Texas R.R.C. No. 164.20.0 Amends Texas R.R.C. No. 164.19.0

and Cancels Texas R.R.C. No. 164.18.0

PLAINS PIPELINE, L.P.

LOCAL AND PROPORTIONAL TARIFF

APPLYING ON THE INTRASTATE TRANSPORTATION

OF

CRUDE PETROLEUM

Governed by rules and regulations contained herein.

RECOFTEXAS

JUL 0 1 2015

SAFETY DIVISION
AUSTIN, TEXAS

EFFECTIVE: July 1, 2015

ISSUED BY:

Mark Gorman

Executive Vice President

Plains GP LLC General Partner of Plains Pipeline, L.P. P.O. Box 4648

Houston, Texas 77210-4648

COMPILED BY:

Teresa Bratcher Tariff Manager Plains GP LLC General Partner of Plains Pipeline, L.P. P.O. Box 4648

Houston, Texas 77210-4648

(713) 646-4568

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Explanation of Reference Marks:

[U] Unchanged rate

III Increase

[W] Change in wording only

New

LIST OF POINTS FROM AND TO WHICH RATES APPLY AND RATES

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

FROM (Origins in Texas)	TO (Destinations in Texas)	RATE	VOLUME INCENTIVE (In Barrels Per Day)
Catarina North, Dimmit County		[U] 50.05	
Cenizo Ranch, Dimmit County		[U] 49.14	
Dilley, Frio County (1)	Gardendale Station LaSalle County	[U] 69.14 [U] 58.82 [U] 48.50 [U] 38.18 [U] 27.86	0 - 30,000 30,001 - 55,000 55,001 - 80,000 80,001 - 105,000 105,001 or more
Kone, Dimmit County		[i] 115.05	
KBS, Dimmit County	1000	[1] 115.05	***
[N] Briggs North, Dimmit County		[N] 115.05	
Talbutt Trust, LaSalle County		[U] 49.14	
Valley Wells, Dimmitt County		[I] 51.48	

⁽¹⁾ The Volume Incentive Rate applies to transportation from Dilley, Frio County to Gardendale Station, LaSalle County. Shipper's average daily volume for a given month will determine the applicable rate for volumes shipped that month. The Volume Incentive Rate will apply to all barrels moved by that Shipper during that calendar month.

GATHERING CHARGES

<u>Location</u>	<u>Rate</u>
[C] Catarina North - Briggs North, Dimmit County	[C] 64.99
[C] Kone, Dimmit County	[C] 63.57
[C] KBS, Dimmit-County	[C] 63.57
Cenizo Ranch, Dimmit County	[U] 51.67
Talbutt Trust, LaSalle County	[U] 51.67
Valley Wells, Dimmitt County	[I] 115.86
Gardendale - Irvin Ranch, LaSalle County	[U] 102.02
Gardendale - Martin Ranch, LaSalle County	[I] 215.12
Gardendale - Wright Ranch, LaSalle County	[U] 100.82
Gardendale - Alexander Ranch, LaSalle County	[U] 100.82
Gardendale - Northcutt Ranch, LaSalle County	[I] 215.12
Gardendale - El Jardin, LaSalle County	[I] 130.37
Gardendale - Cotulla, LaSalle County	[i] 114.08
Gardendale - JEA Ranch, LaSalle County	[I] 76.05
Gardendale – Storey Ranch, LaSalle County	[I] 70.62

PUMPOVER RECEIPT CHARGE: An additional charge will be made on all crude petroleum received from connecting carriers.

<u>Location</u>
Gardendale, LaSalle County
Dilley, Frio County

Rate in Cents per Barrel
[i] 27.16
[i] 27.16

EXCEPTIONS TO THE RULES AND REGULATIONS CONTAINED HEREIN:

Rule 28A Specifications and Restrictions: Only Crude Petroleum having an API Gravity of 55 degrees or lower and an H₂S concentration of 100 ppm or less will be accepted for shipment.

Rule 31 Measurements and Adjustments shall be supplemented as follows: All barrels received at the origin and destination points named herein are required to participate in the Quality Bank. In order to facilitate equitable adjustment among all shippers for sulfur and gravity differentials arising out of the common stream operations, Pipeline Operator or Pipeline Operator's authorized representative shall calculate adjustments for the value of crude petroleum of different sulfur and gravity content in the manner described herein.

- a. Shipper's gravity value will be determined by multiplying the quantity of Crude Petroleum (measured in Barrels) received at all of Shipper's Receipt points by the gravity value per Barrel obtained from the gravity value table included in Attachment "A" corresponding to the weighted average API gravity of Shipper's Crude Petroleum as measured at each Receipt point each Month. Shipper's sulfur value will be determined by multiplying the quantity of Crude Petroleum (measured in Barrels) received at all of Shipper's Receipt points by the sulfur value per Barrel obtained from the sulfur value tables included in Attachment "A" corresponding to the weighted average weight percent (%) sulfur of Shipper's Crude Petroleum as measured at each Receipt point each Month.
- b. For each Month, the weighted average gravity value for the Quality Bank will be determined by dividing the total number of Barrels of all Shippers' Crude Petroleum received into the System into the sum of all Shippers' gravity values for all receipt points. For each Month, the weighted average sulfur value for the Quality Bank will be determined by dividing the total number of Barrels of all Shippers' Crude Petroleum received into the System into the sum of all Shippers' sulfur values for all receipt points.
- c. Pipeline Operator will compare Shipper's gravity and sulfur values to the weighted average gravity and sulfur values for the Quality Bank.
- d. If Shipper's gravity value per Barrel is greater than that determined for the Quality Bank that Month, then Shipper will be credited (receive from the bank) an amount which shall be calculated by multiplying the differences in gravity value per Barrel by the total number of Barrels of Shipper's Crude Petroleum received.
- e. If Shipper's gravity value per Barrel is less than that determined for the Quality Bank that Month, then Shipper will be debited (pay the bank) an amount which shall be calculated by multiplying the differences in gravity value per Barrel by the total number of Barrels of Shipper's Crude Petroleum received.
- f. If Shipper's sulfur value per Barrel is less than that determined for the Quality Bank that Month, then Shipper will be credited (receive from the bank) an amount which shall be calculated by multiplying the differences in sulfur value per Barrel by the total number of Barrels of Shipper's Crude Petroleum received.
- g. If Shipper's sulfur value per Barrel at is more than that determined for the Quality Bank that Month, then Shipper will be debited (pay the bank) an amount which shall be calculated by multiplying the differences in sulfur value per Barrel by the total number of Barrels of Shipper's Crude Petroleum received.
- h. Pipeline Operator shall provide at the end of each Month a statement of Shipper's gravity and sulfur values, computed differences versus the Quality Bank's weighted averages, debit and/or credit amounts for each Receipt point and the total debit or credit amount. The sum of debits and credits for all Shippers shall be zero each Month.

