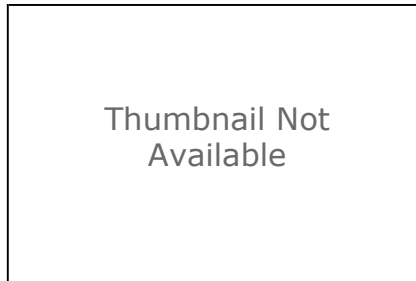


Potentiometric Surface Map of the Unconsolidated Aquifers of Lake County, Indiana

Shapefile



Tags

There are no tags for this item.

Summary

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

Description

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

Credits

There are no credits for this item.

Use limitations

See access and use constraints information.

Extent

West	-87.530005	East	-87.218651
North	41.641347	South	41.178414

Scale Range

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

ArcGIS Metadata ►

Topics and Keywords ►

* **CONTENT TYPE** Downloadable Data

Hide Topics and Keywords ▲

Citation ►

TITLE	Potentiometric Surface Map of the Unconsolidated Aquifers of Lake County, Indiana
PUBLICATION DATE	2015-05-31 00:00:00

EDITION 1

PRESENTATION FORMATS digital map

SERIES

NAME Unconsolidated Potentiometric Surface Map
ISSUE PSM 09-A

OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Beecher East, Calumet City, Crown Point, Demotte, Dyer, Gary, Gary North, Hebron, Highland, Illiana Heights, Lake Calumet, Leroy, Lowell, Ogden Dunes, Palmer, Portage, Schneider, Shelby, St. John, and Whiting.

[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 English ()
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 10.3.1.4959

ARCGIS ITEM PROPERTIES

* NAME UNC_PSM_Lake_Co
* SIZE 0.574
* LOCATION file:///\\iotisip01pa\dnrgis\$!\Potentiometric_Finished\09_Lake\1_Web_Products\Lake County Shapefiles-files for the Web\UNC_PSM_Lake_Co.shp
* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ▶

EXTENT

DESCRIPTION

Latitude Longitude

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -87.530005

* EAST LONGITUDE -87.218651

* NORTH LATITUDE 41.641347

* SOUTH LATITUDE 41.178414

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 455859.841100

* EAST LONGITUDE 481661.043000

* SOUTH LATITUDE 4558696.478900

* NORTH LATITUDE 4609980.084900

* 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 317-232-4160

FAX 317-233-4579

ADDRESS

DELIVERY POINT 402 W. Washington Street W264

CITY Indianapolis

ADMINISTRATIVE AREA Indiana

POSTAL CODE 46204

COUNTRY US

E-MAIL ADDRESS 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 2015, 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.

CONSTRAINTS

LIMITATIONS OF USE

See access and use constraints information.

[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 8.6.2

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME UNC_PSM_Lake_Co

* OBJECT TYPE composite

* OBJECT COUNT 35

Hide Vector ▲

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME UNC_PSM_Lake_Co

* FEATURE TYPE Simple

* GEOMETRY TYPE Polyline

* HAS TOPOLOGY FALSE

* FEATURE COUNT 35

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

[Hide Process step](#) ▲

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2012-03-01

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](#) ▲

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2012-03-01

DESCRIPTION

The hand-drawn work maps (scale 1:24,000) showing lines of equal potentiometric surface elevation were digitized and edge matched in ESRI ArcEdit (ArcScan) by Scott H. Dean. The maps were individually georeferenced using a minimum of 4 tics per map. Projection was UTM, Zone 16, NAD83.

[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 PSM, Lake County, Indiana

PUBLICATION DATE 2012-03-01

EDITION 1

SERIES

NAME Unconsolidated Potentiometric Surface Map

ISSUE PSM 09-A

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, IN

[Hide Contact information ▲](#)

[Hide Source citation ▲](#)

[Hide Source data ▲](#)

[Hide Lineage ▲](#)

Geoprocessing history ►

PROCESS

PROCESS NAME FeatureClassToFeatureClass_16

DATE 2007-01-02 11:26:21

TOOL LOCATION C:\Program Files\ArcGIS\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass

