



# **Journey to 100,000 Tonnes of Nickel**

**Presented by David Singleton,  
Managing Director & CEO**

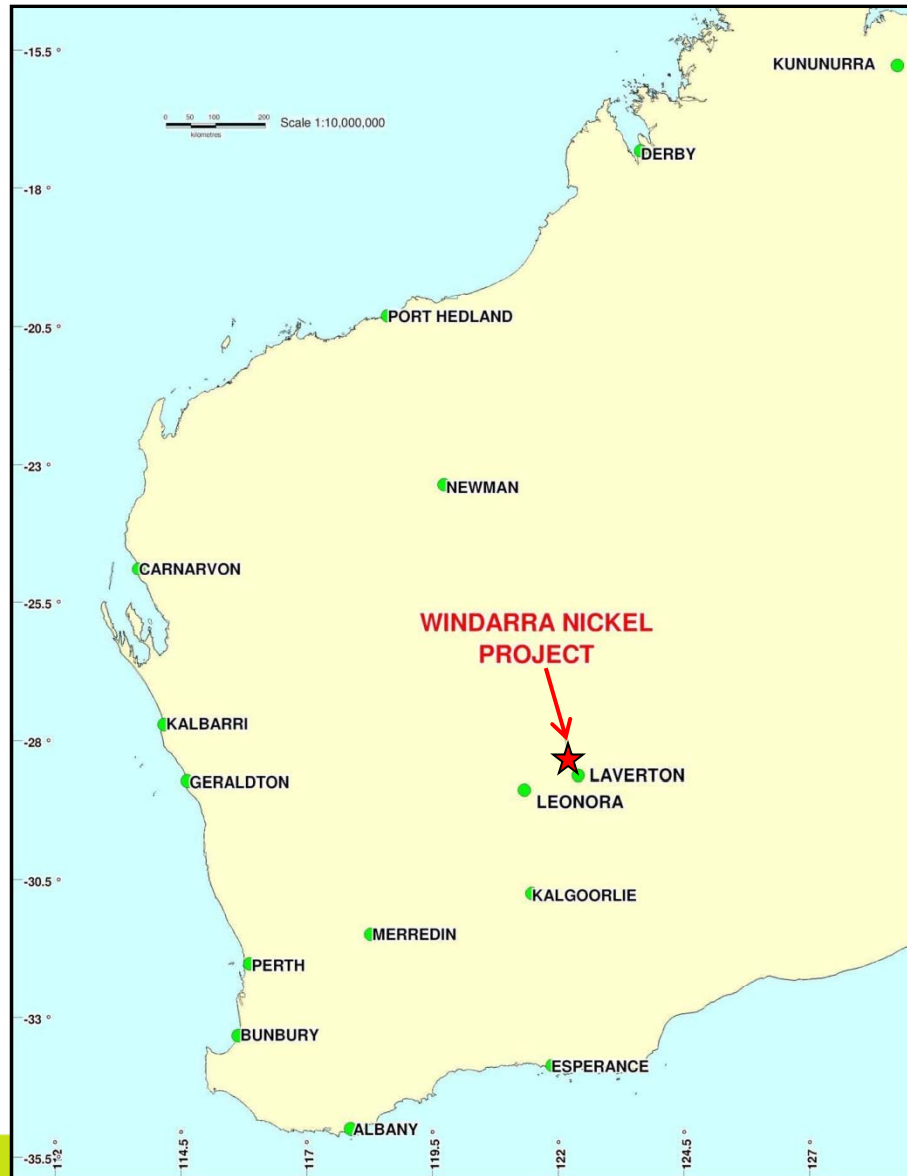
**Annual General Meeting  
November 2009**

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# Windarra

Historically Highly Prospective Region close to major towns and infrastructure

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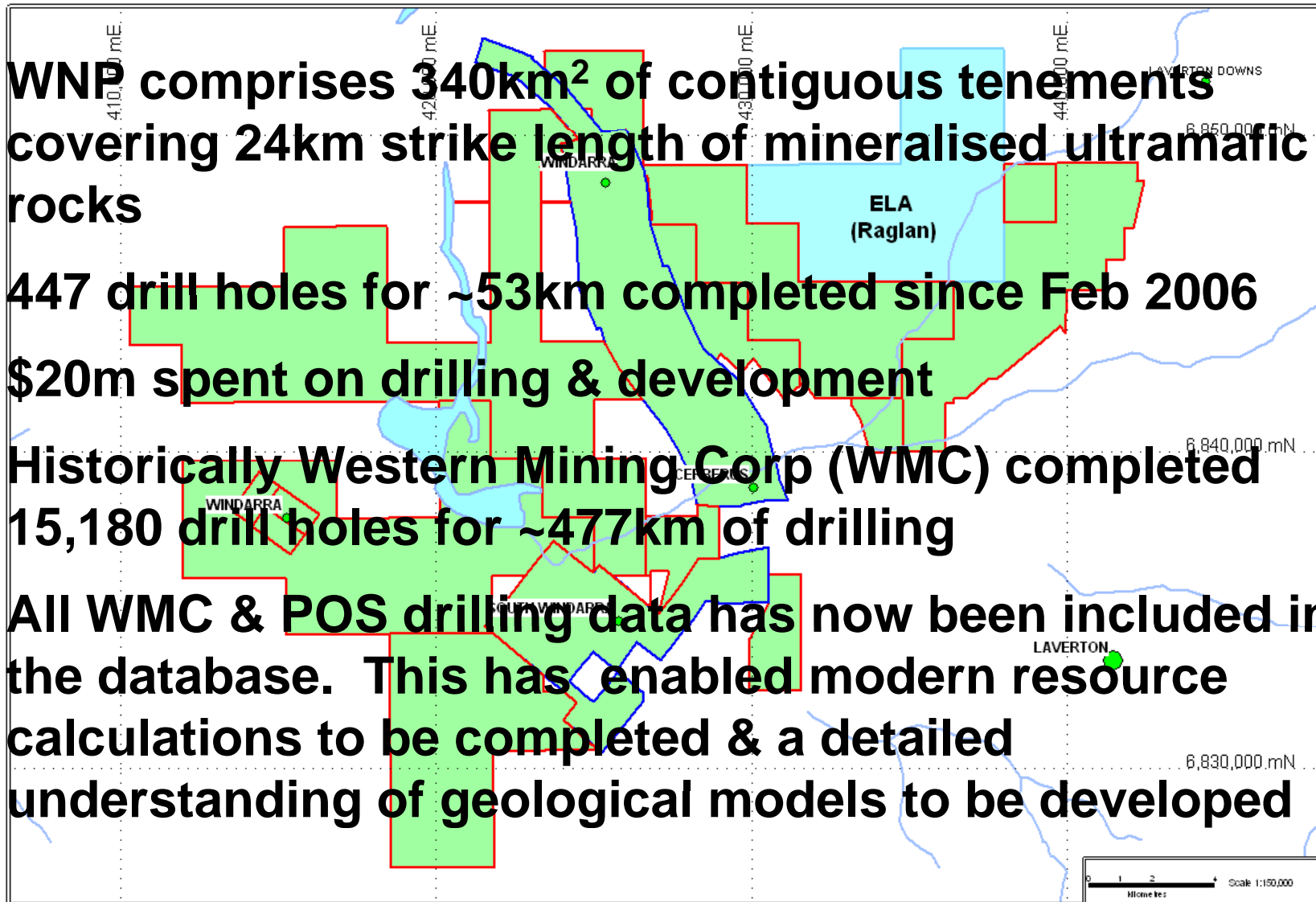
- **Discovered in the late 1960's**
- **Premier location for nickel**
- **Processed up to 1 million tonnes of ore per annum, producing over 129,200 tonnes of nickel metal**
- **Closed in 1989 due to low historic nickel price**
- **Data reinterpretation**  
**Resource drilling**  
**Greenfields exploration**