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RULES AND REGULATIONS

Every person owning, operating, or managing any pipeline, or any part of any pipeline, for the gathering, receiving, loading, transporting, storing, or delivering of Crude Petroleum as a common carrier shall be subject to and governed by the following provisions. Common carriers specified in this section shall be referred to as "pipelines" and the owners or Shippers of Crude Petroleum by pipelines shall be referred to as "Shippers."

SECTION 1

The following nineteen (1-19) rules are reprinted here pursuant to the requirements of the Texas Railroad Commission.

Rule 1. All Marketable Oil to be Received for Transportation.

By the term "marketable oil" is meant any Crude Petroleum adapted for refining or fuel purposes, properly settled and containing not more than 2.0% of basic sediment, water, or other impurities above a point six inches below the pipeline connection with the tank. Pipelines shall receive for transportation all such "marketable oil" tendered; but no pipeline shall be required to receive for shipment from any one person an amount exceeding 3,000 Barrels of petroleum in any one day; and, if the oil tendered for transportation differs materially in character from that usually produced in the field and being transported therefrom by the pipeline, then it shall be transported under such terms as the Shipper and the owner of the pipeline may agree or the commission may require. (Amended by Rule 20).

Rule 2. Basic Sediment, How Determined—Temperature.

In determining the amount of sediment, water, or other impurities, a pipeline is authorized to make a test of the oil offered for transportation from an average sample from each such tank, by the use of centrifugal machine, or by the use of any other appliance agreed upon by the pipeline and the Shipper. The same method of ascertaining the amount of the sediment, water, or other impurities shall be used in the Delivery as in the Receipt of oil. A pipeline shall not be required to receive for transportation, nor shall Consignee be required to accept as a Delivery, any oil of a higher temperature than 90 degrees Fahrenheit, except that during the summer oil shall be received at any atmospheric temperature, and may be delivered at like temperature. Consignee shall have the same right to test the oil upon Delivery at destination that the pipeline has to test before receiving from the Shipper.

Rule 3. "Barrel" Defined.

For the purpose of these Rules, a "Barrel" of Crude Petroleum is declared to be 42 gallons of 231 cubic inches per gallon at 60 degrees Fahrenheit.

Rule 4. Oil Involved in Litigation, Etc.-- Indemnity Against Loss.

When any oil offered for transportation is involved in litigation, or the ownership is in dispute, or when the oil appears to be encumbered by lien or charge of any kind, the pipeline may require of Shippers an indemnity bond to protect it against all loss. (Supplemented by Rule 33)

Rule 5. Storage.

Each pipeline shall provide, without additional charge, sufficient storage, such as is incident and necessary to the transportation of oil, including storage at destination or so near thereto as to be available for prompt Delivery to destination point, for five days from the date of order of Delivery at destination. (Amended by Rule 21)

Rule 6. Identity of Oil, Maintenance of Oil.

A pipeline may deliver to Consignee either the identical oil received for transportation, subject to such consequences of mixing with other oil as are incident to the usual pipeline transportation, or it may make Delivery from its common stock at destination; provided, if this last be done, the Delivery shall be of substantially like kind and market value.

Rule 7. Minimum Quantity to be Received.

A pipeline shall not be required to receive less than one tank car-load of oil when oil is offered for loading into tank cars at destination of the pipeline. When oil is offered for transportation for other than tank car Delivery, a pipeline shall not be required to receive less than 500 Barrels. (Amended by Rule 30)

Rule 8. Gathering Charges.

Tariffs to be filed by a pipeline shall specify separately the charges for gathering of the oil, for transportation, and for Delivery.

Rule 9. Measuring, Testing, and Deductions (Reference Special Order Number 20-63,098 Effective June 18, 1973) (Superseded by Rule 31)

- A. Except as provided in subparagraph (B) of this paragraph, all crude oil tendered to a pipeline shall be gauged and tested by a representative of the pipeline prior to its Receipt by the pipeline. The Shipper may be present or represented at the gauging or testing. Quantities shall be computed from correctly compiled tank tables showing 100% of the full capacity of the tank.
- B. As an alternative to the method of measurement provided in subparagraph (A) of this paragraph, crude oil and Condensate may be measured and tested, before transfer of custody to the initial transporter, by:
 - lease automatic custody transfer (LACT) equipment, provided such equipment is installed and operated in accordance with the latest revision of American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 6.1, or;
 - ii. any device or method, approved by the commission or its delegate, which yields accurate measurements of crude oil or Condensate.
- C. Adjustments to the quantities determined by the methods described in subparagraphs (A) or (B) of this paragraph shall be made for temperature from the nearest whole number degree to the basis of 60 degrees Fahrenheit and to the nearest 5/10 API degree gravity in accordance with the volume correction Tables 5A and 6A contained in API Standard 2540. American Society for Testing Materials 01250, Institute of Petroleum 200, first edition, August, 1980. A pipeline may deduct the basic sediment, water, and other impurities as shown by the centrifugal or other test agreed upon by the Shipper and pipeline; and 1.0% for evaporation and loss during transportation. The net balance shall be the quantity deliverable by the pipeline. In allowing the deductions, it is not the intention of the commission to affect any tax or royalty obligations imposed by the laws of Texas on any producer or Shipper of crude oil.
- D. A transfer of custody of crude between transporters is subject to measurement as agreed upon by the transporters.

Rule 10. Delivery and Demurrage.

Each pipeline shall transport oil with reasonable diligence, considering the quality of the oil, the distance of transportation, and other material elements, but at any time after Receipt of a consignment of oil, upon 24 hours' notice to the Consignee, may offer oil for Delivery from its common stock at the point of destination, conformable to paragraph (6) of this Section, at a rate not exceeding 10,000 Barrels per day

of 24 hours. Computation of time of storage (as provided for in paragraph (5) of this Section) shall begin at the expiration of such notice. At the expiration of the time allowed in paragraph (5) of this Section for storage at destination, a pipeline may assess a demurrage charge on oil offered for Delivery and remaining undelivered, at a rate for the first 10 days of \$.001 per Barrel; and thereafter at a rate of \$.0075 per Barrel, for each day of 24 hours or fractional part thereof. (Superseded by Rule 24)

Rule 11. Unpaid Charges, Lien For and Sale to Cover.

A pipeline shall have a lien on all oil to cover charges for transportation, including demurrage, and it may withhold Delivery of oil until the charges are paid. If the charges shall remain unpaid for more than five days after notice of readiness to deliver, the pipeline may sell the oil at public auction at the general office of the pipeline on any day not a legal holiday. The date for the sale shall be not less than 48 hours after publication of notice in a daily newspaper of general circulation published in the city where the general office of the pipeline is located. The notice shall give the time and place of the sale, and the quantity of the oil to be sold.

From the proceeds of the sale, the Pipeline may deduct all charges lawfully accruing, including demurrage, and all expenses of the sale. The net balance shall be paid to the person lawfully entitled thereto. (Superseded by Rule 35)

Rule 12. Notice of Claim.

