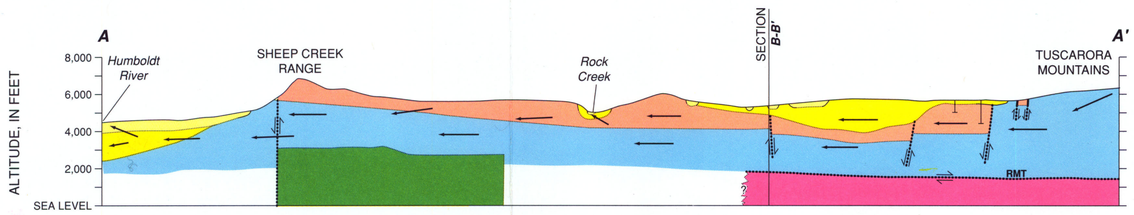
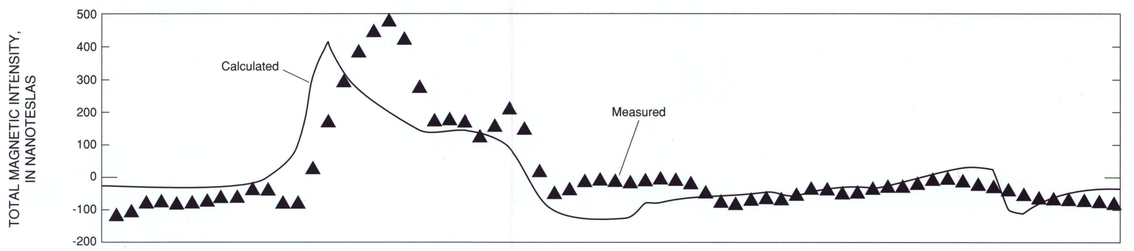
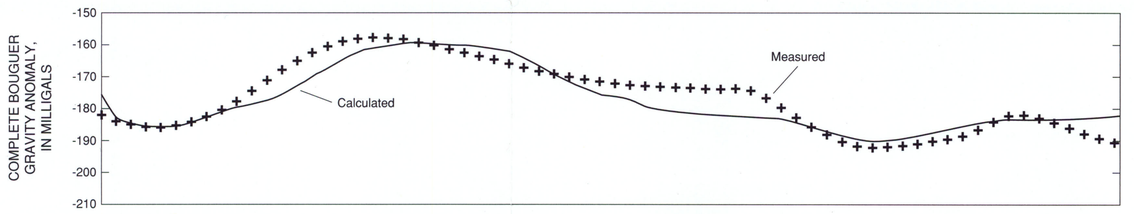
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

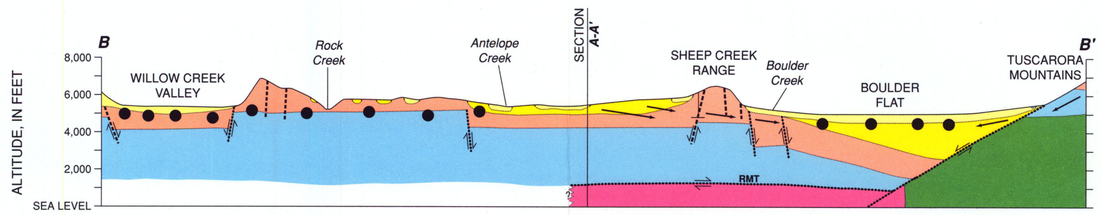
Prepared in Cooperation with the
NEVADA DIVISION OF WATER RESOURCES

