"Seizing Opportunity and Creating Value"



EXPLORING in <u>CANADA</u> **MELCHETT LAKE** Zn-Ag-Au-Cu VMS Project

TSX Venture: SSE US OTCQB: SSEBF Frankfurt: S6Q

www.silverspruceresources.com



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Cautionary Statement

Investors are cautioned that, except for statements of historical fact, certain information contained in this document includes "forward-looking information" with respect to a performance expectation for SSE. Such forward-looking statements are based on current expectations, estimates and projections formulated using assumptions believed to be reasonable and involving a number of risks and uncertainties which could cause actual results to differ materially from those anticipated. Such factors include, without limitation, fluctuations in foreign exchange markets, the price of commodities in both the cash market and futures market, changes in legislation, taxation, controls and regulations of national and local governments and political and economic developments in Canada and other countries where SSE carries-out or may carry-out business in the future, the availability of future business opportunities and the ability to successfully integrate acquisitions or operational difficulties related to technical activities of mining and reclamation, the speculative nature of exploration and development of mineral deposits located, including risks in obtaining necessary licences and permits, reducing the quantity or grade of reserves, adverse changes in credit ratings, and the challenge of title. The Company does not undertake an obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws.



Project Locations - Canada



Melchett Lake Zn-Ag-Au-Cu VMS Project, Ontario, Canada





Melchett Lake - Project Overview

- Silver Spruce signed an agreement to acquire 100% of the 2,124-hectare **Melchett Lake** project located within an historically active region including Copper Lake's Marshall Lake VMS project
- Map staking increased the Property to 5,022 hectares to complete coverage of the known mineralization reported over 22 km strike length
- Additional staking to the east and west proposed to cover more gold, silver and base metal targets
- High grade surface samples have yielded up to 28.8 g/t Gold,
 >500 g/t Ag and 19% Zinc
- Geochemistry highly favorable for VMS footwall alteration and proximal mineralization
- Drilling and borehole geophysics identified increasing copper and conductive targets at depth
- Numerous drill targets in peripheral oxide and sulphide facies exhalite and iron formation





Melchett Lake - The Potential

- The Property lies 110 km north of Geraldton, Ontario and 60 km north of Nakina at 50°45' north latitude and 86°59' west longitude.
- The Ontario Geological Survey Exploration Highlights in 2016-2017 reported "The potential of discovery of economic zinc-lead-silver-goldbearing VMS deposits in the Melchett Lake greenstone belt is high."
- The multi-kilometre strike length of the known areas of mineralization from surface to >500 metres depth, depth potential indicated by the downhole Maxwell modelling, broad and highly favorable alteration type and intensity, and mineralization, increasing Cu to Zn with depth, intense alteration profile similar to well-known polymetallic deposits, and presence of high-grade values of both precious metals and base metals provide Silver Spruce Resources Inc. with an opportunity to grow with the strong gold, silver and zinc markets.
- Quantec Spartan MT Survey will focus on high priority deep Relf targets
- Compilation of our ArcGIS database will extend through several historical Au-Ag-Cu-Zn showings and geochemical anomalies identified on the eastern and western claims."

Melchett Lake - The Property Geology

Style, Grade, Size, Structure and Location with Potential

- Polymetallic Zn-Pb-Cu-Ag-Au VMS style mineralization
- Similar in character to ore deposits at Geco, Mattabi, Winston Lake, Brunswick, Rouyn-Noranda, Lyon Lake, Murchison, Snow Lake
- Road, fixed wing floatplane, helicopter and boat access to property



- 22 km strike length of the known areas of mineralization, more depth potential indicated by Maxwell modelling, airborne and downhole EM anomalies
- Broad core intervals (>200 m) and depths (surface to >500m), increasing Cu/Zn in intense alteration profile, multi-element depletion and enrichment zones
- High grade lenses of Zn & Ag, variable Cu, Au, & Pb
- Zn to 19.1%, Ag to 560 g/t, Au to 28.8 g/t, Cu to 1.65%, Pb to 1.2%



Melchett Lake - Exploration Documents

- Signed Agreement with Aroland First Nation in Q2 2021
- Signed Agreement with Ginoogaming First Nation in Q3 2021
- ✓ Permit for core claims with Ministry of Mines through 2024
- ✓ Permits for surrounding claims pending Q2 2023





