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TITLE HOLDER: THESSALLY RESOURCES PTY LTD

HUANDOT MAGNESITE DEPOSIT

Exploration Licence 30879 - Annual Report

Batchelor Region, Northern Territory

for the Period 07/07/2018 to 06/07/2019

By
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and

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Approved:

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Annual Report Title Details

Titleholder	Thessally Resources Pty Ltd
Operator (if different from above)	
Tenement Manager/Agent	Australian Mining & Exploration Title Services Pty Ltd (AMETS)
Titles/Tenements	EL30879
Mine/Project Name	Huandot
Report title including type of report and reporting period including a date	Annual Report THESSALLY RESOURCES PTY LTD Exploration Licence 30879 Batchelor Region, Northern Territory for the Period 07/07/2018 to 06/07/2019
Personal author(s)	Patrick Maher
Corporate author(s)	
Company reference number	R401.2019
Target Commodity or Commodities	Magnesite
Date of report	September 2019
Datum/Zone	MGA Zone 52
250 000 K map sheet	Pine Creek SD5208
100 000 K map sheet	
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Executive Summary

Exploration Licence (EL) 30879 was granted to Thessally Resources Pty Ltd (Thessally) on the 7th July 2015 for a term of six (6) years, and will expire on 6th July 2021.

Upon grant of the replacement title EL30879, Exploration Licences 27724 and 29946 were automatically cancelled.

EL 27724 covered the same area as the former ERL128 and hosts the Huandot magnesite deposit.

Between 1987 & 2006 metallurgical test work on magnesite from ERL128 concluded the magnesite was of a suitable quality for magnesium metal production. However, the very tight material quality specifications, as well as more cheaply available magnesite from China and the lack of infrastructure in the area combined to see the project fail to reach production stage.

During 2014, A Preliminary Desktop Mine Scoping Study was carried out by CSA Global and it reiterated that the Huandot magnesite is suitable for most end use applications as defined by the previous year's test work. It concluded that the deposit remains open and that it can be mined using conventional open pit methods. Importantly, the study highlighted that the project has the potential to be developed into an economically viable mine operation should a suitable customer base be secured.

In the 2015 reporting period, Thessally engaged CSA Global to carry out a Scoping Study based on an updated resource model which was also developed by CSA Global.

The updated Mineral Resource estimate was reported and classified in accordance with the JORC Code [1](2012 Edition). The Huandot deposit is classified as follows:

- Indicated Resources:4.4 Mt @ 44.3% MgO
- Inferred Resources: 4.7 Mt @ 44.3% MgO

Based on the updated Mineral Resource estimate, CSA Global proceeded to develop a Scoping Study which focused on the production of Direct Shipping Ore (DSO) Lump Material only.

The Scoping Study details that within the proposed open pit design area of the Huandot magnesite deposit, there is "In situ ore" which totals 6.26Mt (>44% MgO) for a mine life of 20 years.

In the period mid-2015 to mid-2016, Thessally

1. engaged Mosman Resources to complete an advanced end user product, material and market study with direct appraisal of local and foreign markets

[1] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

2. engaged CSA Global to carry out magnesite sampling on historic stockpiles for mineralogical and geo-metallurgical testing. Thessally,
    - had 5 magnesite samples selected and submitted for mineralogy analysis
    - had 8 samples submitted for acid rock drainage / acid neutralisation laboratory analysis.

The primary objective in the first term was to carry out an advanced end user product, material and market study with direct appraisal of local and foreign markets.

For the Magnesite Markets Study, Thessally requested that the following be examined in order to maximise opportunities for Huandot:

- Production of caustic calcined magnesite (CCM) for local markets
- Indonesian markets for both magnesite and CCM
- Export of magnesite to Indonesia for production of CCM in Indonesia

The markets study highlighted the opportunities for the sale of magnesite into the Agricultural Sector of the Northern Territory market and the vast markets available for the sale of CCM material in ASEAN Economic Community especially in Indonesia.

The results of the mineralogical analysis using PLM and SEM/EDS techniques detailed that the dominant mineral in all the samples submitted is magnesite (>97%). Minor amounts (<1%) of the minerals quartz, dolomite, chlorite, zircon and apatite were detected across the range of samples. Also noted are minor amounts of pyrite, goethite, rutile, anatase and haematite.

