



SANDFIRE RESOURCES NL

A QUALITY COPPER-GOLD COMPANY ASX Code- SFR



DeGrussa Copper-Gold Mine – Diggers and Dealers Site Visit

Sunday 2 August 2015

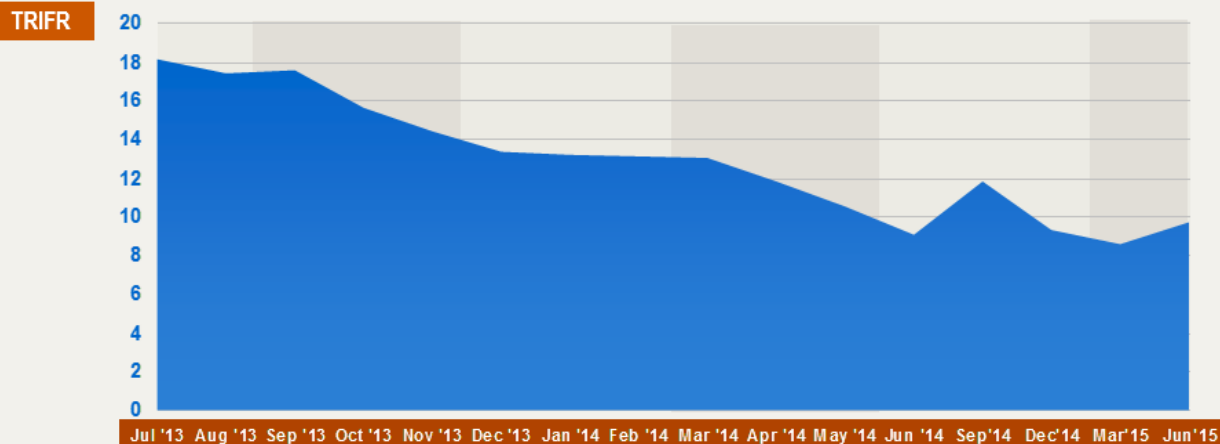
Sandfire DeGrussa Copper Mine



Health, Safety and Sustainability

Health and Safety

- Health and Safety is a core value and health and safety management is at the forefront of our business values and strategies
- Our safety performance reflects a 50% reduction in the Total Recordable Injury Frequency Rate (TRIFR) from Sept 2013 – June 2015
- Initiatives continuing to improve safety performance include:
 - Safety Skills and Leadership training
 - Leaders Safety Observation process
 - Operational Standards and Systems Development
 - Risk and Assurance Management System
 - Focus on Positive Performance Indicators



Sustainability

- We are committed to operating and exploring in a sustainable and socially responsible manner to:
 - Maximise the positive impacts on society
 - Minimise and mitigate the impacts on the local environment and communities
- Some of our environmental work includes:
 - Commitment to the DeGrussa Solar Power Project (see over)
 - Development of Life of Mine water and energy models
 - Sustainability reporting completed through the Carbon Disclosure Project
 - Inaugural Sandfire Sustainability Report to be released later this year
 - Independent environmental compliance audit in Q2 2016 for DeGrussa
- We focus on continuous improvement with a number of research projects underway:
 - Soils and vegetation options for IWL (Integrated Waste Landform) rehabilitation (soil stockpile testing and analysis)
 - Erosion simulation, control and mitigation (rainfall simulations, growth media fraction and composition analysis)
 - Scope of work for Ornithological survey of DeGrussa in preparation
- Reviewing how we manage Environmental Impacts
 - Current full review of existing comprehensive recycling and waste management processes and procedures to maximise recycling and reuse
 - Improving understanding of Life of Mine impacts

DeGrussa Solar Power Project

- Construction to start in early August 2015 with completion in February 2016

Solar Hybrid System

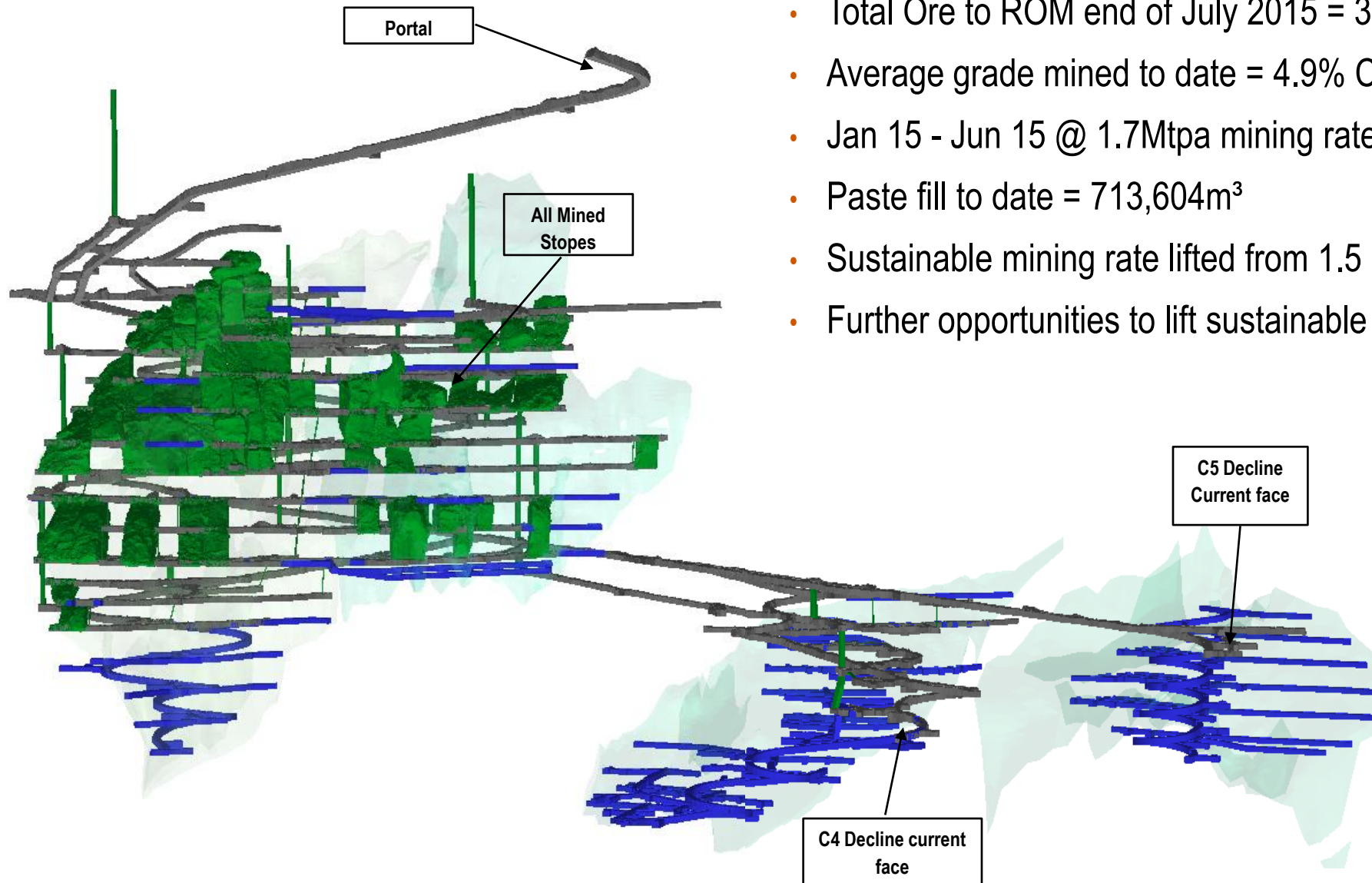
Solar PV panels	10.3 MWp (34,080 modules of 310 Wp)
Mounting systems	Single axis tracking
PV inverter	10 Mwac
Storage system	4 MW / 1.8 MWh (6 MW peak)
Storage system	Lithium Ion
PV area	~20 ha
Planned commissioning	Early 2016

