COPAS to NAESB Data Element Cross Reference

Sorted by COPAS Data Element Number (COPAS Bulletin 24 – October 2000)

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
HEADER INFORMATION								
1.	For the Month of	The production month that this report represents	R	Imbalance Period (Imb Per)	The period during which the imbalance occurred or the cumulative imbalance is reported.			
2.	Operator (preparer) Name	The name of the statement preparer and Operator of the facility covered by this report	R	Preparer Data	The name of the business party preparing the report	SO	SO	
				Location Operator Data	The party recognized as the operator of record for the location.	M	M	
3.	Facility Name	The name of the facility to which this report applies (When the facility is a well, the API well number should be used in this data element.)	R	Location Data	Unique identification of a point.	M	M	
4.	Facility Indicator	Whether the facility is a well, lease, gathering system, or gas plant	R	NONE	Data extractable from Location Data	N/A	N/A	
5.	Reservoir Name	The name of the reservoir for which this statement applies (Required if the facility is a well)	C	NONE	Data extractable from Location Data	N/A	N/A	
6.	Location	The location of the facility (field, county and state)	R	NONE	Data extractable from Location Data	N/A	N/A	
7.	Date Prepared	The date this report was prepared	R	Statement Date/Time (Stmt D/T)	Date and time the statement was produced.	M	M	
8.	Name of Preparer	The name of the person preparing the report	R	Preparer Contact Name (Prep Contact)	The name of the contact person for questions regarding the statement information.	M	M	

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
9.	Phone Number	The phone number of the person preparing the report	R	Preparer Contact Phone Number (Prep Phone)	The phone number of the contact person for questions regarding the statement information.			
	NONE			Preparer Contact E-mail Address (Prep E-mail)	The e-mail address of the contact person for questions regarding the statement information.	SO	SO	
	NONE			Preparer Contact Fax Number (Prep Fax)	The fax number of the contact person for questions regarding the statement information.	SO	SO	
10.	Balancing Units (MCF / MMBTU)	The measurement of the quantities reported on this statement	R	Unit of Measure (U/Meas)	Specifies the unit or basis for measurement for the corresponding measurement value.	M	M	[Code values = Gigacaloires, Gigaljoules, Kilopascal, MMBTU and Thousand Cubic Feet]
11.	Pressure Base	The pressure base of volumes reported on this report (Required if balancing units are MCF)	C	Reporting Pressure Base (Rpt Press Base)	Pressure base used in reporting volume in MCFs.	C	C	Mandatory when Unit of Measure for associated quantity is 'Thousand Cubic Feet'.
12.	Wet/Dry Basis	The BTU test basis used to determine the MMBTUs recorded on this report (Wet refers to tests taken and results stated on a fully saturated with water basis. Required if the balancing units are MMBTU)	C	Wet/Dry Basis (Wet/Dry)	BTU test basis used to determine MMBTUs reported.	C	C	Mandatory when Unit of Measure for associated quantity is 'Million BTUs'. {Code values = Wet, Dry]
	NONE			Statement Recipient Data	The intended user of the statement.	M	M	
SUMMARY VOLUME IMBALANCE INFORMATION								

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
13.	Transporter	The name of the transporter that is transporting or purchasing the gas	R	Transportation Service Provider Data	A code which uniquely identifies the transportation service provider.	M	M	
14.	Operator/Owner	The name of the taking owner for well and lease reports (The name of either the lease Operator or the taking owner for gathering system or gas plant reports. Owner would also include royalty taking in-kind.)	R	Interest Owner Data	The entity with ownership interest in the gas.	M	M	At least one of Interest Owner or Interest Owner Proprietary Code is mandatory.
15.	W. I. %	The working, royalty, or PPI of the taking owner or Operator previously listed in #14 (This percentage would be net of royalty taken in-kind.)	R	Interest Owner Percentage (Int Own Pct)	Percentage of the gas owned by the Interest Owner dedicated to a specified Transportation Service Provider.	M	M	

