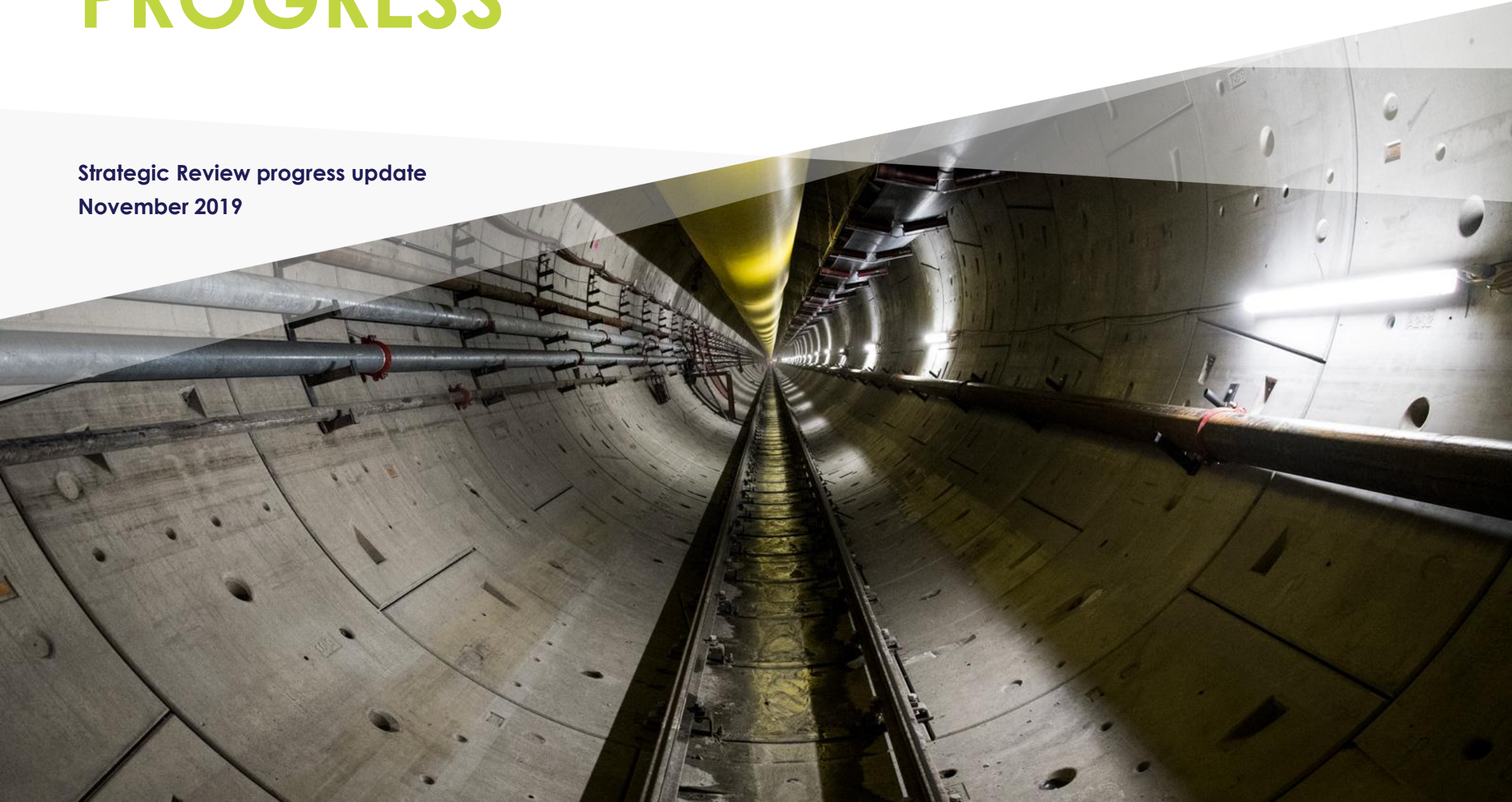


Sustaining the future.



# WE'RE ABOUT PROGRESS

Strategic Review progress update  
November 2019



# AGENDA

1. Strategic Review overview
2. Project development
3. Financing





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# STRATEGIC REVIEW OVERVIEW

# STRATEGIC REVIEW OBJECTIVES

- 1. Protect and maximise shareholder value**
- 2. Maintain fundamental elements of sustainable competitive advantage**
  - Large volume capacity – do not compromise potential to expand to 20 Mtpa business case
  - Lowest operating cost reasonable
- 3. Identify alternative development opportunities**
  - Phasing of capital expenditure
  - Reductions of capital cost
  - Optimisations
- 4. Identify financing options to enable development to continue**
  - Maximise value to shareholders
  - Minimise dilution
  - Reduce total financing costs

## KEY FINDINGS

- Opportunity to fully finance the development to enable an unadjusted development plan are limited – would require fully financed capital programme by March 2020
- The Company is seeking to implement a financing plan on a phased and optimised development plan
- Development will now be phased and optimised to reduce upfront capital requirements (the “Revised Base Case”)
  - Initial Scope – to include progress of shaft sinking to deliver first polyhalite and completion of MTS Drive 1, including associated infrastructure and support costs - ~US\$600M funding requirement
  - Deferred Scope – remaining construction to 10 Mtpa capacity – up to ~US\$2.5bn<sup>1</sup> capital costs, expected to be deferred between 12-24 months subject to financing
  - Certain optimisations relating to the MTS and MHF incorporated into the Deferred Scope
- Strategic partner and financial investor processes underway with the aim of securing ~US\$600M of Initial Scope funding, with various parties engaged and assessing information
- Additional development opportunities and options remain open to the Company and will be further assessed during the Initial Scope period



