



# The Future

## A New Dawn, A New Day

**The Future Is Now: Mining Gold Without Moving a Rock**  
*Non-Invasive Mineral Extraction Technology*

March 2022



# What if we could **lower the impact** of mining with **environmental-friendly** mineral extraction?

Reducing  
The use of Cyanide  
and Mercury.

Reducing  
GreenHouse Gas  
Emissions

Reducing  
Tailings Ponds and  
Water Pollution

Reducing  
The Environmental  
Footprint of Mining

Working  
Together with Local  
Communities

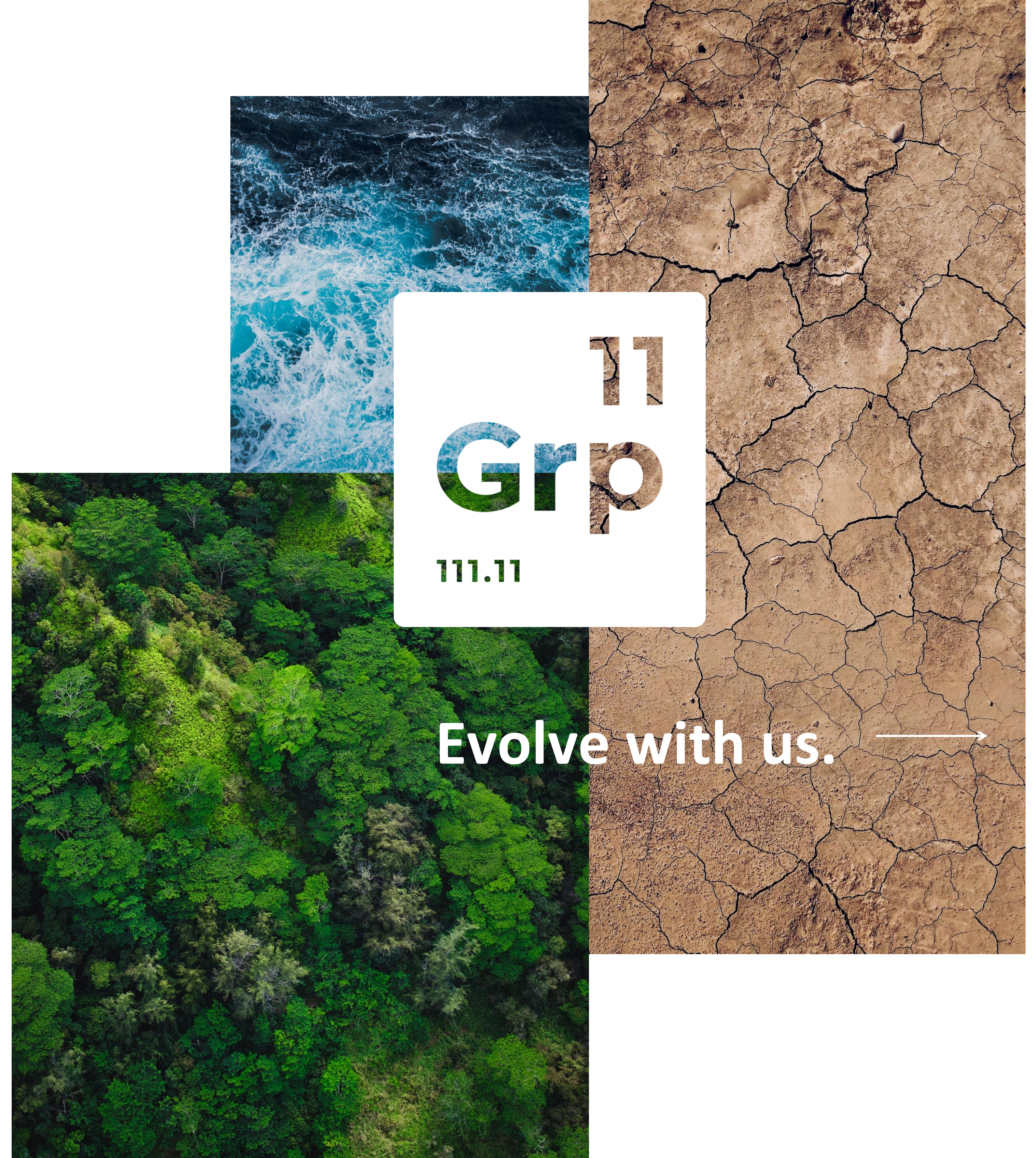


# Who we are

Group 11 Technologies is a private company working to revolutionize the concept of environmentally-friendly mineral extraction by combining two proven technologies:

- 'ISR' or 'in-situ recovery'
- eco-friendly water-based chemistry

**Benefit:** non-invasive mineral extraction that is environmentally friendly and economically viable.





# Who we are.

## Technical Team.

### Dennis Stover, Ph.D.

#### Chief Technical Officer

Expert in ISR development, design and operation having co-invented original ISR applications and holder of six ISR patents.

### Hanif Jafari, M.Sc.

#### Mineral Engineering & Mining

CTO at EnviroMetal, extensive experience in extractive metallurgy, hydrometallurgy and process design.

