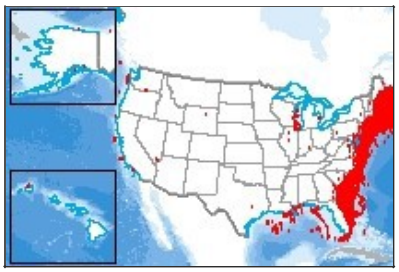
Sediment Texture



Tags

U.S. Geological Survey, USGS, Coastal and Marine Geology Program, CMGP, Woods Hole Coastal and Marine Science Center, WHCMSC, surficial sediments, grain size analyses, simple bottom descriptions, grab sampler, coring, seafloor geology, sedimentary dynamics, sedimentary processes, strataform, particle-size analysis, ArcGIS shapefile, point data, ArcGIS point shapefile, Geographic Information System, GIS, sample location, oceans and estuaries, location, geoscientificInformation, oceans, inlandWaters

Summary

This ArcGIS shapefile contains the locations of marine sediment samples collected and (or) analyzed by the U.S. Geological Survey, Woods Hole Coastal and Marine Science Center starting in 1955 thru March 2014. Distribution of this dataset allows the user the ability to visualize the information in a Geographic Information System.

Description

This sediment database contains location, description, and texture of samples taken by numerous marine sampling programs. Most of the samples are from the Atlantic Continental Margin of the United States, but some are from as diverse locations as Lake Baikal, Russia, the Hawaiian Islands region, Puerto Rico, the Gulf of Mexico, and Lake Michigan. The database presently contains data for over 27,000 samples, which includes texture data for approximately 3800 samples taken or analyzed by the Atlantic Continental Margin Program (ACMP), a joint U.S. Geological Survey/Woods Hole Oceanographic Institution project conducted from 1962 to 1970. As part of the ACMP, some historical data from samples collected between 1955 and 1962 were also incorporated into the dataset.

Credits

The U.S. Geological Survey must be referenced as the originator of the dataset in any future products or research derived from these data.

Use limitations

Public domain data from the U.S. Government are freely redistributable with proper metadata and source attribution. Please recognize the U.S. Geological Survey (USGS) as the source of this information.

Extent

West -159.511664 **East** -63.533330
North 70.348431 **South** 17.552933

Scale Range

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

ArcGIS Metadata

Topics and Keywords

* CONTENT TYPE Downloadable Data

Citation

TITLE Sediment Texture
PRESENTATION FORMATS * digital map

Resource Details

DATASET LANGUAGES * English (UNITED STATES)
SPATIAL REPRESENTATION TYPE * vector
* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.0.4322
CREDITS
The U.S. Geological Survey must be referenced as the originator of the dataset in any future

products or research derived from these data.

Extents

- Extent
  - Geographic extent
    - Bounding rectangle
      - Extent type: Extent used for searching
      - * West longitude: -159.511664
      - * East longitude: -63.533330
      - * North latitude: 70.348431
      - * South latitude: 17.552933
      - * Extent contains the resource: Yes
- Extent in the item's coordinate system
  - * West longitude: -17756757.245464
  - * East longitude: -7072497.944001
  - * South latitude: 1985285.831881
  - * North latitude: 11183080.536309
  - * Extent contains the resource: Yes

Resource Constraints

- Constraints
  - Limitations of use

    Public domain data from the U.S. Government are freely redistributable with proper metadata and source attribution. Please recognize the U.S. Geological Survey (USGS) as the source of this 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: marine_geology_sediment_texture
      - * Object type: point
      - * Object count: 27113
- ArcGIS Feature Class Properties
  - Feature class name: marine_geology_sediment_texture
    - * Feature type: Simple
    - * Geometry type: Point
    - * Has topology: FALSE
    - * Feature count: 27113
    - * Spatial index: TRUE
    - * Linear referencing: FALSE

