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Note: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

PERFORMANCE SPECIFICATION

VECTOR SMART MAP (VMap) Level 1

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This military specification defines the content and format for U.S. Defense Mapping Agency (DMA) Vector Smart Map (VMap) Level 1.

1.2 Purpose. This military specification provides a description of the content, accuracy, data format, and design of the VMap Level 1 product. Conformance to this specification will assure uniformity of treatment among all mapping and charting elements engaged in a coordinated production and maintenance program for this product.

1.3 Security.

1.3.1 Security classification of specification. This product specification is UNCLASSIFIED.

1.3.2 Security classification of product. The CD-ROMs (Compact Discs - Read Only Memory) containing VMap data vary in classification depending on the geographic location covered by the data. The CD-ROM will carry the classification of the most restrictive classification of any tile or library contained within that particular compact disc.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Director, Defense Mapping Agency, ATTN: ATI, 8613 Lee Highway, Fairfax, VA 22031-2137 by using the Standardization Document Improvement Proposal (DD Form 1426) or by letter.

AMSC N/A

Area MCGT

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are needed to meet the requirements specified in sections 3, 4, and 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all requirements documents cited in sections 3, 4, and 5 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the current Department of Defense Index of Specifications and Standards (DoDISS) and the supplement thereto, cited in the solicitation (see 6.2).

MILITARY

STANDARDS

- MIL-STD-600001 - Mapping, Charting & Geodesy Accuracy Standard
- MIL-STD-2407 - Vector Product Format
- MIL-STD-2414 - DMA Stock Number Bar Coding
- MIL-STD-129M - Marking for Shipment and Storage

SPECIFICATIONS

- MIL-J-89100 - Joint Operations Graphics - Air & Ground

(Unless otherwise indicated, copies of federal and Military Specifications, standards, and handbooks are available from the Standards Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the document versions are those cited in the solicitation.

Digital Geographic Information Exchange Standard, Part 4: Feature and Attribute Coding Catalog (FACC), Edition 1.2, January 1994.

DMA Technical Manual (DMA TM) 8358.1 - Datums, Ellipsoids, Grids, and Grid Reference Systems
(Stock Number DMATR 8351 TEXT)

DMA Technical Report (DMA TR) 8350.2 - Department of Defense World Geodetic System, Second Edition
(Stock Number DMATR 8350 WGS 84)

(These publications are available from DMA by writing to: Defense Mapping Agency, Combat Support Center, ATTN: DDCP, 6001 MacArthur Blvd., Bethesda, MD 20816-5001.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

Bureau of the Budget, United States National Map Accuracy Standard, GPO.

(This standard is printed in its entirety in Thompson, Morris M., Maps for America, U.S. Geological Survey, 3rd ed., 1988, p. 104)

ISO 9660. 1988 (E). International Organization for Standardization Information Processing - Volume and File Structure of CD-ROM for Information Interchange.

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

(Non-government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other information services.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Accuracy.

3.2.1 Absolute horizontal accuracy. This represents the difference between the recorded horizontal coordinates of features and their true positions. Absolute horizontal accuracy is expressed as a circular error at 90 percent probability (.9p).

Accuracy specifications for traditional paper maps are expressed in terms of map distances; for digital products, such as VMap Level 1, accuracy is expressed in ground distances. The following shows the ground distance horizontal accuracy categories for VMap Level 1 product resolution based on 1:250,000 map scale source.

<u>Class</u>	<u>VMap Level 1 CE</u>
1	125 m
2	250 m
3	500 m
4	>500 m

3.2.2 Absolute vertical accuracy. This represents the difference between an assigned elevation and the true elevation at a specific point. In this comparison, both elevations must be referenced to MSL. A point's elevation may be determined through interpolation of the digital contour file or it may be listed as a vertex coordinate of a feature.

Vertical accuracy is expressed at 90 percent probability (.9p) linear error as a proportion of the contour interval. The following lists the vertical accuracy categories:

<u>Class</u>	<u>VMap Level 1 LE</u> (Contour Interval)
1	0.5
2	1.0
3	2.0
4	>2.0

3.2.3 Relative accuracy. DMA does not have a formal relative accuracy objective for this product.

3.3 Datum.

3.3.1 Horizontal datum. The horizontal datum for this VMap product shall be WGS84 as identified in DMA TR 8350.2.

3.3.2 Vertical datum. The vertical datum for this VMap product shall be mean sea level (MSL).

3.4 Data density levels.

- a. VMap Level 1 data are collected at a density of detail that approximates that of DMA Standard medium scale products.
- b. Based on its data collection density, if VMap Level 1 data are to be output in hard-copy form, the appropriate scale for this output is at 1:250,000.

3.5 Database source and extent. The geographic extent of the VMap Level 1 product is global and consists of multiple regional databases. VMap Level 1 data from standard DMA source products are derived from the feature content defined in the associated military specification.

3.6 Continuity. All VMap Level 1 data are subject to the inclusion conditions specified in Appendix F.

- a. Each VMap database shall be organized into VPF libraries such that a seamless product is produced where data are present. Data gaps between a VMap Level 1 library may exist due to absence of data. No data overlap may exist in the libraries of this VMap database.
- b. Where data collection procedures require individual source sheets, digital files or other media to be combined, features crossing source boundaries shall be continuous whenever possible. Exceptions to this rule occur when more current source data are used and the feature position or presence has changed, or a mismatch occurs due to different specifications of the incorporated source data. In these cases, a discontinuity along a source boundary shall occur and be documented in the Data Quality coverage.

3.7 Thematic layer organization. VMap Level 1 products are organized into thematic layers. Each VMap thematic layer is stored as a single coverage within a VPF library. There are two reference coverages and ten thematic coverages in the data library level (TABLE 1), and one reference coverage and three thematic coverages in the reference library (TABLE 1).

TABLE 1. VMap coverages by VPF structure level.

VPF Structure Level	VMap Coverages (Thematic Layers)	Coverage (Directory) Name
Reference Library	Library Reference Database Reference Political Entities Place Names	LIBREF DBREF POLBND PLACENAM
Data Libraries	Library Reference Tile Reference Boundaries Data Quality Elevation Hydrography Industry Physiography Population Transportation Utilities Vegetation	LIBREF TILEREF BND DQ ELEV HYDRO IND PHYS POP TRANS UTIL VEG

3.8 Dimensions.

3.8.1 Unit of measure. The unit of measure for VMap is metric.

3.8.2 Minimum sizes. The minimum size of features collected from source materials shall be in conformance with the portrayal criteria and data dictionary provided in Appendix F. The minimum feature size captured from the source materials may be subject to hardware limitations at the time of collection. Features may be captured as points, nodes, lines, or areas. Text or annotation may also be captured with minimum point size determined in related attribute tables to each text feature table.

3.9 Feature and attribute coding scheme. VMap Level 1 implements the Digital Geographic Information Exchange Standard (DIGEST) Feature Attribute Coding Catalog (FACC). See Appendix F for a listing of the FACC feature codes and attribute codes allowable for VMap Level 1 thematic files.

- a. Unknown, not applicable and null values. In cases where FACC does not assign an unknown or null attribute value, and one is required to populate a field, refer to data dictionary tables in Appendix F for the appropriate unknown and null value for the attribute column.

- (1) Unknown value condition. The FACC system supports the use of an attribute value which signifies an "unknown" condition. Generally, with few exceptions, FACC implements a value of 0 to represent an unknown data condition for integer values. For text data types, the field will contain the characters "UNK".

During data capture, it may not be possible to determine the value of an attribute using the inclusion conditions or collateral data sources. When FACC provides an attribute value to support the "unknown" condition, it must be used. In cases where the "0" value is already used to represent a valid number, an alternative value is needed to represent the unknown condition. These values may be found in Appendix F.

- (2) Not applicable condition. In some cases a FACC attribute contains a value for a "Not applicable" condition. This does not have the same meaning as "Unknown". For example, the FACC Building feature, AL015, contains the attribute House of Worship Type (HWT). If the building has a Building Function Category attribute value (BFC) that is not equal to House of Worship (i.e., 7), then the HWT attribute value 22 is entered for the feature indicating the "Not Applicable" condition. This condition is not the same as having an unknown building feature type.
- (3) Null value condition. Some features classes may have attribute columns present in the feature table that are defined for some features, but not others. In this case a null value is entered for those attribute values when they do not apply to the feature code. The VMap standard for implementing the null value for FACC utilizes the VPF-defined null.

For VMap Level 1 derived from a source that does not support vertical elevation, vertical (elevation) values shall be populated with the VPF null (NaN), as defined in MIL-STD-2407, section 5.5.2, unless an elevation value is provided in the source material.

3.10 Coordinate system. VMap data shall be stored in decimal degrees as geographic coordinates with southern and western hemispheres having a negative sign for latitude and longitude, respectively. The GEOREF reference system is used to represent the geographic location of tiles. The horizontal resolution for geographic coordinates should be stored to the equivalent precision of 0.02 arc-seconds or 0.000005 decimal degrees.

3.11 Data format. VMap Level 1 will be produced in Vector Product Format (VPF), which provides a standard format for storing digital vector cartographic data. Refer to the VPF military standard (MIL-STD-2407) for more detail on VPF format and structure. This specification provides guidance for the specific implementation of VMap Level 1 in VPF.

3.12 Database description. Each VMap database is a vector-based product implemented in VPF. This product is designed to support Geographic Information System (GIS) applications with geographic data at medium resolution. Data at this resolution are separated into 10 thematic layers, where each layer contains thematically consistent data. The VMap thematic layers are organized into coverages contained in VPF libraries (see TABLE 1). The VMap database also contains a reference library containing generalized data coverages to orient the user to the database. Each coverage contains a set of files that describe the features in that thematic layer.

3.12.1 File structure. VMap Level 1 data shall utilize the standard Disk Operating System (DOS) directory structure as specified in the VPF Military Standard.

3.12.2 Distribution medium. VMap will be distributed on CD-ROM disc implementing ISO 9660 for CD-ROM formatting. Multiple libraries may exist on one CD-ROM. Each library will be fully contained on a single disc.

3.13 VPF table and file structure. Three types of VPF files are implemented in this VMap database: directories, tables, and indexes.

3.13.1 Directories. All VMap Level 1 database files and tables are contained in a hierarchy of system-level directories in accordance with the VPF standard. Contained within these directories are the tables and indexes that provide information about the database.

3.13.2 VPF tables. Each directory within a VMap Level 1 database contains VPF tables as defined in the VPF Military Standard (MIL-STD-2407). FIGURE 1 illustrates the content of VPF tables.

3.13.3 Indices. The VMap Level 1 product contains four types of indices: spatial indices, thematic indices, variable-length indices, and feature index tables. Spatial indices will be defined for all primitive tables. The structure and format of indices are defined in MIL-STD-2407. A nominal bucket size of 8 shall be used for the creation of spatial indexes.

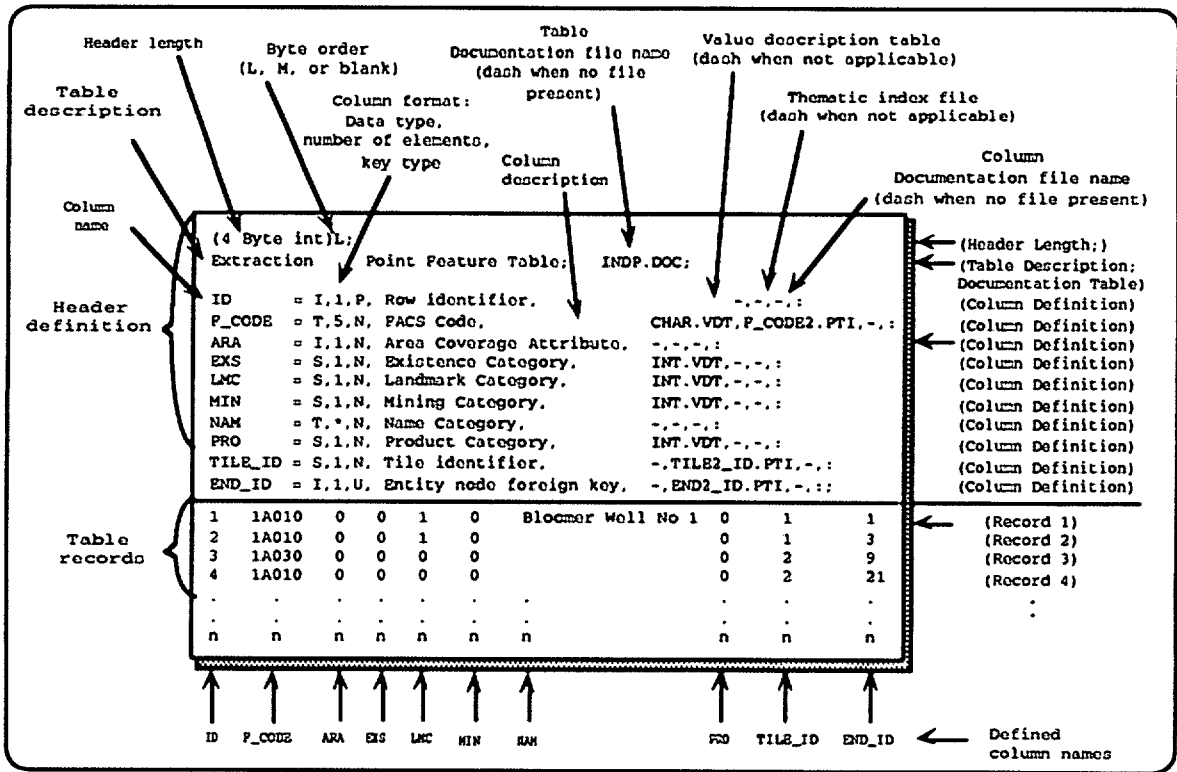


FIGURE 1. Illustration of a VPF table.

NOTES:

1. This is an example of a VMap Level 1 feature table.
2. The VPF tables defined in this specification shall include all columns specified.
3. Spaces are not a part of the header and are shown for clarity.

3.14 VMap directory organization.

3.14.1 Regional databases. VMap Level 1 consists of four regional database(s). Each CD-ROM shall contain a single database directory and two or more library directories including one reference library and at least one data library. The database header and library attribute tables shall be duplicated for each CD-ROM within a regional database area. Each data library contains a mix of reference coverages and thematic coverages. The VPF structure levels and VMap Level 1 implementation are depicted in FIGURE 2.

3.14.2 Thematic coverages. The VMap reference library directory (REFERENCE) shall contain three thematic coverage directories. These coverages are not tiled. VMap data library directories shall contain up to ten thematic coverage directories. Library directory names reflect the geographic content of the library and will be provided to the producer as part of the source package.

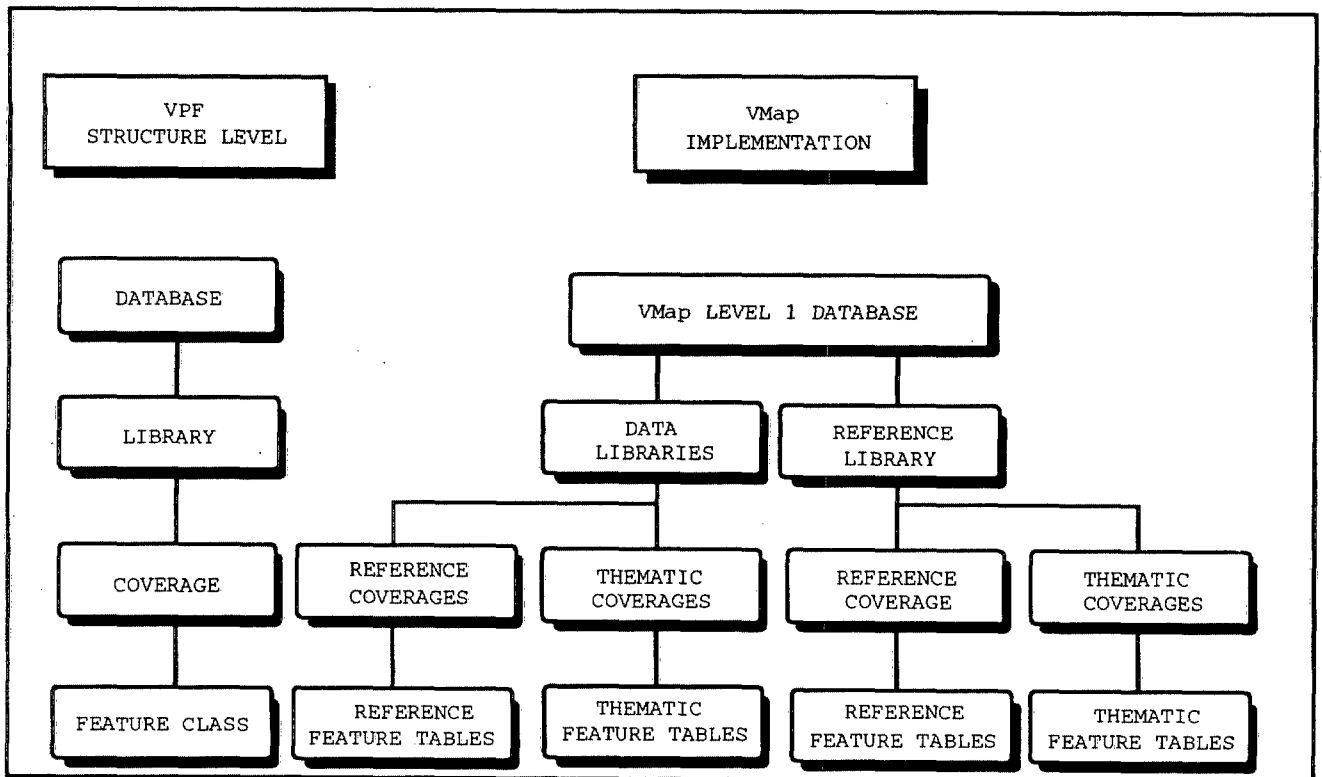


FIGURE 2. VPF structure levels and VMap implementation.

3.14.3 Tiling. VMap thematic data at the VPF coverage level in each data library are tiled in order to manage the large amounts of data. Therefore, primitive files are stored in a hierarchy of tile directories under each VPF coverage directory.

3.15 VPF structure levels, tables, and files. The following sections present the tables and files according to VPF structure level. The structure levels are presented as follows: database, library, coverage, and feature class. All directory names and file names shall be represented in lowercase letters (examples in this document are shown in capital letters). Each VPF directory contains VPF tables and files that provide information about the VMap database. Some files contain geographic data represented as spatial and tabular files. Other files contain metadata that provide descriptive information about the database and are represented as tabular files. The record layout and content of the VMap Level 1 tables and files are described in Appendices B thru F.

3.15.1 Database directory files. VMap Level 1 is composed of four regional databases that have their own unique data base directory files (Database Header Table (DHT) and Library Attribute Table (LAT)), as listed in TABLE 2. The content and format of these tables is defined in MIL-STD-2407. Product specific content information is contained in Appendix B to this specification. The

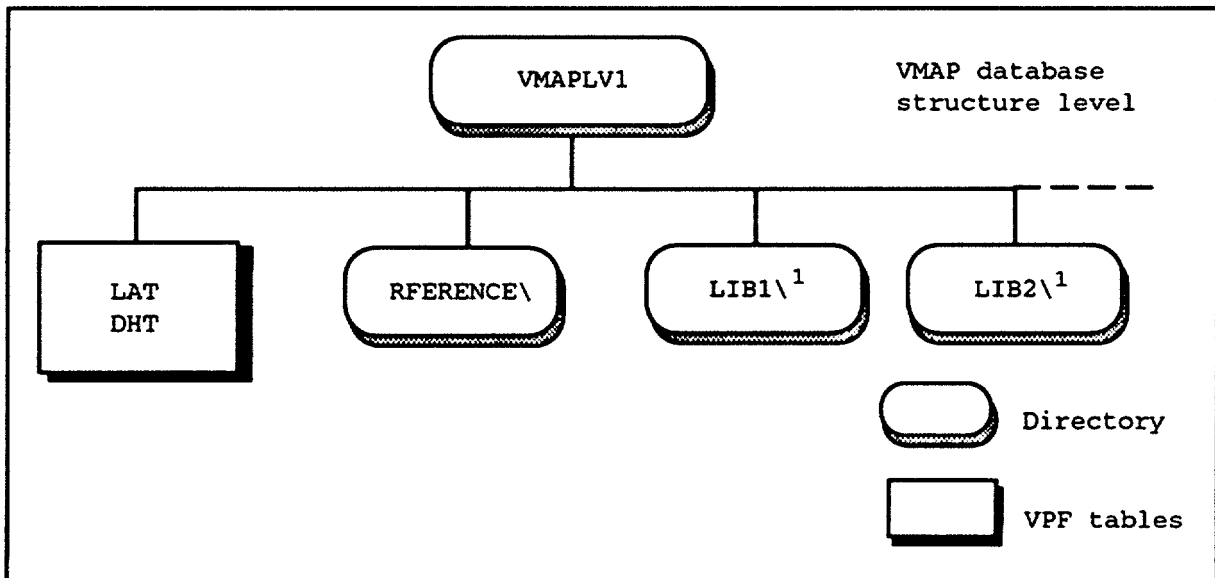
appropriate regional database directory shall be present on each CD-ROM disc containing VMap Level 1 libraries, and it shall be the first file appearing on a CD-ROM. The tables and files contained in the VMap database directory are described below. A representation of the tables and files appearing in the VMap database level is depicted in FIGURE 3.

TABLE 2. VMap database table and file names and description.

Table or File Description	Table or File Name
VMap database directory	VMAPLV1\ ²
Library Attribute (Extent) Table	LAT
Database Header Table	DHT
Reference library	REFERENCE\ LIB\ ¹
VMap Level 1 library directories	

NOTES:

1. This is a representative directory name for a VMap library.
2. This name will vary based on the regional database being referenced.

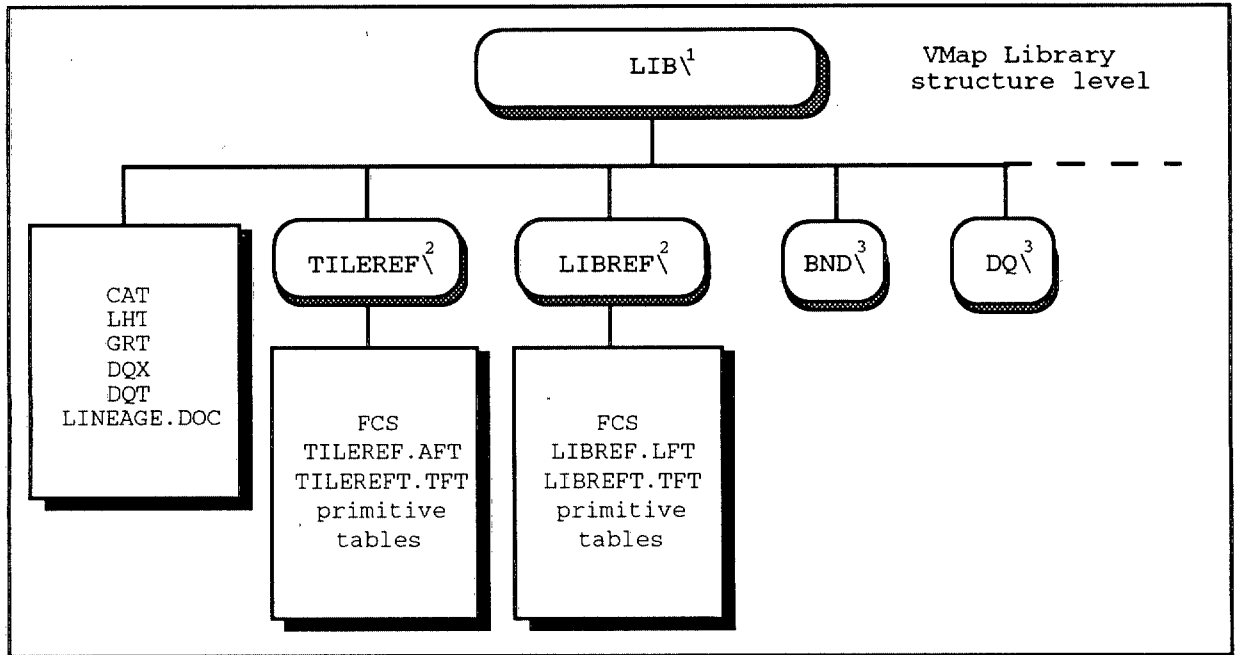


NOTE:

1. These are representative directory names for VMap libraries.

FIGURE 3. VMap database directory.

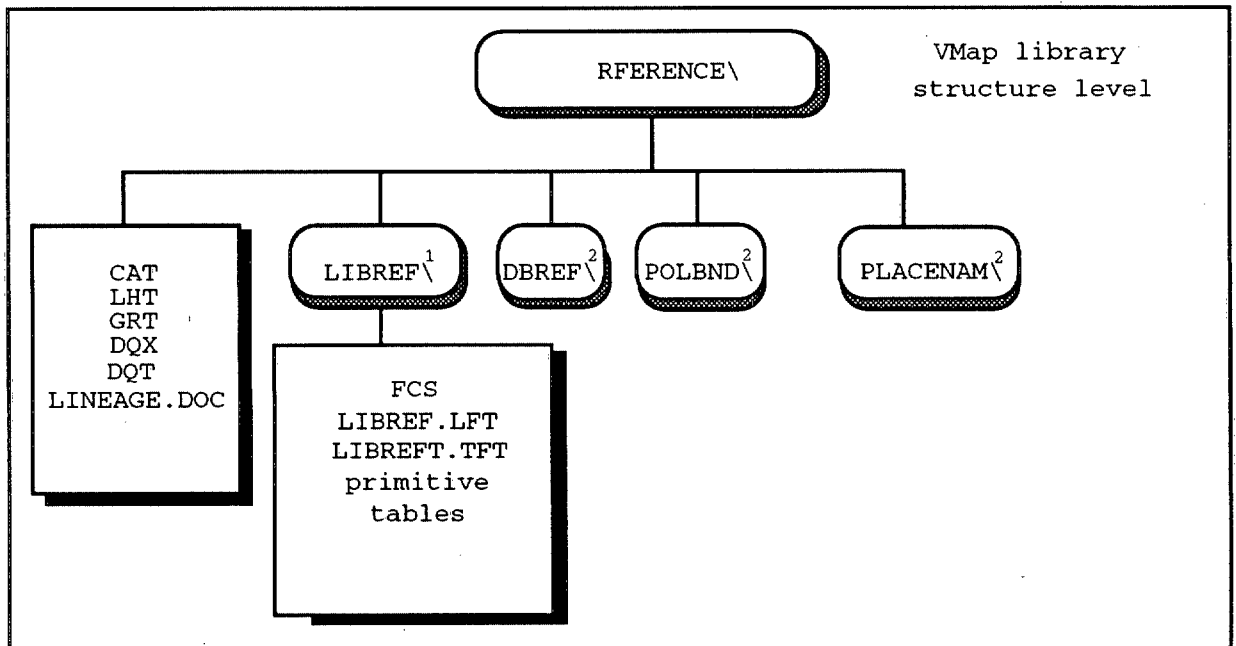
3.15.2 Library directory files. The contents of each VMap library are stored in a directory whose name shall be no more than eight characters in length. The entire contents of one or more VMap libraries shall be contained on a CD-ROM. A representation of the tables and files present in a VMap library is given in FIGURES 4 and 5.



NOTES:

1. These are representative directory names for VMap libraries.
2. These represent reference coverage directories.
3. These represent thematic coverage directories.

FIGURE 4. VMap data library structure.



NOTES:

1. Reference coverage directories.
2. Thematic coverage directories.

FIGURE 5. VMap reference library structure.

- a. Library metadata. Each library directory shall contain five required metadata tables and one variable-length index. These include the coverage attribute table (CAT), library header table (LHT), geographic reference table (GRT), data quality index (DQX), data quality table (DQT), and lineage narrative table (LINEAGE.DOC). Each VMap library must contain these five VPF files. Content and format for the CAT, LAT, GRT, DQT, and DQX are defined in MIL-STD-2407. Product-specific information is defined in Appendices C and E.

The LINEAGE.DOC table is a data quality file related to the DQT, which describes how the data were processed for the database. It provides a textual description of the procedures used to collect the data in each VMap library, including special processing techniques, processing tolerances, feature interpretation rules, and basic production quality assurance procedures, feature integration schemes, and database design issues. This information is common to all coverages in the library.

- b. Library coverages. Each tiled VMap Level 1 library shall contain the Tile Reference Coverage (TILEREF) and Library Reference Coverage (LIBREF) as defined in MIL-STD-2407. The VMap Level 1 library tables, file names, and description are shown in TABLE 3.

The RREFERENCE library is untiled and shall contain a Library Reference coverage (LIBREF).

The VMap Level 1 LIBREF coverages shall be based on a small scale depiction of features identified in Appendices C and E.

3.15.3 Coverage directory files. All thematic coverages are contained within a library directory. All VMap Level 1 thematic coverages share the same coordinate system, are spatially registered to one another, and contain tiled primitive tables. A list of the VMap Level 1 coverage directories and a brief description are shown in TABLE 4. A representation of the tables and files in the tiled data coverages is depicted in FIGURE 6. A representation of the tables and files in the reference library coverages is depicted in FIGURE 7.

TABLE 3. VMap library tables, file names, and description.

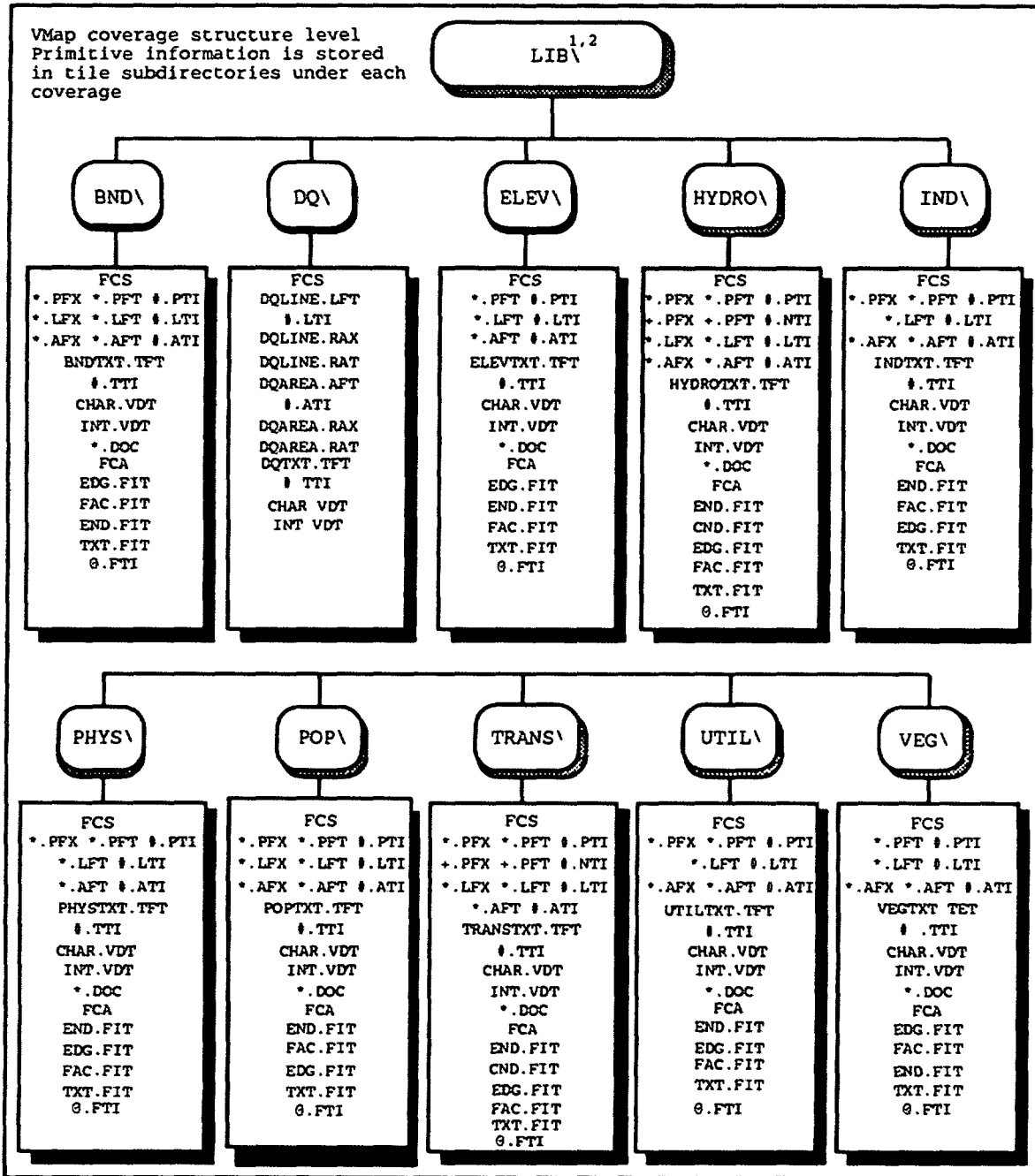
Table or File Description	Table or File Name
Directory	VMAPLV1\LIB\ ¹
Coverage Attribute (Description) Table	CAT
Library Header Table	LHT
Geographic Reference Table	GRT
Data Quality Index File	DQX
Data Quality Table	DQT
Lineage Documentation File	LINEAGE.DOC
Tile Reference Coverage Directory	VMAPLV1\LIB\TILEREF\
Feature Class Schema Table	FCS
Tile Reference Area Feature Table	TILEREF.AFT
Tile Reference Text Feature Table	TILEREFT.TFT
primitive tables ²	primitive tables and indices
Library Reference Coverage Directory	VMAPLV1\LIB\LIBREF\
Feature Class Schema Table	FCS
Library Reference Line Feature Table	LIBREF.LFT
Library Reference Text Feature Table	LIBREFT.TFT
primitive tables ²	primitive tables and indices

NOTES:

1. This is a representative directory name for VMap libraries.
2. Primitive tables are described in 3.14.5.

TABLE 4. Directories and descriptions for VMap Level 1 thematic coverages.

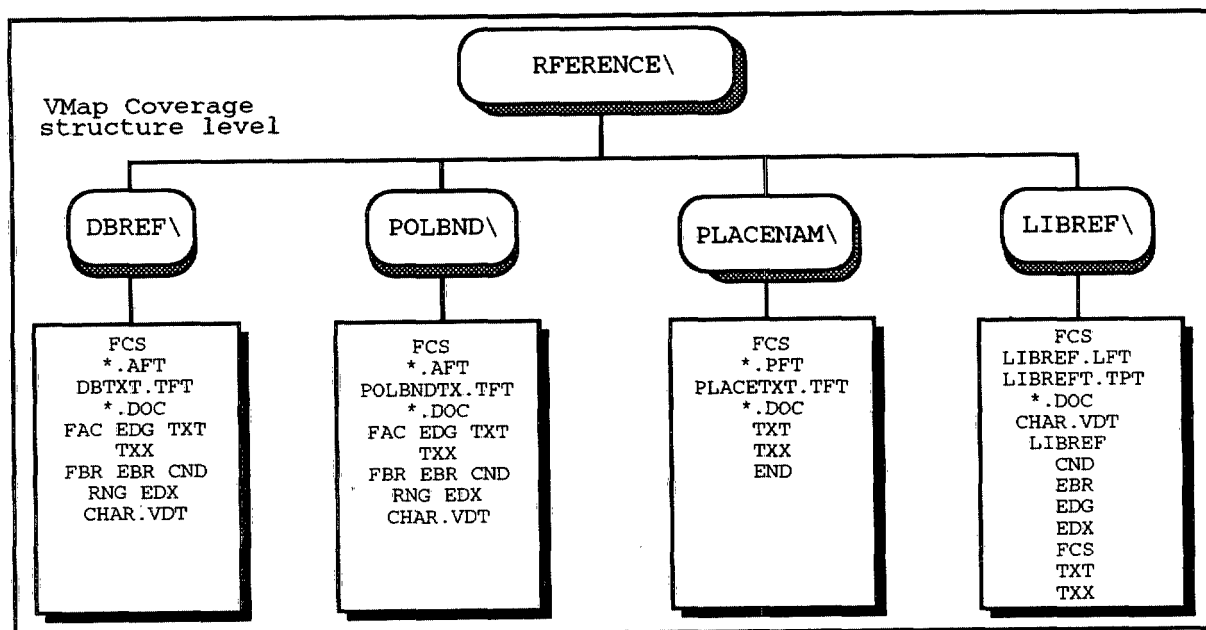
Library	Coverage Description	Coverage Name
Data Libraries	Library Reference	LIBREF
	Tile Reference	TILEREF
	Boundaries	BND
	Data Quality	DQ
	Elevation	ELEV
	Hydrography	HYDRO
	Industry	IND
	Physiography	PHYS
	Population	POP
	Transportation	TRANS
	Utilities	UTIL
Vegetation	VEG	
Reference Library	Library Reference	LIBREF
	Database Reference	DBREF
	Political Entities	POLBND
	Place Names	PLACENAM



NOTES:

1. This is a representative VMap library directory name.
 2. The actual combination of tables in each coverage is based on a combination of the features present and level of topology within the coverage for that library.
- * The asterisk is replaced with the prefix of the point, line, or area feature class name.
 - + The plus is replaced with the prefix of the node feature class name which has the same file extensions as the point feature tables.
 - # The pound is replaced with the prefix of the thematic index name, which is based on the column name to which the index refers.
 - @ The @ is replaced with <primitive>_FITX, where primitive is FAC, EDG, END, CND, or TXT; and X is 1, 2, 3, or 4.

FIGURE 6. VMap Level 1 data library roadmap.



NOTE:

1. The asterisk (*) is replaced with the prefix of the point, node, line, or area feature class name.

FIGURE 7. VMMap Level 1 Reference Library roadmap.

- a. Coverage metadata. The metadata tables and their content will vary with each coverage. Each coverage directory shall contain one feature class schema table (FCS). All coverages that contain feature tables having the FACC feature code column will have a character value description table (CHAR.VDT). If FACC coded attributes are present, the description of their values will be defined in an integer value description table (INT.VDT). Other optional metadata tables include documentation tables (e.g., *.DOC) that provide data quality information in textual format pertaining to the coverage, a feature table, or an attribute column. See TABLE 5. Content and format for these tables are defined in MIL-STD-2407. Product-specific information is provided in Appendices E and F.

TABLE 5. VMap coverage metadata tables and description.

<coverage name>	Directory file
FCS	Feature class schema table
FEATURE TABLES	Point, node, line, or area feature tables and indexes
CHAR.VDT	Character value description table
INT.VDT	Integer value description table
<coverage>.DOC	Documentation table for a coverage
<feature class>.DOC	Documentation table for a feature class
<attribute>.DOC	Documentation table for an attribute within a feature class
FCA	Feature class attribute table

For VMap Level 1 data libraries, all coverages except TILEREF, LIBREF, and DQ shall implement feature indices (feature index tables (FIT) and feature class attribute (FCA) table). Examples of an FCA and FIT for VMap Level 1 are provided in TABLES 6 and 7.

TABLE 6. Feature class attribute table (FCA) definition.

{Header length}L; Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,; DESCR=T,*N,Description,-,-,-,;			
1	MARKersp	P	Markers and Cairns
2	POLBNL	L	Demarcation Lines
3	LAKERESA	A	Lakes and Reservoirs
:	:	:	:
n	n	n	n

TABLE 7. Format and example of content for feature index table (FIT).

{Header length}L; Feature Index Table;-; ID=I,1,P,Row Identifier,-,-,-,; PRIM_ID=I,1,N,Primitive ID,-,*_FIT1.FTI,-,; TILE_ID ¹ =S,1,N,Tile Reference ID,-,*_FIT2.FTI,-,; FC_ID=I,1,N,Feature Class ID,-,*_FIT3.FTI,-,; FEATURE_ID=I,1,N,Feature Table ID,-,*_FIT4.FTI,-,;				
1	23	1	8	1
2	189	1	4	56
3	566	4	6	787
4	76	3	5	452
:	:	:	:	:
n	n	n	n	n

NOTES:

1. This column will not be present for untiled coverages.
2. For the thematic index name, replace the * with the primitive table name being indexed (e.g., EDG_FIT1.FTI).

- (1) Documentation tables. Documentation (or narrative) tables provide data quality information that describes how the data were processed for a coverage. Topics can include processing tolerances, feature interpretation rules, and basic production quality assurance procedures. Three levels of documentation table may be present in a coverage. These levels include coverage, feature class, and attribute. The presence of documentation tables will vary with each VMap Level 1 coverage.

<Coverage> documentation table. Each coverage may have an optional documentation table. If present, this table shall be named so that the prefix contains the same name as the coverage, and the suffix is .DOC. This table may contain information that pertains to the lineage and data quality characteristics in general for all features for the coverage.

<Feature class> documentation table. Any feature class table may have an associated documentation table, <feature class>.DOC, which is referenced in the feature class table header. Information in this table will pertain to all features in the feature class. The documentation table prefix will reflect the appropriate feature class.

<Attribute> documentation table. Any attribute column defined in a feature table may have an associated documentation table, <attribute>.DOC, which may be referenced in the header of the table and associated with the particular attribute column definition. This table contains information pertaining to that attribute or its values. The documentation table prefix will reflect the appropriate attribute column name. If documentation tables are created for the same attribute column in multiple feature class tables within a coverage, each will have a separate documentation file identified by a unique prefix.

- b. Data coverages. There are up to ten thematic coverage directories present in any VMap data library. Within a library, coverage directories shall not be included if data does not exist for that coverage within the library's geographic area. The contents of each VMap Level 1 data coverage are stored in a directory whose name shall be represented in lowercase letters (examples in this document are shown in capital letters) with a three- to five-character name representative of the thematic layer name (i.e., BND for Boundaries coverage, TRANS for Transportation) as shown in FIGURE 6. There are three coverage directories present in the VMap reference library. The coverage directory names are shown in FIGURE 7.

- c. Coverage topology. The topology level of each coverage is specified in the coverage attribute (description) table (CAT) within each library. Topology is not supported between coverages.

3.15.4 Feature class structure level.

3.15.4.1 Feature class definition. A feature class is defined as a group of features sharing a homogeneous set of attributes and consists of one or more attribute tables and one or more primitive tables. These primitive tables store the spatial or geometric information defining the location of features. In tiled coverages, primitive tables are stored in subdirectories of the coverage directory. Each coverage shall contain at least one feature class. Although a feature class is considered to be a structure level of VPF, along with the database, library, and coverage levels, feature classes are not represented as directories. Rather, the feature class level is represented by a combination of files stored at the coverage level.

The definition of all possible features and attributes for each feature class in a VMap Level 1 coverage is presented in Appendix F.

- a. Feature class types. The VMap database contains five types of feature classes as defined by MIL-STD-2407: point, node, line, area, and text. The suffixes for each feature class type are shown in TABLE 8. The node feature class is a subtype of the point feature class.

TABLE 8. Feature table suffixes.

Point Feature Table	.PFT
Node Feature Table	.PFT
Line Feature Table	.LFT
Area Feature Table	.AFT
Text Feature Table	.TFT

- b. Feature class/feature table names. Feature class names and descriptions are product-specific. Feature class names for VMap Level 1 thematic coverages are shown in TABLE 9.
- c. Number of feature classes. The complete set of possible feature classes within each coverage is described in this specification; however, only those feature classes containing data shall be present in a coverage. The presence or absence of a feature class depends upon data content and availability.

TABLE 9. VMap Level 1 thematic coverages and feature classes.

Coverage Name	Feature Classes				
	Point	Node	Line	Area	Text
BND	MARKERSP		BARRIERL COASTL POLBNDL	BNDVOIDA MAGAREA POLBNDL	BNDTXT
DQ			DQLINE	DQAREA DQVOIDA	DQTXT
ELEV	ELEVP		CONTOURL DEPTHL	ELEVOIDA	ELEVTEXT
HYDRO	DANGERP MISCP WELLSPRP	AQUEDCTC DAMC RAPIDSC	AQUEDCTL DAML DANGERL LOCKL MISCL RAPIDSL SEASTRTL WATRCRSL	COASTA DANGERA HYDVOIDA INUNDA LAKERESA WATRCRSA	HYDROTXT
IND	AGRISTRP EXTRACTP NUCLEARP OBSTRP PROCESSP RIGWELLP STORAGEP TOWERP		INDL	DISPOSEA EXTRACTA INDVOIDA PROCESSA TREATA	INDTXT
PHYS	LNDFRMP MTNP THERMALP		BLUFFL EMBANKL LNDFRML	ASPHALTA GROUND LANDICEA LNDFRM1A LNDFRM2A PHYVOIDA SEAICEA	PHYSTXT
POP	BUILD BUILTUP FORTP LANDMRKP MISPOP RUINSP		LANDMRKL	BUILD BUILTUP FORTA LANDMRKA MISPOPA POPVOIDA RUINSA	POPTXT

TABLE 9. VMap Level 1 thematic coverages and feature classes -
Continued.

Coverage Name	Feature Classes				
	Point	Node	Line	Area	Text
TRANS	AEROFACP MISAEROP RESTP RUNWAYP	BRIDGEC FERRYC FORDC INTERC SHEDC	BRIDGEL FERRYL FORDL LIFTL PIERL RAILRDL ROADL RUNWAYL SHEDL TRACKL TRAILL TUNNELL	HARBORA RRYARDA TRAVOIDA	TRANSTXT
UTIL	COMMP POWERP PUMPINGP		PIPEL POWERL TELEL	POWERA UTIVOID	UTILTXT
VEG	OASISP		FIREBRKL TREESL	CROPA GRASSA ORCHARDA SWAMPA TREESA TUNDRAA VEGVOIDA	VEGTX

NOTE:

1. Additional data quality point, node, line, area, and text feature classes may be implemented for all coverages (except DQ) where desired.

d. Text feature class. The text feature class has an associated related attribute table called the SYMBOL.RAT. This table contains information that may be used to replicate the font, style, and point size of text strings found on an original JOG map sheet or other source for representation on a plot or subsequently printed map. All text (both at the feature and primitive level) will be limited to the characters found in the Latin alphabet primary code table, figure 24 of MIL-STD-2407.

3.15.4.2 Feature table structure and contents. All feature tables (in tiled coverages) have the same structure. Each contains a row identifier column (or ID) followed by an "F_CODE" attribute column. The F_CODE field for each record contains a five-character FACC code value. The heading of subsequent attribute columns, if present, is a three-character FACC attribute code. The attribute fields for each record will contain representative values for the corresponding F_CODE. Following the

last FACC attribute code column there is a TILE_ID column. This column contains the row ID of the tile reference area feature table record where the tile path name is stored and references the location of a primitive table. The last column in every feature table is a primitive identifier column which contains primitive record identifier for the feature record. This column is identified as *_ID (the * is replaced with the END, CND, EDG, FAC, or TXT primitive table name). Sample point, node, line, area, and text feature tables are presented in TABLES 10 to 14.

TABLE 10. Format and example of content for a tiled point feature table (LNDFRMP.PFT).

<pre>{Header length}L; Landform Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,: F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.PTI,-,: MCC=S,1,N,Material Composition Category,INT.VDT,-,-,: RKF=S,1,N,Rock Formation Type,INT.VDT,-,-,: TILE_ID¹=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,: END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,;;</pre>					
1	BJ060	103	-32768	1	1
2	DB160	-32768	3	2	2
:	:	:	:	:	:
n	n	n	n	n	n

NOTE:

1. This column will not be present for untiled point feature tables.

TABLE 11. Format and example of content for a tiled node feature table (DAMC.PFT).

<pre>{Header length}L; Dam/Weir Node Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,: F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,: LEN=I,1,N,Length/Diameter (meters),INT.VDT,-,-,: MCC=S,1,N,Material Composition Category,INT.VDT,-,-,: NAM=T,*N,Name,-,-,-,: TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,: TILE_ID¹=S,1,N,Tile Reference ID,-,TILE1_ID.NTI,-,: CND_ID=I,1,N,Connected Node Primitive ID,-,CND1_ID.NTI,-,;;</pre>							
1	BI020	0	30		1	1	1
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

NOTE:

1. This column will not be present for untiled node feature tables.

TABLE 12. Format and example content for a tiled line feature table (BLUFFL.LFT).

{Header length}L; Bluff Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; HGT=I,1,N,Height Above Surface Level (meters),INT.VDT,-,-,; TILE_ID ¹ =S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;				
1	DB010	0	1	1
:	:	:	:	:
n	n	n	n	n

NOTE:
 1. This column will not be present for untiled line feature tables.

TABLE 13. Format and example content for a tiled area feature table (GROUNDA.AFT).

{Header length}L; Ground Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.ATI,-,; MCC=S,1,N,Material Composition,INT.VDT,-,-,; TILE_ID ¹ =S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;				
1	DA010	46	1	2
2	DB135	-32768	2	3
:	:	:	:	:
n	n	n	n	n

NOTE:
 1. This column will not be present for untiled line feature tables.

TABLE 14. Format and example of content for a tiled text feature table (HYDROTXT.TFT).

{Header length}L; Hydrography Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,-,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID ¹ =S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;				
1	ZD040	TBD ²	1	23
2	ZD045	TBD ²	2	45
:	:	:	:	:
n	n	n	n	n

NOTES:

1. This column will not be present for untiled line feature tables.
2. This column will carry values as referenced by the Symbol Related Attribute Table.

3.15.5 Primitive tables and associated files. VMap implements the four geometric primitives (entity node (end), connected node (cnd), edge (edg) and face (fac)) and one cartographic primitive (text (txt)) as defined in MIL-STD-2407. The primitive tables contained in any coverage are dependent on the feature classes present in that coverage. The foreign key columns contained in primitive tables shall be tailored to the coverage's actual topology level. For coverages with level 2 topology, entity node tables will not have a containing face column, and edge tables will not have left and right face columns. The VMap primitive tables will contain feature table id columns. Primitive level supporting files, defined in MIL-STD-2407, are implemented in VMap Level 1 as shown in TABLE 15. Example VMap Level 1 primitive tables are shown in TABLES 16 to 22.

TABLE 15. Primitive table and associated files.

Primitive Table	File Name	Table Description
Edge table	ESI	Edge spatial index file
	EBR	Edge bounding rectangle table
	EDX	Edge variable-length index file
	EDG	Edge primitive table
Face table	FSI	Face spatial index file
	FBR	Face bounding rectangle table
	FAC	Face primitive table
	RNG	Ring table
Entity node table	NSI	Entity node spatial index file
	END	Entity node primitive table
Connected node table	CSI	Connected node spatial index file
	CND	Connected node primitive table
Text table	TSI	Text spatial index file
	TXX	Text variable-length index file
	TXT	Text primitive table

TABLE 16. Format and example of content for entity node primitive table (END).

{Header length}L;			
Entity Node Primitive Table;-;			
ID= I,1,P,Row Identifier,-,-,-,;			
*.PFT_ID ¹ =I,1,N,Point Feature Table Identifier,-,-,-,;			
CONTAINING_FACE ² =I,1,N,Foreign Key to Face Table,-,-,-,;			
COORDINATE=Z,1,N,Coordinates of Entity Node,-,-,-,;			
1	1	2	7.893952 43.774712 0.000000
2	2	3	7.893897 43.773613 0.000000
3	3	4	7.843663 43.768391 0.000000
:	:	:	:
n	n	n	x.xxxxxx y.yyyyyy z.zzzzzz

NOTES:

1. The "*" preceding the ".PFT_ID" is replaced with the appropriate point feature class name. A feature class name must be entered for each point feature class present in the coverage.
2. The CONTAINING_FACE column is present only for coverages of Level 3 topology.

TABLE 17. Format and example of content for connected node primitive table (CND).

{Header length}L; Connected Node Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; *.PFT_ID=I,1,N,Node Feature Table Identifier,-,-,-,; FIRST_EDGE=I,1,N,Foreign Key to Edge Table,-,-,-,; COORDINATE=Z,1,N,Coordinates of Connected Node,-,-,-,;			
1	1	2	7.893952 43.774712 0.000000
2	2	3	7.893897 43.773613 0.000000
3	3	4	7.843663 43.768391 0.000000
:	:	:	:
n	n	n	x.xxxxxx y.yyyyyy z.zzzzzz

NOTE:

1. The "*" preceding the ".PFT_ID" is replaced with the appropriate node feature class name. A feature class name must be entered for each node feature class present in the coverage.