### Guy Lewis

#### Explosives Engineering

Expert in advanced explosive design and application; rock mechanics and in-place rubblization.

### Mark Pelizza, M.Sc.

#### Geological Engineering

Expert in ISR permitting, application and operation with 40 years in the uranium industry.

### Peter Poston, Ph.D.

#### Chemistry

Geologist and retired Professor of Chemistry led extensive research focused on environmental geochemistry, Laser Raman Spectroscopy, XRF and Nanotechnology.

### Colin Craft

#### Materials Processing

Expert in materials handling, milling and metals processing. Pioneered first mill-site application of a secondary recovery unit (SRU) utilizing ETI's cyanide free gold recovery system.

### Joseph Harrington

#### Graduate Research, Metallurgy

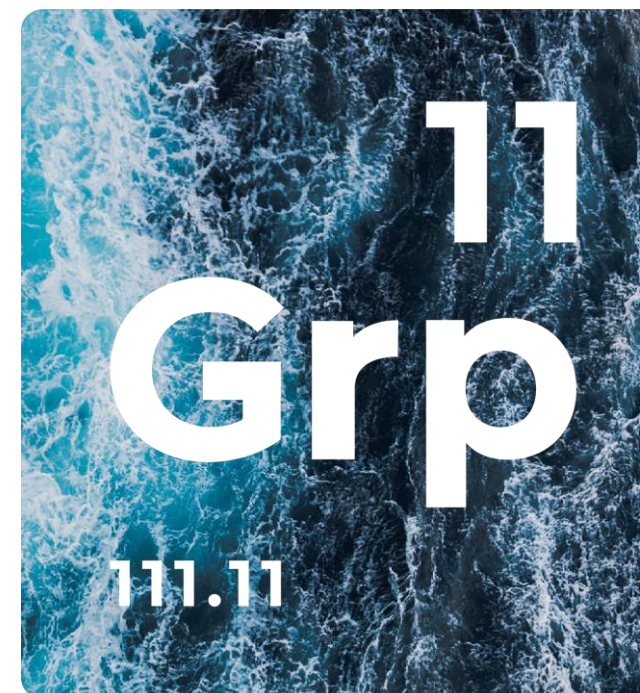
National award-winning expert in mine-related reclamation holding 6 patents on in-situ metal immobilization of metals in groundwater, pit-lakes, soils and disturbed rock.

### Richard Cherry

#### Mechanical Engineering

40 years industry experience with expertise in ISR project evaluation, application made for patents related to ISR and drill technology.





# What we are doing to meet the challenge.

Changing the way the world recovers GOLD by combining in-situ recovery (in place mining) with an eco-friendly water-based chemistry.

