

**SOUTH  
AUSTRALIAN**  
RESOURCES & ENERGY INVESTMENT  
CONFERENCE



## **THINK ZINC**

### **Exploring the Billy Hills Project**

David Hutton | Managing Director | 10 April 2019

# Acknowledgements

- **Gooniyandi Traditional Owners**
  - Mithril expresses its condolences to the Gooniyandi following the recent passing of a Senior Cultural Elder.
- **Gogo Station**
- **Fossil Downs Station**

Mithril has developed strong and respectful working relationships with Traditional Owners and local pastoralists

# About Mithril Resources (MTH.ASX)

- **ASX listed mineral explorer focussed on the Billy Hills Zinc Project**
- **Divesting non – core projects to ensure focus**
- **Experienced technical and corporate team.**

Shares on Issue: 422M

Options (unlisted): 4.2M

Market Cap (@ 0.5 cents): \$2.11M

Cash (end Dec 18 Qtr.): \$1.25M

Top 20 hold 49%; retail - 94%, directors & management - 4%, institutions - 2%



# Experienced technical and corporate team

**Graham Ascough** (Chairman) – Geophysicist with 30 years industry experience and formerly Falconbridge Exploration Manager Australasia (Nickel and PGE's).

**Donald Stephens** (Non Executive Director / Company Secretary) – Chartered Accountant and corporate adviser with over 30 years of experience in the accounting industry, including 14 years as a partner of HLB Mann Judd, a firm of Chartered Accountants.

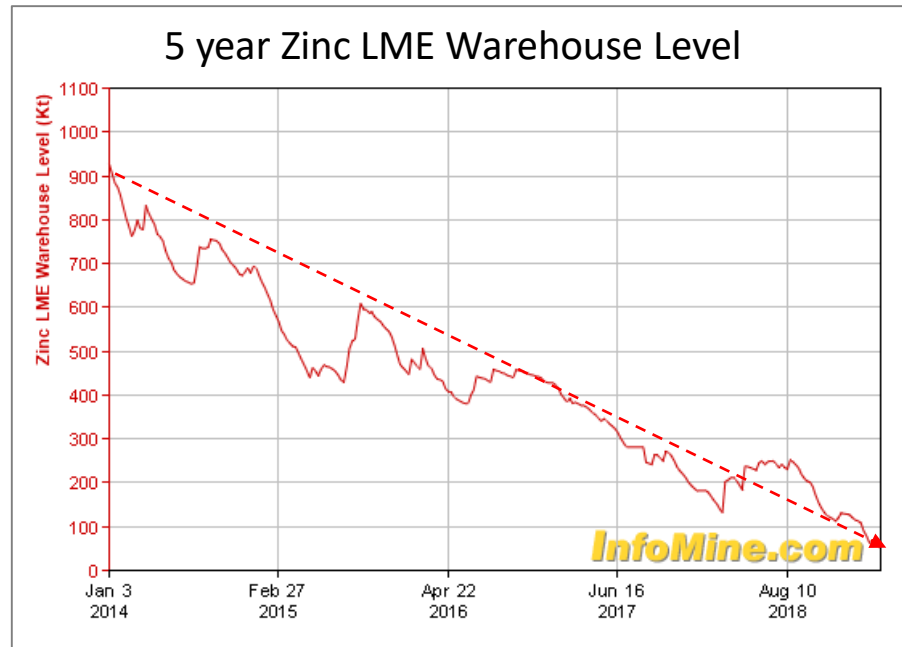
**David Hutton** (Manager Director) – Geologist with 29 years industry experience and previously Mt Isa Mines / MIMEX, Forrestania Gold, LionOre, Western Metals, and Breakaway Resources.

**Kelvin Blundell** (Consultant Geophysicist) – Geophysicist with 23 years industry experience and previously consulting geophysicist for Sandfire Resources during the Degruusa Cu-Au discovery.



# Positive outlook for zinc

- Stockpiles down & prices up



- Major uses of zinc metal - galvanizing iron and steel against corrosion and making alloys

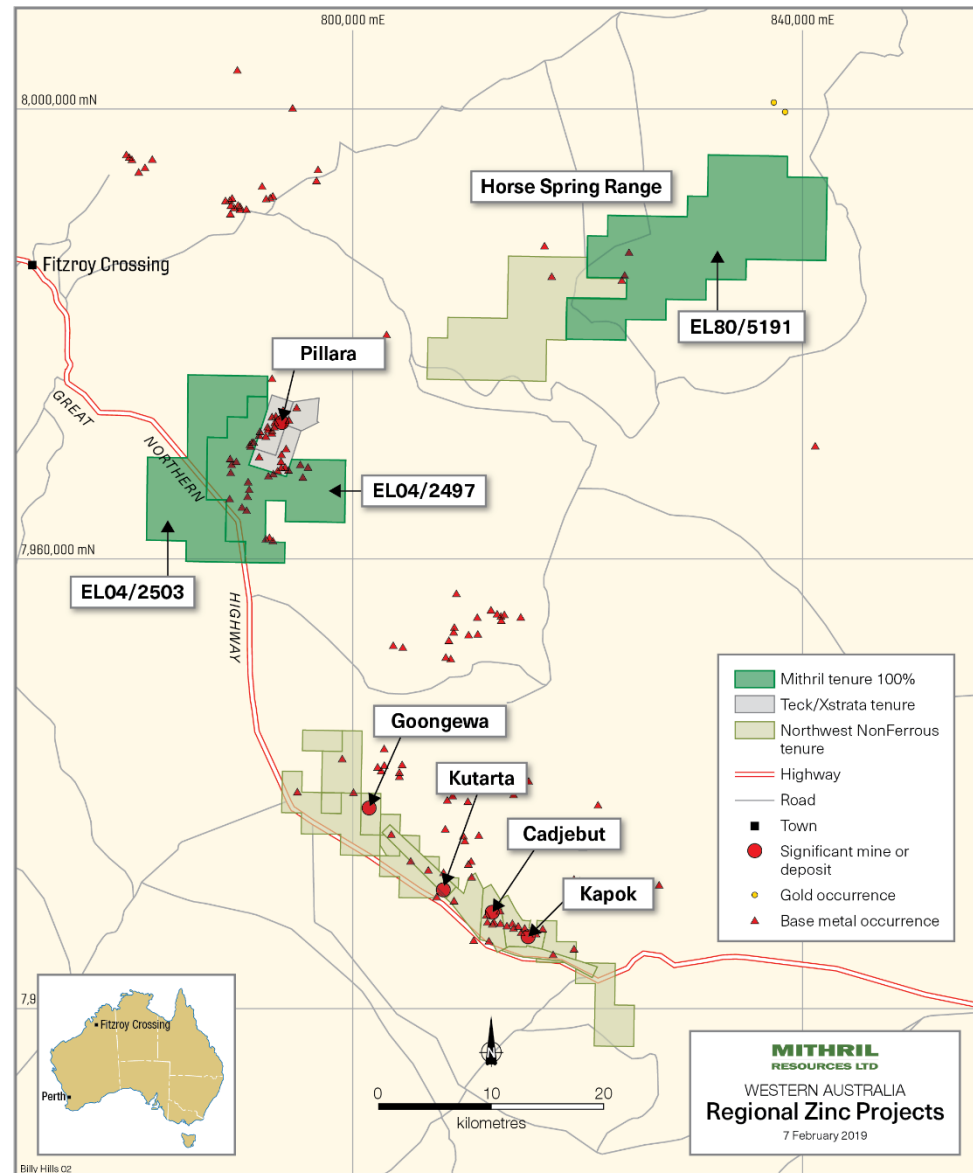
# Billy Hills Zinc Project – MTH 100%

Mithril uniquely positioned to explore Billy Hills at a time of strong commodity prices