Notice of claims for loss, damage, or delay in connection with the shipment of oil must be made in writing to the pipeline within 91 days after the damage, loss, or delay occurred. If the claim is for failure to make Delivery, the claim must be made within 91 days after a reasonable time for Delivery has elapsed. (Amended by Rule 41)

Rule 13. Telephone-Telegraph Line--Shipper to Use.

If a pipeline maintains a private telegraph or telephone line, a Shipper may use it without extra charge, for messages incident to shipments. However, a pipeline shall not be held liable for failure to deliver any messages away from its office or for delay in transmission or for interruption of service. (Clarified by Rule 25)

Rule 14. Contracts of Transportation.

When a consignment of oil is accepted, the pipeline shall give the Shipper a run ticket, and shall give the Shipper a statement that shows the amount of oil received for transportation, the points of origin and destination, corrections made for temperature, deductions made for impurities, and the rate for such transportation.

Rule 15. Shipper's Tanks, Etc-Inspection.

When a shipment of oil has been offered for transportation the pipeline shall have the right to go upon the premises where the oil is produced or stored, and have access to any and all tanks or storage receptacles for the purpose of making any examination, inspection, or test authorized by this Rule.

Rule 16. Offers in Excess of Facilities.

If oil is offered to any pipeline for transportation in excess of the amount that can be immediately transported, the transportation furnished by the pipeline shall be apportioned among all Shippers in proportion to the amounts offered by each; but no offer for transportation shall be considered beyond the amount which the person requesting the shipment then has ready for shipment by the pipeline. The pipeline shall be considered as a Shipper of oil produced or purchased by itself and held for shipment through its line, and its oil shall be entitled to participate in such apportionate. (Amended by Rule 34)

Rule 17. Interchange of Tonnage.

Pipelines shall provide the necessary connections and facilities for the exchange of tonnage at every locality reached by two or more pipelines, when the commission finds that a necessity exists for connection, and under such regulations as said commission may determine in each case. (Amended by Rule 26)

Rule 18. Receipt and Delivery—Necessary Facilities For.

Each pipeline shall install and maintain facilities for the Receipt and Delivery of marketable Crude Petroleum of Shippers at any point on its line if the commission finds that a necessity exists therefor, and under regulations by the commission. (Amended by Rule 26)

Rule 19. Reports of Loss from Fires, Lightning, and Leakage.

- E. Each pipeline shall immediately notify the commission district office, electronically or by telephone, of each fire that occurs at any oil tank owned or controlled by the pipeline, or of any tank struck by lightning. Each pipeline shall in like manner report each break or leak in any of its tanks or pipelines from which more than five Barrels escape. Each pipeline shall file the required information with the commission in accordance with the appropriate commission form within 30 days from the date of the spill or leak.
- F. No risk of fire, storm, flood, or act of God, and no risk resulting from riots, insurrection, rebellion, war, or act of the public enemy, or from quarantine or authority of law or any order, requisition or necessity of the government of the United States in time of war, shall be borne by a pipeline, nor shall any liability accrue to it from any damage thereby occasioned. If loss of any crude oil from any such causes occurs after the oil has been received for transportation, and before it has been delivered to the Consignee, the Shipper shall bear a loss in such proportion as the amount of his shipment is to all of the oil held in transportation by the pipeline at the time of such loss, and the Shipper shall be entitled to have delivered only such portion of his shipment as may remain after a deduction of his due proportion of such loss, but in such event the Shipper shall be required to pay charges only on the quantity of oil delivered. This section shall not apply if the loss occurs because of negligence of the pipeline. (Supplemented by Rule 45)
- G. Common carrier pipelines shall mail (return Receipt requested) or hand deliver to landowners (persons who have legal title to the property in question) and residents (persons whose mailing address is the property in question) of land upon which a spill or leak has occurred, all spill or leak reports required by the commission for that particular spill or leak within 30 days of filing the required reports with the commission. Registration with the commission by landowners and residents for the purpose of receiving spill or leak reports shall be required every five years, with renewal registration starting January 1, 1999. If a landowner or resident is not registered with the commission, the common carrier is not required to furnish such reports to the resident or landowner.

SECTION 2

Explanation of Terms and Abbreviations:

"API" as herein used means American Petroleum Institute.

"ASTM" as herein used means American Society for Testing Materials.

"Barrel (Bbl)" as herein used shall have the meaning set forth in Rule 3.

"Common Stream" as herein used means Crude Petroleum moved through the pipeline and pipeline facilities which is commingled or intermixed with other Crude Petroleum.

"Consignee" as herein used means a party, including a connecting pipeline system, to whom Shipper has ordered Delivery of Crude Petroleum.

"Condensate" as herein used means liquid products of oil wells and gas wells resulting from condensation of petroleum hydrocarbons existing initially in gaseous phase in an underground reservoir that are recovered at the surface without resorting to processing.

"Crude Petroleum" as herein used means direct liquid products of oil wells, Condensate or a mixture thereof.

" ° " as herein used means degrees Fahrenheit.

"Delivery" as herein used means transfer from Pipeline Operator at destination to Shipper or Consignee.

[N] "ENom System" as herein used means Electronic Nomination System. The ENom System is a computerized information system that enables Shippers to nominate the movement of Crude Petroleum on Carrier's System. Shippers can access the ENom System on Carrier's website at https://www.plainsallamerican.com/customer-center/pipeline-tariffs/enom-portal.

"Gross Standard Volume" as herein used means volume corrected to a temperature of sixty degrees (60°) Fahrenheit, in accordance with the latest API/ASTM measurement standards, and at equilibrium vapor pressure.

"Nomination" as herein used means written designation by a Shipper to the Pipeline Operator of an approximate quantity of Crude Petroleum for transportation from specified origin point(s) to a specified destination point(s) over a period of one calendar month in accordance with these rules and regulations.

"Nomination Date" as herein used means twenty-fifth (25th) of the month preceding the movement; provided that if the twenty-fifth (25th) of such month falls on a weekend, the date shall be the preceding workday, and further provided that if the twenty-fifth (25th) of such month falls on a holiday the date shall be two (2) workdays prior to the holiday.

"Pipeline" as used herein means the gathering system that extends from the points set forth in this tariff to Gardendale, Lasalle County, Texas.

"Pipeline Capacity" as herein used means the volume of Crude Petroleum throughput capacity of the Pipeline, as reasonably determined by Pipeline Operator.

"Pipeline Operator" as herein used means Plains Pipeline, L.P.

"Receipt" as herein used means transfer from Shipper at origin to Pipeline Operator for transportation.

"Shipper" as herein used means a Party who contracts with Pipeline Operator for the transportation of Crude Petroleum under the terms of this tariff.

"Single Delivery" as used herein means a Delivery of Crude Petroleum in one continuous operation to one or more Consignees into a single facility, furnished by such Consignee or Consignees, to which the Pipeline is connected.

