

The following was presented at DMT'08
(May 18-21, 2008).

The contents are provisional and will be
superseded by a paper in the
DMT'08 Proceedings.

See also earlier Proceedings (1997-2007)

<http://ngmdb.usgs.gov/info/dmt/>

Field Data Entry Tools for Kentucky Sites

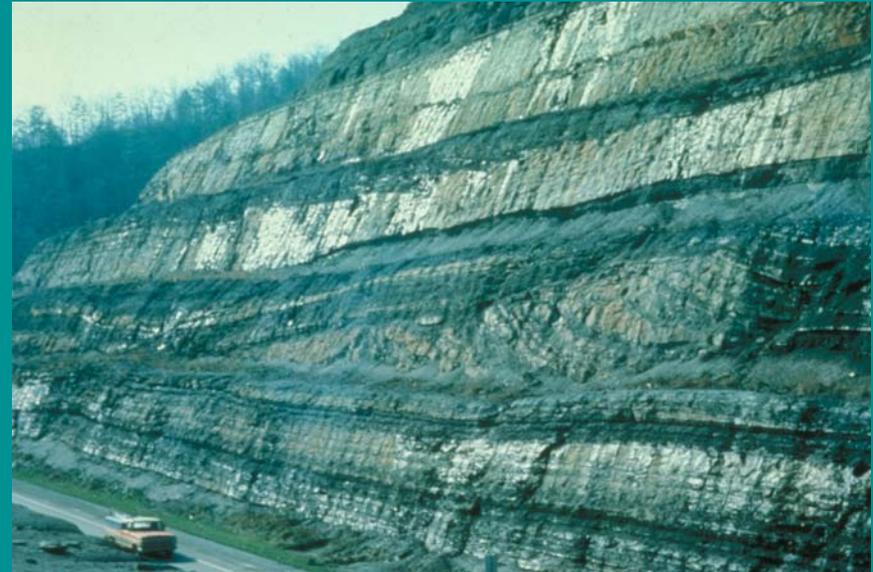
Jerry Weisenfluh and Doug Curl

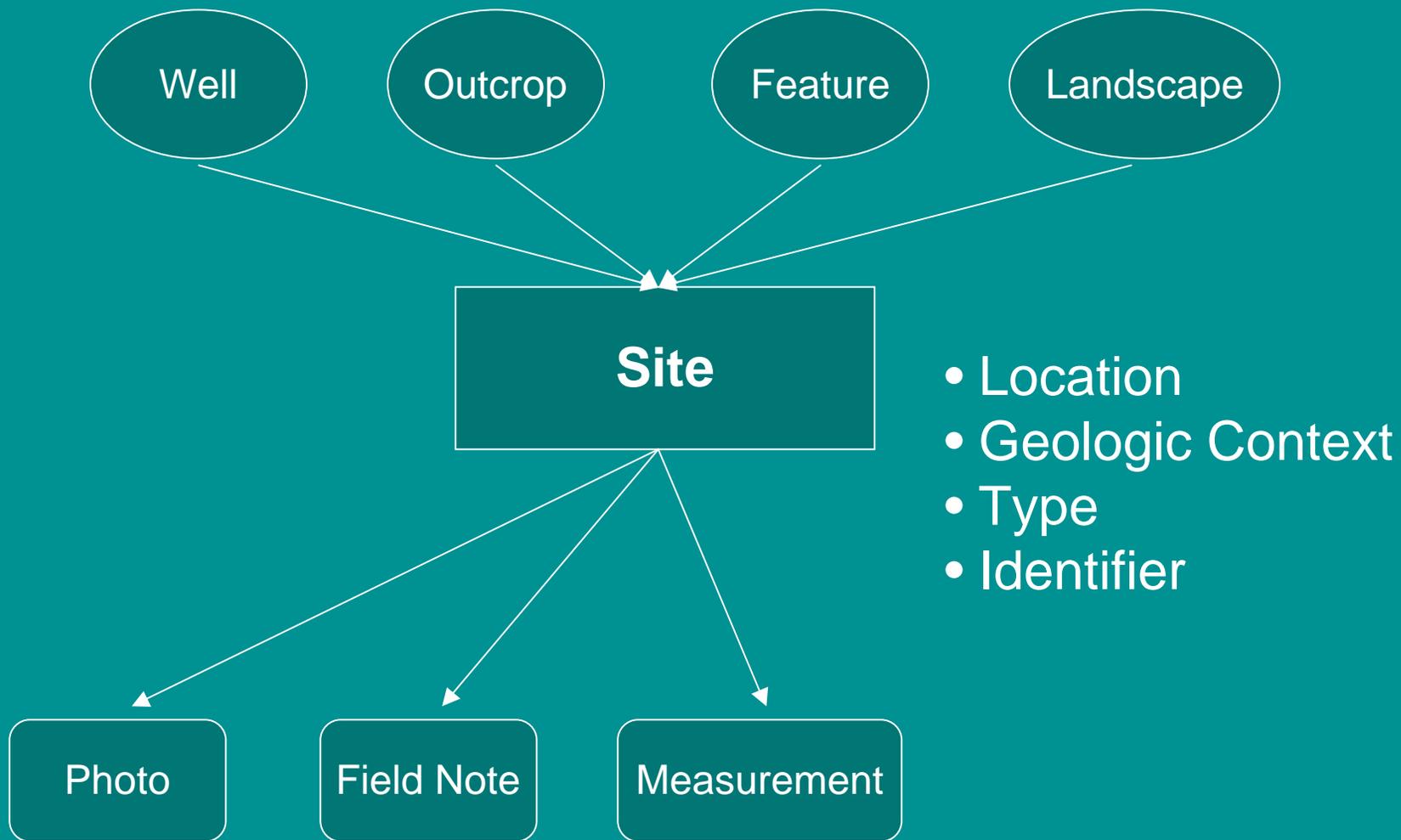
Kentucky Geological Survey

Digital Mapping Techniques '08

Moscow, Idaho

A Variety of Site Characteristics





Harvesting well data for the Quaternary Mapping Program

Kentucky Geological Survey
Existing Data Entry Tool

| | | | | | | | | |
|--|--|-----------------------|------------|------------------------|----------|----------|---------|-------------------------------------|
| <input type="button" value="view/edit"/> | no data | <input type="radio"/> | - Delaware | 54288 | n/a | domestic | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 75259 | 00001568 | 18 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 75262 | 00001585 | 16 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 83071 | 00021428 | 46 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 85841 | 00030826 | 40 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 89705 | 00040475 | 80 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 89706 | 00040476 | 45 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 90539 | 00042811 | 0 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 97362 | 00052407 | 12 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 103555 | 80004160 | 0 | 1:12000 | <input type="button" value="Zoom"/> |