Distribution

DISTRIBUTOR

AVAILABLE FORMAT

* NAME Shapefile

TRANSFER OPTIONS

* TRANSFER SIZE 0.742

ONLINE SOURCE

* LOCATION file://\\IGSAGIEGWSKMC70\D$\Sediment Lab\databaseupdate\ecstdb2011\2012 updates\updates2014\data\updated\newer\ecstdb2014.shp
* ACCESS PROTOCOL Local Area Network
* DESCRIPTION Downloadable Data

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT marine_geology_sediment_texture

* TYPE Feature Class
* ROW COUNT 27113

DEFINITION

Shapefile Attribute Table

DEFINITION SOURCE

ESRI

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 GROUP_

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

FIELD DB_ID

* DATA TYPE String
* WIDTH 254
* ALIAS DB_ID
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Unique identification number generated in the sedimentation laboratory of the USGS's Woods Hole Coastal and Marine Science Center. For samples analyzed after 1980 this identifier consists of 2 characters and 3 numerics (e.g. AS114). For samples analyzed prior to 1980, this identifier consists of 4 numerics possibly followed by as many as 2 characters.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

FIELD FIELD_NO

* DATA TYPE String
* WIDTH 254
* ALIAS FIELD_NO

* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Sample name or number as assigned in the field by the Chief Scientist

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

FIELD PROJECT
* DATA TYPE String
* WIDTH 254
* ALIAS PROJECT
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Name of project or project number under which samples were taken or data generated; sometimes project name indicates a more specific area

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

DESCRIPTION OF VALUES
Character string of width 254.

FIELD CRUISE_ID
* DATA TYPE String
* WIDTH 254
* ALIAS CRUISE_ID
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Name or number of cruise on which sample collected. Historically cruise identifiers were a combination of ship name, year of cruise and cruise leg. In more recent years, cruise identifier is a sequential serial number assigned to field activities within a specific year.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

DESCRIPTION OF VALUES
Character string of width 254.

FIELD CONTACT
* DATA TYPE String
* WIDTH 254
* ALIAS CONTACT
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Name of Principal Investigator or Chief Scientist responsible for data collection (usually first initial and last name) when available.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

DESCRIPTION OF VALUES
Character string of width 254.

FIELD AREA
* DATA TYPE String
* WIDTH 254
* ALIAS AREA
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
General geographic area of data collection. Name is general enough to easily locate area on a state map.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

DESCRIPTION OF VALUES
Character string of width 254.

FIELD LATITUDE
* DATA TYPE Double
* WIDTH 8
* ALIAS LATITUDE
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Latitude coordinate, in decimal-degrees, of sample location. South latitude recorded as negative values.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

Range of values
Minimum value -16.2320670
Maximum value 80.81377
Units of measure signed decimal degrees
Measurement resolution .00000001

Field LONGITUDE
* Data type Double
* Width 8
* Alias LONGITUDE
* Precision 0
* Scale 0
Field description
Longitude coordinate, in decimal degrees, of sample location. West longitude is recorded as negative values.
Description source
USGS East Coast Sediment Texture Database data dictionary
Range of values
Minimum value -170.52
Maximum value 123.55683
Units of measure signed decimal degrees
Measurement resolution .00000001

Field DEPTH_M
* Data type Double
* Width 8
* Alias DEPTH_M
* Precision 0
* Scale 0
Field description
Measured depth of water overlying sediment at sample time, generally not corrected for tides, in meters. No data value -9999.
Description source
USGS East Coast Sediment Texture Database data dictionary
Range of values
Minimum value 0.00
Maximum value 6945
Units of measure meters
Measurement resolution .01

Field T_DEPTH
* Data type Double
* Width 8
* Alias T_DEPTH
* Precision 0
* Scale 0
Field description
Top depth of the sample below the sediment-water interface, in centimeters. No data value -9999.
Description source
USGS East Coast Sediment Texture Database data dictionary
Range of values
Minimum value 0
Maximum value 115049
Units of measure centimeters
Measurement resolution 1

Field B_DEPTH
* Data type Double
* Width 8
* Alias B_DEPTH
* Precision 0
* Scale 0
Field description
Bottom depth of the sample below the sediment-water interface, in centimeters. No data value -9999.
Description source
USGS East Coast Sediment Texture Database data dictionary
Range of values
Minimum value 0
Maximum value 115054
Units of measure centimeters
Measurement resolution 1

