

**Programme:** 100m LNG Dual-fueled Ro-Ro Passenger Ferry

**Programme Director:** [redacted]

**Review Period:** April 2021

<u>Name</u>	<u>Job Title</u>	<u>Signature</u>
[redacted]	Programme Director	
[redacted]	Project Accountant	
[redacted]	Planning and Controls Manager	



# 1. Health & Safety

Report Number:	Date: 14.04.21
Month: Mar 21	

## 1. Monthly Cumulative Safety Statistics

S/#	Title	This Month Figures	Cumulative
01	RIDDORS	1	4
02	Fatality Case (Fatal)	0	0
03	Lost Working day Case (LWC)	1	4
04	Medical Treatment Case (MTC)	7	19
05	First Aid Case (FAC)	10	82
06	Property Damage (PD)	0	0
07	Near Miss (NM)	0	6
08	Fire Incident (FI)	0	2
09	Environmental Incident	0	1
10	Total Number of Recordable Injuries	1	21
11	Total Number of Days Lost	21	37

## 2. Description of Incident/Accident and Near Miss Reported This Month

Events (NM/MT/FA/PD ETC....)
1. <b>RIDDOR, 1 incident</b> – 1 ankle injury (805 engine room-030321)
2. <b>Medical treatments 7 incidents</b> – 1 trip and fall, 1 cut to head, 2 debris in eye, 1 cut finger, 2 ankle injuries.
3. <b>First Aid</b> – 10 incidents – 2 cut heads, 1 head knock, 6 debris in eye, 1 cut finger.
4. <b>Fire incident</b> – Nothing reported. <b>27/7 fire watch patrols being maintained.</b>
5. <b>Environmental incident</b> – no environmental incidents occurred in month of March.
6. <b>Near Miss</b> – None reported

Description	This Month
<b>Site Safety Inspection</b>	3 <ul style="list-style-type: none"> <li>• 801 &amp; 805 Walks include SMT member, Sub-contractor and or Union Representative.</li> <li>• Continue to review the current site COVID-19 controls.</li> <li>• Regular walk throughs conducted to monitor progress on implementation of all H&amp;S relevant controls, prior to commencement of Alu welding of Aft mast</li> </ul>
<b>Policy/Paperwork Reviews</b>	1 <ul style="list-style-type: none"> <li>• Review ongoing for Permit to Work evolution into Integrated Safe System of Work (ISSOW) through Worksafe.</li> <li>• Upcoming site lifts now flagged as part of planning reviews, requiring a Permit to Work for each lift. Further work required to embed basic lifting controls.</li> <li>• H&amp;S Induction now delivered as a PowerPoint presentation, including a dedicated version for Sub <u>Contractors</u></li> <li>• New PPE Policy rolled out in March 2021, including updates.</li> <li>• Formal Confined Space Procedure rolled out and being monitored.</li> <li>• New Health &amp; Safety Policy in preparation.</li> <li>• Dedicated Rules of Engagement for 805 launch developed and agreed with relevant parties, in preparation for the event.</li> <li>• Dedicated R/A developed for Aluminium welding of Aft mast in PG stores area.</li> <li>• Housekeeping Standard template developed</li> </ul>

## 4. SHEQ Initiatives

Description
H&S dept continue help identify, change & improve current processes, procedures & safety culture throughout.
First Monthly Safety Committee meeting held 27th March 2021.
H&S Director and Turnaround Director continue to meet bi-weekly to discuss progress and align on next steps
Review planned with new Training Manager to consider access to online Health & Safety training
Emergency Response Team training including Confined Space Rescue & Rescue from height with support from Mines Rescue Safety Training.
All site noticed boards reviewed and agreement reached to replace with combined HSE, HR and Union version. This will require adequate controls to ensure content remains up to date.
Preparations finalized for installation of security fence for new Tower Crane
H&S Culture assessment completed with input from SMT
Action to develop an accurate Accident Frequency Rate remains open
Process to source a suitable permanent candidate, in the role of Head of HSE, has been initiated

## 2. Contract Summary

<b>Customer</b>	CMAL	<b>Contract Start</b>	Restart – 2 <sup>nd</sup> December 2019
<b>Agreed Contract value</b>	Budget to completion - £110m	<b>Contract Finish</b>	801 April 2022 – 802 Dec 2022
<b>Project Type</b>	Design and Build	<b>Forecast Finish</b>	801 April 2022 – 802 Dec 2022
<b>Project Director</b>	[redacted]	<b>Contract Type</b>	SG funded

<b>Project Scope</b>	Design, build and commission 2 off LNG dual fuel ferries, including training and provision of spares and handbooks. The scope of this project is to complete the design and build etc. following the final delivery of 16 <sup>th</sup> August 2019.
<b>Significant Project Changes</b>	None (in this phase).
<b>Acceptance Criteria</b>	As per the specification.
<b>Payment Terms</b>	Currently – funding provided by the Scottish Government based upon FM(PG) cash flow forecast.
<b>Warranty</b>	The warranty for both vessels is 36 months from delivery. No allowance has been made financially for either shipyard support or suppliers warranties that have lapsed during this period.
<b>Liquidated Damages</b>	No allowance has been made for late delivery. Performance penalty for weight – the maximum allowance of £250k per vessel has been included, if the allowance is exceeded the buyer has a contractual right to terminate. Performance penalty for speed - the maximum allowance of £150k per vessel has been included, if the allowance is exceeded the buyer has a contractual right to terminate. Performance penalty for fuel consumption – no allowance has been made.
<b>Special Conditions</b>	

### 3. Business Success Criteria

Success Criteria	Due	Owner	Enabler	Status	TL	Fut Tr
Health & Safety	Through the project	[redacted]	<ul style="list-style-type: none"> <li>Formal Gap Analysis completed Dec 2020), to de-risk business, through introduction of appropriate safety controls and arrangements.</li> <li>This should provide the basis for a recognised management system</li> </ul>	<ul style="list-style-type: none"> <li>Progress against identified shortfalls is reviewed bi-weekly with Turnaround Director and every 2nd month with Board.</li> </ul>	A	↔
Quality: right first time, dimensional control, care and maintenance	Through the project	[redacted]	<ul style="list-style-type: none"> <li>Appointment of Compliance manager to integrate QC team with planned activity and support Operational teams</li> <li>Calling notice and reporting protocols establish</li> <li>Patrol and monitoring surveillance</li> <li>PotD</li> </ul>	<ul style="list-style-type: none"> <li>Progressive acceptance of Legacy mechanical system installations signed off by all stakeholders</li> <li>801 structural completion surveys supporting operations</li> <li>Preservation and reactivation activity ongoing</li> <li>Client site team/Class survey or weekly washup meetings implemented</li> </ul>	G	↔
Work packages are issued with associated information and materials	June 20	[redacted]	<ul style="list-style-type: none"> <li>Inventory is loaded into the stores management module on [redacted] Inventory can be coded to align with P6 plan</li> </ul>	<ul style="list-style-type: none"> <li>Work packages for fabrication, hotwork and pipe manufacture are now being issued with material identified. Improvements on how these are managed in production are being progressed.</li> </ul>	A	
Commissioning & Sea trials		[redacted]	<ul style="list-style-type: none"> <li>Integration with build</li> <li>Resource</li> <li>Test forms</li> <li>Ability to source LNG sea trials crew</li> </ul>	<ul style="list-style-type: none"> <li>Plan is being updated to include commissioning activities</li> <li>One new member of staff now embedded in the team</li> <li>Test forms have been started</li> </ul>	G	↔
Technical information is produced on time and change is minimised	Through the project	[redacted]	<ul style="list-style-type: none"> <li>Holds are cleared prior to required release of AFC2 issue drawings</li> <li>Legacy drawings identified prior to planned requirements, checked, issued and material requisitioned.</li> <li>Scope of work to complete understood and planned</li> <li>Document Control in place to facilitate access to the correct drawings</li> <li>Minimise change by confirming basic design is compliant</li> </ul>	<ul style="list-style-type: none"> <li>Lists of legacy drawings identified and being checked</li> <li>Ship surveys may be required for additional areas. Numerous actions outstanding from structural completion survey.</li> <li>Document Control being established in sharepoint – in delay due to workload associated with structural completion and 805</li> </ul>	A	↔
Control of change is a properly managed process		[redacted]	<ul style="list-style-type: none"> <li>An overall change process is in operation. A detailed process for stop work to be implemented across the business.</li> </ul>	<ul style="list-style-type: none"> <li>An overall change process has been operating for some months, however there is now a level of change appearing from the ICE field engineering team requiring stop works. The detailed process for managing this is being finalised</li> </ul>	A	↔
Customer relationship is positively maintained throughout the project	Through the project	[redacted]	<ul style="list-style-type: none"> <li>Regular dialogue at all levels, monthly reviews, ad hoc meetings</li> </ul>	<ul style="list-style-type: none"> <li>Model reviews are now complete and the focus is now on the resolution of issues at the ship. There are currently no relationship issues and we continue to work collaboratively with CMAL in their new SG role.</li> </ul>	G	↔
Subcontractors are effectively integrated within the programme		[redacted]	<ul style="list-style-type: none"> <li>POTD, weekly and monthly reviews</li> </ul>	<ul style="list-style-type: none"> <li>Subcontractors have been kept involved in rebaseline activity</li> <li>Subcontractor plans are aligned to ours</li> </ul>	G	↔
The project is properly resourced with: <ul style="list-style-type: none"> <li>Production management &amp; supervision</li> <li>Production labour</li> </ul>	April 20	[redacted]	<ul style="list-style-type: none"> <li>Accurate resource forecasting from the schedule and a resource strategy in place</li> </ul>	<ul style="list-style-type: none"> <li>The lack of agency production labour is now impacting the programme. This is being reviewed weekly to determine how this can be improved and recovered</li> </ul>	R	↔

## 4. SOFT Report

Successes	Opportunities
<ul style="list-style-type: none"> <li>The weekend work shift now has a team of circa 30 however retention of personnel is a growing concern.</li> <li>802 unit 82 has been erected at ship, the use of the [redacted] dimensional control has proven successful with no rework required.</li> <li>Structural completion remains on target despite a number of issues regarding silencer shipping and aft mast pipe supports</li> <li>1<sup>st</sup> fix studding has started on 5 deck to allow insulation to commence.</li> <li>A resourcing solution has been agreed and the provider [redacted] will be contracted to provide labour to perform defined packages of work.</li> <li>802 outfit steel packages of work out for enquiry, pipework installation tender will be in next few weeks.</li> </ul>	<ul style="list-style-type: none"> <li>Improved dimensional control using 3D technology. To be initially implemented on 802 units 82/83/84 and then future units/structure.</li> <li>Build strategy review for 802 to build as blocks for wheelhouse and bow units prior to erection at ship</li> <li>Use of [redacted] technology for pipe closers to be assessed.</li> </ul>
Failures	Threats
<ul style="list-style-type: none"> <li>Agency labour continues to be an issue. Available labour has been focused on 801 production in the manufacturing shop and the ship. <b>A resourcing solution has been agreed with [redacted] to be contracted to provide labour.</b></li> <li>The impact of the suspension of production work, labour shortfall and the extension to the 801 drydock will require a review of the 801/802 programmes. <b>The programmes have been revised but a finalised labour resourcing strategy is required before the baseline is struck. A review is planned for 3<sup>rd</sup> May.</b></li> <li>The technical proposal for 801 hull paint repair has not been agreed with CMAL. <b>A way forward has been agreed and a dry dock specification is being developed for agreement</b></li> <li>Axilocks. Whilst we have cleared legacy issues in zone 2 and 3 with customer agreement there are new issues arising concerning use in accordance with Lloyds. [redacted] has been raised with [redacted] following our discovery that the wrong type of axilocks had been called up, that axilocks were being used in unacceptable spaces and on unacceptable systems. These errors have now been scoped out and where required remedial work is ongoing.</li> </ul>	<ul style="list-style-type: none"> <li>COVID 19 impact to programme– <b>Further issues/restrictions remain a threat to the programme.</b></li> <li>Weight report – full review of the report is currently underway using [redacted] generated data and validating [redacted] data where possible. This may have a weight growth risk</li> <li>[redacted] delay in getting Express Pipework on contract may impact LNG pipe installation programme. <b>Manufacturing has commenced with a forecast for the first deliveries now mid June, this can be accommodated within the programme</b></li> <li>Equipment information loaded on [redacted] does not align to the [redacted] equipment list. <b>A full inventory is underway, circa 50% have been aligned to the equipment list</b></li> <li>Over 106 penetrations have been identified as not conforming to Lloyds requirements, these will need to have corrective action with additional compensation.</li> </ul>
Impact Statement / Help Needed	