"TRRC" as used herein means the Texas Railroad Commission.

Rule 20. Common Stream Contamination- Rule 1 contained herein shall be amended as follows:

If Crude Petroleum is tendered that is materially different in character and/or quality from that usually produced in the field, Pipeline Operator, in its sole discretion, may reject such tender to prevent

contamination of the Common Stream. Carrier will allow for shipment from any one person an amount exceeding 3,000 barrels of petroleum in any one day.

Rule 21. Storage- Rule 5 contained herein shall be amended as follows:

The Pipeline Operator has working tanks required in the process of transporting Crude Petroleum but no other available tankage and therefore, unless otherwise specifically stated in a tariff making reference to these rules and regulations, Pipeline Operator does not have facilities for rendering, nor does it offer, a storage service. Provisions for storage in transit in facilities furnished by Shipper at points on the Pipeline will be permitted to the extent authorized under individual tariffs lawfully on file with the Texas Railroad Commission.

- Rule 22. Intentionally Left Blank.
- Rule 23. Intentionally Left Blank
- Rule 24. Notice of Arrival, Delivery at Destination, Demurrage- Rule 10 contained herein shall be superseded as follows:

As amended by Rule 21 and this Rule, Pipeline Operator shall not be required to provide crude oil storage to any shipper, either in its pipelines or storage tanks, unless alternate commercial arrangements are made in advance between Pipeline Operator and shippers. The Demurrage charges outlined in Rule 10. are not applicable under this tariff.

- Rule 25. Telecommunications-Rule 13 contained herein is not applicable to the pipelines or facilities operated under this tariff.
- Rule 26. Interconnections for Receipts and Deliveries- Rules 17 and 18 contained herein shall be amended as follows:

Pipeline Operator will accept Crude Petroleum for transportation only when the Shipper or Consignee has provided the necessary facilities for delivering Crude Petroleum into the Pipeline at the point of origin and has made the necessary arrangements for shipment beyond or has provided the necessary facilities for receiving said Crude Petroleum as it arrives at the destination.

Pipeline Operator shall not be obligated to provide connections or facilities for the exchange of Crude Petroleum unless the Shipper or producer requesting such connection can demonstrate compliance with Pipeline Operator's connection and Delivery specifications.

Pipeline Operator will determine and advise Shippers of the size and capacity of pipelines, tanks and/or metering facilities to be provided by Shipper at the point of Receipt to meet the operating conditions of Pipeline Operator's facilities at such point. Pipeline Operator will not accept Crude Petroleum for transportation unless such facilities have been provided to meet industry standards.

The Pipeline Operator may refuse to accept Crude Petroleum for transportation unless satisfactory written evidence is furnished that the Shipper or Consignee has provided the necessary facilities for the prompt receiving of said Crude Petroleum at its destination.

Connections to the Pipeline will only be considered if made by formal written notification to Pipeline Operator. All connections will be subject to design requirements necessary to protect the safety, security, integrity and efficient operation of the Pipeline in accordance with generally accepted industry standards. Acceptance of any request for connection will be subject to compliance with governmental regulations.

Rule 27. Intentionally Left Blank.

Rule 28. Specifications and Restrictions.

- A. Pipeline Operator will from time to time determine the quality and general characteristics of Crude Petroleum it will regularly transport as a Common Stream between particular origin points and destination points on the Pipeline. Pipeline Operator will inform all interested persons of such Crude Petroleum quality and general characteristics upon request by them. Changes in Crude Petroleum quality standards will be made by new tariff filings. Crude Petroleum quality and general characteristics include, but are not limited to, whole crude properties such as A.P.I. gravity, sulfur, S. & W., Reid Vapor Pressure, pour point, viscosity, hydrogen sulfide, metals, nitrogen, chlorinated and/or oxygenated hydrocarbons, salt content, and product yields.
- B. Pipeline Operator may, from time to time, undertake to transport other or additional grades of Crude Petroleum if, in the opinion of Pipeline Operator, sufficient quantities are nominated and facilities are available to justify transportation of such other or additional grades. Further, Pipeline Operator may, after giving reasonable notice to Shippers who may be affected, cease transporting particular grades of Crude Petroleum.
- C. No Crude Petroleum will be accepted for transportation except merchantable Crude Petroleum which is properly settled and contains not more than one percent (1%) of basic sediment, water, and other impurities, and has a temperature not in excess of one hundred and twenty degrees (120°) Fahrenheit and its gravity, viscosity, pour point, and other characteristics are such that it will be readily susceptible to transportation through Pipeline Operator 's existing facilities, and will not materially affect the quality of other shipments or cause disadvantage to other Shippers and/or Pipeline Operator. In addition, Pipeline Operator reserves the right to reject (any and all of, but not limited to) the following shipments: (1) Crude Petroleum having a Reid Vapor Pressure in excess of nine (9) pounds per square inch absolute and/or an API gravity in excess of 78.9°; and (2) Crude Petroleum where the Shipper or Consignee has failed to comply with applicable laws, rules, and regulations made by government authorities regulating shipment of Crude Petroleum. If Crude Petroleum is accepted from tankage, settled bottoms in such tanks must not be above a point four inches (4") below the bottom of the pipeline connection with the tank from which it enters the Pipeline.
- D. If, upon investigation, Pipeline Operator determines that a Shipper has delivered to the Pipeline Crude 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, arsenic, lead and/or other metals, such Shipper will be excluded from further entry into the Pipeline until such time as quality specifications are met to the satisfaction of Pipeline Operator. Further, Pipeline Operator reserves the right to dispose of any contaminated Crude Petroleum blocking its Pipeline. Disposal thereof, if necessary, may be made in any reasonable commercial manner, and any liability associated with the contamination or disposal of any Crude Petroleum shall be borne by the Shipper introducing the contaminated Crude Petroleum into the Pipeline.
- E. Unless stated otherwise in written notice provided by Carrier to all subscribers to tariffs for the System affected, Carrier will not segregate Crude Petroleum of a kind and/or quality not currently transported through Carrier's facilities.

Shippers are required to furnish Crude Petroleum assays upon the request of Pipeline Operator so that quality determinations can be made. If Pipeline Operator determines that the Crude Petroleum tendered for transportation does not meet the specifications contained herein or, in the opinion of Pipeline Operator, differs materially in character from Crude Petroleum being transported by Pipeline Operator, transportation may be either refused or only offered under such terms and conditions agreed to by Pipeline Operator and Shipper and consistent with this tariff.

Rule 29. Intentionally Left Blank.

Rule 30. Nominations and Scheduling.