| <input type="button" value="view/edit"/> | <input type="button" value="show"/> <input type="button" value="del"/> | <input type="radio"/> | - Delaware | 103556 | 80004161 | 0 | 1:12000 | <input type="button" value="Zoom"/> |

Total Depth (ft): 200
Depth To Bedrock (ft): 80
Static Water Level (ft): 1
Primary Use: Livestock

Water Well Lithology Report

| select splits | Litho From (ft) | Litho To (ft) | Thickness (ft) | Lithologic Description | Flow Quantity | Flow Units |
|----------------------------|-----------------|---------------|----------------|------------------------|---------------|------------|
| <input type="checkbox"/> 1 | 0 | 14 | 14 | SOIL | 0 | |
| <input type="checkbox"/> 1 | 17 | 34 | 17 | SOIL | 0 | |
| <input type="checkbox"/> 1 | 34 | 80 | 46 | DARK GRAY QUICKSAND | 0 | |
| <input type="checkbox"/> 1 | 80 | 121 | 41 | DARK GRAY SANDY SHALE | 6 | GPM |
| <input type="checkbox"/> 1 | 121 | 132 | 11 | MUD SHALE | 0 | |
| <input type="checkbox"/> 1 | 132 | 135 | 3 | COAL | 0 | |
| <input type="checkbox"/> 1 | 135 | 139 | 4 | LIME | 0 | |
| <input type="checkbox"/> 1 | 139 | 144 | 5 | SHALE | 0 | |
| <input type="checkbox"/> 1 | 144 | 167 | 23 | SAND | 40 | GPM |
| <input type="checkbox"/> 1 | 167 | 200 | 33 | SHALE | 0 | |

