# **CAS PROJECT**

LEMHI COUNTY, IDAHO





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Prepared by: North American Mine Services, LLC.

### **CAS Project Summary**

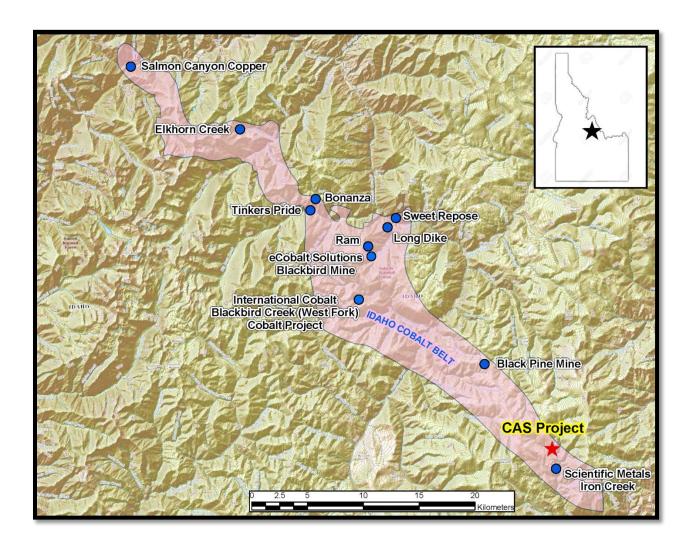
- The CAS Project is a cobalt, copper, and gold property located between the eCobalt Solutions' Blackbird cobalt/copper project and the Scientific Metals Iron Creek cobalt project in Lemhi County, Idaho, USA.
- The property consists of 55 lode mining claims which total approximately 1,100 acres. The CAS claims were located by Richard C. Fox and have been purchased by Utah Mineral Resources, LLC (UMR). The Iron Claims were located by UMR in 2017.
- This is an advanced property. The property was discovered in 1967 and since then successful geophysical surveys and drilling has been done.
- Richard Fox is a well-educated and experienced geophysicist that has conducted surveys
  related to mineral exploration for many years through his company Practical Geophysics.
  Mr. Fox has conducted an extensive spontaneous potential survey of the property which
  is attached. This survey has outlined several massive sulfide cobalt/copper targets on the
  property. Most of these targets have not been trenched or drilled.
- Drilling on the property has encountered strong mineral occurrences of cobalt and gold. Results include:

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- The eCobalt Solutions property is the site of the ongoing Idaho Cobalt Project. This is the only advanced stage, near term, environmentally permitted, primary cobalt project in the United States. A successful private placement for more than \$13 million was completed February 15, 2017; followed by another financing of \$17.25 million on February 28, 2017.
- On February 10, 2017, Scientific Minerals completed a \$2.5 million private placement on their Iron Creek Project. The company is actively working on their property.

#### Location

The CAS Project is located in east central Idaho near the city of Salmon on federal land administered by the US Forest Service. Salmon, Idaho is located about 17 straight line miles northeast of the property and is about 42 miles by road. The last 12 miles are improved gravel roads maintained by the forest Service. Salmon is a local supply and transportation center, with an airport and paved 5,510' x 75' (1,680m x 23m) airstrip. Dubois, ID is located 100 miles southeast of Salmon and is the nearest rail service to the project area. The Blackbird Mine and the eCobalt Solutions property is about 15 miles to the northwest of the CAS Project. Scientific Metals' Iron Creek Property is adjacent to the southern boundary of the CAS Project. The USA is stable politically and will be the largest market for batteries and cobalt. Idaho is a prodevelopment state with a long history of mining.



### **CAS Project History**



- The Idaho Cobalt Belt has been the site of past cobalt and copper production since the late 1800's and hosts the Blackbird Mine and other cobalt resources. Other cobalt deposits in the Belt include the Salmon Canyon, Iron Creek, Black Pine, Long Dike, Sweet Repose, Elk Horn Creek, Bonanza and Tinkers Pride. The Belt trends northwesterly and it is about 30 miles long and 5 miles wide.
- eCobalt Solutions (formerly Formation Capital) has been active for several years at the historic Blackbird Mine. Reported resources of the Ram deposit include:
  - O 3.48 million metric tonnes at a grade of 0.55% cobalt, 0.75% copper and with by-product gold at 0.017 ounces per ton.
- eCobalt Solutions has just completed a very successful financing effort of \$13 million.
- Scientific Metals has acquired the Iron Creek property and just completed a \$2.5 million financing.
- The cobalt/gold deposits on the property were discovered in 1967. Recon surface geologic work was conducted by Sachem Corporation (1970-1973), Noranda Exploration (1977-1982), Kinross Gold (1989-2000) and Thunder Mountain Gold (2011).
- Nevada Contract Corporation (2002-2004) and Salmon River Resources (2005) conducted drilling operations on the property.
- Utah Mineral Resources, LLC entered into an agreement to purchase the CAS claims on March 16, 2017. This agreement contains a commitment to conduct a one year exploration program with a budget of \$US 300,000. This agreement can be assigned to a qualified operator.