All Shippers and Consignees desiring to ship or receive Crude Petroleum through the pipelines of Pipeline Operator shall provide Pipeline Operator, in writing, a Nomination containing the following information, and any other such information reasonably requested by Pipeline Operator to schedule and dispatch each shipment of Crude Petroleum: the kind, quantity, Receipt point, sequence of Delivery, Delivery point and Shipper of each proposed shipment of Crude Petroleum. The following shall also apply to Nominations which amend Rule 7:

- A. Unless otherwise stated on a tariff making reference to these rules and regulations, Nominations for the transportation of Crude Petroleum for which Pipeline Operator has facilities will be accepted into the Pipeline 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 provided such Crude Petroleum is of similar quality and characteristics as is being transported from origin point to destination point; except that Pipeline Operator reserves the right to accept any quantity of Crude Petroleum from lease tanks or other facilities to which the Pipeline is connected if such quantity can be consolidated with other Crude Petroleum such that Pipeline Operator can make a Single Delivery of not less than ten thousand (10,000) Barrels, and Pipeline Operator will not be obligated to make any Single Delivery of less than ten thousand (10,000) Barrels, unless Pipeline Operator's operations dictate otherwise.
- B. [W] Unless such Nomination is made timely, Pipeline Operator will be under no obligation to accept Crude Petroleum for transportation. Nominations shall only include origin-points and destination points set forth on the applicable tariff. Nominations must be received in writing before 12:00 noon-Central Standard Time/Central Daylight-Saving-Time, whichever is applicable, on the Nomination Date. Pipeline Operator will inform-Shippers of Pipeline Operator holidays at the time they become Shippers and thereafter on January 15 of each year in the event the holidays are changed.

Any Shipper desiring to tender Crude Petroleum for transportation shall make a Nomination to the Carrier before 12:00 noon Central Standard Time/Central Daylight Saving Time, whichever is applicable, on the twenty-fifth (25th) of the month preceding the movement. When the twenty-fifth (25th) of the month falls on a weekend, Nominations will be required prior to 12:00 noon Central Standard Time/Central Daylight Saving Time, whichever is applicable, on the preceding workday. When the twenty-fifth (25th) of the month falls on a holiday, Nominations will be required prior to 12:00 NOON Central Standard Time/Central Daylight Saving Time, whichever is applicable, three (3) workdays prior to the holiday. The Nomination may be e-mailed, faxed or submitted via Carrier's ENom System. Unless such notification is made, the Carrier will be under no obligation to accept Crude Petroleum for transportation.

- C. Nominations or changes in Nominations received after the Nomination Date will not be accepted from the Nomination Date to the first day of the following month. After the first of the month, changes will be accepted only in writing and only if space is available and the additional or changed Nominations do not impair the movement of Crude Petroleum nominated prior to the Nomination Date.
- D. In the event the total Nominations submitted for shipment in the Pipeline exceed the Pipeline Capacity, such Pipeline Capacity shall be prorated among all shipments according to the proration procedure set forth in Rule 34, below.
- E. For each calendar month Pipeline Operator will establish a sequence for pumping Crude Petroleum through the Pipeline and will schedule the approximate time when Crude Petroleum offered for shipment will be received by Pipeline Operator at origin points and delivered by Pipeline Operator at destination points.
- F. Pipeline Operator will inform each Shipper of the time within each calendar month when Crude Petroleum will be received from such Shipper at origin points and Pipeline Operator will inform

each Shipper or his Consignee of the approximate time within each calendar month when Crude Petroleum will be delivered to such Shipper or Consignee at destination points.

Rule 31. Measurements and Adjustments- The following modifies and supersedes Rule 9 hereof as follows:

- A. Crude Petroleum shipped hereunder shall be measured and tested by representatives of Pipeline Operator or by automatic equipment approved by Pipeline Operator. Quantities shall be determined by dynamic or static measurement methods in accordance with appropriate API standards, latest revision, and adjusted to base (reference or standard) conditions.
- B. When, in Pipeline Operator's opinion, a lease operator or connecting carrier's tanks are unsafe or unsuitable for use in custody transfer because of improper connections, high bottom accumulations of any extraneous matter, incrustations on the inside of the tank walls, or any other conditions unacceptable to Pipeline Operator, Pipeline Operator may reject the use of such tank until the unacceptable conditions have been corrected. Alternatively, in the case of incrustation inside any tank, Pipeline Operator may determine and apply a correction factor to ascertain the correct tank capacity.
- C. Corrections will be made for temperature from observed degrees Fahrenheit to 60 degrees Fahrenheit and for pressure to 14.696 psia. Pipeline Operator will deduct the full amount of sediment, water and other impurities as the centrifugal or other test may show.
- D. Unless otherwise indicated on a tariff, quantities transported will be adjusted to allow for inherent losses, including but not limited to shrinkage, evaporation, interface losses and other losses. Pipeline loss adjustments will be made on the basis of total quantities transported.
- E. After consideration of all of the factors set forth in this Rule 31, a net balance will be determined as the quantity deliverable by Pipeline Operator, and transportation charges will be assessed on this net balance.

Rule 32. Intentionally Left Blank

Rule 33. Liability of Parties-Rule 4 contained herein shall be supplemented, as follows:

- A. Pipeline Operator shall have the right to reject any Crude Petroleum, when nominated for transportation, 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 it may require of the Shipper satisfactory evidence of its perfected and unencumbered title or satisfactory indemnity bond to protect Pipeline Operator. By nominating Crude Petroleum, the Shipper warrants and guarantees that the Shipper has good title thereto and agrees to hold Pipeline Operator harmless for any and all loss, cost, liability, damage and/or expense resulting from failure of title thereto; provided, that acceptance for transportation shall not be deemed a representation by Pipeline Operator as to acceptance of Shipper's good title.
- B. As a condition to Pipeline Operator's acceptance of Crude Petroleum under this tariff, each Shipper agrees to defend, indemnify and hold harmless Pipeline Operator against claims or actions for injury and/or death of any and all persons whomever and for damage to property of or any other loss sustained by Pipeline Operator, Shipper, Consignee and/or any third party resulting from or arising out of 1) any breach of or failure to adhere to any provision of this tariff by Shipper, Consignee, their agents, employees or representatives and 2) the negligent act(s), or failure(s) to act of Shipper, Consignee, their agents, employees or representatives in connection with Delivery or Receipt of Crude Petroleum.

Rule 34. Proration- The following modifies and supersedes Rule 16 hereof as follows:

Pipeline Operator will manage its proration policy in a fair and equitable manner.

Plains Pipeline, L.P.

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Rule 35. Payment of Transportation and Other Charges- Supersedes the provisions of Rule 11 hereof.