# Windarra Nickel Project (WNP)

## Exploration Summary

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- **WNP comprises 340km<sup>2</sup> of contiguous tenements covering 24km strike length of mineralised ultramafic rocks**
- **447 drill holes for ~53km completed since Feb 2006**
- **\$20m spent on drilling & development**
- **Historically Western Mining Corp (WMC) completed 15,180 drill holes for ~477km of drilling**
- **All WMC & POS drilling data has now been included in the database. This has enabled modern resource calculations to be completed & a detailed understanding of geological models to be developed**



Work over the last 2 years has resulted in a defined 6.28m tonnes of ore at 1.65% for 103,446t of nickel metal

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## WINDARRA NICKEL PROJECT: SULPHIDE RESOURCE STATEMENT

Windarra Nickel Project Sulphides	Cut Off Grade	Resource Category								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Mt Windarra	0.75%	1,017,429	1.24	12,578	2,751,087	1.79	49,185	3,768,516	1.64	61,764
South Windarra	0.90%	820,326	1.15	9,434	82,404	1.05	864	902,730	1.14	10,298
Cerberus	1.50%				1,033,328	2.45	25,269	1,033,328	2.45	25,269
<b>Total Sulphide</b>		<b>1,837,755</b>	<b>1.20</b>	<b>22,012</b>	<b>3,866,819</b>	<b>1.95</b>	<b>75,318</b>	<b>5,704,574</b>	<b>1.71</b>	<b>97,331</b>

## WINDARRA NICKEL PROJECT: OXIDE RESOURCE STATEMENT

Windarra Nickel Project Oxides	Cut Off Grade	Resource Category								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Woodline Well	0.75%				266,382	1.38	3,676	266,382	1.38	3,676
South Windarra Dumps	0.50%	311,312	0.78	2,439				311,312	0.78	2,439
<b>Total Oxide</b>		<b>311,312</b>	<b>0.78</b>	<b>2,439</b>	<b>266,382</b>	<b>1.38</b>	<b>3,676</b>	<b>577,694</b>	<b>1.06</b>	<b>6,115</b>

Note: The information in this Presentation relates to Exploration Results and Mineral Resources based on information compiled by Mr N Hutchison who is a Member of The Australian Institute of Geoscientists. Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' He has consented to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

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## WINDARRA NICKEL PROJECT: SULPHIDE RESOURCE STATEMENT

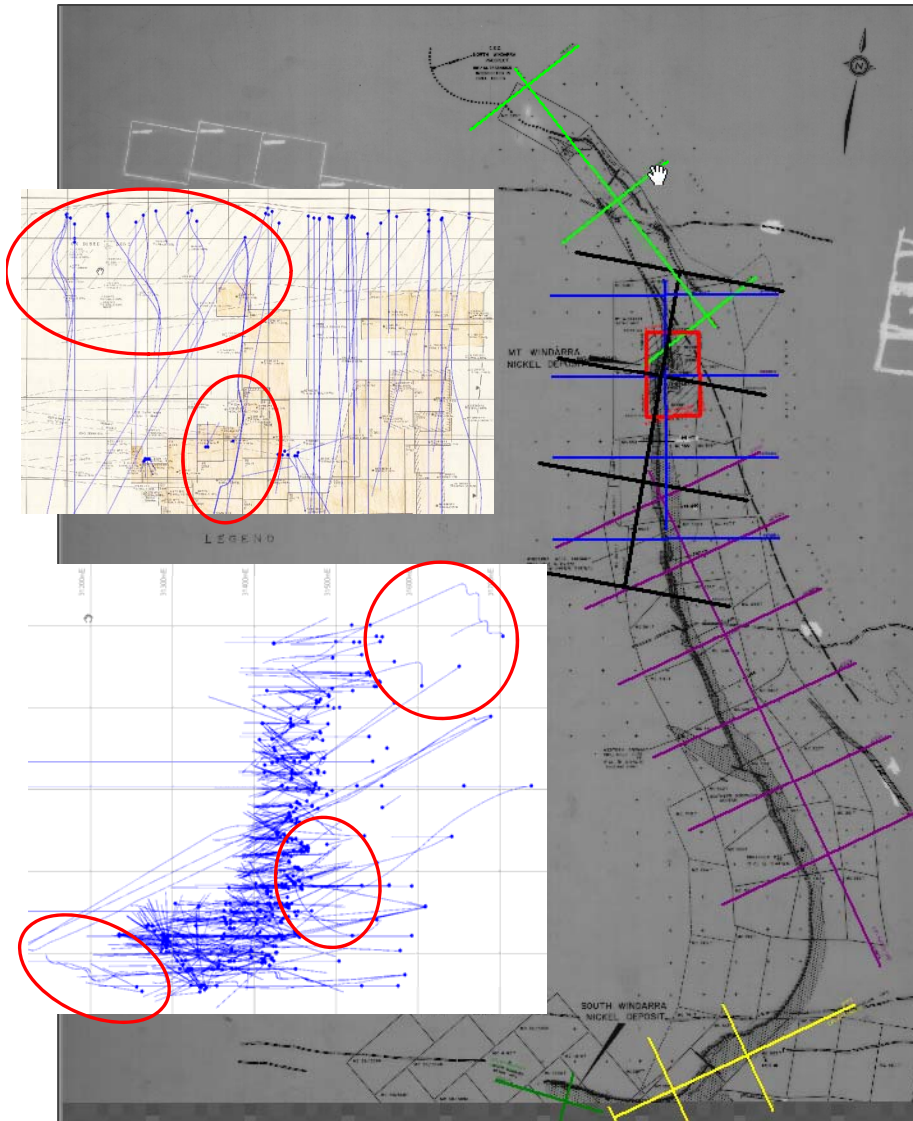
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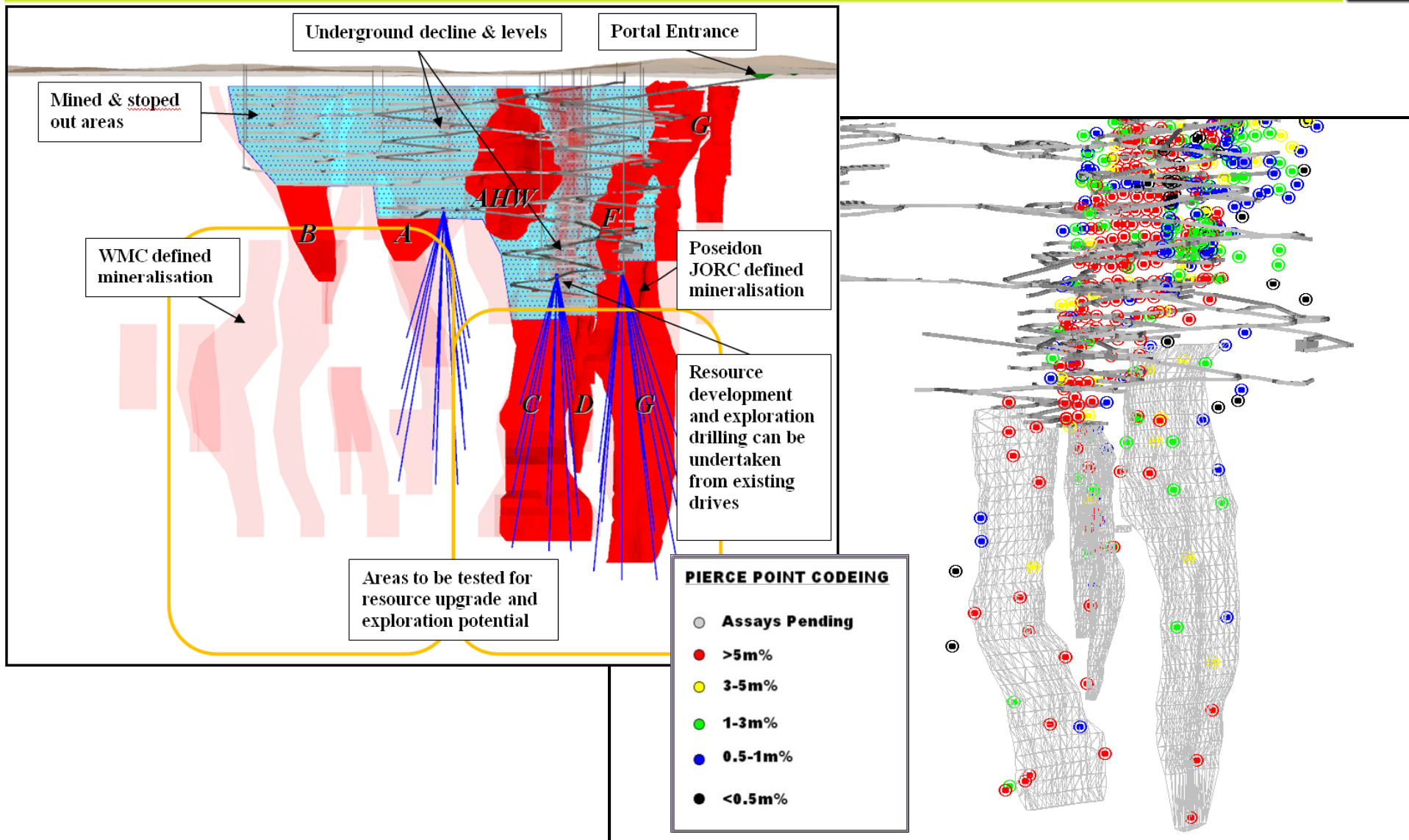
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# Mining the Historical Database



