**Summary of Files Provided for WVU DDU Project by Jessica Moore**

**November 12, 2019**

This document is a readme file for the WVU Deep Direct Use Geothermal project work completed by Jessica Moore (West Virginia Geological Survey). If you experience issues with any of the files, or have questions about them, please contact Jessica Moore at jmoore@geosrv.wvnet.edu.

**Software Requirement Note**

A combination of proprietary and free software may be required to view some of the information provided. Software used for data analysis and figure creation include ESRI ArcGIS. For GIS map files, you will have to change the directories of the files to match your computer. LAS files were digitized using IHS Petra software, but may be viewed in Microsoft Notepad, or converted to .csv files in Microsoft Excel

**Readme File Description Layout**

Items listed in this document are sorted by tab indentations and are described as follows:

**Folder:** Description

 **Folder Contents**

Content Description

**LAS Files**: Contains LAS well log files for wells, in ASCII format. Wells were selected based upon penetration of the Tuscarora Sandstone and log curves were digitized via Petra subsurface mapping software. Geophysical traces will differ from well to well, but normally contain a gamma ray and caliper curves and may also contain a combination of density, porosity, and temperature logs. Logs are sources from the WVGES Oil and Gas wells database. These LAS files also appear in the “LAS Data & Well Data” folder in file formats that may be easier to manipulate

 90 .las files with variable geophysical curves are available

**MRS\_8\_Ordovician Structure:** WVGES Publication MRS (Map Reporting Series), Number 8. *West Virginia Gas Development in the Tuscarora and Deeper Formations (with Structural Maps Contoured on Top of Ordovician and Precambrian*: D.H. Cardwell, 1977, 38 p., 1 maps, 1:500,000 40”x36”. Presents data from about 150 West Virginia wells. Includes “Structural Geologic Map of West Virginia, Datum: Top of Ordovician”. Project work performed by the GIS Technical Center at West Virginia University

**Scanned Map Folder** – Contains scans of original two hard copy maps of Structural Map of West Virginia Datum: Ordovician in TIF format.

**Mosaicked Map Folder** – Contains mosaicked Structural Map of West Virginia Datum: Ordovician in TIF format in compressed folder.

**Georeferenced Map Folder** – Contains georeferenced TIF and clipped georeferenced TIF of Structural Map of West Virginia Datum: Ordovician. Clipped TIF contains less extraneous information but needs color symbology imported from non-clipped georeferenced TIF.

**Digitized Map Folder** – Contains final digitized Structural Map of West Virginia Datum: Ordovician.

**Geodatabase Folder** – Contains a geodatabase of all contour feature datasets for Structural Map of West Virginia Datum: Ordovician.

**Documentation Folder** – Contains Metadata and Methodology for Structural Map of West Virginia Datum: Ordovician and a pdf for the final map.

**ReadMe File** – Contains the information described above

**Salinity of Oilfield Brines:** Contains references and tabular data related to oilfield brine geochemistry in West Virginia and Pennsylvania

 **Chemistry of Oil and Gas Well Brines in Western Pennsylvania (Dresel, 1985).xlsx**

Contains data transcribed from Tables 2 and 3 of Dresel and Rose, 2010, which were originally published by Dresel (1985) as an internal Pennsylvania Geological Survey pubication

 **Dresel and Rose\_2010\_Geochemical Origin of Oilfield\_Brines\_PA**

PAGS Publication, *Chemistry and origin of oil*

*and gas well brines in western Pennsylvania*: Dresel, P. E., and Rose, A. W., 2010, Pennsylvania Geological Survey, 4th ser., Open-File Report OFOG 10–01.0, 48 p., Portable Document Format (PDF). URL: https://www.fwspubs.org/doi/suppl/10.3996/052013-JFWM-033/suppl\_file/patnodereference+s3.pdf

**Vol 8\_ Salt Brines of WV**

WVGES publication V-8, [*Salt Brines of West Virginia*](http://www.wvgs.wvnet.edu/wvges2/publications/PubCat_Details.aspx?PubCatID=V-8): P. H. Price, C. E. Hare, J. B. McCue, and H. A. Hoskins, 1937, 203 p, 23 pl, 18 f. History of the salt brine industry in West Virginia, geology of the brine-bearing regions, and chemical analyses of 189 brines.

**Log\_Acronyms\_DUU Geothermal.xlsx:** Contains log data acronyms with nomenclature and units used in LAS Files. Unit-less measurements are denoted with dashes.