GeoSphere Austria

General geodata description for the Geological Map of the Republic of Austria 1:25,000 (GK 25)

Vector data for map series GK 25

Status 12/01/2024

Contents

1. General description of the data packages

1.1. Brief description

The underlying map data are derived from a comprehensive data collection procedure in compliance with the legal framework for geologic surveying within the Republic of Austria. This procedure includes extensive literature research, geological mapping, and the scientific analysis of geological samples. The geological vector data provided as part of the GK 25 data publication offer opportunities for further analysis in geographic information systems (GIS) and as part of future data sets.

All published maps correspond to the actual state of knowledge at the time of publication and may show minor deviations, e.g. due to the correction of errors or updating of pre-existing originals.

1.2. Content of the GK 25 data publication

1.	Data set	gd25_*SHEETNR*_*QUADRANT*.gpkg
2.	Map publication	gk25_*SHEETNR *_*QUADRANT*.pdf
3.	Data description (English)	DataDescription_gd25.pdf
4.	Data description (German)	Datenbeschreibung_gd25.pdf

The geopackages (GPKG) do not contain symbolization (styles and layer files) for visualization and graphical representation of the geometry objects. Also not provided are data on the overview maps and insets on the published map. The data are archived research datasets and are therefore not INSPIRE-compliant.

The topographic maps used during geological mapping and on the published map sheet are sourced from the Austrian Map 1:50,000 UTM series of the Federal Office of Metrology and Surveying (BEV; www.bev.gv.at). These data are subject to the copyright regulations of the BEV and are not included in this data publication.

1.3. Terms of use

The published data sets are scientific data and represent a generalized image of the near-surface geology. They cannot be used to derive legal claims. Investigations into specific enquiries require a separate data collection and analysis procedure.

1.4. Reference system

UTM (ETRS89)

EPSG Code	EPSG Name	Prime Meridian	Central Meridian	False Easting [m]	False Northing [m]
25832	ETRS89 / UTM zone 32N	Greenwich	9°E	500,000	0
25833	ETRS89 / UTM zone 33N	Greenwich	15°E	500,000	0

1.5. Scale

1:25,000

1.6. Creation date of the described data packages

December 2023

1.7. Technical preparation of the data

Margareta Harbich, Werner Stöckl, Johannes Reischer

1.8. Originator of the data sets

GeoSphere Austria

If reference is made to contents of the map sheets, these must be cited (see Section 3: Reference Lists).

1.9. Suggested citation for data packages

GeoSphere Austria (*YEAR*): Geodata - Sheet *SHEETNUMBER SHEETNAME* (1:25,000). Tethys RDR, GeoSphere Austria, Vienna (https://doi.org/10.24341/tethys.*ID*).

The citation suggestion is also available in the relevant metadata description on the Tethys RDR website (www.tethys.at) and can be copied from there.

1.10. Topographic basis

The Austrian Map 1:50,000 UTM, published by the Federal Office of Metrology and Surveying (BEV; www.bev.gv.at), is used as a topographic base map.

Sheet number	Topographic map [ÖK50-BMN (BEV)] sheet name	Topographic basis (year)
NL 33-04-06	Radenthein	2011
NM 33-12-13	Hollabrunn	2011

Table 1: Topographic base maps for the map sheets ÖK50-UTM (BEV).

2. Detailed description of the data sets

2.1. Data format

GPKG (Geopackage; https://www.geopackage.org/)

2.2. Data structure on the example of GK25 Hollabrunn-Southeast

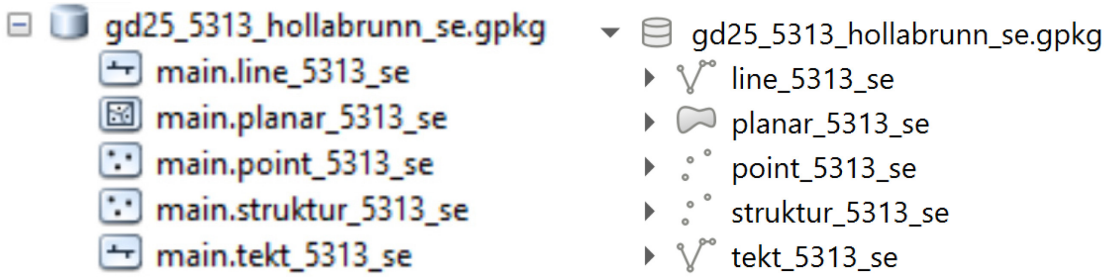

Figure 1: Datasets available for download in the applications ArcGIS (left) and QGIS (right).

