

# AMBERJACK PIPELINE COMPANY LLC

IN CONNECTION WITH

## EMPIRE DEEPWATER LLC

APPLYING ON THE TRANSPORTATION OF

### PETROLEUM

SUBJECT TO THE RULES AND REGULATIONS DEFINED HEREIN

(Rates in cents per Barrel of 42 United States Gallons each)

ROUTE NO.	ORIGIN	DESTINATION	RATE
01	Grand Isle Block 115, Offshore Louisiana originating from Coelacanth leases*	Fourchon (Mars Pipeline), Lafourche Parish, Louisiana	[U] 215.43
02	Grand Isle Block 115, Offshore Louisiana originating from non-Coelacanth leases*		[U] 215.43
03	Grand Isle Block 116, Offshore Louisiana		[U] 215.43
04	South Timbalier Block 231, Offshore Louisiana		[U] 215.43
[N] 05	[N] <u>Grand Isle Block 115, Offshore Louisiana originating from Coelacanth leases*</u>	[N] Green Canyon Block 19, Offshore Louisiana	[N] <u>325.43</u>
[N] 06	[N] <u>Grand Isle Block 115, Offshore Louisiana originating from non-Coelacanth leases*</u>		[N] <u>325.43</u>
[N] 07	[N] <u>Grand Isle Block 116, Offshore Louisiana</u>		[N] <u>325.43</u>
[N] 08	[N] <u>South Timbalier Block 231, Offshore Louisiana</u>		[N] <u>325.43</u>
[N] 09	[N] <u>Grand Isle Block 115, Offshore Louisiana originating from Coelacanth leases*</u>	[N] Ship Shoal Block 332-A, Offshore Louisiana	[N] <u>325.43</u>
[N] 10	[N] <u>Grand Isle Block 115, Offshore Louisiana originating from non-Coelacanth leases*</u>		[N] <u>325.43</u>
[N] 11	[N] <u>Grand Isle Block 116, Offshore Louisiana</u>		[N] <u>325.43</u>
[N] 12	[N] <u>South Timbalier Block 231, Offshore Louisiana</u>		[N] <u>325.43</u>

**ROUTE(S):** Empire Deepwater LLC Block 115, Grand Isle, Offshore Louisiana to Amberjack Pipeline Company LLC Block 162, South Timbalier, Offshore Louisiana. Amberjack Pipeline Company LLC Block 162, South Timbalier to Fourchon (Mars Pipeline), Lafourche Parish, Louisiana.

*Empire Deepwater LLC Block 116, Grand Isle, Offshore Louisiana to Amberjack Pipeline Company LLC Block 162, South Timbalier, Offshore Louisiana. Amberjack Pipeline Company LLC Block 162, South Timbalier to Fourchon (Mars Pipeline), Lafourche Parish, Louisiana.*  
*Empire Deepwater LLC Block 231, South Timbalier, Offshore Louisiana to Amberjack Pipeline Company LLC Block 162, South Timbalier, Offshore Louisiana. Amberjack Pipeline Company LLC Block 162, South Timbalier to Fourchon (Mars Pipeline), Lafourche Parish, Louisiana.*

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\* Coelacanth leases are defined as originating from the following locations - OCS-G 27982 (covering Ewing Bank Block 834), OCS-G 33707 (covering Ewing Bank Block 835), OCS G 33140 (covering Ewing Bank Block 790), and OCS-G 33177 (covering Mississippi Canyon Block 793). All other origination point barrels would be considered non-Coelacanth for purposes of movement under this transportation sheet.

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**[N]** Note associated with Routes 05-12: Due to operational considerations, Amberjack Pipeline will only be able to accept nominations on these routes when barrels nominated upstream of Green Canyon Block 19 to Fourchon are equal to or exceed the total downstream nominations to Green Canyon 19. If the upstream nominations are less than the total downstream nominations, prorating procedures, as stated in Rule No. 75 and additional considerations referenced in this sheet, will be followed.

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## **EFFECTIVE: NOVEMBER 1, 2017**

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Issued By:  
JOHN DOLL, President  
AMBERJACK PIPELINE COMPANY LLC  
P.O. Box 2648  
Houston, Texas 77252

Compiled By:  
Melissa Mitchell, Manager  
Tariff, Land and Permitting  
**[W]** ~~(713) 241-2760~~  
(832) 762-2735

**EXPLANATION OF REFERENCE MARKS:**

**[N]** New  
**[U]** Unchanged Rate  
**[W]** Change in wording only

## **RULES AND REGULATIONS**

The Carrier will transport Petroleum as defined herein, receiving and delivering the same through its own facilities and lines, and where applicable, lines of connecting carriers, subject to the following Rules and Regulations:

### **5. DEFINITIONS**

"Barrel" as herein used means forty-two (42) United States gallons at sixty degrees (60°) Fahrenheit and zero (0) gauge pressure if the vapor pressure of the Petroleum is at or below atmospheric pressure, or at equilibrium pressure if the vapor pressure of the Petroleum is above atmospheric pressure.

"Carrier" as herein used means Amberjack Pipeline Company LLC. Where applicable, this singular term may also cover the plural form "Carriers", which includes Empire Deepwater LLC as joint carrier.

"Consignor" as herein used means the party from whom a Shipper has ordered the receipt of Petroleum.

"Consignee" as herein used means the party to whom a Shipper has ordered the delivery of Petroleum.

"Petroleum" as herein used means the direct liquid products of oil wells, or a mixture of the direct liquid products of oil wells with the indirect liquid products of oil and gas wells including gasoline and liquefied petroleum gases.

"Shipper" as herein used means a party who contracts with Carrier for transportation of Petroleum, as defined herein and under the terms of these Rules and Regulations.

"Nomination", or variations thereof, as herein used means an offer by a Shipper to the Carrier of a stated quantity of Petroleum for transportation from a specified origin or origins to a specified destination in accordance with these Rules and Regulations.

### **10. NOMINATION REQUIRED**

Petroleum will be transported by Carrier only under a Nomination accepted by Carrier. Any Shipper desiring to Nominate Petroleum for transportation shall make such Nomination to Carrier prior to 12 Noon Central Standard Time/Central Daylight Saving Time, whichever is applicable, on the twentieth (20th) day of the month preceding the month during which transportation under the Nomination is to begin; except that, if space is available for current movement, Carrier has the right to accept a Nomination of Petroleum for transportation after the twentieth (20th) day of the month preceding the month during which transportation under the Nomination is to begin. When the twentieth (20th) day of the month falls on a weekend or a holiday, Nominations will be required prior to 12 Noon Central Standard Time/Central Daylight Saving Time, whichever is applicable, on the preceding workday.

### **15 MINIMUM NOMINATION**

Nominations for the transportation of Petroleum for which Carrier has facilities will be accepted into Carrier's system under these Rules and Regulations in quantities of not less than ten thousand (10,000) Barrels aggregate from one or more Shippers as operations permit and/or consistent with the minimum volume requirements of outbound pipeline carriers and provided such Petroleum is of similar quality and characteristics as is being transported from receipt point to destination point; except that Carrier reserves the right to accept any quantity of Petroleum from lease tanks or other facilities to which Carrier's facilities are connected if such quantity can be consolidated with other Petroleum such that Carrier can make a single delivery of not less than ten thousand (10,000) Barrels, and Carrier will not be obligated to make any single delivery of less than ten thousand (10,000) Barrels, unless Carrier's operations dictate otherwise. The term "single delivery" as used herein means a delivery of Petroleum in one continuous operation to one or more Consignees into a single facility, furnished by such Consignee or Consignees, to which Carrier is connected.