FIELD DEVICE

* DATA TYPE String
* WIDTH 254
* ALIAS DEVICE
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Device used to collect the sample. A blank indicates unknown device.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

LIST OF VALUES

VALUE 1 METER PLANKTON NET
VALUE 1-METER DREDGE
VALUE 3/4 METER PLANKTON NET
VALUE 35MM STEREO CAMERA+DRED
VALUE ANCHOR DREDGE
VALUE ANCHOR FLUKES
VALUE ANCHOR SAMPLE
VALUE BLAKE TRAWL
VALUE BOOMERANG CORER
VALUE BOT DRIFTER SALINOMETER
VALUE BOTTOM DRIFTER
VALUE BOTTOM DRIFTER BUG
VALUE BOTTOM SKIMMER
VALUE BOX CORE
VALUE BOX SAMPLER
VALUE CAM GRAB W/O CAM+PLANK T
VALUE CAMERA SLED
VALUE CAMPBELL GRAB W/ CAMERA
VALUE CAMPBELL GRAB W/O CAMERA
VALUE CHAIN BAG
VALUE CHAIN BAG DREDGE
VALUE CHAIN BAG+PIPE DREDGE
VALUE CHAIN BAG+SM PIPE DREDGE
VALUE CHAIN BAG+PIPE
VALUE CHAIN BAG+PIPE DREDGE
VALUE CHAIN BAG+SM PIPE
VALUE CHAIN BAG+SM PIPE DREDGE
VALUE CHAIN DREDGE
VALUE CORING TUBE IN MECH ARM
VALUE D-L SNAPPER
VALUE D-L SNAPPER + DREDGE
VALUE D-L SNAPPER + GRAV COR
VALUE DIETZ-LAFOND
VALUE DIETZ-LAFOND GRAB
VALUE DIETZ-LAFOND SNAPPER
VALUE DIGBY DREDGE
VALUE DIGBY DREDGE W/ CNVS BAG
VALUE DRAG DREDGE
VALUE DREDGE
VALUE Drilled Sample
VALUE DRILLED SAMPLE
VALUE EDGERTON CAMERA
VALUE GOS ANCHOR CHAIN
VALUE GRAB SAMPLER
VALUE GRAPPLING HOOK
VALUE GRAVITY CORER
VALUE HAND SAMPLE
VALUE Hand Sample
VALUE HYDROSTATIC CORE
VALUE HYDROSTATIC CORER
VALUE Hydrostatic CORER
VALUE IKU GRAB
VALUE JAPANESE DREDGE
VALUE M-VV GRAB + D-LF SNAPPER
VALUE M-VV GRAB + GRAVITY CORE
DESCRIPTION modified Van Veen grab sampler and gravity corer
VALUE MECH ARM + CORE DRILL
VALUE MECH ARM W/ CORER
VALUE MECH ARM W/ PRY BAR
VALUE MECHANICAL ARM
VALUE MINIATURE VAN VEEN
VALUE MINIATURE VAN VEEN W/O C.
VALUE MODIFIED PIERCE DREDGE