Commercial

Supply term (PPA)	Initial period 6 years
Total cost	~ A \$40 m
Australian Content	~ A \$21.2 m
Solar production	~ 21 GWh p.a.
Diesel savings	~ 5 million litres p.a. (~20% of total)
CO ₂ savings	~ 12,000 tonnes p.a.

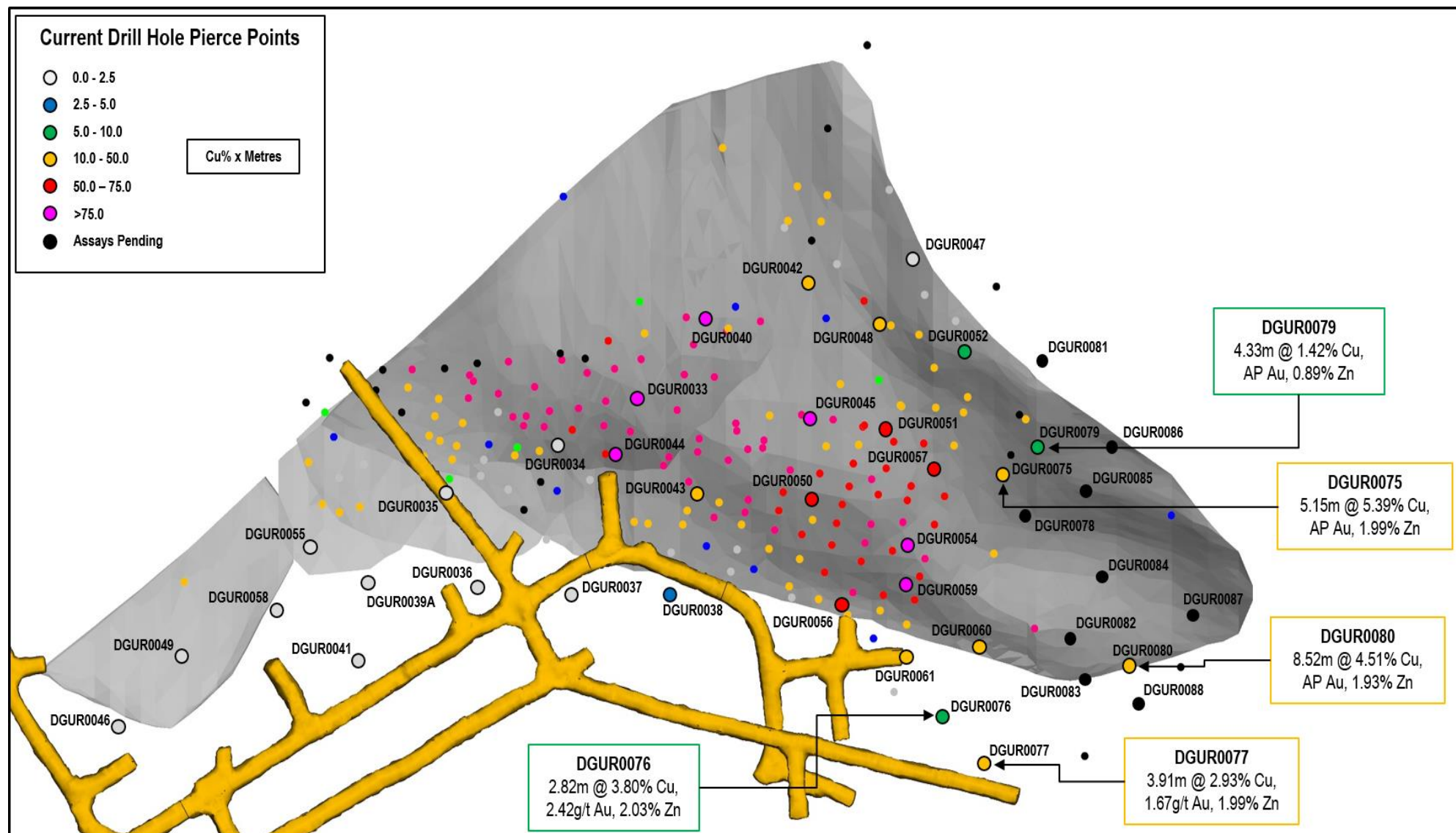


DeGrussa Underground Mine

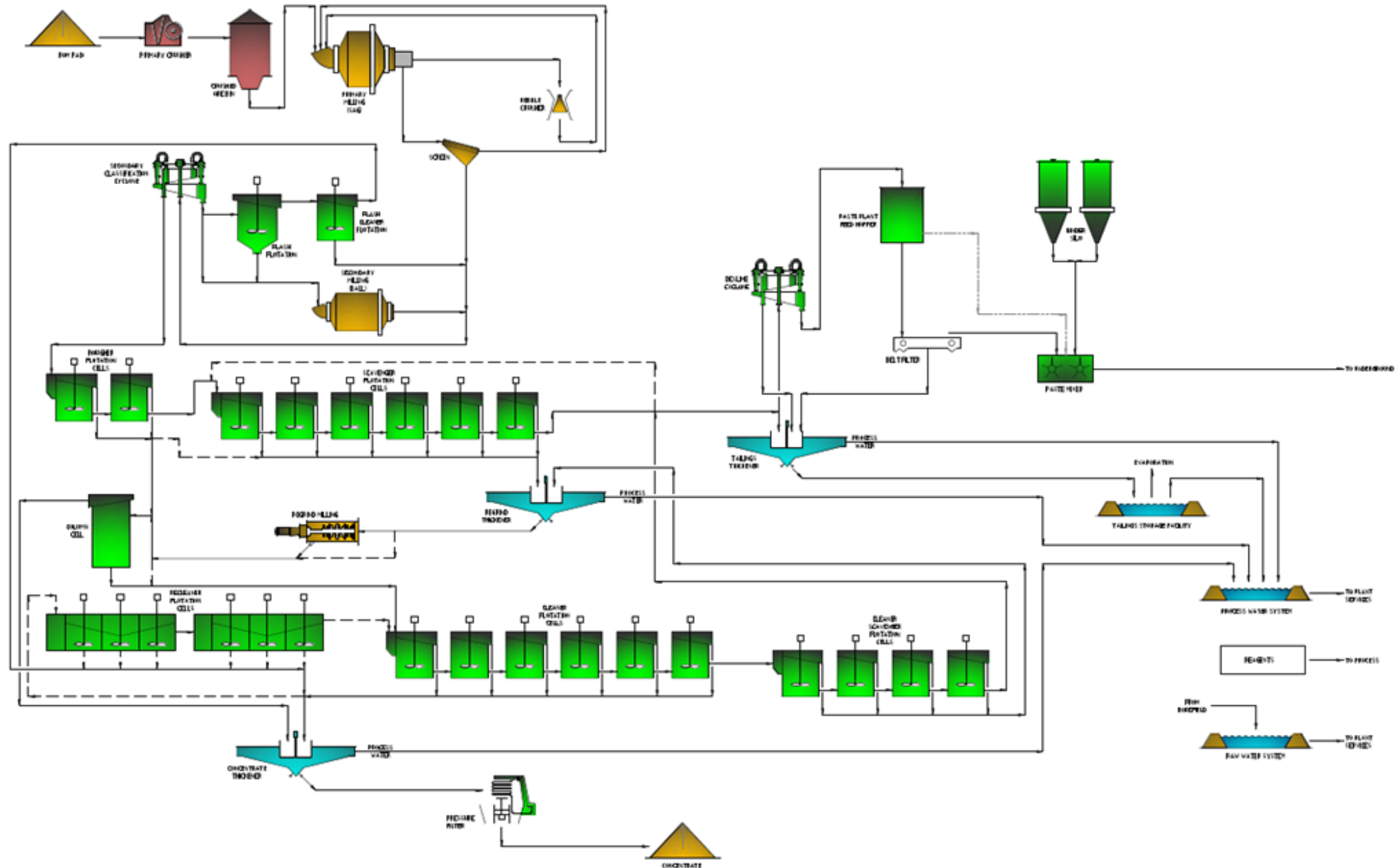


- ~29 km of development to date
- Total Ore to ROM end of July 2015 = 3.6Mt
- Average grade mined to date = 4.9% Cu
- Jan 15 - Jun 15 @ 1.7Mtpa mining rate
- Paste fill to date = 713,604m³
- Sustainable mining rate lifted from 1.5 Mtpa to 1.6 Mtpa
- Further opportunities to lift sustainable production being evaluated