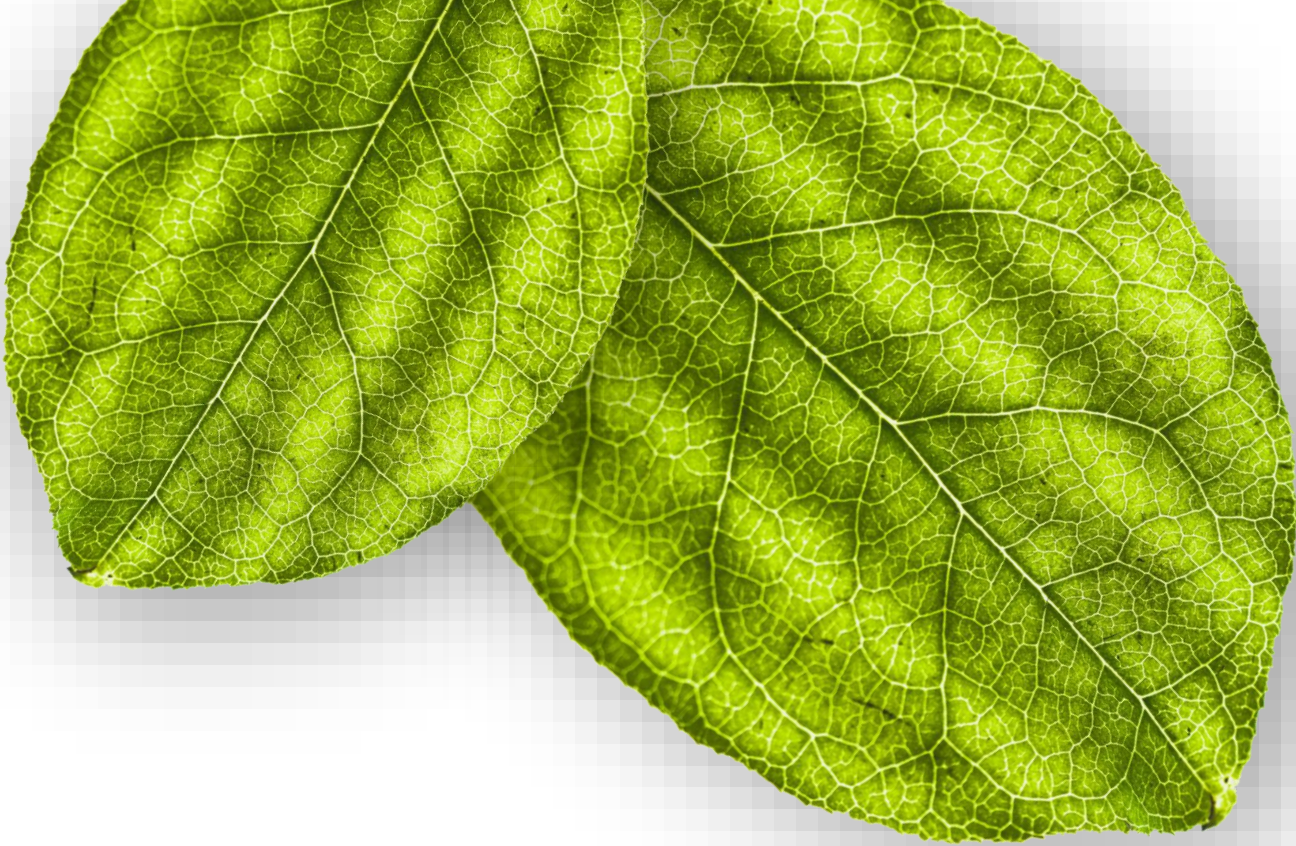
- Committed to leading the development and application of environmentally and socially responsible mineral extraction
- Provide an alternate solution to conventional open pit and underground mineral extraction
- Provide an alternative to conventional mills & smelters for mineral processing



