

# PHENOM

## RESOURCES

**Carlin Gold-Vanadium Project**  
Large-scale Carlin-style gold system  
below a PEA-stage vanadium resource  
in Carlin Gold Trend, Nevada, USA

**Corporate Presentation**  
**October 2022**

*(TSXV:PHNM) (OTCQX®: PHNMF) (FSE: 1PY)*

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- Paul Cowley, P.Geo. President and CEO is the qualified person responsible for reviewing the technical information in this presentation.



# Who We Are – Why Phenom is Unique

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V

Vanadium

79

Au

Gold

- **Listed on TSX-V and OTCQX exchanges**; HQ in Vancouver, Canada, local office in Elko, NV
- **Roughly 40% American, 55% Canadian Shareholders, 5% European**
- Nevada focused – 4 years, \$15MM spent – Tier 1 mining jurisdiction
- Motivated, **highly experienced Canadian and American professional men and women** focused on advancing the Company's Carlin Vanadium Project for its vanadium resource and gold potential
- Project within **Carlin Gold Trend** – known for **extraordinary gold production and potential**
- Unique Two stacked systems - Vanadium resource at surface, large-scale Carlin-type gold system at depth
- **PEA completed** on North America's **largest, highest grade primary Vanadium** resource
- Near-term targeting Carlin-style high-grade gold discovery – target defined by renowned proven mine finder Dave Mathewson
- Mid term Goal to become a **leading USA supplier of vanadium** feeding emerging **USA large energy storage market and potentially fully integrate to battery manufacturer and distributor**

# Experienced Management & Board

## Tier 1 Project Guided by a Competent Respected Senior Team

**Paul Cowley (P.Geo.)**  
*President & CEO, Director*



**Michael Mracek (P.Eng.)**  
*Director & Mining Advisor*



**Dr. Radomir Vukcevic (PhD)**  
*Director & Metallurgical Advisor*



**John Anderson (B.A.)**  
*Director*



**Dave Mathewson**  
*Geological Advisor*



**David Dreisinger (PhD)**  
*Metallurgical Advisor*



**Jacques McMullen (P.Eng.)**  
*Metallurgical Advisor*



**Bill Matheson**  
*Construction Advisor*



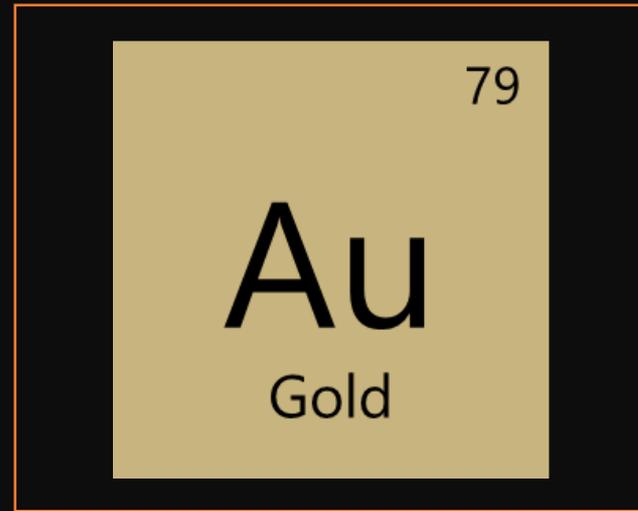
**Tookie Angus (LLB)**  
*Business Advisor*



# Optionality & Diversity

## Two Opportunities for Success

- Legitimate opportunity to discover a Carlin-style high-grade deposit in the Carlin Gold trend, exceptional exploration upside potential
- Significant PEA level vanadium resource forms backbone of asset base – future call of vanadium price and green energy appeal



# Vanadium's Vital Role in our Green Energy Future

## Why Vanadium Should be on Your Radar



- **Battery Markets**
  - EV space
  - Stationary batteries – solar, wind, microgrids, backup power, modulating grid power
  - Enormous market size of each
- **Lithium and Vanadium each have their market niche**
  - Lithium for EV
  - Vanadium for Stationary batteries
  - Context of feedstock shortfalls in supplying demand

# Importance/Future of Vanadium in Energy Sector

## STATIONARY BATTERY MARKET

- Multi \$Billion Stationary battery market is predicted to grow between **10 and 20X by the end of this decade**
- The USA is predicting the **USA to be the largest market globally** for stationary batteries in the next 2 years
- **The US needs to be a leader in this development** – feedstock to battery
- US Federal gov't is investing **billions to secure its own battery supply chains**
- **STRATEGIC** mineral for USA Homeland Security – **there are no US producers**
  - Main producers are China, Russia and South Africa

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V

Vanadium

# Vanadium Advantage in Energy Sector



Vanadium electrolyte is reusable, recyclable, and has a battery lifespan of 25+ years



Non flammable / Extremely safe



Now cheaper than lithium



Extremely Scalable



Can be charged and discharged at same time



Deeper charge – holds more power



Can rapidly release large amounts of electricity

# Vanadium Metal Price Trends vs. Lithium

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Vanadium

- Vanadium Metal price is influenced by the steel demand
  - 90% of global vanadium goes into steel as a strengthener
  - Spikes in metal price responding to perceived shortage of supply
- We are about to witness a major shift in the next 2-5 years for vanadium into utility scale battery storage market
- With lithium prices rising >500% since Sept 2021, lithium utility scale batteries are no longer price-competitive to the vanadium utility scale batteries
- The scale of an individual projects demand disruptive amounts of vanadium

*Lithium prices have risen 5X since  
Sept 2021 and not retreating*



# Capital Structure & Share Price Performance

## Capital Structure

Share Price (as at October 24, 2022)	C\$0.33
Shares Outstanding – Basic (M)	87.0M
Options Outstanding (M)*	5.3M
Warrants Outstanding (M)*	22.7M
Shares Outstanding – Fully Diluted (M)	110.1M
Market Capitalization – Basic	C\$28.7M
Cash & Cash Equivalents	C\$1.0M
Enterprise Value – Basic	C\$27.7M

