DATA DICTIONARY

Standard 2.4.Z

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.	TSDG	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.	SDG	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.	SDG	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..	SDG	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.	TSDG	M	M	

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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.	TSDG	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.	SDG	M	M	
Hdr	Imbalance Period (Imb Per)	The period during which the imbalance occurred or the cumulative imbalance is reported.	BEDG	M	M	
Sdtl	Imbalance Quantity (Imb Qty)	Imbalance quantity for the current period.	TSDG	M	M	
Sdtl	Interest Owner Data	The entity with ownership interest in the gas.	IODG			
Sdtl	Interest Owner *[4] (Int Own)		IODG	C	C	At least one of Interest Owner or Interest Owner Proprietary Code is mandatory.
Sdtl	Interest Owner Name (Int Own Name)		IODG	M	nu	
Sdtl	Interest Owner Proprietary Code Int Own Prop)		IODG	C	C	At least one of Interest Owner or Interest Owner Proprietary Code is mandatory.
Sdtl	Interest Owner Percentage (Int Own Pct)	Percentage of the gas owned by the Interest Owner dedicated to a specified Transportation Service Provider.	IODG	M	M	

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

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Level	Business Name (Abbreviation)	Definition	Data Group	EBB Usage	EDI/FF Usage	Condition
Hdr	Preparer ID * [4]		BEDG	M	M	
Hdr	Preparer Name		BEDG	M	nu	
Sdtl	Prior Period Adjustment (Prior Per Adj)	Adjustment included in Ending Imbalance Quantity in this report.	IODG	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.	TSDG	M	M	
Hdr	Reporting Pressure Base (Rpt Press Base)	Pressure base used in reporting volume in MCFs.	LDG	C	C	Mandatory when Unit of Measure for associated quantity is 'Thousand Cubic Feet'.
Dtl	Statement Basis Data	Code used to identify statement quantities as estimate, actual or revision. Default value is actual.	TSDG			
Dtl	Statement Basis (Stmt Basis)		TSDG	C	M	For EBB, at least one of Statement Basis or Statement Basis Code Name is required.
Dtl	Statement Basis Code Name (Stmt Basis Name)		TSDG	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.	BEDG	M	M	
Hdr	Statement Recipient Data	The intended user of the statement.	BEDG			
Hdr	Statement Recipient ID * [4] (Recipient)		BEDG	M	M	
Hdr	Statement Recipient Name (Recipient Name)		BEDG	M	nu	

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

RELEVANT FOOTNOTES
* Indicates Common Code

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

DATA GROUPS:
BEDG Business Entity Data Group
IODG Interest Owner Data Group
LDG Location Data Group
SDG Summary Data Group
TSDG Transaction Specific Data Group

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

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Deleted: CDG Contract Data Group¶
CEDG Contract Entitlement Data Group

Deleted: CSDG Contract Status Data Group¶
DDG Date Data Group

Deleted: RCDG Rate Charged Data Group¶
RDG Rate Data Group

Deleted: TSPDG Transportation Service Provider Data Group¶

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.

1.Develop data group and data ordering – sending question to BPS.

Deleted: <#>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. ¶
<#>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.¶
We are using location for what COPAS calls a facility name #3 – see outstanding question in draft TIBP.

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Deleted: <#>Apply R97058B convention on proprietary codes to indented entity data elements¶

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<#>Executive Summary¶
<#>Business Process and Practices¶

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 Statement data set is used to report the entitlement, the production deliveries and the current month / ending imbalance quantities for interest owners at a location. Interest owner(s)'s entitlement percentage is used to determine its proportionate share, known as the entitlement quantity, of the total production deliveries. This entitlement quantity is 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 balancing / settlement purposes.

EXECUTIVE SUMMARY

Seven areas of the natural gas business processes are classified within the Flowing Gas area. The 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,
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 Statement**
   The communication of the actual production deliveries versus the entitlement rights of interest owners at a production location.

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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 to the interest owners at a location telling them their entitlement, the quantities produced for them and the resulting imbalance.

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

Statement Recipient: Producer B

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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
Location Operator	Operator A	Reporting Pressure Base:	14.73
Statement Date/Time:	June 15, 2000	Wet/Dry Basis:	Dry

(13) TSP	(14) Interest Owner	(15) Interest Owner %	Beg. Imbal Quantity	(16) Entitlement Delivery	(17) Production Basis	(18) Statement Quantity	(19) Imbalance Quantity	(20) Ending Imbalance Quantity
Pipeline A	Producer A	.4167	72,497	145,845	203,315	Act.	57,470	129,967
	Producer B	.3125	(109,371)	109,375	0	Act.	(109,375)	(218,746)
	Producer C	.1041	36,874	36,435	73,315	Act.	36,880	73,754
	MMS RIK	.1667	0	58,345	73,370	Act.	15,025	15,025
Total Pipeline A		1.0000	0	350,000	350,000 (21)		0	0
Pipeline Z	Producer A	.4167	0	42	80	Act.	38	38
	Producer B	.3125	0	31	0	Act.	(31)	(31)
	Producer C	.1041	0	10	20	Act.	10	10
	MMS RIK	.1667	0	17	0	Act.	(17)	(17)
Total Pipeline Z		1.0000	0	100	100 (21)		0	0
Grand Total All TSPs			0	350,100	350,100 (22)		0	0

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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	(109,371)	(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, the production deliveries and the imbalance quantity are reported by **interest owner percentage**. The interest owner percentage can be any of the following:

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

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**.

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 'Facility Name' as it is used in COPAS Bulletin 24, 10/2000. The location should reflect the level of detail (well, lease, field, county, state, etc.) necessary to represent the level at which the data is being reported.

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(s). The default value for prior period adjustment is zero. A prior period adjustment is reported only for the period(s) adjusted as reflected in the current period.

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SAMPLE PAPER TRANSACTION

See separate workpaper

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