- Have produced digital models of underground, resource
- Corrected the multiple grid systems used over years
- Reinterpreted multiple rock codes used
- Accurate resource understanding has revealed potential

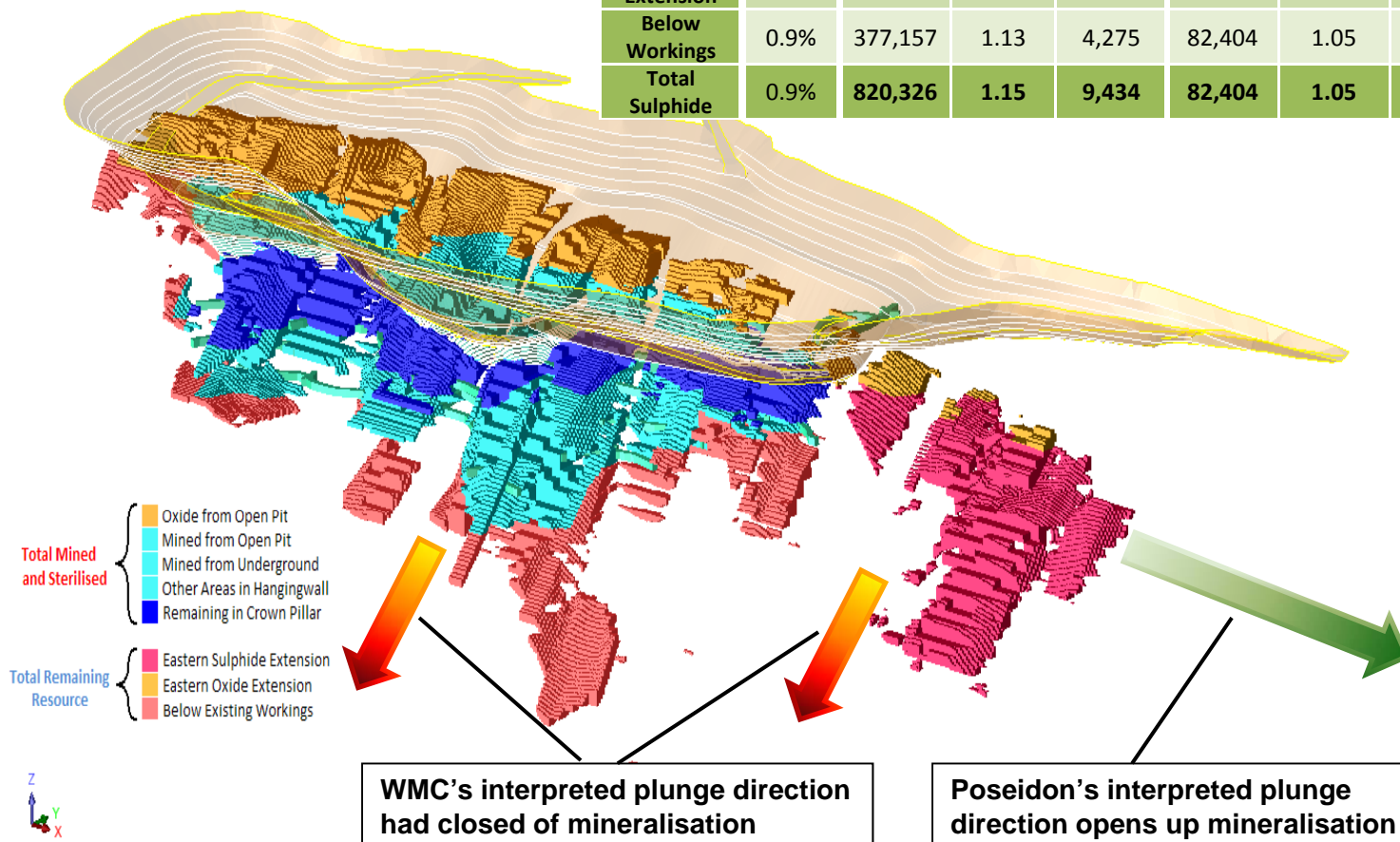
# 12 Months Drilling & Data Reinterpretation Resulted in 61,764 tonne Nickel Resource



# South Windarra - Detailed Resources

## SOUTH WINDARRA RESOURCE STATEMENT

South Windarra Nickel Sulphides	Cut Off Grade	Resource Category								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
East Extension	0.9%	443,169	1.16	5,159				443,169	1.16	5,159
Below Workings	0.9%	377,157	1.13	4,275	82,404	1.05	864	459,561	1.12	5,139
<b>Total Sulphide</b>	<b>0.9%</b>	<b>820,326</b>	<b>1.15</b>	<b>9,434</b>	<b>82,404</b>	<b>1.05</b>	<b>864</b>	<b>902,730</b>	<b>1.14</b>	<b>10,298</b>