## 12-Month Share Price Performance



\*5,330,000 options outstanding with a weighted average exercise price of C\$0.36 and a weighted average life of 3.3 years  
\*22,773,659 warrants outstanding

Source: Stockwatch as of October 24, 2022



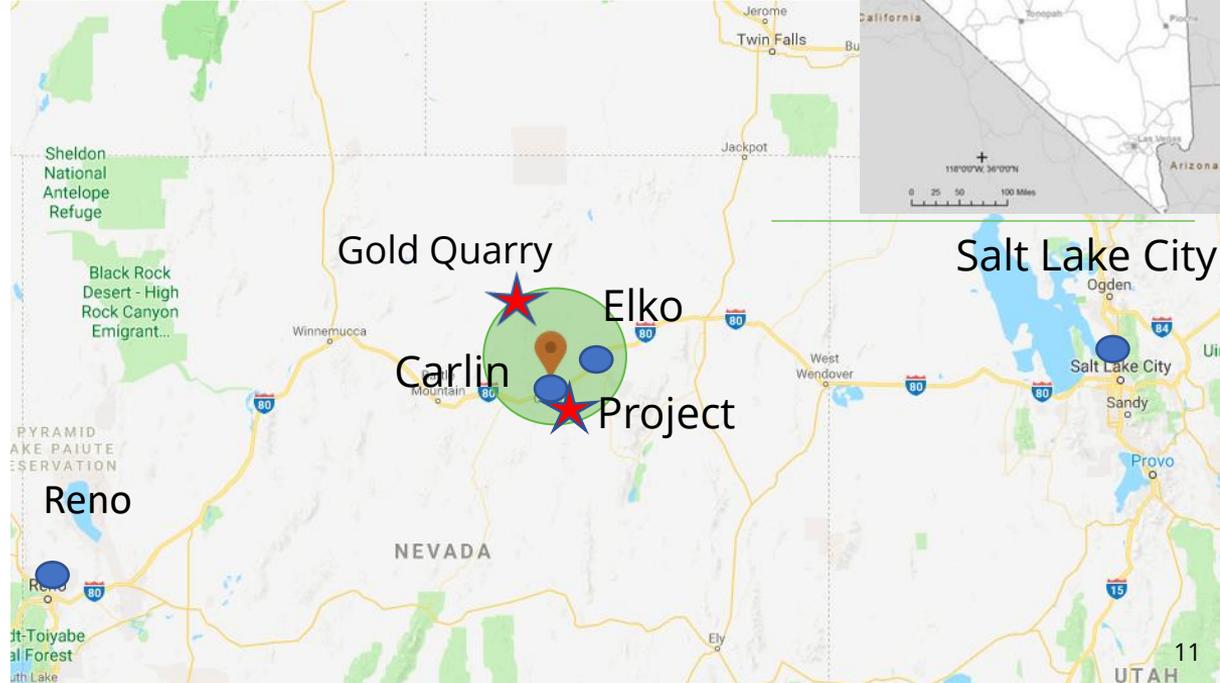
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# Flagship South Carlin Project

## Great Location with Excellent Infrastructure

*Established and favorable mining jurisdiction  
within the Carlin Gold Trend*

- located in Elko County, 10 km (~6 miles) by road from the town of Carlin, NV
- Easily accessible via road (Carlin is a major rail hub to both coasts) with available power (~5 miles away)
- Nearby mining communities, skilled workforce, mining services, suppliers and vendors, and airport
- Short trucking distance to processing plants on trend (13 miles)



# BEST SITE CONDITIONS



- Vanadium Mineral Resource – Feb 2019 (80% Indicated)
  - indicated resource 303M lbs V<sub>2</sub>O<sub>5</sub> (24.64M tons @ 0.615% V<sub>2</sub>O<sub>5</sub>) and inferred resource 75M lbs V<sub>2</sub>O<sub>5</sub> (7.19M tons @ 0.520% V<sub>2</sub>O<sub>5</sub>)
- Large deposit – 35m (120ft) thick x 1800m (6000ft) long x 600m (2000ft) wide - Open to expand
- High Vanadium grades – thick intercepts up to 1.5% V<sub>2</sub>O<sub>5</sub>
- Flat to shallow dipping
- Near surface (0-60m; 0-200ft) amenable to open pit mining
- Metallurgical flow sheet: 80% average vanadium recovery

# May 2020 PEA (Preliminary Economic Assessment)

- PEA highlights a potential large-scale, lower-quartile cost open-pit mine
- Mining for 11 years (+5 years of stockpiles) at low strip ratio (3.22:1)
- Processing 1.0M tpy of high-grade (avg. of 0.71% V<sub>2</sub>O<sub>5</sub>) oxide and shale ore
- Conventional beneficiation and hydrometallurgical processing
- High overall recoveries (78.6% for oxide and 77.4% for non-oxide)
- Pre-production capital expenditures of US\$535M
- Substantial leverage – after-tax cash flow increases by 239% to US\$1.02B with increased V<sub>2</sub>O<sub>5</sub> price from US\$10.65/lb (base case) to US\$15.44/lb

