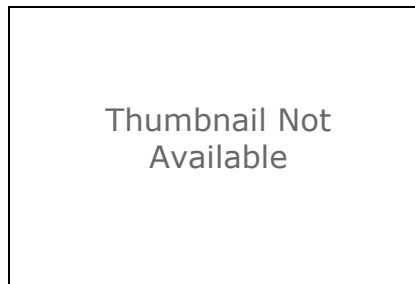


Potentiometric Surface Map of the Bedrock Aquifers of Lawrence County, Indiana

Shapefile



Tags

bedrock potentiometric surface, Lawrence County, Indiana, USA

Summary

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

Description

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

Credits

There are no credits for this item.

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

West	-86.683647	East	-86.275830
North	38.992546	South	38.686614

Scale Range

Maximum (zoomed in)	1:5,000
Minimum (zoomed out)	1:150,000,000

ArcGIS Metadata ►

Topics and Keywords ►

* CONTENT TYPE Downloadable Data
EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

PLACE KEYWORDS Lawrence County, Indiana, USA

THEME KEYWORDS bedrock potentiometric surface

[Hide Topics and Keywords ▲](#)

Citation ►

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

PUBLICATION DATE 2019-07-09 00:00:00

EDITION 1

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

SERIES

NAME Bedrock Potentiometric Surface Map

ISSUE PSM 91-B

OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Bartlettsville, Bedford East, Bedford West, Campbellsburg, Georgia, Huron, Mitchell, Norman, Oolitic, Owensburg, Tunnelton and Williams.

[Hide Citation ▲](#)

Citation Contacts ►

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 ▲](#)

RESPONSIBLE PARTY

ORGANIZATION'S NAME Randal D. Maier, IDNR Division of Water, Resource Assessment Section

CONTACT'S ROLE originator

[Hide Citation Contacts ▲](#)

Resource Details ►

DATASET LANGUAGES English (UNITED STATES)

STATUS completed
 SPATIAL REPRESENTATION TYPE vector

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.5.1.7333

ARCGIS ITEM PROPERTIES

* NAME bed_psm_lawrence_CO_IN
 * SIZE 1.450
 * LOCATION file:///\\iotisip01pa\dnrgis\$!\Potentiometric\Lawrence\1_Web_Products\Zip files\bed_psm_lawrence_CO_IN.shp
 * ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

WEST LONGITUDE -86.78166
 EAST LONGITUDE -86.467063
 SOUTH LATITUDE 37.904377
 NORTH LATITUDE 38.184496

EXTENT

DESCRIPTION

publication date

TEMPORAL EXTENT

DATE AND TIME 2019-07-09 00:00:00

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching
 * WEST LONGITUDE -86.683647
 * EAST LONGITUDE -86.275830
 * NORTH LATITUDE 38.992546
 * SOUTH LATITUDE 38.686614
 * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 527513.332038
 * EAST LONGITUDE 562715.690891
 * SOUTH LATITUDE 4282247.454677
 * NORTH LATITUDE 4315997.424700
 * EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Randal D. Maier
 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**

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TYPE both

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CITY Indianapolis

ADMINISTRATIVE AREA Indiana

POSTAL CODE 46204

COUNTRY US

E-MAIL ADDRESS rmaier@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****LIMITATIONS OF USE**

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

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CONSTRAINTS**LIMITATIONS OF USE**

