

North American Oil & Gas Field



Tags

US Department of Energy, Canada, USA, Energy, Carbon Sequestration, NATCARB, Saline

Summary

This dataset provides a single, seamless spatial database of carbon storage potentials for oil and gas reservoirs across the USA and Canada compiled from regional datasets created by RCSPs and the KGS. Storage resource estimates are based on physically accessible CO₂ storage pore volume within subsurface geologic formations, and on the assumption that the storage resources are open systems in which in situ fluids will either be displaced from the injection zone or managed accordingly. Economic and regulatory constraints are not considered. These data are intended to be used as an initial assessment of potential geologic storage and are not a substitute for site-specific assessment, testing, and geologic investigation. This spatial data layer provides carbon capture and storage (CCS) project developers a starting point for further inquiry into CCS technologies aimed at reducing CO₂ emissions and is intended for use by RCSPs, project developers, and governmental entities for regional- and national-scale assessments of potential CO₂ storage resources in the United States and parts of Canada.

Description

The National Carbon Sequestration Database and Geographic Information System (NATCARB) Oil and Gas spatial database is a small-scale (large-area) overview of carbon dioxide (CO₂) geologic storage potential in oil and/or gas fields across the USA and parts of Canada. Storage estimates are quantified by the volume of oil and gas that has, or could be, produced, assuming that it could be replaced by an equivalent volume of carbon dioxide. Only oil and/or gas reservoirs containing water with total dissolved solids (TDS) greater than 10,000 ppm merited evaluation for potential CO₂ storage. Storage resources labelled as "OIL" may represent oil-only fields, or combined oil and gas fields. Storage resources labelled as "GAS" represent gas-only fields. This data layer reflects the best available knowledge regarding the location of carbon sequestration potential in the USA and Canada, both onshore and offshore.

Version Log:

v1101 - Initial release for Atlas III;

v1103 - Metadata revised;

v1104 - No changes to Oil and Gas layer;

v1204 - Initial release for Atlas IV. New data submitted by all regional partnerships;

v1302 - No changes to Oil and Gas layer. Metadata revised.

v1303 - No changes to Oil and Gas layer. Metadata revised.

v1403 - Initial release for Atlas V. New data submitted by BSCSP, MGSC, MRCSP, PCOR, SECARB and parts of SWP. Missing Medium volumes calculated as natural log mean of Low and High volumes.

v1501 - No changes to Oil and Gas layer.

v1502 - Revised data submitted by SWP.

NATCARB is administered by the US Dept. of Energy (DOE) National Energy Technology Laboratory

(NETL) and contains data provided by several Regional Carbon Sequestration Partnerships (RCSP). RCSPs originally developed the data per individual geologic storage resource, or as continuous surface models, and then converted these data into a 10 km X 10 km vector "grid". The NATCARB Team at the Kansas Geological Survey compiled the regional datasets into a single, seamless layer.

Credits

Version 1502 (second quarter release of 2015) of the NATCARB Saline spatial database was created by the NATCARB Team at the Kansas Geological Survey (KGS). The following Regional Carbon Sequestration Partnerships (RCSP) contributed data to the national dataset:

Big Sky Carbon Sequestration Partnership (BSCSP);
Midwest Geological Sequestration Consortium (MGSC);
Midwest Regional Carbon Sequestration Partnership (MRCSP);
Plains CO2 Reduction Partnership (PCOR);
Southeast Regional Carbon Sequestration Partnership (SECARB);
Southwest Regional Partnership on Carbon Sequestration (SWP);
West Coast Regional Carbon Sequestration Partnership (WESTCARB).

Several site characterization project teams also contributed data through the RCSPs to be included in the national dataset:

Black Warrior Basin - University of Alabama;
Cambro-Ordovician Strata of the Illinois and Michigan Basins - University of Illinois;
Gulf of Mexico Miocene - University of Texas;
Triassic Newark Basin of New York and New Jersey - Sandia Technologies;
Ozark Plateau Study Area - University of Kansas;
Rocky Mountain Region - University of Utah;
South Georgia Rift Basin - South Carolina Research Institution;
Two Elk Energy Park - North American Power Group;
Wilmington Graben, Offshore Los Angeles - Terralog Technologies USA;
Wyoming - University of Wyoming.

