Geographic Coordinate Data Base

GCDB Coverage Format Differences Document - November 2001

Compares
June 2001 GCDB Coverage Format and
November 2001 GCDB Coverage Format

November 2001

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1.0 INTRODUCTION

The GCDB Data Prep software combines automated and manual processes to create ArcInfo coverages from survey information collected and maintained by the Bureau of Land Management. In accordance with the ArcInfo geo-relational model, spatial features such as control points, survey lines, and label points are maintained as records in database tables. Unique identifiers maintained by ArcInfo provide the link between the spatial information that locates the feature and attribute information that describes the feature.

Periodically, the attribute information stored in the ArcInfo database tables are modified to accommodate user needs and business requirements. The purpose of this document is to identify differences between the June 2001 GCDB Coverage Format (coverages built using GCDB Data Prep V.1.03.00) and the November 2001 GCDB Coverage Format. (GCDB Data Prep v1.04).

1.1 SUMMARY OF COVERAGE FORMAT CHANGES

Control Point Attribute Table (ctrl.pat)

- Added FGDC names as alternate names on the attribute table

Label Point Attribute Table (labels_gcdb.pat)

- Added FGDC names as alternate names on the attribute table
- Removed items conflict_cd, quarter
- Added items subsurface_code,
- Populated item acre_src_cd with default value of 0 indicating acreages are copied from LLD

GCDB Node Attribute Table (gcdb.nat)

- Added FGDC names as alternate names on the attribute table

GCDB Arc Attribute Table (gcdb.aat)

- Added FGDC names as alternate names on the attribute table

GCDB Polygon Attribute Table (gcdb.pat)

- Added FGDC names as alternate names on the attribute table
- Removed items conflict_cd, quarter
- Added items subsurface_code,
- Populated item acre_src_cd with default value of 0 indicating acreages are copied from LLD

GCDB Township Region Subclass (gcdb.pattwp)

- Added FGDC names as alternate names on the attribute table

GCDB Section Region Subclass (gcdb.patsect)

- Added FGDC names as alternate names on the attribute table

GCDB Quarter Region Subclass (gcdb.patqtr)

- Dropped the region subclass QUARTER

New Coverages/Feature Classes added at Version 1.04

GCDB Land Area Description Region Subclass (gcdb.patladesc)

- The subclass contains overlapping features that uniquely represent label points in labels_gcdb

Reliability Lines Coverage (rel_lines_utm)

The Reliability Lines coverage contains constant-width lines derived from the GCDB input files. Surveyed lines, defined by data from the township.RAW file, are depicted as solid lines. Computed lines, defined by data from the township.LX file, are depicted as dashed lines. The lines in the Reliability Lines coverage are classified according to the Highest Reliability Value (HI_REL_VALUE) of the endpoints of each line. It is determined by finding the highest numeric value of the endpoints of the line. For GMM data both the Error Ellipse North and Error Ellipse East are searched. For PCCS, only the Average Reliability of the endpoints is included in the search.

Reliability Areas Coverage (rel_areas_utm)

The Reliability Areas coverage shows the areas of uncertainty of surveyed lines (in feet). The areas are derived by creating trapezoids around each surveyed line that is recorded in the township.RAW file. The trapezoid is constructed by computing orthogonal offsets at each endpoint, based on the Highest Reliability Value of that point. Then the offsets are connected to construct the areas of uncertainty. The Reliability Areas layer is depicted using the ArcInfo Interface according to a color key similar to the one used for Reliability Lines.

2.0 DETAILED TABLE FORMATS

Detailed descriptions for the Control, Label, Node, Polygon, Township, Section and Land Area Description subclass attributes are provided in the following tables. In addition, the reliability coverages are described.