# 6. Traffic Light Report

Criteria	Overall Status				Future Trend	Comments	Return to Green	
	Dec 20	Jan 21	Feb 21	Mar 21			Date	Status
Overall Status	R	R	R	R	↔	<ul style="list-style-type: none"> <li>The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. A full return to work commenced on 8<sup>th</sup> Feb. A rebaseline exercise has been completed, a resource plan has been produced and agreed and the plan can now be finalised.</li> </ul>	May	R
Safety	A	A	A	A	↑	<ul style="list-style-type: none"> <li>An interim senior safety director has now been appointed and has undertaken a gap analysis. This shows a score of 23%. Priority H&amp;S actions are being identified however COVID precautions have taken precedence through January</li> </ul>	TBA	G
Quality	A	A	A	A	↑	<ul style="list-style-type: none"> <li>Quality Progresses to Green and follows the natural progression of understanding the quality issues and route to closure, Legacy pipework quality controls delivering repeatable results with Client progressive sign off now established. QC to support for weekend working established</li> <li>801 and 802 reactivation activities underway with Jotun's representative onsite, feedback has been positive.</li> <li>Formal [redacted] survey due imminently, routine humidity and environmental checks now established</li> <li>Care and preventive Maintenance steering group set up between Quality/Commissioning/Operations/Facilities</li> <li>Dimensional control surveys with Specialist contractor underway. Double curvature plate outsourced.</li> </ul>	Mar	G
Customer Relationship	G	G	G	G	↔			
Schedule	R	R	R	R	↔	<ul style="list-style-type: none"> <li>The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. A full return to work commenced on 8<sup>th</sup> Feb. A rebaseline exercise has been completed, a resource plan has been produced and agreed and the plan can now be finalised</li> </ul>	May	R
Finance	G	G	G	G	↔	<ul style="list-style-type: none"> <li>The re-baseline has maintained the previous forecast at completion. There is an increasing amount of hours unspent which reflects the lack of labour. An updated financial project is currently being prepared</li> </ul>		
Technical	A	A	A	A	↑	<ul style="list-style-type: none"> <li>LR / MCA approvals is ongoing</li> <li>Design verification completed; many issues found, typically poor documentation.</li> <li>Stability calculations are progressing as per the NA team plan.</li> </ul>	May	A
Suppliers	G	G	G	G	↔	<ul style="list-style-type: none"> <li>Pipe Installation and 801/802 Hydraulics tenders now at award.</li> </ul>		
Resources	R	R	R	R	↔	<ul style="list-style-type: none"> <li>Subcontract production labour is building up more slowly than planned. The lack of labour is now impacting the programme. A resource plan has been produced and agreed.</li> </ul>	May	R
Risk	R	R	R	R	↔	<ul style="list-style-type: none"> <li>The status remains red as the labour risk is impacting the programme. The COVID risk has also impacted with the suspension of production occurring in January.</li> </ul>	May	G

## 5. Quality

### Dimensional Control & Survey

FM(PG) took a huge step change in methodology on 20th April as we successfully erected our first Unit on 802 deploying a Dimensional control strategy with the unit fully signed off painted/primed beforehand.

Using digital survey techniques, the Interfaces of Unit 82 with Unit 76 and Unit 79 were established with 'all green' material removed and ensured a first time fit and position on the Berth

Top Shed units 83 & 84 DC surveys completed with new curved shell plates delivered and installed under survey and will form part of the same First Time Fit approach going forward.

### People:

- Dim control Lead surveyor recruitment
- NDT upskilling – [redacted]
- QA Manager recruitment
- Replacement Mechanical inspector recruitment
- Exploring QC technician Apprentice

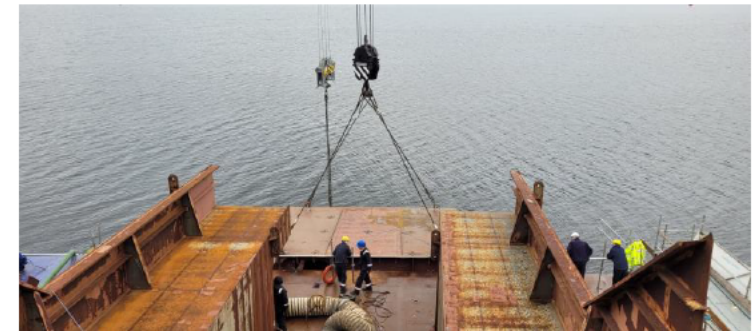
### Operations:

QC are aligned and supporting survey and signoff of all activity associated with 801 Structural completion namely AFT Mast, casings and silencers, Car deck recesses

First monthly OOR meeting commenced with collaboration between CMAL and FM(PG)

Mechanical systems in zones 2&3 continuing with satisfactory results

Formal Wartsila Engine report still in Abeyance and OEM pressed for submission date

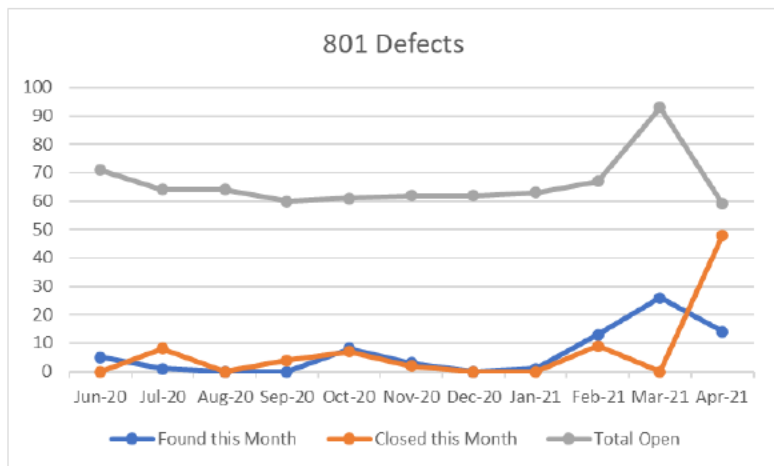


Unit 82 – First Time Fit



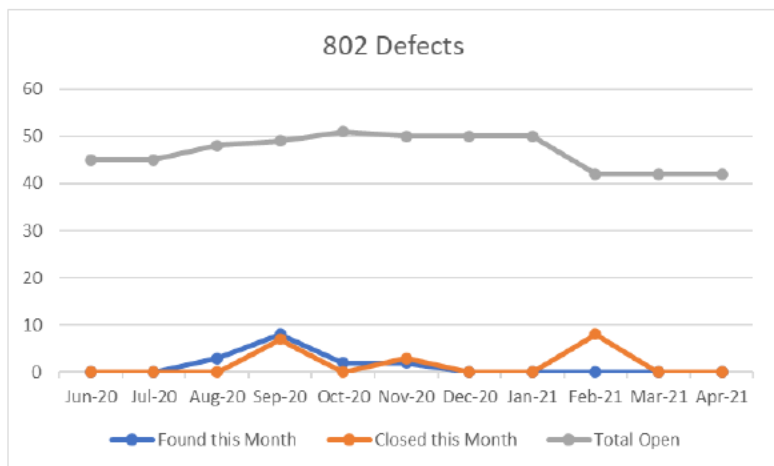
Unit 84 "skin over"

# 5. Quality 801



Open Defects 801			
	Current	Previous	Prior
<b>Critical</b>	8	9	7
<b>Major</b>	6	26	25
<b>Moderate</b>	15	17	16
<b>Low</b>	30	41	6
<b>Total</b>	> 60	20 - 60	< 20

- 14 new defects raised on Care and Protection – 11 of these now closed
- 45 defects closed this month out:
  - Aft mooring deck pitting
  - Pipework legacy standards
  - Structural welding and repairs
- No new Critical defects with outstanding in baseline plan (I.e panama eyes/ Thurster space Web)

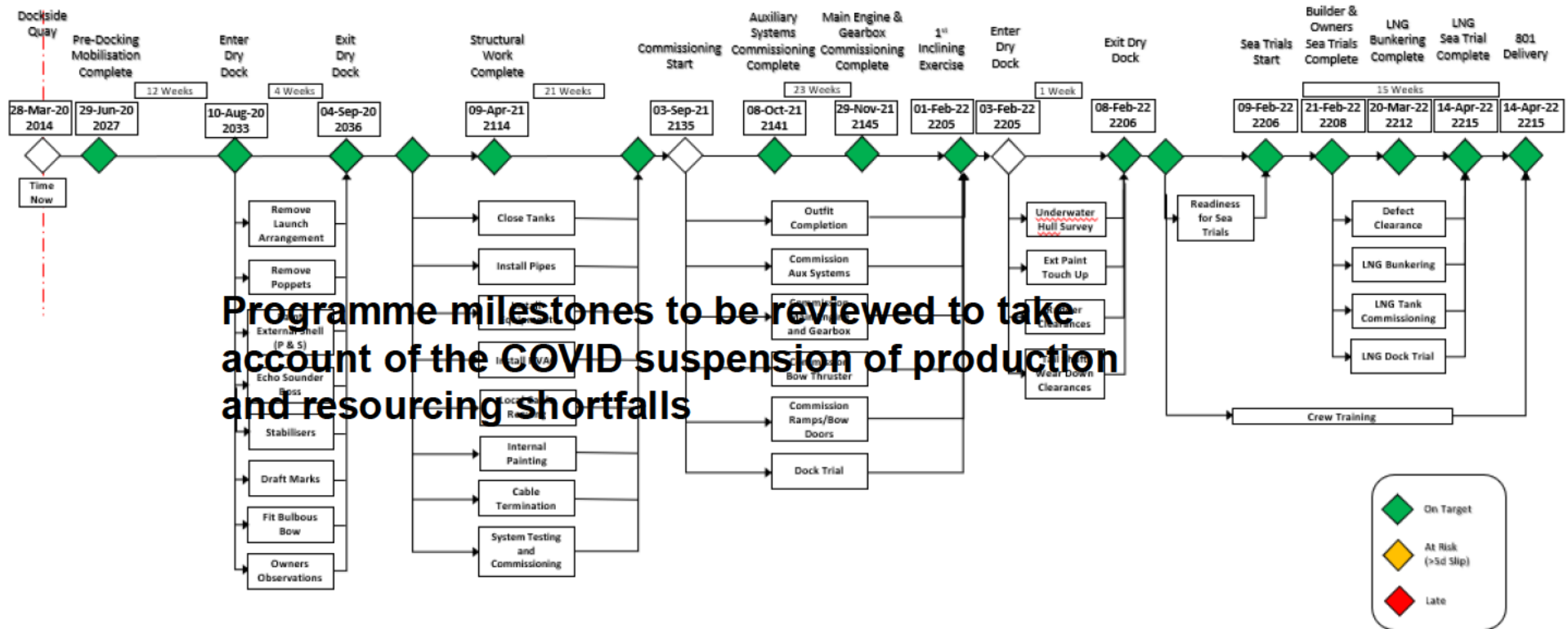
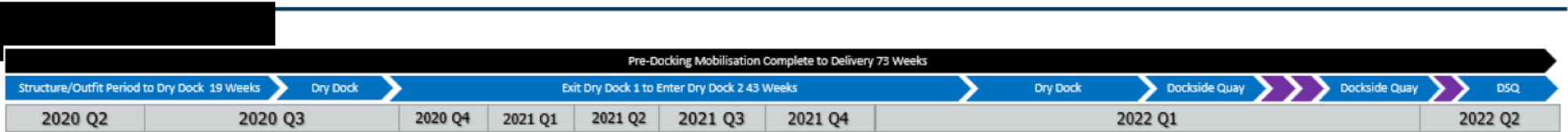


Open Defects 802			
	Current	Previous	Prior
<b>Critical</b>	1	1	2
<b>Major</b>	3	2	3
<b>Moderate</b>	5	4	5
<b>Low</b>	33	33	33
<b>Total</b>	> 60	20 - 60	< 20