- A. Crude Petroleum accepted for transportation shall be subject to the rates and charges in effect on the date of Receipt of such Crude Petroleum by the Pipeline Operator, irrespective of the date of Nomination. Unless otherwise stated in an individual tariff making reference to these rules and regulations, all other lawful charges will be collected on the basis of the net quantities of Crude Petroleum delivered. All net quantities will be determined in the manner provided in Rule 31 (Measurements and Adjustments).
- B. Shipper shall be responsible for payment of transportation and all other charges applicable to the shipment (including penalties, interest and late fees), and may be required to prepay such charges or furnish an irrevocable letter of credit satisfactory to Pipeline Operator or furnish a guaranty of payment satisfactory to Pipeline Operator. Unless otherwise stated in this tariff or on an invoice, payments shall be due and payable within twenty (20) days following the receipt of an invoice. Payments not received by Pipeline Operator in accordance with these Rules shall be subject to a late charge equivalent to one hundred and twenty-five percent (125%) of the prime rate as quoted by a major New York bank selected by Pipeline Operator, or the maximum rate allowed by law, whichever is less.
- C. Pipeline Operator shall have a lien on all Crude Petroleum accepted for transportation to cover payment of all charges, including demurrage and late charges and may refuse to make Delivery of Crude Petroleum until all charges have been paid. If said charges, or any part thereof, shall remain unpaid for twenty (20) days following the due date, Pipeline Operator may sell Shipper's Crude Petroleum at public auction in accordance with the procedures set forth below.
- D. Pipeline Operator shall have a lien on Crude Petroleum when there shall be failure to take the Crude Petroleum at the point of destination as provided in Rule 24 (Notice of Arrival, Delivery at Destination, Demurrage). Pipeline Operator shall have the right to sell said Crude Petroleum at public auction, for cash. The auction will be held between the hours of ten o'clock a.m. and four o'clock p.m. on any day not a weekend or legal holiday, and not less than twenty-four (24) hours after the Shipper has been officially notified of the time and place of such sale and the quantity, general description, and location of the Crude Petroleum to be sold. Pipeline Operator may be a bidder and purchaser at such sale. Out of the proceeds of said sale, Pipeline Operator shall pay itself for all transportation, demurrage, and other lawful charges, expenses of notice, advertisement, sale and other necessary expenses, and expenses of caring for and maintaining the Crude Petroleum, and the balance shall be held for whomsoever may be lawfully entitled thereto after the auction. If the proceeds of said sale do not cover all expenses incurred by Pipeline Operator, the Shipper and/or Consignee are liable to Pipeline Operator for any deficiency.

Rule 36. Charge for Spill Compensation.

In addition to the transportation charges and all other charges accruing on Crude Petroleum accepted for transportation, a per Barrel charge will be assessed and collected in the amount of any tax, fee, or other charge levied against Pipeline Operator in connection with such a commodity, pursuant to any Federal, State or local act or regulation which levies a tax, fee, or other charge, on the Receipt, Delivery, transfer or transportation of such commodities within their jurisdiction for the purpose of creating a fund for the prevention, containment, cleanup and/or removal of spills and/or the reimbursement of persons sustaining loss therefrom. If such taxes, fees or other charges are levied against Pipeline Operator pursuant to this Rule 36, Pipeline Operator shall file a tariff with the TRRC.

Rule 37. Intrasystem Transfers.

An intrasystem transfer of title to Crude Petroleum will be allowed on the Pipeline for a fee of [i] 0.54 cent per Barrel charged to the transferor; provided, however, that no transfer fee shall be assessed to the transferor if the transferor pays the transportation charges to the specified transport point. The

transferee accepting volumes on an intrasystem transfer shall be responsible for payment of transportation charges from the transfer point to destination. Pipeline Operator shall not be obligated to recognize any intrasystem transfer and shall incur no liability with respect thereto or for any losses or damages accruing to any party involved in an intrasystem transfer. An intrasystem transfer request, if recognized, shall be confirmed in writing by both the transferor and the transferee within seventy-two (72) hours after the request. Such request shall indicate the party to which the transfer is to be made, the amount of Crude Petroleum to be transferred, its location, grade, and a warranty statement of unencumbered title. In addition, the transferor and transferee, upon the request of Pipeline Operator and at Pipeline Operator's option, shall provide an irrevocable letter of credit or other form of security in terms satisfactory to Pipeline Operator and in an amount necessary to cover all charges and fees.

Rule 38. Volumetric Adjustment.

Any volumetric difference between Receipts from Shipper and Delivery to Shipper or Consignee during a current month as a result of scheduling will be adjusted in the following month without any further liability to Pipeline Operator, taking into consideration all prior deductions allowed pursuant to the rules and regulations contained herein.

Rule 39. Inventory Requirements.

Pipeline Operator will supply the Pipeline line fill.

Rule 40. Pipeage or other Contracts Required.

Separate pipeage and other contracts in accordance with these rules and regulations covering further details may be required by the Pipeline Operator before any duty for transportation shall arise.

Rule 41. Claims for Loss or Damage-Rule 12 contained herein shall be amended as follows:

As a condition precedent to recovery for loss, damage, or delay to shipments, claims must be filed in writing with Pipeline Operator within nine (9) months after Delivery of the Crude 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 Pipeline Operator only within two (2) years and one (1) day from the day when notice in writing is given by Pipeline Operator to the claimant that Pipeline Operator has disallowed the claim or any part or parts thereof specified in the notice. Where claims are not filed or suits are not instituted thereon in accordance with the foregoing provisions, Pipeline Operator will not be liable and such claims will not be paid.

Rule 42. Diversion or Reconsignment.

Crude Petroleum in transport may be diverted to a destination other than originally specified on the tender, or Crude Petroleum in transport may be reconsigned to another Shipper at point of destination only, provided such diversion or reconsignment is made in writing by the tendered Shipper prior to Delivery at original destination. This will be allowed subject to the rates, rules and regulations applicable from point of origin to point of final destination, upon condition that no out-of-line or backhaul movement will be made.

Rule 43. Truck, Tanker and Barge Loading and Unloading.

All shipments unloaded from tank truck facilities will be subject to an additional charge of [I] 8.86 cents per barrel. Such charge will be in addition to all other charges.

Rule 44. Application of Rates from and to Intermediate Points

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

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

Rule 45. Risk of Loss.

If Crude Petroleum is lost in transit, while in the custody of Pipeline Operator, due to causes other than those described in Rule 19, Pipeline Operator may obtain and deliver to Shipper other Crude Petroleum of the same quantity and grade as that which was lost, but Pipeline Operator shall not be obligated to do so. In the alternative, Pipeline Operator may compensate Shipper for such loss in money. If Pipeline Operator compensates Shipper for such loss in money, the price per Barrel shall be determined as of the date of the loss based on the value of the lost Crude Petroleum. In no event shall Pipeline Operator be liable to Shipper for consequential, incidental or exemplary damages, nor any damages not due to Pipeline Operator's negligence.

Rule 46. Common Stream Crude – Connecting Carriers.

When both Receipts from and deliveries to a connecting pipeline of substantially the same grade of Crude Petroleum are scheduled at the same interconnection, Pipeline Operator reserves the right, with the cooperation of the operator of the connecting pipeline, to offset like volumes of such Common Stream Crude Petroleum in order to avoid the unnecessary use of energy which would be required to physically pump the offsetting volumes. When this right is exercised, Pipeline Operator will make the further deliveries for the Shipper involved from Pipeline Operator's Common Stream.

Rule 47. Shipments, Maintenance of Identity.