**16**  
year mine life

**11.4M**  
lbs V<sub>2</sub>O<sub>5</sub> flake  
of annual production

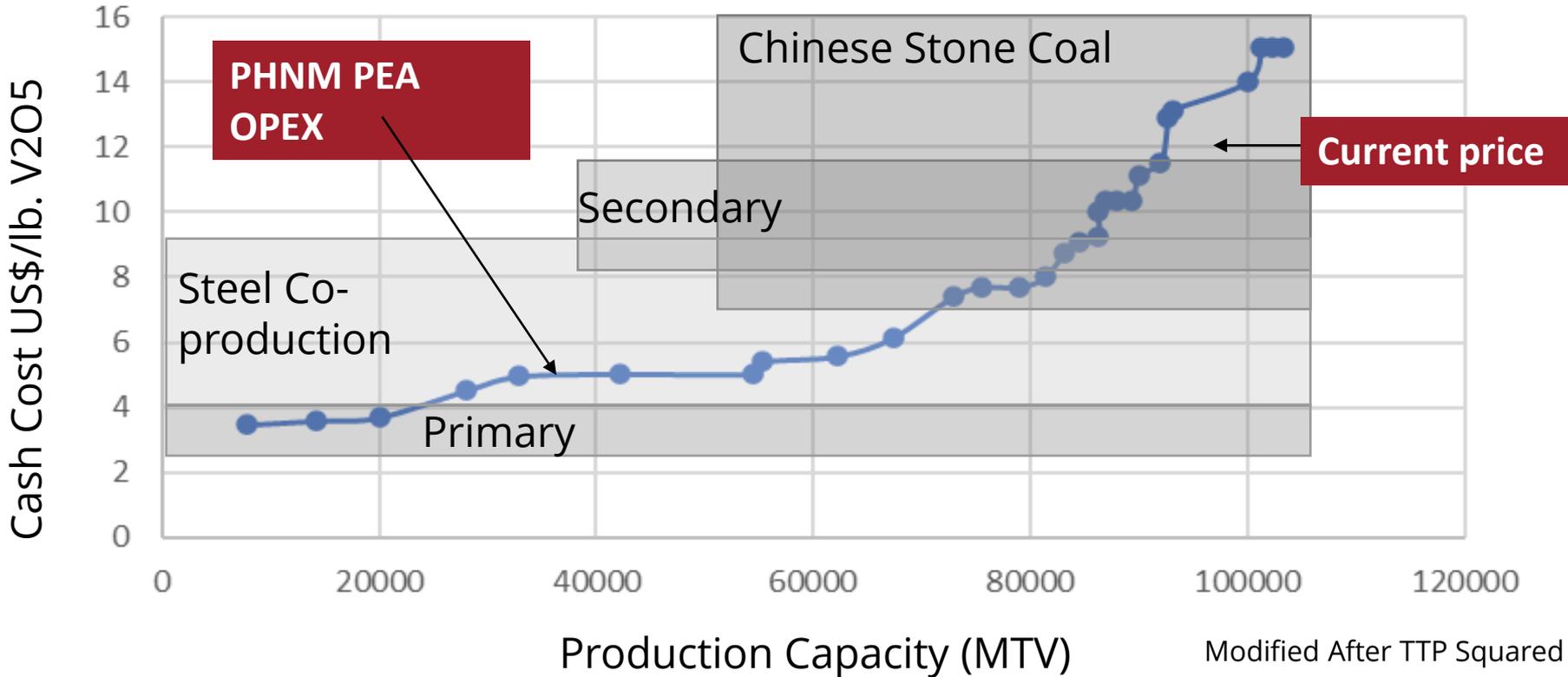
**\$5.17/lb**  
V<sub>2</sub>O<sub>5</sub> LOM cash costs

**PHENOM**  
RESOURCES

## MULTIPLE OPPORTUNITIES TO ENHANCE THE PROJECT

- Expanding and defining additional oxide mineralization
- Additional test work, engineering and project definition to reduce capital costs or contingencies
- Higher efficiency centrifuge separation could reduce operating costs and improve recoveries
- Alternative technologies in solid-liquid separation to minimize the size of tailings facility and IX and SX plants
- Build acid plant benefitting region for years to come

# Forecast 2019 V205 Cash Cost Curve for Global Vanadium Producers

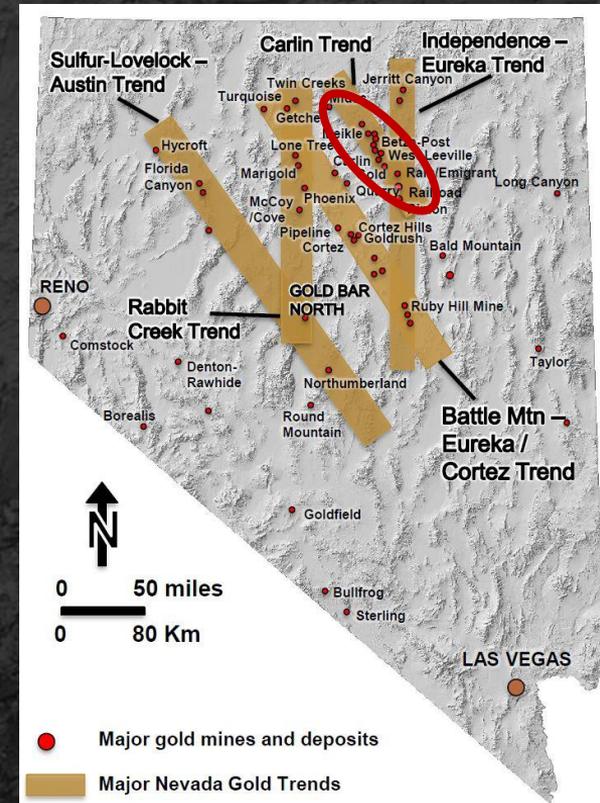


Modified After TTP Squared



# Its Gold Opportunity - Located on prolific Carlin Gold Trend ("CGT")

- Best gold producing structural trend in the US
- CGT has delivered and will continue to deliver extraordinary gold production and deposits for years to come
  - >100M oz Au of past production; upwards of 200M oz in the future
- Dominated by majors including Newmont and Barrick
- Premiums paid to those in the CGT
- Being in this trend significantly elevates our gold opportunity in many respects