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
16.	Current Month Entitlement	The quantity of gas each Operator/taking owner is entitled to take and its working, royalty, or PPI share of actual gas available for delivery. (This quantity is calculated by multiplying total production delivery quantities (#22) times each taking owner's working, royalty, or PPI (#15) for well or lease facilities. If the Operator/Owner (#14) is delivering to more than one transporter (#13), the total entitlement described herein must be split between the applicable transporters based on contract dedication percentages or some other method in order that the total entitlement listed for the taking owner equals its working, royalty, or PPI percent (#15) times the total delivery quantities (#22) for well or lease facilities.	R	Entitlement Quantity (Ent Qty)	Quantity of gas each interest owner is entitled to take of the Grand Total – All Transportation Service Providers for a given Transportation Service Provider.	M	M	

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
17.	Production Delivery	The quantity of gas delivered to the transporter or used off-lease for the account of each Operator or taking owner based on the facility Operator's or transporter's allocation statement	R	Production Delivery (Prod Del)	Quantity of gas delivered to a location for the account of each Interest Owner based on the Location Operator's allocation statement.	M	M	
18.	Est./Act.	An indication of whether the production deliveries reported in item #17 are estimates or actual quantities	R	Statement Basis Data	Code used to identify statement quantities as estimate, actual or revision. Default value is actual.	C	M	For EBB, at least one of Statement Basis or Statement Basis Code Name is required. [Code Values = Estimated, Actual, Revision]
19.	Current Month Imbalance	The current month imbalance, which is the difference between current month entitlement (#16) and production delivery (#17)	R	Imbalance Quantity (Imb Qty)	Imbalance quantity for the current period.	M	M	
20.	Cumulative Imbalance	The cumulative imbalance calculated by adding the prior month cumulative imbalance to the current month imbalance (#19)	R	Ending Imbalance Quantity (End Imb Qty)	The imbalance quantity at the end of the period for an interest owner delivered to a Transportation Service Provider.	M	M	
21.	Total All Deliveries	The total of all quantities delivered to the transporter or used off-lease from the facility (Required if a manual report)	C	Total Production Deliveries (Tot Prod Del)	The total of all production deliveries made to a specified Transportation Service Provider from a given location.	M	M	
22.	Grand Total All Transporters	The total of all quantities delivered to all transporters or used off-lease from the facility (Required if a manual report)	C	Grand Total Production Delivieries (Grnd Tot Prod Del)	The total of all production deliveries made to all Transportation Service Providers from a given location.	M	M	

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
OWNER IMBALANCE SUMMARY:		This information is needed to aggregate imbalance status by Operator/taking owner when he utilizes more than one transporter.						
	NONE			Beginning Imbalance Quantity (Beg Imb Qty)	The imbalance quantity at the beginning of the period for an interest owner delivered to a Transportation Service Provider.	M	M	
23.	Prior Cumulative	The quantity of cumulative imbalance from the previous month's report (Required if a manual report)	C	Cumulative Beginning Imbalance Quantity (Cum Beg Imb Qty)	The sum of the Beginning Imbalance Quantity for an interest owner delivered to all Transportation Service Providers.	M	M	
24.	Current Month	The total of all current month imbalance quantities for each owner/Operator (Not required if there is only one transporter.)	C	Cumulative Imbalance Quantity (Cum Imb Qty)	The sum of the Imbalance Quantity for the current period for an interest owner delivered to all Transportation Service Providers..	M	M	
25.	Prior Period Adjustments	Adjustments included in the cumulative imbalance quantities in this report (Required when cumulative imbalance from previous report plus current month imbalance does not equal cumulative imbalance on this report. Each prior period adjustment should be supported by an accompanying **revised** statement for the applicable period.)	C	Prior Period Adjustment (Prior Per Adj)	Adjustment included in Ending Imbalance Quantity in this report.	M	M	Default value is zero.

COPAS to NAESB Data Element Cross Reference

COPAS Data Elements				NAESB Data Elements				
Data Elem. No.	**Business Name**	**Definition**	**Usage:**	**Business Name**	**Definition**	**EBB Usage**	**EDI Usage**	**Condition**
26.	Cumulative	The sum of all cumulative imbalance quantities for each owner/Operator (Not required if there is only one transporter.)	C	Cumulative Ending Imbalance Quantity (Cum End Imb Qty)	The sum of the Ending Imbalance Quantity for an interest owner delivered to all Transportation Service Providers.	M	M	
NOTES:		Negative indicates that the imbalance is due (owed) to the Operator/producer.						

