

PODS Association Inc.

Pipeline Open Database Standard
Release 2 (June 1999)

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Contents

PODS ASSOCIATION DISCLAIMER.....	4
THE PODS ASSOCIATION INC.....	5
ACKNOWLEDGEMENTS.....	5
DOCUMENTATION NOTES.....	6
REGULATORY COMPLIANCE.....	7
<i>DOT_Class</i>	7
<i>Facility_Uprating</i>	8
<i>Leak_History</i>	9
<i>MAOP_Rating</i>	11
<i>GF_Pressure</i>	12
<i>Operating_Pressure</i>	13
<i>Structure</i>	14
<i>Structure_Coordinate</i>	15
<i>Test Pressure</i>	17
PIPELINE FACILITY.....	19
<i>Branch_Connect</i>	19
<i>Casing</i>	20
<i>Closure</i>	22
<i>Elbow</i>	24
<i>External Coating</i>	26
<i>Extrusion</i>	27
<i>Flange</i>	29
<i>Internal Coating</i>	30
<i>Launcher_Receiver</i>	31
<i>Meter</i>	32
<i>Pipe Segment</i>	33
<i>Pipe_Bend</i>	35
<i>Reducer</i>	37
<i>River_Weight</i>	39
<i>Sleeve</i>	40
<i>Tap</i>	42
<i>Tee</i>	43
<i>Valve</i>	45
<i>Valve Operator</i>	47
<i>Vessel</i>	48
CATHODIC PROTECTION.....	49
<i>Rectifier</i>	49
<i>Test_Lead</i>	50
CROSSINGS.....	51
<i>Crossing_Note_Type</i>	51
<i>Foreign Line Crossing</i>	52
<i>Railroad</i>	54
<i>Right_of_Way</i>	55
<i>Road</i>	56
<i>Routing Note</i>	57
<i>Sheet Note</i>	58
<i>Waterway</i>	60
CENTERLINE.....	61
<i>Centerline_Geo_X_Ref</i>	61
<i>Centerline_Geometry</i>	62

<i>Coordinate</i>	63
<i>Coordinate_Source</i>	64
<i>Coordinate_Sys</i>	65
COMPRESSOR STATION	66
<i>Compressor_Station</i>	66
CORE TABLES	68
<i>Line</i>	68
<i>Location</i>	69
<i>Route</i>	70
<i>Series</i>	71
<i>Station_Point</i>	73
<i>Event_Comment</i>	75
<i>Event_Cross_Ref</i>	76
<i>Event_Range</i>	77
<i>Event_Report</i>	78
<i>Ext_Doc</i>	79
<i>Customer_Interrupt</i>	80
<i>Gas_Temperature</i>	81
<i>GPS_Point</i>	82
<i>Monument</i>	84
<i>Company</i>	85
<i>Feature_Table</i>	86
<i>Measure_Transform</i>	87
<i>Operating_Status</i>	88
<i>Source</i>	89
<i>Transform</i>	90
<i>Unit_Of_Measure</i>	91

PODS ASSOCIATION DISCLAIMER

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PODS Database Description

The Gas Technology Institute (GTI) along with pipeline industry operators and vendors has developed a new database model referred to as the Pipeline Open Database Standard, PODS. PODS is an enhanced version of the ISAT (Integrated Spatial Analysis Techniques) database developed by GRI in 1995 and is therefore referred to as ISAT 2.0. The PODS database is designed to be an open data model that bridges the shortcomings of the ISAT model in the areas of database normalization, inspections, GIS software integration, documentation and business practices common in the pipeline industry.

While many of the attribute tables (pipe characteristics, etc.) were inherited from ISAT, the core of this data model is largely based on one used by the Williams Gas Pipeline Companies with many additional tables and enhancements in PODS. The PODS organization was publicly announced in February 1999. This document describes Release 2 of the PODS data model as released in June 1999.

The PODS Association Inc.

The PODS Association, Inc. (www.pods.org) is a Texas corporation organized with the purpose of facilitating and managing the ongoing improvements to the PODS database and other pipeline data standards. Although membership in the PODS Association is not required to use the published data model, it is expected that companies that benefit from it will join and contribute suggestions for improvements.

Acknowledgements

The PODS Association wishes to acknowledge the following organizations that have contributed to design of Release 2 of the PODS database (in alphabetical order):

- Bass-Trigon Software
- Dynamic Risk Assessment
- Eagle Information Mapping
- ESRI
- Gas Technology Institute
- Geofields
- Kinder Morgan
- M. J. Harden
- New Century Software
- Reliant Energy
- Williams Gas Pipelines

Documentation Notes

The following conventions are use in this documentation.

Name:	The common name of the table
Code:	The name of the database table used in queries
Label:	Unused.
Owner:	The company department or group that is responsible for the data in this table
Number:	An estimate of the number of records in the table
PK constraint:	The name of the primary key of the table
Source:	A description of where the data originated

The database documentation uses the following codes for the *Column List* table for each table.

Name	Code	Type	P	M
------	------	------	---	---

Name – the common name of the column

Code – the name of the database column used by the table and by queries

Type – the data type of the column

P – indicates the unique primary key of the table (Primary Key)

M – indicates that this column is required (Mandatory)

Regulatory Compliance

DOT_Class

Name:	DOT_Class
Code:	DOT_Class
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

A span or segment of the line that coincides with a defined DOT class.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
DOT_Class_Rating	Class_Rating_CL	VARCHAR2(16)	No	Yes
DOT_Class_Design	DOT_Class_Design	VARCHAR2(16)	No	No
Method Code	DOT_Class_Method_CL	VARCHAR2(16)	No	Yes
Determination Date	Determination_Date	DATE	No	No
Indicate_Odor	Indicate_Odor	CHAR(1)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the class location occurs

Class_Rating_CL

The DOT class code 1 through 4 indicating population density as defined per CFR 192.

DOT_Class_Design

The DOT population classification for which the pipe was originally designed

DOT_Class_Method_CL

A value representing the method used to determine a DOT class code for a location. Example: aerial survey, examination, map, etc.

Determination_Date

The year, month, and day information was revised or changed.

Indicate_Odor

Indicates the presence of an odorant in the gas

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Facility_Uprating

Name:	Facility_Uprating
Code:	Facility_Uprating
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Contiguous group of facilities where pressure has been updated. Groups of facilities may be updated multiple times.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Uprated_Pressure	Uprated_Pressure	NUMBER(5,3)	No	Yes
Determination_Method	Determination_Method_CL	VARCHAR2(16)	No	No
Determination_Date	Determination_Date	DATE	No	No
Verified_By	Verified_By	VARCHAR2(32)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the updated pressure applies

Uprated_Pressure

New updated pressure

Determination_Method_CL

Method used to determine the updated pressure.

Determination_Date

The year, month, and day information was revised or changed.

Verified_By

Person who verified updated pressure

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Leak_History

Name:	Leak_History
Code:	Leak_History
Label:	Leak_History
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes Leaks and corresponding Repairs on the pipeline. Leaks include leaks due to corrosion and pipeline ruptures.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Leak Report Date	Leak_Report_Date	DATE	No	No
Product	Product_CL	CHAR(3)	No	No
Volume Lost	Volume_Lost	NUMBER(16)	No	No
Primary Cause	Primary_Cause_CL	VARCHAR2(16)	No	Yes
Repair Type	Repair_Type_CL	VARCHAR2(16)	No	Yes
Repair Date	Repair_Date	DATE	No	No
Repair Cost	Repair_Cost	DECIMAL(8,2)	No	No
Lost Product Cost	Lost_Product_Cost	DECIMAL(8,2)	No	No
Remediation Cost	Remediation_Cost	DECIMAL(8,2)	No	No
Business Interruption Cost	Business_Interruption_Cost	DECIMAL(8,2)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point or beginning and ending station range where the leak occurred

Leak_Report_Date

The date that the leak was reported to the operating company.

Product_CL

Indicates the product being transported when the leak occurred.

Volume_Lost

Example values:

Unknown

Less than 100 mcf

Greater than 100 mcf

Primary_Cause_CL

Indicates the primary cause of the leak or rupture.

Repair_Type_CL

Indicates the type of repair that was made on the pipeline.

Repair_Date

The date the repair was made

Repair_Cost

Estimated business cost of the repair

Lost_Product_Cost

Estimated business cost of the leak from lost product

Remediation_Cost

Estimated business cost of property or environmental damage and repair

Business_Interruption_Cost

Estimated business cost of the interruption of gas service

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

MAOP_Rating

Name:	MAOP_Rating
Code:	MAOP_Rating
Label:	MAOP
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table gives the Maximum Allowable Operating Pressure ranges along the pipeline. This table states the pressure (psig) at or below which the pipeline may safely be operated. This table also stores the actual operating pressure, the pressure at which the facility is normally operated at. The Operating_Pressure may be the same, but should never be greater than MAOP.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
MAOP_Rating	MAOP_Rating	NUMBER(5,3)	No	No
MOP	MOP	INTEGER	No	No
Determination_Method_CL	Determination_Method_CL	VARCHAR2(16)	No	Yes
Determination Date	Determination_Date	DATE	No	No
Verified_By	Verified_By	VARCHAR2(32)	No	No
Established by	Established_By	VARCHAR2(255)	No	No
Limiting Factors	Limiting_Factors	VARCHAR2(255)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing beginning and ending station range where the MAOP is assigned

MAOP_Rating

The topmost pressure not to be exceeded on the up side of the gradient, expressed in PSIG (Pounds of Pressure Instrument Gauge). MAOP can be determined by several methods and is the highest allowable pressure for the facility (may not be what it is operated at).

MOP

The maximum operating pressure not to be exceeded on the pipe. This is the highest permissible operating pressure that the facility can operate under because of limiting factors.

Determination_Method_CL

A value representing the method used to establish MAOP (Maximum Allowable Operating Pressure). Values include: Grandfather, Design, Up Rating, Hydro, Testing, etc.

Determination_Date

The month, year, and day the MAOP was determined. The determination usually includes a change to the MAOP. This date can also be considered to be the update date for the record.

Verified_By

Person who verified updated pressure

Established_By

Text used to describe how the MAOP was established. This is information in addition to the method used. (Estab. Up, Estab. Down, Date Effective, Dsc.)

Limiting_Factors

Text used to describe factors that limit the MOP. (Basically, why the pressure is lower than MAOP).

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

GF_Pressure

Name:	GF_Pressure
Code:	GF_Pressure
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the historical or grandfather operating pressure of the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Pressure_Rating	Pressure_Rating	INTEGER	Yes	Yes
High_Pressure_Date	High_Pressure_Date	DATE	No	No
Determination_Date	Determination_Date	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point or beginning and ending station range where operating pressure was determined

Pressure_Rating

The actual typical operating pressure of the pipeline segment at the date specified

High_Pressure_Date

The date a high pressure rating was attained.

