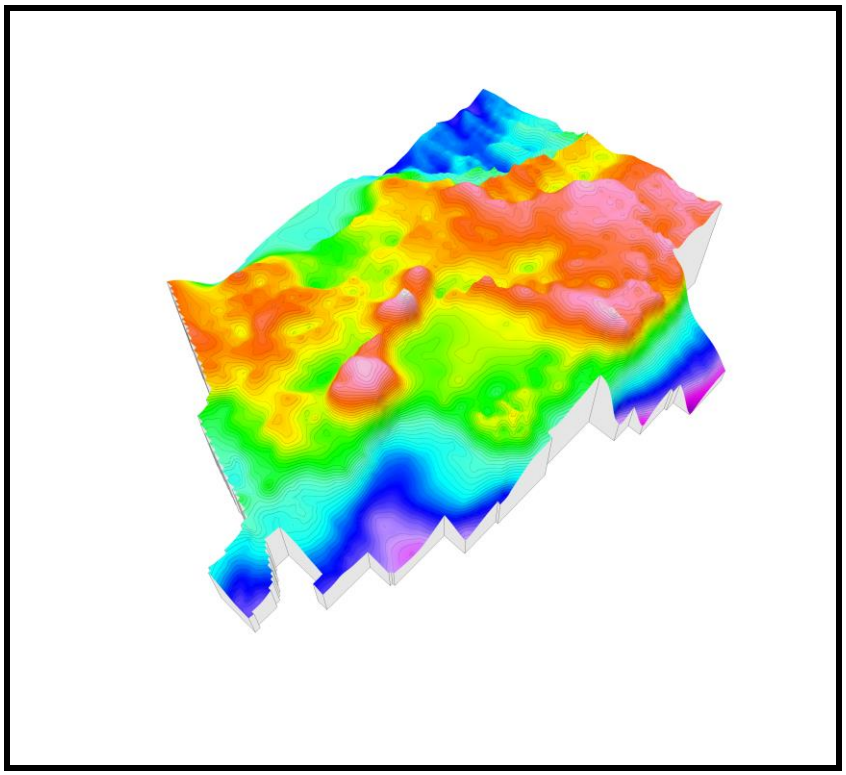
U. S. GOLD CORPORATION

KEYSTONE PROPERTY
GRAVITY - 2018
GIS DATABASE



Residual Gravity Looking Down to Northwest

James L. Wright M.Sc.
May 11, 2018

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INTRODUCTION

A gravity survey was completed over the KEYSTONE property from Apr. 29 to May 5, 2018 with the objective of in-filling a 2017 survey designed to define structural, lithologic and alteration in support of the gold exploration program. Contrasting rock types on the property and large areas of alteration justified gravity survey implementation. Extensive structural complexity is also present. The earlier gravity surveys are reported upon by Wright (2016) and Wright (2017). Coordinates used for the project are **NAD 27 / UTM 11N**.

Figure 1 shows the property outline relative to roads, towns, county boundaries and topography in central Nevada.

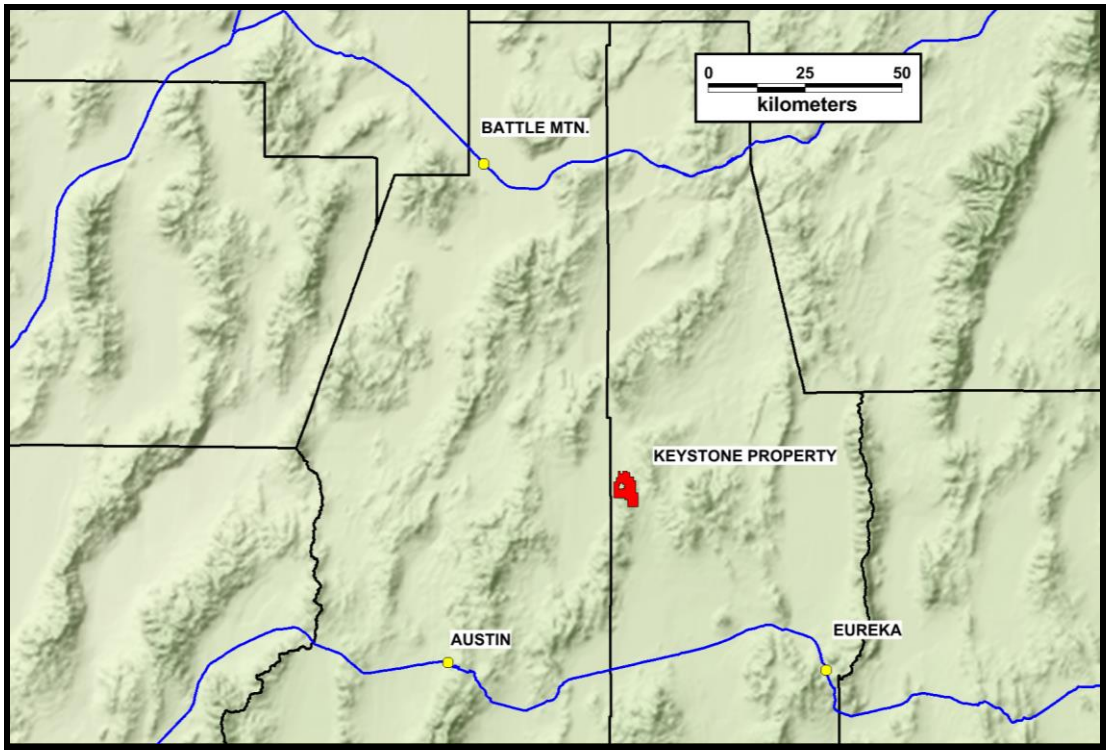

FIGURE 1: Keystone Property Location Central Nevada

Results of the gravity survey are provided in digital formats. The digital products included all raw data and processed files, as well as MAPINFO and ARCGIS GIS files for all processed data and interpretations. The interpretation integrates other geophysical data sets. as well as topography. All files are contained on a DVD located in a sleeve at the rear of the report. A README file on the DVD explains the folder / file organization.