# Billy Hills

- Fitzroy Crossing, WA
- Large project area (400km<sup>2</sup>)
- Adjacent the former Pillara Mine
  - (10.3 Mt @ 6.9% Zn, 2.3% Pb produced from June 1997 to October 2003)
- Lennard Shelf mineral district
- Targeting large deposits along strike from known mineralisation
- Fully permitted to explore
- **Part of a broader consolidation strategy**



# Landscape



# What's the attraction of Billy Hills?

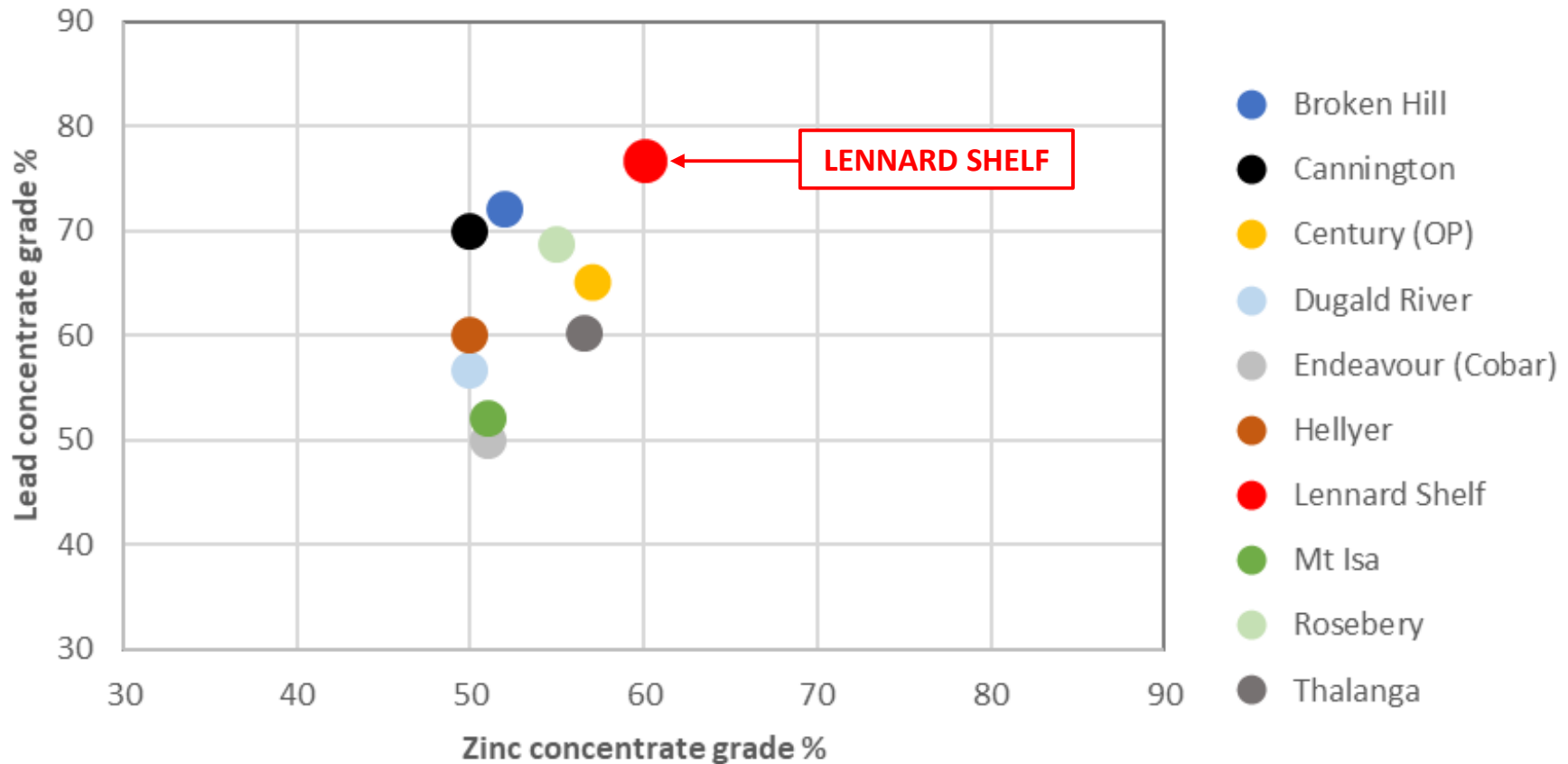
- Excellent potential to make new discoveries in a proven mineral district
- Lennard Shelf hosts large deposits (Pillara pre-mine resource of 18.5Mt @ 7.7% zinc, 2.4% lead)
- Lennard Shelf produces **high - grade metal concentrates**

| Lennard Shelf Operations – Production statistics August 1994 to March 2003* |                  |             |             |
|-----------------------------------------------------------------------------|------------------|-------------|-------------|
| Category                                                                    | Tonnes           | Zinc %      | Lead %      |
| Total Tonnes Mined                                                          | 15,355,572       | 7.4         | 3.1         |
| Total Mill Production                                                       | 15,316,218       | 7.3         | 3.0         |
| <b>Total Zinc Concentrates</b>                                              | <b>1,766,787</b> | <b>60.1</b> |             |
| <b>Total Lead Concentrates</b>                                              | <b>531,531</b>   |             | <b>76.5</b> |

- No modern exploration (i.e. last 20 years) – *Apply new ideas*
- Publicly available historic exploration databases
- Mithril has a strong geological understanding of the Lennard Shelf deposits

