

NI 43-101 TECHNICAL REPORT
Volney Property
Lawrence County, South Dakota & Crook County, Wyoming, USA
44.38°N, -104.05°W



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February 27, 2025

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This report titled “NI 43-101 Technical Report, Volney Property, Black Hills, South Dakota, USA” and dated February 27, 2025” was prepared and signed by the following author:

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Dated at Kenora, Ontario

February 27, 2025

Table of Contents

1. Summary	1
2. Introduction	2
3. Reliance On Other Experts	3
4. Property Description and Location	4
4.1 Location.....	4
4.2 Mining Tenure and Ownership	5
4.3 Option and Underlying Agreements	7
4.4 The Transaction	7
4.5 Environmental Liabilities.....	9
5. Accessibility, Climate, Local Resources, Infrastructure, and Physiography	11
6. History	13
6.1 Rough and Ready Mine	15
6.2 Giant-Volney (Tantalum Hill) Mine	16
6.3 Rusty Mine	19
7. Geologic Setting and Mineralization.....	21
7.1 Regional Geology	21
7.2 Property Geology	25
7.3 Mineralization	28
7.3.1 Pegmatite Li-Ta-Sn Mineralization.....	28
7.3.2 Shear Zone-Hosted Gold Mineralization.....	28
8. Deposit Types.....	29
9. Exploration	31
10. Drilling	31
11. Sample Preparation, Analysis and Security.....	31
12. Data Verification	31
12.1 Site Visit.....	31
13. Mineral Processing and Metallurgical Testing.....	32
14. Mineral Resource Estimates	32
15 TO 22: NOT APPLICABLE.....	32
23. Adjacent Properties	32
24. Other Relevant Data and Information	33
25. Interpretation and Conclusions	33

26. Recommendations	34
27. References	35
28. Certificate of Author	39
APPENDIX I – CLAIM LIST	41
Figure 1: Volney Property Location Map	4
Figure 2: Volney Property Claim Map	6
Figure 3: Historic Allie and Tantalum Hill shafts of the Rough & Ready and Giant/Volney Mines.....	15
Figure 4: Drill results of Norton Co. holes VN-25 and VC-25	19
Figure 5: H Drill results of HMC holes HMC-3, HMC-4.....	21
Figure 6 : Regional Geology of the Tinton Dome.....	24
Figure 7: Property Geology	27
Figure 8: Infrastructure and Reclaimed Mine Workings on the Volney Property	32
Table 1: Historical mining and exploration history of the Volney Property	13
Table 2: Historical tin production from the Rough and Ready Mine	15
Table 3: Channel sample results at the Giant-Volney pegmatite	16
Table 4: Grab sample results from Giant-Volney quartz-spodumene pegmatite	17
Table 5: Mini-bulk sample results from Giant-Volney quartz-spodumene pegmatite	18
Table 6: Pegmatite Types of the Tinton District	29

1. Summary

Carl Ginn has been retained by the issuer Lion Rock Resources Inc. (“Lion Rock” or the “Company”) headquartered at 200 Burrard Street, Suite 1615, Vancouver, British Columbia, to review work done on the Volney Property (the “Property”), propose an appropriate exploration program and budget for mineral exploration, and prepare a technical report compliant with NI 43-101. The report is based on geologic, geochemical, and geophysical data sets supplied by Lion Rock Resources, published literature, government geological and mining reports and academic student theses.

The Author visited the Property on November 2, 2023 to observe mineralization and lithologies and verify certain aspects of the site geology. Access to the Property was gained by vehicle from Spearfish, SD. The Giant-Volney pegmatite was observed and found to be consistent with historic geologic reports regarding its dimensions and mineralogy.

The Volney Property is in the far western portion of Lawrence County, South Dakota and eastern Crook County, Wyoming in the greater Lead-Homestake Mining District of the northern Black Hills (Figure 1). The nearest settlement is the town of Spearfish, SD located 20 km to the northeast, with an approximate population of 12,358 (2021 United States Census). The Property lies within portions of the Old Baldy and Tinton 7.5-Minute-Series USGS Quadrangles. The UTM coordinates for the approximate centre of the claim block are 575802 E, 4914122 N (NAD 83, Zone 13N).

The Volney Property is comprised of 351 acres of patented mining claims located in the northern Black Hills, Lawrence County, South Dakota and Crook County, Wyoming, USA, owned by The Tinton Partners (the “Tinton Partnership”) (an Illinois partnership) and The Tinton Land, LLC (“Tinton Land” and, together with Tinton Partnership, “Tinton Partners”) (a South Dakota limited liability company). Lion Rock has entered into an option agreement with Tinton Partners to acquire a 100% right, title and interest in the Volney Property. The claims are comprised of approximately 66 patented lode claims. All rights and benefits owned or controlled by Tinton Partners including, but not limited to, mineral rights, surface rights, land use permits, leases, rights of way, water rights and technical data but excluding timber resources, are subject to the option agreement.

Access to the Property by road is gained by traveling south of the city of Spearfish, SD along several major paved and/or graveled roads, particularly US Forest Service Rd 134, or “Tinton Road”. From Tinton Road a maintained dirt road known as Iron Creek Road is followed westward for 6 km to the eastern property boundary. The Property is located in rolling highlands with moderate relief separated by relatively deep and broad valleys. Elevations in the immediate area range from 1,525 m to over 2,020 m above mean sea level. The headwaters of several creeks, most notably Sand, Bear and Potato Creeks, converge on the high ridgeline forming the center of the Property. Vegetation on the Property consists of mixed forest composed of hardwoods and pines (dominated by Ponderosa pine and lesser white spruce) with sporadic semi-open meadows, particularly in broad dry gulch bottoms, and locally dense underbrush. Climate in the area is temperate, characterized by hot summers, cold winters, low precipitation amounts and extreme seasonal and annual variation in precipitation and temperatures.

In the regional context, the Property lies within the Precambrian-cored Black Hills uplift at the boundary between the Archean Wyoming and Superior Cratons. An accretionary belt of Paleoproterozoic metasedimentary and igneous rocks known as the Black Hills Supergroup overlying Neoproterozoic to Mesoproterozoic granitoid basement is exposed in the uplifted core of the Black Hills. The Property occupies the core of a subsidiary domal structure in the northern Black Hills known as the Tinton Dome. This dome provides a window beneath Paleoproterozoic rocks into underlying Archean basement. Neoproterozoic schists of mid-amphibolite metamorphic grade are invaded by a swarm of rare metal lithium-tantalum-tin-bearing pegmatites. The largest of these pegmatites form complex zoned bodies up to 630 meters long and up to 200 meters wide. The pegmatites are generally conformable to foliation in the schists and dip gently westward and are particularly abundant along a prominent shear zone traversing the center of the Property.

The largest pegmatite, known as the Giant-Volney, was the center of small-scale historic tin-tantalum mining at the Rough and Ready and Tantalum Hill Mines prior to 1945. Exploration performed by the US Bureau of Mines, US Geological Survey, Fansteel Corp. and Norton Co. has disclosed the presence of several zones of quartz-spodumene-type pegmatite containing lithium grades ranging from 1.0 to 4.0 wt% Li_2O . All historic drilling has been less than 50 meters deep.

Lion Rock has not completed any surface exploration or drilling on the Property, however future exploration is warranted given the presence of known high-grade lithium pegmatites, the lack of any historical drilling below 50 meters depth and the presence of dozens of additional pegmatites at surface that have not been tested for their lithium content.

It is recommended that two phases of exploration be undertaken on the property, with a cumulative budget of \$1,762,000 USD. Phase one would review historical data, map the property, and collect surface samples. Phase two would systematically drill the Giant-Volney pegmatite and any high priority targets identified in phase one.

2. Introduction

Carl Ginn has been retained by the issuer Lion Rock Resources Inc. (“Lion Rock” or the “Company”) headquartered at 200 Burrard Street, Suite 1615, Vancouver, British Columbia, upon the Company entering into an option agreement with The Tinton Partners to acquire a 100% right, title and interest in the Volney Property. Mr. Ginn has been engaged to review work done on the Volney Property (the “Property”), propose an appropriate exploration program and budget for mineral exploration, and prepare a technical report compliant with NI 43-101. The report is based on geologic, geochemical, and geophysical data sets supplied by Lion Rock Resources, published literature, government geological and mining reports and academic student theses.

The Author visited the Property on November 2, 2023 to observe mineralization and lithologies and verify certain aspects of the site geology. Access to the Property was gained by vehicle from Spearfish, SD. Since the site inspection, the author has maintained communication with site personnel to ensure that no

material changes to the property or mineral rights have occurred. To the authors knowledge, no additional work has been conducted on the property since the November 2, 2023 visit.

This technical report has been prepared in accordance with NI 43-101 guidelines, and its purpose is to provide the basis for an informed opinion as to the history of Property exploration, geology, mineralization, and status of current exploration on the Volney Property (the "Property").

Reports and documents listed in Section 27 References were used to support the preparation of this technical report. Additional information was requested from the Company where required.

This report is based on the personal examination by the Author of all available reports and data on the Volney Property in the Black Hills. As of the date of this report, the Author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.

3. Reliance On Other Experts

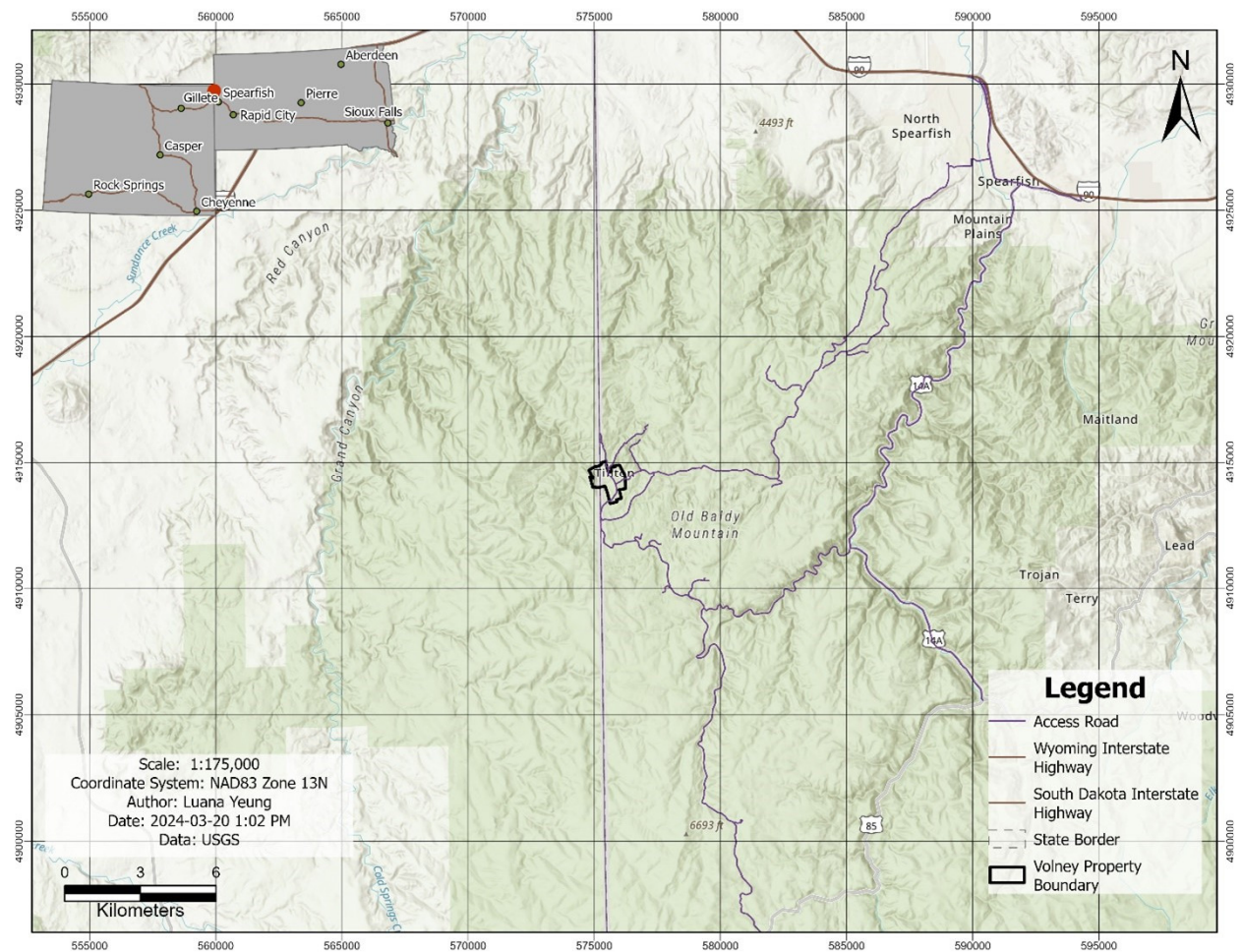
For the purposes of this report the Author have relied on ownership information provided by Lion Rock as well as claim information available on the websites of Lawrence County, South Dakota and Crook County, Wyoming as well as the Bureau of Land Management's (BLM) MLRS mapping and records system. The Author has not researched property title or mineral rights for the Property and expresses no opinion as to the ownership status of the Property. The option agreement provided by Lion Rock Resources for the claims is discussed in Item 4, "Property Description and Location" below.