2.1 CONTROL POINT ATTRIBUTES (ctrl.pat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Not used
9	PERIMETER	-	8	18	F	5	Y	Not used
17	CTRL#	-	4	5	B	-	Y	Internal control point ID
21	CTRL-ID	-	4	5	B	-	Y	User control point ID
25	ELEV	-	9	9	N	3	N	Elevation in feet
34	ERROR_N	YACC	4	4	I	-	N	Error Estimate North in feet.(GMM and PCCS)
38	ERROR_E	XACC	5	5	I	-	N	Error Estimate East in feet (GMM and PCCS)
42	POINT_ID	-	6	6	C	-	N	Control Station Name
48	X-COORD	EAST	14	14	N	9	N	LONGITUDE of the Control Point in decimal degrees
62	Y-COORD	NORTH	14	14	N	9	N	LATITUDE of the Control Point in decimal degrees
76	AVAIL_FLAG	-	1	1	C	-	N	Flag indicating that this control point is available, but was not actually used for control purposes (Y/N)

2.2 LABEL ATTRIBUTES (labels_gcdb.pat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Not used
9	PERIMETER	-	8	18	F	5	Y	Not used
17	LABELS_GCDB#	-	4	5	B	-	Y	Internal label point ID
21	LABELS_GCDB-ID	-	4	5	B	-	Y	User label point ID
25	SEC_NO	SECTN	3	3	C	-	N	Section number
28	SEC_FRAC	SECFRT	1	1	C	-	N	Not used - Reserved for future use Section fractional code (Blank) = full section 1 = 1/4 2 = 1/2 3 = 3/4
29	SEC_DUP	SECDUP	1	1	C	-	N	Not used - Reserved for future use (Blank) = not duplicate A = First duplicate (second occurrence of same section number B = Second duplicate (third occurrence of same section number
30	NOMINAL_LOCATION	-	1	1	C	-	N	Nominal location (A-P, Q, Z)
31	MINOR_SUB	-	4	4	C	-	N	Minor subdivision codes (R-Y)
35	SURVEY_TYPE	SURSYS	1	1	C	-	N	Survey type (A,B,C,D,E,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,W,X,Y,Z)
36	SURVEY_NUMBER	SURNUM1	5	5	C	-	N	Survey number
41	SURVEY_SUFFIX	SURNUM2	2	2	C	-	N	Survey suffix
43	SURVEY_NOT	-	3	3	C	-	N	Survey note
46	ACREAGE	PARAR	9	9	C	-	N	Acreage
55	ACRE_SRC_CD	PARSRC	1	1	C	-	N	Source of acreage values (0,A,B,C,D,E,F)
56	DUP_DESC_CD	DESCDUP	1	1	C	-	N	Land description duplicate code
57	DISCREPENCY_CD	DISCCD	1	1	C	-	N	Used when GCDB and LLD locations differ (1-5)

LABEL ATTRIBUTES - Continued

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
58	EXCEPTION_CD	-	3	3	C	-	N	Exceptions to survey type rules Numbers reference specific rules
61	STATE_CD	STATE	2	2	C	-	N	Two letter state abbreviation
63	PRINMER_CD	PRIMER	2	2	C	-	N	Principal meridian code
65	TIER_NO	TOWN	3	3	C	-	N	Tier number
68	TIER_FRAC	TWNFRT	1	1	C	-	N	Tier fractional code 0 = Not a fractional tier 1 = 1/4 Tier 2 = 1/2 Tier 3 = 3/4 Tier
69	TIER_DIR_CD	TWNDIR	1	1	C	-	N	Tier direction code (N, S)
70	RANGE_NO	RANGE	3	3	C	-	N	Range number
73	RANGE_FRAC	RNGFRT	1	1	C	-	N	Range fractional code 0 = Not a fractional range 1 = 1/4 Range 2 = 1 /2 Range 3 = 3/4 Range
74	RANGE_DIR_CD	RNGDIR	1	1	C	-	N	Range direction code (E, W)
75	TOWNSHIP_DUP_CD	TWNDUP	1	1	C	-	N	Township duplicate code (Blank) = Not a duplicate township A = First duplicate (second occurrence of same township) B = Second duplicate (third occurrence of same township)
76	LATITUDE	-	14	14	N	9	N	LABEL_LAT - Latitude of label point in decimal degrees
90	LONGITUDE	-	14	14	N	9	N	LABEL_LONG - Longitude of label point in decimal degrees
104	SUBSURF_ONLY	-	1	1	C	-	N	Code indicating the survey applies to the subsurface only (Y or blank)
105	VALIDATION_CD	VALIDCD	1	1	C	-	N	Code to report whether the GCDB and LLD land descriptions match. (Y,N,V)