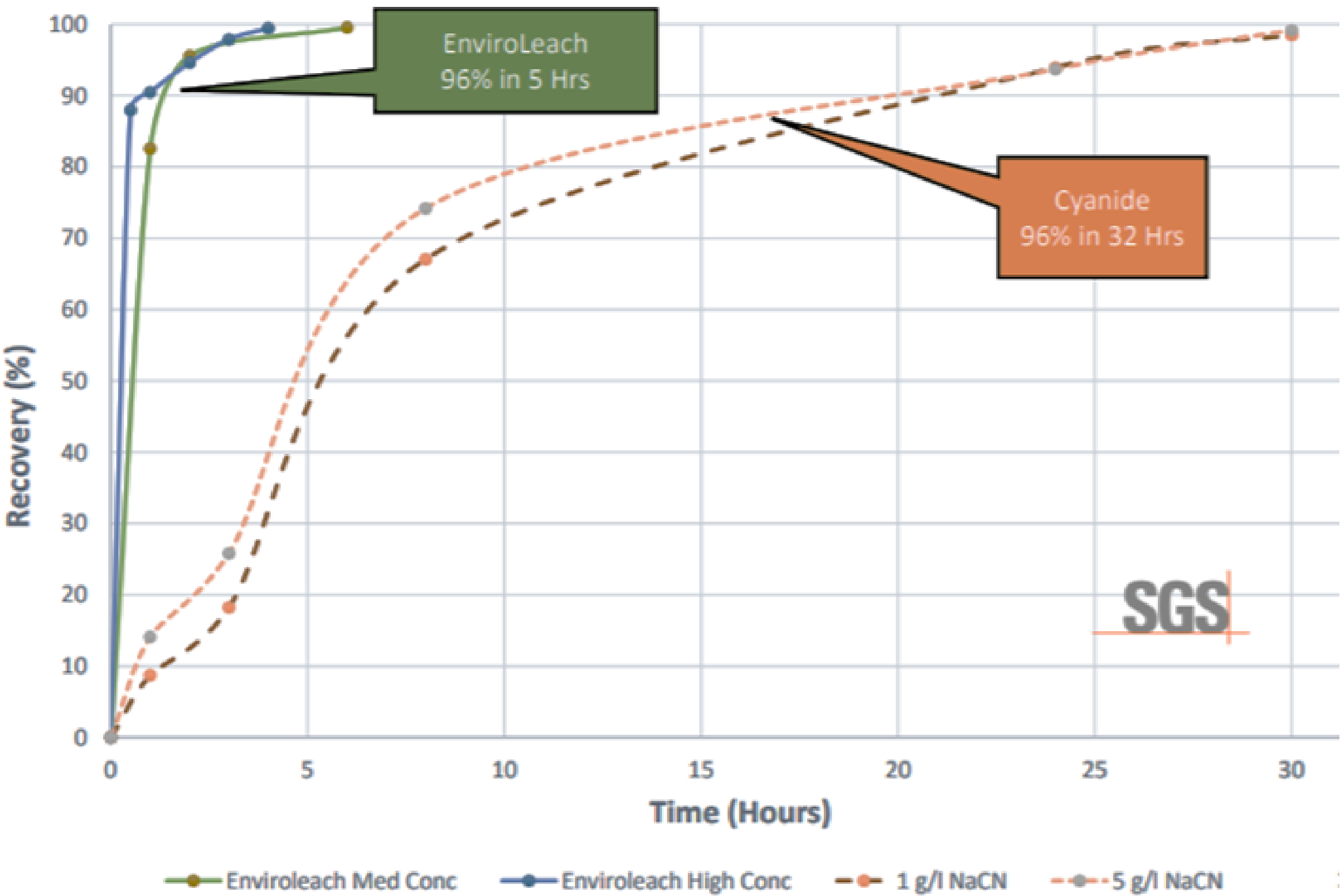
# Non-cyanide chemistry.

EnviroMetal Technologies provides Group 11 exclusive license for its water-based chemistry for ISR and SRU development and application. EnviroMetal has strong intellectual property rights and patents.