Use limitations

See access and use constraints information.

Extent

West -163.512674 **East** -75.583368
North 71.378181 **South** 25.931885

Scale Range

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

ArcGIS Metadata

Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE climatologyMeteorologyAtmosphere, environment, geoscientificInformation

*** CONTENT TYPE** Downloadable Data

PLACE KEYWORDS Canada, USA, North America

THESAURUS

TITLE ISO 19115 Topic Category

THESAURUS

TITLE ISO 19115 Topic Category

THEME KEYWORDS US Department of Energy, Energy, Carbon Sequestration, NATCARB, Saline

Citation

TITLE North American Oil & Gas Field

PUBLICATION DATE 2015-05-14 00:00:00

EDITION v1502

PRESENTATION FORMATS digital map

Citation Contacts

RESPONSIBLE PARTY

ORGANIZATION'S NAME NATCARB Map Team, US Dept. of Energy (DOE) National Energy Technology Laboratory (NETL)

CONTACT'S ROLE originator

CONTACT INFORMATION

PHONE

VOICE 304-285-2006

VOICE 304-285-1354

ADDRESS

TYPE both

DELIVERY POINT 3610 Collins Ferry Road M/S F04

CITY Morgantown

ADMINISTRATIVE AREA West Virginia

POSTAL CODE 26507

COUNTRY US

E-MAIL ADDRESS NatCarb.Maps@netl.doe.gov

Resource Details

DATASET LANGUAGES English (UNITED STATES)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed

SPATIAL REPRESENTATION TYPE vector

SUPPLEMENTAL INFORMATION

For a detailed methodology of storage resource estimates refer to Appendix B of The United States 2014 Carbon Utilization and Storage Atlas - Fifth Edition (Atlas V). For data access please contact the US DOE-NETL NATCARB Map Team - NatCarb.Maps@netl.doe.gov For questions regarding how the data were assembled, contact the KGS NATCARB Team - natcarb@kgs.ku.edu

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.0.4322

CREDITS

Version 1502 (second quarter release of 2015) of the NATCARB Saline spatial database was created by the NATCARB Team at the Kansas Geological Survey (KGS). The following Regional Carbon Sequestration Partnerships (RCSP) contributed data to the national dataset:

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Midwest Geological Sequestration Consortium (MGSC);
Midwest Regional Carbon Sequestration Partnership (MRCSP);
Plains CO2 Reduction Partnership (PCOR);
Southeast Regional Carbon Sequestration Partnership (SECARB);
Southwest Regional Partnership on Carbon Sequestration (SWP);
West Coast Regional Carbon Sequestration Partnership (WESTCARB).

Several site characterization project teams also contributed data through the RCSPs to be included in the national dataset:

Black Warrior Basin - University of Alabama;
Cambro-Ordovician Strata of the Illinois and Michigan Basins - University of Illinois;
Gulf of Mexico Miocene - University of Texas;
Triassic Newark Basin of New York and New Jersey - Sandia Technologies;
Ozark Plateau Study Area - University of Kansas;
Rocky Mountain Region - University of Utah;
South Georgia Rift Basin - South Carolina Research Institution;
Two Elk Energy Park - North American Power Group;
Wilmington Graben, Offshore Los Angeles - Terralog Technologies USA;
Wyoming - University of Wyoming.

