Tri-Star Energy Company

MA 31361 6th Annual and Final Report
01/11/2017 to 12/07/2023

Titleholder	Tri-Star Energy Company ARBN 089 539 695
Operator	Tri-Star OPCO LLC ARBN 138 462 281
Project / Group:	Pedirka Basin Project - GR470
Report Title	MA 31361 6th Annual and Final Report 01/11/2017 to 12/07/2023
Current Target Commodity	Minerals
1:250 000 Mapsheets	Finke SG5303, McDills SG5307
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ABSTRACT

The following report is the 6th Annual and Final Report for MA 31361, which formed part of the Tri-Star Group (Tri-Star), the 100% holder of Tri-Star Energy Company, Pedirka Basin Project.

The Pedirka Basin Project currently comprises thirteen (13) Mineral Authorities, 31358, 31361, 31362, 31363, 31364, 31371, 31372, 31373, 31374, 31375, 31376, 31377 and 31378 which were granted concurrently on 1 November 2017. The Pedirka Basin Project is geologically located over the Amadeus, Pedirka, and Eromanga basins. The Pedirka Basin Project area holds multiple potential resource commodities including base and precious metals, iron, and coal.

The project area is located approximately 200 kilometres south-east of Alice Springs along the western margin of the Pedirka Basin and partially overlaps the pastoral leases of Andado, New Crown, Horseshoe Bend, Lilla Creek, and Umbeara.

No on-ground was undertaken on MA 31361 during the life of the mineral title.

Tri-Star recently undertook a review of its assets and, as part of this review, MA 31361 was identified for full relinquishment effective 12 July 2023.

1. LOCATION, TITLE HISTORY, PHYSIOGRAPHY AND ACCESS

Key particulars of MA 31361 are as follows:

Titles:	31361
Group Reporting No.:	GR470
Status:	Granted
Application date:	05/08/2016
Grant date:	01/11/2017
Full surrender date:	12/07/2023
Locality:	200KM SOUTHEAST OF ALICE SPRINGS
Act permit granted under:	*Mineral Titles Act 2010 (NT)*

MA 31361 consisted of 250 sub blocks covering an area of approximately 774km^2. Following a review of the company's assets, Tri-Star determined that MA 31361 was to be surrendered in full.

MA 31361 formed part of the Pedirka Basin Project which is located in the Rodinga Ward of the MacDonnell Region Council area in the south-eastern portion of the Northern Territory, near the border of the Northern Territory and South Australia (Figure 1).

The centre of the Pedirka Basin Project area lies approximately 200 kilometres southeast of Alice Springs, 180 kilometres east of Elrdunda (located at the junction of the Stuart & Lasseter Highways) and 180 kilometres north-east of the Kulgera Road House (located on the Stuart Highway). The community of Aputula (Finke) lies within the greater project area, and the areas of primary interest are located on agricultural properties.

