# Technical Report on the Copper Mountain Uranium Project

# Fremont County, Wyoming, USA Report for NI 43-101

Rush Rare Metals Corp.



March 24, 2023

# <u>Prepared for:</u>

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### 1.0 SUMMARY

### 1.1 Executive Summary

BRS, Inc. (BRS) was retained by Rush Rare Metals Corp. (Rush) to prepare an independent Technical Report on the Copper Mountain Uranium Project (Project or Property) located in Fremont County, Wyoming, USA. This report does not provide a current estimate of mineral resources or reserves. The Project is situated in the Wyoming Basin physiographic province in west central Wyoming and within the Wind River Basin (WRB).

Figure 1-1 provides the regional location of the Project.

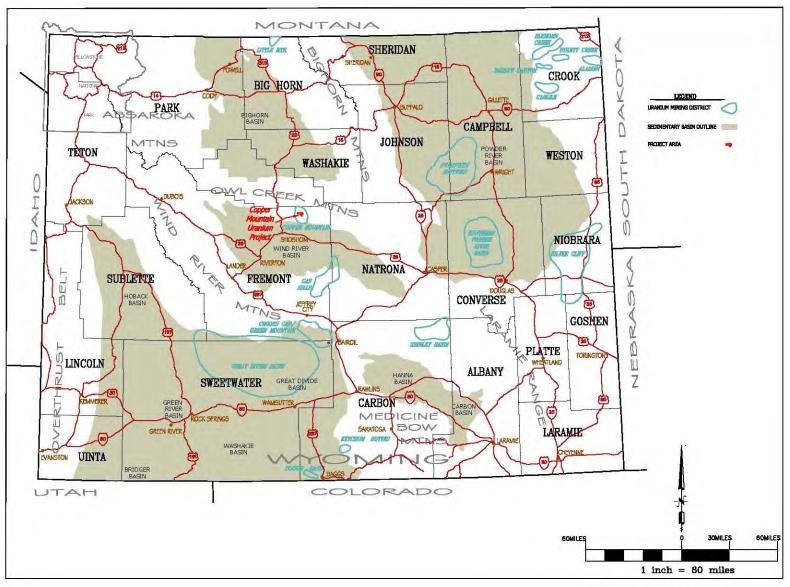


Figure 1-1 Copper Mountain Uranium Project Location Map (BRS, 2023)

### 1.2 Conclusions

Beginning in the 1950's and ending in the early 1980's, mining claims and leases were held by various companies within and in the vicinity of the Project. These companies included Susquehanna Western, Western Nuclear, Rocky Mountain Energy Corporation, and others. These companies conducted exploration activities including aerial and ground radiometric surveys and drilling programs within the region. Little of that data is available, however geologic reports from that era describing the mineralization are available (Yellich, Madsen, Pirkle, and others).

Uranium deposition is found in both Eocene sedimentary rocks as well as Precambrian granitic rocks. Two primary areas of known uranium deposition occur within the Project area, the Arrowhead Mine area, and the North Canning uranium deposit. Additional prospect areas exist within the project area.

Past production in the district totalled approximately 500,000 lbs of eU<sub>3</sub>O<sub>8</sub>, primarily from the Arrowhead Mine (Yellich and others, 1978).

The Project is an exploration stage project. Historic drill pad locations can be observed in the North Canning, Arrowhead, Lost Hope, and Allard/Mint areas. Approximate historic drill hole locations within the project area are shown on Figure 6-1. The historic drill areas may be useful along with geologic unit mapping to plan an exploration drilling program as discussed in Section 25. While uranium mineralization is known to exist in the area based upon historic drilling and limited, there is no current basis for estimating mineral resources or exploration targets.

### 1.3 Risks

It is the author's opinion that the risks associated with this project are similar in nature to other exploration projects in general and uranium exploration projects specially, i.e., risks common to mineral exploration projects include:

- Future commodity demand and pricing;
- Environmental and political acceptance of the project;
- Any changes at a Federal level regarding US mining claims;
- Any changes at a state level regarding royalties and lease payments;
- Variances in drilling and exploration costs.

Readers are cautioned that it would be unreasonable to rely on any such forward-looking statements and information as creating any legal rights, and that the statements and information are not guarantees and may involve known and unknown risks and uncertainties, and that actual results are likely to differ (and may differ materially) and objectives and strategies may differ or change from those expressed or implied in the forward-looking statements or information as a result of various factors. Such risks and uncertainties include risks generally encountered in the exploration, development, operation, and closure of mineral properties and processing facilities. Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements.

### 1.4 Recommendations

Two phases of work are recommended to advance the project, Phase 1 historic data acquisition and Phase 2, a drilling and geophysical logging program to either verify if historic grade data can be utilized or a new drilling program to obtain data to develop an inferred mineral deposit estimate.

Historic data may be available for the drilling completed by Rocky Mountain Energy Corporation and others. It is recommended that efforts be made to obtain the historic data, which may be available from public sources. The estimated cost for Phase 1 is approximately \$50,000 to research and obtain historic data for the Copper Mountain Uranium Project.

If the data cannot be located from public sources, the data may be available from private sources. There would likely be a data acquisition cost to obtain the data from a private entity, which cannot be estimated at this time.

If the historic data can be located, Phase 2 drilling is recommended to confirm the presence or absence of mineralization at the Copper Mountain Uranium Project and to verify historic grade data to support the use of the historic data in the development an inferred mineral deposit estimate. Phase 2 may also include re-logging historic drill holes if they can be found and reentered.

If historic drill hole data cannot be located, a maiden drilling program would be needed. A drilling and geophysical logging program would be required to confirm the presence of uranium mineralization with sufficient continuity, width, thickness, grade, and GT to support an inferred mineral resource estimate which meets reasonable prospects for future economic extraction.

It is the author's opinion that drilling should be focused on Eocene Wagon Bed and Wind River sedimentary deposits on the property as Precambrian granite hosted uranium mineralization is less likely meet reasonable prospects for economic extraction under current market conditions.

For a maiden drilling program, initial drilling in the Eocene conglomerate areas including the Allard/Mint, Arrowhead Mine, North Canning, Last Hope Mine, and Hesitation Prospect areas is recommended, with an emphasis on the North Canning area as it was historically considered the primary resource area. Drill holes would be located lines or fences approximately perpendicular to the project trend. An initial drill depth of 250 feet is recommended, with the intent of reaching the Precambrian granitic rocks below the Eocene sediments and ceasing drilling. This depth could be adjusted based on actual results.

The drill fences would nominally be spaced 500 feet apart along trend. Drilling along the fence would start at 500-foot centers to locate and span the mineralized boundary, and then reduce the spacing to approximately 250 feet. An experienced field geologist needs to be present on the site to direct the drill program and offsets.

This would require approximately 145 drill holes or 37,000 feet of drilling. The author is participating in a similar drill program in the region currently and is experiencing a cost of approximately \$15.00 per foot including drilling, geophysical logging, and site geologist. However, based upon drilling conditions in Eocene conglomerates the author would expect drilling costs to be higher at approximately \$20.00 per foot for mud and hammer drilling. This equates to drilling cost of approximately \$740,000.00. Bonding is estimated at \$102,500. Additional services related to permitting, site revegetation, and drill hole abandonment reporting are estimated at \$100,000. Evaluation of drill results, resource estimation and preparation of a Technical Report is estimated at \$100,000. Thus, Phase 2 drilling at the Copper Mountain Uranium Deposit is estimated at \$1,050,000 USD.

### 1.5 Technical Summary

### 1.5.1 Property Description and Location

The Project is situated in the Wyoming Basin physiographic province in west central Wyoming and within the Wind River Basin (WRB). Figure 1-1 provides the regional location of the Project. Uranium mineralization occurs in Precambrian Archean age granites and the Tertiary Teepee Trail and Wind River Formations. Mineralization in the sedimentary layers is found as fracture filling and sandstone-hosted roll-front type mineralization. Mineralization in the Archean granitic material is found in faults and fractures and is believed to be hydrothermal in nature.

### 1.5.2 Land Tenure

The approximate locations of unpatented mining lode claims and state mineral leases held by Rush are shown of Figure 4-1.

The federal mining claims are held by making payment to the BLM state office of the maintenance fee by September 1 of each year and by sending a notarized letter to each county clerk notifying the county of the company's intent to hold the federal claims by payment of the maintenance fee. Annual holding costs for mining claims are \$165 per claim or an aggregate of \$18,150.00 not including filing fees. The annual payments have been made to the BLM to maintain Rush's land interest through August 31, 2023. The claims are reported to be in good standing.

### 1.5.3 History

The area was explored by various companies and the US government beginning in the 1950's. Multiple small historic mines and exploration projects exist in the Copper Mountain district as shown on Figure 7-1 Geology Map. Total production from the Copper Mountain District between 1955 and 1970 was estimated by the USGS at approximately 500,000 lbs, primarily from the Little Mo – Arrowhead Mine (Yellich and others, 1978).

Historic drilling and exploration was conducted in the area by Rocky Mountain Energy (RMEC) in the 1960's and early 1970's. RMEC drilled approximately 2,000 boreholes in the North Canning deposit for evaluation as a medium grade, large volume deposit with potential for open pit mining. (Madson, 1982). This data is not currently available to Rush.

### 1.5.4 Geology and Mineralization

The Copper Mountain Uranium Project is located near the base of Copper Mountain in the Owl Creek Mountain Range of north central Wyoming. The Owl Creek Mountains were formed north of the Wind River Basin during the Laramide Orogeny along the Owl Creek Uplift. Precambrian granitic and metasedimentary rocks form the northern upthrust block of the Owl Creek fault. The Wind River Basin south of the upthrust contains a thick section of Tertiary sediments with abundant volcanic material.

Numerous uranium deposits occur in the Precambrian and Tertiary rocks on Copper Mountain. Uranium deposition is found in lower Eocene Wind River Formation sandstone and the overlying middle Eocene Wagon Bed Formation, locally known as the Teepee Trail Formation (Ferris 1968), along the normal fault zone of the Owl Creek Uplift. (Yellich and others, 1978). The sources of uranium are likely to be primarily from the fractured Archean granitic rock along the fault zone but may have derived from overlying volcanic rich Tertiary sediments as well. See Figure 7-1, Geology Map, for the overall geologic setting.

