SUL ROSS STATE UNIVERSITY

A Member of the Texas State University System

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The Sul Ross State University Analytical Laboratory is located in room 115 of the Warnock Science Building on the SRSU-Alpine campus. This lab houses an array of equipment accessible to students and faculty for a number of analytical purposes. A list of equipment in the lab includes a JOEL JSM-6010LA Scanning Electron Microscope (SEM), which is used to obtain microscopic images of samples and to collect information regarding the chemistry of the samples using the attached Energy Dispersive X-Ray spectrometer. A Denton Vacuum sputter coater (Au, Au-Pd and C) is used for SEM specimen preparation. The lab equipment also includes A Bruker D2 Phaser X-Ray Diffractometer (XRD) instrument that is used for mineral and crystalline substance identification and an ARL Perform'X wavelength dispersive X-Ray Fluorescence (XRF) spectrometer that is used for the chemical analysis of rock specimens. A DIONEX ion chromatograph is used to analyze anions and water samples.

The lab is located in the vicinity of the geology sample-preparation lab, which includes sampling equipment such as rock thin-sectioning equipment, a Spex tungsten carbide and steel shatter box grinder, ceramic jaw crushers, low- and high-temperature ovens, a Spex pellet press, a Frantz isodynamic magnetic separator, various sieves and a Rotap sieve shaker, and non-toxic heavy liquids for mineral and microfossil separation.

GIS Lab

The Sul Ross State University GIS (Geographical Information Systems) Lab is located in room 310 of the Warnock Science Building on the SRSU-Alpine campus. The purpose of the lab is to provide access to industry standard GIS software for faculty and students. The lab is used for teaching and research. The lab maintains 12 Dell computers with the following software (as of 3/07/2017): ESRI GIS ArcMap v. 10.4 software, ERDAS Imagine 2011 (5 seats), Sigmaplot v. 12.5 scientific graphing software, Rockworks 15, Golden software products Strater and Surfer 9, ESRI ArcPad 10, GPS Pathfinder Office and TerraSync 5.30 WM, Connex, ET Geowizards 101, Geochemist's Workbench Standard 7.0, IBM SPSS Statistics 19, Phreeqc Interactive 2.18.5570, and Python 2.5.

The lab inventory also includes the following Trimble GPS receivers: one GeoXH (sub meter), two Geo XM, and 20 Junos with cameras; and three consumer-grade Garmin 60csx GPS units.

A list of physical and chemical hydrology equipment affiliated with the GIS lab, the Geology program and the Rio Grande Research Center includes the following: A Spectra Precision Focus 35 Robotic Total Station with Survey Pro, a Trimble R6 RTK GPS unit, a Sontek Flowtracker current meter, a Marsh McBirney flow meter, a Teledyne RiverRay