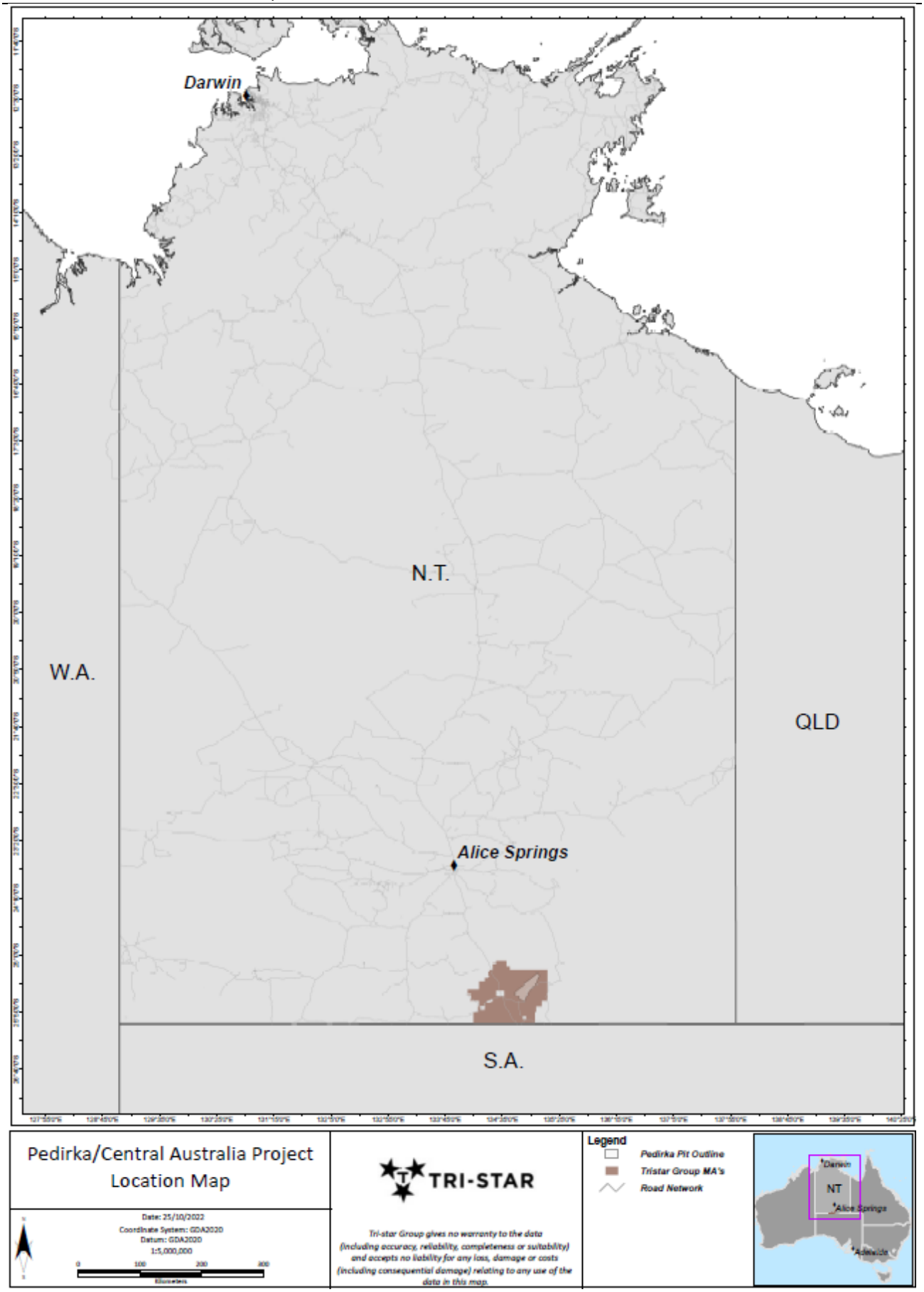

Figure 1. Pedirka Basin Project – Location Map

1.1 Topography

The topography of the permit area, shown in Figure 2, is dominated by the floodplains of the Finke River, Lilla Creek and Goyder Creek. The central area of the tenure group is crossed by areas of north trending sand dunes that are less than 10 metres in height. The elevation above sea level increases towards the southern ends of the tenures where the Newlands and Beddome Ranges occur. The Pedirka Basin Project is traversed by various property access roads and tracks between the many dams and water bores.

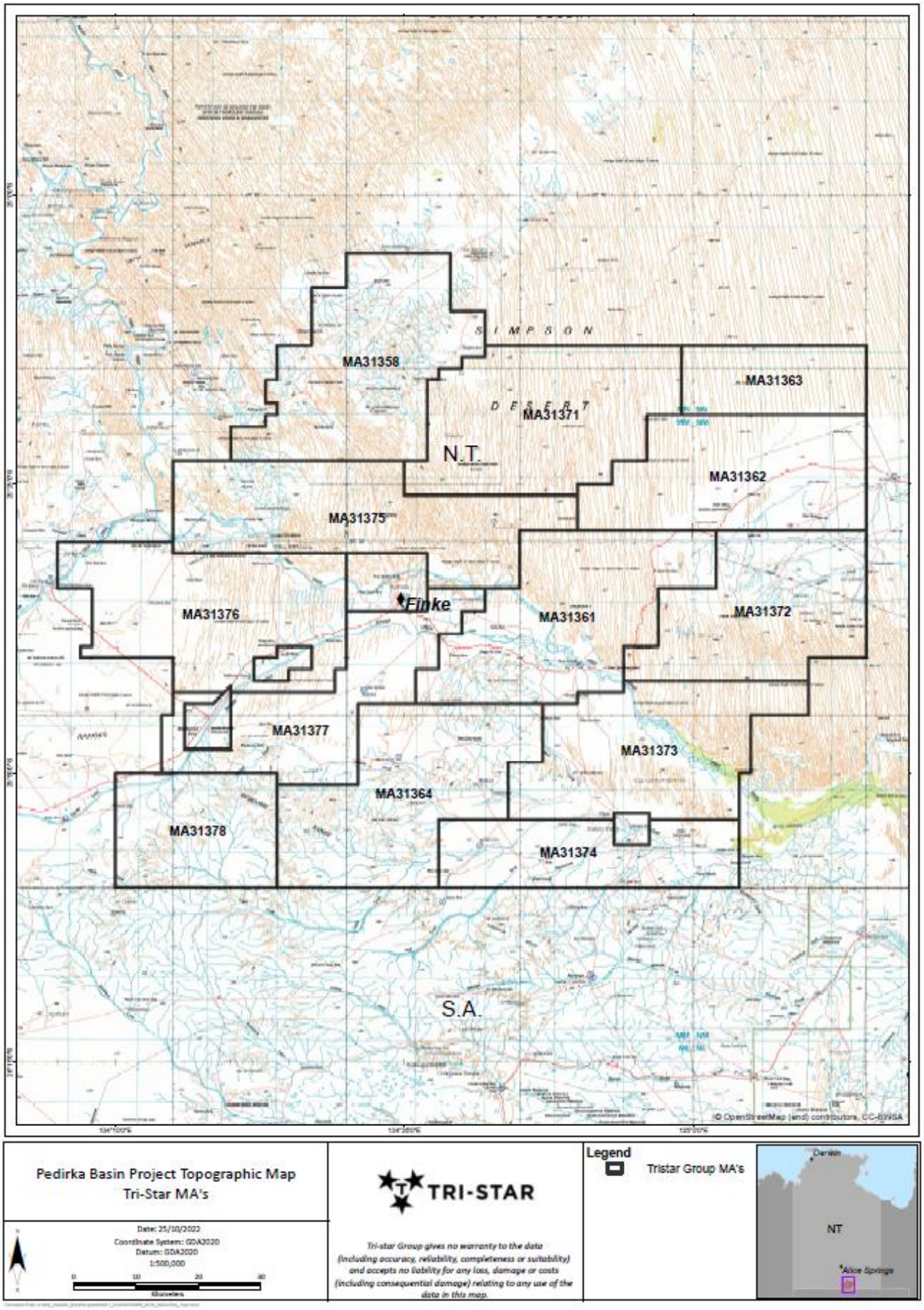

Figure 2. Pedirka Basin Project – Topographic Map

The project is located on the Finke 1:250,000 mapsheet SG5306, and the McDills 1:250,000 mapsheet SG5307. The exploration licences are located on the following 1:100,000 mapsheets:

- Engoordina - 5747;
- Musgrave - 5847;
- Andado - 5947;
- Beddome - 5746;
- Finke - 5846; and
- McDills - 5946.