C5 Resource Definition – Recent Drilling Intercepts



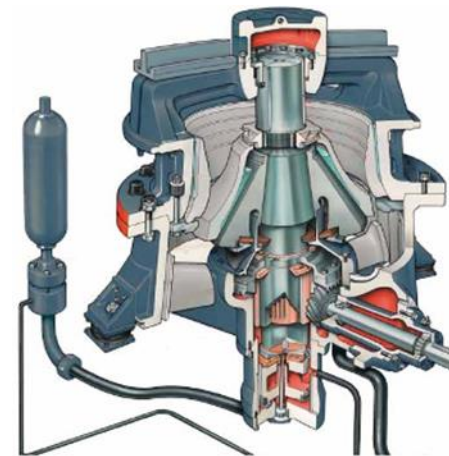
Processing Flowchart



Grinding Improvement

Improvements

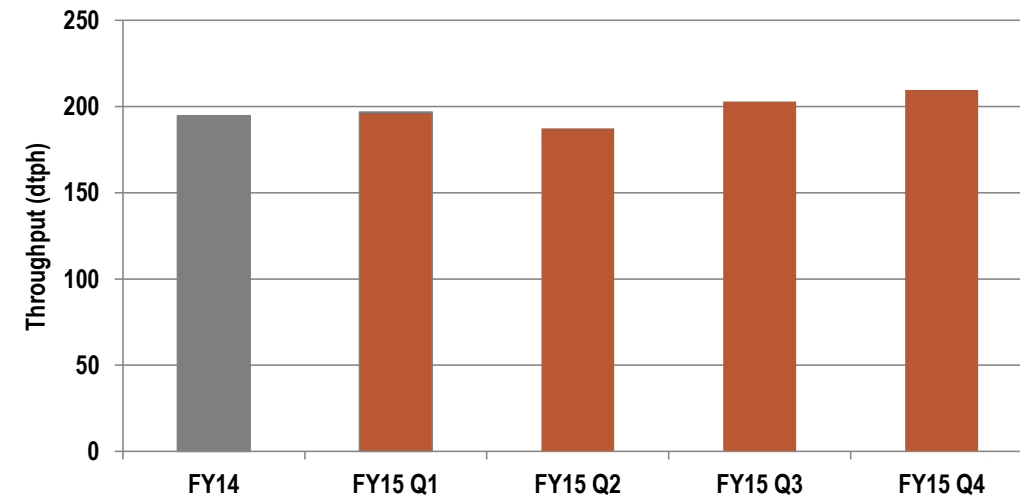
- Primary cyclones replaced with screen to improve mass transfer to secondary milling circuit for particle size distribution control and optimal chalcopyrite liberation for flotation
- Pebble crusher installed for breakage of critical size particles in the primary milling circuit
- Wear improvement initiatives to push out maintenance shutdown frequency



Milling Rate Performance

- Mill throughput increased following primary screen and pebble crusher installations in Q3 FY15
- Throughput positively impacted by increased pebble crusher utilisation and SAG mill optimisation
- June 2015 throughput rate was 1.7 Mtpa demonstrating new sustainable processing rate
- Cost reductions achieved through reduced power consumption and milling consumables
- Grind control assisting with copper recovery improvements

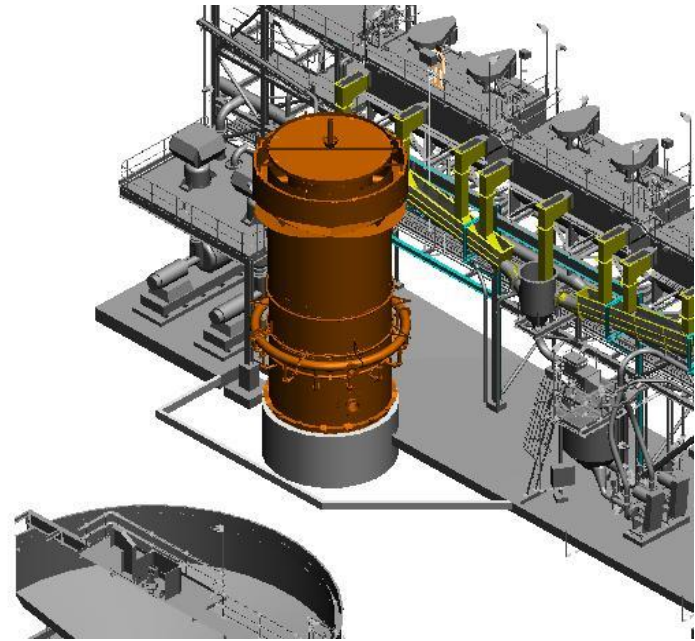
Mill Throughput Rate



Flotation Improvement

Improvements

- Column cell installed to recover ultra fine liberated chalcopyrite
- Advance control improvements to be implemented through use of StarCS process control and BlueCube technology
- Maximising chalcopyrite liberation in the secondary grinding circuit and concentrate regrind