The Copper Mountain Uranium Project is comprised of two primary areas of known uranium mineralization where Rush holds mining claims and leases as shown on Figure 4-1. The Arrowhead Mine is located in Eocene Wagon Bed Formation arkosic conglomerates, and the North Canning Deposit is located both Wagon Bed sediments and Precambrian granites with uranium mineralization found in fault and brecciated zones.

Historic drilling and resource estimates were conducted by various companies, but no current information was available to Rush at the time of this report.

### 1.5.5 Exploration Status

Rush has not conducted drilling on the Project.

#### 1.5.6 Mineral Resources

There are no current Mineral Resources reported for the Property.

### 1.5.7 Mineral Reserves

There are no current Mineral Reserves reported for the Property.

### 2.0 INTRODUCTION

BRS, Inc. (BRS) was retained by Rush Rare Metals Corp. (Rush) to prepare an independent Technical Report on the Copper Mountain Uranium Project (Project) located in Fremont County, Wyoming, USA. This report does not provide a current estimate of mineral resources or reserves. The Project is situated in the Wyoming Basin physiographic province in west central Wyoming and within the Wind River Basin (WRB). Figure 1-1 provides the regional location of the Project.

### 2.1 Site Visitation and Inspection

This Technical Report was prepared by Harold J. Hutson, PE PG., a Qualified Person, in accordance with NI 43-101 and CIM guidance. Mr. Hutson is a Professional Engineer and a Registered Member of the Society of Mining Engineers (SME) and is an independent consultant with no financial interest in Rush.

Mr. Hutson has worked in Wyoming and the Wind River Basin on multiple uranium projects since 1995.

Mr. Hutson's recent site visit was completed on October 31, 2022. During the site visit Mr. Hutson:

- Observed evidence of past drilling including reclaimed drill sites and remnant drill cuttings at the North Canning deposit.
- Observed a four-inch diameter PVC-cased well. The purpose or providence of the well was not available to the author.
- Observed that the site is accessible on gravel/dirt roads.
- Observed the site of the Little Mo-Arrowhead Mine.
- Observed visible uranium mineralization at the Hesitation Prospect.
- Observed elevated gamma readings in waste piles at the Arrowhead Mine.

Mr. Hutson is responsible for all sections of this Technical Report, except Section 4.2 and 4.4 of this report regarding Rush's acquisition of the mining claims comprising the Property, which was prepared by Rush and was fully relied upon by the author as stated in Section 3 of this report. Mr. Hutson is independent from Rush for the purposes of NI 43-101.

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

### 2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is US dollars (US\$) unless otherwise noted.

μ	micron	kVA	kilovolt-amperes
μg	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
Α	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m <sup>2</sup>	square metre
cfm	cubic feet per minute	m <sup>3</sup>	cubic metre
cm	centimetre	MASL	metres above sea level
cm <sup>2</sup>	square centimetre	m³/h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	μm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft <sup>2</sup>	square foot	MW	megawatt
ft <sup>3</sup>	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
Ğ	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
gr/ft³	grain per cubic foot	S	second
gr/m³	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day
hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in <sup>2</sup>	square inch	US\$	United States dollar
J	joule	Usg	United States gallon
k	kilo (thousand)	Usgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km²	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd <sup>3</sup>	cubic yard
kPa	kilopascal	yr	year
•	5passai	1 1'	,

### 3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by BRS for Rush Rare Metals Corp. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to BRS at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For the purposes of this Technical Report, BRS has relied on Rush for the disclosure in Section 4.2 and 4.4 of this report regarding Rush's acquisition of the mining claims comprising the Property, which was prepared by Rush. This includes, but is not limited to, property and mineral tenure and environmental and permitting status.

The author has fully relied upon the information provided by Rush in Section 4.2 and 4.4 of this report respecting Rush's acquisition of the mining claims comprising the Property, which was prepared by Rush.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location and Description

The Copper Mountain Uranium Project is located in the Wind River Basin of Wyoming in Fremont County. Overall, Rush holds some 110 unpatented mine lode claims within the Copper Mountain Uranium Project Area comprising approximately 1911 acres.

The mineral claims and lease are located in two blocks which, for the purposes of this report are referred to as the North and South blocks. The coordinates of the approximate centroids of the claim blocks are,

- North block, 43° 24′ 32.8″ N, 107° 53′ 17.5″ W
- South block, 43° 23′ 24.5″ N, 107° 52′ 07.6″ W

### 4.2 Mineral Rights

The approximate locations of unpatented mining lode claims held by Rush are shown on Figure 4-1.

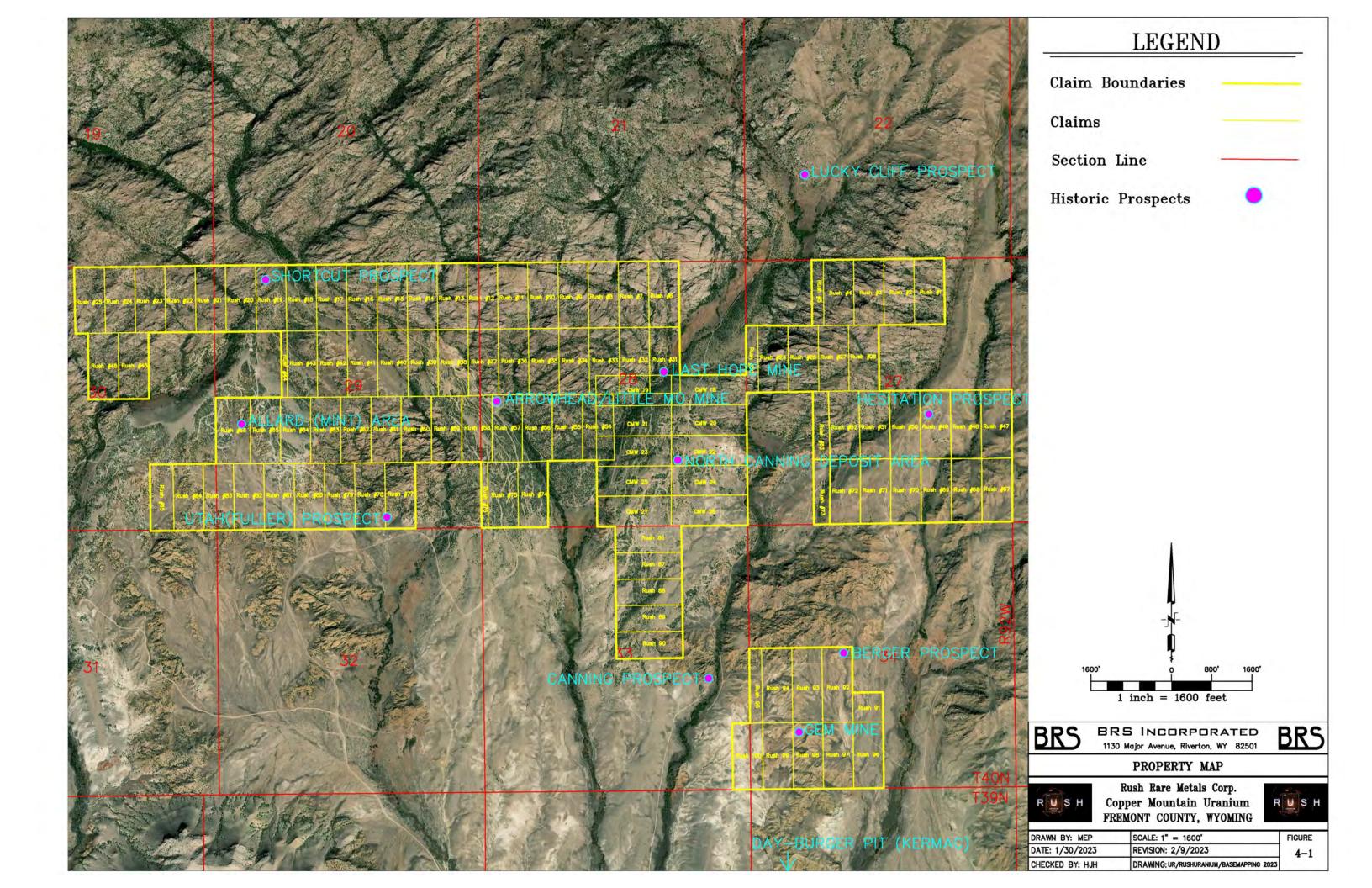
The federal mining claims are held by making payment to the BLM state office of the maintenance fee by September 1 of each year and by sending a notarized letter to each county clerk notifying the county of the company's intent to hold the federal claims by payment of the maintenance fee. Annual holding costs for mining claims are \$165 per claim or \$18,150.00 in aggregate not including filing fees. The annual payments have been made to the BLM to maintain Rush's land interest through August 31, 2023.

A listing of active claims and state leases is provided in Appendix B.

### 4.3 Surface Rights

Surface rights within and adjacent to the project areas are administered by the BLM. In compliance with applicable federal and state laws, minerals may be extracted from unpatented mining claims, however, the mineral claimant may use only as much of the surface as necessary to conduct mining operations and may not use the area for other purposes or to restrict public access, except where needed to protect safety. The federal government retains the right to manage the surface and the surface resources. (Rohling, 2011)

BLM administered lands are controlled by the regulation of the Secretary of the Interior as contained in 43 CFR 3715 and 3809. Any mining related activities or exploration activities which affect more than 5 acres require a Plan of Operations. Exploration activities disturbing less than 5 acres require a Notice of Intent. In Wyoming the state also regulates mining and exploration and requires a Drilling Notification for all exploration activities and a Mine Permit for all mining related activities. Both the BLM and Wyoming require any disturbances be reclaimed. Bonding for reclamation is held by Wyoming under a memorandum of understanding with the BLM. Casual use which could include surface radiometric surveys and soil sampling which does not utilize mechanized equipment is allowed by both state and federal regulations.



### 4.4 Royalties, Agreements and Encumbrances

Ten of the mining claims comprising the Copper Mountain Uranium Project are subject to a project sale agreement dated dated as of April 8, 2022 (Copper Mountain Sale Agreement) between Rush, as buyer, and Nucor Inc. (Nucor) and Miller and Associates, LLC (Miller), as sellers, pursuant to which the sellers agreed to sell their entire collective 100% interest in ten mining claims to the buyer. Rush became party to the Copper Mountain Sale Agreement pursuant to an assignment and assumption agreement made effective as of May 8, 2022 (Copper Mountain Project Assignment Agreement). Rush subsequently staked an additional 100 mining claims comprising the Copper Mountain Uranium Project.