# Cerberus- A Greenfields Discovery

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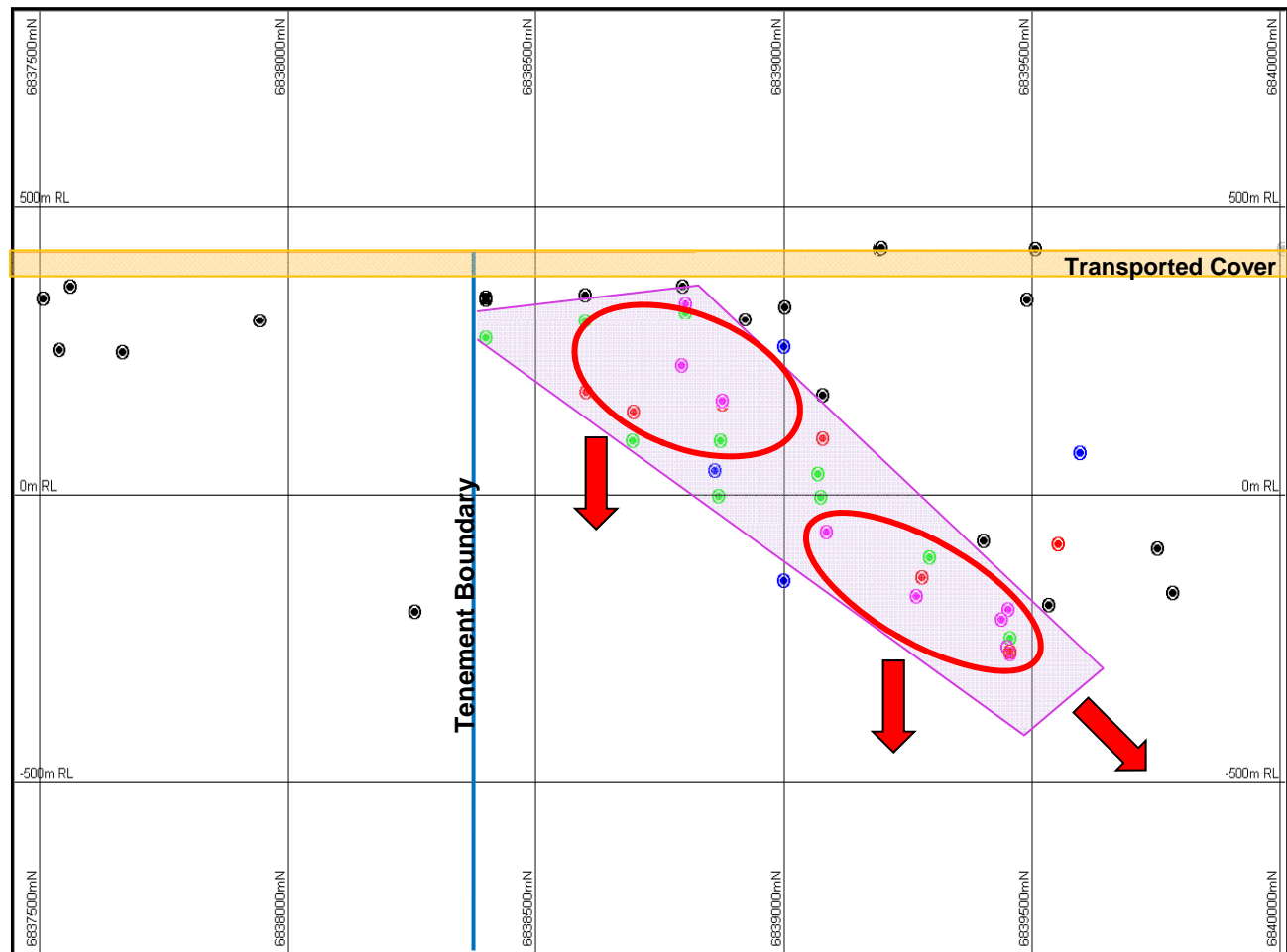
## CERBERUS NICKEL DEPOSIT

The first discovery since South Windarra in 1971

Cerberus Nickel Sulphides	Cut Off Grade	Resource Category								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Main Zone	1.5%				1,023,615	2.45	25,064	1,023,615	2.45	25,064
Hangingwall zone	1.5%				9,714	2.08	202	9,714	2.08	202
<b>Total Sulphide</b>	1.5%				<b>1,033,328</b>	<b>2.45</b>	<b>25,269</b>	<b>1,033,328</b>	<b>2.45</b>	<b>25,269</b>

# Cerberus Long Section

- Cerberus deposit is higher grade @ 2.45% Ni
- Its open in 3 directions
- 2 higher grade pods exist
- Grade increases with depth
- Drilling is wide spaced & requires infilling
- Potential exists to increase resource size & quality



# Windarra Nickel Project

Exploration Potential

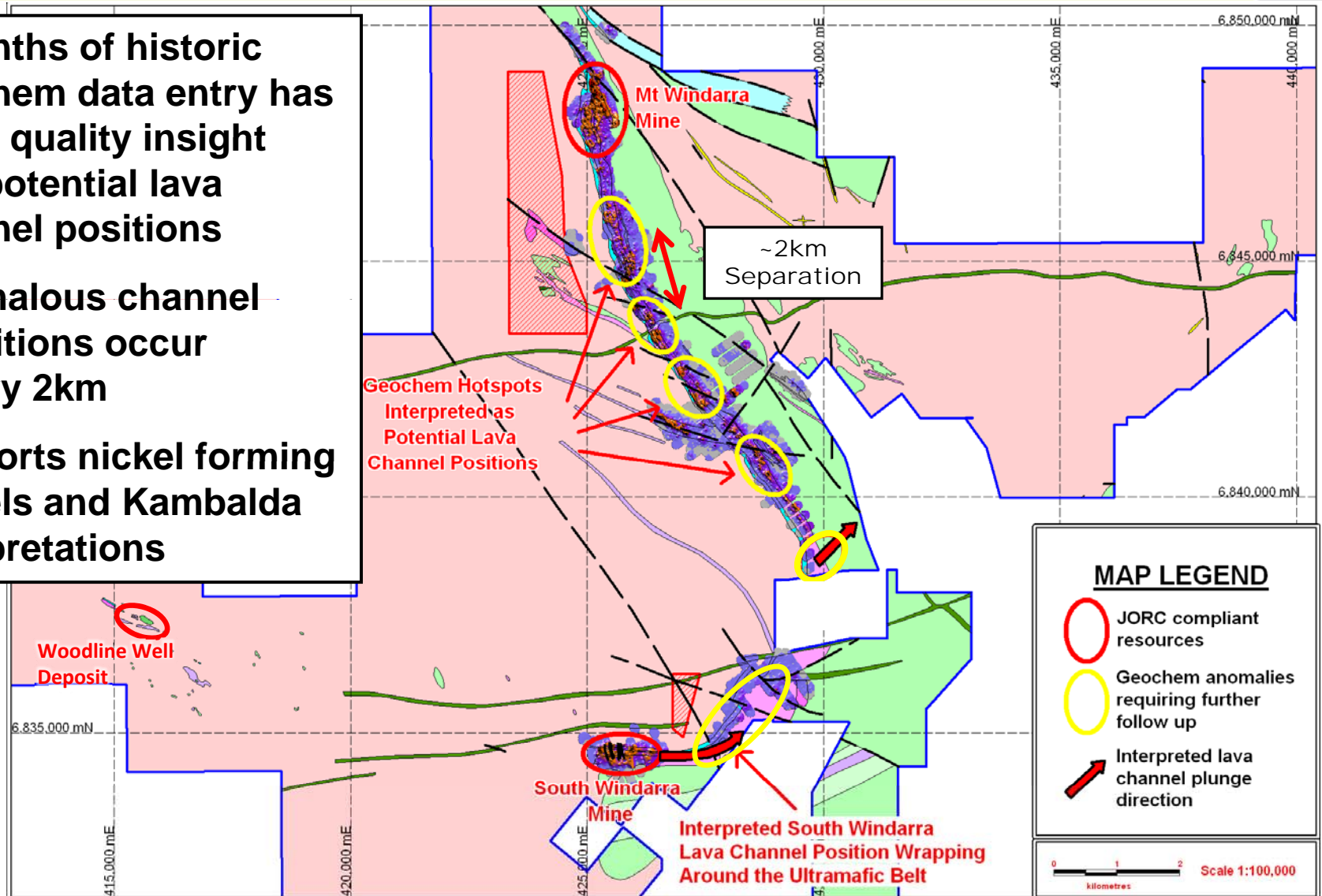
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# Geochem and lava channel modelling