Determination_Date

The year, month, and day information was revised or changed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Operating_Pressure

Name:	Operating_Pressure
Code:	Operating_Pressure
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the typical operating pressure of the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Operating_Pressure	Operating_Pressure	NUMBER(5,3)	No	Yes
Determination_Method	Determination_Method_CL	VARCHAR2(16)	No	No
Determination_Date	Determination_Date	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point or beginning and ending station range where operating pressure was determined

Operating_Pressure

The actual typical operating pressure of the pipeline segment.

Determination_Method_CL

A value representing the method used to determine the operating pressure.

Determination_Date

The year, month, and day information was revised or changed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Structure

Name:	Structure
Code:	Structure
Label:	
Owner:	
Number:	
PK constraint:	Structure_PK
Source:	

Description

This table describes a single structure that occurs near the pipeline. The structure is normally within 660 feet of a pipeline. One structure may have multiple locations where it is perpendicular to the pipeline. One structure may be represented by one or more geographic coordinates. A structure may include a single-family dwelling, a multiple family unit, a business, church, an apartment building, or well-defined area as defined in CFR 192.

Column List

Name	Code	Type	P	M
Structure_ID	Structure_ID	NUMBER(16)	Yes	Yes
Type_CL	Type_CL	VARCHAR2(16)	No	Yes
Description	Description	VARCHAR2(254)	No	No
Family_Units	Family_Units	NUMBER(5)	No	No
Inclusion_Date	Inclusion_Date	DATE	No	No
Exclusion_Date	Exclusion_Date	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(254)	No	No

Structure_ID

A token identifier that uniquely represents each structure. This value is assigned by the database.

Type_CL

A codelist value describing the type of structure. For example, single-family dwelling, a multiple family unit, a business, church, an apartment building, or well-defined area.

Description

A text description of the structure. May include the business or church name, a description of the well defined area, or any general descriptive information about the structure.

Family_Units

Number of single family units that may live in the structure.

Inclusion_Date

Beginning date that structure is included in house count

Exclusion_Date

Beginning date that structure is included in house count

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Structure_Coordinate

Name:	Structure_Coordinate
Code:	Structure_Coordinate
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the location of a structure. If one (X,Y) coordinate is assigned to a structure, it will represent the centroid of the structure. If multiple coordinates are assigned to the structure, it represents the outline (footprint) of the structure or well-defined area. The structure coordinate is the actual geographic location of the structure or a calculated coordinate based on a given line, station, offset distance and direction. The structure footprint is given in a counter-clockwise fashion.

Column List

Name	Code	Type	P	M
Structure_ID	Structure_ID	NUMBER(16)	Yes	Yes
X_Coord	X_Coord	FLOAT	No	Yes
Y_Coord	Y_Coord	FLOAT	No	Yes
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	No	No
Sequence	Sequence	NUMBER(4)	No	No

Structure_ID

A token identifier that uniquely represents each structure. This value is assigned by the database.

X_Coord

The X coordinate location of the structure.

Y_Coord

The Y coordinate location of the structure.

Coordinate_Source_ID

A token value identifying the source of the coordinate value. Coordinates may be digitized, calculated through coordinate geometry, approximated, etc.

Sequence

This value is used to order a set of coordinates that belong to a single structure. The values 1..N can be used in the SQL query so that polygons can be generated from the coordinate list. For polygons, it is expected that the first and last coordinates will be the same.

Structure_Event

Name:	Structure_Event
Code:	Structure_Event
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the location of a structure in terms of the pipeline stationing. One structure may have a beginning and ending station where it is within proximity to the pipeline.

Column List

Name	Code	Type	P	M
Structure_Event_ID	Structure_Event_ID	NUMBER(16)	Yes	Yes
Structure_ID	Structure_ID	NUMBER(16)	No	Yes
Event_ID	Event_ID	NUMBER(16)	No	Yes
Offset	Offset	NUMBER(4)	No	No
Direction	Direction	CHAR(2)	No	No
Bearing_From_Line	Bearing_From_Line	FLOAT	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Structure_Event_ID

A token identifier unique for each Structure_Event assigned by the database.

Structure_ID

A token identifier that uniquely represents each structure. This value is assigned by the database. This is a foreign key to the Structure table.

Event_ID

A token identifier representing the point or beginning and ending station range where the structure is in proximity to the pipeline

Offset

Offset is a value that identifies the distance of the structure from the given point (event) on the pipeline. The offset will always be a positive value or Null if unknown.

Direction

A code value that indicates the direction of the structure as seen from a point on the pipeline. Legitimate values are:

N – North, W – West, S – South, E – East, NW, NE, SE, SW, and

R – Right, L – Left. – right and left are always in the direction of increasing stationing on the pipeline

Bearing_From_Line

The numeric bearing of the structure from a point on the pipeline. Bearing values will range between 0 (North) to 90 (clockwise) south and 0 (North) to -90 (counter-clockwise) south. Null values are unknown.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Test Pressure

Name:	Test Pressure
Code:	Test_Pressure
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a (hydrostatic) pressure test that is performed on the pipeline. This represents a station range where the test occurred. Test Pressure records may be overlapping and may have gaps if no test pressure records are available.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Test_Type	Test_Type	VARCHAR2(16)	No	Yes
Test Date	Test_Date	DATE	No	No
Test Medium	Test_Medium	CHAR(1)	No	Yes
Test_Pressure	Test_Pressure	INTEGER	No	Yes
Duration Hours	Duration_Hours	NUMBER(3)	No	No
Test_Station	Test_Station	NUMBER(10,1)	No	No
Test_Station_Elev	Test_Station_Elev	NUMBER(5)	No	No
Max_Elevation	Max_Elevation	NUMBER(5)	No	No
Min_Elevation	Min_Elevation	NUMBER(5)	No	No
Test Distance	Test_Distance	NUMBER(9,1)	No	No
Min_Pressure	Min_Pressure	NUMBER(16)	No	No
Max_Pressure	Max_Pressure	NUMBER(16)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the pressure test was performed

Test_Type

The type of pressure test performed

Test Date

The date of pressure testing

Test_Medium

The material that was used to perform the test: Water, Air, etc.

Test_Pressure

The pressure that was sustained for the duration of the test

Duration_Hours

The length of time (hours) that the pressure was held

Test_Station

The engineering station where the pressure reading was taken

Test_Station_Elev

The elevation at the Test_Station

Max_Elevation

The maximum elevation of the section of pipe being tested

Min_Elevation

The minimum elevation of the section of pipe being tested

Test_Distance

The length (footage) of pipe that was tested

Min_Pressure

The maximum pressure that was achieved during the test

Max_Pressure

The minimum pressure that was achieved during the test

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Pipeline Facility

Branch_Connect

Name:	Branch_Connect
Code:	Branch_Connect
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

An unrated, unpressurized component used to form a branch in the pipeline system. Examples include saddles, encirclements, etc.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	No
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	Yes
Branch Connect Specification	Branch_Connect_Specification_C	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Tapping_Method	Tapping_Method	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing point where the branch connection occurs

Type_CL

Type of branch connection

Nominal_Diameter

Diameter of opening penetrating the main line

Nominal_Wall_Thickness

Thickness of component material

Manufacturer_CL

Manufacturer of branch connection

Branch_Connect_Specification_C

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Mill_Test_Pressure

Tapping_Method

Method used in tapping pipeline

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Casing

Name:	Casing
Code:	Casing
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

A casing is a piece of pipe or metal tubing that fits over or around the pipe to protect it. Casings are often used in road and railroad crossings to provide extra protection to the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Crossing Type	Crossing_Type_CL	VARCHAR2(16)	No	Yes
Date Installed	Date_Installed	DATE	No	No
Insulator Type	Insulator_Type_CL	VARCHAR2(16)	No	No
Seal Type	Seal_Type_CL	VARCHAR2(16)	No	No
Vented Indicator	Vented_Indicator_LF	CHAR(1)	No	No
Quantity of Vents	Quantity_of_Vents	NUMBER(8)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date Manufactured	Date_Manufactured	DATE	No	No
Mill Location	Mill_Location_CL	VARCHAR2(16)	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Pipe Specification	Pipe_Specification_CL	VARCHAR2(16)	No	No
SMYS	SMYS	INTEGER	No	No
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	Yes
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(5,4)	No	No
Length	Length	DOUBLE PRECISION	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the casing occurs

Crossing_Type_CL

A code identifying a category of crossings. The two main crossing types are road and railroad.

Date_Installed

The year, month, and day the facility was installed.

Insulator_Type_CL

A code identifying a category of insulation used between the pipe and the casing, electrically separating the casing from the pipe.

Seal_Type_CL

The type of seal used for the casing

Vented_Indicator_LF

A value specifying whether or not a pipe is vented to allow pressure to escape.

Quantity_of_Vents

Number of vents at the casing—normally one or two.

Manufacturer_CL

The manufacturer of the casing pipe

Date_Manufactured

The date that the casing pipe was manufactured

Mill_Location_CL

The mill location where the casing pipe was manufactured

Material_CL

The material that the casing is made from

Pipe_Specification_CL

The pipe specification of the casing pipe

SMYS

Specified Minimum Yield Strength.

Nominal_Diameter

The outside diameter of the pipe, expressed in inches.

Nominal_Wall_Thickness

The wall thickness of the pipe, expressed in inches. Determined by $(\text{outside diameter} - \text{inside diameter}) / 2 = \text{wall thickness}$.

Length

The actual length of the casing

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Closure

Name:	Closure
Code:	Closure
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Pipeline components used to seal off or enclose the open end of a joint of pipe. (i.e. weld cap, hinged enclosure, etc.)

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	Yes
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	No
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	No
Attached To Fabrication	Attached_To_Fabrication_LF	CHAR(1)	No	No
Part Of Fabrication	Part_Of_Fabrication_LF	CHAR(1)	No	No
Closure Specification	Closure_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Date Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where closure occurs

Type_CL

Type of closure

Manufacturer_CL

Manufacturer of closure

Nominal_Diameter

Outside diameter of closure

Nominal_Wall_Thickness

Wall thickness of closure

Attached_To_Fabrication_LF

Flag to indicate if closure is attached to a fabrication

Part_Of_Fabrication_LF

Flag to indicate facility is part of a fabrication

Closure_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Pressure rating of fitting

Mill_Test_Pressure**Material_CL**

Type of material used in the manufacture of the pipe

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Elbow

Name:	Elbow
Code:	Elbow
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Fitting used to cause a bend or change in direction of the pipe.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Nominal_Diameter	Nominal_Diameter	NUMBER(6,4)	No	No
Nominal_Wall_Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	No
Angle	Angle	NUMBER(5)	No	No
Radius	Radius	NUMBER(5)	No	No
Attached To Fabrication	Attached_To_Fabrication_LF	NUMBER(10)	No	No
Part Of Fabrication	Part_Of_Fabrication_LF	CHAR(1)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Elbow Specification	Elbow_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the facility occurs

Nominal_Diameter

Outside diameter of elbow

Nominal_Wall_Thickness

Wall thickness of elbow

Angle

Angle of bend

Radius

Radius of bend

Attached_To_Fabrication_LF

Flag to indicate if facility is attached to a fabrication

Part_Of_Fabrication_LF

Flag to indicate facility is part of a fabrication

Manufacturer_CL

Manufacturer of elbow

Date_Manufactured

Date the facility event was manufactured.

