OPTION AGREEMENT SIGNED FOR HIGH-GRADE, LARGE TONNAGE MANGANESE PROJECT IN MINAS GERAIS, BRAZIL

DeSoto Resources Limited (ASX:DES or 'Company') is pleased to announce that it has signed a Binding Heads of Agreement with Tratex Mineracao Ltda. **('Tratex')** to take a four-year option over the Dom Silverio Manganese Project **('Dom Silverio' or 'the Project')**, located in Minas Gerais, 110km southeast of Belo Horizonte, Brazil.

PROJECT HIGHLIGHTS

- Dom Silverio is in an established mining district with more than 70 years of manganese production, most notably as a supplier to U.S. Steel as part of the United States armament efforts during World War II.

- In the 1940's, Dom Silverio produced high-grade metallurgical Mn oxide ore **averaging ~42% Mn, after sorting[1].** The mine has been on care and maintenance for more than 10 years.

- Tratex provided DES a non JORC-compliant resource report containing an **oxide resource of 61.8Mt @ 21.1% Mn and carbonate resource of 37.2Mt @ 20.7% Mn** (Table 1):

TABLE 1: DOM SILVERIO MANGANESE PROJECT, FOREIGN RESOURCE ESTIMATES

	Mn Oxide		Mn Carbonate	
Area	**Tonnes**	**Mn %**	**Tonnes (Mt)**	**Mn %**
Portao	57,480,331	20.6%	24,634,426	21.4%
Biquinha	217,747	30.0%	-	-
Corrego das Almas	2,626,643	27.5%	10,506,578	20.8%
Corrego Bom Jardim	526,474	26.1%	789,710	17.3%
Sitio Sapucaia	632,178	28.7%	1,241,601	10.5%
Fazenda Esmeril	34,749	22.3%	-	-
Buraco Escuro	293,323	30.0%	-	-
Total	**61,811,445 Mt**	**21.1%**	**37,172,315 Mt**	**20.7%**

Cautionary Statement: A competent person has not done sufficient work to classify the foreign estimates as mineral resources or ore reserves in accordance with the JORC 2012 Code; and it is uncertain that following evaluation and/or further exploration work that the historical estimates or foreign estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC 2012 code. The Company is not aware of any new information concerning the report. Nothing has come to the attention of the Company that causes it to question the accuracy or reliability of the foreign exploration results, but the Company has not independently validated the foreign exploration results and therefore is not to be regarded as reporting, adopting or endorsing the foreign exploration results.

- Dom Silverio has widespread, near-surface manganese mineralisation extending more-or-less continuously across a 14 km-long and up to 5km-wide manganese belt (Fig. 1-2), which includes historic mining pits, manganese ore stockpiles and existing processing infrastructure[2].

[1]Source: Park, C.F., Jr., Dorr, J.V.N., II, Guild, P.W. and Barbosa, A.L.M. (1951) Notes on the manganese ores of Brazil. Economic Geology, v. 46, pp. 1-22.
[2]The Company decided not to include the mining infrastructure as part of the transaction at this time, although it remains available for purchase.

- The Dom Silverio Project consist of one granted mining concession and seven mining concession applications (see Table 2), with Tratex completing limited exploration in 2011 focused on one concession within the tenement package and forming the basis for the resource estimate.

Figure 1. Portao mine site, Dom Silverio Project, located in Minas Gerais Brazil, showing a large section of manganese outcrop.

- **Exploration and Development Objectives:** With only limited modern exploration conducted within the Dom Silverio tenement package, the Company is planning an aggressive and comprehensive exploration program to fully evaluate the potential of the Project to host economic Mn deposits, commencing with drilling on the Portao mining concession.

- The Company will aim to delineate JORC-compliant Mn resources and complete comprehensive process test work for high-grade manganese ore feedstock for the production High-Purity Manganese Sulphate Monohydrate (HPMSM) for use in electric vehicle cathode materials, fertilizers and alloy related manganese products.

- **Production of High Purity Manganese Sulphate Monohydrate (HPMSM):** The Company has been engaged with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) to understand the range of known HPMSM production flowsheets.

- The Company believes the high-grade nature of Dom Silverio, wide availability of processing acids and reagents, low cost of electricity and labour and Brazil's mining and manufacturing friendly regulations provide an excellent platform for the production of HPMSM.

- DeSoto has signed a four-year US$500,000 option, with a 90-day due diligence period, wherein US$100,000 is due within 7 days of signing and US$400,000 is payable on completion of the due diligence, to DeSoto's satisfaction.

Figure 2. Historic Biquinha mine pit, located within the Dom Silverio Project, showing the historic pit wall.

Commenting on the option to acquire Dom Silverio, Managing Director Chris Swallow:

"The option to acquire the Dom Silverio Project is the culmination of more than 18 months of work by the DES team to acquire an advanced manganese asset with the potential to produce high purity manganese sulphate monohydrate as well as other high value downstream manganese products. Led by BHP's former head of manganese exploration, DeSoto has dedicated significant time in identifying and securing what the Company believes is an asset with world-class scale and potential.

Dom Silverio stands out not only for its impressive scale and grade but also for its strategic importance. Recent actions by the U.S. Government, particularly their investment in securing critical minerals, underscore the growing demand for manganese.

Located on the eastern edge of the "Iron Quadrangle" in Minas Gerais, Dom Silverio is situated in a region with significant production and manufacturing advantages, which is critical to producing high purity manganese sulphate. Minas Gerais is an emerging centre for critical mineral projects.

The Company will now systematically work to define the resources required to underpin feasibility studies while concurrently undertaking mineral processing test work and initiating benchtop metallurgical studies to identify the lowest cost route to high purity manganese sulphate suitable for battery cathode production."

PLANNED EXPLORATION AND PROJECT DEVELOPMENT

The forward work program at Dom Silverio has been designed to both rapidly advance the Company's knowledge of the known manganese mineralisation and assess the feasibility to manufacture high purity manganese sulphate monohydrate, suitable for battery cathode material.

The Company will also investigate the feasibility of complementary businesses, selling high-grade manganese products into other markets in Brazil such as fertilisers, alloys and steel.

Initial work streams have been developed to achieve the following project outcomes:

- Estimating high grade manganese resources within the Tratex Project;
- Undertaking mineral processing test work focused on increasing the grade of the manganese products onsite and to generate different concentrate types; and
- Initiating benchtop metallurgical studies of the different concentrate types to identify the lowest cost route to HPMSM suitable for cathode production.