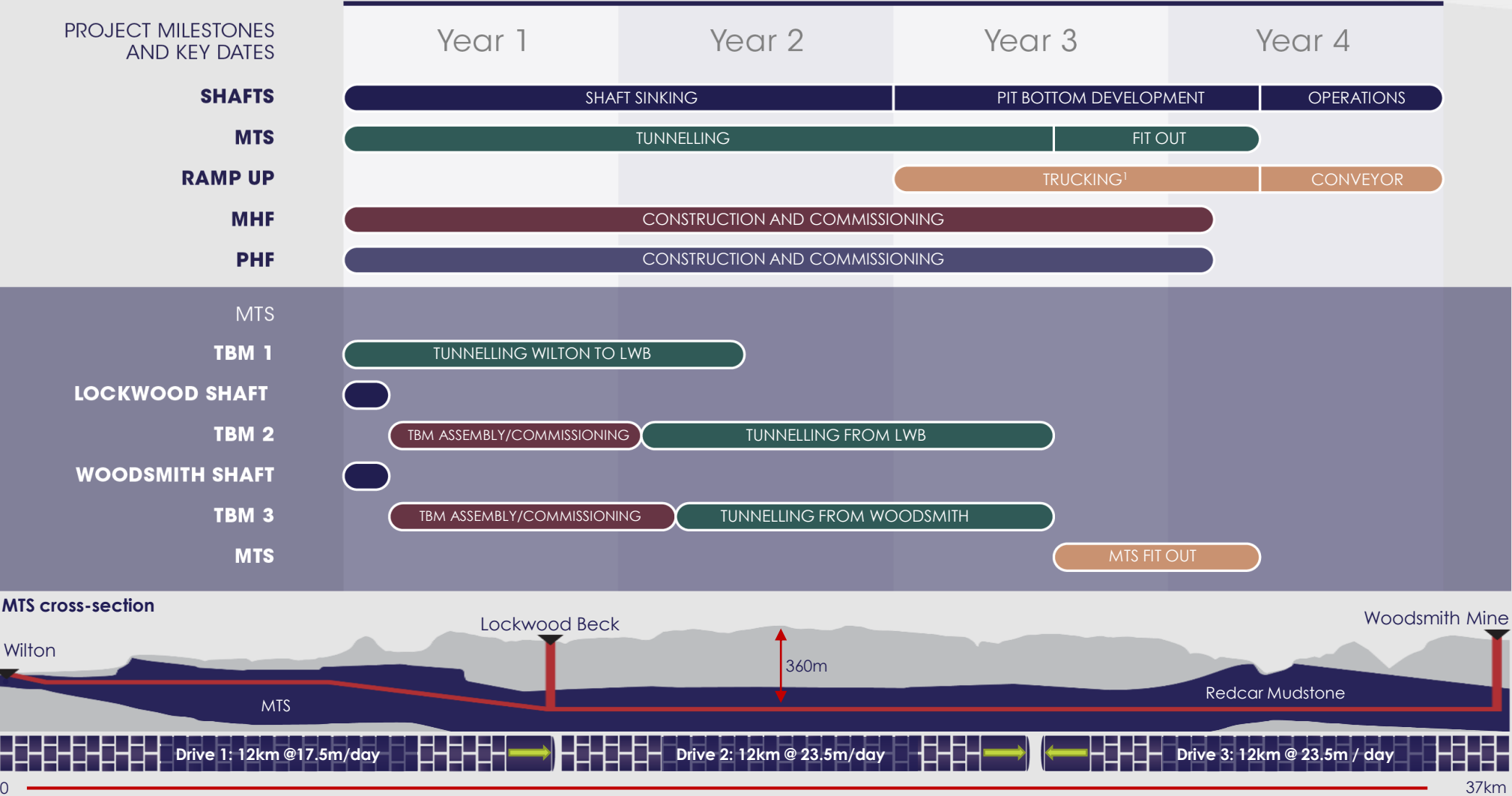
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# PROJECT DEVELOPMENT



# PREVIOUS BASE DEVELOPMENT PLAN



Notes: 1) Approvals in place for 8 months of trucking during this period. MHF – Materials handling facility. PHF – Port handling facility.

## DEVELOPMENT OPPORTUNITIES

KEY FOCUS AREAS OF WORK TO ANALYSE HOW WE COULD ENHANCE THE DEVELOPMENT TO FACILITATE FINANCING AND CAPTURE SHAREHOLDER VALUE

### Rates of progress

- Tunnelling rates – capturing the actual expected rates
- Shaft sinking rates – unlocking the potential of the Shaft Boring Roadheader

### Refine tunnelling scheme

- Alter designs and scope to simplify and reduce cost
- Modify construction methodology to accelerate schedule

### Ramp-up optimisation

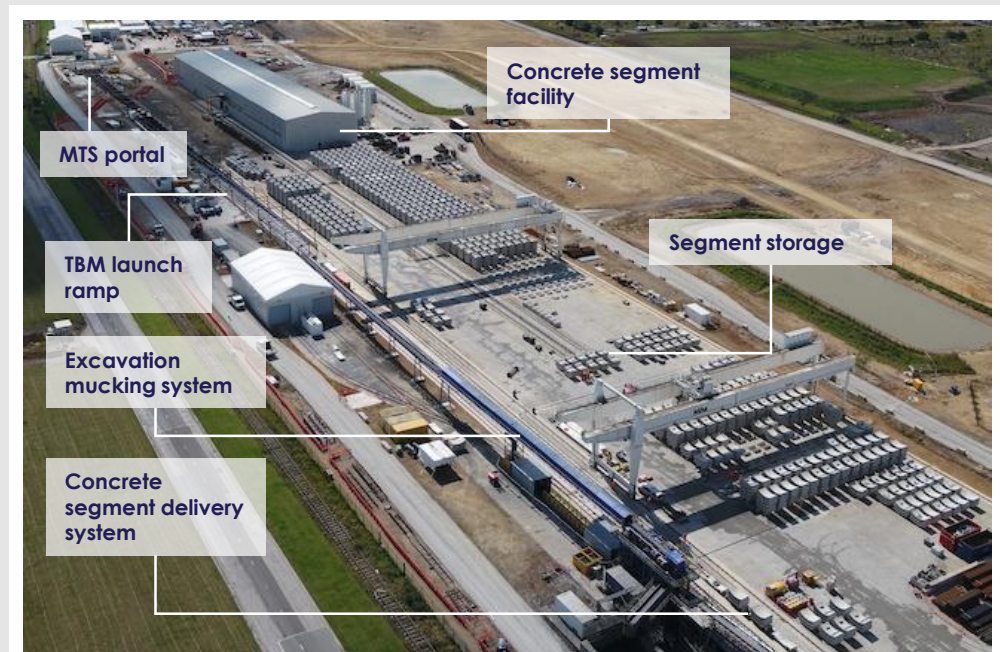
- Staged production ramp-up to align with offtake agreements
- Better utilisation of equipment to reduce cost and schedule



# CONTINUE DRIVE 1 INTO DRIVE 2 – REMOVE TBM2

CHANGE ADOPTED DUE TO COST SAVINGS, RISK REDUCTION AND SCHEDULE CONSIDERATIONS

- Drive 1 tunnelling rates are exceeding the original base case schedule materially
  - ~25m/d long-run average now expected versus 17.5m/d long run average and ~32m/d opportunity
  - Average across the last 1km 19m/day - ~40% faster than expectations for ground type<sup>1</sup>
- Source of savings
  - Utilise the TBM from Drive 1 to complete Drive 2
  - Lockwood Beck cavern scope reduced
  - Segments delivered to TBM via tunnel from existing infrastructure in Wilton
  - TBM refurbishment replaces TBM assembly time – net time and cost reduction