VALUE NA
DESCRIPTION not applicable
VALUE NATURALIST DREDGE
VALUE NISKIN SAMPLER
VALUE OTHER
VALUE PAUL CORER
VALUE PIPE DREDGE
VALUE PIPE DREDGE AND D-L SNAP
VALUE PIPE DREDGE, 12 INCH
VALUE PISTON CORER
VALUE PONAR SAMPLER
VALUE PULSE AUGER
VALUE PUSH CORER
VALUE Pulse Auger
VALUE RAKED INTO BASKET W/ ARM
VALUE RING NET
VALUE ROCKER DREDGE
VALUE ROTARY CORER
VALUE ROTOSONIC CORER
VALUE SALINOMETER, VANDORN BOTS
VALUE SCALLOP DREDGE
VALUE SCOOP FISH
VALUE SEDIMENT TRAP
VALUE SHIPEK GRAB
VALUE SMALL VAN VEEN
VALUE SMITH-MAC+MIN W, CAMERA
VALUE SMITH-MACINTYRE GRAB
VALUE SMITH-MACINTYRE W/ CAMERA
VALUE SMITH-MACINTYRE W/O CAMERA
VALUE SMITH/MAC AND NISKIN SPL
VALUE SUBMERSIBLE SAMPLE
VALUE Submersible Sample
VALUE TRAWL
VALUE TRIGGER CORE
VALUE UNKNOWN
VALUE VAN VEEN AND CORE
VALUE VAN VEEN GRAB
VALUE Van Veen Grab
VALUE VIBRA CORE
VALUE VISUAL OBSERVATION
VALUE VV GRAB + D-L SNAPPER
VALUE WATER PUMP ONLY
VALUE BIG SEABOSS GRAB
VALUE CRAIB CORER
VALUE DIVER GRABS
VALUE DIVER PUSH CORE
VALUE DIVER, HAND
VALUE DIVERS, BY HAND
VALUE DRILL CORE
VALUE DRILLED CORE
VALUE GRAB
VALUE GRAVITY CORE
VALUE HAND
VALUE MID-SIZED SEABOSS GRAB
VALUE MINI SEABOSS
VALUE MINI-SEABOSS
VALUE PISTON CORE
VALUE PISTON SAMPLER (HYDRAULIC)
VALUE PONAR GRAB
VALUE ROTOSONIC CORE
VALUE SMALL SEABOSS GRAB
VALUE SUBMERSIBLE ARM GRAB
VALUE TEFLON SHOVEL
VALUE TROWEL
VALUE VIBRACORE
VALUE VIBRACORER
VALUE WHOI GIANT GRAVITY CORER
VALUE SEABOSS (BIG)
VALUE EPA VanVeen
VALUE Diver
VALUE Craib
VALUE USGS Slow Corer
VALUE SEABOSS
VALUE Drill rig

VALUE Metal scoop
VALUE InterOcean SeaBoss (osprey config)
VALUE MicroSEABOSS (a.k.a. SEABOSSpro, a.k.a. GoProSEABOSS)
VALUE Scoop
VALUE Rock Dredge
VALUE vanveen
VALUE ROV push core
DESCRIPTION OF VALUES
Character string of width 254

FIELD MONTH_COLL
* DATA TYPE Double
* WIDTH 8
* ALIAS MONTH_COLL
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Calendar month sample collected. No data value -9999.
DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary
RANGE OF VALUES
MINIMUM VALUE 1
MAXIMUM VALUE 12
UNITS OF MEASURE month of year
MEASUREMENT RESOLUTION 1

FIELD DAY_COLL
* DATA TYPE Double
* WIDTH 8
* ALIAS DAY_COLL
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Calendar day sample collected. No data value -9999.
DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary
RANGE OF VALUES
MINIMUM VALUE 1
MAXIMUM VALUE 31
UNITS OF MEASURE day of month
MEASUREMENT RESOLUTION 1

FIELD YEAR_COLL
* DATA TYPE Double
* WIDTH 8
* ALIAS YEAR_COLL
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Calendar year sample collected. No data value -9999.
DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary
RANGE OF VALUES
MINIMUM VALUE 1955
MAXIMUM VALUE 2014
UNITS OF MEASURE year
MEASUREMENT RESOLUTION 1

FIELD MONTH_ANAL
* DATA TYPE Double
* WIDTH 8
* ALIAS MONTH_ANAL
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Calendar month sample completed analysis. No data value -9999.
DESCRIPTION SOURCE
USGS Woods Hole Coastal and Marine Science Center Sediment Laboratory
RANGE OF VALUES
MINIMUM VALUE 1
MAXIMUM VALUE 12
UNITS OF MEASURE month of year
MEASUREMENT RESOLUTION 1

FIELD DAY_ANAL

* Data type Double
* Width 8
* Alias DAY_ANAL
* Precision 0
* Scale 0

Field description
Calendar day sample completed analysis. No data value -9999.

