

**REPORT
GEOPHYSICAL EXPLORATION
POVERTY GULCH PROJECT
GOLD POINT MINING DISTRICT**

ESMERALDA COUNTY, NEVADA

July 8, 2022

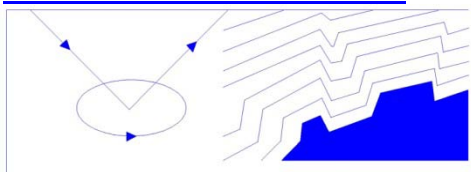
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1.0 INTRODUCTION

This report presents the results of the geophysical exploration field work completed by Advanced Geoscience, Inc. (AGI) in late January, 2022 for the Poverty Gulch project. In accordance with our proposal dated November 22, 2022, AGI completed seismic reflection and refraction surveys in the area shown on the map in Figure 1. These surveys were performed along a total of seven survey line transects during a fourteen-day field program. The seismic data were used to prepare subsurface seismic reflection and refraction velocity profiles to interpret the stratigraphy and structure of geologic units beneath the area.

The seismic reflection data were recorded by AGI along the seven survey lines designated as Lines 1 through 7 shown in Figure 1. These survey lines were positioned by Mr. Charles Watson of Advanced Geologic Exploration, Inc. to profile the depth of various Tertiary units deposited above the Pre-Cambrian Wyman Formation shown on the stratigraphic column in Figure 2. The survey lines were also positioned to help locate where thicker Tertiary gravel deposits could occur for gold placer exploration.

The data recording and processing procedures for these seismic reflection surveys were set up to provide reflection imaging of the upper 800 to 1,000 feet with near-surface resolution. The refraction tomography data processing was used to prepare seismic velocity profiles of the upper 100 to 400 feet, depending on survey line length. The geologic evaluation of this seismic profiling incorporates data from geologic outcrops and regional mapping.

The results of these field surveys and data processing were first presented in our email to Mr. Watson on April 12, 2002, which included our preliminary interpretation of the stratigraphy shown on the seismic reflection profiles.

The following sections now present our field survey procedures and methods of computer data processing, modeling, and display. The concluding sections also present our current interpretation of subsurface geologic stratigraphy and structure, and our evaluation of areas where Tertiary gravels could occur for further exploration of gold placer deposits.

2.0 GEOPHYSICAL SURVEY PROCEDURES

Advanced Geoscience mobilized a survey crew to the Poverty Gulch project area on December 4, 2021 to begin the seismic surveys. On December 14 the survey crew encountered heavier snow conditions which prevented access to the site and temporarily departed from the project area. On January 19 our crew returned to the project area and completed the seismic surveys on January 23, 2022.

The seismic reflection surveys were first started on Line 1 which was the longer-length northwest-to-southeast traverse, mostly following the main road through the project area

(Figure 1). The proposed northeast-to-southwest traverse along Lines 2, 3, and 4 had to be broken up and recorded in three survey lines due to terrain conditions. Lines 5, 6, and 7 extended down from the ridge line in less difficult terrain. Each survey line was set up with stakes placed at 100-meter (or less) intervals to mark the ground surface stationing along these lines.

The seismic data were recorded using a Seistronix, Ltd. EX-6, 150-channel data recording system. This recording system was connected to various active-length geophone receiver arrays (spreads) set up along each survey line. The longer-length Lines 1, 4, and 5 were set up with multiple, overlapping 126-channel geophone spreads. The shorter-length Lines 2, 3, 6, and 7 were set up with single 54 to 126-channel geophone spreads. Each geophone spread consisted of 40-Hertz (lower ramped cut-off frequency) geophones spaced 4-meters apart. The total lengths (in meters) of geophone coverage set up along the survey lines are listed below.

Line 1- 1,196 meters
Line 2- 284 meters
Line 3- 332 meters
Line 4- 548 meters
Line 5- 620 meters
Line 6- 212 meters
Line 7- 500 meters

The seismic waves were transmitted into the ground at “source points” positioned mostly at 4-meter intervals along the geophone spreads. These seismic wave vibrations were recorded by the EX-6 system from each channel on the geophone spreads.

A 200-pound accelerated weight drop (AWD) mounted on the rear of a 4WD truck was used to generate the seismic waves. The AWD used back pressure from a nitrogen gas cylinder to impact a metal plate held to the ground by the rear weight of the truck. Several impacts were made at each source point and the recordings from each impact were summed together to increase the amplitude of reflections and attenuate random noise from stronger wind gusts.

The first source point started off the first geophone position and then advanced down the survey line between the geophone positions. The last source point was positioned off the last geophone position.

On the longer Lines 1, 4, and 5, after the source points moved past the center of each 126-channel geophone spread, the first part of geophone array was picked up and shifted down the line in increments of 12 to 36 geophone channels. This shifting of geophone channels was made after the source points moved 20 to 25 geophone positions past the centerline of each 126-channel geophone spread.

These procedures were used to record reflection data sets with nominal 30 to 60-fold subsurface coverage with 2-meter common-midpoint (CMP) reflection spacing.

The reflection surveys along all seven survey lines recorded a total of 764 field records. Each field record was recorded with a 2.0-second record length and 0.5-millisecond sampling rate with 24 bit analog-to-digital resolution.

After each reflection survey was completed the UTM coordinates and elevations of the distance stationing set up along survey line were measured. This location data was recorded by AGI using a survey grade, NAVCOM Starfire global positioning system (GPS). A Google Earth *.KMZ file showing the locations of these GPS surveyed points was previously provided to Mr. Watson.

3.0 DATA PROCESSING AND DISPLAY

AGI performed the seismic data processing procedures using commercially-tested seismic reflection and refraction data processing and modeling software. The selection of the processing steps and parameters was made with considerations given to our understanding of geologic conditions.

The seismic field records from selected source points, spaced 20 to 28-meters apart along each survey line, were first input into the RAYFRACT seismic refraction tomography software developed by Intelligent Resources, Inc. (www.rayfract.com). RAYFRACT was used to generate 2D seismic compressional-wave velocity profiles of the upper 30 to 120-meters (100 to 400-feet). These refraction velocity profiles were used to help evaluate lithologic conditions and also prepare velocity-time profiles for converting the seismic reflection travel time profiles to depth profiles.

The field records were input into RAYFRACT to graphically pick first arrival times (“first breaks”) for refracted waves traveling through the surface layer and into deeper higher-velocity layers. These time-distance data were used together with geophone station coordinates and elevations to conduct refraction tomography imaging of seismic velocity layering. RAYFRACT first generated an initial velocity-depth model using the Delta TV turning ray method. This initial model was then refined to produce a closer fit to the arrival time data using the Wavepath Eikonal Traveltime tomographic inversion method with 30 to 40 iterations. The best-fit velocity-depth model was then gridded and color contoured with SURFER (written by Golden Software, Inc.) to show estimated vertical and lateral velocity variations along each survey line.

The Visual_SUNT seismic reflection processing software developed by W_Geosoft (www.wgeosoft.ch) was used to prepare seismic reflection profiles for each survey line. The complete set of field records from each survey line were input into this computer program together with the measured geophone coordinates and elevations to perform a specialized sequence of data editing, digital filtering, trace sorting, velocity corrections, and trace summation procedures to prepare CMP-stacked, reflection time and depth profiles. Several sequences of data processing were performed and evaluated and modified until a set of processing parameters was arrived at that provided the clearest

images of geologic structure and stratigraphy.

The variations in ground surface elevation along the survey lines were accounted for in the reflection data processing by applying “elevation statics” corrections. After the CMP-stack, the CMP traces were shifted to horizontal datum elevations which were slightly above the highest points on these survey lines. The time shifts introduced by this step were calculated using a replacement velocity of 700 m/sec for the material between the ground surface and horizontal datum. This step effectively reduced the reference time ($t=0$) on the reflection time profiles to these horizontal datum elevations.

The reflection time profiles for each survey line were then converted to approximate reflection depth profiles using a seismic velocity-time grid generated from a smoothed version of the refraction velocity profiles and estimates of deeper velocities from the reflection processing. In making this conversion the interval summation calculation $D_{ij}=V_{ij} \times T_{ij}$ was performed on each sample of each trace with the replacement velocity 700 m/sec used for the time window associated with the elevation statics.

The resulting reflection depth profiles for Lines 1 through 7 are shown in Plates 1 through 6 with their refraction velocity profiles at the same horizontal scale and positioning. For the longer-length Line 1 the profiles are displayed at a horizontal scale of 1-inch= 50 meters, with vertical elevation scale for the reflection depth profile the same and the refraction profile at 1-inch= 25 meters (for x2 vertical exaggeration). For Lines 2, 3, 4, 5, and 7 the horizontal scales were 1-inch= 40 meters, with vertical elevation scale for the reflection depth profile the same and the refraction profile at 1-inch= 25 meters (for x1.6 vertical exaggeration). For Line 6, which was a very short line, the horizontal scales were 1-inch= 30 meters, with vertical elevation scale for the reflection depth profile the same and the refraction profile at 1-inch= 15 meters (for x2 vertical exaggeration). These variable scales were used to provide better resolution displays of the seismic reflection patterns and velocity variations.

