

SIGNIFICANT IP CHARGEABILITY ANOMALY LOCATED AT MANDILLA GOLD PROJECT

- Significant chargeability anomaly identified by recent 3-dimensional Induced Polarisation (3D-IP) survey suggests sulphide mineralisation within the Ausrox Shear zone at Mandilla in WA
- Previous shallow aircore (AC) drilling by Enterprise in late 2020 located anomalous gold and gold pathfinder elements in the Ausrox Shear, highlighting potential for gold mineralisation in the primary zone below
- Follow up reverse circulation drilling planned to test the Ausrox Shear zone and co-incident chargeability and geochemical anomaly

Enterprise Metals Limited (ASX: ENT) (“Enterprise” or the “Company”) is pleased to report that a recently completed 3D-IP survey along the Ausrox Shear zone just east of the Mandilla Homestead has identified a significant chargeability anomaly. Chargeability anomalies are generally associated with pyrite content in fresh rock. This survey was focussed over the north-south striking Ausrox Shear, which was highlighted by Enterprise’s 2020 aircore drilling program. (Refer ENT ASX release 21 Sept 2020.)

Enterprise’s target at Mandilla is primary gold mineralisation, similar to that discovered on the western margin of the Mandilla Syenite by Anglo Australian Resources NL (“Anglo”, ASX: AAR) at Mandilla East and South between 2006 and 2021. AAR’s drilling has demonstrated that low grade gold intersections in saprolite overly primary gold mineralisation.

Figure 1. Chargeability Model at 175mRL.
Blue squares show location of an isolated historic IP Line (Newmont 1983)

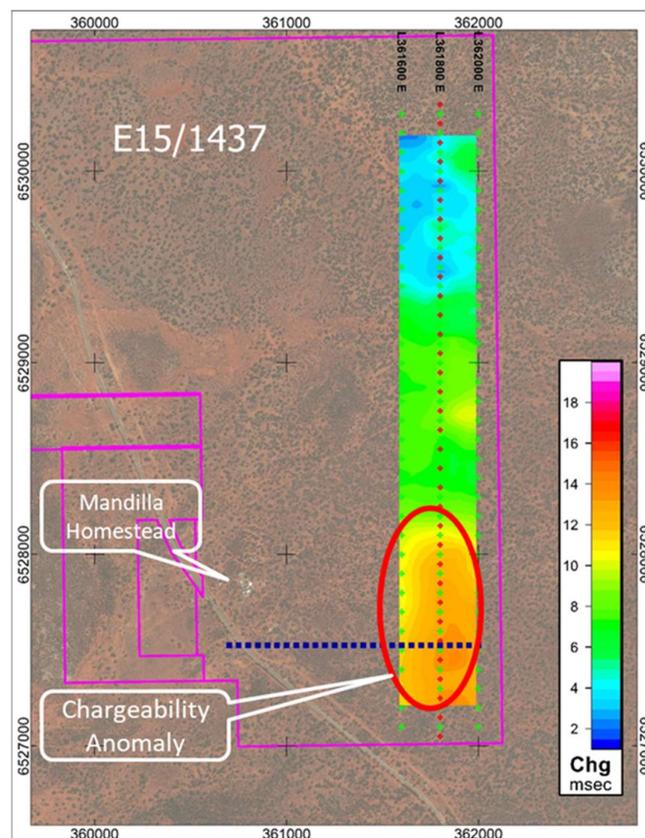
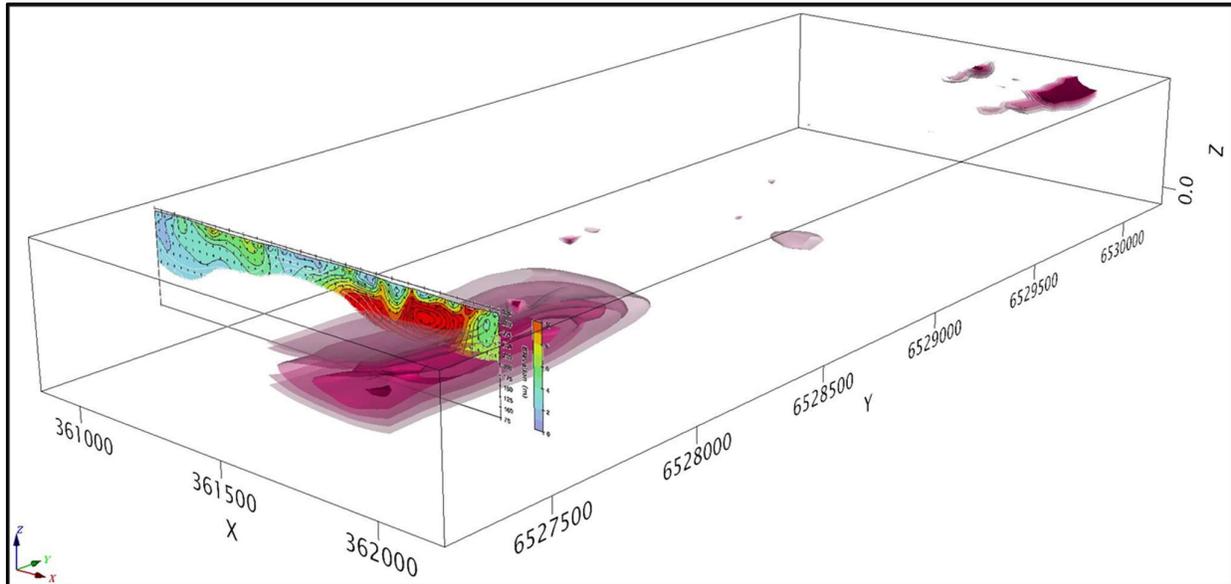