Description source
USGS Woods Hole Coastal and Marine Science Center Sediment Laboratory

Range of values
Minimum value 1
Maximum value 31
Units of measure day of month
Measurement resolution 1

Field YEAR_ANAL
* Data type Double
* Width 8
* Alias YEAR_ANAL
* Precision 0
* Scale 0

Field description
Calendar year sample completed analysis. No data value -9999.

Description source
USGS Woods Hole Coastal and Marine Science Center Sediment Laboratory

Range of values
Minimum value 1969
Maximum value 2014
Units of measure year
Measurement resolution 1

Field WEIGHT
* Data type Double
* Width 8
* Alias WEIGHT
* Precision 0
* Scale 0

Field description
Weight of dry sample in grams. No data value -9999.

Description source
USGS East Coast Sediment Texture Database data dictionary

Range of values
Minimum value 0.01
Maximum value 9086.1
Units of measure grams
Measurement resolution .0001

Field GRAVEL_PCT
* Data type Double
* Width 8
* Alias GRAVEL_PCT
* Precision 0
* Scale 0

Field description
Gravel content in percent dry weight of the sample (particles with nominal diameters greater than 2 mm; -1 Phi and larger). No data value -9999.

Description source
USGS East Coast Sediment Texture Database data dictionary

Range of values
Minimum value 0.00
Maximum value 100.00
Units of measure percent
Measurement resolution .01

Field SAND_PCT
* Data type Double
* Width 8
* Alias SAND_PCT
* Precision 0
* Scale 0

Field description
Sand content in percent dry weight of the sample (particles with nominal diameters less than 2 mm, but greater than or equal to 0.0625 mm; 0 Phi through 4 Phi). No data value -9999.

Description source
USGS East Coast Sediment Texture Database data dictionary

Range of values
Minimum value 0.00
Maximum value 102
Units of measure percent
Measurement resolution .01

Field SILT_PCT
* Data type Double
* Width 8
* Alias SILT_PCT
* Precision 0
* Scale 0
Field description
Silt content in percent dry weight of the sample (particles with nominal diameters less than 0.0625 mm, but greater than or equal to 0.004 mm; 5 Phi through 8 Phi, inclusive). No data value -9999.
Description source
USGS East Coast Sediment Texture Database data dictionary
Range of values
Minimum value 0.00
Maximum value 100.00
Units of measure percent
Measurement resolution .01

Field CLAY_PCT
* Data type Double
* Width 8
* Alias CLAY_PCT
* Precision 0
* Scale 0
Field description
Clay content in percent dry weight of the sample (particles with nominal diameters less than 0.004 mm; 9 Phi and smaller). No data value -9999.
Description source
USGS Woods Hole Coastal and Marine Science Center Sediment Laboratory
Range of values
Minimum value 0.00
Maximum value 94.71
Units of measure percent
Measurement resolution .01

Field CLASSIFICA
* Data type String
* Width 254
* Alias CLASSIFICA
* Precision 0
* Scale 0
Field description
Sediment Classification - Sediment description based on a rigorous definition, usually Shepard (1954) as modified by Schlee and Webster (1967), Schlee (1973), and Poppe and others (2005). A blank cell means a classification was not recorded for the sample.
Description source
USGS Woods Hole Coastal and Marine Science Center Sediment Laboratory
List of values
Value BEDROCK
Description Solid rock.
Enumerated domain value definition source USGS East Coast Sediment Texture Database data dictionary
Value BOULDERS
Enumerated domain value definition source USGS East Coast Sediment Texture Database data dictionary
Description Rocks with diameters greater than 256 mm.
Value CLAY
Enumerated domain value definition source USGS East Coast Sediment Texture Database data dictionary
Description Sediment whose main phase is less than 0.004 mm.
Value CLAYEY SAND
Enumerated domain value definition source USGS East Coast Sediment Texture Database data dictionary
Description Sediment whose main phase is sand, but with significant clay.
Value CLAYEY SILT
Enumerated domain value definition source USGS East Coast Sediment Texture Database data dictionary
Description Sediment whose main phase is silt, but with significant clay.