COPAS Usages:
C = Conditional
R = Required

NAESB Usages:
BC = Business conditional - the data element is based on current variations in business practice. The business practice will be described herein, with an example. Over time, GISB expects that as business practices are standardized, elements will move out of this category. Business Conditional elements which are not supported/required by the receiver will be acknowledged in the response document with a warning message code indicating that the data elements was ignored by the receiver.
C = Conditional - the presence of data in a field is determined by the presence or lack of data in another field within the transmittal or related data sets.
M = Mandatory - the data element (information) must be supplied in the transaction.
MA = Mutually agreeable - the data element is mutually agreed to between trading partners. It must be presented to GISB for technical implementation. It does not, by its definition, create a GISB standard business practice. Usage of this element in no way can be mandated for inclusion by either trading partner in order to achieve a level of service.
SO = Sender's option - this element is optional for the sender to send and, if sent, the receiver should receive and process.

DATA DICTIONARY

Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Sdtl	Beginning Imbalance Quantity (Beg Imb Qty)	The imbalance quantity at the beginning of the period for an interest owner delivered to a Transportation Service Provider.		M	M	
Dtl	Cumulative Beginning Imbalance Quantity (Cum Beg Imb Qty)	The sum of the Beginning Imbalance Quantity for an interest owner delivered to all Transportation Service Providers.		M	M	
Dtl	Cumulative Ending Imbalance Quantity (Cum End Imb Qty)	The sum of the Ending Imbalance Quantity for an interest owner delivered to all Transportation Service Providers.		M	M	
Dtl	Cumulative Imbalance Quantity (Cum Imb Qty)	The sum of the Imbalance Quantity for the current period for an interest owner delivered to all Transportation Service Providers..		M	M	
Sdtl	Ending Imbalance Quantity (End Imb Qty)	The imbalance quantity at the end of the period for an interest owner delivered to a Transportation Service Provider.		M	M	

Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Sdtl	Entitlement Quantity (Ent Qty)	Quantity of gas each interest owner is entitled to take of the Grand Total – All Transportation Service Providers for a given Transportation Service Provider.		M	M	
Hdr	Grand Total Production Delivieries (Grnd Tot Prod Del)	The total of all production deliveries made to all Transportation Service Providers from a given location.		M	M	
Dtl	Imbalance Period (Imb Per)	The period during which the imbalance occurred or the cumulative imbalance is reported.		M	M	
Sdtl	Imbalance Quantity (Imb Qty)	Imbalance quantity for the current period.		M	M	
Sdtl	Interest Owner Data	The entity with ownership interest in the gas.				~~Hold for resolution of R97058B~~
Sdtl	Interest Owner * [4] (Int Own)			C	C	At least one of Interest Owner or Interest Owner Proprietary Code is mandatory. ~~Hold for resolution of R97058B~~
Sdtl	Interest Owner Name *** (Int Own Name)			M	nu	~~Hold for resolution of R97058B~~
Sdtl	Interest Owner Proprietary Code Int Own Prop)			C	C	At least one of Interest Owner or Interest Owner Proprietary Code is mandatory. ~~Hold for resolution of R97058B~~
Sdtl	Interest Owner Percentage (Int Own Pct)	Percentage of the gas owned by the Interest Owner dedicated to a specified Transportation Service Provider.		M	M	

Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Dtl	Location Data	Unique identification of a point.				
Hdr	Location Code * ** (Loc)			M	M	
Hdr	Location Name (Loc Name)			M	nu	
Hdr	Location Proprietary Code (Loc Prop)			C	C	Mandatory when Location Code is not present. .
Hdr	Location Operator Data	The party recognized as the operator of record for the location.				
Hdr	Location Operator * [4] (Loc Oper)			M	M	~~Hold For resolution of R97058B~~
Hdr	Location Operator Name *** (Loc Oper Name)			M	nu	
Hdr	Preparer Contact E-mail Address (Prep E-mail)	The e-mail address of the contact person for questions regarding the statement information.		SO	SO	
Hdr	Preparer Contact Fax Number (Prep Fax)	The fax number of the contact person for questions regarding the statement information.		SO	SO	
Hdr	Preparer Contact Name (Prep Contact)	The name of the contact person for questions regarding the statement information.		M	M	
Hdr	Preparer Contact Phone Number (Prep Phone)	The phone number of the contact person for questions regarding the statement information.		M	M	
Hdr	Preparer Data	The name of the business party preparing the report				

Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Hdr	Preparer ID*			SO	SO	[QUESTION: Should this be mandatory – see COPAS data element cross ref workpaper?]
Hdr	Preparer Name ***			SO	nu	[QUESTION: Currently the ***footnote refers only to TSP's version of the name. DO we need a new footnote for the Preparer's version of the name?]
Sdtl	Prior Period Adjustment (Prior Per Adj)	Adjustment included in Ending Imbalance Quantity in this report.		M	M	Default value is zero.
Sdtl	Production Delivery (Prod Del)	Quantity of gas delivered to a location for the account of each Interest Owner based on the Location Operator's allocation statement.		M	M	
Hdr	Reporting Pressure Base (Rpt Press Base)	Pressure base used in reporting volume in MCFs.		C	C	Mandatory when Unit of Measure for associated quantity is 'Thousand Cubic Feet'.
Hdr	Statement Basis Data	Code used to identify statement quantities as estimate, actual or revision. Default value is actual.				
Hdr	Statement Basis (Stmt Basis)			C	M	For EBB, at least one of Statement Basis or Statement Basis Code Name is required.
Hdr	Statement Basis Code Name (Stmt Basis Name)			C	nu	For EBB, at least one of Statement Basis or Statement Basis Code Name is required.
Hdr	Statement Date/Time (Stmt D/T)	Date and time the statement was produced.		M	M	
Hdr	Statement Recipient Data	The intended user of the statement.				
Hdr	Statement Recipient ID * [4] (Recipient)			M	M	~~Hold for resolution of R97058B~~

Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Hdr	Statement Recipient Name *** (Recipient Name)			M	nu	~~Hold for resolution of R97058B~~
Dtl	Total Production Deliveries (Tot Prod Del)	The total of all production deliveries made to a specified Transportation Service Provider from a given location.		M	M	
Dtl	Transportation Service Provider Data	A code which uniquely identifies the transportation service provider.				
Dtl	Transportation Service Provider * [4] (TSP)			M	M	
Dtl	Transportation Service Provider Name (TSP Name)			M	nu	
Hdr	Unit of Measure (U/Meas)	Specifies the unit or basis for measurement for the corresponding measurement value.		M	M	
Hdr	Wet/Dry Basis (Wet/Dry)	BTU test basis used to determine MMBTUs reported.		C	C	Mandatory when Unit of Measure for associated quantity is 'Million BTUs'.

RELEVANT FOOTNOTES

* Indicates Common Code

** When a Transportation Service Provider's proprietary location code is employed pursuant to this standard, the parties agree that nominations, confirmations, scheduled quantities, and capacity release documents employing such code should be for one gas day at a time, and used only until there is a verified common code for the point associated with the proprietary location code. This would include daily nominations over a weekend. Within two months following the availability of the location the parties should employ the common code and no longer employ the proprietary code for identifying such location in the data sets related to the identified standards.

*** The Transportation Service Provider's version of the name.

[4] Refer to NAESB Standard No. [S4 – from R97058B]

DATA GROUPS:

BEDG	Business Entity Data Group
CDG	Contract Data Group
CEDG	Contract Entitlement Data Group
CSDG	Contract Status Data Group
DDG	Date Data Group
LDG	Location Data Group
RCDG	Rate Charged Data Group
RDG	Rate Data Group
TSDG	Transaction Specific Data Group
TSPDG	Transportation Service Provider Data Group

CODE VALUES DICTIONARY

CODE VALUES DICTIONARY

Statement Basis

Code Value Description	Code Value Definition	Code Value
Actual	Quantity based upon the best available data.	A
Estimate	Quantity based upon the best available data, which is recognized as preliminary.	E
Revision	Change to a quantity based upon a prior period adjustment.	R