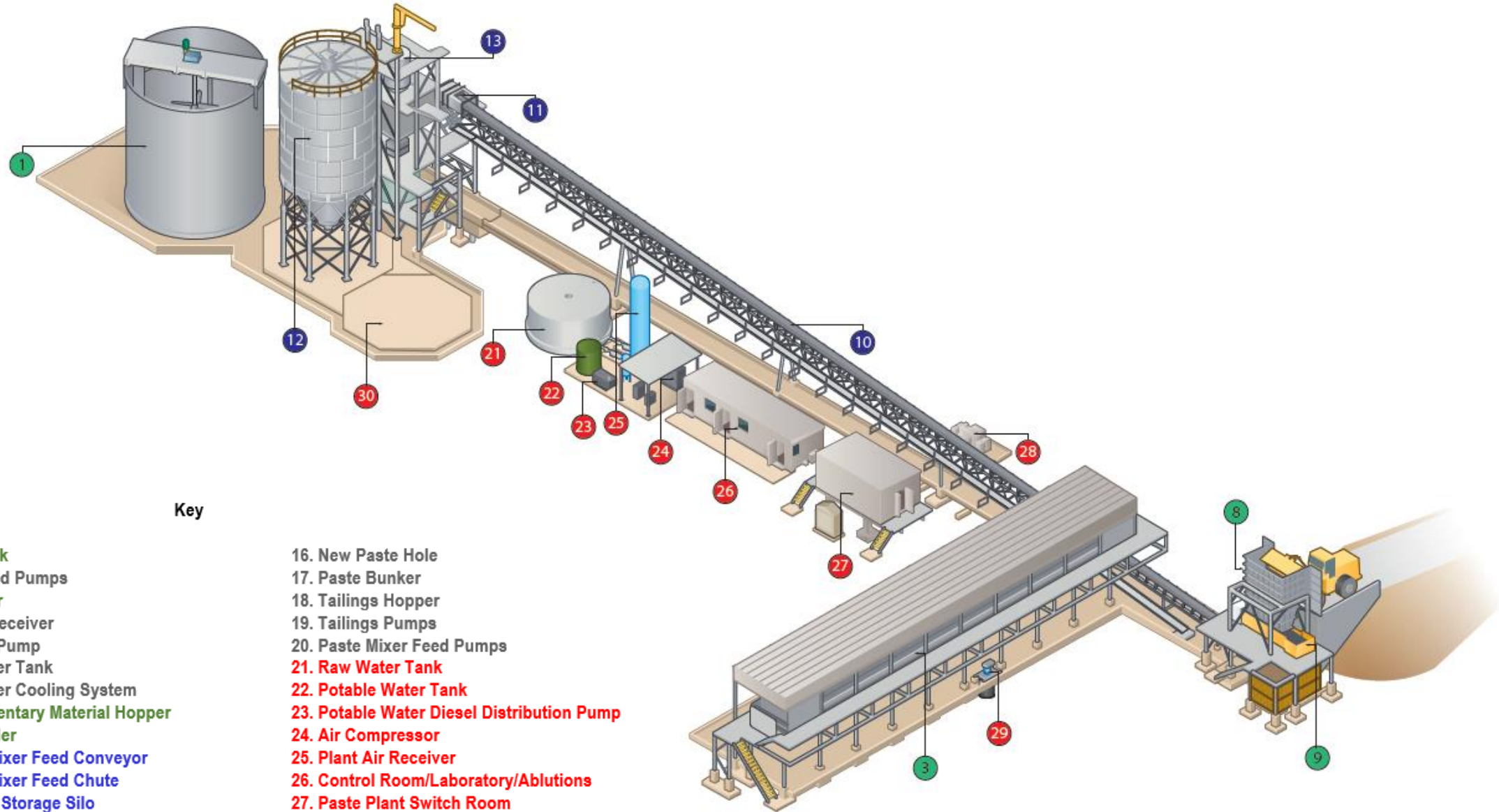


Recovery

- Fine chalcopyrite particle recovery improving since column installation
- Recovery improvement around 2%
- Recovery at average Cu:S ratio lifted to 92% when copper grade at 4.4% Cu (FY2016 guidance)
- Exploring further opportunities to lift recoveries