VALUE GRAVEL
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is >2 mm.
VALUE GRAVELLY SEDIMENT
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is >2 mm, but with significant other sediment. Gravel > 10 percent.
VALUE SAND
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is less than 2 mm, but greater than or equal to 0.062 mm.
VALUE SAND SILT CLAY
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment with significant (over 20 percent) sand, silt, and clay.
VALUE SANDY CLAY
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is clay, but with significant sand.
VALUE SANDY SILT
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is silt, but with significant sand.
VALUE SILT
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is less than 0.0625 mm, but greater than or equal to 0.004 mm.
VALUE SILTY CLAY
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase is clay, but with significant silt.
VALUE SILTY SAND
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
DESCRIPTION Sediment whose main phase in sand, but with significant silt.
VALUE MUD
DESCRIPTION Sediment whose main phase is less than 0.0625 mm
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary
VALUE MUDDY SAND
DESCRIPTION Sediment whose main phase is sand, but with significant silt and clay.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE USGS East Coast Sediment Texture Database data dictionary

DESCRIPTION OF VALUES
Character string of width 19.

FIELD MEDIAN
* DATA TYPE Double
* WIDTH 8
* ALIAS MEDIAN
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Middle point in the grain size distribution in phi units. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE -7.35
MAXIMUM VALUE 10.74
UNITS OF MEASURE phi
MEASUREMENT RESOLUTION .01

FIELD MEAN
* DATA TYPE Double
* WIDTH 8
* ALIAS MEAN
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Average value in the grain size distribution in phi units. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

Range of values

Minimum value -5.93

Maximum value 10.62

Units of measure phi

Measurement resolution .01

Field STDEV

* Data type Double
* Width 8
* Alias STDEV
* Precision 0
* Scale 0

Field description

Standard deviation (root mean square of the deviations) of the grain size distribution in phi units (sorting). No data value -9999.

Description source

USGS East Coast Sediment Texture Database data dictionary

Range of values

Minimum value 0

Maximum value 6.43

Units of measure phi

Measurement resolution .01

Field SKEWNESS

* Data type Double
* Width 8
* Alias SKEWNESS
* Precision 0
* Scale 0

Field description

Skewness (deviation from symmetrical form) of the grain size distribution in phi units. No data value -9999. Calculated values less than -50 and greater than 50 have been set to -9999 as they are erroneous.

Description source

USGS East Coast Sediment Texture Database data dictionary

Range of values

Minimum value -14.78

Maximum value 37.19

Units of measure phi

Measurement resolution .01

Field KURTOSIS

* Data type Double
* Width 8
* Alias KURTOSIS
* Precision 0
* Scale 0

Field description

Kurtosis (degree of curvature near the mode) of the grain size distribution in phi units. No data value -9999. Calculated values less than -50 and greater than 50 were set to -9999 as they are erroneous.

Description source

USGS East Coast Sediment Texture Database data dictionary

Range of values

Minimum value -49.56

Maximum value 49.98

Units of measure phi

Measurement resolution .01

Field MODE1CLASS

* Data type Double
* Width 8
* Alias MODE1CLASS
* Precision 0
* Scale 0

Field description

Mode 1 class - First mode (particle size that occurs the most number of times) in phi units. Although values are reported from -5 phi to 11 phi, older datasets recorded values beyond this range and modes can occur outside this range. No data value -9999.

Description source

USGS East Coast Sediment Texture Database data dictionary

Range of values

Minimum value -7.500

Maximum value 10.600

FIELD MODE1FREQ
* DATA TYPE Double
* WIDTH 8
* ALIAS MODE1FREQ
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Mode 1 strength - Modal strength of the first mode in percent. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0.00
MAXIMUM VALUE 100.00
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD MODE2CLASS
* DATA TYPE Double
* WIDTH 8
* ALIAS MODE2CLASS
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Mode 2 class - Second mode in phi units. Although values are reported from -5 phi to 11 phi, older datasets recorded values beyond this range and modes can occur outside this range. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE -7.50
MAXIMUM VALUE 13.40
UNITS OF MEASURE phi
MEASUREMENT RESOLUTION .01