Material_CL

Type of material used in the manufacture of the fitting

Elbow_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating**Mill_Test_Pressure**

Pressure rating of fitting

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

External Coating

Name:	External Coating
Code:	External_Coating
Label:	External Coating
Owner:	
Number:	
PK constraint:	
Source:	

Description

This represents a range or section of the pipeline that is externally coated with a certain type of material. Pipe is coated with material to protect it from corrosion. Each time the coating material changes, a new coating range is added. External coating records should have no gaps or overlaps on the system. If the coating is unknown, a record should be entered with an "Unknown" value.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Material	Material_CL	VARCHAR2(16)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Product_Name	Product_Name	VARCHAR2(32)	No	No
Applicator	Applicator_CL	VARCHAR2(16)	No	No
Where Coating Applied	Where_Coating_Applied_CL	VARCHAR2(16)	No	Yes
Date Applied	Date_Applied	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the external coating occurs

Type_CL

A code identifying a category of coating on a pipe. Examples: coal tar, felt wrap, unknown.

Material_CL

Manufacturer_CL

A value representing the manufacturer name. Used to identify the manufacturer of an item.

Product_Name

Applicator_CL

The company that actually applied the coating to the pipe

Where_Coating_Applied_CL

Indicating the location where the pipe was coated: Field or Factory.

Date_Applied

The date the coating was applied to the pipe

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Extrusion

Name:	Extrusion
Code:	Extrusion
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Forged fittings used to form branches in the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Nominal Diameter Inlet	Nominal_Diameter_Inlet	NUMBER(6,4)	No	No
Nominal Diameter Outlet	Nominal_Diameter_Outlet	NUMBER(6,4)	No	No
Nominal Wall Thickness Inlet	Nominal_Wall_Thickness_Inlet	NUMBER(10)	No	No
Nominal Wall Thickness Outlet	Nominal_Wall_Thickness_Outlet	NUMBER(10)	No	No
Extrusion Specification	Extrusion_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where facility occurs

Type_CL

Type of extrusion

Manufacturer_CL

Manufacturer of extrusion

Nominal_Diameter_Inlet

Outside diameter on upstream end

Nominal_Diameter_Outlet

Outside diameter on downstream end

Nominal_Wall_Thickness_Inlet

Wall thickness on upstream end

Nominal_Wall_Thickness_Outlet

Wall thickness on downstream end

Extrusion_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Pressure rating of fitting

Mill_Test_Pressure**Material_CL**

Type of material used in the manufacture of the fitting

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Flange

Name:	Flange
Code:	Flange
Label:	
Owner:	
Number:	
PK constraint:	pk_Flange
Source:	

Description

Mechanical pipeline components used to join pipe or other facilities together in a permanent or temporary facility.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Flange_Specification	Flange_Specification_CL	VARCHAR2(16)	No	No
Nominal_Pressure_Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing point where the facility occurs

Type_CL

Type of flange

Nominal_Diameter

Outside diameter of flange

Manufacturer_CL

Manufacturer of flange

Flange_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating**Mill_Test_Pressure**

Pressure rating of fitting

Material_CL

Type of material used in the manufacture of the fitting

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Internal Coating

Name:	Internal Coating
Code:	Internal_Coating
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

An internal coating is a range or section of the pipeline that is internally coated with a certain type of material. Pipe may be internally coated with material to protect it from corrosion and reduce friction. If no internal coating is present, there will be no record in the database.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Material	Material_CL	VARCHAR2(16)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Product_Name	Product_Name	VARCHAR2(32)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the internal coating occurs.

Type_CL

The type of internal coating used.

Material_CL**Manufacturer_CL**

The manufacturer of the coating

Product_Name

The trade or brand name of the product used to internally coat the pipe

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Launcher_Receiver

Name:	Launcher_Receiver
Code:	Launcher_Receiver
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a mechanical pig launcher or pig catcher (trap). This record represents the length of the barrel, or may represent a single point on the launcher or receiver.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Name	Name	VARCHAR(50)	No	No
Barrel_Diameter	Barrel_Diameter	NUMBER(5,3)	No	Yes
Barrel_Length	Barrel_Length	NUMBER(5,3)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the facility occurs

Type_CL

Indicating whether the facility is a launcher or a receiver or both.

Name

The commonly used name of the launcher/receiver (i.e. "Riverdale Discharge")

Barrel_Diameter

The nominal diameter of the launcher barrel

Barrel_Length

The footage length of the launcher barrel

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Meter

Name:	Meter
Code:	Meter
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Gas flow measurement device.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Meter_Number	Meter_Number	VARCHAR2(32)	No	No
Serial_Number	Serial_Number	VARCHAR2(32)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Meter Specification	Meter_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Vanes	Vanes_LF	CHAR(1)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing centroid point of the meter setting

Type_CL

Type of meter

Meter_Number

Company designated meter identifier, may be null or non-unique

Serial_Number

Serial number of meter

Manufacturer_CL

Manufacturer of meter

Meter_Specification_CL**Nominal_Pressure_Rating****Mill_Test_Pressure**

Pressure rating of meter

Date_Manufactured

Date the facility event was manufactured.

Vanes_LF

Flag to indicate if meter has vanes

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Pipe Segment

Name:	Pipe Segment
Code:	Pipe_Segment
Label:	Pipe Segment
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table represents a section of pipe for which all of the associated attributes are the same (i.e. whenever the values of any of the attributes change, a new pipe segment occurs).

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date Manufactured	Date_Manufactured	DATE	No	No
Purchase Order Number	Purchase_Order_Number	VARCHAR2(16)	No	No
Mill Location	Mill_Location_CL	VARCHAR2(16)	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Pipe Specification	Pipe_Specification_CL	VARCHAR2(16)	No	No
SMYS	SMYS	INTEGER	No	No
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	Yes
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	Yes
Longitudinal Seam	Longitudinal_Seam_CL	VARCHAR2(16)	No	No
Begin Attached Fabrication	Begin_Attached_Fabrication_LF	CHAR(1)	No	No
End Attached Fabrication	End_Attached_Fabrication_LF	CHAR(1)	No	No
Part Of Fabrication	Part_Of_Fabrication_LF	CHAR(1)	No	No
Date Installed	Date_Installed	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the pipe characteristics occur

Manufacturer_CL

A value representing the manufacturer name. Used to identify the manufacturer of an item.

Date_Manufactured

The year, month, and day the pipe was manufactured.

Purchase_Order_Number

Mill_Location_CL

Mill_Test_Pressure

The manufacturer's mill test pressure (PSIG) for pipe.

Material_CL

Pipe_Specification_CL

A value representing the manufacturer specification to which the pipe was made. (ASTM, API, etc)

SMYS

Specified Minimum Yield Strength of the pipe

Nominal_Diameter

The inner diameter of an opening of pipe, valve, etc; expressed in inches. In FACILITY, it is the outer diameter of the pipe!

Nominal_Wall_Thickness

Pipe Wall Thickness

Longitudinal_Seam_CL

A code identifying a category of seam used in the manufacturing process. Also known as Weld Type.

Begin_Attached_Fabrication_LF

Indicates that the beginning point of this pipe segment is attached to a fabricated assembly

End_Attached_Fabrication_LF

Indicates that the ending point of this pipe segment is attached to a fabricated assembly

Part_Of_Fabrication_LF

Indicates that this section of pipe is included as part of a fabricated assembly

Date_Installed

The year, month, and day the facility was installed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Pipe_Bend

Name:	Pipe_Bend
Code:	Pipe_Bend
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes horizontal or vertical bends in the pipeline. Surveyed PI's with deflection angles are stored in the Routing_Note table.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Bend_Type	Bend_Type_CL	VARCHAR2(16)	No	Yes
Bend_Technique	Bend_Technique_CL	VARCHAR2(16)	No	No
Bend_Radius	Bend_Radius	NUMBER(3,1)	No	No
Horiz_Angle	Horiz_Angle	NUMBER(5,3)	No	No
Vert_Angle	Vert_Angle	NUMBER(5,3)	No	No
Fabricator_Name	Fabricator_Name_CL	VARCHAR2(16)	No	No
Fabrication_Location	Fabrication_Location_CL	VARCHAR2(16)	No	No
Fabrication_Date	Fabrication_Date	DATE	No	No
Install_Date	Install_Date	DATE	No	No
Fabrication_Flag	Fabrication_Flag	CHAR(1)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point or beginning and ending station range where the pipe bend occurs

Bend_Type_CL

Sag
Overbend
Left
Right

Bend_Technique_CL

Hot or Cold

Bend_Radius

Units - nominal pipe diameters.

Horiz_Angle**Vert_Angle****Fabricator_Name_CL****Fabrication_Location_CL****Fabrication_Date****Install_Date**

The year, month, and day the facility was installed.

Fabrication_Flag**Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Reducer

Name:	Reducer
Code:	Reducer
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Fitting used to transition between two diameters of pipe.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Nominal Diameter Inlet	Nominal_Diameter_Inlet	NUMBER(6,4)	No	No
Nominal Diameter Outlet	Nominal_Diameter_Outlet	NUMBER(6,4)	No	No
Nominal Wall Thickness Inlet	Nominal_Wall_Thickness_Inlet	NUMBER(6,4)	No	No
Nominal Wall Thickness Outlet	Nominal_Wall_Thickness_Outlet	NUMBER(6,4)	No	No
Reducer Specification	Reducer_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing point where the reducer occurs

Type_CL

Type of reducer

Manufacturer_CL

Manufacturer of reducer

Nominal_Diameter_Inlet

Outside diameter on upstream end

Nominal_Diameter_Outlet

Outside diameter on downstream end

Nominal_Wall_Thickness_Inlet

Wall thickness on upstream end

Nominal_Wall_Thickness_Outlet

Wall thickness on downstream end

Reducer_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Pressure rating of fitting

Mill_Test_Pressure**Material_CL**

Type of material used in the manufacture of the fitting

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

River_Weight

Name:	River_Weight
Code:	River_Weight
Label:	River_Weight
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a group of river weights. The range is from the first to the last river weight in the group.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Quantity	Quantity	NUMBER(6)	No	No
Weight_Each	Weight_Each	NUMBER(6,2)	No	No
Spacing_Distance	Spacing_Distance	NUMBER(6,2)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point or beginning and ending station range where the river weights occur

Type_CL

The type of river weight used: Bolt-on or Set-on, etc.