## **20. TITLE**

The Carrier shall have the right to reject any Petroleum which may be involved in litigation, or the title of which may be in dispute, or which may be encumbered by a lien or charge of any kind, and require satisfactory evidence of Shipper's perfect and unencumbered title or satisfactory indemnity bond to protect Carrier. By Nominating Petroleum, the Shipper warrants and guarantees that the Shipper has unencumbered title thereto or the right to cause the Petroleum to be transported and that unencumbered title or right remains in effect throughout the movement covered by this transportation sheet. In addition, Shipper agrees to hold Carrier harmless for any and all loss, cost, liability, damage or expense resulting from failure of title or Shipper's failure to have the right to cause the Petroleum to be transported; and Shipper agrees that acceptance by the Carrier of the Petroleum for transportation shall not be deemed a representation by the Carrier as to title.

## **25. SHIPMENT QUALITY**

Carrier reserves the right to reject:

- A. Petroleum having a Reid vapor pressure in excess of 8.6.
- B. Petroleum containing water, sediment and other impurities totaling in excess of one percent (1%) as determined by industry accepted tests, or by such other tests as may be agreed upon by the Shipper and Carrier.
- C. Petroleum where the Shipper or Consignee has failed to comply with all applicable laws, rules and regulations made by any governmental authorities regulating shipments of Petroleum.
- D. Petroleum that has been contaminated by the existence of and/or excess amounts of impure substances, including but not limited to chlorinated and/or oxygenated hydrocarbons such as methanol, or arsenic, lead, and/or other metals which cause harm to other Shippers, connecting carriers, users of the contaminated Petroleum or Carrier.
- E. Petroleum where gravity, viscosity, pour point, or other characteristics are such that it is not readily susceptible to transportation through the Carrier's existing facilities.
- F. Petroleum which may materially affect the quality of other shipments or cause disadvantage to other Shippers and/or the Carrier.

Notwithstanding the above, Carrier may accept Petroleum from Shipper that does not meet the above conditions due to, but not limited to, operational circumstances (i.e. offshore deep water well maintenance or production facility upsets), emergencies, or events of force majeure (such as sea storms or shut-in platforms). In such case, however, Shipper must notify Carrier fully, in writing, of the characteristics of such Petroleum and Shipper shall then secure from the producer or connecting carrier or shall provide itself, in writing, to Carrier an assumption of all liability and agree to hold Carrier harmless from and against any loss, cost or disadvantage to other Shippers, and other pipelines or downstream facilities, or to Carrier arising from such transportation.

If Carrier determines that a Shipper has delivered to Carrier's facilities Petroleum that has been contaminated by the existence of and/or excess amounts of impure substances, including but not limited to, chlorinated and/or oxygenated hydrocarbons such as methanol, or arsenic, lead, and/or other metals which cause harm to other Shippers, connecting carriers, users of the contaminated Petroleum or Carrier, such Shipper will be excluded from further entry into applicable segments of the pipeline system until such time as the quality of the Petroleum is to the satisfaction of the Carrier. Carrier is not responsible for monitoring receipts or deliveries for contaminants. Further, Carrier reserves the right to dispose of any contaminated Petroleum blocking its pipeline system. Disposal thereof may be made in any reasonable manner including but not limited to commercial sales, and any liability associated with the contamination or disposal of any Petroleum shall be borne by the Shipper who introduced into Carrier's system such Petroleum that does in any way not comply with the above conditions.

Notwithstanding the foregoing, in general, the Shipper who introduced into Carrier's system Petroleum that does in any way not comply with the above conditions is liable towards Carrier for all consequences of transportation by Carrier of such Petroleum, including but not limited to, damages, costs and expenses of disposal, costs and expenses necessary to return the Carrier's system facilities to service, claims from other Shippers, connecting carriers, or users of the non-complying Petroleum, and the costs of any regulatory or judicial proceeding.

### **30. MIXING OF PETROLEUM IN TRANSIT**

Petroleum will be accepted for transportation only on condition that it may be subject to such changes in gravity or quality while in transit as would result from its mixture with other Petroleum in the pipelines or tanks of the Carrier. Carrier shall not be liable for such changes. Carrier shall be under no obligation to deliver the identical Petroleum received but may make delivery out of common stock or out of Carrier's pipeline stream.

### **40. ADDITIVES**

Carrier reserves the right to require, approve or reject the injection of corrosion inhibitors, viscosity or pour point depressants or other such additives in Petroleum to be transported.

### **45. DUTY OF CARRIER**

Carrier shall transport Petroleum with reasonable diligence, considering the quality of the Petroleum, the distance of transportation, the safety of operation, and other material elements. Carrier can not commit to delivering Petroleum to a particular destination at a particular time.

### **50. ORIGIN FACILITIES REQUIRED FOR AUTOMATIC CUSTODY TRANSFER**

Shipper shall furnish the necessary facilities at origin points capable of delivering Petroleum into the Carrier's system at pressures and pumping rates required and determined solely by the Carrier.

Where Consignor (or Shipper) elects to deliver Petroleum to the Carrier at point of origin through automatic custody transfer facilities (in lieu of tankage), the Consignor (or Shipper) shall furnish the required automatic measuring and sampling facilities and the design, construction, and calibration of such facilities must be approved by the Carrier and any appropriate regulatory body. In the event automatic custody transfer is made by meters, the Consignor (or Shipper) shall also furnish whatever pumping service is necessary to ensure that the Petroleum being delivered to the meter is at a pressure in excess of the bubble point of the liquid.

### **55. DESTINATION FACILITIES REQUIRED**

The Carrier may refuse to accept Petroleum for transportation unless satisfactory written evidence is furnished that the Shipper or Consignee has made the necessary arrangements for shipment beyond or has provided the necessary facilities for receiving said Petroleum as it arrives at the destination. Notwithstanding other conditions, at minimum such facilities shall have adequate available capacity and be capable of receiving said Petroleum at pressures and pumping rates required and determined solely by the Carrier.

### **60. NOTICE OF ARRIVAL, DELIVERY AT DESTINATION**

Delivery may be made upon twenty-four (24) hours notice to the Shipper or Consignee who shall accept and receive said Petroleum from the Carrier with all possible dispatch into the tanks or receptacles to be provided by the Shipper or Consignee.

If the Shipper, or Consignee, is unable or refuses to receive said Petroleum as it arrives at the destination, the Carrier reserves the right to make whatever arrangements for disposition of the Petroleum it deems

appropriate in order to clear its pipeline. Any additional expenses incurred by the Carrier in making such arrangements shall be borne by the Shipper or Consignee.

## **65. INVENTORY REQUIREMENTS**

Prior to delivering Barrels out of Carrier's pipeline system, each Shipper will be required to supply a pro rata share of Petroleum necessary to ensure efficient operation of Carrier's pipeline system. Petroleum provided by Shippers for this purpose may be withdrawn only after:

- (1) Shipments have ceased and the Shipper has notified Carrier in writing of its intention to discontinue shipments in Carrier's system, and
- (2) Shipper balances have been reconciled between Shipper and Carrier.

Carrier, at its discretion, may require advance payment of transportation charges on the volumes to be cleared from Carrier's system, and any unpaid accounts receivable, before final delivery will be made. Carrier shall have a reasonable period of time from the receipt of said notice to complete administrative and operational requirements incidental to Shipper withdrawal.