	CYANIDE	ENVIROMETAL
High gold recoveries	●	●
Fast leach kinetics	●	●
Environmentally safe & sustainable	○	●
Safe to handle & transport	○	●
Socially acceptable	○	●
No potential for dangerous off-gassing	○	●
No Dangerous waste-water effluent	○	●
Functions in the presence of copper	○	●
Has potential for In-Situ gold recovery	○	●



EnviroMetal vs. Cyanide





# In-Situ Recovery (ISR)



In-Situ Recovery Operation

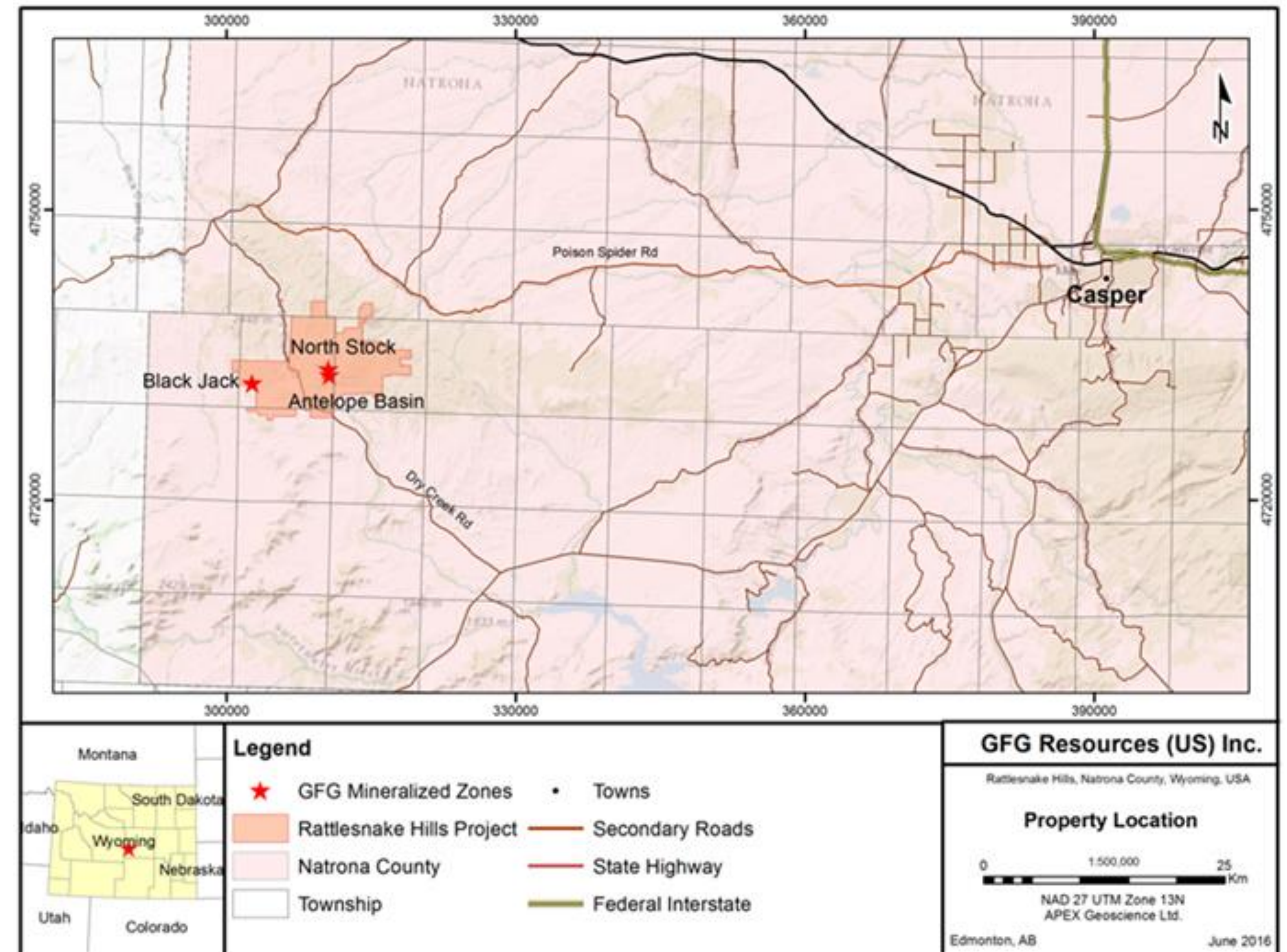
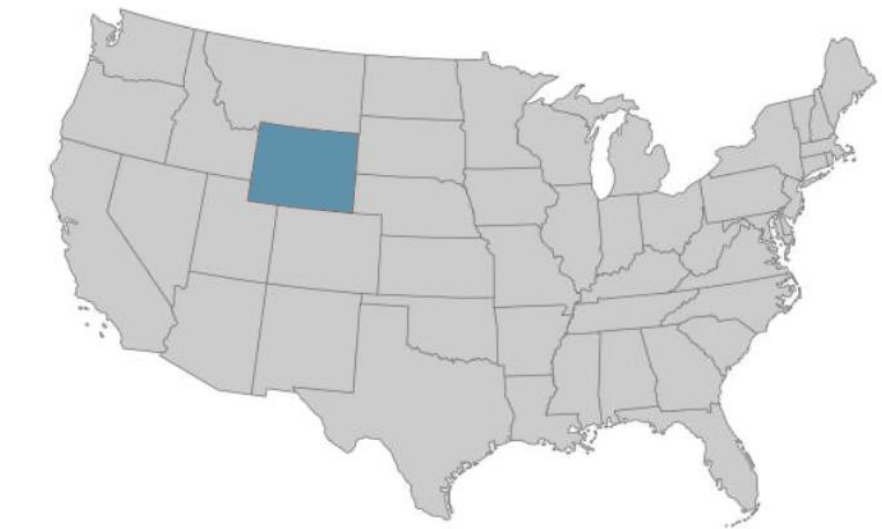
Conventional Mining