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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_lawrence_CO_IN
* OBJECT TYPE  composite
* OBJECT COUNT  213
```

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME **bed_psm_lawrence_CO_IN**
 * FEATURE TYPE **Simple**
 * GEOMETRY TYPE **Polyline**
 * HAS TOPOLOGY **FALSE**
 * FEATURE COUNT **213**
 * 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 ►

DIMENSION **horizontal**

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 ►

WHEN THE PROCESS OCCURRED 2019-02-01 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.

SOURCE DATA ►

RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ►

ALTERNATE TITLES IDNR-DOW records for domestic and other supply wells submitted by water well drillers from 1959-2015

PUBLICATION DATE 2019-07-09 00:00:00

[Hide Source citation ▲](#)

[Hide Source data ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2019-04-01 00:00:00

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, ground-water availability, bedrock topography, and surface topography.

SOURCE DATA ►

RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ►

ALTERNATE TITLES IDNR-DOW water well records for domestic and other supply wells submitted by water well drillers from 1959-2015

[Hide Source citation ▲](#)

[Hide Source data ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2019-05-01 00:00:00

DESCRIPTION

A polyline coverage was created and attributed by Randal D. Maier using the heads-up

digitizing method. Projection was UTM, Zone 16, NAD83.

PROCESS CONTACT

INDIVIDUAL'S NAME Randal D. Maier
 ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
 CONTACT'S POSITION Resource Assessment Section
 CONTACT'S ROLE processor

CONTACT INFORMATION ►

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 FAX 317-233-4579

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TYPE both
 DELIVERY POINT 402 West Washington Street, W264
 CITY Indianapolis
 ADMINISTRATIVE AREA Indiana
 POSTAL CODE 46204
 COUNTRY US
 E-MAIL ADDRESS rmaier@dnr.IN.gov

HOURS OF SERVICE

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

Hide Contact information ▲

Hide Process step ▲

SOURCE DATA ►

DESCRIPTION

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

RESOLUTION OF THE SOURCE DATA

SCALE DENOMINATOR 0

SOURCE CITATION ►

TITLE Potentiometric Surface Map of Lawrence County, Indiana
 ALTERNATE TITLES Potentiometric Surface Map of Lawrence County, Indiana
 PUBLICATION DATE 2019-07-09 00:00:00

EDITION 1

FGDC GEOSPATIAL PRESENTATION FORMAT map, vector digital data

SERIES

NAME Bedrock Potentiometric Surface Map
 ISSUE PSM 91-B

RESPONSIBLE PARTY

ORGANIZATION'S NAME Randal D. Maier, 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, IN

Hide Contact information ▲

Hide Source citation ▲

EXTENT OF THE SOURCE DATA

DESCRIPTION

publication date

TEMPORAL EXTENT

DATE AND TIME 2019-07-09 00:00:00

Hide Source data ▲

Hide Lineage ▲

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME Randal D. Maier

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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POSTAL CODE 46204

COUNTRY US

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HOURS OF SERVICE

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Hide Contact information ▲

AVAILABLE FORMAT

NAME VPF
 FILE DECOMPRESSION TECHNIQUE no compression applied

ORDERING PROCESS
 DATE OF AVAILABILITY 2019-07-09 00:00:00

TRANSFER OPTIONS
 ONLINE SOURCE
 LOCATION <http://www.in.gov/dnr/water/7256.htm>

TRANSFER OPTIONS
 ONLINE SOURCE
 DESCRIPTION Data and Map

[Hide Distributor ▲](#)

DISTRIBUTION FORMAT
 * NAME Shapefile

TRANSFER OPTIONS
 * TRANSFER SIZE 1.450

ONLINE SOURCE
 LOCATION none

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [bed_psm_lawrence_CO_IN ►](#)
 * TYPE Feature Class
 * ROW COUNT 213

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 [Swl_E ►](#)
 * ALIAS Swl_E
 * DATA TYPE Integer
 * WIDTH 10

* PRECISION 10

* SCALE 0

FIELD DESCRIPTION

Contour value showing line of equal elevation of the potentiometric surface (10 foot contour interval).

[Hide Field Swl_E ▲](#)

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 ▲](#)

[Hide Details for object bed_psm_lawrence_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 2019-07-09

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 2019-07-09 07:24:46

LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-07-09 83:91:80

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2019-07-09 07:54:45

ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2019-07-09 07:24:46

FROM M:\!
Potentiometric\Lawrence\2_Shapefiles\Shapefiles_Final_Map\bed_psm_lawrence_CO_IN
To \\iotisip01pa\dnrgis\$!\Potentiometric\Lawrence\1_Web_Products\Zip
files\bed_psm_lawrence_CO_IN

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT

INDIVIDUAL'S NAME Randal D. Maier
ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4160
FAX 317-233-4579

ADDRESS

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DELIVERY POINT 402 W. Washington Street W264
CITY Indianapolis
ADMINISTRATIVE AREA Indiana
POSTAL CODE 46204
COUNTRY US
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HOURS OF SERVICE

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

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

FGDC Metadata (read-only) ▼