Quantity

The number of individual weights used in the station range

Weight_Each

The weight (lbs.) of each individual river weight

Spacing_Distance

The approximate spacing of each river weight in the range (footage)

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Sleeve

Name:	Sleeve
Code:	Sleeve
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Device used to strengthen or repair pipe.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Outside_Diameter	Outside_Diameter	NUMBER(6,4)	No	No
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	No
Part_of_Fab	Part_Of_Fabrication_LF	CHAR(1)	No	No
Attached_Fab	Attached_Fab	NUMBER(10)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Sleeve Specification	Sleeve_Specification_CL	VARCHAR2(16)	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the centerline point or beginning and ending station range where the sleeve occurs

Type_CL

Type of sleeve

Outside_Diameter

Outside diameter of sleeve

Nominal_Wall_Thickness

Wall thickness of sleeve

Part_Of_Fabrication_LF

Flag to indicate Event is part of a fabrication

Attached_Fab

Flag to indicate if Event is attached to a fabrication

Manufacturer_CL**Date_Manufactured**

Date the facility event was manufactured.

Sleeve_Specification_CL**Material_CL****Mill_Test_Pressure****Nominal_Pressure_Rating**

Pressure rating of meter

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Tap

Name:	Tap
Code:	Tap
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

A rated component used to form a branch in the pipeline system (examples include weldolets, threadolets, curb valve, etc.)

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Nominal Diameter	Nominal_Diameter	NUMBER(6,4)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Tapping_Method	Tapping_Method	VARCHAR2(16)	No	No
Tap Specification	Tap_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point on the mainline where the tap occurs

Type_CL

Type of tap

Nominal_Diameter

Size of tap outlet

Manufacturer_CL

Manufacturer of tap

Tapping_Method

Method used in tapping pipeline

Tap_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Pressure rating of tap

Mill_Test_Pressure

Mill test pressure

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Tee

Name:	Tee
Code:	Tee
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

A fitting used to provide a split or branch connection in the pipeline. Tees are manufactured as a single unit.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Nominal Diameter Main	Nominal_Diameter_Main	NUMBER(6,4)	No	No
Nominal Diameter Branch	Nominal_Diameter_Branch	NUMBER(6,4)	No	No
Nominal Wall Thickness	Nominal_Wall_Thickness	NUMBER(6,4)	No	No
Tee Specification	Tee_Specification_CL	VARCHAR2(16)	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Material	Material_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point on the mainline where the tee occurs

Type_CL

Type of tee

Manufacturer_CL

Manufacturer of tee

Nominal_Diameter_Main

Size of main direction through tee

Nominal_Diameter_Branch

Size of branch direction through tee

Nominal_Wall_Thickness

Wall thickness of tee

Tee_Specification_CL

Designation of year and manufacturing standard

Nominal_Pressure_Rating

Pressure rating of fitting

Mill_Test_Pressure**Material_CL**

Type of material used in the manufacture of the fitting

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Valve

Name:	Valve
Code:	Valve
Label:	Valve
Owner:	
Number:	
PK constraint:	
Source:	

Description

A device that interrupts the flow of gas through a pipeline by opening, closing, or partially obstructing the passageway. The valve is stored as a single point event—as the centerline of the valve.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Valve Identifier	Valve_Identifier	VARCHAR2(16)	No	Yes
Name	Name	VARCHAR2(50)	No	No
Nominal Inlet Diameter	Nominal_Inlet_Diameter	NUMBER(6,4)	No	No
Nominal Outlet Diameter	Nominal_Outlet_Diameter	NUMBER(6,4)	No	No
Type	Type_CL	VARCHAR2(16)	No	Yes
Serial Number	Serial_Number	VARCHAR2(32)	No	No
Model Number	Model_Number	VARCHAR2(32)	No	No
Purchase Order Number	Purchase_Order_Number	VARCHAR2(16)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date Manufactured	Date_Manufactured	DATE	No	No
Valve Specification	Valve_Specification_CL	VARCHAR2(16)	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Nominal Pressure Rating Inlet	Nominal_Pressure_Rating_Inlet	INTEGER	No	No
Nominal Pressure Rating Outlet	Nominal_Pressure_Rating_Outlet	INTEGER	No	No
Date Installed	Date_Installed	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the centerline point where the valve occurs

Valve_Identifier

The unique identifier of a gate valve.

Name

The common name that identifies the valve.

Nominal_Inlet_Diameter**Nominal_Outlet_Diameter****Type_CL**

Indicating the type of valve, for example:

- Gate
- Plug
- Check
- Ball

Serial_Number

The manufacturer serial number of the valve

Model_Number

The name of a specific pattern of machinery made by a manufacturer, assigned by the manufacturer. Could be text or alphanumeric code.

Purchase_Order_Number**Manufacturer_CL**

A value representing the manufacturer name. Used to identify the manufacturer of an item.

Date_Manufactured

The date that the valve was manufactured

Valve_Specification_CL

API 6D (SPEC)

MSS Standards:

SP-67 Butterfly Valves.

SP-72 Ball Valves with Flanged or Butt-Welding Ends for General Service.

SP-84 Steel Valves - Socket Welding and Threaded Ends.

CSA Standards

Z245.15 Steel Valves

Mill_Test_Pressure**Nominal_Pressure_Rating****Nominal_Pressure_Rating_Inlet****Nominal_Pressure_Rating_Outlet****Date_Installed**

The date/time the facility was installed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Valve Operator

Name:	Valve Operator
Code:	Valve_Operator
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes equipment that automatically or semi-automatically opens or closes a valve.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Serial_Number	Serial_Number	VARCHAR2(32)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the centerline of the valve where the operator occurs

Type_CL

Type of valve operator

Serial_Number

The manufacturer serial number of the valve

Manufacturer_CL

A value representing the manufacturer name. Used to identify the manufacturer of an item.

Date_Manufactured

The date that the valve was manufactured

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Vessel

Name:	Vessel
Code:	Vessel
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Pressure containing device.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Serial_Number	Serial_Number	VARCHAR2(32)	No	No
Model Number	Model_Number	VARCHAR2(10)	No	No
Vessel Specification	Vessel_Specification_CL	VARCHAR2(16)	No	No
Nominal Temperature Rating	Nominal_Temperature_Rating	INTEGER	No	No
Nominal Pressure Rating	Nominal_Pressure_Rating	INTEGER	No	No
Mill Test Pressure	Mill_Test_Pressure	INTEGER	No	No
Date_Manufactured	Date_Manufactured	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the centerline point or beginning and ending station range where the vessel occurs

Type_CL

Type of vessel

Manufacturer_CL

Manufacturer of vessel

Serial_Number

Serial number of vessel

Model_Number

Model number of vessel

Vessel_Specification_CL

ASME section and year of certifying process of manufacturer

Nominal_Temperature_Rating

Temperature from ASME stamp

Nominal_Pressure_Rating

Pressure rating of vessel

Mill_Test_Pressure

Mill test pressure

Date_Manufactured

Date the facility event was manufactured.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Cathodic Protection

Rectifier

Name:	Rectifier
Code:	Rectifier
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes attributes of a single rectifier. A rectifier inhibits corrosion by inducing electric current onto the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Amp_Rating	Amp_Rating	VARCHAR2(16)	No	No
Manufacturer	Manufacturer_CL	VARCHAR2(16)	No	No
Power_Source	Power_Source	VARCHAR2(50)	No	No
Billing_Source	Billing_Source	VARCHAR2(50)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the rectifier occurs

Amp_Rating

Manufacturer_CL

The manufacturer of the rectifier

Power_Source

Billing_Source

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Test_Lead

Name:	Test_Lead
Code:	Test_Lead
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type_CL	Type_CL	VARCHAR2(16)	No	No
Status	Status	CHAR(1)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the where the test lead occurs

Type_CL**Status****Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Crossings

Crossing_Note_Type

Name:	Crossing_Note_Type
Code:	Crossing_Note_Type
Label:	Field Note Type
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

A domain table containing all valid types of field notes. Field notes are taken by the surveyor during the as-built survey of the pipeline or facility. Field notes also print on the alignment sheets.

Column List

Name	Code	Type	P	M
Type	Type_CL	CHAR(3)	Yes	Yes
Group Name	Group_Name	VARCHAR2(30)	No	No
Description	Description	VARCHAR2(50)	No	No
Note Format	Note_Format	VARCHAR2(30)	No	No
Sort Key	Sort_Key	SMALLINT	No	No
Table Type Code	Table_Type_Code	SMALLINT	No	No
Symbol1	Symbol1	VARCHAR2(10)	No	No
Symbol2	Symbol2	VARCHAR2(10)	No	No
Cell_Name	Cell_Name	VARCHAR2(10)	No	No
Block_Name	Block_Name	VARCHAR2(10)	No	No

Type_CL

Group_Name

The name of a general category of field note types. Examples: Transportation, Public line survey (PLS), Hydrography, general, survey.

Description

Text used to define the value in the Field Note Type.

Note_Format

Text used to describe the template (format) for the way a note (sheet, routing, or foreign line) description should be entered.

Sort_Key

When there are several notes for a single station point, this key orders or prioritizes the note types for printing.

Table_Type_Code

A code identifying the category (sheet, route, or foreign line) a note type belongs to. Determines which table data goes into.

Symbol1

Reserved symbol name – application dependent

Symbol2

Reserved symbol name – application dependent

Cell_Name

The name of a shape in the MicroStation CAD system.

Block_Name

The name of a shape in the AutoCAD CAD system.

Foreign Line Crossing

Name:	Foreign Line Crossing
Code:	Foreign_Line_Crossing
Label:	Foreign Line Crossing
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

A foreign line crossing is where another pipeline, owned by this company or an outside company, crosses a company pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Owner_CL	Owner_CL	VARCHAR2(16)	No	No
Over Under Code	Over_Under_Code	CHAR(1)	No	No
Line Clearance	Line_Clearance	NUMBER(4,1)	No	No
Material_CL	Material_CL	VARCHAR2(16)	No	No
Foreign Diameter	Foreign_Diameter	NUMBER(5,3)	No	No
Crossing Date	Crossing_Date	DATE	No	No
Intersection Angle	Intersection_Angle	NUMBER(3)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Scaled	Scaled	CHAR(1)	No	No
Direction	Direction	CHAR(1)	No	No
Width	Width	NUMBER(4)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the crossing occurs

Type_CL

A code identifying a category of survey field notes. Examples: fence (F), vent (V), tap (TP), road (RD), highway (HWY), etc.