ARCGIS ITEM PROPERTIES

* NAME oil_and_gas_reservoirs_v3

* LOCATION file:///\\146.137.112.25\\gis1

\\EISPC_Energy_Zones_Study\\Data\\Web_Mercator\\Transfer_Web_Data\\4__Production_Loaded\\20161102-oil_and_gas_reservoirs_v3_chg\\data.gdb

* ACCESS PROTOCOL Local Area Network

Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

WEST LONGITUDE -172.598993
EAST LONGITUDE -36.003643
SOUTH LATITUDE 22.53677
NORTH LATITUDE 80.133277

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -163.512674
* EAST LONGITUDE -75.583368
* NORTH LATITUDE 71.378181
* SOUTH LATITUDE 25.931885
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE -18202147.642221
* EAST LONGITUDE -8413902.031812
* SOUTH LATITUDE 2990647.022921
* NORTH LATITUDE 11532837.764255
* EXTENT CONTAINS THE RESOURCE Yes

Resource Points of Contact

POINT OF CONTACT

ORGANIZATION'S NAME NATCARB Map Team, US Dept. of Energy (DOE) National Energy Technology Laboratory (NETL)

CONTACT'S ROLE point of contact

CONTACT INFORMATION

PHONE

VOICE 304-285-2006
VOICE 304-285-1354

ADDRESS

TYPE both
DELIVERY POINT 3610 Collins Ferry Road M/S F04
CITY Morgantown
ADMINISTRATIVE AREA West Virginia
POSTAL CODE 26507
COUNTRY US
E-MAIL ADDRESS NatCarb.Maps@netl.doe.gov

Resource Maintenance

RESOURCE MAINTENANCE

UPDATE FREQUENCY quarterly

MAINTENANCE CONTACT

ORGANIZATION'S NAME GIS Support Section, Kansas Geological Survey

CONTACT'S POSITION NATCARB Team

CONTACT'S ROLE processor

CONTACT INFORMATION

PHONE

VOICE 785-864-3965

ADDRESS

TYPE both
DELIVERY POINT 1930 Constant Ave
CITY Lawrence
ADMINISTRATIVE AREA Kansas
POSTAL CODE 66047-3726
COUNTRY US
E-MAIL ADDRESS natcarb@kgs.ku.edu

HOURS OF SERVICE

8 am - 5 pm M-F

Resource Constraints

LEGAL CONSTRAINTS

LIMITATIONS OF USE

See access and use constraints information.

CONSTRAINTS

LIMITATIONS OF USE

See access and use constraints information.

Spatial Reference

ARCGIS COORDINATE SYSTEM

- * TYPE Projected
- * GEOGRAPHIC COORDINATE REFERENCE GCS_WGS_1984
- * PROJECTION WGS_1984_Web_Mercator_Auxiliary_Sphere
- * COORDINATE REFERENCE DETAILS
 - PROJECTED COORDINATE SYSTEM
 - WELL-KNOWN IDENTIFIER 102100
 - X ORIGIN -22041545.367140558
 - Y ORIGIN -33272760.666300893
 - XY SCALE 135368852.55357128
 - 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 3857
 - WELL-KNOWN TEXT PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER

- * VALUE 3857
- * CODESPACE EPSG
- * VERSION 8.2.6

Spatial Data Properties

VECTOR

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

- FEATURE CLASS NAME oil_and_gas_reservoirs_v3
- * OBJECT TYPE composite
- * OBJECT COUNT 68634

ARCGIS FEATURE CLASS PROPERTIES

- FEATURE CLASS NAME oil_and_gas_reservoirs_v3
- * FEATURE TYPE Simple
- * GEOMETRY TYPE Polygon
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 68634
- * SPATIAL INDEX TRUE
- * LINEAR REFERENCING FALSE

Data Quality

SCOPE OF QUALITY INFORMATION

- RESOURCE LEVEL dataset

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY

MEASURE DESCRIPTION

All RCSPs provided carbon storage data in accordance with common standards developed by the RCSPs and the NATCARB project teams. (See Sources for more information on methodologies). Discrepancies and overlaps occur at the boundaries of some adjacent partnerships and DOE-NETL is the final authority on the handling of these issues (see data fields OVERLAP and DUPLICATE in Entity Attributes section of this document for details).