First-steps will consist of exploration-related activities as well as initial mineral processing test work, including:

- Submission of petrophysical samples to optimize the geophysical exploration program;
- Re-logging of the existing exploration core and non-destructive grade estimation using a portable XRF analyser;
- Geological mapping and rock chip sampling across the project area specifically to map and sample the manganese ore outcrops as a necessary precursor to the geophysical program;
- Early outreach to local landholders and community representatives both to renew historic land access agreements and to ensure that community relations with DeSoto begin well;
- Project-scale geophysics program beginning with airborne (likely drone) magnetics followed up with a more focused direct ore detection program, possibly ground gravity;
- Following confirmation of the necessary land access agreements, application to obtain the necessary environmental permissions for low impact drilling within the project area;
- Collection of metallurgical samples through either quartering the existing drill core, sampling of manganese outcrops or possibly from historic ore stockpiles from the project (now owned by a third party).
- Following petrological ore characterisation of the above samples, initiation of simple mineral processing test work to increase grades and to produce separate product streams with potentially different characteristics for HPMSM-related benchtop studies.

Once the required permissions are received, an initial low impact diamond drilling program will commence, planned for H1 2025.

- Since listing in late December 2022, the Company has now made two project acquisitions, while maintaining capital discipline and not raising new capital.
- In May 2023, DeSoto acquired the Spectrum Copper Project[3], located in the Northern Territory which included wide zones of REE's over a 350m strike, including
    - 50m @ 1.55% TREO from 245m incl. 6m @ 6.55% TREO from 248m (TDD8);

[3]DES ASX Announcement: Acquisition of High-Grade Rare Earths Project in the NT (29th May 2024)

- 21.9m @ 2.55% TREO from 276m, incl. 9.2m @ 3.78% TREO from 288m (TDD10);
- 17m @ 1.0% TREO from 254m, incl.1m @ 6.42% TREO from 254m (TDD19).

- During 2024, the Company has used extensive geophysical programs to upgrade the targets which include a significant 8km-long copper-in-soil anomaly which overlays 4 significant mid-late time EM conductors.
- In 2023, more than 4.5km south of Spectrum, the Company intersected 72m @ 0.43g/t Au from 528m, including 5m @1.02g/t Au (FMD0004)[4], highlighting the prospective nature of the Fenton Shear zone.
- The Dom Silverio and Spectrum Projects represent two high-impact exploration and development Projects with the potential to create significant value for DeSoto Shareholders during the 2025 field season.

INVESTMENT RATIONALE

Driven by strong belief that manganese, a less expensive but more reliable feedstock, will play a decisive role in the ongoing electric battery revolution, DeSoto has taken a four-year option over the Dom Silverio Manganese Project.

Led by Barrie Bolton, formerly BHP's global head of manganese exploration, the Company completed a "first principles" review of manganese opportunities globally, targeting underexplored areas globally for greenfield or brownfield manganese deposits[5].

The Company's focus has been on identifying high-grade manganese oxide and carbonate deposits capable of generating Direct Shipping Ore (DSO) as feedstock for production of High Purity Manganese Sulphate Monohydrate (HPMSM) for sale into the battery cathode, fertilizer and alloy markets.

Processing manganese ore to produce HPMSM is technically complex and very specific to the nature of the starting material. The Company has been engaged with Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) to understand the range of known HPMSM production flowsheets with a view to identifying manganese ores with the optimum grade and impurity characteristics to ensure low-cost HPMSM production.

DeSoto contends that correct identification of suitable high-grade manganese ore sources is a fundamental requirement to become a large, low-cost HPMSM producer in the coming years. Based on a review of the available data and several site visits, the Company believes that Dom Silverio has an ore profile suitable for the production of HPMSM, with the higher-grade nature of the mineralisation expected to provide a strong base for future feasibility studies.

Brazil as a manufacturing hub

As a mining destination, Brazil occupies a place among the top five mineral producers in the world[6] with established exploration and mining infrastructure to support new Projects and a mining friendly regulatory code.

[4]See DES ASX Announcement: Drilling and geophysics confirm scale of Fenton gold mineralised system (29th January 2024)
[5]See DES ASX Announcement: Quarterly Activities Report for the Period Ending 30 June 2024
[6]KPMG: Brazil Country Mining Guide 2023

Brazil is one of the top ten producers of manganese globally, alongside countries like South Africa, Australia, and Gabon. The high quality of Brazilian manganese makes it a key player in the global market.

Minas Gerais is Brazil's principal mining state, producing 47% of the national output and the biggest producer of iron ore, gold, zinc and phosphate as well as Brazil's sole producer of lithium. Lower grade manganese sulphate is already produced in Minas Gerais for use as a fertilizer.

Brazil also has the fastest growing EV market in the world, growing at 700% in 2023, with car makers Stellantis and BYD announcing plans to manufacture their vehicles in Minas Gerais.

Producing HPMSM competitively requires a number of manufacturing input and infrastructure advantages which Brazil, and more importantly, Minas Gerais retains.

Commercial Electricity Price: Minas Gerais relies heavily on hydroelectric power, which is less expensive compared to fossil fuel power generation. Commercial electricity prices in Minas Gerais typically range between BRL 0.70 to BRL 1.30 per kWh (kilowatt-hour). This translates to approximately USD 0.13 to USD 0.23 per kWh, depending on exchange rates and specific tariffs.

Acid Availability: In Brazil, the availability of commercial acids, including sulphuric acid and hydrofluoric acid, is stable due to robust local production capabilities and a well-established supply chain. These acids are essential in various industries such as agriculture, mining and chemical manufacturing and one or both are generally required for HPMSM production.

The Brazilian market benefits from a strong domestic production capacity, though prices may vary based on transportation costs and local demand.

Labour costs: Brazil has sectors and regions with competitive wages but is not a high-wage nation in global terms.

Demand for high purity manganese sulphate is surging, driven by changing EV battery chemistries

HPMSM is an increasingly important component in cathode manufacture for Electric Vehicle (EV) and battery storage. It is already a major component in nickel-manganese-cobalt (NMC) batteries and of increasing importance in lithium iron phosphate (LFP) batteries.

A significant recent innovation in LFP battery manufacture is the development and commercialisation of lithium manganese iron phosphate (LMFP), the upgraded version of LFP including manganese which increases its energy density[7].

Lithium iron phosphate (LFP) and lithium manganese iron phosphate (LMFP) are set to become the leading chemistries by share from 2035 (IEA Critical Minerals Report 2024).

With CATL's M3P battery confirmed for use in six Chinese EV models and undergoing validation by Tesla for its Chinese-made Model 3, it is anticipated that LMFP will continue to take market share from nickel-based chemistries due to its increased range.

[7] IEA Global Critical Minerals Outlook 2024

Although manganese is an abundant element, less than 1% of Mn is suitable for the production of HPMSM[8]. Moreover, with the growth in EV's, there is a forecast deficit in the supply of battery-grade manganese sulphate, as early as 2027.

China dominates supply of battery-grade manganese sulphate, producing 97% of global supply. There are only two other refineries outside China in operation, in Japan and Belgium, though with several projects in development including in Canada, South Africa, Australia and the United States.