Water Well Casing Report

| Casing Start Date | From (ft) | To (ft) | Interval (ft) | Hole Inside Diameter (in) | Casing Inside Diameter (in) | Casing Type | Screen Slot Size |
|-------------------|-----------|---------|---------------|---------------------------|-----------------------------|-------------|------------------|
| 6/18/1996 | 0 | 80 | 80 | 10 | 8 | Steel | |
| 6/18/1996 | 3 | 80 | 77 | 10 | 6 | PVC | |
| 6/18/1996 | 80 | 85 | 5 | 8 | 6 | PVC | |
| 6/18/1996 | 100 | 144 | 44 | 8 | 6 | PVC | |

This WATER WELL (KGS ID = 89705) already has a profile (Profile = 2766).

Data Entry Pane

Oil and Gas Well Records

Page 1

Page 2

Page 3

Page 4

Page 5

99%

Location (water): 20-0-21

Well No: 1 County: Union Elev: 375 gr.

District: _____

Drilling Commenced: 12-5-63

Drilling Completed: 12-9-63

Name of Contractor: Big Seven Drlg. Co.

Address of Contractor: Evansville, Ind.

Date Shot: none From: _____ To: _____

With: _____

Open flow /10ths Water in: _____ Inch

/10ths Merc. in: _____ Inch

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas & Coal or Water |
|-------------|-----------|--------------|--------------------------|--------|--------------------------|
| <u>FROM</u> | <u>TO</u> | | <u>FORMATION</u> | | |
| 0 | 175 | | Surface - Sand and shale | | |
| 175 | 305 | | Shale and shaly sand | | |
| 305 | 630 | | Sand and sandy shale | | |
| 630 | 940 | | Shale and sand | | |
| 940 | 1050 | | Sand | | |
| 1050 | TD | | | | |

Profile ID: **2993**

Login Number (scribe): **1119**

surface elevation (ft):

depth to bedrock (ft): footage error:

depth to bedrock comment:

profile date:

profile year:

profile - upper frcode:

profile - lower frcode:

profile comment:

Row 1: litho type:

lithology code:

description:

from (ft): to (ft):

comment:

submit form to enter this data into database



Water Well Records

KGS ID: 27460
Quadrangle: Tell City
County: Hancock
Surface Elev (ft): 420
Total Depth (ft): 162.5
Depth To Bedrock (ft): 128
Static Water Level (ft):
Primary Use: Monitoring

Water Well Lithology Report

| select | splits | Litho From (ft) | Litho To (ft) | Thickness (ft) | Lithologic Description | Flow Quantity | Flow Units |
|-------------------------------------|--------|-----------------|---------------|----------------|---|---------------|------------|
| <input checked="" type="checkbox"/> | 1 | 0 | 90 | 90 | FINE TO MEDIUM SAND WITH SMALL GRAVEL | 0 | |
| <input checked="" type="checkbox"/> | 1 | 90 | 105 | 15 | BROWN SILTY SAND SOME BOULDERS FINE WET SAND AND GRAVEL | 0 | |
| <input checked="" type="checkbox"/> | 1 | 105 | 128 | 23 | COARSE SAND GRAVEL, LOTS OF BOULDERS | 0 | |
| <input checked="" type="checkbox"/> | 1 | 128 | 162.5 | 34.5 | HARD SHALE, LIGHT SANDSTONE VERY HARD | 0 | |