# Management Team with a Successful Track Record

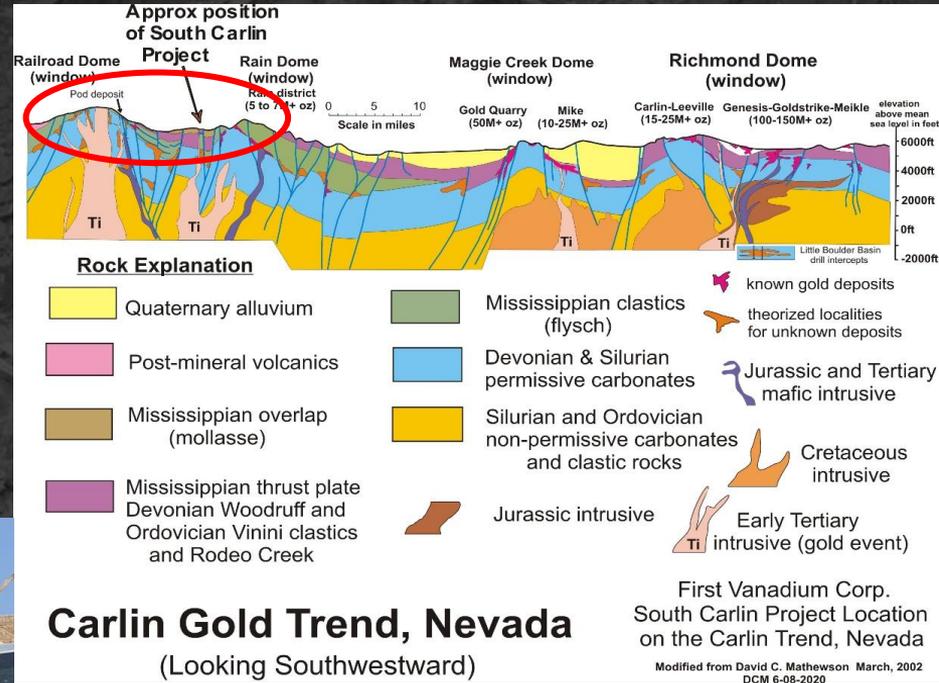
## Remarkable Talent and Track Records from Exploration

- Two geologists have collectively found 10 gold deposits (>14Moz) in their careers
- Dave Mathewson is an authority on Carlin Gold Trend, vigorously exploring for over 15 years with Newmont and Gold Standard Ventures (GSV)
  - Found >5M oz Au within 10 km of our property
  - Neighboring GSV (5 km away) reached a market cap of \$1 Billion from gold deposits he found and acquired for GSV

# High-Grade Gold Opportunity

## Positioned on the Carlin Gold Trend

- Engaged Dave Mathewson who interpreted a Carlin-style high-grade gold target at depth
  - Ex-Newmont Regional Manager and Ex-Gold Standard Ventures VP Exploration
  - Discovered +5M oz Au - six deposits in the CGT (5-10 km of the property)
  - His refined multi-component geological model has repeatedly worked to vector and find new deposits in the Carlin Gold Trend

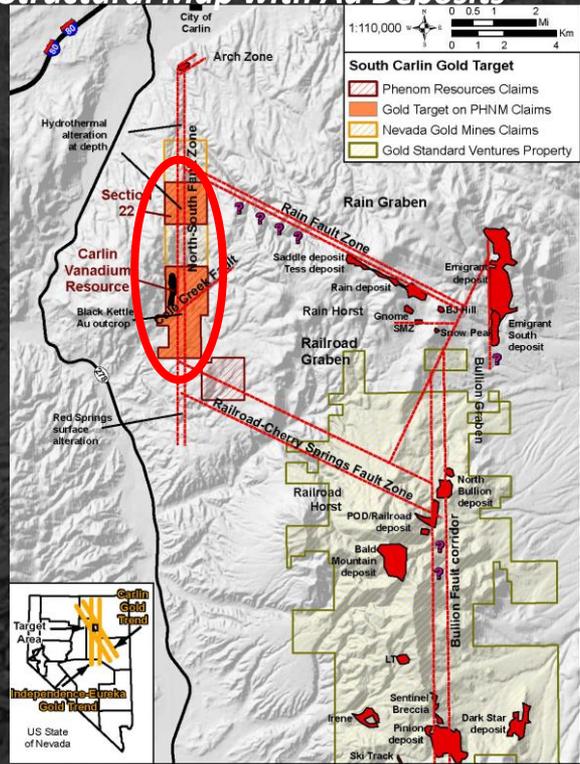


# High-Grade Gold Opportunity

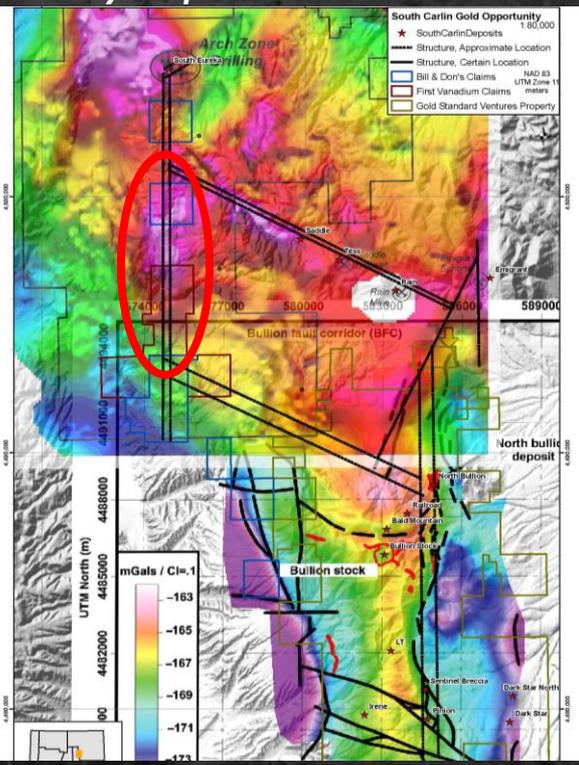
Backed by compelling regional science – Tapping Carlin Plumbing System

- ~9M oz Au in multiple deposits and mines within 5-15 km of the property
- 3 key structures NW, N/S, and NE (plumbing system throughout trend)
- Property on N/S Structure
- Gravity anomaly similar to signature along Rain and Emigrant structures hosting > 6Moz Au