- No defect movement this report



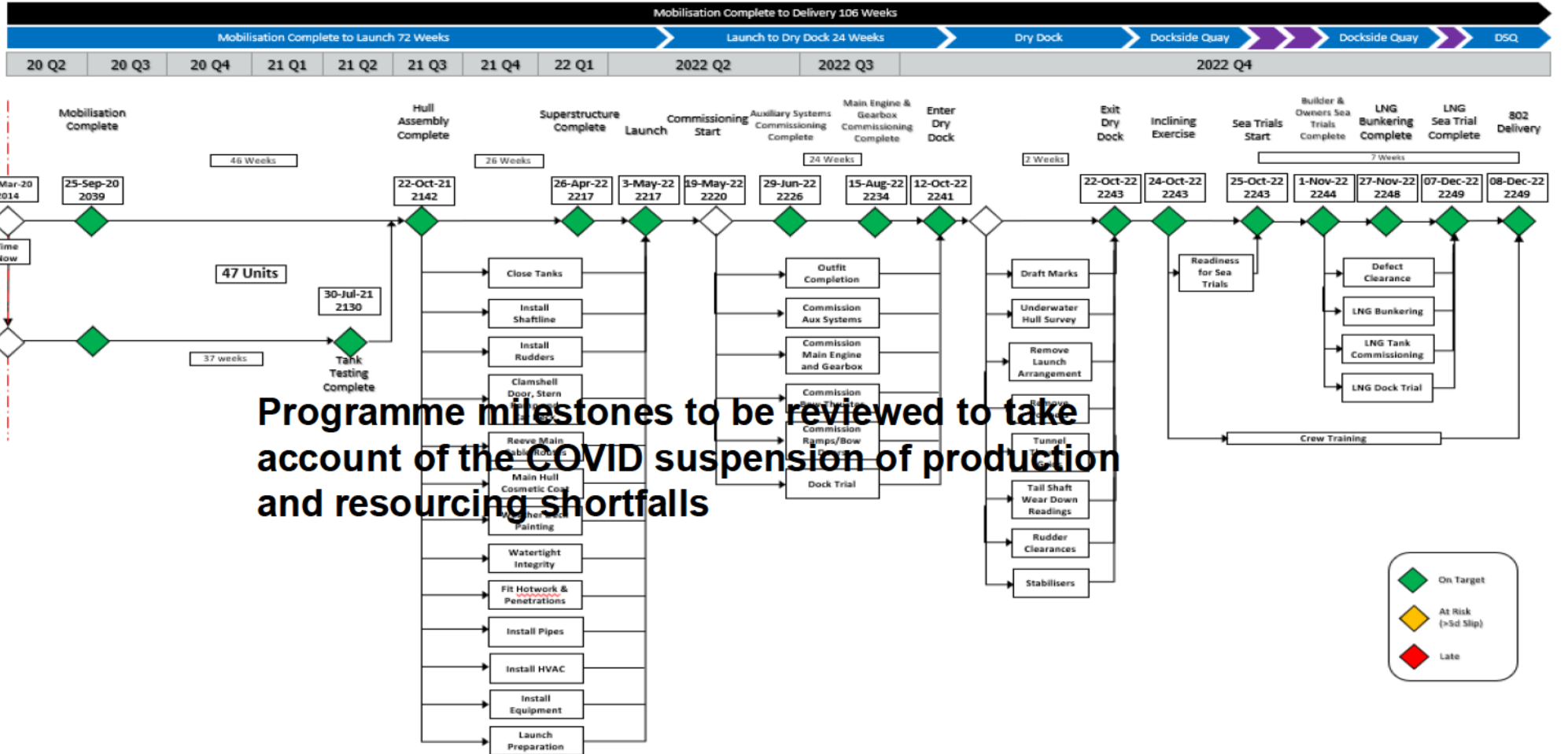
# 8. 801 Schedule Overview as @ Baseline Position ( Aug 2020)



CDP has 3 weeks time contingency included compared to our Driving Project Plan

# 9. 802 Schedule Overview as @ Baseline Position (Aug 2020)

## 802 Timeline to Delivery



# 9. CMAL/Transport Scotland Milestones

## 801/802 Milestones

801				2020 Q4			2021 Q1			2021 Q2			2021 Q3			2021 Q4			2022 Q1			2022 Q2			2022 Q3			2022 Q4							
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC				
Zone 02 AFC Drawing Issue Complete	October	2020	Q3		◆																														
Electrical Contract Awarded	November	2020	Q4			◆																													
Z11 Production Outputs Complete	December	2020	Q4				◆																												
Start Engine Room Hotwork	January	2021	Q1					◆																											
Completion of car deck recesses	February	2021	Q1						◆																										
complete instal pipework in sub zone 0303	March	2021	Q1							◆																									
Structural Work Complete	April	2021	Q1								◆																								
commence installation in zone 9	May	2021	Q2									◆																							
Completion of Wheelhouse Windows	June	2021	Q2										◆																						
All Pipework Installed [210]	July	2021	Q3											◆																					
Commission Auxiliary Systems Start	August	2021	Q3												◆																				
Auxiliary Systems Commissioning Complete	October	2021	Q3													◆																			
Z11 Wheelhouse all electrical equipment installed	September	2021	Q3														◆																		
Main Engine & Gearbox Commissioning Start	October	2021	Q4															◆																	
Main Engine & Gearbox Commissioning Complete	November	2021	Q4																◆																
All Checkwire complete	December	2021	Q4																	◆															
Sea Trials Start	February	2022	Q1																																
Builder & Owners Sea Trials Complete	February	2022	Q1																																
LNG Bunkering Complete	March	2022	Q1																																
LNG Sea Trial Complete	April	2022	Q1																																
801 Delivery (contract milestone)	April	2022	Q1																																

**Programme milestones to be reviewed to take account of the COVID suspension of production and resourcing shortfalls**

802				2020 Q4			2021 Q1			2021 Q2			2021 Q3			2021 Q4			2022 Q1			2022 Q2			2022 Q3			2022 Q4								
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC					
Commence Preparation Unit 3/5	October	2020	Q3		◆																															
Complete preparation unit 3/5	November	2020	Q4			◆																														
Erect Unit 02 at Berth	November	2020	Q4			◆																														
Complete preparation for unit 48	December	2020	Q4				◆																													
Commence Tank Testing	January	2021	Q1					◆																												
Commence Zone 2 Pipework Manufacturing	February	2021	Q1						◆																											
Commence Zonal Hotwork Programme - Zone 2	March	2021	Q1							◆																										
Commence Zone 2 Pipework Installation	April	2021	Q2								◆																									
Complete Preparation of the Funnel	May	2021	Q2									◆																								
Completion of Cryogenic Pipework - Zone 2	June	2021	Q2										◆																							
Shellline - Final Line of Sight	July	2021	Q3											◆																						
Erect Fore'side Block at Berth (J49IU50U5)	August	2021	Q3												◆																					
Complete Pre-Fixing Out (PFO) Zone 2	September	2021	Q3													◆																				
Hull Assembly Complete (contract milestone - berth job up completed)	October	2021	Q4														◆																			
	November	2021	Q4															◆																		
	December	2021	Q4																◆																	
Milestones for the period after October 21 will be agreed 3 months prior to the date. CDP milestones are included through to delivery																																				
	January	2022	Q1																																	
	February	2022	Q1																																	
	March	2022	Q1																																	
	April	2022	Q2																																	
	May	2022	Q2																																	
	June	2022	Q2																																	
	July	2022	Q2																																	
	August	2022	Q3																																	
	September	2022	Q3																																	
	October	2022	Q4																																	
	November	2022	Q4																																	
	December	2022	Q4																																	
802 Delivery (contract milestone)	December	2022	Q4																																	

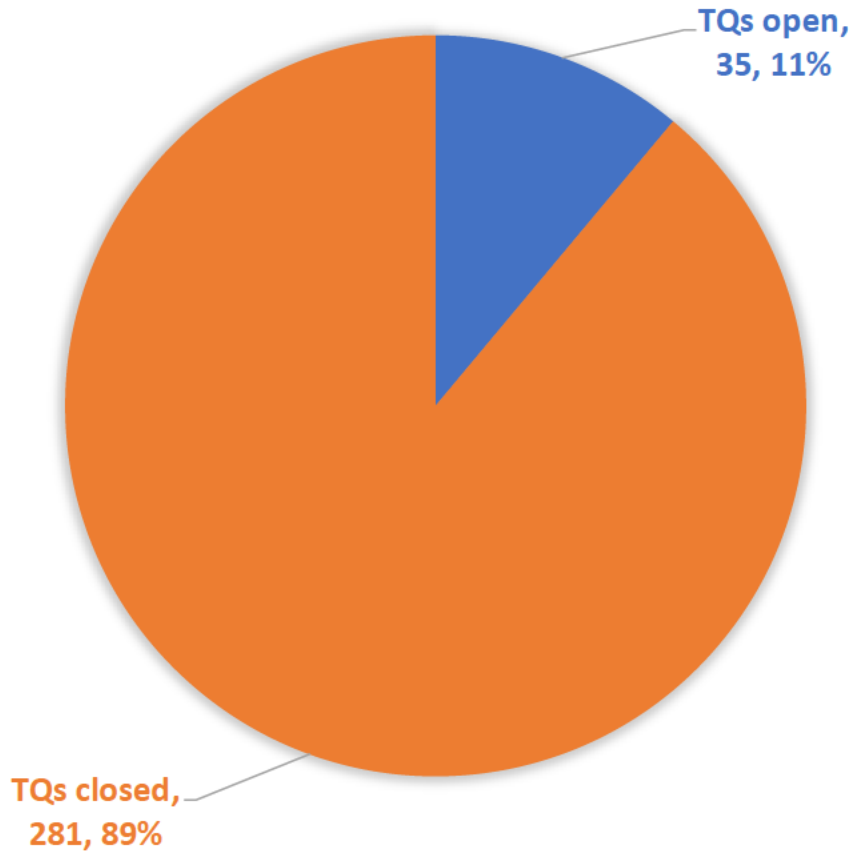
## 9. CMAL/Transport Scotland Milestones – status to end 2020

### 801/802 Milestones - Q4 2020 and Q1 2021

801				2020 Q3	2020 Q4				2021 Q1			Status
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR		
Zone 02 AFC Drawing Issue Complete	October	2020	Q3		◆						Complete	
Electrical Contract Awarded	November	2020	Q4			◆					Complete	
Z11 Production Outputs Complete	Decemeber	2020	Q4				◆				Complete	
Start Engine Room Hotwork	January	2021	Q1					◆				
Completion of car deck recesses	February	2021	Q1						◆			
complete install pipework in sub zone 0303	March	2021	Q1							◆		

**Programme milestones to be reviewed to take account of the COVID suspension of production and resourcing shortfalls**

802				2020 Q3	2020 Q4				2021 Q1			Status
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR		
Commence Preparation Unit 3/5	October	2020	Q3		◆						Complete	
Complete preparation unit 3/5	November	2020	Q4			◆					Complete	
Erect Unit 82 at Berth	November	2020	Q4			◆					Outstanding - delayed for new dimensional survey and painting. Unit will be erected with minimal rework	
Complete preparation for unit 48	December	2020	Q4				◆				Unit steelwork has been inspected and scrapped (with the exception of the bulbous bow) Steel will be provided by centralstaal. This will be reforecast	
Commence Tank Testing	January	2021	Q1					◆				
Commence Zone 2 Pipework Manufacturing	February	2021	Q1						◆			
Commence Zonal Hotwork Programme - Zone 2	March	2021	Q1							◆		



## TQ tracker

- 81 TQs closed in the month.
- Still some legacy TQs to close
- Total open reduced from 60 reported last month

## 16. Weight

	rev21	REV24 (April 2021)	Difference rev 21 to 24
Group 1-1 Hull Steel	1543.54	1543.54	0.00
Group 1-2 Misc. Steel	141.83	141.83	0.00
Steel Margin	0.00	0.00	0.00
<b>Total Steel</b>	<b>1685.37</b>	<b>1685.37</b>	<b>0.00</b>
Group 2 S/S Aluminium	177.39	177.39	0.00
Aluminium Margin	0.00	0.00	0.00
<b>Total S/S Aluminium</b>	<b>177.39</b>	<b>177.39</b>	<b>0.00</b>
<b>2-4 Paint</b>	<b>33.16</b>	<b>33.16</b>	<b>0.00</b>
Group 3 Cargo Equipment	185.89	197.28	11.39
Group 4 Ship Equipment	183.13	184.40	1.27
Group 5 Accom. Outfit	564.73	577.11	12.38
<b>Total Outfit</b>	<b>933.75</b>	<b>958.79</b>	<b>25.04</b>
Group 6 Main Machinery	295.40	295.29	-0.11
Group 7 Machinery Systems	178.84	188.39	9.55
Group 8 Ships Common Systems	248.47	248.47	0.00
<b>Total Machinery &amp; Electrical</b>	<b>722.71</b>	<b>732.15</b>	<b>9.44</b>
<b>Lightship</b>	<b>3552.38</b>	<b>3586.86</b>	<b>34.48</b>
<b>Margin</b>	<b>1.97</b>	<b>-32.46</b>	
Lightship with margin	3554.35	3554.35	0.00
VTC change	-21.35	-21.35	0.00
<b>Actual</b>	<b>3552.40</b>	<b>3586.86</b>	<b>34.46</b>
<b>Allowable</b>	<b>3554.40</b>	<b>3554.40</b>	<b>0.00</b>

The NA team have validated the wet weights and are seeing a small (circa 2 tonne) increase over the initial estimate.

Equipment weights for larger equipments have been validated this has led to an increase in the known weight.

Notable weight growth in:

- Bow ramp door (+7.8t)
- Hoistable car deck (5.6t)
- LSA equipment (7t)
- TTS Deck hatches for engine room and generator room (5t)
- Compressed air sys (1t)

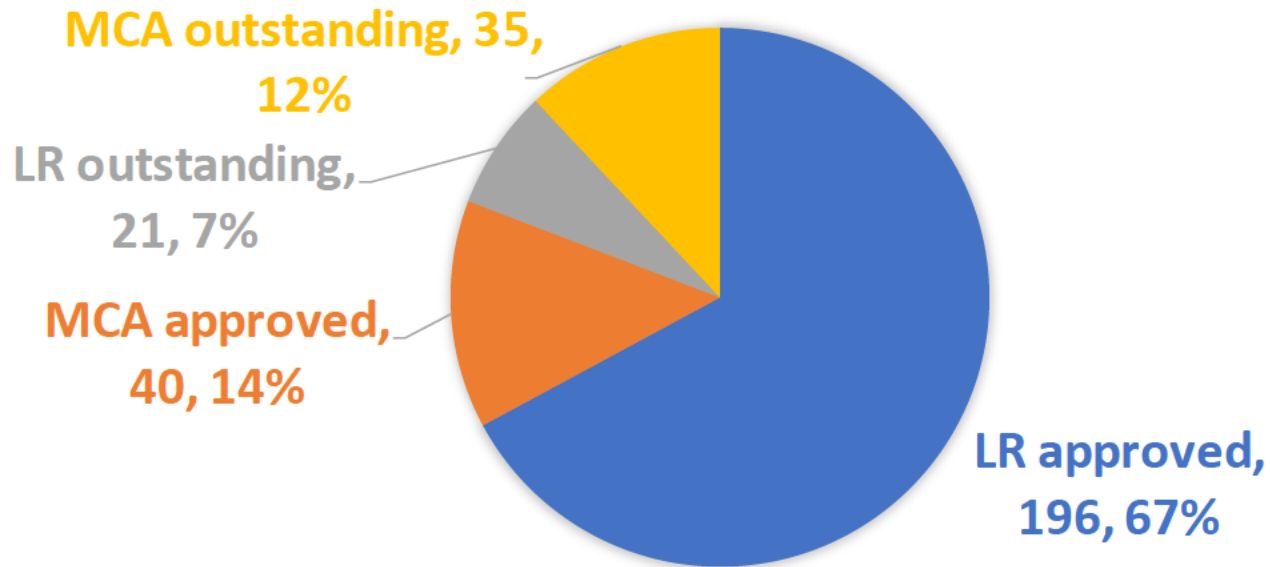
The weight groups contain sufficient contingency to offset the above growth.