## **70 GAUGING, TESTING, AND VOLUME CORRECTIONS**

Petroleum shipped hereunder shall be measured and tested by representatives of the Carrier or by automatic equipment approved by the Carrier. Quantities shall be determined by dynamic or static measurement methods in accordance with appropriate American Petroleum Institute (API) standards, latest revision, and adjusted to base (reference or standard) conditions.

The base conditions for the measurement of liquids, such as Petroleum and its liquid products, having a vapor pressure equal to or less than atmospheric pressure at base temperature are as follows:

Pressure . . . . . 14.696 psia (101.325 kPa)  
Temperature . . . . . 60.0 F (15.56 C)

For liquids, such as liquid hydrocarbons, having a vapor pressure greater than atmospheric pressure at base temperature, the base pressure shall be the equilibrium vapor pressure at base temperature.

Deductions will be made for the actual amount of non-merchantable quantities, specifically basic sediment and water and/or other impurities as ascertained by industry accepted test method or other tests agreed upon.

When indirect liquid products are received from pressure vessels using static measurement methods, a further adjustment will be made to cover evacuation losses if a gas blanket at or in excess of the vapor pressure of the liquid is not used.

One of the following pipeline loss allowances will be used when specifically referenced in the transportation sheet.

### Option 4

From the net quantities so determined for acceptance, a further deduction of one-tenth of one percent (0.1%) will be made to cover evaporation and loss during transportation. The balance shall be the net quantities deliverable.

All receipts of Petroleum and indirect liquid products having an API gravity of 45 degrees or above shall also be subject to a deduction to cover the shrinkage and incremental evaporation resulting from the mixture thereof, in Carrier's facilities, with Petroleum having an API gravity of 44.9 degrees or less. Such deduction shall be determined in accordance with the following table:

<u>API Gravity, Degrees</u>	<u>Deduction for Incremental Evaporation &amp; Shrinkage</u>
45 through 54.9	0.50%
55 through 64.9	1.00%
65 through 74.9	1.50%
75 and above	2.00%

After consideration of all of the factors set forth in this Item No. 70, a net balance will be determined as the quantity deliverable by Carrier, and transportation charges will be assessed on this net balance.

## **75. APPORTIONMENT WHEN NOMINATIONS ARE IN EXCESS OF FACILITIES**

At such times as Carrier determines that it may be necessary to allocate space in a pipeline segment, the transportation furnished by Carrier shall be apportioned among "Regular Shippers" and "New Shippers" as follows:

### (1) Apportionment Definitions:

- a. The "Base Period" is a period of 12 months beginning 13 months prior to the month of allocation and excluding the month preceding the month of allocation.
- b. A "Regular Shipper" is any Shipper having a record of movement(s), in the line segment being prorated, during the Base Period and does not meet the definition of a New Shipper.
- c. A "New Shipper" is any Shipper having no record of movement(s), in the line segment being prorated, during the Base Period. A New Shipper shall not become a Regular Shipper until the beginning month of the defined Base Period for the requested shipment month equals the Shipper's first month of physical movement. For ease in interpreting this definition, the following example illustrates the intent:

<b>Shipper Nominates for and moves barrels in January 2013 for its first movement on the pipeline system.</b>		
<b>Shipper will not become a Regular Shipper until February 2014 as shown in the table below. February 2014 would be the month where a defined Base Period would set January 2013 as the first month of its Base Period.</b>		
<b>Calendar Month</b>	<b>Base Period Definition for February 2014</b>	<b>Shipper Status</b>
Jan-13	Base Period Month 1	New
Feb-13	Base Period Month 2	New
Mar-13	Base Period Month 3	New
Apr-13	Base Period Month 4	New
May-13	Base Period Month 5	New
Jun-13	Base Period Month 6	New
Jul-13	Base Period Month 7	New
Aug-13	Base Period Month 8	New
Sep-13	Base Period Month 9	New
Oct-13	Base Period Month 10	New
Nov-13	Base Period Month 11	New
Dec-13	Base Period Month 12	New
Jan-14	Excluded month	New
Feb-14	Allocated Month	Regular

(2) New Shippers shall be initially allocated up to a total of ten percent (10%) of the available pipeline capacity. If more than one New Shipper has Nominated volumes, pipeline space shall be allocated proportionately to each New Shipper in relation to the total Nominations by New Shippers, so that the total pipeline capacity allocated for all New Shippers shall not exceed ten percent (10%)

of the available pipeline capacity unless Item (3) re-allocates unused space previously reserved for Regular Shippers.

(3) The remaining capacity shall be allocated among Nominating Regular Shippers as the lesser value of either the Shipper's proportion of the Regular Shippers' Base Period shipment volume or the Shipper's Nominated volume. If a Regular Shipper Nominates less than their calculated allocation, the unused space will be allocated to other Regular Shippers as described in this item. Should the sum of Nominations submitted by all Regular Shippers be less than ninety percent (90%), any unused space will be offered to New Shippers in accordance with the procedures stated in Item (2) of this section.

No Nominations shall be considered beyond the amount which the party requesting shipment has available for shipment. Carrier reserves the right to require Shipper to show sufficient evidence of available volume.

## **80. APPLICATION OF RATES & CHARGES**

Petroleum accepted for transportation shall be subject to the rates and charges in effect on the date of receipt of such Petroleum by the Carrier. Trunk line transportation and all other lawful charges will be collected on the basis of the net quantities of Petroleum delivered. All net quantities will be determined in the manner provided in Item 70 (GAUGING, TESTING, AND VOLUME CORRECTIONS).

## **85 APPLICATION OF RATES FROM AND TO INTERMEDIATE POINTS**

For Petroleum accepted for transportation from any point on Carrier's lines not named in a particular transportation sheet, which is intermediate to a point from which rates are published in said transportation sheet, through such unnamed point, the rate published from the next more distant point specified in such transportation sheet will apply.

For Petroleum accepted for transportation to any point not named in a particular transportation sheet which is intermediate to a point to which rates are published in said transportation sheet, through such unnamed point, the rate published therein to the next more distant point specified in the transportation sheet will apply.

## **95. COMMODITY**

The Carrier will transport Petroleum and has no obligation to accept any other commodity for transportation.

## **100. PAYMENT OF TRANSPORTATION AND OTHER CHARGES**

Shipper shall be responsible for payment of transportation and all other charges applicable to the shipment, and Carrier shall have the right to require Shipper to prepay such charges or furnish guaranty of payment satisfactory to Carrier. Petroleum accepted for transportation shall be subject to the rates in effect on the date of receipt by Carrier, irrespective of the date of the Nomination.

Except where pre-payment is required, all charges shall be paid by Shipper within ten (10) days from the date of invoice from Carrier. All charges that remain unpaid for more than ten (10) days from the date of Carrier's invoice shall accrue an interest charge equal to 125% of the prime rate as quoted by a major New York bank or the maximum non-usurious interest rate that may then be charged under applicable law.

Carrier shall have a lien on all Petroleum accepted for transportation to secure payment of all charges, including demurrage charges, and may refuse to accept future Nominations and/or make delivery of any Petroleum until all charges have been paid. If such charges, or any part thereof, remain unpaid five (5) days after notice and demand therefor or when there shall be failure to take the Petroleum at the point of destination within five (5) days per Item 60 (NOTICE OF ARRIVAL, DELIVERY AT DESTINATION) of these Rules and Regulations, the Carrier, or its representatives, shall have the right to sell such Petroleum. The Carrier may be a bidder and purchaser at such sale. From the proceeds of the sale, the Carrier may deduct



all charges lawfully accruing, including demurrage, and all expenses of the sale. The net balance shall be held without interest for whomsoever may be lawfully entitled thereto.