4. Property Description and Location

4.1 Location

The Volney Property is in the far western portion of Lawrence County, South Dakota and eastern Crook County, Wyoming in the greater Lead-Homestake Mining District of the northern Black Hills (Figure 1). The nearest settlement is the town of Spearfish, SD located 20 km to the northeast, with an approximate population of 12,358 (2021 United States Census). The Property lies within portions of the Old Baldy and Tinton 7.5-Minute-Series USGS Quadrangles. The UTM coordinates for the approximate centre of the claim block are 575802 E, 4914122 N (NAD 83, Zone 13N).

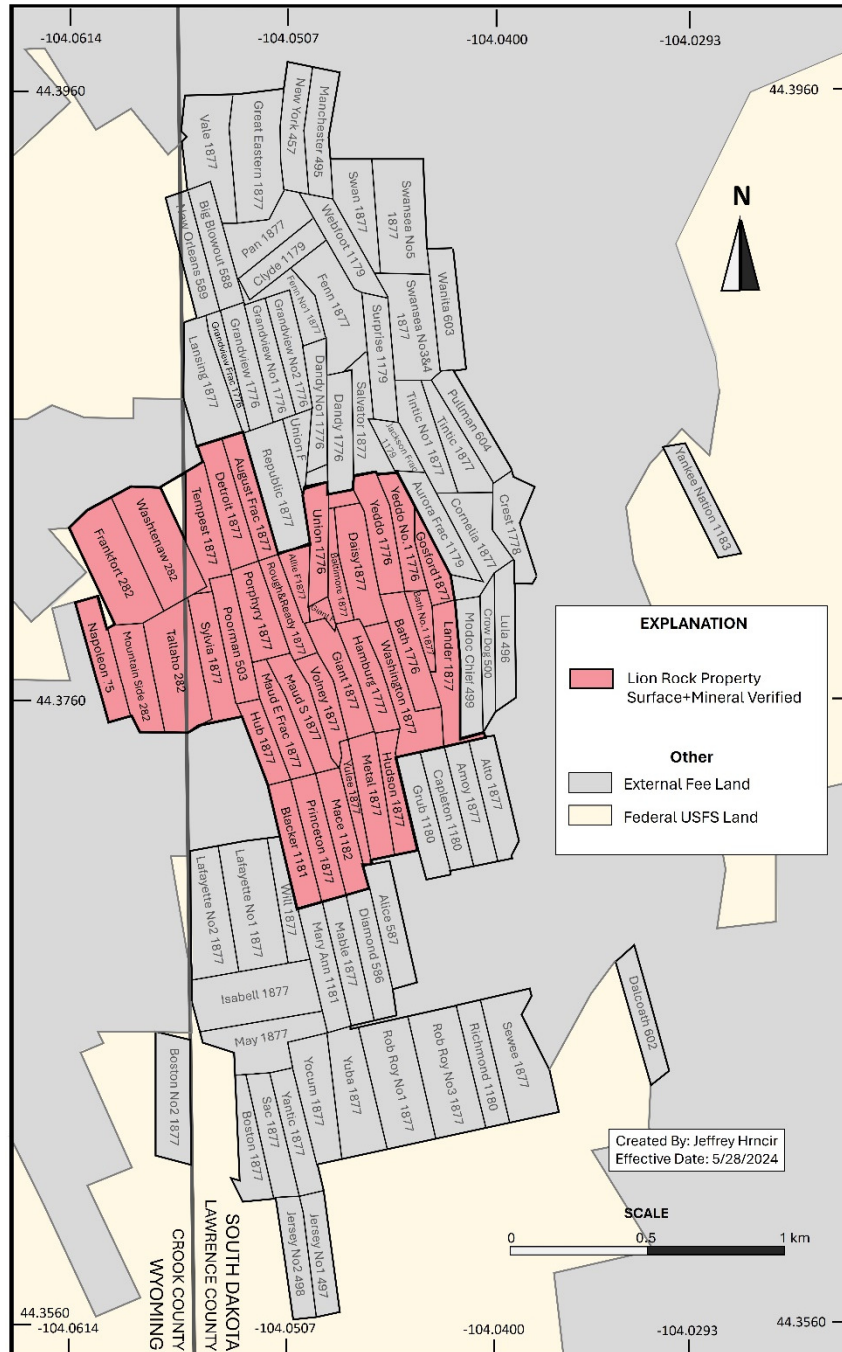
Figure 1: Volney Property Location Map



4.2 Mining Tenure and Ownership

The Volney Property is comprised of 351 acres of patented mining claims located in the northern Black Hills, Lawrence County, South Dakota and Crook County, Wyoming, USA, owned by The Tinton Partners (“Tinton Partnership”) (an Illinois partnership) headquartered at S6066 County Rd. T, Viroqua, WI 54665-6604 and The Tinton Land, LLC (“Tinton Land” and, together with Tinton Partnership, “Tinton Partners”) (a South Dakota limited liability company) headquartered at S6066 County Rd. T, Viroqua, WI 54665-6604. Lion Rock has entered into an option agreement with Tinton Partners to acquire a 100% right, title and interest in the Volney Property. The claims are comprised of approximately 38 patented lode claims (the “Claims”) listed in Appendix 1 and shown in Figure 2. All rights and benefits owned or controlled by Tinton Partners including, but not limited to, surface rights, land use permits, leases, rights of way, water rights and technical data but excluding timber resources, are subject to the option agreement.

Figure 2: Volney Property Claim Map. See Appendix 1 for complete claim list of mineral surveys and lodes



4.3 Option and Underlying Agreements

The Company has entered into an Option Agreement dated October 7, 2024 (the “Option Agreement”) with Tinton Partners, pursuant to which it has the right to acquire 100% of the right, title and interest of Tinton Partners in an to the Volney Property (the “Option”).

4.4 The Transaction

4.4.1 Pursuant to the terms of the Option Agreement, the Company must fulfill the following conditions in order to exercise the Option:

- a. the Company must pay to Tinton Partners:
 - i. upon execution of the Letter of Intent for the transaction, cash in the amount of US\$25,000 (such amount was paid on February 7, 2024);
 - ii. on or before the date that is six (6) months from the date the TSX Venture Exchange (“TSXV”) approves the Option Agreement and/or the transactions contemplated thereby (the “Exchange Approval Date”), cash in the amount of US\$400,000;
 - iii. on or before the date that is eighteen (18) months from the Exchange Approval Date, cash in the amount of US\$1,050,000; and
 - iv. on or before the date that is thirty (30) months from the Exchange Approval Date, cash in the amount of US\$1,950,000;
- b. the Company must issue to Tinton Partners:
 - i. with five (5) business days from the Exchange Approval Date, such number of common shares in the capital of the Company (“Common Shares”) as is equal to 9.9% of the Company’s issued and outstanding Common Shares (following such issuance of Common Shares), on an undiluted basis;
 - ii. within ten (10) business days from the first anniversary of the Exchange Approval Date, such number of Common Shares as is equal to the greater of: (A) the number of Common Shares as is required to maintain Tinton Partners’ shareholding in the Company at an amount equal to 9.9% of the Company’s issued and outstanding Common Shares (following such issuance of Common Shares), on an undiluted basis, and (B) Common Shares having an aggregate value of US\$500,000; and

- iii. within ten (10) business days from the second anniversary of the Exchange Approval Date, such number of Common Shares as is equal to the greater of: (A) the number of Common Shares as is required to maintain Tinton Partners' shareholding in the Company at an amount equal to 9.9% of the Company's issued and outstanding Common Shares (following such issuance of Common Shares), on an undiluted basis, and (B) Common Shares having an aggregate value of US\$750,000;
 - c. the Company must incur:
 - i. on or before the first anniversary of the Exchange Approval Date, US\$1,000,000 of exploration expenditures with respect to the Property ("Exploration Expenditures") (provided that, if the Company has not incurred at least US\$800,000 of Exploration Expenditures on or before the first anniversary of the Exchange Approval Date, the Company may pay to Tinton Partners the shortfall in cash within 10 days of such date in order to meet this requirement); and
 - ii. on or before the second anniversary of the Exchange Approval Date, \$1,500,000 of Exploration Expenditures (provided that, if the Company has incurred at least US\$1,200,000 of Exploration Expenditures on or before the second anniversary of the Exchange Approval Date, the Company may pay to Tinton Partners the shortfall in cash within 10 days of such date in order to meet this requirement).
- 4.4.2 Once the Company has made the cash payments, issued the Common Shares and incurred the Exploration Expenditures specified in Section 4.4.1 above, the Company will automatically be deemed to have exercised the Option and acquired a 100% interest in the Property, subject to the royalties described in Section 4.4.4.
- 4.4.3 From the date of the Option Agreement until the date that the Company exercises the Option as specified in Section 4.4.2 above, the Company must do all things necessary to maintain the Property in good standing, including:
 - a. staking and restaking mining claims;
 - b. applying for licenses, leases, grants, concessions, permits, patents and other rights to and interests in the Property;
 - c. filing all exploration work completed by the Company as assessment work with the applicable government registry, and
 - d. paying all taxes, assessments or government charges that are imposed upon any improvements, equipment or other personal property placed on the Property by the

Company or its representatives, or that are imposed or based on any of the Company's activities on the Property.

- 4.4.4 Upon commencement of commercial production from the Property ("Commercial Production"), if any, the Company and Tinton Partners will enter into (a) a gross smelter returns royalty agreement for minerals other than for gold, pursuant to which the Company will grant to Tinton Partners a 2% gross proceeds royalty (the "GP Royalty") over the Property, subject to the buy-back right of the Company described in Section 4.4.5; and (b) a net smelter returns royalty agreement for gold, pursuant to which the Company will grant to Tinton Partners a 2% net smelter returns royalty (the "NSR Royalty") over the Property, subject to the buy-back right of the Company described in Section 4.4.5. Both the GP Royalty and NSR Royalty will be registered on the title of the Property and will run with and bind the Property, and any purchaser, assignee or other transferee of the Property will be subject to the terms of the GP Royalty and NSR Royalty.

Upon commencement of Commercial Production, if any, the Company will have: (a) the one-time right, for a period of five (5) years, to repurchase 50% of the GP Royalty (thereby reducing the GP Royalty to 1.0%) by paying to Tinton Partners US\$1,000,000; and (b) the one-time right, for a period of five (5) years, to repurchase 50% of the NSR Royalty (thereby reducing the NSR Royalty to 1.0%) by paying to Tinton Partners US\$1,000,000

4.5 Environmental Liabilities

Mineral exploration and mining activities in the United States are subject to federal, state and local statutes, rules and regulations designed to protect the quality of the air, water, and threatened or endangered species in the vicinity of operations. These include permitting requirements designed to ensure the environmental integrity of a proposed exploration program or mining facility, operating requirements designed to mitigate the effects of discharges into the environment during exploration, and reclamation or post-operation requirements designed to remediate the lands affected once any operations have ceased.

Federal legislation in the United States and implementing regulations adopted and administered by the Environmental Protection Agency, the Forest Service, the Bureau of Land Management ("BLM"), the United States Fish and Wildlife Service ("USFWS"), the Army Corps of Engineers and other agencies-in particular, legislation such as the federal Clean Water Act, the Clean Air Act, the National Environmental Policy Act, the Endangered Species Act, the National Forest Management Act, the Wilderness Act, and the Comprehensive Environmental Response, Compensation and Liability Act-have a direct bearing on operations. These federal initiatives are administered and enforced through state agencies operating under parallel state statutes and regulations.