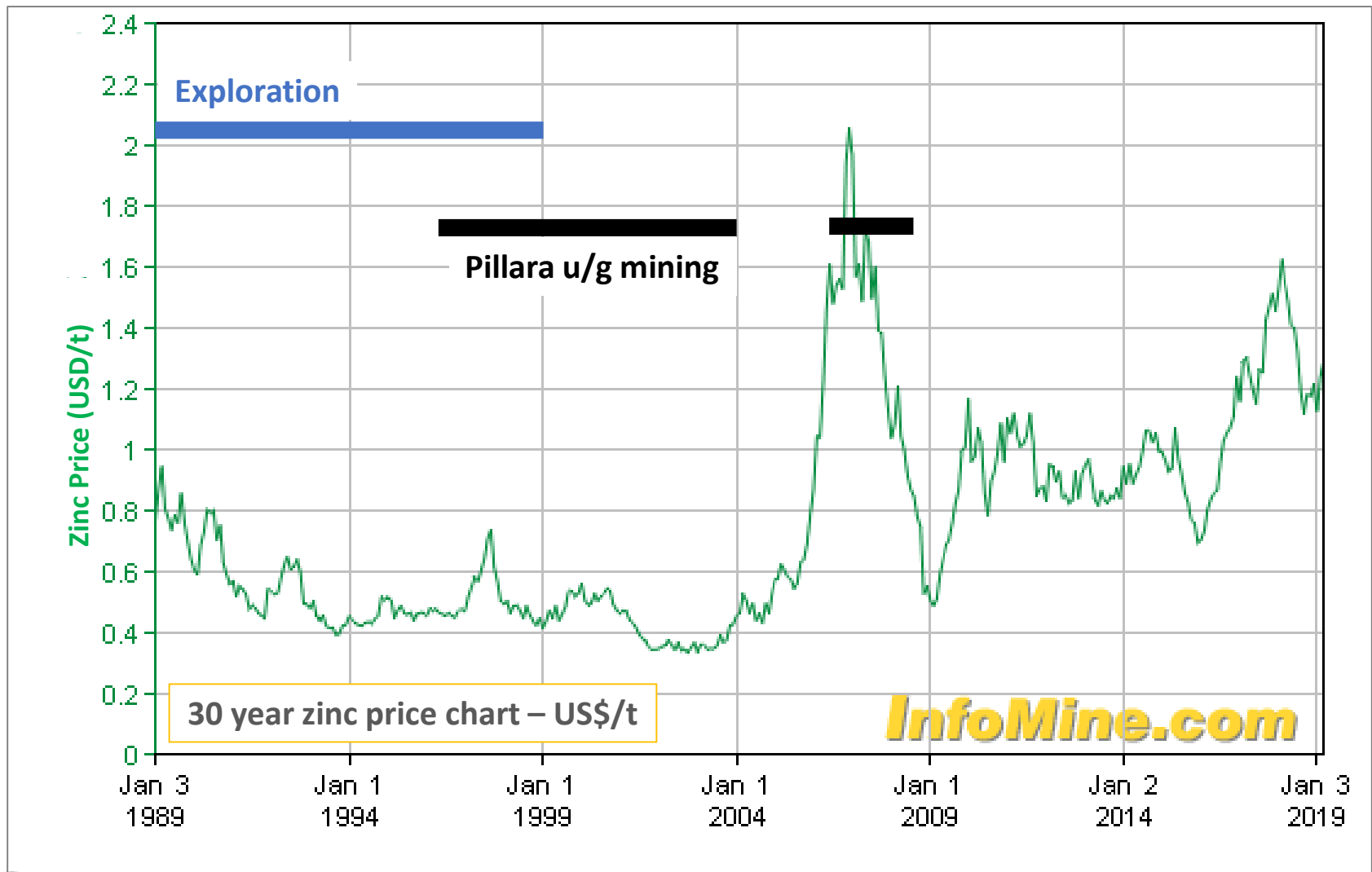
# High - grade (= high value) metal concentrates

Comparative lead and zinc concentrate grades – *Australian examples*



Sourced from Company Quarterly Reports and AusIMM Monograph 28 (Australasian Mining and Metallurgical Operating Practices – 3<sup>rd</sup> Edition, 2013)