FIELD MODE2FREQ
* DATA TYPE Double
* WIDTH 8
* ALIAS MODE2FREQ
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Mode 2 strength - Modal strength of the second mode in percent. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0.00
MAXIMUM VALUE 60.50
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD MODE3CLASS
* DATA TYPE Double
* WIDTH 8
* ALIAS MODE3CLASS
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Mode 3 class - Third mode in phi units. Although values are reported from -5 phi to 11 phi, older datasets recorded values beyond this range and modes can occur outside the range. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE -6.50
MAXIMUM VALUE 15.40
UNITS OF MEASURE phi
MEASUREMENT RESOLUTION .01

FIELD MODE3FREQ
* DATA TYPE Double
* WIDTH 8
* ALIAS MODE3FREQ
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Mode 3 strength - Modal strength of the third mode in percent. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0

MAXIMUM VALUE 18.15

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD NMODES

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

FIELD DESCRIPTION

Number of modes. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 1

MAXIMUM VALUE 5

UNITS OF MEASURE integer count

MEASUREMENT RESOLUTION 1

FIELD PHIM5

* DATA TYPE Double
* WIDTH 8
* ALIAS PHIM5
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

-5 Phi - Weight percent of the sample in the -5 Phi fraction and larger (nominal diameter of particles greater than or equal to 32 mm); very coarse pebbles, cobbles, and boulders. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 100.00

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHIM4

* DATA TYPE Double
* WIDTH 8
* ALIAS PHIM4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

-4 Phi - Weight percent of the sample in the -4 Phi fraction (nominal diameter of particles greater than or equal to 16 mm, but less than 32 mm); coarse pebbles. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 100.00

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHIM3

* DATA TYPE Double
* WIDTH 8
* ALIAS PHIM3
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

-3 Phi - Weight percent of the sample in the -3 Phi fraction (nominal diameter of particles greater than or equal to 8 mm, but less than 16 mm); medium pebbles. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 100.00

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHIM2
* DATA TYPE Double
* WIDTH 8
* ALIAS PHIM2
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
-2 Phi - Weight percent of the sample in the -2 Phi fraction (nominal diameter of particles greater than or equal to 4 mm, but less than 8 mm); fine pebbles. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0
MAXIMUM VALUE 64.43
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHIM1
* DATA TYPE Double
* WIDTH 8
* ALIAS PHIM1
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
-1 Phi - Weight percent of the sample in the -1 Phi fraction (nominal diameter of particles greater than or equal to 2 mm, but less than 4 mm); very fine pebbles (granules). No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0.00
MAXIMUM VALUE 97.00
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_0
* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_0
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
0 Phi - Weight percent of the sample in the 0 Phi fraction (nominal diameters of particles greater than or equal to 1 mm, but less than 2 mm); very coarse sand. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0
MAXIMUM VALUE 86.00
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_1
* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_1
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
1 Phi - Weight percent of the sample in the 1 Phi fraction (nominal diameter of particles greater than or equal to 0.5 mm, but less than 1 mm); coarse sand. No data value -9999.

DESCRIPTION SOURCE
USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES
MINIMUM VALUE 0.00
MAXIMUM VALUE 92.67
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_2
* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_2

* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

2 Phi - Weight percent of the sample in the 2 Phi fraction (nominal diameter of particles greater than or equal to 0.25 mm, but less than 0.5 mm); medium sand. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00
MAXIMUM VALUE 96.00
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_3

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_3
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

3 Phi - Weight percent of the sample in the 3 Phi fraction (nominal diameter of particles greater than or equal to 0.125 mm, but less than 0.25 mm); fine sand. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00
MAXIMUM VALUE 95.92
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_4

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

4 Phi - Weight percent of the sample in the 4 Phi fraction (nominal diameters of particles greater than or equal to .0625 mm, but less than 0.125 mm); very fine sand. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00
MAXIMUM VALUE 92.75
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_5