These contingencies will now be reviewed and validated through the functional design development.

Some need to be retained to account for consumables, deviations from expected weights etc.

(Rev 21 is previous NA team estimates)

## Engineering – Basic Design Status



30 electrical drawings previously approved by LR have been resubmitted following [redacted] updates. These are still counted in the 'LR approved' total. It is expected that these will be approved again without issue.

## Operations Status

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- **Operations Team:**

- **Org chart to be inserted.**

- **Delivery:** Operations continue to report progress against the plan at a daily stand-up meeting, 'Plan of the Day'. The team will report on the following:

- Progress against the plan for the previous day
- Planned work for that day
- Report any blocker where assistance is required from supporting functions.

- **Communications:** An all-operations employees briefing will be scheduled commencing Mid-May where employees will be briefed on changes to Operations organisation, overview of existing yard practices, behaviors and expectations. This briefing will also include: Progress against the plan; Key Milestones; Good news stories; Quality Reviews

- **Key Issues in month:**

- Ability to resource to the plan;
  - Retention of weekend resources;
- 801:
  - Silencers: Misalignment resulting in clashes. Solution in place;
  - Aft Mast: Commence outfit of pipes, awaiting specialised brackets to allow 200 bore pipe to be fitted. Aft mast lift on to 801, push back to Wednesday next week;

- **New staff this month:**

- [redacted] [redacted]
- [redacted] ;
  - **Priorities:** Leaning process; improvement of productivity, Improvement of Work pack process; Implement Metrics;
- [redacted] :
  - **Priorities:** Yard layout, Lifting turning (plans), Warehouse (Min/max and control of);



## Resource Table - 801

### 801 LookAhead Workforce - Planned vs Availability

Resource	CAM/Sub CAM	WE 09.04.21			WE 16.04.21			WE 23.04.21			WE 30.04.21		
		Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var
Ancillary Worker		8.0	5.0	- 3	9.0	8.0	- 1	9.0	8.0	-	9.0	9.0	-
Clkr Burner		11.0	2.0	- 9	11.0	2.0	- 9	11.0	2.0	- 7	10.0	3.0	- 7
Engineer/Mech Fitter		4.0	-	- 4	6.0	3.0	- 3	6.0	3.0	- 2	8.0	6.0	- 2
Joiner		1.0	2.0	1	1.0	2.0	1	1.0	2.0	2	1.0	3.0	2
Painter		12.0	9.0	- 3	10.0	9.0	- 1	10.0	9.0	- 2	7.0	5.0	- 2
Pipe Fitter		21.0	4.0	- 17	17.0	4.0	- 13	17.0	4.0	- 7	13.0	6.0	- 7
Plater		26.0	18.0	- 8	27.0	17.0	- 10	27.0	17.0	- 9	24.0	15.0	- 9
Scaffolder		4.0	2.0	- 2	4.0	2.0	- 2	4.0	2.0	- 4	4.0	-	- 4
Shipwright		-	-	-	-	-	-	-	-	- 4	4.0	-	- 4
Welder		22.0	10.0	- 12	22.0	12.0	- 10	22.0	12.0	- 8	18.0	10.0	- 8
<b>Grand Total</b>		<b>109.0</b>	<b>52.0</b>	<b>57</b>	<b>107.0</b>	<b>59.0</b>	<b>48</b>	<b>107.0</b>	<b>59.0</b>	<b>41</b>	<b>98.0</b>	<b>57.0</b>	<b>41</b>

**Note:**  
 Continue to work with recruitment agencies to meet demand;  
 Operating a weekend shift to bring programme to the left; (retention concerns)  
 Packages of work subcontracted out bring programme to the left;  
 Resource will be coming from 805 once complete – 24 – 6 ancils, 5 mech fitter, 4 joiner, 3 piepfitter,  
 5 plater, 1 shipwright

## Resource Table - 802

### 802 LookAhead Workforce - Planned vs Availability

Resource	CAM/Sub CAM	WE 09.04.21			WE 16.04.21			WE 23.04.21			WE 30.04.21		
		Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var	Planned FTE (30hrs/Wk)	Available	Var
Ancilliary Worker		9.0	8.0	- 1	9.0	5.0	- 4	9.0	5.0	- 4	9.0	5.0	- 4
Clkr Burner		4.0	2.0	- 2	4.0	2.0	- 2	4.0	2.0	- 2	4.0	-	- 4
Engineer/Mech Fitter		-	-	-	-	-	-	-	-	-	-	-	-
Joiner		2.0	-	- 2	2.0	-	- 2	2.0	-	- 2	2.0	-	- 2
Painter		7.0	2.0	- 5	7.0	6.0	- 1	7.0	6.0	- 1	7.0	5.0	- 2
Pipe Fitter		-	-	-	-	-	-	-	-	-	-	-	-
Plater		12.0	-	- 12	10.0	-	- 10	10.0	-	- 10	10.0	-	- 10
Scaffolder		3.0	-	- 3	3.0	-	- 3	3.0	-	- 3	3.0	-	- 3
Shipwright		4.0	7.0	3	1.0	10.0	9	1.0	10.0	9	1.0	3.0	2
Welder		19.0	5.0	- 14	17.0	3.0	- 14	17.0	3.0	- 14	17.0	-	- 17
<b>Grand Total</b>		<b>60.0</b>	<b>24.0</b>	<b>- 36</b>	<b>53.0</b>	<b>26.0</b>	<b>- 27</b>	<b>53.0</b>	<b>26.0</b>	<b>- 27</b>	<b>53.0</b>	<b>13.0</b>	<b>- 40</b>

Note:NCA agreement to bring a subcontract company onsite to work on manufacture of units & other packages.

## Weekend Shift Resource

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<b>Manager</b>	<b>1</b>
Supervisors	4
Labourer	4
Pipefitters	5
Painter	1
Platers	8
Welder	3
Burner	0
Scaff	2
Joiners	4
total	32

**Note:**  
We finished 6 workers last weekend due to poor timekeeping and two people handed in their notice.

Target resource for weekend shift is 120.

## Planning Status

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### General Status:

QLA Q2 has been operating from the start of April. SPI was reset to 1. The EV shows performance falling behind against the plan. This is mainly driven by lack of resource but also CPI/SPI on work being performed shows low performance.

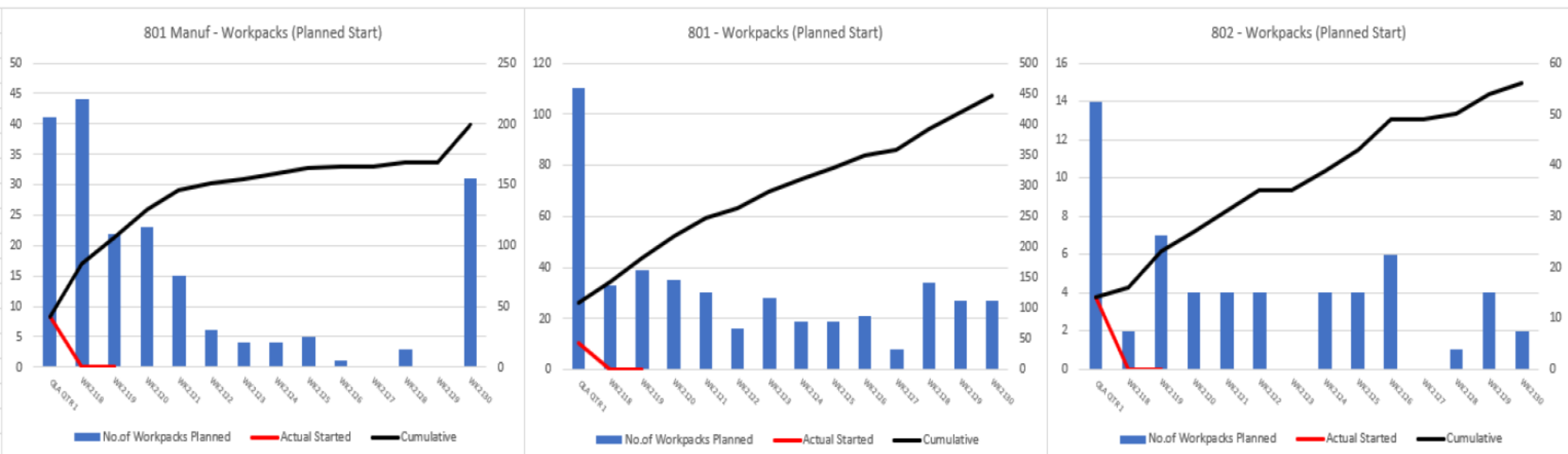
With the resource solution developed the programmes can now be finalised, a review is planned for 4th May

### Key Issues in month:

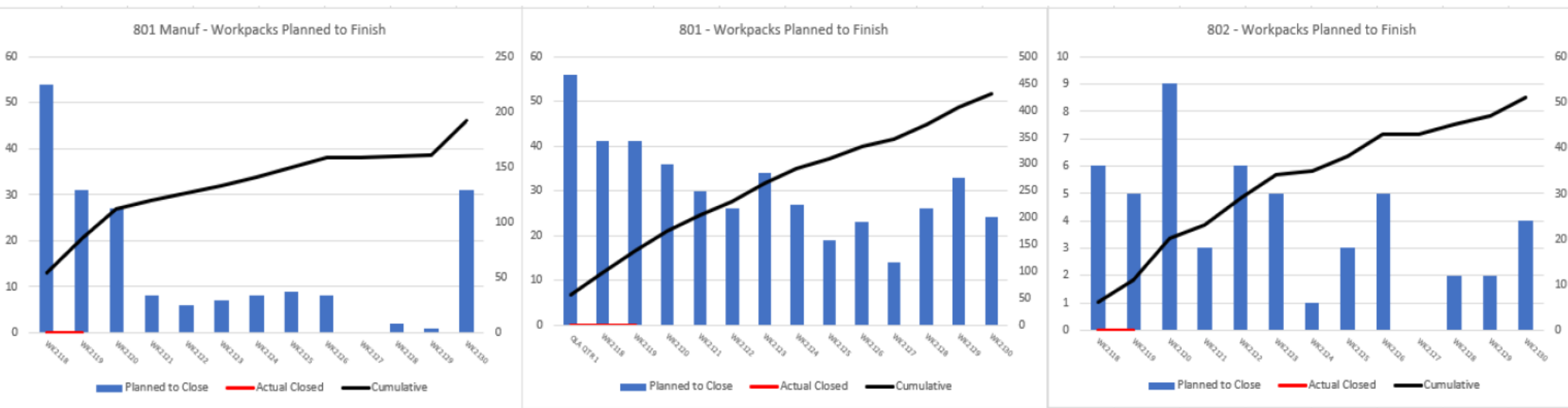
A focus is required on reporting against workpackage status, this will be reviewed in the next week.

A workpack diary programme will be issued to support this.