The Clean Water Act: The federal Clean Water Act is the principal federal environmental protection law regulating water quality in the United States. At the state level, water quality is regulated by the Department of Agriculture and Natural Resources (DANR) of the State of South Dakota. If exploration or any future development activities might affect a ground water aquifer, a Ground Water Discharge Permit from the Ground Water Quality Bureau must be secured in compliance with the Groundwater

Regulations. If exploration affects surface water, then compliance with the Surface Water Regulations is required.

The Clean Air Act (CAA): The CAA establishes ambient air quality standards, limits the discharges of new sources and hazardous air pollutants and establishes a federal air quality permitting program for such discharges. Hazardous materials are defined in the federal Clean Air Act and enabling regulations adopted under the federal Clean Air Act include various metals.

National Environmental Policy Act (NEPA): NEPA requires all governmental agencies to consider the impact on the human environment of major federal actions as therein defined.

Endangered Species Act (ESA): The ESA requires federal agencies to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of their critical habitat. In order to facilitate the conservation of imperiled species, the ESA establishes an interagency consultation process. When a federal agency proposes an action that "may affect" a listed species, it must consult with the USFWS and must prepare a "biological assessment" of the effects of a major construction activity if the USFWS advises that a threatened species may be present in the area of the activity.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): CERCLA imposes clean-up and reclamation responsibilities with respect to discharges into the environment and establishes significant criminal and civil penalties against those persons who are responsible for such discharges.

The Resource Conservation and Recovery Act (RCRA): RCRA was designed and implemented to regulate the disposal of solid and hazardous wastes. It restricts solid waste disposal practices and the management, reuse or recovery of solid wastes and imposes substantial additional requirements on the subcategory of solid wastes that are determined to be hazardous.

Exploration on private (fee) lands in the state of South Dakota is managed by the South Dakota Department of Agriculture and Natural Resources (DANR) under South Dakota Laws SDCL 45-6C (Mineral Exploration Act) and ARSD 74:11:08 (Plugging Standards). An Exploration Notice of Intent (EXNI) is required for exploration of all minerals and must be secured from DANR prior to exploration activities. An EXNI is not required for activities that cause little or no surface disturbance, including airborne surveys and photography, non-explosive seismic acquisition, hand-carried geophysical surveys or surveying. The DANR sets the level of bonding for each EXNI to cover the costs of plugging all proposed drill holes and reclamation of the land. In lieu of filing a reclamation bond for each EXNI, the operator may elect to post single \$20,000 statewide surety to cover all exploration activity and must be in place before exploration activities commence.

For each EXNI, an operator must submit an annual report of activities conducted the permit to DANR by January 1 of each year. The completed annual report includes the following information:

1. The total number of drill holes, trenches, bulk sampling sites or shot holes allowed under the EXNI
2. The total number of drill holes, trenches, bulk sampling sites or shot holes completed during the previous year

3. The total amount of surface disturbance created as a result of conducting exploration activities
4. The total number of drill or shot holes plugged and reclaimed during the previous year. Including the method used to plug each hole
5. The total amount of surface disturbance reclaimed during the previous year
6. The total amount of surface disturbance remaining to be reclaimed
7. The total number of drill or shot holes remaining to be plugged and reclaimed
8. A description of the coming year's activities to be conducted under the EXNI
9. A map of sufficient detail that clearly shows the information required in the annual report.

No mineral resources, reserves or mines existing prior to the mineralization described in this report are known by the Authors to occur on the Property. There are no known environmental liabilities associated with the Property, and there are no other known factors or risks that may affect access, title, or the right or ability to perform work on the Property.

5. Accessibility, Climate, Local Resources, Infrastructure, and Physiography

Access to the Property by road is gained by traveling south of the city of Spearfish, SD along several major paved and/or graveled roads. US Highway 14A, an all-season paved divided highway following the bottom of Spearfish Canyon, connects to a well-maintained gravel road, US Forest Service Rd 222, extending westward along the bottom of Little Spearfish Creek to the intersection with US Forest Service Rd 134, or "Tinton Road". Alternatively, Tinton Road can be followed directly from the city of Spearfish for a distance of 16.5 km on a well-maintained graded gravel track. From Tinton Road a maintained dirt road known as Iron Creek Rd is followed westward for 6 km to the eastern property boundary. Iron Creek Rd meets with Boundary Gulch Rd near the southwest center of the property. Boundary Gulch Road extends northward along the ridge crest dividing the Bear Gulch and Sand Creek drainages along the approximate center line of the property. A number of unimproved dirt roads accessible by high-clearance 4WD vehicles branch off of Boundary Gulch Rd and provide access to most of the property.

The closest major population center is Spearfish, South Dakota (population of 12,358) 20 km to the northeast. Spearfish is the largest city in Lawrence County, which hosts an entire population of only 26,125. Spearfish is located along Interstate Highway 90, linking the industrial hubs of Rapid City, South Dakota and Gillette, Wyoming. The city supports light industry and tourism as well as hosting a small university, Black Hills State University. The city has a hospital and a number of hotels, motels, service stations, restaurants and supermarkets. The city of Lead (population 2,971) located 21 km east of the Property survives on light industry and tourism, as well as ongoing mining at Coeur Mining's Wharf mine and the Sanford Underground Research Laboratory housed in the former Homestake mine. The county seat is located nearby at the city of Deadwood (population 1,200). Deadwood is a major tourism and gaming center for the area. The closest regional airport servicing the Project area is at Rapid City, situated

approximately 90 km southeast along Interstate Highway 90, with daily regional flights offered by United, Delta and American Airlines.

The Property is located in rolling highlands with moderate relief separated by relatively deep and broad valleys. Elevations in the immediate area range from 1,525 m to over 2,020 m above mean sea level. The headwaters of several creeks, most notably Sand, Bear and Potato Creeks, converge on the high ridgeline forming the center of the Property. Although further downstream these creeks have permanent water flow, their upper reaches and steep narrow tributaries are dry year-round except during snowmelt in the early summer.

Vegetation on the Property consists of mixed forest composed of hardwoods and pines (dominated by Ponderosa pine and lesser white spruce) with sporadic semi-open meadows, particularly in broad dry gulch bottoms, and locally dense underbrush. Deciduous species including quaking aspen, burr oak, birch, willow and chokecherry are more prevalent at lower elevations, deep stream valleys and wetter north-facing slopes. Stands of timber of commercial value cover the Property at higher elevations. Climate in the Spearfish area is temperate, characterized by hot summers, cold winters, low precipitation amounts and extreme seasonal and annual variation in precipitation and temperatures. Average annual temperature is 13°C with seasonal variation monthly averages of 0°C and 27°C in winter and summer respectively. The average amount of annual rainfall is approximately 66 cm along with 104 cm of snowfall (as measured at the Spearfish recording station). The majority of snow accumulates between January and March and melts completely by mid-May, allowing access to the property. Despite the cold snowy winters, access and work during this period is challenging, but possible.

The Volney Property has well developed power infrastructure. All of Lion Rock's leases have power on the site now with the potential to be upgraded if exploration proves successful. Renewable sources supply more than 80% of the electricity generated in South Dakota with more than half generated from hydroelectric power and the balance from wind, coal and natural gas. Water for exploration activities is present on the Property in the form of numerous stocks ponds and springs connected by pump-pipeline networks. Alternative sources for water may be supplied by private sources such as ranching wells or municipal facilities in the nearby cities of Lead or Spearfish.

6. History

Interest in pegmatites in the Tinton District began in 1902 when many of the cassiterite-bearing pegmatites were first staked and patented. Beginning in 1908, a series of tin companies began commercial exploitation of several of the pegmatites, including the largest pegmatite in the group known as the Giant-Volney. This pegmatite is a complex body over 630 meters long. Tin mining was focused on the northern portion of this large zoned pegmatite at the Rough and Ready Mine from 1903 to 1928 with later exploration and exploitation of tin-tantalum-lithium mineralization at the Giant-Volney (Tantalum Hill) Mine immediately south. The property was briefly examined for its lode gold potential by Homestake Mining Company in 1973, centered on the historic Rusty Mine just southwest of the Giant-Volney.

Table 1: Historical mining and exploration history of the Volney Property

Years Active	Mine explored	Company/Group	Details of Activity	Reference
1886	Rough & Ready	Unknown	6.5 t of ore averaging 4.6% Sn shipped to Cornwall for treatment	Nellis (1973)
1903 to 1927	Rough & Ready	Tinton Mining Co. Tinton Reduction Co. Black Hills Tin Co.	Development of 740 m of underground mine workings and production of 105,039 lbs of tin	Hess and Bryan (1938) Smith and Page (1941)
1928	Rough & Ready	Black Hills Tin Co.	Development of a surface open cut west of the original portal	Smith and Page (1941)
1928 to 1929	Rough & Ready Tantalum Hill	Black Hills Tin Co.	Production of 1.5 t of cassiterite concentrate @ 30.7% Sn and 13.1 t of tantalite concentrate @ 38.7-57% Ta ₂ O ₅	Redfern (1992)
1937 to 1939	Tantalum Hill Giant-Volney	Fansteel Mining Corp. under lease from Black Hills Tin Co.	Tantalum Hill shaft sunk and recovery of 10 t of tantalite concentrates	Redfern (1992)
1939 to 1940	Giant-Volney	USGS and USBM	Detailed geological mapping and drilling of 3 diamond holes totaling 340 m. Development of the three adits (Volney No. 1, Volney No. 2 and Giant totaling 136 m	Page et al. (1953)

1939 to 1940	Giant-Volney	USBM	New crosscut driven through from bottom of Tantalum Hill shaft through the spodumene pegmatite	Page et al. (1953)
1939 to 1940	Rough & Ready	USBM & USGS	Diamond core drilling totaling 1,219 m and detailed underground mapping	Page et al. (1953)
1941 to 1944	Giant-Volney	Fansteel Mining Corp. under lease from Black Hills Tin Co.	Production of 1,080 t of spodumene concentrate with grades of 5.6% to 6.3% Li ₂ O, 400 t of amblygonite concentrate @ 8.3% Li ₂ O, 21,884 lbs of tantalite concentrates @ 45% Ta ₂ O ₅ , and 3,800 lbs of cassiterite	Page et al. (1953) Redfern (1992)
1947	Giant-Volney	Black Hills Tin Co.	Final year of mining involved the driving of a new crosscut north of the Tantalum Hill shaft, exposing further spodumene bodies. K-feldspar mining for ceramic stopped due to high tantalum contaminants	Redfern (1992)
1967	Giant-Volney	Norton Company	Drilled eight diamond core holes totaling 387.9 m targeting Ta(-Li) mineralization and 22,074 lbs of bulk samples collected	Nellis (1973)
1973	Giant-Volney	Norton Company	Exploration results summarized in Master's Thesis	Nellis (1973)
1973-1974	Giant-Volney & Rusty	Homestake Mining Company	8 rotary drill holes drilled to test shallow gold occurrence at the Rusty shaft	Shaddrick (1974) Norby (1984)
1991	Giant-Volney	O'Dell Construction Co.	Six RC holes drilled targeting Li-Ta mineralization	Redfern (1992)

Figure 3: Historic Allie and Tantalum Hill shafts of the Rough & Ready and Giant/Volney Mines respectively



6.1 Rough and Ready Mine

The Rough and Ready Mine was operated sporadically between 1903 and 1927 by the Tinton Mining Company, Tinton Reduction Company and Black Hills Tin Company. The mine yielded nearly all the recorded lode tin in the district, around 105,039 lbs (Hess and Bryan, 1938). In 1939 and 1940 the US Bureau of Mines (USBM) extensively sampled and mapped the mine and drilled 1,219 meters of diamond holes to better understand the geometry of the tin-bearing dikes (Jahn and Pesonen, 1949).

The principal development was from an adit 165 meters long with 427 meters of crosscuts and drifts branching off in many directions. A winze in the southernmost drift provided access to the 18-m level which featured a 61-m drift. A crosscut 40 meters long was driven 8.5 meters below the main level. All workings were connected to the surface by the 47.3-m Allie shaft (Gardner, 1939; Jahn and Pesonen, 1949).

Tin was produced from three principal orebodies in the westernmost dikes A through E (Jahn and Pesonen, 1949). The largest mined tin orebody was in the hanging wall of the A dike and formed a body 73 meters long, 7.6 meters thick and was mined for 18.3 meters between the main and winze levels. Another important orebody was found near the junction of the B and C dikes and was 4.7 meters thick for 21 meters along the dikes. The third orebody was in dikes D and E and was mined for 46 meters along strike with an average width of 3 meters. This orebody also contained considerable columbite, spodumene and amblygonite. No assaying was performed historically for Ta-Nb or lithium at the Rough and Ready. Historic production from the main cassiterite zones is reproduced from Gardner (1939) and shown in Table 2.