Figure 2. Isometric Model of Chargeability Anomaly in SE Corner of E15/1437. Isolated East – West Dipole-Dipole IP Line 33500N by Newmont (1983) also confirms 2021 Chargeability Anomaly



Figures 3, 4 and 5 illustrate the relationship between deeper zones of weathering and anomalous gold and arsenic concentrations in saprolitic clays identified along the Ausrox Shear by Enterprise’s 2020 aircore drilling program.

Figure 3. Image of Mandilla Tenements E15/1437 & P15/5885 with Access Tracks and Enterprise AC Drill Hole Collars Colour Coded by Hole Depth

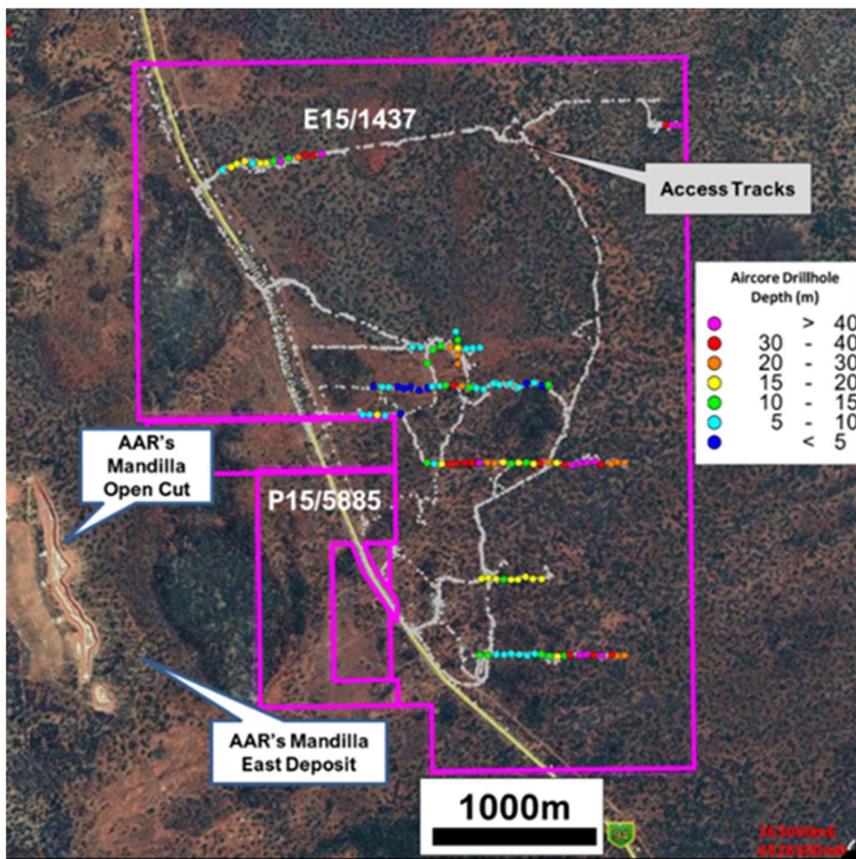


Figure 4. Mandilla Magnetic Image with Enterprise AC Drill Hole Collars Colour Coded by Maximum Gold Values