# No modern exploration at Billy Hills



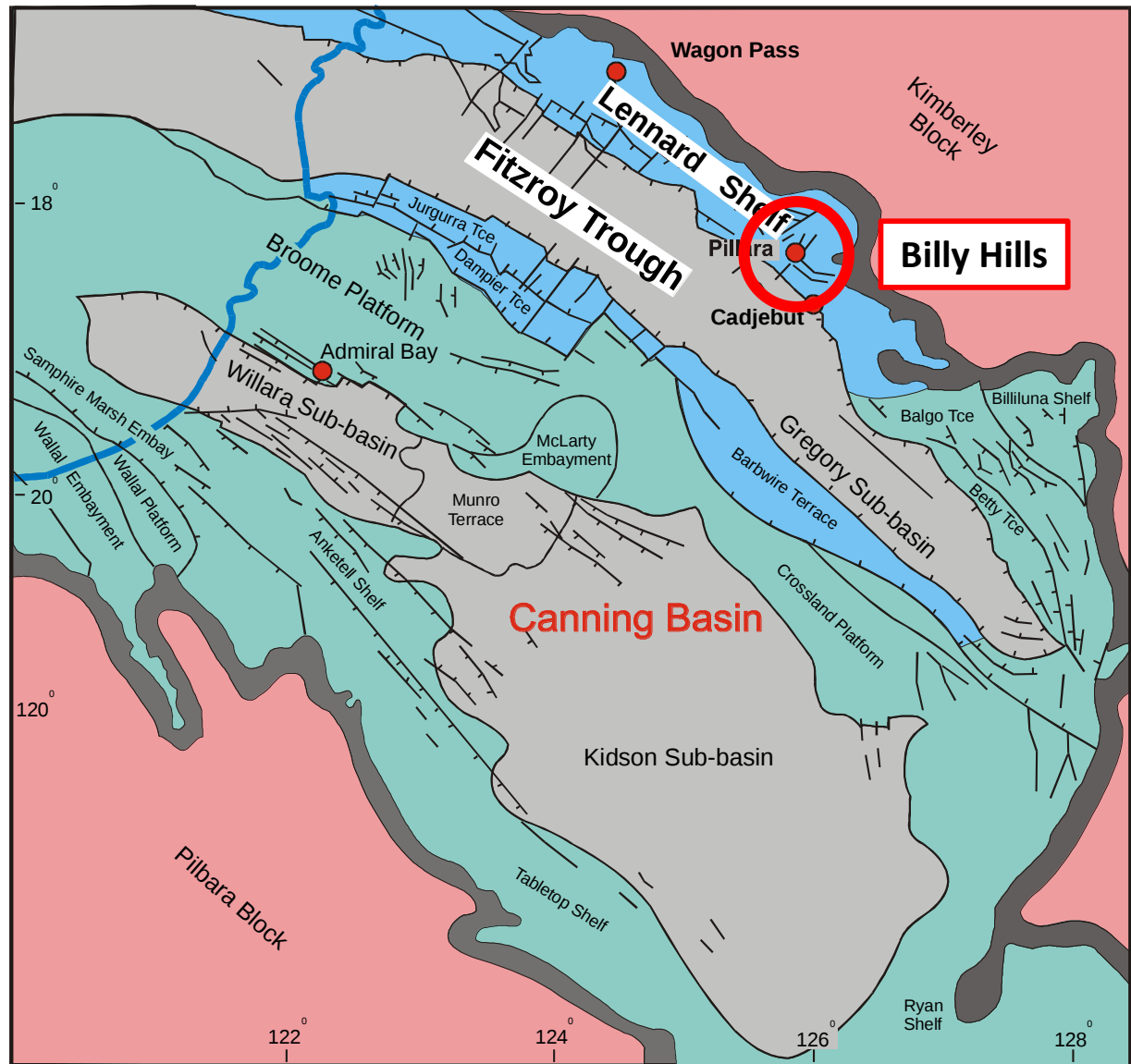
# Geological Setting



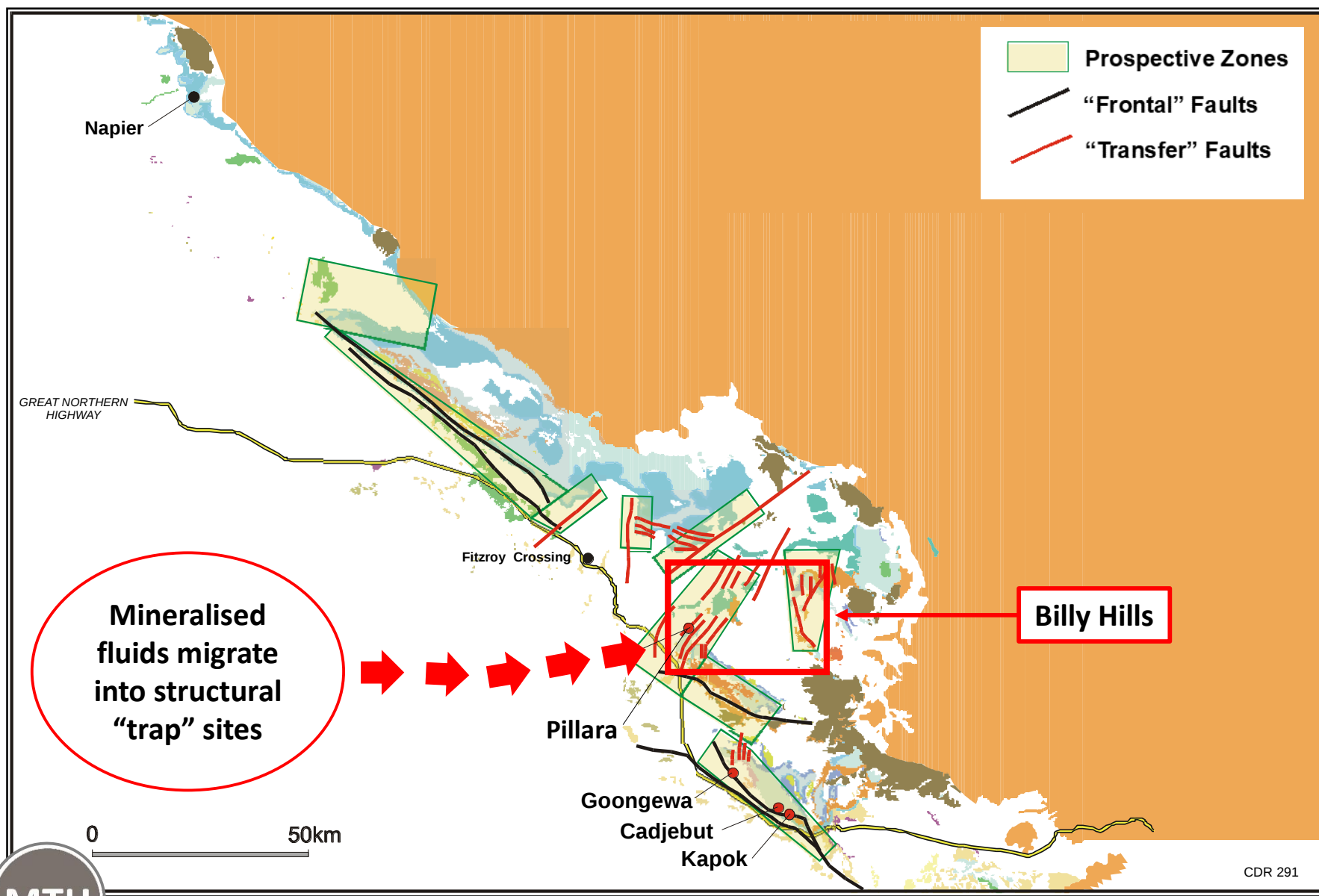
## REGIONAL SETTING OF THE LENNARD SHELF

-  Basin Margin
-  Fault
-  Structural element boundary
-  Carbonate-hosted base-metal deposit

0 100  
Kilometres



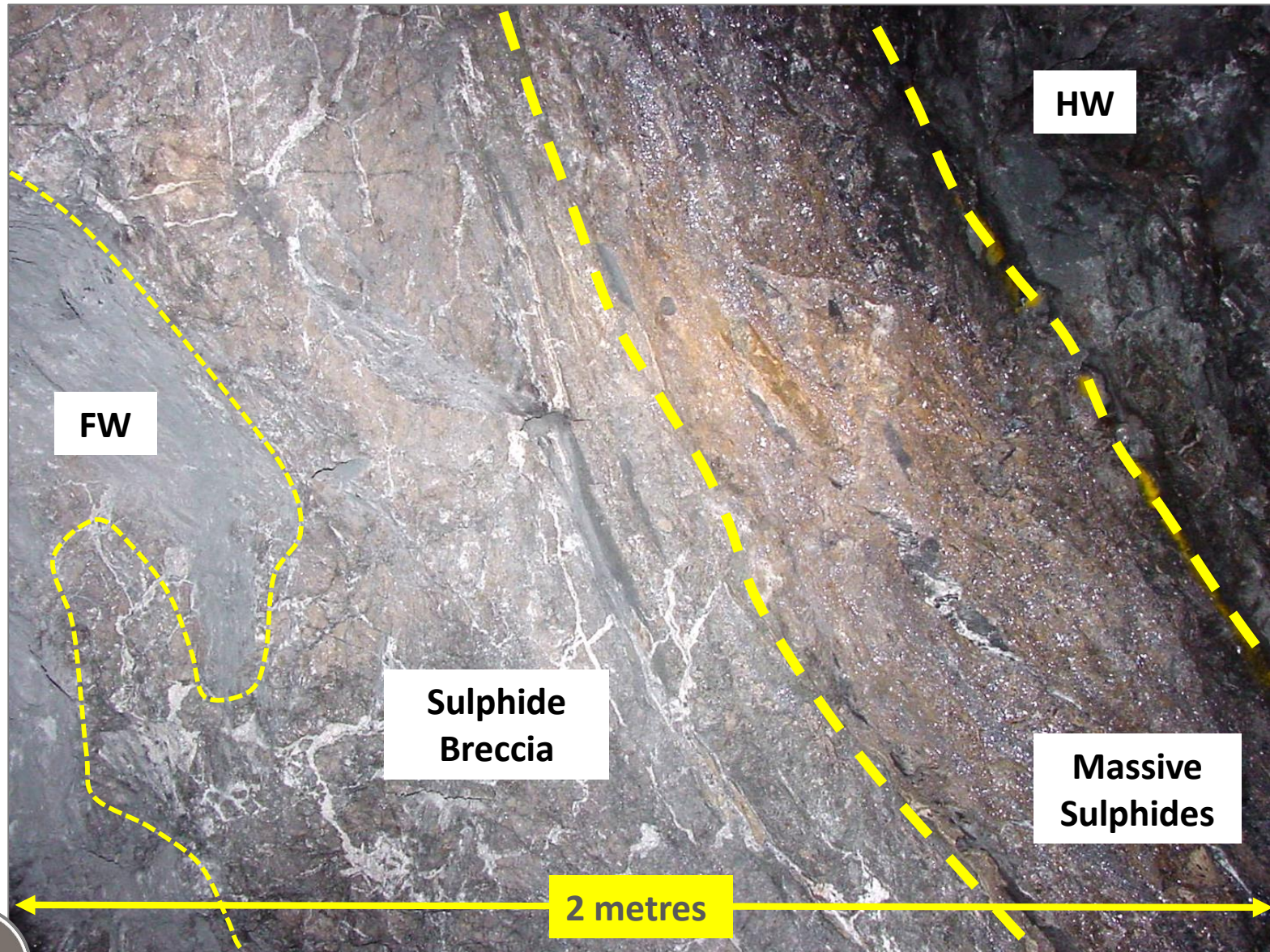
# Fault zones as “trap” sites for zinc mineralisation