# 19. Work Packages – Planned to Start



# 19. Work Packages – Planned to Finish



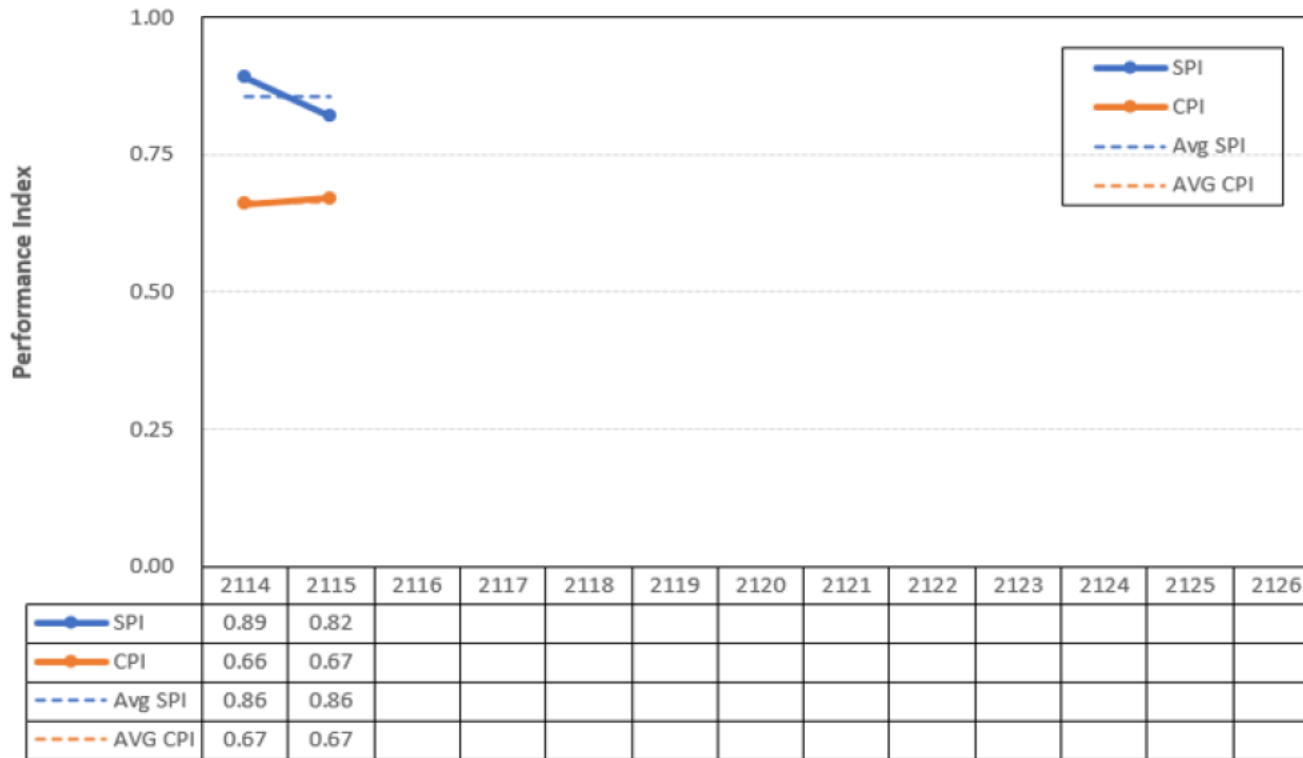
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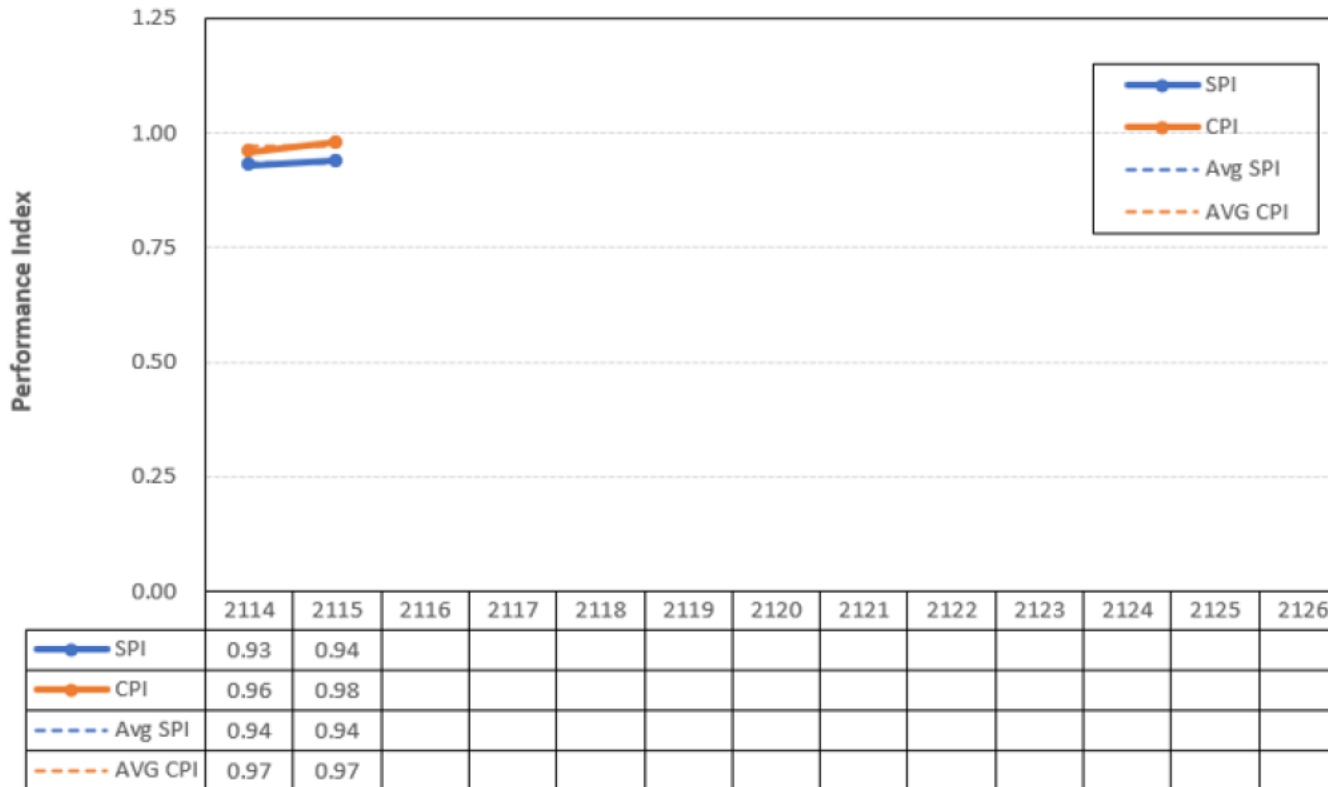
## 12. SPI & CPI Trends

801 CPI/SPI  
2021 Q2 QLA



## 12. SPI & CPI Trends

802 CPI/SPI  
2021 Q2 QLA

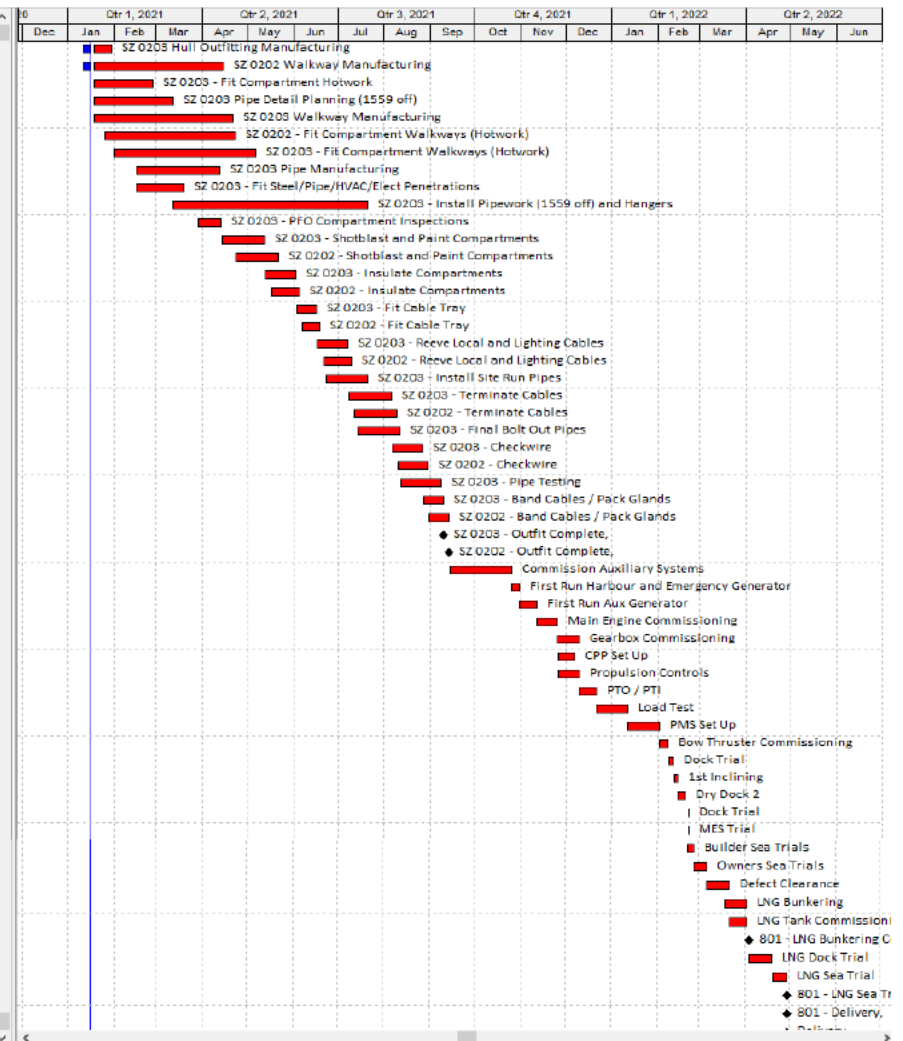


# 9c. Ship 801 Critical path

Activity ID	Activity Name	OD	RD	Start	Finish	BL Project Start	BL Project Finish	Total Float
801MANHO0203	SZ 0203 Hull Outfitting Manufacturing	30d	10d	11-Jan-21 A	29-Jan-21	11-Jan-21	19-Feb-21	-15d
801MANHO1111	SZ 0202 Walkway Manufacturing	66d	61d	11-Jan-21 A	14-Apr-21	11-Jan-21	14-Apr-21	-22d
801PS0203Hw01	SZ 0203 - Fit Compartment Hotwork	30d	30d	18-Jan-21*	26-Feb-21	18-Jan-21	26-Feb-21	-15d
801DPTW0203	SZ 0203 Pipe Detail Planning (1559 off)	40d	40d	18-Jan-21*	12-Mar-21	11-Jan-21	05-Mar-21	-19d
801MANHO1121	SZ 0203 Walkway Manufacturing	66d	66d	18-Jan-21*	21-Apr-21	11-Jan-21	14-Apr-21	-20d
801PS0202Hw4	SZ 0202 - Fit Compartment Walkways (Hotwork)	62d	62d	25-Jan-21*	22-Apr-21	25-Jan-21	22-Apr-21	-22d
801PS0203Hw4	SZ 0203 - Fit Compartment Walkways (Hotwork)	66d	66d	01-Feb-21	06-May-21	25-Jan-21	28-Apr-21	-20d
801MANPPO203	SZ 0203 Pipe Manufacturing	39d	39d	15-Feb-21	12-Apr-21	08-Feb-21	01-Apr-21	-19d
801PS0203Hw02	SZ 0203 - Fit Steel/Pipe/HVAC/Elect Penetrations	25d	25d	15-Feb-21	19-Mar-21	15-Feb-21	19-Mar-21	-15d
801InS0203Pi01	SZ 0203 - Install Pipework (1559 off) and Hangers	90d	90d	12-Mar-21	20-Jul-21	05-Mar-21	13-Jul-21	-19d
801PS0203Qc01	SZ 0203 - PFO Compartment Inspections	10d	10d	29-Mar-21	13-Apr-21	22-Mar-21	06-Apr-21	-20d
801PS0203Sb01	SZ 0203 - Shotblast and Paint Compartments	20d	20d	14-Apr-21	12-May-21	07-Apr-21	05-May-21	-20d
801PS0202Sb01	SZ 0202 - Shotblast and Paint Compartments	20d	20d	23-Apr-21	21-May-21	23-Apr-21	21-May-21	-22d
801PS0203In01	SZ 0203 - Insulate Compartments	15d	15d	13-May-21	02-Jun-21	06-May-21	26-May-21	-20d
801TeS0203Pi01	SZ 0203 - Pipe Testing	20d	20d	12-Aug-21	08-Sep-21	05-Aug-21	01-Sep-21	-19d
801InS0203Ei04	SZ 0203 - Band Cables / Pack Glands	10d	10d	27-Aug-21	09-Sep-21	20-Aug-21	02-Sep-21	-20d
801InS0202Ei04	SZ 0202 - Band Cables / Pack Glands	10d	10d	31-Aug-21	13-Sep-21	31-Aug-21	13-Sep-21	-22d
801InS0203Ms01	SZ 0203 - Outfit Complete	0d	0d		09-Sep-21		02-Sep-21	-20d
801InS0202Ms01	SZ 0202 - Outfit Complete	0d	0d		13-Sep-21		13-Sep-21	-22d
801CO1530	Commission Auxiliary Systems	30d	30d	14-Sep-21	25-Oct-21	14-Sep-21	25-Oct-21	-22d
801CO1520	First Run Harbour and Emergency Generator	5d	5d	25-Oct-21	30-Oct-21	25-Oct-21	30-Oct-21	-32d
801CO1530	First Run Aux Generator	12d	12d	30-Oct-21	11-Nov-21	30-Oct-21	11-Nov-21	-32d
801CO1540	Main Engine Commissioning	14d	14d	11-Nov-21	25-Nov-21	11-Nov-21	25-Nov-21	-32d
801CO1550	Gearbox Commissioning	14d	14d	25-Nov-21	09-Dec-21	25-Nov-21	09-Dec-21	-32d
801CO1560	CPP Set Up	7d	7d	25-Nov-21	06-Dec-21	26-Nov-21	06-Dec-21	-21d
801CO1570	Propulsion Controls	10d	10d	25-Nov-21	09-Dec-21	26-Nov-21	09-Dec-21	-24d
801CO1580	PTO / PTI	12d	12d	09-Dec-21	21-Dec-21	09-Dec-21	21-Dec-21	-32d
801CO1590	Load Test	21d	21d	21-Dec-21	11-Jan-22	21-Dec-21	11-Jan-22	-32d
801CO1600	PMS Set Up	21d	21d	11-Jan-22	01-Feb-22	11-Jan-22	01-Feb-22	-32d
801CO1620	Bow Thruster Commissioning	6d	6d	01-Feb-22	07-Feb-22	01-Feb-22	07-Feb-22	-32d
801CO1630	Dock Trial	3d	3d	08-Feb-22	11-Feb-22	08-Feb-22	11-Feb-22	-32d
801CO1630	Dock Trial	2d	2d	12-Feb-22	14-Feb-22	12-Feb-22	14-Feb-22	-32d
801CO1640	Dry Dock 2	5d	5d	14-Feb-22	19-Feb-22	14-Feb-22	19-Feb-22	-32d
801CO1800	Dock Trial	1d	1d	21-Feb-22	21-Feb-22	21-Feb-22	21-Feb-22	-24d
801CO1830	MES Trial	1d	1d	21-Feb-22	21-Feb-22	21-Feb-22	21-Feb-22	-24d
801CO1850	Builder Sea Trials	4d	4d	21-Feb-22	25-Feb-22	21-Feb-22	25-Feb-22	-34d
801CO1860	Owners Sea Trials	9d	9d	25-Feb-22	06-Mar-22	25-Feb-22	06-Mar-22	-34d
801CO1670	Defect Clearance	15d	15d	06-Mar-22	21-Mar-22	06-Mar-22	21-Mar-22	-34d
801CO1690	LNG Bunkering	15d	15d	18-Mar-22	02-Apr-22	18-Mar-22	02-Apr-22	-34d
801CO1680	LNG Tank Commissioning	12d	12d	21-Mar-22	02-Apr-22	21-Mar-22	02-Apr-22	-34d
801KM1069	801 - LNG Bunkering Complete	0d	0d		04-Apr-22		04-Apr-22	-24d
801CO1700	LNG Dock Trial	15d	15d	04-Apr-22	19-Apr-22	04-Apr-22	19-Apr-22	-35d
801CO1710	LNG Sea Trial	9d	9d	20-Apr-22	29-Apr-22	20-Apr-22	29-Apr-22	-35d
801KM7500	801 - LNG Sea Trial Complete	0d	0d		29-Apr-22		29-Apr-22	-22d
801KM7510	801 - Delivery	0d	0d		29-Apr-22		29-Apr-22	-22d
801CO1720	Delivery	0d	0d		29-Apr-22		29-Apr-22	-22d