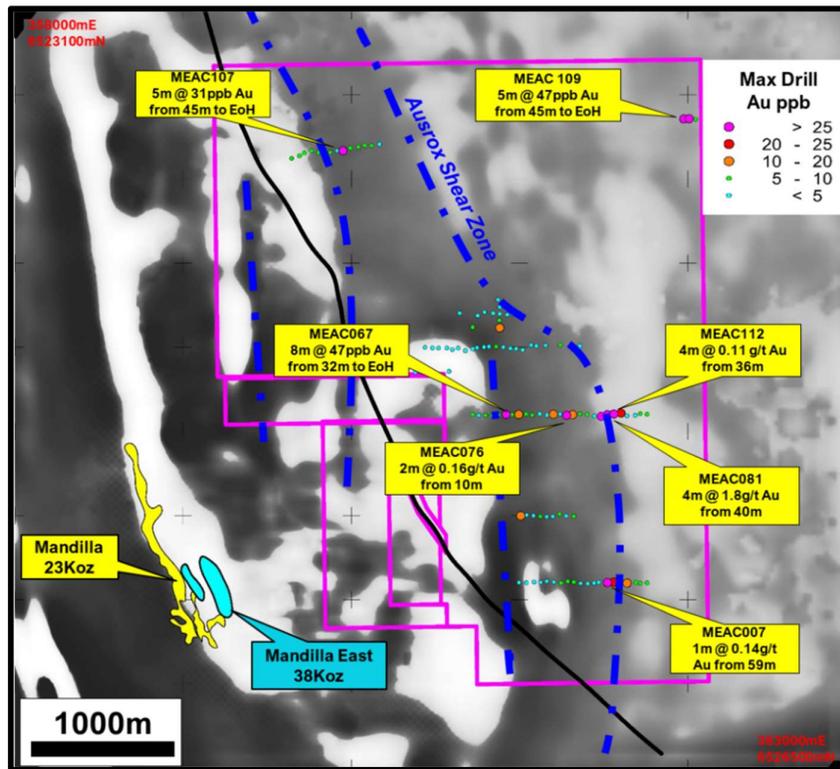
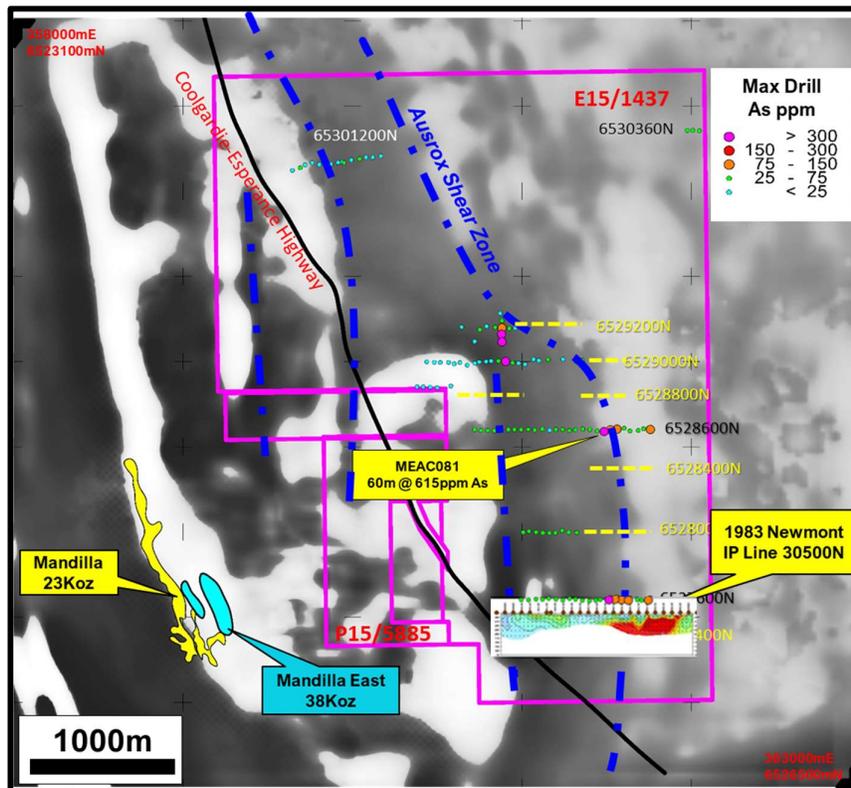


Figure 5. Mandilla Magnetic Image with Enterprise AC Drill Hole Collars Colour Coded by Maximum Arsenic Values & Newmont IP Line



THE 1983 NEWMONT IP SURVEY – UNTESTED ANOMALY

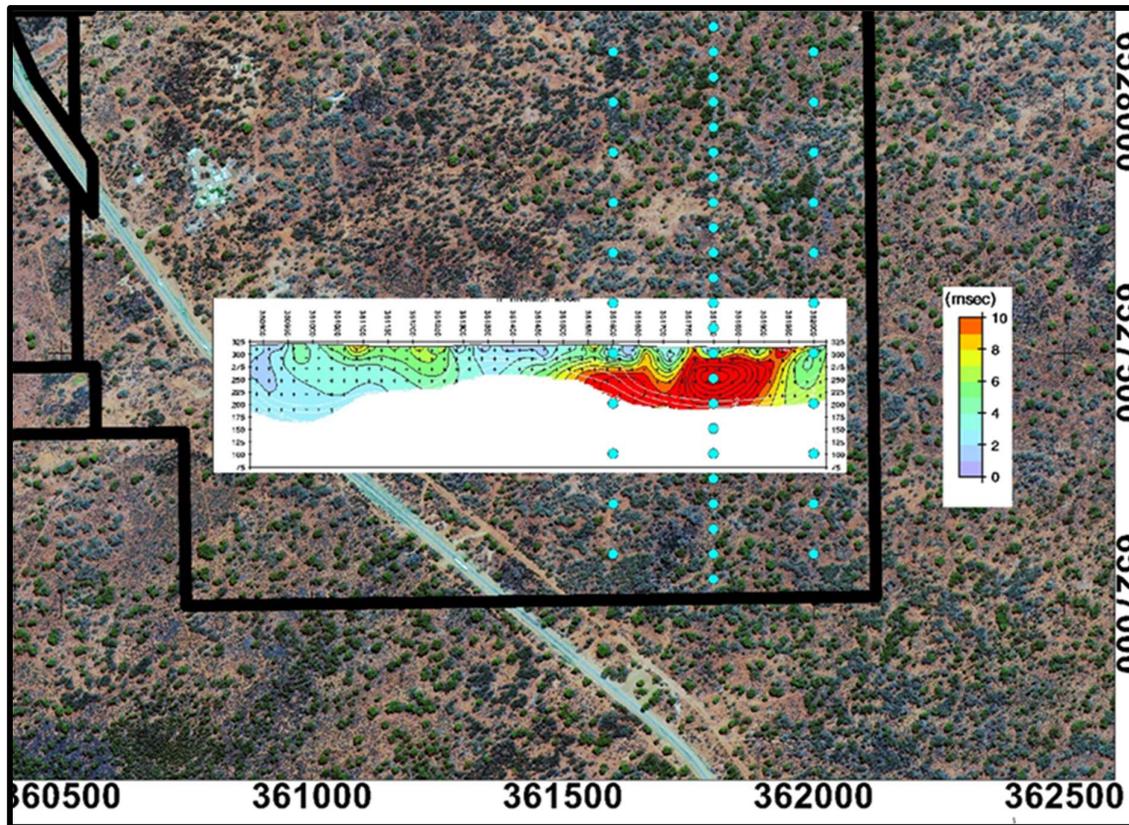
In 1981 Newmont Holdings Pty Ltd, Queen Margaret Gold Mines and Spargos Exploration N.L. entered into a joint venture (JV) to explore the Spargoville Gold Project for stratabound volcanogenic gold mineralisation in acid volcanic terrain. The exploration model was based on the Spargos Reward deposit. The JV covered a 186 km² in a narrow 40 km long block of contiguous tenements extending from north of the Spargos Reward Mine southwards to Widgiemooltha.

