



Aboriginal Lands
Product Distribution Formats

Edition 1.1.1

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RELEASE HISTORY

Date	Edition	Description
2009-04-27	1.0	Initial version
2009-10-31	1.0.1	Clarifications about the KML format
2010-04-01	1.1	Changes regarding character encoding
2011-05-01	1.1.1	Changed the field size for names in Shapefile format

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1 OVERVIEW

The following dataset is one of the managed GeoBase layers, Aboriginal Lands (AL).

The product is available in the following output file formats: GML (Geography Markup Language), KML (Keyhole Markup Language), and Shapefile (ESRI™ Shapefile).

2 PRODUCT IDENTIFICATION

Name:	Aboriginal Lands
Version:	1.1.1
Date:	2011-05-01
Standard:	Aboriginal Lands: Data Product Specifications – Edition 1.1, 2010-04-01
Feature catalogue:	Aboriginal Lands: Feature Catalogue – Edition 1.1, 2010-04-27

3 DISTRIBUTION FORMAT IDENTIFICATION

3.1 GML – Geography Markup Language

Name:	GML – Geography Markup Language
Version:	2.1.2
Date:	2002-09-17
Specifications:	Geography Markup Language – GML – 2.1.2, OpenGIS® Implementation Specifications, OGC Document Number 02-069 http://portal.opengeospatial.org/files/?artifact_id=11339
	The character encoding is UTF-8 (8-bit Universal Character Set / Unicode Transformation Format).

3.2 KML – Keyhole Markup Language

Name:	KML - Keyhole Markup Language
Version:	2.2
Date:	2008-04-14
Specifications:	Open Geospatial Consortium Inc., OGC® KML, Version 2.2.0, 2008-04-14, Reference number of this OGC® project document: OGC 07-147r2 http://www.opengeospatial.org/standards/kml

KML format specifications are available on the Google™ Web site
<http://code.google.com/apis/kml/documentation/>

The character encoding is UTF-8 (8-bit Universal Character Set / Unicode Transformation Format).

3.3 Shapefile - ESRI™

Name: Shapefile

Version: 01

Date: July 1998

Specifications: ESRI Shapefile Technical Description, an ESRI White Paper, July 1998
(<http://www.esri.com/library/whitepapers/pdfs/shapefile.pdf>)

The character encoding is UTF-8 (8-bit Universal Character Set / Unicode Transformation Format).

ESRI provides guidance on reading shapefiles with UTF-8 encoding in ArcSDE and ArcGIS

4 DISTRIBUTION FILES IDENTIFICATION

AL data is distributed in GML, KML and Shapefile formats. For purposes associated with AL data distribution, all three formats can be used to carry the same content and all three have the identical way of identifying distribution files.

Regardless of format, data can be downloaded as a single dataset containing the current state of all AL features. Alternatively, a series of file, in shapefile format, may be downloaded containing only changes from the previous version; in such cases a separate file is provided for Added, Retired, Modified, and Confirmed. If some of these change files are available with others missing, it simply implies that there were no features to populate the missing files.

The structure of the distribution files identification is provided below. Examples and material specific to the three formats are provided in the subsections that follow.

The name of a file is structured accordingly:

AL_TA _<identifier>[_<edition>][_<version>][_<modification>]_<language code>.<format>

- AL_TA = Abbreviated English and French product title, which is the same in both languages.
- <identifier> = Code of a province or a territory, or Canada, corresponding to the dataset extent. Possible codes (in both English and French) are: AB, BC, CA, MB, ON, NB, NL, NS, NT, NU, PE, QC, SK and YT
- [<edition>] = square brackets indicate Optional. This is not used for the KML format. Dataset edition number.
- [<version>] = square brackets indicate Optional. This is not used for the KML format. Dataset version number.

- [`<modification>`] = square brackets indicate Optional. This is not used if the entire dataset is being provided. The type of modification applies to the AL features in comparison to the previous state of the entire dataset. Possible values are: ADDED, MODIFIED, RETIRED and CONFIRMED (if the language code is eng) or AJOUTE, MODIFIE, ELIMINE and CONFIRME (if the language code is fra). Modification files are only available in shapefile format.
- `<language code>` = ISO code for the language of the distribution format. Possible values, in accordance with ISO 639-3, are: eng (for English), fra (for French)
- `<format>` = File name extension. Possible values are: gml (for GML), kmz (for zip compressed KML) and shp (for Shapefile)

4.1 GML examples and associated file

Examples:

- AL_TA_BC_1_0_eng.gml (The AL dataset for British Columbia, edition 1, version 0, English)
- AL_TA_CA_1_0_fra.gml (Dataset for Canada, edition 1, version 0, French)

Associated files:

An XML schema (XSD file) is also provided along with a GML data file. This file defines, in a structured manner, the type of content, the syntax and the semantic of GML documents. The name of this file is

AL_TA_<identifier>_<edition>_<version>_<language>.xsd

and a reference is recorded within the GML file.