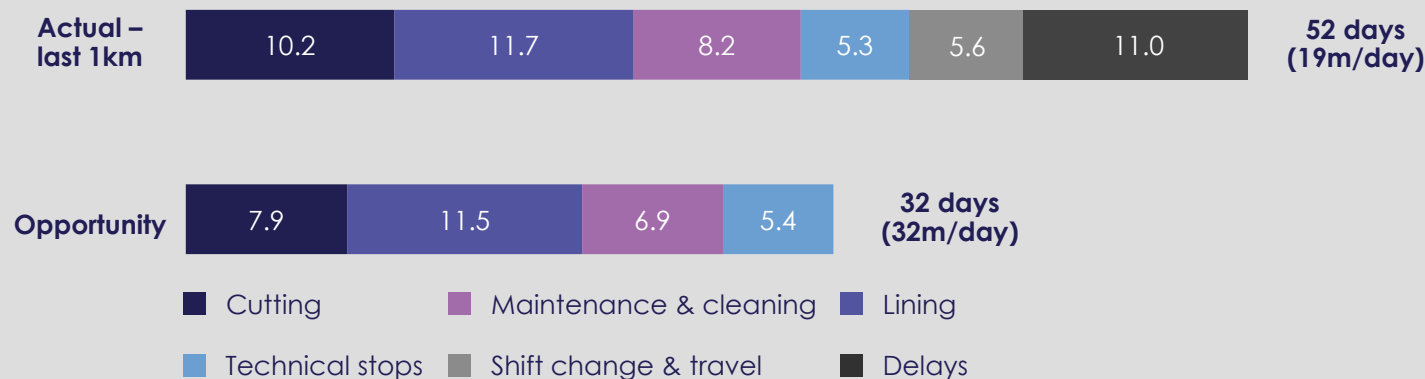
Drive 1 TBM launch site and associated infrastructure - Wilton

## Key findings

- ~US\$100M of expected savings<sup>2</sup>
- No change to schedule on stand alone basis
- Up to 8 months schedule improvement where additional scopes of work constrained 12-24 months
- Simplifies delivery of 2/3 of MTS
- Reduces environmental impact

# TUNNELLING PRODUCTIVITY

## Tunnel advance by activity per 1km<sup>1</sup>



MTS Drive 1 TBM "Stella Rose"

### Cutting

- Improving ground conditions to enable faster advance rates
- Optimised production schedule (18 - 20hrs/day)<sup>2</sup>
- Implementation of daily maintenance programme (4 - 6hrs)<sup>2</sup>

### Lining

- Optimised production schedule (18 - 20hrs/day)<sup>2</sup>
- Avg. lining installation time reduced as operating performance increases

### Maintenance & cleaning

- Implementation of daily maintenance programme (4 - 6hrs)<sup>2</sup>

### Technical stops

- Technical stops assumed to be unchanged

### Shift change & travel

- Travel time and briefing downtime eliminated by implementation of optimised shift pattern
- Introduction of mobile refuge chamber allowing "hot seat" shift change over

### Unplanned delays

- Unplanned delays eliminated
- However, opportunity incorporates 20% contingency days across the 32 day opportunity, included in technical stops and maintenance & cleaning

Notes: 1) Actual days spent on each activity for the last 1,008m of tunnel advance. Upside case assumes 90% of ground encountered is competent and unfaulted and 10% of ground encountered is faulted or not competent and that the TBM advances an average of 3mph 2) Optimised production schedule has 2 x 10hr tunnelling shifts and a dedicated 4 hr maintenance shift over 24hr period. Initial tunnel development tunnelling time averaged 10hrs per 24hrs due to extensive cleaning and maintenance and technical stops during the learning phase of the TBM advance.



# MTS TBM LAUNCH CHAMBERS

Woodsmith Mine

Lockwood Beck

Wilton

MTS Drive 3 launch cavern



MTS Drive 2 launch cavern



## Cavern excavation and establishment of key infrastructure at the base of MTS access shafts to facilitate the staged TBM launch

### Inset/winder re-configuration

- To enable materials delivery from shaft to launch caverns

### TBM assembly/launch chamber

- Gantry crane

### Services

- Water/power
- Electrical sub-station

### Spoil handling

- Conveyor system
- Skip loading

### Materials handling

- Hybrid loco materials delivery system

## Reference Case

Cost: US\$70M at each site<sup>1</sup>

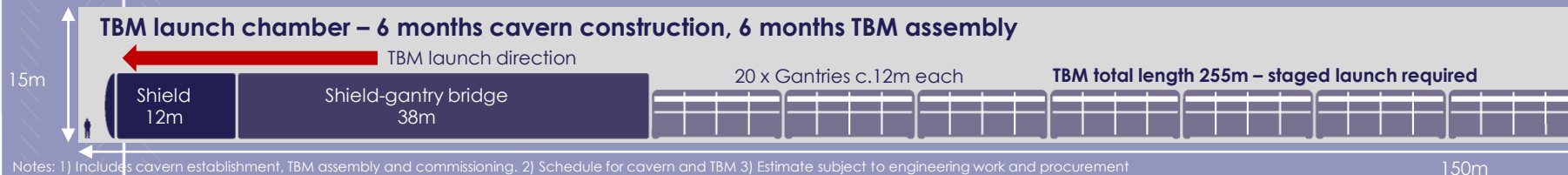
Schedule: 12 months at each site<sup>2</sup>

## Revised Base Case

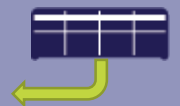
Cost: US\$42M<sup>3</sup> for costs associated with refurbishment of TBM 2