Broader manganese market

Manganese demand is primarily driven by steel as a key component of steel alloys. Mined manganese production is highly concentrated with the top three countries producing three-quarters of global supply. This concentration already poses significant risks. Exports of manganese ore from Gabon dropped by 13% from 2022 to 2023 due to the military coup and a landslide on key rail infrastructure which required significant maintenance.

However, the critical risk for manganese is the supply of high-purity manganese sulphate required for battery chemistries, a crucial issue given the remarkable growth from EV battery demand.

The Company believes the high-grade nature of Dom Silverio, wide availability of processing acids and reagents, low cost of electricity and labour and Brazil's mining and manufacturing friendly regulations provide an excellent platform for the production of HPMSM.

ABOUT DOM SILVERIO

The Dom Silverio Project is located approximately 110 km from Belo Horizonte between the towns of São Domingos do Prata, Dom Silverio and Sem Peixe, on the east edge of the "Iron Quadrangle" in Minas Gerais State, Brazil.

The Project is accessible via the highway BR-381 and then via the BR-262 highway until the Vargem Linda interchange and then along a graded road approximately 15km to reach the project area (Fig. 3). The project area is mostly within agricultural land with some forested areas.

DOM SILVERIO GEOLOGY

The Dom Silvério Group, host to the Mn mineralisation, occurs in an NNE-SSW striking belt and consists of a thick package of Proterozoic aged metapelitic rocks (mainly phyllites and schists) with intercalations of quartzites, amphibolites, meta-ultramafics and banded iron formations.

Manganese oxide ores previously mined at Dom Silverio are lenticular or tabular in shape and locally form impressive black outcrops which frequently stand well above the enclosing country rock, seen in Figure. 1.

Mining in the past has focussed almost entirely on these exposed or near-surface Mn oxide deposits which have formed by deep supergene weathering and alteration of underlying Mn carbonates and silicates that were originally deposited in marine sedimentary basin.

With very limited previous exploration attempted below the near-surface Mn oxide ore bodies, little is known about the extent, Mn grade, or chemistry of underlying Mn carbonate and silicate protores. Where present, these units are known to range up to 30m wide and occur mainly as steeply and gently dipping, parallel bodies that outcrop in places and disappear below soil cover elsewhere.

[8]IEA Report: Global Critical Minerals Outlook (2024)

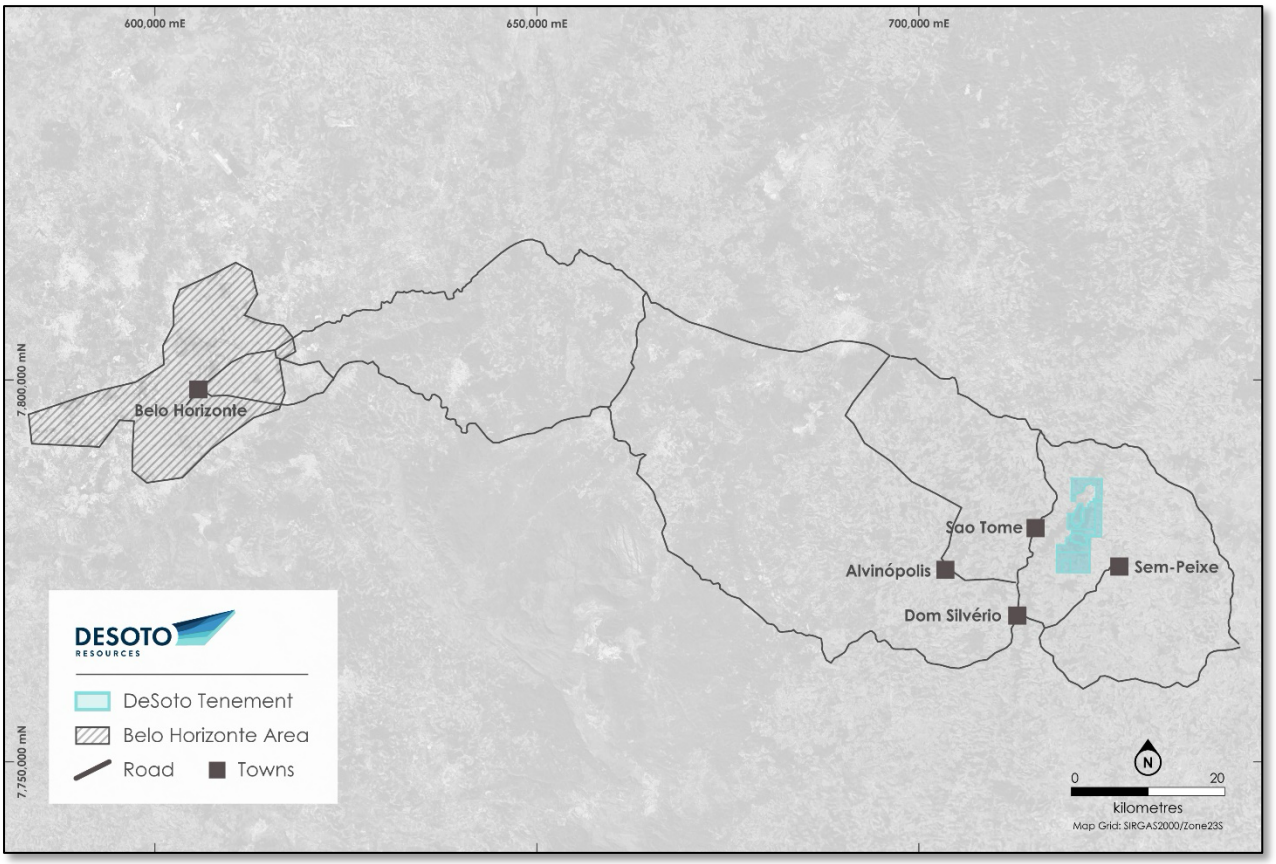

Figure 3. Dom Silverio Project location, located in Minas Gerais, Brazil.

Dom Silverio presents a complex structural geology as a result of more than one phase of deformation, producing differentiated structural features depending on the different lithological types. As the main objective of the previous work was to evaluate manganese deposits, most of the observations and structural data collected were concentrated in the area where these deposits occur.

The form of occurrence and structural positioning of the ore bodies and their contact relationships with the surrounding rocks show, in general terms, a thrust system from E-SE to W-NW which produced predominantly cylindrical folds, associated with thrust faults. In a later phase, high-angle directional faults (strike-slip faults) developed, causing shearing and stretching of the manganese bodies reoriented according to a preferential NE direction.

Previous work has suggested that while much of the mineralised trend is steeply dipping, there is evidence that some Mn mineralisation may have much lower dips and therefore offer potential for lower stripping ratios.