Structural Map with Au Deposits



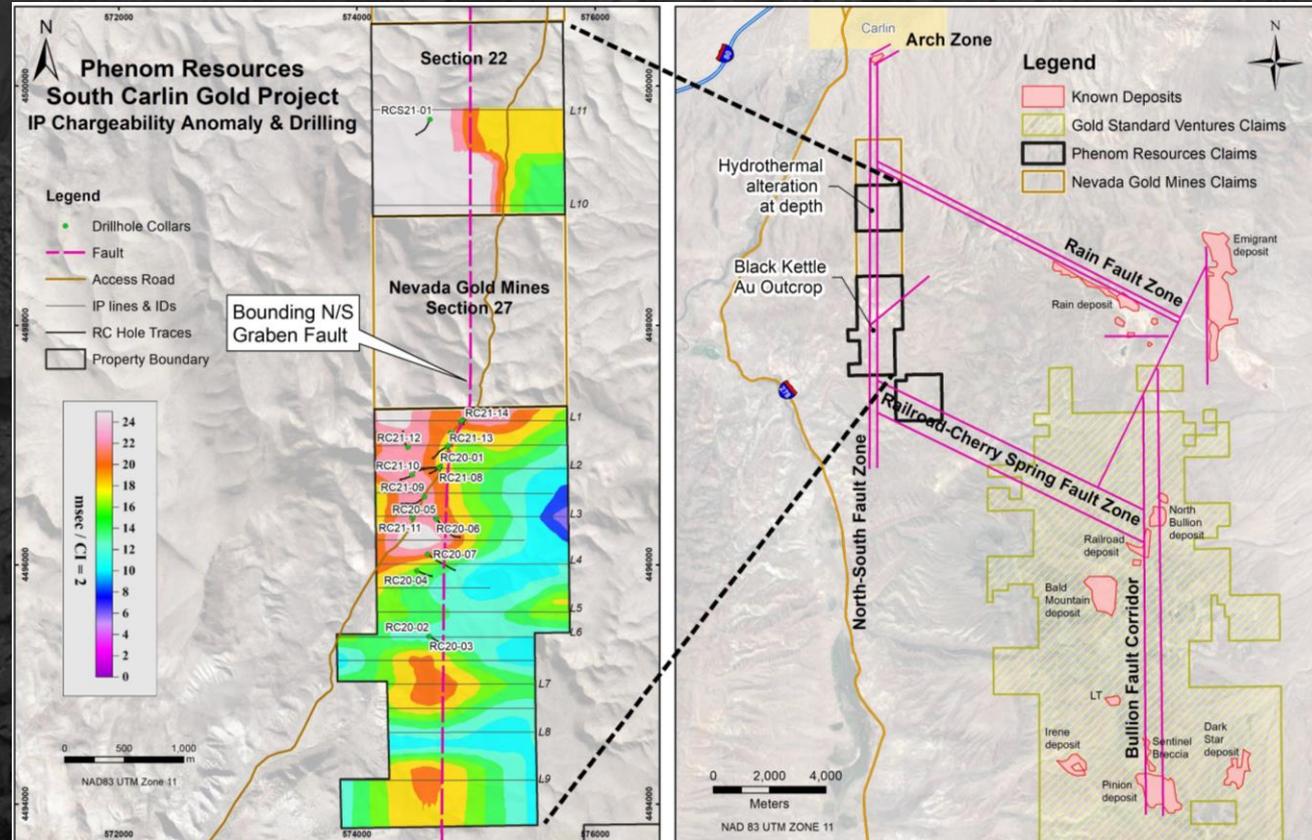
Gravity Map



# Large Gold System – 6.4km long

*Analogous to Gold Quarry Deposit Setting*

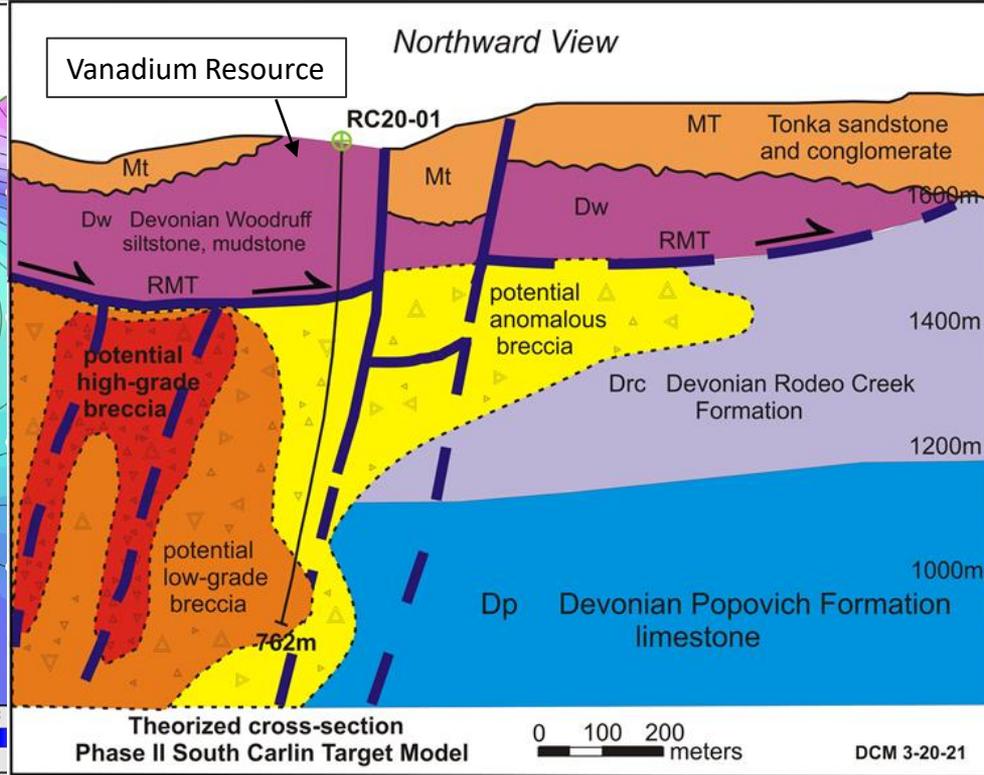
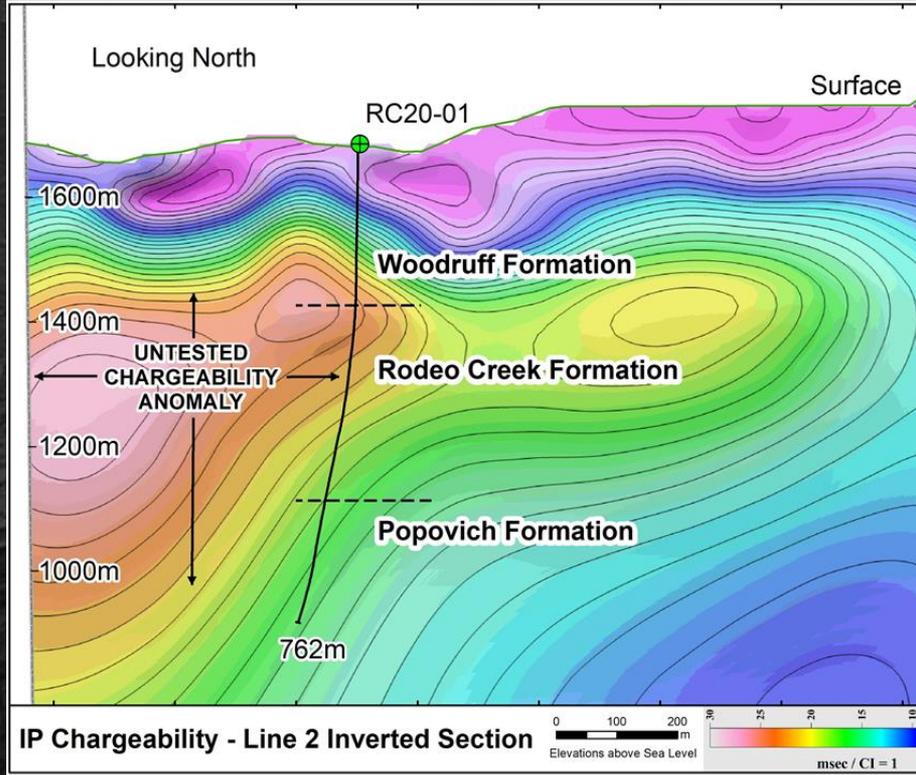
- Similar stratigraphy to Gold Quarry Pit 13 miles NW on Carlin Trend
- IP chargeability shows system (white/pink) >6.4km long, up to 1.3km wide