Description

Text used to describe the foreign line - its diameter, what kind of line, etc.

Owner_CL

A value representing the name of the company that owns the foreign line.

Over_Under_Code

A value specifying whether or not the foreign line is crossing over line or under line.

Line_Clearance

The distance between two crossing facilities (pipelines, utility lines, etc) where they cross.

Material_CL

A code identifying a category of physical material used in foreign lines. Examples: plastic, steel, cable.

Foreign_Diameter

The inner diameter of an opening of pipe, valve, etc; expressed in inches.

Crossing_Date

The year, month, and day on which company was notified of the encroachment report. Field may be blank.

Intersection_Angle

The angle between two crossing lines determined by one of several methods, expressed in degrees (0 - 360).

Field_Book_Number

A number identifying the map number or the survey book number where the note originated.

Scaled

A value representing how the distance is determined between station values; the distance is either scaled or is derived and not a true measured distance. Values: Null, S (Scaled), C (Calculated).

Direction

A value representing the general direction that an intersecting note (foreign line, etc) is running. Values: Null = neither, N = North/South, E = East/West. Source: Survey Notebooks.

Width**Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Railroad

Name:	Railroad
Code:	Railroad
Label:	
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

Each record in this table records where a railroad track crosses the company pipeline. Railroad crossings must be inspected during line walks. The same railroad line may cross the company pipeline in more than one place. A record indicates each crossing occurrence.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Operator_CL	Operator_CL	VARCHAR2(16)	No	No
Intersection Angle	Intersection_Angle	NUMBER(3)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Scaled	Scaled	CHAR(1)	No	No
Direction	Direction	CHAR(1)	No	No
Width	Width	NUMBER(4)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the crossing occurs

Type_CL

A code identifying a category of survey field notes. Examples: fence (F), vent (V), tap (TP), road (RD), highway (HWY), etc.

Description

The name of the railroad line.

Operator_CL

The name of the operating company of a railroad line.

Intersection_Angle

The angle between two crossing lines determined by one of several methods, expressed in degrees (0 - 360).

Field_Book_Number

A number identifying map number or the survey book number where the note originated.

Scaled

A value representing how the distance is determined between station values; the distance is either scaled or is derived and not a true measured distance. Values: Null, S (Scaled), C (Calculated).

Direction

A value representing the general direction that an intersecting note (railroad, etc) is running. Values: Null = neither, N = North/South, E = East/West. Source: Survey Notebooks.

Width**Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Right_of_Way

Name:	Right_of_Way
Code:	Right_of_Way
Label:	Right_of_Way
Owner:	
Number:	
PK constraint:	
Source:	Right-of-way agreement

Description

This table describes the location of a right-of-way agreement for a parcel of land. This table specifies rights-of-way that contain pipeline facilities. Parcels and leases that are off of the pipeline are not stored in this table.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	VARCHAR2(16)	No	Yes
Parcel_Number	Parcel_Number	CHAR(10)	No	No
Owner_Name	Owner_Name	VARCHAR2(50)	No	No
Property_Width	Property_Width	NUMBER(10)	No	No
Easement_Width	Easement_Width	NUMBER(10)	No	No
Address	Address	NUMBER(10)	No	No
Status	Status	CHAR(1)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending range where the right-of-way tract occurs

Type_CL

A code identifying a category of right-of-way agreement. Examples may include:

Parcel_Number

Internal ID for ROW document.

Owner_Name

Original grantor on ROW document.

Property_Width

Unused.

Easement_Width

Unused.

Address

Unused.

Status

Codelist value that identifies the ROW status.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Road

Name:	Road
Code:	Road
Label:	
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

Each record in this table records where a road (major or minor) crosses a company pipeline. Road crossings must be inspected during line walks. The same road may cross the company pipeline in more than one place and there may be more than one crossing at any one place along the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Surface CL	Surface_CL	VARCHAR2(16)	No	No
Intersection Angle	Intersection_Angle	NUMBER(3)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Scaled	Scaled	CHAR(1)	No	No
Direction	Direction	CHAR(1)	No	No
Width	Width	NUMBER(4)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the crossing occurs

Type_CL

A code identifying a category of survey field notes. Examples: road (RD), highway (HWY), etc.

Description

Text used to describe and identify the road; i.e. the name and number of the road, highway, etc.

Surface_CL

A value representing the surface condition of the road; i.e. dirt, gravel, paved.

Intersection_Angle

The angle between two crossing lines determined by one of several methods, expressed in degrees (0 - 360).

Field_Book_Number

A number identifying map number or the survey book number where the note originated.

Scaled

A value representing how the distance is determined between station values; the distance is either scaled or is derived and not a true measured distance. Values: Null, S (Scaled), C (Calculated).

Direction

A value representing the general direction that an intersecting feature (road, highway, etc) is running. Values: Null = neither, N = North/South, E = East/West. Source: Survey Notebooks.

Width**Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Routing Note

Name:	Routing Note
Code:	Routing_Note
Label:	Routing Note
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

A routing note contains as-built survey notes describing where the pipeline goes or where it is located. This table contains the following note types:

BLN – Begin Line, occurs once at the beginning of the pipeline

BPR – Begin pipe route, occurs at the beginning of each pipeline route, from the second route on.

PIR – PI Right, right inflection of the pipeline in the direction of stationing

PIL - PI Left, left inflection of the pipeline in the direction of stationing

STQ – Station Equation, occurs at the back station at the equation, the description text include back and ahead stations

EPR – End of Pipe Route, indicates the ending station of a route. An EPR must match each BLN/BPR record.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the PI or station equation occurs

Type_CL

A code identifying a category of survey field notes.

Description

Text used to describe the survey deflection angle (i.e. 06°05'04" Right) at the PI.

Field_Book_Number

A number identifying the map number or the survey book number where the note originated.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Sheet Note

Name:	Sheet Note
Code:	Sheet_Note
Label:	Sheet Note
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

A sheet note contains as-built survey notes about the pipeline's or facility's surroundings.

Sheet_Notes are manually entered from survey notebooks or alignment sheets. Included are geo-political boundaries, field surveys (ie fences, notebooks), cathodic protection (ie cathodic connector), pipe material (ie meter, drip, exposed pipe, scrubber, regulator), junctions, property boundaries, taps, Ties, and topography.

All survey notes that are not in the Routing_Note, Waterway, Foreign_Line_Crossing, Road and Railroad tables are stored in Sheet_Note.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Code	Code	CHAR(3)	No	No
Scaled	Scaled	CHAR(1)	No	No
Direction	Direction	CHAR(1)	No	No
Width	Width	NUMBER(4)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the survey note occurs

Type_CL

A code identifying a category of survey field notes. Examples: fence (F), vent (V), tap (TAP), section line (SL), etc.

Description

Text used to describe the sheet note.

Field_Book_Number

A number identifying the map number or the survey book number where the note originated.

Code

A value representing the source of the survey note data, ie strip map, as-built, stake notes, profile.

Scaled

A value representing how the distance is determined between station values; the distance is either scaled or is derived and not a true measured distance. Values: Null, S (Scaled), C (Calculated).

Direction

A value representing the general direction that an intersecting note (fence, foreign line, etc) is running. Values: Null = neither, N = North/South, E = East/West. Source: Survey Notebooks.

Width

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Waterway

Name:	Waterway
Code:	Waterway
Label:	
Owner:	
Number:	
PK constraint:	
Source:	Survey notebooks, as-built alignment sheets

Description

A channel that water flows through. Could be a river, creek, lake, swamp, ditch, etc. Related to the topography of a map. Records show where water crosses a company pipeline. Waterway crossings must be inspected during line walks. The same waterway may cross the company pipeline in more than one place.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Type	Type_CL	CHAR(3)	No	Yes
Description	Description	VARCHAR2(50)	No	No
Protected	Protected	CHAR(1)	No	No
Intersection Angle	Intersection_Angle	NUMBER(3)	No	No
Scaled	Scaled	CHAR(1)	No	No
Direction	Direction	CHAR(1)	No	No
Field Book Number	Field_Book_Number	CHAR(16)	No	No
Width	Width	NUMBER(4)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the point where the water crossing occurs

Type_CL

A code identifying a category of survey field notes. Examples: river (RV), drain (DR), canal (CNL), wetland (WL) etc.

Description

Text used to describe the waterway.

Protected

A value specifying whether or not the waterway is under government protection. Used for environmental studies.

Intersection_Angle

The angle between two crossing lines determined by one of several methods, expressed in degrees (0 - 360).

Scaled

A value representing how the distance is determined between station values; the distance is either scaled or is derived and not a true measured distance. Values: Null, S (Scaled), C (Calculated).

Direction

A value representing the general direction that an intersecting note (fence, foreign line, etc) is running. Values: Null = neither, N = North/South, E = East/West. Source: Survey Notebooks.

Field_Book_Number

A number identifying map number or the survey book number where the note originated.

Width

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Centerline

Centerline_Geo_X_Ref

Name:	Centerline_Geo_X_Ref
Code:	Centerline_Geo_X_Ref
Label:	Centerline_Geo_X_Ref
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a centerline cross reference table that indicates the geometry of the centerline representation. If there are multiple representations of the centerline (true geographic, schematic, etc.) This table provides a means of having multiple coordinates for a given point (Location).

Column List

Name	Code	Type	P	M
Coordinate_ID	Coordinate_ID	NUMBER(16)	Yes	Yes
Centerline_Geo_ID	Centerline_Geo_ID	NUMBER(16)	Yes	Yes

Coordinate_ID

Foreign key to the Coordinate table

Centerline_Geo_ID

Foreign key to the Coordinate_Geometry table

Centerline_Geometry

Name:	Centerline_Geometry
Code:	Centerline_Geometry
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a geometric representation of the pipeline coordinate. The geometry may be true geographic, schematic, representational, etc.

Column List

Name	Code	Type	P	M
Centerline_Geo_ID	Centerline_Geo_ID	NUMBER(16)	Yes	Yes
Location_Ref_Name	Source_Name	CHAR(30)	No	Yes
Purpose	Purpose	CHAR(10)	No	No
Create_Date	Create_Date	DATE	No	No
Comments	Comments	VARCHAR2(255)	No	No

Centerline_Geo_ID

Uniquely identifies each geometry record

Source_Name

Describes the source of each geometry type

Purpose

The intended use of the geometry type

Create_Date

The date that the geometry type was created

Comments

Miscellaneous comments about the record

Coordinate

Name:	Coordinate
Code:	Coordinate
Label:	Coordinate
Owner:	
Number:	
PK constraint:	
Source:	

Description

Centerline coordinates are used to spatially or geographically associate station points with the earth (ie. to place them accurately on a map). Station point locations may be associated with more than one set of coordinates due to the fact that there are several coordinate systems to choose from (ie. State Plane, Universal Transverse Mercator (UTM), etc.).