TRATEX HISTORICAL EXPLORATION (2011)

In early 2011, Tratex completed a small exploration program targeting outcropping Mn-oxide mineralisation in areas of previous Mn mining at Portao on mining concession 1099 (see Fig 4). The exploration consisted of 40 HX sized diamond holes for 1,217m, the collection of 51 composite drillcore samples for assay and the collection of 16 density samples from drill core and 30 density samples from outcrop for Mn oxide mineralisation density determination.

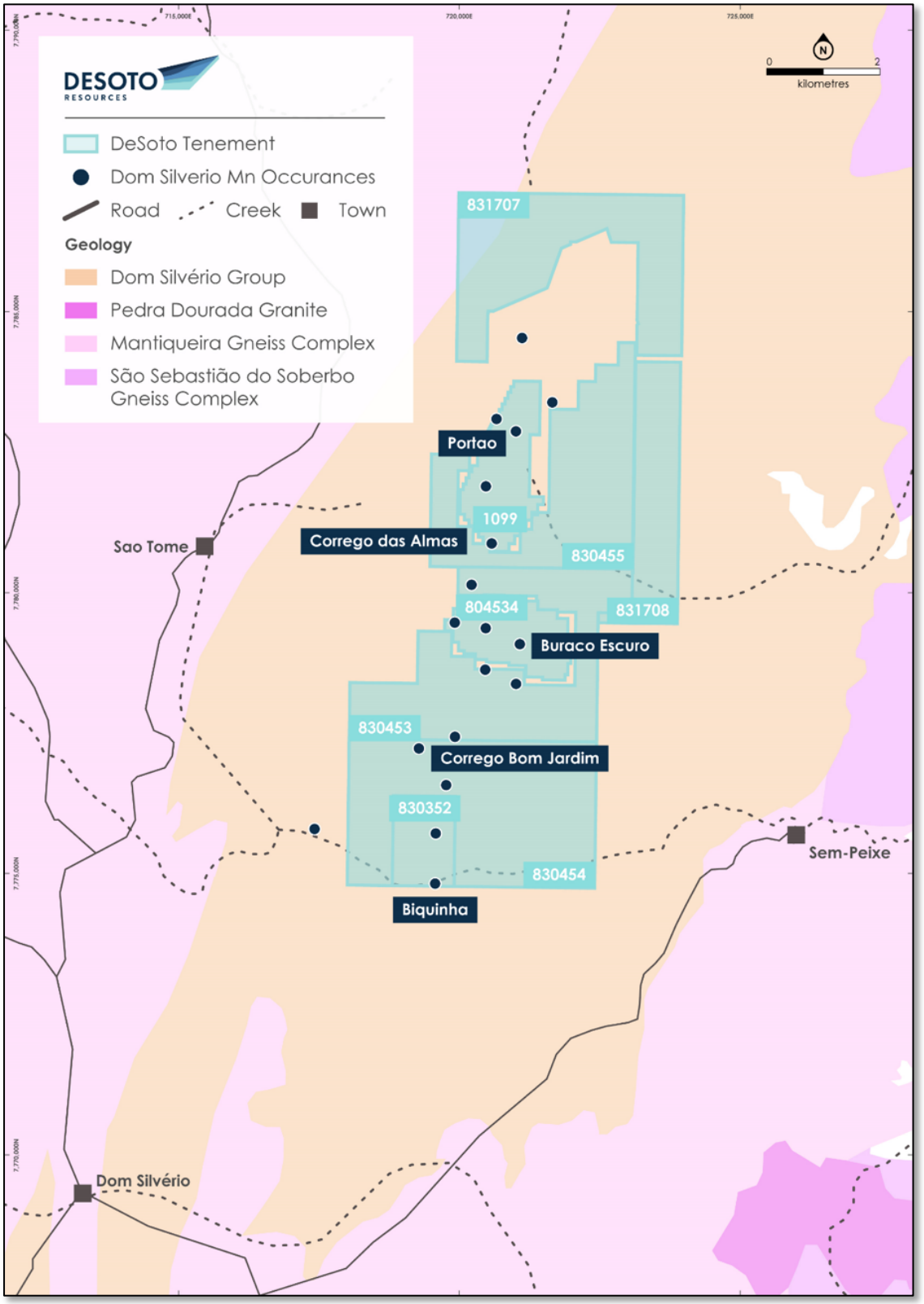

Figure 4. Simplified geology for the Dom Silverio Project showing tenements and location of Mn mines and occurrences.

The assay data and density sample results have not been provided to DeSoto, however the details of the location of the samples have been provided and the Company will have access to the core during the due diligence period.

For each drill hole completed, a geology log with collar details (location, dip/azimuth, drill rig type, drilling company and dates the drill hole was commenced and completed) and geology encountered (colour, basic lithology and lithological description and significant mineralogy as a single description per geological interval) has been provided along with photographs of the drill core and locations of samples for assay and density analysis.

The drill logs also include the core recovery per drill run (Fig. 5). DeSoto has not been able to verify the accuracy of these drill logs and has not compared the drill logs to the drill core. The drill core is known to exist but has not been viewed by DeSoto as yet. A site inspection of the drill area has been undertaken by DeSoto and the location of drill holes has been inspected but not verified. Figure 4 shows the location of the 2011 drill holes as provided by Tratex. Table 3 shows the drill hole collar locations.