COMMAND ISSUED

```
FeatureClassToFeatureClass G:\PublishedData\County-Boundary_INDOT_2004.shp "C:\Documents and Settings\stburns\Application Data\ESRI\INDOT_COE_LIBRARY\INDOT@CoE_Library.sde"
COUNTY_BOUNDARY_INDOT_IN # "OBJECTID_1 OBJECTID_1 true false false 9 Long 0
9 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,OBJECTID_1,-1,-1;OBJECTID OBJECTID
true false false 9 Long 0 9 ,First,#,G:\PublishedData\County-
Boundary_INDOT_2004.shp,OBJECTID,-1,-1;AREA AREA true false false 13 Float 0
0 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,AREA,-1,-1;PERIMETER PERIMETER true
false false 13 Float 0 0 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,PERIMETER,-
1,-1;COUNTY_NEW COUNTY_NEW true false false 9 Long 0 9 ,First,#,G:\PublishedData\County-
Boundary_INDOT_2004.shp,COUNTY_NEW,-1,-1;COUNTY_N_1 COUNTY_N_1 true false false 9 Long 0
9 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,COUNTY_N_1,-1,-1;Shape_Leng
Shape_Leng true false false 19 Double 0 0 ,First,#,G:\PublishedData\County-
Boundary_INDOT_2004.shp,Shape_Leng,-1,-1;dissolve dissolve true false false 5 Text 0
0 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,dissolve,-1,-1;Name Name true false
false 50 Text 0 0 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,Name,-1,-
1;Shape_Le_1 Shape_Le_1 true false false 19 Double 0 0 ,First,#,G:\PublishedData\County-
Boundary_INDOT_2004.shp,Shape_Le_1,-1,-1;Shape_Area Shape_Area true false false 19 Double 0
0 ,First,#,G:\PublishedData\County-Boundary_INDOT_2004.shp,Shape_Area,-1,-1" INDOT
"C:\Documents and Settings\stburns\Application
Data\ESRI\INDOT_COE_LIBRARY\INDOT@CoE_Library.sde\INDOT.COUNTY_BOUNDARY_INDOT_IN"
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-03-02 06:59:10

TOOL LOCATION C:\Program Files\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management
Tools.tbx\FeatureToLine

COMMAND ISSUED

```
FeatureToLine Lake_County_Boundary J:\!Potentiometric\Lake\Shapefiles\Lake_PSM_Lines.shp #
ATTRIBUTES
```

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history ▲](#)

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 ▶

PHONE

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

ADDRESS

DELIVERY POINT 402 W. Washington Street W264
CITY Indianapolis
ADMINISTRATIVE AREA Indiana
POSTAL CODE 46204
COUNTRY US
E-MAIL ADDRESS rschmidt@dnr.IN.gov

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 0.574

ONLINE SOURCE

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

Hide Distribution ▲

Fields ▶

DETAILS FOR OBJECT [UNC_PSM_Lake_Co](#) ▶

* TYPE Feature Class
* ROW COUNT 35

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 SmallInteger
- * WIDTH 4
- * PRECISION 4
- * SCALE 0

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 UNC_PSM_Lake_Co ▲

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 2015-12-04

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA FGDC

METADATA STYLE FGDC CSDGM Metadata

CREATED IN ARCGIS FOR THE ITEM 2015-05-12 09:49:29

LAST MODIFIED IN ARCGIS FOR THE ITEM 2015-12-04 12:01:03

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2015-12-04 12:00:10

ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2015-05-12 09:49:29

FROM \\iotisip01pa.state.in.us\dnrgis\$!\Potentiometric\Lake Revised 2015\Shapefiles 2015\Lake Original
Shapefiles\Lake_UNC_PSM_Lines

To \\iotisip01pa.state.in.us\dnrgis\$!\Potentiometric\Lake Revised 2015\Shapefiles 2015
\Lake_UNC_PSM_Lines

[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 ►

PHONE

VOICE 317-232-4160

FAX 317-233-4579

ADDRESS

DELIVERY POINT 402 W. Washington Street W264

CITY Indianapolis

ADMINISTRATIVE AREA Indiana

POSTAL CODE 46204

COUNTRY US

E-MAIL ADDRESS rschmidt@dnr.IN.gov

HOURS OF SERVICE

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

[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) ▼