Centerline segment describes the geometry of the pipeline network as it appears in the graphical representation. Geometry may or may not be geographically correct. Geometry could be set to be aesthetically pleasing.

Column List

Name	Code	Type	P	M
Coordinate_ID	Coordinate_ID	NUMBER(16)	Yes	Yes
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	No	No
Location_ID	Location_ID	NUMBER(16)	No	Yes
X_Coord	X_Coord	FLOAT	No	Yes
Y_Coord	Y_Coord	FLOAT	No	Yes
Z_Coord	Z_Coord	FLOAT	No	No
Indicate_Control_LF	Indicate_Control_LF	CHAR(1)	No	No

Coordinate_ID

Uniquely identifies each coordinate record

Coordinate_Source_ID

Indicates the source material used for the coordinate

Location_ID

Foreign key to the location table. Identifies the location of the point relative to stationed points on the centerline

X_Coord

The X coordinate of the point

Y_Coord

The X coordinate of the point

Z_Coord

The elevation of the point

Indicate_Control_LF

Indicates that this coordinate is a control point (PI) of the centerline and is not a calculated (interpolated) point

Coordinate_Source

Name:	Coordinate_Source
Code:	Coordinate_Source
Label:	Compressor_Station
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the source of a set of geographic coordinates. Example may include heads-down paper digitizing, heads-up paper digitizing, coordinate geometry (COGO), digitizing from aerial photography, etc.

Column List

Name	Code	Type	P	M
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	Yes	Yes
Source_Name	Source_Name	CHAR(30)	No	Yes
Source_Type	Source_Type	CHAR(10)	No	No
Create_Date	Create_Date	DATE	No	No
Method	Method	CHAR(10)	No	No
Operator	Operator	CHAR(10)	No	No
Accuracy	Accuracy	CHAR(10)	No	No
Coordinate_Sys_ID	Coordinate_Sys_ID	VARCHAR2(40)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Coordinate_Source_ID

A token identifier representing a source of geographic coordinates.

Source_Name

The name of the source. (e.g. COGO from survey notes, digitized, GPS by Hart Surveys, etc.)

Source_Type

The general classification of the source.

Create_Date**Method**

The method used to obtain coordinates.

Operator

The name of the operator that performed the work

Accuracy

A general-purpose code that can be used to later assess the likelihood of coordinate accuracy relative to other coordinate sources.

Coordinate_Sys_ID**Comments**

Coordinate_Sys

Name:	Coordinate_Sys
Code:	Coordinate_Sys
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a coordinate projection system.

Column List

Name	Code	Type	P	M
Coordinate_Sys_ID	Coordinate_Sys_ID	VARCHAR2(40)	Yes	Yes
Coordinate_Sys_S	Coordinate_Sys_S	VARCHAR2(19)	No	No
Description	Description	VARCHAR2(2000)	No	No
Entity_Type_Name	Entity_Type_Name	VARCHAR2(40)	No	Yes
Geodetic_Datum_ID	Geodetic_Datum_ID	VARCHAR2(80)	No	No
Prime_Meridian_ID	Prime_Meridian_ID	VARCHAR2(40)	No	No
R_Axis_Ornt_Kind	R_Axis_Ornt_Kind	VARCHAR2(40)	No	No
R_Cord_Sys_Cstr_Name	R_Cord_Sys_Cstr_Name	VARCHAR2(40)	No	Yes
R_Display_Ornt	R_Display_Ornt	VARCHAR2(40)	No	No
R_Map_Proj_Kind	R_Map_Proj_Kind	VARCHAR2(40)	No	No
R_Naming_System_Kind	R_Naming_System_Kind	VARCHAR2(40)	No	No
Source	Source	NUMBER(16)	No	No
Source_Reference	Source_Reference	VARCHAR2(19)	No	No
Status	Status	CHAR(1)	No	No
Version	Version	VARCHAR2(40)	No	No
Vertex_S	Vertex_S	VARCHAR2(19)	No	No
Vertex_T	Vertex_T	VARCHAR2(16)	No	No

Coordinate_Sys_ID**Coordinate_Sys_S****Description****Entity_Type_Name****Geodetic_Datum_ID****Prime_Meridian_ID****R_Axis_Ornt_Kind****R_Cord_Sys_Cstr_Name****R_Display_Ornt****R_Map_Proj_Kind****R_Naming_System_Kind****Source****Source_Reference****Status****Version****Vertex_S****Vertex_T**

Compressor Station

Compressor_Station

Name:	Compressor_Station
Code:	Compressor_Station
Label:	Compressor_Station
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a single compressor station.

Column List

Name	Code	Type	P	M
Compressor_Station_ID	Compressor_Station_ID	NUMBER(16)	Yes	Yes
Station_Number	Station_Number	CHAR(10)	No	No
Name	Name	CHAR(30)	No	Yes
State_Abbr	State_CL	CHAR(2)	No	No
Total_Horsepower	Total_Horsepower	INTEGER	No	No
Number_Of_Units	Number_Of_Units	INTEGER	No	No
X_Coord_Center	X_Coord_Center	FLOAT	No	No
Y_Coord_Center	Y_Coord_Center	FLOAT	No	No
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Compressor_Station_ID

A unique, database assigned identifier of the compressor station

Station_Number

The company compressor station number

Name

The name of the compressor station

State_CL

The state abbreviation code

Total_Horsepower

The maximum combined horsepower at the station

Number_Of_Units

X_Coord_Center

The X (easting) coordinate of the approximate centroid of the compressor station

Y_Coord_Center

The Y (northing) coordinate of the approximate centroid of the compressor station

Coordinate_Source_ID**Source**

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Core Tables

Line

Name:	Line
Code:	Line
Label:	Line
Owner:	
Number:	
PK constraint:	
Source:	

Description

A domain table used to identify valid Line Number's.

Column List

Name	Code	Type	P	M
Line_ID	Line_ID	SMALLINT	Yes	Yes
Designator	Designator	CHAR(10)	No	Yes
Description	Description	VARCHAR2(50)	No	Yes
Line_Type	Line_Type	CHAR(1)	No	Yes
Product_Type	Product_Type	CHAR(3)	No	No
Status	Status	CHAR(1)	No	No

Line_ID

A unique identifier of a Line Number. This field is a sequential number used as a token key.

Designator

The company specific identifier/number of the line

Description

The general description of the line or common reference name

Line_Type

A code identifying a category of pipeline.

Values:

- Transmission Line
- River Line
- Branch
- Field Feeder
- Fuel Line
- Mainline
- Survey Line
- Underground Storage Line
- Unknown

Product_Type

The type of product that is generally transported on the line

Status

A value representing the status of the routing/ populating of Line Number data (ie all the points for that Line Number). It tells if the line has been accepted, if it needs to be re-surveyed, if it is being QC'ed, etc.

Location

Name:	Location
Code:	Location
Label:	
Owner:	
Number:	
PK constraint:	
Source:	Assigned and maintained internally by the database

Description

This table describes a geographic location for one or more stationed points on the pipeline. Some points share a common location, for example tie-in or branch connection points. At these points, the Station_Point will share a common location—or common geographic location. This table provides a logical connection between pipelines.

Column List

Name	Code	Type	P	M
Location_ID	Location_ID	NUMBER(16)	Yes	Yes

Location_ID

A sequential number used to uniquely identify a station point, assigned by the database

Route

Name:	Route
Code:	Route
Label:	Route
Owner:	
Number:	
PK constraint:	
Source:	

Description

The route table helps to determine where there is a physical break in the pipeline. The two station points in this table define continuous pipe. Breaks occur at loop lines, in the laterals, etc. Each side of the loop line is a route and each connecting piece between loop lines is considered a route. When given two points on the system, this record determines whether the two points have continuous pipe between them so that the pipe length can then be correctly determined.

All Station Points exist on a Route. All linear features begin and end on the same Route

Column List

Name	Code	Type	P	M
Route_ID	Route_ID	NUMBER(16)	Yes	Yes
Line_ID	Line_ID	SMALLINT	No	Yes
Event_ID	Event_ID	NUMBER(16)	No	No
Description	Description	VARCHAR2(50)	No	No
Sequence	Sequence	NUMBER(3)	No	No
Type	Type_CL	CHAR(1)	No	No
Status	Status	CHAR(1)	No	No

Route_ID

A token identifier representing route, assigned by the database

Line_ID

A token identifier representing line, foreign key to Line table

Event_ID

A token identifier representing the begin and ending range where route occurs. This column is not required so that new routes can be created. After a new route is created the Event_ID must be populated.

Description

Text used to identify where a route is located. This may be the north side of a river crossing, south side of a river crossing, header pipe, tie-over, etc.

Sequence

A sequential number used to establish a unique identification or priority ranking.

Type_CL

Route Types:

- Mainline
- River Crossing Line
- River Crossing Header
- Mainline Interconnect
- Meter Station Piping

Status

Route Status:

- Active
- Abandoned, capped and filled with Nitrogen

-

Series

Name:	Series
Code:	Series
Label:	Station Run
Owner:	
Number:	
PK constraint:	
Source:	

Description

The series table records the valid station series for a pipeline number and continuous begin and end stations. A station series is contained within one route, although a route may contain one or more station series'. Series changes when the route changes and when there are station equations.

Column List

Name	Code	Type	P	M
Series_ID	Series_ID	NUMBER(16)	Yes	Yes
Description	Description	VARCHAR2(254)	No	No
Line_ID	Line_ID	SMALLINT	No	Yes
Series	Series	INTEGER	No	Yes
Station_Begin	Station_Begin	NUMBER(10,1)	No	Yes
Station_End	Station_End	NUMBER(10,1)	No	Yes
Ascending	Ascending	INTEGER	No	No
Route_ID	Route_ID	NUMBER(16)	No	No
Parent_Series	Parent_Series	SMALLINT	No	No
Create_Date	Create_Date	DATE	No	No
Pods_User	Pods_User	VARCHAR2(20)	No	No
Validity	Validity	CHAR(1)	No	No
Eff_From_Date	Eff_From_Date	DATE	No	No
Eff_To_Date	Eff_To_Date	DATE	No	No

Series_ID

A token number that uniquely identifies each station series on the system, assigned by the database

Description

A general description of the station series

Line_ID

A unique identifier of a line number. This field is a sequential number used as a token key

Series

A number principally used for two reasons 1) to make the station number unique, and 2) to correctly order station numbers. Engineering station numbers may not be unique on a line (especially along the mainline) for several reasons. The line may have been built in spreads and each spread started with station number 0+00, thus duplicate station numbers were introduced. Another reason why duplicate station numbers may have been introduced is when sections of pipe are removed and rerouted. If the rerouted pipe is longer than the original section of pipe, duplicates may have been introduced.