# 1st Test Project

## Why Rattlesnake Hills, WY

- WY is rated as one of the top mining jurisdiction in the U.S. (coal, uranium, trona, oil & gas)
- WY regulators understand & effectively legislate ISR better than anywhere else in the U.S.
- Gold grades throughout the project vary from low to high, allowing for testing various grades response to the ISR process
- Significant drilling (over \$40MM USD) and investment has established gold occurs in a variety of geological settings, allowing for testing of various styles of mineralization
- Gold occurs across a large physical area allowing for testing under various conditions & through several rock types & chemistries
- Gold occurs under relatively accessible topography, an important consideration for wellfield development





# 1<sup>st</sup> Test Project

## Rattlesnake Hills, WY

With the selection of the first test project Group 11 is:

- Conducting testing over a wide variety of parameters based on a comprehensive characterization of the site, the mineralization and environmental setting (*underway*).
- Compiling necessary geological data and environmental setting information (*underway*).
- Conducting laboratory testing of drill core to determine amenability to gold extraction from the eco-friendly water-based chemistry.
- Enable a full assessment of the ISR potential with the eco-friendly solution to prepare for a future field test.



Rattlesnake Gold Project, Wyoming

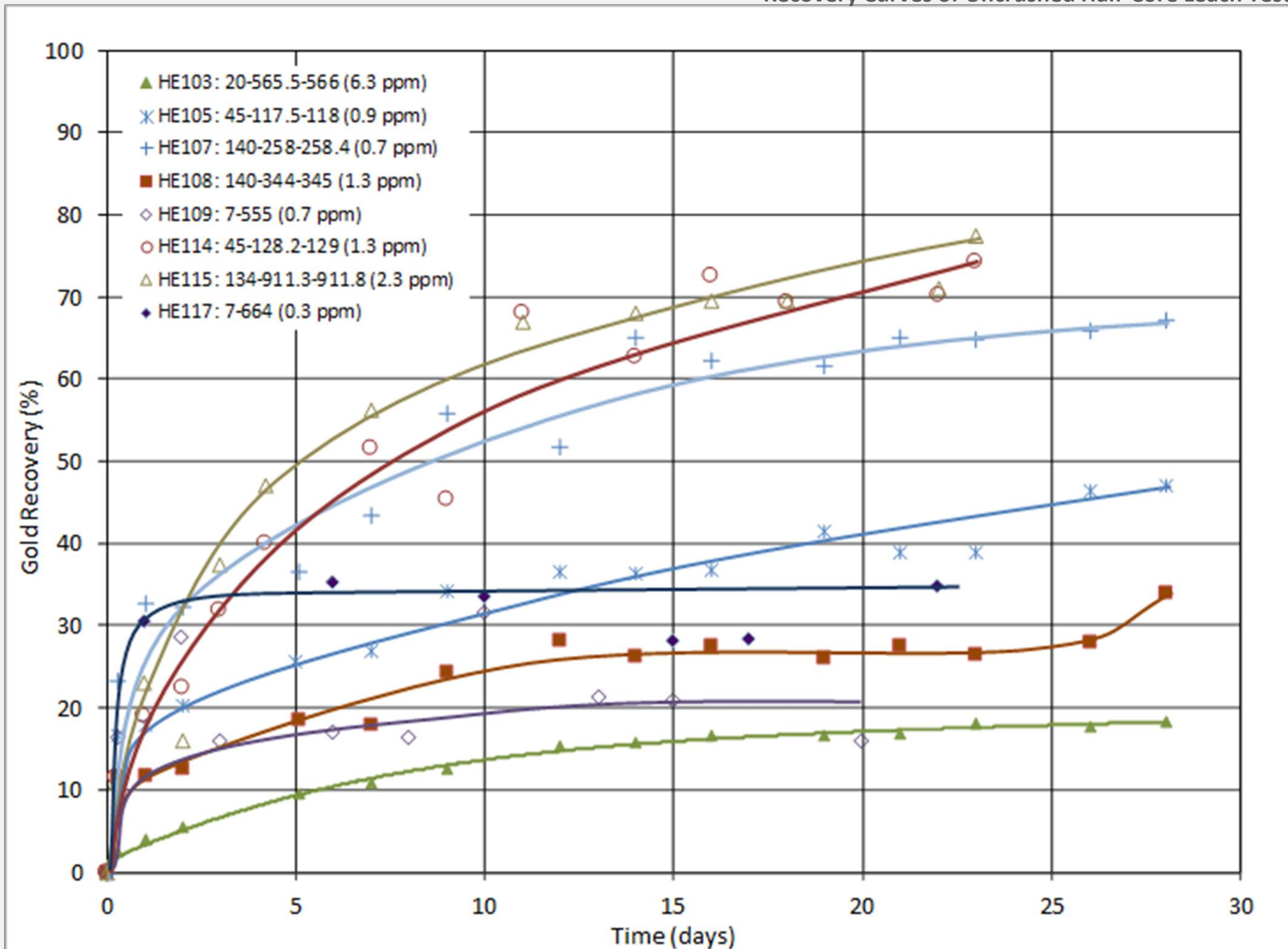


# Phase 1 Testing

## Uncrushed Sample Testing



Recovery Curves of Uncrushed Half-Core Leach Testing