Survey procedures and data processing are presented first followed by an integrated interpretation and finally recommendations / conclusions.

SURVEY PROCEDURE

A total of 604 new gravity stations comprise the 2018 survey dataset. Combined with the previous surveys and other merged surveys, the complete gravity dataset comes to 3392 stations. The 2018 in-fill stations were acquired on A 200 m staggered grid infilling previous coverage. Figure 2 shows a complete data set posting over gray shade topography with the 2018 data highlighted in red.

Relative gravity measurements were made with LaCoste & Romberg Model-G gravity meters. Topographic surveying was performed with Trimble Real-Time Kinematic (RTK) and Fast-Static GPS. The gravity survey is tied to the US Department of Defense gravity base EUREKA (DoD reference number 5311-1).

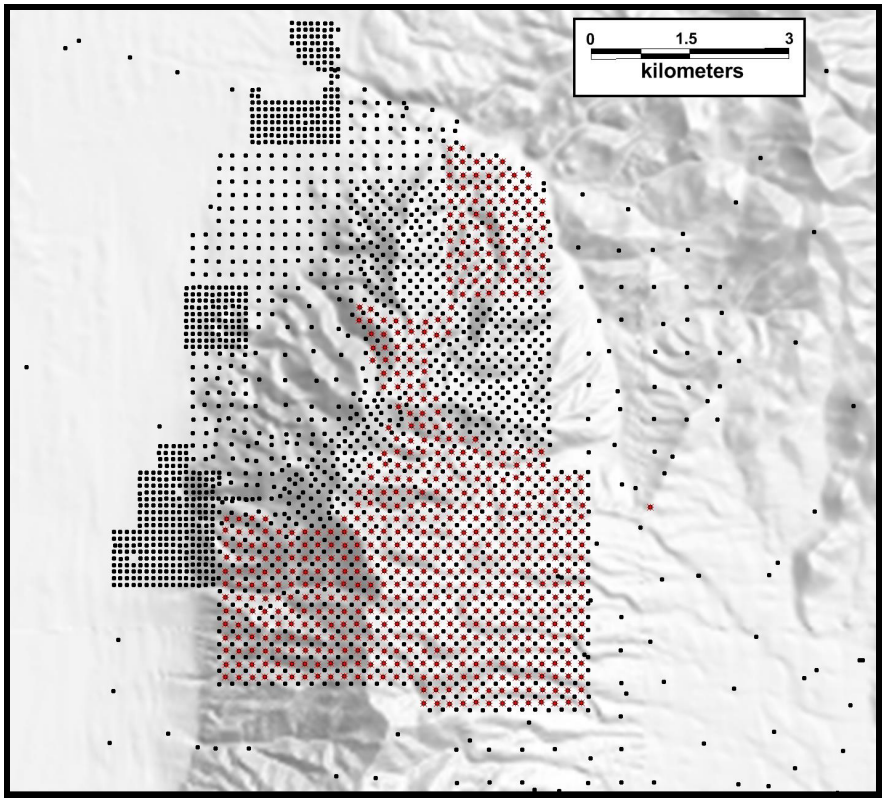

FIGURE 2: Gravity Stations over Gray Shade Topography (Black – Previous / Red –2018)

All gravity stations were surveyed using the Real-Time Kinematic (RTK) GPS method or, where it was not possible to receive GPS base information via radio modem, the Fast-Static method was used. A GPS base station, designated KEY1, was used on the project. The coordinates and elevation of this base station location were determined by making simultaneous GPS occupations in the Fast Static mode with Continuously Operating Reference Stations (CORS). Topographic surveying was performed simultaneously with gravity data acquisition.

All gravity data processing was performed with the Xcelleration Gravity module of Oasis montaj (Version 7.0). The gravity data were processed to Complete Bouguer Gravity over a range of densities from 2.00 g/cc through 3.00 g/cc at steps of 0.05 g/cc using standard procedures and formulas.

Terrain Corrections were calculated to a distance of 167 km for each gravity station. Various procedures were used for three radii around each station: 0-10m, 10-200m, and 2-167 km. These include the triangle method, combination of a prism and a sectional ring method, and sectional ring method for the three zones respectively.

Gravity repeat statistics for the 2018 Keystone gravity survey follow.

Total number of stations:	605
Number of repeated stations:	32
% stations repeated:	5.3%
Total number of readings:	683
Number of repeat readings:	78
% readings repeated:	11.4%
Maximum repeat error:	0.0429 mGal
Mean repeat error:	0.0111 mGal
RMS error:	0.0177 mGal

The mean of the absolute value of all loop closure errors is 0.02 mGal. Such a low closure error indicates good quality data, which supports the following interpretation. Additional details concerning gravity survey logistics are available in Appendix A.

DATA PROCESSING

Data provided by MaGee Geophysical Services LLC included the gravity data corrected to the complete Bouguer anomaly (CBA) stage for a number of densities. Determination of the most suitable Bouguer density is required for removal of topographic effects in the data. The most appropriate density for processing is that which minimizes the correlation of gravity with terrain. Wright (2016) presents an analysis which concluded the best density for processing the Keystone gravity data is 2.55 g/cc.