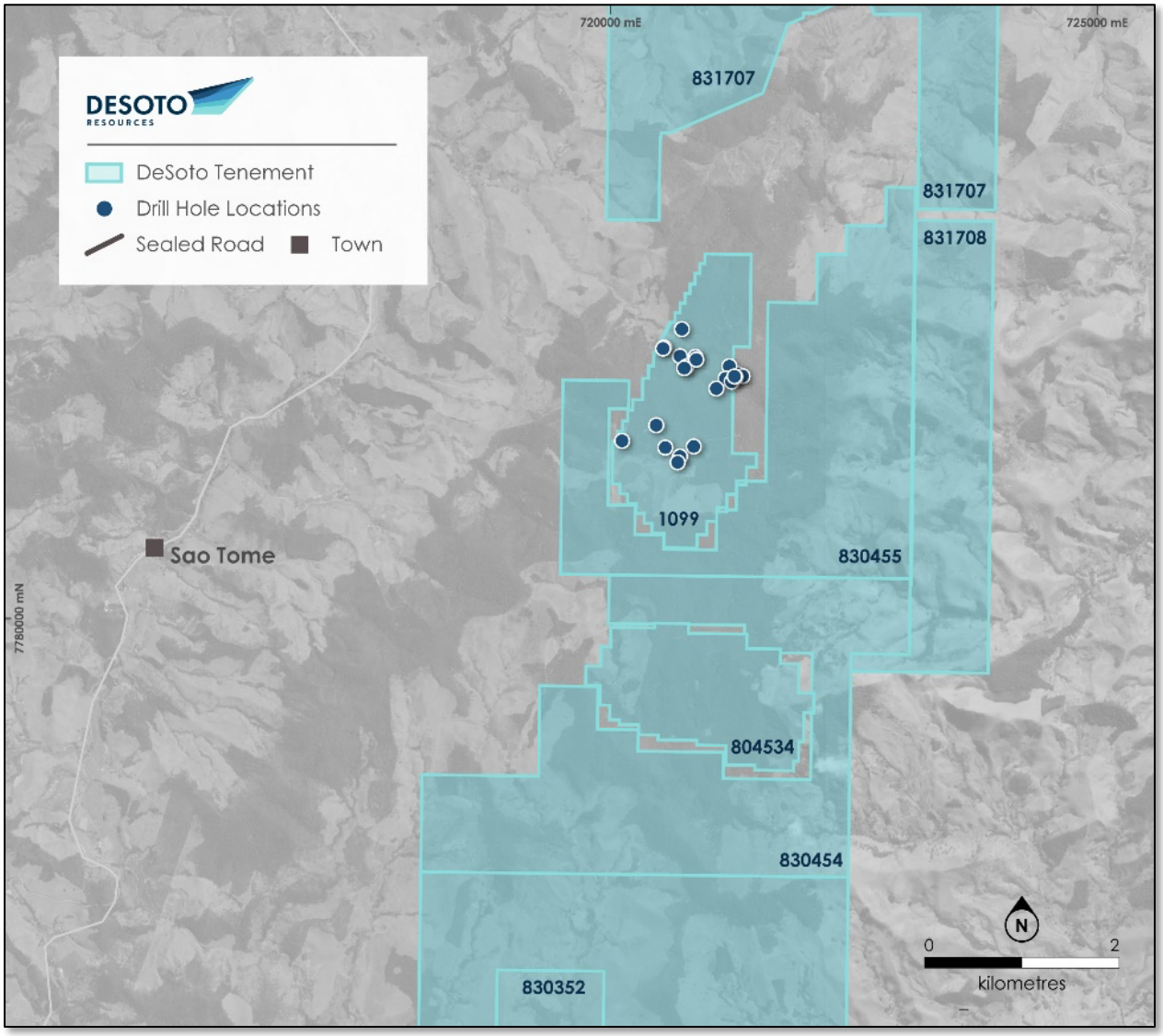

Figure 5. Dom Silverio tenement location plan showing location of 2011 Tratex drill holes.

In addition to the drilling, Tratex also completed a detailed topographic survey to establish surveying base stations, provide a detailed topographic surface of the Portao area and locate the Tratex drill hole collars and locations of historic Mn-oxide mining.

A detailed topographic surface in AutoCAD format as well as the drill collar coordinates have been provided to DeSoto.

Tratex also completed a ground density survey with 5005-line metres across 5 lines surveyed at 20m increments for 250 gravity stations collected.

Three lines were collected over mining concession 1099, one line over exploration concession 804534 and one line over exploration concession 830352. The details of the gravity survey have been provided and the gravity data provided however an analysis and interpretation of the data has not yet been conducted by DeSoto.

DeSoto does not consider any of the exploration data collected and provided by Tratex to meet the requirements of JORC 2012 reporting requirements for Exploration Results and it is not reported here as exploration results.

DESOTO SAMPLING PROGRAM

As part of a site inspection carried out by DeSoto, three rock chip samples were taken of outcropping Mn mineralisation and one sample was taken from a remnant crushed Mn ore stockpile at the idled Tratex ore processing facility.

The samples returned MnO grades of between 22.9% and 27.2% MnO (see Figure 5 and Table 4). Two samples were taken from the Portao mine workings (22.9% and 27.2% MnO) and one sample was taken from the Fazenda Fonseca mine workings (23.9% MnO) with the sample of Tratex crushed Mn ore returning 26.08% MnO.

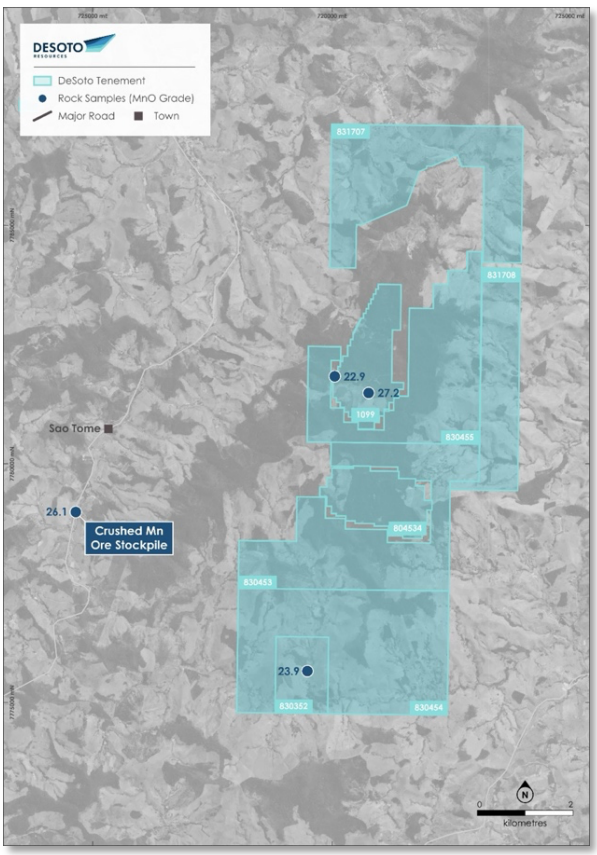

Figure 6. Dom Silverio tenement location plan showing location of DeSoto rock samples with MnO % grade.

OPTION AGREEMENT TERMS

The Company, via its wholly owned Brazilian subsidiary Desoto Brazil Mineracao (**DeSoto BR**) has entered into an option agreement with Tratex Mineracao Ltda (an entity incorporated under the laws of Brazil) (**Tratex**) (**Option Agreement**), pursuant to which Tratex has agreed to grant DeSoto BR an exclusive option to acquire a 100% legal and beneficial interest in the tenements comprising the Dom Silverio Project (**Option**).

Grant of the Option is conditional upon the satisfaction (or waiver) of the following conditions precedent (**Conditions**):

(a) **Access to National Mining Agency (ANM) information and Due Diligence**: DeSoto BR being provided access to the ANM information in order to conduct due diligence on the Project.

(b) **Definitive Agreement**: DeSoto BR and Tratex executing a definitive agreement which will be on terms consistent with the Option Agreement; and

(c) **Definitive Agreement Execution Payment**: DeSoto BR paying to Tratex a cash payment of $USD400,000 within 7 days of DeSoto and Tratex executing the Definitive Agreement.

DeSoto BR will use its best endeavours to satisfy the Conditions within 90 days from the date that DeSoto BR is provided access to all ANM information. If the Conditions are satisfied within 90 days of that the date that DeSoto BR is provided access to all ANM information, the Option Period (defined below) will commence (**Option Commencement Date**).