- 15 holes drilled to date defining gold system
- PHNM controls 3 of 4 square miles of system



*IP Planview at 500m below surface*

# Side By Side Gold Model and IP Section with Hole 1

Analogous to Gold Quarry Deposit Setting

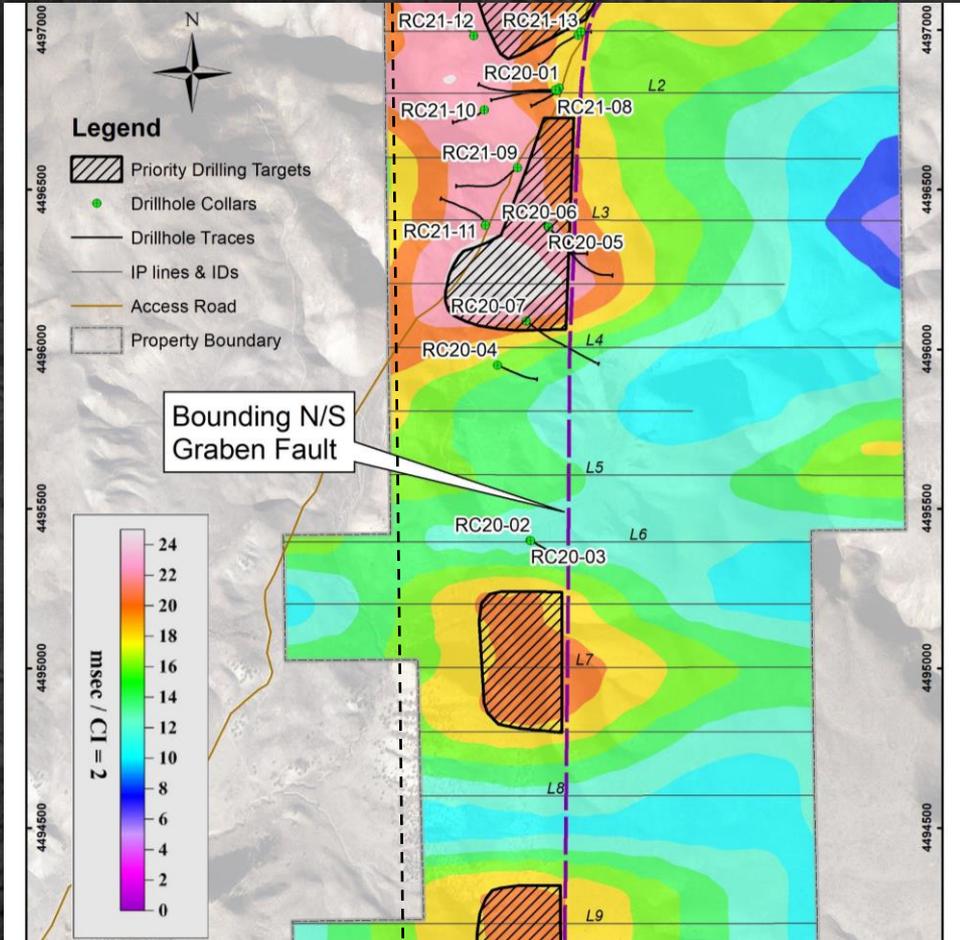


IP Chargeability - Line 2 Inverted Section  
Root system = Chargeability High (orange)