Newmont set out to explore the “ Eastern Felsic Belt” of the Spargoville mafics which disappeared beneath deep and extensive alluvial cover in the Mandilla area. While their focus was largely around Spargoville, Newmont undertook reconnaissance E-W lines of rotary airblast (RAB) drilling throughout the belt with bottom hole sampling and assaying for gold and arsenic only. The RAB assay results in the Mandilla area were not encouraging.

However, Newmont also undertook wide spaced reconnaissance lines of IP throughout their project area in 1983, and one of these lines was placed east-west over a discrete magnetic anomaly just south of the Mandilla homestead. The magnetic anomaly was resistive, and the cause of the chargeability anomaly was interpreted to be pyrite in sediments.

Enterprise has located and digitised the 40 year old IP data and projected it over the 2021 3D-IP survey, which confirms the validity of the chargeability anomaly over the Aurox Shear zone. Newmont surrendered the Mandilla area without drill testing the IP anomaly. (Wamex A18697)

Figure 6. Newmont east-west IP Line 30500N Chargeability Pseudo-Section Superimposed on GeoEye Image, with Enterprise 2021 north -south IP stations



FURTHER WORK PLANNED

Enterprise is planning further drilling with a larger capacity drill rig to follow up the IP chargeability anomaly and coincident gold/arsenic anomalism discovered to date within the saprolitic clay zones along the Ausrox Shear.

ABOUT THE MANDILLA PROSPECT

The Mandilla Prospect is located in the northern Widgiemooltha greenstone belt in the western part of the Kalgoorlie geological domain, some 100 kilometres south of Kalgoorlie by road and 20 kilometres south west of Kambalda. Significant nickel and gold deposits are present in the belt, the nearest gold deposit being the high-grade Wattle Dam Mine located approximately 3 kilometres to the west of Mandilla.

Enterprise’s Mandilla Prospect is comprised of one granted Exploration Licence 15/1437 and one Prospecting Licence 15/5885 held in the name of Vera Olive Allen.

Local Geology – Structures hosting gold

The Mandilla Prospect lies on the margins of a porphyritic intrusion, the Mandilla Syenite. The syenite intrudes volcanoclastic sedimentary rocks in the area which form part of the Spargoville Group.

Significant NW to WNW and NE trending structures along the western flank of the tenements are interpreted from regional aeromagnetic data to cut through the Mandilla Syenite and may be important in localising gold mineralisation within the Mandilla Syenite.

Figure 7 below shows the location on the Mandilla Prospect and Figure 8 shows the regional geology. Figure 9 shows the tenement area to be covered with a blanket of colluvium and alluvium.

