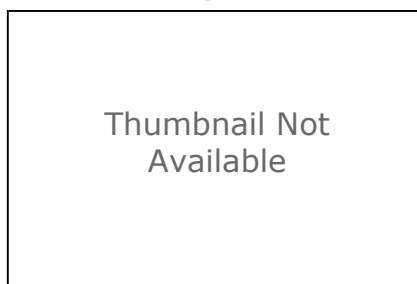


# Potentiometric Surface Map of the Bedrock Aquifers of Knox County, Indiana

Shapefile



## Tags

Potentiometric surface, static water level, groundwater, water wells, water tables, bedrock, Indiana Department of Natural Resources (IDNR), Division of Water (DOW), Knox County, Indiana, USA

## Summary

Display and/or analyses requiring spatial distribution of potentiometric surface elevations in Knox County.

## Description

This file is a digital geospatial polyline coverage of the bedrock potentiometric surface elevations mapped for Knox County Indiana.

## Credits

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

## Use limitations

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

## Extent

<b>West</b>	-87.591721	<b>East</b>	-87.270055
<b>North</b>	38.896567	<b>South</b>	38.491881

## Scale Range

<b>Maximum (zoomed in)</b>	1:5,000
<b>Minimum (zoomed out)</b>	1:150,000,000

## ArcGIS Metadata ►

### Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE    geoscientificInformation

\* CONTENT TYPE    Downloadable Data

PLACE KEYWORDS    Knox County, Indiana, USA

THEME KEYWORDS    bedrock

THEME KEYWORDS    static water level

THEME KEYWORDS    groundwater

THEME KEYWORDS    water wells

THEME KEYWORDS    Indiana Department of Natural Resources (IDNR)

THEME KEYWORDS    Division of Water (DOW)

*Hide Topics and Keywords ▲*

### Citation ►

TITLE    Potentiometric Surface Map of the Bedrock Aquifers of Knox County, Indiana

PUBLICATION DATE    2017-04-27 00:00:00

CREATION DATE    2016-11-01 00:00:00

EDITION    1

PRESENTATION FORMATS    digital map

#### SERIES

NAME    Bedrock Potentiometric Surface Map

ISSUE    PSM 64-B

#### OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Bicknell, Bucktown, Carlisle, Decker, East Mount Carmel, Epsom, Fritchton, Heathsville, Iona, Lyons, Monroe City, Mount Carmel, Oaktown, Patoka, Plainville, Russellville, Saint Francisville, Sandborn, Sandy Hook, Union, Vincennes, Washington, Wheatland.

*Hide Citation ▲*

### Citation Contacts ►

#### RESPONSIBLE PARTY

ORGANIZATION'S NAME    Robert K. Schmidt, IDNR Division of Water, Resource Assessment Section

CONTACT'S ROLE    originator

#### RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water  
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

ADDRESS

DELIVERY POINT Indianapolis, Indiana, USA

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

## Resource Details ►

DATASET LANGUAGES Undetermined ()  
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed  
SPATIAL REPRESENTATION TYPE vector

\* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.4.1.5686

### CREDITS

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

### ARCGIS ITEM PROPERTIES

\* NAME BED\_PSM\_Knox\_Co\_IN  
\* SIZE 0.683  
\* LOCATION file:///\\iotisip01pa\dnrgis\$!\Potentiometric\Knox\1\_Web\_Products\Zip products\BED\_PSM\_Knox\_Co\_IN.shp  
\* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

## Extents ►

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -87.591721  
\* EAST LONGITUDE -87.270055  
\* NORTH LATITUDE 38.896567  
\* SOUTH LATITUDE 38.491881

EXTENT CONTAINS THE RESOURCE Yes

### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE 448686.283000  
\* EAST LONGITUDE 476449.479500  
\* SOUTH LATITUDE 4260556.549418  
\* NORTH LATITUDE 4305333.707500  
\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Resource Points of Contact ►

### POINT OF CONTACT

INDIVIDUAL'S NAME Robert K. Schmidt  
 ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water  
 CONTACT'S POSITION Resource Assessment Section  
 CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

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#### HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

## Resource Maintenance ►

### RESOURCE MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

### LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

### OTHER CONSTRAINTS

The Indiana Department of Natural Resources, Division of Water has compiled this data set using data believed to be reasonably accurate. However, the Division makes no representation as to the accuracy, completeness, or usefulness of the data or data set. A degree of error is inherent in all maps. This map is intended for use only at the published scale. Reference to any specific commercial product, process, or service does not constitute an endorsement, recommendation, or favoring by the Division. Copyright 2017, Indiana Department of Natural Resources, Division of Water All Rights Reserved. Any copying, adaptation, or distribution of these data without the express written consent of the Indiana Department of Natural Resources, Division of Water is discouraged.

