Carrier for such obligations. Gravity bank payments are due on the date specified in the invoice. Carrier will pay out only the funds collected.

Gravity bank payments shall not be used as an offset to satisfy any other claim, by any Shipper, against sums due to the Carrier for transportation costs or other fees and charges collected under Carrier's Tariffs.

All gravity bank payments due from Shippers shall be made in accordance with statement terms and these Rules and Regulations. Carrier is entitled to a lien for all unpaid charges and payments due hereunder. Such lien attaches to any Petroleum or Crude Oil retained by the Carrier for the Shipper's account. Should Shipper fail to pay all of the amount of any invoice as herein provided on or before the Payment Due Date, interest on the unpaid portion of the invoice accrues daily at a rate of interest per annum equal to the rate specified in 18 C.F.R. § 340.1(c)(2) and the principal and accrued interest to date shall be payable and due immediately upon demand. If such failure to pay continues for ten (10) days after the Payment Due Date, Carrier, in addition to any other remedy it may have under the Tariff, at law or in equity, may suspend further receipt of Petroleum or Crude Oil until such amount is paid PROVIDED HOWEVER, that if Shipper in good

faith disputes the amount of any such invoice or part thereof and pays to Carrier such amounts as it concedes to be correct, and at any time thereafter within twenty (20) days of a demand made by Carrier furnishes good and sufficient financial assurances, guaranteeing payment to Carrier of the amount ultimately found due upon such invoice after a final determination reached either by agreement, arbitration or judgment of the courts, as may be the case, then Carrier shall not be entitled to suspend further receipt of Petroleum or Crude Oil because of such non-payment unless and until default be made in the conditions of financial assurances.

If said charges remain unpaid ten (10) days after notice and demand therefore, Carrier shall have the right to sell through an agent, any Petroleum or Crude Oil delivered to Carrier by the Shipper and then in the custody of Carrier or its agent or otherwise trace able and lienable by Carrier, at public auction from any office of Carrier on any day not a legal holiday, provided that the auction takes place not less than forty-eight (48) hours after publication of notice of such sale in a daily newspaper of general circulation published in the area of the proposed sale, stating the time, place of sale and quantity and location of Petroleum or Crude Oil to be sold. Subject to Items 2.4.9 and 2.9.2 of Platte Pipe Line Company, LLC's Rules and Regulations, Shipper covenants and agrees not to dispose of its Petroleum or Crude Oil other than subject to the lien afforded Carrier hereby. At said sale Carrier shall have the right to bid and, if the highest bidder, to become the purchaser. From the proceeds of said sale Carrier will pay itself the transportation and all other lawful charges, including reasonable storage charges pending sale and expenses incident to said sale, and the balance remaining, if any, shall be held in trust for whomever may be lawfully entitled thereto, without the obligation to pay interest thereon. Any such funds may be commingled in any other account or accounts maintained by Carrier from time to time.

In the event any payment is made to a Shipper hereunder as determined by the Carrier and it is subsequently determined by any Federal or State court, administrative agency or other governmental entity having jurisdiction that no other Shipper was liable for the adjustment for which the payment was made, the Shipper receiving such payment shall upon receipt of an accounting Carrier, return the payment to the Carrier. Carrier shall promptly utilize such returned payment to reimburse all Shippers who made payments based on such adjustment.

Carrier shall acquire all information and data necessary to make the computations under this Item through direct measurements at the Common Stream or Upstream Common Stream Facilities of the Carrier. In the event such measurements become subject to dispute, Carrier reserves the right to acquire such additional information and data from connecting carriers as Carrier, in its sole discretion, shall determine to be beneficial in the resolution of such disputes. Shippers consent to the disclosure by the Carrier or its agent of all information and data necessary to make the computations under this item.