

DI-39: LOCATIONS OF MAPPED EARTH FISSURE TRACES IN ARIZONA

Arizona Geological Survey Digital Information 39 (DI-39) version 01.31.16

System Requirements: Microsoft Windows XP or Windows Vista
ESRI ArcGIS Desktop 9.3

Optional: Adobe® Acrobat Reader

Introduction

These earth fissure data were prepared by the Arizona Geological Survey (“AZGS”) in accordance with Ariz. Rev. Stat. § 27-152.01(3). AZGS collected location information from previously conducted earth fissure studies, reviewed available remote-sensing aerial and satellite imagery, and conducted surface site investigations throughout the study area. A reasonable effort was made to identify all earth fissures in each study area. Nonetheless, some fissures may remain unmapped as a result of one or more of the following:

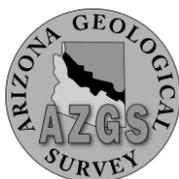
- (1) Existing fissures may have been masked by construction or agricultural activities;
- (2) Incipient fissures may lack clear surface expression; and
- (3) The surface expression of fissures changes constantly as new earth fissures develop and old earth fissures fill in.

A blank area on the map does not guarantee earth fissures are not present. However, blank areas within a study area boundary have been investigated, and no surface evidence of fissures was found as of the date of publication for that particular study area. Determining the presence or absence of a fissure at any specific site may require additional mapping and/or geotechnical analysis.

NOTICE: THE STATE OF ARIZONA HAS MADE A REASONABLE EFFORT TO ENSURE THE ACCURACY OF THIS MAP WHEN IT WAS PRODUCED, BUT ERRORS MAY BE PRESENT AND THE STATE OF ARIZONA DOES NOT GUARANTEE ITS ACCURACY. THE MAP SUPPLEMENTS, AND IS NOT A SUBSTITUTE FOR, A PROFESSIONAL INSPECTION OF PROPERTY FOR DEFECTS AND CONDITIONS

Use Constraints

Neither the Arizona Geological Survey nor the Arizona State Land Department shall be held liable for improper or incorrect use of the data described and/or contained herein. Any alteration or manipulation of the data contained herein constitutes such improper or incorrect use.



PRODUCT OVERVIEW

Shapefiles – This product includes two shapefiles for viewing using ESRI ArcGIS Desktop software.

- *EarthFissureTrace01.26.15*: This line shapefile displays the surface trace of earth fissures mapped by the AZGS, as well as reported, unconfirmed earth fissures within study area boundaries.

Attribute Information:

FissType: Classification of an earth fissure trace.

- Continuous earth fissures manifested as open cracks or gullies.
- Discontinuous earth fissures manifested as elongated to circular depressions or as abbreviated or irregular linear depressions. These discontinuous surface features frequently represent an incipient surface expression of an earth fissure.
- Reported, unconfirmed earth fissures are defined as fissures which could not be confirmed by surface investigations by AZGS geologists, but which have been previously reported by Professional Geologists in published documents or maps.

MappedDate: Date of most recent fissure observation.

- *MapExtent04.05.12*: This polygon shapefile displays the extent of study areas included in the current version of DI-39. A blank area on the map does not guarantee earth fissures are not present. However, blank areas within a study area boundary have been investigated, and no surface evidence of fissures was found as of the date of publication for that particular study area. Determining the presence or absence of a fissure at any specific site may require additional mapping and/or geotechnical analysis.

Attribute Information:

MappedDate: Date of most recent mapping in Study Area.

Metadata – Text file containing FGDC standard metadata for the EarthFissureTrace062209 shapefile.



VERSION HISTORY

- *Version 04.06.08*: The Chandler Heights and Apache Junction study areas, completed Apr. 4th, 2008, released Apr. 23, 2008.
- *Version 08.13.08*: Addition of Mesa, Scottsdale and Toltec Buttes study areas. Also updated the Earth Fissure network in Chandler Heights study area, and updated the extent of Apache Junction study area. Completed Aug. 13th, 2008.
- *Version 11.26.08*: Addition of Luke and Pete's Corner study areas. Completed Nov. 11th, 2008, released Dec. 8, 2008.
- *Version 2.11.09*: Addition of Heaton, Wintersburg and Picacho study areas. Update to Luke study area. Completed Feb 11th, 2009, released Feb. 24, 2009.
- *Version 6.22.09*: Addition of Tator Hills, Friendly Corners, Harquahala and Signal Peak study areas. Completed 6/22/09.
- *Version 11.30.09*: Addition of Greene Wash and Dragoon Road study areas.
- *Version 03.11.11*: Addition of Sacaton Butte, White Horse Pass, Santa Rosa Wash and Three Sisters Buttes study areas.
- *Version 04.05.12*: Addition of the Bowie-San Simon study area.
- *Version 12.27.12*: Addition of the Elfrida and Croton Springs, Cochise County study areas.
- *Version 03.31.14*: Addition of the North Sulphur Springs Valley, Cochise County study area.
- *Version 01/26/15*: Addition of McMullen Valley, Maricopa County, and Avra Valley, Pima County, and updates to Chandler Heights and Luke, both in Maricopa County.
- *Version 05/11/15*: Replaced DM-EF-10 v1.0 (Wintersburg) with DM-EF-10 v2.0 (Wintersburg)
- *Version 01/31/2016*: Added newly revised earth fissure maps for: Luke, Picacho and Friendly Corners, North Sulphur Springs, Dragoon Road, Santa Rosa Wash and Chandler Heights. Additionally, posted version 1 of Earth Fissure Map of the Santa Rosa Wash Study area (DM-EF-17, v1.0).

SUPPLEMENTARY INFORMATION

Data collected by the AZGS is provided to the ASLD for display as an Internet Map Service. The service displays the data provided in DI-39 in relation to a periodically updated road network, as well as a shaded-relief basemap. The Internet Map Service is located at <http://azmap.org/fissures>.

Related Publications - Available for free download at <http://www.azgs.az.gov/efmaps.html>

Arizona Geological Survey Digital Map Series – Earth Fissure Maps. Maps of specific study areas in .pdf format.

Arizona's Earth Fissure Mapping Program: Protocols, Procedures and Products. Arizona Geological Survey Open-File Report 08-03 (OFR08-03).



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