

31 October 2024

 Company Announcements Office  
 ASX Limited

## Exploration Update

Santa Fe Minerals Ltd (**Santa Fe, SFM or the Company**) is pleased to provide an update on the Watsons Well Vanadium – Titanium-Iron Project (SFM 100%).

### Background

The Watsons Well area hosts a 7km long high magnetic zone containing extensive vanadium-titanium-iron mineralisation. The vanadium-titanium and iron mineralisation occur in massive to disseminated magnetite layers within the host gabbro and is easily traceable in magnetic survey data (Figures 2-3). A maiden drilling program targeting the central thicker part of the 7km magnetic high zone intersected strong magnetite with associated robust vanadium-titanium and iron grades (ASX Announcement *3rd April 2023*). Multiple thick zones were intersected ranging up to 84m downhole. This thick zone in WWRC006 extended from 62m to 146m grading 0.4% V<sub>2</sub>O<sub>5</sub>, 4.24% TiO<sub>2</sub>, 20% Fe (Table 1). The drill section in Figure 2 shows the strong correlation of magnetite with V<sub>2</sub>O<sub>5</sub> grades.

**Table 1: 2022 Watsons Well RC drilling Intersections (ASX 3<sup>rd</sup> April 2023)**

Hole ID	From	To	Interval	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>
	(m)	(m)	(m)	%	%	%	%	%
WWRC001	93	104	12	25.11	27.45	9.45	3.62	0.41
WWRC001	144	148	4	17.99	36.99	18.46	3.31	0.37
WWRC002	19	25	6	23.93	31.28	13.56	4.99	0.52
WWRC002	44	49	5	24.17	30.20	16.86	5.46	0.54
WWRC002	57	64	7	26.06	28.69	14.51	5.40	0.53
WWRC002	96	110	14	28.94	26.08	13.13	5.51	0.61
WWRC002	120	124	4	23.16	31.60	14.61	4.33	0.42
WWRC003	37	42	5	25.64	28.66	14.99	5.76	0.50
WWRC003	91	97	6	20.94	35.19	14.24	3.74	0.36
WWRC003	142	147	5	21.14	34.50	13.49	4.35	0.41
WWRC004	85	94	9	19.65	35.69	17.04	5.16	0.40
WWRC005	73	79	6	26.73	27.38	15.48	5.35	0.62
WWRC005	133	136	3	25.02	30.21	11.45	4.15	0.49
WWRC006	45	55	10	28.13	26.15	15.17	6.45	0.64
WWRC006	88	106	19	22.42	31.67	17.96	5.05	0.50
WWRC006	120	129	9	24.56	29.40	17.59	5.94	0.55
WWRC006	136	145	9	37.40	18.57	5.44	6.69	0.65
WWRC007	32	37	5	18.86	35.27	18.35	4.18	0.36

## Drone Magnetic Survey

An ultra-detailed drone based magnetic survey was completed during the September quarter to better define the magnetite layers, host to the vanadium titanium iron mineralisation at Watsons Well. The new magnetic data was collected from 28m height along 25m spaced flight lines over the central 4km by 2km area of the 7km long target zone which includes the area of the RC drilling (ASX 3<sup>rd</sup> April 2023). The data has now been processed and analysis is presented below.

The images in Figure 3 clearly show the superior definition of the ultra-detailed magnetics in comparison to the previous 50m line spaced data. The position of the magnetite zones defined by a high magnetic response and the width of the target zone are clearly identified. Fault offsets of magnetite layers are also clearly defined. The overall width of magnetic rich gabbro in the vicinity of the RC drilling is about 800m with multiple potentially vanadium-titanium layers visible in the drone magnetics whereas RC drilling has only test about half of the potential width.

The ultra detailed magnetic data will be highly valuable for targeting vanadium titanium iron layers with additional RC drilling.