DATA QUALITY REPORT - COMPLETENESS OMISSION

MEASURE DESCRIPTION

This dataset reflects the best available knowledge regarding the location of potential carbon sequestration potential in the USA and Canada, both onshore and offshore. However, not all areas of the United States and Canada have been assessed (e.g., offshore New England). Not all RCSPs provided data for all attribute fields in the database (indicated by <Null>). Values of "0" represent actual measurements. Not all RCSPs provided low (VOL_LOW), medium (VOL_MED) and high (VOL_HIGH) estimates of carbon storage capacity. In cases where only medium estimates (VOL_MED) were provided, the medium capacities were copied into the VOL_LOW and VOL_HIGH attribute fields. If the RCSP provided low and high estimates of capacity but not medium, the

VOL_MED was calculated as the natural log mean of VOL_LOW and VOL_HIGH.
DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY

MEASURE DESCRIPTION

Questions regarding accuracy of the data (spatial and attribute) should be directed to the individual RCSPs. Except for certain cases of inter-partnership overlap, NATCARB did not make any changes to the data except for corrections to values in text fields (spelling, capitalization, etc.) when errors were noticed.

Lineage

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-10-13 00:00:00

DESCRIPTION

The NATCARB Group at the Kansas Geological Survey assembled GIS datasets from the regional partnerships (and other sources where necessary) into a single layer using ESRI's ArcInfo (v10.2.2) software in the Summer and Fall of 2014. All partnerships provided data in 10 km by 10 km vector "cells" and simple polygon outlines of resource boundaries. Not all partnerships provided low, medium and high capacity estimates. Where only medium capacities were provided, KGS made the low and high capacity fields (VOL_LOW and VOL_HIGH, respectively) equal to the medium capacity (VOL_MED). Where only low and high estimates were provided, medium values were calculated as the natural log mean of the low and high volumes. Other alterations to the data include identifying overlapping and duplicate data submitted by adjacent partnerships and making corrections to values in text fields (spelling, capitalization, etc.) when errors were noticed.

PROCESS CONTACT

ORGANIZATION'S NAME GIS Support Section, Kansas Geological Survey

CONTACT'S POSITION NatCarb Team

CONTACT'S ROLE processor

CONTACT INFORMATION

PHONE

VOICE 785-864-3965

ADDRESS

TYPE both

DELIVERY POINT 1930 Constant Ave

CITY Lawrence

ADMINISTRATIVE AREA KS

POSTAL CODE 66047-3726

COUNTRY US

E-MAIL ADDRESS natcarb@kgs.ku.edu

HOURS OF SERVICE

8 am - 5 pm M-F

PROCESS STEP

WHEN THE PROCESS OCCURRED 2014-10-15 00:00:00

DESCRIPTION

Metadata updated.

PROCESS CONTACT

ORGANIZATION'S NAME GIS Support Section, Kansas Geological Survey

CONTACT'S POSITION NATCARB Team

CONTACT'S ROLE processor

SOURCE DATA

DESCRIPTION

West Coast Regional Carbon Sequestration Partnership provided data for the Western United States and Canada (Alaska, Western Arizona, Western British Columbia, California, Hawaii, Nevada, Western Oregon and Western Washington).

SOURCE CITATION

TITLE WESTCARB Carbon Sequestration Potential

ALTERNATE TITLES WESTCARB

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

RESPONSIBLE PARTY

ORGANIZATION'S NAME West Coast Regional Carbon Sequestration Partnership

CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME California Energy Commission

CONTACT'S ROLE originator

RESOURCE LOCATION ONLINE

LOCATION <http://www.westcarb.org/>

FUNCTION PERFORMED information

RESOURCE LOCATION ONLINE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html

FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

Big Sky Carbon Sequestration Partnership provided data for the Innermountain West region of the Northwestern United States (Idaho, Eastern Montana, Eastern Oregon, Western South Dakota, Eastern Washington and Wyoming).