The Copper Mountain Sale Agreement, as amended by the Copper Mountain Assignment Agreement, includes the following terms (among other terms):

- Rush purchased the original ten mining claims comprising the Copper Mountain Uranium Project from Nucor and Miller for an aggregate price of US\$250,000.
- Nucor and Miller retained, as a residual interest in the Copper Mountain Uranium Project, an annual payment of US\$25,000 to be divided equally between them.
- Rush will also pay a NSR royalty on production of 2.5% of the sales value of any yellowcake sourced in or from the Copper Mountain Uranium Project area. Rush may elect to repurchase 1% from such NSR royalty (reducing the NSR royalty to 1.5%) for US\$250,000 within 12 months of April 8, 2022. Rush may further elect to repurchase an additional 1% from such NSR royalty (reducing the NSR royalty to 0.5%) for \$500,000 after 12 months from, but within 24 months of, April 8, 2022. Rush may further elect to repurchase the remaining 0.5% of such NSR royalty (reducing the NSR royalty to nil) for US\$1,000,000 after 24 months from, but within 36 months of, April 8, 2022.

A production royalty of 4% of gross value applies to all state leases. The Current Wyoming production royalty on uranium is 3%. There is no federal production royalty on uranium.

### 4.5 Permits Required

In order to conduct exploratory drilling of the property a Drilling Notification (DN) from the State of Wyoming Department of Environmental Quality and the BLM is required which includes posting a bond to insure regulatory compliance. Mine development would require a number of permits depending on the type and extent of development, the major permit being the actual mining permit issued by the WDEQ/LQD. Mineral processing for uranium would require a source materials license from the US Nuclear Regulatory Commission (USNRC). To the author's knowledge, there are no current environmental permits for the project area.

# 4.6 Description of all Environmental Liabilities to Which the Property is Subject

The Project is in the exploration phase. To the author's knowledge, there are no pre-existing mineral processing facilities or related wastes on the property and there are no outstanding environmental liabilities with respect to the subject properties of this report.

### 4.7 Encumbrances and Risk

To the author's knowledge there are no other forms of encumbrance related to the Project. It is the author's opinion that the risks associated with this project are similar in nature to other exploration projects in general and uranium exploration projects specially, i.e., risks common to mineral exploration projects include:

- Future commodity demand and pricing;
- Environmental and political acceptance of the project;
- Any changes at a Federal level regarding US mining claims;
- Any changes at a state level regarding royalties and lease payments;
- Variances in drilling and exploration costs.

# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Physiography

The Copper Mountain Uranium Project is located within the Wyoming Basin physiographic province in the Wind River Basin. The Wind River Basin is named after the Wind River which drains the basin to the north through the Wind River Canyon, which cuts through the Owl Creek Mountains. The area is located in the foothills of the Owl Creek Mountains, roughly 5800 to 6800 feet in elevation. Vegetation is characteristically sagebrush and grasses with juniper trees in upland areas.

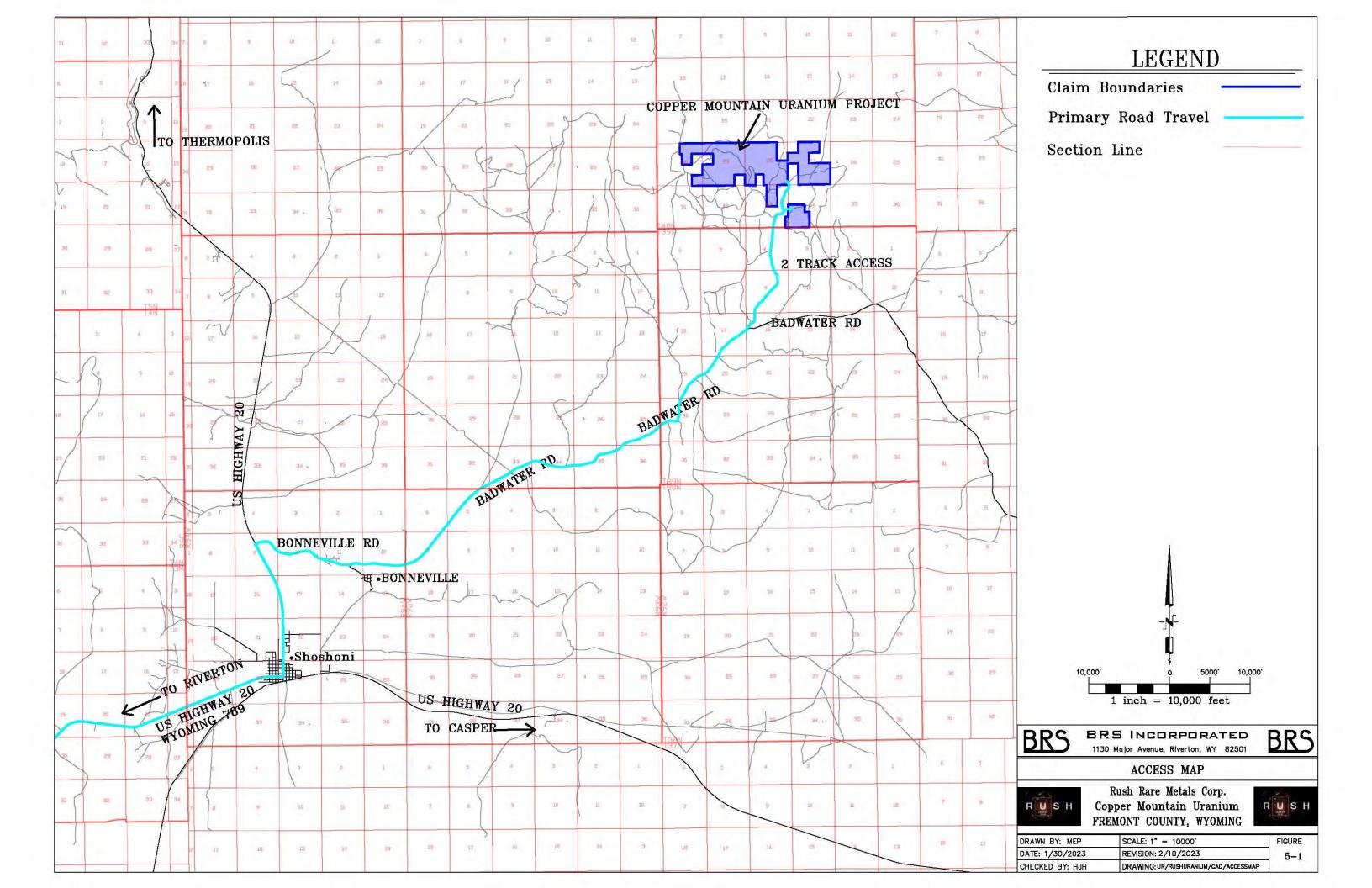
The project encompasses a large geographic area generally 40 to 50 miles northeast of Riverton, Wyoming. Figure 1-1, Project Location Map shows the general location of the project.

### 5.2 Access

The project is located north and east of Shoshoni, Wyoming. From Riverton to the site, Interstate 26/WY 789 would be taken 40 miles to Shoshoni. After arriving in Shoshoni, take a left onto Interstate 20, drive 3.25 miles then take a right onto Bonneville Road, proceeding east. After Bonneville, continue on the Badwater Road, driving another 14.25 miles to the two-track access roads leading onto the Rush property. Figure 5-1 shows the site access.

### 5.3 Vegetation

The vegetation is characterized by sagebrush and grasses typical to Wyoming's high plains terrain. Scattered juniper trees are found on the ridges and concentrate in drainages on steep hillsides. Cottonwood trees are found where water exists in larger drainages.



### 5.4 Climate and Length of Operating Season

Operations can be conducted year-round although during the winter months and early spring, from December through March, winter storms can limit access intermittently. The nearest National Weather Service reporting station is Riverton, Wyoming. Table 5.1 provides a summary of temperature and precipitation for Shoshoni.

Climate data for Shoshoni, Wyoming, 1991-2020 normals, extremes 1931-present [hide] May Aug Sep Oct Month Jan Feb Mar Jun Jul Nov Dec Year Apr 60 65 102 Record high °F (°C) (16)(18)(26)(36) (39)(41)(39)(31)(22)(18)(41)45.3 53.1 68.9 66.3 51.7 Mean maximum °F (°C) (19.1)(7.4)(11.7)(20.5)(25.4)(10.9)27.9 36.3 52.8 62.0 81.9 90.3 76.9 60.5 43.0 28.5 59.9 Average high °F (°C) (-2.3)(2.4)(11.6)(16.7)(21.3)(6.1)(-1.9)47.5 56.0 66.1 73.9 714 61.4 31.3 45.6 14.5 23.8 38.4 46 16.8 Daily mean °F (°C) (-9.7)(-4.6)(3.6)(8.6)(13.3)(18.9)(23.3)(21.9)(16.3)(8) (-0.4)(-8.4)(7.6)1.2 11.3 24.0 32.9 41.6 50.4 57.5 54.5 46.0 32.4 19.6 5.1 31.4 Average low °F (°C) (-14.9)(-17.1)(-11.5)(-4.4)(0.5)(5.3)(10.2)(14.2)(12.5)(7.8)(0.2)(-6.9)(-0.3)28.5 40.9 33.7 15.2 -17.314.0 3.5 18.1 48.5 43.9 1.3 -16.7Mean minimum °F (°C) (-25.6)(-15.8)(-31.6)(-7.7)(-1.9)(4.9)(9.2)(6.6)(0.9)(-9.3)(-17.1)31 Record low °F (°C) (-42)(-28)(-17)(-31)(-41)(-6)(-3)(5) (-1)(-8)0.23 0.37 0.59 7.99 0.34 1 03 1.84 1.01 0.76 0.48 0.86 0.30 0.18 Average precipitation inches (mm) (5.8)(9.4)(8.6)(26)(47)(26)(19)(12)(22)(15)(7.6)(4.6)(203)1.0 2.2 3.2 2.5 1.7 0.0 0.0 0.0 17.5 Average snowfall inches (cm) (6.4)(1.0)(0.25)(44.45)(8.1)(4.3)(0.0)(0.0)(0.0)(2.5)(5.6)(7.4)(8.9)Average precipitation days (≥ 0.01 in) 38.5 1.4 1.8 2.3 4.6 7.1 4.6 3.4 3.1 3.7 3.2 1.9 1.4 Average snowy days (≥ 0.1 in) 1.8 2.0 1.5 0.9 0.2 0.0 0.0 0.0 0.1 0.6 1.5 2.2 10.8 Source 1: NOAA[13] Source 2: National Weather Service (mean maxima and minima 2006-2020)[12]

Table 5.1 - Climate data for Shoshoni, Wyoming

#### **Source: National Weather Service**

Over the course of the year in Fremont County, typical wind speeds vary from 0 mph to 25 mph (calm to strong breeze), rarely exceeding 35 mph (high wind). The *highest* average wind speed of 15 mph (moderate breeze) occurs around January 14, at which time the average daily maximum wind speed is 24 mph (strong breeze). The *lowest* average wind speed of 9 mph (gentle breeze) occurs around July 31, at which time the average daily maximum wind speed is 20 mph (fresh breeze).