2. GEOLOGICAL SETTING – REGIONAL

The Pedirka Basin Project is geologically located over the Amadeus, Pedirka and Eromanga basins as indicated in Figure 3. Rocks of the Musgrave Province are interpreted to be present at relatively shallow depths below these basin sediments in the south-west of the project area.

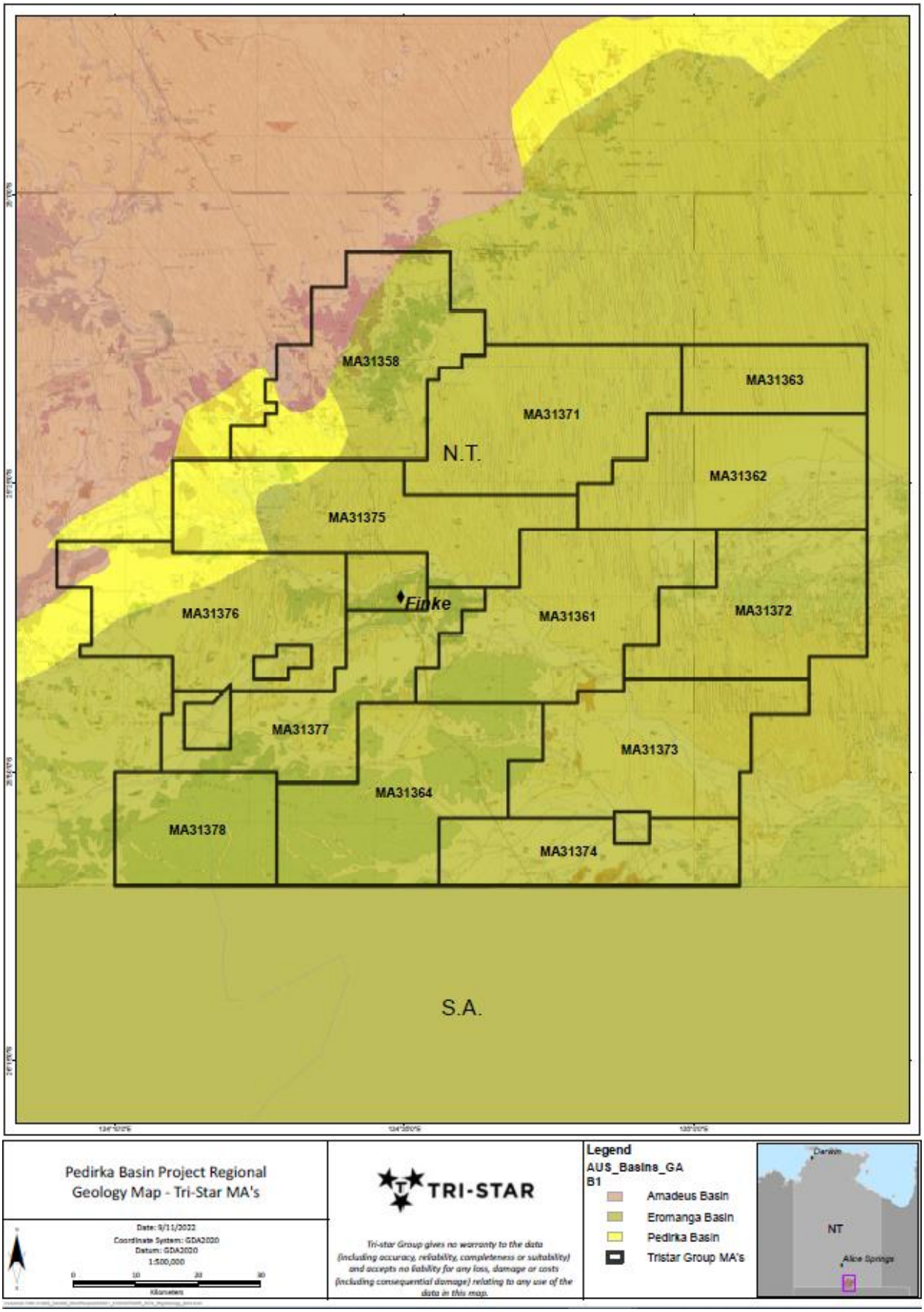

Figure 3. Pedirka Basin Project – Regional Geology

3. GEOLOGICAL SETTING – LOCAL

MA 31361, as part of the Pedirka Basin Project, is geologically located over the sediments of the Amadeus, Eromanga and Pedirka basins and overlie the crystalline basement rocks of the Mesoproterozoic Musgrave Province within Tri-Star's Pedirka Basin Project. The Musgrave Province historically underwent a structural evolution which makes it a favourable domain to host economic minerals. The regional NE-SW trending Woodroffe Thrust, a deep seated, crustal scale fault, can be interpreted to extend into Tri-Star's project area, with the prospective Fregon Domain.