2.3 NODE ATTRIBUTES (gcdb.nat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	ARC#	-	4	5	B	-	Y	Internal arc number corresponding to the node
5	GCDB#	-	4	5	B	-	Y	Internal node ID
9	GCDB-ID	-	4	5	B	-	Y	User node ID
13	ELEV	-	9	9	N	2	N	Elevation
22	SOFTWARE	-	4	4	C	-	N	Collection software (GMM/PCCS)
26	ERROR_N	YACC	4	4	I	-	N	Error Ellipse North in feet (GMM). Average Reliability in feet (PCCS)
30	ERROR_E	XACC	5	5	I	-	N	Error Ellipse East in feet (GMM). Maximum Reliability in feet (PCCS)
35	LINE_CNT	-	3	3	I	-	N	Line count
38	LINE_TYPE	-	2	2	I	-	N	Line type 0 = Section/Township/Special survey line 1 = 20 chain line 2 = 40 chain line 3 = 60 chain line 4 = Blank line
40	LINE_PEN	-	2	2	I	-	N	Pen command
42	LX_SEC	-	1	1	I	-	N	Not used
43	POINT_ID	-	6	6	C	-	N	Station/Point ID
49	X-UTM-ST	-	11	11	N	2	N	X - COORDINATE in UTM, State Plane, or map inches derived from Longitude of GCDB Point
60	Y-UTM-ST	-	11	11	N	2	N	Y - COORDINATE in UTM, State Plane, or map inches derived from Latitude of GCDB Point
71	X-COORD	EAST	14	14	N	9	N	LONGITUDE of point in decimal degrees
85	Y-COORD	NORTH	14	14	N	9	N	LATITUDE of point in decimal degrees
99	SYM_VALUE	-	3	3	I	-	N	Symbol value for node

2.4 ARC ATTRIBUTES (gcdb.aat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	FNODE#	-	4	5	B	-	Y	Internal number of the from-node
5	TNODE#	-	4	5	B	-	Y	Internal number of the to-node
9	LPOLY#	-	4	5	B	-	Y	Left polygon number
13	RPOLY#	-	4	5	B	-	Y	Right polygon number
17	LENGTH	-	8	18	F	5	Y	Length of arc
25	GCDB#	-	4	5	B	-	Y	Internal Arc ID
29	GCDB-ID	-	4	5	B	-	Y	User Arc ID
33	TYPE	-	6	6	I	-	N	TYPE of GCDB line derived from Point ID value 0 = Township Line 1 = Section Line 2 = Subdivision Line 3 = Special Line 4 = Blank Line
39	SYMBOL	-	6	6	I	-	N	Symbol used to draw GCDB Line based on TYPE
45	ORIG_ARC	-	4	5	B	-	N	Original arc flag
49	DANGLE_FLAG	-	4	4	C	-	N	Dangle flag

2.5 ARC ATTRIBUTES (for tangent, circular, and spiral curves - gcdb.aat)
For Data Prep v1.03.00 and V.1.04 this table is not saved.