In addition to all other charges accruing on Petroleum accepted for transportation through Carrier's facilities, a per Barrel charge will be assessed and collected in the amount of any fee or other charge, however denominated, which is levied against Carrier by any federal, state or local agency.

#### **105. DIVERSION**

Subject to Item 15 (MINIMUM NOMINATION), change in destination or routing will be permitted without additional charge, on written request from the Shipper, provided an applicable transportation sheet is in effect for any requested destination or routing, and provided that no back-haul is required.

#### **110. LIABILITY OF CARRIER**

As a condition to Carrier's acceptance of Petroleum, each Shipper agrees that Carrier shall not be liable for any loss thereof, damage thereto, or delay, except to the extent that liability therefor is imposed on the Carrier by law. In case of loss of or damage to Petroleum for which Carrier is not responsible under applicable law, the Shipper shall bear the loss or damage in such proportion as its total volume in Carrier's Pipeline System bears to the total volume in said system.

If Carrier is unable to accept Petroleum for any reason, Carrier will not be liable for delay or damages associated with its inability to accept volumes.

#### **115. CLAIMS, SUITS, AND TIME FOR FILING**

As a condition precedent to recovery for loss, damage, or delay to shipments, claims must be filed in writing with the Carrier within nine (9) months after delivery of the Petroleum, or, in case of failure to make delivery, then within nine (9) months after a reasonable time for delivery has elapsed; and suits arising out of such claims shall be instituted against the Carrier only within two (2) years from the time when the Carrier delivers, or arranges delivery of, the Petroleum or, in case of failure to make or arrange delivery, then within two (2) years after a reasonable time for delivery has elapsed. Any such loss or damage shall be determined solely on the basis of volumetric loss and not on the monetary value of the Petroleum. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, Carrier will not be liable and such claims will not be paid.

#### **120. PIPEAGE OR OTHER CONTRACTS**

Separate pipeage and other contracts may be required of a Shipper, in accordance with the applicable transportation sheet and these Rules and Regulations, before any duty of transportation by the Carrier shall arise.

#### **125. QUALITY BANK**

To assure that no Shipper will be materially damaged or allowed to benefit by changes in gravity and sulfur due to the intermixing of Petroleum in the system, Shippers will be required, as a condition of Nominating, to participate in a Gravity and Sulfur Bank. A fee of **[U]** 0.4 cents per Barrel will be assessed to cover costs for administration of the quality bank for the Shippers.

The tables of gravity and sulfur differential values per Barrel as attached hereto as Exhibits A, B, and C are incorporated herein and made a part of these Rules and Regulations.

Carrier shall administer the quality bank providing adjustments for the value of Petroleum with different qualities in the manner specified below for both receipt and delivery volumes:

Applicable Barrels and gravities shall be the net Barrels at 60 degrees Fahrenheit (with no deduction for loss allowance) and the gravities recorded by the Carrier at points where it customarily records gravities and quantities.

The weighted average gravity differential value per Barrel (for two or more gravities of Petroleum), as hereinafter referred to, shall be obtained in the following manner: multiply the gravity differential values per Barrel (from the attached tables as same are from time to time revised) by the number of Barrels to which such gravity differential values are applicable and then divide the total of the resultant gravity differential values in dollars and cents by the total of the applicable Barrels.

Applicable Barrels and sulfur content shall be the net Barrels at 60 degrees Fahrenheit (with no deduction for loss allowance) and the sulfur content recorded by a competent laboratory for samples obtained by the Carrier at the points where it customarily measures and samples receipts for custody transfer.

The weighted average sulfur differential value per Barrel (for two or more sulfur contents of Petroleum), as hereinafter referred to, shall be obtained in the following manner: multiply the sulfur differential values per Barrel by the number of Barrels to which such sulfur differential values are applicable and then divide the total of the resultant sulfur differential values in dollars and cents by the total of the applicable Barrels.

Sulfur content as furnished by the laboratory at the true gravity shall be adjusted to reflect its comparison to the reference Petroleum at 35.5 degree gravity. The adjustment to the test sulfur content shall be made by establishing a ratio of weight per gallon for the gravity of the sample to weight per gallon for the gravity of the reference Petroleum of 35.5 degree gravity. The Table of Ratio Factors for Sulfur Adjustments is attached hereto as Exhibit "C" and is made a part of these Rules and Regulations.

The ratio thus obtained will be applied against the tested sulfur content of the sample to obtain the adjusted sulfur content (gravity ratio x tested sulfur content = adjusted sulfur content). The adjusted sulfur content will then be used to obtain the sulfur differential value per Barrel from the table of sulfur differential values per Barrel (Exhibit "B").

I. Adjustment between Shippers, for both receipt volumes and delivery volumes, shall be computed as follows:

A. Compute the weighted average gravity differential value per Barrel of the Barrels received from/delivered to each Shipper.

B. Compute the weighted average sulfur differential value per Barrel of the Barrels received from/delivered to each Shipper. Sulfur differential values from 0 to 0.75 will be considered 0.75.

II. Compute the weighted average gravity differential value per Barrel of the composite common stream for receipts and deliveries.

*Receipt Calculation:*

A. If the weighted average gravity differential value per Barrel of a Shipper as so determined under Paragraph I above shall be greater than the weighted average gravity differential value per Barrel of the aforementioned common stream Petroleum as determined under Paragraph II, the difference in cents per Barrel shall be calculated and Shipper shall be credited (receives from the bank) an amount calculated by multiplying said difference in gravity differential value per Barrel by the applicable Barrels.

B. If the weighted average gravity differential value per Barrel of a Shipper is less than the weighted average gravity differential value per Barrel of the aforementioned common stream Petroleum, the difference shall be calculated as above outlined and a Shipper debited (pays to the bank) for such difference.

*Delivery Calculation:*

A. If the weighted average gravity differential value per Barrel of a Shipper as so determined under Paragraph I above shall be greater than the weighted average gravity differential value per Barrel of the aforementioned common stream Petroleum as determined under Paragraph II, the difference in cents per Barrel shall be calculated and Shipper shall be debited (pays the bank) an amount calculated by multiplying said difference in gravity differential value per Barrel by the applicable Barrels.

B. If the weighted average gravity differential value per Barrel of a Shipper is less than the weighted average gravity differential value per Barrel of the aforementioned common stream Petroleum, the difference shall be calculated as above outlined and a Shipper credited (receives from the bank) for such difference.

III. Compute the weighted average sulfur differential value per Barrel of the composite common stream for receipts and deliveries

*Receipt Calculation:*

A. If the weighted average sulfur differential value per Barrel of a Shipper as so determined under Paragraph I above shall be greater than the weighted average sulfur differential value per Barrel of the aforementioned common stream Petroleum as determined under Paragraph III, the difference in cents per Barrel shall be calculated and Shipper shall be debited (pays the bank) an amount calculated by multiplying said difference in sulfur differential value per Barrel by the applicable Barrels.

B. If the weighted average sulfur differential value per Barrel of a Shipper is less than the weighted average sulfur differential value per Barrel of the aforementioned common stream Petroleum, the difference shall be calculated as above outlined and Shipper shall be credited (receives from the bank) for such difference.