Driving the discovery of new resources

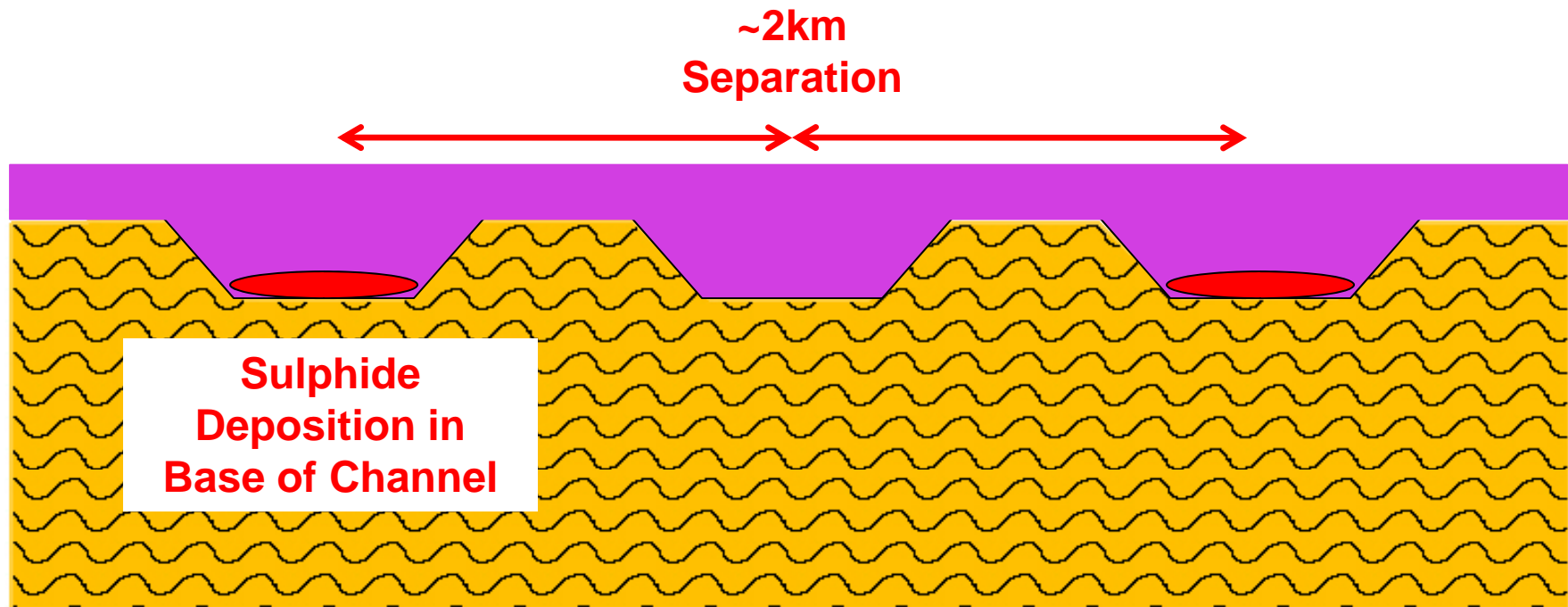
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- 6 months of historic geochem data entry has given quality insight into potential lava channel positions
- Anomalous channel repetitions occur ~every 2km
- Supports nickel forming models and Kambalda interpretations



# Lava Channel Formation on Sea Floor provides basis for ore body separation

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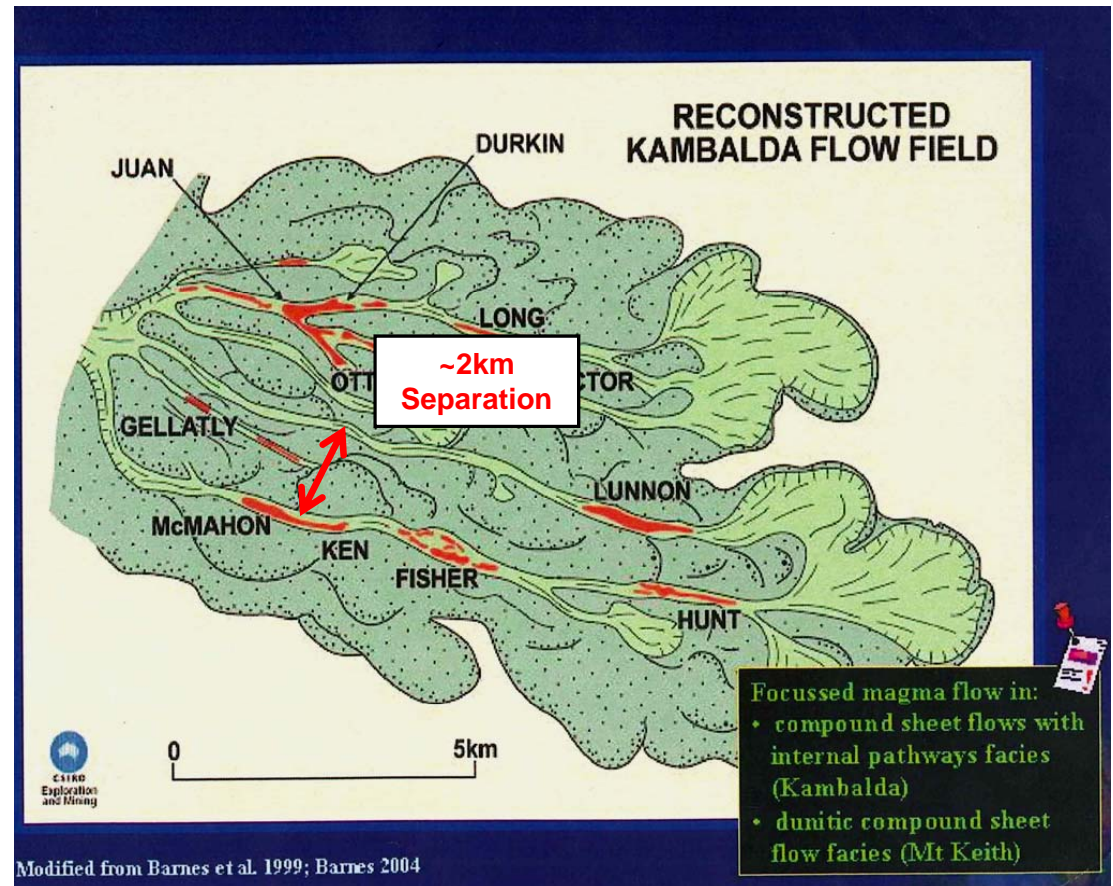


- Not all channels will contain Ni sulphide deposits
- Deposits develop in all shapes and sizes