TABLE 18. Format and example of content for edge (EDG) primitive table.

{Header length}L; Edge Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; *.LFT_ID ¹ =I,1,N,Line Feature Table ID,-,-,-,; START_NODE=I,1,N,Start/Left Node,-,-,-,; END_NODE=I,1,N,End/Right Node,-,-,-,; RIGHT_FACE ² =K,1,N,Right Face,-,-,-,; LEFT_FACE ² =K,1,N,Left Face,-,-,-,; RIGHT_EDGE=K,1,N,Right Edge from End Node,-,-,-,; LEFT_EDGE=K,1,N,Left Edge from Start Node,-,-,-,; COORDINATES=Z,*N,Coordinates of Edge,-,-,-,;										
1	1	1	2	6 260 210	1 0 0	29 196 14	26 12 18	-10.00	45.00	9.90
2	2	3	5	5 0 0	8 260 214	30 198 12	76 52 48	-7.70	43.69	9.50
								-7.80	43.70	10.69
								-7.90	43.80	9.96
:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n n n	n n n	n n n	n n n	x.xxxxxx	y.yyyyyy	z.zzzzzz

NOTES:

1. The "*" preceding the ".LFT_ID" is replaced with the appropriate line feature class names. A feature class name must be entered for each line feature class present in the coverage.
2. The RIGHT_FACE and LEFT_FACE columns are required only for coverages with level 3 topology.

TABLE 19. Format and example of content for face (FAC) primitive table.

{Header length}L; Face Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; *.AFT_ID ¹ =I,1,N,Area Feature Table ID,-,-,-,; RING_PTR=I,1,N,Foreign Key to Ring Table,-,-,-,;		
1	Null	1
2	75	13
3	97	14
:	:	:
n	n	n

NOTE:

1. The "*" preceding the ".AFT_ID" is replaced with the appropriate area feature class name. A feature class name must be entered for each area feature class present in the coverage.

TABLE 20. Format and example of content for text (TXT) primitive table.

{Header length}L; Text Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; BNDTXT.TFT_ID ¹ =I,1,N,Boundaries Text Feature Table ID,-,-,-,; STRING=T,*,N,Text String,-,-,-,; SHAPE_LINE=C,*,N,Shape of Text String,-,-,-,;			
1	2	Nolanville	-5.811609 43.662006
2	3	Killeen	-8.574136 43.435287
3	18	Harker Heights	-7.437326 42.881957
4	20	Wainwright Heights	-6.835582 40.736553
:	:	:	:
n	n	n	n

NOTE:

1. The column name will reflect actual coverage name. The xxxxxTXT.TFT_ID is implemented for all tiled coverages. Text primitive tables for untiled coverages will not contain this column.

TABLE 21. Format and example of content for ring (RNG) table.

{Header length}L; Ring Table;-; ID=I,1,P,Row Identifier,-,-,-,; FACE_ID=I,1,N,Foreign Key to Face Table,-,-,-,; START_EDGE=I,1,N,Foreign Key to Edge Table,-,-,-,;		
1	1	null
2	2	47
3	2	51
:	:	:
n	n	n

TABLE 22. Format and example of content for bounding rectangle tables (FBR or EBR).

{Header length}L;				
Bounding Rectangle Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
XMIN=F,1,N,Minimum X Coordinate,-,-,-,;				
YMIN=F,1,N,Minimum Y Coordinate,-,-,-,;				
XMAX=F,1,N,Maximum X Coordinate,-,-,-,;				
YMAX=F,1,N,Maximum Y Coordinate,-,-,-,;				
1	-76.333359 ¹	36.916660 ¹	-76.250031 ¹	36.999981 ¹
2	-76.333359	36.999451	-76.331215	36.999981
3	-76.333359	36.994431	-76.321991	36.999981
:	:	:	:	:
n	n	n	n	n

NOTE:

1. For the face bounding rectangle table (FBR), the values for face 1 bounds are VPF null.

3.16 VMap tiling schemes. As stated in 3.15.2, the TILEREF coverage defines the tiling scheme for each VMap library. The tiling schemes for VMap Level 1 libraries will differ in their spatial extent and number of tiles per library. The tiling scheme for each library implements pairs of alphanumeric characters to represent the coordinate positions of the tiles. VMap libraries shall be partitioned in a systematic tile structure based upon the Geographic Reference System (GEOREF) as illustrated in FIGURE 8.

All thematic coverages in a library share the same tiling structure and coordinate system. Although a coverage is said to be tiled, tiling of data actually occurs at the primitive level. This ensures that all feature tables are stored intact directly under the coverage directory. For tiled coverages, primitive tables are organized on the basis of physical tile partitions. Tile directories are located under coverage directories such that the primitive tables are subdivided into a hierarchy of directories and are stored under the last tile directory. A representation of the table and file organization for VMap Level 1 tiled primitive tables and files is depicted in FIGURE 9.

3.16.1 VMap Level 1 tiling scheme. The VMap Level 1 database will contain data in variable sized tiles based on the GEOREF reference system as defined in the TILEREF of each library. Tiling scheme for 1° by 1° tiles is illustrated in this section. Typically, 1° by 1° tiles will be used; however, the tiling scheme will change by library in the northern and southern latitudinal parts of the world. (See TABLE 23.)

VMap TILING SCHEME BASED ON GEOREF

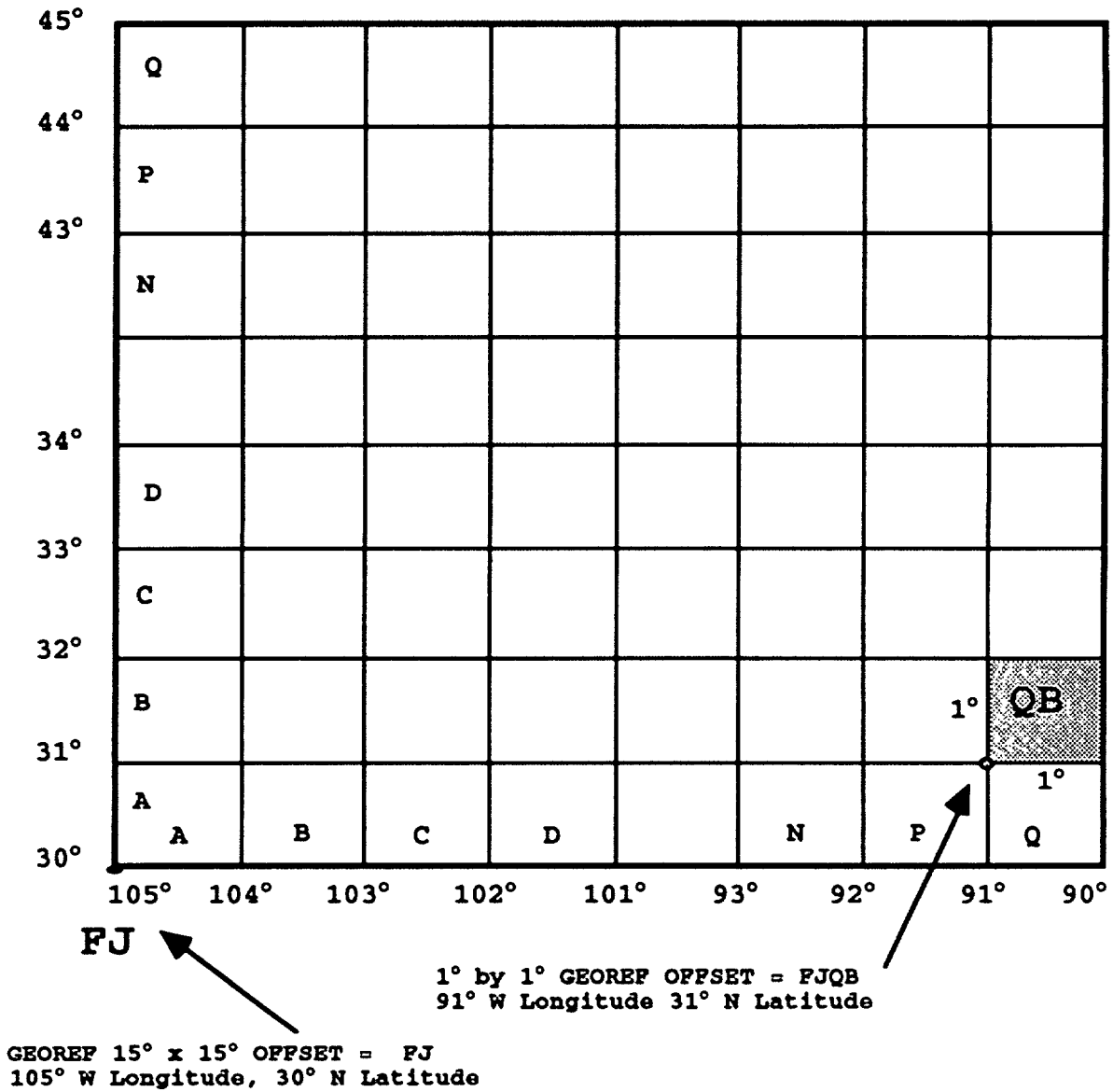
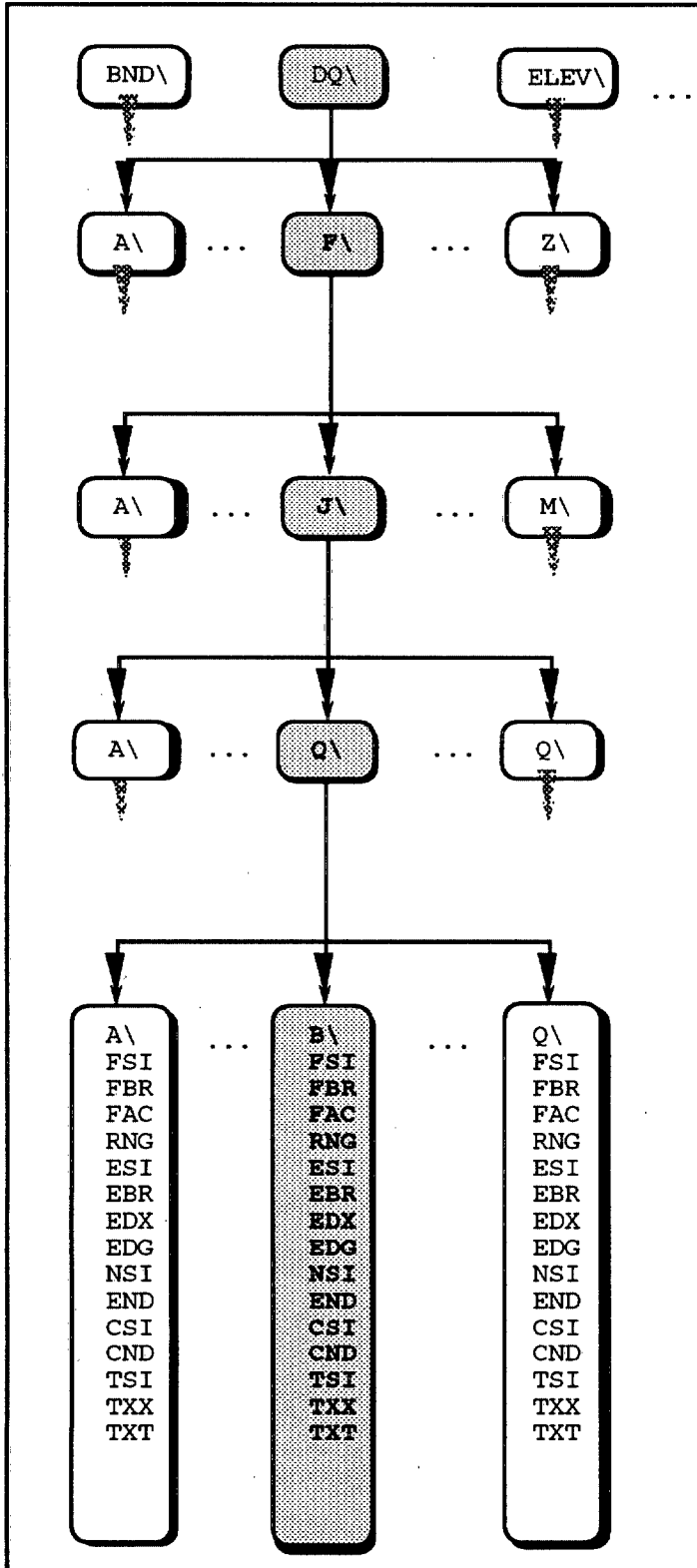


FIGURE 8. Coordinates for a 15° by 15° cell of GEOREF system (FJ).



**Level 1
Coverage
Directories**

First partition of
24 tile subdirectories
lettered A to Z
(15° GEOREF longitude
zones)

Second partition of
12 tile subdirectories
lettered A to M
(15° GEOREF latitude
zones)

Third partition of
tile subdirectories
lettered A to Q
(divides the 15°
longitude zones into
15 1° GEOREF
longitude zones)

Fourth partition of
tile subdirectories
lettered A to Q
(divides the 15°
latitude zones into
15 1° GEOREF latitude
zones)

FIGURE 9. VMap Level 1 tile directory hierarchy.

TABLE 23. VMap Level 1 tiling scheme.

North and South Latitude	Tile Size	
	Latitude	Longitude
0° to 40°	1°	1°
40° to 50°	1°	1°15'
50° to 60°	1°	1°30'
60° to 65°	1°	2°
65° to 70°	1°	2°15'
70° to 75°	1°	3°
75° to 90°	1°	3°45'

- a. VMap Level 1 tile directory hierarchy. The primitive tables for each VMap Level 1 coverage are partitioned among tile directories that are ordered in a four-tier hierarchy based on the GEOREF naming convention. The first, second, and third tier subdirectories contain only pointers to the fourth subdirectory, where all primitive tables are stored. The tiling scheme may be viewed as pairs of letters and numbers which represent the standard GEOREF cells.
- b. Tile directory description and naming. The first pair of letters represents the coarsest, 15° by 15° standard GEOREF division, and represents the first coordinate pair identifying the tile name. This pair of letters also represents the first and second directory tiers of the tiling scheme. The first letter represents the first tile partition of the southwest coordinate in the x direction (longitude). There are a maximum of 24 subdirectories lettered from A to Z (omitting I and O) according to the 15° bands of GEOREF longitude zones. The second letter represents the second partition of the southwest coordinate in the y direction (latitude). There are a maximum of 12 subdirectories lettered from A to M (omitting I) according to the 15° GEOREF latitude zones for a total of 288 15° by 15° cells globally. (FIGURES 8 and 9).

The second pair of letters represents the 1° by 1° standard GEOREF divisions, and represents the second coordinate pair of the tile name. This pair of letters also represents the third and fourth directory tiers of the tiling scheme. The first letter represents the x coordinate (longitude) of the southwest corner of the tile. For those tiles in the northern and southern latitudes having a longitudinal extent of greater than 1°, the letter represents the nearest 1° meridian west of the southwest corner of the tile. There are a maximum of 15 subdirectories lettered from A to Q (omitting I and O) according to the 1° bands of GEOREF longitude zones. The second letter represents the y coordinate (latitude) of the southwest corner of the tile. There are a maximum of 15 subdirectories lettered from A to Q (omitting I and O) according to the 1° bands of GEOREF latitude zones. These letters partition each 15° by 15° GEOREF cell into a total of 225 1° by 1° cells. (FIGURES 8 and 9).

3.16.2 Cross-tile topology. Cross-tile topology ensures that topology is retained between the primitive tables across the tile boundaries. Topology across the tiles is maintained through the use of a reference tile ID in the edge primitive table that establishes a "cross-tile" link over the tile partitions. This enables the database to function as a seamless unit for analysis purposes.

3.17 Naming conventions. TABLE 24 provides the naming conventions for the table extensions or table names for the following: feature table extensions, primitive table names, thematic index extensions, spatial index file names, variable-length index extensions.

TABLE 24. Naming conventions for VMap tables and files.

Table or File Type	Area	Line	Point	Node	Text
Feature Table	AFT	LFT	PFT	PFT	TFT
Primitive Table	FAC	EDG	END	CND	TXT
Thematic Index	ATI	LTI	PTI	NTI	TTI
Spatial Index	FSI	ESI	NSI	CSI	TSI
Variable-length Index	AFX	LFX	PFX	PFX	TXX

4. VERIFICATION

4.1 Classification of inspection. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.2).

b. Conformance inspection (see 4.3).

4.2 First article inspection. When a first article inspection is required (see 3.1 and 6.2), it shall be examined as specified in 4.3.1, and tested as specified in 4.3.2.

4.3 Conformance inspection. Quality conformance inspection shall include the examination of 4.3.1 and the tests of 4.3.2.

4.3.1 Examination. The database shall be examined for compliance with the requirements specified in section 3. Unless a waiver has been granted non compliance with any of the specified requirements shall constitute cause for rejection.

4.3.2 Tests. A CD-ROM sample determined by the contracting officer shall be tested for compliance in the following areas:

a. Data verification on a byte-for-byte basis of disc master from original (raw, prepared, or mastered) data.

b. Data verification on a sector-by-sector basis of each disc master or son against a pressed surrogate using error-correction coding.

c. ISO 9660 and ISO 10149 compliance.

4.4 Government furnished material. The contractor shall not duplicate, copy, or otherwise reproduce the MC&G property for purposes other than those necessary for performance of the contract.

4.5 Government property surplus. At the completion of performance of the contract, the contractor, as directed by the contracting officer, shall either destroy or return to the Government all government-furnished MC&G property not consumed in the performance of the contract.

5. PACKAGING

5.1 Packaging. Packaging requirements shall be as specified in the Contract or Order (see 6.2).

5.2 Marking. Unless otherwise specified (see 6.2), markings shall be in accordance with MIL-STD-129.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The VMap Level 1 product is intended for use as a medium-resolution, general purpose database which can support GIS applications.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this specification
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2)
- c. When a first article is required (see 3.1, and 4.3)
- d. Packaing requirements (see 5.1)

6.3 Subject term (keyword) listing.

FACC
GEOREF
GIS
THEMATIC LAYERS
VPF

6.4 Definitions. See MIL-STD-2407 for definition of terms used in this specification.

6.4.1 Acronyms.

ANSI	American National Standards Institute
ASCC	Air Standardization Coordinating Committee Agreements
CD-ROM	Compact Disc Read Only Memory
CE	Circular Error
DMA	Defense Mapping Agency
DoD	Department of Defense
DoDISS	Department of Defense Index of Specifications and Standards
DOS	Disk Operating System
DPS	Digital Production System
FACC	Feature Attribute Coding Catalog
GEOREF	Geographic Reference System
GIS	Geographic Information System
IEEE	Institute of Electrical and Electronics Engineers
ISO	International Organization for Standardization
JOG	Joint Operations Graphic
LE	Linear Error
MC&G	Mapping, Charting, and Geodesy
MSL	Mean Sea Level
QA	Quality Assurance
QC	Quality Control

MIL-V-89033

QSTAGs	Quadripartite Standardization Agreements
STANAG	NATO Standardization Agreement
VPF	Vector Product Format
VMap	Vector Smart Map
WGS	World Geodetic System

APPENDIX A

VMap DATA DICTIONARY ORGANIZATION

A.1 SCOPE

This appendix contains the data dictionary organization for the VMap Level 1 product. It is a mandatory part of this specification. The information contained herein is intended for compliance.

A.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

A.3 VMap DATA DICTIONARY ORGANIZATION

A.3.1 Data dictionary organization. The data provided in this appendix are organized according to VPF structure levels. The VMap database tables appear first; they are described in Appendix B. The information provided in database tables applies to the entire Level 1 database. The VMap Level 1 database contains two types of libraries: the reference library described in Appendices C and D, and one or more data libraries (containing the geographic data). Data libraries are described in Appendices E and F. Appendix C contains the library VPF tables and files and the VPF coverage (LIBREF) for the reference library. Appendix D contains the data coverages for the reference library. Appendix E contains the library VPF tables and files and VPF coverages (TILEREF and LIBREF) for the data libraries. Appendix F contains the data coverages (spatial and attribute data) for the data libraries.

Appendix G contains a listing of the FACC feature codes with descriptions and the feature types they represent for VMap Level 1 libraries. Appendix G also contains a list of attribute codes with their associated features and feature types.

For this data dictionary, a brief description of each feature table is provided. All VPF tables consist of a header that is followed by the actual record contents. This appendix contains examples of the records that may be contained in actual tables. The data structure and contents for both the metadata tables and feature tables that may be present within a coverage are defined in this appendix. Tables not described in this appendix are described in the main sections of this product specification. Specifically, the format of metadata tables (such as documentation tables) is defined in Section 3.15.3, the format and structure of index files are defined in Section 3.13.3, and the format and structure of primitive tables are defined in Section 3.15.5.

APPENDIX A

A.3.2 Notes regarding table format.

- a. The header portion of each table (top half of each illustration) defines the entries required for the VPF table header; the content portion (bottom half) of each table defines the record entries for the data fields.
- b. A semicolon (;) is a separator for the four components of a header.
- c. The colon (:) indicates the end of a column definition.
- d. Carriage returns are embedded in the text for readability only. All header information shall be a continuous string of characters with no carriage returns.
- e. For more information on the format of a VPF table, see Section 3.13.
- f. For tables with a large number of columns and only one record entry (i.e., DHT, LHT, GRT), the backslash character (\) at the end of a line in the data records section indicates that the record entry is continued for each column for that record; no carriage returns are implied. This format permits the data records for a large number of columns to be represented so that they may fit on a page of this specification.

APPENDIX B

VMap DATABASE VPF TABLES AND CONTENTS

B.1 SCOPE

This appendix describes the structure and content of each VPF table in the VMap (VMapLV1) database directory. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

B.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

B.3 VMap DATABASE VPF TABLES AND CONTENTS

B.3.1 Database metadata tables. The VMap database directory file name is the first file to appear on a CD-ROM followed by database metadata files as follows:

VMAPLV1	database directory file
LAT	library attribute (extent) table
DHT	database header table

B.3.1.1 Library attribute (extent) table (LAT). The LAT contains the geographic extent of each library in the database (TABLE 25).

TABLE 25. Format and content for library attribute (extent) table.

{Header length}L;					
Library Attribute (Extent) Table;--;					
ID=I,1,P,Row Identifier,--,--,:;					
LIBRARY_NAME=T,8,N,Library name,--,--,:;					
XMIN=F,1,N,Westernmost longitude,--,--,:;					
YMIN=F,1,N,Southernmost latitude,--,--,:;					
XMAX=F,1,N,Easternmost longitude,--,--,:;					
YMAX=F,1,N,Northernmost latitude,--,--,:;					
1	REFERENCE	-180.0	-90.0	180.0	90.0
2	EASTUS ¹	-90.0	30.0	-75.0	45.0
3	WESTUS ¹	-120.0	30.0	-105.0	45.0
4	NORTHUS ¹	-90.0	60.0	-75.0	45.0
:	:	:	:	:	:
n	n	n	n	n	n

NOTE:

1. The names and extent of the libraries are only examples, actual names will be provided as part of the source package.

APPENDIX B

B.3.1.2 Database header table. The DHT describes the database (TABLE 26).

TABLE 26. Format and content for Database Header Table (DHT).

```
{Header length}L;
Database Header Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
VPF_VERSION=T,10,N,VPF version number,-,-,-,:
DATABASE_NAME=T,8,N,Directory name of this database,-,-,-,:
DATABASE_DESC=T,100,N,Description of this database,-,-,-,:
MEDIA_STANDARD=T,20,N,Media Standard,-,-,-,:
ORIGINATOR=T,50,N,Producer of this database,-,-,-,:
ADDRESSEE=T,100,N,Address of the producer,-,-,-,:
MEDIA_VOLUMES=T,1,N,Number of Volumes in this database,-,-,-,:
SEQ_NUMBERS=T,1,N,The Sequential Number(s) in this database,-,-,-,:
NUM_DATA_SETS=T,1,N,Number of Libraries,-,-,-,:
SECURITY_CLASS=T,1,N,Security Classification,-,-,-,:
DOWNGRADING=T,3,N,Downgrading,-,-,-,:
DOWNGRADE_DATE=D,1,N,Date,-,-,-,:
RELEASABILITY=T,20,N,Releasability restrictions of data,-,-,-,:
TRANSMITTAL_ID=T,1,N,Unique Transmittal Identifier,-,-,-,:
EDITION_NUMBER=T,10,N,Edition Number of this database,-,-,-,:
EDITION_DATE=D,1,N,Date of edition,-,-,-,;
```

```
1\
1.0\
VMAPLV1\
General-purpose, medium-resolution database to support GIS applications.\
ISO 9660\
DEFENSE MAPPING AGENCY\
HEADQUARTERS DEFENSE MAPPING AGENCY ATTN: PR 8613 LEE HWY
FAIRFAX,VA 22031-2137\
1\
1\
1\
U\
NO\
00000000000000.\
RESTRICTED\
1\
1\
199305000000000.
```

APPENDIX C

REFERENCE LIBRARY

C.1 SCOPE

This appendix contains the structure and content of each VPF table in a reference library directory. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

C.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

C.3 REFERENCE LIBRARY

Each database will contain a reference library named RREFERENCE. This library will contain smaller scale coverages that show the generalized extent of the database. Each coverage contains reference information designed to orient the user to the location and extent of the database and the libraries in it.

The structure and content of each VPF table in a reference library directory are provided in this section. Those records that vary are indicated by footnotes.

C.3.1 Reference library metadata tables. The RREFERENCE library shall contain the following metadata tables at the library level.

RREFERENCE	directory file
CAT	coverage attribute (description) table
DQT	data quality table
DQX	data quality index file
GRT	geographic reference table
LHT	library header table
LINEAGE.DOC	an optional documentation table

C.3.1.1 Coverage attribute (description) table. The following CAT shall be present in the RREFERENCE library. TABLE 27 depicts the records that are present in the CAT.

TABLE 27. Format and content for RREFERENCE Coverage Attribute (description) Table (CAT).

{Header length}L;			
Coverage Attribute (Description) Table;-;			
ID=I,1,P,Row Identifier,-,-,-,;			
COVERAGE_NAME=T,8,N,Coverage name,-,-,-,;			
DESCRIPTION=T,50,N,Coverage description,-,-,-,;			
LEVEL=S,1,N,Topology level,-,-,-,;			
1	LIBREF	Library Reference	2
2	DBREF	Database Reference	3
3	POLBND	Political Entities	3
4	PLACENAM	Place Names	0

APPENDIX C

C.3.1.2 Library header table. The following LHT shall be present in the REFERENCE library. The format and content of the library header table for each library is presented in TABLE 28.

TABLE 28. Format and content for REFERENCE Library Header Table (LHT).

<pre> {Header length)L; Library Header Table;-; ID=I,1,P,Row Identifier,-,-,-,: PRODUCT_TYPE=T,12,N,Product Type,-,-,-,: LIBRARY_NAME=T,12,N,Name,-,-,-,: DESCRIPTION=T,100,N,Description of the library,-,-,-,: DATA_STRUCT_CODE=T,1,N,Data Structure Code,-,-,-,: SCALE=I,1,N,Scale of the library,-,-,-,: SOURCE_SERIES=T,15,N,Series,-,-,-,: SOURCE_ID=T,30,N,Identifier of the source reference,-,-,-,: SOURCE_EDITION=T,20,N,Edition number of the source,-,-,-,: SOURCE_NAME=T,100,N,Name of library source,-,-,-,: SOURCE_DATE=D,1,N,Source Date,-,-,-,: SECURITY_CLASS=T,1,N,Security Classification,-,-,-,: DOWNGRADING=T,3,N,Downgrading,-,-,-,: DOWNGRADING_DATE=D,1,N,Date,-,-,-,: RELEASABILITY=T,20,N,Releasability,-,-,-,: 1\ VMAP LEVEL 1\ REFERENCE\ Small-scale data to give users a geographic reference of VMap Level 1 database.\ 8\ Various\ Various\ Various\ Various\ Various\ 00000000000000.\ U\ NO\ 00000000000000.\ RESTRICTED </pre>
--

NOTE:

1. Each line represents the record value for each defined column.

APPENDIX C

C.3.1.3 Geographic reference table. The following GRT shall be present in the REFERENCE library (TABLE 29).

TABLE 29. Format and content for a REFERENCE Geographic Reference Table (GRT).

```
{Header length}L;
Geographic Reference Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
DATA_TYPE=T,3,N,Data Type,-,-,-,:
UNITS=T,3,N,Units,-,-,-,:
ELLIPSOID_NAME=T,15,N,Ellipsoid,-,-,-,:
ELLIPSOID_DETAIL=T,50,N,Ellipsoid Details,-,-,-,:
VERT_DATUM_NAME=T,15,N,Datum Vertical Reference,-,-,-,:
VERT_DATUM_CODE=T,3,N,Vertical Datum Code,-,-,-,:
SOUND_DATUM_NAME=T,15,N,Sounding Datum,-,-,-,:
SOUND_DATUM_CODE=T,3,N,Sounding Datum Code,-,-,-,:
GEO_DATUM_NAME=T,15,N,Datum Geodetic Name,-,-,-,:
GEO_DATUM_CODE=T,3,N,Datum Geodetic Code,-,-,-,:
PROJECTION_NAME=T,20,N,Projection Name,-,-,-;
```

```
1\
GEO\
M\
WGS 84\
A=6378137 B=6356752 Meters\
MEAN SEA LEVEL\
015\
NA\
NA\
WGS 84\
WGE\
\
```

APPENDIX C

C.3.1.4 Data quality table. The following data quality table shall be in the library directory for the REFERENCE library. The record content of this table may vary for each library. The format and sample content of the DQT for each library is presented in TABLE 30.

TABLE 30. Format and content for example Data Quality Table (DOT).

```
(Header length)L;
Library Data Quality Table;LINEAGE.DOC;
ID=I,1,P,Row Identifier,-,-,-,:
VPF_LEVEL=T,8,N,VPF Level,-,-,-,:
VPF_LEVEL_NAME=T,8,N,Name of VPF Level,-,-,-,:
FEATURE_COMPLETE=T,*N,Feature Completeness Percent,-,-,-,:
ATTRIB_COMPLETE=T,*N,Attribute Completeness Percent,-,-,-,:
LOGICAL_CONSIST=T,*N,Logical Consistency,-,-,-,:
EDITION_NUM=T,8,N,Edition Number,-,-,-,:
CREATION_DATE=D,1,N,Creation Date,-,-,-,:
REVISION_DATE=D,1,N,Revision Date,-,-,-,:
SPEC_NAME=T,*N,Product Specification Name,-,-,-,:
SPEC_DATE=D,1,N,Product Specification Date,-,-,-,:
EARLIEST_SOURCE=D,1,N,Date of Earliest Source,-,-,-,:
LATEST_SOURCE=D,1,N,Date of Latest Source,-,-,-,:
COLLECTION_SPEC=T,*N,Collection Specification Name,-,-,-,:
ABS_HORIZ_ACC=T,*N,Absolute Horizontal Accuracy of VPF Level,-,-,-,:
ABS_HORIZ_UNITS=T,20,N,Unit of Measure for Absolute Horizontal Accuracy,-,-,-,:
ABS_VERT_ACC=T,*N,Absolute Vertical Accuracy of VPF Level,-,-,-,:
ABS_VERT_UNITS=T,20,N,Unit of Measure for Absolute Vertical Accuracy,-,-,-,:
REL_HORIZ_ACC=T,*N,Point to Point Horizontal Accuracy of VPF Level,-,-,-,:
REL_HORIZ_UNITS=T,20,N,Unit of Measure for Point to Point Horizontal Accuracy,-,-,-,:
REL_VERT_ACC=T,*N,Point to Point Vertical Accuracy of VPF Level,-,-,-,:
REL_VERT_UNITS=T,20,N,Unit of Measure for Point to Point Vertical Accuracy,-,-,-,:
COMMENTS=T,*N,Miscellaneous Comments,-,-,-,;
```

```
1\
LIBRARY\
REFERENCE\
All features in this library are captured from the source materials and generalized as
necessary to depict referential information.\
All features in this library have valid attribute codes assigned to them in accordance with this specification.\
All data are topologically correct. No duplicate features are present within a coverage.
All areas are completely described as extracted from the source materials.
No undershoots or overshoots are present. All data were consistently captured using the rules described in the
documentation table associated with this table and in the various feature table narrative files present at the
coverage level within the library.\
1\
19921021000000.\
00000000000000.\
VMapLV1 MILSPEC MIL-V-89033 Product Specification\
19930930000000.\
00000000000000.\
00000000000000.\
VMapLV1 MILSPEC MIL-V-89033\
N/A\
N/A\
N/A\
N/A\
N/A\
N/A\
N/A\
N/A\
Additional descriptions of data lineage are available in the documentation table associated
with this data quality table (called lineage.doc).
```

APPENDIX C

C.3.1.5 Lineage narrative table. Information regarding the data contained in the library is captured in the LINEAGE.DOC file (TABLE 31).

TABLE 31. Format and sample content for Lineage Documentation Table (LINEAGE.DOC).

{Header length}L;	
Lineage Documentation Table;-;	
ID=I,1,P,Row Identifier,-,-,-,;	
TEXT=T,80,N,Text information,-,-,-,;	
1	This table describes characteristics of the feature data within
2	this library. Three subjects are discussed: 1) special
3	"automation techniques, 2) source materials, and 3) database"
4	design issues. The table does not contain a full description
5	of the data production process.
:	:
n	...

C.3.2 Reference library coverage and tables. Each REFERENCE library in a database shall be untiled, and will contain the following directory file and tables.

C.3.2.1 Library Reference coverage directory and files. The library reference coverage directory contains the following files:

LIBREF	directory file
CND	connected node table
CSI	connected node spatial index table
EBR	edge bounding rectangle table
EDG	edge primitive table
EDX	edge variable length index file
ESI	edge spatial index table
FCS	feature class schema table
LIBREF.LFT	library reference line feature table
LIBREFT.TFT	library reference text feature table (optional)
TSI	text spatial index file
TXT	text primitive table
TXX	text variable length index file

C.3.2.1.1 Library Reference feature class schema table. A feature class schema table shall be present in the library reference coverage. The format and content of the FCS are presented in TABLE 32.

APPENDIX C

TABLE 32. Content and format for LIBREF feature class schema table (FCS).

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Feature Table Description: Library Reference Feature Class Schema Table
 Table Name: FCS

{Header length}L; Library Reference Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;					
1	LIBREF	LIBREF.LFT	EDG_ID	EDG	ID
2	LIBREF	EDG	LIBREF.LFT_ID	LIBREF.LFT	ID
3	LIBREFT	LIBREFT.TFT	TXT_ID	TXT	ID
4	LIBREFT	TXT	ID	LIBREFT.TFT	TXT_ID

C.3.2.1.2 Library Reference feature tables. The feature tables implemented in the library reference coverage are specified in TABLES 33 and 34.

TABLE 33. Format and content for LIBREF line feature table (LIBREF.LFT).

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Feature Table Description: Library Reference Line Feature Table
 Table Name: LIBREF.LFT

{Header length}L; Library Reference Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; EDG_ID=I,1,N,Edge Primitive ID,-,-,-,;		
1	AP030	1
2	BA010	2
3	FA000	3
:	:	:
n	n	n

APPENDIX C

TABLE 34. Format and content for LIBREF text feature table (LIBREFT.TFT).

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Feature Table Description: Library Reference Text Feature Table
 Table Name: LIBREFT.TFT

<pre>{Header length}L; Library Reference Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,: F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,: TXT_ID=I,1,N,Text Primitive ID,-,-,-,;:</pre>		
1	ZD040	1
2	ZD040	2
3	ZD045	3
:	:	:
n	n	n

C.3.2.1.3 Library Reference primitive tables. The edge, CND, and text primitive tables in the library reference coverage directory have the same format as the coverage primitive files (reference TABLES 16 to 20). Although the text feature table is optional, a sample text primitive table is presented to show sample values for the STRING column (TABLE 35). The text string depicting the library name will be appropriately placed near the top center of each library reference coverage in an appropriately sized font.

The structure and format of the variable-length index files and spatial index files are provided in Section 3.13.3. The structure and format of the bounding rectangle tables are described in Section 3.15.5.

APPENDIX C

TABLE 35. Format and example of content for LIBREF text primitive table (TXT).

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Table Description: Text Primitive Table
 Table Name: TXT

{Header length}L; Text Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; STRING=T,*N,Text String,-,-,-,; SHAPE_LINE=C,*N,Shape of Text String,-,-,-,;		
1	Text string ¹	-5.811609,43.662006
:	:	:
n	n	n

NOTE:

1. The names and extent of the Level 1 libraries, or other geographic identifiers.

TABLE 36. Library Reference Character Value Description Table.

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Feature Table Description: Library Reference Character Value Description Table
 Table Name: CHAR.VDT

{Header length}L; Library Reference Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,24,N,Description of Value,-,-,-,;				
1	LIBREF.LFT	F_CODE	AP030	Road
2	LIBREF.LFT	F_CODE	BA010	Coastline/Shoreline
3	LIBREF.LFT	F_CODE	FA000	Administrative Boundary
4	LIBREFT.TFT	F_CODE	ZD040	Named Location
5	LIBREFT.TFT	F_CODE	ZD045	Text Description

APPENDIX D

REFERENCE LIBRARY COVERAGE TABLES AND CONTENT

D.1 SCOPE

This appendix contains the structure and content of each VPF table in the REFERENCE library directory. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

D.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

D.3 REFERENCE LIBRARY COVERAGE TABLES AND CONTENT

D.3.1 Coverage table and file order. Coverages for the REFERENCE library are shown in TABLE 37. For each coverage, the feature class schema table is described first, followed by the feature tables. The type and content of documentation tables will vary with each coverage. For each feature table the attribute names, description, and attribute values are also represented. A summary of the REFERENCE coverages and feature classes is presented in TABLE 38.

The structure and content of each VPF table in the REFERENCE library directory are provided in this section. Those records that vary are indicated by footnotes.

Thematic index files identified in the header of a feature table are defined in Section 3.13.3. The structure and format of the variable-length index files and spatial index files are provided in Section 3.13.3. The structure and format of the bounding rectangle tables are described in Section 3.15.5.

TABLE 37. REFERENCE coverages.

Library Reference Coverage
Database Reference coverage
Political Entities coverage
Place Names coverage

TABLE 38. REFERENCE Library feature table(s) in coverages.

Coverage Name	Feature Classes				
	Point	Node	Line	Area	Text
LIBREF ¹			LIBREF.LFT		LIBREFT.TFT
DBREF				DBREF.AFT	DBTXT.TFT
POLBND				POLBND.AFT	POLBNDTX.TFT
PLACENAM	PLACENAM.PFT				PLACETXT.TFT

NOTE:

1. Described in Paragraph C.3.2.1.2.

APPENDIX D

D.3.2 DBREF coverage. This coverage contains the generalized small-scale outlines of each data library in the VMap Level 1 database. The files in this coverage are presented in TABLES 39 to 42.

TABLE 39. Content and format for DBREF coverage feature class schema table.

Thematic Layer: Database Reference
 Coverage Name: DBREF
 Feature Table Description: Database Reference Feature Class Schema Table
 Table Name: FCS

{Header length}L; Database Reference Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;					
1	DBREF	DBREF.AFT	FAC_ID	FAC	ID
2	DBREF	FAC	DBREF.AFT_ID	DBREF.AFT	ID
3	DBTXT	DBTXT.TFT	TXT_ID	TXT	ID
4	DBTXT	TXT	ID	DBTXT.TFT	TXT_ID

TABLE 40. DBREF Area Feature Table.

Thematic Layer: Database Reference
 Coverage Name: DBREF
 Feature Table Description: Database Reference Area Feature Table
 Table Name: DBREF.AFT

{Header length}L; Database Reference Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; LIBRARY_NAME=T,8,N,VMap Library Name,-,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,-,-,;		
1	BOLIVIAM ¹	2
2	TEXASM ¹	3
3	:	4
:	:	:
n	n	n

NOTE:

1. Library names in VMap products will vary.

APPENDIX D

TABLE 41. DBREF Text Feature Table.

Thematic Layer: Database Reference
 Coverage Name: DBREF
 Feature Table Description: Database Reference Text Feature Table
 Table Name: DBTXT.TFT

{Header length}L; Database Reference Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; TXT_ID=I,1,N,Text Primitive ID,-,-,-,;;		
1	ZD040	1
:	:	:
n	n	n

TABLE 42. Database Reference Character Value Description Table.

Thematic Layer: Database Reference
 Coverage Name: DBREF
 Feature Table Description: Database Reference Character Value
 Description Table
 Table Name: CHAR.VDT

{Header length}L; Database Reference Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,24,N,Description of Value,-,-,-,;;				
1	DBTXT.TFT	F_CODE	ZD040	Named Location
2	DBTXT.TFT	F_CODE	ZD045	Text Description

D.3.3 POLBND coverage. This coverage contains the generalized small-scale outlines of the political entities in the VMap Level 1 database. The files for this coverage are described in TABLES 43 to 46.

APPENDIX D

TABLE 43. Content and format for POLBND coverage feature class schema table.

Thematic Layer: Political Entities
 Coverage Name: POLBND
 Feature Table Description: Political Entities Feature Class
 Schema Table
 Table Name: FCS

{Header length}L; Political Entities Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;					
1	POLBND	POLBND.AFT	FAC_ID	FAC	ID
2	POLBND	FAC	POLBND.AFT_ID	POLBND.AFT	ID
3	POLBNDTX	POLBNDTX.TFT	TXT_ID	TXT	ID
4	POLBNDTX	TXT	ID	POLBNDTX.TFT	TXT_ID

TABLE 44. POLBND Area Feature Table.

Thematic Layer: Political Entities
 Coverage Name: POLBND
 Feature Table Description: Political Entities Area Feature Table
 Table Name: POLBND.AFT

{Header length}L; Political Entities Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; COUNTRY_NAME=T,40,N,Political Entity Name,-,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,-,-,;		
1	United States of America	2
2	Canada	3
3	Mexico	4
4	:	5
:	:	:
n	n	n

APPENDIX D

TABLE 45. POLBND Text Feature Table.

Thematic Layer: Political Entities
 Coverage Name: POLBND
 Feature Table Description: Political Entities Text Feature Table
 Table Name: POLBNDTX.TFT

{Header length}L; Political Entities Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TXT_ID=I,1,N,Text Primitimve ID,-,-,-,;;		
1	ZD040	1
:	:	:
n	n	n

TABLE 46. Political Entities Character Value Description Table.

Thematic Layer: Political Entities
 Coverage Name: POLBND
 Feature Table Description: Political Entities Character Value
 Description Table
 Table Name: CHAR.VDT

{Header length}L; Political Entities Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,16,N,Description of Value,-,-,-,;;				
1	POLBNDTX.TFT	F_CODE	ZD040	Named Location
2	POLBNDTX.TFT	F_CODE	ZD045	Text Description

D.3.4 PLACENAM coverage. This coverage contains named places in the VMap Level 1 database. The files for this coverage are described in TABLES 47 to 49.

APPENDIX D

TABLE 47. Content and format for PLACENAM coverage feature class schema table.

Thematic Layer: Place Names
 Coverage Name: PLACENAM
 Feature Table Description: Place Names Feature Class Schema Table
 Table Name: FCS

<pre>{Header length}L; Place Names Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,: FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,: TABLE1=T,12,N,First Table,-,-,-,: TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,: TABLE2=T,12,N,Second Table,-,-,-,: TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;</pre>					
1	PLACENAM	PLACENAM.PFT	END_ID	END	ID
2	PLACENAM	END	PLACENAM.PFT_ID	PLACENAM.PFT	ID
3	PLACETXT	PLACETXT.TFT	TXT_ID	TXT	ID
	PLACETXT	TXT	ID	PLACETXT.TFT	TXT_ID

TABLE 48. PLACENAM Point Feature Table.

Thematic Layer: Place Names
 Coverage Name: PLACENAM
 Feature Table Description: Place Names Point Feature Table
 Table Name: PLACENAM.PFT

<pre>{Header length}L; Place Names Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,: PLACE_NAME=T,40,N,Place Name,-,-,-,: END_ID=I,1,N,Entity Node Primitive ID,-,-,-,;</pre>		
1	Gulf of Mexico ¹	1
2	Fairfax ¹	2
3	Redlands ¹	3
4	Lake Superior ¹	4
:	:	:
n	n	n

NOTE:

1. Representative place names.

APPENDIX D

TABLE 49. PLACENAM Text Feature Table.

Thematic Layer:	Place Names
Coverage Name:	PLACENAM
Feature Table Description:	Place Names Text Feature Table
Table Name:	PLACETXT.TFT

{Header length}L; Place Names Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; NAME=T,20,N,Place Name,-,-,-,; TXT_ID=I,1,N,Text Primitive ID,-,-,-,;		
1	Richmond	1
2	Fairfax	2
3	Baltimore	3
:	:	:
n	n	n

APPENDIX E

DATA LIBRARY

E.1 SCOPE

This appendix contains the structure and content of each VPF table in a data library of the VMap database. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

E.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

E.3 DATA LIBRARY

The structure and content of each VPF table in a data library of the VMap database are provided in this section. The actual record contents of the metadata tables will vary with each library. Those records that vary are indicated by footnotes.

Each VMap library is represented as a directory file.

E.3.1 Library metadata tables. Each data library shall contain the following metadata tables at the library level.

LIB1 ¹	directory file
CAT	coverage attribute (description) table
DQT	data quality table
DQX	data quality index file
GRT	geographic reference table
LHT	library header table
LINEAGE.DOC	an optional documentation table

NOTE:

1. Representative directory name for a Level 1 library.

E.3.1.1 Coverage attribute (description) table. The following CAT shall be present in every data library. TABLE 50 depicts all of the possible records that may be present in the CAT.

APPENDIX E

TABLE 50. Format and sample content for Coverage Attribute (description) Table (CAT).

{Header length}L; Coverage Attribute (Description) Table;-; ID=I,1,P,Row Identifier,-,-,-,; COVERAGE_NAME ¹ =T,8,N,Coverage name,-,-,-,; DESCRIPTION=T,24,N,Coverage description,-,-,-,; LEVEL ² =S,1,N,Topology level,-,-,-,;:			
1	LIBREF	Library Reference	2
2	TILEREF	Tile Reference	3
3	BND	Boundaries	3
4	DQ	Data Quality	3
5	ELEV	Elevation	3
6	HYDRO	Hydrography	3
7	IND	Industry	3
8	PHYS	Physiography	3
9	POP	Population	3
10	TRANS	Transportation	3
11	UTIL	Utilities	3
12	VEG	Vegetation	3

NOTES:

1. This table depicts all possible coverages that may be present in a library; presence of these coverages will vary with data availability. If library does not contain any data for a particular coverage, then the record describing the coverage will not be present.
2. The number in the LEVEL column represents the topology of each coverage.

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E.3.1.2 Library header table. The following LHT shall be present in every library. The format and sample content of the library header table for each library is presented in TABLE 51. The record content of this table will vary for each library.

TABLE 51. Format and content for example Library Header Table (LHT).

<pre>{Header length}L; Library Header Table;-; ID=I,1,P,Row Identifier,-,-,-,: PRODUCT_TYPE=T,12,N,Product Type,-,-,-,: LIBRARY_NAME=T,12,N,Name,-,-,-,: DESCRIPTION=T,100,N,Description of the library,-,-,-,: DATA_STRUCT_CODE=T,1,N,Data Structure Code,-,-,-,: SCALE=I,1,N,Scale of the library,-,-,-,: SOURCE_SERIES=T,15,N,Series,-,-,-,: SOURCE_ID=T,30,N,Identifier of the source reference,-,-,-,: SOURCE_EDITION=T,20,N,Edition number of the source,-,-,-,: SOURCE_NAME=T,100,N,Name of library source,-,-,-,: SOURCE_DATE=D,1,N,Source Date,-,-,-,: SECURITY_CLASS=T,1,N,Security Classification,-,-,-,: DOWNGRADING=T,3,N,Downgrading,-,-,-,: DOWNGRADING_DATE=D,1,N,Date,-,-,-,: RELEASABILITY=T,20,N,Releasability,-,-,-,: 1\ VMap LEVEL 1\ LIB1\ Digital data collected from 1:250,000-scale map sheet or other sources of similar resolution.\ 8\ 250000\ 1501AIR\ SD 20-08\ 1\ Joint Operations Graphic\ 1990000000000000.\ U\ NO\ 0000000000000000.\ RESTRICTED</pre>
--

NOTE:

1. Replace with appropriate record content for each library.
Each line represents the record value for each defined column.

E.3.1.3 Geographic reference table. The following GRT shall be present in every library. The record content of this table may vary for each library. The format and sample content of the geographic reference table for each library is presented in TABLE 52.

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TABLE 52. Format and sample content for a Geographic Reference Table (GRT).

```

{Header length)L;
Geographic Reference Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
DATA_TYPE=T,3,N,Data Type,-,-,-,:
UNITS=T,3,N,Units of Measure Code for Library,-,-,-,:
ELLIPSOID_NAME=T,15,N,Ellipsoid,-,-,-,:
ELLIPSOID_DETAIL=T,50,N,Ellipsoid Details,-,-,-,:
VERT_DATUM_NAME=T,15,N,Datum Vertical Reference,-,-,-,:
VERT_DATUM_CODE=T,3,N,Vertical Datum Code,-,-,-,:
SOUND_DATUM_NAME=T,15,N,Sounding Datum,-,-,-,:
SOUND_DATUM_CODE=T,3,N,Sounding Datum Code,-,-,-,:
GEO_DATUM_NAME=T,15,N,Datum Geodetic Name,-,-,-,:
GEO_DATUM_CODE=T,3,N,Datum Geodetic Code,-,-,-,:
PROJECTION_NAME=T,20,N,Projection Name,-,-,-,:;

```

```

1\
GEO\
M\
WGS 84\
A=6378137 B=6356752 Meters\
MEAN SEA LEVEL\
015\
NA\
NA\
WGS 84\
WGE\
\

```

E.3.1.4 Data quality table. The following data quality table shall be present at the library-level for every library. The record content of this table may vary for each library. The format and sample content of the DQT for each library is presented in TABLE 53.

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TABLE 53. Format and content for example Data Quality Table (DOT).

<pre> (Header length)L; Library Data Quality Table;LINEAGE.DOC; ID=I,1,P,Row Identifier,-,-,-,: VPF_LEVEL=T,8,N,VPF Level,-,-,-,: VPF_LEVEL_NAME¹=T,8,N,Name of VPF Level,-,-,-,: FEATURE_COMPLETE=T,*N,Feature Completeness Percent,-,-,-,: ATTRIB_COMPLETE=T,*N,Attribute Completeness Percent,-,-,-,: LOGICAL_CONSIST=T,*N,Logical Consistency,-,-,-,: EDITION_NUM=T,8,N,Edition Number,-,-,-,: CREATION_DATE=D,1,N,Creation Date,-,-,-,: REVISION_DATE=D,1,N,Revision Date,-,-,-,: SPEC_NAME²=T,*N,Product Specification Name,-,-,-,: SPEC_DATE=D,1,N,Product Specification Date,-,-,-,: EARLIEST_SOURCE=D,1,N,Date of Earliest Source,-,-,-,: LATEST_SOURCE=D,1,N,Date of Latest Source,-,-,-,: COLLECTION_SPEC=T,*N,Collection Specification Name,-,-,-,: ABS_HORIZ_ACC=T,*N,Absolute Horizontal Accuracy of VPF Level,-,-,-,: ABS_HORIZ_UNITS=T,20,N,Unit of Measure for Absolute Horizontal Accuracy,-,-,-,: ABS_VERT_ACC=T,*N,Absolute Vertical Accuracy of VPF Level,-,-,-,: ABS_VERT_UNITS=T,20,N,Unit of Measure for Absolute Vertical Accuracy,-,-,-,: REL_HORIZ_ACC=T,*N,Point to Point Horizontal Accuracy of VPF Level,-,-,-,: REL_HORIZ_UNITS=T,20,N,Unit of Measure for Point to Point Horizontal Accuracy,-,-,-,: REL_VERT_ACC=T,*N,Point to Point Vertical Accuracy of VPF Level,-,-,-,: REL_VERT_UNITS=T,20,N,Unit of Measure for Point to Point Vertical Accuracy,-,-,-,: COMMENTS=T,*N,Miscellaneous Comments,-,-,-,: </pre>
<pre> 1\ LIBRARY\ LIB\ All features in this library are captured from the source materials using the rules for feature extraction and inclusion conditions in accordance with this specification.\ All features in this library have valid attribute codes assigned to them in accordance with this specification.\ All data are topologically correct. No duplicate features are present within a coverage. All areas are completely described as extracted from the source materials. No undershoots or overshoots are present. All data were consistently captured using the rules described in the documentation table associated with this table and in the various feature table narrative files present at the coverage level within the library.\ 2\ 19920915000000.\ 19930315000000.\ VMap LV1 MILSPEC MIL-V-89033\ 19930930000000.\ 00000000000000.\ 00000000000000.\ VMap LV1 MILSPEC MIL-V-89033\ +/- (125)³ meters: This figure represents the overall absolute horizontal accuracy in this library in accordance with this specification.\ Meters\ +/- (100)³ meters: This figure represents the overall vertical accuracy in this library in accordance with this specification.\ Meters\ Unknown\ N/A\ Unknown\ N/A\ Additional descriptions of data lineage are available in the documentation table associated with this data quality table (called lineage.doc). </pre>

NOTES:

1. Replace with appropriate Vmap library name for each appropriate library.
2. This field length has been modified to accommodate the complete product specification name.
3. These values are for example only; refer to Section 3.1 for clarification.