SOURCE CITATION

TITLE BSCSP Carbon Sequestration Potential

ALTERNATE TITLES BSCSP

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

RESPONSIBLE PARTY

ORGANIZATION'S NAME Big Sky Sequestration Partnership

CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME Montana State University

CONTACT'S ROLE originator

RESOURCE LOCATION ONLINE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html

FUNCTION PERFORMED information

RESOURCE LOCATION ONLINE

LOCATION <http://www.bigskyco2.org/>

FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

As the responsible authority for the National Carbon Sequestration Database and Geographic Information System (NATCARB), the US Department of Energy (DOE) National Energy Technology Laboratory (NETL) NATCARB Team provided data, methodological guidance and expertise in handling issues specific to creation of the composite NATCARB data layers.

SOURCE CITATION

TITLE US Department of Energy (DOE) National Energy Technology Laboratory (NETL) NATCARB Team

ALTERNATE TITLES DOE-NETL

RESPONSIBLE PARTY

ORGANIZATION'S NAME US Department of Energy (DOE) National Energy Technology Laboratory (NETL)

CONTACT'S ROLE owner

CONTACT INFORMATION

PHONE

VOICE 800-553-7681

ADDRESS

TYPE physical

DELIVERY POINT 3610 Collins Ferry Road

CITY Morgantown

ADMINISTRATIVE AREA WV

POSTAL CODE 26507-0880

COUNTRY US

E-MAIL ADDRESS NATCARB.Maps@NETL.DOE.GOV

ONLINE RESOURCE

LOCATION <http://www.netl.doe.gov>

FUNCTION PERFORMED information

RESOURCE LOCATION ONLINE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/natcarb/

FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

Southwest Regional Partnership on Carbon Sequestration provided data for the Southwestern United States (Eastern Arizona, Colorado, Kansas, New Mexico, Western Texas and Utah).

SOURCE CITATION

TITLE SWP Carbon Sequestration Potential

ALTERNATE TITLES SWP

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

RESPONSIBLE PARTY

ORGANIZATION'S NAME New Mexico Institute of Mining and Technology

CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME Southwest Regional Partnership on Carbon Sequestration

CONTACT'S ROLE originator

RESOURCE LOCATION ONLINE

LOCATION <http://www.southwestcarbonpartnership.org>

FUNCTION PERFORMED information

RESOURCE LOCATION ONLINE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html/

FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

The United States 2014 Carbon Utilization and Storage Atlas - Fifth Edition (Atlas V) provides updated information regarding carbon dioxide storage potential in the US and Canada and includes maps, summary tables and, in Appendices A and B, detailed methodologies.

SOURCE MEDIUM NAME online link

SOURCE CITATION

TITLE The United States 2012 Carbon Utilization and Storage Atlas

ALTERNATE TITLES Atlas IV

PUBLICATION DATE 2012-12-19 00:00:00

EDITION Fourth

EDITION DATE 2012-12-19

RESPONSIBLE PARTY

ORGANIZATION'S NAME US Department of Energy (DOE) National Energy Technology Laboratory (NETL)

CONTACT'S ROLE publisher

CONTACT INFORMATION

PHONE

VOICE 800-553-7681

ADDRESS

TYPE physical

DELIVERY POINT 3610 Collins Ferry Road

CITY Morgantown

ADMINISTRATIVE AREA WV

POSTAL CODE 26507-0880

COUNTRY US

E-MAIL ADDRESS NATCARB.Maps@NETL.DOE.GOV

ONLINE RESOURCE

LOCATION <http://www.netl.doe.gov>

FUNCTION PERFORMED information

RESOURCE LOCATION ONLINE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/refshelf/atlasIV/

FUNCTION PERFORMED download

SOURCE DATA

DESCRIPTION

As the primary entity responsible for compiling the NATCARB layers, the Kansas Geological Survey NATCARB Team worked closely with the DOE-NETL NATCARB Team to develop rules and methods for assembling the composite datasets.