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	FNODE#	-	4	5	B	-	Y	Internal number of the from- node
5	TNODE#	-	4	5	B	-	Y	Internal number of the to-node
9	LPOLY#	-	4	5	B	-	Y	Left polygon number
13	RPOLY#	-	4	5	B	-	Y	Right polygon number
17	LENGTH	-	8	18	F	5	Y	Length of arc
25	GCDB#	-	4	5	B	-	Y	Internal Arc ID
29	GCDB-ID	-	4	5	B	-	Y	User Arc ID
33	ANGLE	-	10	10	C	-	Y	The long chord direction of circular curves and spirals
43	DISTANCE	LNGCRD	8	8	C	-	Y	The long chord distance length of circular curves and spirals
51	RADIUS	RAD	8	8	C	-	Y	The circular curve radius or the first radius of a spiral
59	DELTA	CENANG	10	10	C	-	Y	The delta angle of a circular curve or spiral
69	TANGENT	-	8	8	C	-	Y	The tangent length of a circular curve or the first tangent length of a spiral
77	ARCLENGTH	LNGCUR	8	8	C	-	Y	The arc length of a circular curve or spiral
85	SIDE	DIR	1	1	C	-	Y	The side where the radius point (for curves) or radius points (for spirals) are located with respect to circular curve or spiral (to the right or to the left of the circular curve or spiral) concavity
86	RADIUS2	-	8	8	C	-	Y	The second radius of a spiral. TANGENT2 is the second tangent length of a spiral
94	TANGENT2	-	8	8	C	-	Y	The second tangent length of a spiral
102	TYPE	-	6	6	I	-	N	TYPE of GCDB line derived from point ID value 0 = Township Line 1 = Section Line 2 = Sub-Division Line 3 = Special Line 4 = Blank Line
108	SYMBOL	-	6	6	I	-	N	Symbol used to draw GCDB Line based on TYPE

ARC ATTRIBUTES - Continued

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
114	ORIG_ARC	-	4	5	B	-	N	Original arc flag
118	DANGLE_FLAG	-	4	4	C	-	N	Dangle flag

2.6 POLYGON ATTRIBUTES (gcdb.pat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Area of polygon
9	PERIMETER	-	8	18	F	5	Y	Perimeter of polygon
17	GCDB#	-	4	5	B	-	Y	Internal polygon ID
21	GCDB-ID	-	4	5	B	-	Y	User polygon ID
25	SEC_NO	SECTN	3	3	C	-	N	Section number
28	SEC_FRAC	SECFRT	1	1	C	-	N	Not used - Reserved for future use. Section fractional code (Blank) = full section 1 = 1/4 2 = 1/2 3 = 3/4
29	SEC_DUP	SECDUP	1	1	C	-	N	Not used - Reserved for future use. (Blank) = not duplicate A = First duplicate (second occurrence of same section number B = Second duplicate (third occurrence of same section number
30	NOMINAL_LOCATION	-	1	1	C	-	N	Nominal Location (A-P, Q, Z)
31	MINOR_SUB	-	4	4	C	-	N	Minor Subdivision codes (R-Y)
35	SURVEY_TYPE	SURSYS	1	1	C	-	N	Survey type (A,B,C,D,E,G,H,I,J,K,L,M,N,O,P, Q,R,S,T,U,W,X,Y,Z)
36	SURVEY_NUMBER	SURNUM1	5	5	C	-	N	Survey Number
41	SURVEY_SUFFIX	SURNUM2	2	2	C	-	N	Survey Suffix
43	SURVEY_NOTE	-	3	3	C	-	N	Survey Note
46	ACREAGE	PARAR	9	9	C	-	N	Acreage
55	ACRE_SRC_CD	PARSRC	1	1	C	-	N	Source of acreage values (0,A,B,C,D,E, F)
56	DUP_DESC_CD	DESCDUP	1	1	C	-	N	Land description duplicate code
57	DISCREPANCY_CD	DISCCD	1	1	C	-	N	Used when GCDB and LLD locations differ (1-5)
58	EXCEPTION_CD	-	3	3	C	-	N	Exceptions to survey type rules Numbers reference specific rules
61	STATE_CD	STATE	2	2	C	-	N	Two letter state abbreviation
63	PRINMER_CD	PRIMER	2	2	C	-	N	Principal Meridian code