In consideration for the Option, DeSoto BR has agreed to pay Tratex the following cash payments:

(a) **Exclusivity Fee**: USD$100,000, to be paid within 7 days of execution of the Option Agreement, in consideration for exclusivity over the Dom Silverio Project during the period commencing on the Option Commencement Date until DeSoto BR exercises the Option;

(b) **Definitive Agreement Execution Payment**: USD$400,000, to be paid within 7 days of execution of the Definitive Agreement; and

(c) **Acquisition Payment:** USD$9,000,000, within 7 days of DeSoto BR issuing Tratex a notice of exercise of the Option. The Acquisition Payment will be held in escrow with 50% of the payment to be released to Tratex upon DeSoto BR receiving confirmation that Tratex has registered the transfer of the tenements with the ANM and the remaining 50% of the payment to be released to Tratex upon DeSoto BR receiving confirmation that ANM has approved the transfer of the tenements.

DeSoto BR may exercise the Option (at its sole election) at any time during the period that is 4 years beginning on the Option Commencement Date (**Option Period**). During the Option Period, DeSoto BR will be given project manager status and have the exclusive right to conduct all exploration activities on the Dom Silverio Project.

-END-

This release is authorised by the Board of Directors of DeSoto Resources Limited.

For further information visit our website at DeSotoresources.com or contact:

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COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration results is based on and fairly represents information and supporting documentation prepared by Mr Nick Payne of DeSoto Resources.

The information in this announcement that relates to the foreign non-JORC resources has been prepared by Mr. Nick Payne. The information in the announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data for the foreign resources at the Dom Silverio project and information referred to in rule 5.22(b) and (c).

Mr Payne is an employee of the Company, is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons 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 Payne consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

CAUTIONARY STATEMENT

DeSoto advises that it is not aware of any new information or data that materially affects the previous exploration results contained in this announcement and all material assumptions and technical parameters underpinning the results continue to apply and have not materially changed.

Schedule 1 – Foreign Estimate

ASX Listing Rule 5.12 Reporting of Foreign Estimates of Mineralisation for Material Mining Projects

ASX Listing Rule	DES Response
5.10 - An entity reporting historical estimates or historic estimates of mineralisation in relation to a material mining project to the public is not required to comply with rule 5.6 (The JORC Code) provided the entity complies with rules 5.12, 5.13 and 5.14.	For the Non-JORC foreign estimate included in this release, DES is not required to comply with Listing Rule 5.6 (JORC Code) as all relevant and requested disclosures are stated in this announcement and tabulated below. The Company complies with 5.12, 5.13 and 5.14 requirements for statement of Non-JORC foreign estimates, as tabled below.
5.11- An entity must not include historical estimates or historic estimates (other than qualifying historic estimates) of mineralisation in an economic analysis (including a scoping study, preliminary feasibility study, or a feasibility study) of the entity's mineral resources and ore reserves holdings.	DES is not applying any economic analysis or commentary to the foreign estimate in this market release.
5.12 - Subject to rule 5.13, an entity reporting historical estimates or foreign estimates of	Please see sections below.

mineralisation in relation to a material mining project must include all of the following information in a market announcement and give it to ASX for release to the market.	
5.12.1 - The source and date of the historical estimates or foreign estimates.	Primary Source: Sequenced Economic Use Plan Mining Concessions: 1009/1940, 830352/1990, 830454/1982, 830453/1982, 830455/1982, 831707/2002, 831708/2002, 804534/1977. Mineral: Manganese. Municipalities of Dom Silverio, Sem-Peixie and Sao Domingos Do Prata, Minas Gerais State. Prepared by J. Mendo Business Consultants Ltd, February 2021 for Tratex Minerals Ltd. Principal authors: Paulo Henrique Albuquerque Rodrigues – Mining Engineer – CREA/MG 50.977/D Yuri Moreira Vargas Capanema – Mining Engineers – CREA/MG 221.162/D
5.12.2 - Whether the historical estimates or foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so, an explanation of the differences.	The foreign estimates for the manganese deposit are relevant and material to DeSoto's ongoing exploration efforts at Dom Silverio, as it pertains to the project that could potentially be economically viable for the company. This data is relevant to future exploration efforts of the Company.
5.12.3 - The relevance and materiality of the historical estimates or foreign estimates to the entity.	The foreign estimate for the Dom Silverio mining concessions manganese mineralisation is relevant and material to DES's project portfolio as it pertains to a project that potentially could be economically viable for DES. The data is relevant to exploration planning and activities to establish manganese resources at the Dom Silverio project.
5.12.4 - The reliability of the historical estimates or foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the historical estimates or foreign estimates.	The foreign estimates are not reported in accordance with the JORC code 2012. A competent person has not done sufficient work to classify the foreign estimates as a Mineral Resource Estimate in accordance with JORC Code 2012. Reference to the category of mineralisation at the time was different to the current JORC Code 2012. The Estimates were made prior to the JORC Code 2012 reporting guidelines being formulated and may not conform to the requirements in the JORC Code 2012. DeSoto is not treating the foreign estimate as a Mineral Resource Estimate or Ore Reserve and considers the foreign estimate to represent an exploration project that requires verification. However, nothing has come to the attention of

	the Company or the Competent Person that causes it to question the accuracy or reliability of the foreign estimate and it is on this basis that the Company and Competent Person consider the foreign estimate to be reliable. However, the Company and Competent Person has not independently validated the foreign estimate and therefore is not to be regarded as reporting, adopting or endorsing the foreign estimate. It is possible that following evaluation and/or further exploration work the currently reported foreign estimate may materially change and hence will need to be reported afresh under and in accordance with the JORC Code 2012.
5.12.5 - To the extent known, a summary of the work programs on which the historical estimates or foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the historical estimates or foreign estimates.	To the extent known to DES the foreign estimate has been prepared using the following methodology: - Detailed topographic land survey to establish a Digital Terrain Model - Mapping of outcropping manganese mineralisation - Trenching out outcropping manganese mineralisation to establish widths and provide samples for geochemical and density analysis of 30 samples - Detailed ground gravity survey - Drilling of 40 HX sized diamond holes for 1217.15m and assaying of 51 composite samples and density analysis of 16 samples - Planimetric calculation of the area of outcropping manganese mineralisation - Volumetric calculation of manganese mineralisation based on planimetric calculations multiplied by the assumed depth of mineralisation - Tonnage calculation of manganese mineralisation based on volume calculation and multiplied by density derived from density analysis - Manganese grade determined from average drilling and trenching grades - Appropriate computational resource estimation methods have not been applied to generate the foreign resource estimate
5.12.6 - Any more recent estimates or data relevant to the reported mineralisation available to the entity.	To the extent known to DES there is no further data relevant to the reported mineralisation that is available to DES
5.12.7 - The evaluation and/or exploration work that needs to be completed to verify the historical estimates or foreign estimates as mineral resources or ore reserves in accordance with Appendix 5A (JORC Code)	DES is planning a site visit in early January to conduct a further site visit and inspect historic drill core and mine workings. The visit will also establish a network of local contractors able to undertake exploration works. The exploration work DES is planning to undertake is to verify the foreign estimate: - RC or Diamond drilling on a grid like fashion to verify manganese mineralisation and provide samples of