Schedule: 6 months in the constrained base case

## TBM launch chamber – 6 months cavern construction, 6 months TBM assembly

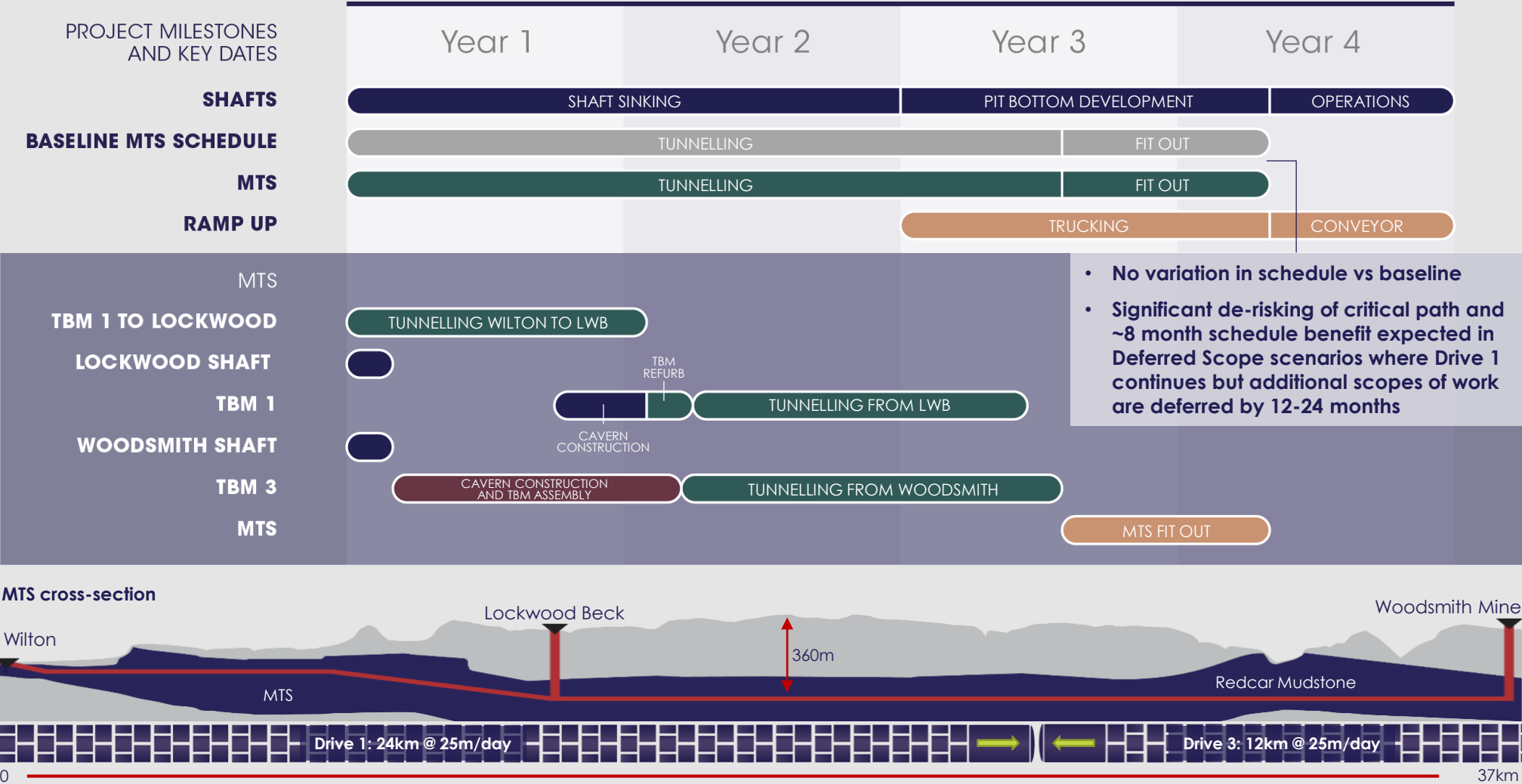


Gantries delivered via access shaft



Notes: 1) Includes cavern establishment, TBM assembly and commissioning. 2) Schedule for cavern and TBM 3) Estimate subject to engineering work and procurement

# DRIVE 1 EXTENSION (REMOVE TBM 2 & INCREASED RATES)



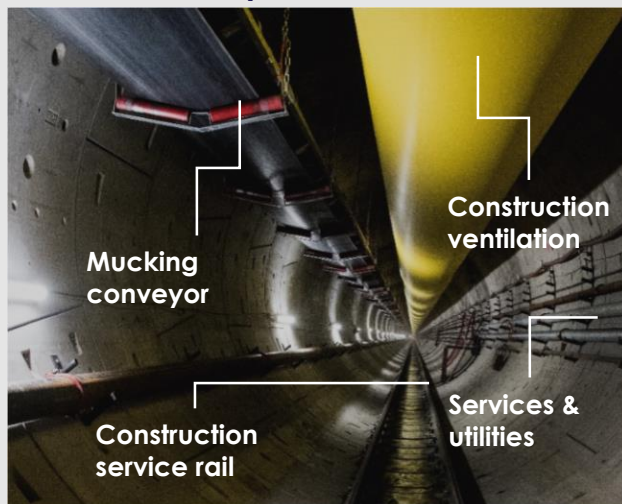
Notes: Schedules show the impact of the alternative tunneling arrangements only and no other changes to scope or schedule from the Reference Case



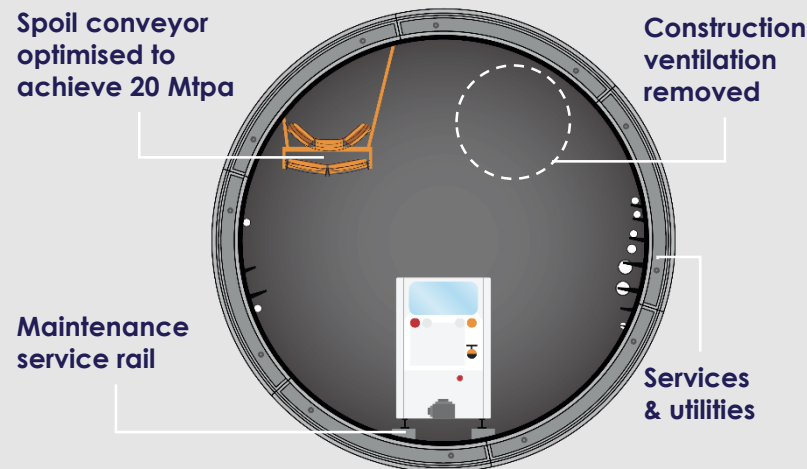
# PHASED MTS CONVEYOR CAPACITY

Utilise construction mucking conveyor to reduce fit-out schedule risk and save capital

## Construction layout



## Modified operational configuration (up to 20 Mtpa)



## Key findings

- ~US\$100M net capital cost saving estimated<sup>1</sup>
- MTS commissioning 1-2 months earlier with significant de-risking of critical path schedule
- Simple upgrade to allow expansion to over 13 Mtpa
- Timing of expansion investment can be optimised