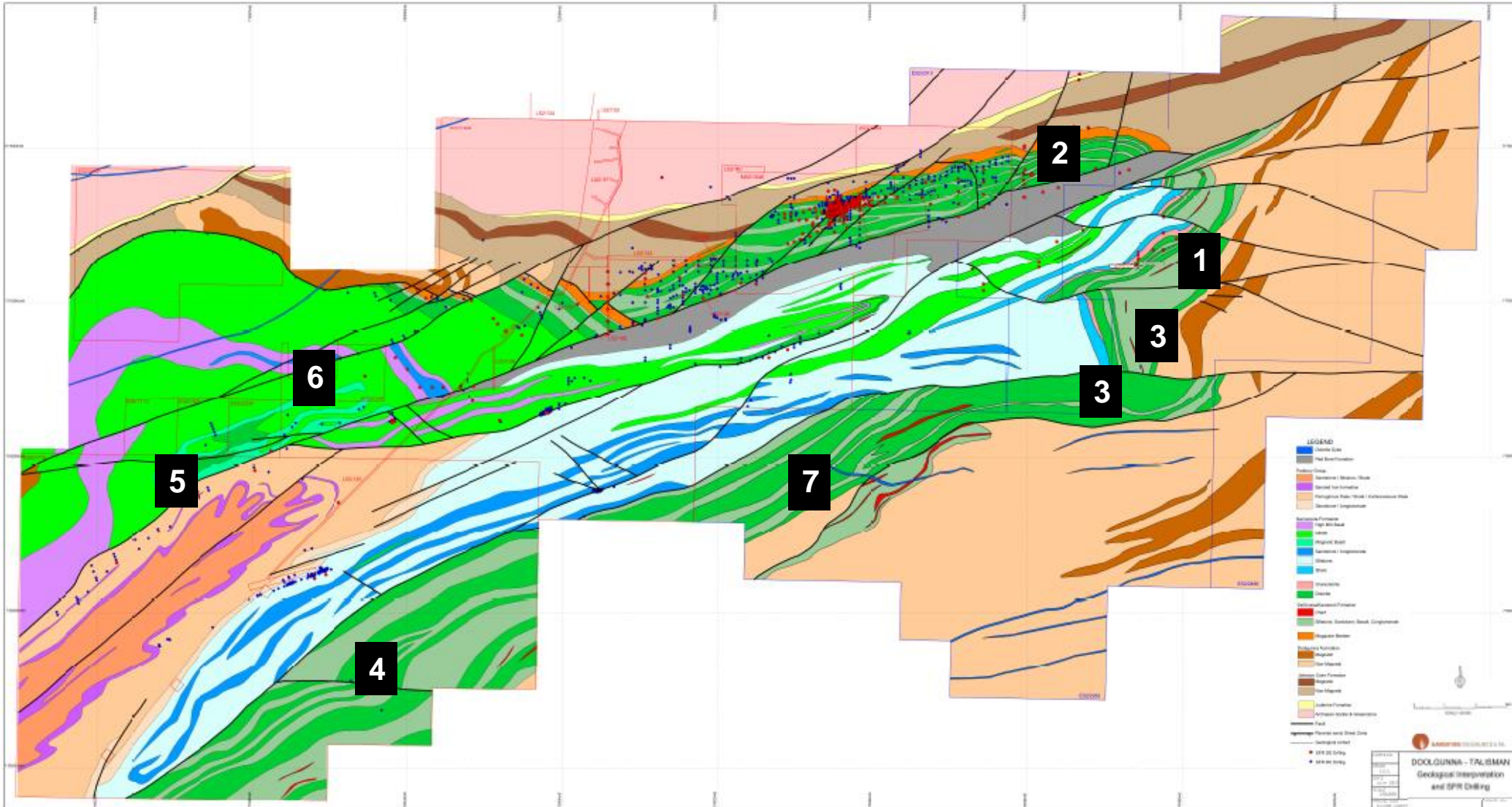
Paste Plant



Key

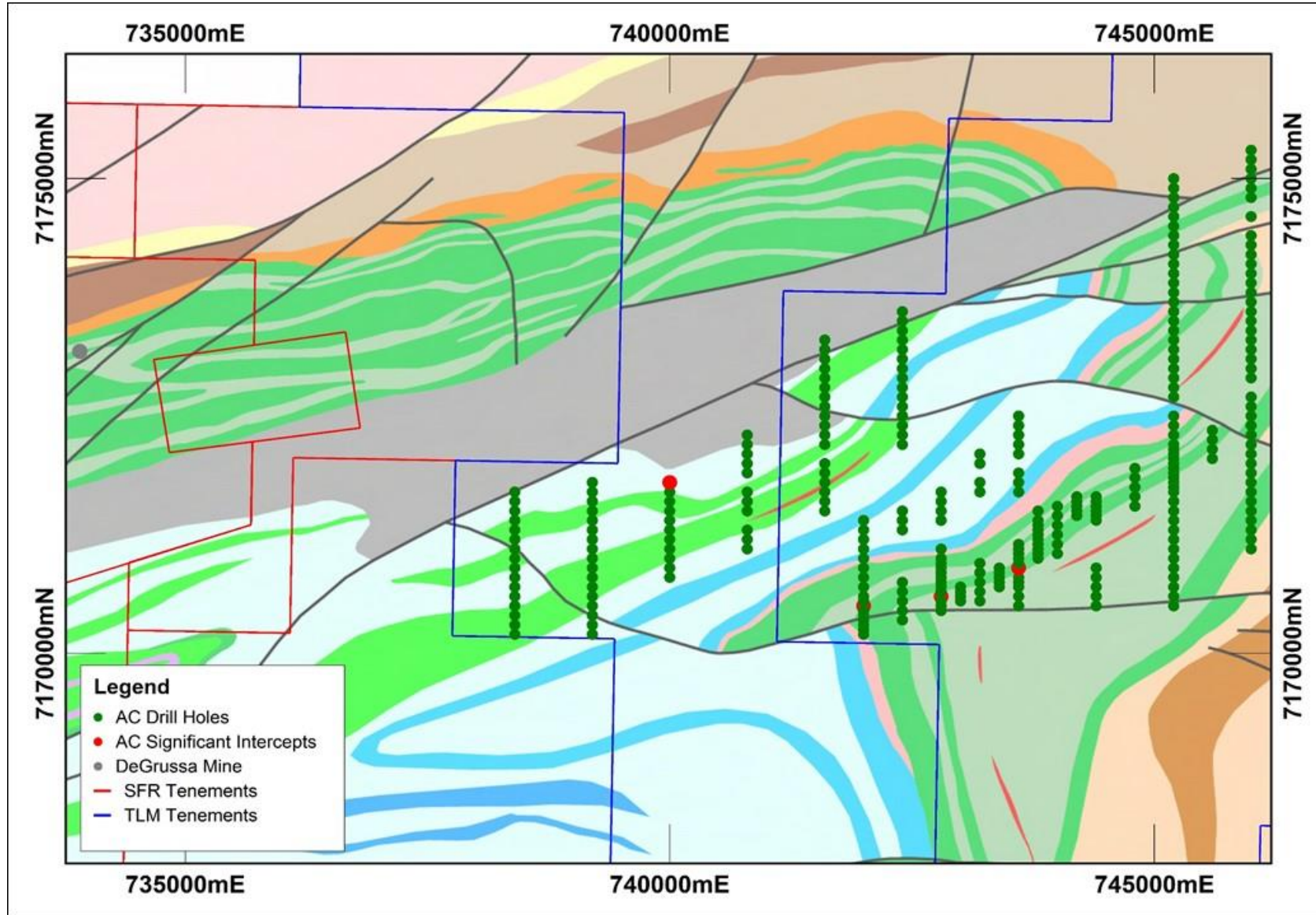
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|----------------------------------|--|
| 1. Feed Tank | 16. New Paste Hole |
| 2. Filter Feed Pumps | 17. Paste Bunker |
| 3. Belt Filter | 18. Tailings Hopper |
| 4. Filtrate Receiver | 19. Tailings Pumps |
| 5. Vacuum Pump | 20. Paste Mixer Feed Pumps |
| 6. Seal Water Tank | 21. Raw Water Tank |
| 7. Seal Water Cooling System | 22. Potable Water Tank |
| 8. Supplementary Material Hopper | 23. Potable Water Diesel Distribution Pump |
| 9. Belt Feeder | 24. Air Compressor |
| 10. Paste Mixer Feed Conveyor | 25. Plant Air Receiver |
| 11. Paste Mixer Feed Chute | 26. Control Room/Laboratory/Ablutions |
| 12. Cement Storage Silo | 27. Paste Plant Switch Room |
| 13. Loss-In-Weight Hopper | 28. Transformer |
| 14. Paste Mixer | 29. Filtrate Area Sump Pump |
| 15. Paste Hopper | 30. Future Concrete Storage Silo |