4.2 KML examples

The AL file in KML format, which is downloaded, contains only links to AL KML data files which remain on the GeoBase portal. The AL KML data files are updated monthly on the GeoBase portal. Therefore, the KML link file, downloaded by users, is always linking to the latest version of AL data and there is no need to download a new version of the KML link file. The current version of the AL dataset is indicated for each province or territory (Figure 1).

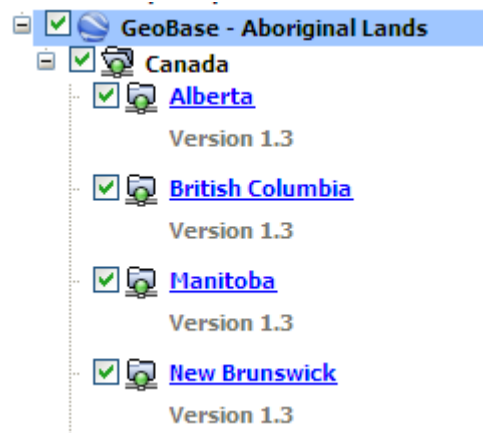


Figure 1 : Dataset version in KML format

In addition to the content specified in section 5, the KML file also contains a point file to facilitate identification of specific aboriginal lands. The point file is very useful for the identification of small aboriginal lands (Figure 2) and to search the entire AL dataset. The user simply needs to zoom in to view the polygon shape. This added feature is available for AL datasets version 1.5 and newer. Users that have downloaded the KML dataset with a version prior to version 1.5 (Nov. 2009) need to download a new version of the KML dataset in order to benefit from this added functionality.

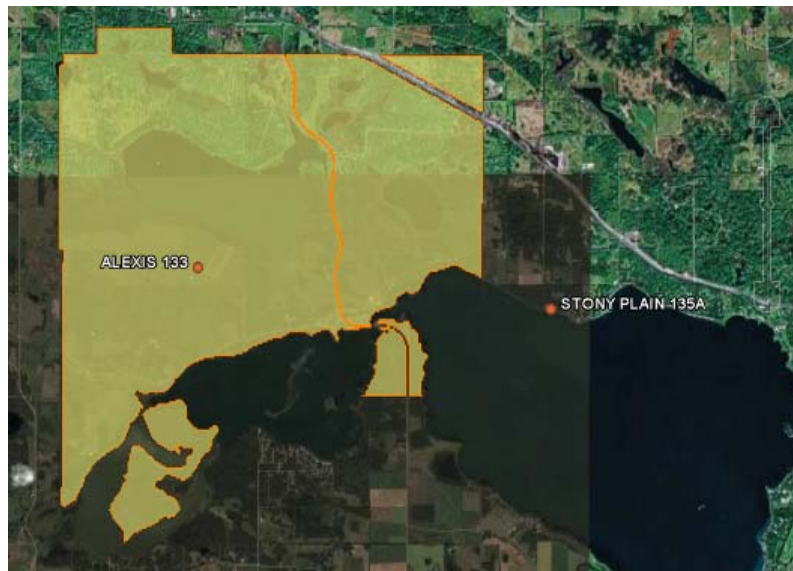


Figure 2 : Small Aboriginal Lands are represented as a point at small scales

Examples:

- AL_TA_CA_eng.kmz (Dataset for Canada, English)

Associated files:

There are no associated files.

4.3 Shapefile examples and associated files

Examples:

- AL_TA_NU_1_0_eng.shp (AL dataset for Nunavut, edition 1, version 0, English)
- AL_TA_QC_1_2_CONFIRMED_eng.shp (AL features that have been confirmed in the dataset for Quebec, edition 1, version 2, English).
- AL_TA_AB_1_2_MODIFIE_fra.gml (AL features that have been modified from the previous version in the dataset of Alberta, edition 1, version 2, French).