4.0 EVALUATION OF SUBSURFACE GEOLOGIC CONDITIONS

4.1 Subsurface Stratigraphy and Structure

The seismic survey lines were mostly positioned across the survey area on the thin layer granular alluvium covering the Tertiary tuffaceous and gravel deposits. These tuffaceous deposits were visible in outcrops across the area and also mapped on the regional-scale geologic map prepared by Albers and Stewart (1965) as air fall tuff and non-welded ash flows. The stratigraphic column of the area prepared by Mr. Watson in Figure 2 shows a descending sequence of older Tertiary units beneath these upper tuffaceous deposits consisting of gravels, mudstone, and welded rhyolite. These Tertiary units are all deposited above the much harder, Pre-Cambrian Wyman Formation metamorphic siltstones that are mapped by Albers and Stewart near the ground surface across the south part of Line 1.

Our current geologic interpretation of the seismic reflection patterns shown on the reflection profiles for Lines 1 through 6 (in Plates 1 through 6) is intended to help evaluate the depth and thickness of the possible gold-bearing Tertiary gravels deposited above the welded rhyolite and mudstone. At this time, this interpretation is based on seismic reflection character, stratigraphic positioning, seismic refraction velocity range, and associations with the geologic outcrops near Lines 1 through 7. No subsurface geologic data is currently available from exploratory drill holes in the claim area to tie these reflection patterns to known lithologic units on borehole logs.

The seismic reflection profiles in Plates 1 through 6 show our current interpretation of reflection patterns associated with the following geologic horizons:

- 1) Tertiary air fall tuffaceous layers
- 2) Upper surface of Tertiary mudstone
- 3) Upper surface of Tertiary welded rhyolite
- 4) Upper surface of Pre-Cambrian Wyman Formation

Each of these geologic horizons are identified by the colored-highlighted reflection patterns shown in Plates 1 through 6. At the intersections between the survey lines these reflection patterns are tied to similar reflection patterns at approximately the same elevations on the intersecting lines.

The blue-highlighted reflection pattern showing the depth profile of the upper surface of the Pre-Cambrian Wyman Formation is tied to the stronger-amplitude reflections and higher refraction velocities shown on the south part of Line 1. These stronger-amplitude reflections tie to similar reflections on Lines 4, 5, 6, and 7 that slope to the north as shown on Line 4. This indicates that the overall thickness of the Tertiary section increases to the north.

The red-highlighted reflection pattern showing the upper surface of the Tertiary welded rhyolite is interpreted based on this reflection pattern's association with 1,600 m/sec (5,250 ft/sec) plus velocities shown on the refraction profiles. Above this reflection pattern, Lines 2, 3, 4, 5, and 7 show a magenta-highlighted, south-dipping reflection that is interpreted to be the upper surface of the Tertiary mudstone. This reflection pattern appears to onlap the reflection pattern associated with the welded rhyolite surface.

Near the ground surface on Lines 4, 5, and 7 a series of yellow-highlighted reflections are interpreted as south-dipping, Tertiary air fall tuffaceous layers. These tuffaceous layers are also shown by similar south-dipping, higher velocity layers on the refraction profiles. These layers occur where the surveys lines cross over or are adjacent to outcrops of air fall tuffaceous units.

Borehole data would be useful in helping to better confirm this stratigraphic interpretation. However, based on this current interpretation of the seismic reflection and refraction profiles the following observations can be made concerning the location and thickness of the potentially gold-bearing Tertiary gravels.

- Lines 4, 5, 6, and 7 show greater thicknesses of Tertiary tuffaceous layers, gravels, and mudstones deposited above the welded rhyolite unit. In the middle of Lines 4, 6, and 7, the thickness of this section could be over 200 feet. On Line 1, west of Fault A, the thickness of this section also appears to exceed 200 feet.
- The refraction profiles for these lines also show velocities in the range 1,200 to 1,600 m/sec (3,940 to 5,250 ft/sec) above the welded rhyolite unit that appear to indicate greater thicknesses of weakly consolidated Tertiary gravels and mudstones beneath the air fall tuffaceous deposits.
- Lines 2, 3, 4, 5, and 7 show reflections interpreted as the upper surface of the Tertiary mudstone unit. These mudstones outcrop to the north of these survey lines below the ridge line. If this interpretation is correct there are most likely gravels deposited on this surface that could be explored by direct excavation.
- East of Fault B on Line 1 the Tertiary section is mostly missing due to the presence of the Pre-Cambrian section near the ground surface.

The seismic reflection profiles in Plates 1 through 6 also show our interpretation of some of the more significant faulting that extends upward into the upper Tertiary section beneath Lines 1 through 7. The fault planes shown on these profiles were drawn along reflection pattern discontinuities such as separations and changes in dip that appear to be caused by more significant fault deformation. The map in Figure 3 shows the subsurface orientation of these faults. Additional fault plane interpretations are possible.

Fault A appears to be the major east-west fault crossing the area that was also mapped by Albers and Stewart (1965). This fault crosses from east-to-west from Lines 4, 5, 7, 1, and 6 and shows down-to-the-north separation.

Fault B crosses Line 1 and trends to the northeast with down-to-the-west separation. This fault plane is visible on the deeper part of the reflection profiles for Lines 2, 3, and 4.

Fault C was detected only on Line 3. This fault shows down-to-the north separation and most likely trends to the northwest.

5.0 REFERENCES

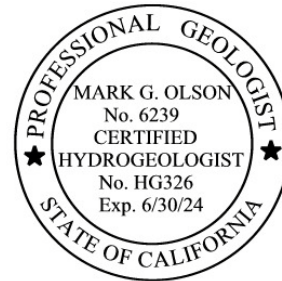
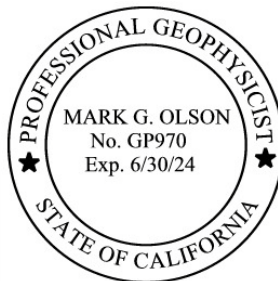
Albers and Stewart, 1965, Geologic Map of Esmeralda County, Nevada, in Nevada Bureau of Mines and Geology Bulletin 78, Plate 1.

Advanced Geoscience, Inc. appreciates this opportunity provide geophysical exploration services to Mr. Carl Lane. We trust this information will be helpful for your continued exploration program.

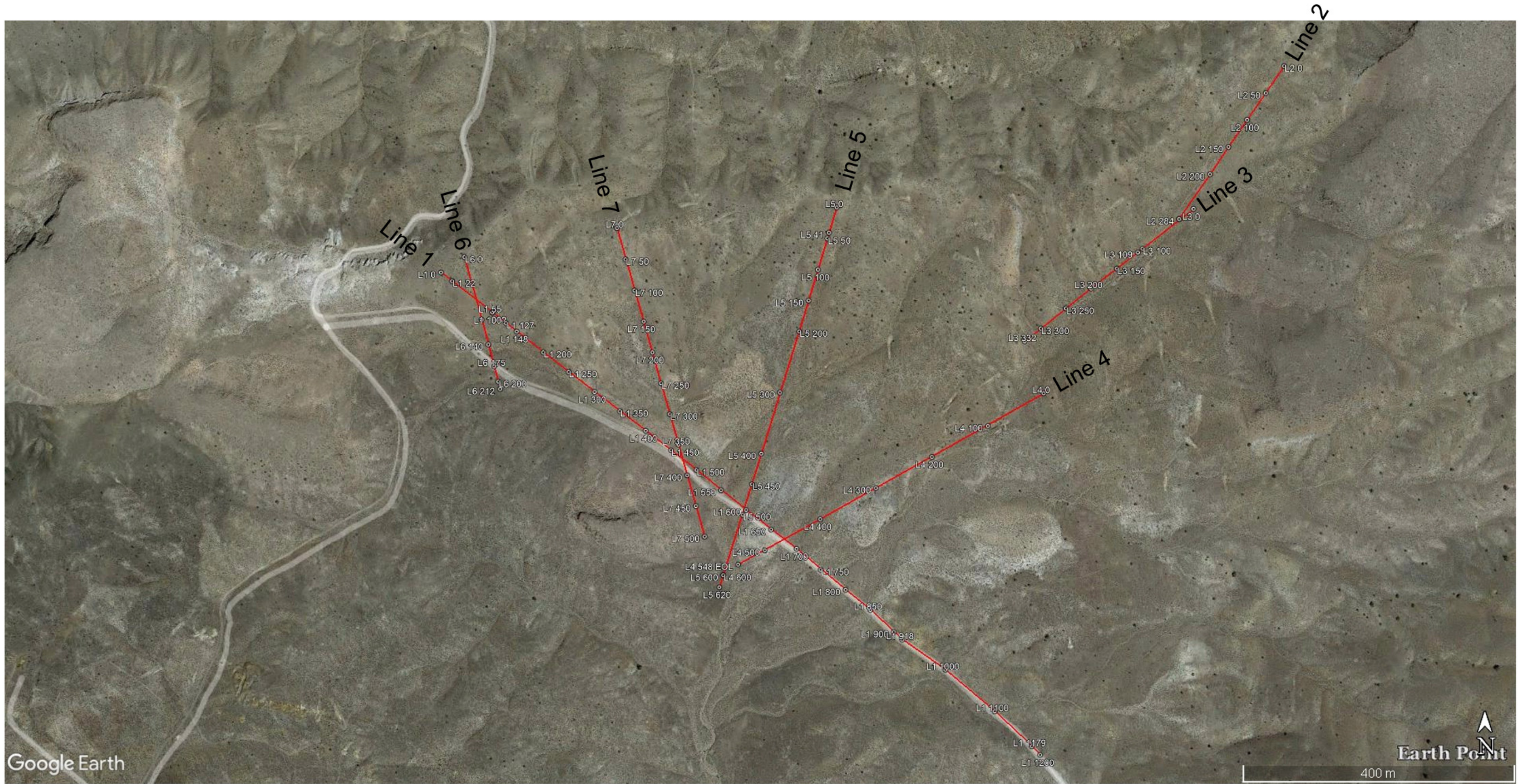
Please contact the undersigned if you have any questions or additional requests concerning this report and geophysical investigation.