Table 2: Historical tin production from the Rough and Ready Mine

Year	Company	Concentrates short tons	Sn %	Sn metal pounds	Value USD
1903	Tinton Mining Co.	40	62.5	50,000	\$14,000
1909	Tinton Reduction Co.	24	34.82	16,714	\$4,832
1910	Tinton Reduction Co.	50	50.0	38,000	\$12,600
1927	Black Hills Tin Co.	0.57	65.0	325	\$200
Subtotal		114.57	51.3	105,039	\$31,632

6.2 Giant-Volney (Tantalum Hill) Mine

The Giant-Volney mine consisted of three main adits. The Volney No. 1 was 70 meters long, the Volney No. 2 was 23.5 meters long and the Giant was 42.7 meters long. The Tantalum Hill workings consisted of an inclined 24-meter shaft and 183 meters of underground drifts on the 20-m level connected to a large glory hole by five raises. Nearly all of the underground drifts and the surface cut were south of the Tantalum shaft. At the time of mine closure in 1944, the glory hole was 43 meters long and as much as 20 meters wide. In 1939 and 1940, the USBM drilled three diamond holes totaling 342.1 meters to explore the down-dip extent of the pegmatite below the glory hole.

Cassiterite ore of high grade was cut in several places in these adits. The richest ore was found 12.2 meters into the oligoclase pegmatite from the hanging wall in the Volney No. 2 adit where a 3.05-m channel sample averaged 0.82 wt% Sn within a broad zone 17.4 meters long averaging 0.41 wt% Sn. This may be the same ore zone cut at the portal of the Volney No. 1 adit 137 meters further along strike to the north that exposed 2.7 meters of 0.50 wt% Sn.

After several unsuccessful attempts to mine tin from the Rough and Ready and Giant-Volney mines by the Black Hills Tin Co., the property was leased to the Fansteel Metallurgical Corporation from 1936-1938 for the exploitation of tantalite. During this period, 21,884 lbs of columbite-tantalite containing an average of 45 wt% Ta₂O₅ was recovered from the Tantalum Hill Mine, along with 3,800 lbs of cassiterite and 400 tons of amblygonite. The average ore grade during this period was approximately 0.09 to 0.11 wt% Ta₂O₅ and 0.03 wt% Sn. This ore was produced from the main body of oligoclase-quartz-muscovite pegmatite in the footwall to the spodumene zone. Higher-grade tin mineralization in the hanging wall averaging 0.18 wt% Sn was not mined.

Spodumene was first discovered in the Giant-Volney pegmatite, and was subsequently investigated by the USBM. In 1936, samples of sugary white rock with gneissic texture were submitted to the USBM for examination. They proved to be a fine-grained mixture of spodumene and quartz and carried around 50% spodumene by volume (Hess and Bryan, 1938; Page et al., 1954). Channel samples collected upon discovery of the spodumene rich zones by the USBM/USGS in 1938 and published in Hess and Bryan (1938) are presented in Table 3.

Table 3: Channel sample results at the Giant-Volney pegmatite reproduced from Hess and Bryan (1938)

Length (ft)	Length (m)	Grade Li ₂ O
16.0	4.88	3.68
20.0	6.10	3.29
12.0	3.66	1.34
12.0	3.66	1.88
5.0	1.52	2.62
6.0	1.83	0.45

From 1941 to 1944, the main spodumene body was mined and 1,080 tons of spodumene float concentrate was produced under a wartime contract with the US government. The first ore milled in 1941 was 866 tons

of hand-sorted spodumene rock stockpiled during the tantalum mining. No further mining for lithium was pursued after the war.

In 1967, the Norton Company optioned the Giant-Volney pegmatite with an emphasis on tantalum mineralization present in the footwall to the quartz-spodumene pegmatite. The company drilled eight diamond core holes totaling 387.9 m targeting Ta (+Li) mineralization and collected 10,010 kg of bulk samples. Nellis (1973) studied the petrology and mineralogy of the Giant-Volney pegmatite in detail for Norton Co. He determined that the quartz-spodumene rock has a surface outcrop 110 meters long and 24 meters wide, in good agreement with the previous USBM/USGS estimate. Nellis noted that the quartz-spodumene pegmatite body may be open to the north, where it grades subtly into quartz-albite pegmatite in areas of poor exposure, but appears to be truncated by a fault on its southern end. The pegmatite is conformable to foliation and dips 45° to the west. Fifteen grab samples were collected systematically by Nellis (1973) from the exposed quartz-spodumene orebody in the Tantalum Hill glory hole. These samples contained an average of 51.9% spodumene by volume and graded 4.4 wt% Li₂O.

Table 4: Grab sample results from Giant-Volney quartz-spodumene pegmatite (data from Nellis, 1973)

Sample No.	Quartz <i>Modal %</i>	Spodumene <i>Modal %</i>	Plagioclase <i>Modal %</i>	Li ₂ O <i>(wt%)</i>
Tts-11	37.0	56.2	1.1	5.0
Tts-17	33.2	51.7	5.2	4.1
Tts-18	35.4	59.5	2.4	5.2
Tts-19	48.0	50.0	0.1	4.4
Tts-21A	38.3	57.5	0.2	5.1
Tts-23	36.6	63.4	<0.1	5.4
Tts-25	36.7	49.6	<0.1	4.6
Tts-26	54.6	35.9	1.0	2.9
Tts-38	35.7	49.5	4.7	4.6
Tts-39	37.6	44.6	11.0	4.2
Tts-42	36.6	44.1	16.1	3.4
Tts-45	45.8	44.1	2.7	4.1
Tts-48	30.5	65.3	3.4	4.3
Tts-64	40.3	58.8	0.3	5.0
Tts-67	42.2	49.1	2.4	2.7

A further 38 mini-bulk sample sites ranging from 45 to 900 kg were sampled at regular intervals along the surface projections of the eight subsurface drill holes and assayed for lithium and tantalum grade. These are presented in Table 5.

Table 5: Mini-bulk sample results from Giant-Volney quartz-spodumene pegmatite (data from Nellis, 1973)

Bulk Sample No.	Lithium Grade % Li ₂ O	Tantalum Grade % Ta ₂ O ₅	Latitude	Longitude
SNN-N	1.81	<0.01	44.3767542°N	104.0492190°W
SNM-1	1.48	0.02	44.3766956°N	104.0492272°W
SNN-W	1.95	<0.01	44.3766796°N	104.0492276°W
SNN-E	1.21	<0.01	44.3767115°N	104.0491436°W
SNN1/2-W	3.64	0.02	44.3766210°N	104.0491716°W
SNN1/2-E	2.79	0.01	44.3766822°N	104.0490121°W
SNN1/4-W	2.67	0.01	44.3766068°N	104.0491276°W
SNN1/4-C	2.71	0.09	44.3766232°N	104.0490879°W
SNN1/4-E	3.14	0.01	44.3766394°N	104.0490458°W
SVN-W	3.64	0.02	44.3765470°N	104.0491508°W
SVN-C	3.70	0.01	44.3765844°N	104.0490586°W
SVN-E	3.14	0.02	44.3766702°N	104.0488487°W
SNS1/2-E	2.58	<0.01	44.3765512°N	104.0489434°W
SCS-W	4.50	<0.01	44.3761524°N	104.0490382°W
SSN-W	1.40	<0.01	44.3760962°N	104.0490027°W
SSN1/2-W	3.35	0.04	44.3760235°N	104.0490790°W
SSN1/2-CW	2.58	<0.01	44.3760267°N	104.0490078°W
SSN1/2-C	2.20	0.06	44.3760267°N	104.0489497°W
SCN-E	2.68	<0.01	44.3764825°N	104.0488418°W
SCN1/2-E	4.10	<0.01	44.3763951°N	104.0489201°W
SCN1/2-W	3.44	<0.01	44.3763801°N	104.0489944°W
SC-CW	3.10	0.04	44.3763152°N	104.0489525°W
SC-CE	2.58	0.01	44.3763271°N	104.0488825°W
SC-E	2.10	<0.01	44.3763425°N	104.0487947°W
SCS1/2-C	1.42	<0.01	44.3762417°N	104.0489604°W
SCS1/2-E	2.51	0.06	44.3762563°N	104.0488781°W
SCS-CE	2.71	<0.01	44.3761947°N	104.0489284°W
SCS-E	1.10	<0.01	44.3761955°N	104.0488074°W
SSN-E	1.61	0.06	44.3761026°N	104.0488955°W
SSN1/2-CE	2.58	0.04	44.3760298°N	104.0489027°W
SSN1/2-E	1.06	<0.01	44.3760488°N	104.0487022°W
SSC-E	2.58	0.01	44.3759602°N	104.0489042°W
SSC-W	2.20	<0.01	44.3759579°N	104.0489837°W
SSM-1	0.45	<0.01	44.3759049°N	104.0490414°W
SSS1/2-W	3.40	<0.01	44.3758847°N	104.0490003°W
SSS1/2-C	2.92	<0.01	44.3758887°N	104.0489228°W
SSS1/2-E	1.93	0.02	44.3758934°N	104.0488192°W
SSS-C	1.93	<0.01	44.3758286°N	104.0488204°W

Of the eight diamond core holes drilled by Norton Co., only two were drilled to test the down-dip extent of mineralization at the Tantalum shaft (Fig 6). Drill hole DDH VN-25 intercepted a pegmatite body 27.4 m

thick (estimated true thickness) dominated by quartz-spodumene rock. This spodumene-bearing zone graded 19.56 m @ 2.01 wt% Li_2O beginning at a depth of 6.73 meters, including two higher-grade intervals separated by a barren pegmatite screen of 8.83 m @ 2.30 wt% Li_2O and 5.66 m @ 2.83 wt% Li_2O . The second hole, DDH VC-25, encountered a single pegmatite body 21.2 meters thick with a zone of quartz-spodumene rock grading 6.71 m @ 1.88 wt% Li_2O . Tantalum grades generally increased in the pegmatite immediately underlying the high-grade lithium mineralization, with the best intercepts of 8.46 m @ 0.10 wt% Ta_2O_5 and 6.55 m @ 0.14 wt% Ta_2O_5 in holes VN-25 and VC-25 respectively (Fig. 6).

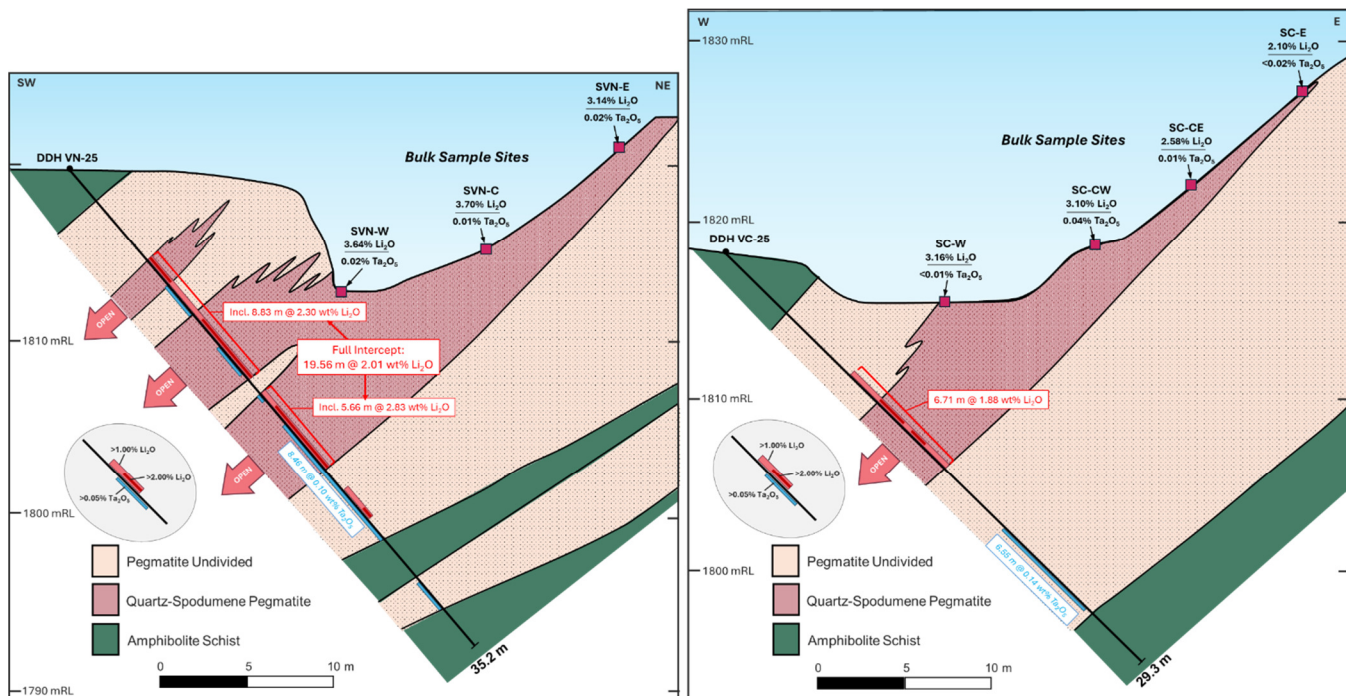


Figure 4 : Drill results of Norton Co. holes VN-25 and VC-25 (data from Nellis, 1973)

6.3 Rusty Mine

The Tinton District was the second-most productive alluvial goldfield in the Black Hills with over 200,000 ounces in documented production. At least 26 gold nuggets greater than 1-oz weight have been documented from the Property. These include two nuggets weighing 22.5 and 27 ounces found on Bear Gulch, a 20-oz nugget from Mallory Gulch and a 20.5-oz nugget from Negro Gulch. The most productive placer gulches drain the west, east and southeast crest of Tantalum Hill formed by the Giant-Volney pegmatite in the center of the Property. Lode gold production is not recorded and the source for the Tinton placers has remained cryptic for 140 years.