submit these selections for data entry

Water Well Casing Report

| Casing Start Date | From (ft) | To (ft) | Interval (ft) | Hole Inside Diameter (in) | Casing Inside Diameter (in) | Casing Type | Screen Slot Size |
|-------------------|-----------|---------|---------------|---------------------------|-----------------------------|-------------|------------------|
| 12/19/1993 | 0 | 43 | 43 | 12.5 | 6.25 | STEEL | |
| 12/19/1993 | 0 | 43 | 43 | 12.5 | 8 | STEEL | |
| 12/19/1993 | 0.02 | 162.5 | 162.48 | | | PLUGGED | |
| 12/19/1993 | 43 | 128 | 85 | 9 | 8 | STEEL | |
| 12/19/1993 | 43 | 128 | 85 | 9 | 6.25 | STEEL | |
| 12/19/1993 | 128 | 138.5 | 10.5 | 8 | 6.25 | STEEL | |
| 12/19/1993 | 138.5 | 162.5 | 24 | 3 | | NONE | |

Data entry for WATER WELL ID #: 27460

Profile ID: 2994

Login Number (scribe): 1119

surface elevation (ft): 420

depth to bedrock (ft): 128 footage error: 1

depth to bedrock comment:

profile date: 12/19/1993

profile year:

profile - upper fmcode: Unknown

profile - lower fmcode: Unknown

profile comment:

Row 1: litho type: no description

lithology code:

description: FINE TO MEDIUM SAND WITH SMALL

from (ft): 0 to (ft): 90

comment:



Site Information

| profile_id | profile_type | stratigraphic_thi | measured_from | record_number | construction_id |
|------------|-----------------|-------------------|---------------|---------------|-----------------|
| 4210 | q_coal_borehole | 100 | | | |
| 4211 | q_coal_borehole | 42 | | | |
| 4212 | q_water_well | 28.5 | | | 107524 |
| 4213 | q_coal_borehole | 23.5 | | | |
| 4214 | q_water_well | 56 | | | 107523 |
| 4215 | q_coal_borehole | 20 | | | |
| 4216 | q_water_well | 56 | | | 107522 |
| 4217 | q_water_well | 56 | | | 107521 |
| 4218 | q_coal_borehole | 20 | | | |
| 4219 | q_water_well | 86 | | | 107520 |
| 4220 | q_water_well | 47 | | | 110087 |
| 4221 | q_water_well | 34 | | | 110086 |
| 4222 | q_coal_borehole | 44.5 | | | |
| 4223 | q_water_well | 64 | | | 110085 |

Database

Depth to Bedrock

| surface_elevation | bedrock_depth | footage_error | comment | profile_id |
|-------------------|---------------|---------------|------------------------------------|------------|
| 385 | 36 | 2 | | 2439 |
| 474.9 | 15 | 1 | orig. bedrock at 30.92 | 2466 |
| 520.8 | 5.6 | 1 | | 2467 |
| 400 | 101 | 1 | determined from header information | 2468 |
| 432 | 39 | 1 | orig. bedrock at 42.5 | 2470 |
| 519.8 | 3 | 1 | | 2472 |
| 537.75 | 5 | 1 | | 2473 |
| 450 | 8 | 1 | | 2474 |
| 448 | 6 | 1 | orig. bedrock at 39 | 2475 |
| 425 | 24 | 1 | | 2481 |
| 460 | 4 | 1 | | 2482 |
| 480 | 18 | 1 | | 2486 |
| 390 | 22 | 10 | questionable depth to bedrock | 2487 |
| 375 | 80 | 1 | | 2488 |

Unconsolidated Lithologies

| from_ft | to_ft | litho_type | lithology_text | comment |
|---------|-------|------------|-------------------------|--------------------|
| 7 | 12 | U | red brown clayey silt | |
| 12 | 31 | B | med lt gray silty shale | |
| 0 | 10 | S | soil | |
| 10 | 40 | U | blue muck & quick sand. | weathered bedrock? |
| 40 | 60 | B | sandstone | |
| 0 | 10 | S | soil | |
| 10 | 35 | U | quick sand | weathered bedrock? |
| 35 | 42 | U | blue muck | weathered bedrock? |
| 42 | 46 | B | mud shale | |
| 0 | 13 | U | lt brown silt | |
| 13 | 13.5 | B | med light gray shale | |
| 0 | 11.5 | U | brown red clay | |
| 11.5 | 37 | B | sandstone | |
| 0 | 14 | S | soil | |