# 5.5 Sufficiency of Surface Rights and Location of Mining and Processing Waste Disposal Areas

BLM and state mineral leases allow for the use of the surface for mineral extraction and processing, including waste disposal however, the mineral claimant may use only as much of the surface as necessary to conduct mining operations and may not use the area for other purposes or to restrict public access, except where needed to protect safety. Mine operations must be in compliance with applicable federal and state laws (Rohling, 2011).

### 5.6 Availability of Power, Water, and Manpower

The Project site is rural and has minimal utility services present. There are no apparent surface water sources, so mine operations would need to develop ground water sources.

Manpower could come from neighboring communities including Riverton, Shoshoni, Thermopolis, and Casper, Wyoming.

### 6.0 HISTORY

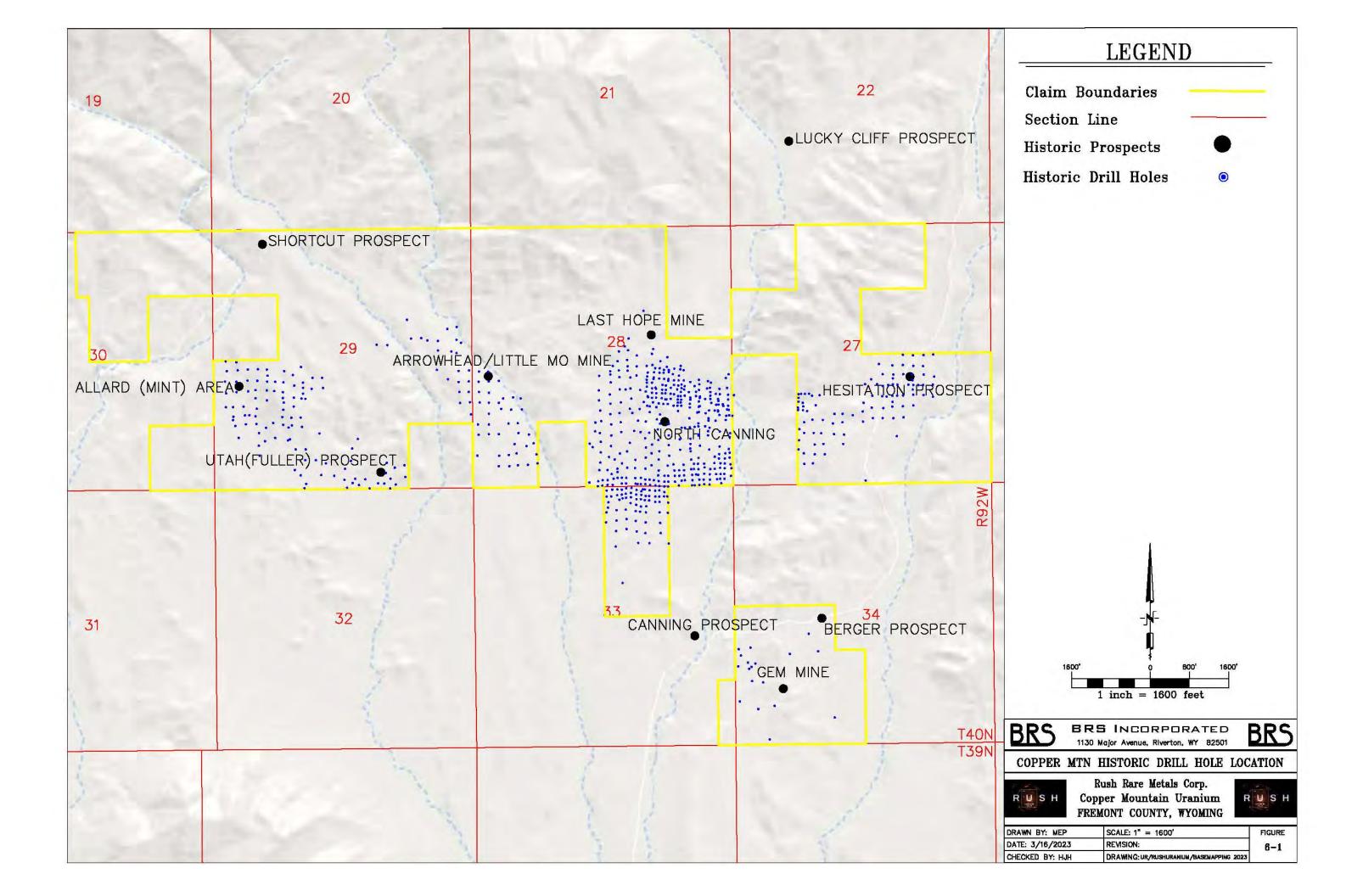
### 6.1 History and Ownership

Multiple past owners held mineral claims in the area for exploration and small-scale production including Susquehanna Western and Western Nuclear. Rocky Mountain Energy (RMEC) began land acquisition in 1960, with vein type deposits as their exploration target, and performed geophysical surveys as well as exploration drilling projects.

See Section 4.4 for a description of Rush's acquisition of the mining claims comprising the Copper Mountain Uranium Project.

### 6.2 Historic Drilling

Drilling was conducted in the area by various companies starting in the mid 1950's and continuing into the early 1980's. Historic drilling and exploration was conducted in the area by Rocky Mountain Energy (RMEC) in the 1960's and early 1970's. RMEC drilled the North Canning deposit for evaluation as a medium grade, large volume deposit with potential for open pit mining. RMEC drilled approximately 2,000 boreholes in the Copper Mountain area averaging 500 to 600 feet in depth. Approximate historic drill hole locations are shown on Figure 6-1. The location of this data is not currently known to the author. As discussed in Section 25, it is recommended that efforts be made to obtain this historic data.



### 6.3 Historic Resource and Reserve Estimates

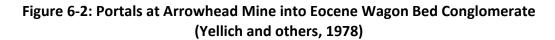
No current mineral resources or mineral reserves estimates have been completed in accordance with NI 43-101 and CIM guidelines.

Bendix Field Engineering Corporation (BFEC) completed a resource assessment for the Copper Mountain Uranium District using data from RMEC boreholes over a large study area encompassing the Project including the North Canning and Arrowhead areas. Grade data  $eU_3O_8$  was derived from 1,371 boreholes utilizing downhole gamma logging techniques. Chemical and radiometric assay data were also completed on 7 boreholes completed by BFEC and the results were compared to the gamma  $eU_3O_8$  values for calibration purposes. A total of 1,193 drill holes were used to evaluate mineralization in the Precambrian granites, and 301 boreholes were used to evaluate the Eocene sediments of the Teepee Trail formation. (Madson, 1982). As shown in Figure 6-1, a large percentage of the historic drill holes are located within Rush's project area, with drilling concentrated in the Allard/Mint, Arrowhead, North Canning, and Hesitation areas. However, the BFEC historical mineral resource estimate does not directly address the current mineral holdings, nor was the estimate based upon verifiable data or estimation methodology. The study area was much larger than the Rush claims, and the resource assessment was based upon statistical extrapolation of data over large areas that cannot be substantiated. As such the BFEC estimate is not relevant and cannot be relied upon.

### 6.4 Prior Property Production

Uranium was encountered by prospecting for shallow occurrences in the Copper Mountain area in 1953. Mining began in 1955 at the Little Mo-Arrowhead Mine in Eocene conglomeratic rocks of the Wagon Bed formation (also known as Teepee Trail formation) and continued to 1964 by Susquehanna Western. Western Nuclear continued production from 1968-1970. See Figure 6-2 for a historic photo of the portals at the Arrowhead Mine in the Eocene Wagon Bed formation.

Other historic mines and exploration projects exist in the Copper Mountain district including the B.H. Hall claims/Bonanza Mine which produced from Wind River formation roll front deposits, the Fannie dozer prospect with schroeckingerite occurrences in Eocene sand and clays, the Day-Berger Prospect which reported limited production, the Gem prospect in the Wind River formation, the Halo prospect in a biotite-magnetite Gneiss, the Hesitation prospect shaft in Quaternary conglomerates, the historic DePass gold, silver and copper mine which shows uraninite mineralization in the waste piles, and the Last Hope drilling and development drift as shown on Figure 7-1 Geology Map. Total production from the Copper Mountain District between 1955 and 1970 was estimated by the USGS at approximately 500,000 lbs (Yellich and others, 1978).





### 7.0 GEOLOGICAL SETTING AND MINERALIZATION

The Copper Mountain Uranium Project is located near the base of Copper Mountain. Copper Mountain is located in the Owl Creek Mountains of north central Wyoming. The Owl Creek Mountains were formed north of the Wind River Basin during the Laramide Orogeny along the Owl Creek Uplift. Precambrian granitic and metasedimentary rocks form the northern upthrust block of the Owl Creek fault. The Wind River Basin south of the upthrust contains a thick section of Tertiary sediments with abundant volcanic material.

Numerous uranium deposits occur in the Precambrian and Tertiary rocks on Copper Mountain. Uranium mineralization is found in lower Eocene Wind River Formation sandstones and conglomerates of the overlying middle Eocene Wagon Bed Formation, known locally as the Tepee Trail Formation (Ferris 1968) along the normal fault zone of the Owl Creek Uplift. Low to medium grade disseminated uranium mineralization is also present in the Archean age granitic rocks similar to the Archean rocks of the Granite Mountains which were the source of uranium mineralization in the Gas Hills, Shirley Basin, and Red Desert sedimentary deposits. The source of uranium in the Copper Mountain sedimentary units are likely to be primarily from the fractured granitic rock along the fault zone, but may have derived from overlying volcanic rich Tertiary sediments as well (Yellich and others, 1978). See Figure 7-1, Geology Map, for the overall geologic setting.