The most significant early lode location on the Rusty amphibolite, the Little Lousy mine, was located by E.S. Kingsbury in 1879 on the summit of Negro Hill (Waterland, 1991). A shaft was sunk 12 meters deep on a body of gold-bearing schist up to 30 meters wide. Pan tests from select ore removed during sinking of the shaft showed values in free gold up to \$40/ton, or 2 oz/ton, although the average was reported to

be 0.50 oz/ton. The ore was evidently largely unoxidized, contained significant sulfides in the form of arsenopyrite and pyrrhotite and could not be treated. The Little Lousy workings were later buried by mine tailings from the Giant-Volney pegmatites.

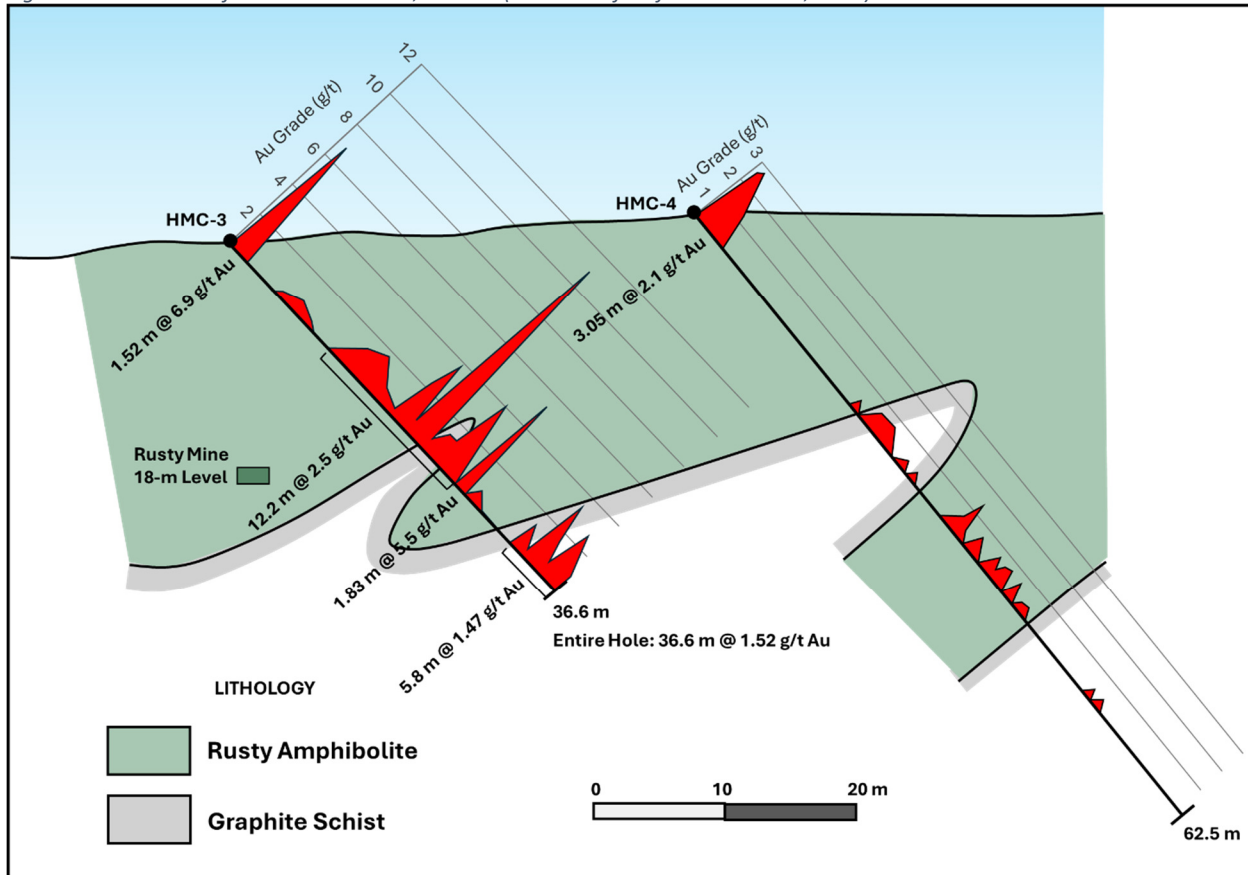
The presence of gold mineralization in the hanging wall amphibolite bordering the west side of the Giant-Volney pegmatite was commonly reported by the tin operators from the 1890's through the 1930's. In one place, a trench was excavated for 18.3 meters, exposing ore averaging 18.2 g/t Au (Rice, 1937). A second trench exposed 15.9 meters of 6.9 g/t Au ore. Dr. Franklin Carpenter of the South Dakota School of Mines & Technology reported that the Giant tunnel on the Volney lode exposed 61 meters of altered amphibolite containing gold mineralization running up to 5 g/t Au in the immediate hanging wall to the pegmatite. At least one aplite sample collected from within the pegmatite itself contained weak gold mineralization. Samples collected by Carpenter for over 300 meters along strike at the surface around the Rough and Ready Mine contained 5 to 10 g/t Au (Johnson, 1954). Rice (1937) reported that a sample representing a 6-meter width in hornblende schist just west of the Tantalum Hill shaft assayed 8.2 g/t Au. A drift run through the Rough and Ready dike system on the north end of the pegmatite, known as the Hydliff Tunnel, contained some narrow high-grade zones reportedly containing up to 2,700 g/t Au (Johnson, 1937). The entire body of amphibolite in the tunnel reportedly averaged 1.0 to 4.9 g/t Au while one highly mineralized section reportedly averaged 7.7 g/t Au over 42.7 meters.

Beginning in the mid-1930's, the Black Hills Tin Co. began serious investigations into the auriferous zone bordering the pegmatites. Gold was found in a wide shear zone cutting an amphibolite schist body 73 meters wide. Mineralization was disclosed at numerous points over a strike length of nearly 3.5 km. The most significant underground workings were at the so-called Rusty Mine that included a 21-m shaft with 100 meters of underground drifts. These workings are presently inaccessible. Geologists from the South Dakota School of Mines & Technology had previously sampled the main drift on the 21-m level at the Rusty shaft in 1894 and reported a mineralized zone 61 meters across @ 5.15 g/t Au (Johnson, 1954). The drift was driven oblique to the shear zone, which had an estimated true width of approximately 40 meters. South Dakota State Mine Inspector, A.I. Johnson, described the mineralization exposed underground in 1933 as 45 meters wide, with a high-grade core zone of 15 meters @ 9 to 15 g/t Au (Johnson, 1937). At the prompting of Johnson, Fansteel Corporation drove a new drift in 1938 on the 18-m level eastward for 10.7 meters, all in ore. This drift averaged 5.8 to 8.9 g/t Au.

In 1975 Homestake Mining Company took an interest in the source of Tinton alluvial gold and drilled eight shallow rotary holes in the vicinity of the Rusty shaft in two fences to maximum depths of less than 70 meters (Shaddrick, 1974). The first four holes were drilled in the immediate vicinity of the Rusty shaft. Drill holes HMC-1 and HMC-2 were vertical holes drilled west of the shaft and encountered weak, but persistent gold mineralization. The full length of HMC-1 contained 57.9 m @ 0.25 g/t Au, including 5.4 m @ 0.7 g/t Au from 34.1 to 39.5 m while HMC-2 intercepted 52.7 m @ 0.23 g/t Au, including 6.1 m @ 0.51 g/t Au from 41.1 to 47.2 m. Drill holes HMC-3 and HMC-4 were drilled to test the hinge of the main fold structure that exhibits closure just southeast of the Rusty shaft (Fig 7). More significant mineralization was encountered in these holes, particularly in HMC-3 that intercepted 36.6 m @ 1.52 g/t Au, including four higher grade internal zones of 1.52 m @ 6.9 g/t Au, 12.2 m @ 2.50 g/t Au, 1.8 m @ 6.6 g/t Au and 1.83 m @ 5.5 g/t Au. HMC-4 drilled 35 meters to the east to a depth of 63.1 meters encountered broad zones of lower-grade mineralization, including 18.9 m @ 0.34 g/t Au and 3.05 m @ 2.10 g/t Au (Fig 7). A

second fence of holes situated several hundred meters south to cut the interpreted down-plunge extent of the mineralized structure failed to cut any mineralization and Homestake abandoned the property under the assumption the bulk of the shoots had already been eroded (Shaddrick, 1974). It was subsequently realized following the mapping efforts of Norby (1984) that the plunges in the Archean schists at Tinton are shallow to the north, the opposite of typical fold plunges in the Black Hills.

Figure 5: Drill results of HMC holes HMC-3, HMC-4 (data redrafted from Shaddrick, 1974)



7. Geologic Setting and Mineralization

7.1 Regional Geology

The Black Hills of western South Dakota and eastern Wyoming in the north-central United States are a large northwest-trending elongate dome uplifted during the Cretaceous-Paleogene Laramide Orogeny and represent the easternmost expression of Laramide-style tectonism in North America. The Hills represent the structurally highest portion of the Chadron-Cambridge Arch, a continental-scale structural zone extending from Montana to Oklahoma. The Black Hills contain the only outcrops of Precambrian rocks in the vast North American Great Plains and are separated from the nearest equivalent outcrops in the Minnesota River Valley and Canadian Shield by 750 and 900 km respectively (McCormick, 2008). Laramide uplift of the Black Hills dome was accommodated along north-trending monoclines draped over deep high angle thrust faults rooted in Precambrian basement (Redden and Lisenbee, 1990). Many of

these faults appear to be reactivated crustal-scale shear zones in Paleoproterozoic supracrustal rocks overlying Neoproterozoic and Mesoproterozoic basement. An eroded core of Precambrian rocks is exposed in the eastern block of the asymmetric dome over an area measuring 140 km in length and 35 km in width as a window through younger overlying Phanerozoic sedimentary rocks.

The Black Hills are located near the common boundary of the Archean Wyoming and Superior Cratons in a broad accretionary orogenic collage known as the Central Plains Orogenic Belt (Whitmeyer and Karlstrom, 2007; Kilian et al., 2016). Precambrian exposures are dominated by Paleoproterozoic metasedimentary and lesser metavolcanic rocks of the Black Hills Supergroup; a complex series of four unconformity-bounded packages of pelite-quartzite-turbidite-tholeiite basalt rocks deposited between 2.61 and 1.76 Ga (Hrncir et al., 2016; Hrncir and Karlstrom, 2017), and intensely deformed by the Black Hills Orogeny between 1840 and 1690 Ma (Chamberlain et al., 2002; Dahl et al., 2005). Orogenesis was a polyphase event involving the rifting of the Black Hills block from the southwestern margin of the Superior Craton during breakup of the Superia supercraton and then re-suturing through a long-lived Western Pacific-style retreating accretionary orogen, followed by final collision with the Wyoming Craton to the west (Hrncir and Karlstrom, 2017).

