

U.S. Geological Survey

Oblique Sliced Views of the Southern Carson Sink 3–D Geologic Map Cross Sections Through Southern Carson Sink 3–D Geologic Map [Well data within 500 m projected to sections. See oblique views for cross-section locations] [Background grid is 500 m; shading indicates perspective relative to light source from north-northwest] Oblique View Looking North-Northwest Oblique View Looking North-Northeast [slices are north-south and east-west] [slices are north-south and east-west] SEA LEVEL – Fallon FORGE area – ⊢Fallon FORGE site⊣ **CORRELATION OF MAP UNITS** [See Description of Map Units (in pamphlet) for precise unit ages] Fallon FORGE area and site UNCONSOLIDATED DEPOSITS > Pleistocene, AND TERTIARY Late Pliocene TERTIARY Oblique View Looking North of the Surface of the Southern Carson Sink 3–D Geologic Map BEDROCK [Labeled wells contributed downhole lithologic data (pamphlet, fig. 4) and (or) downhole fracture data (pamphlet, fig. 10)] **VOLCANIC ROCKS** > TERTIARY MESOZOIC CRYSTALLINE BASEMENT Basin and Range ↑ CRETACEOUS OR JURASSIC **≻** JURASSIC JURASSIC OR TRIASSIC – Fallon FORGE area ———— ⊢Fallon FORGE site → LIST OF MAP UNITS [See Description of Map Units (in pamphlet) for complete unit descriptions] Index map showing location of map area and regional features. See figure 1 in pamphlet for detailed UNCONSOLIDATED DEPOSITS geologic and geographic information in and around QTs Surficial sediments and sedimentary rocks, undivided (Holocene, Pleistothe map area. cene, and Pliocene) Ts Sedimentary rocks (late Pliocene to Miocene) BEDROCK **VOLCANIC ROCKS** Tvs Volcanic rocks, undivided (Miocene) MESOZOIC CRYSTALLINE BASEMENT Metamorphic and plutonic rocks, undivided (Cretaceous, Jurassic, and Quartz monzonite (Cretaceous or Jurassic) Metabasalt (Jurassic) Quartzite with lesser phyllite, metabasalt, and marble (Jurassic) Metarhyolite with lesser metabasalt (Jurassic or Triassic) **EXPLANATION OF MAP SYMBOLS** [Some software artifacts are visible on the maps. For example in the plan views, where faults meet the edge of the map, they may show a short tick along the edge that is an artifact, not a sharp turn in the fault. FORGE, Frontier Observatory for Research in Geothermal Energy] ———— Contact—Solid where location is accurate. Shown only on views of the surface -- I -- Normal fault—Dashed on surface where location is inferred from geophysi-MAP LOCATION cal data; solid on cross-sections. Ball and bar on hanging wall for surface **Fallon FORGE area**—Showing area of detailed subsurface mapping within the southern Carson Sink 3–D map. See figures 2 and 3 in pamphlet for Data interpreted and compiled by D.L. Siler and co-authors Fallon FORGE site—Showing surface area of Fallon FORGE site. See (2015–2018) from well cuttings and cores (https://gdr.openei.org/submissions/1027); seismic reflection data figures 2 and 3 in pamphlet for location (https://gdr.openei.org/submissions/1011); rock density, magnetic Well location susceptibility, and magnetic remanence data from core samples, paleomagnetic cores, and representative hand samples (https://gdr.openei.org/submissions/990); and potential field data (https://doi.org/10.5066/F7J38RVZ) Surface—Showing well name Database and movie by D.L. Siler Edited by J.L. Zigler; digital cartographic production by **Cross sections** Universe Transverse Mercator projection, Zone 11 J.F. Mangano; movie production by G. Dang Subsurface—Showing well name and units mapped in well core or North American Vertical Datum of 1983 352,500 357,500 360,000 Manuscript approved for publication August 12, 2019 cuttings. Unit color may appear darker than shown in List of Map Units EASTING, IN METERS to distinguish it from the same underlying unit color EASTING, IN METERS Surface—Showing well name Subsurface—Showing well name Plan Views of the Southern Carson Sink 3–D Geologic Map Rotational axis for oblique perspective views of 3–D map [Background grid is 500 m] Surface 88-24 82-19 355,000 3

EASTING, IN METERS

0 1 2 MILES
0 1 2 KILOMETERS EASTING, IN METERS EASTING, IN METERS

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