Melchett Lake - Exploration Completed

- Contracted Pleson Geoscience for camp construction and operations, ready for Q2 2023 re-start
- Contracted MPX Geophysics for Mag/VLF/Gamma Survey completed Q4 2021
- Contracted Western Heritage for Phase 1 Archeological Report, including a Traditional Land Use and Occupancy Study Q4 2021, report complete Q2 2023
- Contracted In3D Geoscience for geophysical interpretation and compilation, completed Phase 1 and 2
- Contracted Eagle Mapping for property-wide LiDAR survey, completed Q1 2023
- Contracted GeoCloud Analytics for LiDAR interpretation, completed draft Q2 2023





Melchett Lake - Exploration Plans

- ✓ Line-cutting for Spartan MT survey, Q2 2023
- Contracts Quantec Geoscience for Spartan survey, Q2/3 2023
- GIS Compilation, Re-Interpretation of BHPEM, HeliTEM and Regional Magnetic Surveys Q2 2023 ongoing
- Structural and lineament mapping, Prospecting, Soil and Rock Geochemistry, Targeted geological mapping Q2/3 2023
- Drilling Phase 1 Au and Ag-Zn, 2,500m Q3/4 2023, Phase 2 Au and Ag/Zn 5,000m Q1 2024
- Phase 1 Budget \$600,000 to Q4 2023
- ✓ Phase 2 Budget \$900,000 incl. fall drilling to Q1 2024
- Phase 3 Budget \$1,500,000 incl. winter drilling to Q2/3 2024



Heavy gossan in sulphide zone, dark ferroan sphalerite lens

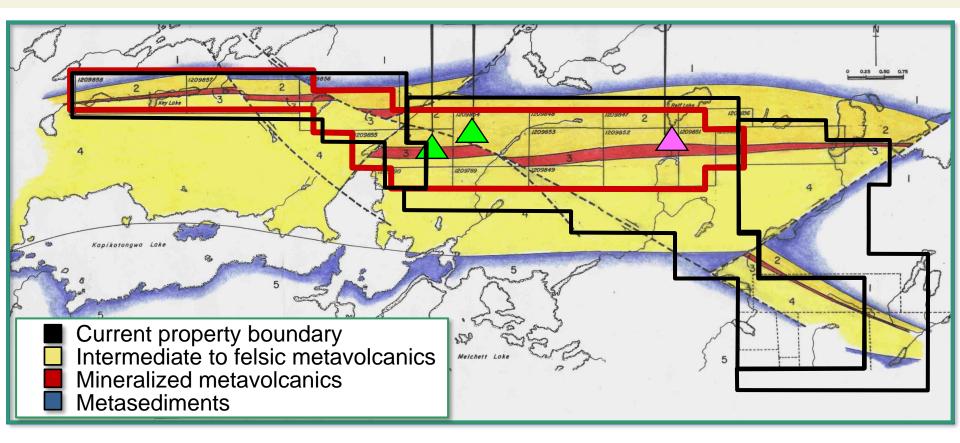


Melchett Lake - Target Evaluation

- <u>Geological Anomalies</u> defined by intense alteration and local high grades of mineralization
- <u>Magnetic anomalies</u> define structural complexity and potential stacking of mineralization
- <u>Resistivity anomalies</u> due to footwall or hangingwall alteration of VMS deposits (chlorite, sericite, silica, etc.)
- <u>Chargeability anomalies</u> caused by disseminated sulphide mineralization typically in the order of 1-5%
- <u>Conductivity anomalies</u> resulting from lenticular massive to semimassive sulphide bodies
- <u>Zones of depletion</u> typical of hydrothermal systems related to VMS deposits: Calcium, Strontium, Sodium
- <u>Zones of enrichment</u> typical of hydrothermal systems related to VMS deposits: Silver, Magnesium, Barium, Alteration Index #



Melchett Lake - Historical Geology Map



Melchett Lake historical claims (red), current claims (black), simplified geology and mineral occurrences