The 2.55 g/cc data were gridded with a Kriging algorithm using a spacing of 50 m, which is approximately 33% of the detail grid station spacing. This product is termed the CBA or GRAV. The CBA data were processed with a proprietary procedure to produce a smoothed regional grid (GRAV_UC), which subtracted from the CBA grid produced a residual (GRAV_RES) grid. Finally, the total horizontal (GRAV_HG) and first vertical derivatives (GRAV_VD) were computed from the CBA. All five grids were mask to the data limits and imaged / contoured for import into MAPINFO and ARCGIS. The images and contours were imported into the GIS as separate files. Color bars, measurement units and contour intervals are embedded directly into the images for each data product. All data conform to the **NAD 27 / UTM 11N** coordinate system.

INTERPRETATION

The reports by Wright (2016), Wright (2017a) and Wright (2017b) should be reviewed at this time to place the following discussion into context. The basic complete Bouguer anomaly (CBA) of gravity and the associated residual of the gravity are presented side-by-side in Figure 3. The residual suppresses long wavelength features in the data for enhanced resolution of sharper, weaker features.

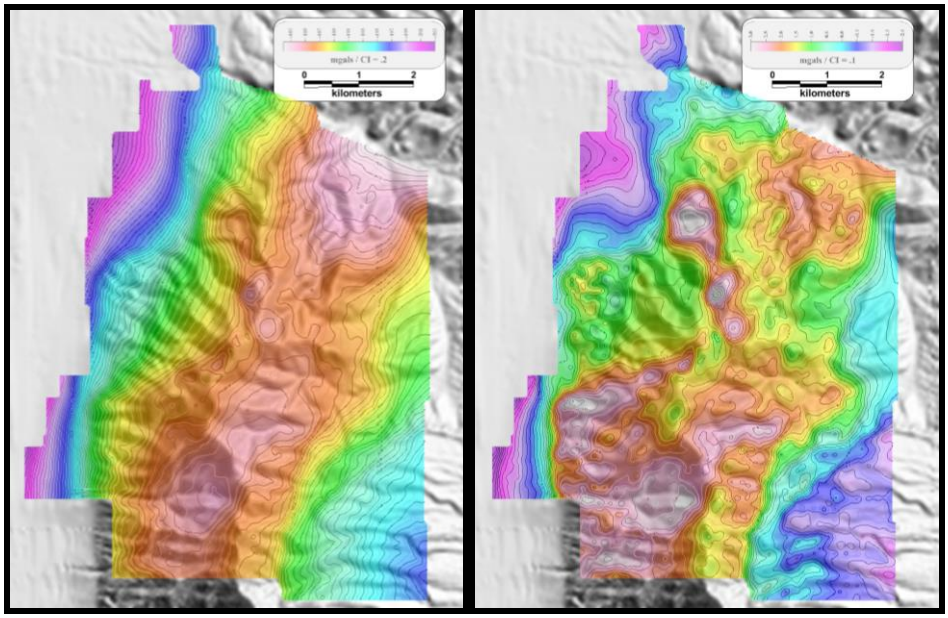

FIGURE 3: CBA (Left) and Residual (Right) Gravity over Gray Shade Topography

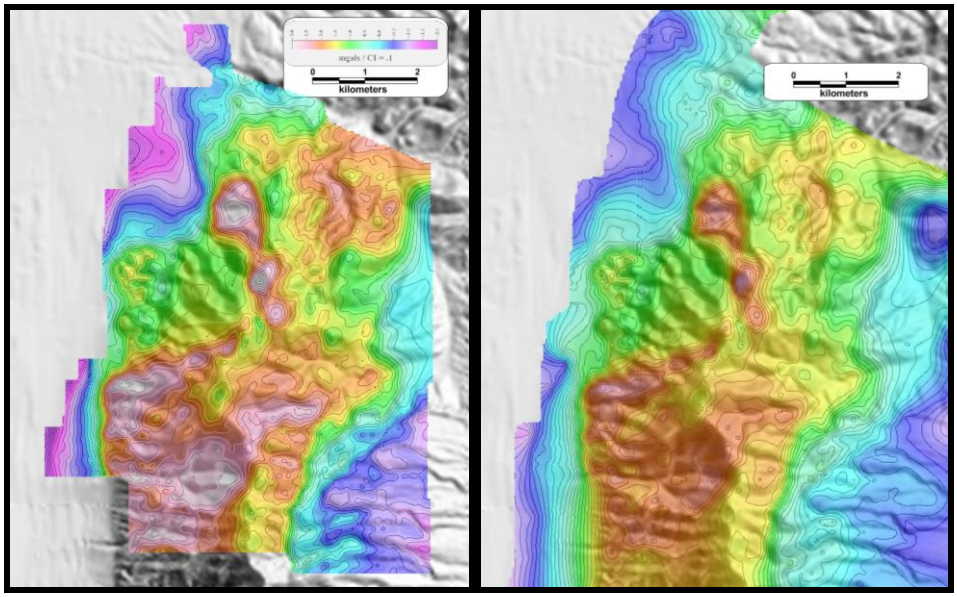

FIGURE 4: North Area Detail In-fill Comparison of Residual Gravity (2018 – Left / 2017 – Right)

Figure 4 presents images comparing the 2017 and 2018 residual coverage for the main survey area. Contour intervals differ as does coloration; however, the increased detail is evident.