Doolgunna Exploration Opportunities



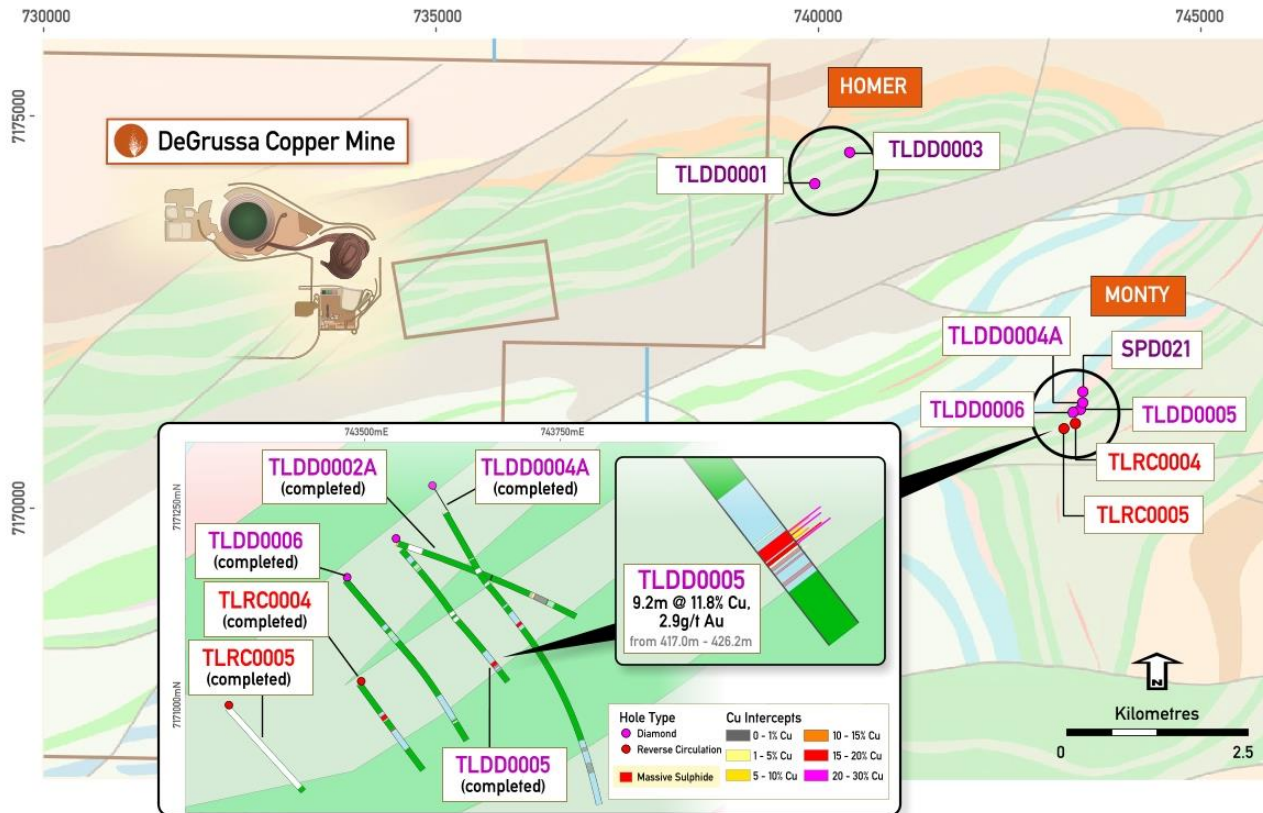
1. Monty
2. Homer
3. Prospective Sequence
4. Homestead
5. Nth Robinson
6. Halloween
7. Central

Drilling Completed – Monty A/C Drilling



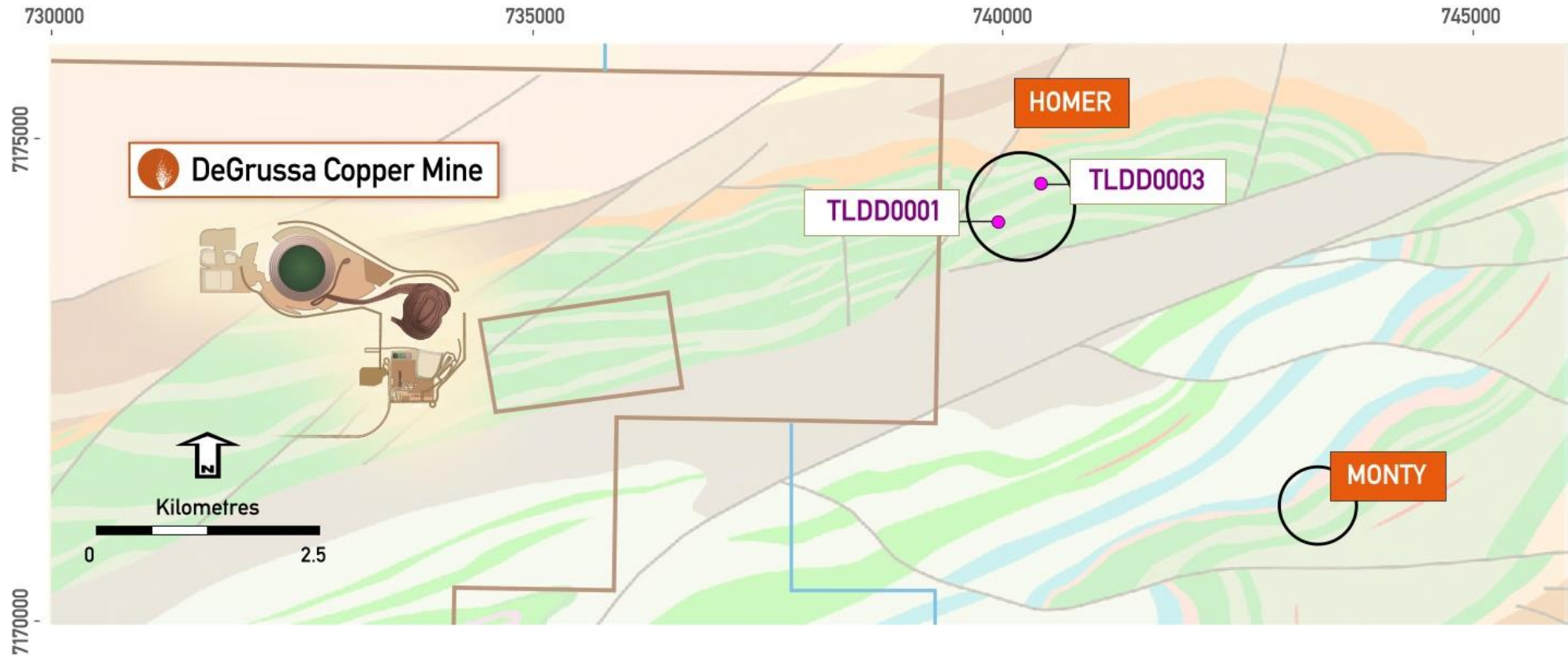
- Drilling continued over the interpreted host stratigraphy at Monty central volcanics
- Geological interpretation is ongoing
- Minor anomalous results received