**Zone 02 – Walkways, Hotwork & Pipework are all now on the critical path. Schedule will be reforecast once there is a collective understanding on the impact of the following:**

- Covid-19 Stop Work period
- Covid-19 Resource restrictions



# 9c. Ship 802 Critical path

Activity ID	Activity Name	OD	RD	Start	Finish	BL Project Start	BL Project Finish	Total Float	Gantt Chart																						
									Q21	Qtr 4, 2021	Qtr 1, 2022	Qtr 2, 2022	Qtr 3, 2022	Qtr 4, 2022	Qtr 1, 2023	Qtr 2, 2023	Qtr 3, 2023	Qtr 4, 2023	Qtr 1, 2024	Qtr 2, 2024											
									Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
802MAUA116Hw01	Unit A11/6 Prep Full Unit	15d	15d	18-Nov-21*	08-Dec-21	18-Nov-21	08-Dec-21	-63d	■ Unit A11/6 Prep Full Unit																						
802FaUA116Hw01	Unit A11/6 Fab Fab-T Frames, Minor Sub-Assys and Pillars	10d	10d	16-Dec-21	07-Jan-22	16-Dec-21	07-Jan-22	-63d	■ Unit A11/6 Fab Fab-T Frames, Minor Sub-Assys and Pillars																						
802FaUA116Hw03	Unit A11/6 Fab 6 Deck Plating	15d	15d	10-Jan-22	28-Jan-22	10-Jan-22	28-Jan-22	-63d	■ Unit A11/6 Fab 6 Deck Plating																						
802ASUA116Hw01	Unit A11/6 Unit Assembly + Dry Survey	15d	15d	31-Jan-22	18-Feb-22	31-Jan-22	18-Feb-22	-63d	■ Unit A11/6 Unit Assembly + Dry Survey																						
802ASB0011Hw02	Erect Fair and Weld Unit 11/6 to Block	20d	20d	21-Feb-22	18-Mar-22	21-Feb-22	18-Mar-22	-63d	■ Erect Fair and Weld Unit 11/6 to Block																						
802ASB0010Hw03	Erect Fair and Weld Unit 10/7 to Block	20d	20d	04-Apr-22	04-May-22	04-Apr-22	04-May-22	-63d	■ Erect Fair and Weld Unit 10/7 to Block																						
802ERB0010Hw01	Wheelhouse Block Erect, Fair and Weld	25d	25d	05-May-22	08-Jun-22	05-May-22	08-Jun-22	-63d	■ Wheelhouse Block Erect, Fair and Weld																						
802ERUA097Hw09	Unit A9/7 Erect, Fair and Weld	20d	20d	19-May-22	15-Jun-22	19-May-22	15-Jun-22	-63d	■ Unit A9/7 Erect, Fair and Weld																						
802ERUA087Hw01	Unit A8/7 Erect, Fair and Weld	20d	20d	16-Jun-22	13-Jul-22	16-Jun-22	13-Jul-22	-63d	■ Unit A8/7 Erect, Fair and Weld																						
802ERUA77Hw01	Unit A7/7 Erect, Fair and Weld	20d	20d	30-Jun-22	27-Jul-22	30-Jun-22	27-Jul-22	-63d	■ Unit A7/7 Erect, Fair and Weld																						
802KM003	802 Superstructure Complete	0d	0d		27-Jul-22		27-Jul-22	-63d	◆ 802 Superstructure Complete,																						
802A6470	Commission Auxiliary Systems	30d	30d	08-Aug-22	16-Sep-22	08-Aug-22	16-Sep-22	-63d	■ Commission Auxiliary Systems																						
802A4910	Launch	0d	0d	26-Aug-22*		26-Aug-22		-29d	◆ Launch, 26-Aug-22*																						
802A4920	First Run Harbour and Emergency Generator	2d	2d	17-Sep-22	21-Sep-22	17-Sep-22	21-Sep-22	-29d	■ First Run Harbour and Emergency Generator																						
802A4930	First Run Auxiliary Generator	4d	4d	22-Sep-22	03-Oct-22	22-Sep-22	03-Oct-22	-29d	■ First Run Auxiliary Generator																						
802A4940	Main Engine Commissioning	5d	5d	04-Oct-22	17-Oct-22	04-Oct-22	17-Oct-22	-29d	■ Main Engine Commissioning																						
802A4960	Propulsion Controls	10d	10d	18-Oct-22	31-Oct-22	18-Oct-22	31-Oct-22	-61d	■ Propulsion Controls																						
802A4970	Gearbox Commissioning	5d	5d	18-Oct-22	31-Oct-22	18-Oct-22	31-Oct-22	-28d	■ Gearbox Commissioning																						
802A4980	PTO / FTI	1d	1d	01-Nov-22	04-Nov-22	01-Nov-22	04-Nov-22	-28d	■ PTO / FTI																						
802A4990	Load Test	7d	7d	06-Nov-22	26-Nov-22	06-Nov-22	26-Nov-22	-28d	■ Load Test																						
802A5000	PMS Set Up	7d	7d	27-Nov-22	17-Dec-22	27-Nov-22	17-Dec-22	-28d	■ PMS Set Up																						
802A5010	Bow Thruster Commissioning	2d	2d	18-Dec-22	22-Dec-22	18-Dec-22	22-Dec-22	-28d	■ Bow Thruster Commissioning																						
802A5020	Dock Trial	0d	0d	26-Dec-22	26-Dec-22	26-Dec-22	26-Dec-22	-28d	■ Dock Trial																						
802A5030	Dry-Dock	3d	3d	28-Dec-22	06-Jan-23	28-Dec-22	06-Jan-23	-28d	■ Dry-Dock																						
802A10677	Inclining Exercise	0d	0d	10-Jan-23	10-Jan-23	10-Jan-23	10-Jan-23	-29d	■ Inclining Exercise																						
802A5040	Builder Sea Trials	1d	1d	11-Jan-23	14-Jan-23	11-Jan-23	14-Jan-23	-29d	■ Builder Sea Trials																						
802A5050	Owners Sea Trials	1d	1d	15-Jan-23	17-Jan-23	15-Jan-23	17-Jan-23	-29d	■ Owners Sea Trials																						
802A5070	Defect Clearance	5d	5d	18-Jan-23	31-Jan-23	18-Jan-23	31-Jan-23	-29d	■ Defect Clearance																						
802A5080	LNG Tank Commissioning	4d	4d	01-Feb-23	12-Feb-23	01-Feb-23	12-Feb-23	-29d	■ LNG Tank Commissioning																						
802A5090	LNG Bunkering	2d	2d	08-Feb-23	12-Feb-23	08-Feb-23	12-Feb-23	-28d	■ LNG Bunkering																						
802A5100	LNG Dock Trial	2d	2d	14-Feb-23	18-Feb-23	14-Feb-23	18-Feb-23	-29d	■ LNG Dock Trial																						
802A5110	LNG Sea Trial	1d	1d	20-Feb-23	22-Feb-23	20-Feb-23	22-Feb-23	-29d	■ LNG Sea Trial																						
802A5120	Delivery	0d	0d		27-Feb-23*		27-Feb-23	-54d	◆ Delivery,																						

## 19. Subcontractor Status

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### General Status

- Pipe installation progressing in 0202 and 0203
- [redacted] have now submitted pricing and commenced cable uncoiling and work in ECR and installing cable ladders on mezzanine deck, cable ladder installation started on Deck 4
- [redacted] starting preparatory works
- [redacted] starting preparatory work

### Key Issues in month

- Access to subzone 0201
- Penetration compliance review has resulted in Stop Work on burning new penetrations
- Forecast date for re-baseline to be issued

### Facilities

- [redacted] portacabins in place
- [redacted] portacabins due end April – work starts 26 April

[redacted]

- Updated 801 programme delivered 09 April
- 802 programme to be supplied

## 19. Subcontractor Status - [redacted]

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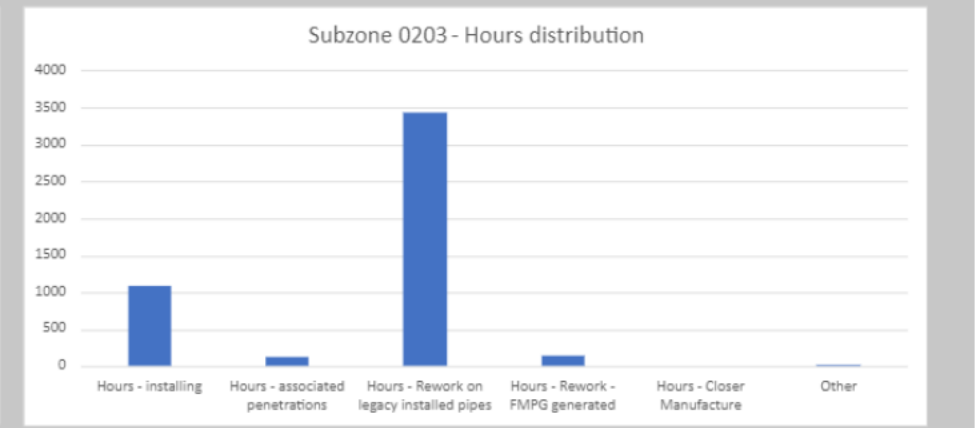
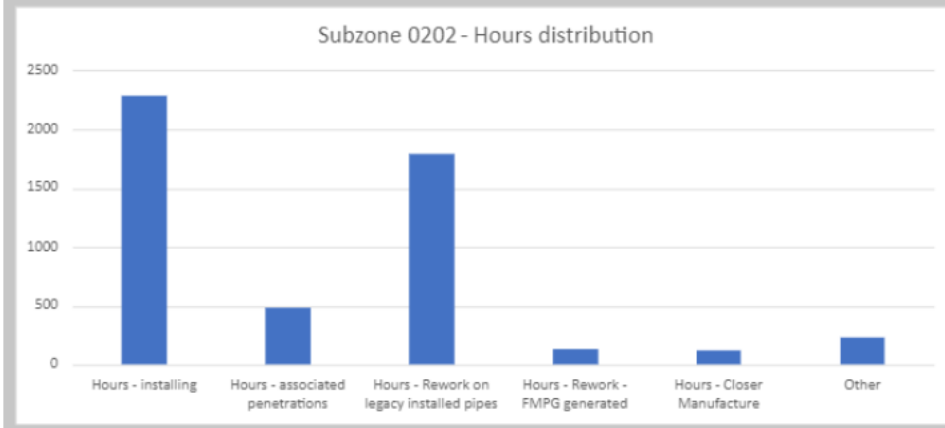
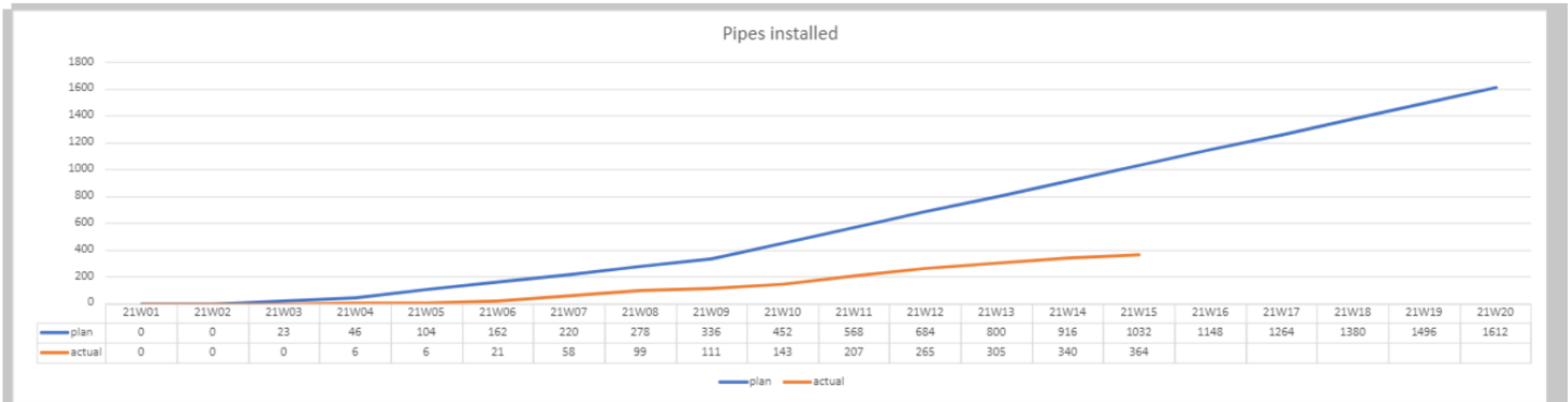
### Key Activities