Other sampling and analytical work carried out on historic stock pile samples detail that the Huandot magnesite is suitable for use as an acid neutralising agent.

From mid 2017 to mid 2018, Thessally carried out an AAPA Heritage survey. After securing the AAPA certificate, Thessally was able to finalise and submit a Mine Management Plan (MMP) for the proposed metallurgical diamond drilling work on the Huandot Deposit. Thessally also had several consultant meetings which focused on the development of an ASEAN region magnesite market study for use in a planned feasibility study.

In the period 07/07/2018 to 06/07/2019 (this annual reporting period) Thessally carried out proposed metallurgical diamond drilling work on the Huandot Deposit. Under the management of CSA Global two-diamond drill hole were completed at the Huandot Magnesite Project in October 2018. Vertical holes THDD001 and THDD002 were completed for a total of 131.4m. The drill core was shipped to Perth in Western Australia where it is currently stored and it awaits specialists metallurgical testing.

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1. EL30879_2019_A_Attachment1_THDD001 & 2

1 Introduction

1.1 Location & Access

Exploration Licence (EL) 30879 lies approximately 85km south of Darwin and 10km east of the township of Batchelor. Figures 1 & 2 highlight the exploration licence position with respect to the current infrastructure.

Access to the licence from Darwin is via the Stuart Highway to the Batchelor turnoff and then along the Batchelor Road for approximately 3km. Both the Stuart Highway and Batchelor roads are sealed and provide all weather access. During the previous exploration campaigns access to the Huandot deposit itself was via a dirt track north from the Batchelor Road. The track is now in disrepair after several years of no use. An alternative access is via the abandoned Woodcutters mine site.