## Staged upgrades to reflect ramp up

### Construction programme

- Retrofit larger conveyor structures over first 3km
- Install larger conveyor structure during construction

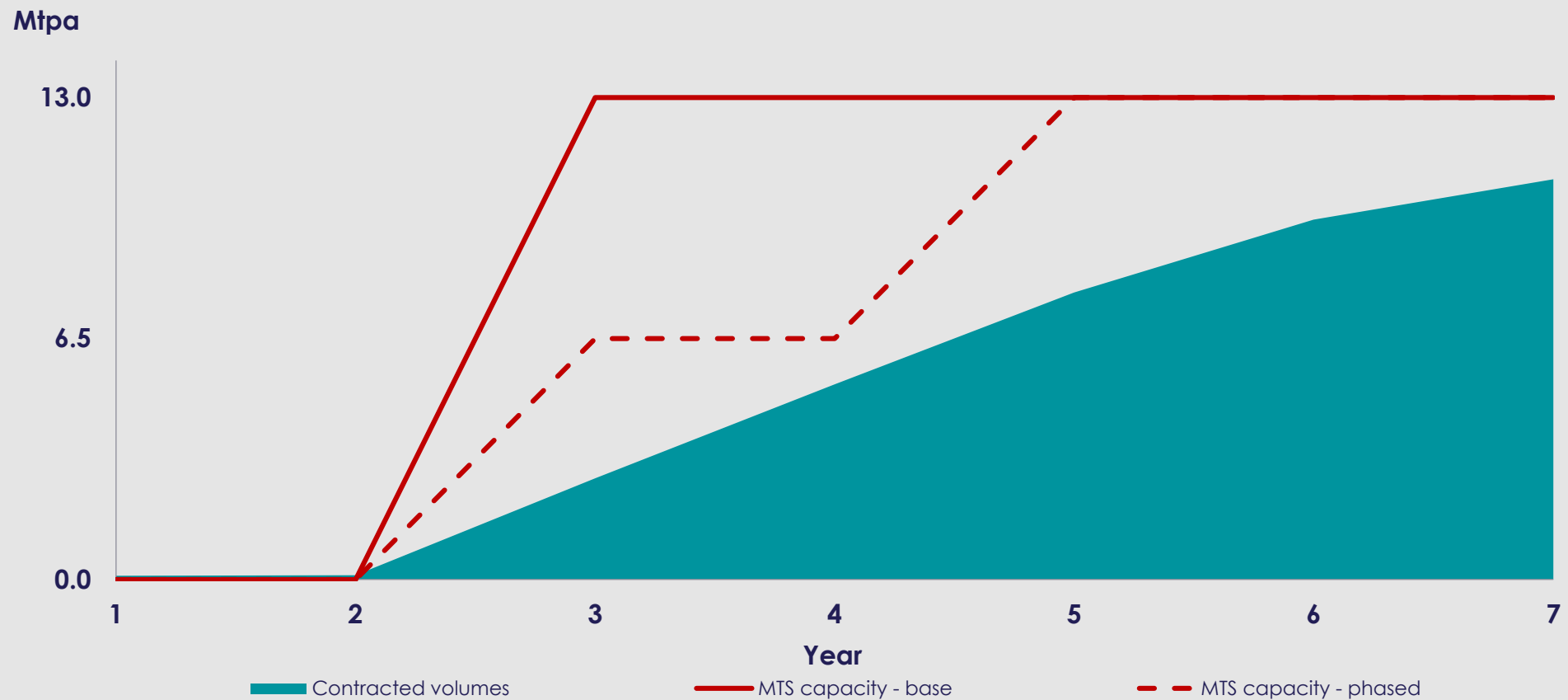
### Initial operation up to 13 Mtpa

- Upgrade running speed of existing 800mm mucking conveyor to handle 6.5 Mtpa
- Upgrade conveyor belt to 1000mm belt to handle larger volumes

### 13 Mtpa up to 20 Mtpa

- Increase running speed as required

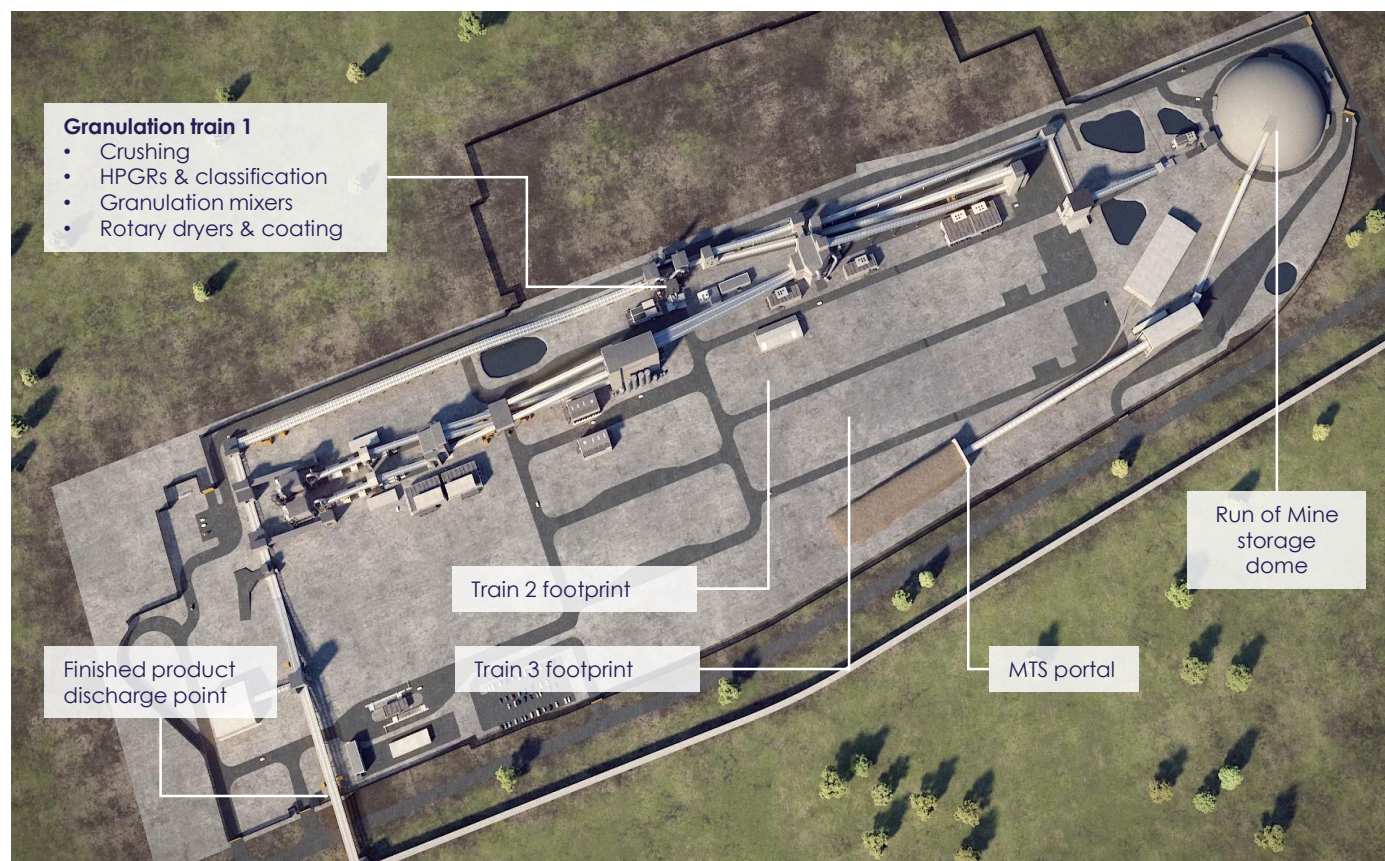
## ORIGINAL BASE CASE AND PHASED CAPACITY