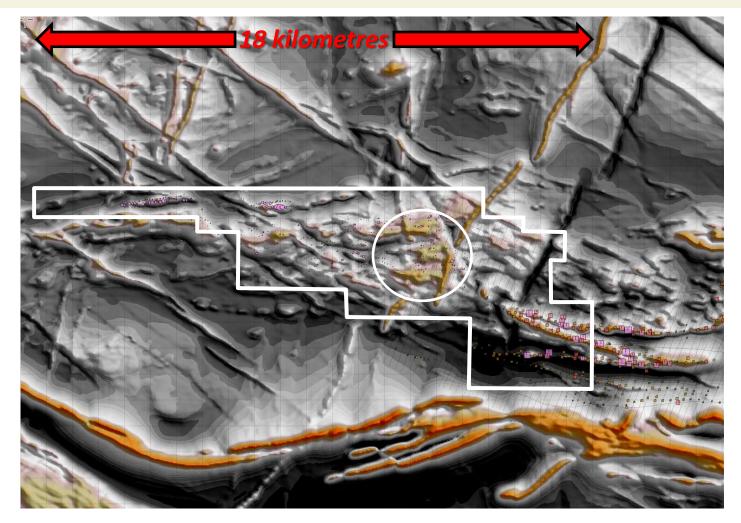
Melchett Lake – Example of Relf Zone Sampling

Sample No.	Zinc %	Lead %	Copper %	Silver g/t	Gold g/t
1061	12.90	1.920	0.288	552	0.020
1062	2.63	0.870	0.116	254	0.012
1063	2.77	0.356	0.164	157	0.037
1064	11.60	0.866	0.507	278	0.028
1065	16.80	2.400	0.075	655	0.018
1066	8.26	0.330	0.972	170	0.025
1067	11.10	1.300	0.142	394	0.022
1068	9.88	0.558	0.154	179	0.035

Relf Zone rock sampling from main trench area - 1997



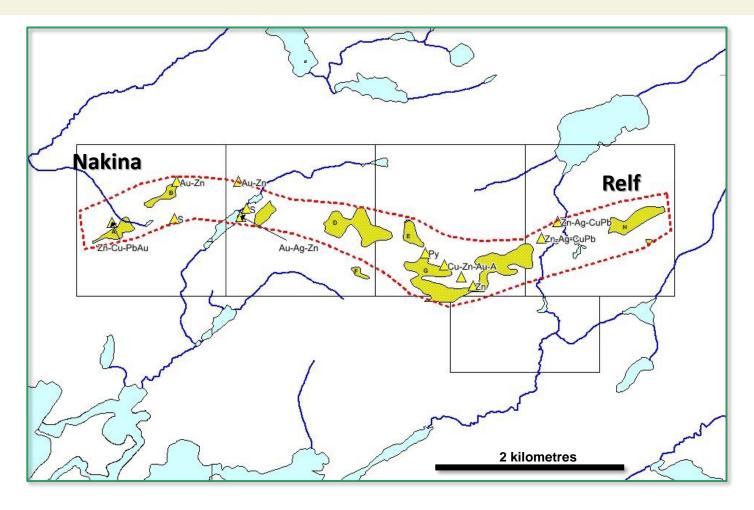
Melchett Lake - Geophysical Targeting



Geophysical target highlighted at Relf Zone with conductors and magnetic fabric shown in pink maintain strength to >500m depth.



