

# **Molyhil Mining Pty Ltd**

## **Annual Technical Report**

**GR278-13**  
(MLS77-MLS86)

**For Period 01/01/15 - 31/12/15**

**HUCKITTA 1:250K MAP SHEET**

- Distribution:
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(Thor Mining PLC, Level 1, 32 Richmond Road, KESWICK, SA, 5035)
  2. Mining Titles Division & NT Geological Survey  
(NT Department of Resources – Darwin)
  3. Austwide Mining Title Management Pty Ltd, Darwin NT

<b>Titleholder</b>	Molyhil Mining Pty Ltd (100%)
<b>Operator (if different from above)</b>	
<b>Tenement Manager/Agent</b>	Austwide Mining Title Management Pty Ltd
<b>Titles/Tenements</b>	MLS77-MLS86
<b>Mine/Project Name</b>	Oorabra Reefs
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## **ABSTRACT**

This annual report covers MLS77-MLS86 for the period 31 December 2014 to 30 December 2015. MLS77-MLS86 were granted on April 19, 1974. Thor Mining has held the licences since 2004. The licences expired on December 30, 2014 and were subsequently re-granted for a further 10 years to December 31, 2024. Work was undertaken in the 1970s to estimate the fluorite resource (pre-JORC) which comprises 364,000 short tons at 40% CaF<sub>2</sub>. No work was undertaken during the reporting period however the viability of the resource will be enhanced and feasibility assessment will be undertaken once operation is re-established at the nearby Molyhil mine.

## **1. Introduction**

The Oorabra Reefs are a series of Quartz-Fluorite-Barite veins located approximately 11 km's north of Molyhil on E22349 and within the ten mining leases (MLS77-MLS86), some 330kms by road north east of Alice Springs.

The Oorabra reefs occur as two separate reef systems in a belt approximately 21kms long and 760m wide, consisting of 20 separate veins of various sizes.

The fluorite mineralisation occurs as hydrothermal fissure veins in the Jinka granite, previous detailed work in the early 1970's was completed by Central Pacific Minerals NL, the work included mapping, trenching and sampling, airtrack and diamond drilling which cumulated in a inferred resource at location E of 364,000 short tons at 39.66% CaF<sub>2</sub>.

Thor Mining PLC completed rock chip sampling in 2007 to validate the previous exploration work. A total of 162 rock chip samples were collected and sent to Genalysis and Ultra Trace in Perth.

Previous exploration work was completed by Central Pacific Minerals NL (CPM) from 1971 to 1973; work completed is detailed below;

- Regional and detailed mapping (1:250) of occurrences A to H.
- Channel sampling reefs A, C and E.
- Air track drilling reefs A,C and E, Reef K( Narbarloo North reefs) had 1 hole drilled and returned 3.5m @ 35.1%CaF<sub>2</sub>.
- Petrology.
- Beneficiation studies.
- Diamond drilling Reef E.
- Reef E mineral resource estimate.

### **1.1 Previous Resource Work**

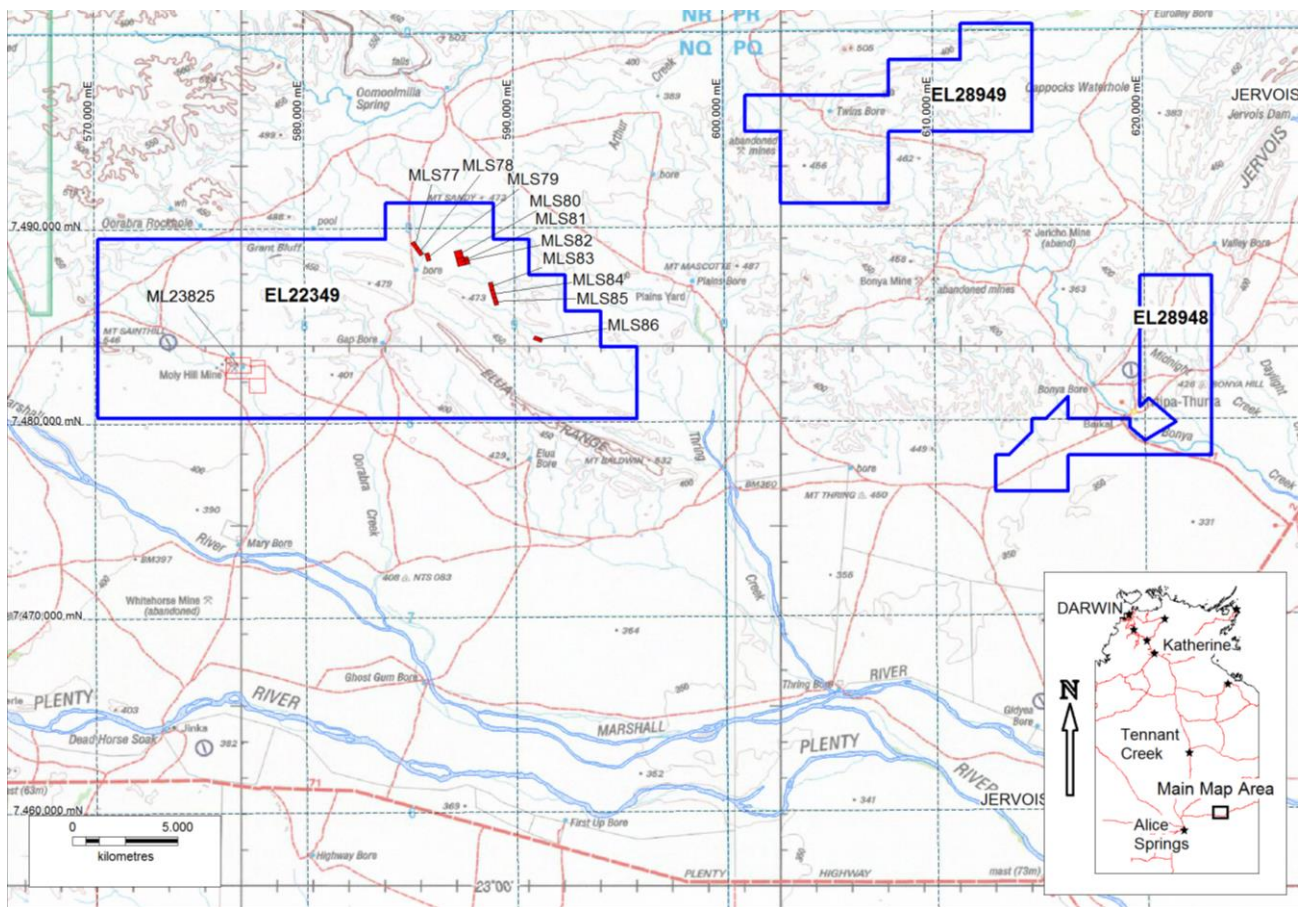
The resource estimate completed at location E totalled of 364,000 short tons at 39.66% CaF<sub>2</sub>, the average width of this reef is 3m and has a strike extent of 524m, and is open to the north. Seven diamond drill holes were used in this calculation, a total of 665m of NQ core drilling was completed and intersected the reef at depths of 19m to 137m.