# MATERIALS HANDLING FACILITY

LAYOUT AND CONFIGURATION OPTIMISED TO REDUCE CAPITAL COSTS AND ALIGN TO CONTRACTS



## Key findings

- Design changed to utilise larger components to construct a single train capable of delivering 13 Mtpa of POLY4 rather than two 7 Mtpa trains
- US\$41M increase in initial capital estimate to upgrade train 1 equipment
- Total cost to deliver 13 Mtpa capacity MHF reduced by ~US\$168M<sup>1</sup>
- Integrated with optimised demonstration plant to defer costs
- Demonstration plant capacity enables delivery of early volumes

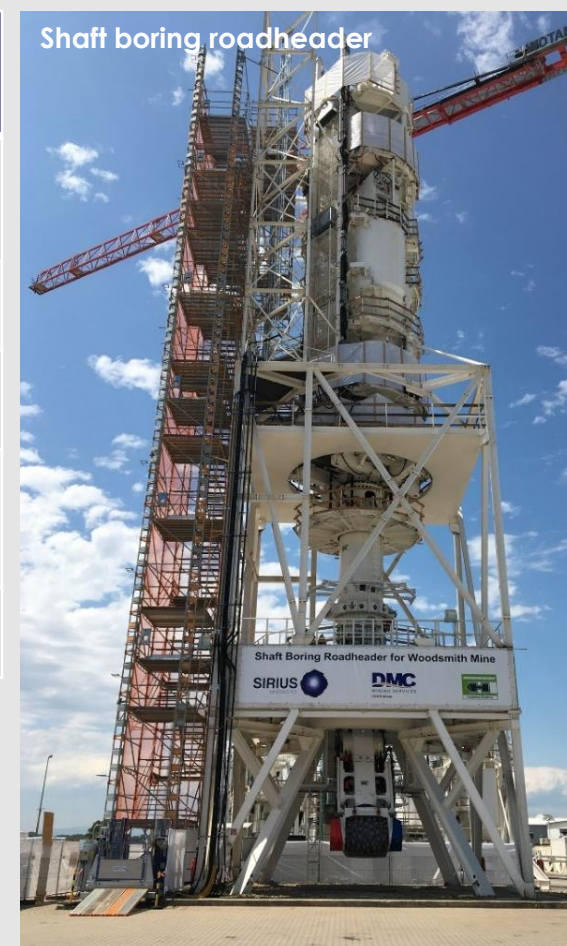
# SHAFT SINKING PRODUCTIVITY

DRIVES FIRST POLYHALITE – CONFIDENT OF PROVEN CASE

	Base case	Proven opportunities	Reasonable Target	Stretch Target
Days to first polyhalite	691	591	523	447
Time reduction	-	~3 months	~5.5 months	~7 months
Average rate (m/d)	2.0	2.3	2.7	3.1
Probe and grout assumption	No change	Process improvement of 15 days	Process improvement of 45 days	Process improvement of 45 days
Availability	80%	82%	85%	91%

## Key findings

- Company and DMC confident of quicker shaft delivery
- Proven opportunities are not yet incorporated into the Revised Base Case





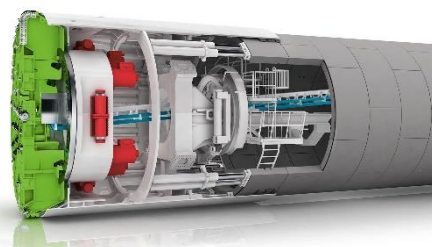
# DRIVE 3 ALTERNATIVE TUNNELLING METHODOLOGY

TWO ALTERNATIVES TO BE FURTHER ANALYSED DURING REDUCED SCOPE PERIOD

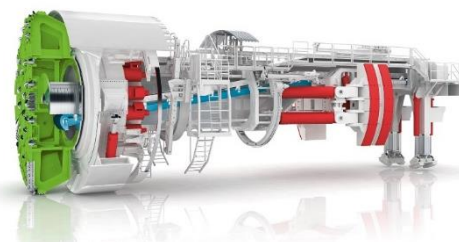
	Single Shield TBM	Rock Gripper TBM	Mining methodology
<b>Cost saving</b>	<ul style="list-style-type: none"> <li>Most expensive tunnelling method</li> </ul>	<ul style="list-style-type: none"> <li>Lower cost than single shield TBM</li> <li>Launch cavern scope reduced</li> <li>Estimated net saving US\$125M<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Mining equipment and cavern requirements deliver maximum upfront savings</li> <li>Estimated net saving US\$215M<sup>1</sup></li> </ul>
<b>Schedule</b>	<ul style="list-style-type: none"> <li>In line with Revised Base Case</li> </ul>	<ul style="list-style-type: none"> <li>Reduced mobilisation time – smaller cavern</li> <li>Faster tunnelling rates (35m/day)</li> </ul>	<ul style="list-style-type: none"> <li>Fastest launch time</li> <li>Tunnelling rates (18.6m/day)</li> </ul>
<b>Lining</b>	<ul style="list-style-type: none"> <li>Fully segmentally lined</li> </ul>	<ul style="list-style-type: none"> <li>Bolt and mesh</li> </ul>	<ul style="list-style-type: none"> <li>Bolt and mesh</li> </ul>
<b>Operating cost</b>	<ul style="list-style-type: none"> <li>Lowest operating cost</li> </ul>	<ul style="list-style-type: none"> <li>Higher ongoing maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li>Higher ongoing maintenance costs</li> </ul>
<b>Commercial</b>	<ul style="list-style-type: none"> <li>Fully procured</li> </ul>	<ul style="list-style-type: none"> <li>Wrapped into broader MTS package</li> </ul>	<ul style="list-style-type: none"> <li>With contract miner</li> </ul>

