

Suite 1/9 Hampden Road Nedlands WA 6009 Tel: +61 8 9386 8382 Fax: +61 8 6183 4892 ABN: 59 151 155 734 www.santafeminerals.com.au

30 October 2023

Company Announcements Office ASX Limited

## MT MURRAY EXPLORATION UPDATE

Santa Fe Minerals Ltd ("**Santa Fe**", "**SFM**" or "**the Company**") has completed its Moving Loop Electromagnetic (MLEM) survey at its Mt Murray base metals project in Western Australia.

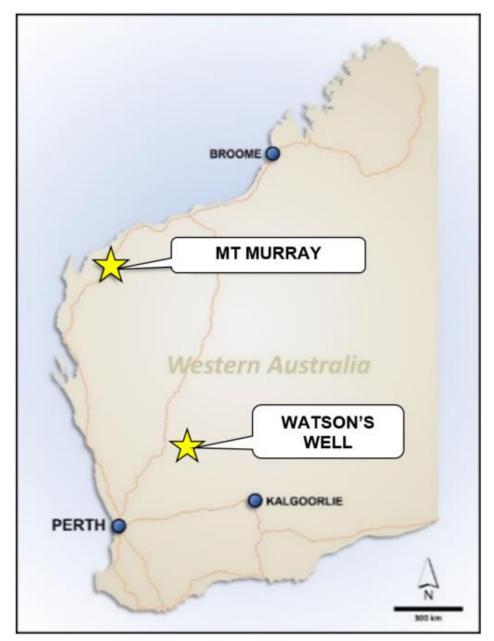


Figure 1: Project locations.



### Mt Murray Base Metal Project (SFM earning 80%)

SFM is exploring the Mt Murray Project for both nickel-copper-palladium-platinum mineralisation and base metal copper-lead-zinc-silver-gold mineralisation where previous SFM Ultra-Fine Fraction (UFF) soil geochemistry defined 3 target areas for follow up exploration.

A Moving Loop Electromagnetic survey was undertaken to define mid to late time conductive responses at the Highway, El Paso and Ridgeback prospects in the project area.

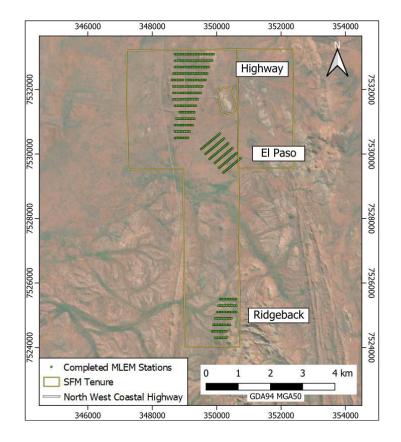


Figure 2: Mt Murray Project, Target Areas and MLEM Stations.

**MLEM Survey Results:** 27 lines of MLEM were completed on 200m line spacing and 50m stations spacings at the Highway, El Paso, and Ridgeback targets (Figure 2). The resulting data was of good quality with low noise levels. Mid to late time channels at the Ridgeback target show a conductive response increasing towards the northeast (Figure 2). Modelling of the response fits with 2 large low conductance plates. One plate is likely related to overburden whereas the second plate with a steeper north-west dip and higher conductance fits better with the known geology and surface geochemistry (Figures 3 & 4).

The top edge, or shallow side of the modelled plate corresponds with the UFF soil Cu anomaly shown in Figure 4. This area is also anomalous in other elements including As, Ag, Au, Ni, Zn (SFM December 2022 Quarterly - 31 January, 2023). Previously collected rock chip samples of iron-stained and gossanous quartz veins from the Ridgeback area returned up to 3,080ppm As, 450ppb Ag, 59ppb Au 629ppm Cu. At the northern end of the modelled MLEM plate were high copper rock chip samples of up to 11% Cu from quartz veins at the historic Kin prospects. (Exploration Update - 5 April 2022).

The MLEM plate also occurs along a northeast trending magnetic high zone that crosscuts the general north-south geological trend (Figure 5). This break in the magnetics is interpreted as a fault zone manifested as gossanous quartz veins in outcrop with weakly anomalous mineralisation.



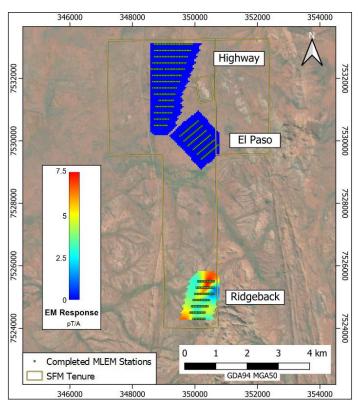


Figure 3: MLEM gridded channel 20 (5.3-6.8ms) showing conductive response at the Ridgeback target.