The geologic units of the project's Pedirka Basin are permo-carboniferous in age and are correlative with sediments of the Cooper and Officer Basins. The primary structural features of the Pedirka Basin are the Eringa and Madigan Troughs, which are also the main depocentres that are separated by the McDills Anticline. The depth to the base of the Eromanga Basin (Algebuckina Sandstone) within the tenures ranges from about 80m in the north-east to over 250m. Erosion of the Purni Formation prior to the deposition of the Algebuckina Sandstone has removed the upper sequence of strata, thus contributing to the apparent thinning of the Purni Formation towards the outcrop in the north-western part of the tenements.

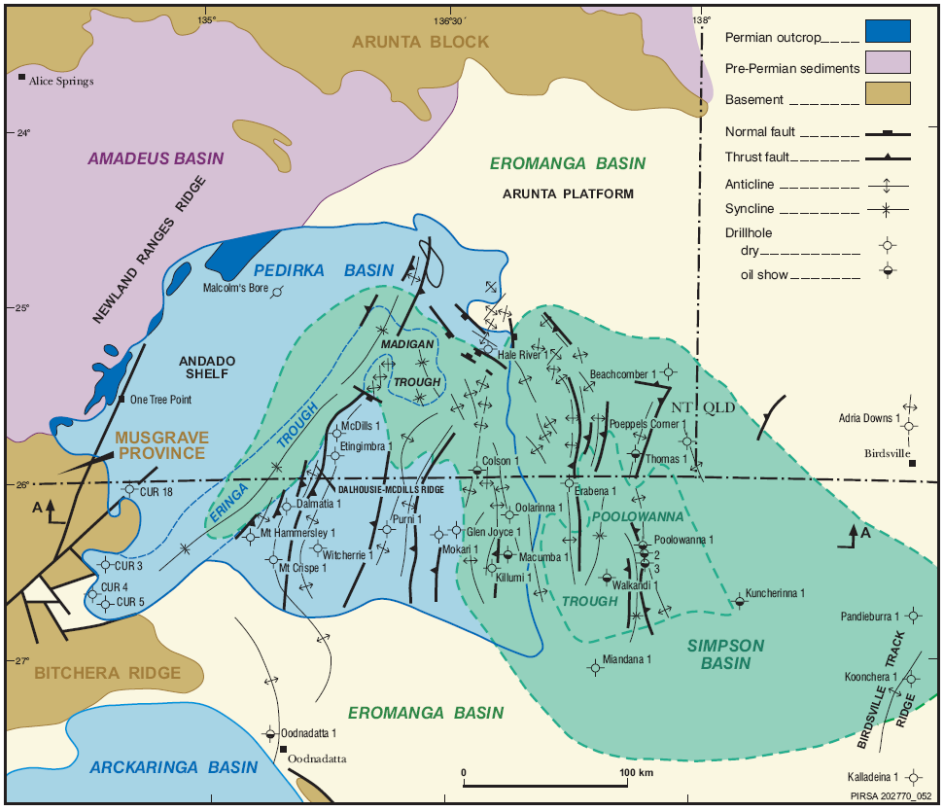

Figure 4. Pedirka Structural Elements (Source: Alexander et al, 2006)

Middleton et al (2005) has defined the stratigraphy of the western Pedirka Basin, and the potential petroleum source rocks as shown below.

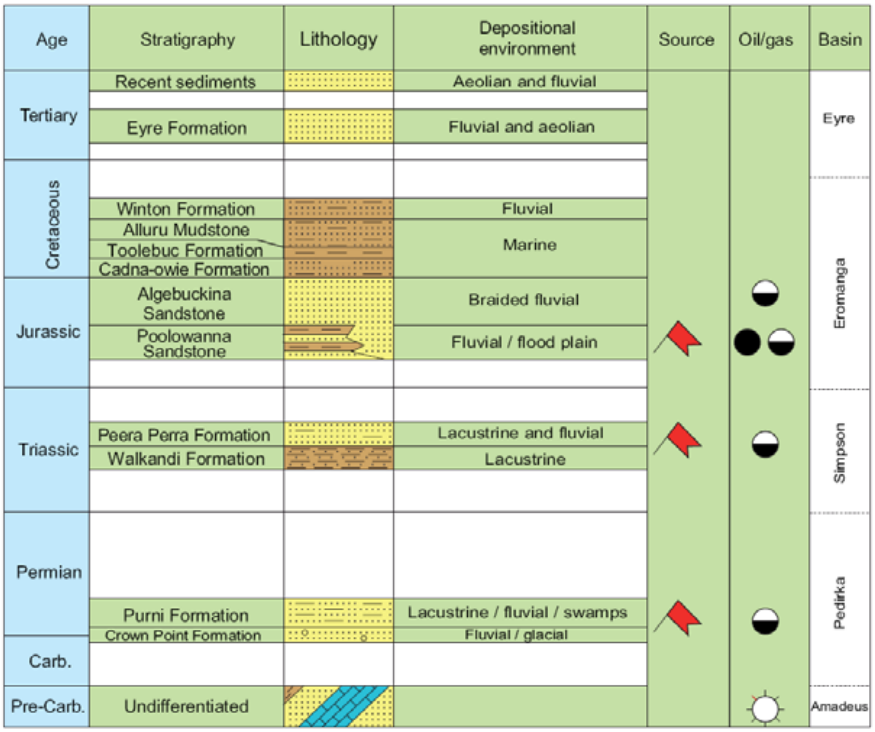

Figure 5. Pedirka Basin Regional Stratigraphy (Source: Middleton et al, 2005)

4. GEOLOGICAL MODEL, EXPLORATION RATIONALE AND MINING HISTORY

Extensive data review of the Northern Territory Government's Geoscience Exploration and Mining Information System (GEMIS) and records identified a number of previous exploration licences (EL) located over the Pedirka Basin Project area. These licences include, at least in part: EL 821, 8251, 8252, 8253, 8265, 8267, 2398, 23802, 25163 and 23740. Investigations into the reports and data produced from these permits found that limited drilling has occurred over the area and therefore limited data is available from this source in the assessment of the Pedirka Basin Project.