- Installation in 0202 and 0203
- Will now start in 0201 week 17 - delayed from week 15 (venting equipment now in place, additional monitors available, cleaning underway to allow access)
- Workshop conducted – update is out for action
- [redacted] team now bolstered by additional 6 from week 13 to enable leave to be planned / covered
- **5216** hours (90 [redacted] manweeks) spent to date on legacy work - Axilocks and realigning / installing already claimed fitted pipes – approx. 5 weeks of schedule

### Open Issues

- Provision of single system isometrics will reduce supervision time at desk / printing
- Gaskets / Bolts – need a min / max system in place – shortages being reported – provide Procurement with initial fill and then use on board Kanban to replenish
- To achieve planned completion, we need to support [redacted] to achieve installation rate of ~130 pipes / week
- Review of volume of change in Zone 2 & Zone 3

# 19. Subcontractor Status - [redacted]



# 19. Subcontractor Status - [redacted]



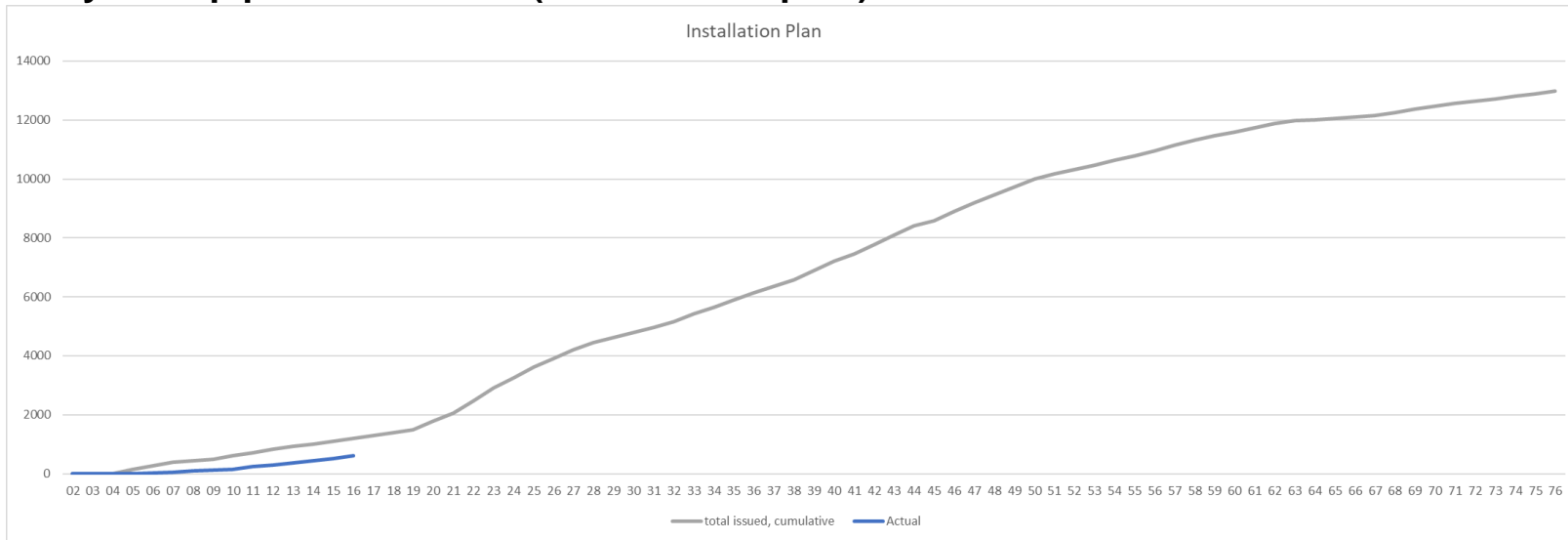
		Pipe count																												
		SZ0201												SZ0202												SZ0203				
Week No	# pipes installed														# pipes installed														# pipes installed	
	M	T	W	Th	F	W/E		M	T	W	Th	F	W/E		M	T	W	Th	F	W/E		M	T	W	Th	F	W/E			
2104	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2106	0	0	0	0	0	0	0	0	0	0	7	6	2	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2107	0	0	0	0	0	0	0	5	8	8	7	7	2	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2108	0	0	0	0	0	0	0	9	7	8	9	8	0	41	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
2109	0	0	0	0	0	0	0	0	0	4	4	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2110	0	0	0	0	0	0	0	4	2	2	10	12	0	30	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
2111	0	0	0	0	0	0	0	4	6	3	10	3	0	26	8	12	6	8	4	0	0	0	0	0	0	0	0	38		
2112	0	0	0	0	0	0	0	7	9	8	6	5	0	35	6	4	6	4	3	0	0	0	0	0	0	0	0	23		
2113	0	0	0	0	0	0	0	2	4	2	4	4	0	16	6	4	6	4	4	0	0	0	0	0	0	0	0	24		
2114	0	0	0	0	0	0	0	1	2	2	5	5	0	15	2	4	2	7	5	0	0	0	0	0	0	0	0	20		
2115	0	0	0	0	0	0	0	3	3	2	4	2	0	14	2	2	2	2	2	0	0	0	0	0	0	0	0	10		
2116																														
2117																														
2118																														
2119																														
2120																														
2121																														
2122																														
2123																														
2124																														
<b>Total in subzone</b>		<b>141</b>							<b>1072</b>							<b>1856</b>							<b>3069</b>							
<b>previously claimed</b>		<b>14</b>							<b>193</b>							<b>351</b>							<b>558</b>							
<b>running total</b>		<b>0</b>							<b>247</b>							<b>118</b>							<b>365</b>							
<b>To Go</b>		<b>127</b>							<b>632</b>							<b>1387</b>							<b>2146</b>							
<b>%age Complete</b>		<b>10%</b>							<b>41%</b>							<b>25%</b>							<b>30%</b>							



# 18. Pipe Installation

## Overall

- Pipe Installation in Zone 02 and Zone 03 has commenced using FMPG & [redacted] Hydraulics resource
- Installation rate slow to start due to legacy rework activities being progressed as priority
- Overall pipe installation curve shown below (for 801 & 802), measuring plan v actual
- Issues around penetrations have hampered progress for pipe installation teams
- Currently ~ 450 pipes behind Plan (4-5 weeks off plan)



		02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Plan		0	0	0	138	276	380	434	488	601	714	827	940	1015	1090	1189
Actual																
Cumulative		0	0	6	6	21	58	100	112	149	234	292	367	429	502	619
Total in week		0	0	6	0	15	37	42	12	37	85	58	75	62	73	117
Zone 01	install 801															
Zone 02	install 801			6	0	15	37	42	12	32	64	58	40	39	55	104
Zone 03	install 801									5	21	0	35	23	18	13

# 19. Pipe Status – Zone 3

Zone 3										
	SZ0301	SZ0302	SZ0303	SZ0304	SZ0305	SZ0306	SZ0307	SZ0308	SZ0309	
Week No	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	
2104										
2105										
2106										
2107										
2108										
2109										
2110			5							
2111			13	8						
2112										
2113			31	4						
2114			23							
2115			9	6			3			
2116										
2117										
2118										
2119										
2120										
2121										
2122										
2123										
2124										
<b>Total in subzone to fit</b>	<b>59</b>	<b>9</b>	<b>284</b>	<b>150</b>	<b>84</b>	<b>223</b>	<b>108</b>	<b>76</b>	<b>145</b>	<b>1138</b>
<b>previously claimed</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>running total</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>102</b>
<b>To Go</b>	<b>59</b>	<b>9</b>	<b>203</b>	<b>132</b>	<b>84</b>	<b>223</b>	<b>105</b>	<b>76</b>	<b>145</b>	<b>1036</b>
<b>%age Complete</b>	<b>0%</b>	<b>0%</b>	<b>29%</b>	<b>12%</b>	<b>0%</b>	<b>0%</b>	<b>3%</b>	<b>0%</b>	<b>0%</b>	<b>9%</b>

# 19. Pipe Installation – rate required

Zone 2														Zone 3															
Pipe count																													
SZ0201					SZ0202					SZ0203																			
Week No	# pipes installed					# pipes installed					# pipes installed				Week No	SZ0301	SZ0302	SZ0303	SZ0304	SZ0305	SZ0306	SZ0307	SZ0308	SZ0309					
	M	T	W	Th	F	W/E	M	T	W	Th	F	W/E	M	T	W	Th	F	W/E	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed	# pipes installed		
2104	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	0										
2105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
2106	0	0	0	0	0	0	0	0	0	7	6	2	15	0	0	0	0	0	0										
2107	0	0	0	0	0	0	0	5	8	8	7	2	37	0	0	0	0	0	0										
2108	0	0	0	0	0	0	0	9	7	8	9	8	41	0	0	0	1	0	0										
2109	0	0	0	0	0	0	0	0	0	4	4	4	12	0	0	0	0	0	0										
2110	0	0	0	0	0	0	0	4	2	2	10	12	30	2	0	0	0	0	0										
2111	0	0	0	0	0	0	0	4	6	3	10	3	26	8	12	6	8	4	0										
2112	0	0	0	0	0	0	0	7	9	8	6	5	35	6	4	6	4	3	0										
2113	0	0	0	0	0	0	0	2	4	2	4	4	16	6	4	6	4	4	0										
2114	0	0	0	0	0	0	0	1	2	2	5	5	15	2	4	2	7	5	0										
2115	0	0	0	0	0	0	0	3	3	2	4	2	14	2	2	2	2	2	0										
2116																													
2117																													
2118																													
2119																													
2120																													
2121																													
2122																													
2123																													
2124																													
<b>Total in subzone</b>	<b>141</b>						<b>1072</b>						<b>1856</b>							<b>59</b>	<b>9</b>	<b>284</b>	<b>150</b>	<b>84</b>	<b>223</b>	<b>108</b>	<b>76</b>	<b>145</b>	<b>1138</b>
<b>previously claimed</b>	<b>14</b>						<b>193</b>						<b>351</b>						<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>running total</b>	<b>0</b>						<b>247</b>						<b>118</b>						<b>0</b>	<b>0</b>	<b>94</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>115</b>	
<b>To Go</b>	<b>127</b>						<b>632</b>						<b>1387</b>						<b>59</b>	<b>9</b>	<b>190</b>	<b>132</b>	<b>84</b>	<b>223</b>	<b>105</b>	<b>76</b>	<b>145</b>	<b>1023</b>	
<b>%age Complete</b>	<b>10%</b>						<b>41%</b>						<b>25%</b>						<b>0%</b>	<b>0%</b>	<b>33%</b>	<b>12%</b>	<b>0%</b>	<b>0%</b>	<b>3%</b>	<b>0%</b>	<b>0%</b>	<b>10%</b>	
<b>weeks to completion</b>	3	17-May					10	29-Jun					11	02-Jul					4	23-May	11-Apr	06-Jun	02-Jul	08-Jun	02-Aug	25-Aug	13-Sep	13-Jul	total
<b>working hours</b>	58						58						58					73	73	73	73	73	73	73	73	73	73	73	73
<b>no of pipes per week</b>	42						63						126					15	9	32	13	14	15	6	4	12	119		
<b>norm assumed</b>	7						8.5						8.5					8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
<b>no of men</b>	<b>5</b>						<b>7</b>						<b>15</b>					<b>27</b>										<b>14</b>	
<b>total manweeks</b>	15						74						163					253	7	1	22	15	10	26	12	9	17	119	