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E.3.1.5 Lineage narrative table. Information regarding the data contained in the library is captured in the LINEAGE.DOC file (TABLE 54).

TABLE 54. Format and sample content for Lineage Documentation Table (LINEAGE.DOC).

{Header length}L;	
Lineage Documentation Table;-;	
ID=I,1,P,Feature table primary key,-,-,-,:	
TEXT=T,80,N,Text information,-,-,-,;	
1	This table describes characteristics of the feature data within
2	this coverage. Three subjects are discussed: 1) special
3	"automation techniques, 2) feature coincidence, and 3) database"
4	design issues. The table does not contain a full description
5	of the data production process.
:	
n	...

E.3.2 Data library reference coverages and tables. The following coverages, including directory files and tables, apply to all tiled data libraries.

E.3.2.1 Tile Reference coverage directory and files. The tile reference coverage directory contains the following files:

TILEREF	directory file
CND	connected node table
CSI	connected node spatial index table
EBR	edge bounding rectangle table
EDG	edge primitive table
EDX	edge variable length index file
ESI	edge spatial index table
FAC	face primitive table
FBR	face bounding rectangle
FCS	feature class schema table
FSI	face spatial index table
RNG	ring table
TILEREF.AFT	tile reference area feature table
TILEREF.TFT	tile reference text feature table (optional)
TSI	text spatial index file
TXT	text primitive table
TXX	text variable length index file

E.3.2.1.1 Tile Reference feature class schema table. A feature class schema table shall be present in every tile reference coverage (TILEREF). The format and content of the FCS is presented in TABLE 55. The record content of this table may vary for each tile reference coverage depending upon the presence or absence of a text feature class.

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TABLE 55. Content and format for TILEREF feature class schema table.

Thematic Layer: Tile Reference
 Coverage Name: TILEREF
 Table Description: Feature Class Schema Table
 Table Name: FCS

{Header length}L; Tile Reference Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;					
1	TILEREF	TILEREF.AFT	FAC_ID	FAC	ID
2	TILEREF	FAC	TILEREF.AFT_ID	TILEREF.AFT	ID
3	TILEREFT	TILEREFT.TFT	TXT_ID	TXT	ID
4	TILEREFT	TXT	ID	TILEREFT.TFT	TXT_ID

E.3.2.1.2 Tile reference feature tables. The feature tables implemented in the tile reference coverage are specified in TABLES 56 and 57. The text feature table is optional. If it is present, there is a one-to-one correspondence between the records of the tile reference area feature table and text feature table.

TABLE 56. Format and sample content for Level 1 TILEREF area feature table.

Thematic Layer: Tile Reference
 Coverage Name: TILEREF
 Table Description: Tile Reference Area Feature Table
 Table Name: TILEREF.AFT

{Header length}L; Tile Reference Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; TILE_NAME=T,9,N,VMAP Library Tile Path Name,-,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,-,-,;		
1	\F\J\H\B\1	2
2	\F\J\H\B\1	3
3	\F\J\H\B\1	4
4	\F\J\H\B\1	5
:	:	:
n	n	n

NOTE:
 1. The sample tile path names for libraries.

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TABLE 57. Format and content for TILEREF text feature table.

Thematic Layer: Tile Reference
 Coverage Name: TILEREF
 Table Description: Tile Reference Text Feature Table
 Table Name: TILEREF.TFT

{Header length}L; Tile Reference Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; TILE_NAME=T,4,N,Tile Name,-,-,-,; TXT_ID=I,1,N,Text Primitive ID,-,-,-,;:		
1	FJHB	1
2	FJHA	2
3	:	3
:	:	:
n	n	n

E.3.2.1.3 Tile Reference primitive tables. The face, edge, and text primitive tables in the tile reference coverage directory have the same format as the primitive files (reference TABLES 16 to 20). Although the text feature table is optional, a sample text primitive table is presented to show sample values for the STRING column (TABLE 58).

The structure and format of the variable-length index files and spatial index files are provided in Section 3.13.3. The structure and format of the bounding rectangle tables are described in Section 3.15.5.

TABLE 58. Format and example of content for TILEREF text primitive table.

Thematic Layer: TILEREF
 Coverage Name: TILEREF
 Table Description: Text Primitive Table
 Table Name: TXT

{Header length}L; Text Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; STRING=T,*,N,Text String,-,-,-,; SHAPE_LINE=C,*,N,Shape of Text String,-,-,-,;:		
1	\F\J\H\B\1	-5.811609,43.662006
2	\F\J\H\B\1	-8.574136,43.435287
3	\F\J\H\B\1	-7.437326,42.881957
4	\F\J\H\B\1	-6.835582,40.736553
:	:	-6.825007,40.846355
:	:	:
n	n	n

NOTE:

1. Sample tile path names for libraries.

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E.3.2.2 Library Reference coverage directory and files. The library reference coverage directory contains the following files:

LIBREF	directory file
CND	connected node table
CSI	connected node spatial index table
EBR	edge bounding rectangle table
EDG	edge primitive table
EDX	edge variable length index file
ESI	edge spatial index table
FCS	feature class schema table
LIBREF.LFT	library reference line feature table
LIBREFT.TFT	library reference text feature table (optional)
TSI	text spatial index file
TXT	text primitive table
TXX	text variable length index file

E.3.2.2.1 Library Reference feature class schema table. A feature class schema table shall be present in every library reference coverage (LIBREF). The format and content of the FCS is presented in TABLE 59. The record content of this table may vary for each library reference coverage, depending upon the presence or absence of a text feature class.

TABLE 59. Content and format for LIBREF feature class schema table.

Thematic Layer:	LIBREF
Coverage Name:	LIBREF
Table Description:	Library Reference Feature Class Schema Table
Table Name:	FCS

{Header length)L; Library Reference Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,6,N,Column Name in Second Table,-,-,-,;					
1	LIBREF	LIBREF.LFT	EDG_ID	EDG	ID
2	LIBREF	EDG	LIBREF.LFT_ID	LIBREF.LFT	ID
3	LIBREFT	LIBREFT.TFT	TXT_ID	TXT	ID
4	LIBREFT	TXT	ID	LIBREFT.TFT	TXT_ID

E.3.2.2.2 Library Reference feature tables. The feature tables implemented in the library reference coverage are specified in TABLES 60 to 63.

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TABLE 60. Format and content for LIBREF line feature table.

Thematic Layer: LIBREF
 Coverage Name: LIBREF
 Table Description: Library Reference Line Feature Table
 Table Name: LIBREF.LFT

{Header length}L; Library Reference Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; EDG_ID=I,1,N,Edge Primitive ID,-,-,-,;:		
1	FA000	1
2	BA010	2
3	AP030	3
:	:	:
n	n	n

TABLE 61. Format and content for LIBREF text feature table.

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Table Description: Library Reference Text Feature Table
 Table Name: LIBREFT.TFT

{Header length}L; Library Reference Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; TXT_ID=I,1,N,Text Primitive ID,-,-,-,;:		
1	ZD040	1
2	ZD040	2
3	ZD045	3
:	:	:
n	n	n

E.3.2.2.3 Library Reference primitive tables. The edge, CND, and text primitive tables in the library reference coverage directory have the same format as the coverage primitive files (reference TABLES 16 to 20). Although the text feature table is optional, a sample text primitive table is presented to show sample values for the STRING column (TABLE 62). The text string depicting the library name will be appropriately placed near the top center of each library reference coverage in an appropriately sized font.

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The structure and format of the variable-length index files and spatial index files are provided in Section 3.13.3. The structure and format of the bounding rectangle tables are described in Section 3.15.5.

TABLE 62. Format and example of content for LIBREF text primitive table.

Thematic Layer: Library Reference
 Coverage Name: LIBREF
 Table Description: Text Primitive Table
 Table Name: TXT

{Header length}L; Text Primitive Table;-; ID=I,1,P,Row Identifier,-,-,-,; STRING=T,*N,Text String,-,-,-,; SHAPE_LINE=C,*N,Shape of Text String,-,-,-,;		
1	Text string ¹	-5.811609,43.662006
:	:	:
n	n	n

NOTE:

1. The names and extent of the Level 1 libraries, or other geographic identifiers.

TABLE 63. Library Reference Character Value Description Table.

Thematic Layer: LIBREF
 Coverage Name: LIBREF
 Feature Table Description: Library Reference Character Value Description Table
 Table Name: CHAR.VDT

{Header length}L; Library Reference Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,24,N,Description of Value,-,-,-,;				
1	LIBREF.LFT	F_CODE	AP030	Road
2	LIBREF.LFT	F_CODE	BA010	Coastline/Shoreline
3	LIBREF.LFT	F_CODE	FA000	Administrative Boundary
4	LIBREFT.TFT	F_CODE	ZD040	Named Location
5	LIBREFT.TFT	F_CODE	ZD045	Text Description

APPENDIX F

VMap LEVEL 1 THEMATIC COVERAGE DIRECTORY RECORD LAYOUT

F.1 SCOPE

This appendix contains the thematic coverage directory record layout for VMap Level 1 data. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

F.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

F.3 VMap LEVEL 1 THEMATIC COVERAGE DIRECTORY RECORD LAYOUT

F.3.1 General. For each coverage (TABLE 64), the feature class schema table is described first, followed by the feature tables, then value description tables. The type and content of documentation tables will vary with each coverage. For each feature table, the attribute names, descriptions, and values are given. A summary of the VMap Level 1 thematic layers, coverages, and feature classes is presented in TABLE 65.

Thematic index files identified in the header of a feature table are defined in Section 3.13.3. The structure and format of the variable-length index files and spatial index files are described in Section 3.13.3. The structure and format of the bounding rectangle tables are described in Section 3.15.5.

TABLE 64. VMap level 1 data coverages.

Boundaries coverage
Data quality coverage
Elevation coverage
Hydrography coverage
Industry coverage
Physiography coverage
Population coverage
Transportation coverage
Utilities coverage
Vegetation coverage

Data quality feature tables can be present in any coverage when appropriate. Symbol related attribute tables are present in any coverage with a text feature table. These tables may appear in multiple libraries; to avoid redundancy, they are discussed only once, starting in Section F.3.1.1.

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TABLE 65. VMap Level 1 feature table(s) in tiled coverages.

Coverage Name	Feature Tables				
	Point	Node	Line	Area	Text
BND	MARKERSP .PFT		BARRIERL .LFT COASTL .LFT POLBNDL .LFT	MAGAREAA .AFT POLBNDL .AFT BNDVOIDA .AFT	BNDTXT .TFT
DQ			DQLINE .LFT	DQAREA .AFT DQVOIDA .AFT	DQTXT .TFT
ELEV	ELEV .PFT		CONTOURL .LFT DEPTHL .LFT	ELEVOIDA .AFT	ELEVTEXT .TFT
HYDRO	DANGERP .PFT MISCP .PFT WELLSPRP .PFT	AQUEDCTC .PFT DAMC .PFT RAPIDSC .PFT	AQUEDCTL .LFT DAML .LFT DANGERL .LFT LOCKL .LFT MISCL .LFT RAPIDSL .LFT SEASTRTL .LFT WATRCRSL .LFT	COASTA .AFT DANGERA .AFT INUNDA .AFT LAKERESA .AFT HYDVOIDA .AFT WATRCRSA .AFT	HYDROTXT .TFT
IND	AGRISTRP .PFT EXTRACTP .PFT NUCLEARP .PFT OBSTRP .PFT PROCESSP .PFT RIGWELLP .PFT STORAGEP .PFT TOWERP .PFT		INDL .LFT	DISPOSEA .AFT EXTRACTA .AFT PROCESSA .AFT TREATA .AFT INDVOIDA .AFT	INDTXT .TFT
PHYS	LNDFRMP .PFT MTNP .PFT THERMALP .PFT		BLUFFL .LFT EMBANKL .LFT LNDFRML .LFT	ASPHALTA .AFT GROUNDL .AFT LANDICEA .AFT LNDFRM1A .AFT LNDFRM2A .AFT SEAICEA .AFT PHYVOIDA .AFT	PHYSTXT .TFT
POP	BUILDP .PFT BUILTUPP .PFT FORTP .PFT LANDMRKP .PFT MISPOPP .PFT RUINSP .PFT		LANDMRKL .LFT	BUILDA .AFT BUILTUPA .AFT FORTA .AFT LANDMRKA .AFT MISPOPA .AFT RUINSA .AFT POPVOIDA .AFT	POPTXT .TFT

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TABLE 65. VMap Level 1 feature table(s) in tiled coverages -
Continued.

Coverage Name	Feature Tables						
	Point	Node	Line	Area	Text		
TRANS	AEROFACP.PFT	BRIDGEC.PFT	BRIDGEL.LFT	HARBORA.AFT	TRANSTXT.TFT		
	MISAEROP.PFT	FERRYC.PFT	FERRYL.LFT	RRYARDA.AFT			
	RESTP.PFT	FORDC.PFT	FORDL.LFT	TRAVOIDA.AFT			
	RUNWAYP.PFT	INTERC.PFT	LIFTL.LFT				
		SHEDC.PFT	PIERL.LFT				
		TUNNELC.PFT	RAILRDL.LFT				
			ROADL.LFT				
			RUNWAYL.LFT				
			SHEDL.LFT				
			TRACKL.LFT				
			TRAILL.LFT				
			TUNNELL.LFT				
	UTIL	COMP.PFT		PIPEL.LFT		POWERA.AFT	UTILTXT.TFT
		POWERP.PFT		POWERL.LFT		UTIVOIDA.AFT	
PUMPINGP.PFT			TELEL.LFT				
VEG	OASISP.PFT		FIREBRKL.LFT	CROPA.AFT	VEGTXT.TFT		
			TREESL.LFT	GRASSA.AFT			
				ORCHARDA.AFT			
				SWAMPA.AFT			
				TREESA.AFT			
			TUNDRAA.AFT				
			VEGVOIDA.AFT				

NOTE:

1. Additional data quality point, node, line, area, and text feature tables may be implemented for all coverages (except DQ) where desired.

F.3.1.1 VMap Level 1 data quality feature classes in thematic coverages. Each VMap coverage may contain data quality information for individual point, node, line, or area features. Data quality feature classes have been defined for each coverage to describe data quality information for any or all of the point, node, line, and area features in a coverage (TABLES 66 to 69). Data quality feature tables presented in this section may be implemented if needed in any VMap Level 1 coverage.

Two other data quality tables may be defined—data quality text feature tables (TABLE 70), which contain information about text features, and data quality description related attribute tables (TABLE 71), which contain descriptions for particular features. Sample text strings might be "Approximate alignment," "Generalized route," and "Existence doubtful."

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Using data quality tables within a coverage is a way to store information about specific features or feature classes within that coverage. A Data Quality coverage may also be implemented in the database; its use is described in Section F.3.3.

TABLE 66. Data Quality Point Feature Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Feature Table Description: Data Quality Point Feature Table
 Table Name: DQPOINT.PFT
 DQ Layer Number: Use Applicable Layer Number

{Header length)L; Data Quality Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; DQDESCR_ID=S,1,N,DQ Description Related Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Feature Class,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,DQF_CODE.PTI,-,; TILE_ID=S,1,N,Tile Reference ID,-,DQTIL_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,DQEND_ID.PTI,-,;;					
1	1	MARKersp	ZB030	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQDESCR_ID	Data Quality Description Related Row Identifier		This is the relate key to the DQDESCR.RAT
FEATURE_CLASS	VMap Point Feature Class		Pertinent point feature class name in the coverage to which the data quality information applies
F_CODE	FACC Feature Code	any	Capture the F_CODE for the point feature to which the DQ statement applies
		ZD045	Text Description. For DQ pertaining to a point feature with no other applicable F_CODE

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TABLE 67. Data Quality Node Feature Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., HYDRO or TRANS)
 Feature Table Description: Data Quality Node Feature Table
 Table Name: DQNODE.PFT
 DQ Layer Number: Use Applicable Layer Number

```
{Header length}L;
Data Quality Node Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
DQDESCR_ID=S,1,N,DQ Description Related Row Identifier,-,-,-,:
FEATURE_CLASS=T,8,N,Feature Class,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,DQF_CODE.NTI,-,:
TILE_ID=S,1,N,Tile Reference ID,-,DQTIL_ID.NTI,-,:
CND_ID=I,1,N,Connected Node Primitive ID,-,DQCND_ID.NTI,-,:;
```

1	1	RAPIDSC	BH120	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQDESCR_ID	Data Quality Description Related Row Identifier		This is the relate key to the DQDESCR.RAT
FEATURE_CLASS	VMap Node Feature Class		Pertinent node feature class name in the coverage to which the data quality information applies
F_CODE	FACC Feature Code	any	Capture the F_CODE for the node feature to which the DQ statement applies
		ZD045	Text Description. For DQ pertaining to a node feature with no other applicable F_CODE

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TABLE 68. Data Quality Line Feature Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Feature Table Description: Data Quality Line Feature Table
 Table Name: DQLINE.LFT
 DQ Layer Number: Use Applicable Layer Number

```
{Header length}L;
Data Quality Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
DQDESCR_ID=S,1,N,DQ Description Related Row Identifier,-,-,-,:
FEATURE_CLASS=T,8,N,Feature Class,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,DQF_CODE.LTI,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,DQTIL_ID.LTI,-,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,DQEDG_ID.LTI,-,-,:

```

1	1	POLBNDL	FA000	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQDESCR_ID	Data Quality Description Related Row Identifier		This is the relate key to the DQDESCR.RAT
FEATURE_CLASS	VMap Line Feature Class		Pertinent line feature class name in the coverage to which the data quality information applies
F_CODE	FACC Feature Code	any	Capture the F_CODE for the line feature to which the DQ statement applies
		ZD045	Text Description. For DQ pertaining to a line feature with no other applicable F_CODE

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TABLE 69. Data Quality Area Feature Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Feature Table Description: Data Quality Area Feature Table
 Table Name: DQAREA.AFT
 DQ Layer Number: Use Applicable Layer Number

```
{Header length}L;
Data Quality Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
DQDESCR_ID=S,1,N,DQ Description Related Row Identifier,-,-,-;
FEATURE_CLASS=T,8,N,Feature Class,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,DQF_CODE.ATI,-,:
TILE_ID=S,1,N,Tile Reference ID,-,DQTIL_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,DQFAC_ID.ATI,-,:

```

1	1	BUILDA	AL015	1	2
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQDESCR_ID	Data Quality Description Related Row Identifier		This is the relate key to the DQDESCR.RAT
FEATURE_CLASS	VMap Area Feature Class		Pertinent area feature class name in the coverage to which the data quality information applies
F_CODE	FACC Feature Code	any	Capture the F_CODE for the area feature to which the DQ statement applies
		ZD045	Text Description. For DQ pertaining to an area feature with no other applicable F_CODE

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TABLE 70. Data Quality Text Feature Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Feature Table Description: Data Quality Text Feature Table
 Table Name: DQTEXT.TFT
 DQ Layer Number: Use Applicable Layer Number

{Header length)L; Data Quality Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,DQTIL_ID.TTI,-; TXT_ID=I,1,N,Text Primitive ID,-,DQTXT_ID.TTI,-,;;		
1	1	1
:	:	:
n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	

This is all that is required.

TABLE 71. Data Quality Description Related Attribute Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Table Description: Data Quality Description Related Attribute Table
 Table Name: DQDESCR.RAT
 DQ Layer Number: Not Applicable

{Header length)L; Data Quality Description Related Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; DQDESCR=T,*,N,DQ Description for Feature,-,-,-,;;	
1	Existence doubtful
:	:
n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQDESCR	Data Quality Description for Feature		Data quality information present on a source that is appropriate to describe at the feature level.

APPENDIX F

F.3.1.2 Symbology. The symbology for the geometric features in the VMap database is defined in the application software. Diacritical marks and non-Roman characters for text are not incorporated in the VMap database. The text display table in each coverage has an associated symbol related attribute table (SYMBOL.RAT), which provides information on how to symbolize text for representation on a plot or lithograph. Other application software packages may be written to access the symbology related attribute table.

F.3.1.3 Symbology related attribute table. The symbol related attribute table (TABLE 72) will be present whenever a text feature table is present in a VMap Level 1 coverage. To avoid duplication in this appendix, the SYMBOL.RAT is presented only once, but it may be present in multiple VMap Level 1 coverages. The SYMBOL.RAT defines the fonts, font sizes, text style, and color for each text record specified in a text feature table. There is a many-to-one correspondence between the records of the text feature table and the SYMBOL.RAT.

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TABLE 72. Symbol Related Attribute Table.

Thematic Layer: <applicable layer>
 Coverage Name: <any coverage> (e.g., BND or ELEV)
 Table Description: Symbol Related Attribute Table
 Table Name: SYMBOL.RAT
 DQ Layer Number: Not Applicable

{Header length}L;					
Symbol Related Attribute Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,;					
FON=S,1,N,Type of Font,INT.VDT,-,-,-,;					
STY=S,1,N,Style of Text,INT.VDT,-,-,-,;					
SIZE=S,1,N,Font Size in Points,-,-,-,;					
COL=S,1,N,Color of Text,INT.VDT,-,-,-,;					
1	1	1	1	12	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential	beginning with 1
SYMBOL_ID	Symbol Identification	1	1,1,12,1
		2	1,1,8,1
		3	1,1,16,1
		5	1,1,7,1
		6	1,1,8,9
		7	1,1,5,1
		8	1,1,6,1
		9	1,1,6,9
		10	1,1,5,4
		12	1,1,7,4
		13	1,1,8,4
		16	1,1,6,4
		18	1,1,12,4
		21	1,1,10,1
		25	1,1,14,1
		29	1,1,4,1
31	1,1,9,1		
34	1,1,9,4		
35	1,1,10,4		
36	1,1,7,12		
FON	Type of Font	1	Machine Default
STY	Style of Text	1	Kern
		2	Proportional
		3	Constant
SIZE	Font Size in Points	4	
		5	
		6	
		7	
		8	
		9	
		10	
		12	
COL	Color of Text	1	Black
		4	Blue
		9	Red-Brown
		12	Magenta

APPENDIX F

F.3.2 Boundaries coverage.TABLE 73. Content and format for Boundaries coverage feature class schema table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Boundaries Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 1

{Header length}L; Boundaries Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table in a Relationship,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table in a Relationship,-,-,-,; TABLE2_KEY= T,9,N,Column Name in Second Table,-,-,-,;					
1	MARKERSP	MARKERSP.PFT	END_ID	END	ID
2	MARKERSP	END	MARKERSP.PFT_ID	MARKERSP.PFT	ID
3	BARRIERL	BARRIERL.LFT	EDG_ID	EDG	ID
4	BARRIERL	EDG	BARRIERL.LFT_ID	BARRIERL.LFT	ID
5	COASTL	COASTL.LFT	EDG_ID	EDG	ID
6	COASTL	EDG	COASTL.LFT_ID	COASTL.LFT	ID
7	POLBNDL	POLBNDL.LFT	EDG_ID	EDG	ID
8	POLBNDL	EDG	POLBNDL.LFT_ID	POLBNDL.LFT	ID
9	BNDVOIDA	BNDVOIDA.AFT	FAC_ID	FAC	ID
10	BNDVOIDA	FAC	BNDVOIDA.AFT_ID	BNDVOIDA.AFT	ID
11	MAGAREAA	MAGAREAA.AFT	FAC_ID	FAC	ID
12	MAGAREAA	FAC	MAGAREAA.AFT_ID	MAGAREAA.AFT	ID
13	POLBNDL	POLBNDL.AFT	FAC_ID	FAC	ID
14	POLBNDL	FAC	POLBNDL.AFT_ID	POLBNDL.AFT	ID
15	DQPOINT	DQPOINT.PFT	END_ID	END	ID
16	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
17	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
18	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
19	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
20	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
21	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
22	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
23	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
24	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
25	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
26	BNDTXT	BNDTXT.TFT	TXT_ID	TXT	ID
27	BNDTXT	TXT	BNDTXT.TFT_ID	BNDTXT.TFT	ID
28	BNDTXT	BNDTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

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TABLE 74. Markers Point Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Markers Point Feature Table
 Table Name: MARKERSP.PFT
 DQ Layer Number: 1
 Portrayal Criteria: 1
 For AL025 must be landmark feature

{Header length}L; Markers Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.PTI,-,,: CPA=S,1,N,Control Point Attribute,INT.VDT,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,; ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,; END_ID =I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,;						
1	AL025	-32768	VLT=0	-32768	1	1
2	ZB035	0	UNK	29999	2	2
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value	
ID	Row Identifier	Sequential beginning with 1			
F_CODE	FACC Feature Code	AL025	Cairn		
		ZB035	Control Point/Control Station		
CPA	Control Point Attribute	-32768	Null	AL025	
		0	Unknown	ZB035	
		1	Bench Mark	ZB035	
		2	Horizontal	ZB035	
		3	Horizontal with Benchmark	ZB035	
		4	Astronomic Position	ZB035	
		5	Vertical	ZB035	

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TABLE 74. Markers Point Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
NAM	Name	Variable length		
		text=0-length	Null	AL025
		Character text string		ZB035
		"UNK" (no entry present for feature)		ZB035
ZV2	Highest Z-value (meters)	-32768	Null	AL025
		29999	Unknown	ZB035
		-400 to 11999		ZB035

TABLE 75. Barrier Line Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Barrier Line Feature Table
 Table Name: BARRIERL.LFT
 DQ Layer Number: 1
 Portrayal Criteria:

For AL070 length >= 1,500 meters, for AL260 length >= 1,250 meters, and both must be landmark features

{Header length}L;				
Barrier Line Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.LTI,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,;				
EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;				
1		AL070	1	1
2		AL260	2	2
:		:	:	:
n		n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL070	Fence	
		AL260	Wall	

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TABLE 76. Coast Line Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Coast Line Feature Table
 Table Name: COASTL.LFT
 DQ Layer Number: 1

```
{Header length}L;
Coast Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
ACC=S,1,N,Accuracy Category,INT.VDT,-,-,:
SLT=S,1,N,Shoreline Type Category,INT.VDT,-,-,:
VDC=S,1,N,Vertical Datum Category,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,:;
```

1	BA010	0	0	0	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BA010	Coastline/Shoreline	
ACC	Accuracy Category	0	Unknown	BA010
		1	Accurate	BA010
		2	Approximate	BA010
SLT	Shore Line Type Category	0	Unknown	BA010
		6	Mangrove/Nipa	BA010
		8	Marsh/Swamp	BA010
		10	Rocky	BA010
		11	Rubble	BA010
		13	Sandy	BA010
		14	Stony, Shingly	BA010
		15	Other	BA010
VDC	Vertical Datum Category	0	Unknown	BA010
		7	Mean High Water	BA010
		9	Mean High Water Springs	BA010
		10	Mean Higher High Water	BA010
		15	Mean Sea Level	BA010
		24	Mean Higher High Water Springs	BA010
		26	Highest Normal High Water	BA010
		28	Highest High Water	BA010
		30	Indian Spring High Water	BA010
		999	Other	BA010

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TABLE 77. Political Boundary Line Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Political Boundary Line Feature Table
 Table Name: POLBNDL.LFT
 DQ Layer Number: 1

{Header length}L; Political Boundary Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE3.LTI,-,,: ACC=S,1,N,Accuracy Category,INT.VDT,-,-,; BST=S,1,N,Boundary Status Type,INT.VDT,-,-,; NM3=T,*N,Name3,CHAR.VDT,-,-,; NM4=T,*N,Name4,CHAR.VDT,-,-,; TXT=T,*N,Text Attribute,CHAR.VDT,-,-,; USE=S,1,N,Usage,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.LTI,-,,: EDG_ID=I,1,N,Edge Primitive ID,-,EDG3_ID.LTI,-,;:									
1	FA000	0	0	UNK	UNK	VLT=0	0	1	1
2	FA020	0	-32768	UNK	UNK	VLT=0	-32768	2	2
3	FA030	1	-32768	VLT=0	VLT=0	VLT=0	-32768	3	3
4	FA050	2	-32768	VLT=0	VLT=0	VLT=0	-32768	4	4
5	FA060	2	-32768	UNK	UNK	UNK	0	5	5
6	FA110	-32768	-32768	VLT=0	VLT=0	VLT=0	-32768	6	6
:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code			
		FA000	Administrative Boundary	
		FA020	Armistice Line	
		FA030	Cease-Fire Line	
		FA050	Convention Line/ Mandate Line	
		FA060	De Facto Boundary	
		FA110	International Date Line (no attributes)	
ACC	Accuracy Category			
		-32768	Null	FA110
		0	Unknown	FA000, FA020
		1	Accurate	FA000, FA020, FA030, FA050, FA060
		2	Approximate	FA000, FA020, FA030, FA050, FA060
		5	Disputed	FA000
		6	Undisputed	FA000

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TABLE 77. Political Boundary Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>		
BST	Boundary Status Type	-32768	Null	FA020, FA030, FA050, FA060, FA110		
		0	Unknown	FA000		
		1	Definite	FA000		
		2	Indefinite	FA000		
		3	In Dispute	FA000		
		4	No Defined Boundary	FA000		
NM3	Name 3 (name of the political entity on one side of a boundary) Variable length	text=0-length	Null	FA030, FA050, FA110		
		Character text string	"UNK" (no entry present for feature)	FA000, FA020, FA060 FA000, FA020, FA060		
		NM4	Name 4 (name of the political entity on the other side of the boundary) Variable length	text=0-length	Null	FA030, FA050, FA110
				Character text string	"UNK" (no entry present for feature)	FA000, FA020, FA060 FA000, FA020, FA060
TXT	Text Attribute Variable length	text=0-length	Null	FA000, FA020, FA030, FA050, FA110		
		Description of Boundary	"UNK" (no entry present for feature)	FA060 FA060		
		USE	Usage	-32768	Null	FA020, FA030, FA050, FA110
				0	Unknown	FA000, FA060
		4	National	FA000		
		23	International	FA000, FA060		
		26	Primary/1st Order	FA000, FA060		
		30	Secondary/2nd Order	FA000		
		31	Tertiary/3rd Order	FA000		

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TABLE 78. Boundaries Void Collection Area Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Boundaries Void Collection Area Feature Table
 Table Name: BNDVOIDA.AFT
 DQ Layer Number: 1
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Boundaries Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 79. Magnetic Disturbance Area Area Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Magnetic Disturbance Area Area Feature Table
 Table Name: MAGAREAA.AFT
 DQ Layer Number: 1
 Portrayal Criteria:
 Delineate if actual area can be recognized; if not, place information in text feature

{Header length}L; Magnetic Disturbance Area Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VAV=S,1,N,Variation Anomaly Value (degrees),INT.VDT,-,-,; TILE_ID=S,1,N,Tile ReferenceID,-,TILE1_ID.ATI,-,; FAC_ID=I,1,N,Face PrimitiveID,-,FAC1_ID.ATI,-,;;				
1	ZC040	0	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZC040	Magnetic Disturbance Area	
VAV	Variation Anomaly Value (degrees)	0	Unknown	ZC040
		-179 to -1, 1 to 180		ZC040

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TABLE 80. Political Boundary Area Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Political Boundary Area Feature Table
 Table Name: POLBND.AFT
 DQ Layer Number: 1

```
{Header length}L;
Political Boundary Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.ATI,-,;
ACC=S,1,N,Accuracy Category,INT.VDT,-,-,-;
NM3=T,*N,Name 3,CHAR.VDT,-,-,-;
NM4=T,*N,Name 4,CHAR.VDT,-,-,-;
USE=S,1,N,Usage,INT.VDT,-,-,-;
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,;
FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;

```

1	FA001	0	UNK	UNK	23	1	2
2	FA070	-32768	VLT=0	VLT=0	-32768	2	3
3	FA170	-32768	UNK	VLT=0	-32768	3	4
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value	
ID	Row Identifier	Sequential beginning with 1			
F_CODE	FACC Feature Code	FA001	Administrative Area		
		FA070	Demilitarized Zone		
		FA170	Zone of Occupation		
ACC	Accuracy Category	-32768	Null	FA070, FA170	
		0	Unknown	FA001	
		1	Accurate	FA001	
		2	Approximate	FA001	
		5	Disputed	FA001	
		6	Undisputed	FA001	
NM3	Name 3 (name of the political entity) Variable length	text=0-length	Null	FA070	
		Character text string		FA001, FA170	
		"UNK" (no entry present for feature)		FA001, FA170	
NM4	Name 4 (alternate name of the political entity) Variable length	text=0-length	Null	FA070, FA170	
		Character text string		FA001	
		"UNK" (no entry present for feature)		FA001	
USE	Usage	-32768	Null	FA070, FA170	
		0	Unknown	FA001	
		23	International	FA001	

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TABLE 81. Boundaries Text Feature Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Boundaries Text Feature Table
 Table Name: BNDTXT.TFT
 DQ Layer Number: 1

{Header length}L; Boundaries Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification	(Refer to Symbol Related Attribute Table for selection of values)		

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TABLE 82. Boundaries Feature Class Attribute Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Table Description: Boundaries Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 1

{Header length}L; Boundaries Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,* ,N,Description,-,-,-,;:			
1	MARKersp	P	Markers
:	:	:	:
n	n	n	n

Column Description Value Value Meaning for Each Attribute Value Applicable Feature Class

ID Row Identifier Sequential beginning with 1

F_CLASS Feature Class Name
 MARKersp
 BARRIERL
 COASTL
 POLBNDL
 BNDVOIDA
 MAGAREAA
 POLBNDL
 BNDTXT

TYPE Feature Type
 P Point Feature MARKersp
 L Line Feature BARRIERL, COASTL, POLBNDL
 A Area Feature BNDVOIDA, MAGAREAA, POLBNDL
 T Text Feature BNDTXT

DESCR Description
 Markers MARKersp
 Barriers BARRIERL
 Coastlines COASTL
 Political Boundaries POLBNDL
 Boundaries Void BNDVOIDA
 Collection Areas
 Magnetic Disturbance MAGAREAA
 Areas
 Administrative Areas POLBNDL
 Boundaries Coverage Text BNDTXT

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TABLE 83. Boundaries Character Value Description Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Boundaries Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 1

{Header length)L; Boundaries Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,29,N,Description of Value,-,-,-,;:				
1	MARKERSP.PFT	F_CODE	AL025	Cairn
2	MARKERSP.PFT	F_CODE	ZB035	Control Point/Control Station
3	MARKERSP.PFT	NAM	UNK	No entry present
4	BARRIERL.LFT	F_CODE	AL070	Fence
5	BARRIERL.LFT	F_CODE	AL260	Wall
6	COASTL.LFT	F_CODE	BA010	Coastline/Shoreline
7	POLBNDL.LFT	F_CODE	FA000	Administrative Boundary
8	POLBNDL.LFT	F_CODE	FA020	Armistice Line
9	POLBNDL.LFT	F_CODE	FA030	Cease-Fire Line
10	POLBNDL.LFT	F_CODE	FA050	Convention Line/Mandate Line
11	POLBNDL.LFT	F_CODE	FA060	De Facto Boundary
12	POLBNDL.LFT	F_CODE	FA110	International Date Line
13	POLBNDL.LFT	NM3	UNK	No entry present
14	POLBNDL.LFT	NM4	UNK	No entry present
15	POLBNDL.LFT	TXT	UNK	No entry present
16	BNDVOIDA.AFT	F_CODE	ZD020	Void Collection Area
17	MAGAREAA.AFT	F_CODE	ZC040	Magnetic Disturbance Area
18	POLBND.AFT	F_CODE	FA001	Administrative Area
19	POLBND.AFT	F_CODE	FA070	Demilitarized Zone
20	POLBND.AFT	F_CODE	FA170	Zone of Occupation
21	POLBND.AFT	NM3	UNK	No entry present
22	POLBND.AFT	NM4	UNK	No entry present
23	BNDTXT.TFT	F_CODE	ZD040	Named Location
24	BNDTXT.TFT	F_CODE	ZD045	Text Description
25	FCA	TYPE	A	Area Feature
26	FCA	TYPE	L	Line Feature
27	FCA	TYPE	P	Point/Node Feature
28	FCA	TYPE	T	Text Feature
29	DQPOINT.PFT	F_CODE	AL025	Cairn
30	DQPOINT.PFT	F_CODE	ZB035	Control Point/Control Station
31	DQPOINT.PFT	F_CODE	ZD045	Text Description
32	DQLINE.LFT	F_CODE	AL070	Fence

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TABLE 83. Boundaries Character Value Description Table - Continued.

33	DQLINE.LFT	F_CODE	AL260	Wall
34	DQLINE.LFT	F_CODE	BA010	Coastline/Shoreline
35	DQLINE.LFT	F_CODE	FA000	Administrative Boundary
36	DQLINE.LFT	F_CODE	FA020	Armistice Line
37	DQLINE.LFT	F_CODE	FA030	Cease-Fire Line
38	DQLINE.LFT	F_CODE	FA050	Convention Line/Mandate Line
39	DQLINE.LFT	F_CODE	FA060	De Facto Boundary
40	DQLINE.LFT	F_CODE	FA110	International Date Line
41	DQLINE.LFT	F_CODE	ZD045	Text Description
42	DQAREA.LFT	F_CODE	ZD020	Void Collection Area
43	DQAREA.LFT	F_CODE	ZC040	Magnetic Disturbance Area
44	DQAREA.LFT	F_CODE	FA001	Administrative Area
45	DQAREA.LFT	F_CODE	FA070	Demilitarized Zone
46	DQAREA.LFT	F_CODE	FA170	Zone of Operation
47	DQAREA.LFT	F_CODE	ZD045	Text Description

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TABLE 84. Boundaries Integer Value Description Table.

Thematic Layer: Boundaries
 Coverage Name: BND
 Feature Table Description: Boundaries Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 1

{Header length}L; Boundaries Integer Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,3,N,Column Name,-,-,-,; VALUE=S,1,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,30,N,Description of Value,-,-,-,;				
1	MARKERSP.PFT	CPA	0	Unknown
2	MARKERSP.PFT	CPA	1	Bench Mark
3	MARKERSP.PFT	CPA	2	Horizontal
4	MARKERSP.PFT	CPA	3	Horizontal with Bench Mark
5	MARKERSP.PFT	CPA	4	Astronomic Position
6	MARKERSP.PFT	CPA	5	Vertical
7	MARKERSP.PFT	ZV2	29999	Unknown
8	COASTL.LFT	ACC	0	Unknown
9	COASTL.LFT	ACC	1	Accurate
10	COASTL.LFT	ACC	2	Approximate
11	COASTL.LFT	SLT	0	Unknown
12	COASTL.LFT	SLT	6	Mangrove/Nipa
13	COASTL.LFT	SLT	8	Marsh/Swamp
14	COASTL.LFT	SLT	10	Rocky
15	COASTL.LFT	SLT	11	Rubble
16	COASTL.LFT	SLT	13	Sandy
17	COASTL.LFT	SLT	14	Stony, Shingly
18	COASTL.LFT	SLT	15	Other
19	COASTL.LFT	VDC	0	Unknown
20	COASTL.LFT	VDC	7	Mean High Water
21	COASTL.LFT	VDC	9	Mean High Water Springs
22	COASTL.LFT	VDC	10	Mean Higher High Water
23	COASTL.LFT	VDC	15	Mean Sea Level
24	COASTL.LFT	VDC	24	Mean Higher High Water Springs
25	COASTL.LFT	VDC	26	Highest Normal High Water
26	COASTL.LFT	VDC	28	Highest High Water
27	COASTL.LFT	VDC	30	Indian Spring High Water
28	COASTL.LFT	VDC	999	Other
29	POLBNDL.LFT	ACC	0	Unknown
30	POLBNDL.LFT	ACC	1	Accurate
31	POLBNDL.LFT	ACC	2	Approximate
32	POLBNDL.LFT	ACC	5	Disputed
33	POLBNDL.LFT	ACC	6	Undisputed

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TABLE 84. Boundaries Integer Value Description Table - Continued.

34	POLBNDL.LFT	BST	0	Unknown
35	POLBNDL.LFT	BST	1	Definite
36	POLBNDL.LFT	BST	2	Indefinite
37	POLBNDL.LFT	BST	3	In Dispute
38	POLBNDL.LFT	BST	4	No Defined Boundary
39	POLBNDL.LFT	USE	0	Unknown
40	POLBNDL.LFT	USE	4	National
41	POLBNDL.LFT	USE	23	International
42	POLBNDL.LFT	USE	26	Primary/1st Order
43	POLBNDL.LFT	USE	30	Secondary/2nd Order
44	POLBNDL.LFT	USE	31	Tertiary/3rd Order
45	BNDVOIDA.AFT	VCA	0	Unknown
46	BNDVOIDA.AFT	VCA	2	Area Too Rough to Collect
47	BNDVOIDA.AFT	VCA	3	No Available Imagery
48	BNDVOIDA.AFT	VCA	6	No Available Map Source
49	BNDVOIDA.AFT	VCA	7	No Suitable Imagery
50	MAGAREAA.AFT	VAV	0	Unknown
51	POLBNDL.AFT	ACC	0	Unknown
52	POLBNDL.AFT	ACC	1	Accurate
53	POLBNDL.AFT	ACC	2	Approximate
54	POLBNDL.AFT	ACC	5	Disputed
55	POLBNDL.AFT	ACC	6	Undisputed
56	POLBNDL.AFT	USE	0	Unknown
57	POLBNDL.AFT	USE	23	International
58	SYMBOL.RAT	FON	1	Machine Default
59	SYMBOL.RAT	STY	1	Kern
60	SYMBOL.RAT	STY	2	Proportional
61	SYMBOL.RAT	STY	3	Constant
62	SYMBOL.RAT	COL	1	Black
63	SYMBOL.RAT	COL	4	Blue
64	SYMBOL.RAT	COL	9	Red-Brown
65	SYMBOL.RAT	COL	12	Magenta

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F.3.3 Data quality coverage. A Data Quality coverage may be implemented as shown in TABLES 85 to 93. This coverage may contain information that affects the entire database. It may also contain information that pertains to particular coverages, feature classes, or even to particular features. For example, the line feature table DQLINE.LFT (TABLE 85) and line related attribute table DQLINE.RAT (TABLE 87) are used to describe data quality conditions that result from the edgematching of two source sheets.

TABLE 85. Content and format for Data Quality coverage feature class schema table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;					
1	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
2	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
3	DQLINE	DQLINE.LFT	DQLINE_ID	DQLINE.RAT	DQLINE_ID
4	DQLINE	DQLINE.RAT	DQLINE_ID	DQLINE.LFT	DQLINE_ID
5	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
6	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
7	DQAREA	DQAREA.AFT	SOURCE_ID	DQAREA.RAT	SOURCE_ID
8	DQAREA	DQAREA.RAT	SOURCE_ID	DQAREA.AFT	SOURCE_ID
9	DQVOIDA	DQVOIDA.AFT	FAC_ID	FAC	ID
10	DQVOIDA	FAC	DQVOIDA.AFT_ID	DQVOIDA.AFT	ID
11	DQTXT	DQTXT.TFT	TXT_ID	TXT	ID
12	DQTXT	TXT	DQTXT.TFT_ID	DQTXT.TFT	ID
13	DQTXT	DQTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

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TABLE 86. Data Quality Line Feature Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Line Feature Table
 Table Name: DQLINE.LFT
 DQ Layer Number: Not Applicable

{Header length}L;					
Data Quality Line Feature Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
DQLINE_ID=I,1,N,Data Quality Line Feature Identifier,-,-,-,;					
SOURCE1=T,12,N,First Source Sheet or Data ID,-,-,-,;					
SOURCE2=T,12,N,Second Source Sheet or Data ID,-,-,-,;					
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,;					
EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;					
1	68	SD 20-08	SD 20-07	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQLINE_ID	Data Quality Line Feature Identifier		Data quality line feature identifier
SOURCE1	Source Sheet or Data Identifier on One Side		This item contains the name of a Medium-Resolution VSM map sheet number or other source located on one side of the line (e.g., SD 20-08) and requires a data quality description (see DQLINE.RAT).
SOURCE2	Source Sheet or Data Identifier on Other Side		This item contains the name of a Medium-Resolution VSM map sheet number or other source located on the other side of the line (e.g., SD 20-07) and requires a data quality description (see DQLINE.RAT).

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TABLE 87. Data Quality Line Related Attribute Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Line Related Attribute Table
 Table Name: DQLINE.RAT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Line Related Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; DQLINE_ID=I,1,N,Line Feature Identifier,-,-,-,; LAYER=T,5,N,Data Quality Thematic Layer,-,-,-,; DQDESCR=T,*,N,DQ Description for Line Feature,-,-,-,;			
1	27	ELEV	Sources are positionally irreconcilable along this edge
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
DQLINE_ID	Line Feature Identifier		Relate item to the DQLINE.LFT.
LAYER	Data Quality Thematic Layer		This is the thematic layer identifier for each layer in an VMap Level 1 library.
DQDESCR	Data Quality Description for Line Feature		This item contains a text string describing specific conditions occurring within the database for a particular line feature. Typically this refers to edgematch problems observed between two source maps and identifies any steps taken to ameliorate the problem.

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TABLE 88. Data Quality Area Feature Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Area Feature Table
 Table Name: DQAREA.AFT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-; SOURCE_ID=T,12,N,Source Identification Name or Number,-,-,-; EDITION=T,10,N,Map Sheet Edition,-,-,-; COMP_DATE=D,1,N,Map Compilation Date,-,-,-; REV_DATE=D,1,N,Map Revision Date,-,-,-; PRINT_DATE=D,1,N,Map Print Date,-,-,-; SOURCE_INFO=T,*N,General Sheet Information,-,-,-; ABS_HORIZ_ACC=S,1,N,Absolute Horizontal Accuracy (meters),-,-,-; ABS_VERT_ACC=S,1,N,Absolute Vertical Accuracy (meters),-,-,-; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,;										
1	6446II	5-DMATC	19760000000000.	00000000000000.	00000000000000.	All roads are approximately aligned	25	10	1	2
:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
SOURCE_ID	Source Identification Name or Number		Alphanumeric String of the JOG, other Map Sheet, or Source Name or Identification Number
EDITION	Map Sheet Edition		Alphanumeric String of the Map Sheet Edition
COMP_DATE	Compilation Date of Source		Appropriate date value or space character filled if null
REV_DATE	Last Revision Date of Source		Appropriate date value or space character filled if null
PRINT_DATE	Print Date of Source Sheet or Litho Date of Most Current Revision.		Appropriate date value or space character filled if null

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TABLE 88. Data Quality Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>
SOURCE_INFO	General Source Information		Contains a description of conditions occurring in the database such as sheetwide phenomena, regional phenomena, or marginalia. Character String of the Map Sheet Information (i.e., All Roads are Approximately Aligned).
ABS_HORIZ_ACC	Absolute Horizontal Accuracy (meters)		DMA-specified absolute horizontal accuracy
ABS_VERT_ACC	Absolute Vertical Accuracy (meters)		DMA-specified absolute vertical accuracy

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TABLE 89. Data Quality Area Related Attribute Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Area Related Attribute Table
 Table Name: DQAREA.RAT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Area Related Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; SOURCE_ID=T,12,N,Source ID Number,-,-,-,; LAYER=T,5,N,Data Quality Thematic Layer,-,-,-,; DQDESCR=T,*,N,DQ Description for Area Feat,-,-,-,;			
1	SD 20-08	HYDRO	Sources irreconcilable
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
SOURCE_ID	Source Identification Number		Alphanumeric String of the Identification Number of the JOG, other map sheet, or source material.
LAYER	Data Quality Thematic Layer		This is the thematic layer identifier for each coverage in an VMap Level 1 library.
DQDESCR	Data Quality Description for Area Feature		This item contains a text string describing specific conditions occurring within the database for a particular area feature. Typically this refers to edgematch problems observed between two source maps and identifies any steps taken to ameliorate the problem.

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TABLE 90. Data Quality Void Collection Area Feature Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Void Collection Area Feature Table
 Table Name: DQVOIDA.AFT
 DQ Layer Number: Not Applicable
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Data Quality Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; VCT=S,1,N,Void Collection Type,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;;					
1	ZD020	2	0	1	2
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020
VCT	Void Collection Type	0	Unknown	ZD020
		1	Relief	ZD020
		2	Other	ZD020

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TABLE 91. Data Quality Text Feature Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Text Feature Table
 Table Name: DQTXT.TFT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;;				
1	ZD045	TBD	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD045	Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

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TABLE 92. Data Quality Character Value Description Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Character Value
 Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,28,N,Description of Value,-,-,-,;;				
1	DQVOIDA.AFT	F_CODE	ZD020	Void Collection Area
2	DQTXT.TFT	F_CODE	ZD045	Text Description

TABLE 93. Data Quality Integer Value Description Table.