SOURCE CITATION

TITLE Kansas Geological Survey (KGS) NATCARB

ALTERNATE TITLES KGS

RESPONSIBLE PARTY

ORGANIZATION'S NAME GIS Support Section, Kansas Geological Survey

CONTACT'S POSITION NATCARB Team

CONTACT'S ROLE processor

CONTACT INFORMATION

PHONE

VOICE 785-864-3965

ADDRESS

TYPE both

DELIVERY POINT 1930 Constant Ave

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ADMINISTRATIVE AREA Kansas

POSTAL CODE 66047-3726

COUNTRY US

E-MAIL ADDRESS natcarb@kgs.ku.edu

HOURS OF SERVICE

8 am - 5 pm M-F

SOURCE DATA

DESCRIPTION

The Plains CO2 Reduction Partnership provided data for the upper Midwest and Central Canada (Iowa, Minnesota, Missouri, Eastern Montana, Nebraska, North Dakota, Eastern South Dakota, Wisconsin, Eastern Wyoming, Alberta, Northeastern British Columbia, Manitoba and Saskatchewan).

SOURCE CITATION

TITLE PCOR Carbon Sequestration Potential

ALTERNATE TITLES PCOR

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

RESPONSIBLE PARTY

ORGANIZATION'S NAME University of North Dakota, Energy and Environmental Research Center
 CONTACT'S ROLE originator
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME The Plains CO2 Reduction Partnership
 CONTACT'S ROLE originator
 RESOURCE LOCATION ONLINE
 LOCATION <http://www.undeerc.org/pcor/>
 FUNCTION PERFORMED information
 RESOURCE LOCATION ONLINE
 LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html
 FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

Midwest Regional Carbon Sequestration Partnership provided data for the Ohio Valley and Northeastern United States (Eastern Indiana, Eastern Kentucky, Maryland, Michigan, New Jersey, New York, Ohio, Pennsylvania and West Virginia).

SOURCE CITATION

TITLE MRCSP Carbon Sequestration Potential
 ALTERNATE TITLES MRCSP
 PRESENTATION FORMATS digital map
 FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Midwest Regional Carbon Sequestration Partnership
 CONTACT'S ROLE originator
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Batelle Memorial Institute
 CONTACT'S ROLE originator
 RESOURCE LOCATION ONLINE
 LOCATION <http://www.mrcsp.org/>
 FUNCTION PERFORMED information
 RESOURCE LOCATION ONLINE
 LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html
 FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

Midwest Geological Sequestration Consortium provided data for Illinois, Western Indiana and Western Kentucky.

SOURCE CITATION

TITLE MGSC Carbon Sequestration Potential
 ALTERNATE TITLES MGSC
 PRESENTATION FORMATS digital map
 FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Midwest Geological Sequestration Consortium
 CONTACT'S ROLE originator
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Illinois State Geological Survey
 CONTACT'S ROLE originator
 RESOURCE LOCATION ONLINE
 LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html
 FUNCTION PERFORMED information
 RESOURCE LOCATION ONLINE
 LOCATION <http://www.sequestration.org/>
 FUNCTION PERFORMED information

SOURCE DATA

DESCRIPTION

Southeast Regional Carbon Sequestration Partnership provided data for the Southeastern United States (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Eastern Texas, West Virginia and Virginia).

SOURCE CITATION

TITLE SECARB Sequestration Potential
 ALTERNATE TITLES SECARB
 PRESENTATION FORMATS digital map
 FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Southeast Regional Carbon Sequestration Partnership
 CONTACT'S ROLE originator
 RESPONSIBLE PARTY
 ORGANIZATION'S NAME Southern States Energy Board
 CONTACT'S ROLE originator
 RESOURCE LOCATION ONLINE

LOCATION <http://www.secarbon.org/>
FUNCTION PERFORMED information
RESOURCE LOCATION ONLINE
LOCATION http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/rcsp.html
FUNCTION PERFORMED information

Distribution

DISTRIBUTOR

CONTACT INFORMATION

ORGANIZATION'S NAME NATCARB Map Team, US Department of Energy (DOE) National Energy Technology Laboratory (NETL)