Sincerely,

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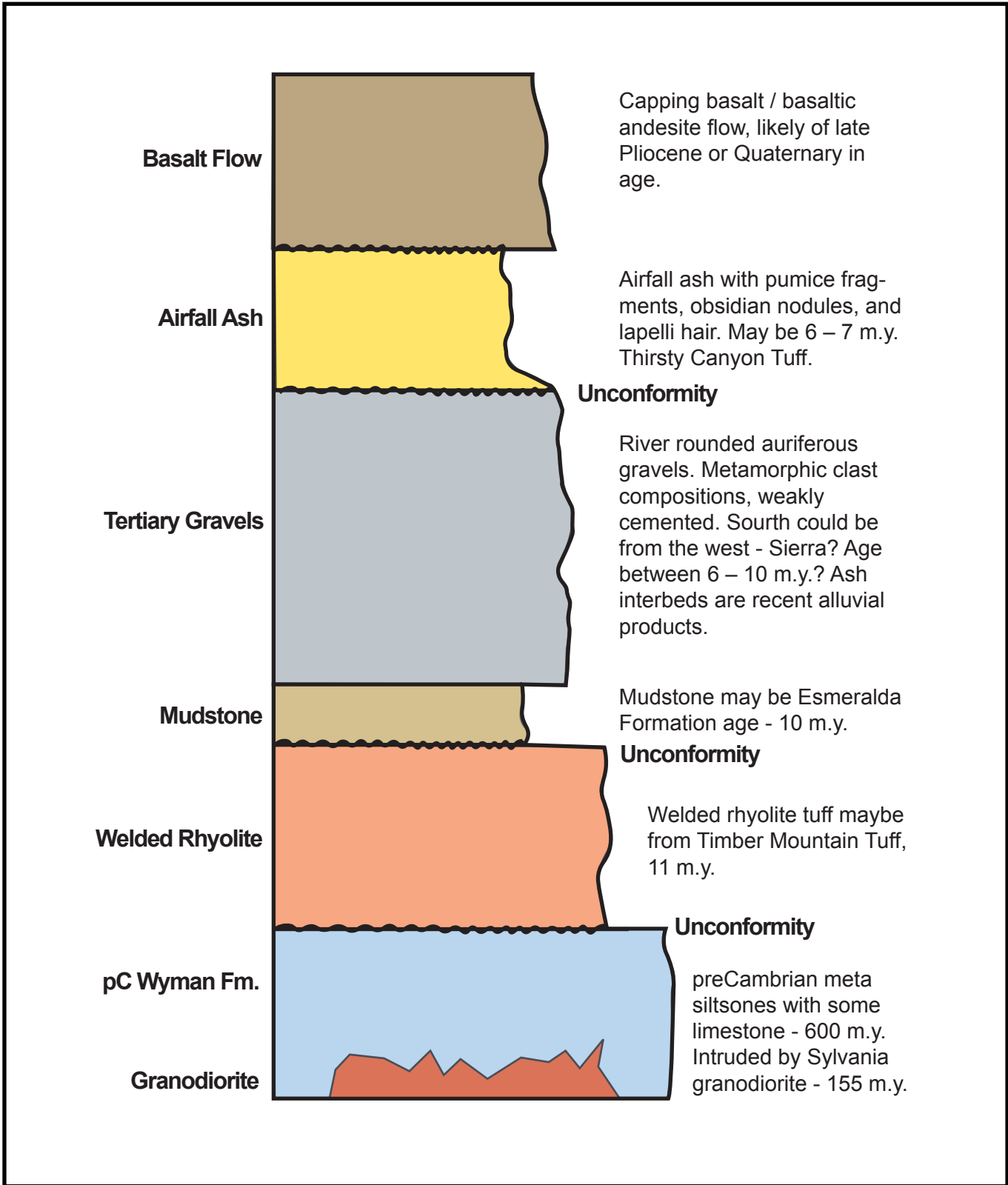
Google Earth

Earth Point
N

400 m

Map Scale 1 inch= 100 m

Map of Poverty Gulch Project Area
 Showing Seismic Survey Line Positioning
 Gold Point Mining District Esmeralda County, Nevada June, 2022



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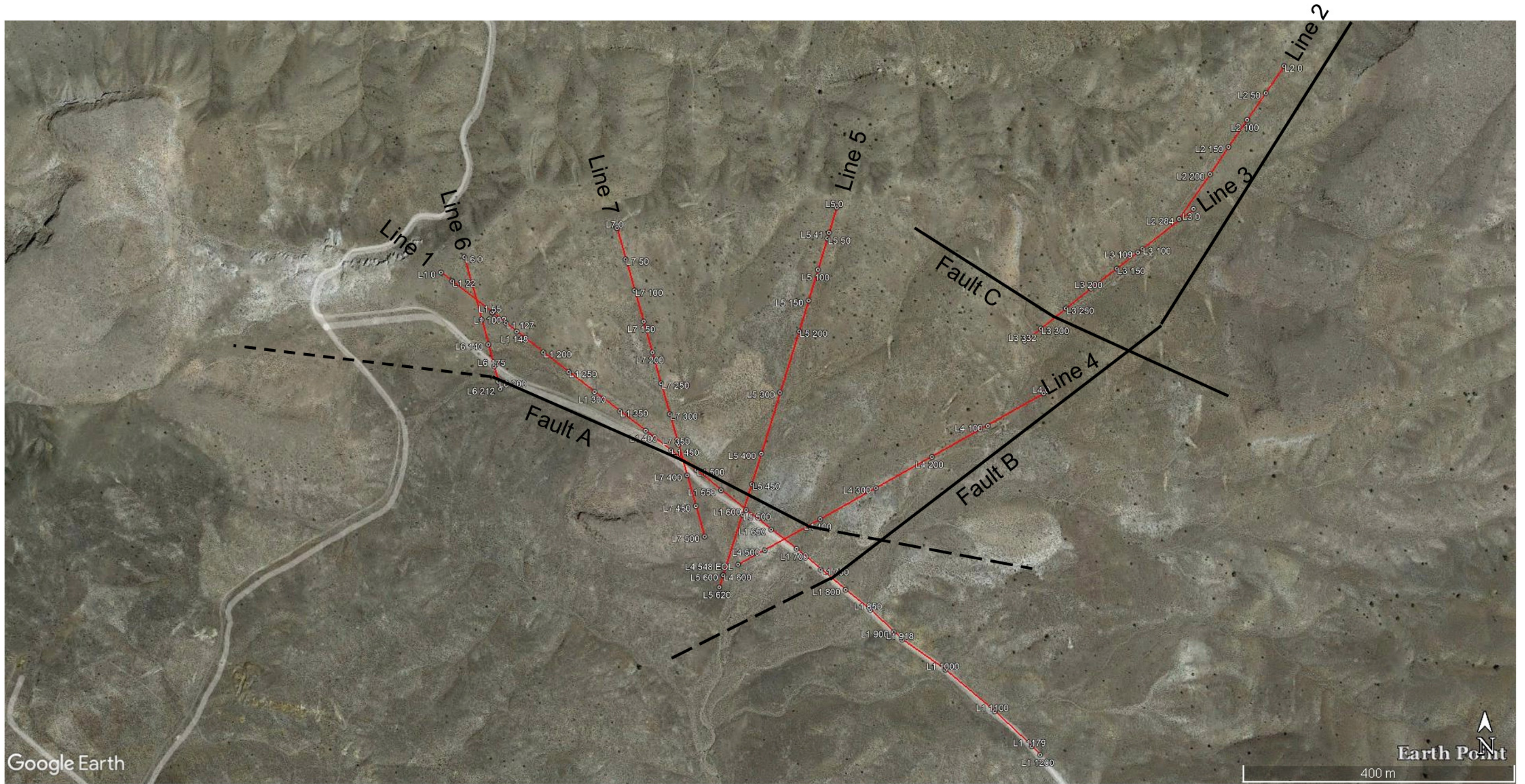
Basic Stratigraphic Column