### 7.1 Regional Geology

The Copper Mountain Uranium Project area is located approximately 45 miles north and west of the Gas Hills Uranium Mining District along the north central edge of the Wind River Basin. During the end of the Cretaceous, the Laramide Orogeny divided the Wyoming Basin Province into a series of downwarped basins. As these basins were created, uplift created the Granite, Wind River, and Owl Creek Mountains, and older formations were altered during the same time. In the southern regions of the basin swamps, alluvial plains, and fluvial fans were present at the margins of the uplifted Granite Mountains. Significant uranium deposits were found in this depositional environment, primarily in the Gas Hills uranium mining district along the southeast edge of the Wind River basin. The Wind River basin contains up to 30,000 ft. of Cretaceous to recent sedimentary rocks.

The Owl Creek uplift exposed Archean granitic rocks, which are overlain in places with Cambrian metasediments of the Flathead sandstone. The fault zone is characterized by brecciated granitic and metasedimentary rocks in a complex series of horsts, grabens, and tilted blocks.

Wind River formation sediments were deposited during the Middle Eocene from the Owl Creek Mountains, which form the north edge of the Wind River basin. Uranium deposits in the Wind River basin frequently occur in the sandstone facies of the Wind River formation which consists of alluvial-fluvial fan deposits. The common rock type is arkosic sandstone with interbedded claystone and local conglomerates.

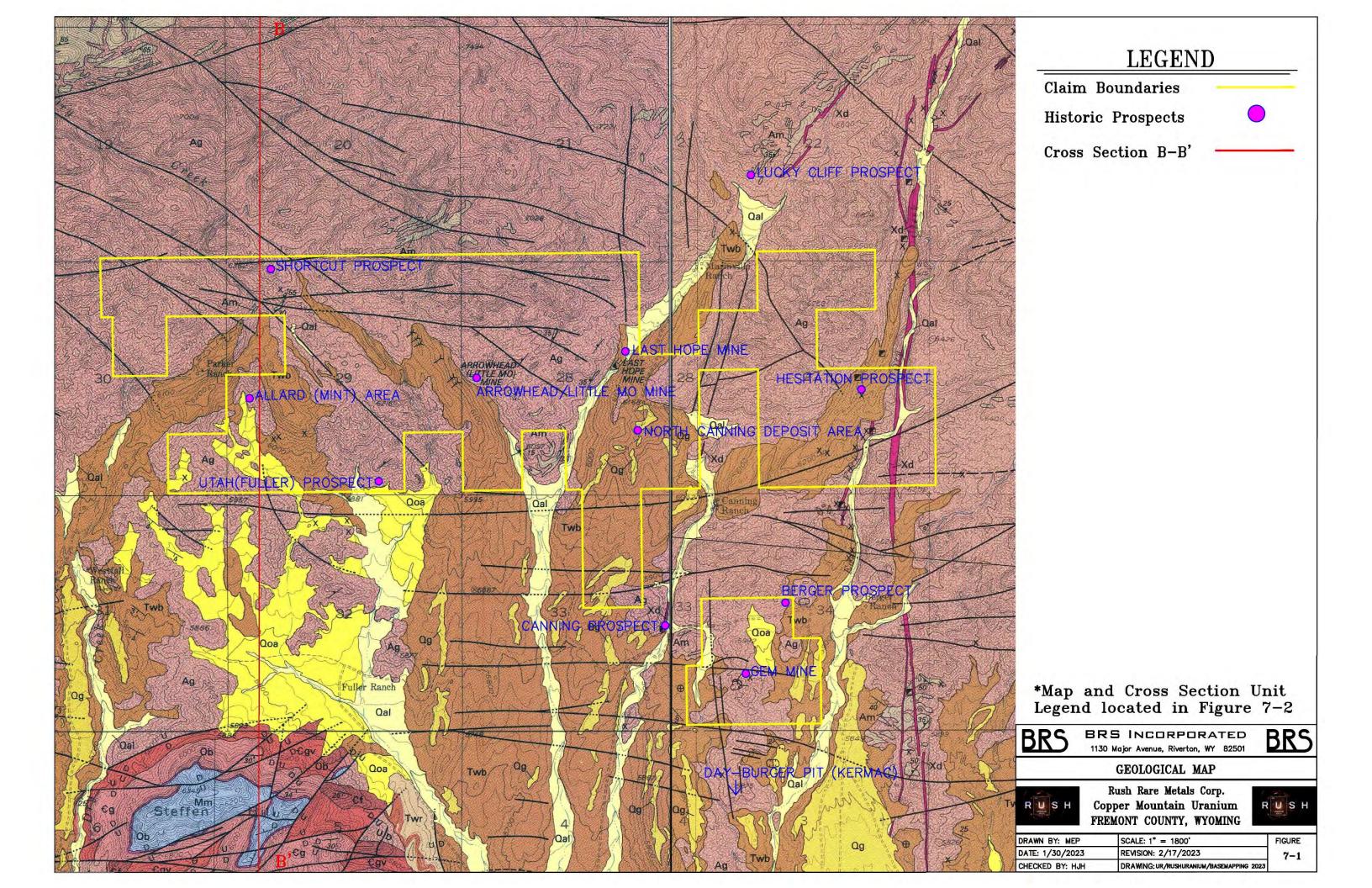
The Upper Eocene Wagon Bed or Teepee Trail Formation was deposited above the Wind River Formation along the base of the granitic and metasedimentary rocks near the base of the Owl

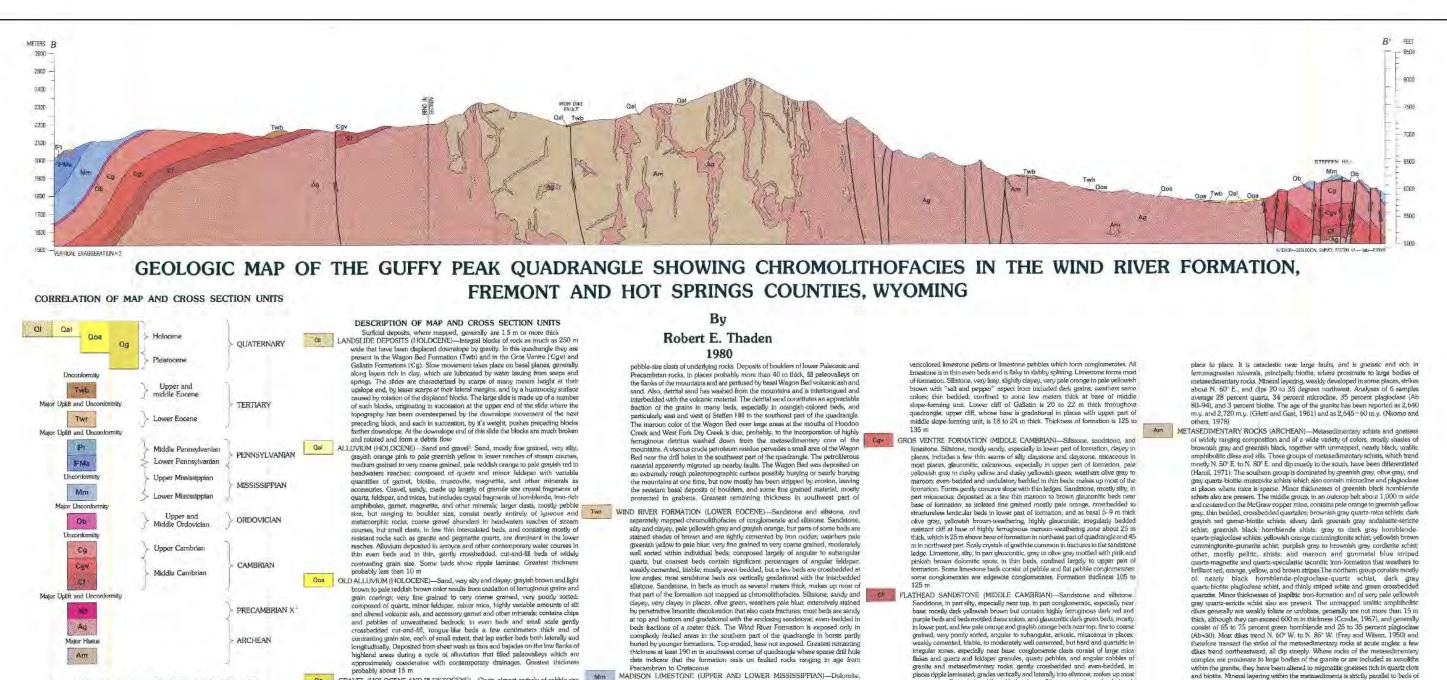
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Creek uplift. The Wagon Bed Formation is characterized by arkosic sands, silts, and bentonitic clay with concentrations of granitic boulders and gravel from the uplifted areas.

During the middle and late Tertiary, volcanic-rich sediments were deposited across the region and subsequently eroded away. Volcanics also were deposited and were subsequently eroded during the late Miocene and Pliocene. The structure of the Wind River Basin was then complicated by a northwest-trending fold system, by an east-west system of faults, and more faulting.

The Copper Mountain uranium deposits are located along the fault zone separating the Owl Creek uplift and the Wind River basin. Uranium mineralization in the Copper Mountain area occurs in both the Eocene Wind River and Wagon Bed / Teepee Trail Formations as well as the Precambrian rocks. Several sources of uranium could have contributed as sources of the uranium deposits in the district. Uranium could have been leached from the uplifted and brecciated Archean granites of the Owl Creek Mountains during their erosion by oxidizing ground water, and then deposited into favorable strata of the Wagon Bed / Teepee Trail Formation and the brecciated zones in the granitic rocks along the fault zone. Middle and late Tertiary volcanic ash and tuffaceous deposits could have provided an additional source of uranium during their erosion by oxidizing ground waters.