Unit of Measure

Code Value Description	Code Value Definition	Code Value
Gigacalories	[no definition necessary]	
Gigajoules	[no definition necessary]	
Kilopascal	[no definition necessary]	
MMBTU	[no definition necessary]	
Thousand Cubic Feet	[no definition necessary]	

Wet/Dry Basis

Code Value Description	Code Value Definition	Code Value
Dry	[no definition necessary]	
Wet	[no definition necessary]	

To Do List

1. Add verbiage to TIBP concerning expectations implied by Prior Month Adjustment (recalc all months or month of change and final month) – see outstanding question in draft TIBP.
2. Add verbiage to TIBP discussing Proportions Production Interest (PPI) in relation to Interest Owner Percentage – check COPAS to determine if Interest Owner Percentage in Oklahoma is called PPI.
3. We are using location for what COPAS calls a facility name #3 – see outstanding question in draft TIBP.
4. Apply R97058B convention on proprietary codes to indented entity data elements
5. Develop data group and data ordering.
6. Sample Paper
7. Executive Summary
8. Business Process and Practices

ANSWERS TO QUESTIONS ABOVE:

1. re PPAs:
   Waiting on answer from ExxonMobil

2. Re PPI:
   Excerpts from COPAS Bulletin 24 October ,2000:
   (P.11 "C. Basis for Determining Producer Imbalance
   Determination of the producer imbalance will always be based on each taking owner"s working, royalty, Proportionate Production Interest (PPI) share of total gas available for delivery (entitlement), and its production delivery. "

   (P. 26 ". This may be the working interest (royalty or PPI in Oklahoma) adjusted for a partParty electing to store gas or to make up previous imbalances. Entitlement is calculated as normal based on working, royalty, or PPI interest of actual property production…"

3. See explanation in italics in TIBP workpaper prepared for 4/16/02 meeting.

4. See above changes

5. To be done at IR Meeting

6. See Sample Paper workpaper prepared for 4/16/02 meeting.

7. See Flowing Gas Executive Summary workpaper prepared for 4/16/02 meeting.

8. See Flowing Gas Business Processes and Practices workpaper prepared for 4/16/02 meeting.

BUSINESS PROCESS AND PRACTICES

A. Overview

Pre-Determined Allocation (PDA)

Actual flow of natural gas is allocated to the parties involved in the transaction. These parties can include producers, operators, transporters and shippers using various methodologies to allocate actual quantities. In order to manage the impact of actual quantities varying from scheduled quantities, the specification of the method to be used in allocating actual quantities prior to gas flow is imperative. PDA's accomplish this goal by securing the agreement of the allocating--and allocated--parties on the method to be used for computing the allocation, i.e. relating scheduled quantities to actual physical flow. The implementation of a PDA clarifies all parties' expectations and responsibilities prior to gas flow.

Allocation

The allocation data set will communicate the result of the allocation process at a point. Actual measured quantities are distributed to scheduled transactions at a location. The allocation process takes into account the actual measured quantities, the scheduled quantities and the predetermined allocation method in effect for the allocation period. Quantities are allocated on either a daily or monthly basis.

There are two basic types of allocation -- Single Level or Multiple Level. The Single Level allocation type indicates the location operator will allocate to the service requester level in one step. The Multiple Level allocation type indicates that allocations are performed at multiple levels in a hierarchical manner with parties specifying the allocation method for their purchasers or contracts. There is currently no established GISB standard concerning whether allocations are performed at a single level or multiple levels. Therefore, the allocation data set has been defined in such a way to accommodate either type of allocation. Accommodating both types requires varied usage of data elements dependent on the information being communicated. Information is always shared with the interconnecting operator of a location and limited information may be shared with other business parties (or their designated agents) who at some level may have ownership of gas quantities at the location. The interconnecting operator receives allocated information for the total quantity at the location. Other parties receive information that directly applies to their business transactions. The level of allocation is specified in the data set.