# WNP Tenements have Significant Exploration Potential

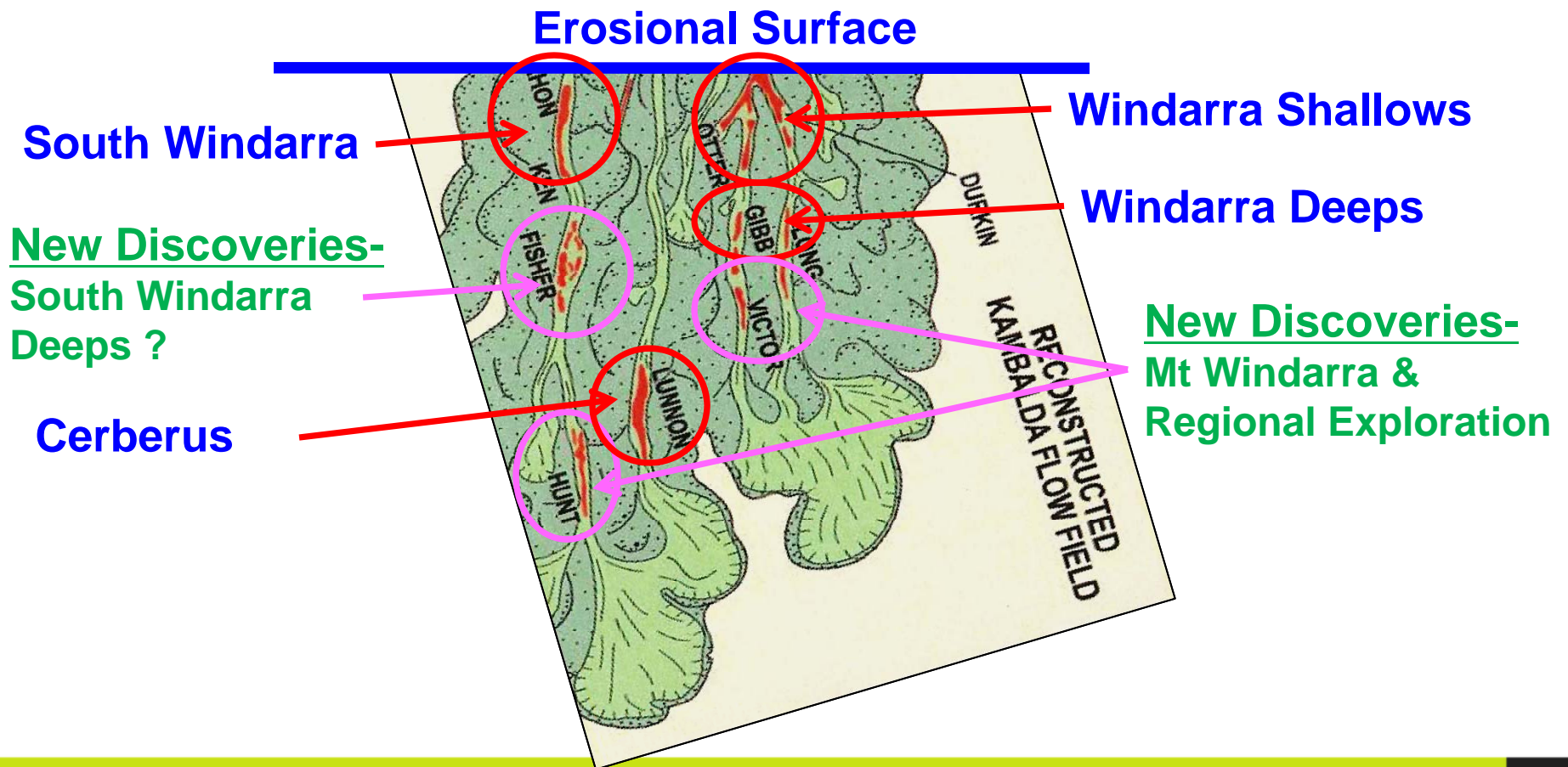
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- Recognition of Lava Channels is the **key** to success
- **Poseidon believes that more blind deposits are yet to be discovered**

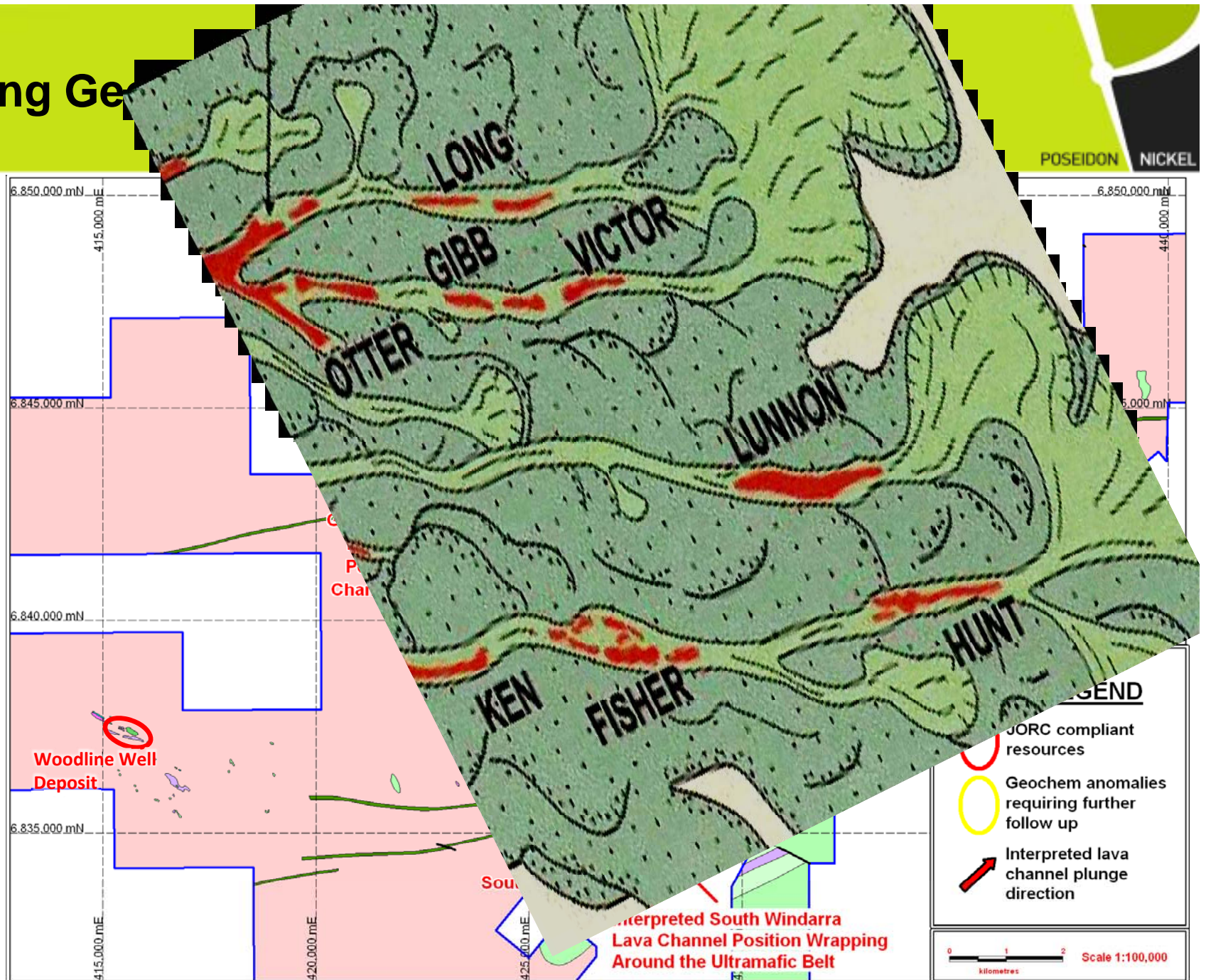


# Kambalda vs Windarra

Applying the "Cabbage Leaf Model"