KY MAPS Map Scale: choose a map scale Enter a Custom Map Scale:



DATA ENTRY

+ about this data location (profile id - 11487)

* displays information about the selected profile (from the profiles table)

+ add/show text description(s) (field note)

* enter a text description/field note into the DescriptionText table for the current profile (details shown above)

+ add an image

* add an image for the current profile

+ add depth to bedrock

* add depth to bedrock data into the depth_to_bedrock table for the current profile (details shown above)

+ add a measured section

* add a measured section into the measured_section_details and _headers tables for the current profile

Map Legend Map Layers Field Data Outcrop/Observation Points

- uploaded waypoints:

- click the "upload a waypoint file" button to load a waypoint file for viewing locations and assignment of profile id's

- outcrops & observations (📍):

limit records:

- only list records entered by current scribe (id = 1162)
- only list records within the current extent (default: current extent plus 100,000 ft)

*click header to sort by that field
 *click profile id to view all data for a profile
 *yellow highlighted profile id's are profiles within the current extent

key to icons:

- yellow icon highlight indicates images 📷 or descriptions 📄 have been entered by the current user for the profile.
- left-side superscript ² 📷 = total number of images/descripts for that profile
- right-side subscript 📷 = total number of images/descripts entered by the current user
- depth to bedrock (1 per profile): 📏

| profile id | type outcrop id | name | date | zoom | edit | flag |
|------------|-----------------|--------------|-----------|------|------|------|
| 1164 | outcrop Q520006 | | | 🔍 | 📄 | 🚩 |
| 1165 | outcrop Q520007 | | | 🔍 | 📄 | 🚩 |
| 1166 | outcrop Q520008 | | | 🔍 | 📄 | 🚩 |
| 1167 | outcrop Q520009 | | | 🔍 | 📄 | 🚩 |
| 1168 | outcrop Q520010 | | | 🔍 | 📄 | 🚩 |
| 11487 | outcrop Q520015 | Colluvium. 📷 | 10/3/2007 | 🔍 | 📄 | 🚩 |
| 11488 | outcrop Q520016 | Colluvium. 📷 | 10/3/2007 | 🔍 | 📄 | 🚩 |



Create Site Id From GPS Readings

Kentucky Geological Survey waypoints upload tool

Upload A Waypoints Text File:

Does file contain a header row? YES NO

Text File Must Follow These Format Rules:

- must be smaller than 1 MB
- must indicate (above) if file contains a header row
- header row column names **cannot** contain spaces
- header row column names must be **UNIQUE**
- must be comma-delimited
- must contain at least 4 columns:
- 1st column = id number (*must be a number*)
- 2nd column = latitude/northing/y (*must be a number*)
- 3rd column = longitude/easting/x (*must be a number*)
- 4th column = label field (*text* - can be id number and must be less than 12 characters)
- can have as many columns as necessary after the first four columns

Select the Datum and Projection of the Coordinates in Your Data File:

| SELECT A DATUM | SELECT A PROJECTION |
|---|--|
| | Latitude/Longitude (decimal degree) <input checked="" type="radio"/> |
| North American Datum 1927 (NAD-27) <input type="radio"/> | UTM Zone 17 (meters) <input type="radio"/> |
| | UTM Zone 16 (meters) <input type="radio"/> |
| | KY State Plane Single Zone (US Feet) <input type="radio"/> |
| North American Datum 1983 (NAD-83) <input checked="" type="radio"/> | KY State Plane South Zone (US Feet) <input type="radio"/> |
| | KY State Plane North Zone (US Feet) <input type="radio"/> |