The Multiple Level allocation type is further complicated by the title tracking issue. There is currently no established GISB standard concerning title tracking. This data set should accommodate allocating parties that perform title tracking. The usage of the data elements does not fundamentally change in title tracking. However in title tracking, the terms upstream and downstream refer to the immediate supplier or receiving party relative to the service requester as opposed to the party taking or relinquishing custody at a physical location. Example: In title tracking at a receipt point, the service requester would only know the identity of their direct suppliers and markets and would provide this information on the nomination. The upstream party may not have ownership of gas upstream of the meter. If this is the case, the upstream party would also be providing a nomination to the allocating party identifying their direct supplier. All parties involved in a marketing chain would nominate and the service provider would ultimately be able to identify the true upstream party that has ownership on the upstream facility. An “Operator” allocation statement would identify the upstream party with ownership on the upstream facility.

A “Marketer” allocation statement would identify the direct supplier to the recipient of the allocation statement.

The Allocation data set uses information from the nomination, confirmation, pre-determined allocation method and measurement processes. Information contained in the allocation data set will impact the imbalance and invoice processes.

Shipper Imbalance

Natural gas flows from source points to disposition points in accordance with the scheduled nominations made by various parties. The actual flow of gas is then allocated among the various parties to transactions, in accordance with pre-determined allocation methodologies. A shipper nominates a quantity of gas at a receipt point and contracts with a pipeline to transport this quantity of gas to a delivery point. However, allocated quantities at the receipt point and delivery point may not be the same. For example, with reductions for fuel quantities, over-delivery by the transportation service provider at the delivery point, or under delivery by the transportation requester at the receipt point, the quantities at the receipt point and delivery point may not be the same. The resulting difference is referred to as an imbalance.

Imbalances are reported by the allocating party to the affected parties involved in the transportation transaction. Imbalances may be reported on a daily or monthly basis. Imbalances may be resolved in a number of different ways.

The nomination starts the procedure, after which the allocation takes place. Gas is allocated at a location level and a contract level. The imbalance data set provides contract allocation information. The imbalance can be calculated using this information. This information can be a daily or a multi-day function, or it can be final closing data for an accounting period. The monthly imbalance should be monitored throughout the month, so the imbalance may be minimized.

Imbalance Netting and Trading

Shippers must authorize the transportation service provider to post their imbalances via the Authorization to Post Imbalances before such time as they may be included on the Posted Imbalances Download. Shippers and other interested parties request the Posted Imbalances Download using the Upload of Request for Download of Posted Datasets (GISB Standard 5.4.14).

Once trading parties have arranged a potential trade, the initiating trader provides the specifics of the trade via the Request for Imbalance Trade for both the initiating trader and the party with whom they are proposing to trade, the confirming trader. This Request for Imbalance Trade is sent by the initiating trader to the transportation service provider for this purpose. The transportation service provider will inform the initiating trader of the receipt of their request and of any errors using the Request for Imbalance Trade Quick Response.

The transportation service provider may choose to request a confirmation from the confirming trader through the use of the Request for Confirmation of Imbalance Trade.

The Imbalance Trade Confirmation is sent by the confirming trader to the transportation service provider to indicate whether the imbalance trade has been accepted or rejected. Without a successful confirmation prior to the close of the

transportation service provider's imbalance trading period, the trade will not take place.

Upon successful confirmation of a requested trade, the transportation service provider will notify the initiating trader and the confirming trader of the status of the trade using the Imbalance Trade Notification. The parties cannot consider their trade confirmed and/or approved until such time as they receive the Imbalance Trade Notification. The Imbalance Trade Notification will inform the parties of any reductions through the use of the reduction reason codes.

Measurement

The Measurement Information data set and the Measured Volume Audit Statement data set are both used to report gas measurement information in support of the allocation, imbalance and invoice processes. The Measured Volume Audit Statement also contains gas component data which is used for calculation and audit purposes.

Producer Imbalance

The Producer Imbalance data set is used to report both the production deliveries for a location and the current month / ending imbalance quantities. An interest owner has an entitlement percentage that is used to determine its proportionate share of the total production deliveries known as the entitlement quantity. This quantity is then compared to the actual production deliveries allocated to each interest owner. The difference is the current month imbalance. This information is used by the interest owners and the operator of the location for calculation and audit purposes.