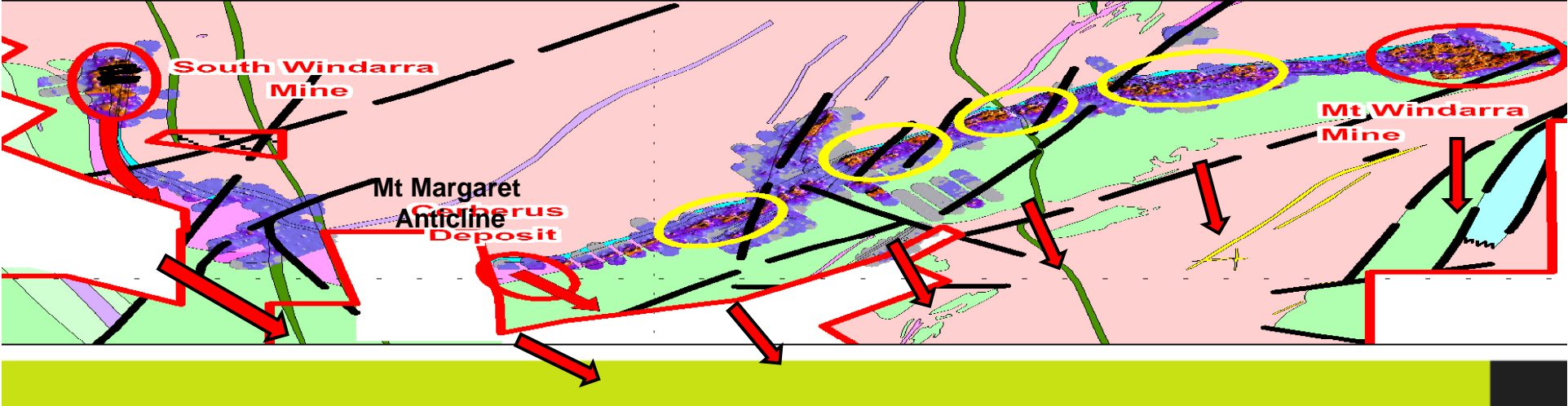
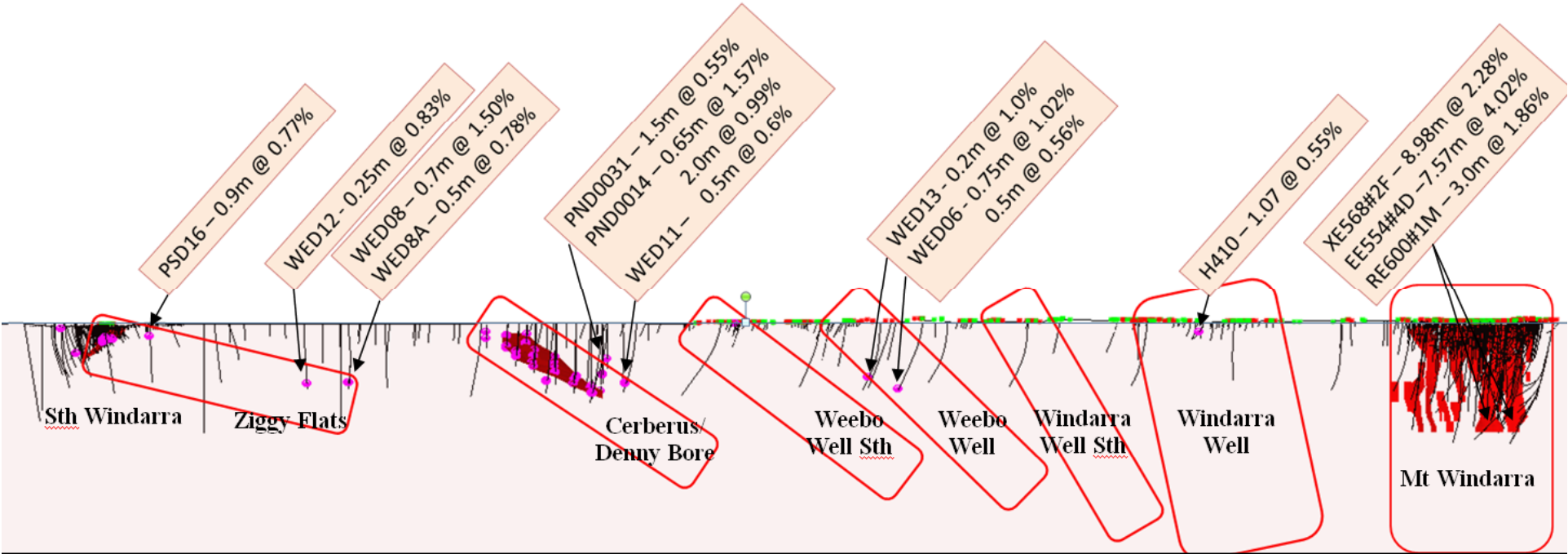


# Aligning Ge





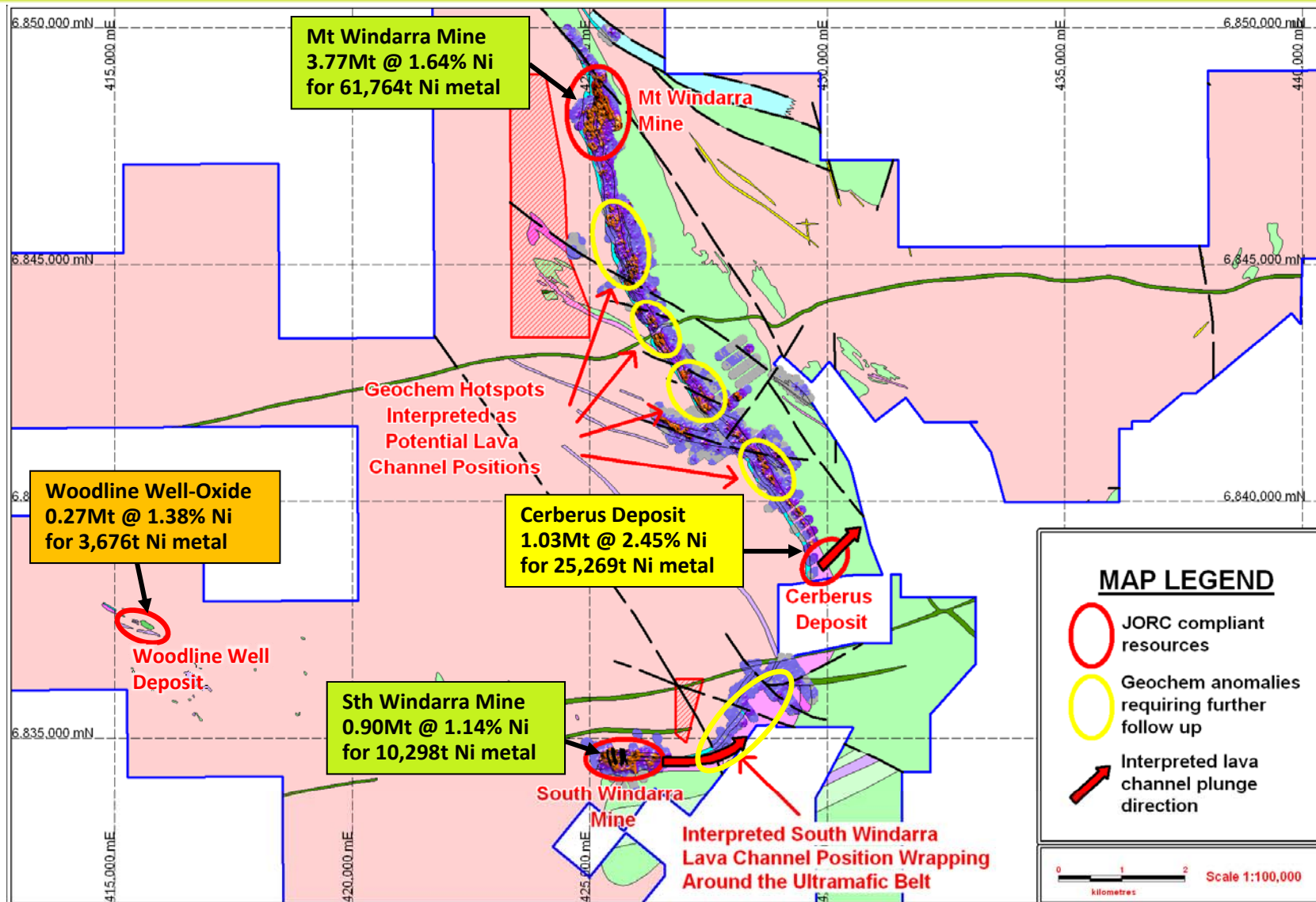
# Other positions show similar characteristics to Cerberus



# Windarra Nickel Project

## Massive Resources Potential

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# Windarra Nickel Project

Mine Refurbishment

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# Underground decline at Mt Windarra has been partially refurbished to allow mining to recommence