### **Geology**

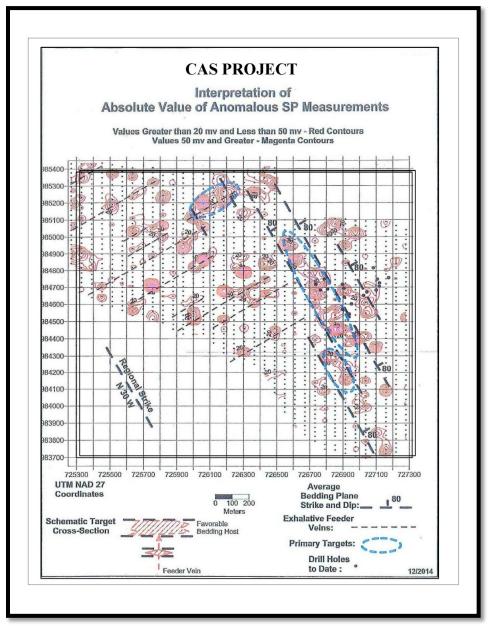
• The Idaho Cobalt Belt is the best exploration area in the United States to discover large

- primary cobalt resources. It has been identified by the US Geological Survey and contains several significant cobalt/copper/gold deposits.
- The Idaho Cobalt Belt trends northwesterly. It is about 30 miles long and 5 miles wide. The Blackbird Mine and several other cobalt / copper deposits are located within this belt. The US Geological Survey describes this belt as hosting "copper-cobalt-gold-silver bearing exhalative strata-bound zones in micaceous quartzite."
- The CAS Project lies within the Idaho Cobalt Belt. The Apple Creek Formation hosts the cobalt / copper resources at the Blackbird Mine together with other deposits in the Idaho Cobalt belt. This same unit is present on the CAS claims.
- Mineral deposits are overall strata-bound and there are both stratiform and vein type deposits. The major ore minerals are cobaltite and chalcopyrite with gold and minor pyrite, arsenopyrite and pyrrotite.



### **Geophysics**

- Geophysical orientation surveys were conducted on the property over known, exposed copper/cobalt occurrences. These surveys showed a clear relationship between self-potential gradient (SPG) surveys and covered cobalt/copper deposits (anomalies).
- SPG anomalies have been mapped on most of the property by Richard C, Fox, a geophysicist with extensive mineral exploration experience (and the owner of the claims).
- Prospect pits were dug by hand over some locations of SPG anomalies. Cobalt/Gold deposits were not exposed at the surface, but favorable highly altered and mineralized material was encountered.
- The SPG geophysical surveys outline several cobalt/copper targets that warrant trenching and/or drilling. None of the holes drilled to date were located on the basis of geophysical evidence.



Map by: Richard Fox

### **Exploration Program**

A general exploration program is proposed for the CAS Project, which will comprise:

- In the 1<sup>st</sup> year: data compilation and assessment; trenching; airborne magnetic survey; permitting; preparation of an NI 43-101 compliant report; \$300,000 budget.
- In the 2<sup>nd</sup> year: trenching and sampling; diamond core drilling; assessment of results and selection of targets for follow-up investigation; NI 43-101 Technical report; \$300,000 budget.
- In each extension year: diamond core drilling campaigns; sampling of the mineral deposit for grade determination; metallurgical studies and technological testing; mineral resource and reserve modeling; NI 43-101 Technical Report; economic analysis.

Adjustments to this program will be made during the execution of the exploration work, in order to take into consideration results of the program. A more detailed breakdown of work to be done during years 1 & 2 are included.



A Plan of Operations has been submitted to the US Forest Service to conduct exploration on the CAS Project. Initial meetings with the Forest Service have been held and a program to trench favorable geophysical targets is proposed for this coming field season.