## 19. Subcontractor Status - [redacted]

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### Key Activities

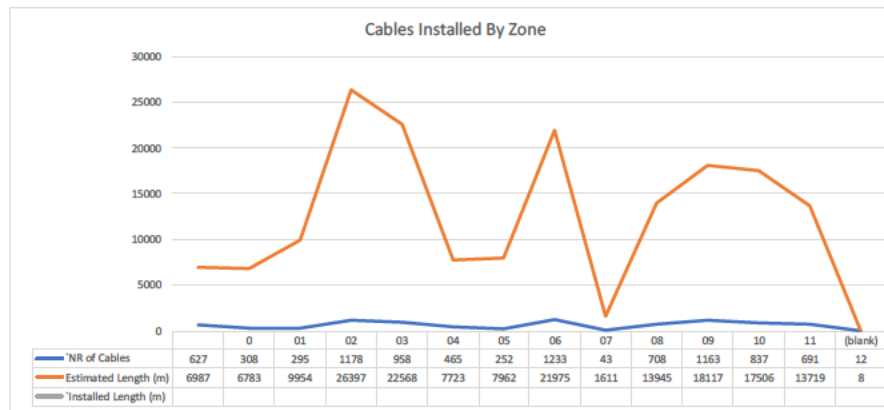
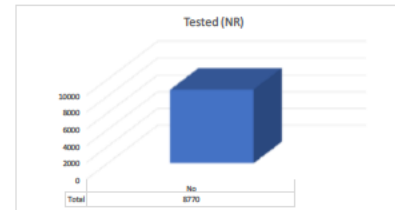
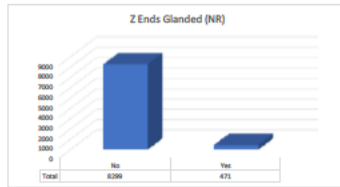
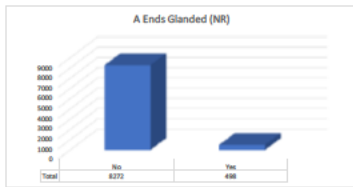
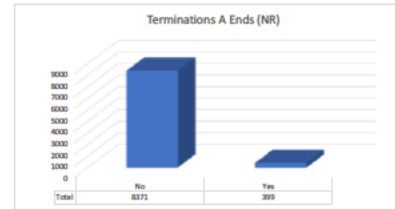
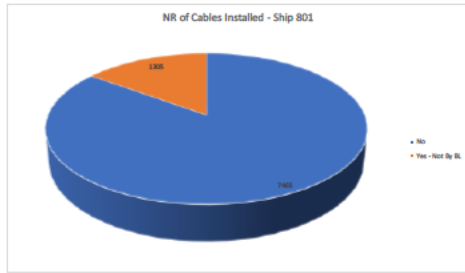
- Carry out Electrical Continuity Testing/Proving of existing Cabling (installed by others) in ECR – Bow Thrusters & Service Transformers.
- LNG Tank 306 – Install Coiled cabling, Gland cables, install backplates for equipment.
- Install Containment in AMR
- Reroute/install coiled cabling that has been installed in wrong locations.
- Deck 4 – cable ladder installation has commenced
  
- Pricing submitted – being reviewed by Procurement
- PO placed to cover works to mid May while pricing is agreed

### Open Actions

- Looking to open up more workfaces – reviewed with [redacted] / Planning (Nicola looking at possibilities).
- [redacted] have prepared their programme of activities, which will be issued once re-baseline is issued
- Await [redacted] switchboard mark ups for [redacted] changes
- Concerned with FMPG astores call-off procedure. Three subzones called-off to-date.

# 19. Subcontractor Activity

## [redacted] – Sample KPIs



[redacted]

[redacted]

## 14. Risks – Top 10

	Risk Description	Controls in Place	Current Impact	Current Likelihood	Current Risk Score	Action Planned	Risk Owner	Change explanation
88	COVID-19 - there is a risk that the ongoing effect may impact the yard or its suppliers	Revised onsite social distancing and mask policies New amenities brought in to allow for increase in labour Most office staff now working from home	50	5	250	Social distancing rules remain extant. Easing of lockdown should reduce the likelihood of further COVID related incidents within the yard.	[redacted]	All production staff have returned to work 08/02. Planning team has returned to work Increase in labour planned for May
37	Late delivery of 801/802	Risks associated with late delivery are captured elsewhere in the risk register with planned controls.	50	5	250	1. Include a time allowance for programme slippage 2. To be reviewed due to production suspension, 801 drydock extension, and labour shortfall	[redacted]	Potential programme impact to 801 as a result of poor hull paint system requiring extension to second dry docking Concern around labour and production suspension impact to programme A revised programme has been produced and will be reviewed and signed off end April/early May
85	Unable to recruit or retain Production staff in the required numbers, with suitable qualifications and experience	Resource plans from revised programme, together with yard plan Allowance against market rates reviewed.	50	5	250	1. Include allowance for potential increase 2. Part of annual wage negotiations 3. Develop the programme resource demand 4. Produce a yard resource plan showing all projects 5. Develop a resource supply strategy 6. Assumes subcontract labour will be provided at same internal rate 7. Extra supervision may be required	[redacted]	
70	Insufficient capacity for pipe manufacture and installation to support the programme	Programme demand from plan based upon installation rates and compartment capacities Pipe painting facility set up in Greenock to complete painting of bought-in pipes	50	5	250	1. produce plans for subcontract of pipe manufacture - plan shows pipe made out company only closing pipes 2. produce plans for permanent and contractor installation labour plan based on yard install 3. Produce specific plan for manufacture and installation of hydraulic pipework required to be out contracted	[redacted]	Should be able to place new orders soon - likely for 802. Behind because of legacy work.



## 14. Risks – Top 10

	Risk Description	Controls in Place	Current Impact	Current Likelihood	Current Risk Score	Action Planned	Risk Owner	Change explanation
38	Programme launch date of 802 not met	Risks associated with late launch are captured elsewhere in the risk register with planned controls.	50	5	250	<ol style="list-style-type: none"> <li>1. Include time allowance for programme slippage (same as late delivery)</li> <li>2. To be reviewed due to production suspension and labour shortfall</li> </ol>	[redacted]	Currently linked to 801 programme. To be reviewed
14	Level of rework not sufficiently scoped. Known rework not fully scoped. Unknown rework will occur particularly during the test and commissioning phase	CNs and 200 series included in programme Change control process implemented. OORs incorporated into model	50	5	250	<ol style="list-style-type: none"> <li>1. Completion of re-baseline evaluation</li> <li>2. Allow additional time in the commissioning programme</li> </ol>	[redacted]	Rework is being separately identified through planning rework codes Legacy rework, and new rework, continues to be identified. Current concerns have been axilocks, non Lloyds approved use, and penetrations
84	Impact to the programme of the implementation of the Public Procurement process	Procurement plan in place	50	5	250	<ol style="list-style-type: none"> <li>1. Increase procurement headcount</li> <li>2. Allow for time in the programme</li> </ol>	[redacted]	Public Procurement process is embedded in the business.
55	Failure of equipment during warranty period. Supplier guarantees have expired	Warranty controls and spreadsheet is live to allow ongoing review of current position	50	5	250	Warranty review meeting completed and information shared on all live warranties: where warranty is no longer able to be extended [redacted] a care and maintenance plan will be put in place.	[redacted]	[redacted] back on contract. Surveys ongoing to define care and maintenance required.
46	Vessel cannot meet contract deadweight	Lightship weight continues to grow	50	5	250	<ol style="list-style-type: none"> <li>1. Continue to limit weight growth wherever possible and practical</li> <li>2. Commercial impact subject to the contract provisions</li> </ol>	[redacted]	Weight calculations ongoing with updated information. [redacted] will be contracted to supply information for newly modelled items.
90	Lack of robust Stop Work Process	Stop work register now in place.	50	5	250	engineering have produced an stop work process and register, this is being rolled out.	[redacted]	Change impact increased to 50 as this is becoming a concern. Process is in place however this is being reviewed to ensure it is effective.

[redacted]

## 16. Variations to Contract

Description	Additional Cost 801	Additional Cost 802	Programme Allowance 801	Programme Allowance 802	Weight Allowance 801	Weight Allowance 802	Status
Removal of Oily Water Separator	-	-	-	-	-1.88 T	-1.88 T	Closed
Removal of 1 air compressor, 1 air receiver, and 1 air dryer	-	-	-	-	-1.1 T	-1.1 T	Closed
Removal of 2 LO purifiers for Diesel Gen	-	-	-	-	-1 T	-1 T	Closed
Removal of Vapour Return Line	-	-	-	-	-	-	Closed
Supply of Window Washing Equipment	[redacted]	[redacted]	-	-	-	-	Closed
Removal of Condition Monitoring System	-	-	-	-	-	-	Closed
Change of Supplier from [redacted]	-	-	-	-	-	-	Closed
Removal of 24V AC system	-	-	-	-	-	-	Closed
Raindrop Ventilation Change	-	-	-	-	-	-	FM to send VTC
802 Thermostatic Valves	-	[redacted]	-	-	-	-	FM to send VTC
Panama Eye Removal	-	-	-	-	-	-	FM to send VTC
Accommodation Fresh Water Fire Main							Open
Provision of Workshop Tools							Open
Sliding Weathertight Doors Deck 7							Open
Additional Shore Supply Connection 802							Open

## 17. CMAL Comments to the Monthly Report

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### CMAL Comments:

1. Meaningful comment against work sequencing and actual production achievement is challenging in the absence of the revised baseline planning update. We are unsighted on what further slippage in programme is likely to emanate from the re-baselining exercise – we understand that we will receive the programme and delivery dates May 18<sup>th</sup>, 2021.
2. There is a clear lack of resource which has been identified regarding both the weekday and weekend shift – without having details of the future manhour loading, this suggests the programme will be impacted and is highly unlikely that it can be recovered.
3. Retention of experienced/skilled staff is a concern.
4. Resource is still deployed on Hull 805 which had been anticipated to be at completion– this is evidently also having an impact on progress of the ferries contract.
5. We cannot see any clear strategy for resolving the resource issue, there are 2 potential options,
  - a. Continue to try to recruit locally which seems to have failed over a number of months
  - b. Resource significant skills from overseas as has happened in the past, we are advised that additional resource will be supplied by third party subcontracted labour, supplied by [redacted] as of 17<sup>th</sup> May.
6. As a result of the above we are challenged with the messaging to communities.
7. As a result of the above planning to recruit seafaring staff is proving impossible.
8. Milestone 'Structural Work Complete' was originally due 9th April 2021 and is now planned to complete May 7th, 2021. This milestone should not be confused with the outstanding 'hot' works that will still need to be completed if structural works are to be truly considered complete.
  - a. All Panama mooring eyes for all mooring positions in the primary structure will require replacement.
  - b. Under deck stiffening of forward and aft masts foundations.
  - c. Ventilation plenums to be fitted zone 10 deck 8.
  - d. Internal structural housing for Premaberg droplet separators to complete in way of both funnels
  - e. Bridge window installation and required secondary stiffening elements.
  - f. Internal Bulkheads, to form server and instrument rooms positioned frame Port Side, Frames 107 – 116, Deck 8.
  - g. Internal Bulkheads to install for the fire locker Port Side, Deck 6, Frames 61 – 65.
  - h. Food Lift Shaft to complete, Deck 5 - 6 Galley & Crew Servery, Frames 70 – 100 Centre Line.

## 17. CMAL Comments to the Monthly Report

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### CMAL Comments (Cont):

- i. Passenger Lift Shaft forward, from decks 5 – 6.
  - j. Cutting of clam shell doors and associated major structural works.
  - k. All stairwells
  - l. Installation of Forward Navigation Mast
  - m. Vehicle deck hatches
  - n. Various other areas
9. The installation of the funnels and LNG mast would have benefitted from greater levels of outfitting prior to lifting on to the vessel. The LNG outfit has been queried by CMAL as to the installation of the crank case breathers (note these will be fitted in the funnels)
  10. Block 82 was lifted week 15, 2021, 19 weeks later than planned. Lessons learnt on hull 801 on the importance of pre outfitting at block stage have not yet found their way into mainstream yard production planning.
  11. We have raised concerns regarding the weight and quantity of the Unistrut being used.
  12. Certainty is required on the lightship weight, the contract deadweight capacity requirement for 801 and 802 is 877.95 tonnes and 877.85 tonnes at 3.45m draft.
  13. Positively the resolution of defect identified is being addressed methodically and a reduction in those outstanding is witnessed
  14. The relationship between CMAL and FMPG remains positive and collaboration continues. Greater visibility of the programme moving forward will prove vital in managing the project objectives.
  15. It is clear in the yard, that there remains challenges between the engagement of workforce and management which will prove more of a challenge with the introduction of further subcontract labour into the Shipyard.