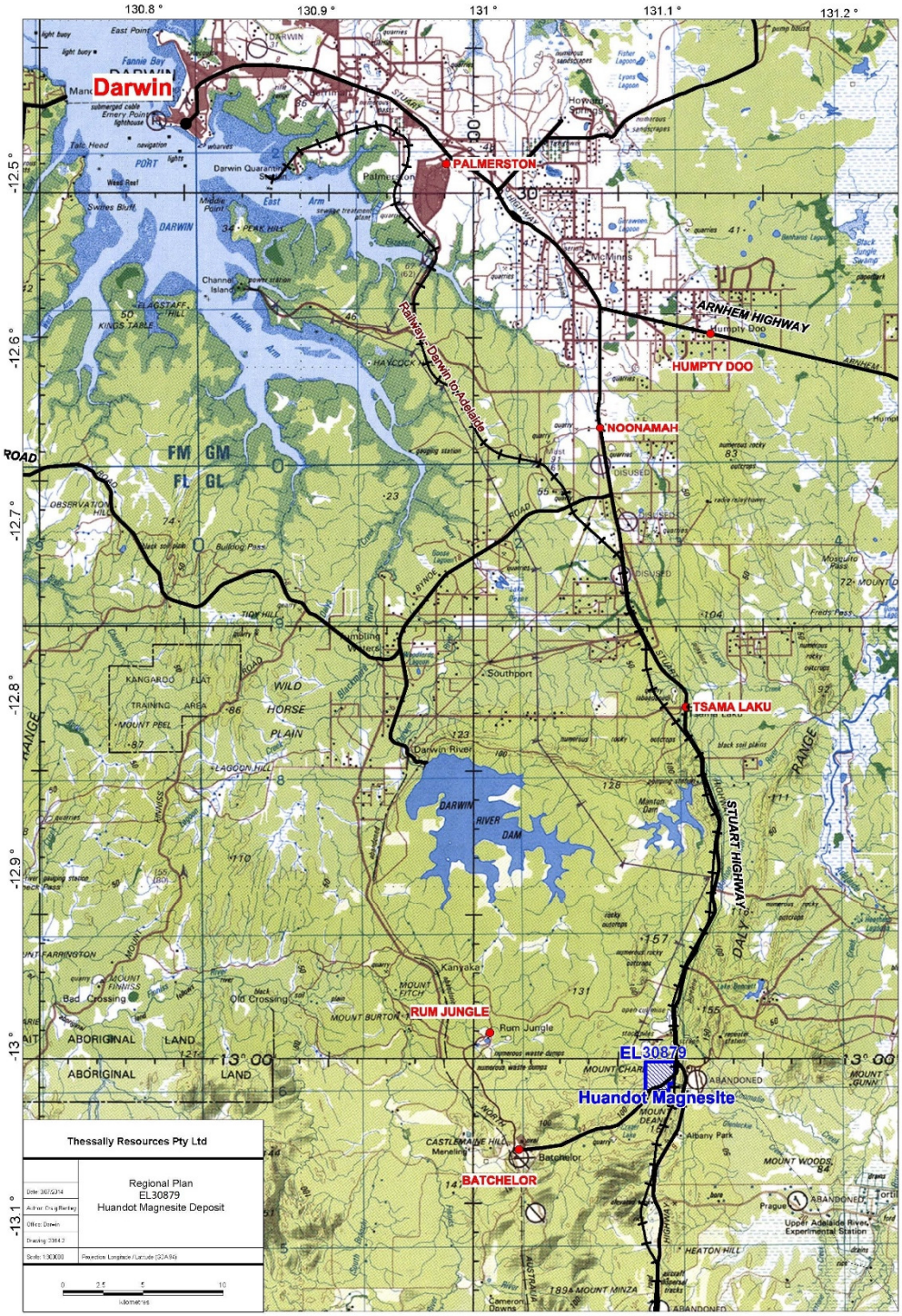

Figure 1. Regional Location Plan

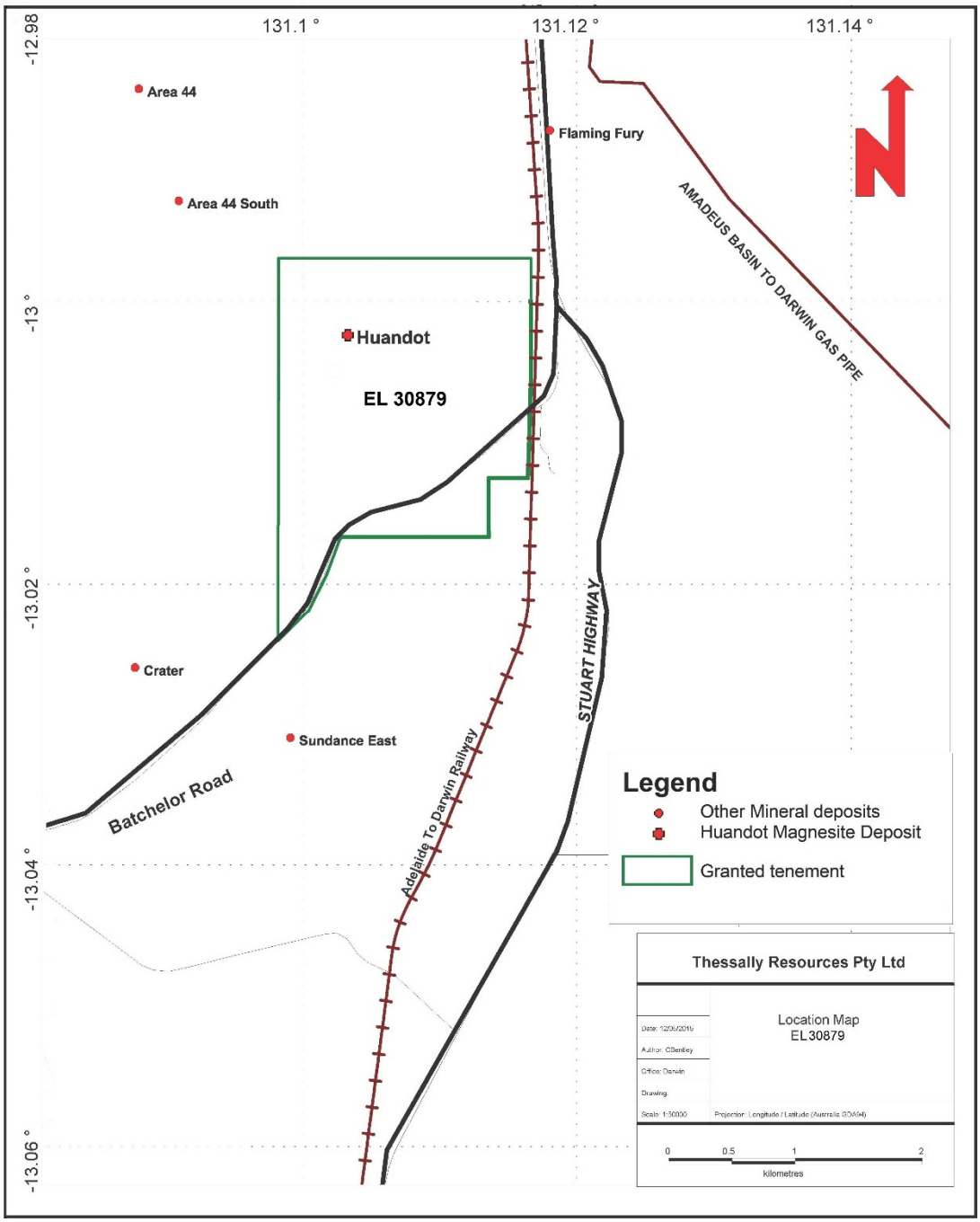

Figure 2. EL30879 (Huandot) Location Plan

2 Tenure

Exploration Licence (EL) 30879 was granted to Thessally Resources Pty Ltd (Thessally) by the Northern Territory Department of Mines and Energy (NT DME) on the 7th July 2015 for a term of six (6) years, and will expire on 6th July 2021.

Upon grant of the replacement title EL30879, Exploration Licences 27724 and 29946 were automatically cancelled. EL27724 was originally granted to Thessally for a period of two years on the 7th May, 2010 by the NT DME. A two year renewal was then granted until 6th May 2014. Thessally was subsequently granted a further renewal of EL27724 for another term of two years until the 6th May 2016.

As detailed above, most of the licence area covers the same area as the former EL27724 and ERL128. ERL128 was owned by several companies related to the Normandy Mining Group.

EL30879 hosts the Huandot magnesite deposit. Between 1987 & 2006 metallurgical test work on magnesite from ERL128 concluded the magnesite was of a suitable quality for magnesium metal production. However, the very tight material quality specifications, as well as more cheaply available magnesite from China and the lack of infrastructure in the area combined to see the project fail to reach production stage. Recent and ongoing work by Thessally has shown that present and forecasted requirements in the magnesite marketplace as well as local infrastructure developments are redefining the value of the deposit.

This report covers work carried out on the EL30879 during the period 7th July 2018 to 6th July 2019.

3 Geological Setting & Previous Work

3.1 Geological Setting

The Huandot mineralisation lies on the eastern margin of the Archaean Rum Jungle and Waterhouse complexes. These are unconformably overlain by the Lower Proterozoic clastic and dolomitic sediments from the Namoona and Mt Partridge Groups. In the licence area the units of the Mt Partridge Group dominate with clastics of the Crater Formation; stromatolitic dolomite of the Coomalie Dolostone; mudstone and calcareous mudstone of the White Formation and interbedded mudstone and quartzite of the Wildman Siltstone. The Huandot mineralisation is localised within the Coomalie Dolostone.

The Huandot deposit occurs on limbs of a north-east plunging syncline. Two zones of magnesite have been drilled out. One is the "West Limb" high-grade zone (600 m x 200 m x 80 m thick) and the other is the "East Limb" high-grade zone (250 m x 150 m x 50 m thick). The deposit is moderately dipping and the depth from surface to fresh magnesite varies from 0 to 20m.