2.3. Supplied layers and their attributes

Attribute	Type	Description
OBJECTID	Object ID	Object ID
SHAPE	Geometry	Polygon, polyline, point
ROTANGLE	Text	Rotation angle of point objects, in degrees
DIP_DIR	Short Integer	Dip direction of the structure object, in degrees
DIP_M	Short Integer	Dip of the structure object in degrees, measured value
DIP_R	Short Integer	Dip of the structure object in degrees, rounded value
CLASS_MIN	Short Integer	Dip angle classification lower boundary, in degrees
CLASS_MAX	Short Integer	Dip angle classification upper boundary, in degrees
LABEL	Text	Additional information (annotations) pertaining to individual feature; may comprise general geological information or details regarding raw materials
LEG_ID	Text	Legend ID
LEG_NR	Short Integer	Legend number found on the map sheet and map legend
LEG_DESC	Text	Feature description (legend text)
HEADING (1,…,n)	Text	Map legend heading, hierarchy level (1,…,n)
BRACKET (1,…,n)	Text	Map legend bracket label, hierarchy level (1,…,n)
LEG_SORT	Text	Alphanumeric sort key for the map legend

Table 2: List of attributes of the files available within the geopackages.

line_*SHEETNR*_*QUADRANT*

All lines (e.g. Quaternary phenomena, geomorphologic and lithogenetic units) excluding tectonic (located in layer **tekt _*SHEETNR*_*QUADRANT***) and topographic lines (BEV data are not included).

planar_*SHEETNR*_*QUADRANT *

The planar layer contains area-wide polygons with geological information, as well as surface waters (significant lakes, reservoirs, etc.) and glaciers.

point_*SHEETNR*_*QUADRANT *

All point objects under various topics such as geomorphology (e.g., kettleholes), hydrology (e.g., springs), palaeontology (e.g., fossil sites), raw material geology (e.g., sand and clay pits), borehole drilling sites and significant points (e.g., meteorite impact sites), excluding structural symbols and topographic points. Natural monuments are designated on a case-by-case basis and are not included in the data publication.

Individual point objects can be rotated clockwise geographically (N = 0°) for display using the ROTANGLE field. The value 9999 corresponds to a NULL entry (non-existent value). Due to the non-uniform orientation of the markers used in the map display, the starting angle does not always correspond to 0°. For oriented geological information of the point objects, the data must be aligned with the map display.

polygon_*SHEETNR*_*QUADRANT*

This layer contains areal geological objects that may completely or partially cover other polygons ("oversignature" in geological maps).

struktur_*SHEETNR*_*QUADRANT *

Structural symbols and data (e.g., foliation, bedding, fold axes, lineation). The fields DIP_DIR (dip direction) and DIP_M (dip angle) contain measured values in degrees. Data entries with the value 9999 correspond to a NULL entry (non-existent value). Dip values are often entered as angular intervals in the legend text (e.g., 0°–5°, 30°–60°).

tekt_*SHEETNR*_*QUADRANT *

Tectonic lines (e.g., fault, strike-slip fault, detachment, nappe boundary, sub-nappe boundary).

3. Reference list

3.1. Published map sheets

References for published map sheets in the series “Geological Map of the Republic of Austria 1:25,000”, with corresponding vector datasets published in the Tethys RDR. All maps are published in German.

Sheet Nr.	Sheet name	Citation
NL 33-04-06.NE	Radenthein - NE	Iglseder, C., van Husen, D., Huet, B., Knoll, T. & Schönlaub, H. (2019): Radenthein - Nordost 1:25.000. - 1 Bl, Farbendruck, Verlag der Geologischen Bundesanstalt, Wien. - In: Geologische Karte der Republik Österreich 1:25.000; Nr. NL 33-04-06.NE (2019)
NL 33-04-06.SE	Radenthein - SE	Schönlaub, H., van Husen, D., Huet, B. & Iglseder, C. (2019): Radenthein - Südost 1:25.000. - 1 Bl, Farbendruck, Verlag der Geologischen Bundesanstalt, Wien. - In: Geologische Karte der Republik Österreich 1:25.000; Nr. NL 33-04-06.SE (2019)
NM 33-12-13.SE	Hollabrunn - SE	Gebhardt, H. & Ćorić, S. (2023): Geologische Karte der Republik Österreich, Blatt Hollabrunn Südost 1:25.000, GeoSphere Austria, Wien.
NM 33-12-13.SW	Hollabrunn - SW	Gebhardt, H., Havlíček, Z., Novák, Z., Roetzel, R. & Růžička, M. (2023): Geologische Karte der Republik Österreich, Blatt Hollabrunn Südwest 1:25.000, GeoSphere Austria, Wien.