The exploration drilling and seismic lines that were undertaken by Tri-Star within the Pedirka Basin Project that occur thereon, have been listed below and shown in Figure 6.

Table 1. Seismic Data Summary

Survey ID	Year	Operator	Length (km)
PB-1101	2011	Tri-Star Coal Operations LLC	61.12
PB-1102A	2011	Tri-Star Coal Operations LLC	75.09
PB-1103	2012	Tri-Star Coal Operations LLC	89.64
PB-1104	2012	Tri-Star Coal Operations LLC	15.27
PB-1105	2012	Tri-Star Coal Operations LLC	76.22
PB-1106	2012	Tri-Star Coal Operations LLC	75.81
PB-1107	2012	Tri-Star Coal Operations LLC	73.98
PB-1108	2012	Tri-Star Coal Operations LLC	63.23
PB04	2011	Tri-Star Coal Operations LLC	32.72

Table 2. Drill Hole Summary

MA	HOLE ID	Type of Hole	Drilled Date	Depth
MA31358	PBIN_02	DCD	17-Dec-11	69
MA31358	PBIN_05	HRD	28-Jan-13	80
MA31358	PBIN_08	HRD	1-Feb-12	144
MA31361	PBCN_118	HRD	4-Aug-14	352
MA31361	PBCN_119	HRD	1-Aug-14	174
MA31361	PBCN_120	HRD	27-Jul-14	359
MA31361	PBCN_121	HRD	30-Jun-13	350
MA31361	PBCN_122	HRD	26-Jun-13	350
MA31361	PBCN1102_1105A*	HRD/DCD	21-Jun-13	318
MA31361	PBCN1102_1825	HRD	15-Jun-13	325
MA31361	PBCN1102_1940*	HRD	25-May-13	400
MA31361	PBCN1102_1940A	HRD	27-May-13	270
MA31361	PBCN1102_1940A*	HRD/DCD	27-May-13	270
MA31361	PBCN1102_2175	HRD	23-May-13	400
MA31361	PBCN1103_7980A	HRD/DCD	8-Jun-13	350
MA31361	PBCN1105_7400**	HRD	28-Apr-13	375
MA31362	PBCN_117	HRD	6-Aug-14	286
MA31362	PBCN1105_6350A**	HRD	25-Aug-12	325

MA31362	PBCN1105_6650	HRD	10-Aug-12	129
MA31362	PBCN1105_6650A	HRD	12-Aug-12	175
MA31362	PBCN1105_6650B	HRD	16-Aug-12	348
MA31362	PBCN1105_6650C**	HRD/DCD	15-May-13	349
MA31362	PBCN1105_6825**	HRD	25-Apr-13	350
MA31363	PAC001	Air Core	17-Mar-14	50
MA31363	PAC002	Air Core	17-Mar-14	50
MA31363	PAC003	Air Core	18-Mar-14	50
MA31363	PAC004	Air Core	18-Mar-14	50
MA31363	PAC005	Air Core	18-Mar-14	50
MA31363	PAC006	Air Core	18-Mar-14	50
MA31363	PAC007	Air Core	19-Mar-14	50
MA31363	PAC008	Air Core	19-Mar-14	50
MA31363	PAC009	Air Core	19-Mar-14	50
MA31363	PBCN1106_6025**	HRD	4-May-13	350
MA31363	PBCN1106_6087**	HRD / DCD	7-May-13	375
MA31363	PBCN1106_6255**	HRD	1-May-13	375
MA31371	PBIN_07	HRD	30-Jan-12	126
MA31375	PBCN_116	HRD	9-Aug-14	222
MA31375	PBIN_01	HRD	26-Jan-12	120
MA31375	PBIN_04	HRD	6-Feb-12	102
MA31375	PBIN_06	HRD	29-Jan-12	120
MA31376	PBIN_03	HRD	5-Feb-12	132
MA31361	BMR Finke 2	Exploration	-	9999
MA31372	New Crown 1	Exploration	-	960
MA31376	LILLA CREEK 1	Exploration	-	183.5
MA31364	CUR 10	Mineral	-	-
MA31364	CUR 19	Mineral	-	-
MA31372	New Crown 1	Petroleum	-	-
MA31376	LILLA CREEK 1	NT Geological Survey	-	-
MA31377	CUR 11	Mineral	-	-