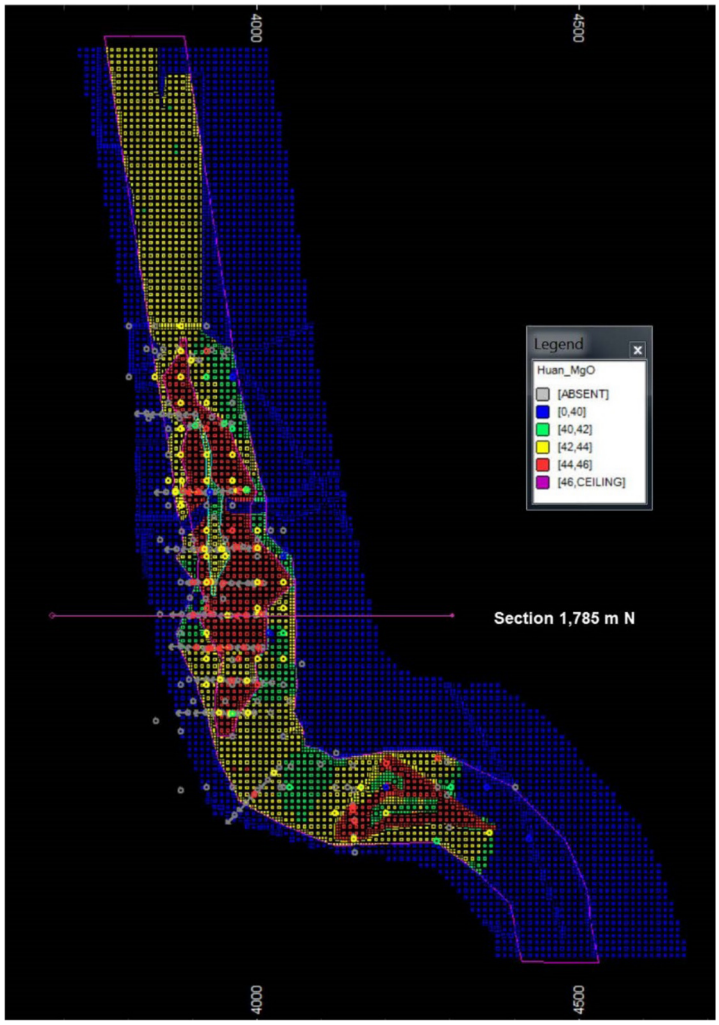

Figure 3. Plan of Huandot Deposit highlighting high grade (red) magnesite on West and East Limbs.

A detailed description of the geology is given in the 2011 Annual Report for EL27724 (Lindsay-Park, 2011).

3.2 Previous work

Prior to the granting of the EL30879 to Thessally, a considerable amount of exploration activity has been completed in and around the historic EL27724. A detailed description of the previous exploration work is given in the 2011 Annual Report for EL27724 (Lindsay-Park, 2011). In early 2012, an economic review carried out by CSA Global associate and industrial minerals expert Mr Murray Lines, deemed the project suitable for further marketing and engineering work. A description of the work carried out by CSA Global and Murray Lines is detailed in the 2012 Annual Report for EL27724 (Maher, 2012).

During 2013, grab samples were collected at various stockpile locations on EL27724 for analysis at NSL Chemicals Ltd in Singapore and at Amdel Labs in Darwin. The NSL Chemical Lab result indicated that the Huandot material was suitable to be a potential substitute in the market for Chinese Dead Burned Magnesia (Maher, 2013).

A Preliminary Desktop Mine Scoping Study was carried out by CSA Global (c.f. Maher 2014) and it reiterated that the Huandot magnesite is suitable for most end use applications as defined by the previous year's test work. It concluded that the deposit remains open and that it can be mined using conventional open pit methods. Importantly, the study highlighted that the project has the potential to be developed into an economically viable mine operation should a suitable customer base be secured.

Some key points from the study are summarised as follows:

- For a generic direct-shipping grade magnesite ore, the estimated mine operating costs are in line with similar operations of the assumed scale and mining rate.
- Financing and capital equipment requirements options will require further review. In the cost scenario prepared, it was assumed the Thessally purchases the crushing and screening equipment. CAPEX reduction can be significantly reduced if contract crushing is pursued although this may be at the expense of increased OPEX.
- Options for material handling from mine to Darwin Port (or alternative local destination) have a significant impact on the cost model.
- Further investigation is required to determine market demand in terms of quantity and product specifications as this will have the biggest impact on production rates and costs.

The study also concluded that additional mineralogical and geo-metallurgical test work is also required to determine the extent of variability of the purity of the magnesite. This should then be incorporated into the orebody model so that mine scheduling can be based on product type to suit customer requirements.

In 2015, an updated Mineral Resource estimate (Maher 2015) was reported and classified in accordance with the JORC Code[2] (2012 Edition). The Huandot deposit is classified as follows:

- Indicated Resources: 4.4 Mt @ 44.3% MgO
- Inferred Resources: 4.7 Mt @ 44.3% MgO
- Total Mineral Resources: 9.1 Mt at 44.3% MgO, 0.5% CaO, 4% insolubles

The estimate also highlights low levels of impurities averaging 0.8% Fe_2O_3, 0.5% CaO, 0.2% Al_2O_3, 0.1% SiO_2 and 4% insoluble.

Also in 2015, a Scoping Study carried out by CSA Global detailed that within the proposed open pit design area of the Huandot magnesite deposit, there is "In situ ore" which totals 6.26Mt (>44% MgO) for a mine life of 20 years.