Although the bulk of the uplift is dominated by Paleoproterozoic metasedimentary rocks, smaller exposures of older underlying concealed basement comprising Archean rocks occur on the flanks of the Black Hills, in the cores of major regional antiforms, eroded cores of Paleogene domes and as xenolith localities within Paleogene intrusives. These exposures are dominated by batholith-scale Neoproterozoic granitoid plutons of 2.66 Ga age in the west and a large granite body of 2.56 Ga age in the east in structural contact with mixed metasedimentary rocks (Hrncir and Karlstrom, 2017). Mesoproterozoic Sm-Nd T_{DM} and Lu-Hf model ages and directly inherited xenocrystic zircon in the Neoproterozoic plutons, as well as widespread Mesoproterozoic detrital zircons in all Black Hills metasedimentary units argue for the existence of an underlying Mesoproterozoic (2.92 - 3.15 Ga) substrate to the Black Hills domain. The geographically largest Archean inlier occurs in the Tinton Dome in the core of the Project area in the northwestern Black Hills.

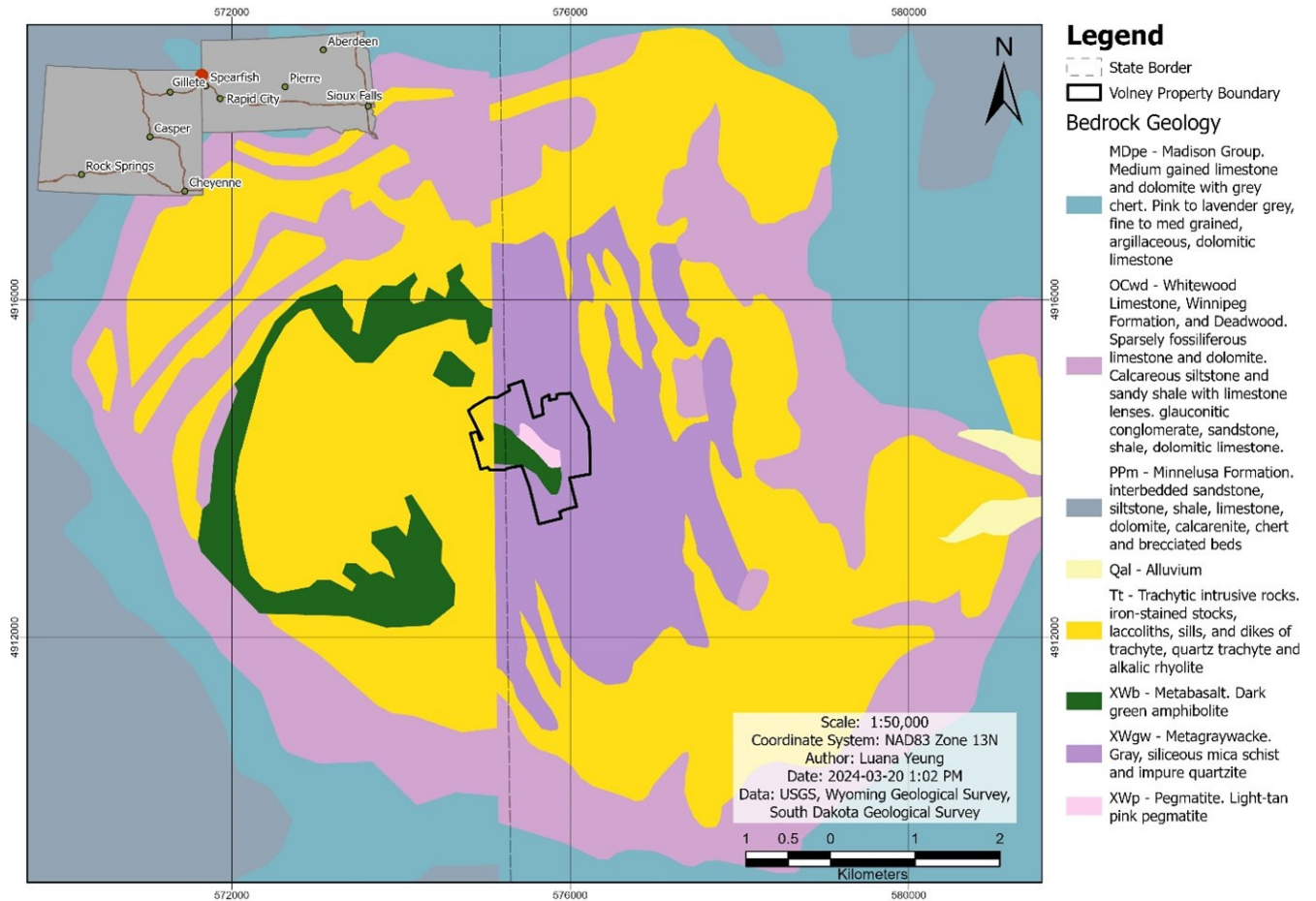
The Black Hills contain a wide variety of metallic mineralization dominated by gold and evolved rare metal pegmatites. A major pulse of orogenic gold mineralization hosted dominantly in iron formations occurred near the end of orogenesis at ca. 1735 Ma, forming the supergiant Homestake Mine along with many other occurrences (Morelli et al., 2010). Contemporaneous intrusion of the syntectonic Harney Peak Granite (HPG) batholith between 1730 and 1690 Ma due to shear-induced melting of metasedimentary units raised the metamorphic grade over much of the south-central Black Hills to granulite metamorphic facies, although the northern and eastern Black Hills are dominated by upper greenschist to lower amphibolite grades (Nabalek et al., 1999). The HPG is surrounded by a broad rare metal pegmatite field in the metamorphic aureole (Norton and Redden, 1990) containing over 20,000 mapped pegmatites. A similar leucogranite batholith has been interpreted in the subsurface immediately east of the Homestake Mine due to the sharp increase in metamorphic grade and appearance of pegmatites in that region (Caddey et al., 1991).

The Precambrian rocks were subjected to long-duration erosion and peneplanation after 1690 Ma, before being overlapped by Phanerozoic epeiric seas. The Black Hills are located on the flanks of the Transcontinental Arch, a persistent regional structural and topographic high in North America during the Phanerozoic, leading to numerous depositional hiatuses during sea level lowstands preserved as unconformities in the Paleozoic sedimentary record. Continental sedimentation eventually inundated the Transcontinental Arch in the Permian, burying the Black Hills beneath thick Mesozoic sedimentary rocks.

A Laramide-aged igneous belt of alkalic magmatic intrusive centers of Paleocene-Eocene age occur along a linear WNW-trending belt for approximately 150 km across the northern Black Hills and include dozens of intrusive stocks and laccoliths and innumerable dikes and sills concentrated in five broad laccolithic magmatic centers (Duke, 2005). Intrusion of these igneous rocks significantly modified the structural pattern of the Black Hills dome, providing additional Precambrian basement exposures in the eroded cores of several large domes at Lead, Tinton and the Bear Lodge Mountains. This igneous belt parallels the continental scale Lewis and Clark lineament, specifically the southernmost wrench fault in this system, the Nye-Bowler fault. Intrusive rocks in the belt are strongly alkalic and become more silica-undersaturated from east to west, ranging from granite-rhyolite in the east to carbonatite-kimberlite in the west. Paleogene-aged gold mineralization occurs in association with a broad compositional range of these intrusive centers, in addition to the presence of significant underlying Precambrian-aged gold mineralization.

Following rapid erosion and denudation of the Paleocene intrusive belt, the Black Hills were buried beneath a veneer of terrestrial sediments of the Oligocene White River Group and are presently being exhumed by renewed erosion and canyon-cutting cycles since the Quaternary, triggered by advance and withdrawal of the Laurentide ice sheets (Redden and Lisenbee, 1990). Long-term weathering and oxidation of the bedrock to depths of up to several hundred meters since the Eocene in the northern Black Hills has strongly overprinted primary gold mineralization in both Paleogene and Precambrian deposits (Lisenbee and Paterson, 1990).

Figure 6: Regional Geology of the Tinton Dome



7.2 Property Geology

Archean rocks are exposed over an area of 25 km² in the core of the Late Paleogene Tinton Dome. The dome is one of five major intrusive centers in the Northern Black Hills Magmatic Belt (Duke, 2005). The schists are heavily invaded by ~56-54 Ma nepheline syenite, quartz trachyte and trachyte porphyry dikes that are generally conformable to foliation and can range up to 100 meters wide. The intrusive dikes created a volume increase of 10%, elevating the dome around 330 meters structurally above surrounding Phanerozoic cover. These dikes originally fed a thick overlying porphyry sill intrusive into the Cambro-Ordovician Deadwood Formation at a stratigraphic position just above the Cambrian-Precambrian unconformity. Erosion through this sill has exposed the Precambrian inlier. An alkalic zoned syenite-pyroxenite intrusive cored by heterolithic diatreme breccia occupies the western part of the Tinton inlier a few km west of the Property boundary at Mineral Hill.

Although Ray (1979) suggested the intrusive dikes converge at depth into a massive intrusive stock, deep mining and diamond drill exploration in the mineralized Lead Dome to the east to depths exceeding 5 km demonstrate that such stocks are largely absent and the dike networks persist to great depths. Late-stage lamprophyre dikes ranging from cm's to 2 meters in thickness crosscut all other rock types and are particularly abundant in the region between the Mineral Hill complex and the Tinton pegmatites. These lamprophyres are generally associated with locally intense hydrothermal alteration and pyritization of the adjoining country rock. Breccia dikes and small pipes also crosscut all rock types but are recessive and are typically only observed in areas of mine exposures. Many of the breccias closely follow the margins of lamprophyre dikes and have a highly micaceous igneous matrix.

The Tinton Dome is separated from the remainder of the Black Hills by a major trans-crustal structure feature known as the Fanny Peak Monocline (Redden and Lisenbee, 1990). The monocline is cored by a high-angle reverse thrust fault that reactivated the suture zone between distinct Precambrian basement blocks. Significant differences in crustal thickness, lithospheric age and composition of the Paleogene igneous belt are apparent across this structure (Birkey et al., 2019).

Precambrian units are dominated by well-foliated gray to dark gray quartz-plagioclase-biotite schists and phyllites representing metagraywackes and metapelites respectively. Light gray cm-scale ellipsoidal porphyroblasts of cordierite give the metapelites a spotted appearance. Sparse calc-silicate rocks consisting of plagioclase-actinolite-garnet schists are interbedded with the greywackes. Several thin units of iron formation represented by cummingtonite-chlorite-garnet schist have been found on prospect dumps and as float but its extent is unknown. In the center of the inlier, a folded body of massive amphibolite, known as the Rusty amphibolite, forms the topographic divide between the Bear, Potato and Sand Creek drainages and crops out for at least 2.3 km. The Rusty amphibolite is interpreted as a thick originally extrusive flow due to the presence of rare amygdaloids and pillow structures and association with tuffs. The massive amphibolite is transitional to and apparently underlain by highly altered mafic tuffs and graphitic phyllite containing up to 10% pyrite. The graphitic phyllite can be traced more or less continuously on outcrop for 2.7 km along the western edge of the amphibolite but has been extensively brecciated by Paleogene intrusives on the eastern margin (Norby, 1984). At least one iron formation is interbedded with the Rusty amphibolite in Mallory Gulch and has been observed in dump material at the Rusty shaft and Giant adit. The Rusty volcanic package may be in sheared thrust contact with underlying

gneisses and overlying greywackes. Discontinuous lenses of coarsely crystalline amphibolite occur throughout the Tinton inlier that likely represent intrusive metagabbros.

Foliation in the schists varies in strike from N 30° W to N 28° E, with a consistent westerly dip of 50 to 80°. A prominent lineation defined by elongated amphibole grains in the plane of foliation within the amphibolites plunges 20 to 40° toward N 20° W. This is mirrored by rare direct plunge measurements in folds in outcrop plunging shallowly to the north. There are few marker beds in the monotonous greywacke succession that can be used to interpret structure, however the prominent schistosity is likely coplanar with the axes of major northwest-trending folds. The map pattern in the vicinity of the Rusty Mine indicates a tight isoclinal fold with closure near the mine shaft. The presence of cordierite-bearing metamorphic mineral assemblages and rarity of garnet in the metapelites and the presence of hornblende in the mafic rocks suggest low-pressure moderate-temperature metamorphism, ie: 520-540°C and approximately 4 kbar pressure (Ray, 1979; Norby, 1984).