POLYGON ATTRIBUTES - Continued

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
65	TIER_NO	TOWN	3	3	C	-	N	Tier number
68	TIER_FRAC	TWNFRT	1	1	C	-	N	Tier fractional code 0 = Not a fractional tier 1 = 1/4 Tier 2 = 1/2 Tier 3 = 3/4 Tier
69	TIER_DIR_CD	TWNDIR	1	1	C	-	N	Tier direction code (N, S)
70	RANGE_NO	RANGE	3	3	C	-	N	Range number
73	RANGE_FRAC	RNGFRT	1	1	C	-	N	Range fractional code 0 = Not a fractional range 1 = 1/4 Range 2 = 1/2 Range 3 = 3/4 Range
74	RANGE_DIR_CD	RNGDIR	1	1	C	-	N	Range direction code (E, W)
75	TOWNSHIP_DUP_CD	TWNDUP	1	1	C	-	N	Township duplicate code (Blank) = Not a duplicate township A = First duplicate (second occurrence of same township) B = Second duplicate (third occurrence of same township)
76	LATITUDE	-	14	14	N	9	N	LABEL_LAT - Latitude of label point in decimal degrees
90	LONGITUDE	-	14	14	N	9	N	LABEL_LONG - Longitude of label point in decimal degrees
104	SUBSURF_ONLY	-	1	1	C	-	N	Code indicating the survey applies to the subsurface only (Y or blank)
105	VALIDATION_CD	VALIDCD	1	1	C	-	N	Code to report whether the GCDB and LLD land descriptions match. (Y,N,V)

2.7 REGION ATTRIBUTES

SUBCLASS TWP (gcdb.pattwp)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Area of region
9	PERIMETER	-	8	18	F	5	Y	Perimeter of region
17	TWP#	-	4	5	B	-	Y	Internal region ID
21	TWP-ID	-	4	5	B	-	Y	User region ID
25	STATE_CD	STATE	2	2	C	-	N	Two letter state abbreviation
27	PRINMER_CD	PRIMER	2	2	C	-	N	Principal meridian code
29	TIER_NO	TOWN	3	3	C	-	N	Tier number
32	TIER_FRAC	TWNFRT	1	1	C	-	N	Tier fractional code 0 = Not a fractional tier 1 = 1/4 Tier 2 = 1/2 Tier 3 = 3/4 Tier
33	TIER_DIR_CD	TWNDIR	1	1	C	-	N	Tier direction code (N, S)
34	RANGE_NO	RANGE	3	3	C	-	N	Range number
37	RANGE_FRAC	RNGFRT	1	1	C	-	N	Range fractional code 0 = Not a fractional range 1 = 1/4 Range 2 = 1 /2 Range 3 = 3/4 Range
38	RANGE_DIR_CD	RNGDIR	1	1	C	-	N	Range direction code (E,W)
39	TOWNSHIP_DUP_CD	TWNDUP	1	1	C	-	N	Township duplicate code (Blank) = Not a duplicate township A = First duplicate (second occurrence of same township) B = Second duplicate (third occurrence of same township)
	REDEFINED ITEMS	-						
25	TOWNSHIP	-	15	15	C	-	N	State, Principal Meridian, Township and Range

SUBCLASS SECT (gcdb.patsect)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Area of region
9	PERIMETER	-	8	18	F	5	Y	Perimeter of region
17	SECT#	-	4	5	B	-	Y	Internal region ID
21	SECT-ID	-	4	5	B	-	Y	User region ID
25	STATE_CD	STATE	2	2	C	-	N	Two letter state abbreviation
27	PRINMER_CD	PRIMER	2	2	C	-	N	Principal meridian code
29	TIER_NO	TOWN	3	3	C	-	N	Tier number
32	TIER_FRAC	TWNFRT	1	1	C	-	N	Tier fractional code 0 = Not a fractional tier 1 = 1/4 Tier 2 = 1/2 Tier 3 = 3/4 Tier
33	TIER_DIR_CD	TWNDIR	1	1	C	-	N	Tier direction code (N, S)
34	RANGE_NO	RANGE	3	3	C	-	N	Range number
37	RANGE_FRAC	RNGFRT	1	1	C	-	N	Range fractional code 0 = Not a fractional range 1 = 1/4 Range 2 = 1 /2 Range 3 = 3/4 Range
38	RANGE_DIR_CD	RNGDIR	1	1	C	-	N	Range direction code (E,W)
39	TOWNSHIP_DUP_CD	TWNDUP	1	1	C	-	N	Township duplicate code (Blank) = Not a duplicate township A = First duplicate (second occurrence of same township) B = Second duplicate (third occurrence of same township)
40	SECTION	SECTN	3	3	C	-	N	Section number
43	SEC_FRAC	SECFRT	1	1	C	-	N	Section fractional code
44	SEC_DUP	SECDUP	1	1	C	-	N	Section duplicate code
	REDEFINED ITEMS	-						
25	TOWNSHIP	-	15	15	C	-	N	State, Principal Meridian, Township and Range