The Scoping Study also highlights that the deposit remains open and that it can be mined using conventional open pit methods. The project has the potential to be developed into an economically viable mine operation should a suitable customer base be secured.

The study has also outlined the following milestones for the future development of the project:

- Further market analysis to optimise magnesite products from the Huandot deposit to meet customer requirements – look at the potential of producing Caustic Calcined Magnesia (CCM).
- Further drilling for resource upgrading
- DSO Feasibility Study (and review CCM option)
- Secure an Off-take agreement
- Carry out environmental studies
- Secure land agreements
- Apply for a Mining Licence (NT Mineral Lease application) & approvals
- Secure contractor agreements

During the mid-2015 to mid-2016 period, Thessally reported (Maher, 2016) that they had

- engaged Mosman Resources to complete an advanced end user product, material and market study with direct appraisal of local and foreign markets
- engaged CSA Global to carry out magnesite sampling on historic stockpiles for mineralogical and geo-metallurgical testing. Thessally

[2] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

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Other sampling and analytical work carried out on historic stock pile samples detailed that the Huandot magnesite is suitable for use as an acid neutralising agent.

Work continued in mid 2016 to mid 2017 with the CSA Global Darwin office to plan exploration, metallurgical drilling and field work requirements for the Huandot deposit. Thessally also met with the Aboriginal Areas Protection Authority (AAPA) about Sacred sites listed on EL30879 and made an application for an AAPA Authority Certificate.

From mid 2017 to mid 2018 (*Maher, 2018*), Thessally carried out an AAPA Heritage survey. After securing the AAPA certificate, Thessally was able to finalise and submit a Mine Management Plan (MMP) for the proposed metallurgical diamond drilling work on the Huandot Deposit. Thessally also had several consultant meetings which focused on the development of an ASEAN region magnesite market study for use in a planned feasibility study.

4 Activities in Annual Reporting Period

During this annual reporting period (07/07/2018 to 06/07/2019) Thessally was active on the following tasks:

- Securing further representative magnesite samples from the known resource area for geo- metallurgical testing utilising Diamond Drilling methods.

Thessally commissioned CSA Global to project manage a two-diamond drill hole campaign at the Huandot Magnesite Project between 24th- 29th of October 2018.

The drilling was carried out by May Drilling Pty Ltd utilizing a track mounted HD 900 drill rig.

The vertical holes THDD001 and THDD002 (HQ diameter) were completed for a total of 131.4m . Table 1 and Figure 4 detail the drill hole locations.

Table 1. Huandot Magnesite Project Diamond Drill Holes

Hole ID	GDA94E	GDA94N	Depth (m)	AZI	DIP
THDD001	728134	8561750	68.6	0	-90
THDD002	728163	8561516	62.8	0	-90

Both holes intersected red-brown clays from surface from 4m to 9.5m before intersecting relatively fresh magnesite to the bottom of their respective terminated depths. The magnesite mineralization is typically coloured grey -cream-white, dark grey or a mixture of all three.

The magnesite texture is typically acicular or needle like, often with platy or flaky carbonate crystals scattered throughout. Late stage carbonate veining and rehealing is common as with styolitic chloritic veining that is often associated with late stage fine grained pyrite development. Some red-pink siderite mineralization was also observed usually in association with late stage carbonate veining and spatial pyrite development.

The magnesite core was securely transported in core trays to Thessally Resources headquarters in Perth for storage and it awaits specialist metallurgical testing.

The geological logs for both holes are submitted with this report as file

- EL30879_2019_A_Attachment1_THDD001 & 2

Figure 4. Plan showing THDD001 & THDD002 Diamond Drill Hole Locations

It is proposed to carry out the intended work as follows during the period 07/07/2019 to 06/07/2020:

- Carry out magnesite calcination and application testing for the evaluation of processing options.
- Advance to a higher pre-feasibility study level and continue planning for a Mineral Lease Application submission.
- Carry out an ASEAN region magnesite market study for use in feasibility studies.

5 References

Lindsay-Park, K. 2011. Report No: R249.2011 Annual Report on Exploration Licence 27724. June 2011, CSA Global Pty Ltd. Submitted to NT DoR

Lines, M. 2012. Report No: R282.2012 Review of Preliminary Economic Assessment (PEA) Parameters for the Huandot Magnesite Project. July 2012, CSA Global Submitted to NTDoR as Appendix 1 to 2012 Annual Report.

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