Figure 7. Mandilla Prospect Location

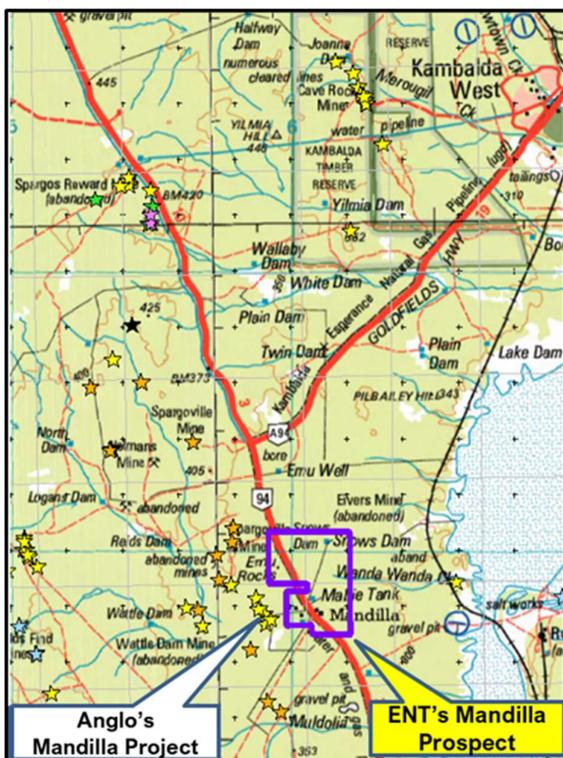


Figure 8. GSWA Geology Plan

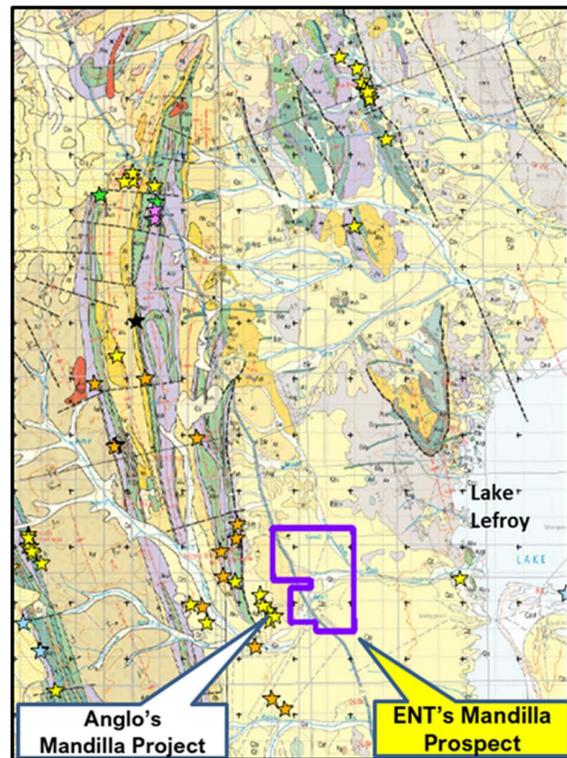
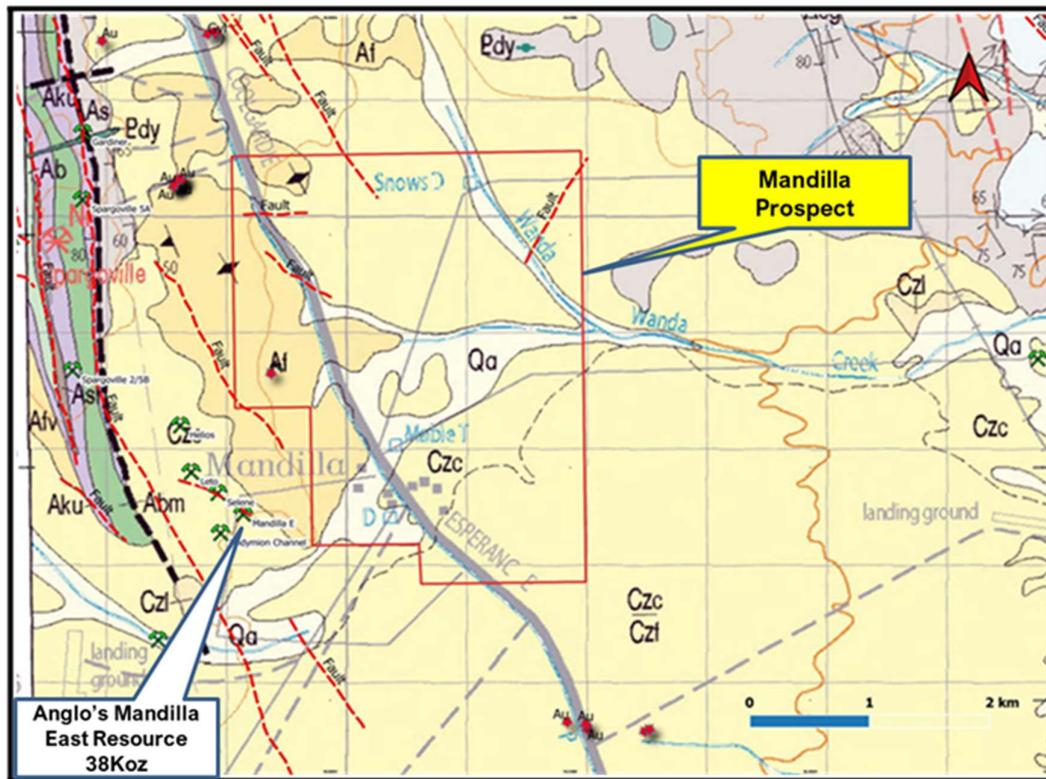


Figure 9. GSWA Surface Geology Plan Showing
Cainozoic & Quaternary Cover West of Coolgardie-Esperance Highway



CONCLUSION – EASTERN MANDILLA REGION HIGHLY PROSPECTIVE FOR PRIMARY GOLD

It is concluded from Enterprise's recent 3D-IP survey and 2020 scout aircore program that further targeted drilling on the Ausrox Shear zone on the eastern margin of the Mandilla Syenite/granite intrusive complex is warranted.

Historical soil sampling and limited shallow drilling over the eastern part of the syenite by past explorers (within E15/1437 and P15/5885) has been largely ineffective due to transported overburden.

Had previous explorers known of the higher grade structurally controlled gold mineralisation within structures on the western margin of the Mandilla Syenite, it is likely that there would have been more and deeper drill testing of similar structures on the eastern margin of the Mandilla Syenite.

This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by the Company's Board of Directors.