Associated files:

Five files are associated with the main geometry file of an entity in Shapefile format:

- an attribute file (.dbf for dBASE® file); The fields NAME1 to NAME5 are CHAR(254) to provide additional storage space for Unicode syllabic characters (1 to 4 bytes characters). CHAR(254) is the maximum allowed for DBF and will not provide sufficient storage space for 100 syllabic characters. CHAR(254) will support up to approximately 80 syllabic characters depending on

the number of bytes required for each character. Names which require more than 254 characters of storage space will be truncated.

- a projection file (.prj) which includes information about the reference system and the parameters of the cartographic projection;
- an index file (.shx) containing the offset (relative position) for each record of the main geometry file;
- two additional spatial index files for the geometric data (.sbn, .sbx).

4.4 Metadata file

Two metadata files in each language (English and French) are provided for the current state of the AL data product. They convey a description of associated FGDC metadata. The metadata files are not provided with the KML format. Users need to refer to the Aboriginal Lands, Collection Metadata available on the GeoBase portal (<http://www.geobase.ca>). The name of the metadata file is structured accordingly:

AL_TA_<identifier>_<edition>_<version>_FGDC_<language code>.<format>

The identifier, edition, version, and language code are as specified for the data files above. The file name extension is specified as follow.

- <format> = File name extension.
 - xml
 - html

Examples:

- AL_TA_SK_1_0_FGDC_eng.xml (metadata file associated with the dataset for Saskatchewan, edition 1, version 0, English, in FGDC/XML format)
- AL_TA_CA_1_0_FGDC_fra.html (metadata file associated with the dataset for Canada, edition 1, version 0, French, in FGDC/HTML format)

5 ATTRIBUTES IDENTIFICATION

Attributes are identified as follows for each of the three formats.

Coded values in the data model are fully expressed for distribution; i.e., the values are written in full without resorting to codes. Exceptions to this are made for DATASETNAME, JURISDICTION1, JURISDICTION2, JURISDICTION3, and JURISDICTION4. In these cases the two letter abbreviation for the provinces, territories and Canada are used, as they are with the identification of the distribution files described in Section 4.

Feature catalogue Attribute name	GML and KML Attribute name	GML and KML Data type	Shapefile Attribute	Shapefile Data type
ACQUISITION TECHNIQUE	acquisitionTechnique	CHAR(23)	ACQTECH	CHAR(23)
METADATA COVERAGE	metadataCoverage	CHAR(8)	METACOVER	CHAR(8)
CREATION DATE	creationDate	CHAR(8)	CREDATE	CHAR(8)
REVISION DATE	revisionDate	CHAR(8)	REVDATE	CHAR(8)
PLANIMETRIC ACCURACY	planimetricAccuracy	NUMBER(4,0)	ACCURACY	NUMBER(4,0)
PROVIDER	provider	CHAR(24)	PROVIDER	CHAR(24)
DATASETNAME	datasetName	CHAR(2)	DATASETNAM	CHAR(2)
STANDARD VERSION	standardVersion	CHAR(10)	SPECVERS	CHAR(10)
NID	nid	CHAR(32)	NID	CHAR(32)
ALCODE	alCode	CHAR(10)	ALCODE	CHAR(10)
LANGUAGE1	language1	CHAR(50)	LANGUAGE1	CHAR(50)
NAME1	name1	CHAR(100)	NAME1	CHAR(254)
LANGUAGE2	language2	CHAR(50)	LANGUAGE2	CHAR(50)
NAME2	name2	CHAR(100)	NAME2	CHAR(254)
LANGUAGE3	language3	CHAR(50)	LANGUAGE3	CHAR(50)
NAME3	name3	CHAR(100)	NAME3	CHAR(254)
LANGUAGE4	language4	CHAR(50)	LANGUAGE4	CHAR(50)
NAME4	name4	CHAR(100)	NAME4	CHAR(254)
LANGUAGE5	language5	CHAR(50)	LANGUAGE5	CHAR(50)
NAME5	name5	CHAR(100)	NAME5	CHAR(254)
JURISDICTION1	jurisdiction1	CHAR(2)	JUR1	CHAR(2)
JURISDICTION2	jurisdiction2	CHAR(2)	JUR2	CHAR(2)
JURISDICTION3	jurisdiction3	CHAR(2)	JUR3	CHAR(2)
JURISDICTION4	jurisdiction4	CHAR(2)	JUR4	CHAR(2)
ALTYPE	alType	CHAR(30)	ALTYPE	CHAR(30)
WEBREFERENCE	webReference	CHAR(254)	WEBREF	CHAR(254)