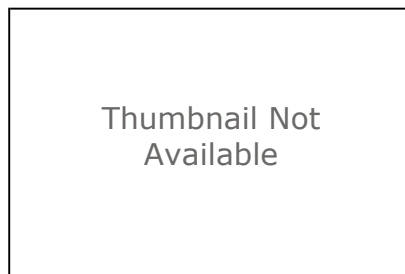


# Potentiometric Surface Map of the Bedrock Aquifers of Orange County, Indiana

Shapefile



## Tags

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

## Summary

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

## Description

This file is a digital geospatial polyline coverage of the bedrock potentiometric surface elevations mapped for Orange 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>	-86.682584	<b>East</b>	-86.306550
<b>North</b>	38.689882	<b>South</b>	38.442881

## 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

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION    No

PLACE KEYWORDS    Orange 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 Orange County, Indiana

PUBLICATION DATE    2019-08-06 00:00:00

CREATION DATE    2019-05-01 00:00:00

EDITION    1

PRESENTATION FORMATS    digital map

SERIES

NAME    Bedrock Potentiometric Surface Map

ISSUE    PSM 89-B

OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Campbellsburg, Cuzco, French Lick, Georgia, Greenbrier, Hardinsburg, Hillham, Huron, Livonia, Mitchell, Paoli, and Valeene.

*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

TYPE

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 Version 6.2 (Build 9200) ; Esri ArcGIS 10.5.1.7333

### 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\_Orange\_Co\_IN  
 \* SIZE 0.988  
 \* LOCATION file:///\\dnrfile02pw\DNRGIS\_Working\!  
 Potentiometric\_Finished\Orange\2\_Shapefiles\Shapefiles\_FINAL\_Map\BED\_PSM\_Orange\_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 -86.682584

\* EAST LONGITUDE -86.306550

\* NORTH LATITUDE 38.689882

\* SOUTH LATITUDE 38.442881

EXTENT CONTAINS THE RESOURCE Yes

### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE 527699.233709

\* EAST LONGITUDE 560310.004619

\* SOUTH LATITUDE 4255181.544320

\* NORTH LATITUDE 4282411.443869

\* 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** ▶**PHONE**

VOICE 317-234-1062

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**ADDRESS****TYPE**

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ADMINISTRATIVE AREA Indiana

POSTAL CODE 46204

COUNTRY US

E-MAIL ADDRESS [rschmidt@dnr.IN.gov](mailto:rschmidt@dnr.IN.gov)**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 2019, 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

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[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\_Orange\_Co\_IN
- \* OBJECT TYPE composite
- \* OBJECT COUNT 136

[Hide Vector ▲](#)

### ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME BED\_PSM\_Orange\_Co\_IN

\* FEATURE TYPE Simple  
 \* GEOMETRY TYPE Polyline  
 \* HAS TOPOLOGY FALSE  
 \* FEATURE COUNT 136  
 \* 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 2019-05-01 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 Potentiometric Surface Map of the Bedrock Aquifers of Orange County, Indiana

PUBLICATION DATE 2019-08-06 01:00:00

CREATION DATE 2019-05-01 00:00:00

EDITION 1

##### SERIES

NAME Bedrock Potentiometric Surface Map

ISSUE PSM 89-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

###### TYPE

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

#### CONTACT INFORMATION ►

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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 0.988

### ONLINE SOURCE

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

[Hide Distribution ▲](#)

## Fields ►

### DETAILS FOR OBJECT BED\_PSM\_Orange\_Co\_IN ►

\* TYPE Feature Class

\* ROW COUNT 136

### 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 Static\_E ►

- \* ALIAS Static\_E
- \* DATA TYPE Integer
- \* WIDTH 10
- \* PRECISION 10
- \* SCALE 0
- FIELD DESCRIPTION  
Bedrock contour lines of static water levels.

*Hide Field Static\_E ▲*

*Hide Details for object BED\_PSM\_Orange\_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 2019-08-20

#### 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 2019-04-04 12:02:01

LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-08-20 10:54:45

#### AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2019-08-20 10:54:45

#### ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2019-02-05 12:14:05

FROM S:\Orange\2\_Shapefiles\BED\_PSM\_Orange\_Co\_IN

To \\dnrflp02pw\DNRGIS\_Working\!

Potentiometric\_Finished\Orange\2\_Shapefiles\Shapefiles\_FINAL\_Map\BED\_PSM\_Orange\_Co\_IN

[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

#### CONTACT INFORMATION ►

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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) ▼**