

Critical Minerals Mapping – Earth MRI

FY2024 Request: \$10,500,000

Reference No: 61849

AP/AL: Appropriation

Project Type: Life / Health / Safety

Category: Natural Resources

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Theresa Cross

Estimated Project Dates: 07/01/2023 - 06/30/2028

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Brief Summary and Statement of Need:

From 1993-2015, the Airborne Geophysical/Geological Mineral Inventory (AGGMI) program annually produced geophysical surveys, geologic maps, and datasets to attract industry exploration investment and facilitate resource development. This program will produce geological and geophysical maps of high-potential mineral areas in Alaska, focused on critical minerals. The published new data and digitally upgraded historical data will spur private sector investment in Alaska, generate jobs, and help the nation’s critical mineral supply.

Funding:	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>FY2029</u>	<u>Total</u>
1002 Fed Rcpts	\$7,500,000	\$7,500,000	\$7,500,000	\$750,000			\$23,250,000
1003 G/F Match	\$2,750,000	\$2,750,000	\$2,750,000	\$2,750,000			\$11,000,000
1108 Stat Desig	\$250,000	\$250,000	\$250,000	\$250,000			\$1,000,000
Total:	\$10,500,000	\$10,500,000	\$10,500,000	\$3,750,000	\$0	\$0	\$35,250,000

<input checked="" type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
33% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

Sec11 Ch1 SLA2022 P91 L3 HB281 \$2,750,000
 Sec8 Ch1 SLA2021 P74 L25 HB 69 \$1,800,000
 Sec1 Ch1 SLA2019 P5 L12 SB2002 \$600,000
 Sec1 Ch3 SLA2019 P5 L18 SB19 \$3,000,000
 Sec1 Ch19 SLA2018 P8 L14 SB142 \$5,000,000

The Division of Geological & Geophysical Surveys anticipates receiving this grant, the award has increased due to the infrastructure bill which is effective through 2030. This project will cover field expenses to conduct the actual mapping, contract for airborne geophysical surveys, and other contractual and commodity expenses to meet the federal grant deliverables.

Project Description/Justification:

For Alaska to function as America’s critical mineral warehouse and be able to support world-class mining operations, Alaska must have the data and staff necessary to attract exploration investment and drive discovery.

Alaska has significant potential to produce critical minerals (inclusive of strategic minerals and Rare Earth Elements), but the basic datasets required for their exploration are lacking. This project will provide those data; complete, modern magnetic and radiometric geophysical surveys, and complete modern geochemical data and additional modern geological mapping covering Alaska’s numerous critical mineral belts. This same information will also be used by industry to explore for precious and base metals and will aid all sectors of Alaska’s mining industry. This work is strongly supported by the mining industry; the Alaska Minerals Commission has recommended funding for this work in each of their last four annual reports, and industry regularly financially contributes to its collection.

This project will conduct large geophysical, geochemical, and geological data collections over mineral-rich portions of the state, and develop fee schedules to charge for the raw data, once collected, while publishing low-cost hardcopy maps, and providing free access to visual representations of the data through the division’s website.

Alaska’s land status coupled with federal and state priorities create locations where there are areas of state-only, federal-only, and overlapping mapping interests. This budget reflects using federal funds to offset state monies in areas of overlapping federal/state interest and includes general funds to support data collection on state-owned lands.

State Fiscal Year	Nominal Critical Mineral Belt	Area (sq. km)	UGF Match/IIJA			SDPR	FED
			Geophysical Surveys	Geochemical Analyses	Geologic Mapping	Geophysical Surveys	Earth MRI
FY2024	SW Alaska	72,436	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2025	Seward Peninsula	72,687	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2026	Alaska Range	32,769	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2027	Southern Brooks Range	58,764	\$1,750,000	\$250,000	\$750,000	\$125,000	\$3,500,000
FY2027	SE Alaska & Ruby	72,436				\$125,000	\$4,000,000

Deliverables:

1. Approximately 1,000,000-line-kilometers of fixed-wing airborne magnetic, radiometric, or electromagnetic surveys covering all state lands within the critical mineral belts. These are Level 2, regional-scale surveys with 400-meter-spaced flight lines, like other recently flown surveys.
2. New multi-element geochemical analyses for all available stream sediment samples within the same critical mineral belts, estimated to be 42,000 samples.
3. New 1:100,000-scale geologic mapping covering approximately 50,000 square kilometers.
4. Free viewing of all data via web apps on the division’s website.
5. Paper maps and reports will be available for all products at a nominal charge.

6. Digital versions of the state-funded data suitable for advanced processing will be available.

Line Item Breakdown

Line Item	Amount
1000 Personal Services	
2000 Travel	\$200,000
3000 Services	\$10,250,000
4000 Commodities	\$50,000
5000 Capital Outlay	
7000 Grants	
Total	\$10,500,000