Dr Allan Trench
Chairman
Enterprise Metals Limited

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Activities and Results is based on information compiled by Mr Dermot Ryan of Montana Exploration Services Pty Ltd, who is a Director and security holder of the Enterprise Metals Limited. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

Statements regarding plans with respect to Enterprise's project are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

JORC Code, 2012 Edition , Table 1. Mandilla Gold Prospect WA

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<i>3D-IP Survey</i>	<ul style="list-style-type: none"> • The 2021 3D-IP survey was undertaken to follow up Enterprise's 2020 widely spaced aircore (AC) drilling program, and to provide a focus for further and deeper drilling. • Specifications of the 3D-IP survey are shown below: • Double offset/inline Pole-Dipole Induced Polarisation/Resistivity Survey (IP/Res) Survey • 100 m Rx Dipole Spacing, 100m Tx Stations, offset 50m from Rx • 200m Line Spacing, N-S Line Orientation • Tx Frequency = 0.125 Hz • Receiver - Search multichannel with some SmarTEM data for quality control and verification. • Acquisition: Moombarriga Geoscience
<i>Sampling techniques</i>	<ul style="list-style-type: none"> • Enterprise's 2020 aircore drilling was undertaken to generate representative 1 metre samples from the surface to the bottom of hole. • Each 1m of drilled sample was sub-sampled in a rotary splitter attached to the drill rig, with ~2kg sample collected in a metre labelled calico bag, and the remainder collected in a 20 litre PVC pail. The bulk pail samples were tipped onto pre-cleared ground in rows of 10 or 20 samples, and the 1m split in calico bag was placed behind the bulk residue. • Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. • All samples weighed between 2-3kg. Samples generally had minor dampness with only 1 hole (MEAC080 having wet samples). • 4m composite samples were dispatched to MinAnalytical Laboratory Services. • Sample preparation was comprised of oven drying, jaw crushing, pulverising and splitting to produce a representative 25gm assay charge pulp. • The 25gm pulps were then then submitted for Aqua Regia digest, and read by ICP-ICP-MS for 13 element pathfinder suite, Au,Ag, As, Bi, Co, Cu, Mo, Ni, Pb, Sb, Te, W and Zn, [AR25PATH]
<i>Drilling techniques</i>	<ul style="list-style-type: none"> • Aircore drilling was undertaken by <i>iDrilling Australia</i> using KL-150 Moorooka rubber tyred track mounted drill rig with 4m dump mast and 500CFM x 200PSI compressor, and 3.5 inch blade bit. • Most holes were terminated at blade refusal. A small number holes were deepened a metre or two at blade refusal using a down hole hammer and button bit.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • Poor sample recoveries were visually estimated and recorded on sample log sheets. The sample cone splitter was routinely cleaned with compressed air at the end of each rod run (3m) or when deemed necessary. • There is insufficient data to determine if there is a sample bias between sample recoveries and assay grades.
<i>Logging</i>	<ul style="list-style-type: none"> • Geological logging of aircore drill spoils was done on a visual basis for lithology, grainsize, mineralogy, colour and weathering. • Logging was further aided with the collection of 1m chip trays which were then photographed. On-ground 1m bulk residues were colour photographed in rows with metre labelled calico bags for control. All drill holes were logged in their entirety.

<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> Each 1m of drilled sample was sub-sampled in a rotary splitter attached to the drill rig, with ~2kg sample collected in a metre labelled calico bag, and the remainder collected in a 20 litre PVC pail. The bulk pail samples were tipped onto pre-cleared ground in rows of 10 or 20 samples, and the 1m split in calico bag was placed behind the bulk residue. Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. At End of Hole, 4m compositing may have been replaced with 2 or 3 or 5m compositing. QAQC reference samples and duplicates were not routinely submitted with each 4m composite sample batch. QAQC reference samples and duplicates are being placed with 1m original sample splits.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> All samples were processed by NATA accredited provider - Minanalytical Laboratory Services Australia Pty Ltd, located in Perth. Sample preparation at MinAnalytical was comprised of oven drying, jaw crushing, pulverising and splitting to produce a representative 25gm assay charge pulp. The 25gm pulps were then then submitted for Aqua Regia digest, and read by ICP-ICP-MS for 13 element pathfinder suite, Au,Ag, As, Bi, Co, Cu, Mo, Ni, Pb, Sb, Te, W and Zn, [AR25PATH] The laboratory routinely undertook analysis of duplicate pulps and house standards, and these results were reported electronically by the laboratory in both pdf and CSV format.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> Field data was collected on site using a standard set of logging codes. Data was then uploaded into an Access database. Assays reported from the laboratory were stored in the Company database and have not been adjusted in any way. Significant intersections were verified by senior exploration personnel.
<i>Location of data points</i>	<ul style="list-style-type: none"> The drill hole collar was surveyed with a handheld GPS unit with an accuracy of ±5m which is considered sufficiently accurate for the purpose of the reconnaissance drill hole program. All co-ordinates are expressed in GDA94 datum, Zone 51.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> Reconnaissance aircore drilling was conducted on 8 widely spaced east-west lines, with hole spacing at 40. From the rotary splitter a ~2kg representative 1m sample was collected and stored on site in a calico bag. Each 1m bulk sample on ground was scoop sampled with a PVC scoop to create a 4-metre representative composite sample. At End of Hole, 4m compositing may have been replaced with 2 or 3 or 5m compositing.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> No surface geology was available to determine stratigraphy or structure. All holes were drilled vertically, so the relationship between drill orientation and mineralisation is unknown.
<i>Sample security</i>	<ul style="list-style-type: none"> Each 1m sample was put into a metre labelled draw string calico bag and tied off, and stored on site. Each 4m composite sample was put into a prenumbered draw string calico bag, tied off and then approximately 10 bags were placed in a polyweave bag which was zip tied and labelled. The polyweave bags were delivered directly to the MinAnalytical Laboratory in Kalgoorlie by company personnel, and then sent by courier to MinAnalytical in Perth for analysis.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> As the 4m composite data has just been received, no external reviews have yet been undertaken. The Company will carry carries out Internal audits, reviews and external audits of procedures and data shortly.

