Investigation of earth fissures in the Harquahala Plain Study Area:

**Arizona Geological Survey**

**June 2019**

**Digital Map Series - Earth Fissure Map 14 (DM-EF-14)**

version 2.0

**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.

**Introduction**

This is one of a series of earth fissure maps 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 the study area. Nonetheless, some fissures may remain uncharted 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 expressions.
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 that earth fissures are not present. However, blank areas within the study area boundary have been investigated, and no surface evidence of fissures was found as of the date of map publication. Determining the presence or absence of a fissure at any specific site may require additional mapping and/or geotechnical analysis.

**MAP EXPLANATION**

Red lines represent the location of continuous earth fissures manifested as open cracks or gashes.

Orange lines represent the location of discontinuous earth fissures manifested as intermittent to discrete depressions or as subterranean or irregular linear depressions. These discontinuous surface features frequently represent an incipient surface expression of an earth fissure.

Yellow lines represent the location of fissures confirmed by non-AZGS personnel or remote sensing of earth fissures on aerial imagery. Traditional field investigations of these features by AZGS were hindered by agricultural or urban modification of the land surface.

Green lines represent the approximate locations of unconfirmed earth fissures, defined as features which could nor be confirmed by surface investigations by AZGS personnel, but which have been previously reported by Professional Geologists in published documents or maps.

Map projection and scale: 1:24,000. North Tiger/Line Data of the remaining Counties.

Shaded relief basemap produced from 10m NED Digital Elevation Model.

Air photo base compiled from 2017, 1 meter NAIP (National Agriculture Imagery Program) digital ortho imagery.

Transportation network data compiled by Arizona State Lands Dep't. by combining the 2007 County Road Data of Maricopa, Pima, Pinal and Cochise Counties with the Census 2000 Tiger/Line Data of the remaining Counties.