- A. Pipeline Operator shall not be liable to Shipper for changes in gravity or quality of Shipper's Crude Petroleum which may occur from commingling or intermixing Shipper's Crude Petroleum with other Crude Petroleum in the same Common Stream while in transit. Pipeline Operator is not obligated to deliver to Shipper the identical Crude Petroleum nominated by Shipper; Pipeline Operator will deliver the grade of Crude Petroleum it is regularly transporting as a Common Stream.
- **B.** Pipeline Operator shall have no responsibility in, or for, any revaluation or settlements which may be deemed appropriate by Shippers and/or Consignees because of mixing or commingling of Crude Petroleum shipments between the Receipt and Delivery of such shipments by Pipeline Operator within the same Common Stream.

Rule 48. Additives.

Pipeline Operator reserves the right to require, approve or reject the injection of corrosion inhibitors, viscosity or pour point depressants, drag reducing agent, or other such additives in Crude Petroleum to be transported.

Rule 49. Origin Facilities Required for Automatic Custody Transfer.

Where Consignor (or Shipper) elects to deliver Crude Petroleum to Pipeline Operator 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 Pipeline Operator 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 insure that the Crude Petroleum being delivered to the meter is at a pressure in excess of the bubble point of the liquid.

Rule 50. Laws and Regulations.

This tariff is subject to all present and future applicable federal, state and local laws and all applicable rules, regulations and orders of any governmental authority having jurisdiction (collectively "Law"). To the extent any rule herein conflicts with any Law, the applicable rule shall be revised to comply with such Law. Pipeline Operator shall not be liable to a Shipper for the adverse consequences of a revision necessary to comply with the Law.

PLEASE NOTE: IN THE EVENT OF ANY CONFLICT BETWEEN SECTION 1 AND SECTION 2 OF THIS TARIFF, SECTION 2 WILL GOVERN.

Plains Pipeline Quality Bank (Differential Value Adjustments Report)

Statement Month:

Current Period Calculations

Shipped Via: PLAINS PIPELINE

Crude Type: Crude

	·	(B)		Gravity	Sulfur	(a) × (x) = (a)	(¬) × (×) – (¬)
	Barrels Received	API Gravity	Percent Sulfur	Value per Value per Bbi Bbi	Value per Bbl	Value	Value
Customer 1 CDP 1 Customer 2 CDP 2 Customer 3 CDP 3	100.00 100.00 100.00	34.0 35.0 46.0	0.30 0.45 0.50	0.30 4.750 0.45 5.000 0.50 4.750	1.000 1.050 1.100	475.00 500.00 475.00	100.00 105.00 110.00
TOTAL ALL CDP RECEIPTS	300.00					1,450	315
Common Stream Weighted Average GRAVITY value: Common Stream Weighted Average SULFUR value:	e: (F) / (A)	4.833 1.050	ΞΞ				
Customer 1 Gravity Adjustment: [(H) - (D)] X (A)		\$ 8.33		Sulfur Adjustment:		[(E) - (I)] X (A)	\$ (5.00)
Customer 2 Gravity Adjustment: [(H) - (D)] X (A)		\$ (16.67)		Sulfur Adjustment:		[(E) - (I)] X (A)	: ()
Customer 3 Gravity Adjustment: [(H) - (D)] X (A)		\$ 8.33		Suifur Adjustment:		[(E) - (i)] X (A)	5.00

NOTE: Debit (Positive) dollar amounts must pay and Credit (Negative) dollar amounts will receive money.

Gravity Value Per Barrel

AF		Value	API	Value	API	Value	API		API	Value Per Bbl.
Gra		Per Bbl.	Gravity	Per Bbl.	Gravity	Per Bbl.	Gravity	Per Bbl.	Gravity	
	25.0	2.500	30.1	3.775	35.2	5.000	40.3	5.000		4.900
	25.1	2.525	30.2	3.800	35.3	5.000	40.4	5.000		4.875
	25.2	2.550	30.3	3.825	35.4	5.000	40.5	5.000		4.850
	25.3	2.575	30.4	3.850	35.5	5.000	40.6	5.000		4.825
	25.4	2.600	30.5	3.875	35.6	5.000	40.7	5.000		4.800
	25.5	2.625	30.6	3.900	35.7	5.000	40.8	5.000		4.775
	25.6	2.650	30.7	3.925	35.8	5.000	40.9	5.000		4.750
	25.7	2.675	30.8	3.950	35.9	5.000	41.0	5.000		4.725
	25.8	2.700	30.9	3.975	36.0	5.000	41.1	5.000		4.700
	25.9	2.725	31.0	4.000	36.1	5.000	41.2	5.000		4.675
	26.0	2.750	31.1	4.025	36.2	5.000	41.3	5.000		4.650
	26.1	2.775	31.2	4.050	36.3	5.000	41.4	5.000		4.625
	26.2	2.800	31.3	4.075	36.4	5.000	41.5	5.000		4.600
	26.3	2.825	31.4	4.100	36.5	5.000	41.6	5.000		4.575
	26.4	2.850	31.5	4.125	36.6	5.000	41.7	5.000		4.550
	26.5	2.875	31.6	4.150	36.7	5.000	41.8	5.000	•	4.525
	26.6	2.900	31.7	4.175	36.8	5.000	41.9	5.000		4.500
	26.7	2.925	31.8	4.200	36.9	5.000	42.0	5.000	47.1	4.475
1	26.8	2.950	31.9	4.225	37.0	5.000	42.1	5.000	47.2	4.450
	26.9	2.975	32.0	4.250	37.1	5.000	42.2	5.000	47.3	4.425
	27.0	3.000	32.1	4.275	37.2	5.000	42.3	5.000	47.4	4.400
	27.1	3.025	32.2	4.300	37.3	5.000	42.4	5.000	47.5	4.375
	27.2	3.050	32.3	4.325	37.4	5.000	42.5	5.000	47.6	4.350
	27.3	3.075	32.4	4.350	37.5	5.000	42.6	5.000	47.7	4.325
	27.4	3.100	32.5	4.375	37.6	5.000	42.7	5.000	47.8	4.300
	27.5	3.125	32.6	4.400	37.7	5.000	42.8	5.000	47.9	4.275
	27.6	3.150	32.7	4.425	37.8	5.000	42.9	5.000	48.0	4.250
	27.7	3.175	32.8	4.450	37.9	5.000	43.0	5.000	48.1	4.225
	27.8	3.200	32.9	4.475	38.0	5.000	43.1	5.000	48.2	4.200
	27.9	3.225	33.0	4.500	38.1	5.000	43.2	5.000	48.3	4.175
	28.0	3.250	33.1	4.525	38.2	5.000	43.3	5.000	48.4	4.150
	28.1	3.275	33.2	4.550	38.3	5.000	43.4	5.000	48.5	4.125
	28.2	3.300	33.3	4.575	38.4	5.000	43.5	5.000	48.6	4.100
	28.3	3.325	33.4	4.600	38.5	5.000	43.6	5.000		4.075
	28.4	3.350	33.5	4.625	38.6	5.000	43.7	5.000		4.050
	28.5	3.375	33.6	4.650	38.7	5.000	43.8	5.000	1	4.025
	28.6	3.400	33.7	4.675	38.8	5.000	43.9	5.000	1	4.000
	28.7	3.425	33.8	4.700	38.9	5.000	44.0	5.000	1	3.975
1	28.8	3.450	33.9	4.725	39.0	5.000	44.1	5.000	1	3.950
	28.9	3.475	34.0	4.725	39.1	5.000	44.2	5.000	1	3.925
	29.0	3.500	34.1	4.775	39.2	5.000	44.3	5.000	1	3.900
	29.1	3.525	34.1	4.800	39.3	5.000	44.4	5.000	1	3.875
1					39.4	5.000	44.5	5.000	1	3.850
	29.2	3.550	34.3	4.825	39. 4 39.5	5.000	44.6	5.000	1	3.825
	29.3	3.575	34.4	4.850			44.0	5.000	1	3.800
1	29.4	3.600	34.5	4.875	39.6	5.000		5.000	1	3.775
	29.5	3.625	34.6	4.900	39.7	5.000	44.8		1	
	29.6	3.650	34.7	4.925	39.8	5.000	44.9	5.000		3.750
	29.7	3.675	34.8	4.950	39.9	5.000	45.0	5.000	above 50	ravity values decrees, the
1	29.8	3.700	34.9	4.975	40.0	5.000	45.1	4.975	diffrentia	l continues to
	29.9	3.725	35.0	5.000	40.1	5.000	45.2	4.950	1	25/bbl per tenth
	30.0	3.750	35.1	5.000	40.2	5.000	45.3	4.925	of a	dgree.