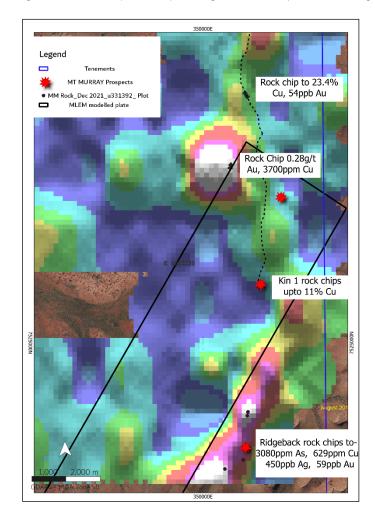


Figure 4: Ridgeback target area with MLEM plate, Cu in soils image and rock chip sample results. The images are coloured by Cu values from low to high.



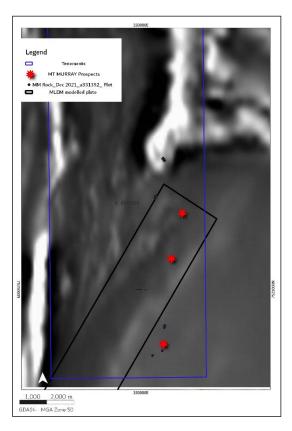


Figure 5: Ridgeback target MLEM modelled plate over tmi1vdrtp mag image. Note the plate crosscuts the general north south stratigraphy.

### Conclusion:

The modelled MLEM plate is thought to be related to stratigraphy and not massive sulphides. As such no further work is planned on this project. The board has elected to terminate the Mt Murray option agreement (originally entered into on 18 November 2021 and announced to ASX on 19 November 2021).

The Company will continue to work on its Watson's Well Vanadium project and Challa Gold project, as well as assess other opportunities in the resources sector.

This ASX announcement has been authorised for release by the Board.

- ENDS -

For further information, please contact:

Doug Rose Managing Director +61 409 465 511

#### **COMPLIANCE STATEMENT**

The information in this report that relates to Exploration Results is based on information compiled by Mr. Reginald Beaton who is a Member of the Australian Institute of Geoscientists. Mr. Beaton is an employee of Santa Fe Minerals Limited and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Beaton consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company is not aware of any new information or data that materially affects the information included in the above.

# JORC Code, 2012 Edition – Table 1 report template

# Section 1 Sampling Techniques and Data

Criteria	section apply to all succeeding sections.) JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>A MLEM survey was completed at the Highway, El Paso and Ridgeback targets in the Mt Murray Project.</li> <li>MLEM Survey         <ul> <li>Configuration: Slingram</li> <li>Line spacing: 200m,</li> <li>Station spacing, 50m.</li> <li>Tx loop size: 200mx200m</li> <li>Receiver: EMIT Fluxgate-Bz (up), Bx (east), By (north)</li> <li>Sensor: EMIT SMART Fluxgate</li> <li>Sensor Location – Highway 200m west of loop El Paso 200m northeast of loop center, Ridgeback, 200m east of loop center</li> <li>Frequency: 1Hz</li> <li>Current: 75A</li> </ul> </li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is cripted and if an by what mathed ata)</li> </ul>	• NA
Drill sample recovery	<ul> <li>oriented and if so, by what method, etc).</li> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	• NA
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant</li> </ul>	• N/A
Sub- sampling techniques and sample preparation	<ul> <li>intersections logged.</li> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	• N/A
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	• N/A
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	• N/A



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>MLEM station locations are surveyed with a hand-held GPS with an accuracy of +/- 5m. This is considered sufficient for MLEM data location accuracy.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	• N/A
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	• N/A
Sample security	The measures taken to ensure sample security.	• N/A
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No Audits or Reviews

## Section 2 Reporting of Exploration Results

Criteria listed in the preceding section also apply to this section.)				
Criteria	JORC Code explanation	Commentary		
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Mt Murray: Previous Pastoral Lease.</li> <li>Mt Murray: The Cane River Conservation Park is immediately north.</li> <li>Mt Murray: E08/3230, E08/2978, M08/139 North West Stone Pty Ltd. EL08/3461 Challa Resources Pty Ltd.</li> <li>Mt Murray SFM option agreement to earn up to 80% of Mt Murray tenements (80% of metals rights only on M08/139).</li> <li>The tenements are in good standing and no known impediments exist.</li> <li>Determination Decision Exists (WCD2008/003) Buurabalayji Thalanyji Aboriginal Corporation. Macedon ILUA (WI2010/023) Yamatji Marlpa Aboriginal Corporation.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>		
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Only minor historic exploration reported including rock chip sampling, 2 lines of soil sampling, stream sediment sampling. 6 RC holes at the Kin prospect -A073007, A077473, A078762. BRL Exp Pty Ltd 2010, A088615. Northern Gold NL 1988-1990, A028686, A028687.</li> </ul>		
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Fault associated base metal deposits		
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drilling reported		



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	• N/A
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	• N/A
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate diagrams summarizing key data interpretations included in the body of this announcement.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>The interpretations expressed in the announcement are not considered to be overstated or misleading.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	All relevant data has been included within the report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>No further work will be conducted by The Company on the Mt Murray project.</li> </ul>