A detailed airborne geophysical survey is scheduled to begin as soon as a plane is available. This survey will be used to outline the trend of the geologic units that host and control cobalt and gold deposits within the Idaho Cobalt Belt. It will also be used to guide future drilling and trenching work that will be done on the property.

### **Highlights**

- The CAS Project is a cobalt/copper/gold property situated nearby and between eCobalt Solutions' Idaho Cobalt Project and Scientific Metals' Iron Creek Project in the Idaho Cobalt Belt.
  - o eCobalt Solutions has reported the following regarding the Ram Mine:
    - 3.48 million Tonnes @ 0.55% cobalt, 0.75% copper and 0.017 ounces per ton gold.
  - o A preliminary economic feasibility of the project has been completed
  - o Successful completion of financing for more than CA\$30 million
  - o Scientific Metals has just completed a private placement financing of \$2.5 million
- Historic drilling, geophysical surveys and surface sampling suggest that the mineralized areas on the property could host large and economic deposits of cobalt and copper with excellent gold credits.
  - o Geophysical surveys have outlined several promising cobalt/copper drill targets on the property
  - Drilling has encountered promising cobalt and gold mineral occurrences. The best results include 1.5m of 0.54% Cobalt & 8.3 g/t Gold and 4.6m of 0.34% Cobalt & 8.3 g/t Gold.

## 2 Year Exploration Plan and Budget - CAS Project

Year 1			
Task	Description	Investment	
Project Management		\$10,000	
Data Acquisition and Compilation	Review exploration and drilling assay data from previous activities on the property. Include recommendations for trenching.	\$5,000	
CAS Claims	BLM and county annual filing and fees	\$6,500	
Professional Geologist	Project Geologist - 20 Field Days Determine sample sites Supervision of sampling	\$16,000	
Geologic Technician	Geologic Technician - 20 field days Collect rock and soil samples Sample transportation Assist project geologist	\$10,000	
Exploration Permitting	Amend Notice of Intent from 2015	\$7,500	
	Permit review and approval meetings with US Forest Service interdisciplinary team.	\$4,000	
Trenching Preparation	Prepare and improve access to trench sample sites and work areas.	\$15,000	
Exploration Trenching	Track Hoe and Crew, estimate \$2500 per day for 20 days.	\$40,000	
Mapping	GIS and CAD mapping for trenching project	\$7,500	
Mag Survey Design	Design an airborne magnetic survey and coordinate bidding and proposals from helicopter survey contractors	\$5,000	
Helicopter Mag Survey	Airborne magnetic survey, using helicopter Flight line spacing 200m Evaluation and report detailing mag survey results	\$75,000	
Tests and Assays	Lab analysis of 200 samples	\$10,000	

Environmental Testing	Testing for acid generation and neutralization potential of rock types (overburden, ore and underburden)	\$3,000
Resource Evaluation	Historic drill hole, trench sampl and outcrop evaluation and development of resource model	\$10,000
NI 43-101 Report	Independent and certified contractor report - Including recommendation for additional exploration and project development	\$25,000
Exploration Drilling Permit	Amend the exploration permit to include drilling in the coming year using recommendations from the 43-101 report. Submit the plan for review by the US Forest Service	\$15,000
Reclamation Surety	Site reclamation work	\$25,000
Contingency		\$30,000

Year 1 Project Budget

\$319,500

Year 2			
Task	Description	Investment	
Project Management		\$10,000	
CAS Claims	BLM and county annual filing and fees	\$6,500	
Permitting	Plan of Operations for drilling program	\$20,000	
	Cultural resource survey	\$15,000	
	Wildlife survey	\$7,500	
Drilling	Drill site and access road preparation	\$15,000	
	RC drilling (\$40/ft, 3,750ft)  Twin 2 or 3 historic drill holes for validation and resource development	\$150,000	
	Assays and testing (200 samples)	\$8,000	
Ground Geophysics	Follow up on airborn magnetic targets	\$15,000	
Reclamation Surety	Site reclamation work	\$15,000	
Resource Evaluation	Drill holes and trench sample evaluation.  Develop a model of the cobalt / copper / gold resource.	\$10,000	
NI 43-101 Report	Updated report including drilling data	\$15,000	
Contingency		\$30,000	
Payment to RCF			

Year 2 Project Budget

**\$317,000**