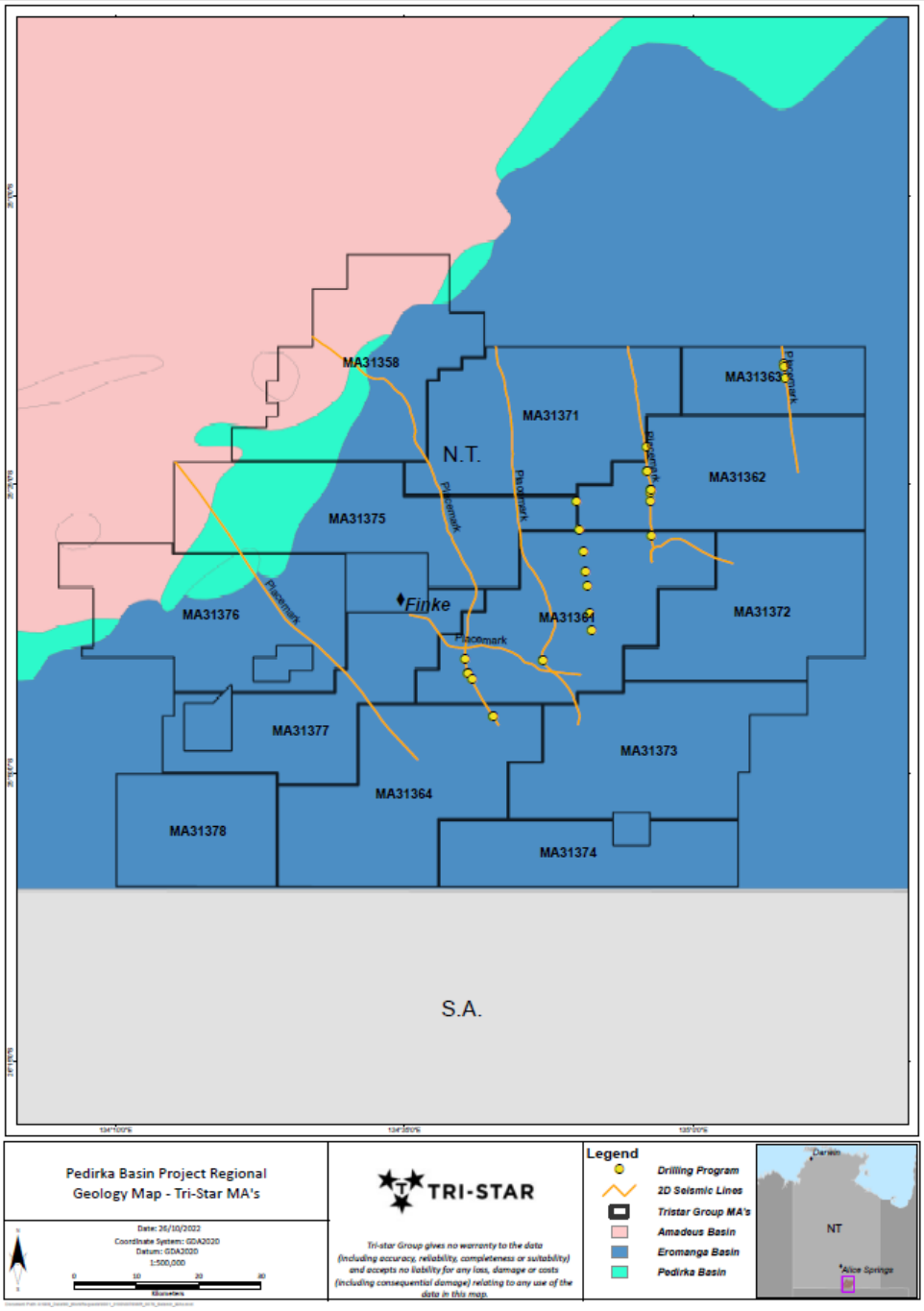

Figure 6. Historical Seismic and Drill Site Map

The Pedirka Basin Project is potentially prospective for the discovery of a range of minerals, including but not limited to ironstones, precious metals, base metals, silica and coal.

4.1 Base and precious metals

The sediments of the Amadeus, Eromanga, and Pedirka basins overlie the crystalline basement rocks of the Mesoproterozoic Musgrave Province within Tri-Star's Pedirka Basin Project. The Musgrave Province has undergone a structural evolution which makes it a favourable domain to host economic minerals. The regional NE-SW trending Woodroffe Thrust, a deep-seated, crustal scale fault, can be interpreted to extend into Tri-Star's project area, with the prospective Fregon Domain underlying the younger sediments in the project area.

These regional crustal-scale faults and associated structures are prospective for hosting mineral systems, including;

- Nickel, copper, and platinum group element (Ni-Cu-PGE) systems,
- Copper-gold systems,
- VHMS systems, and
- SEDEX systems.

In both Western Australia and South Australia, the Musgrave Province sequences are proven hosts to base-metal and PGE mineralisation, associated with the mafic and ultramafic rocks (e.g., the Nebo–Babel deposit and the Claude Hills deposit).

The exposed eastern Musgrave Provence of South Australia and the Northern Territory has seen little exploration activity, the overall metamorphic grades are lower and there is a greater proportion of volcanic and sedimentary protoliths, both of which are factors that enhance the prospectively of this area for a range of commodities, as outlined above.

An unexplained circular magnetic anomaly is located within the south-western portion of the project area and is interpreted to be associated with the rocks of the Musgrave Province. Based on the review of historical exploration results and depth to basement calculations, it is interpreted that the basement rocks of the Musgrave Province within the area are about 100m below the surface.

4.2 Coal Resources

Tri-Star's original exploration focus observed a sub-crop edge of the Purni Formation, which was thought to represent a lacustrine, meandering fluvial swap depositional environment conducive to coal formation.

Exploration undertaken between 2010 and 2014 identified coal measures within the Purni Formation, located within the eastern half of the project area. These coal measures are made up of multiple continuous coal seams, which show lateral thinning and thickening and strike northeast–southwest over a length of approximately 175km, with a gentle dip to the southeast at less than one degree.