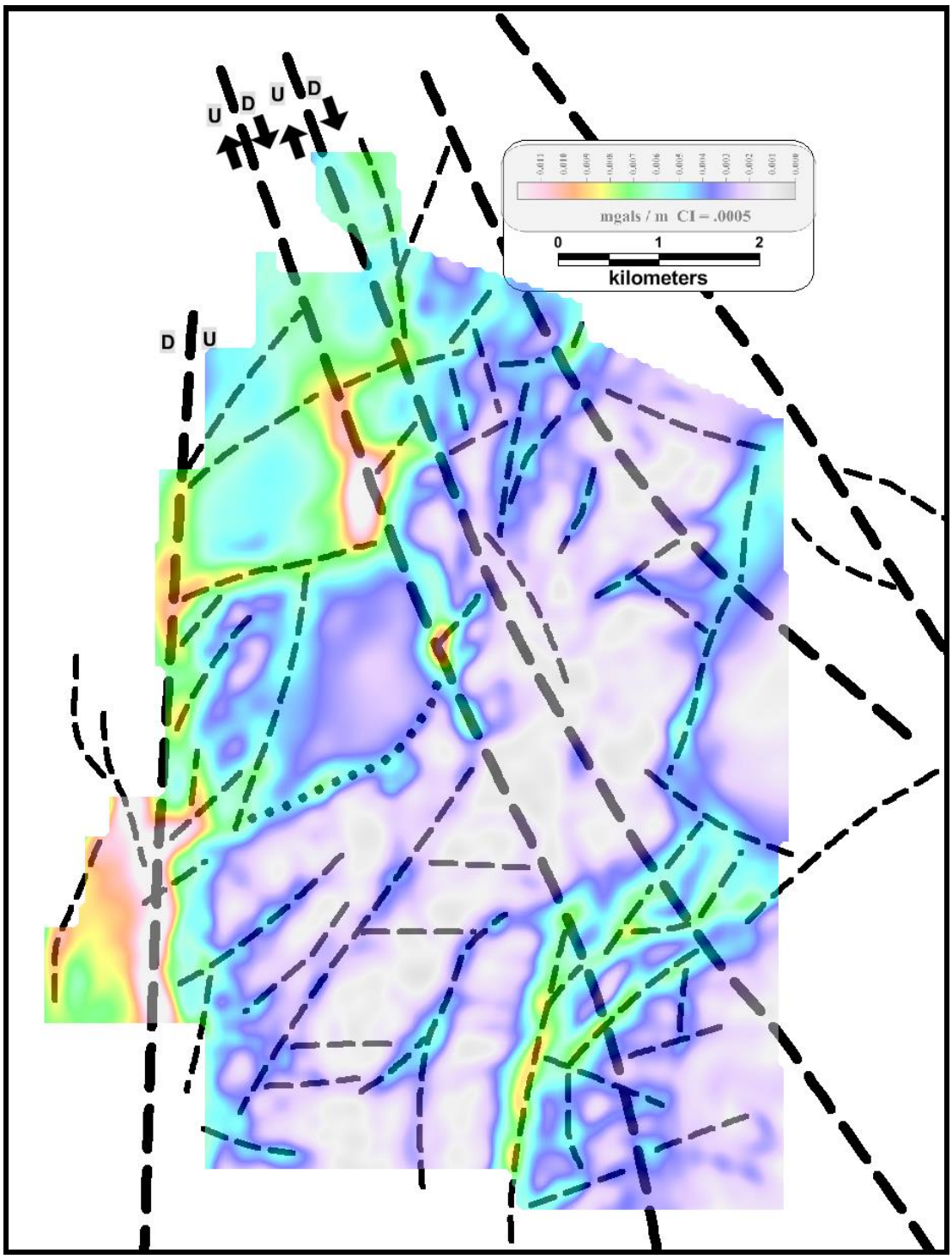

FIGURE 5: Total Horizontal Gradient with Interpreted Structures

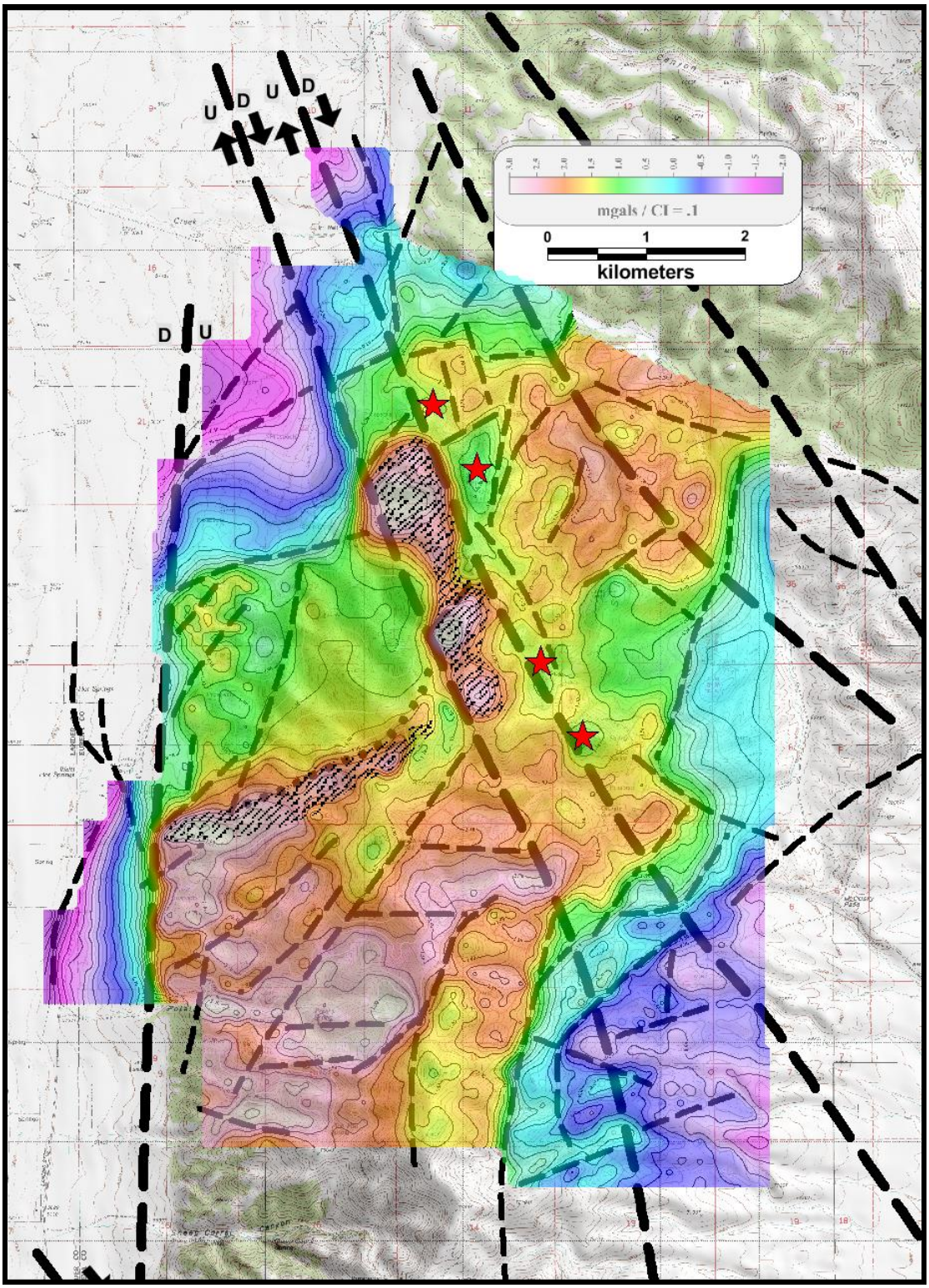

FIGURE 6: Residual Gravity with Interpreted Structures, Alteration

Figures 5 and 6 present the total horizontal gradient (HG) of gravity and residual of gravity with interpreted structures. The HG defines area where differing densities are juxtaposed and delineates these as ridges in the image. Dashed lines placed along the ridges define contact areas and also provide a means of transferring the information to other data products, as Figure 6 demonstrates. Anomalous low gravity areas, interpreted as possible alteration, are