A prominent belt of quartz veins cutting the western side of the Rusty fold structure can be followed for 700 meters and is up to 100 meters wide. These veins mark the position of a major shear zone, potentially with sinistral offset of Precambrian units. This same shear was reactivated in the Paleogene as a brittle fault zone and invaded by porphyry dikes and further quartz breccia veins with open space textures. Several breccia dikes and small elongated pipes invade the fault zone bordering the west side of the Giant-Volney pegmatite for at least 2 km along strike.

Granitic pegmatites are a prominent feature of the central portion of the Tinton District and have been the subject of early study by Hess and Bryan (1938), Smith and Wayland (1941) and Page et al. (1953). Over 240 pegmatites have been mapped over an area of 15 km² (Page et al. 1953). The pegmatites are largest and most abundant in a roughly linear zone that ranges from 200 to 500 meters wide and at least 4 km long, coinciding with the Rusty amphibolite and an interpreted major shear zone bisecting the inlier. The pegmatites are generally conformable to foliation in the schists and are not folded, although many are cut and/or brecciated by Paleogene intrusives. Typical mineral assemblages of the granitic pegmatites include quartz, microcline, orthoclase, albite-oligoclase and muscovite. Cassiterite, columbite-tantalite, spodumene, and amblygonite are the primary economic minerals of interest in the pegmatites.

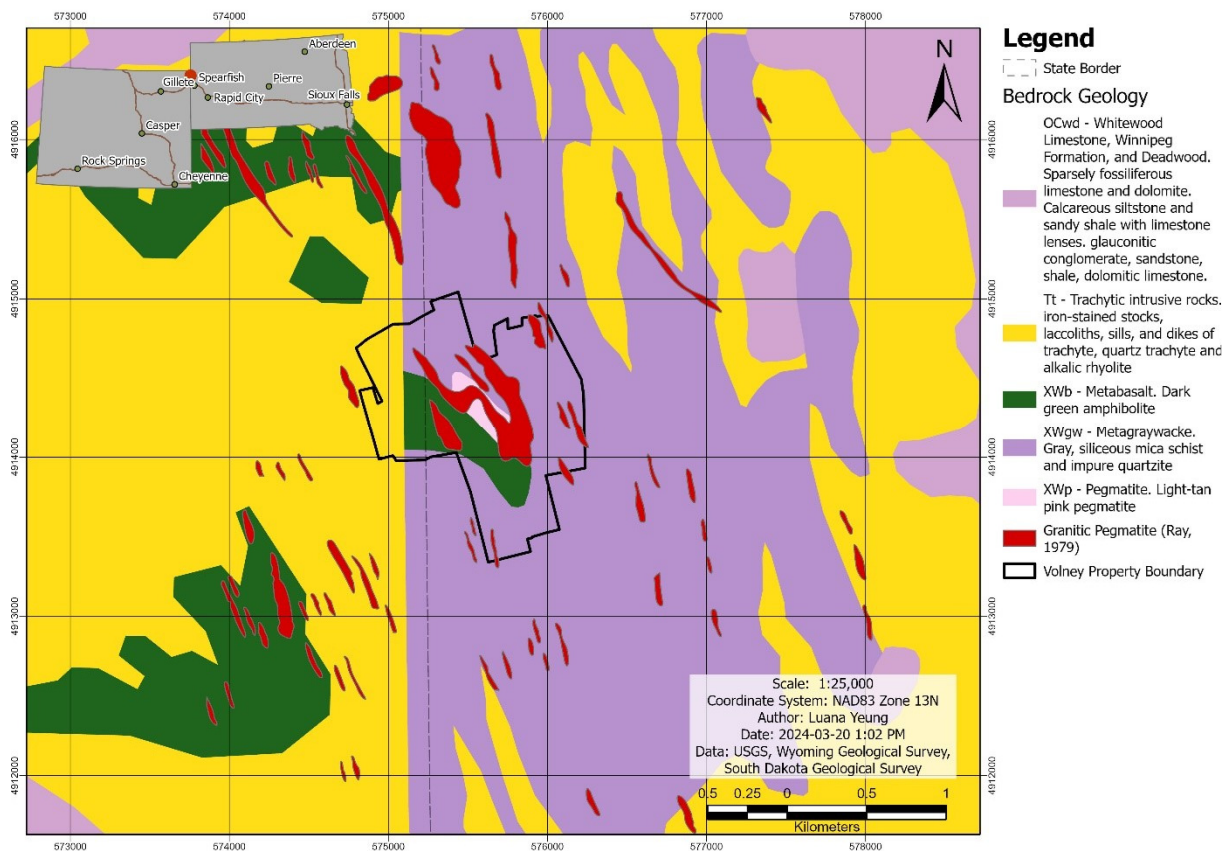
The largest pegmatites in the Tinton District occur on the Property. The most important is the Giant-Volney pegmatite, which forms a complex squid-shaped body of thick pegmatite dikes in the north converging to a single large pegmatite mass in the south. The core of the pegmatite is at least 630 meters long, although with its poorly defined northern dike extensions may exceed over 1,100 meters, and at its widest point is up to 230 meters across. A second major pegmatite body known as the "Big Blowout" occurs 900 meters further north and measures 725 meters long and is up to 250 meters wide. At least 19 additional pegmatite bodies greater than 100 meters long with widths greater than 20 meters are presently mapped within the property boundary.

Although the Precambrian schists at Tinton have long been mapped as Paleoproterozoic in age (~1880 Ma) and the pegmatites have been historically assumed as age-equivalent to the ca. 1715 Ma Harney Peak Granite pegmatite swarm further south (Redden et al., 2008), recent geochronology studies refute this interpretation and demonstrate an Archean age for all units. Detrital zircons in metapelite units

interbedded with the Rusty amphibolite yield exclusively Mesoarchean ages, with an indicated maximum depositional age of 2.96 Ga (Hrncir and Karlstrom, 2017), although the schists are more likely Neoproterozoic in age and deposited on a widespread 2.86-2.84 Ga granitoid basement present in the western Black Hills. Structurally overlying greywackes in thrust contact with the Rusty amphibolite remain undated but are similar in appearance and stratigraphic position to widespread greywackes in the Bear Mountain, Little Elk, Nemo and Pactola Archean blocks that were deposited between 2.66 and 2.61 Ga (Hrncir et al., 2018).

Zircon inheritance and late-stage hydrothermal alteration complicate the interpretation of age patterns, but the Tinton granite pegmatites most likely crystallized at ~2.56 Ga based on the ages of the youngest concordant zircons (Hrncir and Karlstrom, 2017). Partial melting of 2.62-2.64 Ga metasedimentary units contributed a major xenocrystic zircon population to the granite pegmatites while the oldest inherited zircons are ~2.88 Ga, arguing for the presence of underlying Mesoarchean crust in the Tinton region. The amphibolite-grade metamorphism and deformation of the Tinton schists is also likely Late Neoproterozoic in age. Elsewhere in the eastern Black Hills, the contemporaneous Little Elk Granite intruded at 2564 ± 4 Ma (Hrncir et al., 2017) and is interpreted to be an I-type calc-alkaline intrusion formed in a suprasubduction zone (VanBoening and Nabalek, 2008). The Tinton granite pegmatites may be part of a broader intrusive suite in the western Black Hills domain represented by the poorly dated and compositionally similar leucogranite pegmatites at Bear Mountain to the south generally thought to be intruded at ~2.6 Ga (Gosselin et al., 1988).

Figure 7: Property Geology



7.3 Mineralization

The Volney Property features two predominant styles of mineralization; Li-Ta-Sn mineralization hosted within pegmatites, and shear-hosted gold mineralization.

7.3.1 Pegmatite Li-Ta-Sn Mineralization

Li-Ta-Sn mineralization on the property is hosted in several pegmatite dikes, the most prospective of which is the Giant-Volney pegmatite. Spodumene (Li), cassiterite (Sn), and columbite-tantalite (Ta) are the primary minerals of economic interest within the pegmatites. At surface, the Giant-Volney pegmatite is mapped as 107 m long and 26 m wide. Hosted within the pegmatite are smaller lenticular zones of spodumene enrichment. Spodumene crystals range from 10 cm in length to microcrystalline. In 1936, samples of sugary white rock with gneissic texture were submitted to the USBM for examination. They proved to be a fine-grained mixture of spodumene and quartz and carried around 50% spodumene by volume (Hess and Bryan, 1938; Page et al., 1954).

At the Rough and Ready mine, mineralized pegmatites are located on the contact between metabasalt to the west, on the hanging wall, and greywacke in the eastern footwall. The package is then cut by several thick dikes of Paleogene monzonite porphyry and innumerable bodies of lamprophyre. Following the lamprophyre intrusions the package was hydrothermally altered, resulting in up to 8% pyrite locally. The mineralized pegmatites merge southward to form the large pegmatite which was mined at Giant-Volney mine. As exposed underground and in USBM drilling, the dikes have extremely complex geometries in three dimensions that pinch and swell abruptly.

Development of the No. 1 adit at the Giant-Volney mine exposed a cross section through the pegmatitic body which progressed through 43 meters of layered oligoclase-quartz-muscovite pegmatite containing cassiterite and columbite with lenses of spodumene. The adit then cut through rich spodumene pegmatite 3 meters thick and finally through bordering microcline-quartz pegmatite. Around a dozen lamprophyre dikes up to 1 meter thick cut the pegmatite.

7.3.2 Shear Zone-Hosted Gold Mineralization

The geographic source of alluvial gold on the property is the Rusty amphibolite extending 2.7 kilometers along the crest of Tantalum-Negro Hill just west of the Giant-Volney pegmatite. Johnson (1954) reported that many of the nuggets recovered from Bear, Negro and Hungry Gulches draining the eastern margin of the amphibolite contained considerable attached quartz and often, amphibolite matrix. Much of the gold in Mallory Gulch to the west also contained amphibolite matrix.

The broad shear zone cutting the Rusty amphibolite and associated sulfidic graphitic phyllite was identified as the source of this alluvial gold and explored historically by numerous test pits and surface trenches that coalesce into extensive rich placer diggings in colluvial slope wash and dry gulch gravels. The shear is within amphibolite schist, measuring up to 73 m wide and tested over a strike length of nearly 3.5 km.

The Rusty mine, which was driven through the shear zone, contained numerous quartz veins averaging 2 to 3 m thick with a maximum of 8 m. These veins appear to pinch and swell quickly along strike and generally only extend for 15 m. Crosscutting relationships with the granite pegmatites could not be determined, but the veins were identified as Precambrian since they predate the intrusion of Paleogene dikes (Noble et al., 1940).

Petrography of auriferous core from Homestake Mining Company holes HMC3, HMC4, CMI1 and CMI2 reveal the dominant sulfide minerals are pyrite, arsenopyrite and pyrrhotite (Norby, 1984). Arsenopyrite is concentrated along the margins of quartz veins and in the amphibolite selvages as well as near-complete replacement of amphibolite fragments within quartz veins. Pyrrhotite mantles arsenopyrite and may be a late-stage replacement. The arsenopyrite contains abundant magnetite inclusions, making it highly magnetic. Sparse chalcopyrite, pentlandite and sphalerite are also present. Polished sections of mineralized quartz veins studied by Norby (1984) reveal native gold grains up to 50 micron-diameter between arsenopyrite grains and as fracture fillings.

8. Deposit Types

Nine styles of pegmatites with differing mineral assemblages were characterized by Smith and Page (1941) in the Tinton District and summarized in Table 7.