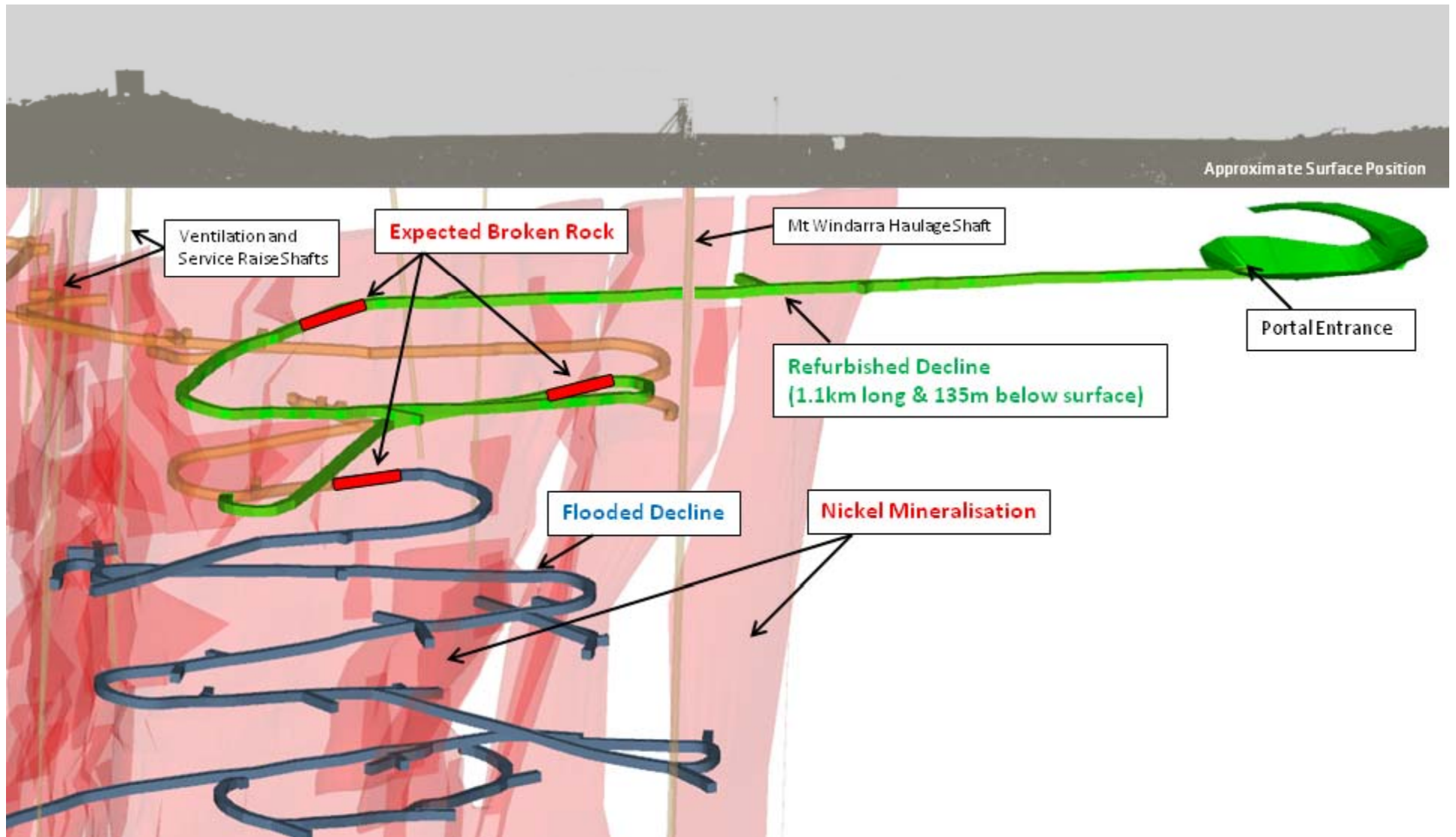
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- All Licences received
- 1.5m tonnes of Water removal underway
- Refurbishment of over 1km of underground now complete
- Ground and steel sets in good condition on main decline
- Refurbishment stopped in Oct 08 as primary objective to offset potential risks met



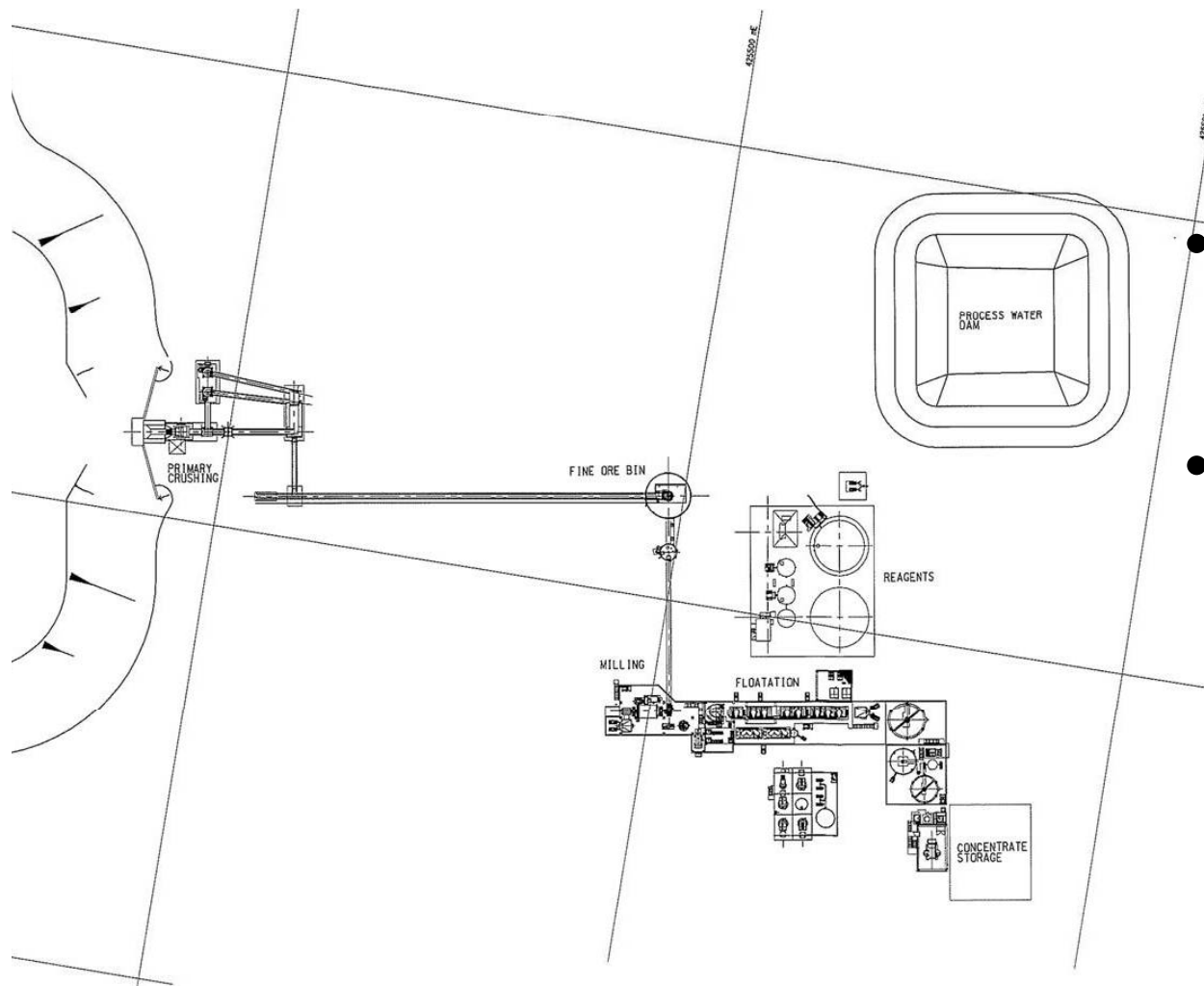
# Refurbishment has eliminated high risk zones and proven decline viability to recommence mining

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# Poseidon has completed the necessary prefeasibility and material test work on the project

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- Completed by GR Engineering in 2008
- Original concept was for a one million tonne per annum plant with initial 350,000 tonne per annum capacity

## Testwork completed as part of the prefeasibility

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**Additional metallurgical testing to augment historical practice.**

## Next Steps

- Progress funding options
- Extend Cerberus deposit
- Drill target zones
- Update feasibility studies for increased output



# **Journey to 100,000 Tonnes of Nickel**

**Questions?**

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