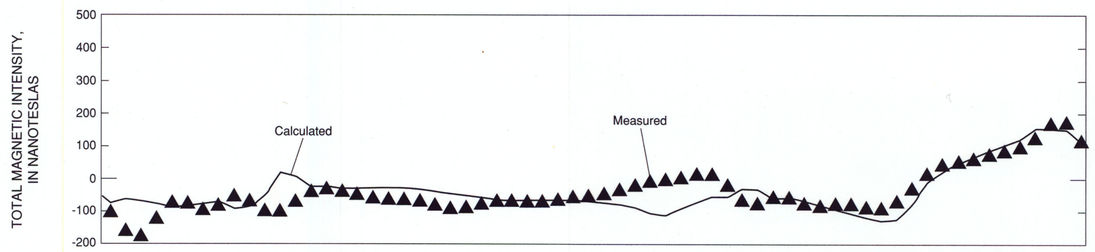
WATER-RESOURCES INVESTIGATIONS REPORT 96-4134
Hydrogeologic Sections and Magnetic and Gravity Profiles—PLATE 2
Maurer, D.K., Plume, R.W., Thomas, J.M., and Johnson, A.K., 1996, Water resources and effects of changes in ground-water use along the Carlin trend, north-central Nevada

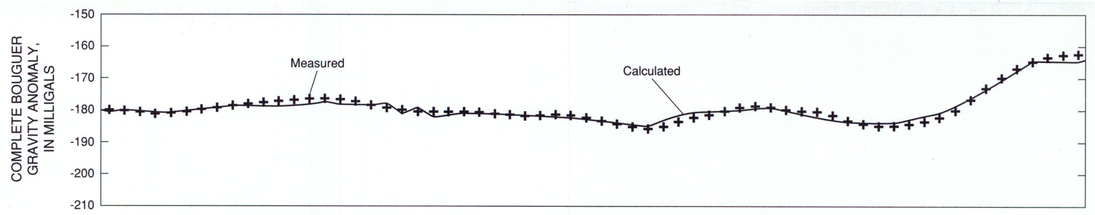


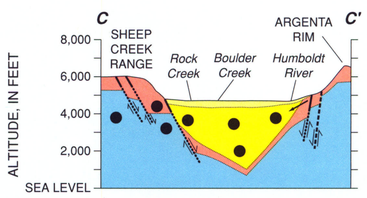


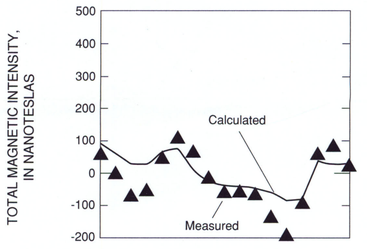


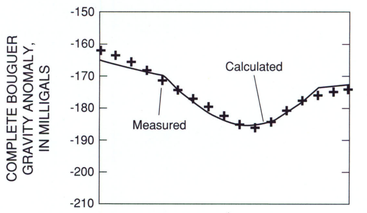


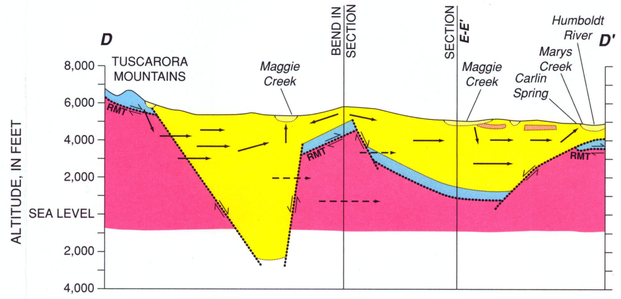


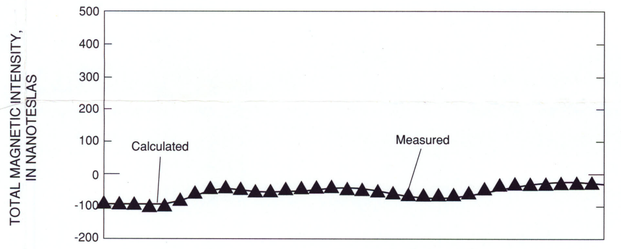


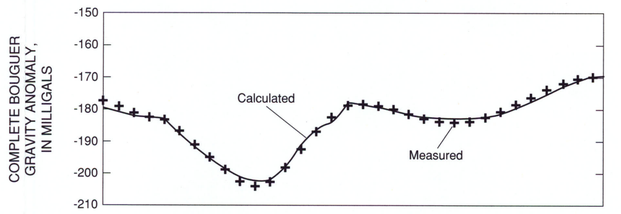


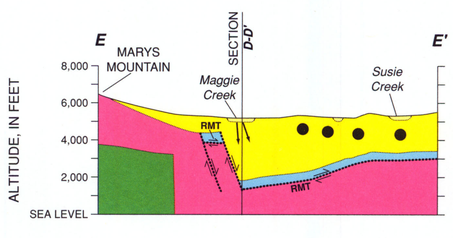


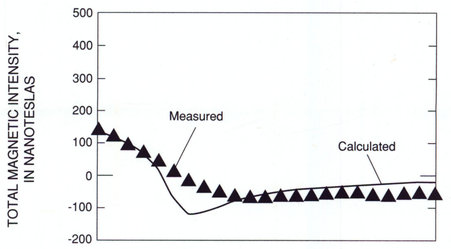


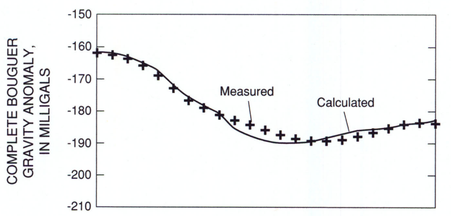












EXPLANATION

Younger basin fill (Quaternary)—Unconsolidated and poorly sorted to well sorted deposits of clay, silt, sand, gravel, and boulders of alluvial fans, basin lowlands, and stream flood plains. Inferred extent of deposits in Willow Creek Valley (section ***B-B'***) is based on cross-sectional models discussed in text

Older basin fill (Tertiary to Cretaceous)—Semiconsolidated to consolidated deposits of clay, silt, sand, gravel, and boulders. Locally tuffaceous with interbedded limestone, diatomite, and volcanic rocks. See table 2 for list of stratigraphic units. Inferred extent of deposits in structural basins is based on cross-sectional models discussed in text

Granitic rocks (Tertiary and Jurassic)—Mostly quartz monzonite and granodiorite. Geometry of intrusive bodies inferred from results of cross-sectional models discussed in text