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_5
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

5 Phi - Weight percent of the sample in the 5 Phi fraction (nominal diameter of particles greater than or equal to 0.031 mm, but less than 0.0625 mm); coarse silt. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00
MAXIMUM VALUE 80.51
UNITS OF MEASURE percent
MEASUREMENT RESOLUTION .01

FIELD PHI_6

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_6
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

6 Phi - Weight percent of the sample in the 6 Phi fraction (nominal diameter of particles greater than or equal to 0.016 mm, but less than 0.031 mm); medium silt. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 68.32

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHI_7

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_7
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

7 Phi - Weight percent of the sample in the 7 Phi fraction (nominal diameter of particles greater than or equal to 0.008 mm, but less than 0.016 mm); fine silt. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 47.57

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHI_8

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

8 Phi - Weight percent of the sample in the 8 Phi fraction (nominal diameter of particles greater than or equal to 0.004 mm, but less than 0.008 mm); very fine silt. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 47.90

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHI_9

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_9
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

9 Phi - Weight percent of the sample in the 9 Phi fraction (nominal diameter of particles greater than or equal to 0.002 mm, but less than 0.004 mm); coarse clay. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0

MAXIMUM VALUE 45.55

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

FIELD PHI_10

* DATA TYPE Double
* WIDTH 8
* ALIAS PHI_10
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

10 Phi - Weight percent of the sample in the 10 Phi fraction (nominal diameter of particles greater than or equal to 0.001 mm, but less than 0.002 mm); medium clay. No data value -9999.

DESCRIPTION SOURCE

USGS East Coast Sediment Texture Database data dictionary

RANGE OF VALUES

MINIMUM VALUE 0.00

MAXIMUM VALUE 59.53

UNITS OF MEASURE percent

MEASUREMENT RESOLUTION .01

Field PHI_11
* Data type Double
* Width 8
* Alias PHI_11
* Precision 0
* Scale 0

Field description
11 Phi - Weight percent of the sample in the 11 Phi fraction and smaller (nominal diameter of particles less than 0.001 mm); fine clay. No data value -9999.

Description source
USGS East Coast Sediment Texture Database data dictionary

Range of values
Minimum value 0.00
Maximum value 87.3
Units of measure percent
Measurement resolution .01

Field ANALYST
* Data type String
* Width 254
* Alias ANALYST
* Precision 0
* Scale 0

Field description
Name (usually first initial and last name) of person who performed the grain size or physical properties analysis, if available.

Description source
USGS East Coast Sediment Texture Database data dictionary

Description of values
Character string of width 254.

Field ANAL_COMM
* Data type String
* Width 254
* Alias ANAL_COMM
* Precision 0
* Scale 0

Field description
Comments on analyses - Any further information about sediment analysis for all or specific parameters in this table, if available.

Description source
USGS East Coast Sediment Texture Database data dictionary

Description of values
Character string of width 254.

Field LITHOLOGY
* Data type String
* Width 254
* Alias LITHOLOGY
* Precision 0
* Scale 0

Field description
General lithologic description of sample

Description source
USGS East Coast Sediment Texture Database data dictionary

Description of values
Character string of width 254.

Field COMMENTS
* Data type String
* Width 254
* Alias COMMENTS
* Precision 0
* Scale 0

Field description
Comments on sample collection or lithology, if available.

Description source
USGS East Coast Sediment Texture Database data dictionary

Description of values
Character string of width 254.

Overview Description

Entity and Attribute Overview
Location and sediment analysis results for approximately 28,000 samples collected and analyzed by the U.S. Geological Survey, Woods Hole Coastal and Marine Science Center through March 2014. We caution users of this data that in a few samples from some of the older data (from

groups 1 and 2), fraction weights and phi weight percents do not add up to 100 +/- 2 percent. This is noted for each affected sample in the Comments section.

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 2017-01-03
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 2016-12-19 12:51:02
  Last modified in ArcGIS for the item 2017-01-03 12:27:03
  Automatic updates
    Have been performed Yes
    Last update 2017-01-03 12:18:12