Og GRAVEL (HOLOCENE AND PLEISTOCENE) Clasts, almost entirely of cobble size but ranging from silt size to boulder size, consisting of fragments derived from weathering of Precambrian metasedimentary and intrusive rocks. Clasts mostly are of quartz-feldspar-mica schist, hornblende schist, weakly foliate uralitic homblende-feldspar dike rocks, andalusite-mica schist, garmet-mica schist, cordie-rile schist, taconite, pellitic schists, quantzite, minor Precambrian granite, and rare quantzitic sandstone derived from the Flathead (Cf) and Amsden (PMa) Forma-

tions and limestone from the Park City (Permian) and Madison (Mm) Formations Most clasts are dark colored, and gravel deposits therefore appear dark brownish black to black. Deposited on gently sloping dissected pediment surfaces at several levels. Gravel is unconsolidated, but calichified. Caliche content increases with depth, and age; the topographically highest deposits are the follest. Greatest measured thickness about 20 m in extensive deposit east of West Fork Dry Creek in south-central part of quadrangle, but most deposits are 2 to 5 m thick WAGON BED FORMATION (UPPER AND MIDDLE EOCENE)-Volcaniclass

claystone and sandstone composed of vitric, crystal-vitric, and crystal tuff: includes in places, sparse to abundant admixed and interbedded locally derived detritus Claystone, pale green and grayish yellow green where nearly pure, yellowish gray where it includes abundant volcanic sand, and grayish orange, orange, pink, maroon, and shades of purple and brown where it incorporates detrital sand derived from variously ferruginous sources; composed of devinified glass shard incorporating, in places, few to abundant volcaric sand grains; deposited mostly as even-bedded airfail material but reworked locally by streams to form crossbedded channel deposits, mudflows, and beds distorted by slumping, dense, hard, and fractures conchoidally where pure, and when wet if has texture of soft chieses and swells to form "popcom" surface; generally poorly cemented, friable where volcanic or derital sand is abundant. Secondary selenite is common as fracture fillings, and selenite also forms "sword" twins and simple tabular rhombic crystals terminated by hemipyramids and dinodomes in some beds, especially in the western part of the graben in the southwest part of the quadrangle. Where deposited in, or subsequently covered by, alkaline saline lakes the ash has beer zeolitized to analcime or clinoptilolite, and where zeolitized is white, pale gray, or pale pink and is hard and porcelanic. Sandstone, yellowish gray to pinkish gray and grayish orange, composed of crystals and crystal fragments of milky quartz and light colored feldspars with minor amounts of muscovite, dark minerals and mineral appregates, and sparse to abundant interstitial devitrified ash: porous: mostl even-hedded airfall material, but at some stratigraphic horizons reworked locally by water into crossbedded channel complexes generally of considerable length but of restricted width. Moderately well cemented to weakly cemented by silica except for a tightly cemented zone, not everywhere present, which lies within 5 m of base of formation. This zone is tightly cermented by silica and is made up of angular quartz and feldspar crystals and crystal fragments, interstitial ash, and granule and

limestone, and sandstone. Dolomite, most beds slightly to very limy and slightly clayey, yellowish gray to very pale orange and pale orangish pink; weathers yellowish gray; finely crystalline to medium crystalline, saccharoidal, mostly porous; in very thin to thick even beds, bedding obscure. Makes up major part of formation. Limestone, most heds slightly clavey and dolomitic, nale vellowish grat weathers yellowish gray; mostly sublithographic but few beds coarsely crystalline medium-bedded to thick-bedded, but bedding is indistinct makes up minot fraction of lower part of formation, nearly all of upper quarter. Sandston calcareous in most places, tightly cemented with silica in irregular zones, especially near top of formation, in sparse white lenticular beds less than  $1\,\mathrm{m}$  thick at and near base of formation, and as discontinuous zones of white to reddish brown and numlish red lenticular beds as much as 10 m thick in upper third of formation. frregular clots and subhorizontal zones of yellowish brown and brown chert are common, especially in upper half of formation. Pores and cavities are common common, especially in open law of windown to reduce the consequence are common separation in open part, many of these volds are lined with druses of calcite, minor quarts, or rare goethite, or are healed with calcite and minor chalcedonic quartz. formation stands as a ledgy cliff. Full thickness of formation (130 m) is present only on fold at northeast corner of quadrangle

BIGHORN DOLOMITE (UPPER AND MIDDLE ORDOVICIAN)-Dolomite, slightly clayey, very light gray and light yellowish gray mottled light grayish orange weathers, in places, yellowish gray; firrely crystalline, saccharoidal, slightly porous moderately porous where light grayish orange; contains scattered small limontle spots, indistinctly thick bedded to structureless, weathers to deeply pitted surface; forms cliff. Thickness 9.9 m at Guifty Peak, 15.2 m at center of north edge of quadrangle, 12.2 m at northwest corner of quadrangle, and 6.4 m on Steffen Hill GALLATIN LIMESTONE (UPPER CAMBRIAN)—Limestone and siltstone. Limestone

cliff at top of formation slightly clayer, some beds very glauconitic, some beds in upper part very dolomitic; pale grayish red to moderate grayish red, gray, pale orange, and mottled green and pinkish orange; weathers marcon, medium gray. and pale orange, but gross aspect, from a distance, is that of a ribbed maroon cliff, edgewise conglomerates of flat sublithographic to finely crystalline limestone pebbles common. Middle limestone slope slightly claveu in conglomeratic beds stilly near base, some beds contain varying amounts of glauconite; yellowish gray to pale olive; weathers pale yellowish brown; medium crystalline to coarsely crustalline and dark colored where conglomeratic, lithographic to sublithographi and light colored elsewhere; some beds, especially near top, are flat pebble conglomerates some of which are edgewise conglomerates; pehbles are sublithographic light gray, fight green, yellow, and clive limestone. Basal limestone cliff very slightly clayey, silty in upper part, most beds slightly glauconitic, pale yellowish brown, orangish gray, and yellowish gray, weathers pale yellowish brown to brown; finely crystalline; about half of the beds contain sublithographic

places ripple laminated; grades vertically and laterally into siltstone; makes up mos of formation. Forms ledgy cliffs and ledgy slopes. Siltstone, mostly sandy, dark red, greenish gray, and pale orange: even-bedded and irregularly bedded in thin beds some of which are ripple laminated; some beds glauconitic; grades into enclosing sandstone beds, confined mostly to upper part of formation. Pathead Sandstone deposited on irregular surface cut on Precambrian rocks, surface probably has relief of 10 o 30 m in this quadrangle, Eudence for timetrongular or gradation of Plathead with overlying Gros Ventre Formation (Egv), compelling at some localities regionally, is not appearent in this quadrangle. Rocks mapped as Flathead include persistent crosshedded sandstone and thin silistone beds and exclude overlying calcareous flatheaded silistone and isolated crossbedded (enticular channel sandstone deposits. Thickness ranges from 60 to 75 m

MAFIC DIKES (PRECAMBRIAN X)—GrayIsh black and dark greenish black, finely crystalline, slightly porphyritic, hypidiomorphic, ophitic, tholeitic dikes with chilled margins; dikes consist largely of augite and other pyroxenes, and plagioclase minor constituents, in widely ranging amounts, include magnetite, pyrite, olivine, and quartz, hornblende and chlorite are common alteration products. Laramide orogenesis has generated youge at some places on dike margins. Many of these gauge zones are radioactive and test pits for uranium are common. No economic deposits, however, are known. The dikes trend north to northeast and cut both the metasedimentary complex and the granite. The age of the mafic dikes in the map area is not known to have been determined, but the dikes have the same relationship to other Precambrian units as similar, but dated, dikes in the Beartooth western Owl Creek, Wind River, and Bighorn Mountains. They also have the same petrographic characteristics as dated dikes (about 2,200 m.y.) in the nearby Bighom Mountains (Armbrustmacher, 1977; Heimlich, Nelson, and Gallagher, 1973; Armbrustmacher, oral commun.) and elsewhere, It is likely, therefore, that the mafic dikes in the map area also are of Precambrian X age

GRANITE (ARCHEAN)—Pale gray and grayish orange pink to moderate brownish red white, pale gray, and yellowshi gray where pegmattic pegmattics also include large masses of pale green beryl, pinkish purple lepidolite, rose quartz, blush black and white graphic tournaline-quartz intergrowths, and other minerals and mineral assemblages. Such other late magmatic segregations as the gumental-blue specularite-rich and quartz-rich vein-like bodies 1,370 m southwest of the Arrowhead mine, the pale green feldspar-epidote-zoisite-olivine dikes 1,980 m northwest of the Arrowhead mine, and the brownish gray to reddish brown quartz-feldspar dikes 500 m northwest of the Westfall ranch, also are not uncommon in the granite. The granite is bright rusty orange in portions of the southern part of the quadrangle where it probably lay shallowly buried beneath saline alkaline lakes during part of Territary and, possibly, Quaternary time. It ranges from quartz-microcline binary granite to quartz-microcline-plagioclaseuscovite granite with gamet, apatite, zircon, epidote, pyrite, magnetite, and other minerals as accessories; percentages of all constituents vary widely from

within the granite, they have been altered to migmatitic gneisses rich in quartz clots and biotite. Mineral layering within the metasediments is strictly parallel to beds of Iron-formation, quartzite, and other identifiable sedimentary beds, and is thought, therefore, to represent original sedimentary bedding. Attempts to determine sedimentary facing by studying obscure crosshedding in the quantities and fining-upward sedimentary sequences represented by gradation from quantz wacke to mica schist in the metasedliments were not successful, partly because wacke to mice scriss in the melasedimentary complex produced abundant isoclinal folds on a scale of a few meters and unmeasurable stratigraphic displacement on a multitude of near-bedding-plane fault surfaces. A strong cleavage is nearly everywhere parallel to the mineral layering, but diverges from it in some places

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GEOLOGICAL CROSS SECTION B-B

GEOLOGICAL UNIT LEGEND



Rush Rare Metals Corp. Copper Mountain Uranium FREMONT COUNTY, WYOMING



SCALE: 1" = 2400' DRAWN BY: MEP FIGURE DATE: 2/17/2023 REVISION: CHECKED BY: HJH DRAWING: UR/RUSHURANIUM/BASEMAPPING 2023

STRIKE AND DIP OF BEDS

Inclined, dip not shown STRIKE AND DIP OF FOLIATION

Inclined, dip not shown

VERTICAL SHAFT DECLINE—Inaccessible, water-filled

ADIT ADIT-Inac

OUARRY-Feldspar, columbite-tantalite, berul

PROSPECT\_PIT\_Bulldozer cuts for claim validation or other purposes not shown DRY HOLE-Undocumented

CHROMOLITHOFACIES IN THE WIND RIVER FORMATION

FAULT—Dashed where approximately located, short dashed where probable, dutted

where concealed; dip shown, where known, on faults dipping appreciably less than 90 degrees; amount of displacement shown, in meters, at point of measurement. U, upthrown side, D, downthrown side. Faults are of several ages, Precambrian,

post-Paleozoic, and post-Eocene. Some faults have been active more than once

CONTACT Dashed where approximately located

OPEN CUT-Uranium

### 7.2 Local Geology

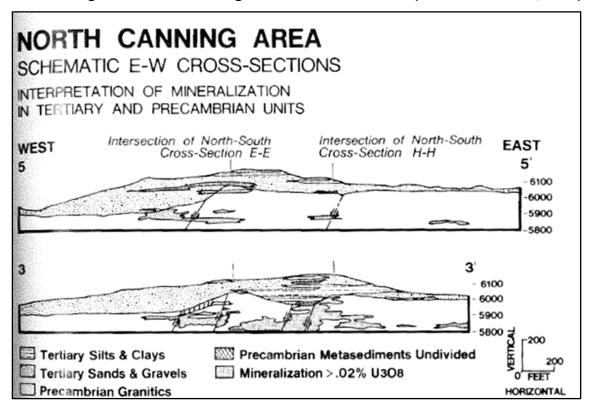
The Copper Mountain Uranium Project is comprised of multiple areas where Rush holds mining claims and leases as shown on Figure 4-1. The two principal areas of known uranium mineralization are the Arrowhead Mine area, and the North Canning Deposit area.