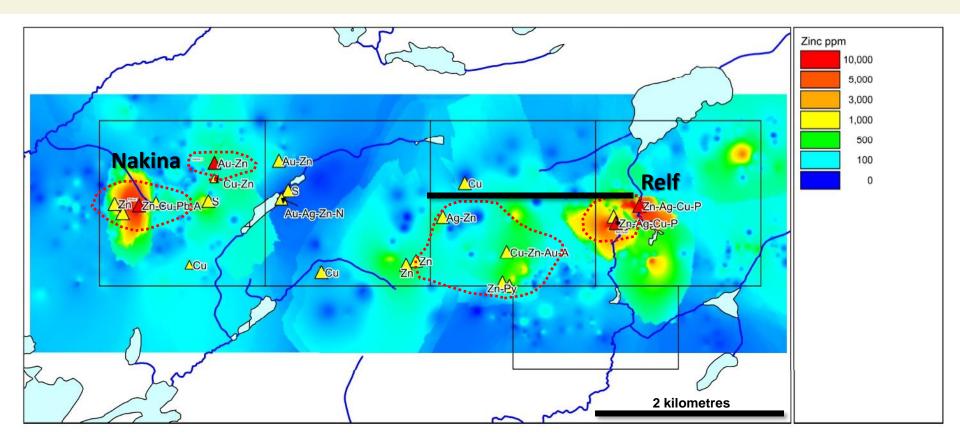
Melchett Lake - Geophysical Targeting



Principal chargeability anomalies east of Relf to west Nakina targets



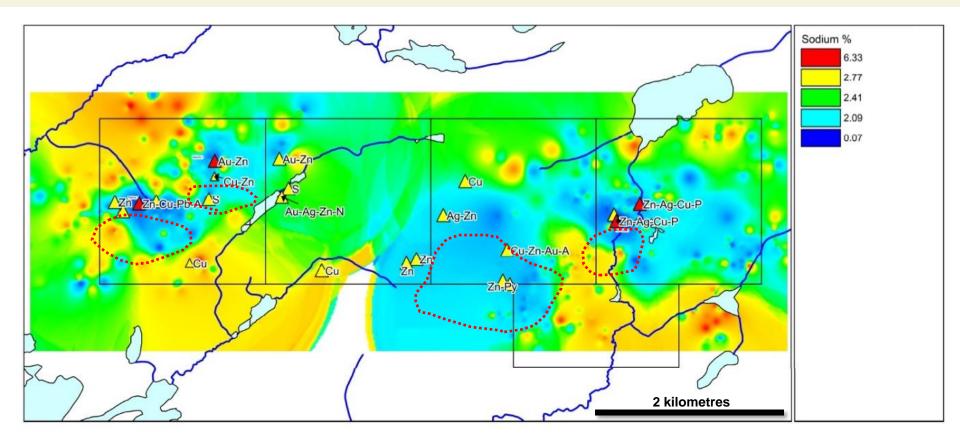
Melchett Lake - Geochemistry



Contoured zinc analyses from grab rock samples from principal targets. Shallow drilling in western Nakina target. Mainly shallow with two deeper holes at eastern Relf Lake target. Note 10,000 ppm Zn = 1% Zn.



Melchett Lake - Geochemistry



Principal sodium depletion anomalies from grab rock sampling.



Melchett Lake and Geco Comparison

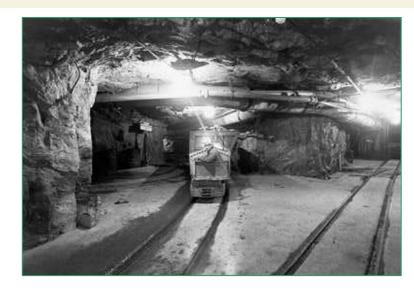
Style, Grade, Size, Structure and Location with Potential

- Polymetallic Zn-Pb-Cu-Ag-Au VMS mineralization e.g., Mattabi, Winston Lake, Brunswick
- Amphibolite grade in greenstone belt near Manitouwadge Ontario metasedimentary belt
- Principal host quartz muscovite schist overlain by iron formation
- ✓ Typical steep to vertical E-W orientation with ESE rake (Geco 20°- 35°)
- ✓ Tight folding, multi-stage deformation and remobilization, fold repetition locally indicated
- Z-Drag fold in D3 fold nose at Geco; 22 km strike length known at Melchett (nose to east?)
- ✓ Metal zoning, zinc shallow, copper increase at depth; Cu/Zn and alteration higher with depth
- Multi-element depletion and enrichment zones; distinctive alteration mineralogy
- ✓ Geco massive to semi-massive to stockwork
- ✓ Melchett stratiform to disseminated; stockwork intersected at depth in Relf Zone?
- Geco core zone to 100m massive Cp-Sp-Py-Po to disseminated <5m Sp-Py to <70m Cp-Py-Po in Qz-Sericite
- Geco upper Sp-Py zone as per Relf at Melchett (13.7m trench 13%Zn, 293 g/tAg, 0.26%Cu)
- Melchett broad intervals (>200 m) and depths (>500m) Sp-Py-Cp in Qz-Sericite
- Melchett adjacent to massive sulphide? downhole Maxwell model targets
- Road access to Geco mine; good road to Melchett ~5km, lake access, winter trail

Geco Mine Value Summary

Style, Grade, Size, Structure and Location with Potential

- Discovered 1953
- 15Mt at production decision 1954
- ✓ Operating mine 1957
- ✓ Closure 1995
- Total resource 58 Mt
- ✓ 33 years pit and U/G production 48 Mt
- Mine grade 4% Zn, 2% Cu, 52 g/t Ag, 0.3% Pb



- Startup valuation \$293 million; resource growth 15Mt to 58Mt during mine life
- ✓ 4,000-5,000 tpd mine and mill, main and 3 internal shafts; max depth 1320 metres
- Mill recovery average Cu 92%, Zn 83%, Ag 72%
- Annual production Cu 20Kt-30Kt, Zn 32Kt-71Kt, Ag 1.2-1.6MOz
- Annual average value recovered \$300,000,000 (Dec 2020 metal price\$)



Melchett Lake - Exploration Plans and Budgets

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