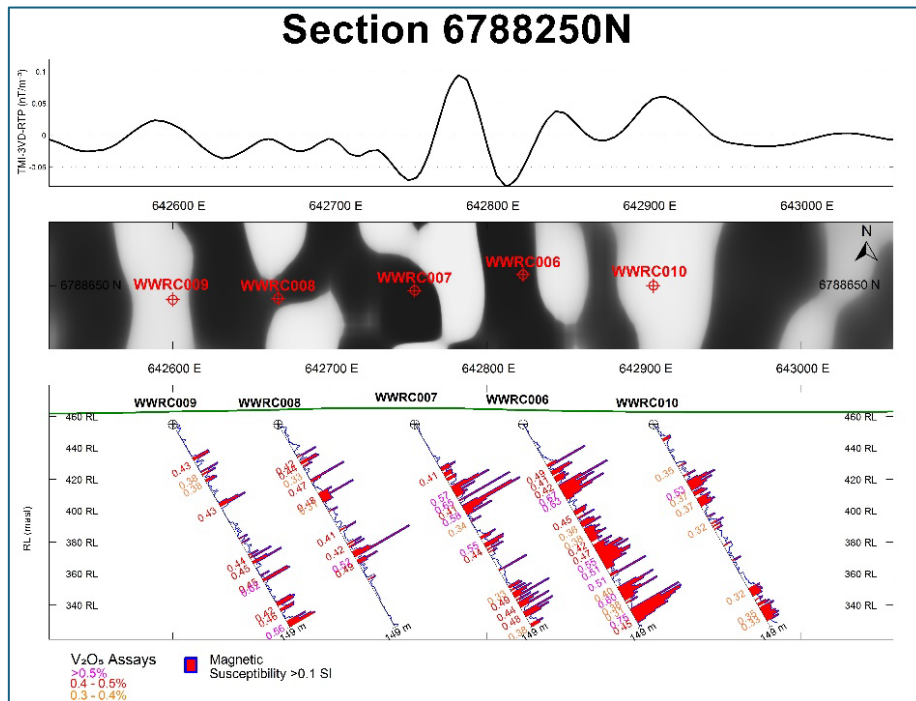


Figure 2: RC Drill section showing magnetic susceptibility and V205 grade.

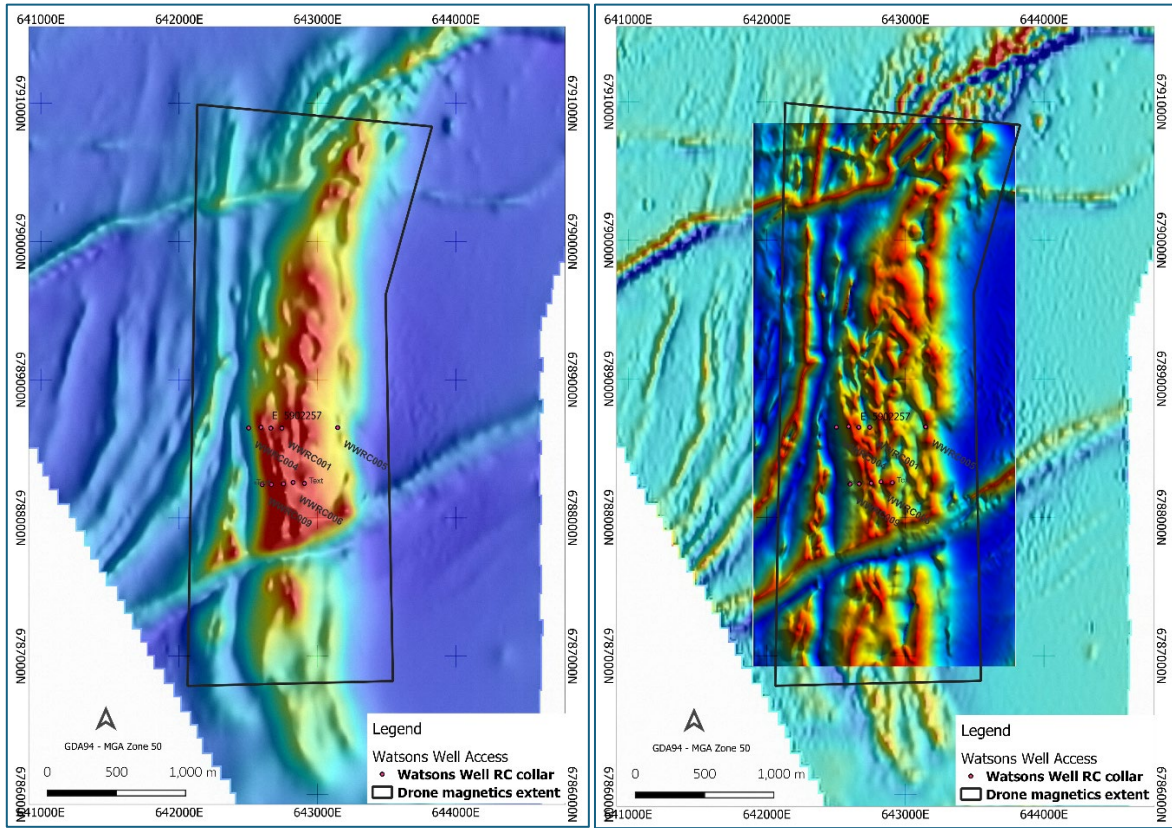


Figure 3: Comparison of 50m line spaced aeromagnetic image (Tmirtp\_im\_psc090045\_mga50) left and 25m line spaced drone magnetic data (Tmirtpdr\_im\_psc045045) right.