*Delivery Calculation:*

A. If the weighted average sulfur differential value per Barrel of a Shipper as so determined under Paragraph I above shall be greater than the weighted average sulfur differential value per Barrel of the aforementioned common stream Petroleum as determined under Paragraph III, the difference in cents per Barrel shall be calculated and Shipper shall be credited (receives from the bank) an amount calculated by multiplying said difference in sulfur differential value per Barrel by the applicable Barrels.

B. If the weighted average sulfur differential value per Barrel of a Shipper is less than the weighted average sulfur differential value per Barrel of the aforementioned common stream Petroleum, the difference shall be calculated as above outlined and Shipper shall be debited (pays the bank) for such difference.

A sample calculation is attached as Exhibit "D".

These calculations shall be made for each calendar month and the algebraic sum of the adjustments for the system shall be zero  $\pm$  One Dollar. If a Shipper shall have a net debit balance when netting the two adjustments made on receipts and deliveries above, the balance shall be remitted to the clearinghouse within fifteen (15) days from receipt of statement of such debit. If Shipper shall have a credit, the clearinghouse shall remit the amount thereof after receipt by the clearinghouse of the sums from those Shippers having debits as calculated above.

**EXHIBIT "A"**

**ADJUSTMENT AUTHORIZATION**

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN GRAVITY OF PETROLEUM IN  
CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>API</u> <u>GRAVITY</u>	<u>DIFF</u> <u>PER BBL</u>	<u>API</u> <u>GRAVITY</u>	<u>DIFF</u> <u>PER BBL</u>	<u>API</u> <u>GRAVITY</u>	<u>DIFF</u> <u>PER BBL</u>	<u>API</u> <u>GRAVITY</u>	<u>DIFF</u> <u>PER BBL</u>
20.0	2.750	26.0	3.650	32.0	4.550	38.0	5.060
20.1	2.765	26.1	3.665	32.1	4.565	38.1	5.060
20.2	2.780	26.2	3.680	32.2	4.580	38.2	5.060
20.3	2.795	26.3	3.695	32.3	4.595	38.3	5.060
20.4	2.810	26.4	3.710	32.4	4.610	38.4	5.060
20.5	2.825	26.5	3.725	32.5	4.625	38.5	5.060
20.6	2.840	26.6	3.740	32.6	4.640	38.6	5.060
20.7	2.855	26.7	3.755	32.7	4.655	38.7	5.060
20.8	2.870	26.8	3.770	32.8	4.670	38.8	5.060
20.9	2.885	26.9	3.785	32.9	4.685	38.9	5.060
21.0	2.900	27.0	3.800	33.0	4.700	39.0	5.080
21.1	2.915	27.1	3.815	33.1	4.715	39.1	5.080
21.2	2.930	27.2	3.830	33.2	4.730	39.2	5.080
21.3	2.945	27.3	3.845	33.3	4.745	39.3	5.080
21.4	2.960	27.4	3.860	33.4	4.760	39.4	5.080
21.5	2.975	27.5	3.875	33.5	4.775	39.5	5.080
21.6	2.990	27.6	3.890	33.6	4.790	39.6	5.080
21.7	3.005	27.7	3.905	33.7	4.805	39.7	5.080
21.8	3.020	27.8	3.920	33.8	4.820	39.8	5.080
21.9	3.035	27.9	3.935	33.9	4.835	39.9	5.080
22.0	3.050	28.0	3.950	34.0	4.850	40.0	5.100
22.1	3.065	28.1	3.965	34.1	4.865	40.1	5.100
22.2	3.080	28.2	3.980	34.2	4.880	40.2	5.100
22.3	3.095	28.3	3.995	34.3	4.895	40.3	5.100
22.4	3.110	28.4	4.010	34.4	4.910	40.4	5.100
22.5	3.125	28.5	4.025	34.5	4.925	40.5	5.100
22.6	3.140	28.6	4.040	34.6	4.940	40.6	5.100
22.7	3.155	28.7	4.055	34.7	4.955	40.7	5.100
22.8	3.170	28.8	4.070	34.8	4.970	40.8	5.100
22.9	3.185	28.9	4.085	34.9	4.985	40.9	5.100
23.0	3.200	29.0	4.100	35.0	5.000	41.0	5.100
23.1	3.215	29.1	4.115	35.1	5.000	41.1	5.100
23.2	3.230	29.2	4.130	35.2	5.000	41.2	5.100
23.3	3.245	29.3	4.145	35.3	5.000	41.3	5.100
23.4	3.260	29.4	4.160	35.4	5.000	41.4	5.100
23.5	3.275	29.5	4.175	35.5	5.000	41.5	5.100
23.6	3.290	29.6	4.190	35.6	5.000	41.6	5.100
23.7	3.305	29.7	4.205	35.7	5.000	41.7	5.100
23.8	3.320	29.8	4.220	35.8	5.000	41.8	5.100
23.9	3.335	29.9	4.235	35.9	5.000	41.9	5.100
24.0	3.350	30.0	4.250	36.0	5.020	42.0	5.100
24.1	3.365	30.1	4.265	36.1	5.020	42.1	5.100
24.2	3.380	30.2	4.280	36.2	5.020	42.2	5.100
24.3	3.395	30.3	4.295	36.3	5.020	42.3	5.100
24.4	3.410	30.4	4.310	36.4	5.020	42.4	5.100
24.5	3.425	30.5	4.325	36.5	5.020	42.5	5.100
24.6	3.440	30.6	4.340	36.6	5.020	42.6	5.100
24.7	3.455	30.7	4.355	36.7	5.020	42.7	5.100
24.8	3.470	30.8	4.370	36.8	5.020	42.8	5.100
24.9	3.485	30.9	4.385	36.9	5.020	42.9	5.100
25.0	3.500	31.0	4.400	37.0	5.040	43.0	5.100
25.1	3.515	31.1	4.415	37.1	5.040	43.1	5.100
25.2	3.530	31.2	4.430	37.2	5.040	43.2	5.100
25.3	3.545	31.3	4.445	37.3	5.040	43.3	5.100
25.4	3.560	31.4	4.460	37.4	5.040	43.4	5.100
25.5	3.575	31.5	4.475	37.5	5.040	43.5	5.100
25.6	3.590	31.6	4.490	37.6	5.040	43.6	5.100
25.7	3.605	31.7	4.505	37.7	5.040	43.7	5.100
25.8	3.620	31.8	4.520	37.8	5.040	43.8	5.100
25.9	3.635	31.9	4.535	37.9	5.040	43.9	5.100