Poverty Gulch

T. 24N, R.11E., S. 19, 30

Esmeralda County, NV

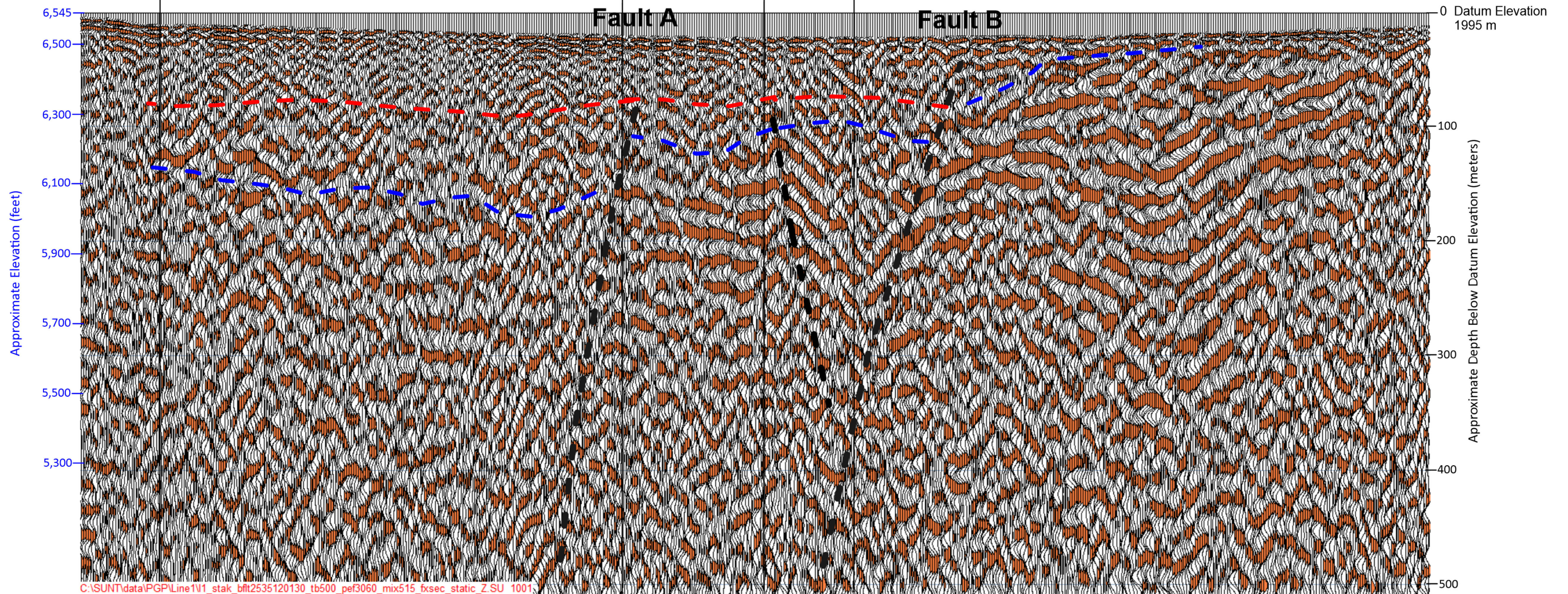
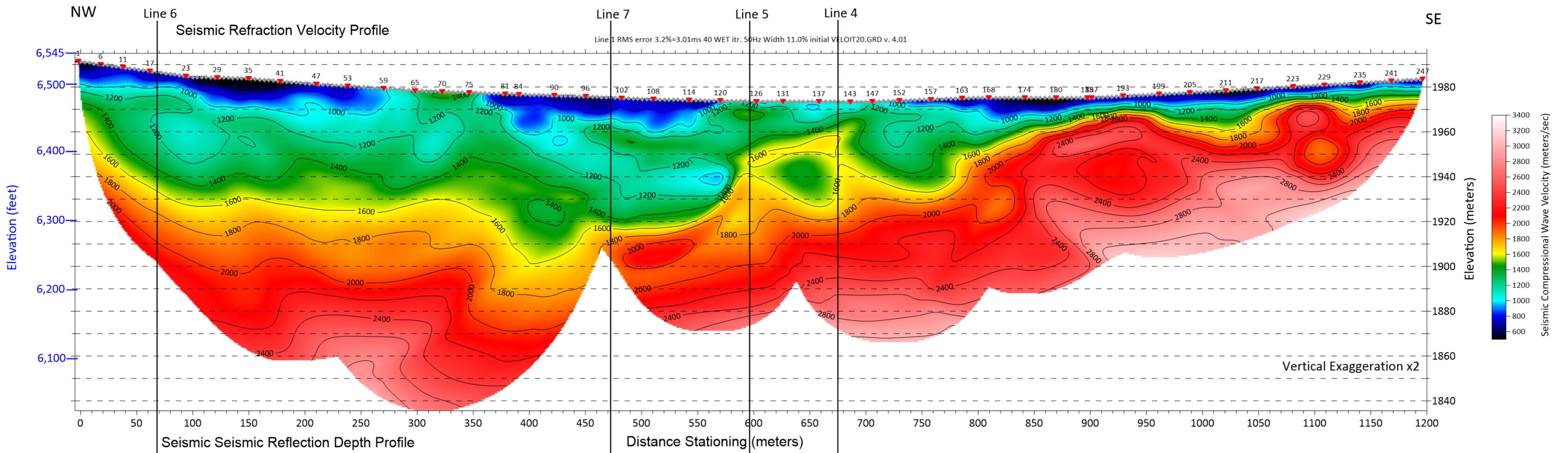
Figure 2
 ADVANCED GEOSCIENCE, INC.



Map of Poverty Gulch Project Area
 Showing Seismic Survey Line Positioning and Fault Subsurface Locations
 Gold Point Mining District Esmeralda County, Nevada June, 2022

Figure 3
 ADVANCED GEOSCIENCE, INC.
www.AdvancedGeoscience.com

Line 1- Seismic Refection and Refraction Profiles



Seismic Refraction Velocity Profile Based on RAYFRAC Tomography
 Seismic Compressional-Wave Velocity Contour Interval 200 m/s
 Horizontal Scale 1 inch= 50 meters and Vertical Scale 1 inch = 25 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
 Horizontal and Vertical Scale 1 inch= 50 meters

Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

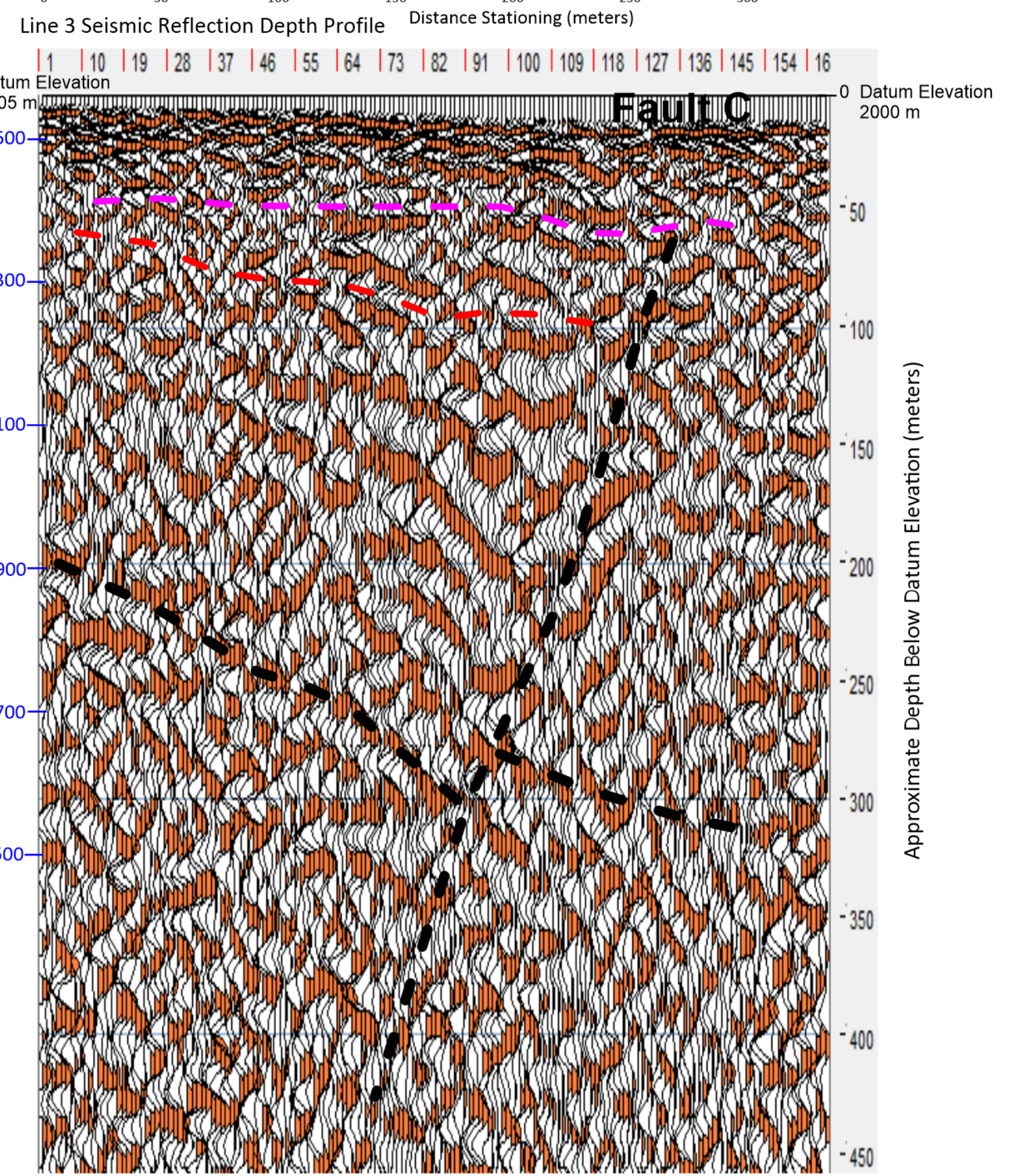
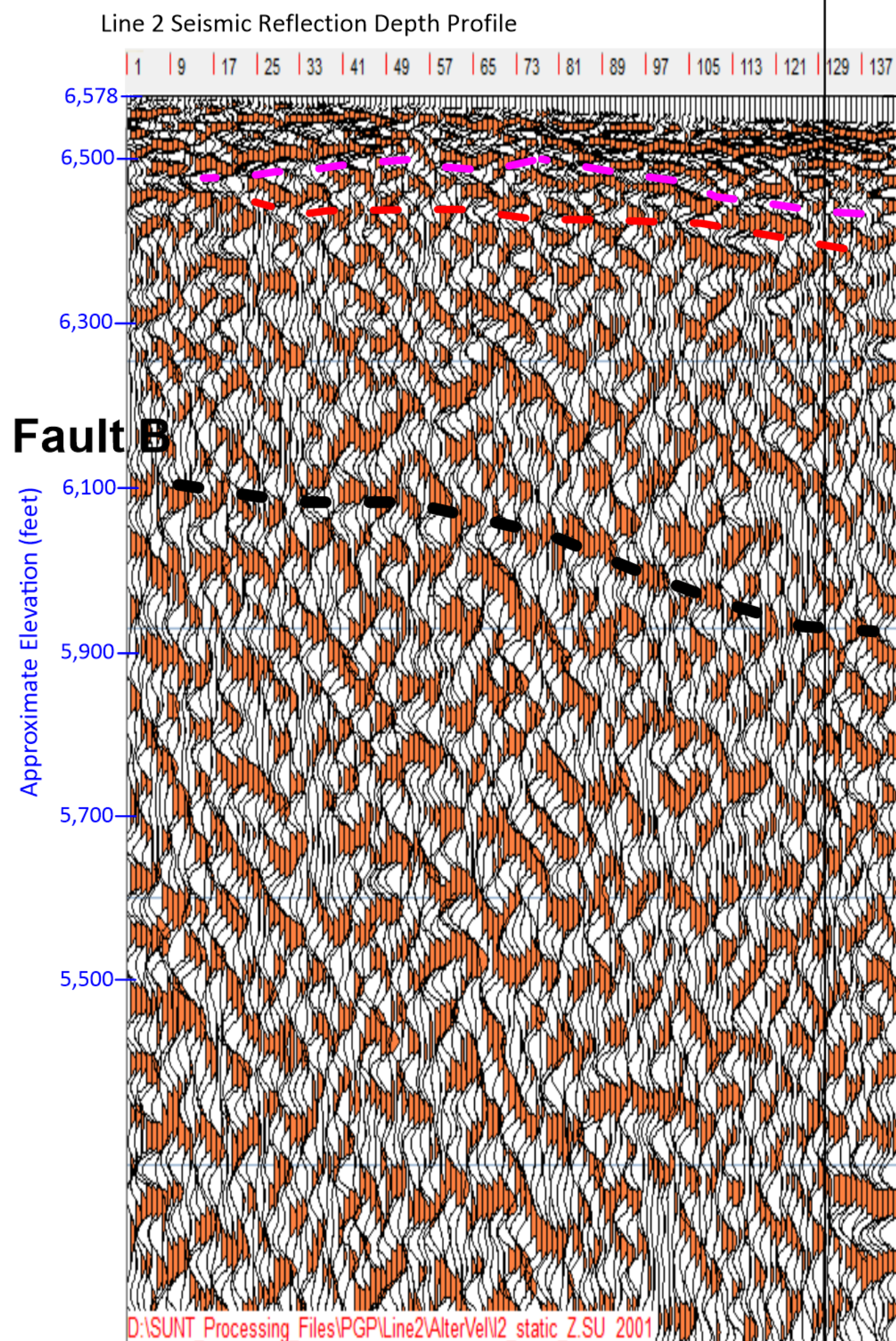
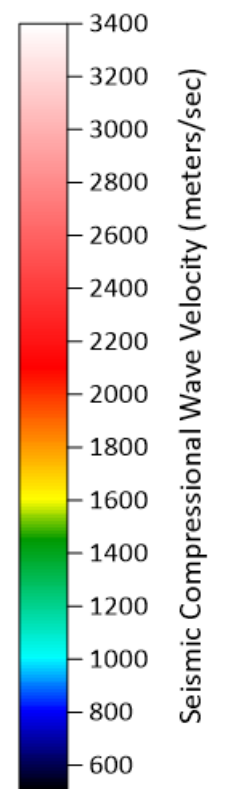
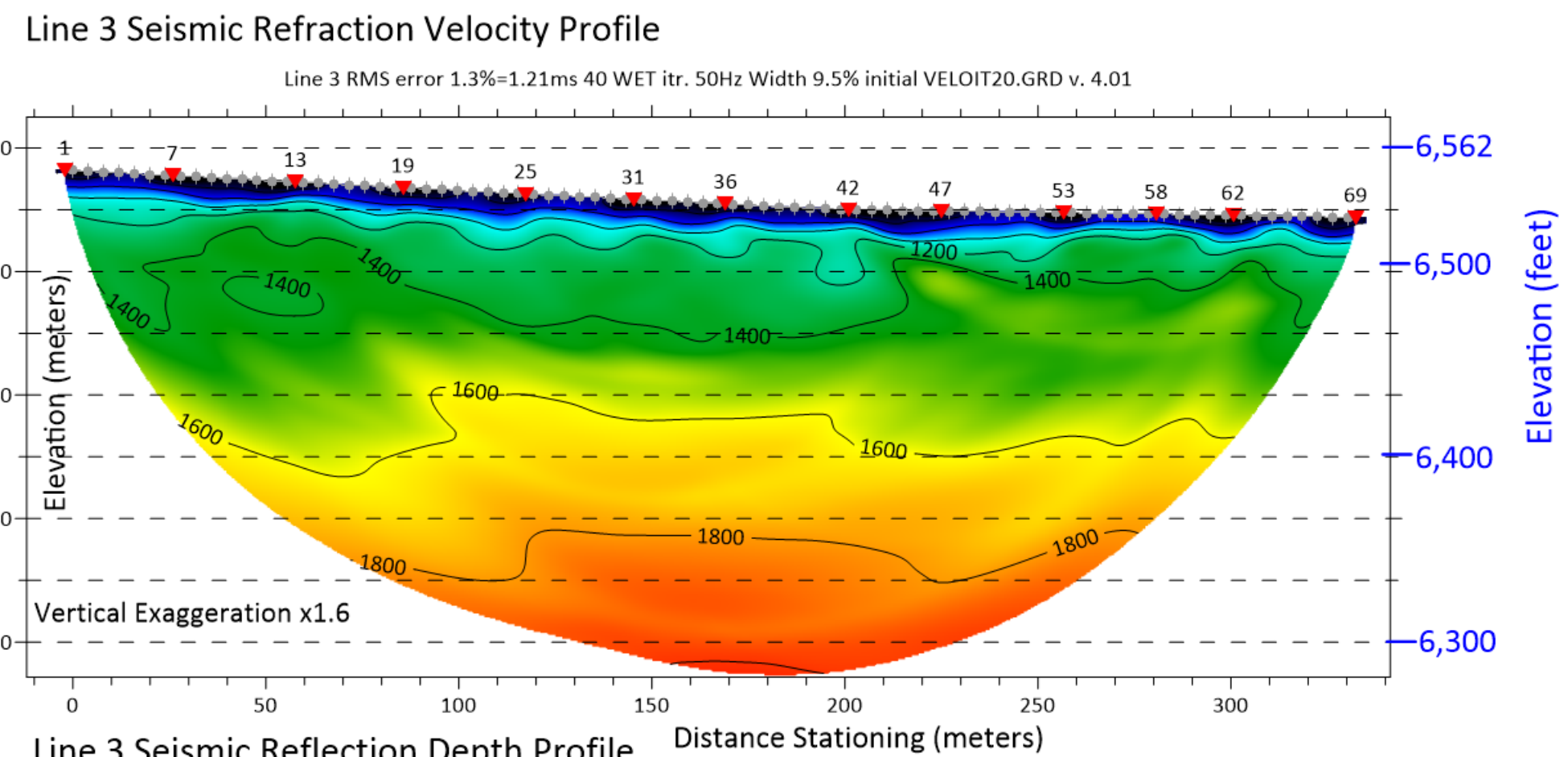
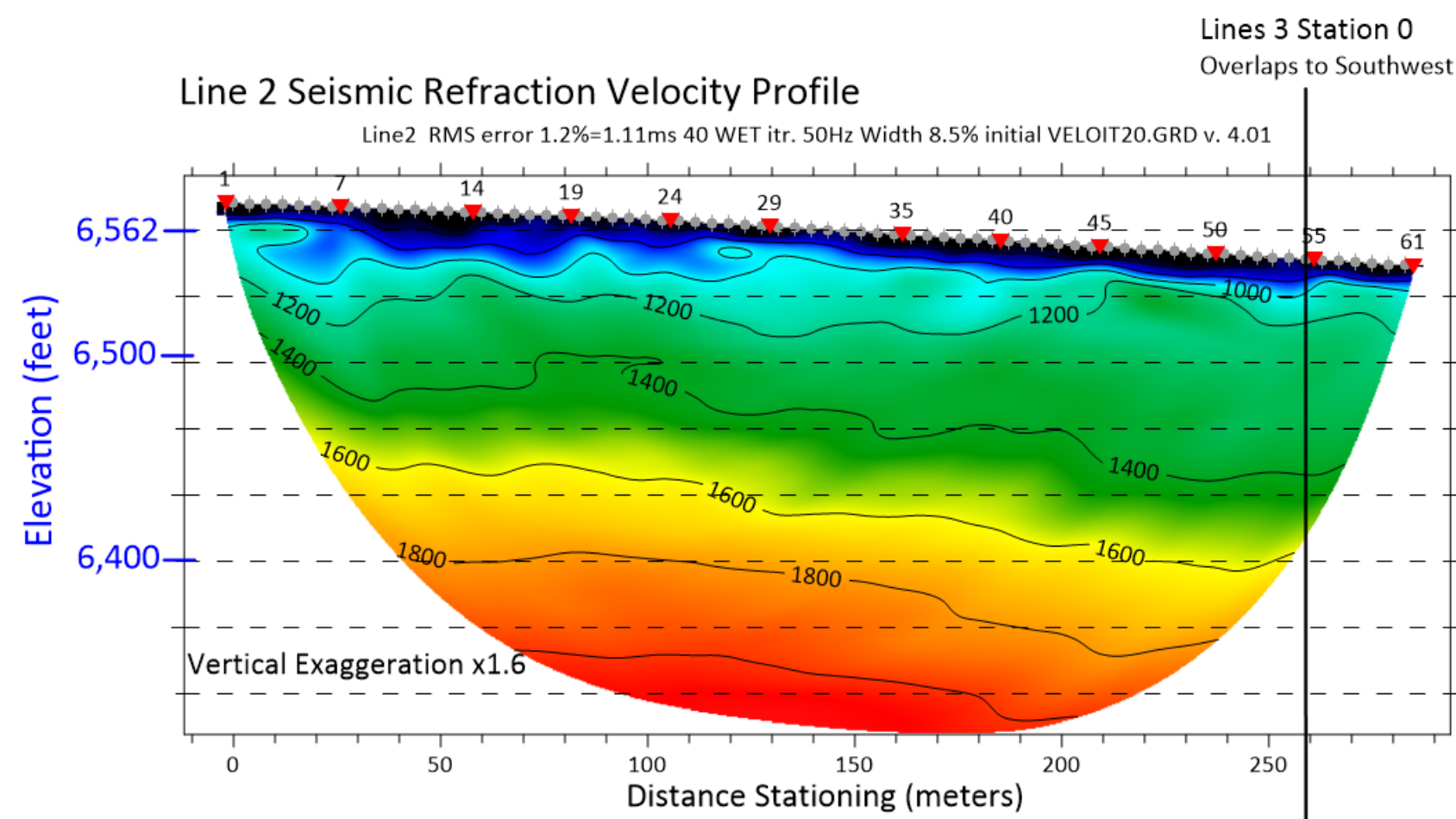
Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