## Optimisation through experience

Tunnelling data obtained from MTS Drive 1, present opportunities to deploy alternative mechanical solutions



Single Shield TBM



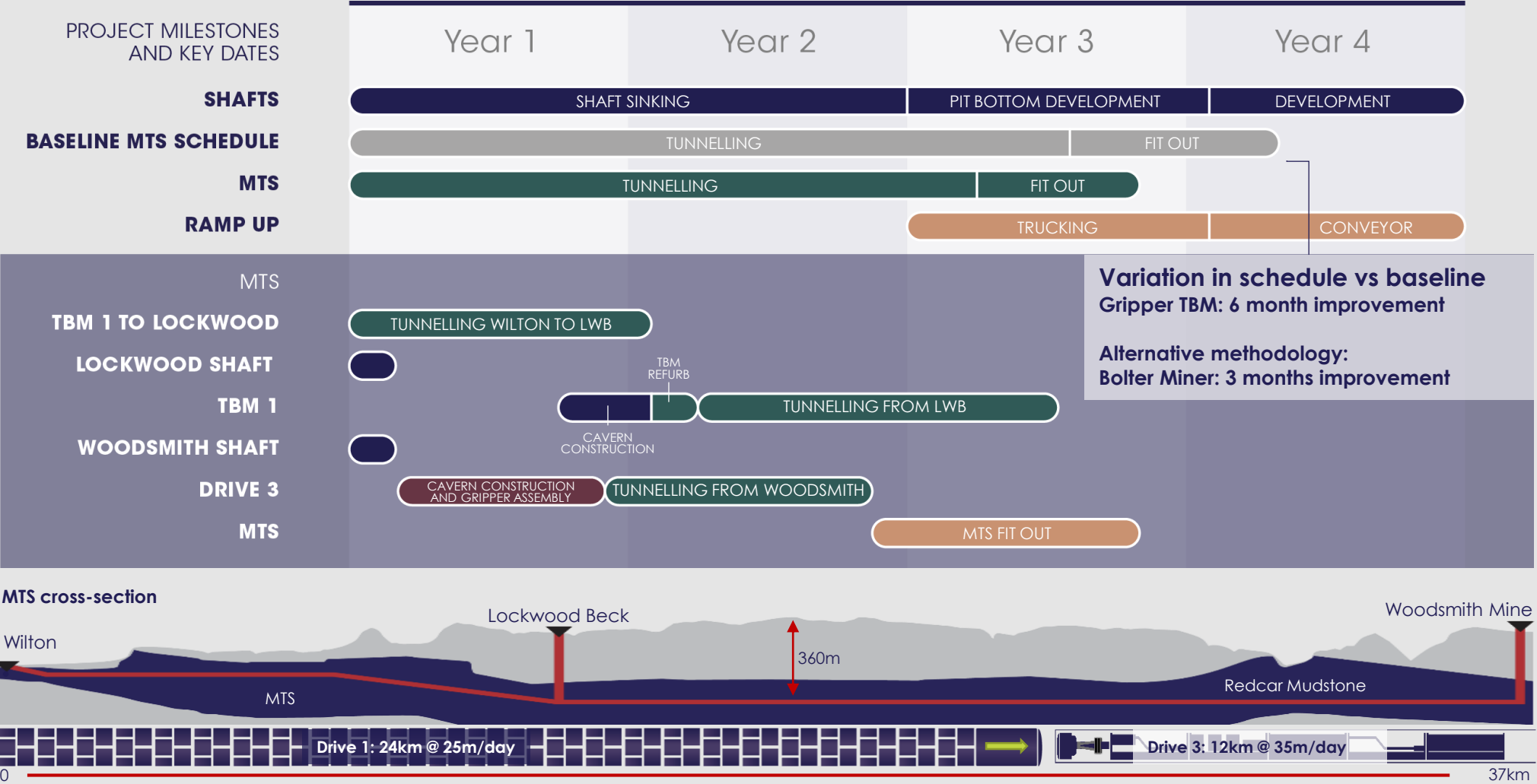
Rock gripper TBM



Bolter miner

Notes: 1) Net savings from removing TBM3, alternative lining methodology, adjustments to cavern development and cost of relevant alternative excavation equipment. Estimates subject to engineering work and procurement

# DRIVE 3 – ALTERNATIVE METHODOLOGIES



Notes: Schedules show the impact of the alternative tunneling arrangements only and no other changes to scope or schedule from the Reference Case

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The background of the slide is a photograph of a large-scale industrial facility, likely a port or a processing plant. A prominent feature is a long, curved conveyor belt system that stretches from the foreground into the distance. The structure is made of heavy metal and concrete, with various pipes, valves, and support beams visible. The sky is overcast, and the overall scene conveys a sense of large-scale industrial operations.

# WAY FORWARD



# PROJECT DEVELOPMENT CONCLUSIONS

Integrated into the Revised Base Case	Consequence
TBM rates adjusted to expected	<ul style="list-style-type: none"> <li>• Schedule maintained</li> <li>• Key driver to opportunity to change Drive 2 approach</li> </ul>
Drive 1 to be extended to complete Drive 2	<ul style="list-style-type: none"> <li>• Potential to reduce capital costs by ~US\$100M<sup>1</sup></li> <li>• Up to 8 months schedule saving potential</li> </ul>
MTS conveyor changes	<ul style="list-style-type: none"> <li>• Potential to reduce capital costs by ~US\$100M<sup>2</sup></li> <li>• Significantly de-risks critical path schedule</li> </ul>
MHF configuration optimisations	<ul style="list-style-type: none"> <li>• Net reduction in total cost of 13 Mtpa MHF of US\$168M</li> <li>• Demo plant enables delivery of early volumes</li> </ul>
Additional opportunities not yet committed	To be analysed further during next 12 months
Shaft sinking productivity	<ul style="list-style-type: none"> <li>• Opportunity to deliver shafts up to 7 months ahead of schedule</li> </ul>
Drive 3 methodology	<ul style="list-style-type: none"> <li>• Up to 6 months of schedule saving potential</li> <li>• Up to US\$215M in cost savings</li> </ul>