**EXHIBIT "A" CONTINUED**  
**ADJUSTMENT AUTHORIZATION**

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN GRAVITY OF PETROLEUM IN  
CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>API</u>	<u>DIFF</u>	<u>API</u>	<u>DIFF</u>
<u>GRAVITY</u>	<u>PER BBL</u>	<u>GRAVITY</u>	<u>PER BBL</u>
44.0	5.100	50.0	4.350
44.1	5.100	50.1	4.335
44.2	5.100	50.2	4.320
44.3	5.100	50.3	4.305
44.4	5.100	50.4	4.290
44.5	5.100	50.5	4.275
44.6	5.100	50.6	4.260
44.7	5.100	50.7	4.245
44.8	5.100	50.8	4.230
44.9	5.100	50.9	4.215
45.0	5.100	51.0	4.200
45.1	5.085	51.1	4.185
45.2	5.070	51.2	4.170
45.3	5.055	51.3	4.155
45.4	5.040	51.4	4.140
45.5	5.025	51.5	4.125
45.6	5.010	51.6	4.110
45.7	4.995	51.7	4.095
45.8	4.980	51.8	4.080
45.9	4.965	51.9	4.065
46.0	4.950	52.0	4.050
46.1	4.935	52.1	4.035
46.2	4.920	52.2	4.020
46.3	4.905	52.3	4.005
46.4	4.890	52.4	3.990
46.5	4.875	52.5	3.975
46.6	4.860	52.6	3.960
46.7	4.845	52.7	3.945
46.8	4.830	52.8	3.930
46.9	4.815	52.9	3.915
47.0	4.800	53.0	3.900
47.1	4.785	53.1	3.885
47.2	4.770	53.2	3.870
47.3	4.755	53.3	3.855
47.4	4.740	53.4	3.840
47.5	4.725	53.5	3.825
47.6	4.710	53.6	3.810
47.7	4.695	53.7	3.795
47.8	4.680	53.8	3.780
47.9	4.665	53.9	3.765
48.0	4.650	54.0	3.750
48.1	4.635	54.1	3.735
48.2	4.620	54.2	3.720
48.3	4.605	54.3	3.705
48.4	4.590	54.4	3.690
48.5	4.575	54.5	3.675
48.6	4.560	54.6	3.660
48.7	4.545	54.7	3.645
48.8	4.530	54.8	3.630
48.9	4.515	54.9	3.615
49.0	4.500	55.0	3.600
49.1	4.485		
49.2	4.470		
49.3	4.455		
49.4	4.440		
49.5	4.425		
49.6	4.410		
49.7	4.395		
49.8	4.380		
49.9	4.365		

For API GRAVITY values  
above 55.0° API, the  
differential continues to  
decline .015/bbl per 0.1°  
API GRAVITY

**EXHIBIT "B"****ADJUSTMENT AUTHORIZATION**

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN SULFUR CONTENT OF PETROLEUM IN  
CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>PERCENT SULFUR</u>	<u>DIFF PER BBL</u>	<u>PERCENT SULFUR</u>	<u>DIFF PER BBL</u>	<u>PERCENT SULFUR</u>	<u>DIFF PER BBL</u>	<u>PERCENT SULFUR</u>	<u>DIFF PER BBL</u>
0.75	1.750	1.35	2.350	1.95	2.950	2.55	3.550
0.76	1.760	1.36	2.360	1.96	2.960	2.56	3.560
0.77	1.770	1.37	2.370	1.97	2.970	2.57	3.570
0.78	1.780	1.38	2.380	1.98	2.980	2.58	3.580
0.79	1.790	1.39	2.390	1.99	2.990	2.59	3.590
0.80	1.800	1.40	2.400	2.00	3.000	2.60	3.600
0.81	1.810	1.41	2.410	2.01	3.010	2.61	3.610
0.82	1.820	1.42	2.420	2.02	3.020	2.62	3.620
0.83	1.830	1.43	2.430	2.03	3.030	2.63	3.630
0.84	1.840	1.44	2.440	2.04	3.040	2.64	3.640
0.85	1.850	1.45	2.450	2.05	3.050	2.65	3.650
0.86	1.860	1.46	2.460	2.06	3.060	2.66	3.660
0.87	1.870	1.47	2.470	2.07	3.070	2.67	3.670
0.88	1.880	1.48	2.480	2.08	3.080	2.68	3.680
0.89	1.890	1.49	2.490	2.09	3.090	2.69	3.690
0.90	1.900	1.50	2.500	2.10	3.100	2.70	3.700
0.91	1.910	1.51	2.510	2.11	3.110	2.71	3.710
0.92	1.920	1.52	2.520	2.12	3.120	2.72	3.720
0.93	1.930	1.53	2.530	2.13	3.130	2.73	3.730
0.94	1.940	1.54	2.540	2.14	3.140	2.74	3.740
0.95	1.950	1.55	2.550	2.15	3.150	2.75	3.750
0.96	1.960	1.56	2.560	2.16	3.160	2.76	3.760
0.97	1.970	1.57	2.570	2.17	3.170	2.77	3.770
0.98	1.980	1.58	2.580	2.18	3.180	2.78	3.780
0.99	1.990	1.59	2.590	2.19	3.190	2.79	3.790
1.00	2.000	1.60	2.600	2.20	3.200	2.80	3.800
1.01	2.010	1.61	2.610	2.21	3.210	2.81	3.810
1.02	2.020	1.62	2.620	2.22	3.220	2.82	3.820
1.03	2.030	1.63	2.630	2.23	3.230	2.83	3.830
1.04	2.040	1.64	2.640	2.24	3.240	2.84	3.840
1.05	2.050	1.65	2.650	2.25	3.250	2.85	3.850
1.06	2.060	1.66	2.660	2.26	3.260	2.86	3.860
1.07	2.070	1.67	2.670	2.27	3.270	2.87	3.870
1.08	2.080	1.68	2.680	2.28	3.280	2.88	3.880
1.09	2.090	1.69	2.690	2.29	3.290	2.89	3.890
1.10	2.100	1.70	2.700	2.30	3.300	2.90	3.900
1.11	2.110	1.71	2.710	2.31	3.310	2.91	3.910
1.12	2.120	1.72	2.720	2.32	3.320	2.92	3.920
1.13	2.130	1.73	2.730	2.33	3.330	2.93	3.930
1.14	2.140	1.74	2.740	2.34	3.340	2.94	3.940
1.15	2.150	1.75	2.750	2.35	3.350	2.95	3.950
1.16	2.160	1.76	2.760	2.36	3.360	2.96	3.960
1.17	2.170	1.77	2.770	2.37	3.370	2.97	3.970
1.18	2.180	1.78	2.780	2.38	3.380	2.98	3.980
1.19	2.190	1.79	2.790	2.39	3.390	2.99	3.990
1.20	2.200	1.80	2.800	2.40	3.400	3.00	4.000
1.21	2.210	1.81	2.810	2.41	3.410	3.01	4.010
1.22	2.220	1.82	2.820	2.42	3.420	3.02	4.020
1.23	2.230	1.83	2.830	2.43	3.430	3.03	4.030
1.24	2.240	1.84	2.840	2.44	3.440	3.04	4.040
1.25	2.250	1.85	2.850	2.45	3.450	3.05	4.050
1.26	2.260	1.86	2.860	2.46	3.460	3.06	4.060
1.27	2.270	1.87	2.870	2.47	3.470	3.07	4.070
1.28	2.280	1.88	2.880	2.48	3.480	3.08	4.080
1.29	2.290	1.89	2.890	2.49	3.490	3.09	4.090
1.30	2.300	1.90	2.900	2.50	3.500	3.10	4.100
1.31	2.310	1.91	2.910	2.51	3.510	3.11	4.110
1.32	2.320	1.92	2.920	2.52	3.520	3.12	4.120
1.33	2.330	1.93	2.930	2.53	3.530	3.13	4.130
1.34	2.340	1.94	2.940	2.54	3.540	3.14	4.140