Thematic Layer: Data Quality
 Coverage Name: DQ
 Feature Table Description: Data Quality Integer Value Description
 Table
 Table Name: INT.VDT
 DQ Layer Number: Not Applicable

{Header length}L; Data Quality Integer Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,3,N,Column Name,-,-,-,; VALUE=S,1,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,30,N,Description of Value,-,-,-,;;				
1	DQVOIDA.AFT	VCA	0	Unknown
2	DQVOIDA.AFT	VCA	2	Area Too Rough to Collect
3	DQVOIDA.AFT	VCA	3	No Available Imagery
4	DQVOIDA.AFT	VCA	6	No Available Map Source
5	DQVOIDA.AFT	VCA	7	No Suitable Imagery
6	DQVOIDA.AFT	VCT	0	Unknown
7	DQVOIDA.AFT	VCT	1	Relief
8	DQVOIDA.AFT	VCT	2	Other
9	SYMBOL.RAT	FON	1	Machine Default
10	SYMBOL.RAT	STY	1	Kern
11	SYMBOL.RAT	STY	2	Proportional
12	SYMBOL.RAT	STY	3	Constant
13	SYMBOL.RAT	COL	1	Black
14	SYMBOL.RAT	COL	4	Blue
15	SYMBOL.RAT	COL	9	Red-Brown
16	SYMBOL.RAT	COL	12	Magenta

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F.3.4 Elevation coverage.TABLE 94. Content and format for Elevation coverage feature class schema table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 2

{Header length}L; Data Quality Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;;					
1	ELEVP	ELEVP.PFT	END_ID	END	ID
2	ELEVP	END	ELEVP.PFT_ID	ELEVP.PFT	ID
3	CONTOURL	CONTOURL.LFT	EDG_ID	EDG	ID
4	CONTOURL	EDG	CONTOURL.LFT_ID	CONTOURL.LFT	ID
5	DEPTHL	DEPTHL.LFT	EDG_ID	EDG	ID
6	DEPTHL	EDG	DEPTHL.LFT_ID	DEPTHL.LFT	ID
7	ELEVOIDA	ELEVOIDA.AFT	FAC_ID	FAC	ID
8	ELEVOIDA	FAC	ELEVOIDA.AFT_ID	ELEVOIDA.AFT	ID
9	DQPOINT	DQPOINT.PFT	END_ID	END	ID
10	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
11	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
12	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
13	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
14	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
15	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
16	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
17	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
18	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
19	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
20	ELEVTEXT	ELEVTEXT.TFT	TXT_ID	TXT	ID
21	ELEVTEXT	TXT	ELEVTEXT.TFT_ID	ELEVTEXT.TFT	ID
22	ELEVTEXT	ELEVTEXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

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TABLE 95. Elevation Point Feature Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Point Feature Table
 Table Name: ELEVP.PFT
 DQ Layer Number: 2

{Header length)L; Elevation Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; ACC=S,1,N,Accuracy Category,INT.VDT,-,-,; ELA=S,1,N,Elevation Accuracy,INT.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,;							
1	CA030	0	0	0	29999	1	1
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	CA030	Spot Elevation	
ACC	Accuracy Category	0	Unknown	CA030
		1	Accurate	CA030
		2	Approximate	CA030
ELA	Elevation Accuracy	0	Unknown	CA030
		1	Accurate	CA030
		2	Approximate	CA030
MCC	Material Composition Category	0	Unknown	CA030
		30	Earthen	CA030
		103	Snow/Ice	CA030
ZV2	Highest Z-value (meters)	29999	Unknown	CA030
		-400 to 11999		CA030

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TABLE 96. Contour Line Feature Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Contour Line Feature Table
 Table Name: CONTOURL.LFT
 DQ Layer Number: 2

{Header length}L; Contour Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;				
1	CA010	29999	1	1
:	:	:	:	:
n	n	n	n	n

NOTE: A CONTOUR.DOC table may be implemented when the source data are in feet and the contour values must be converted to meters.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	CA010	Contour Line (Land)	
ZV2	Highest Z-value (meters)	29999 -400 to 11999	Unknown	CA010 CA010

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TABLE 97. Depth Line Feature Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Depth Line Feature Table
 Table Name: DEPTH.LFT
 DQ Layer Number: 2

{Header length}L; Depth Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; ACC=S,1,N,Accuracy Category,INT.VDT,-,-,; CRV=S,1,N,Depth Curve or Contour Value(meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,;					
1	BE015	0	0	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BE015	Depth Contour	
ACC	Accuracy Category	0	Unknown	BE015
		1	Accurate	BE015
		2	Approximate	BE015
CRV	Depth Curve or Contour Value (meters)	0	Unknown	BE015
		>1		BE015

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TABLE 98. Elevation Void Collection Area Feature Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Void Collection Area Feature Table
 Table Name: ELEVOIDA.AFT
 DQ Layer Number: 2
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

```
{Header length}L;
Elevation Void Collection Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,:

```

1	ZD020		0	1	2
:	:		:	:	:
n	n		n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 99. Elevation Text Feature Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Text Feature Table
 Table Name: ELEVTEXT.TFT
 DQ Layer Number: 2

{Header length}L; Elevation Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;;				
1	ZD040	TBD	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

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TABLE 100. Elevation Feature Class Attribute Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Table Description: Elevation Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 2

{Header length}L; Elevation Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,*,N,Description,-,-,-,;			
1	ELEVP	P	Spot Elevations
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CLASS	Feature Class Name	ELEVP CONTOURL DEPTHL ELEVOIDA ELEVTEXT		
TYPE	Feature Type	P L A T	Point Feature Line Feature Area Feature Text Feature	ELEVP CONTOURL, DEPTHL ELEVOIDA ELEVTEXT
DESCR	Description	Spot Elevations Elevation Contours Depth Contours Elevation Void Collection Areas Elevation Coverage Text		ELEVP CONTOURL DEPTHL ELEVOIDA ELEVTEXT

APPENDIX F

TABLE 101. Elevation Character Value Description Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 2

{Header length)L; Elevation Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,20,N,Description of Value,-,-,-,;;				
1	ELEVP.PFT	F_CODE	CA030	Spot Elevation
2	CONTOURL.LFT	F_CODE	CA010	Contour Line (Land)
3	DEPTH.LFT	F_CODE	BE015	Depth Contour
4	ELEVOIDA.AFT	F_CODE	ZD020	Void Collection Area
5	ELEVTEXT.TFT	F_CODE	ZD040	Named Location
6	ELEVTEXT.TFT	F_CODE	ZD045	Text Description
7	FCA	TYPE	A	Area Feature
8	FCA	TYPE	L	Line Feature
9	FCA	TYPE	P	Point/Node Feature
10	FCA	TYPE	T	Text Feature
11	DQPOINT.PFT	F_CODE	CA030	Spot Elevation
12	DQPOINT.PFT	F_CODE	ZD045	Text Description
13	DQLINE.LFT	F_CODE	CA010	Contour Line (Land)
14	DQLINE.LFT	F_CODE	BE015	Depth Contour
15	DQLINE.LFT	F_CODE	ZD045	Text Description
16	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
17	DQAREA.AFT	F_CODE	ZD045	Text Description

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TABLE 102. Elevation Integer Value Description Table.

Thematic Layer: Elevation
 Coverage Name: ELEV
 Feature Table Description: Elevation Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 2

{Header length}L;				
Elevation Integer Value Description Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
TABLE=T,12,N,Name of the Feature Table,-,-,-,;				
ATTRIBUTE=T,3,N,Column Name,-,-,-,;				
VALUE=S,1,N,Unique Value of Attribute,-,-,-,;				
DESCRIPTION=T,30,N,Description of Value,-,-,-,;				
1	ELEVP.PFT	ACC	0	Unknown
2	ELEVP.PFT	ACC	1	Accurate
3	ELEVP.PFT	ACC	2	Approximate
4	ELEVP.PFT	ELA	0	Unknown
5	ELEVP.PFT	ELA	1	Accurate
6	ELEVP.PFT	ELA	2	Approximate
7	ELEVP.PFT	MCC	0	Unknown
8	ELEVP.PFT	MCC	30	Earthen
9	ELEVP.PFT	MCC	103	Snow/Ice
10	ELEVP.PFT	ZV2	29999	Unknown
11	CONTOURL.LFT	ZV2	29999	Unknown
12	DEPTH.LFT	ACC	0	Unknown
13	DEPTH.LFT	ACC	1	Accurate
14	DEPTH.LFT	ACC	2	Approximate
15	DEPTH.LFT	CRV	0	Unknown
16	ELEVOIDA.AFT	VCA	0	Unknown
17	ELEVOIDA.AFT	VCA	2	Area Too Rough to Collect
18	ELEVOIDA.AFT	VCA	3	No Available Imagery
19	ELEVOIDA.AFT	VCA	6	No Available Map Source
20	ELEVOIDA.AFT	VCA	7	No Suitable Imagery
21	SYMBOL.RAT	FON	1	Machine Default
22	SYMBOL.RAT	STY	1	Kern
23	SYMBOL.RAT	STY	2	Proportional
24	SYMBOL.RAT	STY	3	Constant
25	SYMBOL.RAT	COL	1	Black
26	SYMBOL.RAT	COL	4	Blue
27	SYMBOL.RAT	COL	9	Red-Brown
28	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.5 Hydrography coverage.TABLE 103. Content and format for Hydrography coverage feature class schema table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Hydrography Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 3

```
{Header length}L;
Hydrography Feature Class Schema Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,:
TABLE1=T,12,N,First Table,-,-,-,:
TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,:
TABLE2=T,12,N,Second Table,-,-,-,:
TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;;
```

1	DANGERP	DANGERP.PFT	END_ID	END	ID
2	DANGERP	END	DANGERP.PFT_ID	DANGERP.PFT	ID
3	MISCP	MISCP.PFT	END_ID	END	ID
4	MISCP	END	MISCP.PFT_ID	MISCP.PFT	ID
5	WELLSPRP	WELLSPRP.PFT	END_ID	END	ID
6	WELLSPRP	END	WELLSPRP.PFT_ID	WELLSPRP.PFT	ID
7	AQUEDCTC	AQUEDCTC.PFT	CND_ID	CND	ID
8	AQUEDCTC	CND	AQUEDCTC.PFT_ID	AQUEDCTC.PFT	ID
9	DAMC	DAMC.PFT	CND_ID	CND	ID
10	DAMC	CND	DAMC.PFT_ID	DAMC.PFT	ID
11	RAPIDSC	RAPIDSC.PFT	CND_ID	CND	ID
12	RAPIDSC	CND	RAPIDSC.PFT_ID	RAPIDSC.PFT	ID
13	AQUEDCTL	AQUEDCTL.LFT	EDG_ID	EDG	ID
14	AQUEDCTL	EDG	AQUEDCTL.LFT_ID	AQUEDCTL.LFT	ID
15	DAML	DAML.LFT	EDG_ID	EDG	ID
16	DAML	EDG	DAML.LFT_ID	DAML.LFT	ID
17	DANGERL	DANGERL.LFT	EDG_ID	EDG	ID
18	DANGERL	EDG	DANGERL.LFT_ID	DANGERL.LFT	ID
19	LOCKL	LOCKL.LFT	EDG_ID	EDG	ID
20	LOCKL	EDG	LOCKL.LFT_ID	LOCKL.LFT	ID
21	MISCL	MISCL.LFT	EDG_ID	EDG	ID
22	MISCL	EDG	MISCL.LFT_ID	MISCL.LFT	ID
23	RAPIDSL	RAPIDSL.LFT	EDG_ID	EDG	ID
24	RAPIDSL	EDG	RAPIDSL.LFT_ID	RAPIDSL.LFT	ID
25	SEASTRTL	SEASTRTL.LFT	EDG_ID	EDG	ID
26	SEASTRTL	EDG	SEASTRTL.LFT_ID	SEASTRTL.LFT	ID
27	WATRCRSL	WATRCRSL.LFT	EDG_ID	EDG	ID
28	WATRCRSL	EDG	WATRCRSL.LFT_ID	WATRCRSL.LFT	ID
29	COASTA	COASTA.AFT	FAC_ID	FAC	ID

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TABLE 103. Content and format for Hydrography coverage feature class schema table - Continued.

30	COASTA	FAC	COASTA.AFT_ID	COASTA.AFT	ID
31	DANGERA	DANGERA.AFT	FAC_ID	FAC	ID
32	DANGERA	FAC	DANGERA.AFT_ID	DANGERA.AFT	ID
33	HYDVOIDA	HYDVOIDA.AFT	FAC_ID	FAC	ID
34	HYDVOIDA	FAC	HYDVOIDA.AFT_ID	HYDVOIDA.AFT	ID
35	INUNDA	INUNDA.AFT	FAC_ID	FAC	ID
36	INUNDA	FAC	INUNDA.AFT_ID	INUNDA.AFT	ID
37	LAKERESA	LAKERESA.AFT	FAC_ID	FAC	ID
38	LAKERESA	FAC	LAKERESA.AFT_ID	LAKERESA.AFT	ID
39	WATRCRSA	WATRCRSA.AFT	FAC_ID	FAC	ID
40	WATRCRSA	FAC	WATRCRSA.AFT_ID	WATRCRSA.AFT	ID
41	DQPOINT	DQPOINT.PFT	END_ID	END	ID
42	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
43	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
44	DQNODE	DQNODE.PFT	CND_ID	CND	ID
45	DQNODE	CND	DQNODE.PFT_ID	DQNODE.PFT	ID
46	DQNODE	DQNODE.PFT	DQDESCR_ID	DQDESCR.RAT	ID
47	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
48	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
49	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
50	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
51	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
52	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
53	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
54	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
55	HYDROTXT	HYDROTXT.TFT	TXT_ID	TXT	ID
56	HYDROTXT	TXT	HYDROTXT.TFT_ID	HYDROTXT.TFT	ID
57	HYDROTXT	HYDROTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

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TABLE 104. Danger Point Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Danger Point Feature Table
 Table Name: DANGERP.PFT
 DQ Layer Number: 3
 Portrayal Criteria: For BD130 area < 39.0625 hectares

```
{Header length}L;
Danger Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.PTI,-,-;
ARH=S,1,N,Area Coverage Attribute (hectares),INT.VDT,-,-,-;
LOC=S,1,N,Location Category,INT.VDT,-,-,-;
MCC=S,1,N,Material Composition Category,INT.VDT,-,-,-;
NAM=T,*N,Name,CHAR.VDT,-,-,-;
VRR=S,1,N,Vertical Reference Category,INT.VDT,-,-,-;
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.PTI,-,-;
END_ID=I,1,N,Entity Node Primitive ID,-,END2_ID.PTI,-,-;:
```

1	BD130	0	-32768	0	Nemo	0	1	1
2	BD180	-32768	14	-32768	VLT=0	1	2	2
:	:	:	:	:	:	:	:	:
n	n		n	n			n	n

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TABLE 104. Danger Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BD130	Rock	
		BD180	Wreck	
ARH	Area Coverage Attribute (hectares)	-32768	Null	BD180
		0	Unknown	BD130
		≤39		BD130
LOC	Location Category	-32768	Null	BD130
		0	Unknown	BD180
		13	Hull Showing	BD180
		14	Masts Showing	BD180
		20	Funnel Showing	BD180
		21	Superstructure Showing	BD180
		28	Masts and Funnel Showing	BD180
MCC	Material Composition Category	-32768	Null	BD180
		0	Unknown	BD130
		24	Coral	BD130
		84	Rock/Rocky	BD130
NAM	Name Variable length	text =0-length	Null	BD180
		Character text string		BD130
		"UNK" (No entry present for feature)		BD130
VRR	Vertical Reference Category	0	Unknown	BD130, BD180
		1	Above Surface/Does Not Cover (At High Water)	BD180
		2	Awash at Sounding Datum	BD130
		8	Covers and Uncovers	BD130

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TABLE 105. Miscellaneous Point Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Miscellaneous Point Feature Table
 Table Name: MISCP.PFT
 DQ Layer Number: 3
 Portrayal Criteria:

If height < 46 meters then must be landmark feature

```
{Header length}L;
Miscellaneous Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.PTI,-,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,-,;
```

1	BI050	0	0	29999	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value	
ID	Row Identifier	Sequential beginning with 1			
F_CODE	FACC Feature Code	BI050	Water Intake Tower		
EXS	Existence Category	0	Unknown	BI050	
		1	Definite	BI050	
		2	Doubtful	BI050	
		3	Reported	BI050	
HGT	Height Above Surface Level (meters)	0	Unknown	BI050	
		1 to no upper limit		BI050	
ZV2	Highest Z-value (meters)	29999	Unknown	BI050	
		-400 to 11999		BI050	

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TABLE 106. Well Spring Point Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Well Spring Point Feature Table
 Table Name: WELLSRP.PFT
 DQ Layer Number: 3

{Header length}L; Well Spring Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.PTI,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,; HYC=S,1,N,Hydrological Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; PRO=S,1,N,Product Category,INT.VDT,-,-,; SCC=S,1,N,Spring/Well Characteristic Category,INT.VDT,-,-,; WFT=S,1,N,Well Feature Type,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END4_ID.PTI,-,;									
1	AA050	6	3	UNK	0	4	2	1	1
2	BH170	-32768	3	VLT=0	-32768	4	-32768	2	2
3	BI010	0	-32768	VLT=0	-32768	-32768	-32768	3	3
:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AA050	Well	
		BH170	Spring/Water-Hole	
		BI010	Cistern	
EXS	Existence Category	-32768	Null	BH170
		0	Unknown	AA050, BI010
		3	Reported	AA050
		6	Abandoned/Disused	AA050
		28	Operational	AA050
		31	Isolated	BI010
		61	Not Isolated	BI010

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TABLE 106. Well Spring Point Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
HYC	Hydrological Category	-32768	Null	BI010
		0	Unknown	AA050, BH170
		3	Dry	AA050, BH170
		6	Non-Perennial/ Intermittent/ Fluctuating	AA050, BH170
		8	Perennial/Permanent	AA050, BH170
NAM	Name Variable length	text =0-length	Null	BH170, BI010
		Character text string		AA050
		"UNK" (no entry present for feature)		AA050
PRO	Product Category	-32768	Null	BH170, BI010
		0	Unknown	AA050
		116	Water	AA050
SCC	Spring/Well Characteristic Category	-32768	Null	BI010
		0	Unknown	AA050, BH170
		1	Alkaline	AA050, BH170
		4	Mineral	AA050, BH170
		9	Freshwater/Potable	AA050, BH170
WPT	Well Feature Type	-32768	Null	BH170, BI010
		0	Unknown	AA050
		2	Walled-in Spring	AA050
		3	Artesian Well	AA050
		4	Fountain	AA050
		5	Dug or Drilled Well	AA050

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TABLE 107. Aqueduct Node Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Aqueduct Node Feature Table
 Table Name: AQUEDCTC.PFT
 DQ Layer Number: 3

{Header length}L;				
Aqueduct Node Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;				
ATC=S,1,N,Aqueduct Type Category,INT.VDT,-,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.NTI,-,;				
CND_ID=I,1,N,Connected Node Primitive ID,-,CND3_ID.NTI,-,;				
1	BH010	0	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH010	Aqueduct	
ATC	Aqueduct Type Category	0	Unknown	BH010
		1	Qanat/Kanat/Karez Shaft	BH010

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TABLE 108. Dam/Weir Node Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Dam/Weir Node Feature Table
 Table Name: DAMC.PFT
 DQ Layer Number: 3

{Header length}L; Dam/Weir Node Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.NTI,-,; CND_ID=I,1,N,Connected Node Primitive ID,-,CND1_ID.NTI,-,;;							
1	BI020	0	30	Whipple	1	1	1
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	ACC Feature Code	BI020	Dam/Weir	
LEN	Length/Diameter (meters)	0	Unknown	BI020
		<125		BI020
MCC	Material Composition Category	0	Unknown	BI020
		20	Composition	BI020
		21	Concrete	BI020
		30	Earthen	BI020
		62	Masonry (Brick/Stone)	BI020
		999	Other	BI020
NAM	Name		Character text string	BI020
			"UNK" (no entry present for feature)	BI020

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TABLE 108. Dam/Weir Node Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
TUC	Transportation Use Category			
		0	Unknown	BI020
		1	Both Road and Railroad	BI020
		3	Railroad	BI020
		4	Road	BI020
		35	No Transport Use	BI020

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TABLE 109. Rapids Node Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Rapids Node Feature Table
 Table Name: RAPIDSC.PFT
 DQ Layer Number: 3

Portrayal Criteria:
 For BH120 and BH180 length must be landmark and be associated with linear drainage feature

{Header length}L; Rapids Node Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.NTI,-,,: HFC=S,1,N,Hydrographic Form Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.NTI,-,,: CND_ID=I,1,N,Connected Node Primitive ID,-,CND2_ID.NTI,-,,:					
1	BH120	-32768	VLT=0	1	1
2	BH145	0	VLT=0	2	2
3	BH180	-32768	UNK	3	3
:	:	:	:	:	:
n	n	:	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH120	Rapids	
		BH145	River/Stream Vanishing Point	
		BH180	Waterfall	
HFC	Hydrographic Form Category	-32768	Null	BH120, BH180
		0	Unknown	BH145
		2	Disappearing	BH145
		16	Dissipating	BH145
NAM	Name	VLT=0-length	Null	BH120, BH145
		Character text string		BH180
		"UNK" no name		BH180
		present for feature		

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TABLE 110. Aqueduct Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Aqueduct Line Feature Table
 Table Name: AQUEDCTL.LFT
 DQ Layer Number: 3
 Portrayal Criteria: For BH010 length >= 625 meters

{Header length}L;						
Aqueduct Line Feature Table;-;						
ID=I,1,P,Row Identifier,-,-,-,;						
F_CODE=T,5,N,FACC Feature Code, CHAR.VDT,-,-,;						
EXS=S,1,N,Existence Category,INT.VDT,-,-,;						
LOC=S,1,N,Location Category,INT.VDT,-,-,;						
WID=S,1,N,Width (meters),INT.VDT,-,-,;						
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,;						
EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;						
1	BH010	0	0	0	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH010	Aqueduct	
EXS	Existence Category	0	Unknown	BH010
		5	Under Construction	BH010
		6	Abandoned/Disused	BH010
		28	Operational	BH010
LOC	Location Category	0	Unknown	BH010
		4	Below Surface/Submerged/ Underground	BH010
		8	On Ground Surface	BH010
		25	Suspended or Elevated Above Ground or Water Surface	BH010
WID	Width (meters)	0	Unknown	BH010
		1 to no upper limit		BH010

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TABLE 111. Dam/Weir Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Dam/Weir Line Feature Table
 Table Name: DAML.LFT
 DQ Layer Number: 3

{Header length)L; Dam/Weir Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LEN=S,1,N,Length/Diameter(meters),INT.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,; TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,;;							
1	BI020	0	0	Hoover	0	1	1
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BI020	Dam/Weir	
LEN	Length/Diameter (meters)	0 >= 125	Unknown	BI020 BI020
MCC	Material Composition Category	0 20 21 30 62 999	Unknown Composition Concrete Earthen Masonry (Brick/Stone) Other	BI020 BI020 BI020 BI020 BI020 BI020
NAM	Name	Character text string "UNK" (No entry present for feature)		BI020 BI020
TUC	Transportation Use Category	0 1 3 4 35	Unknown Both Road and Railroad Railroad Road No Transport Use	BI020 BI020 BI020 BI020 BI020

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TABLE 112. Danger Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Danger Line Feature Table
 Table Name: DANGERL.LFT
 DQ Layer Number: 3

{Header length}L; Danger Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; COD=S,1,N,Certainty of Delineation,INT.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; VRR=S,1,N,Vertical Reference Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.LTI,-,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG3_ID.LTI,-,-,;							
1	BD120	0	0	UNK	0	1	1
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BD120	Reef	
COD	Certainty of Delineation	0	Unknown	BD120
		1	Limits and Info Known	BD120
MCC	Material Composition Category	0	Unknown	BD120
		24	Coral	BD120
		84	Rock/Rocky	BD120
NAM	Name	Character text string		BD120
		"UNK" (No entry present for feature)		BD120
VRR	Vertical Reference Category	0	Unknown	BD120
		2	Awash at Sounding Datum	BD120
		8	Covers and Uncovers	BD120

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TABLE 113. Lock Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Lock Line Feature Table
 Table Name: LOCKL.LFT
 DQ Layer Number: 3
 Portrayal Criteria: Must be landmark feature

(Header length)L; Lock Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG5_ID.LTI,-,;			
1	BI030	1	1
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BI030	Lock	

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TABLE 114. Miscellaneous Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Miscellaneous Line Feature Table
 Table Name: MISCL.LFT
 DQ Layer Number: 3
 Portrayal Criteria: For BH110 length >= 625 meters

{Header length}L; Miscellaneous Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LOC=S,1,N,Location Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG6_ID.LTI,-,;;				
1	BH110	0	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH110	Penstock	
LOC	Location Category	0	Unknown	BH110
		4	Below Surface/Submerged/ Underground	BH110
		8	On Ground Surface	BH110
		25	Suspended or Elevated Above Ground or Water Surface	BH110

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TABLE 115. Rapids Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Rapids Line Feature Table
 Table Name: RAPIDSL.LFT
 DQ Layer Number: 3

Portrayal Criteria:

For BH120 and BH180 must be landmark and be associated with area drainage feature

{Header length}L;				
Rapids Line Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE7.LTI,-,;				
NAM=T,*N,Name,CHAR.VDT,-,-,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.LTI,-,;				
EDG_ID=I,1,N,Edge Primitive ID,-,EDG7_ID.LTI,-,;				
1	BH120	VLT=0	1	1
2	BH180	UNK	2	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH120	Rapids	
		BH180	Waterfall	
NAM	Name	Variable length		
		text=0-length	Null	BH120
		Character text string		BH180
		"UNK" (No entry present for feature)		BH180

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TABLE 116. Sea Structure Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Sea Structure Line Feature Table
 Table Name: SEASTRTL.LFT
 DQ Layer Number: 3
 Portrayal Criteria:
 For BB040 length >= 125 meters, for BB140 length >= 125 meters, and for BB230 length >= 625 meters

```
{Header length}L;
Sea Structure Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE8.LTI,-,:
VRR=S,1,N,Vertical Reference Category,INT.VDT,-,-,:
WID=S,1,N,Width (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE8_ID.LTI,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,EDG8_ID.LTI,-,:;
```

1	BB040	0	0	1	1
2	BB140	0	0	2	2
3	BB230	-32768	-32768	3	3
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BB040	Breakwater/Groyne	
		BB140	Jetty	
		BB230	Seawall	
VRR	Vertical Reference Category	-32768	Null	BB230
		0	Unknown	BB040, BB140
		1	Above Surface/Does Not Cover (At High Water)	BB040, BB140
		8	Covers and Uncovers	BB140
WID	Width (meters)	-32768	Null	BB230
		0	Unknown	BB040, BB140
		1 to no upper limit		BB040, BB140

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TABLE 117. Water Course Line Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Water Course Line Feature Table
 Table Name: WATRCRSL.LFT
 DQ Layer Number: 3
 Portrayal Criteria:
 For BH020 and BH030 length >= 2,500 meters, for BH140 length >= 3,125 meters, and BH140 width < 125 meters

{Header length)L;								
Water Course Line Feature Table;-;								
ID=I,1,P,Row Identifier,-,-,-,;								
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE9.LTI,-,;								
EXS=S,1,N,Existence Category,INT.VDT,-,-,;								
HYC=S,1,N,Hydrological Category,INT.VDT,-,-,;								
NAM=T,*N,Name,CHAR.VDT,-,-,;								
TID=S,1,N,Tidal/Non-Tidal Category,INT.VDT,-,-,;								
WID=S,1,N,Width (meters),INT.VDT,-,-,;								
TILE_ID=S,1,N,Tile Reference ID,-,TILE9_ID.LTI,-,;								
EDG_ID=I,1,N,Edge Primitive ID,-,EDG9_ID.LTI,-,;								
1	BH020	0	0	UNK	-32768	0	1	1
2	BH030	-32768	0	VLT=0	-32768	0	2	2
3	BH140	-32768	0	UNK	0	-32768	3	3
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential	beginning with 1	
F_CODE	FACC Feature Code	BH020	Canal	
		BH030	Ditch	
		BH140	River/Stream	
EXS	Existence Category	-32768	Null	BH030, BH140
		0	Unknown	BH020
		5	Under Construction	BH020
		6	Abandoned/Disused	BH020
		32	Navigable	BH020

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TABLE 117. Water Course Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
HYC	Hydrological Category	0	Unknown	BH020, BH030, BH140
		3	Dry	BH020, BH140
		6	Non-Perennial/ Intermittent/ Fluctuating	BH030, BH140
		8	Perennial/Permanent	BH020, BH030, BH140
NAM	Name Variable length	text=0-length	Null	BH030
		Character text string		BH020, BH140
		"UNK" (No entry present for feature)		BH020, BH140
TID	Tidal/Non-Tidal Category	-32768	Null	BH020, BH030
		0	Unknown	BH140
		1	Non-Tidal	BH140
		2	Tidal/Tidal Fluctuation	BH140
WID	Width (meters)	-32768	Null	BH140
		0	Unknown	BH020, BH030
		1 to no upper limit		BH020, BH030

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TABLE 118. Coast Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Coast Area Feature Table
 Table Name: COASTA.AFT
 DQ Layer Number: 3
 Portrayal Criteria: For BA020 width >= 315 meters

{Header length}L; Coast Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.ATI,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,-,;				
1	BA020	0	1	2
2	BA040	-32768	2	3
3	BA030	-32768	2	4
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BA020	Foreshore	
		BA030	Island	
		BA040	Water (except Inland)	
MCC	Material Composition Category	-32768	Null	BA040, BA030
		0	Unknown	BA020
		8	Boulders	BA020
		16	Clay	BA020
		46	Gravel	BA020
		65	Mud	BA020
		84	Rock/Rocky	BA020
		88	Sand	BA020
		98	Shingle	BA020
		108	Stone	BA020

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TABLE 119. Danger Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Danger Area Feature Table
 Table Name: DANGERA.AFT
 DQ Layer Number: 3
 Portrayal; Criteria:
 For BD120 and BH190 area >= 39.0625 hectares

{Header length}L; Danger Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.ATI,-,,: COD=S,1,N,Certainty of Delineation,INT.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; NAM=T,*,N,Name,CHAR.VDT,-,-,; VRR=S,1,N,Vertical Reference Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,,: FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,,:;							
1	BD120	0	0	UNK	0	1	2
2	BH190	-32768	-32768	VLT=0	-32768	2	3
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BD120	Reef	
		BH190	Lagoon/Reef Pool	
COD	Certainty of Delineation	-32768	Null	BH190
		0	Unknown	BD120
		1	Limits and Info	BD120
			Known	
MCC	Material Composition Category	-32768	Null	BH190
		0	Unknown	BD120
		24	Coral	BD120
		84	Rock/Rocky	BD120
			Character text string	BD120
NAM	Name	"UNK" (No entry present for feature)		BD120
		Variable length		
		text=0-length Null		BH190

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TABLE 119. Danger Area Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
VRR	Vertical Reference Category			
		-32768	Null	BH190
		0	Unknown	BD120
		2	Awash at Sounding Datum	BD120
		8	Covers and Uncovers	BD120

TABLE 120. Hydrography Void Collection Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Hydrography Void Collection Area
 Feature Table
 Table Name: HYDVOIDA.AFT
 DQ Layer Number: 3
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute			
		0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 121. Inundation Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Inundation Area Feature Table
 Table Name: INUNDA.AFT
 DQ Layer Number: 3
 Portrayal Criteria: For BH090 area >= 39.0625 hectares

{Header length}L; Inundation Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;;				
1	BH090	0	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH090	Land Subject to Inundation	
EKS	Existence Category	0	Unknown	BH090
		45	Natural	BH090
		48	Controlled	BH090

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TABLE 122. Lake Reservoir Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Lake Reservoir Area Feature Table
 Table Name: LAKERESA.AFT
 DQ Layer Number: 3
 Portrayal Criteria:
 For BH080 and BH130 area >= 39.0625 hectares

```
{Header length}L;
Lake Reservoir Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.ATI,-,,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
HYC=S,1,N,Hydrological Category,INT.VDT,-,-,:
NAM=T,* ,N,Name,CHAR.VDT,-,-,:
SCC=S,1,N,Spring/Well Characteristic Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.ATI,-,,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC4_ID.ATI,-,,:;
```

1	BH080	-32768	0	UNK	0	29999	1	2
2	BH130	0	-32768	UNK	-32768	29999	2	3
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH080	Lake/Pond	
		BH130	Reservoir	
EXS	Existence Category	-32768	Null	BH080
		0	Unknown	BH130
		1	Definite	BH130
		5	Under Construction	BH130
HYC	Hydrological Category	-32768	Null	BH130
		0	Unknown	BH080
		3	Dry	BH080
		6	Non-Perennial/ Fluctuating	BH080
		8	Perennial/Permanent	BH080

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TABLE 122. Lake Reservoir Area Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
NAM	Name		Character text string	BH080, BH130
			"UNK" (No entry present for feature)	BH080, BH130
SCC	Spring/Well Characteristic Category	-32768	Null	BH130
		0	Unknown	BH080
		10	Salt	BH080
		11	Fresh	BH080
ZV2	Highest Z-value (meters)	29999	Unknown	BH080, BH130
		-400 to 11999		BH080, BH130

TABLE 123. Water Course Area Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Water Course Area Feature Table
 Table Name: WATRCRSA.AFT
 DQ Layer Number: 3
 Portrayal Criteria: For BH140 width >= 125 meters

```
{Header length}L;
Water Course Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
HYC=S,1,N,Hydrological Category,INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
TID=S,1,N,Tidal/Non-Tidal Category,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC6_ID.ATI,-,;:
```

1	BH140	0	UNK	0	1	2
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	

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TABLE 123. Water Course Area Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
F_CODE	FACC Feature Code	BH140	River/Stream	
HYC	Hydrological Category	0	Unknown	BH140
		3	Dry	BH140
		6	Non-Perennial/ Intermittent/Fluctuating	BH140
		8	Perennial/Permanent	BH140
NAM	Name	Character text string		BH140
		"UNK" (No entry present for feature)		BH140
TID	Tidal/Non-Tidal Category	0	Unknown	BH140
		1	Non-Tidal	BH140
		2	Tidal/Tidal Fluctuation	BH140

TABLE 124. Hydrography Text Feature Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Hydrography Text Feature Table
 Table Name: HYDROTXT.TFT
 DQ Layer Number: 3

{Header length}L; Hydrography Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

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TABLE 124. Hydrography Text Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			
	(Refer to Symbol Related Attribute Table for selection of values)			

TABLE 125. Hydrography Feature Class Attribute Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Table Description: Hydrography Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 3

{Header length}L;			
Hydrography Feature Class Attribute Table;-;			
ID=I,1,P,Row Identifier,-,-,-,;			
FCLASS=T,8,U,Feature Class Name,-,-,-,;			
TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,;			
DESCR=T,* ,N,Description,-,-,-,;			
1	AQUEDCTC	P	Aqueduct Node Features
:	:	:	:
n	n	n	n

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TABLE 125. Hydrography Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
ID	Row Identifier	Sequential	beginning with 1	
FCLASS	Feature Class Name			
		DANGERP		
		MISCP		
		WELLSRP		
		AQUEDCTC		
		DAMC		
		RAPIDSC		
		AQUEDCTL		
		DAML		
		DANGERL		
		LOCKL		
		MISCL		
		RAPIDSL		
		SEASTRTL		
		WATRCRSL		
		COASTA		
		DANGERA		
		HYDVOIDA		
		INUNDA		
		LAKERESA		
		WATRCRSA		
		HYDROTXT		
TYPE	Feature Type			
		P	Point Feature	DANGERP, MISCP, WELLSRP
		P	Node Feature	AQUEDCTC, DAMC, RAPIDSC
		L	Line Feature	AQUEDCTL, DAML, DANGERL, LOCKL, MISCL, RAPIDSL, SEASTRTL, WATRCRSL
		A	Area Feature	COASTA, DANGERA, HYDVOIDA, INUNDA, LAKERESA, WATRCRSA
		T	Text Feature	HYDROTXT

APPENDIX F

TABLE 125. Hydrography Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
DESCR	Description			
	Danger Point Features			DANGERP
	Miscellaneous Point Features			MISCP
	Wells and Springs			WELLSRP
	Aqueduct Node Features			AQUEDCTC
	Dam Node Features			DAMC
	Rapids Node Features			RAPIDSC
	Aqueduct Line Features			AQUEDCTL
	Dam Line Features			DAML
	Danger Line Features			DANGERL
	Locks			LOCKL
	Miscellaneous Line Features			MISCL
	Rapids and Waterfalls			RAPIDSL
	Sea Structures			SEASTRTL
	Water Courses			WATRCRSL
	Coastal Areas and Islands			COASTA
	Danger Areas			DANGERA
	Hydrography Void Collection Area			HYDVOIDA
	Land Subject to Inundation			INUNDA
	Lakes and Reservoirs			LAKERESA
	Water Courses and Bodies			WATRCRSA
	Hydrography Coverage Text			HYDROTXT

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TABLE 126. Hydrography Character Value Description Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Hydrography Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 3

```
{Header length}L;
Hydrography Character Value Description Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
TABLE=T,12,N,Name of the Feature Table,-,-,-,:
ATTRIBUTE=T,6,N,Column Name,-,-,-,:
VALUE=T,5,N,Unique Value of Attribute,-,-,-,:
DESCRIPTION=T,28,N,Description of Value,-,-,-,;:
```

1	AQUEDCTC.PFT	F_CODE	BH010	Aqueduct
2	DANGERP.PFT	F_CODE	BD130	Rock
3	DANGERP.PFT	F_CODE	BD180	Wreck
4	DANGERP.PFT	NAM	UNK	No entry present
5	MISCP.PFT	F_CODE	BI050	Water Intake Tower
6	WELLSPRP.PFT	F_CODE	AA050	Well (Water)
7	WELLSPRP.PFT	F_CODE	BH170	Spring/Water-hole
8	WELLSPRP.PFT	F_CODE	BI010	Cistern
9	WELLSPRP.PFT	NAM	UNK	No entry present
10	DAMC.PFT	F_CODE	BI020	Dam/Weir
11	DAMC.PFT	NAM	UNK	No entry present
12	RAPIDSC.PFT	F_CODE	BH120	Rapids
13	RAPIDSC.PFT	F_CODE	BH145	River/Stream Vanishing Point
14	RAPIDSC.PFT	F_CODE	BH180	Waterfall
15	RAPIDSC.PFT	NAM	UNK	No entry present
16	AQUEDCTL.LFT	F_CODE	BH010	Aqueduct
17	DAML.LFT	F_CODE	BI020	Dam/Weir
18	DAML.LFT	NAM	UNK	No entry present
19	DANGERL.LFT	F_CODE	BD120	Reef
20	DANGERL.LFT	NAM	UNK	No entry present
21	LOCKL.LFT	F_CODE	BI030	Lock
22	MISCL.LFT	F_CODE	BH110	Penstock
23	RAPIDSL.LFT	F_CODE	BH120	Rapids
24	RAPIDSL.LFT	F_CODE	BH180	Waterfall
25	RAPIDSL.LFT	NAM	UNK	No entry present
26	SEASTRTL.LFT	F_CODE	BB040	Breakwater/Groyne
27	SEASTRTL.LFT	F_CODE	BB140	Jetty
28	SEASTRTL.LFT	F_CODE	BB230	Seawall
29	WATRCRSL.LFT	F_CODE	BH020	Canal
30	WATRCRSL.LFT	F_CODE	BH030	Ditch
31	WATRCRSL.LFT	F_CODE	BH140	River/Stream
32	WATRCRSL.LFT	NAM	UNK	No entry present
33	COASTA.AFT	F_CODE	BA020	Foreshore
34	COASTA.AFT	F_CODE	BA030	Island
35	COASTA.AFT	F_CODE	BA040	Water (except Inland)

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TABLE 126. Hydrography Character Value Description Table - Continued.

36	DANGERA.AFT	F_CODE	BD120	Reef
37	DANGERA.AFT	F_CODE	BH190	Lagoon/Reef Pool
38	DANGERA.AFT	NAM	UNK	No entry present
39	HYDVOIDA.AFT	F_CODE	ZD020	Void Collection Area
40	INUNDA.AFT	F_CODE	BH090	Land Subject to Inundation
41	LAKERESA.AFT	F_CODE	BH080	Lake/Pond
42	LAKERESA.AFT	F_CODE	BH130	Reservoir
43	LAKERESA.AFT	NAM	UNK	No entry present
44	WATRCRSA.AFT	F_CODE	BH140	River/Stream
45	WATRCRSA.AFT	NAM	UNK	No entry present
46	HYDROTXT.TFT	F_CODE	ZD040	Named Location
47	HYDROTXT.TFT	F_CODE	ZD045	Text Description
48	FCA	TYPE	A	Area Feature
49	FCA	TYPE	L	Line Feature
50	FCA	TYPE	P	Point/Node Feature
51	FCA	TYPE	T	Text Feature
52	DQNODE.PFT	F_CODE	BH010	Aqueduct
53	DQPOINT.PFT	F_CODE	BD130	Rock
54	DQPOINT.PFT	F_CODE	BD180	Wreck
55	DQPOINT.PFT	F_CODE	BI050	Water Intake Tower
56	DQPOINT.PFT	F_CODE	AA050	Well (Water)
57	DQPOINT.PFT	F_CODE	BH170	Spring/Water-hole
58	DQPOINT.PFT	F_CODE	BI010	Cistern
59	DQPOINT.PFT	F_CODE	ZD045	Text Description
60	DQNODE.PFT	F_CODE	BI020	Dam/Weir
61	DQNODE.PFT	F_CODE	BH120	Rapids
62	DQNODE.PFT	F_CODE	BH145	River/Stream Vanishing Point
63	DQNODE.PFT	F_CODE	BH180	Waterfall
64	DQNODE.PFT	F_CODE	ZD045	Text Description
65	DQLINE.LFT	F_CODE	BH010	Aqueduct
66	DQLINE.LFT	F_CODE	BI020	Dam/Weir
67	DQLINE.LFT	F_CODE	BD120	Reef
68	DQLINE.LFT	F_CODE	BI030	Lock
69	DQLINE.LFT	F_CODE	BH110	Penstock
70	DQLINE.LFT	F_CODE	BH120	Rapids
71	DQLINE.LFT	F_CODE	BB180	Waterfall
72	DQLINE.LFT	F_CODE	BB040	Breakwater/Groyne
73	DQLINE.LFT	F_CODE	BB140	Jetty
74	DQLINE.LFT	F_CODE	BB230	Seawall
75	DQLINE.LFT	F_CODE	BH020	Canal
76	DQLINE.LFT	F_CODE	BH030	Ditch
77	DQLINE.LFT	F_CODE	BH140	River/Stream
78	DQLINE.LFT	F_CODE	ZD045	Text Description
79	DQAREA.AFT	F_CODE	BA020	Foreshore
80	DQAREA.AFT	F_CODE	BA030	Island
81	DQAREA.AFT	F_CODE	BA040	Water (except Inland)
82	DQAREA.AFT	F_CODE	BD120	Reef
83	DQAREA.AFT	F_CODE	BH190	Lagoon/Reef Pool
84	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
85	DQAREA.AFT	F_CODE	BH090	Land Subject to Inundation

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TABLE 126. Hydrography Character Value Description Table - Continued.

86	DQAREA.AFT	F_CODE	BH080	Lake/Pond
87	DQAREA.AFT	F_CODE	BH130	Reservoir
88	DQAREA.AFT	F_CODE	BH140	River/Stream
89	DQAREA.AFT	F_CODE	ZD045	Text Description

TABLE 127. Hydrography Integer Value Description Table.

Thematic Layer: Hydrography
 Coverage Name: HYDRO
 Feature Table Description: Hydrography Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 3

```
{Header length)L;
Hydrography Integer Value Description Table;-;
ID=I,1,P,Row Identifier,-,-,-;
TABLE=T,12,N,Name of the Feature Table,-,-,-;
ATTRIBUTE=T,3,N,Column Name,-,-,-;
VALUE=S,1,N,Unique Value of Attribute,-,-,-;
DESCRIPTION=T,50,N,Description of Value,-,-,-;;
```

1	AQUEDCTC.PFT	ATC	0	Unknown
2	AQUEDCTC.PFT	ATC	1	Qanat/Kanat/Karez Shaft
3	DANGERP.PFT	ARH	0	Unknown
4	DANGERP.PFT	LOC	0	Unknown
5	DANGERP.PFT	LOC	13	Hull Showing
6	DANGERP.PFT	LOC	14	Masts Showing
7	DANGERP.PFT	LOC	20	Funnel Showing
8	DANGERP.PFT	LOC	21	Superstructure Showing
9	DANGERP.PFT	LOC	28	Masts and Funnel Showing
10	DANGERP.PFT	MCC	0	Unknown
11	DANGERP.PFT	MCC	24	Coral
12	DANGERP.PFT	MCC	84	Rock/Rocky
13	DANGERP.PFT	VRR	0	Unknown
14	DANGERP.PFT	VRR	1	Above Surface/Does Not Cover (At High Water)
15	DANGERP.PFT	VRR	2	Awash at Sounding Datum
16	DANGERP.PFT	VRR	8	Covers and Uncovers
17	MISCP.PFT	EXS	0	Unknown
18	MISCP.PFT	EXS	1	Definite
19	MISCP.PFT	EXS	2	Doubtful
20	MISCP.PFT	EXS	3	Reported
21	MISCP.PFT	HGT	0	Unknown
22	MISCP.PFT	ZV2	29999	Unknown
23	WELLSPRP.PFT	EXS	0	Unknown
24	WELLSPRP.PFT	EXS	3	Reported
25	WELLSPRP.PFT	EXS	6	Abandoned/Disused
26	WELLSPRP.PFT	EXS	28	Operational
27	WELLSPRP.PFT	EXS	31	Isolated

APPENDIX F

TABLE 127. Hydrography Integer Value Description Table - Continued.

28	WELLSPRP.PFT	EXS	61	Not Isolated
29	WELLSPRP.PFT	HYC	0	Unknown
30	WELLSPRP.PFT	HYC	3	Dry
31	WELLSPRP.PFT	HYC	6	Non-Perennial/Intermittent/ Fluctuating
32	WELLSPRP.PFT	HYC	8	Perennial/Permanent
33	WELLSPRP.PFT	PRO	0	Unknown
34	WELLSPRP.PFT	PRO	116	Water
35	WELLSPRP.PFT	SCC	0	Unknown
36	WELLSPRP.PFT	SCC	1	Alkaline
37	WELLSPRP.PFT	SCC	4	Mineral
38	WELLSPRP.PFT	SCC	9	Freshwater/Potable
39	WELLSPRP.PFT	WFT	0	Unknown
40	WELLSPRP.PFT	WFT	2	Walled-in Spring
41	WELLSPRP.PFT	WFT	3	Artesian Well
42	WELLSPRP.PFT	WFT	4	Fountain
43	WELLSPRP.PFT	WFT	5	Dug or Drilled Well
44	DAMC.PFT	LEN	0	Unknown
45	DAMC.PFT	MCC	0	Unknown
46	DAMC.PFT	MCC	20	Composition
47	DAMC.PFT	MCC	21	Concrete
48	DAMC.PFT	MCC	30	Earthen
49	DAMC.PFT	MCC	62	Masonry (Brick/Stone)
50	DAMC.PFT	MCC	999	Other
51	DAMC.PFT	TUC	0	Unknown
52	DAMC.PFT	TUC	1	Both Road and Railroad
53	DAMC.PFT	TUC	3	Railroad
54	DAMC.PFT	TUC	4	Road
55	DAMC.PFT	TUC	35	No Transport Use
56	RAPIDSC.PFT	HFC	0	Unknown
57	RAPIDSC.PFT	HFC	2	Disappearing
58	RAPIDSC.PFT	HFC	16	Dissipating
59	AQUEDCTL.LFT	EXS	0	Unknown
60	AQUEDCTL.LFT	EXS	5	Under Construction
61	AQUEDCTL.LFT	EXS	6	Abandoned/Disused
62	AQUEDCTL.LFT	EXS	28	Operational
63	AQUEDCTL.LFT	LOC	0	Unknown
64	AQUEDCTL.LFT	LOC	4	Below Surface/Submerged/Underground
65	AQUEDCTL.LFT	LOC	8	On Ground Surface
66	AQUEDCTL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
67	AQUEDCTL.LFT	WID	0	Unknown
68	DAML.LFT	LEN	0	Unknown
69	DAML.LFT	MCC	0	Unknown
70	DAML.LFT	MCC	20	Composition
71	DAML.LFT	MCC	21	Concrete
72	DAML.LFT	MCC	30	Earthen
73	DAML.LFT	MCC	62	Masonry (Brick/Stone)
74	DAML.LFT	MCC	999	Other
75	DAML.LFT	TUC	0	Unknown

APPENDIX F

TABLE 127. Hydrography Integer Value Description Table - Continued.

76	DAML.LFT	TUC	1	Both Road and Railroad
77	DAML.LFT	TUC	3	Railroad
78	DAML.LFT	TUC	4	Road
79	DAML.LFT	TUC	35	No Transport Use
80	DANGERL.LFT	COD	0	Unknown
81	DANGERL.LFT	COD	1	Limits and Info Known
82	DANGERL.LFT	MCC	0	Unknown
83	DANGERL.LFT	MCC	24	Coral
84	DANGERL.LFT	MCC	84	Rock/Rocky
85	DANGERL.LFT	VRR	0	Unknown
86	DANGERL.LFT	VRR	2	Awash at Sounding Datum
87	DANGERL.LFT	VRR	8	Covers and Uncovers
88	MISCL.LFT	LOC	0	Unknown
89	MISCL.LFT	LOC	4	Below Surface/Submerged/Underground
90	MISCL.LFT	LOC	8	On Ground Surface
91	MISCL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
92	SEASTRTL.LFT	VRR	0	Unknown
93	SEASTRTL.LFT	VRR	1	Above Surface/Does Not Cover (At High Water)
94	SEASTRTL.LFT	VRR	8	Covers and Uncovers
95	SEASTRTL.LFT	WID	0	Unknown
96	WATCRSL.LFT	EXS	0	Unknown
97	WATCRSL.LFT	EXS	5	Under Construction
98	WATCRSL.LFT	EXS	6	Abandoned/Disused
99	WATCRSL.LFT	EXS	32	Navigable
100	WATCRSL.LFT	HYC	0	Unknown
101	WATCRSL.LFT	HYC	3	Dry
102	WATCRSL.LFT	HYC	6	Non-Perennial/Intermittent/ Fluctuating
103	WATCRSL.LFT	HYC	8	Perennial/Permanent
104	WATCRSL.LFT	TID	0	Unknown
105	WATCRSL.LFT	TID	1	Non-Tidal
106	WATCRSL.LFT	TID	2	Tidal/Tidal Fluctuation
107	WATCRSL.LFT	WID	0	Unknown
108	COASTA.AFT	MCC	0	Unknown
109	COASTA.AFT	MCC	8	Boulders
110	COASTA.AFT	MCC	16	Clay
111	COASTA.AFT	MCC	46	Gravel
112	COASTA.AFT	MCC	65	Mud
113	COASTA.AFT	MCC	84	Rock/Rocky
114	COASTA.AFT	MCC	88	Sand
115	COASTA.AFT	MCC	98	Shingle
116	COASTA.AFT	MCC	108	Stone
117	DANGERA.AFT	COD	0	Unknown
118	DANGERA.AFT	COD	1	Limits and Info Known
119	DANGERA.AFT	MCC	0	Unknown
120	DANGERA.AFT	MCC	24	Coral
121	DANGERA.AFT	MCC	84	Rock/Rocky
122	DANGERA.AFT	VRR	0	Unknown
123	DANGERA.AFT	VRR	2	Awash at Sounding Datum

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TABLE 127. Hydrography Integer Value Description Table - Continued.

124	DANGERA.AFT	VRR	8	Covers and Uncovers
125	HYDVOIDA.AFT	VCA	0	Unknown
126	HYDVOIDA.AFT	VCA	2	Area Too Rough to Collect
127	HYDVOIDA.AFT	VCA	3	No Available Imagery
128	HYDVOIDA.AFT	VCA	6	No Available Map Source
129	HYDVOIDA.AFT	VCA	7	No Suitable Imagery
130	INUNDA.AFT	EXS	0	Unknown
131	INUNDA.AFT	EXS	45	Natural
132	INUNDA.AFT	EXS	48	Controlled
133	LAKERESA.AFT	EXS	0	Unknown
134	LAKERESA.AFT	EXS	1	Definite
135	LAKERESA.AFT	EXS	5	Under Construction
136	LAKERESA.AFT	HYC	0	Unknown
137	LAKERESA.AFT	HYC	3	Dry
138	LAKERESA.AFT	HYC	6	Non-Perennial/Intermittent/ Fluctuating
139	LAKERESA.AFT	HYC	8	Perennial/Permanent
140	LAKERESA.AFT	SCC	0	Unknown
141	LAKERESA.AFT	SCC	10	Salt
142	LAKERESA.AFT	SCC	11	Fresh
143	LAKERESA.AFT	ZV2	29999	Unknown
144	WATRCRSA.AFT	HYC	0	Unknown
145	WATRCRSA.AFT	HYC	3	Dry
146	WATRCRSA.AFT	HYC	6	Non-Perennial/Intermittent/ Fluctuating
147	WATRCRSA.AFT	HYC	8	Perennial/Permanent
148	WATRCRSA.AFT	TID	0	Unknown
149	WATRCRSA.AFT	TID	1	Non-Tidal
150	WATRCRSA.AFT	TID	2	Tidal/Tidal Fluctuation
151	SYMBOL.RAT	FON	1	Machine Default
152	SYMBOL.RAT	STY	1	Kern
153	SYMBOL.RAT	STY	2	Proportional
154	SYMBOL.RAT	STY	3	Constant
155	SYMBOL.RAT	COL	1	Black
156	SYMBOL.RAT	COL	4	Blue
157	SYMBOL.RAT	COL	9	Red-Brown
158	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.6 Industry coverage.TABLE 128. Content and format for Industry coverage feature class schema table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 4

{Header length}L; Industry Feature Class Schema Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,;					
TABLE1=T,12,N,First Table,-,-,-,;					
TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,;					
TABLE2=T,12,N,Second Table,-,-,-,;					
TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;					
1	AGRISTRP	AGRISTRP.PFT	END_ID	END	ID
2	AGRISTRP	END	AGRISTRP.PFT_ID	AGRISTRP.PFT	ID
3	EXTRACTP	EXTRACTP.PFT	END_ID	END	ID
4	EXTRACTP	END	EXTRACTP.PFT_ID	EXTRACTP.PFT	ID
5	NUCLEARP	NUCLEARP.PFT	END_ID	END	ID
6	NUCLEARP	END	NUCLEARP.PFT_ID	NUCLEARP.PFT	ID
7	OBSTRP	OBSTRP.PFT	END_ID	END	ID
8	OBSTRP	END	OBSTRP.PFT_ID	OBSTRP.PFT	ID
9	PROCESSP	PROCESSP.PFT	END_ID	END	ID
10	PROCESSP	END	PROCESSP.PFT_ID	PROCESSP.PFT	ID
11	RIGWELLP	RIGWELLP.PFT	END_ID	END	ID
12	RIGWELLP	END	RIGWELLP.PFT_ID	RIGWELLP.PFT	ID
13	STORAGEP	STORAGEP.PFT	END_ID	END	ID
14	STORAGEP	END	STORAGEP.PFT_ID	STORAGEP.PFT	ID
15	TOWERP	TOWERP.PFT	END_ID	END	ID
16	TOWERP	END	TOWERP.PFT_ID	TOWERP.PFT	ID
17	INDL	INDL.LFT	EDG_ID	EDG	ID
18	INDL	EDG	INDL.LFT_ID	INDL.LFT	ID
19	DISPOSEA	DISPOSEA.AFT	FAC_ID	FAC	ID
20	DISPOSEA	FAC	DISPOSEA.AFT_ID	DISPOSEA.AFT	ID
21	EXTRACTA	EXTRACTA.AFT	FAC_ID	FAC	ID
22	EXTRACTA	FAC	EXTRACTA.AFT_ID	EXTRACTA.AFT	ID
23	INDVOIDA	INDVOIDA.AFT	FAC_ID	FAC	ID
24	INDVOIDA	FAC	INDVOIDA.AFT_ID	INDVOIDA.AFT	ID
25	PROCESSA	PROCESSA.AFT	FAC_ID	FAC	ID
26	PROCESSA	FAC	PROCESSA.AFT_ID	PROCESSA.AFT	ID
27	TREATA	TREATA.AFT	FAC_ID	FAC	ID
28	TREATA	FAC	TREATA.AFT_ID	TREATA.AFT	ID
29	DQPOINT	DQPOINT.PFT	END_ID	END	ID
30	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
31	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
32	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
33	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID

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TABLE 128. Content and format for Industry coverage feature class schema table - Continued.