denoted with red stars. Contact alteration is delineated with hatched polygon along the contact zone of the intrusion.

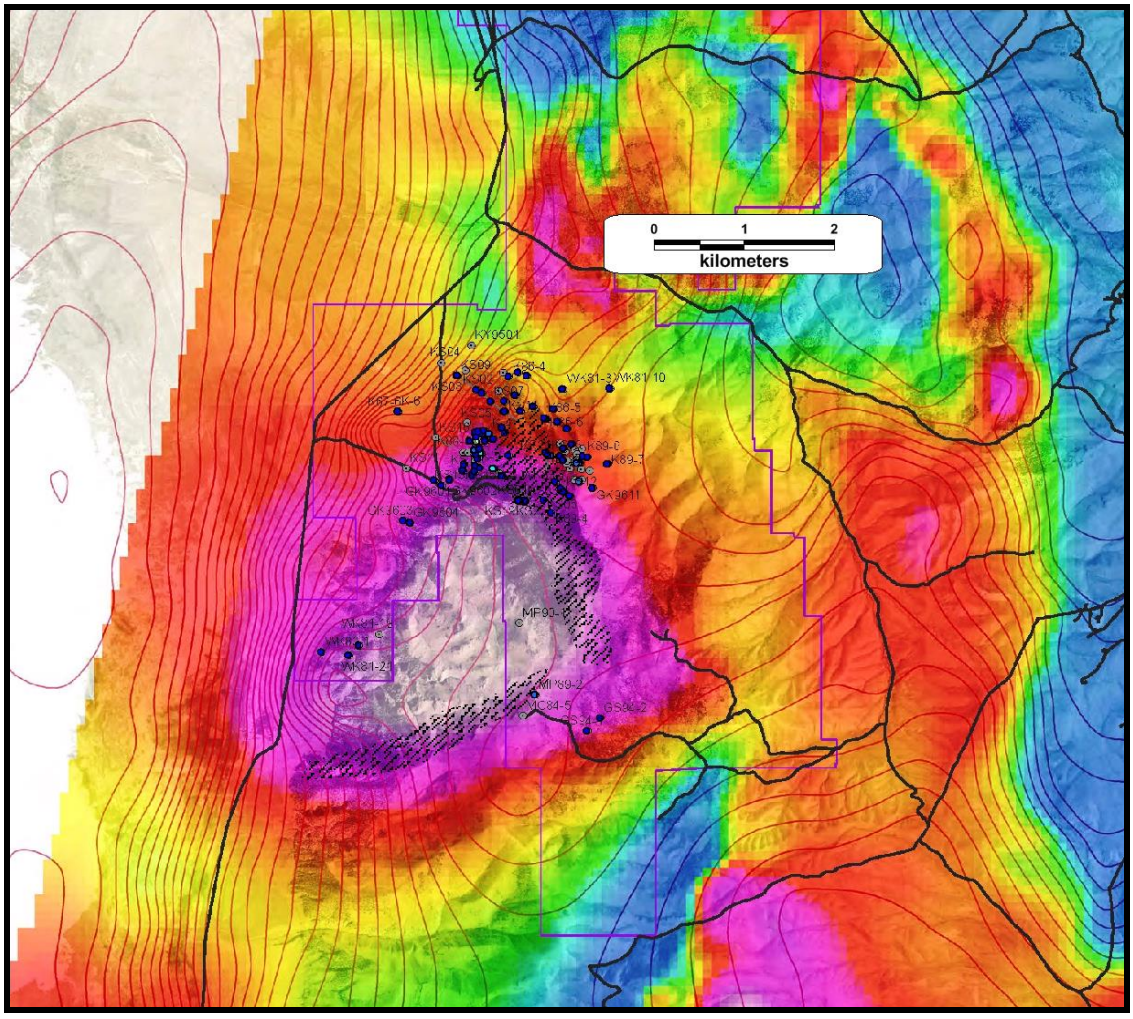

FIGURE 7: Placer Airborne Magnetics with Contact Alteration

Figure 7 shows the Placer Dome airborne magnetic results overlain by the contact alteration shapes. As should be the case, the contact alteration falls along the borders of the magnetic high in contact with the surrounding sediments. However, the magnetic highs does extend beyond the contact alterations shapes, suggesting the intrusion slopes to depth along the margins or is step-like. This is particularly true along the southeast side.