note: KY State Plane Single Zone is **NOT** available for NAD 27 Datum

| ID | Latitude | Longitude | Label | Looking | MP |
|----|----------|-----------|-------|---------|------|
| 1 | 37.89521 | 85.11089 | 1 | N/S | 44.3 |
| 2 | 37.87599 | 85.18356 | 2 | S | 39.9 |
| 3 | 37.87615 | 85.20144 | 3 | N/S | 39.1 |
| 4 | 37.88285 | 85.22426 | 4 | N | 37.3 |
| 5 | 37.88378 | 85.2447 | 5 | N/S | 36.5 |
| 6 | 37.8778 | 85.2709 | 6 | N/S | 35.1 |
| 7 | 37.8646 | 85.3163 | 7 | N/S | 32.3 |
| 8 | 37.83189 | 85.38549 | 8 | N/S | 27.9 |
| 9 | 37.79835 | 85.42886 | 9 | S | 24.5 |
| 10 | 37.7768 | 85.46988 | 10 | S | 21.7 |
| 11 | 37.78227 | 85.48193 | 11 | N/S | 20.8 |
| 12 | 37.76153 | 85.60671 | 12 | S | 13.5 |
| 13 | 37.72189 | 85.73766 | 13 | S | 5.7 |



KY MAPS Map Scale: choose a map scale Enter a Custom Map Scale:



DATA ENTRY

+ about this data location (profile id - 11487)

* displays information about the selected profile (from the profiles table)

+ add/show text description(s) (field note)

* enter a text description/field note into the DescriptionText table for the current profile (details shown above)

+ add an image

* add an image for the current profile

+ add depth to bedrock

* add depth to bedrock data into the depth_to_bedrock table for the current profile (details shown above)

+ add a measured section

* add a measured section into the measured_section_details and _headers tables for the current profile

[Map Legend](#) [Map Layers](#) [Field Data Outcrop/Observation Points](#)

- uploaded waypoints:

- click the "upload a waypoint file" button to load a waypoint file for viewing locations and assignment of profile id's

- outcrops & observations ():

limit records:

- only list records entered by current scribe (id = 1162)
- only list records within the current extent (default: current extent plus 100,000 ft)

*click header to sort by that field

*click profile id to view all data for a profile

*yellow highlighted profile id's are profiles within the current extent

key to icons:

- yellow icon highlight indicates images or descriptions have been entered by the current user for the profile.
- left-side superscript ² = total number of images/descripts for that profile
- right-side subscript ₁ = total number of images/descripts entered by the current user
- depth to bedrock (1 per profile):

| profile id | type outcrop id | name | date | zoom | edit | flag |
|------------|--------------------|---------------|-----------|------|------|------|
| 1164 | outcrop Q520006 | | | | | |
| 1165 | outcrop Q520007 | | | | | |
| 1166 | outcrop Q520008 | | | | | |
| 1167 | outcrop Q520009 | | | | | |
| 1168 | outcrop Q520010 | | | | | |
| 11487 | outcrop Q520015 | Colluvium | 10/3/2007 | | | |
| 11488 | outcrop Q520016 | Colluvium | 10/3/2007 | | | |

- enter fmcode(s):

(if it has more than one code, please use a ; to separate them)

+ Display Fmcode Finder

- - add depth to bedrock:

* add depth to bedrock data into the depth_to_bedrock table for the current profile (details shown above)

-

- surface elevation (ft):

- depth to bedrock (ft):

- footage error:

-

- depth to bedrock comment:

- - add an image:

* add an image for the current profile

IMAGE ENTRY FORM (a new page will appear)

* **NOTE:** you may be prompted to login. If so, then 1) login, 2) close the new window, and 3) try this tool again.

**Once an image is submitted, re-click the edit button on the right for this profile in order to view the entered image below.

Photos already entered for this profile:

| photo id | photo caption (link to photo) | thumbnail |
|----------|--|---|
| 873 | Colluvium, accumulation zone (Ca), approx. 15 ft thick; silt-sized particles to large rocks, matrix supported, largest clast is approx. 1.5 ft by .5 ft. by ?. Base of Ca in contact with Alluvium in stream. Approx. 25% gravel, 25% sand, 40% silt, and 10 % clay. Low plasticity. USCS field identification ranges from a Silty Gravel (GM) to Silty Sand (SM). |  |

Update Site Description

DATA ENTRY

- about this data location (profile id - 11487):

* displays information about the selected profile (from the profiles table).