34	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
35	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
36	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
37	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
38	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
39	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
40	INDTXT	INDTXT.TFT	TXT_ID	TXT	ID
41	INDTXT	TXT	INDTXT.TFT_ID	INDTXT.TFT	ID
42	INDTXT	INDTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

TABLE 129. Agricultural Storage Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Agricultural Storage Point Feature Table
 Table Name: AGRISTRP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AM020 and AM030, if height < 46 meters then must be landmark feature

```
{Header length}L;
Agricultural Storage Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.PTI,-,;
EXS=S,1,N,Existence Category,INT.VDT,-,-;
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-;
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-;
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,;
END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,;
```

1	AM020	0	10	29999	1	3
2	AM030	3	9	100	2	40
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Applicable F_CODE
for Each

Column	Description	Value	Value Meaning	Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AM020	Grain Bin/Silo	
		AM030	Grain Elevator	
EXS	Existence Category	0	Unknown	AM020, AM030
		1	Definite	AM020, AM030
		2	Doubtful	AM020, AM030
		3	Reported	AM020, AM030

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TABLE 129. Agricultural Storage Point Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
HGT	Height Above Surface Level (meters)	0	Unknown	AM020, AM030
		1 to no upper limit		AM020, AM030
ZV2	Highest Z-value (meters)	29999	Unknown	AM020, AM030
		-400 to		AM020, AM030
		11999		

TABLE 130. Extraction Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Extraction Point Feature Table
 Table Name: EXTRACTP.PFT
 DQ Layer Number: 4

{Header length}L; Extraction Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; ARH=S,1,N,Area Coverage Attribute (hectares),INT.VDT,-,-,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,-,; MIN=S,1,N,Mining Category,INT.VDT,-,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,-,; PRO=S,1,N,Product Category,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.PTI,-,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,-,;								
1	AA010	0	0	0	UNK	0	1	1
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AA010	Mine/Quarry	
ARH	Area Coverage Attribute (hectares)	0	Unknown	AA010
		<=39 hectares		AA010

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TABLE 130. Extraction Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
EXS	Existence Category	0	Unknown	AA010
		6	Abandoned/Disused	AA010
		28	Operational	AA010
MIN	Mining Category	0	Unknown	AA010
		2	Horizontal Shaft	AA010
		3	Open Pit	AA010
		4	Placer	AA010
		5	Prospect	AA010
		6	Strip	AA010
		7	Vertical Shaft	AA010
		8	Peat Cuttings	AA010
NAM	Name		Character text string	AA010
			"UNK" (No entry present for feature)	AA010
PRO	Product Category	0	Unknown	AA010
		16	Clay	AA010
		17	Coal	AA010
		23	Copper	AA010
		42	Gold	AA010
		46	Gravel	AA010
		51	Iron	AA010
		54	Lead	AA010
		84	Rock/Rocky	AA010
		87	Salt	AA010
		88	Sand	AA010
		100	Silver	AA010
		112	Uranium	AA010
		118	Zinc	AA010
119	Bauxite	AA010		
999	Other	AA010		

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TABLE 131. Particle Accelerator Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Particle Accelerator Point Feature Table
 Table Name: NUCLEARP.PFT
 DQ Layer Number: 4
 Portrayal Criteria: Landmark Feature

{Header length}L; Particle Accelerator Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END4_ID.PTI,-,;;			
1	AL140	1	1
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL140	Particle Accelerator	

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TABLE 132. Obstruction Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Obstruction Point Feature Table
 Table Name: OBSTRP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AF010, AF030 and AJ050 if height < 46 meters then must be landmark feature

{Header length}L;							
Obstruction Point Feature Table;-;							
ID=I,1,P,Row Identifier,-,-,-,;							
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE5.PTI,-,;:							
EXS=S,1,N,Existence Category,INT.VDT,-,-,;:							
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,;:							
LOC=S,1,N,Location Category,INT.VDT,-,-,;:							
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,;:							
TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.PTI,-,;:							
END_ID=I,1,N,Entity Node Primitive ID,-,END5_ID.PTI,-,;:							
1	AF010	0	0	-32768	29999	1	1
2	AF030	0	0	-32768	200	2	2
3	AF040	0	0	-32768	25	3	3
4	AF070	0	0	0	25	4	4
5	AJ050	0	0	-32768	20	5	5
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AF010	Chimney/Smokestack	
		AF030	Cooling Tower	
		AF040	Crane	
		AF070	Flare Pipe	
		AJ050	Windmill	
EXS	Existence Category	0	Unknown	AF010, AF030, AF040, AF070, AJ050
		1	Definite	AF010, AF030, AF040, AF070, AJ050
		2	Doubtful	AF010, AF030, AF040, AF070, AJ050
		3	Reported	AF010, AF030, AF040, AF070, AJ050

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TABLE 132. Obstruction Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
HGT	Height Above Surface Level (meters)	0	Unknown	AF010, AF030, AF040, AF070, AJ050
		>1		AF010, AF030, AJ050
		>= 46		AF040, AF070
LOC	Location Category	-32768	Null	AF010, AF030, AF040, AJ050
		0	Unknown	AF070
		8	On Ground Surface	AF070
		22	Offshore	AF070
ZV2	Highest Z-value (meters)	29999	Unknown	AF010, AF030, AF040, AF070, AJ050
		-400 to 11999		AF010, AF030, AF040, AF070, AJ050

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TABLE 133. Processing Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Processing Point Feature Table
 Table Name: PROCESSP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AC000 width < 200 meters and must be a landmark feature

{Header length}L;					
Processing Point Feature Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;					
NAM=T,*N,Name,CHAR.VDT,-,-,;					
PRO=S,1,N,Product Category,INT.VDT,-,-,;					
TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.PTI,-,-,;					
END_ID=I,1,N,Entity Node Primitive ID,-,END6_ID.PTI,-,-,;					
1	AC000	UNK	0	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AC000	Processing Plant/ Treatment Plant	
NAM	Name	Character text string "UNK" (No entry present for feature)		AC000 AC000
PRO	Product Category	0 13 67 95 116	Unknown Chemical Oil Sewage Water	AC000 AC000 AC000 AC000 AC000

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TABLE 134. Rig Well Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Rig Well Point Feature Table
 Table Name: RIGWELLP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AA040 if height < 46 meters then must be landmark feature

```
(Header length)L;
Rig Well Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE7.PTI,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,:
LOC=S,1,N,Location Category,INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
PRO=S,1,N,Product Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END7_ID.PTI,-,:

```

1	AA040	0	0	0	VLT=0	38	29999	1	1
2	AA050	0	-32768	-32768	UNK	0	-32768	2	2
:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AA040	Rig/Superstructure	
		AA050	Well	
EXS	Existence Category	0	Unknown	AA040, AA050
		1	Definite	AA040
		2	Doubtful	AA040
		3	Reported	AA040, AA050
		6	Abandoned/Disused	AA050
		28	Operational	AA050
HGT	Height Above Surface Level (meters)	-32768	Null	AA050
		0	Unknown	AA040
		1 to no upper limit		AA040

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TABLE 134. Rig Well Point Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
LOC	Location Category	-32768	Null	AA050
		0	Unknown	AA040
		22	Offshore	AA040
		999	Other	AA040
NAM	Name Variable Length	Text=0-length	Null	AA040
		Character text string		AA050
		"UNK" (No entry present for feature)		AA050
PRO	Product Category	0	Unknown	AA040, AA050
		38	Gas	AA040, AA050
		67	Oil	AA040, AA050
ZV2	Highest Z-value (meters)	-32768	Null	AA050
		29999	Unknown	AA040
		-400 to 11999		AA040

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TABLE 135. Storage Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Storage Point Feature Table
 Table Name: STORAGEEP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AM070 and AM080 if height < 46 meters then must be landmark feature

{Header length}L;										
Storage Point Feature Table;-;										
ID=I,1,P,Row Identifier,-,-,-,;										
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE8.PTI,-,,:;										
EXS=S,1,N,Existence Category,INT.VDT,-,-,;										
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,;										
LOC=S,1,N,Location Category,INT.VDT,-,-,;										
PRO=S,1,N,Product Category,INT.VDT,-,-,;										
SSC=S,1,N,Structure Shape Category,INT.VDT,-,-,;										
WID=S,1,N,Width (meters),INT.VDT,-,-,;										
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,;										
TILE_ID=S,1,N,Tile Reference ID,-,TILE8_ID.PTI,-,,:;										
END_ID=I,1,N,Entity Node Primitive ID,-,END8_ID.PTI,-,,:;										
1	AM070	0	1	0	0	0	0	29999	3	3
2	AM080	0	1	-32768	-32768	-32768	-32768	100	4	4
:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	AM070	Tank	
		AM080	Water Tower	
EXS	Existence Category	0	Unknown	AM070, AM080
		1	Definite	AM070, AM080
		2	Doubtful	AM070, AM080
		3	Reported	AM070, AM080
HGT	Height Above Surface Level (meters)	0	Unknown	AM070, AM080
		1 to no		AM070, AM080
		upper limit		

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TABLE 135. Storage Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
LOC	Location Category	-32768	Null	AM080
		0	Unknown	AM070
		4	Below Surface/ Submerged/Underground	AM070
		8	On Ground Surface	AM070
PRO	Product Category	-32768	Null	AM080
		0	Unknown	AM070
		13	Chemical	AM070
		38	Gas	AM070
		39	Gasoline	AM070
		67	Oil	AM070
		116	Water	AM070
		999	Other	AM070
SSC	Structure Shape Category	-32768	Null	AM080
		0	Unknown	AM070
		2	Blimp	AM070
		4	Bullet	AM070
		7	Cylindrical	AM070
		17	Spherical (Hemispherical)	AM070
		59	Telescoping Gasholder	AM070
WID	Width (meters)	-32768	Null	AM080
		0	Unknown	AM070
		1 to no upper limit		AM070
ZV2	Highest Z-value (meters)	29999	Unknown	AM070, AM080
		-400 to 11999		AM070, AM080

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TABLE 136. Tower Point Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Tower Point Feature Table
 Table Name: TOWERP.PFT
 DQ Layer Number: 4
 Portrayal Criteria:
 If height < 46 meters, AL240 is a Landmark Feature

```
{Header length}L;
Tower Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,:
TTC=S,1,N,Tower Type Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE9_ID.PTI,-,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END9_ID.PTI,-,-,;
```

1	AL240	0	1	0	100	6	6
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL240	Tower (non-communication)	
EXS	Existence Category	0	Unknown	
		1	Definite	
		2	Doubtful	
		3	Reported	
HGT	Height Above Surface Level (meters)	0	Unknown	
		1 to no upper limit	AL240	
TTC	Tower Type Category	0	Unknown	
		1	Bridge	
		2	Observation/Lookout	
		3	Other	
ZV2	Highest Z-value (meters)	29999	Unknown	
		-400 to 11999	AL240	

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TABLE 137. Industry Line Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Line Feature Table
 Table Name: INDL.LFT
 DQ Layer Number: 4
 Portrayal Criteria:

For AF020 length >= 1500 meters, BH060 length >= 375 meters
 and FA090 length >= 1,250 meters

{Header length}L; Industry Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.LTI,-,; LOC=S,1,N,Location Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;:				
1	AF020	-32768	1	1
2	FA090	-32768	2	2
3	BH060	0	3	3
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	AF020	Conveyor	
		BH060	Flume	
		FA090	Geophysical Prospecting Grid	
LOC	Location Category	-32768	Null	AF020, FA090
		0	Unknown	BH060
		8	On Ground Surface	BH060
		25	Suspended or Elevated Above Ground or Water Surface	BH060

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TABLE 138. Disposal Area Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Disposal Area Feature Table
 Table Name: DISPOSEA.AFT
 DQ Layer Number: 4
 Portrayal Criteria: For AB000 area must be >= 39.0625 Hectares

{Header length)L; Disposal Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; PRO=S,1,N,Product Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,;;				
1	AB000	0	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AB000	Disposal Site/Waste Pile	
PRO	Product Category	0	Unknown	AB000
		101	Slag	AB000
		127	Tailings	AB000
		128	Refuse	AB000

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TABLE 139. Extraction Area Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Extraction Area Feature Table
 Table Name: EXTRACTA.AFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AA010 and BH155 area must be >= 39.0625 Hectares

```
{Header length}L;
Extraction Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.ATI,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
MIN=S,1,N,Mining Category,INT.VDT,-,-,:
NAM=T,*,N,Name,CHAR.VDT,-,-,:
PRO=S,1,N,Product Category,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,:;
```

1	AA010	0	0	UNK	0	1	2
2	BH155	-32768	-32768	VLT=0	-32768	3	3
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	AA010	Mine/Quarry	
		BH155	Salt Evaporator	
EXS	Existence Category			
		-32768	Null	BH155
		0	Unknown	AA010
		3	Reported	AA010
		6	Abandoned/Disused	AA010
		28	Operational	AA010
MIN	Mining Category			
		-32768	Null	BH155
		0	Unknown	AA010
		2	Horizontal Shaft	AA010
		3	Open Pit	AA010
		4	Placer	AA010
		5	Prospect	AA010
		6	Strip	AA010
		7	Vertical Shaft	AA010
		8	Peat Cuttings	AA010

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TABLE 139. Extraction Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
NAM	Name			
	Variable Length			
	Text=0-length		Null	BH155
	Character text string			AA010
	UNK (No entry present for feature)			AA010
PRO	Product Category			
	-32768		Null	BH155
	0		Unknown	AA010
	16		Clay	AA010
	17		Coal	AA010
	23		Copper	AA010
	42		Gold	AA010
	46		Gravel	AA010
	51		Iron	AA010
	54		Lead	AA010
	84		Rock/Rocky	AA010
	87		Salt	AA010
	88		Sand	AA010
	100		Silver	AA010
	112		Uranium	AA010
	118		Zinc	AA010
	119		Bauxite	AA010
	999		Other	AA010

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TABLE 140. Industry Void Collection Area Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Void Collection Area Feature Table
 Table Name: INDVOIDA.AFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For ZD020 area must be >= 39.0625 hectares

{Header length}L; Industry Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC5_ID.ATI,-,;;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 141. Processing Area Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Processing Area Feature Table
 Table Name: PROCESSA.AFT
 DQ Layer Number: 4
 Portrayal Criteria: For AC000 width must be >= 200 meters

{Header length}L;					
Processing Area Feature Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;					
NAM=T,*N,Name,CHAR.VDT,-,-,;					
PRO=S,1,N,Product Category,INT.VDT,-,-,;					
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,;					
FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;					
1	AC000	UNK	0	1	2
:	:	:	:	:	:
n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AC000	Processing Plant/ Treatment Plant	
NAM	Name	Character text string "UNK" (No entry present for feature)		AC000 AC000
PRO	Product Category	0 13 67 95 116	Unknown Chemical Oil Sewage Water	AC000 AC000 AC000 AC000 AC000

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TABLE 142. Treatment Area Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Treatment Area Feature Table
 Table Name: TREATA.AFT
 DQ Layer Number: 4
 Portrayal Criteria:
 For AC030 Area >= 39.0625 hectares
 For AC030 WID >= 200m, BH040 WID >= 315m, BH050 WID >= 375m

{Header length}L; Treatment Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.ATI,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC4_ID.ATI,-,;;			
1	AC030	2	2
2	BH040	3	3
3	BH050	4	4
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
F_CODE	FACC Feature Code		
		AC030	Settling Basin/Sludge Pond
		BH040	Filtration/Aeration Beds
		BH050	Fish Hatchery/Fish Farm/Marine Farm

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TABLE 143. Industry Text Feature Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Text Feature Table
 Table Name: INDTXT.TFT
 DQ Layer Number: 4

{Header length)L; Industry Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;}				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

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TABLE 144. Industry Feature Class Attribute Table.

Thematic Layer: Industry
 Coverage Name: IND
 Table Description: Industry Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 4

{Header length)L; Industry Feature Class Attribute Table;--; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,*N,Description,-,-,-,;}			
1	AGRISTRP	P	Agricultural Storage Sites
:	:	:	:
n	n	n	n

Applicable
 Feature Class
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable Feature Class for Each Attribute Value
ID	Row Identifier	Sequential	beginning with 1	
FCLASS	Feature Class Name			
				AGRISTRP EXTRACTP NUCLEARP OBSTRP PROCESSP RIGWELLP STORAGEP TOWERP INDL DISPOSEA EXTRACTA INDVOIDA PROCESSA TREATA INDTXT
TYPE	Feature Type			
		P	Point Feature	AGRISTRP, EXTRACTP, NUCLEARP, OBSTRP, PROCESSP, RIGWELLP, STORAGEP, TOWERP
		L	Line Feature	INDL
		A	Area Feature	DISPOSEA, EXTRACTA, INDVOIDA, PROCESSA, TREATA
		T	Text Feature	INDTXT

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TABLE 144. Industry Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
DESCR	Description			
		Agricultural Storage Sites		AGRISTRP
		Mines/Quarries		EXTRACTP
		Particle Accelerators		NUCLEARP
		Obstructions		OBSTRP
		Processing/Treatment Sites		PROCESSP
		Rigs and Wells		RIGWELLP
		Tanks and Water Towers		STORAGEP
		Non-Communication Towers		TOWERP
		Industry Linear Features		INDL
		Disposal Sites		DISPOSEA
		Extraction Areas		EXTRACTA
		Industry Void Collection Areas		INDVOIDA
		Processing Plants		PROCESSA
		Materials Treatment Plants		TREATA
		Industry Coverage Text		INDTXT

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TABLE 145. Industry Character Value Description Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 4

{Header length}L; Industry Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,35,N,Description of Value,-,-,-,;;				
1	AGRISTRP.PFT	F_CODE	AM020	Grain Bin/Silo
2	AGRISTRP.PFT	F_CODE	AM030	Grain Elevator
3	EXTRACTP.PFT	F_CODE	AA010	Mine/Quarry
4	EXTRACTP.PFT	NAM	UNK	No entry present
5	NUCLEARP.PFT	F_CODE	AL140	Particle Accelerator
6	OBSTRP.PFT	F_CODE	AF010	Chimney/Smokestack
7	OBSTRP.PFT	F_CODE	AF030	Cooling Tower
8	OBSTRP.PFT	F_CODE	AF040	Crane
9	OBSTRP.PFT	F_CODE	AF070	Flare Pipe
10	OBSTRP.PFT	F_CODE	AJ050	Windmill
11	PROCESSP.PFT	F_CODE	AC000	Processing Plant/Treatment Plant
12	PROCESSP.PFT	NAM	UNK	No entry present
13	RIGWELLP.PFT	F_CODE	AA040	Rig/Superstructure
14	RIGWELLP.PFT	F_CODE	AA050	Well
15	RIGWELLP.PFT	NAM	UNK	No entry present
16	STORAGEP.PFT	F_CODE	AM070	Tank
17	STORAGEP.PFT	F_CODE	AM080	Water Tower
18	TOWERP.PFT	F_CODE	AL240	Tower(non-communication)
19	INDL.LFT	F_CODE	AF020	Conveyor
20	INDL.LFT	F_CODE	BH060	Flume
21	INDL.LFT	F_CODE	FA090	Geophysical Prospecting Grid
22	DISPOSEA.AFT	F_CODE	AB000	Disposal Site/Waste Pile
23	EXTRACTA.AFT	F_CODE	AA010	Mine/Quarry
24	EXTRACTA.AFT	F_CODE	BH155	Salt Evaporator
25	EXTRACTA.AFT	NAM	UNK	No entry present
26	INDVOIDA.AFT	F_CODE	ZD020	Void Collection Area
27	PROCESSA.AFT	F_CODE	AC000	Processing Plant/Treatment Plant
28	PROCESSA.AFT	NAM	UNK	No entry present
29	TREATA.AFT	F_CODE	AC030	Settling Basin/Sludge Pond
30	TREATA.AFT	F_CODE	BH040	Filtration/Aeration Beds
31	TREATA.AFT	F_CODE	BH050	Fish Hatchery/Fish Farm/Marine Farm
32	INDTXT.TFT	F_CODE	ZD040	Named Location
33	INDTXT.TFT	F_CODE	ZD045	Text Description
34	FCA	TYPE	A	Area Feature
35	FCA	TYPE	L	Line Feature
36	FCA	TYPE	P	Point/Node Feature
37	FCA	TYPE	T	Text Feature

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TABLE 145. Industry Character Value Description Table - Continued.

38	DQPOINT.PFT	F_CODE	AM020	Grain Bin/Silo
39	DQPOINT.PFT	F_CODE	AM030	Grain Elevator
40	DQPOINT.PFT	F_CODE	AA010	Mine/Quarry
41	DQPOINT.PFT	F_CODE	AL140	Particle Accelerator
42	DQPOINT.PFT	F_CODE	AF010	Chimney/Smokestack
43	DQPOINT.PFT	F_CODE	AF030	Cooling Tower
44	DQPOINT.PFT	F_CODE	AF040	Crane
45	DQPOINT.PFT	F_CODE	AF070	Flare Pipe
46	DQPOINT.PFT	F_CODE	AJ050	Windmill
47	DQPOINT.PFT	F_CODE	AC000	Processing Plant/Treatment Plant
48	DQPOINT.PFT	F_CODE	AA040	Rig/Superstructure
49	DQPOINT.PFT	F_CODE	AA050	Well
50	DQPOINT.PFT	F_CODE	AM070	Tank
51	DQPOINT.PFT	F_CODE	AM080	Water Tower
52	DQPOINT.PFT	F_CODE	AL240	Tower (non-communication)
53	DQPOINT.PFT	F_CODE	ZD045	Text Description
54	DQLINE.LFT	F_CODE	AF020	Conveyor
55	DQLINE.LFT	F_CODE	BH060	Flume
56	DQLINE.LFT	F_CODE	FA090	Geophysical Prospecting Grid
57	DQLINE.LFT	F_CODE	ZD045	Text Description
58	DQAREA.AFT	F_CODE	AB000	Disposal Site/Waste Pile
59	DQAREA.AFT	F_CODE	AA010	Mine/Quarry
60	DQAREA.AFT	F_CODE	BH155	Salt Evaporator
61	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
62	DQAREA.AFT	F_CODE	AC000	Processing Plant/Treatment Plant
63	DQAREA.AFT	F_CODE	AC030	Settling Basin/Sludge Pond
64	DQAREA.AFT	F_CODE	BH040	Filtration/Aeration Beds
65	DQAREA.AFT	F_CODE	BH050	Fish Hatchery/Fish Farm/Marine Farm
66	DQAREA.AFT	F_CODE	ZD045	Text Description

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TABLE 146. Industry Integer Value Description Table.

Thematic Layer: Industry
 Coverage Name: IND
 Feature Table Description: Industry Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 4

{Header length}L; Industry Integer Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,3,N,Column Name,-,-,-,; VALUE=S,1,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,60,N,Description of Value,-,-,-,;				
1	AGRISTRP.PFT	EXS	0	Unknown
2	AGRISTRP.PFT	EXS	1	Definite
3	AGRISTRP.PFT	EXS	2	Doubtful
4	AGRISTRP.PFT	EXS	3	Reported
5	AGRISTRP.PFT	HGT	0	Unknown
6	AGRISTRP.PFT	ZV2	29999	Unknown
7	EXTRACTP.PFT	ARH	0	Unknown
8	EXTRACTP.PFT	EXS	0	Unknown
9	EXTRACTP.PFT	EXS	6	Abandoned/Disused
10	EXTRACTP.PFT	EXS	28	Operational
11	EXTRACTP.PFT	MIN	0	Unknown
12	EXTRACTP.PFT	MIN	2	Horizontal Shaft
13	EXTRACTP.PFT	MIN	3	Open Pit
14	EXTRACTP.PFT	MIN	4	Placer
15	EXTRACTP.PFT	MIN	5	Prospect
16	EXTRACTP.PFT	MIN	6	Strip
17	EXTRACTP.PFT	MIN	7	Vertical Shaft
18	EXTRACTP.PFT	MIN	8	Peat Cuttings
19	EXTRACTP.PFT	PRO	0	Unknown
20	EXTRACTP.PFT	PRO	16	Clay
21	EXTRACTP.PFT	PRO	17	Coal
22	EXTRACTP.PFT	PRO	23	Copper
23	EXTRACTP.PFT	PRO	42	Gold
24	EXTRACTP.PFT	PRO	46	Gravel
25	EXTRACTP.PFT	PRO	51	Iron
26	EXTRACTP.PFT	PRO	54	Lead
27	EXTRACTP.PFT	PRO	84	Rock/Rocky
28	EXTRACTP.PFT	PRO	87	Salt
29	EXTRACTP.PFT	PRO	88	Sand
30	EXTRACTP.PFT	PRO	100	Silver
31	EXTRACTP.PFT	PRO	112	Uranium
32	EXTRACTP.PFT	PRO	118	Zinc
33	EXTRACTP.PFT	PRO	119	Bauxite
34	EXTRACTP.PFT	PRO	999	Other
35	OBSTRP.PFT	EXS	0	Unknown
36	OBSTRP.PFT	EXS	1	Definite
37	OBSTRP.PFT	EXS	2	Doubtful

APPENDIX F

TABLE 146. Industry Integer Value Description Table - Continued.

38	OBSTRP.PFT	EXS	3	Reported
39	OBSTRP.PFT	HGT	0	Unknown
40	OBSTRP.PFT	LOC	0	Unknown
41	OBSTRP.PFT	LOC	8	On Ground Surface
42	OBSTRP.PFT	LOC	22	Offshore
43	OBSTRP.PFT	ZV2	29999	Unknown
44	PROCESSP.PFT	PRO	0	Unknown
45	PROCESSP.PFT	PRO	13	Chemical
46	PROCESSP.PFT	PRO	67	Oil
47	PROCESSP.PFT	PRO	95	Sewage
48	PROCESSP.PFT	PRO	116	Water
49	RIGWELLP.PFT	EXS	0	Unknown
50	RIGWELLP.PFT	EXS	1	Definite
51	RIGWELLP.PFT	EXS	2	Doubtful
52	RIGWELLP.PFT	EXS	3	Reported
53	RIGWELLP.PFT	EXS	6	Abandoned/Disused
54	RIGWELLP.PFT	EXS	28	Operational
55	RIGWELLP.PFT	HGT	0	Unknown
56	RIGWELLP.PFT	LOC	0	Unknown
57	RIGWELLP.PFT	LOC	22	Offshore
58	RIGWELLP.PFT	LOC	999	Other
59	RIGWELLP.PFT	PRO	0	Unknown
60	RIGWELLP.PFT	PRO	38	Gas
61	RIGWELLP.PFT	PRO	67	Oil
62	RIGWELLP.PFT	ZV2	29999	Unknown
63	STORAGEP.PFT	EXS	0	Unknown
64	STORAGEP.PFT	EXS	1	Definite
65	STORAGEP.PFT	EXS	2	Doubtful
66	STORAGEP.PFT	EXS	3	Reported
67	STORAGEP.PFT	HGT	0	Unknown
68	STORAGEP.PFT	LOC	0	Unknown
69	STORAGEP.PFT	LOC	4	Below Surface/Submerged/Underground
70	STORAGEP.PFT	LOC	8	On Ground Surface
71	STORAGEP.PFT	PRO	0	Unknown
72	STORAGEP.PFT	PRO	13	Chemical
73	STORAGEP.PFT	PRO	38	Gas
74	STORAGEP.PFT	PRO	39	Gasoline
75	STORAGEP.PFT	PRO	67	Oil
76	STORAGEP.PFT	PRO	116	Water
77	STORAGEP.PFT	PRO	999	Other
78	STORAGEP.PFT	SSC	0	Unknown
79	STORAGEP.PFT	SSC	2	Blimp
80	STORAGEP.PFT	SSC	4	Bullet
81	STORAGEP.PFT	SSC	7	Cylindrical
82	STORAGEP.PFT	SSC	17	Spherical (Hemispherical)
83	STORAGEP.PFT	SSC	59	Telescoping Gasholder
84	STORAGEP.PFT	WID	0	Unknown
85	STORAGEP.PFT	ZV2	29999	Unknown
86	TOWERP.PFT	EXS	0	Unknown
87	TOWERP.PFT	EXS	1	Definite
88	TOWERP.PFT	EXS	2	Doubtful

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TABLE 146. Industry Integer Value Description Table - Continued.

89	TOWERP.PFT	EXS	3	Reported
90	TOWERP.PFT	HGT	0	Unknown
91	TOWERP.PFT	TTC	0	Unknown
92	TOWERP.PFT	TTC	1	Bridge
93	TOWERP.PFT	TTC	2	Observation/Lookout
94	TOWERP.PFT	TTC	3	Other
95	TOWERP.PFT	ZV2	29999	Unknown
96	INDL.LFT	LOC	0	Unknown
97	INDL.LFT	LOC	8	On Ground Surface
98	INDL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
99	DISPOSEA.AFT	PRO	0	Unknown
100	DISPOSEA.AFT	PRO	101	Slag
101	DISPOSEA.AFT	PRO	127	Tailings
102	DISPOSEA.AFT	PRO	128	Refuse
103	EXTRACTA.AFT	EXS	0	Unknown
104	EXTRACTA.AFT	EXS	3	Reported
105	EXTRACTA.AFT	EXS	6	Abandoned/Disused
106	EXTRACTA.AFT	EXS	28	Operational
107	EXTRACTA.AFT	MIN	0	Unknown
108	EXTRACTA.AFT	MIN	2	Horizontal Shaft
109	EXTRACTA.AFT	MIN	3	Open Pit
110	EXTRACTA.AFT	MIN	4	Placer
111	EXTRACTA.AFT	MIN	5	Prospect
112	EXTRACTA.AFT	MIN	6	Strip
113	EXTRACTA.AFT	MIN	7	Vertical Shaft
114	EXTRACTA.AFT	MIN	8	Peat Cuttings
115	EXTRACTA.AFT	PRO	0	Unknown
116	EXTRACTA.AFT	PRO	16	Clay
117	EXTRACTA.AFT	PRO	17	Coal
118	EXTRACTA.AFT	PRO	23	Copper
119	EXTRACTA.AFT	PRO	42	Gold
120	EXTRACTA.AFT	PRO	46	Gravel
121	EXTRACTA.AFT	PRO	51	Iron
122	EXTRACTA.AFT	PRO	54	Lead
123	EXTRACTA.AFT	PRO	84	Rock/Rocky
124	EXTRACTA.AFT	PRO	87	Salt
125	EXTRACTA.AFT	PRO	88	Sand
126	EXTRACTA.AFT	PRO	100	Silver
127	EXTRACTA.AFT	PRO	112	Uranium
128	EXTRACTA.AFT	PRO	118	Zinc
129	EXTRACTA.AFT	PRO	119	Bauxite
130	EXTRACTA.AFT	PRO	999	Other
131	INDVOIDA.AFT	VCA	0	Unknown
132	INDVOIDA.AFT	VCA	2	Area Too Rough to Collect
133	INDVOIDA.AFT	VCA	3	No Available Imagery
134	INDVOIDA.AFT	VCA	6	No Available Map Source
135	INDVOIDA.AFT	VCA	7	No Suitable Imagery
136	PROCESSA.AFT	PRO	0	Unknown
137	PROCESSA.AFT	PRO	13	Chemical
138	PROCESSA.AFT	PRO	67	Oil

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TABLE 146. Industry Integer Value Description Table - Continued.

139	PROCESSA.AFT	PRO	95	Sewage
140	PROCESSA.AFT	PRO	116	Water
141	SYMBOL.RAT	FON	1	Machine Default
142	SYMBOL.RAT	STY	1	Kern
143	SYMBOL.RAT	STY	2	Proportional
144	SYMBOL.RAT	STY	3	Constant
145	SYMBOL.RAT	COL	1	Black
146	SYMBOL.RAT	COL	4	Blue
147	SYMBOL.RAT	COL	9	Red-Brown
148	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.7 Physiography coverage.TABLE 147. Content and format for Physiography coverage feature class schema table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Physiography Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 5

{Header length}L; Physiography Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;					
1	LNDFRMP	LNDFRMP.PFT	END_ID	END	ID
2	LNDFRMP	END	LNDFRMP.PFT_ID	LNDFRMP.PFT	ID
3	MTNP	MTNP.PFT	END_ID	END	ID
4	MTNP	END	MTNP.PFT_ID	MTNP.PFT	ID
5	THERMALP	THERMALP.PFT	END_ID	END	ID
6	THERMALP	END	THERMALP.PFT_ID	THERMALP.PFT	ID
7	BLUFFL	BLUFFL.LFT	EDG_ID	EDG	ID
8	BLUFFL	EDG	BLUFFL.LFT_ID	BLUFFL.LFT	ID
9	EMBANKL	EMBANKL.LFT	EDG_ID	EDG	ID
10	EMBANKL	EDG	EMBANKL.LFT_ID	EMBANKL.LFT	ID
11	LNDFRML	LNDFRML.LFT	EDG_ID	EDG	ID
12	LNDFRML	EDG	LNDFRML.LFT_ID	LNDFRML.LFT	ID
13	ASPHALTA	ASPHALTA.AFT	FAC_ID	FAC	ID
14	ASPHALTA	FAC	ASPHALTA.AFT_ID	ASPHALTA.AFT	ID
15	GROUND	GROUND.AFT	FAC_ID	FAC	ID
16	GROUND	FAC	GROUND.AFT_ID	GROUND.AFT	ID
17	LANDICEA	LANDICEA.AFT	FAC_ID	FAC	ID
18	LANDICEA	FAC	LANDICEA.AFT_ID	LANDICEA.AFT	ID
19	LNDFRM1A	LNDFRM1A.AFT	FAC_ID	FAC	ID
20	LNDFRM1A	FAC	LNDFRM1A.AFT_ID	LNDFRM1A.AFT	ID
21	LNDFRM2A	LNDFRM2A.AFT	FAC_ID	FAC	ID
22	LNDFRM2A	FAC	LNDFRM2A.AFT_ID	LNDFRM2A.AFT	ID
23	PHYVOIDA	PHYVOIDA.AFT	FAC_ID	FAC	ID
24	PHYVOIDA	FAC	PHYVOIDA.AFT_ID	PHYVOIDA.AFT	ID
25	SEAICEA	SEAICEA.AFT	FAC_ID	FAC	ID
26	SEAICEA	FAC	SEAICEA.AFT_ID	SEAICEA.AFT	ID
27	DQPOINT	DQPOINT.PFT	END_ID	END	ID
28	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
29	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
30	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
31	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
32	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
33	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
34	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
35	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
36	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID

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TABLE 147. Content and format for Physiography coverage feature class schema table - Continued.

37	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
38	PHYSTXT	PHYSTXT.TFT	TXT_ID	TXT	ID
39	PHYSTXT	TXT	PHYSTXT.TFT_ID	PHYSTXT.TFT	ID
40	PHYSTXT	PHYSTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

TABLE 148. Landform Point Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Landform Point Feature Table
 Table Name: LNDFRMP.PFT
 DQ Layer Number: 5

{Header length)L; Landform Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.PTI,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; RKF=S,1,N,Rock Strata Formation,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,-,;					
1	BJ060	103	-32768	1	1
2	DB160	-32768	3	2	2
:	:	:	:	:	:
n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ060	Ice Peak/Nunatak	
		DB160	Rock Strata/ Rock Formation	
MCC	Material Composition Category	-32768	Null	DB160
		0	Unknown	BJ060
		84	Rock/Rocky	BJ060
		103	Snow/Ice	BJ060
RKF	Rock Strata Formation	-32768	Null	BJ060
		0	Unknown	DB160
		1	Columnar	DB160
		3	Pinnacle	DB160

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TABLE 149. Mountain Point Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Mountain Point Feature Table
 Table Name: MTNP.PFT
 DQ Layer Number: 5

{Header length}L; Mountain Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.PTI,-,,: NAM=T,* ,N,Name,CHAR.VDT,-,-,-,; ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.PTI,-,,: END_ID=I,1,N,Entity Node Primitive ID,-,END2_ID.PTI,-,-,;					
1	DB030	UNK	-32768	1	1
2	DB150	UNK	29999	2	2
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	DB030	Cave	
		DB150	Mountain Pass	
NAM	Name	Character text string		DB030, DB150
		"UNK" (no entry present for feature)		DB030, DB150
ZV2	Highest Z-value (meters)	-32768	Null	DB030
		29999	Unknown	DB150
		-400 to 11999		DB150

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TABLE 150. Thermal Point Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Thermal Point Feature Table
 Table Name: THERMALP.PFT
 DQ Layer Number: 5

(Header length)L; Thermal Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; SWT=S,1,N,Well/Spring Type,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,;;				
1	DB115	2	1	1
:	:	:	:	:
n	n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	DB115	Geothermal Feature	
SWT	Well/Spring Type	0	Unknown	DB115
		1	Geyser	DB115
		2	Hot Spring	DB115
		3	Fumarole	DB115

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TABLE 151. Bluff Line Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Bluff Line Feature Table
 Table Name: BLUFFL.LFT
 DQ Layer Number: 5
 Portrayal Criteria: For DB010 length >= 1,000 meters

{Header length}L; Bluff Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;				
1	DB010	0	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	DB010	Bluff/Cliff/Escarpment	
HGT	Height Above Surface Level (meters)	0	Unknown	DB010
		1 to no upper limit		DB010

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TABLE 152. Embankment/Fill Line Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Embankment/Fill Line Feature Table
 Table Name: EMBANKL.LFT
 DQ Layer Number: 5
 Portrayal Criteria:
 For DB070 length >= 1,000 meters
 For DB090 length >= 1,000 meters and height >= 30 decimeters,
 except length >= 375 meters for USE = 127

{Header length}L;						
Embankment/Fill Line Feature Table;-;						
ID=I,1,P,Row Identifier,-,-,-,;						
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.LTI,-,-,;						
PFH=S,1,N,Predominant Feature Height (decimeters),INT.VDT,-,-,;						
USE=S,1,N,Usage,INT.VDT,-,-,;						
VRR=S,1,N,Vertical Reference Category,INT.VDT,-,-,;						
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,-,;						
EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,-,;						
1	DB070	-32768	-32768	-32768	1	1
2	DB090	25	136	8	2	2
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value	
ID	Row Identifier	Sequential beginning with 1			
F_CODE	FACC Feature Code	DB070	Cut		
		DB090	Embankment/Fill		
PFH	Predominant Feature Height (decimeters)	-32768	Null	DB070	
		0	Unknown	DB090	
		>10		DB090	
USE	Usage	-32768	Null	DB070	
		0	Unknown	DB090	
		69	Levee/Dike	DB090	
		127	as a Causeway	DB090	
		136	as a Fill	DB090	

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TABLE 152. Embankment/Fill Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
VRR	Vertical Reference Category	-32768	Null	DB070
		0	Unknown	DB090
		1	Above Surface/ Does Not Cover (At High Water)	DB090
		8	Covers and Uncovers	DB090
		9	Not Applicable	DB090

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TABLE 153. Landform Line Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Landform Line Feature Table
 Table Name: LNDRFML.LFT
 DQ Layer Number: 5
 Portrayal Criteria:
 For DB060, DB100, DB110 length >= 1,000 meters
 For BJ040 length >= 3,175 meters

```
{Header length}L;
Landform Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE3.LTI,-,:
MCC=S,1,N,Material Composition Category,INT.VDT,-,-,:
WID=S,1,N,Width (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.LTI,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,EDG3_ID.LTI,-,:;
```

1	BJ040	-32768	-32768	1	1
2	DB060	30	67	2	2
3	DB100	-32768	-32768	3	3
4	DB110	-32768	-32768	4	4
:	:	:	:	:	:
n	n	n	n	n	n

Applicable
F_CODE
for Each
Attribute
Value

Column	Description	Value	Value Meaning	
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ040	Ice Cliff	
		DB060	Crevice/Crevasse	
		DB100	Esker	
		DB110	Fault	
MCC	Material Composition Category	-32768	Null	BJ040, DB100, DB110
		0	Unknown	DB060
		30	Earthen	DB060
		103	Snow/Ice	DB060
WID	Width (meters)	-32768	Null	BJ040, DB100, DB110
		0	Unknown	DB060
		>= 65		DB060

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TABLE 154. Asphalt Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Asphalt Area Feature Table
 Table Name: ASPHALTA.AFT
 DQ Layer Number: 5
 Portrayal Criteria: For DA005 area >= 9.9225 hectares

{Header length}L; Asphalt Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,;;			
1	DA005	1	2
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	DA005	Asphalt Lake	

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TABLE 155. Ground Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Ground Area Feature Table
 Table Name: GROUND.AFT
 DQ Layer Number: 5
 Portrayal Criteria: For DA010 area >= 39.0625 hectares

{Header length}L; Ground Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; MCC=S,1,N,Material Composition Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;;				
1	DA010	46	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	DA010	Ground Surface Element	
MCC	Material Composition Category	0	Unknown	DA010
		8	Boulders	DA010
		46	Gravel	DA010
		52	Lava	DA010
		55	Loess	DA010
		68	Oil Blister	DA010
		88	Sand	DA010
		119	Karst	DA010

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TABLE 156. Land Ice Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Land Ice Area Feature Table
 Table Name: LANDICEA.AFT
 DQ Layer Number: 5
 Portrayal Criteria: For BJ030 width >= 625 meters
 For BJ100 area >= 39.0625 hectares

{Header length}L;				
Land Ice Area Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE3.ATI,-,;				
SIC=S,1,N,Snow/Ice Category,INT.VDT,-,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,;				
FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;;				
1	BJ030	-32768	1	2
2	BJ100	1	2	2
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ030	Glacier	
		BJ100	Snow Field/Ice Field	
SIC	Snow/Ice Category	-32768	Null	BJ030
		1	Snow	BJ100
		2	Ice	BJ100

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TABLE 157. Landform 1 Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Landform 1 Area Feature Table
 Table Name: LNDFRM1A.AFT
 DQ Layer Number: 5
 Portrayal Criteria:
 For BH150, BH160, DB170 area >= 39.0625 hectares

{Header length}L; Landform 1 Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.ATI,-,; FEO=S,1,N,Feature Element Orientation (degrees),INT.VDT,-,-,; SSC=S,1,N,Structure Shape Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC4_ID.ATI,-,;:					
1	BH160	-32768	-32768	1	2
2	BH150	-32768	-32768	2	3
3	DB170	250	26	3	4
:	:	:	:	:	:
n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH150	Salt Pan	
		BH160	Sebkha	
		DB170	Sand Dunes/Sand Hills	
FEO	Feature Element Orientation (degrees)	-32768	Null	BH150, BH160
		999	Unknown	DB170
		0 to 359		DB170
SSC	Structure Shape Category	-32768	Null	BH150, BH160
		0	Unknown	DB170
		22	Crescent	DB170
		26	Lateral	DB170
		27	Mounds	DB170
		28	Ripple	DB170
		29	Star	DB170
		30	Transverse	DB170

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TABLE 158. Landform 2 Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Landform 2 Area Feature Table
 Table Name: LNDFRM2A.AFT
 DQ Layer Number: 5
 Portrayal Criteria: For BJ020 width >= 625 meters

{Header length}L; Landform 2 Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC5_ID.ATI,-,;;			
1	BJ020	1	2
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ020	Moraine	

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TABLE 159. Physiography Void Collection Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Physiography Void Collection Area Feature Table
 Table Name: PHYVOIDA.AFT
 DQ Layer Number: 5
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Physiography Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC7_ID.ATI,-,;;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 160. Sea Ice Area Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Sea Ice Area Feature Table
 Table Name: SEAICEA.AFT
 DQ Layer Number: 5
 Portrayal Criteria:
 For BJ065, BJ070, BJ080 area >= 39.0625 hectares

{Header length}L; Sea Ice Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE6.ATI,-,,: PRC=S,1,N,Periodic Restriction Category,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.ATI,-,,: FAC_ID=I,1,N,Face Primitive ID,-,FAC6_ID.ATI,-,,:;				
1	BJ065	-32768	1	2
2	BJ070	10	2	3
3	BJ080	8	3	4
:	:	:	:	:
n	n	n	n	n

**Applicable
 F_CODE
 for Each
 Attribute
 Value**

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ065	Ice Shelf	
		BJ070	Pack Ice	
		BJ080	Polar Ice	
PRC	Periodic Restriction Category	-32768	Null	BJ065
		0	Unknown	BJ070, BJ080
		3	Permanent Ice	BJ070, BJ080
		4	Seasonal limit - Jan.	BJ070, BJ080
		5	Seasonal limit - Feb.	BJ070, BJ080
		6	Seasonal limit - Mar.	BJ070, BJ080
		7	Seasonal limit - Apr.	BJ070, BJ080
		8	Seasonal limit - May	BJ070, BJ080
		9	Seasonal limit - Jun.	BJ070, BJ080
		10	Seasonal limit - Jul.	BJ070, BJ080
		11	Seasonal limit - Aug.	BJ070, BJ080
		12	Seasonal limit - Sep.	BJ070, BJ080
		13	Seasonal limit - Oct.	BJ070, BJ080
		14	Seasonal limit - Nov.	BJ070, BJ080
		15	Seasonal limit - Dec.	BJ070, BJ080

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TABLE 161. Physiography Text Feature Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Physiography Text Feature Table
 Table Name: PHYSTXT.TFT
 DQ Layer Number: 5

(Header length)L; Physiography Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification	(Refer to Symbol Related Attribute Table for selection of values)		

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TABLE 162. Physiography Feature Class Attribute Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Table Description: Physiography Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 5

{Header length}L; Physiography Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,*N,Description,-,-,-,;:			
1	LNDFRMP	P	Landform Point Features
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning	Applicable Feature Class for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
FCLASS	Feature Class Name			
				LNDFRMP MTNP THERMALP BLUFFL EMBANKL LNDFRML ASPHALTA GROUND LANDICEA LNDFRM1A LNDFRM2A PHYVOIDA SEAICEA PHYSTXT
TYPE	Feature Type			
		P	Point Feature	LNDFRMP, MTNP, THERMALP
		L	Line Feature	BLUFFL, EMBANKL, LNDFRML
		A	Area Feature	ASPHALTA, GROUND, LANDICEA, LNDFRM1A, LNDFRM2A, PHYVOIDA, SEAICEA
		T	Text Feature	PHYSTXT

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TABLE 162. Physiography Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
DESCR	Description			
		Landform Point Features		LNDFRMP
		Cave and Mountain Passes		MTNP
		Geothermal Features		THERMALP
		Bluffs/Cliffs/Escarpments		BLUFFL
		Cuts and Embankments/Fills		EMBANKL
		Landform Line Features		LNDFRML
		Asphalt Lakes		ASPHALTA
		Ground Surface Areas		GROUNDA
		Glaciers and Snow/Ice Fields		LANDICEA
		Salt Pans, Sebkhas, Sand Dunes/Hills		LNDFRM1A
		Moraines		LNDFRM2A
		Physiography Void Collection Areas		PHYVOIDA
		Ice Shelf, Polar Ice, Pack Ice Areas		SEAICEA
		Physiography Coverage Text		PHYSTXT

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TABLE 163. Physiography Character Value Description Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Physiography Character Value
 Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 5

{Header length}L;				
Physiography Character Value Description Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
TABLE=T,12,N,Name of the Feature Table,-,-,-,;				
ATTRIBUTE=T,6,N,Column Name,-,-,-,;				
VALUE=T,5,N,Unique Value of Attribute,-,-,-,;				
DESCRIPTION=T,26,N,Description of Value,-,-,-,;:				
1	LNDFRMP.PFT	F_CODE	BJ060	Ice Peak/Nunatak
2	LNDFRMP.PFT	F_CODE	DB160	Rock Strata/Rock Formation
3	MTNP.PFT	F_CODE	DB030	Cave
4	MTNP.PFT	F_CODE	DB150	Mountain Pass
5	MTNP.PFT	NAM	UNK	No entry present
6	THERMALP.PFT	F_CODE	DB115	Geothermal Feature
7	BLUFFL.LFT	F_CODE	DB010	Bluff/Cliff/Escarpment
8	EMBANKL.LFT	F_CODE	DB070	Cut
9	EMBANKL.LFT	F_CODE	DB090	Embankment/Fill
10	LNDFRML.LFT	F_CODE	BJ040	Ice Cliff
11	LNDFRML.LFT	F_CODE	DB060	Crevice/Crevasse
12	LNDFRML.LFT	F_CODE	DB100	Esker
13	LNDFRML.LFT	F_CODE	DB110	Fault
14	ASPHALTA.AFT	F_CODE	DA005	Asphalt Lake
15	GROUND.AFT	F_CODE	DA010	Ground Surface Element
16	LANDICEA.AFT	F_CODE	BJ030	Glacier
17	LANDICEA.AFT	F_CODE	BJ100	Snow Field/Ice Field
18	LNDFRM1A.AFT	F_CODE	BH150	Salt Pan
19	LNDFRM1A.AFT	F_CODE	BH160	Sebkha
20	LNDFRM1A.AFT	F_CODE	DB170	Sand Dunes/Sand Hills
21	LNDFRM2A.AFT	F_CODE	BJ020	Moraine
22	PHYVOIDA.AFT	F_CODE	ZD020	Void Collection Area
23	SEAICEA.AFT	F_CODE	BJ065	Ice Shelf
24	SEAICEA.AFT	F_CODE	BJ070	Pack Ice
25	SEAICEA.AFT	F_CODE	BJ080	Polar Ice
26	PHYSTXT.TFT	F_CODE	ZD040	Named Location
27	PHYSTXT.TFT	F_CODE	ZD045	Text Description
28	FCA	TYPE	A	Area Feature
29	FCA	TYPE	L	Line Feature
30	FCA	TYPE	P	Point/Node Feature
31	FCA	TYPE	T	Text Feature
32	DQPOINT.PFT	F_CODE	BJ060	Ice Peak/Nunatak
33	DQPOINT.PFT	F_CODE	DB160	Rock Strata/Rock Formation

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TABLE 163. Physiography Character Value Description Table -
Continued.