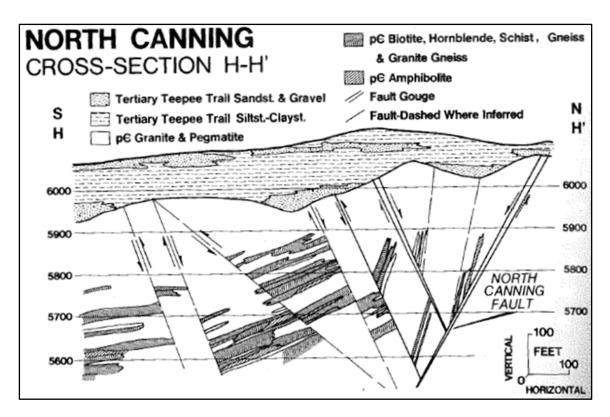
The Arrowhead Mine was developed in Eocene Wagon Bed / Teepee Trail conglomerate deposits which were emplaced by high energy flows coming from the adjacent Precambrian granitic uplift. The conglomerate is composed of granite boulders with a matrix of arkosic sand and feldspars from the erosion of the granitic rocks. The conglomerates are up to 60' thick in the area of the Arrowhead Mine. The higher permeability of the conglomerates provided the depositional environment for uranium to be deposited as it leached out of the adjacent granitic host rocks. Similar thick conglomerate deposits were observed at the historic Hesitation Prospect and Last Hope Mine.

The North Canning Deposit is located near the high angle North Canning Normal Fault on the upthrust portion of the Owl Creek uplift. The North Canning Fault is accompanied by multiple smaller low angle sympathetic faults, creating a complex series of minor thrusts and collapses and brecciated zones. The North Canning Deposit is terminated by the fault to the north. The surface geology at the Canning Deposit is characterized by Tertiary cover of primarily sands and gravels with interbedded silts and clays. The Tertiary sediments overlie faulted Precambrian Archean rocks primarily consisting of granite with pegmatites and interspersed with amphibolite, biotite granite gneiss, and biotite schist. The North Canning stock is characterized as a quartz monzonite.

Uranium mineralization in the North Canning area is related to the fault and fracture zones in both the Precambrian granitic rocks and the Tertiary sediments. The North Canning stock is believed to be hydrothermal in origin, with geochemical evidence indicating that one or more zones were enriched in uranium (Schreir and Parry, 1982).

Figure 7-3 North Canning Structural Cross Sections (Yellich and others, 1978)





### 8.0 DEPOSIT TYPES

Uranium mineralization at the Arrowhead deposit is found in coarse Eocene arkosic conglomeratic rocks of the Wagon Bed / Teepee Trail Formation which is up to 60' thick. The conglomerate is composed of granite boulders deposited over the Precambrian granitic basement rocks. The matrix of the conglomerate is arkosic sand and feldspars from the erosion of the granitic rocks. Both oxidized and unoxidized uranium mineralization was reported to be present at the Little Mo Mine. Uraninite, coffinite, and uranophane were the primary uranium minerals. (Loomis, 1957). Uranium mineralization is found in the matrix of the conglomerate as fracture fillings and precipitation from ground water due to reductants including pyrite and organic debris. Uranium mineralization in the Eocene rocks typically occurs at or above the contact of the Precambrian granite due to the reduced permeability of the granitic basement rocks. Groundwater at the Little Mo – Arrowhead deposit was contained laterally in the conglomerate valley fill by the adjacent granitic rocks. Carbonaceous material and the presence of pyrites provided a reducing environment for the deposition of uranium near the bottom of the conglomerate layer. Hydrocarbons have also been suggested as a possible reductant in the area. Similar depositional environments exist near the Hesitation Prospect and Last Hope Mine area.

Uranium mineralization at the North Canning deposit is found in both the overlying Eocene age Wagon Bed / Teepee Trail formation as well as the underlying Archean granitic and metamorphic rocks, particularly along the fractures and faults associated with the Owl Creek uplift. The highest grade uranium zones at the North Canning deposit are reported to be associated with the brecciated materials in the hanging wall of the Canning fault (Madson, 1982). The Canning quartz monzonite stock appears to have contributed the majority of the uranium occurring as mineral deposits in the North Canning area. The Canning stock exhibits characteristics similar to the granites in the Granite Mountains which are considered the source for uranium deposition in the Gas Hills, Red Desert, and Shirley Basin. Uranium is found in the Precambrian rocks as primary uranium minerals such as uraninite and coffinite, as well as deposited in structure irregularities and on the surface of crystalline rocks (Loomis, 1957). The deposits in the Eocene sediments are typically found where sediments infilled topographic and structural lows associated with the fault blocks in the area. The sediments are locally derived coarse boulder conglomerates, creating a permeable zone for deposition of uranium similar to that described above at the Arrowhead deposit.

Hydrothermal copper, iron sulfide, and precious metals deposits exist elsewhere on Copper Mountain. Hydrothermal vein type deposition of uranium has been reported at the DePass Mine in Precambrian metasediments.

It has also been reported that Middle and Upper Eocene tuffaceous rocks deposited over the area may be a secondary source of uranium mineralization as they eroded, but the tuffs are reported to show low uranium content and are generally considered to be a secondary source of uranium with the granitic rocks as the primary source.

### 9.0 EXPLORATION

### 9.1 Historical Exploration

Historically, mineral prospecting and exploration of the Owl Creek Mountains including the Copper Mountain area occurred during the early 1900's, with a focus on copper, gold, and silver. Prospecting for uranium began in the early 1950's, primarily utilizing handheld radiometric devices to locate shallow near surface occurrences of uranium. In 1952, the USGS made aerial radiometric reconnaissance flights in the area (Tourtelot, 1952). 1953, Kerr-McGee Oil Industries performed airborne surveys. (Loomis, 1957). This data is general in nature indicating regional favourability for uranium mineralization but not detailed enough to define exploration targets. No detailed geochemical or geophysical exploration results are known to be publicly available.

The U.S. Atomic Energy Commission (USAEC) performed 7,000 feet of rotary drilling in the Copper Mountain area during 1955. Private drilling is reported to have totalled 175,000 feet by 1957 to depths up to 400'. (Loomis, 1957). The location of this data is not known to the author.

Rocky Mountain Energy (RMEC) began exploration activities in the area in 1960. RMEC contracted a geophysical firm to evaluate remote methods to provide information for drilling targets in areas covered by Tertiary sediments at the North Canning Deposit. Induced potential (IP) and resistivity, low frequency active electromagnetic systems (EM), and self potential (SP) were tested but were inconclusive due to the presence of bentonitic clay in the sediments. Proton Magnetometer contour mapping was prepared, which indicated the presence of covered structures using very low frequency magnetic surveys. Resistivity lows and steep resistivity gradients were found to correspond with known mineralized areas.

Geometrics, Inc. conducted an airborne radiometric survey of the Copper Mountain area using a helicopter equipped with a sodium iodide crystal detector as part of the U.S. Department of Energy's (USDOE) National Uranium Resource Evaluation (NURE) program in 1977. (Pirkle and others, 1984).

Bendix Field Engineering Corporation (BFEC) performed analysis of aerial radiometric surveys completed under the USDOE NURE program as well as 7 core holes. Various analyses were completed on the material obtained in the core drilling for the USDOE (Steiff, 1981).

### 9.2 Recent Exploration

Rush Rare Metals Corp. has not conducted recent exploration on the Project.

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# 10.0 DRILLING

No drilling has been completed by Rush Rare Metals Corp. on the Property. A discussion of historical drilling is included in Section 6.2.

# 11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Not applicable.

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# 12.0 DATA VERIFICATION

As no recent exploration program has been conducted on the Property, there is no current data to be verified.

# 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No specific data is available for the Project relative to metallurgical testing or mineral processing as this project is an early-stage exploration project.

Uranium was historically recovered from the Copper Mountain Uranium Project area by conventional mining and mineral processing. No data relative to mineral processing and recovery was available to the author during the preparation of this report.

There are no Current Mineral Resources reported for the Property.

# 14.0 MINERAL RESERVE ESTIMATE

There are no current Mineral Reserves reported for the Property.

## 15.0 MINING METHODS

No specific mine plans have been developed as this is an early-stage exploration project.

Uranium was historically mined and recovered in the Copper Mountain Uranium District by conventional open pit and underground mining and mineral processing as discussed in Section 6.

# **16.0 RECOVERY METHODS**

## 17.0 PROJECT INFRASTRUCTURE

As discussed in Section 5.2, the Project is accessible by existing roads including state highways, county roads, private roads, and BLM roads. There is no specific infrastructure at the site dedicated to the Project.

# **18.0 MARKET STUDIES AND CONTRACTS**

# 19.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

# **20.0 CAPITAL AND OPERATING COSTS**

# **21.0 ECONOMIC ANALYSIS**

## 22.0 ADJACENT PROPERTIES

Figure 1-1 shows the location of the Project in relationship to Wyoming basins with known uranium production, past and present. The Copper Mountain Uranium Project is located within the Wind River Basin of Wyoming. Multiple past producing mines were located in the Wind River Basin in the Gas Hills Uranium Mining District, the largest uranium producing district in Wyoming. There were multiple small scale prospects in the Copper Mountain area adjacent to the Rush claims. No large scale production has occurred in the Copper Mountain area.