CONTACT'S ROLE distributor

CONTACT INFORMATION

PHONE

VOICE 304-285-2006

VOICE 304-285-1354

ADDRESS

TYPE both

DELIVERY POINT 3610 Collins Ferry Road M/S F04

CITY Morgantown

ADMINISTRATIVE AREA West Virginia

POSTAL CODE 26507

COUNTRY US

E-MAIL ADDRESS NATCARB.Maps@NETL.DOE.GOV

AVAILABLE FORMAT

NAME ESRI File Geodatabase

VERSION 10.2.2

FILE DECOMPRESSION TECHNIQUE zip

ORDERING PROCESS

TERMS AND FEES None

INSTRUCTIONS

GIS datasets in ESRI file geodatabase format are available online. Please contact NATCARB Map Team for custom requests.

TRANSFER OPTIONS

ONLINE SOURCE

LOCATION http://www.netl.doe.gov/technologies/carbon_seq/natcarb/download.html

FUNCTION PERFORMED download

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT [oil_and_gas_reservoirs_v3](#)

* TYPE Feature Class

* ROW COUNT 68634

DEFINITION

Vector polygon features representing oil and gas storage resources in the USA and Canada

DEFINITION SOURCE

NATCARB

FIELD OBJECTID

* ALIAS OBJECTID

* 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.

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.

FIELD PARTNERSHIP

* ALIAS PARTNERSHIP

* DATA TYPE String

* WIDTH 15

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Abbreviation for RCSP.

DESCRIPTION SOURCE

Atlas IV

LIST OF VALUES

VALUE SWP

DESCRIPTION Southwest Regional Partnership on Carbon Sequestration

VALUE PCOR

DESCRIPTION The Plains CO2 Reduction Partnership

VALUE BSCSP

DESCRIPTION Big Sky Sequestration Partnership

VALUE MRCSP

DESCRIPTION Midwest Regional Carbon Sequestration Partnership

VALUE SECARB

DESCRIPTION Southeast Regional Carbon Sequestration Partnership

VALUE WESTCARB

DESCRIPTION West Coast Regional Carbon Sequestration Partnership

VALUE MGSC

DESCRIPTION Midwest Geological Sequestration Consortium

FIELD FIELD_NAME

* ALIAS FIELD_NAME

* DATA TYPE String

* WIDTH 50

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Name of oil/gas field

FIELD TOTAL_FIELD_AREA

* ALIAS TOTAL_FIELD_AREA

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Area (square meters) of entire oil/gas field

RANGE OF VALUES

MINIMUM VALUE 0

UNITS OF MEASURE square meters

FIELD FIELD_TYPE

* ALIAS FIELD_TYPE

* DATA TYPE String

* WIDTH 50

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Type of reservoir

DESCRIPTION SOURCE

DOE-NETL

LIST OF VALUES

VALUE OIL

DESCRIPTION Oil only reservoir

VALUE GAS

DESCRIPTION Gas only reservoir

VALUE OIL & GAS
DESCRIPTION Oil and gas reservoir
VALUE UNDETERMINED
DESCRIPTION Field type unknown

FIELD RESERVOIR_NUM

* ALIAS RESERVOIR_NUM
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Number of reservoirs within field.

FIELD RESERVOIR_NAME

* ALIAS RESERVOIR_NAME
* DATA TYPE String
* WIDTH 50
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Name of reservoir within field

FIELD STATE_SRC

* ALIAS STATE
* DATA TYPE String
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

State oil and gas data are sourced from.

FIELD VOL_LOW

* ALIAS VOL_LOW
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Low (P10) estimate of carbon storage potential in metric tonnes.

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0

UNITS OF MEASURE metric tonnes

FIELD VOL_MED

* ALIAS VOL_MED
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Medium (P50) estimate of carbon storage potential in metric tonnes.

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0

UNITS OF MEASURE metric tonnes

FIELD VOL_HIGH

* ALIAS VOL_HIGH
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

High (P90) estimate of carbon storage potential in metric tonnes.