34	DQPOINT.PFT	F_CODE	DB030	Cave
35	DQPOINT.PFT	F_CODE	DB150	Mountain Pass
36	DQPOINT.PFT	F_CODE	DB115	Geothermal Feature
37	DQPOINT.PFT	F_CODE	ZD045	Text Description
38	DQLINE.LFT	F_CODE	DB010	Bluff/Cliff/Escarpment
39	DQLINE.LFT	F_CODE	DB070	Cut
40	DQLINE.LFT	F_CODE	DB090	Embankment/Fill
41	DQLINE.LFT	F_CODE	BJ040	Ice Cliff
42	DQLINE.LFT	F_CODE	DB060	Crevice/Crevasse
43	DQLINE.LFT	F_CODE	DB100	Esker
44	DQLINE.LFT	F_CODE	DB110	Fault
45	DQLINE.LFT	F_CODE	ZD045	Text Description
46	DQAREA.AFT	F_CODE	DA005	Asphalt Lake
47	DQAREA.AFT	F_CODE	DA010	Ground Surface Element
48	DQAREA.AFT	F_CODE	BJ030	Glacier
49	DQAREA.AFT	F_CODE	BJ100	Snow Field/Ice Field
50	DQAREA.AFT	F_CODE	BH150	Salt Pan
51	DQAREA.AFT	F_CODE	BH160	Sabkha
52	DQAREA.AFT	F_CODE	DB170	Sand Dunes/Sand Hills
53	DQAREA.AFT	F_CODE	BJ020	Moraine
54	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
55	DQAREA.AFT	F_CODE	BJ065	Ice Shelf
56	DQAREA.AFT	F_CODE	BJ070	Pack Ice
57	DQAREA.AFT	F_CODE	BJ080	Polar Ice
58	DQAREA.AFT	F_CODE	ZD045	Text Description

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TABLE 164. Physiography Integer Value Description Table.

Thematic Layer: Physiography
 Coverage Name: PHYS
 Feature Table Description: Physiography Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 5

```
{Header length}L;
Physiography Integer Value Description Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
TABLE=T,12,N,Name of the Feature Table,-,-,-,:
ATTRIBUTE=T,3,N,Column Name,-,-,-,:
VALUE=S,1,N,Unique Value of Attribute,-,-,-,:
DESCRIPTION=T,50,N,Description of Value,-,-,-,;
```

1	LNDFRMP.PFT	MCC	0	Unknown
2	LNDFRMP.PFT	MCC	84	Rock/Rocky
3	LNDFRMP.PFT	MCC	103	Snow/Ice
4	LNDFRMP.PFT	RKF	0	Unknown
5	LNDFRMP.PFT	RKF	1	Columnar
6	LNDFRMP.PFT	RKF	3	Pinnacle
7	MTNP.PFT	ZV2	29999	Unknown
8	THERMALP.PFT	SWT	0	Unknown
9	THERMALP.PFT	SWT	1	Geyser
10	THERMALP.PFT	SWT	2	Hot Spring
11	THERMALP.PFT	SWT	3	Fumarole
12	BLUFFL.LFT	HGT	0	Unknown
13	EMBANKL.LFT	PFH	0	Unknown
14	EMBANKL.LFT	USE	0	Unknown
15	EMBANKL.LFT	USE	69	Levee/Dike
16	EMBANKL.LFT	USE	127	as a Causeway
17	EMBANKL.LFT	USE	136	as a Fill
18	EMBANKL.LFT	VRR	0	Unknown
19	EMBANKL.LFT	VRR	1	Above Surface/Does Not Cover (At High Water)
20	EMBANKL.LFT	VRR	8	Covers and Uncovers
21	EMBANKL.LFT	VRR	9	Not Applicable
22	LNDFRML.LFT	MCC	0	Unknown
23	LNDFRML.LFT	MCC	30	Earthen
24	LNDFRML.LFT	MCC	103	Snow/Ice
25	LNDFRML.LFT	WID	0	Unknown
26	GROUND.AFT	MCC	0	Unknown
27	GROUND.AFT	MCC	8	Boulders
28	GROUND.AFT	MCC	46	Gravel
29	GROUND.AFT	MCC	52	Lava
30	GROUND.AFT	MCC	55	Loess
31	GROUND.AFT	MCC	68	Oil Blister
32	GROUND.AFT	MCC	88	Sand

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TABLE 164. Physiography Integer Value Description
Table - Continued.

33	GROUND.A.AFT	MCC	119	Karst
34	LANDICEA.AFT	SIC	1	Snow
35	LANDICEA.AFT	SIC	2	Ice
36	LNDFRM1A.AFT	FEO	999	Unknown
37	LNDFRM1A.AFT	SSC	0	Unknown
38	LNDFRM1A.AFT	SSC	22	Crescent
39	LNDFRM1A.AFT	SSC	26	Lateral
40	LNDFRM1A.AFT	SSC	27	Mounds
41	LNDFRM1A.AFT	SSC	28	Ripple
42	LNDFRM1A.AFT	SSC	29	Star
43	LNDFRM1A.AFT	SSC	30	Transverse
44	PHYVOIDA.AFT	VCA	0	Unknown
45	PHYVOIDA.AFT	VCA	2	Area Too Rough to Collect
46	PHYVOIDA.AFT	VCA	3	No Available Imagery
47	PHYVOIDA.AFT	VCA	6	No Available Map Source
48	PHYVOIDA.AFT	VCA	7	No Suitable Imagery
49	SEAICEA.AFT	PRC	0	Unknown
50	SEAICEA.AFT	PRC	3	Permanent Ice
51	SEAICEA.AFT	PRC	4	Seasonal Limit - Jan.
52	SEAICEA.AFT	PRC	5	Seasonal Limit - Feb.
53	SEAICEA.AFT	PRC	6	Seasonal Limit - Mar.
54	SEAICEA.AFT	PRC	7	Seasonal limit - Apr.
55	SEAICEA.AFT	PRC	8	Seasonal limit - May
56	SEAICEA.AFT	PRC	9	Seasonal limit - Jun.
57	SEAICEA.AFT	PRC	10	Seasonal limit - Jul.
58	SEAICEA.AFT	PRC	11	Seasonal limit - Aug.
59	SEAICEA.AFT	PRC	12	Seasonal limit - Sep.
60	SEAICEA.AFT	PRC	13	Seasonal limit - Oct.
61	SEAICEA.AFT	PRC	14	Seasonal limit - Nov.
62	SEAICEA.AFT	PRC	15	Seasonal limit - Dec.
63	SYMBOL.RAT	FON	1	Machine Default
64	SYMBOL.RAT	STY	1	Kern
65	SYMBOL.RAT	STY	2	Proportional
66	SYMBOL.RAT	STY	3	Constant
67	SYMBOL.RAT	COL	1	Black
68	SYMBOL.RAT	COL	4	Blue
69	SYMBOL.RAT	COL	9	Red-Brown
70	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.8 Population coverage.TABLE 165. Content and format for Population coverage feature class schema table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Population Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 6

{Header length}L; Population Feature Class Schema Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,;					
TABLE1=T,12,N,First Table,-,-,-,;					
TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,;					
TABLE2=T,12,N,Second Table,-,-,-,;					
TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;;					
1	BUILDP	BUILDP.PFT	END_ID	END	ID
2	BUILDP	END	BUILDP.PFT_ID	BUILDP.PFT	ID
3	BUILTUPP	BUILTUPP.PFT	END_ID	END	ID
4	BUILTUPP	END	BUILTUPP.PFT_ID	BUILTUPP.PFT	ID
5	FORTP	FORTP.PFT	END_ID	END	ID
6	FORTP	END	FORTP.PFT_ID	FORTP.PFT	ID
7	LANDMRKP	LANDMRKP.PFT	END_ID	END	ID
8	LANDMRKP	END	LANDMRKP.PFT_ID	LANDMRKP.PFT	ID
9	MISPOPP	MISPOPP.PFT	END_ID	END	ID
10	MISPOPP	END	MISPOPP.PFT_ID	MISPOPP.PFT	ID
11	RUINSP	RUINSP.PFT	END_ID	END	ID
12	RUINSP	END	RUINSP.PFT_ID	RUINSP.PFT	ID
13	LANDMRKL	LANDMRKL.LFT	EDG_ID	EDG	ID
14	LANDMRKL	EDG	LANDMRKL.LFT_ID	LANDMRKL.LFT	ID
15	BUILDA	BUILDA.AFT	FAC_ID	FAC	ID
16	BUILDA	FAC	BUILDA.AFT_ID	BUILDA.AFT	ID
17	BUILTUPA	BUILTUPA.AFT	FAC_ID	FAC	ID
18	BUILTUPA	FAC	BUILTUPA.AFT_ID	BUILTUPA.AFT	ID
19	FORTA	FORTA.AFT	FAC_ID	FAC	ID
20	FORTA	FAC	FORTA.AFT_ID	FORTA.AFT	ID
21	LANDMRKA	LANDMRKA.AFT	FAC_ID	FAC	ID
22	LANDMRKA	FAC	LANDMRKA.AFT_ID	LANDMRKA.AFT	ID
23	MISPOPA	MISPOPA.AFT	FAC_ID	FAC	ID
24	MISPOPA	FAC	MISPOPA.AFT_ID	MISPOPA.AFT	ID
25	POPVOIDA	POPVOIDA.AFT	FAC_ID	FAC	ID
26	POPVOIDA	FAC	POPVOIDA.AFT_ID	POPVOIDA.AFT	ID
27	RUINSA	RUINSA.AFT	FAC_ID	FAC	ID
28	RUINSA	FAC	RUINSA.AFT_ID	RUINSA.AFT	ID
29	DQPOINT	DQPOINT.PFT	END_ID	END	ID

APPENDIX F

TABLE 165. Content and format for Population coverage feature class schema table - Continued.

30	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
31	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
32	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
33	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
34	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
35	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
36	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
37	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
38	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
39	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
40	POPTXT	POPTXT.TFT	TXT_ID	TXT	ID
41	POPTXT	TXT	POPTXT.TFT_ID	POPTXT.TFT	ID
42	POPTXT	POPTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

APPENDIX F

TABLE 166. Buildings Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Buildings Point Feature Table
 Table Name: BUILDP.PFT
 DQ Layer Number: 6

Portrayal Criteria:

For AL015 must be a landmark feature and if BFC=27 must be railroad station

{Header length}L;											
Buildings Point Feature Table;-;											
ID=I,1,P,Row Identifier,-,-,-,;											
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,;											
AOO=S,1,N,Angle of Orientation (degrees),INT.VDT,-,-,-,;											
BFC=S,1,N,Building Function Category,INT.VDT,-,-,-,;											
EXS=S,1,N,Existence Category,INT.VDT,-,-,-,;											
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,-,;											
HWT=S,1,N,House of Worship Type,INT.VDT,-,-,-,;											
NAM=T,*N,Name,CHAR.VDT,-,-,-,;											
WID=S,1,N,Width (meters),INT.VDT,-,-,-,;											
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,-,;											
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,-,;											
END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,-,;											
1	AL015	360	14	5	0	22	UNK	0	5	1	1
:	:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL015	Buildings	
AOO	Angle of Orientation (degrees)	999	Unknown	AL015
		0 to 179		AL015
		360	Circular Feature	AL015

APPENDIX F

TABLE 166. Buildings Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
BFC	Building Function Category			
		0	Unknown	AL015
		1	Fabrication Structures	AL015
		2	Government Building	AL015
		3	Capitol Building	AL015
		4	Castle	AL015
		5	Government Administration Building	AL015
		7	House of Worship	AL015
		9	Museum	AL015
		10	Observatory	AL015
		11	Palace	AL015
		12	Police Station	AL015
		13	Prison	AL015
		14	Ranger Station	AL015
		15	School	AL015
		16	House	AL015
		17	Multi-Unit Dwelling	AL015
		18	Cemetery Building	AL015
		19	Farm Building	AL015
		20	Greenhouse	AL015
		22	Watermill/Gristmill	AL015
		23	Wind Tunnel	AL015
		24	Warehouse	AL015
		27	Depot Terminal (passenger)	AL015
		82	Lighthouse	AL015
		83	Power Generation	AL015
		999	Other	AL015
EXS	Existence Category			
		0	Unknown	AL015
		5	Under Construction	AL015
		6	Abandoned/Disused	AL015
		7	Destroyed	AL015
		28	Operational	AL015
HGT	Height Above Surface Level (meters)			
		0	Unknown	AL015
		1 to no upper limit		AL015

APPENDIX F

TABLE 166. Buildings Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
HWT	House of Worship Type	0	Unknown	AL015
		2	Cathedral	AL015
		3	Chapel	AL015
		4	Church	AL015
		5	Marabout	AL015
		6	Minaret	AL015
		7	Monastery/Convent	AL015
		9	Mosque	AL015
		11	Pagoda	AL015
		14	Shrine	AL015
		15	Tabernacle	AL015
		16	Temple	AL015
		20	Synagogue	AL015
21	Stupa	AL015		
22	Not Applicable	AL015		
NAM	Name	Character text string		AL015
		"UNK" (no entry present for feature)		AL015
WID	Width (meters)	0	Unknown	AL015
		<125		AL015
ZV2	Highest Z-value (meters)	29999	Unknown	AL015
		-400 to 11999		AL015

APPENDIX F

TABLE 167. Built-Up Area Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Built-Up Area Point Feature Table
 Table Name: BUILTUPP.PFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AL020 as point feature must be fifth class and population under 5,000

{Header length}L; Built-Up Area Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; ARH=S,1,N,Area Coverage Attribute (hectares),INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END2_ID.PTI,-,;					
1	AL020	0	UNK	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL020	Built-Up Area	
ARH	Area Coverage Attribute (hectares)	0 <=39	Unknown	AL020 AL020
NAM	Name	Character text string "UNK" (no entry present for feature)		AL020 AL020

APPENDIX F

TABLE 168. Fortification Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Fortification Point Feature Table
 Table Name: FORTP.PFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AH050 width <= 325 meters and must be a landmark feature

{Header length}L; Fortification Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.PTI,-,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,-,;;				
1	AH050	Fort Apache	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AH050	Fortification	
NAM	Name	Character text string "UNK" (no entry present for feature)		AH050 AH050

APPENDIX F

TABLE 169. Landmark Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Landmark Point Feature Table
 Table Name: LANDMRKP.PFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AK020 height >= 46
 For AK150, AK160, AL130 if height < 46 must be a landmark feature

{Header length}L;								
Landmark Point Feature Table;-;								
ID=I,1,P,Row Identifier,-,-,-,;								
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.PTI,-,;								
EXS=S,1,N,Existence Category,INT.VDT,-,-,;								
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,;								
NAM=T,*N,Name,CHAR.VDT,-,-,;								
SSC=S,1,N,Structure Shape Category,INT.VDT,-,-,;								
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,;								
TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.PTI,-,;								
END_ID=I,1,N,Entity Node Primitive ID,-,END4_ID.PTI,-,;								
1	AK020	1	200	VLT=0	21	29999	1	1
2	AK150	1	150	VLT=0	-32768	29999	2	2
3	AK160	1	175	Dodger	-32768	29999	3	3
4	AL130	3	250	Washington	109	29999	4	4
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning
ID	Row Identifier	Sequential beginning with 1	
F_CODE	FACC Feature Code	AK020	Amusement Park Attraction
		AK150	Ski Jump
		AK160	Stadium/Amphitheater
		AL130	Monument

APPENDIX F

TABLE 169. Landmark Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
EXS	Existence Category	0	Unknown	AK020, AK150, AK160, AL130
		1	Definite	AK020, AK150, AK160, AL130
		2	Doubtful	AK020, AK150, AK160, AL130
		3	Reported	AK020, AK150, AK160, AL130
HGT	Height Above Surface Level (meters)	0	Unknown	AK020, AK150, AK160, AL130
		> 1		AK150, AK160, AL130
		>= 46		AK020
NAM	Name Variable Length	text =0-length	Null	AK020, AK150
		Character text string		AK160, AL130
		"UNK" (no entry present for feature)		AK160, AL130
SSC	Structure Shape Category	-32768	Null	AK150, AK160
		0	Unknown	AK020, AL130
		12	Pyramid	AL130
		17	Spherical (Hemispherical)	AK020
		21	Artificial Mountain	AK020
		23	Ferris Wheel	AK020
		25	Roller Coaster	AK020
		77	Arch	AL130
		109	Obelisk	AL130
		999	Other	AK020, AL130
ZV2	Highest Z-value (meters)	29999	Unknown	AK020, AK150, AL130, AK160
		-400 to 11999		AK020, AK150, AL130, AK160

APPENDIX F

TABLE 170. Miscellaneous Population Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Miscellaneous Population Point Feature Table
 Table Name: MISPOPP.PFT
 DQ Layer Number: 6
 Portrayal Criteria: For AL100 must be a landmark feature

{Header length}L; Miscellaneous Population Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END5_ID.PTI,-,;;			
1	AL100	1	1
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL100	Hut	

APPENDIX F

TABLE 171. Ruins Point Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Ruins Point Feature Table
 Table Name: RUINSP.PFT
 DQ Layer Number: 6
 Portrayal Criteria: For AL200 must be a landmark feature

```
{Header length}L;
Ruins Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
ARH=S,1,N,Area Coverage Attribute (hectares),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END6_ID.PTI,-,,:;
```

1	AL200	15	1	1
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL200	Ruins	
ARH	Area Coverage Attribute (hectares)	0	Unknown	AL200
		<=39		AL200

APPENDIX F

TABLE 172. Landmark Line Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Landmark Line Feature Table
 Table Name: LANDMRKL.LFT
 DQ Layer Number: 6
 Portrayal Criteria: For AK130 must be a landmark feature

{Header length}L; Landmark Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;				
1	AK130	Los Alamitos	1	1
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AK130	Race Track	
NAM	Name	Character text string "UNK" (no entry present for feature)		AK130 AK130

APPENDIX F

TABLE 173. Buildings Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Buildings Area Feature Table
 Table Name: BUILDA.AFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AL015 must be a landmark feature and width >= 125 meters and length >= 125 meters

```
{Header length}L;
Buildings Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
BFC=S,1,N,Building Function Category,INT.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,:
HWT=S,1,N,House of Worship Type,INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,;:
```

1	AL015	4	1	350	22	Hearst Castle	1	2
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning
ID	Row Identifier		Sequential beginning with 1
F_CODE	FACC Feature Code	AL015	Buildings

APPENDIX F

TABLE 173. Buildings Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
BFC	Building Function Category			
		0	Unknown	AL015
		1	Fabrication Structures	AL015
		2	Government Building	AL015
		3	Capitol Building	AL015
		4	Castle	AL015
		5	Government Administration Building	AL015
		7	House of Worship	AL105
		9	Museum	AL015
		10	Observatory	AL015
		11	Palace	AL015
		12	Police Station	AL015
		13	Prison	AL015
		14	Ranger Station	AL015
		15	School	AL015
		16	House	AL015
		17	Multi-Unit Dwelling	AL015
		18	Cemetery Building	AL015
		19	Farm Building	AL015
		20	Greenhouse	AL015
		22	Watermill/Gristmill	AL015
		23	Wind Tunnel	AL015
		24	Warehouse	AL015
		83	Power Generation	AL015
		999	Other	AL015
EXS	Existence Category			
		0	Unknown	AL015
		1	Definite	AL015
		2	Doubtful	AL015
		3	Reported	AL015
HGT	Height Above Surface Level (meters)			
		0	Unknown	AL015
		1	to no upper limit	AL015

APPENDIX F

TABLE 173. Buildings Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
HWT	House of Worship Type	0	Unknown	AL015
		2	Cathedral	AL015
		3	Chapel	AL015
		4	Church	AL015
		5	Marabout	AL015
		6	Minaret	AL015
		7	Monastery/Convent	AL015
		9	Mosque	AL015
		11	Pagoda	AL015
		14	Shrine	AL015
		15	Tabernacle	AL015
		16	Temple	AL015
		20	Synagogue	AL015
		21	Stupa	AL015
22	Not Applicable	AL015		
NAM	Name		Character text string	AL015
			"UNK" (no entry present for feature)	AL015

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TABLE 174. Built-Up Area Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Built-Up Area Area Feature Table
 Table Name: BUILTUPA.AFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AL020 area >= 39.0625 hectares, (population range)

{Header length}L; Built-Up Area Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; USE=S,1,N,Usage,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;;						
1	AL020	999	UNK	26	1	2
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value	
ID	Row Identifier	Sequential beginning with 1			
F_CODE	FACC Feature Code	AL020	Built-Up Area		
EXS	Existence Category	0	Unknown	AL020	
		7	Destroyed	AL020	
		62	Partially Destroyed	AL020	
		999	Other	AL020	
NAM	Name	Character text string		AL020	
		"UNK" (no entry present for feature)		AL020	
USE	Usage	0	Unknown	AL020	
		(> 500,000)	26	Primary/First Order	AL020
		(100,000-500,000)	30	Secondary/Second Order	AL020
		(25,000-100,000)	31	Tertiary/Third Order	AL020
		(5,000-25,000)	111	Quartenary/Fourth Order	AL020

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TABLE 175. Fortification Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Fortification Area Feature Table
 Table Name: FORTA.AFT
 DQ Layer Number: 6
 Portrayal Criteria:
 For AH050 width >= 325 meters and must be a landmark feature

<pre>{Header length}L; Fortification Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,: F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,: NAM=T,*N,Name,CHAR.VDT,-,-,: TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,: FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;;</pre>				
1	AH050	Fort Apache	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AH050	Fortification	
NAM	Name	Character text string "UNK" (no entry present for feature)		AH050 AH050

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TABLE 176. Landmark Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Landmark Area Feature Table
 Table Name: LANDMRKA.AFT
 DQ Layer Number: 6
 Portrayal Criteria: For AK120 area >= 39.0625 hectares

{Header length)L; Landmark Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,; USE=S,1,N,Usage,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC4_ID.ATI,-,;;					
1	AK120	Woodland Park	0	1	2
:	:	:	:	:	:
n	n	n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AK120	Park	
NAM	Name	Character text string "UNK" (no entry present for feature)		AK120 AK120
USE	Usage	0	Unknown	AK120
		4	National	AK120

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TABLE 177. Miscellaneous Population Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Miscellaneous Population Area Feature Table
 Table Name: MISPOPA.AFT
 DQ Layer Number: 6
 Portrayal Criteria: For AL105, AL135 area >= 39.0625 hectares

{Header length}L; Miscellaneous Population Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE5.ATI,-,,: NAS=S,1,N,Native Settlement Type,INT.VDT,-,-,; PPT=S,1,N,Populated Place Type,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.ATI,-,,: FAC_ID=I,1,N,Face Primitive ID,-,FAC5_ID.ATI,-,,:					
1	AL105	-32768	2	1	2
2	AL135	0	-32768	2	3
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL105	Settlement	
		AL135	Native Settlement	
NAS	Native Settlement Type	-32768	Null	AL105
		0	Unknown	AL135
		2	Continuous Habitation	AL135
PPT	Populated Place Type	-32768	Null	AL135
		0	Unknown	AL105
		2	Shantytown	AL105

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TABLE 178. Population Void Collection Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Population Void Collection Area Feature Table
 Table Name: POPVOIDA.AFT
 DQ Layer Number: 6
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Population Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC7_ID.ATI,-,;;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 179. Ruins Area Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Ruins Area Feature Table
 Table Name: RUINSA.AFT
 DQ Layer Number: 6
 Portrayal Criteria: For AL200 area >= 39.0625 hectares

{Header length}L; Ruins Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.ATI,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC6_ID.ATI,-,-,;			
1	AL200	1	2
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL200	Ruins	

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TABLE 180. Population Text Feature Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Population Text Feature Table
 Table Name: POPTXT.TFT
 DQ Layer Number: 6

{Header length}L; Population Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;:				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040 ZD045	Named Location Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

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TABLE 181. Population Feature Class Attribute Table.

Thematic Layer: Population
 Coverage Name: POP
 Table Description: Population Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 6

{Header length}L; Population Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,*,N,Description,-,-,-,;;			
1	BUILDP	P	Building Point Features
:	:	:	:
n	n	n	n

Applicable
 Feature Class
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable Feature Class for Each Attribute Value
ID	Row Identifier		Sequential beginning with 1	
FCLASS	Feature Class Name			
		BUILDP		
		BUILTUPP		
		FORTP		
		LANDMRKP		
		MISPOPP		
		RUINSP		
		LANDMRKL		
		BUILDPA		
		BUILTUPA		
		FORTA		
		LANDMRKA		
		MISPOPA		
		POPVOIDA		
		RUINSA		
		POPTXT		
TYPE	Feature Type			
		P	Point Feature	BUILDP, BUILTUPP, FORTP, LANDMRKP, MISPOPP, RUINSP
		L	Line Feature	LANDMRKL
		A	Area Feature	BUILDPA, BUILTUPA, FORTA, LANDMRKA, MISPOPA, POPVOIDA, RUINSA
		T	Text Feature	POPTXT

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TABLE 181. Population Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable Feature Class for Each Attribute Value</u>
DESCR	Description			
		Building Point Features		BUILDP
		Built-Up Area Points		BUILTUPP
		Fortification Sites		FORTP
		Landmark Sites		LANDMRKP
		Huts		MISPOPP
		Ruins Sites		RUINSP
		Race Tracks		LANDMRKL
		Building Area Features		BUILDA
		Built-Up Areas		BUILTUPA
		Fortification Areas		FORTA
		Parks		LANDMRKA
		Settlement Areas		MISPOPA
		Population Void Collection Areas		POPVOIDA
		Ruins Areas		RUINSA
		Population Coverage Text		POPTXT

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TABLE 182. Population Character Value Description Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Population Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 6

{Header length}L; Population Character Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,6,N,Column Name,-,-,-,; VALUE=T,5,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,25,N,Description of Value,-,-,-,;				
1	BUILD.PFT	F_CODE	AL015	Buildings
2	BUILD.PFT	NAM	UNK	No entry present
3	BUILTUP.PFT	F_CODE	AL020	Built-Up Area
4	BUILTUP.PFT	NAM	UNK	No entry present
5	FORT.PFT	F_CODE	AH050	Fortification
6	FORT.PFT	NAM	UNK	No entry present
7	LANDMRKP.PFT	F_CODE	AK020	Amusement Park Attraction
8	LANDMRKP.PFT	F_CODE	AK150	Ski Jump
9	LANDMRKP.PFT	F_CODE	AK160	Stadium/Amphitheater
10	LANDMRKP.PFT	F_CODE	AL130	Monument
11	LANDMRKP.PFT	NAM	UNK	No entry present
12	MISPOPP.PFT	F_CODE	AL100	Hut
13	RUINSP.PFT	F_CODE	AL200	Ruins
14	LANDMRKL.LFT	F_CODE	AK130	Race Track
15	LANDMRKL.LFT	NAM	UNK	No entry present
16	BUILD.AFT	F_CODE	AL015	Buildings
17	BUILD.AFT	NAM	UNK	No entry present
18	BUILTUP.AFT	F_CODE	AL020	Built-Up Area
19	BUILTUP.AFT	NAM	UNK	No entry present
20	FORTA.AFT	F_CODE	AH050	Fortification
21	FORTA.AFT	NAM	UNK	No entry present
22	LANDMRKA.AFT	F_CODE	AK120	Park
23	LANDMRKA.AFT	NAM	UNK	No entry present
24	MISPOPA.AFT	F_CODE	AL105	Settlement
25	MISPOPA.AFT	F_CODE	AL135	Native Settlement
26	RUINSA.AFT	F_CODE	AL200	Ruins
27	POPVOIDA.AFT	F_CODE	ZD020	Void Collection Area
28	POPTXT.TFT	F_CODE	ZD040	Named Location
29	POPTXT.TFT	F_CODE	ZD045	Text Description
30	FCA	TYPE	A	Area Feature
31	FCA	TYPE	L	Line Feature
32	FCA	TYPE	P	Point/Node Feature

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TABLE 182. Population Character Value Description Table -
Continued.

	FCA	TYPE	T	Text Feature
34	DQPOINT.PFT	F_CODE	AL015	Buildings
35	DQPOINT.PFT	F_CODE	AL020	Built-up Area
36	DQPOINT.PFT	F_CODE	AH050	Fortification
37	DQPOINT.PFT	F_CODE	AK020	Amusement Park Attraction
38	DQPOINT.PFT	F_CODE	AK150	Ski Jump
39	DQPOINT.PFT	F_CODE	Ak160	Stadium/Amphitheater
40	DQPOINT.PFT	F_CODE	AL130	Monument
41	DQPOINT.PFT	F_CODE	AL100	Hut
42	DQPOINT.PFT	F_CODE	AL200	Ruins
43	DQPOINT.PFT	F_CODE	ZD045	Text Description
44	DQLINE.LFT	F_CODE	AK130	Race Track
45	DQLINE.LFT	F_CODE	ZD045	Text Description
46	DQAREA.AFT	F_CODE	AL015	Buildings
47	DQAREA.AFT	F_CODE	AL020	Built-up Area
48	DQAREA.AFT	F_CODE	Ah050	Fortification
49	DQAREA.AFT	F_CODE	AK120	Park
50	DQAREA.AFT	F_CODE	AL105	Settlement
51	DQAREA.AFT	F_CODE	AL135	Native Settlement
52	DQAREA.AFT	F_CODE	AL200	Ruins
53	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
54	DQAREA.AFT	F_CODE	ZD045	Text Description

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TABLE 183. Population Integer Value Description Table.

Thematic Layer: Population
 Coverage Name: POP
 Feature Table Description: Population Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 6

{Header length}L; Population Integer Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; p=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,3,N,Column Name,-,-,-,; VALUE=S,1,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,34,N,Description of Value,-,-,-,;				
1	BUILDP.PFT	AOO	360	Circular Feature
2	BUILDP.PFT	AOO	999	Unknown
3	BUILDP.PFT	BFC	0	Unknown
4	BUILDP.PFT	BFC	1	Fabrication Structures
5	BUILDP.PFT	BFC	2	Government Building
6	BUILDP.PFT	BFC	3	Capitol Building
7	BUILDP.PFT	BFC	4	Castle
8	BUILDP.PFT	BFC	5	Government Administration Building
9	BUILDP.PFT	BFC	7	House of Worship
10	BUILDP.PFT	BFC	9	Museum
11	BUILDP.PFT	BFC	10	Observatory
12	BUILDP.PFT	BFC	11	Palace
13	BUILDP.PFT	BFC	12	Police Station
14	BUILDP.PFT	BFC	13	Prison
15	BUILDP.PFT	BFC	14	Ranger Station
16	BUILDP.PFT	BFC	15	School
17	BUILDP.PFT	BFC	16	House
18	BUILDP.PFT	BFC	17	Multi-Unit Dwelling
19	BUILDP.PFT	BFC	18	Cemetery Building
20	BUILDP.PFT	BFC	19	Farm Building
21	BUILDP.PFT	BFC	20	Greenhouse
22	BUILDP.PFT	BFC	22	Watermill/Gristmill
23	BUILDP.PFT	BFC	23	Wind Tunnel
24	BUILDP.PFT	BFC	24	Warehouse
25	BUILDP.PFT	BFC	27	Depot Terminal (passenger)
26	BUILDP.PFT	BFC	82	Lighthouse
27	BUILDP.PFT	BFC	83	Power Generation
28	BUILDP.PFT	BFC	999	Other
29	BUILDP.PFT	EXS	0	Unknown
30	BUILDP.PFT	EXS	5	Under Construction
31	BUILDP.PFT	EXS	6	Abandoned/Disused
32	BUILDP.PFT	EXS	7	Destroyed
33	BUILDP.PFT	EXS	28	Operational
34	BUILDP.PFT	HGT	0	Unknown
35	BUILDP.PFT	HWT	0	Unknown
36	BUILDP.PFT	HWT	2	Cathedral
37	BUILDP.PFT	HWT	3	Chapel
38	BUILDP.PFT	HWT	4	Church

APPENDIX F

TABLE 183. Population Integer Value Description Table - Continued.

39	BUILDP.PFT	HWT	5	Marabout
40	BUILDP.PFT	HWT	6	Minaret
41	BUILDP.PFT	HWT	7	Monastery/Convent
42	BUILDP.PFT	HWT	9	Mosque
43	BUILDP.PFT	HWT	11	Pagoda
44	BUILDP.PFT	HWT	14	Shrine
45	BUILDP.PFT	HWT	15	Tabernacle
46	BUILDP.PFT	HWT	16	Temple
47	BUILDP.PFT	HWT	20	Synagogue
48	BUILDP.PFT	HWT	21	Stupa
49	BUILDP.PFT	HWT	22	Not Applicable
50	BUILDP.PFT	WID	0	Unknown
51	BUILDP.PFT	ZV2	29999	Unknown
52	BUILTUPP.PFT	ARH	0	Unknown
53	LANDMRKP.PFT	EXS	0	Unknown
54	LANDMRKP.PFT	EXS	1	Definite
55	LANDMRKP.PFT	EXS	2	Doubtful
56	LANDMRKP.PFT	EXS	3	Reported
57	LANDMRKP.PFT	HGT	0	Unknown
58	LANDMRKP.PFT	SSC	0	Unknown
59	LANDMRKP.PFT	SSC	12	Pyramid
60	LANDMRKP.PFT	SSC	17	Spherical (Hemispherical)
61	LANDMRKP.PFT	SSC	21	Artificial Mountain
62	LANDMRKP.PFT	SSC	23	Ferris Wheel
63	LANDMRKP.PFT	SSC	25	Roller Coaster
64	LANDMRKP.PFT	SSC	77	Arch
65	LANDMRKP.PFT	SSC	109	Obelisk
66	LANDMRKP.PFT	SSC	999	Other
67	LANDMRKP.PFT	ZV2	29999	Unknown
68	RUINSP.PFT	ARH	0	Unknown
69	BUILDA.AFT	BFC	0	Unknown
70	BUILDA.AFT	BFC	1	Fabrication Structures
71	BUILDA.AFT	BFC	2	Government Building
72	BUILDA.AFT	BFC	3	Capitol Building
73	BUILDA.AFT	BFC	4	Castle
74	BUILDA.AFT	BFC	5	Government Administration Building
75	BUILDA.AFT	BFC	7	House of Worship
76	BUILDA.AFT	BFC	9	Museum
77	BUILDA.AFT	BFC	10	Observatory
78	BUILDA.AFT	BFC	11	Palace
79	BUILDA.AFT	BFC	12	Police Station
80	BUILDA.AFT	BFC	13	Prison
81	BUILDA.AFT	BFC	14	Ranger Station
82	BUILDA.AFT	BFC	15	School
83	BUILDA.AFT	BFC	16	House
84	BUILDA.AFT	BFC	17	Multi-Unit Dwelling
85	BUILDA.AFT	BFC	18	Cemetery Building
86	BUILDA.AFT	BFC	19	Farm Building
87	BUILDA.AFT	BFC	20	Greenhouse
88	BUILDA.AFT	BFC	22	Watermill/Gristmill
89	BUILDA.AFT	BFC	23	Wind Tunnel

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TABLE 183. Population Integer Value Description Table - Continued.

90	BUILDA.AFT	BFC	24	Warehouse
91	BUILDA.AFT	BFC	83	Power Generation
92	BUILDA.AFT	BFC	999	Other
93	BUILDA.AFT	EXS	0	Unknown
94	BUILDA.AFT	EXS	1	Definite
95	BUILDA.AFT	EXS	2	Doubtful
96	BUILDA.AFT	EXS	3	Reported
97	BUILDA.AFT	HGT	0	Unknown
98	BUILDA.AFT	HWT	0	Unknown
99	BUILDA.AFT	HWT	2	Cathedral
100	BUILDA.AFT	HWT	3	Chapel
101	BUILDA.AFT	HWT	4	Church
102	BUILDA.AFT	HWT	5	Marabout
103	BUILDA.AFT	HWT	6	Minaret
104	BUILDA.AFT	HWT	7	Monastery/Convent
105	BUILDA.AFT	HWT	9	Mosque
106	BUILDA.AFT	HWT	11	Pagoda
107	BUILDA.AFT	HWT	14	Shrine
108	BUILDA.AFT	HWT	15	Tabernacle
109	BUILDA.AFT	HWT	16	Temple
110	BUILDA.AFT	HWT	20	Synagogue
111	BUILDA.AFT	HWT	21	Stupa
112	BUILDA.AFT	HWT	22	Not Applicable
113	BUILTUPA.AFT	EXS	0	Unknown
114	BUILTUPA.AFT	EXS	7	Destroyed
115	BUILTUPA.AFT	EXS	62	Partially Destroyed
116	BUILTUPA.AFT	EXS	999	Other
117	BUILTUPA.AFT	USE	0	Unknown
118	BUILTUPA.AFT	USE	26	Primary/First Order
119	BUILTUPA.AFT	USE	30	Secondary/Second Order
120	BUILTUPA.AFT	USE	31	Tertiary/Third Order
121	BUILTUPA.AFT	USE	111	Quartenary/Fourth Order
122	LANDMRKA.AFT	USE	0	Unknown
123	LANDMRKA.AFT	USE	4	National
124	MISPOPA.AFT	NAS	0	Unknown
125	MISPOPA.AFT	NAS	2	Continuous Habitation
126	MISPOPA.AFT	PPT	0	Unknown
127	MISPOPA.AFT	PPT	2	Shantytown
128	POPVOIDA.AFT	VCA	0	Unknown
129	POPVOIDA.AFT	VCA	2	Area Too Rough to Collect
130	POPVOIDA.AFT	VCA	3	No Available Imagery
131	POPVOIDA.AFT	VCA	6	No Available Map Source
132	POPVOIDA.AFT	VCA	7	No Suitable Imagery
133	SYMBOL.RAT	FON	1	Machine Default
134	SYMBOL.RAT	STY	1	Kern
135	SYMBOL.RAT	STY	2	Proportional
136	SYMBOL.RAT	STY	3	Constant
137	SYMBOL.RAT	COL	1	Black
138	SYMBOL.RAT	COL	4	Blue
139	SYMBOL.RAT	COL	9	Red-Brown
140	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.9 Transportation coverage.TABLE 184. Content and format for Transportation coverage feature class schema table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Transportation Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 7

{Header length}L; Transportation Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;					
1	AEROFACP	AEROFACP.PFT	END_ID	END	ID
2	AEROFACP	END	AEROFACP.PFT_ID	AEROFACP.PFT	ID
3	MISAEROP	MISAEROP.PFT	END_ID	END	ID
4	MISAEROP	END	MISAEROP.PFT_ID	MISAEROP.PFT	ID
5	RESTP	RESTP.PFT	END_ID	END	ID
6	RESTP	END	RESTP.PFT_ID	RESTP.PFT	ID
7	RUNWAYP	RUNWAYP.PFT	END_ID	END	ID
8	RUNWAYP	END	RUNWAYP.PFT_ID	RUNWAYP.PFT	ID
9	BRIDGEC	BRIDGEC.PFT	CND_ID	CND	ID
10	BRIDGEC	CND	BRIDGEC.PFT_ID	BRIDGEC.PFT	ID
11	FERRYC	FERRYC.PFT	CND_ID	CND	ID
12	FERRYC	CND	FERRYC.PFT_ID	FERRYC.PFT	ID
13	FORDC	FORDC.PFT	CND_ID	CND	ID
14	FORDC	CND	FORDC.PFT_ID	FORDC.PFT	ID
15	INTERC	INTERC.PFT	CND_ID	CND	ID
16	INTERC	CND	INTERC.PFT_ID	INTERC.PFT	ID
17	SHEDC	SHEDC.PFT	CND_ID	CND	ID
18	SHEDC	CND	SHEDC.PFT_ID	SHEDC.PFT	ID
19	TUNNELC	TUNNELC.PFT	CND_ID	CND	ID
20	TUNNELC	CND	TUNNELC.PFT_ID	TUNNELC.PFT	ID
21	BRIDGEL	BRIDGEL.LFT	EDG_ID	EDG	ID
22	BRIDGEL	EDG	BRIDGEL.LFT_ID	BRIDGEL.LFT	ID
23	FERRYL	FERRYL.LFT	EDG_ID	EDG	ID
24	FERRYL	EDG	FERRYL.LFT_ID	FERRYL.LFT	ID
25	FORDL	FORDL.LFT	EDG_ID	EDG	ID
26	FORDL	EDG	FORDL.LFT_ID	FORDL.LFT	ID

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TABLE 184. Content and format for Transportation coverage feature class schema table - Continued.

27	LIFTL	LIFTL.LFT	EDG_ID	EDG	ID
28	LIFTL	EDG	LIFTL.LFT_ID	LIFTL.LFT	ID
29	PIERL	PIERL.LFT	EDG_ID	EDG	ID
30	PIERL	EDG	PIERL.LFT_ID	PIERL.LFT	ID
31	RAILRDL	RAILRDL.LFT	EDG_ID	EDG	ID
32	RAILRDL	EDG	RAILRDL.LFT_ID	RAILRDL.LFT	ID
33	ROADL	ROADL.LFT	EDG_ID	EDG	ID
34	ROADL	EDG	ROADL.LFT_ID	ROADL.LFT	ID
35	RUNWAYL	RUNWAYL.LFT	EDG_ID	EDG	ID
36	RUNWAYL	EDG	RUNWAYL.LFT_ID	RUNWAYL.LFT	ID
37	SHEDL	SHEDL.LFT	EDG_ID	EDG	ID
38	SHEDL	EDG	SHEDL.LFT_ID	SHEDL.LFT	ID
39	TRACKL	TRACKL.LFT	EDG_ID	EDG	ID
40	TRACKL	EDG	TRACKL.LFT_ID	TRACKL.LFT	ID
41	TRAILL	TRAILL.LFT	EDG_ID	EDG	ID
42	TRAILL	EDG	TRAILL.LFT_ID	TRAILL.LFT	ID
43	TUNNELL	TUNNELL.LFT	EDG_ID	EDG	ID
44	TUNNELL	EDG	TUNNELL.LFT_ID	TUNNELL.LFT	ID
45	HARBORA	HARBORA.AFT	FAC_ID	FAC	ID
46	HARBORA	FAC	HARBORA.AFT_ID	HARBORA.AFT	ID
47	RRYARDA	RRYARDA.AFT	FAC_ID	FAC	ID
48	RRYARDA	FAC	RRYARDA.AFT_ID	RRYARDA.AFT	ID
49	TRAVOIDA	TRAVOIDA.AFT	FAC_ID	FAC	ID
50	TRAVOIDA	FAC	TRAVOIDA.AFT_ID	TRAVOIDA.AFT	ID
51	DQPOINT	DQPOINT.PFT	END_ID	END	ID
52	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
53	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
54	DQNODE	DQNODE.PFT	CND_ID	CND	ID
55	DQNODE	CND	DQNODE.PFT_ID	DQNODE.PFT	ID
56	DQNODE	DQNODE.PFT	DQDESCR_ID	DQDESCR.RAT	ID
57	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
58	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
59	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
60	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
61	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
62	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
63	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
64	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
65	TRANSTXT	TRANSTXT.TFT	TXT_ID	TXT	ID
66	TRANSTXT	TXT	TRANSTXT.TFT_ID	TRANSTXT.TFT	ID
67	TRANSTXT	TRANSTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

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TABLE 185. Airport Point Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Airport Point Feature Table
 Table Name: AEROFACP.PFT
 DQ Layer Number: 7

{Header length}L;								
Airport Point Feature Table;-;								
ID=I,1,P,Row Identifier,-,-,-,;								
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;								
APT=S,1,N,Airfield Type,INT.VDT,-,-,;								
COD=S,1,N,Certainty of Delineation,INT.VDT,-,-,;								
EXS=S,1,N,Existence Category,INT.VDT,-,-,;								
NAM=T,* ,N,Name,CHAR.VDT,-,-,;								
USE=S,1,N,Usage,INT.VDT,-,-,;								
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,-,;								
END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,-,;								
1	GB005	1	2	28	LAX	23	1	1
2	GB005	11	2	28	HP2	49	2	2
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	GB005	Airport/Airfield	
APT	Airfield Type	0	Unknown	GB005
		1	Major Airfield	GB005
		2	Minor Airfield	GB005
		4	Seaplane Base	GB005
		9	Heliport	GB005
		11	Heliport at Hospital	GB005
COD	Certainty of Delineation	999	Other	GB005
		1	Limits and Info Known	GB005
		2	Limits and Info Unknown	GB005

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TABLE 185. Airport Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
EXS	Existence Category	0	Unknown	GB005
		3	Reported	GB005
		6	Abandoned/Disused	GB005
		28	Operational	GB005
		59	Not Usable	GB005
NAM	Name		Character text string	GB005
			"UNK" (no entry present for feature)	GB005
USE	Usage	0	Unknown	GB005
		8	Military	GB005
		22	Joint Military/Civilian	GB005
		23	International	GB005
		49	Civilian/Public	GB005

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TABLE 186. Miscellaneous Aeronautical Point Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Miscellaneous Aeronautical Point
 Feature Table
 Table Name: MISAEROP.PFT
 DQ Layer Number: 7

{Header length}L;							
Miscellaneous Aeronautical Point Feature Table;-;							
ID=I,1,P,Row Identifier,-,-,-,;							
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE2.PTI,-,-,;							
EXS=S,1,N,Existence Category,INT.VDT,-,-,;							
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,;							
LFA=S,1,N,Light Function Aeronautical,INT.VDT,-,-,;							
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,;							
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.PTI,-,-,;							
END_ID=I,1,N,Entity Node Primitive ID,-,END2_ID.PTI,-,-,;							
1	AQ060	1	100	-32768	430	1	1
2	AQ110	3	98	-32768	298	2	2
3	GB010	-32768	-32768	10	-32768	3	3
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ060	Control Tower	
		AQ110	Mooring Mast	
		GB010	Airport Lighting	
EXS	Existence Category	-32768	Null	GB010
		0	Unknown	AQ060, AQ110
		1	Definite	AQ060, AQ110
		2	Doubtful	AQ060, AQ110
		3	Reported	AQ060, AQ110
HGT	Height Above Surface Level (meters)	-32768	Null	GB010
		0	Unknown	AQ060, AQ110
		>= 46		AQ060, AQ110

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TABLE 186. Miscellaneous Aeronautical Point Feature Table -
Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
LFA	Light Function Aeronautical	-32768	Null	AQ060, AQ110
		0	Unknown	GB010
		10	Rotating Beacon	GB010
		26	Strobe	GB010
		53	Beacon	GB010
ZV2	Highest Z-value (meters)	-32768	Null	GB010
		29999	Unknown	AQ060, AQ110
		-400 to 11999		AQ060, AQ110

TABLE 187. Rest Area Point Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Rest Area Point Feature Table
 Table Name: RESTP.PFT
 DQ Layer Number: 7
 Portrayal Criteria: For AQ135 must be landmark feature

```
{Header length}L;
Rest Area Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
TITLE_ID=S,1,N,Tile Reference ID,-,TITLE3_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,,:;
```

1	AQ135	1	2
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ135	Vehicle Stopping Area/Rest Area	

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TABLE 188. Runway Point Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Runway Point Feature Table
 Table Name: RUNWAYP.PFT
 DQ Layer Number: 7

```
{Header length}L;
Runway Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
AOO=S,1,N,Angle of Orientation (degrees),INT.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
RST=S,1,N,Road/Runway Surface Type,INT.VDT,-,-,:
ZV3=S,1,N,Airfield/Aerodrome (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END4_ID.PTI,-,,:;
```

1	GB055	35	5	300	UNK	6	1200	1	1
:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	GB055	Runway	
AOO	Angle of Orientation (degrees)	999	Unknown	GB055
		0 to 179		GB055
		360	Circular Feature	GB055
EXS	Existence Category	0	Unknown	GB055
		5	Under Construction	GB055
		6	Abandoned/Disused	GB055
		7	Destroyed	GB055
		27	Closed/Locked	GB055
		28	Operational	GB055
		59	Not Usable	GB055

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TABLE 188. Runway Point Feature Table - Continued.