The top of the coal measures occurs at approximately 130-200m below the surface in the north of the project area and 200-250m below the surface in the central and southern sections of the project area. With the coal measures occurring over an interval up to 100+m and containing up to 50+m net coal.

Tri-Star's original intention for these MAs was to develop a coal project. However, as a result of exploration, technical, commercial, and infrastructure studies for this area, Tri-Star's current focus is on understanding the circular magnetic anomaly located in the south-west of the project area and the associated potential of discovering base and precious metals within the area. Of particular interest are the rocks of the Musgrave Province which are interpreted to occur under younger sedimentary and/or aeolian sand cover.

5. EXPLORATION ACTIVITIES CONDUCTED DURING THE MA 31361 FULL TERM – COMPLETE TITLE HISTORY

No on-ground exploration activities were undertaken in MA 31361 during the full term for which Tri-Star held the tenure.

5.1 Geological activities and office studies

Base & precious metals

A technical working group was engaged to complete an integrated assessment of all Pedirka minerals data. The group deployed advanced geophysical methods and remote sensing technology to assist Tri-Star in finalising its exploration plan and focus. The working group recommended Tri-Star progress further field prospecting and surface gravity data acquisition; however, this work was completed outside of MA 31361 (Figure 7).

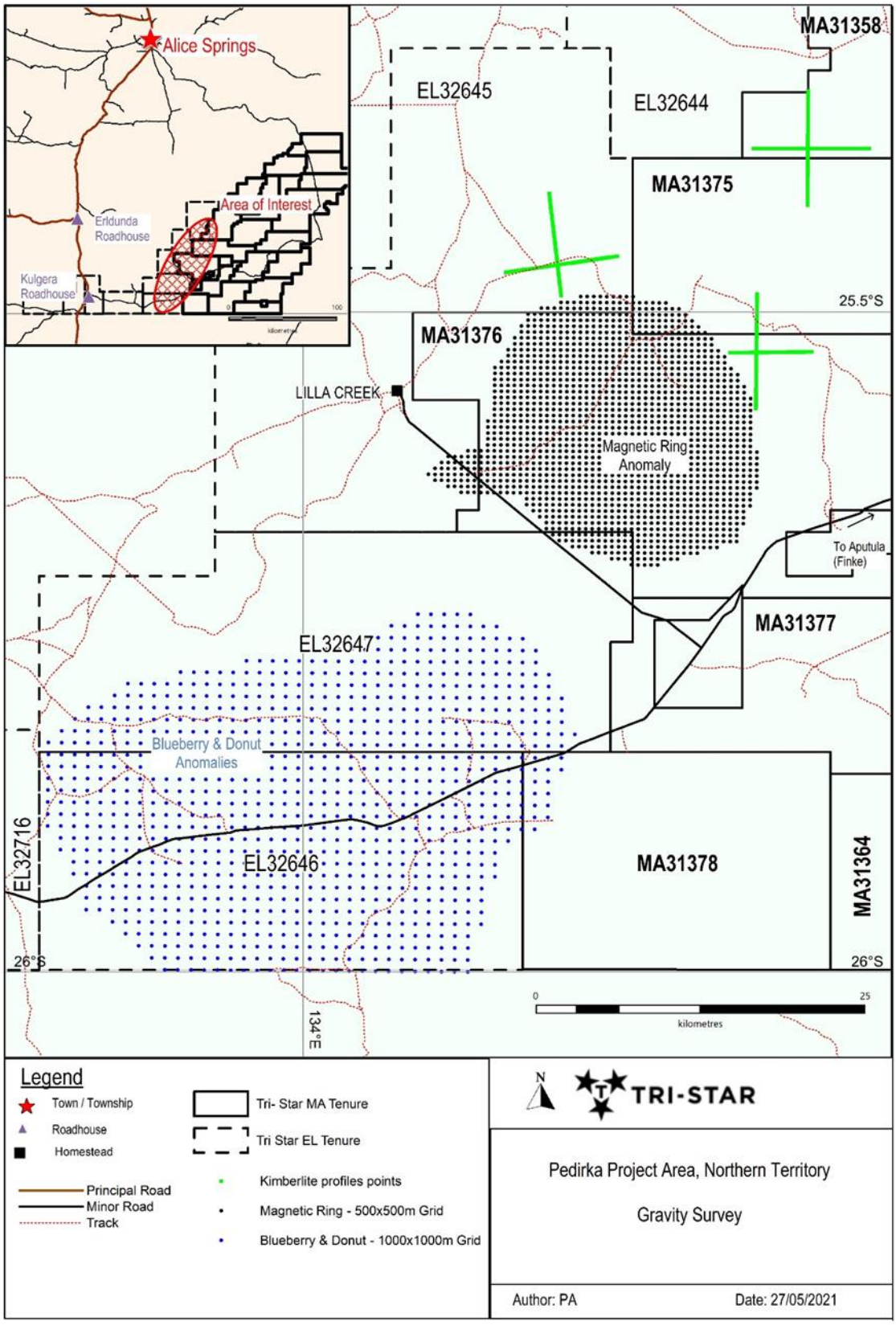

Figure 7. Gravity Survey

Coal Resources

Tri-Star's original intention for the Pedirka Basin Project was to develop a coal project. Tri-Star has completed a number of technical, commercial and infrastructure studies to establish the viability of developing the coal resources located within the project area in the current market environment. These studies indicate that mining of thermal coal is unlikely to be commercially viable at this time, due to the distance of the project area to necessary transport infrastructure.