Volcanic rocks (Tertiary and Jurassic)—Flows of basalt and andesite; flows, domes, and shallow intrusive bodies of rhyolite; welded and nonwelded silicic tuffs. Locations of two bodies shown on section D-D' inferred from analysis of proprietary aeromagnetic data (T.V. Weis, Newmont Exploration Limited, written commun., 1990)

Siltstones (Devonian, Silurian, and Ordovician)—Chert, shale, siltstone, sandstone, quartzite, conglomerate, limestone, and marine volcanic rocks. See table 2 for list of stratigraphic units

Carbonate rocks (Devonian to Cambrian)—Limestone, dolomite, and lesser amounts of shale, siltstone, sandstone, quartzite, and chert. Queried where extent uncertain. See table 2 for list of stratigraphic units

Rocks of unknown lithology

Contact—Dotted where inferred. Inferred contacts that define structural basins are based on cross-sectional models discussed in text

High-angle fault—Dashed where approximately located; dotted where inferred

Roberts Mountains thrust fault—Dotted where inferred

Well—Shows thicknesses of basin fill and volcanic rocks penetrated

Ground-water flowline—Dashed where direction or amount of flow is uncertain (see plate 3)

Ground-water flow—Generalized direction of ground-water flow is toward viewer (see plate 3)

SCALE 1:250 000

MILES 5 0 5 10 15 20

KILOMETERS 5 0 5 10 15 20 25 30

VERTICAL EXAGGERATION X4
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Geology from Roberts and others (1967), Stewart and Carlson (1976), Stewart and McKee (1977), and Coats (1987); modified by R.W. Plume and D.K. Maurer, 1990

HYDROGEOLOGIC SECTIONS AND MAGNETIC AND GRAVITY PROFILES, CARLIN TREND AREA, NORTH-CENTRAL NEVADA

By

Douglas K. Maurer, Russell W. Plume, James M. Thomas, and Ann K. Johnson

1996