CDR 291

# High - grade massive zinc sulphides in fault zones

Underground ore face – Kapok Mine

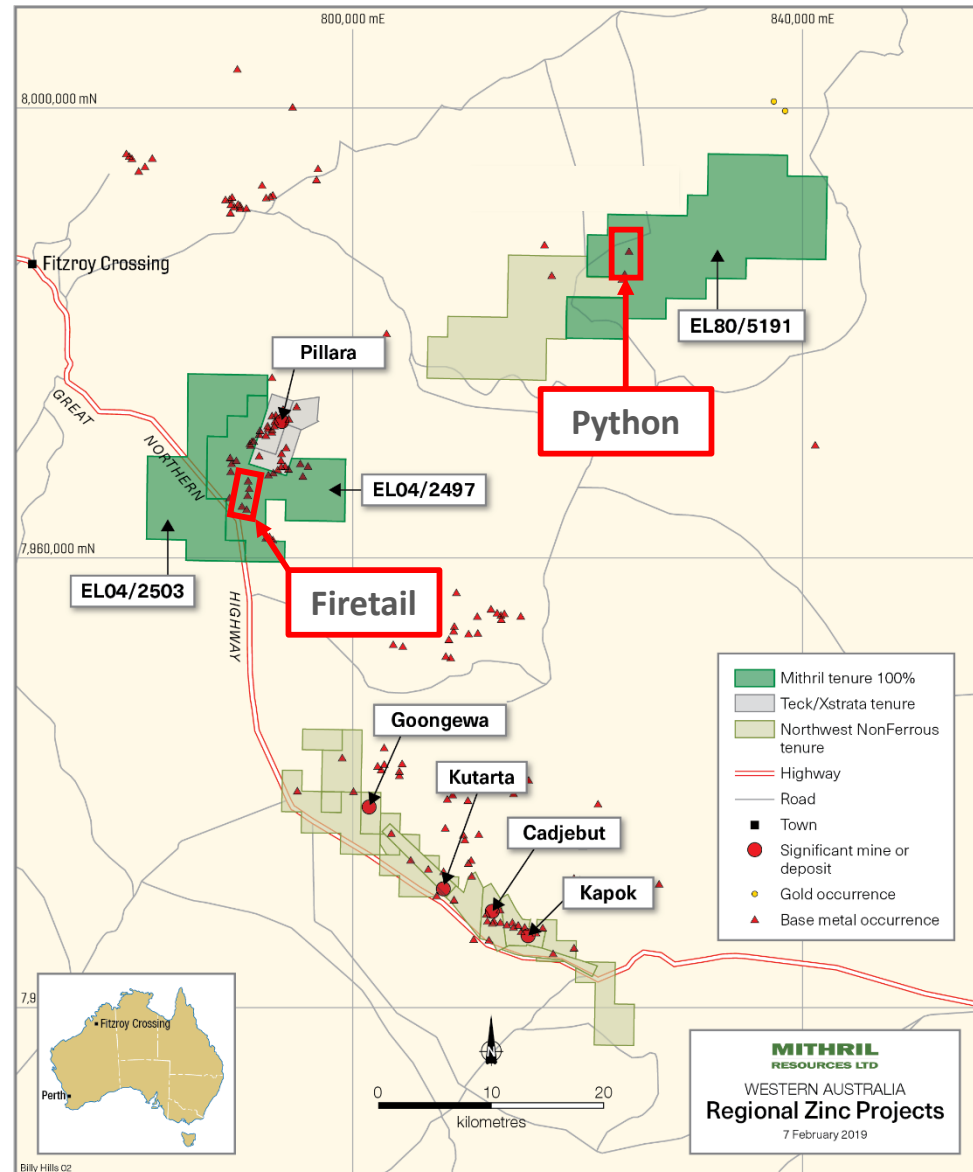


# Zinc sulphide gossans in faults at surface



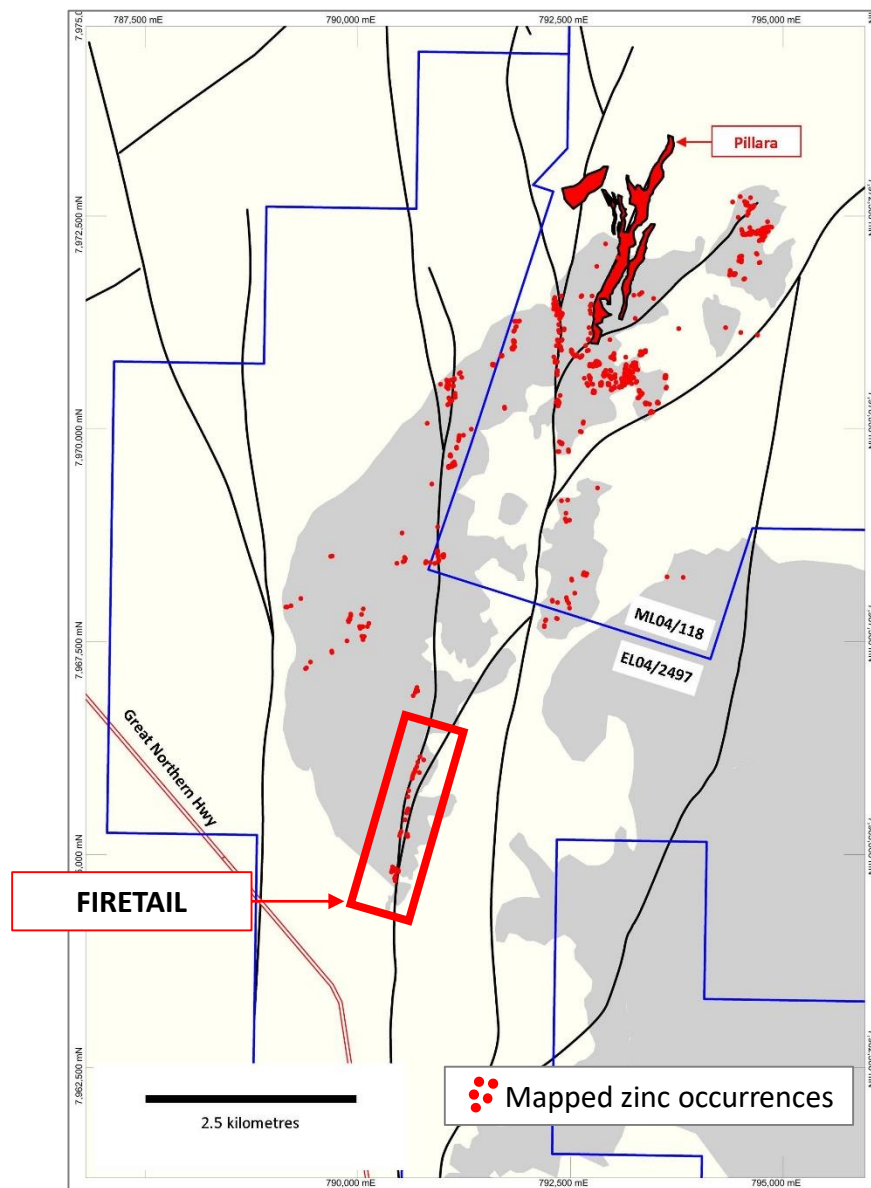
# Two targets prioritised for follow-up

- Extensive data compilation and target generation undertaken over last 12 months
- Access and Heritage Agreements (5 in total) executed during 2018
- 2019 marks inaugural field season
- **Firetail** and **Python** prioritised for field follow-up in April / May 2019