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<p><i>Mineral tenement and land tenure status</i></p>	<ul style="list-style-type: none"> • The Mandilla Prospect is comprised of one granted Exploration Licence 15/1437 and one Prospecting Licence 15/5885 in the name of Vera Olive ALLEN. • Exploration Licence 15/1437 was granted on 18 March 2015 for 5 years, and an Extension of Term to 17 March 2025 was granted by DMIRS on 11 May 2020. Prospecting Licence 15/5885 was granted on 19 September 2014 and expires on 18 September 2022. • The Tenements are in good standing and there is no known impediment to exploration on the eastern side of the Coolgardie-Esperance Highway. The area west of the highway contains outcrop and is known as Emu Rock. It is believed that this is a heritage site. • The two granted Tenements are on Vacant Crown Land which was formerly Mandilla Pastoral Lease. A public sealed highway, a water pipeline and high pressure gas line occur on easements excised from the Tenements. • The Marlinyu Ghoorlie NT Claim (WC2017/007) covers the whole tenement area and was filed on 22 December 2017. The Claim entered the Register on 28 March 2019. There is currently no Native Title Heritage Agreement in place between the NT Claimant and Tenement Holder as the Tenements were granted before the filing of the Claim. • Enterprise Metals Limited entered into an Option to Purchase Agreement with Vera Olive Allen on 9 March 2020. Terms of the Agreement are: <ul style="list-style-type: none"> - \$20,000 cash payment for 18 months Option to Purchase, - Renewable for same period with another \$30,000 payment. - Outright purchase: \$100,000 cash & \$100,000 of ENT script, & - Vendor retains Alluvial rights to 6m depth below natural surface, & - 1.5% Gross Smelter Royalty on hard rock gold production, capped at \$1million.
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> • From the late 1960's to the early 1980's, exploration in the Widgiemoor area was focused on nickel exploration. • In 1981 Newmont Holdings Pty Ltd explored the Spargoville Project for stratabound volcanogenic gold mineralisation. The exploration model was based on the Spargos Reward deposit. The JV covered a 186 km² in a narrow 40 km long block of contiguous tenements extending from north of the Spargos Reward Mine southwards to Widgiemoor. • While Newmont's primary focus was largely around Spargoville, they undertook reconnaissance E-W lines of rotary airblast (RAB) drilling throughout the belt with bottom hole sampling and assaying for gold and arsenic only. The RAB assay results in the Mandilla area were not encouraging. • Newmont undertook wide spaced reconnaissance lines of IP throughout their project area in 1983, and one of these lines (Line 33500N) was placed east-west just south of the Mandilla homestead. • The Spargoville East IP surveys were undertaken by Goanna Exploration Pty Ltd using Newmont's IP equipment. A Hunter 7.5KVA transmitter/generator unit operating on a 2.0 seconds 'on' and 2.0 seconds 'off' was used. The receiver was an Elliot R10-A, with a dipole-dipole array. The dipole lengths were 50m and dipole separations expanded from 50 to 300m. (<i>Wamex a14616</i>) • In 1987, WMC Resources Ltd entered into a JV with Camira Mines NL, to explore E15/116 centred about 25km north of Widgiemoor. WMC collected 3,757 -10# soil samples from the 40km² tenement. The soil survey defined two gold soil

Exploration done by other parties cont'd

anomalies adjacent to the granite-sediment contact west of the Mandilla Homestead area. The southern anomaly was defined by a 20ppb Au contour, with peak values up to 150ppb Au, extending over 800m of strike. The northern anomaly was defined by a 10ppb Au contour extending over 600m. Some 117 of the 3,757 soil samples were located on the current Mandilla tenements **E15/1437 & P15/5885**.