The CBA of gravity in Figure 8 is overlain by the contact alteration shape. Immediately southeast of the contact shape is a shelf in the CBA gravity indicating a low density intrusion could well underlie the shelf. The shelf is structurally bounded (see Figure 6) by north-northeast structures. Southeast of the shelf is a gravity high which could be produced by carbonate rocks lifted atop the shelf intrusion. The gravity high is labeled "Shallow Carbonate Dome" and the shelf "Intrusive Shelf" on Figure 8.

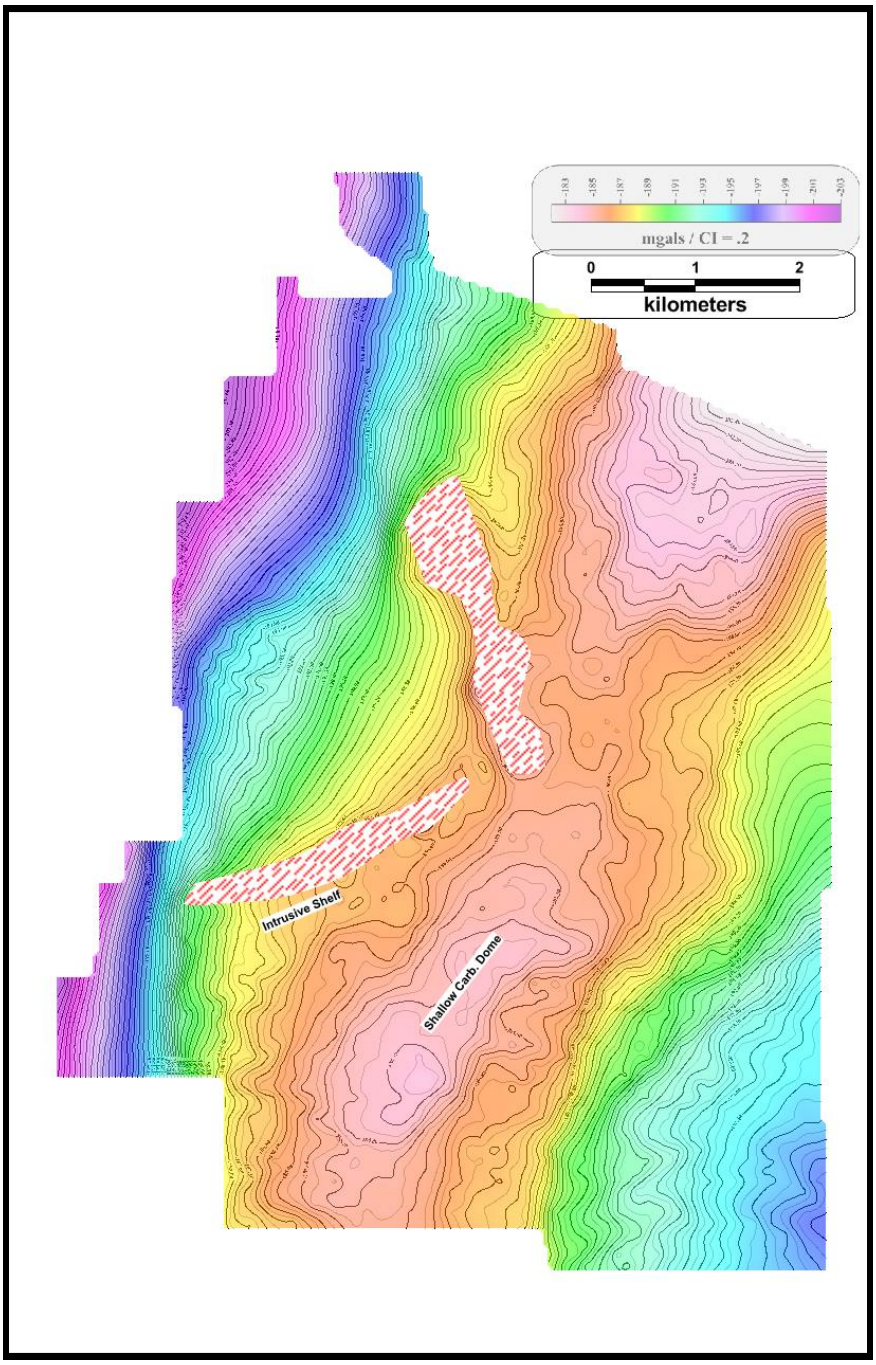

FIGURE 8: CBA Gravity with Alteration Shapes

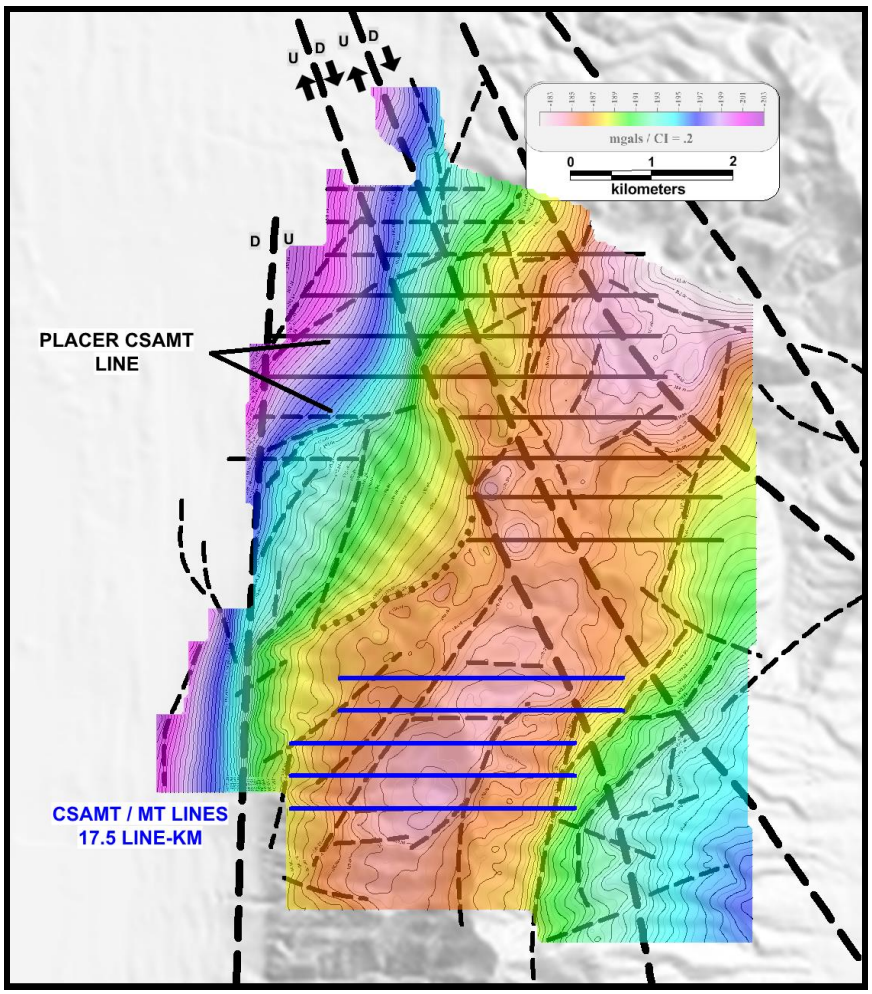

FIGURE 9: Proposed CSAMT / MT Lines, Structures over CBA Gravity

The possibility of up-throw section proximal to the intrusion margin is noteworthy and required additional follow-up. Figure 9 shows five proposed CSAMT / MT lines in blue designed to detail the gravity high, as well as bounding structures. Either CSAMT or MT is proposed depending upon survey depth requirements and budget. The current CSAMT line overage is provided for reference on the figure.

CONCLUSIONS AND RECOMMENDATIONS

The in-fill gravity data provide enhanced resolution leading to re-interpretation of structures and identification of a possible uplifted section in the southern portion of the property. **Full benefit of the data requires rigorous integration with the geology and geochemical data.** Once complete, the entire gravity data set should be re-evaluated.

REFERENCES

Wright, J. L., 2016, Keystone Property, Gravity Survey – 2016, Geophysical Compilation: U. S. Gold Corporation company report.

Wright, J. L., 2017a, Keystone Property, Gravity Survey – 2017, Ground Magnetic Survey, GIS Database: U. S. Gold Corporation company report.

Wright, J. L., 2017b, Keystone property, Physical properties, Induced Polarization: U. S. Gold Corporation company report.

APPENDIX

GRAVITY SURVEY

over the

KEYSTONE PROSPECT

EUREKA & LANDER COUNTIES, NEVADA

for

U.S. GOLD CORP
May 2018

SUBMITTED BY

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INTRODUCTION