# Firetail – surface mineralisation over 1,500 metres

- **Firetail** characterised by;
  - ✓ Favourable structural setting
  - ✓ Surface zinc occurrences
  - ✓ Rock chips up to 10.98% Zn + Pb, 98g/t silver
  - ✓ Soil anomalies open along strike
  - ✓ Lack of systematic sampling over length of fault zone
  - ✓ Ineffective historic drill testing – 3 shallow holes to test 1,500 metres strike
  - ✓ Last explored in 1993

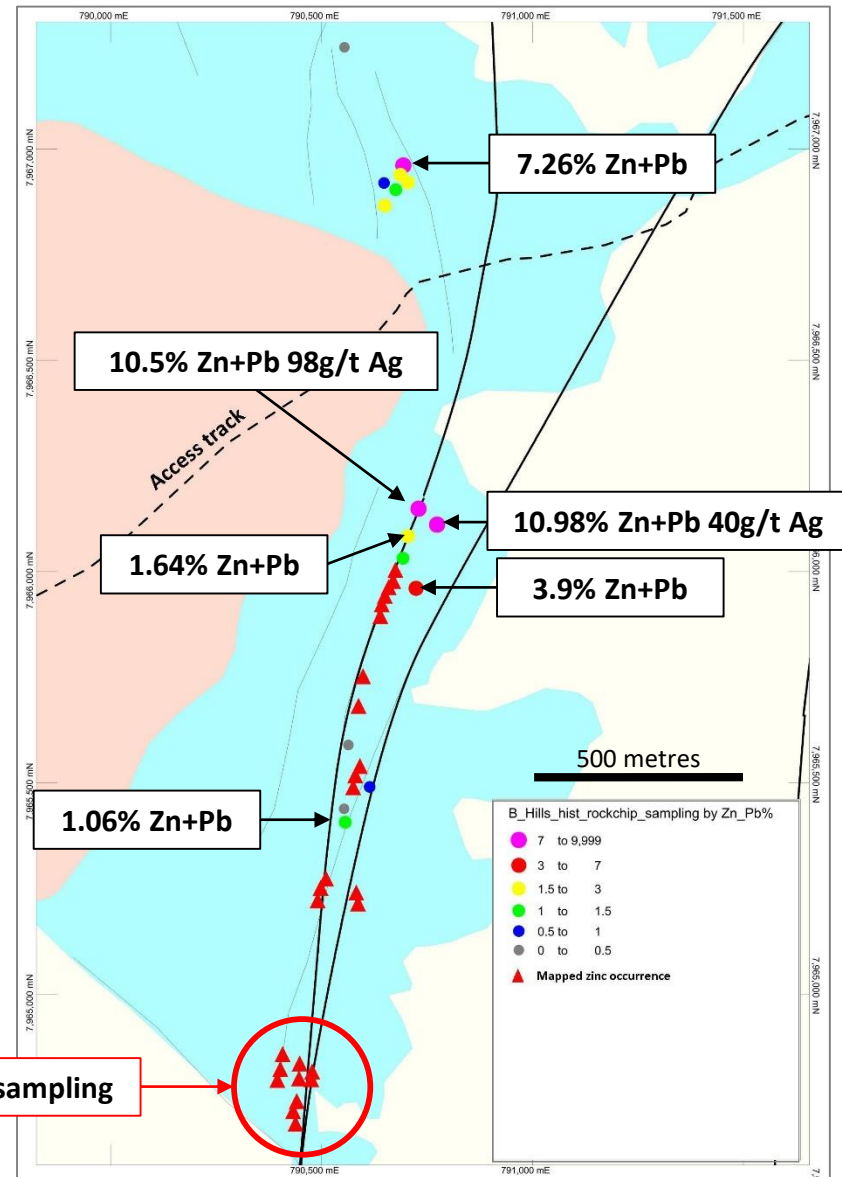


# Firetail rock chip results

- Strong zinc, lead, silver results
- Zones of previously mapped surface zinc occurrences yet to be systematically sampled

