If you’re a junior exploration company, your aim is to run a well-funded successful exploration program, which results in an attractive official resource estimate that pays off for investors. Arriving at that estimate is a lengthy, complex process involving thousands of data points. We spoke to Contact Gold Corp. about their approach and how using Leapfrog Geo helped them make a valuable intercept at a key exploration project in Nevada: Pony Creek.

Geologist Zachery Hibdon, explains Contact Gold’s interest in Pony Creek. “We’re looking for gold deposits on what is considered the southern end of the Carlin Trend, which is one of the more prolific gold trends in the world. Over 100 million ounces of gold have been produced out of mines on this trend. It’s a great place to be looking for more gold.”

Parts of Pony Creek have been previously explored, so there is historical data available to help Contact Gold’s team build a more reliable, current geological picture. Handily, Leapfrog has features to help validate historical data and raise flags for clean-up. Zach commented on the validation features in Leapfrog saying, “It’s a quick painless process to go through and once you figure out where some of those red flags are they can be used to help clean the data.” So even where there is known, desirable gold mineralisation such as at Pony Creek, the objective is to carefully analyse the geologic controls behind it, to ultimately create an accurate resource estimate.

**WHY EVERY BIT OF DATA COUNTS**

Zach is passionate about the Pony Creek project (he even grew up in the area) and uses every bit of data available to build the story of the geology. “We use everything from our geologists, including mapping of different rock types and structures, taking structural measurements, multi-element geochemistry from rock and soil samples, using all of the elements out of our assay packages. Then we look at the geophysical data, and how the earth
responds to induced currents or charges that we put into it, and we also measure differences in its magnetic and gravitational fields.

We use lots of tools and methods in a fairly specific order, because in the end, everything is reliant upon the geology of our project and what we think the rocks are doing and what the controls on the mineralisation are. Then we take all this data and start to design our exploration play and our exploration targets. That’s how it all comes together.”

With this level of data-informed planning, Contact Gold’s geological team can be sure they are using investor money wisely and optimising the production of solid 3D models on which to make a discovery, grow and delineate it to a deposit, and create a resource estimate.

**HOW GOOD DECISIONS COME FROM GOOD DATA**

As new data is collected, Zach adds it into Leapfrog Geo to shape and visualise the site, and better understand the controlling geologic features of the area.

“Leapfrog Geo was really great at allowing us to bring in everything from our surficial and sub-surficial data, which includes all of our geological, geochemical and our geophysical information, and translate it into a three-dimensional realm to build high confidence models supported by the various inputs,” Zach explains.

“You’ve got to have that 3D visualization to understand where your deposit is, how you’re going to mine it, how you’re going to drill it, and how you’re going to make it bigger. I don’t think there’s any drilling decision we would make without consulting the Leapfrog model and data that we have in place.”

**A KEY DISCOVERY AT PONY CREEK**

It was this level of trust in the 3D picture that lead to the discovery of the most promising intercept to date. It started with observations in the 3D structural model in Leapfrog that Zach generated from correlating surface mapping with down hole drill logs. The model showed that the deposit controls could be along faults oriented northeast-striking instead of the more typical north-striking faults in the area. Then, by following the mineralisation markers along this orientation, the team struck upon PC18-03 in June 2018.

“PC18-03 is the best oxide mineralization intercept in all the drilling that’s been completed on the property, historic and current. And the oxide mineralization is really key because it means lower cost processing when you mine it.”

The intercept was an exciting and critical find for Contact Gold and its shareholders; the kind of intercept that junior exploration companies hope for.

**DATA PLUS ATTITUDE EQUALS SUCCESS**

Contact Gold’s team are known for delivering aggressive exploration campaigns and the Pony Creek project is no different. Like many junior exploration companies, they spend most of their time collecting and processing geological data in order to spend the other part of their time communicating the value of that data to decision-makers, investors and stakeholders. "Not everybody
that’s sitting up there helping manage the company is going to be a geologist, so being able to put imagery in front of them and spin them around and explain what we’re looking at, helps tremendously. A picture is worth a thousand words and a good 3D model has to be worth a million.”

Zach is confident in his work and is determined to use every point of data to support the exploration through to estimating a gold resource. When asked about his hopes for the resource estimate, he told us that he’d stake his reputation and career on the accuracy, because he knows what went into creating the model, and that “a solid 3D geologically-constrained model gives investors a solid resource estimate of gold ounces in the ground.”

Contact Gold Corp. is a gold exploration company focused on leveraging its properties, people, technology and capital to make district scale gold discoveries in Nevada. Contact Gold’s extensive land holdings are primarily on the prolific Carlin trend, as well as the Independence and Northern Nevada Rift gold trends which host numerous world class gold mines and deposits.

All images provided by Contact Gold Corporation. Isometric view of drilling gold assays and faults projected into 3D Leapfrog space, looking Southwest.