- Between 1990-1997, under the “Widgiemooltha Project” banner, WMC held a very substantial block of tenements from ~30km south of Higginsville to ~20km north of Widgiemooltha. WMC was targeting both nickel and gold deposits.
- Most of WMC’s exploration occurred immediately to the west of the current Mandilla Prospect tenements E15/1437 & P15/5885 (ie. within current Anglo Australian Resources NL’s Mandilla Project tenements) but a small amount overlapped into current E15/1437 and P15/5885.
- In 1991-1992 WMC undertook extensive -6mm bulk soil sampling programs on a 400m x 100m grid and some aircore drilling. In June 1993, E15/116 was converted to Mining Lease 15/633.
- Several programs of percussion, diamond, and aircore drilling programs were completed in the area between 1988 – 1994, with some narrow but quite spectacular aircore intersections in “granite” (within current Anglo Australian Resources NL’s Mandilla Project tenements)
 - As part of this large AC program, WMC reported that 43 shallow aircore holes (647m) were drilled within M15/633 over a gold soil anomaly in the vicinity of the Mandilla Homestead. (in what is now **E15/1437**). The drilling was undertaken on east-west lines, 200m apart, with 40m hole spacing. (AC holes WID1908, WID1910 – WID1928 and WID1930 - WID1952). WMC reported the bottom 3m results of all holes as 0.02ppmAu.
- WMC undertook a partial surrender of E15/116 in 1990 which was picked up by AngloGold Australia Ltd as E15/660. AngloGold undertook an extensive soil auger drilling program (400m x400m, 766 holes/1,150m, average 1.5m depth) with RAB drilling (106 holes/3,922m) to follow up of soil geochemical anomalies. The eastern half of E15/1437 was covered by this soil auger drilling program. (128 samples)
- Three of AngloGold’s RAB holes (LFRB102,103 & 105, for total 149m) were drilled in the NE corner of current tenement E15/1437. The peak assay from AngloGold’s 106 RAB hole program was recorded in LFRB105: 4m at 0.028 ppm Au from 52-56m.
- In 2001 WMC sold its St Ives and Agnew gold assets to subsidiaries of Gold Fields Limited. The Mandilla tenements M15/96 and M15/633 were part of this package. In 2004 Anglo Australian Resources NL (“AAR”) purchased the gold rights of the Mandilla Project (M15/96 & M15/63) from Gold Fields.
- Initial exploration by AAR in 2004 included a detailed aeromagnetic survey and the drilling of 5 aircore holes for 199m on M15/633 and 6 RC holes for 727m on M15/633 targeting palaeo-channel and bedrock targets (on current AAR ground not on E15/1437 ground).
- The whole of the Mandilla Project was covered by the 2004 low level airborne geophysical survey by UTS Geophysics. Total field magnetic data, radiometric data and digital terrain information was collected on 50m spaced east-west lines at a sensor height of 30m. The survey consisting of 963 line kilometres was part of a much larger multident survey.
- Between 2005 - 2014, AAR undertook extensive aircore and RC drilling programs on their Mandilla tenements, and eventually surrendered the eastern portion of M15/633 (where they had drilled no holes) in March 2013.
- In August 2014 William Royce Allen applied for the surrendered portion of M15/633 as Exploration Licence 15/1437, which was granted for 5 years on 18 March 2015. From 2015 to 2019, William Allen and family metal detected and prospected on E15/1437 for gold nuggets.

	<ul style="list-style-type: none"> Based on observations of panned samples from ~150 shallow auger holes drilled by Mr Allen on E15/1437, it was concluded that these nuggets had most likely weathered out of the syenite and had concentrated in the easterly draining channel that drains to Lake Lefroy some 10 kilometres to the east of Mandilla. It is observed from the work by Newmont, WMC and AngloGold and Anglo Australian Resources NL over the eastern part of the Mandilla Syenite, that the area of E15/1437 has been explored by soil sampling and sparse shallow RAB drilling, which has been ineffective. In 2006-07 the deeper aircore and RC drilling on the western side of the Mandilla Syenite by Anglo Australian Resources NL produced ~23,000oz Au from an open cut palaeo-channel running along the western margin of the syenite and in 2008 Anglo published an Inferred resource at Mandilla East, which is still open.
<i>Geology</i>	<ul style="list-style-type: none"> Regional geological setting is interpreted to be Interpreted to be Archaean mafic sequence of rocks wrapped around younger intrusive Archaean granites, based on GSWA regional airborne magnetic surveys and previous GSWA geological mapping. The Mandilla Prospect lies on the eastern margin of the Mandilla Syenite, a porphyritic granitic intrusion. The granite intrudes volcanoclastic sedimentary rocks in the area which form part of the Spargoville Group. Significant NW to WNW and NE trending structures along the western flank of the tenements are interpreted from regional aeromagnetic data to cut through the Mandilla Syenite and may be important in localising gold mineralisation within the Mandilla Syenite. Note: there is very little exposed bedrock in most of the current tenement area as basement is obscured by alluvium and palaeo-channel material over saprolitic clays.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> Enterprise has digitised the small amount of historical shallow WMC aircore drill hole information in the vicinity of the Mandilla Homestead, and the three aircore holes in the NE corner of E15/1437, which Enterprise deems to have been ineffective. For details of Enterprise 2020 aircore drilling program, refer ENT- ASX release dated 21 Sept 2020
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> The weighted averages of individual drill holes are presented.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> Drillhole intercepts and intervals are measured downhole in metres.
<i>Diagrams</i>	<ul style="list-style-type: none"> Refer to figures in main body of this report.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> All relevant exploration data has been assessed, and is considered inadequate due to the shallow, surficial nature of the historical soil sampling.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> Enterprise has made use of the 2004 low level airborne geophysical survey by UTS Geophysics. Total field magnetic data, radiometric data and digital terrain information was collected on 50m spaced east-west lines at a sensor height of 30m.
<i>Further work</i>	<ul style="list-style-type: none"> Enterprise is planning a further drilling program over the Ausrox Shear zone in the vicinity of the coincident aircore geochemical anomaly and the IP chargeability anomaly.