1,600 metres

No rock chip or soil sampling

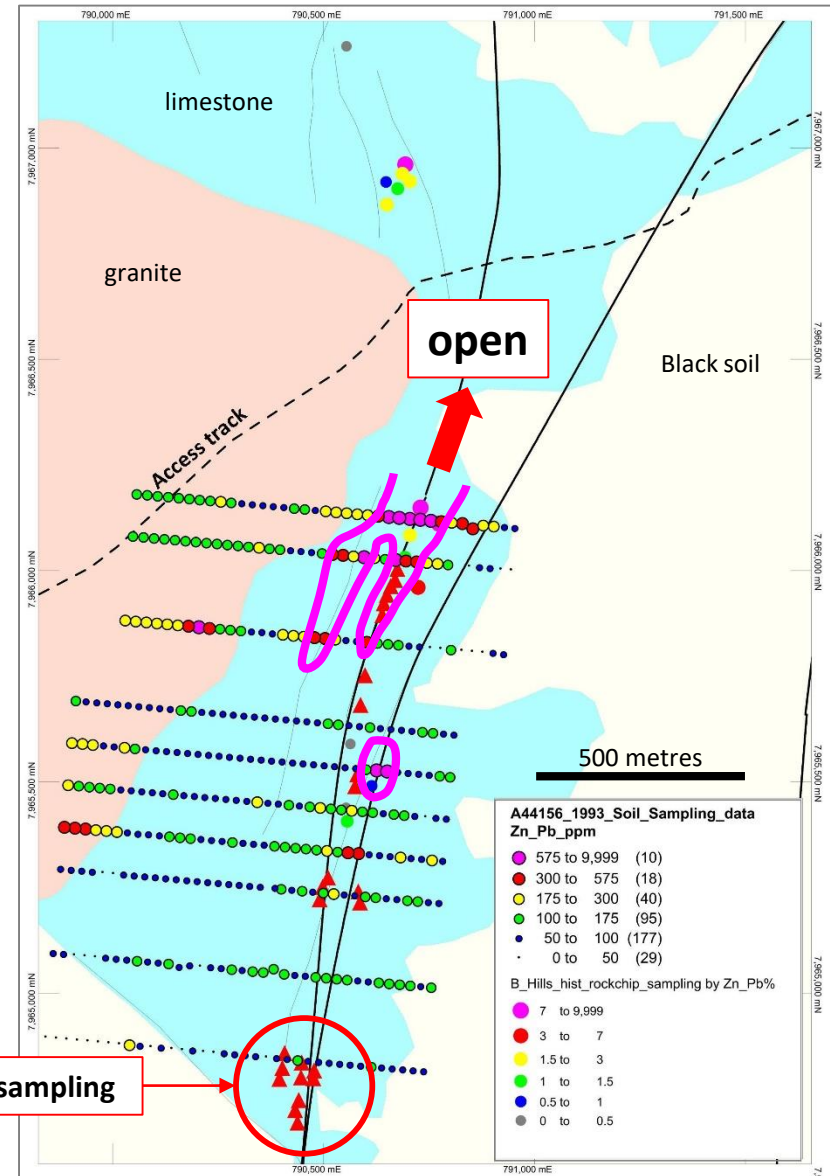


# Firetail soil anomalies

- +500ppm Zn + Pb anomaly open to the north
- No sampling at southern end

1,600 metres

No rock chip or soil sampling

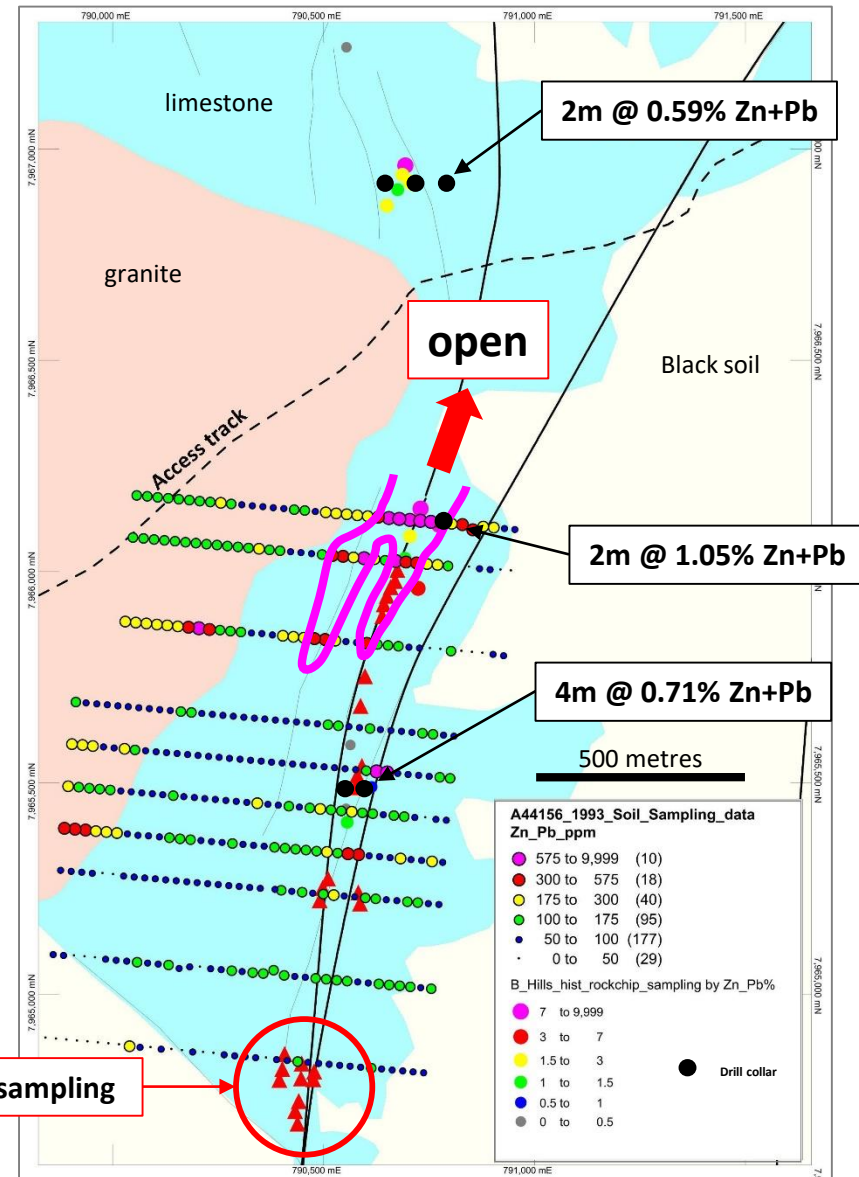


# Firetail drilling

- 3 shallow diamond holes
- Did they test the fault zone?

1,600 metres

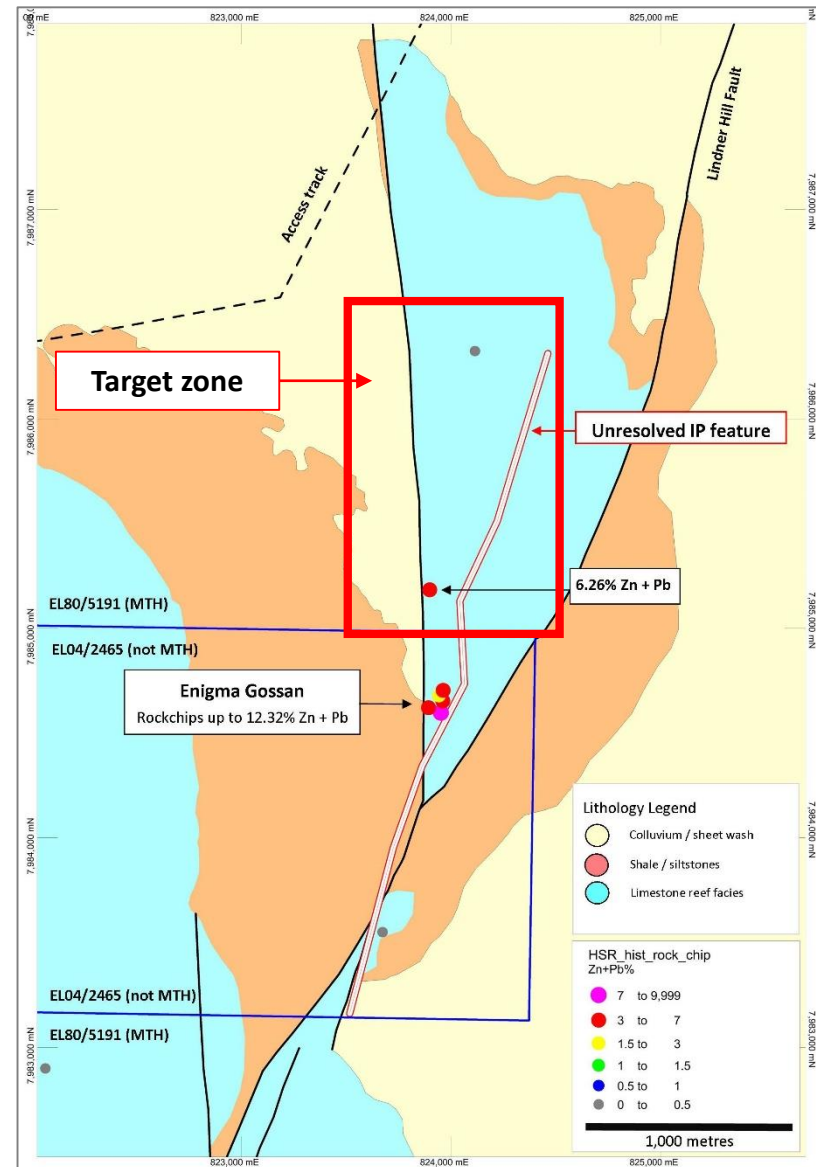
No rock chip or soil sampling



# Python – 1,000 metre target zone

- **Python** characterised by;
  - ✓ Mineralised fault zones
  - ✓ Rock chip samples up to 12.23% Zn + Pb
  - ✓ Soil anomalies
  - ✓ Unresolved IP geophysical feature
  - ✓ Lack of systematic sampling and drill testing
  - ✓ Last explored in 1998