Notes: All cost saving estimates in the table above are estimates only and are subject to engineering work and procurement. 1) Estimated net savings from not procuring TBM 2 and construction launch cavern net of refurbishment and relaunch costs for TBM 1. 8 months potential schedule saving in Revised Base Case from increased tunnelling rates to 25m/day and using TBM1 for Drive 2. 2) Estimated net savings from fit out and conveyor procurement offset by cost of modifications and upgrades to TBM mucking conveyor

## REVISED BASE CASE

Scenario	Comments	Strengths	Weaknesses
<b>Reference Case</b>	<ul style="list-style-type: none"> <li>Development recommences on 1 April 2020</li> </ul>	<ul style="list-style-type: none"> <li>No change to previous Stage 2 development plan</li> </ul>	<ul style="list-style-type: none"> <li>Full funding commitment required prior to 1 April 2020</li> </ul>
<b>Revised Base Case</b>	<ul style="list-style-type: none"> <li>As above</li> <li>Reduced upfront scope ("Initial Scope")                             <ul style="list-style-type: none"> <li>Progress shaft sinking to achieve first polyhalite, including related infrastructure</li> <li>Drive 1 progresses to Lockwood Beck</li> </ul> </li> <li>Remaining scope ("Deferred Scope") commences up to 24 months later when financing is available</li> <li>Improved rates of progress and other ramp up modifications incorporated</li> </ul>	<ul style="list-style-type: none"> <li>Schedule for first polyhalite unchanged vs Reference Case</li> <li>Risk allocation improved with shaft sinking spend occurring in front end</li> <li>Profiled capital spend reduces immediate upfront financing requirement</li> </ul>	<ul style="list-style-type: none"> <li>10 Mtpa production date deferred until Q3 '25 (12m deferred period), Q3 '26 (24m deferred period)</li> <li>Multi-stage approach to financing</li> </ul>

## ECONOMIC AND TIME CONSIDERATIONS

	Reference Case <sup>1</sup>	Revised Base Case <sup>2</sup>	
		12m deferral of Deferred Scope	24m deferral of Deferred Scope
<b>Capital costs (US\$M)</b>			
Total capex <sup>3</sup>	4,240	4,098	4,176
Total cost to complete <sup>3</sup>	3,129	2,987	3,064
Variance to Reference Case	-	(142)	(64)
First 12 months capital	837	354	352
First 24 months capital	1,774	1,154	600
<b>Milestones</b>			
First polyhalite	Q2 2022	Q2 2022	Q2 2022
MTS available	Q4 2023	Q1 2024	Q1 2025
10 Mtpa ramped up	Q2 2025	Q3 2025	Q3 2026
<b>Economic parameters<sup>4</sup></b>			
NPV (US\$bn)	12.5	12.4	11.3
IRR	30%	32%	29%
Production to end 2025 (Mt)	20.2	11.6	2.6

Notes: 1) Reference Case – assumes development recommences on 1 April 2020 in line with the Company's previous development plan as set out in the Company's prospectus dated 1 May 2019 with adjustments related to the impact of delaying certain development until 1 April 2020. 2. Revised Base Case – assumes Initial Scope commences on 1 April 2020. Deferred Scope proceeds in line with the Revised Base Case described in this announcement and commences 12 months or 24 months after the Initial Scope commencement. 3. Initial capital expenditure required to achieve full production. Excludes expansion capital expenditure of US\$157M to deliver 13 Mtpa and US\$80M of mobile mining equipment which is assumed to be outsourced. Includes US\$243M of costs relating to harbour and ship loading infrastructure which had previously been assumed to be outsourced. Includes contingency and escalation of US\$467M, which assumes contingency at a P65 level and of which US\$432M remains as residual cost to complete. 4. As at 31-Dec-19.



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# FINANCING OPTIONS REVIEW

## SCOPE BASED APPROACH TO FINANCING

### Initial Scope (~US\$600M)

Progress shafts to first polyhalite, associated infrastructure inc. power, MTS drive 1 to Lockwood Beck, owners costs, contingency

Funding sought:

- Strategic investor
- Financial investors



### Status

- Strategic investor process - A number of parties have expressed interest and are actively engaged in due diligence
- Financial investor process – discussions ongoing with potential investors
- Execution window through to the end of March 2020

### Deferred Scope (up to US\$2.5bn)

Balance of MTS, MHF, PHF and mine level development to 10 Mtpa capacity

Funding sought:

- Project financing
- Debt capital markets solution



### Execution Plan

- Lender due diligence materials expected to be consistent with requirements for stage 2 financing
- 12-24 month timeframe to:
  - Progress Initial Scope (key driver)
  - Approach lenders and structure debt financing (not critical path)

## REVISED APPROACH MITIGATES KEY FINANCING RISKS

### Technical risk (lower)

- Reduces technical risk of shaft sinking by delivering Initial Scope prior to debt financing
- Further demonstrated progress provides option to incorporate upside opportunities

### Commercial risk (lower)

- Reduced scope of risk sharing contracts as shaft sinking scope delivered
- Balance of scope predominantly fixed price
- No port leasing assumed in the underlying funding requirement

### Time to cash flow (faster)

- Financing drawn at or around the time of first revenue
- Financing ramp-up increases operating cash flow contribution and reduces interest during construction



## REVISED APPROACH MITIGATES KEY FINANCING RISKS

### Quantum of debt (lower)

- Net capex of up to US\$2.5bn<sup>1</sup>
- Opportunity to include material operating cash flow during ramp up
- Potential to deliver fully funded financing plan

### Credit metrics (robust)

- Previous stage 2 financing structured rated B/B-
- Gearing level further reduced (debt:equity basis)
- Debt fully repaid within 3 years of commercial production

### Other enhancements

- Strategic investor would provide traditional “Sponsor” halo to financing
- Contracted volumes substantially increased since prior project financing process (now 13.8 Mtpa at peak)

Notes: 1) Initial capital expenditure required to achieve full production associated with the Deferred Scope less US\$600M of Initial Scope capital expenditure assumed to have been funded. Excludes expansion capital expenditure of US\$157M to deliver 13 Mtpa US\$80M of mobile mining equipment which is assumed to be outsourced. Includes US\$243M of costs relating to harbour and ship loading infrastructure which had previously been assumed to be outsourced. Includes contingency and escalation of US\$467M, which assumes contingency at a P65 level and of which US\$432M remains as residual cost to complete.

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# THANK YOU

Any questions please contact:

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[siriusminerals.com](http://siriusminerals.com)