Sulfur Value Per Barrel

1										
	0/ 0.46	Value Per Bbl.	0/ 0 16	Value Per Bbl.	0/ 0 1/	Value	~ ~	Value	Value	
	% Sulfur	1.000	% Sulfur		% Sulfur	Per Bbl.	% Sulfur	Per Bbl. 2.130	% Sulfur Per Bb	_
	0.01	1.000	0.51 0.52	1.110 1.120	1.02 1.03	1.620 1.630	1.53 1.5 4	2.130		340 350
	0.01	1.000	0.52	1.120	1.03	1.640	1.54	2.140		60
	0.02	1.000	0.54	1.140	1.04	1.650	1.56	2.160		370
	0.04	1.000	0.55	1.150	1.06	1.660	1.57	2.170		880
1	0.05	1.000	0.56	1.160	1.07	1.670	1.58	2.170		90
	0.06	1.000	0.57	1.170	1.08	1.680	1.59	2.190		700
ı	0.07	1.000	0.58	1.180	1.09	1.690	1.60	2.200		10
	0.08	1.000	0.59	1.190	1.10	1.700	1.61	2.210		20
	0.09	1.000	0.60	1.200	1.11	1.710	1.62	2.220		30
	0.10	1.000	0.61	1.210	1.12	1.720	1.63	2.230		40
-	0.11	1.000	0.62	1.220	1.13	1.730	1.64	2.240		750
ł	0.12	1.000	0.63	1.230	1.14	1.740	1.65	2.250		60
	0.13	1.000	0.64	1.240	1.15	1.750	1.66	2.260		70
	0.14	1.000	0.65	1.250	1.16	1.760	1.67	2.270		780
-	0.15	1.000	0.66	1.260	1.17	1.770	1.68	2.280		90
-	0.16	1.000	0.67	1.270	1.18	1.780	1.69	2.290		300
	0.17	1.000	0.68	1.280	1.19	1.790	1.70	2.300		310
-	0.18	1.000	0.69	1.290	1.20	1.800	1.71	2.310		320
	0.19	1.000	0.70	1.300	1.21	1.810	1.72	2.320		330
	0.20	1.000	0.71	1.310	1.22	1.820	1.73	2.330		340
	0.21	1.000	0.72	1.320	1.23	1.830	1.74	2.340	2.25 2.8	350
-	0.22	1.000	0.73	1.330	1.24	1.840	1.75	2.350	2.26 2.8	860
-	0.23	1.000	0.74	1.340	1.25	1.850	1.76	2.360	2.27 2.8	370
	0.24	1.000	0.75	1.350	1.26	1.860	1.77	2.370	2.28 2.8	80
	0.25	1.000	0.76	1.360	1.27	1.870	1.78	2.380	2.29 2.8	390
	0.26	1.000	0.77	1.370	1.28	1.880	1.79	2.390	2.30 2.9	900
	0.27	1.000	0.78	1.380	1.29	1.890	1.80	2.400	2.31 2.9	10
	0.28	1.000	0.79	1.390	1.30	1.900	1.81	2.410	2.32 2.9	20
	0.29	1.000	0.80	1.400	1.31	1.910	1.82	2.420		30
	0.30	1.000	0.81	1.410	1.32	1.920	1.83	2.430		40
	0.31	1.000	0.82	1.420	1.33	1.930	1.84	2.440		950
	0.32	1.000	0.83	1.430	1.34	1.940	1.85	2.450		60
	0.33	1.000	0.84	1.440	1.35	1.950	1.86	2.460		70
	0.34	1.000	0.85	1.450	1.36	1.960	1.87	2.470		080
	0.35	1.000	0.86	1.460	1.37	1.970	1.88	2.480		90
	0.36	1.000	0.87	1.470	1.38	1.980	1.89	2.490		000
	0.37	1.000	0.88	1.480	1.39	1.990	1.90	2.500)10
	0.38	1.000	0.89	1.490	1.40	2.000	1.91	2.510		20
	0.39	1.000	0.90	1.500	1.41	2.010	1.92	2.520		30
	0.40	1.000	0.91	1.510	1.42	2.020	1.93	2.530)40
	0.41	1.010	0.92	1.520	1.43	2.030	1.94	2.540		50
	0.42	1.020	0.93	1.530	1.44	2.040	1.95	2.550	i e	060
	0.43	1.030	0.94	1.540	1.45	2.050	1.96	2.560		70
	0.44	1.040	0.95	1.550	1.46	2.060	1.97	2.570		080
	0.45	1.050	0.96	1.560	1.47	2.070	1.98	2.580		90
	0.46	1.060	0.97	1.570	1.48	2.080	1.99	2.590		00
	0.47	1.070	0.98	1.580	1.49	2.090	2.00	2.600	For sulfur values abo 2.5%, the diffrentia	1
	0.48	1.080	0.99	1.590	1.50	2.100	2.01	2.610	continues to increase	e at
	0.49	1.090	1.00	1.600	1.51	2.110	2.02	2.620	.01/bbl per hundredth o	of a
	0.50	1.100	1.01	1.610	1.52	2.120	2.03	2.630	percent.	