- **Location & Coordinates of Selected Point (lat/lon):**

State: KY
 County: Perry
 Quadrangle: Hazard South
 Latitude (Nad 83): 37.216604
 Longitude (Nad 83): -83.185749
 Location Index: 603396
 Region Index: 1115913

- **Profile ID:** 11487

- **Outcrop ID:** Q520015

- **Station ID (Old Profile ID):**

- **Profile Scribe:** 1119 (Crawford, Matt)

- **Profile Type:** outcrop

- **Profile Date:** 10/3/2007

- **Profile Name:** Colluvium

- **Profile Description:**

- **Profile Highway:**

View other field notes at this site

- Text descriptions already entered for this profile:

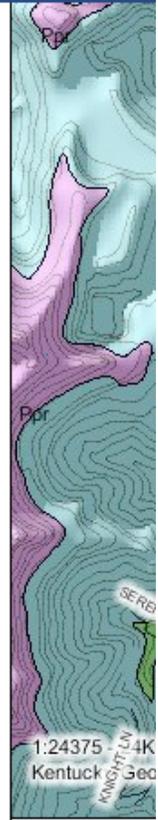
| edit | private? | source name | fmcode(s) | name(s) | category | text |
|---|----------|----------------|-----------|---------|----------|--|
|  | no | Crawford, Matt | 111CLVM | | litho | Colluvium, accumulation zone (Ca), approx. 15 ft thick; silt-sized particles to large rocks, matrix supported, largest clast is approx. 1.5 ft by .5 ft. by ?. Base of Ca in contact with Alluvium in stream. Approx. 25% gravel, 25% sand, 40% silt, and 10 % clay, Low plasticity. USCS field identification ranges from a Silty Gravel (GM) to Silty Sand (SM). |





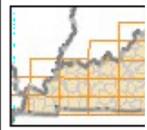
Note: please disable popup blocking software for full functionality.

KGS Home > Maps, Publications & Data > Geologic Map Service



1:24375 - 74K
 Kentucky Geologic Map

Scale = 1:24,375



Lithologic descriptions for areas outlined in orange.

- Lithologic and landform descriptions from SITES in the ID location or area:

(click site coordinates to zoom)

- HIDE SITE DESCRIPTIONS DATA:

lat/lon: 37.223734,-83.174725
 county: Perry
 quadrangle: Hazard South
 Profile ID: 11488

Site Information (has a profile):

| Profile ID | Type | Outcrop ID | Highway | Upper Formation | Lower Formation | Map Zoom |
|------------|---------|------------|---------|-----------------|-----------------|----------------------|
| 11488 | outcrop | Q520016 | | | | zoom |

Photo Information:

**no photo found at location

Descriptions (listed by source):

Description Source (hide descriptions):

Person (unpublished source): Crawford, Matt



Colluvium
 (Quaternary - Quaternary)

Colluvium, transport zone (Ct), possible accumulation zone (Ca)?; thin colluvium mantling base of slope along creek. 10% gravel, 5% sand, 5% clay, and 80% silt. USCS field identification is Silt With Gravel (ML).

- Database Features:

(these are primarily the "Point overlay" features)

Outcrop Location Information:

| Profile ID | Type | Outcrop ID | Highway | Upper Formation | Lower Formation | Map Zoom |
|------------|---------|------------|---------|-----------------|-----------------|----------------------|
| 11488 | outcrop | Q520016 | | | | zoom |

Photo Information:

**no photo found at location

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half page (6.8 x 4.7 in)

[View entire map](#)
 (at same extent)

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ole at current scale:

etailed geology)

K Scale)

[Citizen's guide \(pdf - 25 MB\)](#)

[Citizen's guide \(djvu - 2 MB\)](#)

Contact US

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