#### 23.0 OTHER RELEVANT DATA AND INFORMATION

The IAEA Guidebook of World Uranium Deposits indicates that a uranium deposit estimated to be in the range of 1500 - 5000 tons of uranium oxide ( $eU_3O_8$ ) at an estimated grade of 0.03 - 0.1%  $eU_3O_8$  exists at Copper Mountain in Precambrian granitic rocks with over thrusted Eocene sedimentary rocks. (IAEA, 2009). It is not known how this corresponds with the Rush property. This information is being provided in the context that uranium mineralization is known to exist in the area. Rush does not consider this to be a reliable resource estimate as it cannot be verified by a qualified person.

#### 24.0 INTERPRETATION AND CONCLUSIONS

Beginning in the mid 1950's and prior to the mid 1980's mining claims and leases were held by various companies within and in the vicinity of the Project. These companies included Susquehanna Western, Western Nuclear, Rocky Mountain Energy Corp., and others. These companies conducted exploration activities in including aerial and ground radiometric surveys and drilling program within the region. Little of that data is available and cannot be verified or relied upon.

The Project is an exploration stage project. Historic drill pad locations can be observed in the North Canning, Arrowhead, Lost Hope, and Allard/Mint areas. Approximate historic drill hole locations within the project area are shown in Figure 6-1 (Madsen 1982). The historic drill areas may be useful along with geologic unit mapping to plan an exploration drilling program as discussed in Section 25. While uranium mineralization is known to exist in the area based upon historic drilling and limited, there is no current basis for estimating mineral resources or exploration targets.

## 25.0 RECOMENDATIONS

Two phases of work are recommended to advance the project, Phase 1 historic data acquisition and Phase 2, a drilling and geophysical logging program to either verify if historic grade data can be utilized or a new drilling program to obtain data to develop an inferred mineral deposit estimate.

Historic data may be available for the drilling completed by Rocky Mountain Energy Corporation and others. It is recommended that efforts be made to obtain the historic data, which may be available from public sources. The estimated cost for Phase 1 is approximately \$50,000 to research and obtain historic data for the Copper Mountain Uranium Project.

If the data cannot be located from public sources, the data may be available from private sources. There would likely be a data acquisition cost to obtain the data from a private entity, which cannot be estimated at this time.

If the historic data can be located, Phase 2 drilling is recommended to confirm the presence or absence of mineralization at the Copper Mountain Uranium Project and to verify historic grade data to support the use of the historic data in the development an inferred mineral deposit estimate. Phase 2 may also include re-logging historic drill holes if they can be found and reentered.

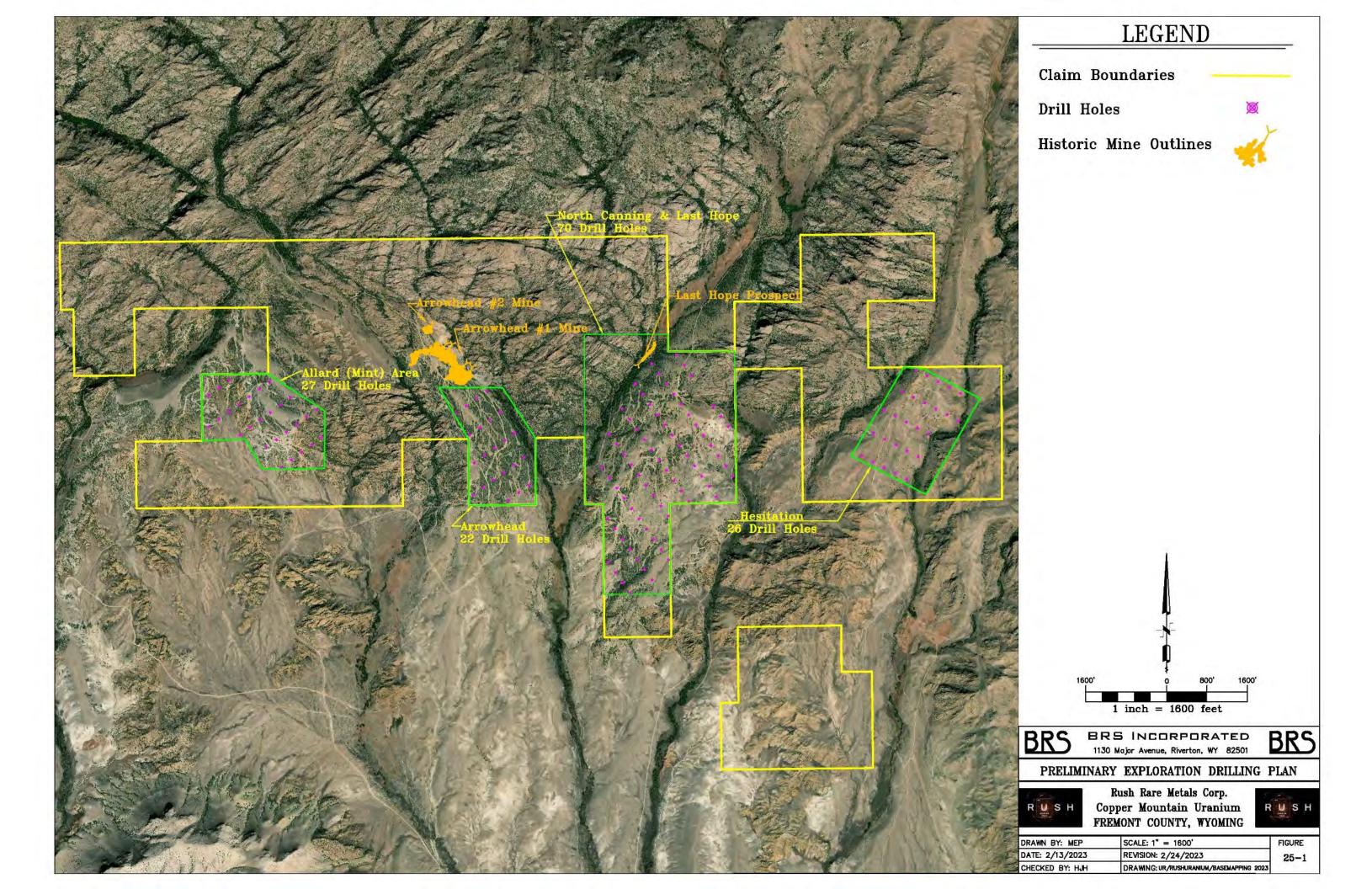
If historic drill hole data cannot be located, a maiden drilling program would be needed. A drilling and geophysical logging program would be required to confirm the presence of uranium mineralization with sufficient continuity, width, thickness, grade, and GT to support an inferred mineral resource estimate which meets reasonable prospects for future economic extraction.

It is the author's opinion that drilling should be focused on Eocene Wagon Bed and Wind River sedimentary deposits on the property as Precambrian granite hosted uranium mineralization is less likely meet reasonable prospects for economic extraction under current market conditions.

For a maiden drilling program, initial drilling in the Eocene conglomerate areas including the Allard/Mint, Arrowhead Mine, North Canning, Last Hope Mine, and Hesitation Prospect areas is recommended, with an emphasis on the North Canning area as it was historically considered the primary resource area. Drill holes would be located lines or fences approximately perpendicular to the project trend. An initial drill depth of 250 feet is recommended, with the intent of reaching the Precambrian granitic rocks below the Eocene sediments and ceasing drilling. This depth could be adjusted based on actual results.

The drill fences would nominally be spaced 500 feet apart along trend. Drilling along the fence would start at 500-foot centers to locate and span the mineralized boundary, and then reduce the spacing to approximately 250 feet. An experienced field geologist needs to be present on the site to direct the drill program and offsets.

This would require approximately 145 drill holes or 37,000 feet of drilling. The author is participating in a similar drill program in the region currently and is experiencing a cost of approximately \$15.00 per foot including drilling, geophysical logging, and site geologist. However, based upon drilling conditions in Eocene conglomerates the author would expect drilling costs to be higher at approximately \$20.00 per foot for mud and hammer drilling. This equates to drilling cost of approximately \$740,000.00. Bonding is estimated at \$102,500. Additional services related to permitting, site revegetation, and drill hole abandonment reporting are estimated at \$100,000. Evaluation of drill results, resource estimation and preparation of a Technical Report is estimated at \$100,000. Thus, Phase 2 drilling at the Copper Mountain Uranium Deposit is estimated at \$1,050,000 USD.



## **26.0 REFERENCES**

#### **Publications Cited:**

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#### <u>Unpublished Reports or Other References:</u>

National Weather Service "PRELIMINARY LOCAL CLIMATOLOGICAL DATA."

# **27.0 DATE AND SIGNATURE PAGE**

This report titled "Technical Report on the Copper Mountain Uranium Project, Fremont County, Wyoming, USA" with an effective date of March 24, 2023, was prepared and signed by the following author.

(Signed & Sealed) Harold J. Hutson

Dated at Riverton, Wyoming March 24, 2023

Harold J. Hutson, PE, PG Principal Engineer, BRS Inc.

# 28.0 CERTIFICATE OF QUALIFIED PERSON

I, Harold J. Hutson, P.E., P.G., do hereby certify that:

- 1. I am responsible for sections all sections or this report except Section 4.2 and 4.4 regarding Rush Rare Metals Corp.'s acquisition of the mining rights comprising the Property.
- 2. I am a Principal Engineer at BRS, Inc., 1130 Major Avenue, Riverton, Wyoming 82501.
- 3. I graduated with a Bachelor of Science degree in Geological Engineering from the Colorado School of Mines in 1995.
- 4. I am a licensed Professional Engineer and Professional Geologist in Wyoming as well as a Registered Member of the Society for Mining, Metallurgy and Exploration, Inc. ("SME")
- 5. I have worked as an engineer and a geologist for over 28 years. My work experience includes uranium exploration, resource estimation, and mine/mill reclamation. This experience includes multiple uranium deposits in the Western US and Wyoming.
- 6. My most recent visit to the site was made on October 31, 2022.
- 7. I am independent of Rush Rare Metals Corp. applying all of the tests in Section 1.5 of National Instrument 43-101. I am independent Rush 's mineral property holdings in Wyoming.
- 8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with same.
- 9. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.
- 10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

March 24, 2023

Signed and Sealed

Harold J. Hutson, PE, PG

Principal Engineer, BRS Inc.