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
LEN	Length/Diameter (meters)	0	Unknown	GB055
		< 455		GB055
NAM	Name	Character text string		GB055
		"UNK" (no entry present for feature)		GB055
RST	Road/Runway Surface Type	0	Unknown	GB055
		6	Natural	GB055
		7	Permanent	GB055
		8	Temporary	GB055
ZV3	Airfield/Aerodrome Elevation (meters)	29999	Unknown	GB055
		-400 to 11999		GB055

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TABLE 189. Bridge Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Bridge Node Feature Table
 Table Name: BRIDGE.C.PFT
 DQ Layer Number: 7

```
{Header length}L;
Bridge Node Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
BDC=S,1,N,Bridge Design Category,INT.VDT,-,-,:
BOT=S,1,N,Bridge Opening Type,INT.VDT,-,-,:
BSC=S,1,N,Bridge/Bridge Superstructure Category,INT.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,:
OHB=S,1,N,Overall Height of Bridge (meters),INT.VDT,-,-,:
TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.NTI,-,:
CND_ID=I,1,N,Connected Node Primitive ID,-,CND1_ID.NTI,-,-,:

```

1	AQ040	11	4	0	100	3	10	4	120	1	1
:	:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ040	Bridge/Overpass/Viaduct	
BDC	Bridge Design Category	0	Unknown	AQ040
		5	Floating Bridge/Pontoon	AQ040
		6	Girder	AQ040
		7	Stringer (Beam)	AQ040
		8	Truss	AQ040
		9	Suspension	AQ040
		11	Other	AQ040
		12	Transporter	AQ040

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TABLE 189. Bridge Node Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
BOT	Bridge Opening Type	0	Unknown	AQ040
		4	Draw/Bascule	AQ040
		10	Swing	AQ040
		11	Lift	AQ040
		12	Retractable	AQ040
		13	Not Applicable/Fixed	AQ040
BSC	Bridge/Bridge Superstructure Category	0	Unknown	AQ040
		2	Cantilever	AQ040
		7	Tower Suspension	AQ040
		8	Truss	AQ040
		17	Arch Suspension	AQ040
LEN	Length/Diameter (meters)	0	Unknown	AQ040
		< 125		AQ040
EXS	Existence Category	0	Unknown	AQ040
		1	Definite	AQ040
		2	Doubtful	AQ040
		3	Reported	AQ040
OHB	Overall Height of Bridge (meters)	0	Unknown	AQ040
		>1		AQ040
TUC	Transportation Use Category	0	Unknown	AQ040
		1	Both Road and Railroad	AQ040
		3	Railroad	AQ040
		4	Road	AQ040
		38	Canal	AQ040
ZV2	Highest Z-value (meters)	29999	Unknown	AQ040
		-400 to 11999		AQ040

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TABLE 190. Ferry Crossing Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Ferry Crossing Node Feature Table
 Table Name: FERRYC.PFT
 DQ Layer Number: 7
 Portrayal Criteria: For AQ070 length < 125 meters

```
{Header length)L;
Ferry Crossing Node Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-;
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
NAM=T,* ,N,Name,CHAR.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.NTI,-,:
CND_ID=I,1,N,Connected Node Primitive ID,-,CND2_ID.NTI,-,;:
```

1	AQ070	Norfolk	1	1
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ070	Ferry Crossing	
NAM	Name	Character text string "UNK" (no entry present for feature)		AQ070 AQ070

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TABLE 191. Ford Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Ford Node Feature Table
 Table Name: FORDC.PFT
 DQ Layer Number: 7
 Portrayal Criteria: For BH070 length < 125 meters

{Header length}L; Ford Node Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.NTI,-,; CND_ID=I,1,N,Connected Node Primitive ID,-,CND3_ID.NTI,-,;;			
1	BH070	1	1
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH070	Ford	

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TABLE 192. Interchange Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Interchange Node Feature Table
 Table Name: INTERC.PFT
 DQ Layer Number: 7
 Portrayal Criteria:
 For AP020 must be associated on all weather hard surface road

```
{Header length)L;
Interchange Node Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
LOC=S,1,N,Location Category,INT.VDT,-,-,:
RIT=S,1,N,Road Interchange Type,INT.VDT,-,-,:
USE=S,1,N,Usage,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-, TILE4_ID.NTI,-,-,:
CND_ID=I,1,N,Connected Node Primitive ID,-, CND4_ID.NTI,-,-,;
```

1	AP020	8	2	50	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AP020	Interchange	
LOC	Location Category	0	Unknown	AP020
		8	On Ground Surface	AP020
		25	Suspended/Elevated	AP020
			Above Ground or	
			Water Surface	
RIT	Road Interchange Type	0	Unknown	AP020
		1	Cloverleaf	AP020
		2	Diamond	AP020
		999	Other	AP020
USE	Usage	0	Unknown	AP020
		4	National	AP020
		23	International	AP020
		50	Limited	AP020

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TABLE 193. Snow Shed Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Snow Shed Node Feature Table
 Table Name: SHEDC.PFT
 DQ Layer Number: 7

```
{Header length}L;
Snow Shed Node Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,:
USE=S,1,N,Usage,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.NTI,-,:
CND_ID=I,1,N,Connected Node Primitive ID,-,CND5_ID.NTI,-,,:;
```

1	AL210	50	116	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL210	Snow Shed/Rock Shed	
LEN	Length/Diameter (meters)	0	Unknown	AL210
		< 300		AL210
USE	Usage	115	Snow Shed	AL210
		116	Rock Shed	AL210

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TABLE 194. Tunnel Node Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Tunnel Node Feature Table
 Table Name: TUNNELC.PFT
 DQ Layer Number: 7

{Header length}L; Tunnel Node Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,; TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.NTI,-,-,; CND_ID=I,1,N,Connected Node Primitive ID,-,CND6_ID.NTI,-,-,;						
1	AQ130	244	Holland	4	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ130	Tunnel	
LEN	Length/Diameter (meters)	0 < 315	Unknown	AQ130 AQ130
NAM	Name	Character text string "UNK" (no entry present for feature)		AQ130 AQ130
TUC	Transportation Use Category	0 1 3 4 38	Unknown Both Road and Railroad Railroad Road Canal	AQ130 AQ130 AQ130 AQ130 AQ130

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TABLE 195. Bridge Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Bridge Line Feature Table
 Table Name: BRIDGEL.LFT
 DQ Layer Number: 7

```
{Header length}L;
Bridge Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
BDC=S,1,N,Bridge Design Category,INT.VDT,-,-,:
BOT=S,1,N,Bridge Opening Type,INT.VDT,-,-,:
BSC=S,1,N,Bridge/Bridge Superstructure Category,INT.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,:
OHB=S,1,N,Overall Height of Bridge (meters),INT.VDT,-,-,:
TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;:
```

1	AQ040	6	4	7	2	0	30	1	50	1	1
:	:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ040	Bridge/Overpass/Viaduct	
BDC	Bridge Design Category	0	Unknown	AQ040
		5	Floating Bridge/Pontoon	AQ040
		6	Girder	AQ040
		7	Stringer (Beam)	AQ040
		8	Truss	AQ040
		9	Suspension	AQ040
		11	Other	AQ040
		12	Transporter	AQ040
BOT	Bridge Opening Type	0	Unknown	AQ040
		4	Draw/Bascule	AQ040
		10	Swing	AQ040
		11	Lift	AQ040
		12	Retractable	AQ040
		13	Not Applicable/Fixed	AQ040

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TABLE 195. Bridge Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
BSC	Bridge/Bridge Superstructure Category	0	Unknown	AQ040
		2	Cantilever	AQ040
		7	Tower Suspension	AQ040
		8	Truss	AQ040
		17	Arch Suspension	AQ040
EXS	Existence Category	0	Unknown	AQ040
		1	Definite	AQ040
		2	Doubtful	AQ040
		3	Reported	AQ040
LEN	Length/Diameter (meters)	0	Unknown	AQ040
		>= 125		AQ040
OHB	Overall Height of Bridge (meters)	0	Unknown	AQ040
		1 to no upper limit		AQ040
TUC	Transportation Use Category	0	Unknown	AQ040
		1	Both Road and Railroad	AQ040
		3	Railroad	AQ040
		4	Road	AQ040
		17	Pedestrian	AQ040
		38	Canal	AQ040
ZV2	Highest Z-value (meters)	29999	Unknown	AQ040
		-400 to 11999		AQ040

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TABLE 196. Ferry Crossing Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Ferry Crossing Line Feature Table
 Table Name: FERRYL.LFT
 DQ Layer Number: 7
 Portrayal Criteria: For AQ070 length >= 125 meters

{Header length}L; Ferry Crossing Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,;				
1	AQ070	Bridgeport	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ070	Ferry Crossing	
NAM	Name	Character text string "UNK" (no entry present for feature)		AQ070 AQ070

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TABLE 197. Ford Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Ford Line Feature Table
 Table Name: FORDL.LFT
 DQ Layer Number: 7

{Header length}L; Ford Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG3_ID.LTI,-,;			
1	BH070	1	1
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH070	Ford	

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TABLE 198. Lift Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Lift Line Feature Table
 Table Name: LIFTL.LFT
 DQ Layer Number: 7
 Portrayal Criteria:
 For AQ010 length >= 1,500 meters or landmark feature

{Header length}L;						
Lift Line Feature Table;-;						
ID=I,1,P,Row Identifier,-,-,-,;						
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,;						
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,-,;						
USE=S,1,N,Usage,INT.VDT,-,-,-,;						
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,-,;						
TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.LTI,-,-,;						
EDG_ID=I,1,N,Edge Primitive ID,-,EDG4_ID.LTI,-,-,;						
1	AQ010	1	120	29999	2	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ010	Aerial Cableway Lines/ Ski Lift Lines	
HGT	Height Above Surface Level (meters)	0	Unknown	AQ010
		1 to no upper limit		AQ010
USE	Usage	0	Unknown	AQ010
		120	Recreational	AQ010
		130	Transportation	AQ010
		999	Other	AQ010
ZV2	Highest Z-value (meters)	29999	Unknown	AQ010
		-400 to 11999		AQ010

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TABLE 199. Pier Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Pier Line Feature Table
 Table Name: PIERL.LFT
 DQ Layer Number: 7

(Header length)L; Pier Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,; WID=S,1,N,Width (meters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-, TILE5_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-, EDG5_ID.LTI,-,;;					
1	BB190	150	60	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BB190	Pier/Wharf/Quay	
LEN	Length/Diameter (meters)	0	Unknown	BB190
		>= 125		BB190
WID	Width (meters)	0	Unknown	BB190
		<= 125		BB190

APPENDIX F

TABLE 200. Railroad Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Railroad Line Feature Table
 Table Name: RAILRDL.LFT
 DQ Layer Number: 7
 Portrayal Criteria:
 For AN050 length >= 1,250 meters and number of tracks less than 5

```
{Header length}L;
Railroad Line Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE6.LTI,-,:
ACC=S,1,N,Accuracy Category,INT.VDT,-,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
FCO=S,1,N,Feature Configuration,INT.VDT,-,-,:
GAW=S,1,N,Gauge Width(centimeters),INT.VDT,-,-,:
LOC=S,1,N,Location Category,INT.VDT,-,-,:
NAM=T,* ,N,Name,CHAR.VDT,-,-,:
RGC=S,1,N,Railroad Gauge Category,INT.VDT,-,-,:
RRA=S,1,N,Railroad Power Source,INT.VDT,-,-,:
RRC=S,1,N,Railroad Categories,INT.VDT,-,-,:
RSA=S,1,N,Railroad Siding Attribute,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.LTI,-,:
EDG_ID=I,1,N,Edge Primitive ID,-,EDG6_ID.LTI,-,:;
```

1	AN010	2	5	0	180	8	Jones	4	1	16	-32768	1	1
2	AN050	-32768	28	-32768	-32768	-32768	VLT=0	4	1	-32768	3	2	2
:	:	:	:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	AN010	Railroad	
		AN050	Railroad Siding/ Railroad Spur	
ACC	Accuracy Category	-32768	Null	AN050
		0	Unknown	AN010
		1	Accurate	AN010
		2	Approximate	AN010

APPENDIX F

TABLE 200. Railroad Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
EXS	Existence Category	0	Unknown	AN010, AN050
		5	Under Construction	AN010, AN050
		6	Abandoned/Disused	AN010, AN050
		7	Destroyed	AN010, AN050
		8	Dismantled	AN010, AN050
		28	Operational	AN010, AN050
FCO	Feature Configuration	-32768	Null	AN050
		0	Unknown	AN010
		2	Multiple	AN010
		3	Single	AN010
		11	Double	AN010
		12	Juxtaposition	AN010
GAW	Gauge Width (centimeters)	-32768	Null	AN050
		0	Unknown	AN010
		>1		AN010
LOC	Location Category	-32768	Null	AN050
		0	Unknown	AN010
		8	On Ground Surface	AN010
		25	Suspended or Elevated	AN010
			Above Ground or Water Surface	
NAM	Name	Variable length		
		text =0-length	Null	AN050
		Character text string		AN010
		"UNK" (no entry present for feature)		AN010
RRA	Railroad Power Source	0	Unknown	AN010, AN050
		1	Electrified Track	AN010, AN050
		3	Overhead Electrified	AN010, AN050
		4	Non-electrified	AN010, AN050

APPENDIX F

TABLE 200. Railroad Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
RGC	Railroad Gauge Category	0	Unknown	AN010, AN050
		1	Broad Gauge	AN010, AN050
		2	Narrow/Narrow Gauge	AN010, AN050
		3	Normal (Standard) Gauge	AN010, AN050
RRC	Railroad Categories	-32768		AN050
		0	Unknown	AN010
		2	Car Line	AN010
		3	Monorail	AN010
		8	Logging	AN010
		13	Marine Railroad	AN010
		14	Tramway	AN010
		15	Inclined Railway	AN010
		16	Main Line	AN010
		21	Railroad in Road	AN010
RSA	Railroad Siding Attribute	-32768	Null	AN010
		0	Unknown	AN050
		1	Spur	AN050
		2	Siding	AN050
		3	Passing	AN050

APPENDIX F

TABLE 201. Road Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Road Line Feature Table
 Table Name: ROADL.LFT
 DQ Layer Number: 7
 Portrayal Criteria:

For AP030 the attribute 'Usage' will have priority over the attribute 'Route Intended Use', which may carry a default value of unknown, since additional analysis is required to determine appropriate values of RTT.

{Header length}L; Road Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; ACC=S,1,N,Accuracy Category,INT.VDT,-,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,; LOC=S,1,N,Location Category,INT.VDT,-,-,; LTN=S,1,N,Lane/Track Number,INT.VDT,-,-,; MED=S,1,N,Median Category,INT.VDT,-,-,; NAM=T,*N,Name,CHAR.VDT,-,-,; RST=S,1,N,Road/Runway Surface Type,INT.VDT,-,-,; RTT=S,1,N,Route Intended Use,INT.VDT,-,-,; USE=S,1,N,Usage,INT.VDT,-,-,; WTC=S,1,N,Weather Type Category,INT.VDT,-,-,; WD1=S,1,N,Minimum Traveled Way Width (decimeters),INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG7_ID.LTI,-,;:														
1	AP030	2	5	8	3	1	XYZ	1	14	5	0	2	1	1
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AP030	Road	
ACC	Accuracy Category	0	Unknown	AP030
		1	Accurate	AP030
		2	Approximate	AP030

APPENDIX F

TABLE 201. Road Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
EXS	Existence Category	0	Unknown	AP030
		5	Under Construction	AP030
		28	Operational	AP030
LOC	Location Category	0	Unknown	AP030
		8	On Ground Surface	AP030
		25	Suspended or Elevated	AP030
			Above Ground or Water Surface	
LTN	Lane/Track Number	0	Unknown	AP030
		>0		AP030
MED	Median Category	0	Unknown	AP030
		1	With Median	AP030
		2	Without Median	AP030
NAM	Name	Character text string		AP030
		"UNK" (no entry present for feature)		AP030
RST	Road/Runway Surface Type	0	Unknown	AP030
		1	Hard/Paved	AP030
		2	Loose/Unpaved	AP030
		3	Loose/Light	AP030
RTT	Route Intended Use	0	Unknown	AP030
		13	Primary Route	AP030
		14	Secondary Route	AP030
		15	Limited Access Motorway/ Autobahn/Interstate	AP030
USE	Usage	0	Unknown	AP030
		4	National	AP030
		5	State	AP030
		6	Private	AP030
		23	International	AP030
		37	Interstate	AP030
999	Other	AP030		

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TABLE 201. Road Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
WD1	Minimum Traveled Way Width (decimeters)	0	Unknown	AP030
		>= 25		AP030
WTC	Weather Type Category	0	Unknown	AP030
		1	All Weather	AP030
		2	Fair/Dry Weather	AP030
		3	Winter Only	AP030

APPENDIX F

TABLE 202. Runway Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Runway Line Feature Table
 Table Name: RUNWAYL.LFT
 DQ Layer Number: 7
 Portrayal Criteria:

For GB055 runway's length may include overrun/stopway length in some instances

{Header length}L;								
Runway Line Feature Table;-;								
ID=I,1,P,Row Identifier,-,-,-,;								
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;								
EXS=S,1,N,Existence Category,INT.VDT,-,-,;								
LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,;								
NAM=T,*N,Name,CHAR.VDT,-,-,;								
RST=S,1,N,Road/Runway Surface Type,INT.VDT,-,-,;								
ZV3=S,1,N,Airfield/Aerodrome Elevation (meters),INT.VDT,-,-,;								
TILE_ID=S,1,N,Tile Reference ID,-,TILE8_ID.LTI,-,;								
EDG_ID=I,1,N,Edge Primitive ID,-,EDG8_ID.LTI,-,;								
1	GB055	5	850	Riyadh	7	29999	1	1
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	GB055	Runway	
EXS	Existence Category	0	Unknown	GB055
		5	Under Construction	GB055
		6	Abandoned/Disused	GB055
		7	Destroyed	GB055
		27	Closed/Locked	GB055
		28	Operational	GB055
LEN	Length/Diameter (meters)	59	Not Usable	GB055
		0	Unknown	GB055
		>= 455		GB055

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TABLE 202. Runway Line Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
NAM	Name		Character text string	GB055
			"UNK" (no entry present for feature)	GB055
RST	Road/Runway Surface Type	0	Unknown	GB055
		6	Natural	GB055
		7	Permanent	GB055
		8	Temporary	GB055
ZV3	Airfield/Aerodrome Elevation (meters)	29999	Unknown	GB055
		-400 to 11999		GB055

APPENDIX F

TABLE 203. Snow Shed Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Snow Shed Line Feature Table
 Table Name: SHEDL.LFT
 DQ Layer Number: 7
 Portrayal Criteria: For AL210 length >= 300 meters

{Header length}L; Snow Shed Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; USE=S,1,N,Usage,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE9_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG9_ID.LTI,-,;;				
1	AL210	116	1	1
:	:	:	:	:
n	n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AL210	Snow Shed/Rock Shed	
USE	Usage	115	Snow Shed	AL210
		116	Rock Shed	AL210

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TABLE 204. Track Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Track Line Feature Table
 Table Name: TRACKL.LFT
 DQ Layer Number: 7
 Portrayal Criteria:
 For AP010 length > 1,250 meters and width < 25 decimeters (0.1m)

{Header length}L;					
Track Line Feature Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;					
ACC=S,1,N,Accuracy Category,INT.VDT,-,-,;					
WTC=S,1,N,Weather Type Category,INT.VDT,-,-,;					
TILE_ID=S,1,N,Tile Reference ID,-,TIL10_ID.LTI,-,;					
EDG_ID=I,1,N,Edge Primitive ID,-,EDG10_ID.LTI,-,;					
1	AP010	2	2	1	1
:	:	:	:	:	:
n	n	n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AP010	Cart Track	
ACC	Accuracy Category	0	Unknown	AP010
		1	Accurate	AP010
		2	Approximate	AP010
WTC	Weather Type Category	0	Unknown	AP010
		2	Fair/Dry Weather	AP010

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TABLE 205. Trail Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Trail Line Feature Table
 Table Name: TRAILL.LFT
 DQ Layer Number: 7

{Header length}L; Trail Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; WTC=S,1,N,Weather Type Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TIL11_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG11_ID.LTI,-,;				
1	AP050	2	2	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AP050	Trail	
WTC	Weather Type Category	0	Unknown	AP050
		2	Fair/Dry Weather	AP050
		3	Winter Only	AP050

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TABLE 206. Tunnel Line Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Tunnel Line Feature Table
 Table Name: TUNNELL.LFT
 DQ Layer Number: 7

{Header length}L; Tunnel Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; LEN=S,1,N,Length/Diameter (meters),INT.VDT,-,-,; NAM=T,*,N,Name,CHAR.VDT,-,-,; TUC=S,1,N,Transportation Use Category,INT.VDT,-,-,; TILE_ID= S,1,N,Tile Reference ID,-,TIL12_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG12_ID.LTI,-,;						
1	AQ130	298	Holland	4	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ130	Tunnel	
LEN	Length/Diameter (meters)	0 >= 315	Unknown	AQ130 AQ130
NAM	Name	Character text string "UNK" (no entry present for feature)		AQ130 AQ130
TUC	Transportation Use Category	0 1 3 4 38	Unknown Both Road and Railroad Railroad Road Canal	AQ130 AQ130 AQ130 AQ130 AQ130

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TABLE 207. Harbor Area Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Harbor Area Feature Table
 Table Name: HARBORA.AFT
 DQ Layer Number: 7
 Portrayal Criteria:
 For BB190 length >= 125 meters and width >= 125 meters

{Header length}L; Harbor Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,;;			
1	BB190	1	2
:	:	:	:
n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BB190	Pier/Wharf/Quay	

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TABLE 208. Railroad Yard Area Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Railroad Yard Area Feature Table
 Table Name: RRYARDA.AFT
 DQ Layer Number: 7
 Portrayal Criteria: For AN060 length >= 1,600 meters

{Header length}L; Railroad Yard Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; EXS=S,1,N,Existence Category,INT.VDT,-,-,-,; LTN=S,1,N,Lane/Track Number,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,-,;					
1	AN060	28	0	1	2
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AN060	Railroad Yard/ Marshalling Yard	
EXS	Existence Category	0	Unknown	AN060
		6	Abandoned/Disused	AN060
		28	Operational	AN060
LTN	Lane/Track Number	0	Unknown	AN060
		>= 5		AN060

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TABLE 209. Transportation Void Collection Area Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Transportation Void Collection Area Feature Table
 Table Name: TRAVOIDA.AFT
 DQ Layer Number: 7
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L;				
Transportation Void Collection Area Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;				
VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,;				
FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 210. Transportation Text Display Text Feature Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Transportation Text Feature Table
 Table Name: TRANSTXT.TFT
 DQ Layer Number: 7

{Header length}L; Transportation Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

APPENDIX F

TABLE 211. Transportation Feature Class Attribute Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Table Description: Transportation Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 7

{Header length}L; Transportation Feature Class Attribute Table;-; ID=I,1,P,Row Identifier,-,-,-,; FCLASS=T,8,U,Feature Class Name,-,-,-,; TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,; DESCR=T,*,N,Description,-,-,-,;			
1	AEROFACP	P	Airport/Airfield
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
FCLASS	Feature Class Name	AEROFACP MISAEROP RESTP RUNWAYP BRIDGEC FERRYC FORDC INTERC SHEDC TUNNELC BRIDGEL FERRYL FORDL LIFTL PIERL RAILRDL ROADL RUNWAYL SHEDL TRACKL TRAILL TUNNELL HARBORA RRYARDA TRAVOIDA TRANSTXT		

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TABLE 211. Transportation Feature Class Attribute Table -
Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
TYPE	Feature Type			
		P	Point Feature	AEROFACP, MISAEROP, RESTP, RUNWAYP
		P	Node Feature	BRIDGEC, FERRYC, FORDC, INTERC, SHEDC, TUNNELC
		L	Line Feature	BRIDGEL, FERRYL, FORDL, LIFTL, PIERL, RAILRDL, ROADL, RUNWAYL, SHEDL, TRACKL, TRAILL, TUNNELL
		A	Area Feature	HARBORA, RRYARDA, TRAVOIDA
		T	Text Feature	TRANSTXT
DESCR	Description			
	Airport/Airfield			AEROFACP
	Miscellaneous Aeronautical			MISAEROP
	Rest Areas			RESTP
	Runway Points			RUNWAYP
	Bridges			BRIDGEC
	Ferry Crossing Points			FERRYC
	Ford Sites			FORDC
	Interchanges			INTERC
	Snow/Ice Shed Points			SHEDC
	Tunnel Points			TUNNELC
	Bridge/Overpasses			BRIDGEL
	Ferry Crossings			FERRYL
	Fords			FORDL
	Aerial Cableways			LIFTL
	Pier/Wharf/Quay Lines			PIERL
	Railroads and Sidings			RAILRDL
	Roads			ROADL
	Runway Lines			RUNWAYL
	Snow/Ice Shed Lines			SHEDL
	Cart Tracks			TRACKL
	Trails			TRAILL
	Tunnels			TUNNELL
	Piers/Wharfs/Quays			HARBORA
	Railroad Yards			RRYARDA
	Transportation Void			TRAVOIDA
	Collection Areas			
	Transportation Cov. Text			TRANSTXT

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TABLE 212. Transportation Character Value Description Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Transportation Character Value
 Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 7

{Header length}L;				
Transportation Character Value Description Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
TABLE=T,12,N,Name of the Feature Table,-,-,-,;				
ATTRIBUTE=T,6,N,Column Name,-,-,-,;				
VALUE=T,5,N,Unique Value of Attribute,-,-,-,;				
DESCRIPTION=T,35,N,Description of Value,-,-,-,;				
1	AEROFACP.PFT	F_CODE	GB005	Airport/Airfield
2	AEROFACP.PFT	NAM	UNK	No entry present
3	MISAEROP.PFT	F_CODE	AQ060	Control Tower
4	MISAEROP.PFT	F_CODE	AQ110	Mooring Mast
5	MISAEROP.PFT	F_CODE	GB010	Airport Lighting
6	RESTP.PFT	F_CODE	AQ135	Vehicle Stopping Area/Rest Area
7	RUNWAYP.PFT	F_CODE	GB055	Runway
8	RUNWAYP.PFT	NAM	UNK	No entry present
9	BRIDGEC.PFT	F_CODE	AQ040	Bridge/Overpass/Viaduct
10	FERRYC.PFT	F_CODE	AQ070	Ferry Crossing
11	FERRYC.PFT	NAM	UNK	No entry present
12	FORDC.PFT	F_CODE	BH070	Ford
13	INTERC.PFT	F_CODE	AP020	Interchange
14	SHEDC.PFT	F_CODE	AL210	Snow Shed/Rock Shed
15	TUNNELC.PFT	F_CODE	AQ130	Tunnel
16	TUNNELC.PFT	NAM	UNK	No entry present
17	BRIDGEL.LFT	F_CODE	AQ040	Bridge/Overpass/Viaduct
18	FERRYL.LFT	F_CODE	AQ070	Ferry Crossing
19	FERRYL.LFT	NAM	UNK	No entry present
20	FORDL.LFT	F_CODE	BH070	Ford
21	LIFTL.LFT	F_CODE	AQ010	Aerial Cableway Lines/Ski Lift Line
22	PIERL.LFT	F_CODE	BB190	Pier/Wharf/Quay
23	RAILRDL.LFT	F_CODE	AN010	Railroad
24	RAILRDL.LFT	F_CODE	AN050	Railroad Siding/Railroad Spur
25	RAILRDL.LFT	NAM	UNK	No entry present
26	ROADL.LFT	F_CODE	AP030	Road
27	ROADL.LFT	NAM	UNK	No entry present
28	RUNWAYL.LFT	F_CODE	GB055	Runway
29	RUNWAYL.LFT	NAM	UNK	No entry present
30	SHEDL.LFT	F_CODE	AL210	Snow Shed/Rock Shed
31	TRACKL.LFT	F_CODE	AP010	Cart Track
32	TRAILL.LFT	F_CODE	AP050	Trail

APPENDIX F

TABLE 212. Transportation Character Value Description Table -
Continued.

33	TUNNELL.LFT	F_CODE	AQ130	Tunnel
34	TUNNELL.LFT	NAM	UNK	No entry present
35	HARBORA.AFT	F_CODE	BB190	Pier/Wharf/Quay
36	RRYARDA.AFT	F_CODE	AN060	Railroad Yard/Marshalling Yard
37	TRAVOIDA.AFT	F_CODE	ZD020	Void Collection Area
38	TRANSTXT.TFT	F_CODE	ZD040	Named Location
39	TRANSTXT.TFT	F_CODE	ZD045	Text Description
40	FCA	TYPE	A	Area Feature
41	FCA	TYPE	L	Line Feature
42	FCA	TYPE	P	Point/Node Feature
43	FCA	TYPE	T	Text Feature
44	DQPOINT.PFT	F_CODE	GB005	Airport/Airfield
45	DQPOINT.PFT	F_CODE	AQ060	Control Tower
46	DQPOINT.PFT	F_CODE	AQ110	Mooring Mast
47	DQPOINT.PFT	F_CODE	GB010	Airport Lighting
48	DQPOINT.PFT	F_CODE	AQ135	Vehicle Stopping Area/Rest Area
49	DQPOINT.PFT	F_CODE	GB055	Runway
50	DQPOINT.PFT	F_CODE	ZD045	Text Description
51	DQNODE.PFT	F_CODE	AQ040	Bridge/Overpass/Viaduct
52	DQNODE.PFT	F_CODE	AQ070	Ferry Crossing
53	DQNODE.PFT	F_CODE	BH070	Ford
54	DQNODE.PFT	F_CODE	AP020	Interchange
55	DQNODE.PFT	F_CODE	AL210	Snow Shed/Rock Shed
56	DQNODE.PFT	F_CODE	AQ130	Tunnel
57	DQNODE.PFT	F_CODE	ZD045	Text Description
58	DQLINE.LFT	F_CODE	AQ040	Bridge/Overpass/Viaduct
59	DQLINE.LFT	F_CODE	AQ070	Ferry Crossing
60	DQLINE.LFT	F_CODE	BH070	Ford
61	DQLINE.LFT	F_CODE	AQ010	Aerial Cableway Lines/Ski Lift Line
62	DQLINE.LFT	F_CODE	BB190	Pier/Wharf/Quay
63	DQLINE.LFT	F_CODE	AN010	Railroad
64	DQLINE.LFT	F_CODE	AN050	Railroad Siding/Railroad Spur
65	DQLINE.LFT	F_CODE	AP030	Road
66	DQLINE.LFT	F_CODE	GB055	Runway
67	DQLINE.LFT	F_CODE	AL210	Snow Shed/Rock Shed
68	DQLINE.LFT	F_CODE	AP010	Cart Track
69	DQLINE.LFT	F_CODE	AP050	Trail
70	DQLINE.LFT	F_CODE	Aq130	Tunnel
71	DQLINE.LFT	F_CODE	ZD045	Text Description
72	DQAREA.AFT	F_CODE	BB190	Pier/Wharf/Quay
73	DQAREA.AFT	F_CODE	AN060	Railroad Yard/Marshalling Yard
74	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
75	DQAREA.AFT	F_CODE	ZD045	Text Description

APPENDIX F

TABLE 213. Transportation Integer Value Description Table.

Thematic Layer: Transportation
 Coverage Name: TRANS
 Feature Table Description: Transportation Integer Value
 Description Table
 Table Name: INT.VDT
 DQ Layer Number: 7

```
{Header length}L;
Transportation Integer Value Description Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
TABLE=T,12,N,Name of the Feature Table,-,-,-,:
ATTRIBUTE=T,3,N,Column Name,-,-,-,:
VALUE=S,1,N,Unique Value of Attribute,-,-,-,:
DESCRIPTION=T,48,N,Description of Value,-,-,-,;:
```

1	AEROFACP.PFT	APT	0	Unknown
2	AEROFACP.PFT	APT	1	Major Airfield
3	AEROFACP.PFT	APT	2	Minor Airport
4	AEROFACP.PFT	APT	4	Seaplane base
5	AEROFACP.PFT	APT	9	Heliport
6	AEROFACP.PFT	APT	11	Heliport at Hospital
7	AEROFACP.PFT	APT	999	Other
8	AEROFACP.PFT	COD	1	Limits and Info Known
9	AEROFACP.PFT	COD	2	Limits and Info Unknown
10	AEROFACP.PFT	EXS	0	Unknown
11	AEROFACP.PFT	EXS	3	Reported
12	AEROFACP.PFT	EXS	6	Abandoned/Disused
13	AEROFACP.PFT	EXS	28	Operational
14	AEROFACP.PFT	EXS	59	Not Usable
15	AEROFACP.PFT	USE	0	Unknown
16	AEROFACP.PFT	USE	8	Military
17	AEROFACP.PFT	USE	22	Joint Military/Civilian
18	AEROFACP.PFT	USE	23	International
19	AEROFACP.PFT	USE	49	Civilian/Public
20	MISAEROP.PFT	EXS	0	Unknown
21	MISAEROP.PFT	EXS	1	Definite
22	MISAEROP.PFT	EXS	2	Doubtful
23	MISAEROP.PFT	EXS	3	Reported
24	MISAEROP.PFT	HGT	0	Unknown
25	MISAEROP.PFT	LFA	0	Unknown
26	MISAEROP.PFT	LFA	10	Rotating Beacon
27	MISAEROP.PFT	LFA	26	Strobe
28	MISAEROP.PFT	LFA	53	Beacon
29	MISAEROP.PFT	ZV2	29999	Unknown
30	RUNWAYP.PFT	AOO	360	Circular Feature
31	RUNWAYP.PFT	AOO	999	Unknown
32	RUNWAYP.PFT	EXS	. 0	Unknown
33	RUNWAYP.PFT	EXS	5	Under Construction

APPENDIX F

TABLE 213. Transportation Integer Value Description Table -
Continued.

34	RUNWAYP.PFT	EXS	6	Abandoned/Disused
35	RUNWAYP.PFT	EXS	7	Destroyed
36	RUNWAYP.PFT	EXS	27	Closed/Locked
37	RUNWAYP.PFT	EXS	28	Operational
38	RUNWAYP.PFT	EXS	59	Not Usable
39	RUNWAYP.PFT	LEN	0	Unknown
40	RUNWAYP.PFT	RST	0	Unknown
41	RUNWAYP.PFT	RST	6	Natural
42	RUNWAYP.PFT	RST	7	Permanent
43	RUNWAYP.PFT	RST	8	Temporary
44	RUNWAYP.PFT	ZV3	29999	Unknown
45	BRIDGEC.PFT	BDC	0	Unknown
46	BRIDGEC.PFT	BDC	5	Floating Bridge/Pontoon
47	BRIDGEC.PFT	BDC	6	Girder
48	BRIDGEC.PFT	BDC	7	Stringer (Beam)
49	BRIDGEC.PFT	BDC	8	Truss
50	BRIDGEC.PFT	BDC	9	Suspension
51	BRIDGEC.PFT	BDC	11	Other
52	BRIDGEC.PFT	BDC	12	Transporter
53	BRIDGEC.PFT	BOT	0	Unknown
54	BRIDGEC.PFT	BOT	4	Draw/Bascule
55	BRIDGEC.PFT	BOT	10	Swing
56	BRIDGEC.PFT	BOT	11	Lift
57	BRIDGEC.PFT	BOT	12	Retractable
58	BRIDGEC.PFT	BOT	13	Not Applicable/Fixed
59	BRIDGEC.PFT	BSC	0	Unknown
60	BRIDGEC.PFT	BSC	2	Cantilever
61	BRIDGEC.PFT	BSC	7	Tower Suspension
62	BRIDGEC.PFT	BSC	8	Truss
63	BRIDGEC.PFT	BSC	17	Arch Suspension
64	BRIDGEC.PFT	EXS	0	Unknown
65	BRIDGEC.PFT	EXS	1	Definite
66	BRIDGEC.PFT	EXS	2	Doubtful
67	BRIDGEC.PFT	EXS	3	Reported
68	BRIDGEC.PFT	LEN	0	Unknown
69	BRIDGEC.PFT	OHB	0	Unknown
70	BRIDGEC.PFT	TUC	0	Unknown
71	BRIDGEC.PFT	TUC	1	Both Road and Railroad
72	BRIDGEC.PFT	TUC	3	Railroad
73	BRIDGEC.PFT	TUC	4	Road
74	BRIDGEC.PFT	TUC	38	Canal
75	BRIDGEC.PFT	ZV2	29999	Unknown
76	INTERC.PFT	LOC	0	Unknown
77	INTERC.PFT	LOC	8	On Ground Surface
78	INTERC.PFT	LOC	25	Suspended/Elevated Above Ground or Water Surface

APPENDIX F

TABLE 213. Transportation Integer Value Description Table -
Continued.

79	INTERC.PFT	RIT	0	Unknown
80	INTERC.PFT	RIT	1	Cloverleaf
81	INTERC.PFT	RIT	2	Diamond
82	INTERC.PFT	RIT	999	Other
83	INTERC.PFT	USE	0	Unknown
84	INTERC.PFT	USE	4	National
85	INTERC.PFT	USE	23	International
86	INTERC.PFT	USE	50	Limited
87	SHEDC.PFT	LEN	0	Unknown
88	SHEDC.PFT	USE	115	Snow Shed
89	SHEDC.PFT	USE	116	Rock Shed
90	TUNNELC.PFT	LEN	0	Unknown
91	TUNNELC.PFT	TUC	0	Unknown
92	TUNNELC.PFT	TUC	1	Both Road and Railroad
93	TUNNELC.PFT	TUC	3	Railroad
94	TUNNELC.PFT	TUC	4	Road
95	TUNNELC.PFT	TUC	38	Canal
96	BRIDGEL.LFT	BDC	0	Unknown
97	BRIDGEL.LFT	BDC	5	Floating Bridge/Pontoon
98	BRIDGEL.LFT	BDC	6	Girder
99	BRIDGEL.LFT	BDC	7	Stringer (Beam)
100	BRIDGEL.LFT	BDC	8	Truss
101	BRIDGEL.LFT	BDC	9	Suspension
102	BRIDGEL.LFT	BDC	11	Other
103	BRIDGEL.LFT	BDC	12	Transporter
104	BRIDGEL.LFT	BOT	0	Unknown
105	BRIDGEL.LFT	BOT	4	Draw/Bascule
106	BRIDGEL.LFT	BOT	10	Swing
107	BRIDGEL.LFT	BOT	11	Lift
108	BRIDGEL.LFT	BOT	12	Retractable
109	BRIDGEL.LFT	BOT	13	Not Applicable/Fixed
110	BRIDGEL.LFT	BSC	0	Unknown
111	BRIDGEL.LFT	BSC	2	Cantilever
112	BRIDGEL.LFT	BSC	7	Tower Suspension
113	BRIDGEL.LFT	BSC	8	Truss
114	BRIDGEL.LFT	BSC	17	Arch Suspension
115	BRIDGEL.LFT	EXS	0	Unknown
116	BRIDGEL.LFT	EXS	1	Definite
117	BRIDGEL.LFT	EXS	2	Doubtful
118	BRIDGEL.LFT	EXS	3	Reported
119	BRIDGEL.LFT	LEN	0	Unknown
120	BRIDGEL.LFT	OHB	0	Unknown
121	BRIDGEL.LFT	TUC	0	Unknown
122	BRIDGEL.LFT	TUC	1	Both Road and Railroad
123	BRIDGEL.LFT	TUC	3	Railroad
124	BRIDGEL.LFT	TUC	4	Road

APPENDIX F

TABLE 213. Transportation Integer Value Description Table -
Continued.

125	BRIDGEL.LFT	TUC	17	Pedestrian
126	BRIDGEL.LFT	TUC	38	Canal
127	BRIDGEL.LFT	ZV2	29999	Unknown
128	LIFTL.LFT	HGT	0	Unknown
129	LIFTL.LFT	USE	0	Unknown
130	LIFTL.LFT	USE	120	Recreational
131	LIFTL.LFT	USE	130	Transportation
132	LIFTL.LFT	USE	999	Other
133	LIFTL.LFT	ZV2	29999	Unknown
134	PIERL.LFT	LEN	0	Unknown
135	PIERL.LFT	WID	0	Unknown
136	RAILRDL.LFT	ACC	0	Unknown
137	RAILRDL.LFT	ACC	1	Accurate
138	RAILRDL.LFT	ACC	2	Approximate
139	RAILRDL.LFT	EXS	0	Unknown
140	RAILRDL.LFT	EXS	5	Under Construction
141	RAILRDL.LFT	EXS	6	Abandoned/Disused
142	RAILRDL.LFT	EXS	7	Destroyed
143	RAILRDL.LFT	EXS	8	Dismantled
144	RAILRDL.LFT	EXS	28	Operational
145	RAILRDL.LFT	FCO	0	Unknown
146	RAILRDL.LFT	FCO	2	Multiple
147	RAILRDL.LFT	FCO	3	Single
148	RAILRDL.LFT	FCO	11	Double
149	RAILRDL.LFT	FCO	12	Juxtaposition
150	RAILRDL.LFT	GAW	0	Unknown
151	RAILRDL.LFT	LOC	0	Unknown
152	RAILRDL.LFT	LOC	8	On Ground Surface
153	RAILRDL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
154	RAILRDL.LFT	RGC	0	Unknown
155	RAILRDL.LFT	RGC	1	Broad Gauge
156	RAILRDL.LFT	RGC	2	Narrow/Narrow Gauge
157	RAILRDL.LFT	RGC	3	Normal (Standard) Gauge
158	RAILRDL.LFT	RRA	0	Unknown
159	RAILRDL.LFT	RRA	1	Electrified Track
160	RAILRDL.LFT	RRA	3	Overhead Electrified
161	RAILRDL.LFT	RRA	4	Non-electrified
162	RAILRDL.LFT	RRC	0	Unknown
163	RAILRDL.LFT	RRC	2	Car Line
164	RAILRDL.LFT	RRC	3	Monorail
165	RAILRDL.LFT	RRC	8	Logging
166	RAILRDL.LFT	RRC	13	Marine Railroad
167	RAILRDL.LFT	RRC	14	Tramway
168	RAILRDL.LFT	RRC	15	Inclined Railway
169	RAILRDL.LFT	RRC	16	Main Line

APPENDIX F

TABLE 213. Transportation Integer Value Description Table -
Continued.

170	RAILRDL.LFT	RRC	21	Railroad in Road
171	RAILRDL.LFT	RSA	0	Unknown
172	RAILRDL.LFT	RSA	1	Spur
173	RAILRDL.LFT	RSA	2	Siding
174	RAILRDL.LFT	RSA	3	Passing
175	ROADL.LFT	ACC	0	Unknown
176	ROADL.LFT	ACC	1	Accurate
177	ROADL.LFT	ACC	2	Approximate
178	ROADL.LFT	EXS	0	Unknown
179	ROADL.LFT	EXS	5	Under Construction
180	ROADL.LFT	EXS	28	Operational
181	ROADL.LFT	LOC	0	Unknown
182	ROADL.LFT	LOC	8	On Ground Surface
183	ROADL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
184	ROADL.LFT	LTN	0	Unknown
185	ROADL.LFT	MED	0	Unknown
186	ROADL.LFT	MED	1	With Median
187	ROADL.LFT	MED	2	Without Median
188	ROADL.LFT	RST	0	Unknown
189	ROADL.LFT	RST	1	Hard/Paved
190	ROADL.LFT	RST	2	Loose/Unpaved
191	ROADL.LFT	RST	3	Loose/Light
192	ROADL.LFT	RTT	0	Unknown
193	ROADL.LFT	RTT	13	Primary Route
194	ROADL.LFT	RTT	14	Secondary Route
195	ROADL.LFT	RTT	15	Limited Access Motorway/Autobahn/ Interstate
196	ROADL.LFT	USE	0	Unknown
197	ROADL.LFT	USE	4	National
198	ROADL.LFT	USE	5	State
199	ROADL.LFT	USE	6	Private
200	ROADL.LFT	USE	23	International
201	ROADL.LFT	USE	37	Interstate
202	ROADL.LFT	USE	999	Other
203	ROADL.LFT	WD1	0	Unknown
204	ROADL.LFT	WTC	0	Unknown
205	ROADL.LFT	WTC	1	All Weather
206	ROADL.LFT	WTC	2	Fair/Dry Weather
207	ROADL.LFT	WTC	3	Winter Only
208	RUNWAYL.LFT	EXS	0	Unknown
209	RUNWAYL.LFT	EXS	5	Under Construction
210	RUNWAYL.LFT	EXS	6	Abandoned/Disused
211	RUNWAYL.LFT	EXS	7	Destroyed
212	RUNWAYL.LFT	EXS	27	Closed/Locked
213	RUNWAYL.LFT	EXS	28	Operational

APPENDIX F

TABLE 213. Transportation Integer Value Description Table -
Continued.

214	RUNWAYL.LFT	EXS	59	Not Usable
215	RUNWAYL.LFT	LEN	0	Unknown
216	RUNWAYL.LFT	RST	0	Unknown
217	RUNWAYL.LFT	RST	6	Natural
218	RUNWAYL.LFT	RST	7	Permanent
219	RUNWAYL.LFT	RST	8	Temporary
220	RUNWAYL.LFT	ZV3	29999	Unknown
221	SHEDL.LFT	USE	115	Snow Shed
222	SHEDL.LFT	USE	116	Rock Shed
223	TRACKL.LFT	ACC	0	Unknown
224	TRACKL.LFT	ACC	1	Accurate
225	TRACKL.LFT	ACC	2	Approximate
226	TRACKL.LFT	WTC	0	Unknown
227	TRACKL.LFT	WTC	2	Fair/Dry Weather
228	TRAILL.LFT	WTC	0	Unknown
229	TRAILL.LFT	WTC	2	Fair/Dry Weather
230	TRAILL.LFT	WTC	3	Winter Only
231	TUNNELL.LFT	LEN	0	Unknown
232	TUNNELL.LFT	TUC	0	Unknown
233	TUNNELL.LFT	TUC	1	Both Road and Railroad
234	TUNNELL.LFT	TUC	3	Railroad
235	TUNNELL.LFT	TUC	4	Road
236	TUNNELL.LFT	TUC	38	Canal
237	RRYARDA.AFT	EXS	0	Unknown
238	RRYARDA.AFT	EXS	6	Abandoned/Disused
239	RRYARDA.AFT	EXS	28	Operational
240	RRYARDA.AFT	LTN	0	Unknown
241	TRAVOIDA.AFT	VCA	0	Unknown
242	TRAVOIDA.AFT	VCA	2	Area Too Rough to Collect
243	TRAVOIDA.AFT	VCA	3	No Available Imagery
244	TRAVOIDA.AFT	VCA	6	No Available Map Source
245	TRAVOIDA.AFT	VCA	7	No Suitable Imagery
246	SYMBOL.RAT	FON	1	Machine Default
247	SYMBOL.RAT	STY	1	Kern
248	SYMBOL.RAT	STY	2	Proportional
249	SYMBOL.RAT	STY	3	Constant
250	SYMBOL.RAT	COL	1	Black
251	SYMBOL.RAT	COL	4	Blue
252	SYMBOL.RAT	COL	9	Red-Brown
253	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.10 Utilities coverage.TABLE 214. Content and format for Utilities coverage feature class schema table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Utilities Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 8

{Header length}L; Utilities Feature Class Schema Table;-; ID=I,1,P,Row Identifier,-,-,-,; FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,; TABLE1=T,12,N,First Table,-,-,-,; TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,; TABLE2=T,12,N,Second Table,-,-,-,; TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,;					
1	COMMP	COMMP.PFT	END_ID	END	ID
2	COMMP	END	COMMP.PFT_ID	COMMP.PFT	ID
3	POWERP	POWERP.PFT	END_ID	END	ID
4	POWERP	END	POWERP.PFT_ID	POWERP.PFT	ID
5	PUMPINGP	PUMPINGP.PFT	END_ID	END	ID
6	PUMPINGP	END	PUMPINGP.PFT_ID	PUMPINGP.PFT	ID
7	PIPEL	PIPEL.LFT	EDG_ID	EDG	ID
8	PIPEL	EDG	PIPEL.LFT_ID	PIPEL.LFT	ID
9	POWERL	POWERL.LFT	EDG_ID	EDG	ID
10	POWERL	EDG	POWERL.LFT_ID	POWERL.LFT	ID
11	TELEL	TELEL.LFT	EDG_ID	EDG	ID
12	TELEL	EDG	TELEL.LFT_ID	TELEL.LFT	ID
13	POWERA	POWERA.AFT	FAC_ID	FAC	ID
14	POWERA	FAC	POWERA.AFT_ID	POWERA.AFT	ID
15	UTIVOIDA	UTIVOIDA.AFT	FAC_ID	FAC	ID
16	UTIVOIDA	FAC	UTIVOIDA.AFT_ID	UTIVOIDA.AFT	ID
17	DQPOINT	DQPOINT.PFT	END_ID	END	ID
18	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
19	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
20	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
21	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
22	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
23	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
24	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID
25	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
26	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
27	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
28	UTILTXT	UTILTXT.TFT	TXT_ID	TXT	ID
29	UTILTXT	TXT	UTILTXT.TFT_ID	UTILTXT.TFT	ID
30	UTILTXT	UTILTXT.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

APPENDIX F

TABLE 215. Communication Point Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Communication Point Feature Table
 Table Name: COMP.PFT
 DQ Layer Number: 8
 Portrayal Criteria:
 For AT080 height < 46 meters must be landmark feature

```
{(Header length)L;
Communication Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.PTI,-,:
EXS=S,1,N,Existence Category,INT.VDT,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
NST=S,1,N,Navigation System Types,INT.VDT,-,-,:
SSC=S,1,N,Structure Shape Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,;:
```

1	AT010	1	0	VLT=0	-32768	-32768	29999	1	1
2	AT080	3	150	WABC	15	0	150	2	2
:	:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AT010	Disk/Dish	
		AT080	Communication Tower	
EXS	Existence Category	0	Unknown	AT010, AT080
		1	Definite	AT010, AT080
		2	Doubtful	AT010, AT080
		3	Reported	AT010, AT080

APPENDIX F

TABLE 215. Communication Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
HGT	Height Above Surface Level (meters)	0	Unknown	AT010, AT080
		1 to no		AT010, AT080
		upper limit		
NAM	Name Variable length	Character text string		AT080
		"UNK" (no entry present for feature)		AT080
NST	Navigation System Types	-32768	Null	AT010
		0	Unknown	AT080
		12	Radio	AT080
		15	TV	AT080
		16	Microwave	AT080
SSC	Structure Shape Category	-32768	Null	AT010
		0	Unknown	AT080
		52	'A' Frame	AT080
		53	'H' Frame	AT080
		54	'I' Frame	AT080
		56	'Y' Frame	AT080
ZV2	Highest Z-value (meters)	29999	Unknown	AT010, AT080
		-400 to 11999		AT010, AT080

APPENDIX F

TABLE 216. Power Plant Point Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Power Plant Point Feature Table
 Table Name: POWERP.PFT
 DQ Layer Number: 8
 For AD010 if height < 46 meters then must be landmark feature

```
{(Header length)L;
Power Plant Point Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
ARH=S,1,N,Area Coverage Attribute (hectares),INT.VDT,-,-,:
HGT=S,1,N,Height Above Surface Level (meters),INT.VDT,-,-,:
NAM=T,*N,Name,CHAR.VDT,-,-,:
PPC=S,1,N,Power Plant Category,INT.VDT,-,-,:
ZV2=S,1,N,Highest Z-value (meters),INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.PTI,-,:
END_ID=I,1,N,Entity Node Primitive ID,-,END2_ID.PTI,-,,:

```

1	AD010	0	10	UNK	2	29999	1	1
:	:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AD010	Power Plant	
ARH	Area Coverage Attribute (hectares)	0 < 39 hectares	Unknown	AD010 AD010
HGT	Height Above Surface Level (meters)	0 >1	Unknown	AD010 AD010
NAM	Name	Character text string "UNK" (no entry present for feature)		AD010 AD010

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TABLE 216. Power Plant Point Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
PPC	Power Plant Category	0	Unknown	AD010
		1	Hydro-electric	AD010
		2	Nuclear	AD010
		3	Solar	AD010
		4	Thermal	AD010
		6	Tidal	AD010
		7	Internal Combustion	AD010
		ZV2	Highest Z-value (meters)	29999
-400 to 11999				AD010

APPENDIX F

TABLE 217. Pumping Station Point Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Pumping Station Point Feature Table
 Table Name: PUMPINGP.PFT
 DQ Layer Number: 8

{Header length}L; Pumping Station Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; PRO=S,1,N,Product Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.PTI,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END3_ID.PTI,-,;				
1	AQ116	38	1	1
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ116	Pumping Station	
PRO	Product Category	0	Unknown	AQ116
		38	Gas	AQ116
		67	Oil	AQ116
		116	Water	AQ116

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TABLE 218. Pipeline Line Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Pipeline Line Feature Table
 Table Name: PIPEL.LFT
 DQ Layer Number: 8
 Portrayal Criteria:
 For AQ113 length >= 1,250 meters and landmark feature

{Header length}L;						
Pipeline Line Feature Table;-;						
ID=I,1,P,Row Identifier,-,-,-,;						
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,;						
ACC=S,1,N,Accuracy Category,INT.VDT,-,-,;						
LOC=S,1,N,Location Category,INT.VDT,-,-,;						
PRO=S,1,N,Product Category,INT.VDT,-,-,;						
TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,;						
EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;						
1	AQ113	2	4	13	1	1
:	:	:	:	:	:	:
n	n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AQ113	Pipeline/Pipe	
ACC	Accuracy Category	0	Unknown	AQ113
		1	Accurate	AQ113
		2	Approximate	AQ113
LOC	Location Category	0	Unknown	AQ113
		4	Below Surface/Submerged/ Underground	AQ113
		8	On Ground Surface	AQ113
		25	Suspended or Elevated Above Ground or Water Surface	AQ113
PRO	Product Category	0	Unknown	AQ113
		13	Chemical	AQ113
		38	Gas	AQ113
		39	Gasoline	AQ113
		67	Oil	AQ113
		116	Water	AQ113

APPENDIX F

TABLE 219. Powerline Line Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Powerline Line Feature Table
 Table Name: POWERL.LFT
 DQ Layer Number: 8
 Portrayal Criteria: For AT030 length >= 1,600 meters

{Header length)L; Powerline Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; ACC=S,1,N,Accuracy Category,INT.VDT,-,-,-,; TST=S,1,N,Transmission Suspension Type,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,-,;					
1	AT030	1	1	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AT030	Power Transmission Line	
ACC	Accuracy Category	0	Unknown	AT030
		1	Accurate	AT030
		2	Approximate	AT030
TST	Transmission Suspension Type	0	Unknown	AT030
		1	Normal Suspension	AT030
		2	Catenary (land)	AT030
		3	Catenary (water)	AT030

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TABLE 220. Telephone Line Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Telephone Line Feature Table
 Table Name: TELEL.LFT
 DQ Layer Number: 8
 Portrayal Criteria:

For AT060 length >= 1,600 meters and must be landmark feature

{Header length}L; Telephone Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.LTI,-,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG3_ID.LTI,-,-,;			
1	AT060	1	1
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AT060	Telephone Line/ Telegraph Line	

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TABLE 221. Power Plant Area Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Power Plant Area Feature Table
 Table Name: POWERA.AFT
 DQ Layer Number: 8
 Portrayal Criteria:
 For AD010 area >=39.0625 hectares and landmark feature

{Header length)L; Power Plant Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; NAM=T,* ,N,Name,CHAR.VDT,-,-,-,; PPC=S,1,N,Power Plant Category,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,-,;					
1	AD010	Hoover Dam	1	1	2
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	AD010	Power Plant	
NAM	Name	Character text string "UNK" (no entry present for feature)		AD010 AD010
PPC	Power Plant Category	0 1 2 3 4 6 7	Unknown Hydro-electric Nuclear Solar Thermal Tidal Internal Combustion	AD010 AD010 AD010 AD010 AD010 AD010 AD010

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TABLE 222. Utilities Void Collection Area Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Utilities Void Collection Area Feature Table
 Table Name: UTIVOIDA.AFT
 DQ Layer Number: 8
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Utilities Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 223. Utilities Text Feature Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Utilities Text Feature Table
 Table Name: UTILTXT.TFT
 DQ Layer Number: 8

(Header length)L;				
Utilities Text Feature Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,;				
SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,;				
TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,;				
TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			

(Refer to Symbol Related Attribute Table for selection of values)

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TABLE 224. Utilities Feature Class Attribute Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Table Description: Utilities Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 8

{Header length}L;			
Utilities Feature Class Attribute Table;-;			
ID=I,1,P,Row Identifier,-,-,-,;			
FCLASS=T,8,U,Feature Class Name,-,-,-,;			
TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,;			
DESCR=T,*N,Description,-,-,-,;;			
1	COMMP	P	Communication Towers, Disks
:	:	:	:
n	n	n	n

Applicable
 Feature Class
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable Feature Class for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
FCLASS	Feature Class Name	COMMP POWERP PUMPINGP PIPEL POWERL TELEL POWERA UTIVOIDA UTILTXT		
TYPE	Feature Type	P L A T	Point Feature Line Feature Area Feature Text Feature	COMMP, POWERP, PUMPINGP PIPEL, POWERL, TELEL POWERA, UTIVOIDA UTILTXT
DESCR	Description	Communication Towers, Disks Power Plant Sites Pumping Stations Pipelines Power Transmission Lines Telephone/Telegraph Lines Power Plants Utility Void Collection Areas Utilities Coverage Text		COMMP POWERP PUMPINGP PIPEL POWERL TELEL POWERA UTIVOIDA UTILTXT

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TABLE 225. Utilities Character Value Description Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Utilities Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 8

{Header length}L;				
Utilities Character Value Description Table;-;				
ID=I,1,P,Row Identifier,-,-,-,;				
TABLE=T,12,N,Name of the Feature Table,-,-,-,;				
ATTRIBUTE=T,6,N,Column Name,-,-,-,;				
VALUE=T,5,N,Unique Value of Attribute,-,-,-,;				
DESCRIPTION=T,29,N,Description of Value,-,-,-,;:				
1	COMP.PFT	F_CODE	AT010	Disk/Dish
2	COMP.PFT	F_CODE	AT080	Communication Tower
3	COMP.PFT	NAM	UNK	No entry present
4	POWER.PFT	F_CODE	AD010	Power Plant
5	POWER.PFT	NAM	UNK	No entry present
6	PUMPINGP.PFT	F_CODE	AQ116	Pumping Station
7	PIPEL.LFT	F_CODE	AQ113	Pipeline/Pipe
8	POWERL.LFT	F_CODE	AT030	Power Transmission Line
9	TELEL.LFT	F_CODE	AT060	Telephone Line/Telegraph Line
10	POWERA.AFT	F_CODE	AD010	Power Plant
11	POWERA.AFT	NAM	UNK	No entry present
12	UTIVOIDA.AFT	F_CODE	ZD020	Void Collection Area
13	UTILTXT.TFT	F_CODE	ZD040	Named Location
14	UTILTXT.TFT	F_CODE	ZD045	Text Description
15	FCA	TYPE	A	Area Feature
16	FCA	TYPE	L	Line Feature
17	FCA	TYPE	P	Point/Node Feature
18	FCA	TYPE	T	Text Feature
19	DQPOINT.PFT	F_CODE	AT010	Disk/Dish
20	DQPOINT.PFT	F_CODE	AT080	Communication Tower
21	DQPOINT.PFT	F_CODE	AD010	Power Plant
22	DQPOINT.PFT	F_CODE	AQ116	Pumping Station
23	DQPOINT.PFT	F_CODE	ZD045	Text Description
24	DQLINE.LFT	F_CODE	AQ113	Pipeline/Pipe
25	DQLINE.LFT	F_CODE	AT030	Power Transmission Line
26	DQLINE.LFT	F_CODE	AT060	Telephone Line/Telegraph Line
27	DQLINE.LFT	F_CODE	ZD045	Text Description
28	DQAREA.AFT	F_CODE	AD010	Power Plant
29	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
30	DQAREA.AFT	F_CODE	ZD045	Text Description

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TABLE 226. Utilities Integer Value Description Table.