Station_Begin

An engineering station number is a number given by the Drafting department (or a contract surveying company) at the completion of as-built surveying of the pipeline. To explain engineering stationing, consider the example: 1+00 = 100 feet. The number to the left of the plus "+" sign is multiplied by 100 then added to the number to the right of the plus "+" sign. The number arrived at represents the horizontal or slack chain footage from the beginning of the station survey (0+00). If, for whatever reason (pipe is replaced, etc), the calculated number does not represent the actual horizontal footage from the beginning of the survey, then a station equation is introduced to resolve this discrepancy.

The value of this field can be negative. Example occurrences <-- 0+00 --> or 0+00 --><-- 0+00. 'left' side would be negative. Take absolute value of this field.

Station_End

An engineering station number is a number given by the Drafting department (or a contract surveying company) at the completion of as-built surveying of the pipeline. To explain engineering stationing, consider the example: 1+00 = 100 feet. The number to the left of the plus "+" sign is multiplied by 100 then added to the number to the right of the plus "+" sign. The number arrived at represents the horizontal footage from the beginning of the station survey (0+00). If, for whatever reason (pipe is replaced, etc), the calculated number does not represent the actual horizontal footage from the beginning of the survey, then a station equation is introduced to resolve this discrepancy.

The value of this field can be negative. Example occurrences <-- 0+00 --> or 0+00 --><-- 0+00. 'left' side would be negative. Take absolute value of this field.

Ascending

Indicates whether the stationing on this series is ascending (0+00 to 100+00) or descending (100+00 to 0+00). The ascending value is +1, the descending value is -1.

Route_ID

A token identifier representing route, assigned by the database

Parent_Series**Create_Date**

If used, represents the date the record was created in the database.

Pods_User

If used, represents the name of the user that created the series in the database.

Validity

If used, represents a validity status of the series record

Eff_From_Date

If used, represents the effective start date of the record.

Eff_To_Date

If used, represents the effective ending date of the record.

Station_Point

Name:	Station_Point
Code:	Station_Point
Label:	Station_Point
Owner:	
Number:	
PK constraint:	
Source:	Assigned internally by the database – maintained by database stored procedures

Description

A point on a line represented by an engineering station where something of significance occurs. Facilities, land parcels, environmental boundaries, corrosion sites, etc. are all associated with one or more station points (depending on whether the entity represents a point, line, or polygon symbol on a map), and more than one of any of the above may be associated with a single station point. Station points are obtained through as-built surveying of the pipeline and are shown on the alignment sheets. Station points provide a means of using two or more linear reference systems on a pipeline. Two common linear reference systems are Series/Station and Route/Measure.

Not every point on the pipeline system is given a station point, only those points that are of interest. Points can be deleted if they are no longer of interest to the current configuration.

All Station Points must be on a Route.

Column List

Name	Code	Type	P	M
Station_ID	Station_ID	NUMBER(16)	Yes	Yes
Station	Station	NUMBER(10,1)	No	Yes
Series_ID	Series_ID	NUMBER(16)	No	Yes
Location_ID	Location_ID	NUMBER(16)	No	Yes
Measure	Measure	NUMBER(12,1)	No	Yes
State_CL	State_CL	CHAR(2)	No	No
County_FIPS_CL	County_FIPS_CL	CHAR(3)	No	No
District_CL	District_ID	NUMBER(16)	No	No
Township_Direction	Township_Direction	CHAR(1)	No	No
Township	Township_Number	CHAR(3)	No	No
Range_Direction	Range_Direction	CHAR(1)	No	No
Range	Range_Number	CHAR(5)	No	No
Section	Section_Number	CHAR(3)	No	No
Datum	Datum	CHAR(3)	No	No
State_Survey_CL	State_Survey_CL	NUMBER(16)	No	No
Geo_Location	Geo_Location	VARCHAR2(30)	No	No

Station_ID

A token identifier representing a stationed point on a pipeline. The stationed point is uniquely assigned for each line/series/station.

Station

An engineering station number is a number given by the Drafting department (or a contract surveying company) at the completion of as-built surveying of the pipeline. To explain engineering stationing, consider the example: 1+00 = 100 feet. The number to the left of the plus "+" sign is multiplied by 100 then added to the number to the right of the plus "+" sign. The number arrived at represents the horizontal footage from the beginning of the station survey (0+00). If, for whatever reason (pipe is replaced, etc), the calculated number does not represent the actual horizontal footage from the beginning of the survey, then a station equation is introduced to resolve this discrepancy.

The value of this field can be negative. Example occurrences <-- 0+00 --> or 0+00 --><-- 0+00. 'left' side would be negative. Take absolute value of this field.

Series_ID

A token identifier representing a station series. Foreign key to the Series table.

Location_ID

A sequential number used to uniquely identify the location of one or more station points.

Measure

Used to measure the distance between any two station points on a continuous section of pipe, expressed in feet. This field is used for any calculations of length. This is the cumulative distance from the beginning of a route, with station equations taken into account. Measures are always positive and cumulative through ascending/descending series.

State_CL**County_FIPS_CL****District_ID****Township_Direction****Township_Number****Range_Direction****Range_Number****Section_Number****Datum****State_Survey_CL****Geo_Location**

Event_Comment

Name:	Event_Comment
Code:	Event_Comment
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Additional comments about events. An event may have many comments, each of which may require multiple lines to complete

Column List

Name	Code	Type	P	M
Event_Comment_ID	Event_Comment_ID	NUMBER(16)	Yes	Yes
Event_Report_ID	Event_Report_ID	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No
Status	Status	VARCHAR2(10)	No	No

Event_Comment_ID

Unique event identifier for event comment

Event_Report_ID

ID of specific event that has this comment

Comments

Text of line of comment

Status

Defines the current status of this record.

Event_Cross_Ref

Name:	Event_Cross_Ref
Code:	Event_Cross_Ref
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Lists all events pertinent to a report or all reports pertinent to an event

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Event_Report_ID	Event_Report_ID	NUMBER(16)	Yes	Yes
Status	Status	VARCHAR2(10)	No	No

Event_ID

ID of specific event

Event_Report_ID

ID of report

Status

Defines the current status of this record.

Event_Range

Name:	Event_Range
Code:	Event_Range
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a beginning and ending range where a pipeline attribute occurs. An Event Range may be a point or linear event. If it is a point event, the beginning station point and ending station point will be the same. If it is a linear point the beginning measure must be less than the ending measure.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Event_Offset	Event_Offset	NUMBER(16)	No	No
Event_Offset_Angle	Event_Offset_Angle	NUMBER(16)	No	No
Station ID Begin	Station_ID_Begin	NUMBER(16)	No	Yes
Station ID End	Station_ID_End	NUMBER(16)	No	Yes
Feature_ID	Feature_ID	CHAR(4)	No	No
Parent_Event_ID	Parent_Event_ID	NUMBER(16)	No	No
Length	Length	NUMBER(16)	No	No
Validity	Validity	CHAR(1)	No	No
Pods_User	Pods_User	VARCHAR2(20)	No	No
Create_Date	Create_Date	DATE	No	No
Eff_From_Date	Eff_From_Date	DATE	No	No
Eff_To_Date	Eff_To_Date	DATE	No	No

Event_ID

A token identifier representing a non-unique point or linear occurrence of some attribute

Event_Offset**Event_Offset_Angle****Station_ID_Begin**

A token identifier representing a unique stationed point on the pipeline. Foreign key to Station_Point

Station_ID_End

A token identifier representing a unique stationed point on the pipeline. Foreign key to Station_Point

Feature_ID**Parent_Event_ID****Length**

The footage of the event

Validity**Pods_User****Create_Date**

The date that the event record was created

Eff_From_Date

Effective starting date of the event record

Eff_To_Date

Effective ending date of the event record

Event_Report

Name:	Event_Report
Code:	Event_Report
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

Report of any type causing creation, deletion, or modification to one or more events associated with the pipeline

Column List

Name	Code	Type	P	M
Event_Report_ID	Event_Report_ID	NUMBER(16)	Yes	Yes
Name	Name	VARCHAR2(20)	No	No
Report_Date	Report_Date	DATE	No	No
Type_CL	Type_CL	VARCHAR2(16)	No	No
Remark	Remark	VARCHAR2(240)	No	No
Umbrella_Report_ID	Umbrella_Report_ID	NUMBER(16)	No	No
Status	Status	VARCHAR2(10)	No	No

Event_Report_ID

Unique identifier for report

Name

Report number (i.e. work order number)

Report_Date

Effective date of the report

Type_CL

Code for type of report

Remark

Description of report (report details)

Umbrella_Report_ID

Main report of which this report may be a subset

Status

Defines the current status of this record.

Ext_Doc

Name:	Ext_Doc
Code:	Ext_Doc
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

New table to identify specific raster or other files for a photo center cell or other graphic element used as a hot key to tie into some other form of external document.

Column List

Name	Code	Type	P	M
Ext_Doc_ID	Ext_Doc_ID	NUMBER(16)	Yes	Yes
Filepath	Filepath	VARCHAR2(80)	No	No
Filename	Filename	VARCHAR2(18)	No	No
Event_Report_ID	Event_Report_ID	NUMBER(16)	No	No

Ext_Doc_ID

Identifier of specific external document

Filepath

Filepath description for document location

Filename

Name of file (external document, raster image, etc.)

Event_Report_ID

Main report of which this document may be a subset

Customer_Interrupt

Name:	Customer_Interrupt
Code:	Customer_Interrupt
Label:	Customer_Interrupt
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the priority status of customers on a given section of the line as related to interruptability of gas service delivery.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Status	Status	VARCHAR2(16)	No	Yes
Determination_Date	Determination_Date	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID**Status**

Describes the interruptability status of gas delivery. These records do not cover the entire system.

Determination_Date

The year, month, and day information was revised or changed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Gas_Temperature

Name:	Gas_Temperature
Code:	Gas_Temperature
Label:	Gas_Temperature
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes the range of operating temperatures for the pipeline.

Column List

Name	Code	Type	P	M
Event_ID	Event_ID	NUMBER(16)	Yes	Yes
Maximum	Maximum	INTEGER	No	Yes
Determination Date	Determination_Date	DATE	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Event_ID

A token identifier representing the beginning and ending station range where the feature occurs

Maximum

The maximum temperature measured on for the station range

Determination_Date

The year, month, and day information was revised or changed.