EXECUTIVE SUMMARY

~~Six~~ Seven areas of the natural gas business processes are classified within the Flowing Gas area. The ~~six~~ seven areas include:

1. **Pre-determined Allocation**
   The communications concerning an agreement on the factors that should be used to drive the determination of entitlement rights of flowing gas at a location,
2. **Allocation**
   The communications of the entitlement rights of flowing gas at a location,
3. **Shipper Imbalance**
   The communications of entitlement rights of flowing gas on a contract level,
4. **Imbalance Netting & Trading**
   The communications and management of Imbalance Trading,
5. **Measurement Information**
   The communications of the estimated or actual physical flow of gas at a location, ~~and~~
6. **Measured Volume Audit Statement**
   The communication of the estimated or actual physical flow of gas at a location along with gas quality information~~.~~, and
7. **Producer Imbalance**
   The communications of the actual production deliveries versus the entitlement rights of interest owners at a production location.

To clarify the expectations and responsibilities of all parties prior to gas flow, pre-determined allocation data is exchanged via the Pre-determined Allocation (PDA) data set. The PDA allows parties to manage the impact of variances between the actual quantities flowing and scheduled quantities. Before the flow of gas across a location, the PDA secures the agreement between the allocating party and the allocated parties as to the method to be used for computing the allocations of relating scheduling quantities to actual physical flow.

Many different parties can be involved with the movement of natural gas across a particular location. The determination of the entitlement rights for each particular party of the actual flowing gas moving across the location is accomplished by allocating the actual flow among the parties. Allocations are performed by the operator of the affected location, using the pre-determined allocation methodology agreed to by the parties involved. The Allocation is used to communicate the allocation information to the parties involved.

Allocation information at a contract level is presented in the Shipper Imbalance. This information can be used by the shippers to manage their transactions and determine if the actual or estimated gas flows are in balance.

The Posted Imbalances Download allows shippers and other interested parties to obtain a listing from the transportation service provider of all the imbalances for parties who have authorized their posting via the Authorization to Post Imbalances. With this information, shippers and other interested parties may trade imbalances with each other. Parties trading imbalances communicate their transactions to the transportation service provider utilizing the Request for Imbalance Trade, Imbalance Trade Confirmation, and Withdrawal of Request for Imbalance Trade. The transportation service provider communicates with the trading parties using the Request for Imbalance Trade Quick Response, Request for Confirmation of Imbalance Trade, and Imbalance Trade Notification.

The Measurement Information data set contains a subset of the information that has traditionally been considered a measurement statement. The data set is designed to provide information on the actual or estimated physical flow moving across a location. It can be used to support other flowing gas or invoicing data sets. It does not include data utilized to verify the calculation of the measured

flow.

Like the Measurement Information data set, the Measured Volume Audit Statement also contains the actual or estimated physical flow. In addition, it is used to convey information on the various components of the gas which can be utilized for audit purposes.

The Producer Imbalance Statement data set contains information that tells the interest owners at a location tells them their entitlement, the quantities produced for them and the resulting imbalance. It also includes the cumulative balances for the month by the amount of gas delivered to a given transportation service provider or to all service providers.

PRODUCER/PRODUCER GAS IMBALANCE STATEMENT
FOR THE MONTH OF: April 2000

Preparer Name:	Producer A	Preparer Contact Name:	Jane Doe
Location Code :	XYZ	Preparer Contact Phone Number:	(713) xxx-xxxx
Location Name:	Platform A	Unit of Measure	MMBTU
		Reporting Pressure Base:	14.73
Statement Date/Time:	June 15, 2000	Wet/Dry Basis:	Dry

(13) TSP	(14) Interest Owner	(15) Interest Owner %	(16) Entitlement Quantity	(17) Production Delivery	(18) Statement Basis	(19) Imbalance Quantity	(20) Ending Imbalance Quantity
Pipeline A	Producer A	.4167	145,845	203,315	Act.	57,470	129,967
	Producer B	.3125	109,375	0	Act.	(109,375)	(218,746)
	Producer C	.1041	36,435	73,316	Act.	36,880	73,754
	MMS RIK	.1667	58,345	73,371	Act.	15,025	15,025
Total Pipeline A		1.0000	350,000	350,000 (21)		0	0
Pipeline Z	Producer A	.4167	42	80	Act.	38	38
	Producer B	.3125	31	0	Act.	(31)	(31)
	Producer C	.1041	10	20	Act.	10	10
	MMS RIK	.1667	17	0	Act.	(17)	(17)
Total Pipeline Z		1.0000	100	100 (21)		0	0
Grand Total All TSPs			350,100	350,100 (22)		0	0