The calculation was completed in 3 blocks; 460s to 280s, 537s to 641s and 40s to 280s, to depths of 75m, 100m and 50m respectively.

Intersections from diamond holes used in calculation;

Drill Hole Id	Depth From	Width (> 10% CaF <sub>2</sub> )	Grade % CaF <sub>2</sub>
DD1	90.3m	4.66m	43.5%
DD2	64.8m	3.78m	41.1%
DD4	122.0m	0.73m	52.5%
DD6	80.6m	1.71m	49.2%
DD7	49.7m	3.05m	35.8%
DD8	20.15m	3.41m	44.0%

## 2. Map:



Map showing location of MLS77-MLS86.

### 3. Tenure

Lease	Grant Date	Expiry Date	Area	Commitment	Rent	Holder
MLS77	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS78	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS79	19/04/1974	31/12/2024	8.09 ha	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%)
MLS80	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS81	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS82	19/04/1974	31/12/2024	8.09 ha	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%)
MLS83	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS84	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS85	19/04/1974	31/12/2024	16.18 ha	\$0.00	\$187.00	Molyhil Mining Pty Ltd (100%)
MLS86	19/04/1974	31/12/2024	8.05 ha	\$0.00	\$99.00	Molyhil Mining Pty Ltd (100%)

### 4. Geology:

The fluorite reefs form a hydrothermal vein system within the lower Proterozoic Jinka granite; there are two south easterly striking belts of mineralisation on the northern and southern side of the Elyuah Range. The northern belt is some 21kms long and 760m wide and has at least 16 separate occurrences including reefs A-H (CR72/013A). Strike directions vary between north-west, north-east and east south-easterly. The southern belt is 8kms in length and trends east south-easterly and contain 5 separate veins over a width of 600m. the dimension and grades of the reefs vary from 3m to 1800m in length and between 0.1m and 8m in width. Grades sampled range from 5% CaF<sub>2</sub> to 70% CaF<sub>2</sub>.

## **5. Mineralisation:**

The Quartz–Fluorite-Barite reefs are hydrothermal fissure veins consisting of alternating bands from centimetres thick to several metres thick of quartz and fluorite forming typical ribbon structures’, indicating multiple phases with comb and vuggy textures noted with the quartz rich lenses.

Fluorite occurs as colourless and purple varieties with quartz intergrowths, traces of Cu, Pb and Au have been noted at various localities, quartz is the principal gangue material which forms some 50-65% of the reefs, barite is associated and occurs as cavity infillings it form small rosettes and crystalline aggregates up to 0.3m in length, CPM estimated that barite formed less than 5% of the reefs by volume.

The host rock granite is frequently altered, kaolinised and epidote alteration is noted, diamond drilling revealed that parts of the granite adjacent and within veins is also mineralised.



**Fluorite**

## **6. Work complete during the period:**

No exploration work was carried out during the period 31/12/14 - 30/12/15.

## **7. Conclusion & Recommendations**

Given the depressed commodity market at the time of writing, the resources contained within these mining leases remain unviable. Once operation is re-established at the nearby Molyhil mine, the viability of these resources will be enhanced and feasibility assessment will be undertaken.