	assaying, metallurgical analysis, mineralogical studies and density determination - Detailed outcrop mapping - Ground geophysical surveys such a gravity and Induced Polarisation to establish continuity of manganese mineralisation undercover - Volumetric surveys of remnant manganese ore stockpiles and sampling to establish grade and tonnage - Rigorous resource estimation methods - All planned exploration and resource estimation will be conducted in accordance with JORC (2012) reporting guidelines and be considered industry best practice
5.12.8 - The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and a comment on how the entity intends to fund that work.	DES is planning to commence exploration evaluation of the Dom Silverio project within the period of February to April 2025 with works expected to commence in mining concession 1099/1040 which has existing approvals for exploration works. All exploration can be funded out of existing cash reserves that DES holds.
5.12.9 - A cautionary statement proximate to, and with equal prominence as, the reported historical estimates or foreign estimates stating that: the estimates are historical estimates or foreign estimates and are not reported in accordance with the JORC Code; a competent person has not done sufficient work to classify the historical estimates or foreign estimates as mineral resources or ore reserves in accordance with the JORC Code; and it is uncertain that following evaluation and/or further exploration work that the historical estimates or foreign estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code.	The following cautionary statement has been inserted into the report proximal to the mention of foreign resources: *A competent person has not done sufficient work to classify the foreign estimates as mineral resources or ore reserves in accordance with the JORC 2012 Code; and it is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC 2012 code. The Company is not aware of any new information concerning the report. Nothing has come to the attention of the Company that causes it to question the accuracy or reliability of the foreign exploration results, but the Company has not independently validated the foreign exploration results and therefore is not to be regarded as reporting, adopting or endorsing the foreign exploration results.*
5.12.10 - A statement by a named competent person or persons that the information in the market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the material mining project. The statement must include the information referred to in rule 5.22(b) and (c).	Nick Payne, an employee of the company is the Competent Person for this announcement. The following statement has been included in the Competent Person section: "The information in this announcement that relates to the historical exploration and foreign non-JORC resources has been prepared by Mr. Nick Payne of DeSoto Resources. The information in the announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data for the foreign resources at the Dom Silverio project and information referred to in rule 5.22(b) and (c)."

TABLE 2. DOM SILVERIO PROJECT TENEMENT DETAILS

Tenement ID	Start Date	Area	Concession Type	Holder	Mineral Endorsement
1099/1940	25-March-1940	270.38	Mining Concession	Tratex Minerals Ltd	Manganese
830352/1990	01-March-1990	176	Mining Concession Application	Tratex Minerals Ltd	Manganese
831708/2002	16-August-2002	383.88	Mining Concession Application	Tratex Minerals Ltd	Manganese
804534/1977	02-August-1977	238.2	Mining Concession Application	Tratex Minerals Ltd	Manganese
831707/2002	16-August-2002	733.02	Mining Concession Application	Tratex Minerals Ltd	Manganese
830543/1982	18-June-1982	792.09	Mining Concession Application	Tratex Minerals Ltd	Manganese
830454/1982	18-June-1982	967.98	Mining Concession Application	Tratex Minerals Ltd	Manganese
830455/1982	18-June-1982	698.52	Mining Concession Application	Tratex Minerals Ltd	Manganese

TABLE 3. 2011 TRATEX DRILL HOLE LOCATION AND COLLAR DETAILS. COORDINATES SHOWN ARE IN SIRGAS 2000/ZONE 23S GRID SYSTEM.

Drill Hole ID	Easting	Northing	RL	Survey Method	Depth	DIP	MAG_AZI
FS 01	721166.41	7783041.68	1021.65	Land Survey	53.6	-60	290
FS 02	721081.74	7783009.91	1034.45	Land Survey	33.2	-45	290
FS 03	720913.54	7782962.54	1031.43	Land Survey	30.2	-60	290
FS 04	721169.39	7782826.26	999.13	Land Survey	38.35	-45	290
FS 05	720910.44	7782762.98	1013.74	Land Survey	22.4	-90	0
FS 06	721251.75	7782621.17	986.19	Land Survey	29.6	-90	0
FS 07	720714.44	7782698.24	1055.49	Land Survey	34.25	-65	290
FS 08	720550.15	7782788.84	993.98	Land Survey	22.4	-45	110
FS 09	720871.70	7782690.98	1041.68	Land Survey	44.55	-60	110
FS 10	721305.34	7782514.30	961.19	Land Survey	14.8	-60	290
FS 10A	721305.67	7782515.03	961.15	Land Survey	30.1	-45	290
FS 11	721357.02	7782493.91	961.76	Land Survey	41.1	-90	0
FS 12	721221.52	7782595.43	995.51	Land Survey	33.4	-60	290
FS 13	721183.32	7782469.67	992.66	Land Survey	25.4	-90	0
FS 14	721245.41	7782436.39	979.95	Land Survey	69	-60	290
FS 15	721088.19	7782366.08	1006.81	Land Survey	26.6	-90	0
FS 16	720199.56	7781996.66	1053.25	Land Survey	29	-70	290
FS 17	720469.16	7781987.83	1022.17	Land Survey	15.25	-70	290
FS 18	720779.39	7782592.34	1050.25	Land Survey	11.8	-70	290
FS 19	720855.35	7781769.82	971.97	Land Survey	27.3	-60	290

FS 20	721007.68	7781677.50	951.03	Land Survey	16.1	-90	0
FS 21	720562.36	7781758.34	998.31	Land Survey	23.45	-60	290
FS 22	720713.31	7781666.45	1001.31	Land Survey	22.15	-60	290
FS 23	720689.38	7781606.01	1043.30	Land Survey	58.2	-70	290
FS 24	720117.11	7781827.16	1024.87	Land Survey	30.8	-80	290
FS 25	720757.16	7782575.67	1053.65	Land Survey	30.3	-70	290
FS 26	720733.55	7782977.24	996.33	Land Survey	24.4	-70	110
FS 27	721286.46	7782484.43	964.08	Land Survey	38.35	-70	290
FS 28	720539.44	7782777.16	993.94	Land Survey	11.5	-70	110
FS 29	721274.07	7782490.53	964.31	Land Survey	19.1	-60	290
FS 30	720880.97	7782663.56	1045.64	Land Survey	24.3	-60	110
FS 31	720692.94	7782717.99	1028.90	Land Survey	20	-70	110
FS 32	720845.17	7782689.51	1043.69	Land Survey	43.7	-60	290
FS 33	720677.22	7781588.95	1045.97	Land Survey	55.5	-80	290
FS 34	720769.46	7782554.15	1048.22	Land Survey	14.55	-90	0
FS 35	720548.62	7781763.24	999.73	Land Survey	15.9	-60	290
FS 36	720547.59	7781749.92	998.41	Land Survey	19.45	-60	290
FS 37	720671.04	7781565.18	1051.64	Land Survey	53.4	-70	290
FS 38	720734.69	7781665.91	999.90	Land Survey	14.9	-60	270
FS 39	720839.11	7781745.75	969.94	Land Survey	48.8	-60	290