Seismic Surveys for Exploration of Subsurface Geologic Units
 Poverty Gulch Exploration Project
 Gold Point, Nevada February, 2022

Lines 2 and 3- Seismic Reflection and Refraction Profiles

NE

SW



Seismic Refraction Velocity Profile Based on RAYFRAC Tomography
Seismic Compressional-Wave Velocity Contour Interval 200 m/s
Horizontal Scale 1 inch= 40 meters and Vertical Scale 1 inch = 25 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
Horizontal and Vertical Scale 1 inch= 40 meters

Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

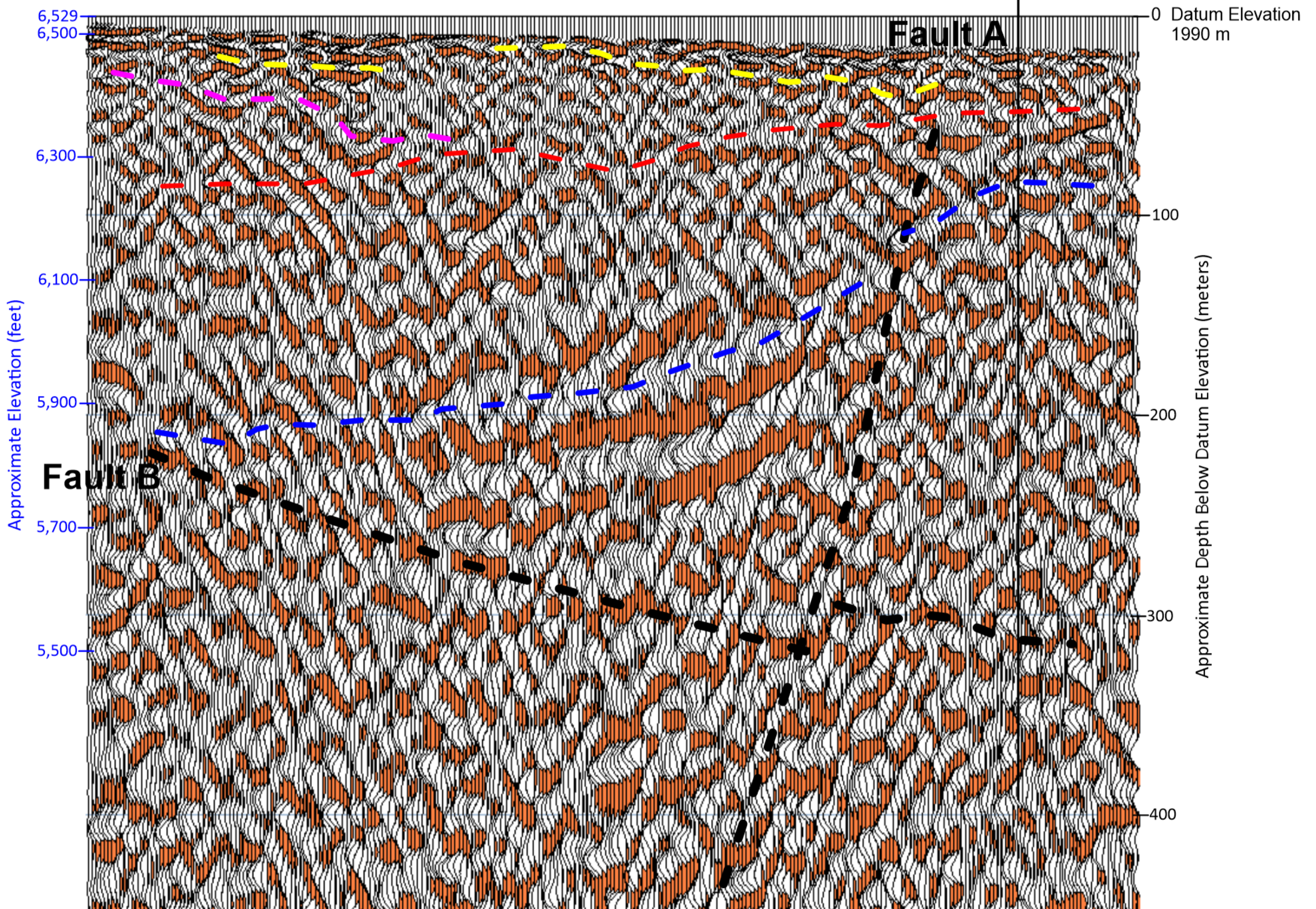
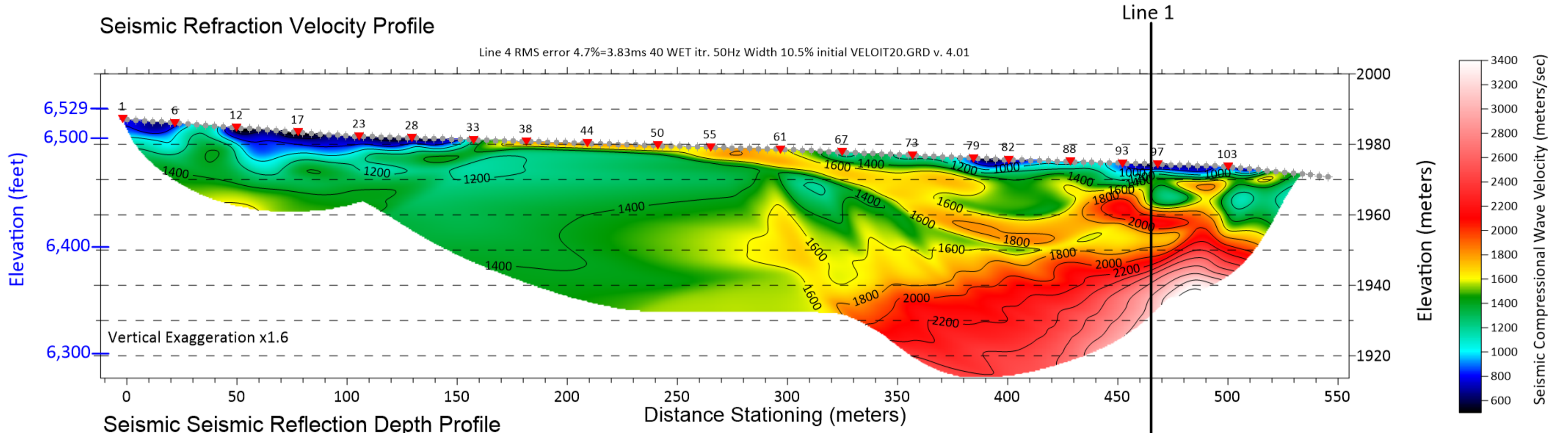
Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

Seismic Surveys for Exploration of Subsurface Geologic Units
Poverty Gulch Exploration Project
Gold Point, Nevada February, 2022

Line 4- Seismic Reflection and Refraction Profiles

NE

SW



C:\SUNT\data\PGP\Line4\AltPro\4_edit_geo_xyz_tb500_bft3040150160_pef2585_t11250_cdpsort_agc300_stak_bft2535120130_tb500_pef3060_mix51!