**EXHIBIT "B" CONTINUED**  
**ADJUSTMENT AUTHORIZATION**

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN SULFUR CONTENT OF PETROLEUM IN  
CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>PERCENT</u> <u>SULFUR</u>	<u>DIFF</u> <u>PER BBL</u>	<u>PERCENT</u> <u>SULFUR</u>	<u>DIFF</u> <u>PER BBL</u>
3.15	4.150	3.75	4.750
3.16	4.160	3.76	4.760
3.17	4.170	3.77	4.770
3.18	4.180	3.78	4.780
3.19	4.190	3.79	4.790
3.20	4.200	3.80	4.800
3.21	4.210	3.81	4.810
3.22	4.220	3.82	4.820
3.23	4.230	3.83	4.830
3.24	4.240	3.84	4.840
3.25	4.250	3.85	4.850
3.26	4.260	3.86	4.860
3.27	4.270	3.87	4.870
3.28	4.280	3.88	4.880
3.29	4.290	3.89	4.890
3.30	4.300	3.90	4.900
3.31	4.310	3.91	4.910
3.32	4.320	3.92	4.920
3.33	4.330	3.93	4.930
3.34	4.340	3.94	4.940
3.35	4.350	3.95	4.950
3.36	4.360	3.96	4.960
3.37	4.370	3.97	4.970
3.38	4.380	3.98	4.980
3.39	4.390	3.99	4.990
3.40	4.400	4.00	5.000
3.41	4.410		
3.42	4.420		
3.43	4.430		
3.44	4.440		
3.45	4.450		
3.46	4.460		
3.47	4.470		
3.48	4.480		
3.49	4.490		
3.50	4.500		
3.51	4.510		
3.52	4.520		
3.53	4.530		
3.54	4.540		
3.55	4.550		
3.56	4.560		
3.57	4.570		
3.58	4.580		
3.59	4.590		
3.60	4.600		
3.61	4.610		
3.62	4.620		
3.63	4.630		
3.64	4.640		
3.65	4.650		
3.66	4.660		
3.67	4.670		
3.68	4.680		
3.69	4.690		
3.70	4.700		
3.71	4.710		
3.72	4.720		
3.73	4.730		
3.74	4.740		

For Sulfur Values above  
4.00%, the differential  
continues to increase  
0.01 /BBL per 0.01 Percent  
Sulfur

**EXHIBIT "C"**  
**ADJUSTMENT AUTHORIZATION**

RATIO FACTORS FOR SULFUR ADJUSTMENT  
WEIGHT OF PETROLEUM BY GRAVITY TO REFERENCE BASE OF 35.5° API GRAVITY  
CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>	<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>	<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>	<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>
20.0	1.10248	26.0	1.06038	32.0	1.02140	38.0	0.98526
20.1	1.10177	26.1	1.05967	32.1	1.02084	38.1	0.98469
20.2	1.10106	26.2	1.05911	32.2	1.02013	38.2	0.98412
20.3	1.10021	26.3	1.05840	32.3	1.01956	38.3	0.98356
20.4	1.09950	26.4	1.05769	32.4	1.01899	38.4	0.98285
20.5	1.09880	26.5	1.05698	32.5	1.01828	38.5	0.98228
20.6	1.09809	26.6	1.05641	32.6	1.01772	38.6	0.98172
20.7	1.09738	26.7	1.05571	32.7	1.01715	38.7	0.98115
20.8	1.09667	26.8	1.05500	32.8	1.01644	38.8	0.98058
20.9	1.09596	26.9	1.05443	32.9	1.01588	38.9	0.98001
21.0	1.09525	27.0	1.05372	33.0	1.01517	39.0	0.97945
21.1	1.09454	27.1	1.05301	33.1	1.01460	39.1	0.97888
21.2	1.09383	27.2	1.05245	33.2	1.01403	39.2	0.97831
21.3	1.09313	27.3	1.05174	33.3	1.01332	39.3	0.97775
21.4	1.09242	27.4	1.05103	33.4	1.01276	39.4	0.97718
21.5	1.09171	27.5	1.05046	33.5	1.01219	39.5	0.97661
21.6	1.09086	27.6	1.04975	33.6	1.01148	39.6	0.97605
21.7	1.09015	27.7	1.04904	33.7	1.01091	39.7	0.97548
21.8	1.08944	27.8	1.04848	33.8	1.01035	39.8	0.97491
21.9	1.08873	27.9	1.04777	33.9	1.00964	39.9	0.97434
22.0	1.08802	28.0	1.04706	34.0	1.00907	40.0	0.97378
22.1	1.08731	28.1	1.04649	34.1	1.00850	40.1	0.97321
22.2	1.08661	28.2	1.04578	34.2	1.00780	40.2	0.97264
22.3	1.08590	28.3	1.04507	34.3	1.00723	40.3	0.97208
22.4	1.08519	28.4	1.04451	34.4	1.00666	40.4	0.97151
22.5	1.08448	28.5	1.04380	34.5	1.00609	40.5	0.97094
22.6	1.08377	28.6	1.04323	34.6	1.00539	40.6	0.97038
22.7	1.08320	28.7	1.04252	34.7	1.00482	40.7	0.96981
22.8	1.08249	28.8	1.04181	34.8	1.00425	40.8	0.96924
22.9	1.08179	28.9	1.04125	34.9	1.00369	40.9	0.96867
23.0	1.08108	29.0	1.04054	35.0	1.00298	41.0	0.96811
23.1	1.08037	29.1	1.03997	35.1	1.00241	41.1	0.96754
23.2	1.07966	29.2	1.03926	35.2	1.00184	41.2	0.96697
23.3	1.07895	29.3	1.03855	35.3	1.00128	41.3	0.96641
23.4	1.07824	29.4	1.03799	35.4	1.00057	41.4	0.96584
23.5	1.07753	29.5	1.03728	35.5	1.00000	41.5	0.96527
23.6	1.07682	29.6	1.03671	35.6	0.99943	41.6	0.96471
23.7	1.07612	29.7	1.03600	35.7	0.99887	41.7	0.96414
23.8	1.07541	29.8	1.03544	35.8	0.99816	41.8	0.96357
23.9	1.07470	29.9	1.03473	35.9	0.99759	41.9	0.96300
24.0	1.07413	30.0	1.03416	36.0	0.99702	42.0	0.96244
24.1	1.07342	30.1	1.03345	36.1	0.99646	42.1	0.96187
24.2	1.07271	30.2	1.03288	36.2	0.99589	42.2	0.96145
24.3	1.07201	30.3	1.03218	36.3	0.99518	42.3	0.96088
24.4	1.07130	30.4	1.03161	36.4	0.99461	42.4	0.96031
24.5	1.07059	30.5	1.03090	36.5	0.99405	42.5	0.95974
24.6	1.06988	30.6	1.03033	36.6	0.99348	42.6	0.95918
24.7	1.06931	30.7	1.02962	36.7	0.99291	42.7	0.95861
24.8	1.06860	30.8	1.02906	36.8	0.99220	42.8	0.95804
24.9	1.06790	30.9	1.02835	36.9	0.99164	42.9	0.95748
25.0	1.06719	31.0	1.02778	37.0	0.99107	43.0	0.95691
25.1	1.06648	31.1	1.02707	37.1	0.99050	43.1	0.95648
25.2	1.06577	31.2	1.02651	37.2	0.98994	43.2	0.95592
25.3	1.06520	31.3	1.02580	37.3	0.98937	43.3	0.95535
25.4	1.06449	31.4	1.02523	37.4	0.98880	43.4	0.95478
25.5	1.06378	31.5	1.02452	37.5	0.98809	43.5	0.95422
25.6	1.06308	31.6	1.02395	37.6	0.98753	43.6	0.95365
25.7	1.06237	31.7	1.02339	37.7	0.98696	43.7	0.95308
25.8	1.06180	31.8	1.02268	37.8	0.98639	43.8	0.95266
25.9	1.06109	31.9	1.02211	37.9	0.98583	43.9	0.95209