Gravity data were acquired at the Keystone Prospect in Eureka and Lander Counties, Nevada for U.S. Gold Corp. The gravity survey was conducted from April 29 through May 5, 2018. A total of 604 new gravity stations were acquired.

Relative gravity measurements were made with LaCoste & Romberg Model-G gravity meters. Topographic surveying was performed with Trimble Real-Time Kinematic (RTK) and Fast-Static GPS. Field operations were based out of Eureka, Nevada.

Gravity data were processed to complete Bouguer anomaly (CBA), merged with previous surveys and existing public domain USGS data, and then forwarded to consulting geophysicist Jim Wright for further processing and interpretation.

DATA ACQUISITION

Survey Personnel

Data acquisition and surveying were performed by Brian Page, Matt Basile, Matt Magee, Jimmy McAllen, and Jack Magee. Brian Page and Christopher Magee supervised all operations and completed final data processing.

Gravity Meters

LaCoste & Romberg Model-G gravity meters, serial numbers G-018, G-392, G-406, G-603 and G735 were used on the survey. Model-G gravity meters measure relative gravity changes with a resolution of 0.01 mGal. The manufacturer's calibration tables used to convert gravity meter counter units to milliGals are included with the delivered data.

Gravity Base

The gravity survey is tied to a single U.S. Department of Defense gravity base located in Eureka, NV (DoD reference number 5311-1). The information on this base is listed below. The gravity datum is IGSN71 and the below coordinates are in NAD27 / NGVD29.

Base	Absolute Gravity	Latitude	Longitude	Elevation
EUREKA	979527.55 mGal	39.51267°	-115.96000°	1975 m

GPS Equipment

All gravity stations were surveyed using the Real-Time Kinematic (RTK) GPS method or, where it was not possible to receive GPS base information via radio modem, the Fast-Static method was used. The following GPS equipment was used on the project:

Trimble SPS880/R8/5700 receivers, Trimble Model TSC2 Data controllers, Trimble TrimMark III base radio, Trimble Zephyr GPS antennas and Trimble Business Center (Version 3.82) was used for GPS data processing.