### OTHER CONSTRAINTS

This file is available to anyone, but access may be contingent on written request, specific terms relevant to the agency or person making the request, and/or current freedom of information statutes in the State of Indiana.

## CONSTRAINTS

## LIMITATIONS OF USE

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

[Hide Resource Constraints ▲](#)

## Spatial Reference ►

## ARCGIS COORDINATE SYSTEM

- \* TYPE Projected
- \* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983
- \* PROJECTION NAD\_1983\_UTM\_Zone\_16N
- \* COORDINATE REFERENCE DETAILS

## PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 26916  
 X ORIGIN -5120900  
 Y ORIGIN -9998100  
 XY SCALE 450445547.3910538  
 Z ORIGIN -100000  
 Z SCALE 10000  
 M ORIGIN -100000  
 M SCALE 10000  
 XY TOLERANCE 0.001  
 Z TOLERANCE 0.001  
 M TOLERANCE 0.001  
 HIGH PRECISION true  
 LATEST WELL-KNOWN IDENTIFIER 26916  
 WELL-KNOWN TEXT PROJCS["NAD\_1983\_UTM\_Zone\_16N",GEOGCS  
 ["GCS\_North\_American\_1983",DATUM["D\_North\_American\_1983",SPHEROID  
 ["GRS\_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT  
 ["Degree",0.0174532925199433]],PROJECTION["Transverse\_Mercator"],PARAMETER  
 ["False\_Easting",500000.0],PARAMETER["False\_Northing",0.0],PARAMETER  
 ["Central\_Meridian",-87.0],PARAMETER["Scale\_Factor",0.9996],PARAMETER  
 ["Latitude\_Of\_Origin",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",26916]]

## REFERENCE SYSTEM IDENTIFIER

- VALUE 26916
- \* CODESPACE EPSG
  - \* VERSION 6.13(3.0.1)

[Hide Spatial Reference ▲](#)

## Spatial Data Properties ►

## VECTOR ►

- \* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

## GEOMETRIC OBJECTS

FEATURE CLASS NAME BED\_PSM\_Knox\_Co\_IN  
 \* OBJECT TYPE composite  
 \* OBJECT COUNT 209

[Hide Vector ▲](#)

## ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME BED\_PSM\_Knox\_Co\_IN  
 \* FEATURE TYPE Simple  
 \* GEOMETRY TYPE Polyline  
 \* HAS TOPOLOGY FALSE  
 \* FEATURE COUNT 209  
 \* SPATIAL INDEX TRUE  
 \* LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

**Data Quality ►**

## SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

## DATA QUALITY REPORT - COMPLETENESS OMISSION ►

## MEASURE DESCRIPTION

In conducting the mapping, the author(s) evaluated hundreds of water well records, especially those having relatively complete information on well location, static water level, well depth, ground elevation, and lithology. There were areas in the county with sparse information because of lack of well records or incomplete records.

[Hide Data quality report - Completeness omission ▲](#)

## DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ►

## MEASURE DESCRIPTION

The mapping was conducted after a thorough documentation of well locations and water well record details.

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

## DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

## MEASURE DESCRIPTION

The locations of many wells were field checked and the locations posted on 7.5 minute topographic maps. Visual confirmation of wells was not always possible. Many locations were based only on the street address, driving directions, or other location information

provided on the well record.

[Hide Data quality report - Absolute external positional accuracy ▲](#)

[Hide Data Quality ▲](#)

## Lineage ►

### PROCESS STEP ►

#### DESCRIPTION

After selection of water well records was complete, specific well data and other maps and reports were considered in the mapping process. For example, ground elevation, static water level, well depth, aquifer top and bottom elevation and lithology were obtained from well records. Other maps and reports included regional potentiometric surface elevations, hydrogeologic settings, groundwater availability, bedrock topography, and surface topography.

[Hide Process step ▲](#)

### PROCESS STEP ►

**WHEN THE PROCESS OCCURRED** 2016-10-01 00:00:00

#### DESCRIPTION

Data were selected by careful evaluation of water well records to determine if the wells were field located and if they contained complete and reasonable information.