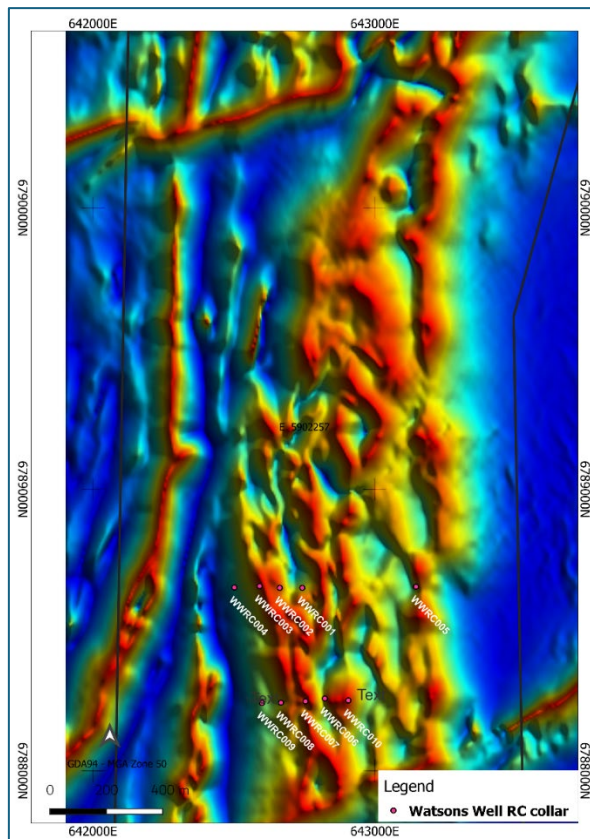


Figure 4: Watsons Well Drone magnetic image showing the width of the target zone with respect to the drilling.

**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 in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Pegasus Airborne Systems</li> <li>Magnetic survey specifications               <ul style="list-style-type: none"> <li>Line Spacing – 25m</li> <li>Line direction – 90-270</li> <li>Tie Line spacing – 250m</li> <li>Tie Line Direction – 000-180</li> <li>Sensor Height – 30m</li> <li>Total Line km – 330km</li> </ul> </li> <li>Equipment and sensors               <ul style="list-style-type: none"> <li>Helicopter – PAS H100 Rotary Wing</li> <li>Engine – Brushless Electric Motor</li> <li>AutoPilot – Pegasus FC-100</li> <li>Fuel Type – LiPo Battery</li> <li>Endurance – 1hour with reserve</li> <li>Survey speed – 15m/s</li> <li>Max lateral deviation – 5m</li> <li>Max vertical deviation – 5m</li> <li>Survey height Aircraft – 50m AGL (Terrain drape enabled)</li> <li>Survey height sensor - 30m AGL (terrain drape enabled)</li> <li>Magnetic Sensor – Scintrex CS-VL Cesium vapour magnetometer</li> <li>Magnetometer Counter sample frequency 260Mhz.</li> <li>Magnetometer Counter resolution 0.1pT</li> <li>Data acquisition System Pegasus Airborne Systems</li> <li>GNSS Receiver – ublox with multi constellation tracking and sub metre accuracy</li> <li>Laser Altimeter</li> </ul> </li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling undertaken. Reference to previous ASX reported drilling in text of report.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No new sampling undertaken. Reference to previous ASX reported in text of report.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <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 intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• No new logging reported. Reference to previous logging in text of report.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• No new sampling reported.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• No new assaying reported.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>•</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The magnetic data was collected via flight lines perpendicular to the general stratigraphy.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The magnetic data was downloaded by Pegasus Airborne Systems at the end of each flight. Data was provided to SFM Geophysics consultant Armada Exploration Service. Relevant digital images were provided to SFM</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews completed.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Watsons Well - No National Parks. No Native Title.</li> <li>Watsons Well: Current Pastoral Leases.</li> <li>Watsons Well: E59/2257 (Challa Minerals Pty Ltd)</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Watsons Well: Windimurra Resources, 1998, WAMEX A055389. WMC Resources, 2004, WAMEX A070457. Maximus Resources, 2008 Ltd 2008 WAMEX A081908.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Watsons Well: V-Ti-Fe mineralization in igneous magnetite cumulate layers in anorthosite.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No new drilling reported.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No new aggregated intersections are reported.</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• No new mineralisation reported. The drone flight lines were approximately perpendicular to the regional strike.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate diagrams summarizing key data interpretations included in the body of this announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The interpretations expressed in the announcement are not considered to be overstated or misleading.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant data has been included within the report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A range of techniques will be considered to progress exploration including additional RC drilling.</li> <li>• Refer to figures in the body of this announcement.</li> </ul>