Table 6: Pegmatite Types of the Tinton District

Pegmatite Type/Zone		Description	Relationship to other zones	Accessory Minerals
1	Oligoclase-quartz-muscovite pegmatite	Dominant variety of pegmatite in the district Mineral proportions, texture and grain size vary between pegmatites Aplitic textures present	Host to lenses of Zone 2 and Zone 3-type pegmatite	Amblygonite, spodumene, apatite, cassiterite, columbite-tantalite, beryl and tourmaline
2	Tourmaline-bearing pegmatite and quartz veins	Border zone pegmatite	Occurs in layers with Zone 3-type pegmatite and along pegmatite contacts	Schorl
3	Albite-quartz pegmatite	Fine-grained with crude aplitic layering Occurs as large masses in the largest pegmatite bodies	Forms the core of the largest pegmatites such as the Giant-Volney	Fine-grained muscovite, tourmaline, apatite and cassiterite
4	Spodumene-quartz pegmatite	Fine-grained gneissic texture of intergrown quartz and spodumene	Forms large body in southern end of the Giant-Volney pegmatite and as several thin layers	

			near the eastern wall	
5	Amblygonite masses	Large crystals weighing up to several hundred kg enveloped by fine-grained muscovite	Often associated with the hanging wall of Zone 4 pegmatite	
6	Columbite-tantalite-quartz-albite lenses	Late-stage alteration and fracture fillings particularly well developed in the Giant-Volney	May replace spodumene pegmatite but occurs as fractures across all other pegmatite types	Columbite-tantalite minerals and their alteration products
7	Microcline-quartz pegmatite	Prominent graphic texture and large feldspar crystals	Dominant form of pegmatite in the Giant-Volney	
8	Albite-quartz-muscovite veins	Late-stage fracture fillings		
9	Quartz veins	Late-stage fracture fillings		

The lithium-bearing pegmatites of the Volney Property are best defined as lithium-cesium-tantalum, or LCT-type, pegmatites and meet all the genetic criteria used to classify this economically important type of pegmatite (Groves et al., 2022). The pegmatites, exemplified by the Giant-Volney, have complex plan view geometries with flat dips, form sill-like swarms subparallel to bedding, and were emplaced in an active shear cutting mafic (amphibolite) wallrocks at amphibolite-grade metamorphic conditions of >500°C and >2.5 kbar pressure. Unlike other pegmatite classes, the relationship of the LCT-type pegmatites to source granite plutons is often cryptic and the pegmatites may have formed from small-volume anatectic melts of metasedimentary rocks during late-stage deformation. The dominant, and near-exclusive, economic lithium mineral is spodumene and other common pegmatite minerals such as beryl are absent. The pegmatites are often strongly geochemically zoned, with characteristic tin mineralization in the hanging wall and tantalum enrichment in the footwall related to crystallization pathways in the cooling magma. Like many other of the world's LCT-type pegmatites, the Giant-Volney was initially mined for cassiterite and columbite-tantalite before recent interest in lithium (spodumene) mineralization. Finally, the indicated Neoproterozoic age of ca. 2.55-2.60 Ga places the Tinton pegmatites among the globally most important swarm of economic LCT-type pegmatites formed at the end of the Neoproterozoic, including the major deposits such as 2.53 Ga at Greenbushes, Tanco at 2.60 Ga, 2.61 Ga at Bikita, and ~2.63 Ga at Corvette (compilation in Dittrich et al., 2019).

There is a substantial history of alluvial gold mining in the Tinton District, with over 200,000 ounces of documented production. The Volney property has been the source of At least 26 nuggets greater than 1-oz weight. These include two nuggets weighing 22.5 and 27 ounces found on Bear Gulch, a 20-oz nugget from Mallory Gulch and a 20.5-oz nugget from Negro Gulch. The local source of alluvial gold is a shear zone through amphibolite schist which hosts quartz veining. Gold is found associated with pyrite, arsenopyrite, and pyrrhotite which are located on vein margins.

9. Exploration

Neither Tinton Partners or Lion Rock has performed any surface exploration or sampling on the Property.

10. Drilling

Neither Tinton Partners or Lion Rock have completed any drilling on the Property.

11. Sample Preparation, Analysis and Security

No samples were collected from the Property during the Site Visit, or by either Lion Rock or Tinton Partners previously.

12. Data Verification

The data presented in this report has come primarily from published government reports written by the United States Geological Survey and United States Bureau of Mines, along with academic Master's Theses and Doctoral Dissertations. The Author compared the data from the various sources to verify the geological conditions of the property and descriptions of historic mining and exploration activity. The Author can verify that the information has been presented accurately, and that the data is adequate for the purposes of this report.

12.1 Site Visit

The Author visited the Property on November 2, 2023 to observe mineralization and lithologies and verify certain aspects of the site geology. Access to the Property was gained by vehicle from Spearfish, SD along a series of paved and gravel roads. Property includes a metal garage and old remnants of historic mine infrastructure. The Giant-Volney pegmatite was observed and found to be consistent with historic geologic reports regarding its dimensions and mineralogy. Much of the former mine workings have been reclaimed in recent years and the site of the former outcropping spodumene mineralization around the Tantalum Hill workings could not be directly sampled. To the authors knowledge, no additional work has been conducted on the property since the November 2, 2023 visit.

Figure 8: Infrastructure and Reclaimed Mine Workings on the Volney Property



13. Mineral Processing and Metallurgical Testing

There is no known mineral processing testing or metallurgical analysis on samples collected on the property.

14. Mineral Resource Estimates

There is no Mineral Resource Estimate constructed for the property.

15 TO 22: NOT APPLICABLE

The Property is an early-stage exploration project and thus these sections do not apply.

23. Adjacent Properties

There are presently no adjacent properties with ongoing advanced exploration programs for either pegmatite-hosted lithium mineralization or gold involving drill programs in the immediate vicinity of the Volney Property. Although several unpatented claim blocks on federal lands exist near Tinton, they remain in very early stages of exploration and there is no information which is necessary to make this Technical Report understandable or not misleading.

24. Other Relevant Data and Information

To the Author's best knowledge, all the relevant data and information have been provided in the preceding text and there are no omissions to disclose which would make the Technical Report misleading.

25. Interpretation and Conclusions

Historically, the pegmatites at Tinton were explored first for tin and then for columbite-tantalite over several waves of activity beginning in the early 1900's. Until recently, interest in the lithium potential of these pegmatites has been minimal. Even so, historic sampling has returned favorable results such as 3.68% Li₂O over 4.88 m in channel sampling, and 19.56 m @ 2.01 wt% Li₂O in drilling. Lithium mineralization was described in subsurface mine workings and drill core at the Rough and Ready Mine but was not assayed. Given the fine-grained nature of the high-grade quartz-spodumene zone in the pegmatite, similar mineralization may be cryptic and more widespread within this large zoned pegmatite body. The known spodumene zones should be systematically drilled both down-dip and down-plunge to determine the extent of mineralization.

Apart from the Giant-Volney pegmatite, the potential for much more extensive lithium mineralization in other dikes within the Tinton pegmatite swarm can be considered high. From examination of historic records, at least twenty cassiterite and/or columbite-tantalite-bearing pegmatites were prospected with trenches and small open cuts. Given the abundance of pegmatites on the property, further work is warranted to determine the extent of further spodumene-bearing dikes. The Property should be carefully mapped and sampled to test all known pegmatite occurrences. The nature of LCT-type pegmatites to pinch and swell along strike and occur in stacked subhorizontal sheets requires subsurface drill testing of any lithium-bearing occurrence.

The Tinton District was also a productive alluvial goldfield and its lode gold potential deserves serious scrutiny. The limited drill program by Homestake Mining Company at the Rusty Shaft disclosed encouraging gold mineralization but critically, did not test the correct down-plunge extent. A comprehensive mapping, soil and rock sampling program should be initiated in the Rusty amphibolite at the head of the placer gulches and extended Property-wide to examine for other types of gold mineralization hosted within Paleogene dikes, breccias and epithermal-style veins.

Based on the review of the available information, there are no significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration program design for the Property or the potential economic viability of the known pegmatites.

26. Recommendations

It is recommended that two phases of exploration be undertaken on the property, with a cumulative budget of \$1,762,000 USD.

Phase one of the program would entail a comprehensive review of available data (LiDAR and previous regional mapping), as well as detailed mapping and sampling of the pegmatites across the property. The pegmatites of the Tinton District pinch and swell along strike and at depth and even minor surface occurrences of new lithium pegmatites may develop into important drill targets. Modern mapping and assay results will be required to guide subsequent work. Phase one has an estimated budget of \$65,000 USD.

Upon the completion of phase one, the assay results and surface mapping will be reviewed in order to guide drill targeting in combination with modeling of historic drilling. Drilling should be undertaken in a systematic fashion on the large Giant-Volney pegmatite, testing down-dip and down-plunge away from the historic mine workings. Other known lithium-bearing pegmatite occurrences near the Tantalum Hill workings should also be drill-tested. A 4000 m drill program at an all in cost of \$350 per m is budgeted at \$1,699,000 USD.

Table 8: Proposed Budget

Phase	Work Type	Description	Subtotals (USD)
1	Desktop Data Review	Assemble historic data	\$8,000
1	Prospecting, Mapping + Sampling	30 field days	\$50,000
1	Geochemical Analysis	200 samples @ \$35/sample	\$7,000
2	Desktop Data Review	assess field results and design drill program	\$9,000
2	SD Permitting & Bonding	EXNI permit application and bonds	\$30,000
2	Initial Diamond Core Drilling Program	All inclusive @ \$350/m for 4000 meters	\$1,500,000
	10% Contingency		\$160,000
	TOTAL BUDGET		\$1,762,000

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28. Certificate of Author

Carl Ginn
138A Branch Rd 11
Longbow Lake, Ontario
Canada, P0X 1H0
Telephone: 204-619-5666
Email: carl@rsdcapital.com

I, Carl Raymond Ginn, P.Ge. (#2918) do certify that:

- 1) I currently reside at 138A Branch Rd 11 Stormbay Road, Longbow Lake, ON.
- 2) I graduated from University of Manitoba in 2014, with a B.Sc. (Earth Science).
- 3) I am a practicing member in good standing with the Professional Geologists of Ontario (#2918) since 2018.
- 4) I have worked as a geologist since my graduation from university. I have worked on gold and lithium projects across Canada (dominantly in Ontario and Quebec).
- 5) "Technical Report" refers to the report titled "NI 43-101 Technical Report Volney Property", and dated February 27, 2025.
- 6) I am responsible for the property visit, and entire Technical Report. I have visited the property on November 2, 2023, reviewing access, infrastructure and geology.
- 7) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements as a Qualified Person for the purposes of NI 43-101.
- 8) I am independent of the party or parties (the "issuer") involved in the transaction for which the technical report is required, other than providing consulting services, and in the application of all of the tests in section 1.5 of NI 43-101.
- 9) I have no prior involvement with the Property that is subject to this technical report.
- 10) I have read NI-43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that Instrument and Form.

11) As of the date of this certificate, and 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.

Date this 27th day of February 2025.

SIGNED

“Carl R. Ginn”

Carl R. Ginn, P.Geol.

APPENDIX I – CLAIM LIST

Name	US Mineral Survey Number	Area (Acre)	Surface Rights	Mineral Rights	Section	Township	Range	Meridian	County	State	Expiration Date
Giant	444	9.2	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Poorman	503	10.2	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Blacker	1181	10.3	x	x	30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Mace	1182	10.3	x	x	30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Union	1776	8.0	x	x	18 19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Yeddo	1776	10.9	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Yeddo No. 1	1776	8.6	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Bath	1776	10.1	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Bath No. 1	1776	4.4	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Hamburg	1777	9.5	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Gosford	1877	7.3	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Volney	1877	7.9	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Maude S	1877	9.3	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Maude E. Fraction	1877	9.0	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Hub	1877	7.1	x	x	19 30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Rough & Ready	1877	7.8	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Porphry	1877	9.7	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Sylva	1877	11.7	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Tempest	1877	14.0	x	x	19 (partially in WY)	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025

Allie Fraction	1877	5.0	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
August Fraction	1877	9.8	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Baltimore	1877	4.5	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Daisy	1877	12.4	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Detroit	1877	9.9	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Lander	1877	9.0	x	x	30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Princeton	1877	10.3	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Washington	1877	10.9	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Daisy No. 1	1877	1.4	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Hudson	1877	8.4	x	x	19 30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Metal	1877	10.0	x	x	19 30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Yulee	1877	5.4	x	x	19 30	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Lander No. 1	1877	2.1	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Giant Fraction	1877	5.0	x	x	19	5 North	1 East	Black Hills	Lawrence	South Dakota	September 1, 2025
Washtenaw	282	19.100	x	x	28	51 North	60 West	6th Principal	Crook	Wyoming	September 1, 2025
Frankfort	282	19.080	x	x	28	51 North	60 West	6th Principal	Crook	Wyoming	September 1, 2025
Tallaho	282	17.910	x	x	28	51 North	60 West	6th Principal	Crook	Wyoming	September 1, 2025
Napoleon	75	10.020	x	x	28	51 North	60 West	6th Principal	Crook	Wyoming	September 1, 2025
Mountain Side	282	5.500	x	x	28	51 North	60 West	6th Principal	Crook	Wyoming	September 1, 2025