[Hide Process step ▲](#)

### SOURCE DATA ►

#### DESCRIPTION

Water well records from the IDNR-DOW well record database; USGS topography maps; various consultant geotechnical reports

### SOURCE CITATION ►

**TITLE** Bedrock Potentiometric Surface Map Knox County, Indiana

**PUBLICATION DATE** 2017-04-26 01:00:00

**CREATION DATE** 2016-11-01 00:00:00

**EDITION** 1

#### SERIES

**NAME** Bedrock Potentiometric Surface Map

**ISSUE** PSM 64-B

#### RESPONSIBLE PARTY

**ORGANIZATION'S NAME** IDNR Division of Water, Resource Assessment Section

**INDIVIDUAL'S NAME** Robert K. Schmidt

**CONTACT'S ROLE** originator

## RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water  
 CONTACT'S ROLE publisher

## CONTACT INFORMATION ►

## ADDRESS

DELIVERY POINT Indianapolis, IN

*Hide Contact information ▲*

*Hide Source citation ▲*

*Hide Source data ▲*

*Hide Lineage ▲*

**Distribution ►**

## DISTRIBUTOR ►

## CONTACT INFORMATION

INDIVIDUAL'S NAME Robert K. Schmidt  
 ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water  
 CONTACT'S POSITION Resource Assessment Section  
 CONTACT'S ROLE distributor

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## HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

*Hide Contact information ▲*

*Hide Distributor ▲*

## DISTRIBUTION FORMAT

\* NAME Shapefile

## TRANSFER OPTIONS

\* TRANSFER SIZE 0.683

## ONLINE SOURCE



LOCATION <http://www.in.gov/dnr/water/7256.htm>

[Hide Distribution ▲](#)

## Fields ►

DETAILS FOR OBJECT [BED\\_PSM\\_Knox\\_Co\\_IN ►](#)

\* TYPE Feature Class

\* ROW COUNT 209

FIELD [FID ►](#)

\* ALIAS FID

\* DATA TYPE OID

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Internal feature number.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

[Hide Field FID ▲](#)

FIELD [Shape ►](#)

\* ALIAS Shape

\* DATA TYPE Geometry

\* WIDTH 0

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Feature geometry.

\* DESCRIPTION SOURCE

ESRI

\* DESCRIPTION OF VALUES

Coordinates defining the features.

[Hide Field Shape ▲](#)

FIELD [OBJECTID ►](#)

\* ALIAS OBJECTID

\* DATA TYPE Integer

\* WIDTH 10

\* PRECISION 10

\* SCALE 0

[Hide Field OBJECTID ▲](#)

## FIELD Static\_E ►

\* ALIAS Static\_E  
 \* DATA TYPE Integer  
 \* WIDTH 5  
 \* PRECISION 5  
 \* SCALE 0

## FIELD DESCRIPTION

Bedrock contour lines of static water levels.

[Hide Field Static\\_E ▲](#)

## FIELD SHAPE\_Leng ►

\* ALIAS SHAPE\_Leng  
 \* DATA TYPE Double  
 \* WIDTH 19  
 \* PRECISION 0  
 \* SCALE 0

[Hide Field SHAPE\\_Leng ▲](#)

[Hide Details for object BED\\_PSM\\_Knox\\_Co\\_IN ▲](#)

[Hide Fields ▲](#)

**Metadata Details ►**

METADATA LANGUAGE English (UNITED STATES)  
 METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset  
 SCOPE NAME \* dataset

\* LAST UPDATE 2017-05-17

## ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0  
 METADATA STYLE FGDC CSDGM Metadata  
 STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS FOR THE ITEM 2017-05-17 12:10:38  
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2017-05-17 12:15:55

## AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes  
 LAST UPDATE 2017-05-17 12:15:55

## ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2017-05-17 12:10:38  
 FROM M:\!  
 Potentiometric\Knox\2\_Shapefiles\Shapefiles\_FINAL\_Map\Knox\_Bed\_PSM\_Contours  
 To \\iotisip01pa\dnrgis\$!\Potentiometric\Knox\1\_Web\_Products\Zip  
 products\Knox\_Bed\_PSM\_Contours

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

### METADATA CONTACT

INDIVIDUAL'S NAME Robert K. Schmidt

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water

CONTACT'S ROLE point of contact

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[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

## Metadata Constraints ►

### LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

### OTHER CONSTRAINTS

Access constraints: This metadata file is intended to accompany the subject geospatial set. This file may be updated, and the most recent version is available by contacting the IDNR Division of Water.

[Hide Metadata Constraints ▲](#)

## FGDC Metadata (read-only) ▼