Interest Owner Imbalance Summary

(14) Interest Owner	(23) Cum Beg. Imbal. Quantity	(24) Cum Imbalance Quantity	(25) Prior Period Adjustment	(26) Cum Ending Imbal. Quantity
Producer A	72,497	57,508		130,005
Producer B	(109371)	(109,406)		(218,777)
Producer C	36,874	36,890		73,764
MMS RIK	0	15,008		15,008
Grand Total	0	0		0

Note: Negative indicates that the imbalance is due (owed) to the Interest Owner.

TECHNICAL IMPLEMENTATION OF BUSINESS PROCESS

The Producer Imbalance Statement is a report from the operator of a production facility to its working interest owners (producers) that indicates the difference between the current month **entitlement quantity** and the total **production deliveries**. The entitlement quantity and the imbalance quantity are reported at the **interest owner percentage** level. The interest owner percentage can be any of the following:

- gross working interest;
- royalty interest;
- Proportionate Production Interest (PPI); or,
- net working interest.

The entitlement quantity is calculated by multiplying total production delivery quantities times each producer's interest owner percentage for the subject well or lease facilities, which is the **location**. For purposes of this document, the location is synonymous with '~~field'~~ Faclity Name' as it is used in COPAS Bulletin 24, 10/2000.

Question: *Is this the gross working interest? If so, how can this be 'gross' if it is net of royalty taken in-kind?*

Answer: *The interest owner percentage can be any of the above for a given interest owner. When all interest owners percentages are added together, the total must equal 100% of the total gross working interest for the location. For example, there are three interest owners. Interest owner 1 may reflect its gross working interest percentage, Interest Owner 2 reflects its net working interest percentage (gross working interest less royalty burden) and Interest Owner 3 reflects the royalty burden of Interest Owner 2 that is being taken in kind by the royalty owner which is Interest Owner 3.*

Question: *Need to check COPAS definition for 'field' and / or '~~production~~ facility' that corresponds to the NAESB data element 'location'.)*

Answer: *NAESB 'Location Data' is transmitted through the use the 'Location Code' (DRN); Location Name' and 'Location Proprietary Code'.*

'COPAS has 'Facility Name' = name of the point being reported and if it is a well, the API well number.

COPAS 'Location' = physical location (i.e., field, county, and state). Such information is extractable from a common code (DRN) or the proprietary code

COPAS 'Facility Indicator' = well, lease, gathering system or gas plant. Such information is extractable from a common code (DRN) or the proprietary code

Issue: *If the location data is being communicated through the use of the DRN and the DRN does not provide for the level of detail to include the well, field, county and state, then additional data elements may be needed.) The problem detected is that if the communication is done through EDI, the Location Name is not used and therefore some level of detail of information is not reflected.*

The **imbalance period** refers to a month and a year. The **imbalance quantity** is the imbalance for the current month for an **interest owner** for each **transportation service provider**. The **ending imbalance quantity** is calculated by adding the prior month ending imbalance quantity and the **prior period adjustment** to the current month imbalance quantity. The **cumulative imbalance quantity** is calculated by adding the imbalance quantities for a specified interest owner for the current month. The **cumulative ending imbalance quantity** is calculated by adding the ending imbalance quantities for a specified interest owner.

The **prior period adjustment** should be supported by an accompanying revised statement for the applicable prior imbalance period. The default value for prior period adjustment is zero. A prior period adjustment can be made for the period adjusted and each subsequent period or for the period adjusted and the current period. An explanation of the methodology used should accompany the current period on which the adjustment is stated.

Question: *Explain expectations set forth in COPAS as to whether the revised statements that are sent are (1) just the month(s) in which the adjustment actually occurred or (2) the month in which the adjustment actually occurred and all subsequent months to pull through that adjustment?*

Answer:

SAMPLE PAPER TRANSACTION

To be developed after the data dictionary and TIBP are completed.