Seismic Refraction Velocity Profile Based on RAYFRACT Refraction Tomography
 Seismic Compressional-Wave Velocity Contour Interval 200 m/s
 Horizontal Scale 1 inch= 40 meters and Vertical Scale 1 inch = 25 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
 Horizontal and Vertical Scale 1 inch= 40 meters

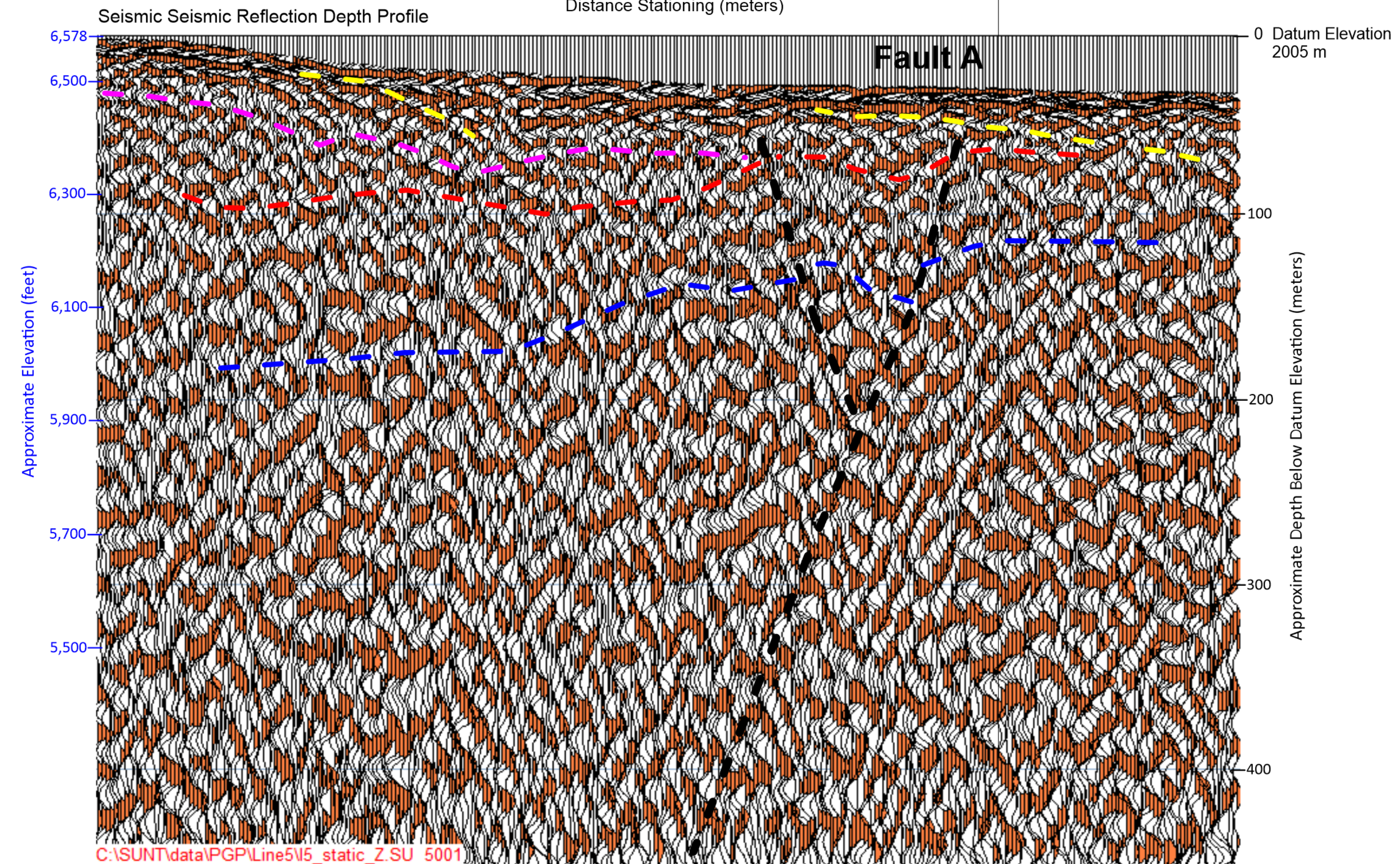
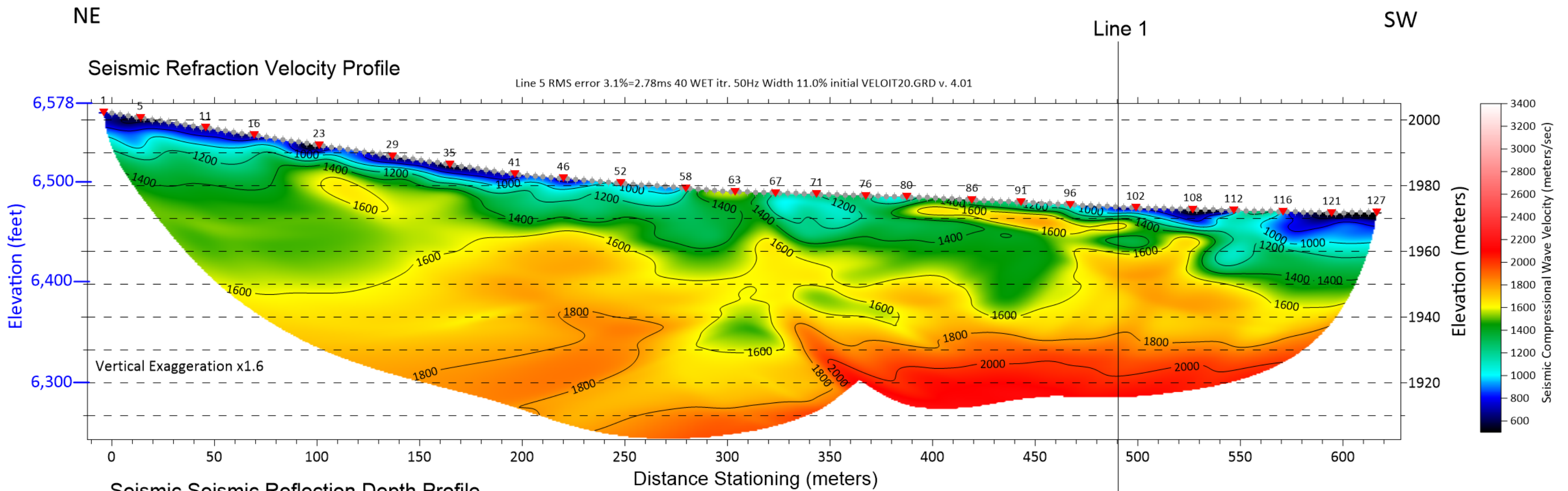
Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

Seismic Surveys for Exploration of Subsurface Geologic Units
 Poverty Gulch Exploration Project
 Gold Point, Nevada February, 2022

Line 5- Seismic Reflection and Refraction Profiles



Seismic Refraction Velocity Profile Based on RAYFRACT Refraction Tomography
 Seismic Compressional-Wave Velocity Contour Interval 200 m/s
 Horizontal Scale 1 inch= 40 meters and Vertical Scale 1 inch = 25 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
 Horizontal and Vertical Scale 1 inch= 40 meters

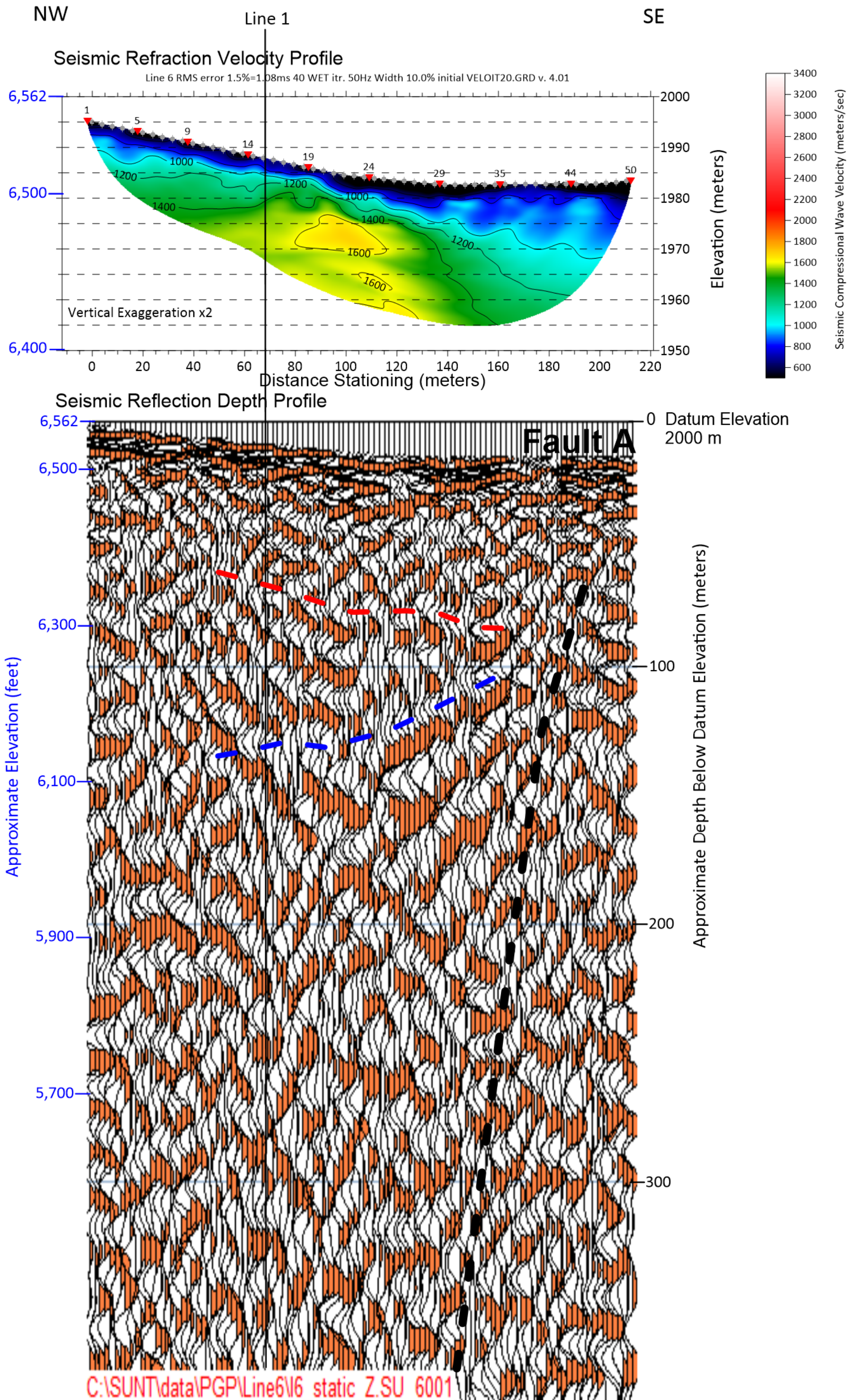
Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