# Whole Rock Tests

## Sample Leach Test Results

Select Samples of Uncrushed Half-Core Leach Testing

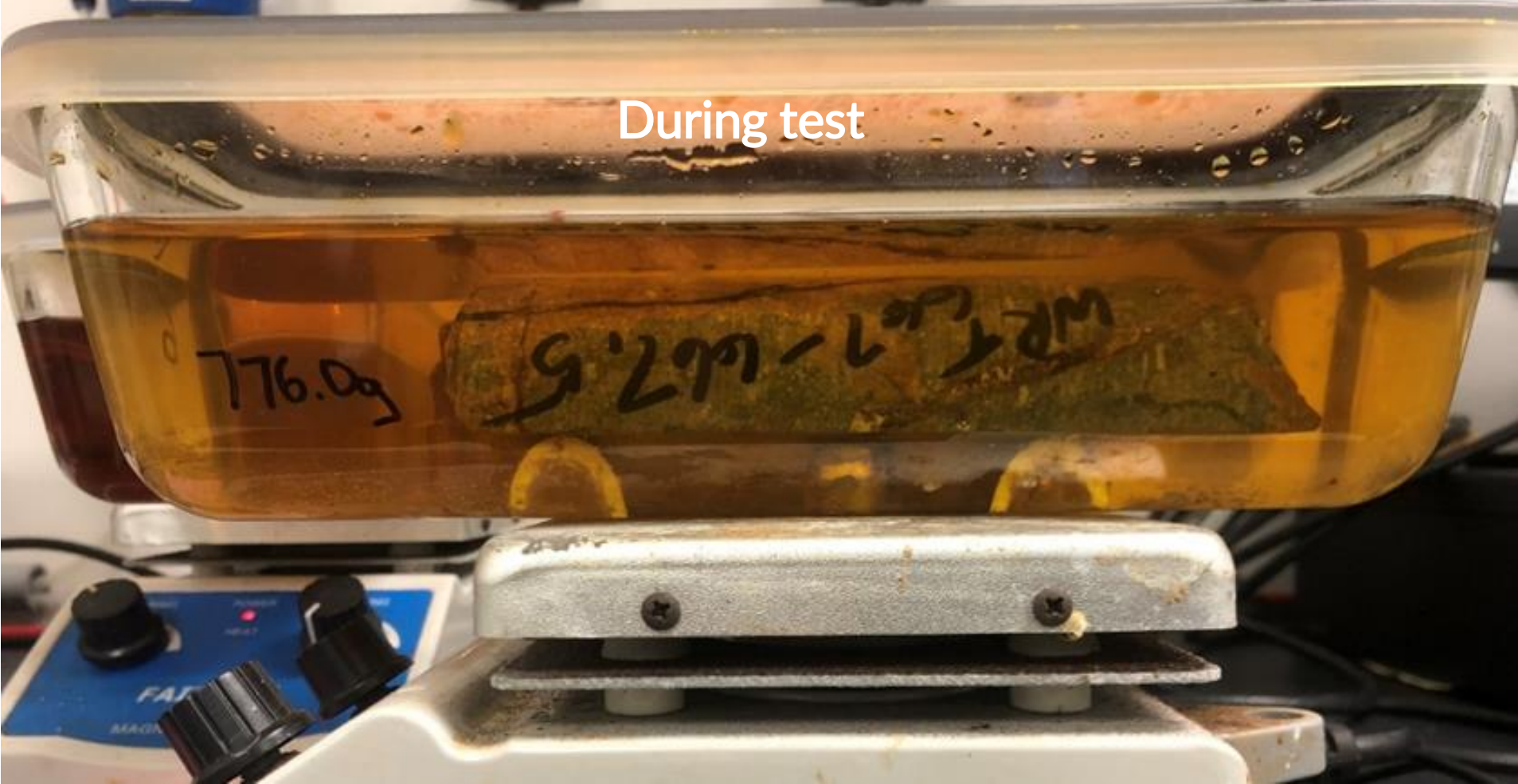
Gold Grade (g/t)				
Test Number	Calc. Head	Pulp Density %	Leach Time (days)	Gold Recovered (%)
HE103	6.33	40.6	28.1	18.4
HE105	0.9	40.4	28.1	47.0
HE107	0.73	39.3	28.1	67.1
HE108	1.31	40.7	28.1	34.1
HE115	2.30	38.5	23.0	77.5



Before addition of lixiviant



During wash



During test





# The Future Is Now.

GROUP 11 TECHNOLOGIES INC.

[info@gr11tech.com](mailto:info@gr11tech.com)

[www.gr11tech.com](http://www.gr11tech.com)

214-304-9552

Group 11 is a group of elements in the periodic table, also known as the coinage metals, consisting of copper (Cu), silver (Ag), and gold (Au). They were most likely the first three elements discovered