TABLE 4. DESOTO ROCK SAMPLES WITH MNO % GRADE FROM SITE INSPECTION. COORDINATES ARE IN SIRGAS 2000/ZONE 23S GRID SYSTEM

Sample ID	Easting	Northing	Description	Mn %	MnO %	SiO2 %	Al2O3 %	LOI %
DS001	714645	7778988	Tratex ore stockpile	20.2	26.1	35.5	17.6	5.95
DS003	719487	7775659	Grab sample; Biquinha mine	18.5	23.9	48.1	13.7	0.7
DS007	720059	7781827	Rock chip; outcrop; Portao mine	17.7	22.9	31.1	17.9	8.76
DS008	720768	7781479	Grab sample; Portao mine	21.1	27.2	25.1	18	15.74

TABLE 5 – JORC CODE – EXPLORATION RESULTS

Section 1: Sampling Techniques and Data – Rock Chip Results		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Technique	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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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	Rock Chip Samples Three rock chip samples were taken from in-situ outcropping manganese mineralisation and one rock sample was taken from a remnant manganese ore stockpile. It is believed the samples are representative of the manganese mineralisation. Rock chip sample sizes were in the range of 1 to 2kg which is considered industry standard for rock chip samples.

	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.	
Drilling	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 oriented and if so, by what method, etc).	This release has no reference to previously unreported drill results.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	This release has no reference to previously unreported drill results.
Logging	Whether core and chip samples have been geologically and geotechnical logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean/Trench, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Each rock chip sample was geologically described and recorded in a digital Rock Chip Register. Describing of the rock chips is both quantitative and qualitative.
Sub-Sampling Technique and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	Each rock chip sample was whole crushed, dried and pulverised to produce two 50g samples for XRF and ICP analysis. The sample preparation technique of homogenising the entire rock chip sample is considered appropriate for the reporting of exploration results.

Quality of Assay Data and Laboratory Tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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.	All samples were prepared and assayed by SGS Geosol in Belo Horizonte, Brazil. Sample prep involved weighing each sample and then drying the samples at 100˚C. Each sample was then whole crushed to 5mm and then a 250g subsample pulverised to 90% passing 106 microns. The samples were analysed by 40 element ICP-MS and 12 element XRF methods. Both methods are considered total analysis. For the assay batch a series of duplicate, repeats and internal standards were used there were appropriate to the sample mineralogy submitted.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data	This release has no reference to previously unreported drill results.
Location of Data points	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. Specification of the grid system used Quality and adequacy of topographic control	Each rock chip sample location was recorded using a Garmin GPS and the coordinates recorded in SIRGAS2000/Zone 23S grid convention. Location accuracy is assumed to be +/- 2m in x, y and z
Data Spacing and Distribution	Data spacing for reporting of Exploration Results 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. Whether sample compositing has been applied	The rock chip sample spacing is insufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. No sample compositing has been applied.
Orientation of Data in Relation to Geological Structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	It is not known if the orientation of rock chip sampling has created a sampling bias. The rock chip samples should be considered indicative of surficial manganese mineralisation. Sampling is believed to be unbiased.
Sample Security	The measures taken to ensure sample security	The rock chip samples were delivered SGS Geosol by DeSoto contractors. There are no concerns with sample security.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The company has not performed an audit of the sampling techniques or data.

Section 2 Reporting of Exploration Results

Mineral Tenement and Land Tenure Status	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.	The Dom Silverio project consists of 8 contiguous concessions covering 4,260 hectares/42.6 km2. The concessions are comprised of 1 mining concession (1099/1940) and 7 concessions being converted from exploration to mining (831707/2002, 831708/2002, 830455/1982, 830453/1982, 804534/1977, 830454/1982, 830352/1990). All concessions are held by Tratex Minerals Ltd with

	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.	no known royalties or encumbrances and all concessions are in good standing. The Project is located approximately 110 km southeast of Belo Horizonte, and 10 km northeast of Dom Silverio in Minas Gerais state, Brazil. Access to the project area is via several unsealed roads from either Dom Silverio or Sao Tome and from numerous farming and exploration tracks within the project area. The project area sits within a mix of agricultural land and forest.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	The only known exploration on the concessions has been conducted by Tratex and is mentioned in this release. The area has been subject to small scale, selective surface mining for manganese since the 1940's however there is no record keeping of this activity.
Geology	Deposit type, geological setting and style of mineralisation.	The Dom Silvério Group, host to the Mn mineralisation, occurs in a NNE-SSW striking belt and consists of a thick package of Neoproterozoic metapelitic rocks (mainly phyllites and schists) with intercalations of quartzites, amphibolites, meta-ultramafics and banded iron formations. Manganese oxide ores previously mined at Dom Silverio are lenticular or tabular in shape and locally form impressive black outcrops which frequently stand well above the enclosing country rocks. Dom Silverio presents a complex structural geology as a result of more than one phase of deformation, producing differentiated structural features depending on the different lithological types. As the main objective of the previous work was to evaluate manganese deposits, most of the observations and structural data collected were concentrated in the area where these deposits occur. The form of occurrence and structural positioning of the bodies and their contact relationships with the surrounding rocks show, in general terms, a thrust system from E-SE to W-NW which produced predominantly cylindrical folds, associated with thrust faults. In a later phase, high-angle directional faults (slip-slip faults) developed, causing shearing and stretching of the manganese bodies reoriented according to a preferential NE direction.
Drill Hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length • 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.	Information is described and presented in Tables and on plans in the release.
Data Aggregation Methods	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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	The Mn rock chip results reported in this release are MnO grades. No cut-off grade, data aggregation or averaging has occurred. No metal equivalents are reported.

Relationship Between Mineralisation Widths and Intercept Lengths	These relationships are particularly important in the reporting of Exploration Results If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	The overall orientation of mineralised zones is not yet known or properly understood. There has been no reporting of drilling results in this release.
Diagrams	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.	See Figures in this release.
Balanced Reporting	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.	The company believes this announcement is a balanced report, and that all material information has been reported.
Other Substantive Exploration Data	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.	DeSoto is not aware of any other substantive exploration data from the project area of from areas surrounding the project area.
Further Work	The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling. Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Planned further work includes further RC/DD drilling, geological modelling, metallurgical test work and further geophysical surveys.