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES
MINIMUM VALUE 0
UNITS OF MEASURE metric tonnes

FIELD DEPTH_FT

* ALIAS DEPTH
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Mean depth (feet) of storage resource

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0
UNITS OF MEASURE Feet
MEASUREMENT RESOLUTION whole number

FIELD THICKNESS_FT

* ALIAS THICKNESS
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Mean thickness (feet) of storage resource

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0
UNITS OF MEASURE Feet
MEASUREMENT RESOLUTION whole number

FIELD SALINITY_TDS

* ALIAS SALINITY
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Mean salinity (total dissolved solids) of storage resource

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0
UNITS OF MEASURE ppm
MEASUREMENT RESOLUTION whole number

FIELD PRESSURE_PSI

* ALIAS PRESSURE
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Mean pressure (pounds per square inch) of storage formation

DESCRIPTION SOURCE

Atlas IV

RANGE OF VALUES

MINIMUM VALUE 0
UNITS OF MEASURE PSI
MEASUREMENT RESOLUTION whole number

FIELD TEMPERATURE_F

* ALIAS TEMPERATURE
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0

* SCALE 0
FIELD DESCRIPTION
Mean temperature (degrees F) of storage resource
DESCRIPTION SOURCE
Atlas IV
RANGE OF VALUES
MINIMUM VALUE 0
UNITS OF MEASURE degrees F
MEASUREMENT RESOLUTION whole number

FIELD POROSITY_PCT
* ALIAS POROSITY
* DATA TYPE Single
* WIDTH 4
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Mean porosity (percent) of storage resource
DESCRIPTION SOURCE
Atlas IV
RANGE OF VALUES
MINIMUM VALUE 0
MAXIMUM VALUE 100
UNITS OF MEASURE percent

FIELD PERMEABILITY_mD
* ALIAS PERMEABILITY
* DATA TYPE Single
* WIDTH 4
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Mean permeability (millidarcies) of storage resource
DESCRIPTION SOURCE
Atlas IV
RANGE OF VALUES
MINIMUM VALUE 0.0001
UNITS OF MEASURE mD

FIELD ASSESSED
* ALIAS ASSESSED
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Flag defining whether storage resource has been assessed for carbon storage potential
DESCRIPTION SOURCE
DOE-NETL/KGS
LIST OF VALUES
VALUE 0
DESCRIPTION Storage resource has not been assessed. Capacities must be <Null>.
VALUE 1
DESCRIPTION Storage resource has been assessed. Capacities may be "0".

FIELD CYCLE_OF_LAST_UPDATE
* ALIAS CYCLE_OF_LAST_UPDATE
* DATA TYPE String
* WIDTH 15
* PRECISION 0
* SCALE 0

FIELD OVERLAP
* ALIAS OVERLAP
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD DUPLICATE

* ALIAS DUPLICATE
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD MED_CALCED

* ALIAS MED_CALCED
* DATA TYPE SmallInteger
* WIDTH 2
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Flag indicating how medium volume has been determined.

LIST OF VALUES

VALUE 0
DESCRIPTION Medium volume provided by regional partnership or site characterization project
VALUE 1
DESCRIPTION Medium volume calculated by KGS NATCARB Team as natural log mean of Low and High volumes

FIELD SHAPE_Length

* ALIAS Shape_Length
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Length of feature in internal units.

DESCRIPTION SOURCE

ESRI

DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

FIELD SHAPE_Area

* ALIAS Shape_Area
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Area of feature in internal units squared.

DESCRIPTION SOURCE

ESRI

DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

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 2015-05-14
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 2016-11-02 09:26:45
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AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2016-11-02 09:54:51

Metadata Contacts

METADATA CONTACT
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CONTACT'S POSITION NATCARB Team

CONTACT'S ROLE author

CONTACT INFORMATION ▶

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8 am - 5 pm M-F

Metadata Maintenance

MAINTENANCE

UPDATE FREQUENCY quarterly

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