Thematic Layer: Utilities
 Coverage Name: UTIL
 Feature Table Description: Utilities Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 8

{Header length}L; Utilities Integer Value Description Table;-; ID=I,1,P,Row Identifier,-,-,-,; TABLE=T,12,N,Name of the Feature Table,-,-,-,; ATTRIBUTE=T,3,N,Column Name,-,-,-,; VALUE=S,1,N,Unique Value of Attribute,-,-,-,; DESCRIPTION=T,48,N,Description of Value,-,-,-,;				
1	COMP.PFT	EXS	0	Unknown
2	COMP.PFT	EXS	1	Definite
3	COMP.PFT	EXS	2	Doubtful
4	COMP.PFT	EXS	3	Reported
5	COMP.PFT	HGT	0	Unknown
6	COMP.PFT	NST	0	Unknown
7	COMP.PFT	NST	12	Radio
8	COMP.PFT	NST	15	TV
9	COMP.PFT	NST	16	Microwave
10	COMP.PFT	SSC	0	Unknown
11	COMP.PFT	SSC	52	'A' Frame
12	COMP.PFT	SSC	53	'H' Frame
13	COMP.PFT	SSC	54	'I' Frame
14	COMP.PFT	SSC	56	'Y' Frame
15	COMP.PFT	ZV2	29999	Unknown
16	POWERP.PFT	ARH	0	Unknown
17	POWERP.PFT	HGT	0	Unknown
18	POWERP.PFT	PPC	0	Unknown
19	POWERP.PFT	PPC	1	Hydro-electric
20	POWERP.PFT	PPC	2	Nuclear
21	POWERP.PFT	PPC	3	Solar
22	POWERP.PFT	PPC	4	Thermal
23	POWERP.PFT	PPC	6	Tidal
24	POWERP.PFT	PPC	7	Internal Combustion
25	POWERP.PFT	ZV2	29999	Unknown
26	PUMPINGP.PFT	PRO	0	Unknown
27	PUMPINGP.PFT	PRO	38	Gas
28	PUMPINGP.PFT	PRO	67	Oil
29	PUMPINGP.PFT	PRO	116	Water

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TABLE 226. Utilities Integer Value Description Table - Continued.

30	PIPEL.LFT	ACC	0	Unknown
31	PIPEL.LFT	ACC	1	Accurate
32	PIPEL.LFT	ACC	2	Approximate
33	PIPEL.LFT	LOC	0	Unknown
34	PIPEL.LFT	LOC	4	Below Surface/Submerged/Underground
35	PIPEL.LFT	LOC	8	On Ground Surface
36	PIPEL.LFT	LOC	25	Suspended/Elevated Above Ground or Water Surface
37	PIPEL.LFT	PRO	0	Unknown
38	PIPEL.LFT	PRO	13	Chemical
39	PIPEL.LFT	PRO	38	Gas
40	PIPEL.LFT	PRO	39	Gasoline
41	PIPEL.LFT	PRO	67	Oil
42	PIPEL.LFT	PRO	116	Water
43	POWERL.LFT	ACC	0	Unknown
44	POWERL.LFT	ACC	1	Accurate
45	POWERL.LFT	ACC	2	Approximate
46	POWERL.LFT	TST	0	Unknown
47	POWERL.LFT	TST	1	Normal Suspension
48	POWERL.LFT	TST	2	Catenary (land)
49	POWERL.LFT	TST	3	Catenary (water)
50	POWER.AFT	PPC	0	Unknown
51	POWER.AFT	PPC	1	Hydro-electric
52	POWER.AFT	PPC	2	Nuclear
53	POWER.AFT	PPC	3	Solar
54	POWER.AFT	PPC	4	Thermal
55	POWER.AFT	PPC	6	Tidal
56	POWER.AFT	PPC	7	Internal Combustion
57	UTIVOIDA.AFT	VCA	0	Unknown
58	UTIVOIDA.AFT	VCA	2	Area Too Rough to Collect
59	UTIVOIDA.AFT	VCA	3	No Available Imagery
60	UTIVOIDA.AFT	VCA	6	No Available Map Source
61	UTIVOIDA.AFT	VCA	7	No Suitable Imagery
62	SYMBOL.RAT	FON	1	Machine Default
63	SYMBOL.RAT	STY	1	Kern
64	SYMBOL.RAT	STY	2	Proportional
65	SYMBOL.RAT	STY	3	Constant
66	SYMBOL.RAT	COL	1	Black
67	SYMBOL.RAT	COL	4	Blue
68	SYMBOL.RAT	COL	9	Red-Brown
69	SYMBOL.RAT	COL	12	Magenta

APPENDIX F

F.3.11 Vegetation coverage.TABLE 227. Content and format for Vegetation coverage feature class schema table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Vegetation Feature Class Schema Table
 Table Name: FCS
 DQ Layer Number: 9

{Header length)L; Vegetation Feature Class Schema Table;-;					
ID=I,1,P,Row Identifier,-,-,-,:					
FEATURE_CLASS=T,8,N,Name of Feature Class,-,-,-,:					
TABLE1=T,12,N,First Table,-,-,-,:					
TABLE1_KEY=T,16,N,Column Name in First Table,-,-,-,:					
TABLE2=T,12,N,Second Table,-,-,-,:					
TABLE2_KEY=T,9,N,Column Name in Second Table,-,-,-,:					
1	OASISP	OASISP.PFT	END_ID	END	ID
2	OASISP	END	OASISP.PFT_ID	OASISP.PFT	ID
3	FIREBRKL	FIREBRKL.LFT	EDG_ID	EDG	ID
4	FIREBRKL	EDG	FIREBRKL.LFT_ID	FIREBRKL.LFT	ID
5	TREESL	TREESL.LFT	EDG_ID	EDG	ID
6	TREESL	EDG	TREESL.LFT_ID	TREESL.LFT	ID
7	CROPA	CROPA.AFT	FAC_ID	FAC	ID
8	CROPA	FAC	CROPA.AFT_ID	CROPA.AFT	ID
9	GRASSA	GRASSA.AFT	FAC_ID	FAC	ID
10	GRASSA	FAC	GRASSA.AFT_ID	GRASSA.AFT	ID
11	ORCHARDA	ORCHARDA.AFT	FAC_ID	FAC	ID
12	ORCHARDA	FAC	ORCHARDA.AFT_ID	ORCHARDA.AFT	ID
13	SWAMPA	SWAMPA.AFT	FAC_ID	FAC	ID
14	SWAMPA	FAC	SWAMPA.AFT_ID	SWAMPA.AFT	ID
15	TREESA	TREESA.AFT	FAC_ID	FAC	ID
16	TREESA	FAC	TREESA.AFT_ID	TREESA.AFT	ID
17	TUNDRAA	TUNDRAA.AFT	FAC_ID	FAC	ID
18	TUNDRAA	FAC	TUNDRAA.AFT_ID	TUNDRAA.AFT	ID
19	VEGVOIDA	VEGVOIDA.AFT	FAC_ID	FAC	ID
20	VEGVOIDA	FAC	VEGVOIDA.AFT_ID	VEGVOIDA.AFT	ID
21	DQPOINT	DQPOINT.PFT	END_ID	END	ID
22	DQPOINT	END	DQPOINT.PFT_ID	DQPOINT.PFT	ID
23	DQPOINT	DQPOINT.PFT	DQDESCR_ID	DQDESCR.RAT	ID
24	DQLINE	DQLINE.LFT	EDG_ID	EDG	ID
25	DQLINE	EDG	DQLINE.LFT_ID	DQLINE.LFT	ID
26	DQLINE	DQLINE.LFT	DQDESCR_ID	DQDESCR.RAT	ID
27	DQAREA	DQAREA.AFT	FAC_ID	FAC	ID
28	DQAREA	FAC	DQAREA.AFT_ID	DQAREA.AFT	ID

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TABLE 227. Content and format for Vegetation coverage feature class schema table - Continued.

29	DQAREA	DQAREA.AFT	DQDESCR_ID	DQDESCR.RAT	ID
30	DQTEXT	DQTEXT.TFT	TXT_ID	TXT	ID
31	DQTEXT	TXT	DQTEXT.TFT_ID	DQTEXT.TFT	ID
32	VEGTX	VEGTX.TFT	TXT_ID	TXT	ID
33	VEGTX	TXT	VEGTX.TFT_ID	VEGTX.TFT	ID
34	VEGTX	VEGTX.TFT	SYMBOL_ID	SYMBOL.RAT	SYMBOL_ID

TABLE 228. Oasis Point Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Oasis Point Feature Table
 Table Name: OASISP.PFT
 DQ Layer Number: 9

{Header length}L; Oasis Point Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; VEG=S,1,N,Vegetation Characteristics,INT.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.PTI,-,-,; END_ID=I,1,N,Entity Node Primitive ID,-,END1_ID.PTI,-,-,;				
1	EC020	17	1	1
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EC020	Oasis	
VEG	Vegetation Characteristics	0	Unknown	EC020
		17	Palm	EC020

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TABLE 229. Cleared Way/Firebreak Line Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Cleared Way/Firebreak Line Feature Table
 Table Name: FIREBRKL.LFT
 DQ Layer Number: 9
 Portrayal Criteria:
 For EC040 length >= 2,500 meters and width >= 37 meters

{Header length}L; Cleared Way/Firebreak Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG1_ID.LTI,-,;;			
1	EC040	1	1
:	:	:	:
n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EC040	Cleared Way/Firebreak	

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TABLE 230. Trees Line Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Trees Line Feature Table
 Table Name: TREESL.LFT
 DQ Layer Number: 9
 Portrayal Criteria:
 For EC030 length >= 1,000 meters, width < 65 meters, and tree cover >= 25 %

{Header length}L; Trees Line Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; PHT=S,1,N,Predominant Height (meters),INT.VDT,-,-,; SBC=S,1,N,Shelter Belt Condition,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.LTI,-,; EDG_ID=I,1,N,Edge Primitive ID,-,EDG2_ID.LTI,-,;;					
1	EC030	0	1	1	1
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EC030	Trees	
PHT	Predominant Height (meters)	0 >=3	Unknown	EC030 EC030
SBC	Shelter Belt Condition	0 1	Unknown Functions as a shelter belt	EC030 EC030

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TABLE 231. Cropland Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Cropland Area Feature Table
 Table Name: CROPA.AFT
 DQ Layer Number: 9
 Portrayal Criteria:
 For EA010 and BH135 area >= 39.0625 hectares

{Header length}L; Cropland Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE1.ATI,-,,: FTC=S,1,N,Farming Type Category,INT.VDT,-,-,; VEG=S,1,N,Vegetation Characteristics,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE1_ID.ATI,-,,: FAC_ID=I,1,N,Face Primitive ID,-,FAC1_ID.ATI,-,,:;					
1	EA010	3	1	1	2
2	BH135	3	-32768	2	3
:	:	:	:	:	:
n	n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EA010	Cropland	
		BH135	Rice field	
FTC	Farming Type Category	0	Unknown	EA010, BH135
		1	Shifting cultivation	EA010
		3	Terraced	EA010, BH135
		999	Other	EA010, BH135
VEG	Vegetation Characteristics	-32768	Null	BH135
		0	Unknown	EA010
		1	Dry Crops	EA010
		999	Other	EA010

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TABLE 232. Grassland Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Grassland Area Feature Table
 Table Name: GRASSA.AFT
 DQ Layer Number: 9
 Portrayal Criteria:
 For EB010 area >= 39.0625 hectares and height >= 3 meters
 (tropical/elephant grass)

{Header length)L; Grassland Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE2_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC2_ID.ATI,-,;;			
1	EB010	1	2
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute

Column	Description	Value	Value Meaning	Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	EB010	Grassland	

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TABLE 233. Orchard Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Orchard Area Feature Table
 Table Name: ORCHARDA.AFT
 DQ Layer Number: 9
 Portrayal Criteria:
 For EA040 and EA050 area >= 39.0625 hectares and for EA040 height >= 3 meters

{Header length}L; Orchard Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE3.ATI,-,; DMT=S,1,N,Density Measure (% Tree/Canopy Cover),INT.VDT,-,-,; PRO=S,1,N,Product Category,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE3_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC3_ID.ATI,-,;					
1	EA040	999	120	1	2
2	EA050	-32768	-32768	2	3
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EA040	Orchard/Plantation	
		EA050	Vineyards	
DMT	Density Measure (% Tree/Canopy Cover)	-32768	Null	EA050
		999	Unknown	EA040
		25 to 100		EA040

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TABLE 233. Orchard Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
PRO	Product Category	-32768	Null	EA050
		0	Unknown	EA040
		85	Rubber	EA040
		120	Bananas	EA040
		121	Cotton	EA040
		122	Bamboo	EA040
		123	Coffee	EA040
		124	Common fruit and/or nut	EA040
		125	Palms	EA040
		126	Palmetto	EA040
		999	Other	EA040

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TABLE 234. Swamp Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Swamp Area Feature Table
 Table Name: SWAMPA.AFT
 DQ Layer Number: 9
 For BH095 and BH015 area >= 39.0625 hectares

{Header length}L;					
Swamp Area Feature Table;-;					
ID=I,1,P,Row Identifier,-,-,-,;					
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE4.ATI,-,;					
TID=S,1,N,Tidal/Non-Tidal Category,INT.VDT,-,-,;					
VEG=S,1,N,Vegetation Characteristics,INT.VDT,-,-,;					
TILE_ID=S,1,N,Tile Reference ID,-,TILE4_ID.ATI,-,;					
FAC_ID=I,1,N,Face Primitive ID,-,FAC4_ID.ATI,-,;					
1	BH015	-32768	7	1	2
2	BH095	1	-32768	2	3
3	BH095	2	-32768	3	4
:	:	:	:	:	:
n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BH015	Bog	
		BH095	Marsh/Swamp	
TID	Tidal/Non-Tidal Category	-32768	Null	BH015
		0	Unknown	BH095
		1	Non-Tidal	BH095
		2	Tidal/Tidal Fluctuation	BH095
VEG	Vegetation Characteristics	-32768	Null	BH095
		0	Unknown	BH015
		6	Cranberry	BH015
		7	Peat	BH015

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TABLE 235. Trees Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Trees Area Feature Table
 Table Name: TREESA.AFT
 DQ Layer Number: 9
 Portrayal Criteria: For EC030 >= 39.0625 hectares

```
(Header length)L;
Trees Area Feature Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,:
DMT=S,1,N,Density Measure (% Tree/Canopy
Cover),INT.VDT,-,-,:
NAM=T,* ,N,Name,CHAR.VDT,-,-,:
PHT=S,1,N,Predominant Height (meters),INT.VDT,-,-,:
VEG=S,1,N,Vegetation Characteristics,INT.VDT,-,-,:
TILE_ID=S,1,N,Tile Reference ID,-,TILE5_ID.ATI,-,:
FAC_ID=I,1,N,Face Primitive ID,-,FAC5_ID.ATI,-,:;
```

1	EC030	95	Black	25	18	1	2
:	:	:	:	:	:	:	:
n	n	n	n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	EC030	Trees	
DMT	Density Measure (% Tree/Canopy Cover)	999 25 to 100	Unknown	EC030 EC030
NAM	Name	Character text string "UNK" (no entry present for feature)		EC030 EC030
PHT	Predominant Height (meters)	0 >1	Unknown	EC030 EC030

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TABLE 235. Trees Area Feature Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
VEG	Vegetation Characteristics			
		0	Unknown	EC030
		11	Casuarina	EC030
		12	Coniferous	EC030
		16	Nipa Palm	EC030
		17	Palm	EC030
		18	Filao	EC030
		19	Mangrove	EC030
		24	Deciduous	EC030
		29	Eucalyptus	EC030
		38	Cypress	EC030
		50	Mixed	EC030
		999	Other	EC030

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TABLE 236. Tundra Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Tundra Area Feature Table
 Table Name: TUNDRAA.AFT
 DQ Layer Number: 9
 Portrayal Criteria: For BJ110 area >= 39.0625 hectares

(Header length)L; Tundra Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE6_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC6_ID.ATI,-,;			
1	BJ110	1	2
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	BJ110	Tundra	

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TABLE 237. Vegetation Void Collection Area Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Vegetation Void Collection Area Feature Table
 Table Name: VEGVOIDA.AFT
 DQ Layer Number: 9
 Portrayal Criteria: For ZD020 area >= 39.0625 hectares

{Header length}L; Vegetation Void Collection Area Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,-,-,; VCA=S,1,N,Void Collection Attribute,INT.VDT,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE7_ID.ATI,-,; FAC_ID=I,1,N,Face Primitive ID,-,FAC7_ID.ATI,-,;;				
1	ZD020	2	1	2
:	:	:	:	:
n	n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Value
ID	Row Identifier		Sequential beginning with 1	
F_CODE	FACC Feature Code	ZD020	Void Collection Area	
VCA	Void Collection Attribute	0	Unknown	ZD020
		2	Area Too Rough to Collect	ZD020
		3	No Available Imagery	ZD020
		6	No Available Map Source	ZD020
		7	No Suitable Imagery	ZD020

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TABLE 238. Vegetation Text Feature Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Vegetation Text Feature Table
 Table Name: VEGTXT.TFT
 DQ Layer Number: 9

(Header length)L; Vegetation Text Feature Table;-; ID=I,1,P,Row Identifier,-,-,-,; F_CODE=T,5,N,FACC Feature Code,CHAR.VDT,F_CODE.TTI,-,; SYMBOL_ID=S,1,N,Symbol Identification,-,-,-,; TILE_ID=S,1,N,Tile Reference ID,-,TILE_ID.TTI,-,; TXT_ID=I,1,N,Text Primitive ID,-,TXT_ID.TTI,-,;				
1	ZD040	TBD	1	1
2	ZD045	TBD	4	45
:	:	:	:	:
n	n	n	n	n

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
F_CODE	FACC Feature Code	ZD040	Named Location	
		ZD045	Text Description	
SYMBOL_ID	Symbol Identification			
(Refer to Symbol Related Attribute Table for selection of values)				

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TABLE 239. Vegetation Feature Class Attribute Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Table Description: Vegetation Feature Class Attribute Table
 Table Name: FCA
 DQ Layer Number: 9

```
{Header length}L;
Vegetation Feature Class Attribute Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
FCLASS=T,8,U,Feature Class Name,-,-,-,:
TYPE=T,1,N,Feature Type,CHAR.VDT,-,-,-,:
DESCR=T,*,N,Description,-,-,-,;:
```

1	OASISP	P	Oases
:	:	:	:
n	n	n	n

Applicable
 F_CODE
 for Each
 Attribute
 Value

Column	Description	Value	Value Meaning	Applicable F_CODE for Each Attribute Value
ID	Row Identifier	Sequential beginning with 1		
FCLASS	Feature Class Name	OASISP FIREBRKL TREESL CROPA GRASSA ORCHARDA SWAMPA TREESA TUNDRAA VEGVOIDA VEGTXT		
TYPE	Feature Type	P L A T	Point Feature Line Feature Area Feature Text Feature	OASISP FIREBRKL, TREESL CROPA, GRASSA, ORCHARDA, SWAMPA, TREESA, TUNDRAA, VEGVOIDA VEGTXT

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TABLE 239. Vegetation Feature Class Attribute Table - Continued.

<u>Column</u>	<u>Description</u>	<u>Value</u>	<u>Value Meaning</u>	<u>Applicable F_CODE for Each Attribute Value</u>
DESCR	Description			
		Oases		OASISP
		Cleared Way/Firebreaks		FIREBRKL
		Tree Rows		TREESL
		Croplands		CROPA
		Grasslands		GRASSA
		Orchards/Vineyards		ORCHARDA
		Marshes/Swamps		SWAMPA
		Trees		TREESA
		Tundra		TUNDRAA
		Vegetation Void Collection Area		VEGVOIDA
		Vegetation Coverage Text		VEGTXT

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TABLE 240. Vegetation Character Value Description Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Vegetation Character Value Description Table
 Table Name: CHAR.VDT
 DQ Layer Number: 9

```
{Header length}L;
Vegetation Character Value Description Table;-;
ID=I,1,P,Row Identifier,-,-,-,:
TABLE=T,12,N,Name of the Feature Table,-,-,-,:
ATTRIBUTE=T,6,N,Column Name,-,-,-,:
VALUE=T,5,N,Unique Value of Attribute,-,-,-,:
DESCRIPTION=T,21,N,Description of Value,-,-,-,;:
```

1	OASISP.PFT	F_CODE	EC020	Oasis
2	FIREBRKL.LFT	F_CODE	EC040	Cleared Way/Firebreak
3	TREESL.LFT	F_CODE	EC030	Trees
4	CROPA.AFT	F_CODE	BH135	Rice Field
5	CROPA.AFT	F_CODE	EA010	Cropland
6	GRASSA.AFT	F_CODE	EB010	Grassland
7	ORCHARDA.AFT	F_CODE	EA040	Orchard/Plantation
8	ORCHARDA.AFT	F_CODE	EA050	Vineyards
9	SWAMPA.AFT	F_CODE	BH015	Bog
10	SWAMPA.AFT	F_CODE	BH095	Marsh/Swamp
11	TREESA.AFT	F_CODE	EC030	Trees
12	TREESA.AFT	NAM	UNK	No entry present
13	TUNDRAA.AFT	F_CODE	BJ110	Tundra
14	VEGVOIDA.AFT	F_CODE	ZD020	Void Collection Area
15	VEGTX.TFT	F_CODE	ZD040	Named Location
16	VEGTX.TFT	F_CODE	ZD045	Text Description
17	FCA	TYPE	A	Area Feature
18	FCA	TYPE	L	Line Feature
19	FCA	TYPE	P	Point/Node Feature
20	FCA	TYPE	T	Text Feature
21	DQPOINT.PFT	F_CODE	EC020	Oasis
22	DQPOINT.PFT	F_CODE	ZD045	Text Description
23	DQLINE.LFT	F_CODE	EC040	Cleared Way/Firebreak
24	DQLINE.LFT	F_CODE	EC030	Trees
25	DQLINE.LFT	F_CODE	ZD045	Text Description
26	DQAREA.AFT	F_CODE	BH135	Rice Field
27	DQAREA.AFT	F_CODE	EA010	Crop Land
28	DQAREA.AFT	F_CODE	EB010	Grassland
29	DQAREA.AFT	F_CODE	EA040	Orchard/Plantation

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TABLE 240. Vegetation Character Value Description Table - Continued.

30	DQAREA.AFT	F_CODE	EA050	Vineyards
31	DQAREA.AFT	F_CODE	BH015	Bog
32	DQAREA.AFT	F_CODE	BH095	Marsh/Swamp
33	DQAREA.AFT	F_CODE	EC030	Trees
34	DQAREA.AFT	F_CODE	BJ110	Tundra
35	DQAREA.AFT	F_CODE	ZD020	Void Collection Area
36	DQAREA.AFT	F_CODE	ZD045	Text Description

TABLE 241. Vegetation Integer Value Description Table.

Thematic Layer: Vegetation
 Coverage Name: VEG
 Feature Table Description: Vegetation Integer Value Description Table
 Table Name: INT.VDT
 DQ Layer Number: 9

{Header length}L;
 Vegetation Integer Value Description Table;--;
 ID=I,1,P,Row Identifier,--,--,:
 TABLE=T,12,N,Name of the Feature Table,--,--,:
 ATTRIBUTE=T,3,N,Column Name,--,--,:
 VALUE=S,1,N,Unique Value of Attribute,--,--,:
 DESCRIPTION=T,30,N,Description of Value,--,--,:;

1	OASISP.PFT	VEG	0	Unknown
2	OASISP.PFT	VEG	17	Palm
3	TREESL.LFT	PHT	0	Unknown
4	TREESL.LFT	SBC	0	Unknown
5	TREESL.LFT	SBC	1	Functions as a shelter belt
6	CROPA.AFT	FTC	0	Unknown
7	CROPA.AFT	FTC	1	Shifting cultivation
8	CROPA.AFT	FTC	3	Terraced
9	CROPA.AFT	FTC	999	Other
10	CROPA.AFT	VEG	0	Unknown
11	CROPA.AFT	VEG	1	Dry Crops
12	CROPA.AFT	VEG	999	Other
13	ORCHARDA.AFT	DMT	999	Unknown
14	ORCHARDA.AFT	PRO	0	Unknown
15	ORCHARDA.AFT	PRO	85	Rubber
16	ORCHARDA.AFT	PRO	120	Bananas
17	ORCHARDA.AFT	PRO	121	Cotton

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TABLE 241. Vegetation Integer Value Description Table - Continued.

18	ORCHARDA.AFT	PRO	122	Bamboo
19	ORCHARDA.AFT	PRO	123	Coffee
20	ORCHARDA.AFT	PRO	124	Common fruit and/or nut
21	ORCHARDA.AFT	PRO	125	Palms
22	ORCHARDA.AFT	PRO	126	Palmetto
23	ORCHARDA.AFT	PRO	999	Other
24	SWAMPA.AFT	TID	0	Unknown
25	SWAMPA.AFT	TID	1	Non-Tidal
26	SWAMPA.AFT	TID	2	Tidal/Tidal Fluctuation
27	SWAMPA.AFT	VEG	0	Unknown
28	SWAMPA.AFT	VEG	6	Cranberry
29	SWAMPA.AFT	VEG	7	Peat
30	TREESA.AFT	DMT	999	Unknown
31	TREESA.AFT	PHT	0	Unknown
32	TREESA.AFT	VEG	0	Unknown
33	TREESA.AFT	VEG	11	Casuarina
34	TREESA.AFT	VEG	12	Coniferous
35	TREESA.AFT	VEG	16	Nipa Palm
36	TREESA.AFT	VEG	17	Palm
37	TREESA.AFT	VEG	18	Filao
38	TREESA.AFT	VEG	19	Mangrove
39	TREESA.AFT	VEG	24	Deciduous
40	TREESA.AFT	VEG	29	Eucalyptus
41	TREESA.AFT	VEG	38	Cypress
42	TREESA.AFT	VEG	50	Mixed
43	TREESA.AFT	VEG	999	Other
44	VEGVOIDA.AFT	VCA	0	Unknown
45	VEGVOIDA.AFT	VCA	2	Area Too Rough to Collect
46	VEGVOIDA.AFT	VCA	3	No Available Imagery
47	VEGVOIDA.AFT	VCA	6	No Available Map Source
48	VEGVOIDA.AFT	VCA	7	No Suitable Imagery
49	SYMBOL.RAT	FON	1	Machine Default
50	SYMBOL.RAT	STY	1	Kern
51	SYMBOL.RAT	STY	2	Proportional
52	SYMBOL.RAT	STY	3	Constant
53	SYMBOL.RAT	COL	1	Black
54	SYMBOL.RAT	COL	4	Blue
55	SYMBOL.RAT	COL	9	Red-Brown
56	SYMBOL.RAT	COL	12	Magenta

APPENDIX G

VMap LEVEL 1 FEATURES

G.1 SCOPE

This appendix contains the valid FACC Codes and primitive types for each coverage, and the valid attributes for each FACC feature code in VMap Level 1 data libraries. It is a mandatory part of this Specification. The information contained herein is intended for compliance.

G.2 APPLICABLE DOCUMENTS

This section is not applicable to this document.

G.3 VMap LEVEL 1 FEATURES

G.3.1 Description of coverage. TABLE 242 contains all valid FACC codes and primitive types for each coverage in VMap Level 1 data libraries.

TABLE 242. Level 1 FACC Codes by Coverage and Feature Type.

Layer	FACC Code	Feature Name	END	CND	EDG	FAC	TXT
BND	AL025	Cairn	X				
BND	AL070	Fence					
BND	AL260	Wall			X		
BND	BA010	Coastline/Shoreline			X		
BND	FA000	Administrative Boundary			X		
BND	FA001	Administrative Area				X	
BND	FA020	Armistice Line			X		
BND	FA030	Cease-Fire Line			X		
BND	FA050	Convention Line/Mandate Line			X		
BND	FA060	Defacto Boundary			X		
BND	FA070	Demilitarized Zone				X	
BND	FA110	International Date Line			X		
BND	FA170	Zone of Occupation				X	
BND	ZB035	Control Point/Control Station	X				
BND	ZC040	Magnetic Disturbance Area				X	
BND	ZD020	Void Collection Area				X	
BND	ZD040	Named Location					X
BND	ZD045	Text Description					X
DQ	ZD020	Void Collection Area				X	
DQ	ZD045	Text Description					X
ELEV	BE015	Depth Contour			X		
ELEV	CA010	Contour Line (Land)			X		
ELEV	CA030	Spot Elevation	X				
ELEV	ZD020	Void Collection Area				X	
ELEV	ZD040	Named Location					X
ELEV	ZD045	Text Description					X

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TABLE 242. Level 1 FACC Codes by Coverage and Feature Type -
Continued.

Layer	FACC Code	Feature Name	END	CND	EDG	FAC	TXT
HYDRO	AA050	Well	X				
HYDRO	BA020	Foreshore				X	
HYDRO	BA030	Island				X	
HYDRO	BA040	Water (Except Inland)				X	
HYDRO	BB040	Breakwater/Groyne			X		
HYDRO	BB140	Jetty			X		
HYDRO	BB230	Seawall			X		
HYDRO	BD120	Reef			X	X	
HYDRO	BD130	Rock	X				
HYDRO	BD180	Wreck	X				
HYDRO	BH010	Aqueduct		X	X		
HYDRO	BH020	Canal			X		
HYDRO	BH030	Ditch			X		
HYDRO	BH080	Lake/Pond				X	
HYDRO	BH090	Land Subject to Inundation				X	
HYDRO	BH110	Penstock			X		
HYDRO	BH120	Rapids		X	X		
HYDRO	BH130	Reservoir				X	
HYDRO	BH140	River/Stream			X	X	
HYDRO	BH145	River Or Stream Vanishing Point		X			
HYDRO	BH170	Spring/Water-Hole	X				
HYDRO	BH180	Waterfall		X	X		
HYDRO	BH190	Lagoon/Reef Pool				X	
HYDRO	BI010	Cistern	X				
HYDRO	BI020	Dam/Weir		X	X		
HYDRO	BI030	Lock			X		
HYDRO	BI050	Water Intake Tower	X				
HYDRO	ZD020	Void Collection Area				X	
HYDRO	ZD040	Named Location					X
HYDRO	ZD045	Text Description					X
IND	AA010	Mine/Quarry	X			X	
IND	AA040	Rig/Superstructure	X				
IND	AA050	Well	X				
IND	AB000	Disposal Site/Waste Pile				X	
IND	AC000	Processing Plant/Treatment Plant	X			X	
IND	AC030	Settling Basin/Sludge Pond				X	
IND	AF010	Chimney/Smokestack	X				
IND	AF020	Conveyor			X		
IND	AF030	Cooling Tower	X				
IND	AF040	Crane	X				
IND	AF070	Flare Pipe	X				
IND	AJ050	Windmill	X				
IND	AL140	Particle Accelerator	X				
IND	AL240	Tower (Non-Communication)	X				
IND	AM020	Grain Bin/Silo	X				
IND	AM030	Grain Elevator	X				

APPENDIX G

TABLE 242. Level 1 FACC Codes by Coverage and Feature Type -
Continued.

Layer	FACC Code	Feature Name	END	CND	EDG	FAC	TXT
IND	AM070	Tank	X				
IND	AM080	Water Tower	X				
IND	BH040	Filtration Beds/Aeration Beds				X	
IND	BH050	Fish Hatchery/Fish Farm/Marine Farm				X	
IND	BH060	Flume			X		
IND	BH155	Salt Evaporator				X	
IND	FA090	Geophysical Prospecting Grid			X		
IND	ZD020	Void Collection Area				X	
IND	ZD040	Named Location					X
IND	ZD045	Text Description					X
PHYS	BH150	Salt Pan				X	
PHYS	BH160	Sebkha				X	
PHYS	BJ020	Moraine				X	
PHYS	BJ030	Glacier				X	
PHYS	BJ040	Ice Cliff			X		
PHYS	BJ060	Ice Peak/Nunatak	X				
PHYS	BJ065	Ice Shelf				X	
PHYS	BJ070	Pack Ice				X	
PHYS	BJ080	Polar Ice				X	
PHYS	BJ100	Snow Field/Ice Field				X	
PHYS	DA005	Asphalt Lake				X	
PHYS	DA010	Ground Surface Element				X	
PHYS	DB010	Bluff/Cliff/Escarpment			X		
PHYS	DB030	Cave	X				
PHYS	DB060	Crevice/Crevasse			X		
PHYS	DB070	Cut			X		
PHYS	DB090	Embankment/Fill			X		
PHYS	DB100	Esker			X		
PHYS	DB110	Fault			X		
PHYS	DB115	Geothermal Feature	X				
PHYS	DB150	Mountain Pass	X				
PHYS	DB160	Rock Strata/Rock Formation	X				
PHYS	DB170	Sand Dune/Sand Hills				X	
PHYS	ZD020	Void Collection Area				X	
PHYS	ZD040	Named Location					X
PHYS	ZD045	Text Description					X
POP	AH050	Fortification	X			X	
POP	AK020	Amusement Park Attraction	X				
POP	AK120	Park				X	
POP	AK130	Race Tack			X		
POP	AK150	Ski Jump	X				
POP	AK160	Stadium/Amphitheater	X				
POP	AL015	Building	X			X	
POP	AL020	Built-Up Area	X			X	
POP	AL100	Hut	X				
POP	AL105	Settlement				X	

APPENDIX G

TABLE 242. Level 1 FACC Codes by Coverage and Feature Type -
Continued.

Layer	FACC Code	Feature Name	END	CND	EDG	FAC	TXT
POP	AL130	Monument	X				
POP	AL135	Native Settlement				X	
POP	AL200	Ruins	X			X	
POP	ZD020	Void Collection Area				X	
POP	ZD040	Named Location					X
POP	ZD045	Text Description					X
TRANS	AL210	Snow Shed/Rock Shed		X	X		
TRANS	AN010	Railroad			X		
TRANS	AN050	Railroad Siding/Railroad Spur			X		
TRANS	AN060	Railroad Yard/Marshalling Yard				X	
TRANS	AP010	Cart Track			X		
TRANS	AP020	Interchange		X			
TRANS	AP030	Road			X		
TRANS	AP050	Trail			X		
TRANS	AQ010	Aerial Cableway Lines/Ski Lift Lines			X		
TRANS	AQ040	Bridge/Overpass/Viaduct		X	X		
TRANS	AQ060	Control Tower	X				
TRANS	AQ070	Ferry Crossing		X	X		
TRANS	AQ110	Mooring Mast	X				
TRANS	AQ130	Tunnel		X	X		
TRANS	AQ135	Vehicle Stopping Area/Rest Area	X				
TRANS	BB190	Pier/Wharf/Quay			X	X	
TRANS	BH070	Ford		X	X		
TRANS	GB005	Airport/Airfield	X				
TRANS	GB010	Airport Lighting	X				
TRANS	GB055	Runway	X		X		
TRANS	ZD020	Void Collection Area				X	
TRANS	ZD040	Named Location					X
TRANS	ZD045	Text Description					X
UTIL	AD010	Power Plant	X			X	
UTIL	AQ113	Pipeline/Pipe			X		
UTIL	AQ116	Pumping Station	X				
UTIL	AT010	Disk/Dish	X				
UTIL	AT030	Power Transmission Line			X		
UTIL	AT060	Telephone Line/Telegraph Line			X		
UTIL	AT080	Communication Tower	X				
UTIL	ZD020	Void Collection Area				X	
UTIL	ZD040	Named Location					X
UTIL	ZD045	Text Description					X
VEG	BH015	Bog				X	
VEG	BH095	Marsh/Swamp				X	
VEG	BH135	Rice Field				X	
VEG	BJ110	Tundra				X	
VEG	EA010	Cropland				X	
VEG	EA040	Orchard/Plantation				X	
VEG	EA050	Vineyards				X	

APPENDIX G

TABLE 242. Level 1 FACC Codes by Coverage and Feature Type -
Continued.

Layer	FACC Code	Feature Name	END	CND	EDG	FAC	TXT
VEG	EB010	Grassland				X	
VEG	EC020	Oasis	X				
VEG	EC030	Trees			X	X	
VEG	EC040	Cleared Way/Firebreak			X		
VEG	ZD020	Void Collection Area				X	
VEG	ZD040	Named Location					X
VEG	ZD045	Text Description					X

G.3.2 Description of features. TABLE 243 contains all valid attributes for each FACC feature code in VMap Level 1 data libraries.

TABLE 243. Level 1 Attributes by FACC Codes and Feature Type.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
BND	Cairn	AL025	-	x				
BND	Fence	AL070	-			x		
BND	Wall	AL260	-			x		
BND	Coastline/Shoreline	BA010	ACC			x		
			SLT			x		
			VDC			x		
BND	Administrative Boundary	FA000	ACC			x		
			BST			x		
			NM3			x		
			NM4			x		
			USE			x		
BND	Administrative Area	FA001	ACC				x	
			NM3				x	
			NM4				x	
			USE				x	
BND	Armistice Line	FA020	ACC			x		
			NM3			x		
			NM4			x		
BND	Cease-Fire Line	FA030	ACC			x		
BND	Convention Line/Mandate Line	FA050	ACC			x		
BND	Defacto Boundary	FA060	ACC			x		
			NM3			x		
			NM4			x		
			TXT			x		
			USE			x		
BND	Demilitarized Zone	FA070	-				x	
BND	International Date Line	FA110	-			x		
BND	Zone of Occupation	FA170	NM3				x	
BND	Control Point/Control Station	ZB035	CPA	x				

APPENDIX G

TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
			NAM	x				
			ZV2	x				
BND	Magnetic Disturbance Area	ZC040	VAV				x	
BND	Void Collection Area	ZD020	VCA				x	
BND	Named Location	ZD040	-					x
BND	Text Description	ZD045	-					x
DQ	Void Collection Area	ZD020	VCA				x	
			VCT				x	
DQ	Text Description	ZD045	-					x
ELEV	Depth Contour	BE015	ACC			x		
			CRV			x		
ELEV	Contour Line (Land)	CA010	ZV2			x		
ELEV	Spot Elevation	CA030	ACC	x				
			ELA	x				
			MCC	x				
			ZV2	x				
ELEV	Void Collection Area	ZD020	VCA				x	
ELEV	Named Location	ZD040	-					x
ELEV	Text Description	ZD045	-					x
HYDRO	Well	AA050	EXS	x				
			HYC	x				
			NAM	x				
			PRO	x				
			SCC	x				
			WFT	x				
HYDRO	Foreshore	BA020	MCC				x	
HYDRO	Island	BA030	-				x	
HYDRO	Water (Except Inland)	BA040	-				x	
HYDRO	Breakwater/Groyne	BB040	VRR			x		
			WID			x		
HYDRO	Jetty	BB140	VRR			x		
			WID			x		
HYDRO	Seawall	BB230	-			x		
HYDRO	Reef	BD120	COD			x	x	
			MCC			x	x	
			NAM			x	x	
			VRR			x	x	
HYDRO	Rock	BD130	ARH	x				
			MCC	x				
			NAM	x				
			VRR	x				
HYDRO	Wreck	BD180	LOC	x				
			VRR	x				
HYDRO	Aqueduct	BH010	ATC		x			
			EXS			x		
			LOC			x		

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
HYDRO	Canal	BH020	WID EXS HYC NAM			x x x		
HYDRO	Ditch	BH030	WID HYC			x x		
HYDRO	Lake/Pond	BH080	WID HYC NAM SCC ZV2			x	x x x x	
HYDRO	Land Subject to Inundation	BH090	EXS				x	
HYDRO	Penstock	BH110	LOC			x		
HYDRO	Rapids	BH120	-		x	x		
HYDRO	Reservoir	BH130	EXS NAM				x x	
HYDRO	River/Stream	BH140	HYC NAM TID			x x x	x x x	
HYDRO	River or Stream Vanishing Point	BH145	HFC		x			
HYDRO	Spring/Water-Hole	BH170	HYC SCC	x x				
HYDRO	Waterfall	BH180	NAM		x	x		
HYDRO	Lagoon/Reef Pool	BH190	-				x	
HYDRO	Cistern	BI010	EXS	x				
HYDRO	Dam/Weir	BI020	LEN MCC NAM TUC		x x x	x x x		
HYDRO	Lock	BI030	-			x		
HYDRO	Water Intake Tower	BI050	EXS HGT ZV2	x x x				
HYDRO	Void Collection Area	ZD020	VCA				x	
HYDRO	Named Location	ZD040	-					x
HYDRO	Text Description	ZD045	-					x
IND	Mine/Quarry	AA010	ARH EXS MIN NAM PRO	x x x x			x x x x	
IND	Rig/Superstructure	AA040	EXS HGT LOC PRO ZV2	x x x x				

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
IND	Well	AA050	EXS	x				
			NAM	x				
			PRO	x				
IND	Disposal Site/Waste Pile	AB000	PRO				x	
IND	Processing Plant/Treatment Plant	AC000	NAM	x			x	
			PRO	x			x	
IND	Settling Basin/Sludge Pond	AC030	-				x	
IND	Chimney/Smokestack	AF010	EXS	x				
			HGT	x				
			ZV2	x				
IND	Conveyor	AF020	-			x		
IND	Cooling Tower	AF030	EXS	x				
			HGT	x				
			ZV2	x				
IND	Crane	AF040	EXS	x				
			HGT	x				
			ZV2	x				
IND	Flare Pipe	AF070	EXS	x				
			HGT	x				
			LOC	x				
			ZV2	x				
IND	Windmill	AJ050	EXS	x				
			HGT	x				
			ZV2	x				
IND	Particle Accelerator	AL140	-	x				
IND	Tower (Non-Communication)	AL240	EXS	x				
			HGT	x				
			TTC	x				
			ZV2	x				
IND	Grain Bin/Silo	AM020	EXS	x				
			HGT	x				
			ZV2	x				
IND	Grain Elevator	AM030	EXS	x				
			HGT	x				
			ZV2	x				
IND	Tank	AM070	EXS	x				
			HGT	x				
			LOC	x				
			PRO	x				
			SSC	x				
			WID	x				
			ZV2	x				
IND	Water Tower	AM080	EXS	x				
			HGT	x				
			ZV2	x				
IND	Filtration Beds/Aeration Beds	BH040	-				x	

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
IND	Fish Hatchery/Fish Farm/Marine Farm	BH050	-				x	
IND	Flume	BH060	LOC			x		
IND	Salt Evaporator	BH155	-				x	
IND	Geophysical Prospecting Grid	FA090	-			x		
IND	Void Collection Area	ZD020	VCA				x	
IND	Named Location	ZD040	-					x
IND	Text Description	ZD045	-					x
PHYS	Salt Pan	BH150	-				x	
PHYS	Sebkha	BH160	-				x	
PHYS	Moraine	BJ020	-				x	
PHYS	Glacier	BJ030	-				x	
PHYS	Ice Cliff	BJ040	-			x		
PHYS	Ice Peak/Nunatak	BJ060	MCC	x				
PHYS	Ice Shelf	BJ065	-				x	
PHYS	Pack Ice	BJ070	PRC				x	
PHYS	Polar Ice	BJ080	PRC				x	
PHYS	Snow Field/Ice Field	BJ100	SIC				x	
PHYS	Asphalt Lake	DA005	-				x	
PHYS	Ground Surface Element	DA010	MCC				x	
PHYS	Bluff/Cliff/Escarpment	DB010	HGT			x		
PHYS	Cave	DB030	NAM	x				
PHYS	Crevice/Crevasse	DB060	MCC			x		
			WID			x		
PHYS	Cut	DB070	-			x		
PHYS	Embankment/Fill	DB090	PFH			x		
			USE			x		
			VRR			x		
PHYS	Esker	DB100	-			x		
PHYS	Fault	DB110	-			x		
PHYS	Geothermal Feature	DB115	SWT	x				
PHYS	Mountain Pass	DB150	NAM	x				
			ZV2	x				
PHYS	Rock Strata/Rock Formation	DB160	RKF	x				
PHYS	Sand Dune/Sand Hills	DB170	FEO				x	
			SSC				x	
PHYS	Void Collection Area	ZD020	VCA				x	
PHYS	Named Location	ZD040	-					x
PHYS	Text Description	ZD045	-					x
POP	Fortification	AH050	NAM	x			x	
POP	Amusement Park Attraction	AK020	EXS	x				
			HGT	x				
			SSC	x				
			ZV2	x				
POP	Park	AK120	NAM				x	
			USE				x	

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
POP	Race Track	AK130	NAM			x		
POP	Ski Jump	AK150	EXS	x				
			HGT	x				
			ZV2	x				
POP	Stadium/Amphitheater	AK160	EXS	x				
			HGT	x				
			NAM	x				
			ZV2	x				
POP	Building	AL015	AOO	x				
			BFC	x			x	
			EXS	x			x	
			HGT	x			x	
			HWT	x			x	
			NAM	x			x	
			WID	x				
			ZV2	x				
POP	Built-Up Area	AL020	ARH	x				
			EXS				x	
			NAM	x			x	
			USE				x	
POP	Hut	AL100	-	x				
POP	Settlement	AL105	PPT				x	
POP	Monument	AL130	EXS	x				
			HGT	x				
			NAM	x				
			SSC	x				
			ZV2	x				
POP	Native Settlement	AL135	NAS				x	
POP	Ruins	AL200	-				x	
			ARH	x				
POP	Void Collection Area	ZD020	VCA				x	
POP	Named Location	ZD040	-					x
POP	Text Description	ZD045	-					x
TRANS	Snow Shed/Rock Shed	AL210	LEN		x			
			USE		x	x		
TRANS	Railroad	AN010	ACC			x		
			EXS			x		
			FCO			x		
			GAW			x		
			LOC			x		
			NAM			x		
			RGC			x		
			RRA			x		
			RRC			x		
TRANS	Railroad Siding/Railroad Spur	AN050	EXS			x		
			RGC			x		
			RRA			x		

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
TRANS	Railroad Yard/Marshalling Yard	AN060	RSA EXS LTN			x	x x	
TRANS	Cart Track	AP010	ACC WTC			x x		
TRANS	Interchange	AP020	LOC RIT USE		x x x			
TRANS	Road	AP030	ACC EXS LOC LTN MED NAM RST RTT USE WD1 WTC WTC			x x x x x x x x x x x x		
TRANS	Trail	AP050	WTC			x		
TRANS	Aerial Cableway Lines/Ski Lift Lines	AQ010	HGT USE ZV2			x x x		
TRANS	Bridge/Overpass/Viaduct	AQ040	BDC BOT BSC EXS LEN OHB TUC ZV2		x x x x x x x	x x x x x x		
TRANS	Control Tower	AQ060	EXS HGT ZV2	x x x				
TRANS	Ferry Crossing	AQ070	NAM		x	x		
TRANS	Mooring Mast	AQ110	EXS HGT ZV2	x x x				
TRANS	Tunnel	AQ130	LEN NAM TUC		x x x	x x x		
TRANS	Vehicle Stopping Area/Rest Area	AQ135	-	x				
TRANS	Pier/Wharf/Quay	BB190	LEN WID -			x x		
TRANS	Ford	BH070	-		x	x	x	

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
TRANS	Airport/Airfield	GB005	APT	x				
			COD	x				
			EXS	x				
			NAM	x				
			USE	x				
TRANS	Runway	GB055	AOO	x				
			EXS	x		x		
			LEN	x		x		
			NAM	x		x		
			RST	x		x		
			ZV3	x		x		
TRANS	Airport Lighting	GB010	LFA	x				
TRANS	Void Collection Area	ZD020	VCA				x	
TRANS	Named Location	ZD040	-					x
TRANS	Text Description	ZD045	-					x
UTIL	Power Plant	AD010	ARH	x				
			HGT	x				
			NAM	x			x	
			PPC	x			x	
			ZV2	x				
UTIL	Pipeline/Pipe	AQ113	ACC			x		
			LOC			x		
			PRO			x		
UTIL	Pumping Station	AQ116	PRO	x				
UTIL	Disk/Dish	AT010	EXS	x				
			HGT	x				
			ZV2	x				
UTIL	Power Transmission Line	AT030	ACC			x		
			TST			x		
UTIL	Telephone Line/Telegraph Line	AT060	-			x		
UTIL	Communication Tower	AT080	EXS	x				
			HGT	x				
			NAM	x				
			NST	x				
			SSC	x				
			ZV2	x				
UTIL	Void Collection Area	ZD020	VCA				x	
UTIL	Named Location	ZD040	-					x
UTIL	Text Description	ZD045	-					x
VEG	Bog	BH015	VEG				x	
VEG	Marsh/Swamp	BH095	TID				x	
VEG	Rice Field	BH135	FTC				x	
VEG	Tundra	BJ110	-				x	
VEG	Cropland	EA010	FTC				x	
			VEG				x	
VEG	Orchard/Plantation	EA040	DMT				x	

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TABLE 243. Level 1 Attributes by FACC Codes and Feature Type -
Continued.

Layer	Feature Name	FACC Code	Attr.	END	CND	EDG	FAC	TXT
VEG	Vineyards	EA050	PRO -				x x	
VEG	Grassland	EB010	-				x	
VEG	Oasis	EC020	VEG	x				
VEG	Trees	EC030	DMT NAM PHT SBC VEG				x x x x x	
VEG	Cleared Way/Firebreak	EC040	-				x	
VEG	Void Collection Area	ZD020	VCA				x	
VEG	Named Location	ZD040	-					x
VEG	Text Description	ZD045	-					x

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CONCLUDING MATERIAL

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