SUBCLASS LADESC (gcdb.patladesc)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Area of polygon
9	PERIMETER	-	8	18	F	5	Y	Perimeter of polygon
17	LADESC#	-	4	5	B	-	Y	Internal polygon ID
21	LADESC-ID	-	4	5	B	-	Y	User polygon ID
25	SEC_NO	SECTN	3	3	C	-	N	Section number
28	SEC_FRAC	SECFRT	1	1	C	-	N	Not used - Reserved for future use Section fractional code (Blank) = full section 1 = 1/4 2 = 1/2 3 = 3/4
29	SEC_DUP	SECDUP	1	1	C	-	N	Reserved for future use. (Blank) = not duplicate A = First duplicate (second occurrence of same section number B = Second duplicate (third occurrence of same section number
30	NOMINAL_LOCATION		1	1	C	-	N	Nominal location (A-P, Q, Z)
31	MINOR_SUB		4	4	C	-	N	Minor subdivision codes (R-Y)
35	SURVEY_TYPE	SURSYS	1	1	C	-	N	Survey type (A,B,C,D,E,G,H,I,J,K,L,M,N,O, P,Q,R,S,T,U,W,X,Y,Z)
36	SURVEY_NUMBER	SURNUM1	5	5	C	-	N	Survey number
41	SURVEY_SUFFIX	SURNUM2	2	2	C	-	N	Survey suffix
43	SURVEY_NOTE	-	3	3	C	-	N	Survey note
46	ACREAGE	PARAR	9	9	C	-	N	Acreage
55	ACRE_SRC_CD	PARSRC	1	1	C	-	N	Source of acreage values (0,A,B,C,D,E, F)
56	DUP_DESC_CD	DESCDUP	1	1	C	-	N	Land description duplicate code
57	DISCREPANCY_CD	DISCCD	1	1	C	-	N	Used when GCDB and LLD locations differ (1-5)
58	EXCEPTION_CD	-	3	3	C	-	N	Exceptions to survey type rules Numbers reference specific rules
61	STATE_CD	STATE	2	2	C	-	N	Two letter state abbreviation
63	PRINMER_CD	PRIMER	2	2	C	-	N	Principal meridian code

SUBClASS LADESC - Continued

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
65	TIER_NO	TOWN	3	3	C	-	N	Tier number
68	TIER_FRAC	TWNFRT	1	1	C	-	N	Tier fractional code 0 = Not a fractional tier 1 = 1/4 Tier 2 = 1/2 Tier 3 = 3/4 Tier
69	TIER_DIR_CD	TWNDIR	1	1	C	-	N	Tier direction code (N,S)
70	RANGE_NO	RANGE	3	3	C	-	N	Range number
73	RANGE_FRAC	RNGFRT	1	1	C	-	N	Range fractional code 0 = Not a fractional range 1 = 1/4 Range 2 = 1 /2 Range 3 = 3/4 Range
74	RANGE_DIR_CD	RNGDIR	1	1	C	-	N	Range direction code (E,W)
75	TOWNSHIP_DUP_CD	TWNDUP	1	1	C	-	N	Township duplicate code (Blank) = Not a duplicate township A = First duplicate (second occurrence of same township) B = Second duplicate (third occurrence of same township)
76	LATITUDE	-	14	14	N	9	N	LABEL_LAT - Latitude of label point in decimal degrees
90	LONGITUDE	-	14	14	N	9	N	LABEL_LONG - Longitude of label point in decimal degrees
104	SUBSURF_ONLY	-	1	1	C	-	N	Code indicating subsurfac only survey (Y or blank)
105	VALIDATION_CD	VALIDCD	1	1	C	-	N	Code to report whether GCDB and LLD land descriptions match (Y,N,V)