Gold Model

# South Carlin Priority Drill Targets

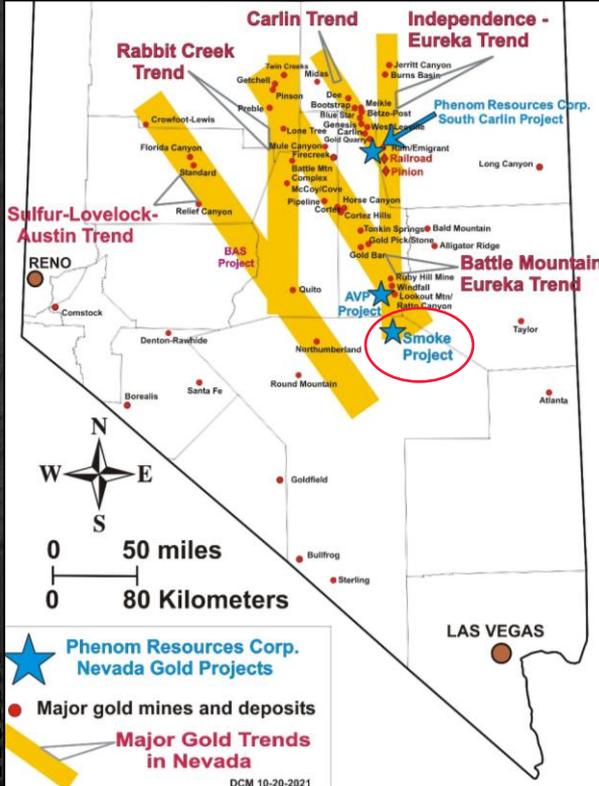
- 15 drill holes provides architecture of gold system and vectoring info
- Now vectoring within the large system for high-grade feeders (like pearls beside and along N/S graben structure)



IP Planview at 500m below surface

# Smoke Gold Project

- Within Independence- Eureka gold trend of Nevada
- Large (0.5km long) ridge of quartz breccia in valley
- Within Pilot and Devils Gate Formations – great host and setting for Carlin-like gold potential
- Second pass drilling confirms a hydrothermal system present



# Plans/Catalysts for 2022

**Au**<sup>79</sup>  
Gold

- **Aggressively drill South Carlin system (vectoring stage) in an effort to make a significant gold discovery – guided by Dave Mathewson**
- **The potential reward is exceptional (technical risks continue to be reduced)**
- **Continue drilling on hydrothermal system identified on SMOKE property gold**
- **Make selective high quality gold acquisitions identified by Dave Mathewson**

**V**<sup>23</sup>  
Vanadium

- **Enhance vanadium resource through various opportunities to lower CAPEX/OPEX as prices rise, drill to increase size of resource, seek U.S. Federal grant, seek working relationship with battery manufacturer**

# Why Phenom?

**Earning 100% in the largest, highest-grade, primary vanadium resource in North America**

**Significant potential for a Carlin-style, high-grade gold discovery along the Carlin Gold Trend**

**Exceptional team with a track record of discovering gold deposits and building/operating mines**



## **Contact Information**

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# Mineral Resource Estimate

## Indicated\*<sup>1</sup>

Cut-off (% V <sub>2</sub> O <sub>5</sub> )	Grade (% V <sub>2</sub> O <sub>5</sub> )	Tons (in millions)	V <sub>2</sub> O <sub>5</sub> lb (in millions)
0.2	0.539	31.26	337
<b>0.3</b>	<b>0.615</b> <sup>*2</sup>	<b>24.64</b>	<b>303</b>
0.4	0.702	18.64	262
0.5	0.776	14.44	224
0.6	0.849	10.92	185
0.7	0.929	7.80	145
0.8	1.012	5.32	108

## Inferred\*<sup>1</sup>

Cut-off (% V <sub>2</sub> O <sub>5</sub> )	Grade (% V <sub>2</sub> O <sub>5</sub> )	Tons (in millions)	V <sub>2</sub> O <sub>5</sub> lb (in millions)
0.2	0.450	9.72	87
<b>0.3</b>	<b>0.520</b> <sup>*2</sup>	<b>7.19</b>	<b>75</b>
0.4	0.596	4.94	59
0.5	0.677	3.18	43
0.6	0.745	2.08	31
0.7	0.847	1.05	18
0.8	0.959	0.53	10

### Sensitivity analysis of the Carlin Vanadium Project NI 43-101 mineral resource estimate for V<sub>2</sub>O<sub>5</sub> at various cutoffs

\*1 Mineral Resources are not Mineral Reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There has been insufficient exploration to define the Inferred Resources tabulated above as an Indicated or Measured Mineral Resource. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future.

\*2 The recommended reported resources are highlighted in bold and have been constrained within a US\$12.50/lb V2O5 optimized pit shell.