Seismic Surveys for Exploration of Subsurface Geologic Units
 Poverty Gulch Exploration Project
 Gold Point, Nevada February, 2022

Line 6- Seismic Reflection and Refraction Profiles



Seismic Refraction Velocity Profile Based on RAYFRAC Tomography
 Seismic Compressional-Wave Velocity Contour Interval 200 m/s
 Horizontal Scale 1 inch= 30 meters and Vertical Scale 1 inch = 15 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
 Horizontal and Vertical Scale 1 inch= 30 meters

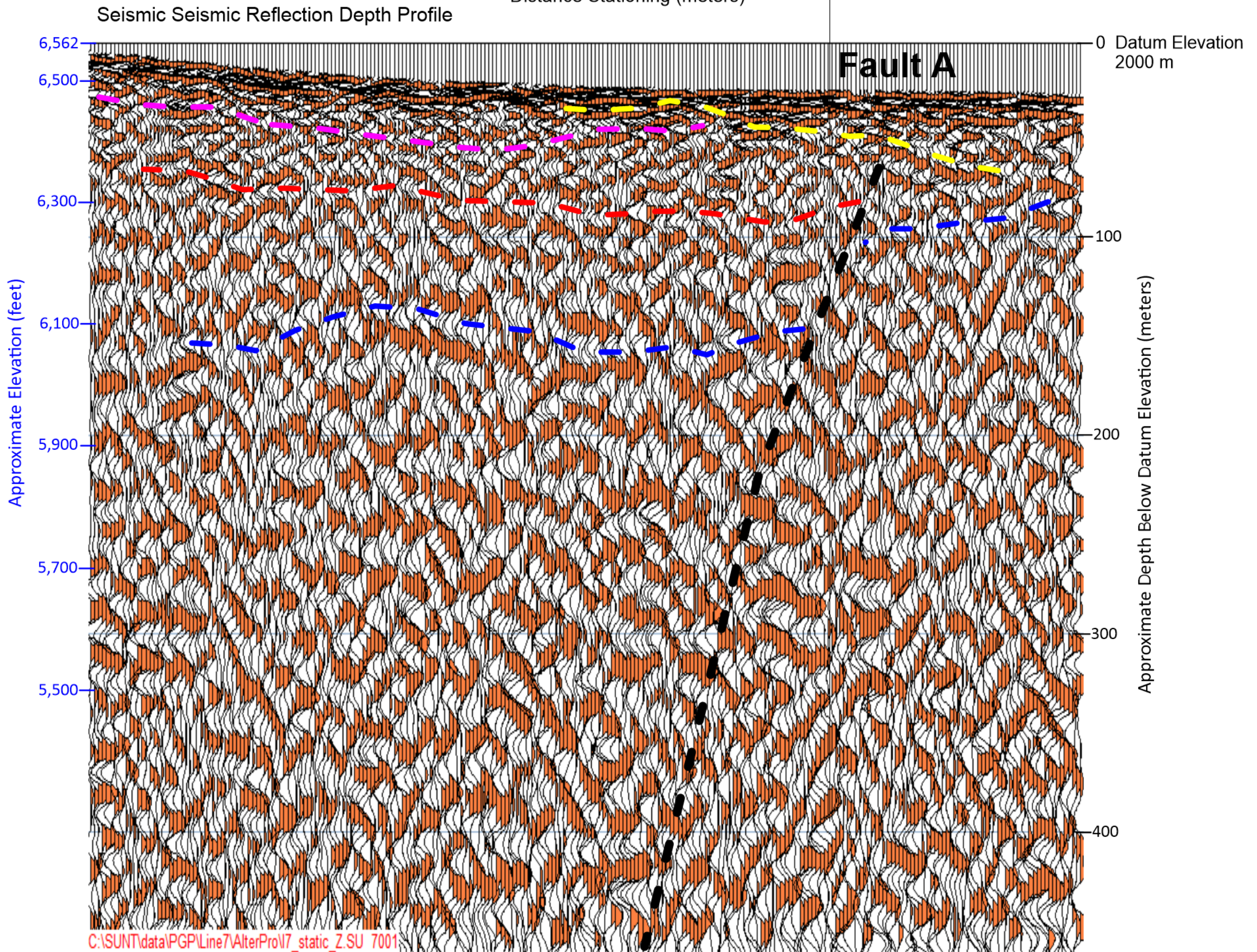
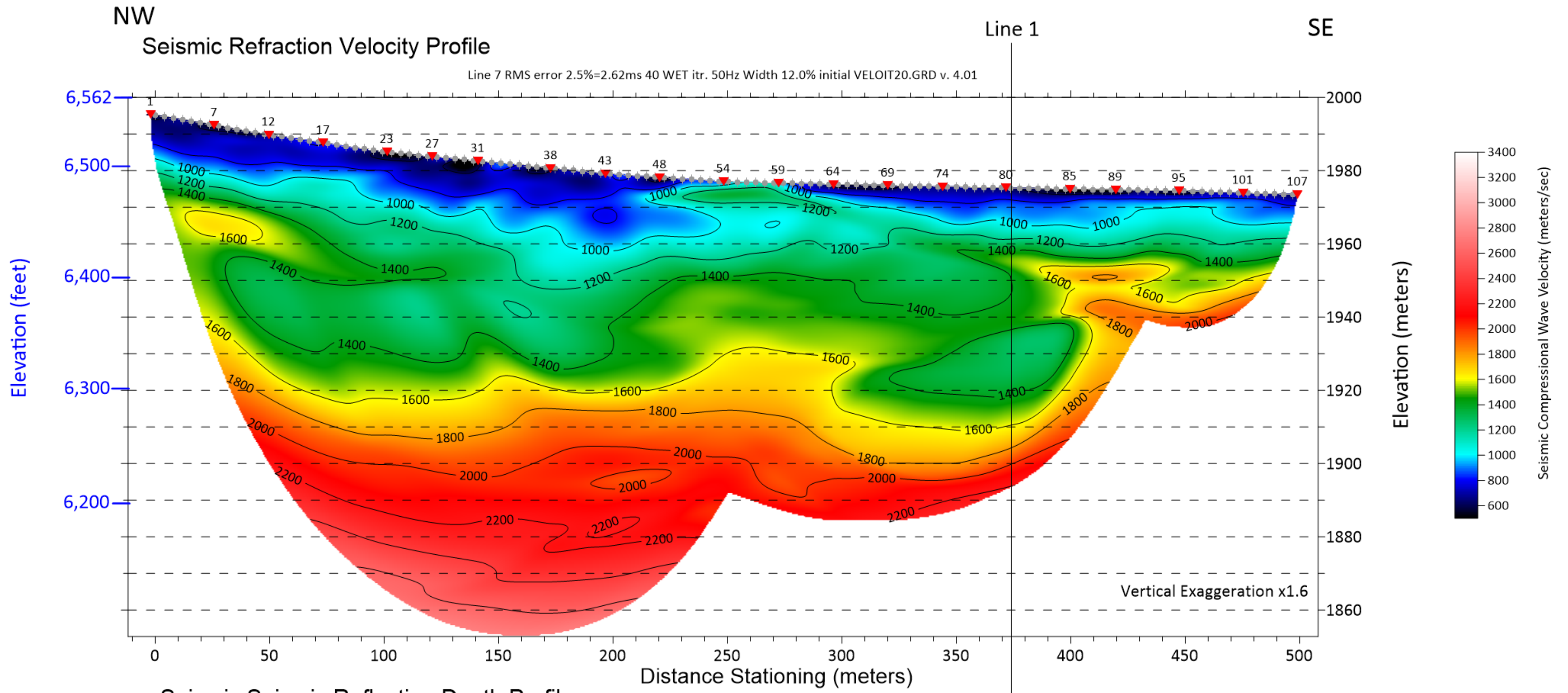
Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

Seismic Surveys for Exploration of Subsurface Geologic Units
 Poverty Gulch Exploration Project
 Gold Point, Nevada February, 2022

Line 7- Seismic Reflection and Refraction Profiles



Seismic Refraction Velocity Profile Based on RAYFRAC Tomography
 Seismic Compressional-Wave Velocity Contour Interval 200 m/s
 Horizontal Scale 1 inch= 40 meters and Vertical Scale 1 inch = 25 meters

Seismic Reflection Depth Profile Based on Visual SUNT Processing
 Horizontal and Vertical Scale 1 inch= 40 meters

Geologic Interpretation of Reflection Patterns

- Tertiary Air Fall Tuffaceous Layers
- Upper Surface of Tertiary Mudstone
- Upper Surface of Tertiary Welded Rhyolite
- Upper Surface of Pre-Cambrian Wyman Formation

Black Lines Show Orientation of Fault Planes Based on Reflection Pattern Discontinuities

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