**EXHIBIT "C" CONTINUED**  
**ADJUSTMENT AUTHORIZATION**

RATIO FACTORS FOR SULFUR ADJUSTMENT  
 WEIGHT OF PETROLEUM BY GRAVITY TO REFERENCE BASE OF 35.5° API GRAVITY  
 CARRIER SYSTEM COMMON STREAM PETROLEUM

<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>	<u>API GRAVITY</u>	<u>RATIO TO 35.5° WT.</u>
44.0	0.95152	50.0	0.92006
44.1	0.95096	50.1	0.91949
44.2	0.95039	50.2	0.91892
44.3	0.94982	50.3	0.91850
44.4	0.94940	50.4	0.91793
44.5	0.94883	50.5	0.91751
44.6	0.94826	50.6	0.91694
44.7	0.94770	50.7	0.91651
44.8	0.94713	50.8	0.91595
44.9	0.94670	50.9	0.91552
45.0	0.94614	51.0	0.91495
45.1	0.94557	51.1	0.91439
45.2	0.94500	51.2	0.91396
45.3	0.94444	51.3	0.91339
45.4	0.94401	51.4	0.91297
45.5	0.94344	51.5	0.91240
45.6	0.94288	51.6	0.91198
45.7	0.94231	51.7	0.91141
45.8	0.94189	51.8	0.91099
45.9	0.94132	51.9	0.91042
46.0	0.94075	52.0	0.90999
46.1	0.94018	52.1	0.90943
46.2	0.93976	52.2	0.90900
46.3	0.93919	52.3	0.90843
46.4	0.93863	52.4	0.90801
46.5	0.93806	52.5	0.90744
46.6	0.93763	52.6	0.90702
46.7	0.93707	52.7	0.90645
46.8	0.93650	52.8	0.90602
46.9	0.93607	52.9	0.90546
47.0	0.93551	53.0	0.90503
47.1	0.93494	53.1	0.90446
47.2	0.93437	53.2	0.90404
47.3	0.93395	53.3	0.90361
47.4	0.93338	53.4	0.90305
47.5	0.93281	53.5	0.90262
47.6	0.93239	53.6	0.90206
47.7	0.93182	53.7	0.90163
47.8	0.93125	53.8	0.90106
47.9	0.93083	53.9	0.90064
48.0	0.93026	54.0	0.90007
48.1	0.92970	54.1	0.89965
48.2	0.92927	54.2	0.89922
48.3	0.92870	54.3	0.89865
48.4	0.92814	54.4	0.89823
48.5	0.92771	54.5	0.89766
48.6	0.92714	54.6	0.89724
48.7	0.92672	54.7	0.89681
48.8	0.92615	54.8	0.89624
48.9	0.92558	54.9	0.89582
49.0	0.92516	55.0	0.89525
49.1	0.92459		
49.2	0.92403		
49.3	0.92360		
49.4	0.92303		
49.5	0.92261		
49.6	0.92204		
49.7	0.92147		
49.8	0.92105		
49.9	0.92048		

**EXHIBIT "D"**  
**SAMPLE QUALITY BANK CALCULATION**  
**CARRIER SYSTEM COMMON STREAM PETROLEUM**

**Receipt Bank**

SHIPPER	BBLs	%	API	FROM EXH. "C"	%	FROM EXH. "B"	FROM EXH. "A"	BBLs REC'D. x	BBLs REC'D. x
	REC'D	SULFUR	GRAV	RATIO TO 35.5° WT.	SULFUR x RATIO	SULFUR	GRAVITY	SULFUR	GRAV
A	100.00	0.92	29.8	1.03544	0.95	1.950	4.220	195.00	422.00
B	150.00	0.36	38.6	0.98172	0.35	1.750	5.060	262.50	759.00
C	100.00	0.42	36.4	0.99461	0.42	1.750	5.020	175.00	502.00
C	<u>200.00</u>	0.78	46.2	0.93976	0.73	1.750	4.920	<u>350.00</u>	<u>984.00</u>
TOTAL	550.00							982.50	2667.00

Common stream weighted average GRAVITY value: 2667.00/550.0 = 4.84909  
Common stream weighted average SULFUR value: 982.50/550.00 = 1.78636

**Shipper A:**

Weighted average GRAVITY value: 422.00/100 = 4.22000  
Calculation: (4.84909 - 4.22000) x 100 = \$62.91  
Weighted average SULFUR value: 195.00/100 = 1.95000  
Calculation: (1.95000 - 1.78636) x 100 = \$16.36

**TOTAL Shipper A pays the bank:**

**\$79.27**

**Shipper B:**

Weighted average GRAVITY value: 759.00/150 = 5.06000  
Calculation: (4.84909 - 5.06000) x 150 = (\$31.64)  
Weighted average SULFUR value: 262.50/150 = 1.75000  
Calculation: (1.75000 - 1.78636) x 150 = (\$5.45)

**TOTAL Shipper B receives from the bank:**

**(\$37.09)**

**Shipper C:**

Weighted average GRAVITY value: 1486.00/300 = 4.95333  
Calculation: (4.84909 - 4.95333) x 300 = (\$31.27)  
Weighted average SULFUR value: 525.00/300 = 1.75000  
Calculation: (1.75000 - 1.78636) x 300 = (\$10.91)

**TOTAL Shipper C receives from the bank:**

**(\$42.18)**

**NET**

**\$0.00**

**Delivery Bank**

SHIPPER	BBLs	%	API	FROM EXH. "C"	%	FROM EXH. "B"	FROM EXH. "A"	BBLs REC'D. x	BBLs REC'D. x
	REC'D	SULFUR	GRAV	RATIO TO 35.5° WT.	SULFUR x RATIO	SULFUR	GRAVITY	SULFUR	GRAV
A	90.00	0.64	39.0	0.97945	0.63	1.750	5.080	157.50	457.20
B	140.00	0.62	39.6	0.97605	0.61	1.750	5.080	245.00	711.20
C	90.00	0.63	38.4	0.98285	0.62	1.750	5.060	157.50	455.40
C	<u>210.00</u>	0.78	40.1	0.97321	0.76	1.760	5.100	<u>369.60</u>	<u>1071.00</u>
TOTAL	530.00							929.60	2694.80

Common stream weighted average GRAVITY value: 2694.80/530.0 = 5.08453  
Common stream weighted average SULFUR value: 929.60/530.00 = 1.75396

**Shipper A:**

Weighted average GRAVITY value: 457.20/90 = 5.08000  
Calculation: (5.08453 - 5.08000) x 90 = (\$0.41)  
Weighted average SULFUR value: 157.50/90 = 1.75000  
Calculation: (1.75000 - 1.75396) x 90 = \$0.36

**TOTAL Shipper A receives from the bank:**

**(\$0.05)**

**Shipper B:**

Weighted average GRAVITY value: 711.20/140 = 5.08000  
Calculation: (5.08453 - 5.08000) x 140 = (\$0.63)  
Weighted average SULFUR value: 245.00/140 = 1.75000  
Calculation: (1.75000 - 1.75396) x 140 = \$0.55

**TOTAL Shipper B receives from the bank:**

**(\$0.08)**

**Shipper C:**

Weighted average GRAVITY value: 1526.40/300 = 5.08800  
Calculation: (5.08453 - 5.08800) x 300 = \$1.04  
Weighted average SULFUR value: 527.10/300 = 1.75700  
Calculation: (1.75700 - 1.75396) x 300 = (\$0.91)

**TOTAL Shipper C pays the bank:**

**\$0.13**

**NET**

**\$0.00**