2.7 RELIABILITY ARC ATTRIBUTE TABLE (rel_lines_utm.aat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	FNODE#	-	4	5	B	-	Y	Internal number of the from- node
5	TNODE#	-	4	5	B	-	Y	Internal number of the to-node
9	LPOLY#	-	4	5	B	-	Y	Left polygon number
13	RPOLY#	-	4	5	B	-	Y	Right polygon number
17	LENGTH	-	8	18	F	5	Y	Length of arc
25	REL_LINES_UTM#	-	4	5	B	-	Y	Internal feature ID
29	REL_LINES_UTM-ID	-	4	5	B	-	Y	User feature ID
33	FROM_ERROR_N	FYACC	4	4	I	-	N	From Northing Error Ellipse North in feet(GMM) From Average Reliability in feet (PCCS)
37	FROM_ERROR_E	FXACC	4	4	I	-	N	From Easting Error Ellipse East in feet(GMM) From Maximum Reliability in feet (PCCS)
41	TO_ERROR_N	TYACC	4	4	I	-	N	To Northing Error Ellipse in feet(GMM) To Average Reliability in feet (PCCS)
45	TO_ERROR_E	TXACC	4	4	I	-	N	To Easting Error Ellipse in feet (GMM) To Maximum Reliability in feet (PCCS)
49	REL_TYPE	-	15	15	C	-	N	Reliability Line Type (surveyed or computed)
64	HI_REL_VALUE	-	4	4	I	-	N	Highest Reliability Value Used for classification by reliability
68	FROM_POINT_ID	-	6	6	C	-	N	Control Point/Station ID
74	TO_POINT_ID	-	6	6	C	-	N	Control Point/Station ID
80	TOWNSHIP	-	16	16	C	-	N	Township Name

2.8 RELIABILITY AREAS POLYGON ATTRIBUTE TABLE (rel_areas_utm.pat)

COL	ITEM NAME	FGDC NAME	WIDTH	OUTPUT	TYPE	N.DEC	A/I	DESCRIPTION
1	AREA	-	8	18	F	5	Y	Internal area of feature
9	PERIMETER	-	8	18	F	5	Y	Internal perimeter of feature
17	REL_LINES_UTM#	-	4	5	B	-	Y	Internal feature ID
21	REL_LINES_UTM-ID	-	4	5	B	-	Y	User feature ID
25	FROM_ERROR_N	FYACC	4	4	I	-	N	From Northing Error Ellipse North in feet(GMM) From Average Reliability in feet (PCCS)
29	FROM_ERROR_E	FXACC	4	4	I	-	N	From Easting Error Ellipse East in feet (GMM) From Maximum Reliability in feet (PCCS)
33	TO_ERROR_N	TYACC	4	4	I	-	N	To Northing Error Ellipse in feet (GMM) To Average Reliability in feet (PCCS)
37	TO_ERROR_E	TXACC	4	4	I	-	N	To Easting Error Ellipse in feet (GMM) To Maximum Reliability in feet (PCCS)
41	HI_REL_VALUE	-	4	4	I	-	N	Highest Reliability Value Used for classification by reliability
45	FROM_POINT_ID	-	6	6	C	-	N	Control Station Name
51	TO_POINT_ID	-	6	6	C	-	N	Control Point/Station ID
57	TOWNSHIP	-	16	16	C	-	N	Township Name