Geodetic Survey Control

A single GPS base station, designated *KEY1*, was used on this project. The coordinates and elevation of this base station location were determined by making simultaneous GPS occupations in the Fast Static mode with Continuously Operating Reference Stations (CORS). GPS data for this station was submitted to the National Geodetic Survey (NGS) OPUS service which is an automated system that uses the three closest CORS stations to determine coordinates and elevations for unknown stations. The coordinates and elevations of station *KEY1* are listed below.

Station	WGS-84 Latitude	WGS-84 Longitude	WGS-84 Ellipsoid Ht.
KEY1	N39º 53' 30.44136"	W 116º 29' 55.05221"	2133.378 m
	NAD27 UTM Northing	**NAD27 UTM Easting**	**Elevation (NGVD29)**
	4415666.531 m	542943.631 m	2152.541 m

Topographic Surveying of Gravity Stations

All topographic surveying was performed simultaneously with gravity data acquisition. The gravity stations were surveyed in NAD27 UTM Zone 11 North coordinates in meters. The datum grid method (NADCON) was used to transform from the WGS-84 (NAD83) datum to the NAD27 datum and the GEOID12A geoid model was used to calculate NAVD88 elevations from ellipsoid heights. The elevations were then converted to National Geodetic Vertical Datum of 1929 (NGVD29) using the NGS program VERTCON. The coordinate system parameters used on this survey are summarized below.

Datum

Datum Name	NAD27
Ellipsoid	Clarke 1866
Semi-Major Axis	6378206.4 m
Eccentricity	0.082271854
Transformation	NADCON (CONUS)

Projection

Type	Universal Transverse Mercator
Zone	UTM 11 North
Origin Latitude	00º 00' 00.00000" N
Central Meridian	117º 00' 00.00000" W
Scale Factor	0.9996
False Northing	0
False Easting	500000 m
Geoid Model	GEOID12A (CONUS)

Gravity Stations

A total of 604 new gravity stations were acquired. Stations were reached by ATV or on foot. New stations were merged with previous surveys completed in 2016 and 2017 along with existing USGS gravity stations.

DATA PROCESSING

Overview

Field data including station identifier, local time, gravity reading, measured slope, and operator remarks were recorded in the field in notebooks. The recorded data were then entered into a notebook computer in the form of Geosoft RAW gravity files. Survey coordinates were transferred digitally.

All gravity data processing was performed with the Gravity and Terrain module of Oasis montaj (Version 8.5.2). Gravity data were processed to complete Bouguer gravity (CBG) over a range of densities from 2.00 g/cc through 3.00 g/cc at steps of 0.05 g/cc using standard procedures and formulas.

Data Processing Parameters

The following parameters were used to reduce the gravity data:

GMT Offset	Gravity Formula	Gravity Datum
-7 hours	1967	IGSN-71

Terrain Corrections

Terrain corrections were calculated to a distance of 167 km for each gravity station. The terrain correction for the distance of 0 to 10 meters around each station was calculated using a sloped triangle method with the average slopes measured in the field. The terrain correction for the distance of 10 meters to 2000 meters around each station was calculated using a combination of a prism method and a sectional ring method with digital terrain from 10-meter Digital Elevation Models (DEM). The

terrain correction for the distance of 2 to 167 kilometers around each station was calculated using the sectional ring method and digital terrain from 90-meter DEMs.

Gravity Repeats and Loop Closures

Total number of stations:	605
Number of repeated stations:	32
% stations repeated:	5.3%
Total number of readings:	683
Number of repeat readings:	78
% readings repeated:	11.4%
Maximum repeat error:	0.0429 mGal
Mean repeat error:	0.0111 mGal
RMS error:	0.0177 mGal

The mean of the absolute value of all loop closure errors is 0.02 mGal.

DATA FILES

Raw Data Files

The raw data files are named with the gravity meter serial number, date, and operators initials. The format is *gnnn_mmm_dd_2018_iii.txt* where *gnnn* is the serial number of the gravity meter, *mmm* is the month, *dd* is the date on which the gravity loop was acquired, and *iii* are the operator's initials. The raw data files and Geosoft database file (.gdb) for each day's data are included with the delivered data.

Final Gravity XYZ File

The final GDB file with all principle facts for the May 2018 Keystone gravity survey is named *Keystone2018_Master.gdb* with a corresponding XYZ file named *Keystone2018_Master.xlsx*. The merged GDB is named *Keystone2018_MasterMerge_May05.gdb* with a corresponding XYZ file named *Keystone2018_MasterMerge_May05.xlsx.* The data columns in the file include headers identifying the value of each column.

Grid and Terrain Files

The file names for the grid files used to create the images in this report and to calculate the terrain corrections are as follows and are included with the delivered data.

Complete Bouguer Gravity grids
Keystone2018_CBA250_Merged_May05.grd
Local terrain files
Keystone_10m_DEM_Expand.grd
Regional terrain files
Nevada_90m_NAD27UTM11.grd
Regional terrain correction output file
Keystone_167_tc_expand.grd

Geosoft Database Files

All of the additional Geosoft database (.gdb) files associated with the data processing are also included with the delivered data, these are:

Final coordinate and elevation listing
Keystone2018_Locations_27z11_VD29.gdb
Master gravity database
Keystone2018_Master.gdb
Keystone2018_MasterMerge_May05.gdb
Gravity Base Station database
EUREKA_GRAV_BASE.gdb

GPS Data Files

The raw and processed GPS data are included with the delivered data as Trimble Business Center projects and/or included in folders organized by date.