Monty Discovery – Results to Date



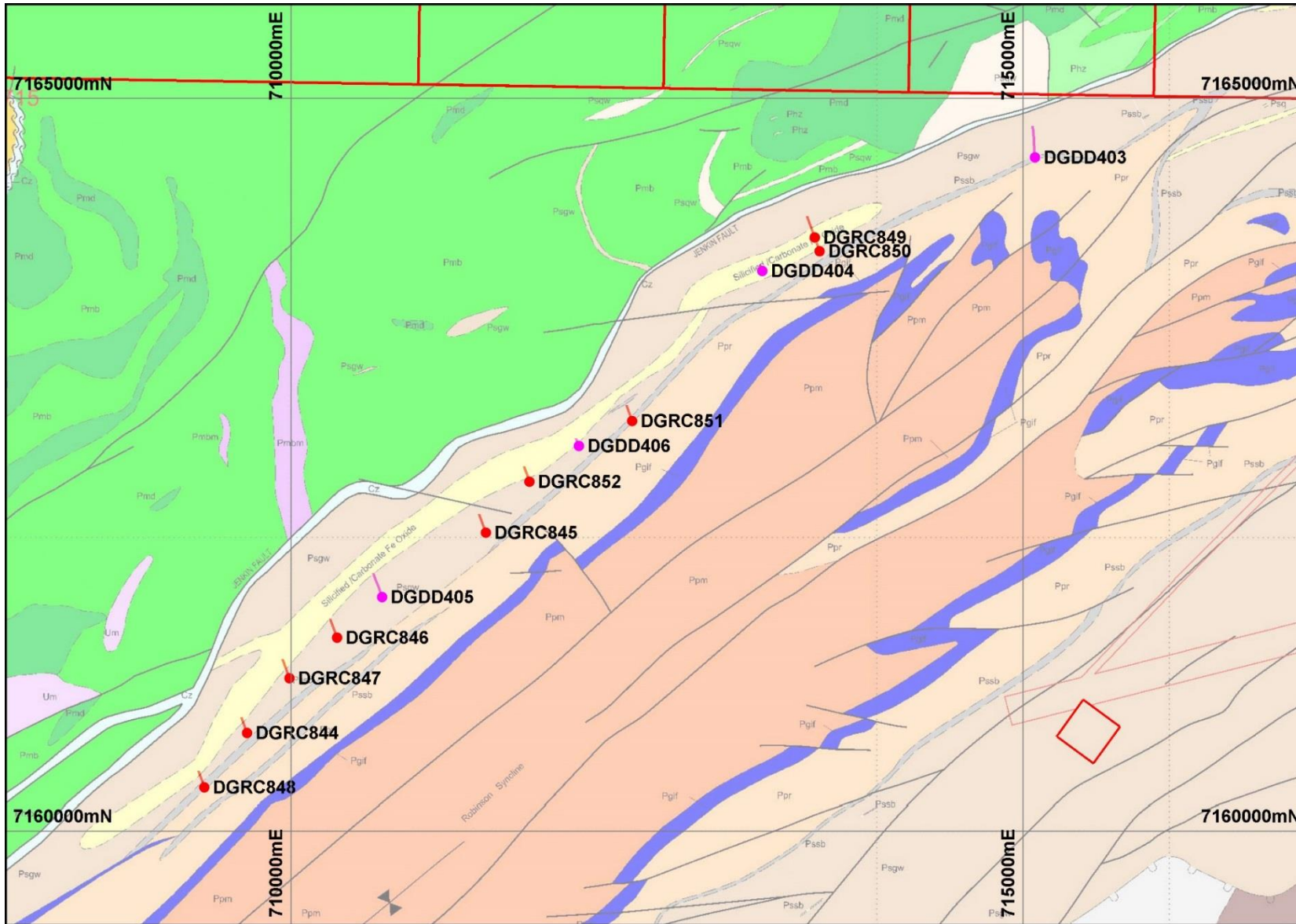
- Drilling progressing by targeting extensions to mineralisation
- Building our understanding of local geological context
 - Stratigraphy
 - Structure
 - Mineralisation controls
- Results to Date:
 - 16.5 metres grading 18.9% Cu and 2.1 g/t Au (TLDD0004A)
 - 9.2 metres grading 11.8% Cu and 2.9 g/t Au (TLDD0005)
 - 18 metres of massive sulphides (TLRC0004 – assays pending)

Homer



- Homer trend drilling to date is encouraging
- Strong geochemistry and exhalative signature
- Drilling up dip position to provide geochemistry vectors and EM platform

Drilling North Robinson Range



- Four DD holes (DGDD403- DGDD406) completed
- Nine R/C holes (DGRC844-852) completed.
- Over 5.6 km of anomalous geochemistry
- Initial intersections received show encouraging Au and Zn mineralisation including:

DGDD406

4m @ 4.80% Zn 286m-190m (core)

DGRC844:

10m @ 3.09 g/t Au, 95-105m (composite)

5m @ 1.43 g/t Au, 160-165m (composite)

20m @ 1650 ppm Zn, 110-130m (composite)

DGRC846:

5m @ 1.09 g/t Au, 35-40m (composite)

60m @ 1565 ppm Zn, 40-100m composite)

DGRC847:

45m @ 1130 ppm Zn, 60-105m (composite)



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