Tri-Star's current focus is on understanding the circular magnetic anomaly located in the south-west of the project area and the associated potential of discovering base and precious metals within the area. Of particular interest are the rocks of the Musgrave Province which are interpreted to occur under younger sedimentary and/or aeolian sand cover.

5.2 Remote sensing & Geophysical activities

No remote sensing and geophysical activities were completed on MA 31361.

5.3 Surface Geochemistry

No surface geochemistry was undertaken on MA 31361.

5.4 Drilling

No drilling was undertaken on MA 31361.

5.5 Geotechnical studies

No geotechnical studies were undertaken on MA 31361.

5.6 Resources and reserve estimation/modelling

Activities undertaken to date on MA 31361 and the associated results are not of a nature that would allow a resource to be estimated.

5.7 Pastoralist Liaison

Tri-Star maintained contact through the Central Lands Council and the Traditional Owners legal representative in Brisbane ensuring they were kept updated on all planned field-based activities. An on-permit meeting was held on 7 April 2022 to provide information to the Yankunytjara Matutjara Aboriginal Corporation (YMAC) and other relevant traditional owners about Tri-Star's activities. Refer to Figure 8 below for the Pedirka Basin Project Native Title map.

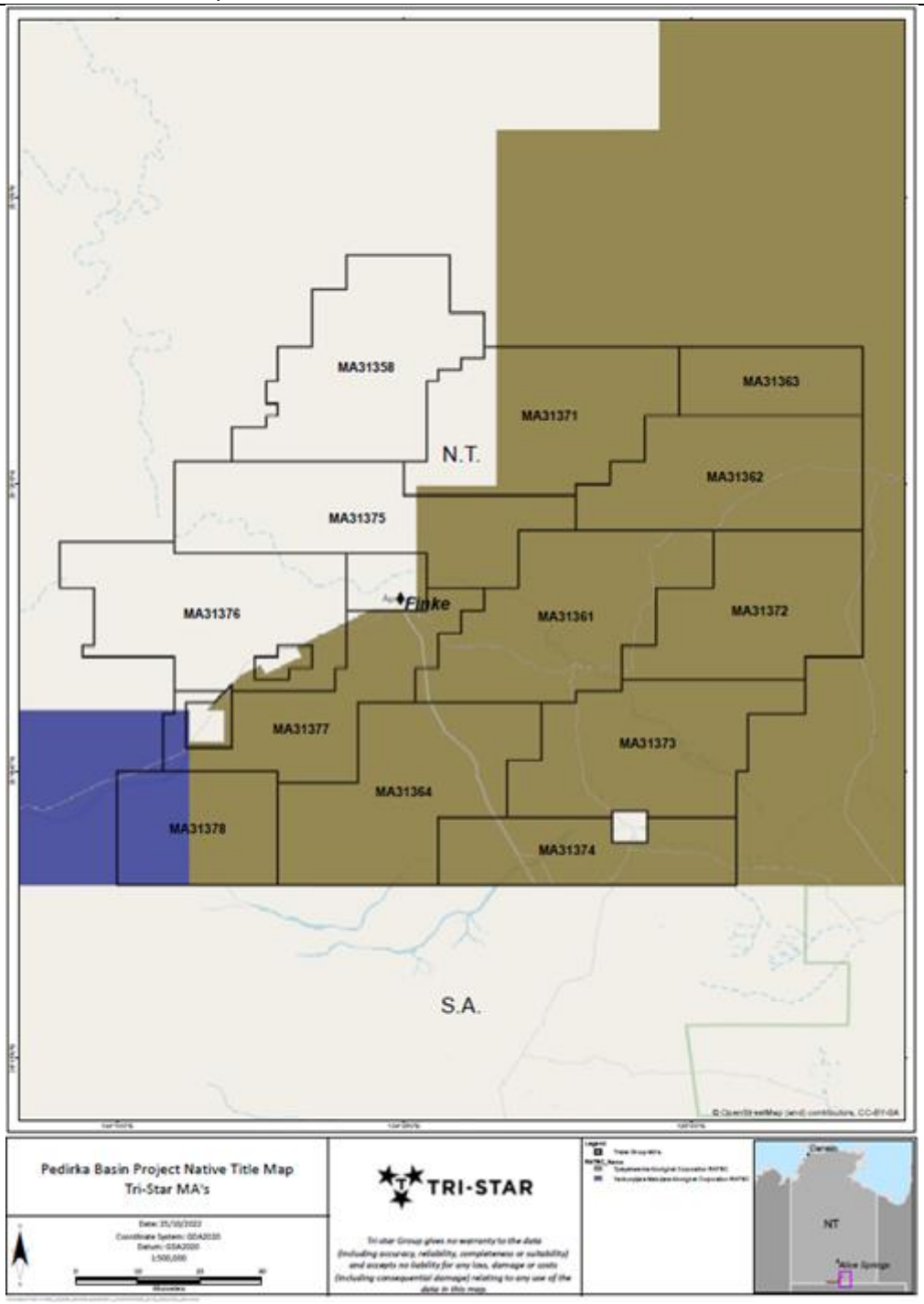

Figure 8. Pedirka Basin Project Native Title Map

6. CONCLUSIONS AND RECOMMENDATIONS

MA 31361 formed part of the larger Pedirka Basin Project and subsequently was identified for full relinquishment. No on-ground exploration activity was completed during the entire term of MA 31361.

7. BIBLIOGRAPHY

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