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

GPS_Point

Name:	GPS_Point
Code:	GPS_Point
Label:	GPS_Point
Owner:	
Number:	
PK constraint:	
Source:	GPS data collector

Description

This table describes a collected GPS location. GPS refers to the Global Positioning System satellite network that can be used to accurately position points on the ground. Each GPS point collected will have associated tabular attributes. GPS points are absolute locations and are not relative to features on a given base map.

Column List

Name	Code	Type	P	M
GPS_Point_ID	GPS_Point_ID	NUMBER(16)	Yes	Yes
Event_ID	Event_ID	NUMBER(16)	No	No
Feature_Name	Feature_Name	VARCHAR2(50)	No	No
Datafile	Datafile	VARCHAR2(50)	No	No
Type	Type	VARCHAR2(16)	No	No
Description	Description	VARCHAR2(255)	No	No
Easting	Easting	FLOAT	No	Yes
Northing	Northing	FLOAT	No	Yes
Elevation	Elevation	FLOAT	No	No
Date_Collected	Date_Collected	DATE	No	No
Correction_Method	Correction_Method	VARCHAR2(16)	No	No
Standard_Dev	Standard_Dev	FLOAT	No	No
Receiver_CL	Receiver_CL	VARCHAR2(16)	No	No
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(254)	No	No

GPS_Point_ID

A token identifier that uniquely represents each company record. This value is assigned by the database.

Event_ID

A token identifier representing a stationed point on the pipeline where the GPS shot was taken.

Feature_Name

The name of the GPS feature used to collect the point (example: "Point on Pipe")

Datafile

The GPS data file name used for data collection (i.e. '980123JA.COR')

Type

The type of point collected for the feature. This is a foreign key to the Crossing_Note_Type table.

Description

The text description of the GPS point. This is a coded value that describes the exact location of the GPS point. Example: "North edge of county highway 71"

Easting

The X (Longitude) coordinate of the GPS point.

Northing

The Y (Latitude) coordinate of the GPS point.

Elevation

The elevation of the monument point – Zero or Null if unknown

Date_Collected

The date/time that the point was collected.

Correction_Method

The differential correction method that was used. Example: RTK, post-processing from community base station, etc.

Standard_Dev

The standard deviation of the collected point – calculated by the GPS receiver.

Receiver_CL

The manufacturer/model of GPS receiver used to collect the point

Coordinate_Source_ID

A foreign key to the Coordinate_Source table identifying the source of the monument point

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Monument

Name:	Monument
Code:	Monument
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes survey reference (TIE) points that exist on the base map. Examples include section corners, quarter-section corners, etc. The point can be independently located on a base map relative to known features. Monument points are relative locations and are relative to features on a given base map.

Column List

Name	Code	Type	P	M
Monument_ID	Monument_ID	NUMBER(16)	Yes	Yes
Event_ID	Event_ID	NUMBER(16)	No	No
Type	Type	VARCHAR2(16)	No	No
Description	Description	VARCHAR2(255)	No	No
Easting	Easting	FLOAT	No	Yes
Northing	Northing	FLOAT	No	Yes
Elevation	Elevation	FLOAT	No	No
Coordinate_Source_ID	Coordinate_Source_ID	NUMBER(16)	No	No
Source	Source	NUMBER(16)	No	No
Comments	Comments	VARCHAR2(255)	No	No

Monument_ID

A token identifier that uniquely represents each company record. This value is assigned by the database.

Event_ID

A token identifier representing a stationed point on the pipeline where the monument occurs.

Type

The type of monument. This is a foreign key to the Crossing_Note_Type table.

Description

The text description of the monument. This is a coded value that describes the exact location of the monument point relative to a known reference point (section corner). Example: "500 North of North East corner of section 7"

Easting

The X coordinate of the monument point.

Northing

The Y coordinate of the monument point.

Elevation

The elevation of the monument point – Zero or Null if unknown

Coordinate_Source_ID

A foreign key to the Coordinate_Source table identifying the source of the monument point

Source

Indicates the source material that was used to enter this record into the database. Foreign key to the Source table

Comments

Miscellaneous comments about the record

Company

Name:	Company
Code:	Company_CL
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes each company that is referenced in the PODS database. The company may be present for historical reasons.

Column List

Name	Code	Type	P	M
Company_ID	Company_ID	SMALLINT	Yes	Yes
Name	Name	VARCHAR2(50)	No	Yes
Active Indicator	Active_Indicator_LF	CHAR(1)	No	Yes

Company_ID

A token identifier that uniquely represents each company record. This value is assigned by the database.

Name

The name of the company. The company name may be an acquired company or an existing company with acquired facilities.

Active_Indicator_LF

A value specifying whether the code is active or not. (Y) for Yes, (N) for No. Records with a (N) indicator value will not appear in drop-down lists.

Feature_Table

Name:	Feature_Table
Code:	Feature_Table
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table includes a single record for each attribute table in the PODS database. Only tables with the Event_ID column are included in the Feature_Table. Views are not entered into this table.

Column List

Name	Code	Type	P	M
Feature_Table_ID	Feature_Table_ID	CHAR(4)	Yes	Yes
Table_Name	Table_Name	VARCHAR2(30)	No	Yes
Description	Description	VARCHAR2(254)	No	No
Sort_Order	Sort_Order	SMALLINT	No	No
Feature_Type	Feature_Type	CHAR(3)	No	No
Point_Line	Point_Line	CHAR(1)	No	No

Feature_Table_ID

Unique token code assigned by the user

Table_Name

The Upper Case name of the database table. This name must exactly match the database table.

Description

A description of the general purpose of the table.

Sort_Order

Application processing sort order. This used by applications so that tables can be processed in a pre-determined order.

Feature_Type

Example feature types:

- PIPE – Physical characteristics
- DOT – DOT compliance tables
- INS – Inspection tables
- CROS – Crossing tables
- ARE – Geographic boundary tables

Point_Line

Example values:

- P – Point feature (Valve, foreign line crossing)
- L – Line feature (Pipe segment, casing, class location)

Measure_Transform

Name:	Measure_Transform
Code:	Measure_Transform
Label:	Measure_Transform
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a numeric calculation that can be applied to the measure on each station point to determine a new linear referencing system. For example, a decimal milepost value can be calculated from an upstream and downstream milepost value.

Column List

Name	Code	Type	P	M
Meas_Trans_ID	Meas_Trans_ID	NUMBER(16)	Yes	Yes
Series_ID	Series_ID	NUMBER(16)	No	Yes
Transform_Begin_Station	Transform_Begin_Station	NUMBER(16)	No	No
Transform_End_Station	Transform_End_Station	NUMBER(16)	No	No
Alt_Measure_Prefix	Alt_Measure_Prefix	VARCHAR2(16)	No	No
Scale_Factor	Scale_Factor	NUMBER(16)	No	No
Offset	Offset	NUMBER(16)	No	No
Transform_ID	Transform_ID	NUMBER(16)	No	No

Meas_Trans_ID

Unique token number assigned by the database

Series_ID

A foreign key to the Series table indicating the series to which the transform is applied.

Transform_Begin_Station

Upstream engineering station where the transformation begins

Transform_End_Station

Downstream engineering station where the transformation ends

Alt_Measure_Prefix**Scale_Factor**

The scaling factor (m) that is applied to the transformation function ($y = mx + b$)

Offset

The linear factor (b) that is applied to the transformation function ($y = mx + b$)

Transform_ID

Operating Status

Name:	Operating Status
Code:	Operating_Status
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

A domain table for the Line status. Operating status values include: Active and operational, inactive, abandoned, sold, etc.

Column List

Name	Code	Type	P	M
Status	Status	CHAR(1)	Yes	Yes
Description	Description	VARCHAR2(50)	No	Yes
Active Indicator	Active_Indicator_LF	CHAR(1)	No	Yes

Status

A value representing the operational status of an entire pipeline.

Description

Text used to describe the status

Active_Indicator_LF

Indicates whether the source record is active – will appear in drop-down lists by the maintenance application or is inactive – is present primarily for legacy data and would not be used for future sources. (Value “Y” for active and “N” for inactive – Null defaults to Active.)

Source

Name:	Source
Code:	Source
Label:	Source
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a hard-copy or digital source of information that is entered into the database. Examples of sources are: construction drawings, as-built survey notes, spreadsheets, completed operations forms, etc. Each source is a specific type of information or specific instance of a source. For example, one source would be “Alignment sheets”, another source could be “Redlined alignment sheet marked up by J. Smith.”

Column List

Name	Code	Type	P	M
Code	Code	NUMBER(16)	Yes	Yes
Name	Name	VARCHAR2(40)	No	Yes
Description	Description	VARCHAR2(255)	No	No
Company_ID	Company_ID	SMALLINT	No	No
Active Indicator	Active_Indicator_LF	CHAR(1)	No	Yes

Code

The shortened code lookup value of the source, assigned by the user. (“ALGNSHT”)

Name

The name of the source used. (“Alignment Sheet”)

Description

A general or specific description of the source material used

Company_ID

The identifier of the company where the source material originated. This is used primarily for source material that was received through an acquisition.

Active_Indicator_LF

Indicates whether the source record is active – will appear in drop-down lists by the maintenance application or is inactive – is present primarily for legacy data and would not be used for future sources. (Value “Y” for active and “N” for inactive – Null defaults to Active.)

Transform

Name:	Transform
Code:	Transform
Label:	Transform
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes a numeric calculation that can be applied to the measure on each station point to determine a new linear referencing system. For example, a decimal milepost value can be calculated from an upstream and downstream milepost value.

Column List

Name	Code	Type	P	M
Transform_ID	Transform_ID	NUMBER(16)	Yes	Yes
Description	Description	VARCHAR2(50)	No	No

Transform_ID

A token number assigned by the database to each type of transform

Description

A description of the transformation that is used

Unit_Of_Measure

Name:	Unit_Of_Measure
Code:	Unit_Of_Measure
Label:	
Owner:	
Number:	
PK constraint:	
Source:	

Description

This table describes units of measure that are applicable to various data categories in the database. This is a meta-data table with no references to other tables. This would likely include:

- 1) Electrical current (Volts)
- 2) Pipe diameter (Inches)
- 3) Pipe Wall thickness (Inches)
- 4) Elevation (Feet, Meters)
- 5) Stationing (Feet, Meters)
- 6) Milepost (Miles)
- 7) Temperature (Degrees F.)
- 8) Pressure ()

Column List

Name	Code	Type	P	M
Code	Code	VARCHAR2(20)	Yes	Yes
Measure_Unit	Measure_Unit	VARCHAR2(40)	No	No
Description	Description	VARCHAR2(255)	No	No

Code

The database item being described: Diameter, Elevation, etc.

Measure_Unit

The unit of measure used for the *Code* column

Description

A general description of the database column being described and/or detailed description of unit of measure.