# Management & Board of Directors

## **Paul Cowley (P.Geo.)**

*President & CEO*

- 41 years experience in technical and managerial positions exploring for gold, base metals, diamonds, industrial minerals and coal
- Extensive experience in a major company setting based in Canada and South America (18 years with BHP Minerals). Projects include the Escondida world-class copper mine in Chile, Country Manager for Bolivia, and the Ekati diamond mine and the Slave gold project in the Canadian arctic
- As manager of the Slave Gold Project, his team discovered and advanced 4 significant gold deposits (over 6 million ounces of gold)

## **Michael Mracek (P.Eng.)**

*Mining Advisor*

- Professional mining engineer registered in Ontario and British Columbia
- In the 1970's with Inco, he learned his underground mining craft from the bottom up and in the 1980's, he moved on to Dickenson, Amok Cluff Mining, and Terra Mines becoming a Chief Engineer, Mine Superintendent, and finally Mine Manager
- From 1990-1996 he worked for Royal Oak as General Manager at several mines including: Pamour, Hope Brook, and Colomac Following this he spent 15 years overseas working in Ghana, Armenia, and Tanzania for Ashanti Goldfields, Sterlite Gold, Golden Star and Barrick Gold in various capacities including VP and General Manager
- Since 2011, he has provided consulting to firms such as SRK and SNC-Lavalin, advising on various studies, including feasibilities

## **Dr. Radomir Vukcevic**

**(PhD)**

*Director*

- Taught for +20 years at RMIT, Melbourne and Witwatersrand University, Johannesburg and University of Western Australia, Perth, published several books on metallurgy and holds several industrial patents for mining-related technologies
- +35 years providing technological, technical and equipment solutions to mining companies globally such as BHP Billiton, Jinchuan Group (China), Heron Resources (Kalgoorlie, Western Australia), Moneo Metals (New Caledonia) and Acclaim Resources (Western Australia)
- He was with Alcoa AWA in Melbourne, Perth, and Pittsburgh for 14 years and Anaconda (Anglo American/ Glencore) for 3 years. His experience with vanadium is significant.

## **John Anderson (BA)**

*Director*

- Co-founder of Aquastone Capital Advisors LP, a U.S.-based gold investment fund
- +15 years' experience in the capital markets and identifying undervalued opportunities in the resource industry and investing capital into these situations. He has been involved in a number of small-cap companies, providing financing, investor relations, and corporate development services. Throughout his career, he has raised in excess of \$500 million in equity for a number of public and private companies in the United States, Canada and Europe

## **Dave Mathewson (M.Sc.)**

*Geological Advisor*

- Renowned Carlin Gold Trend specialist and former Newmont Mining Corporation Regional Exploration Manager
- Instrumental in several significant gold discoveries in the Rain and Railroad Mining Districts in the southern portion of the Carlin Gold Trend, where the Carlin Vanadium Project is located
- During the 1990's while at Newmont, Mr. Mathewson led the team which discovered the Tess, Northwest Rain, Saddle, and South Emigrant gold deposits in the Rain District, which total +4 million ounces Au
- Founder of Gold Standard Ventures and served as its VP Exploration until 2015. During this period, his team discovered the North Bullion Au, Bald Mountain Au-Cu, and Sylvania Ag-Cu deposits, as well as acquired the Pinion Au deposit, all in the Railroad District

# Board of Advisors

<b>Dr. David Dreisinger (PhD)</b> <i>Metallurgical Advisor</i>	<ul style="list-style-type: none"><li>• Professor and Chairholder of the Hydrometallurgy Chair at the University of British Columbia</li><li>• Works actively with industry and has co-invented a number of metallurgical processes, including the Sepon Copper process (Laos), the Mt Gordon Copper process (Australia), the PLATSOL process (to be used in the US)</li><li>• Published over 300 technical papers in journals and conference proceedings. He holds 21 US Patents</li><li>• Serves as a director of a number of TSX listed companies including PolyMet Mining, Search Minerals, Euro Manganese and LeadFX</li></ul>
<b>Jacques McMullen (P.Eng.)</b> <i>Metallurgical Advisor</i>	<ul style="list-style-type: none"><li>• Spent 15 years with LAC Minerals gaining operations' management experience to optimization of all Milling Operations for LAC</li><li>• With Barrick Gold, he rose to Senior VP roles during his 18-year operating career with Barrick</li></ul>
<b>Dr. Gary Kordosky (PhD)</b> <i>Metallurgical Advisor</i>	<ul style="list-style-type: none"><li>• World-renowned expert in Solvent Extraction (SX), holding a PhD in Inorganic Chemistry, from The Ohio State University</li><li>• His work in solvent extraction began in 1974 when he joined General Mills Chemicals</li><li>• His experience includes development and evaluation of metal recovery reagents, metal recovery process development and process evaluation, technical service, marketing and plant troubleshooting and he has been a member of part plant start-up teams for SX plants in the United States, Chile, Peru, Australia and Zambia</li><li>• Inventor on 18 US patents, authored more than 40 papers and recipient of the 2013 Milton Wadsworth Award from the Society for Mining, Metallurgy and Exploration</li></ul>
<b>Bill Matheson</b> <i>Construction Advisor</i>	<ul style="list-style-type: none"><li>• Worked in the mining and industrial sectors for +37 years in the roles of Field Engineer, Construction and Project Manager</li><li>• From 1979-1994, he worked in mining operations performing startups, commissioning, and construction management on projects including Canada Tungsten, Echo Bay Mines, Luscar Coal, Baker Mine, Cullaton Lake Gold Mines, Vista Mining, Cluff Lake, Hope Brook Gold, Teck Corona Hemlo, Tonkin Springs Gold Project, Cassiar Asbestos and Yanococha. Focused on industrial operations including two nuclear power plants, three gas fired turbine power plants, three refineries</li><li>• Construction Manager on multiple mining projects including the Equatorial SX/EW facility in Utah, the Carlota Copper SX/EW project (Phase 1 and 2) in Arizona, the Franke Mine and Sierra Gorda in Northern Chile, and Victoria and Ajax projects in Canada</li></ul>
<b>Tookie Angus</b> <i>Business Advisor</i>	<ul style="list-style-type: none"><li>• For the past 40 years focused on structuring and financing significant international exploration, development and mining ventures.</li><li>• More recently, he was Managing Director of M&amp;A for Endeavour Financial and was responsible for merger and acquisition mandates</li><li>• Director of Canico Resources Corporation until its takeover by Brazil's CVRD in 2005, a Director of Bema Gold Corp. until its takeover by Kinross Gold in 2007, a Director of Ventana Gold Corp. until its takeover by AUX Canada in 2011 and a Director of Plutonic Power Corporation until its merger with Magma Energy in 2011</li></ul>