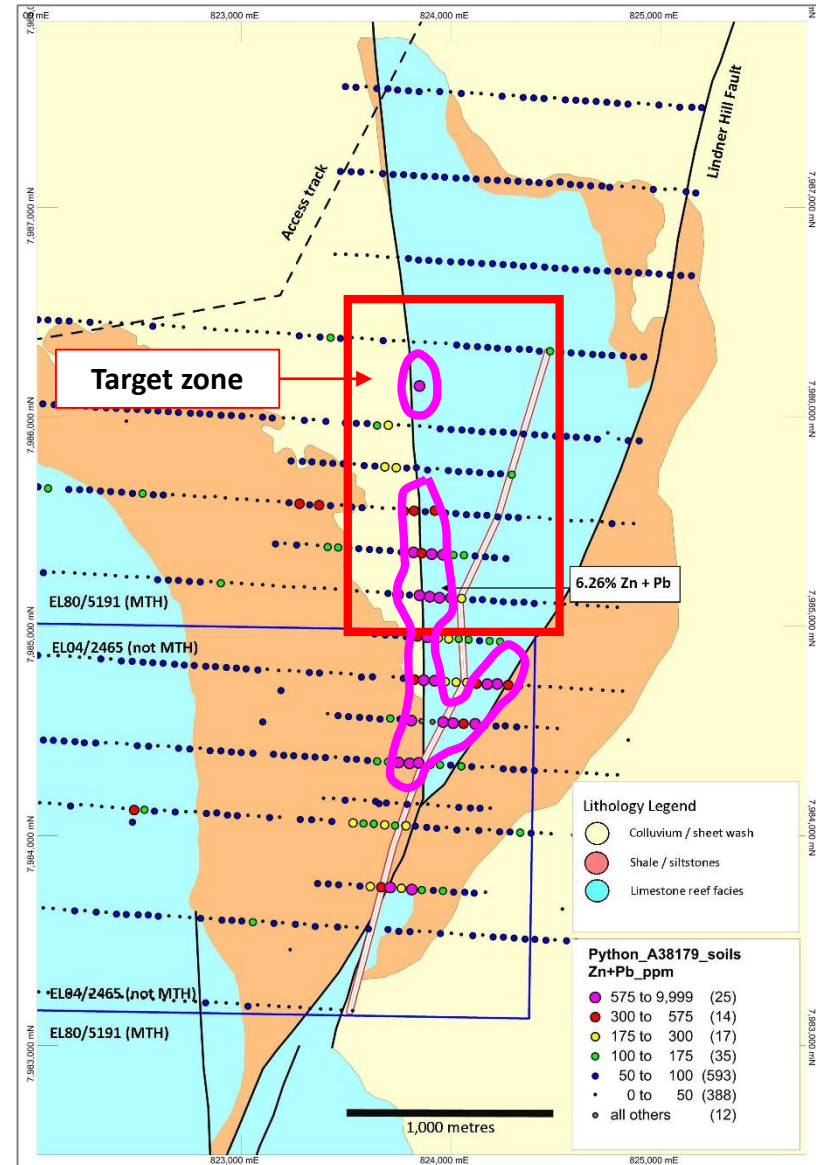
1,000 metres



# Python – soil anomalies

- Python covers the northern end of a large scale +500ppm Zn + Pb soil anomaly

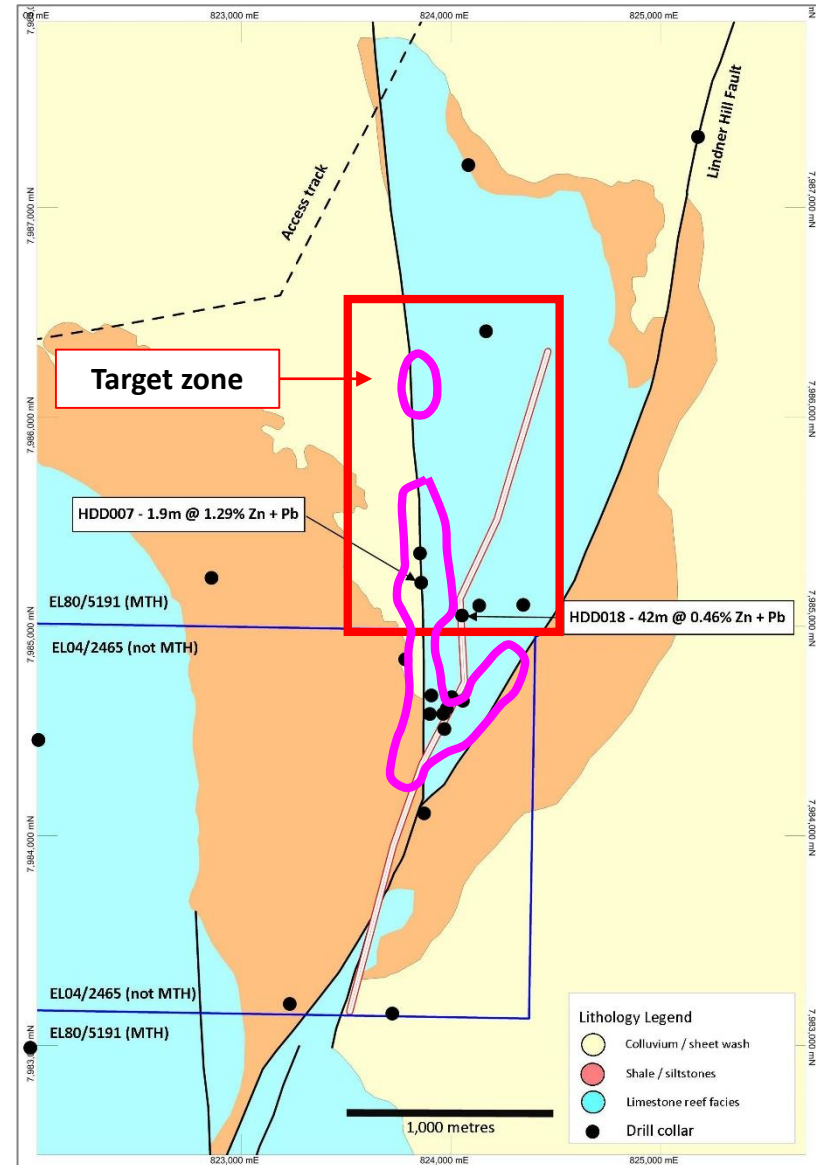
1,000 metres



# Python – drilling

- Wide spaced historic drilling
- Broad intercept in HDD018 (42m @ 0.46% Zn + Pb highlights potential
- Did they test the fault zone & IP feature?

1,000 metres



# Conclusion and Next Steps

- Mithril is focussed on exploring the Billy Hills Zinc Project
- Billy Hills is the first step in a broader consolidation strategy
- Firetail and Python prioritised for immediate follow-up
- Next Steps
  - **Ongoing target generation** (to generate further targets)
  - **Geological mapping and surface sampling will take place in April / May 2019** (to refine specific drill sites)
  - **Heritage Site Clearances in May 2019** (Timing uncertain following passing of a Gooniyandi Senior Cultural Elder - “sorry business”)
  - **Diamond drilling planned for June 2019**



# JORC Information & Competent Person Statement

## JORC Information:

Further details (including JORC 2012 Code Reporting Tables, where applicable) for the information included in this Presentation can be found in the following Mithril Resources' announcements previously lodged with the ASX:

- Billy Hills Zinc Project Exploration Update - 15 February 2019
- Billy Hills Heritage Agreement executed - 14 December 2018
- Billy Hills Zinc Project Underway - 12 September 2018

## Competent Person Statement:

The information in this report that relates to Exploration Targets, Exploration Results, is based on information compiled by Mr David Hutton, who is a Competent Person, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Hutton is Managing Director and a full-time employee of Mithril Resources Ltd.

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



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