

**UPDATE ON PROGRESS AND IMPACT OF  
COVID-19 ON PROGRAMME FOR VESSELS  
801 & 802**

**ISSUED 24<sup>th</sup> June 2021**



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## 1 SUMMARY

This report is the second update to the programme to deliver Vessels 801 & 802 and should be considered alongside the initial report, issued to Scottish ministers on 9<sup>th</sup> December 2019, and the first update issued on 21<sup>st</sup> August 2020. It includes information on the second shutdown because of COVID-19, an update on progress in the turnaround of the shipyard and provides revised dates for the delivery of the two vessels.

As the pandemic progressed and Scottish Government policy evolved it became necessary to again suspend production at the yard in January 2021. The cost related to this suspension was **£1.0m**, bringing the total cost related to the COVID-19 pandemic to **£4.3m**. This will continue to be treated as an exceptional item and not a project cost.

The cost of the project to deliver the ferries is **unchanged at £110.3m**

Good progress has been made on the remedial work required at Ferguson, with extensive rework carried out on the vessels; remedial work on the design resulting in a “design freeze;” and the implementation of effective business processes. The agreed scope of work for the first Cardinal Date, the completion of structural work on 801, was achieved as intended in early May and marks a tipping point for the business as our emphasis moves from reworking the past to delivering the future.

The additional impact of the pandemic on the delivery schedule has been identified as 7 weeks and this has been further exacerbated by the shortage of locally-based skilled labour to effectively resource the build of the vessels. This shortage has been resolved by the subcontracting of smaller fabrications and the introduction of overseas workers to the shipyard but the labour shortfall has caused a delay of approximately 8 weeks. Taken together these factors have caused a delay of 15 weeks in the project.

The delivery of 801 is now planned for the range **July 2022 to September 2022**. Note that the delivery window has been reduced from 3 months to 2 as work on the vessel has progressed and uncertainty reduced.

The delivery of 802 is now planned for **April 2023 to July 2023**. The vessel will be ready for launch in mid-August 2022, with the actual launch taking place when tidal conditions are most favourable.

## 2 COVID-19

Ferguson Marine recovered well from the first lockdown, and by the end of 2020 had achieved a stable position, with the yard operating effective COVID-19 controls supported by a limited number of management and technical people. The remaining employees continued to work from home, attending site periodically to support specific tasks, retaining contact and hopefully easing the pressure on their mental health. This allowed progress to be made on the vessels whilst keeping the COVID-19 risk to a minimum and has proved an effective way to keep the virus out of the shipyard. In total, since the start of the pandemic, only 18 Ferguson workers have tested positive and there has only been a single case of in-yard transmission, an excellent record of personal responsibility by our people.

On 4<sup>th</sup> January 2021, a change to the social distancing requirements for workplace canteens was announced, increasing the distance from 1m to 2m. Ferguson's amenities block was not big enough to accommodate the change, and production was suspended from 11<sup>th</sup> January to allow a production area to be re-purposed as amenities. Although this was carried out as rapidly as possible, work was suspended on the ferries for a total of 4 weeks. We also took this opportunity to undertake a full review of our COVID-19 prevention measures to ensure that our workers were as safe as possible.

Holiday accrual related to COVID-19, detailed later, has contributed 3 further weeks of delay.

## 3 UPDATE ON PROGRESS

The initial report highlighted the need for a period of remedial work at Ferguson Marine. This included significant rework on the vessels; re-evaluation and correction of problems in the design work carried out by FMEL; and extensive changes to business processes especially in engineering, project management and planning and controls. Good progress has been made in each of these areas and the overall project, to turn Ferguson around and deliver the ferries, was broadly in line with plan when the 4 week production suspension occurred.

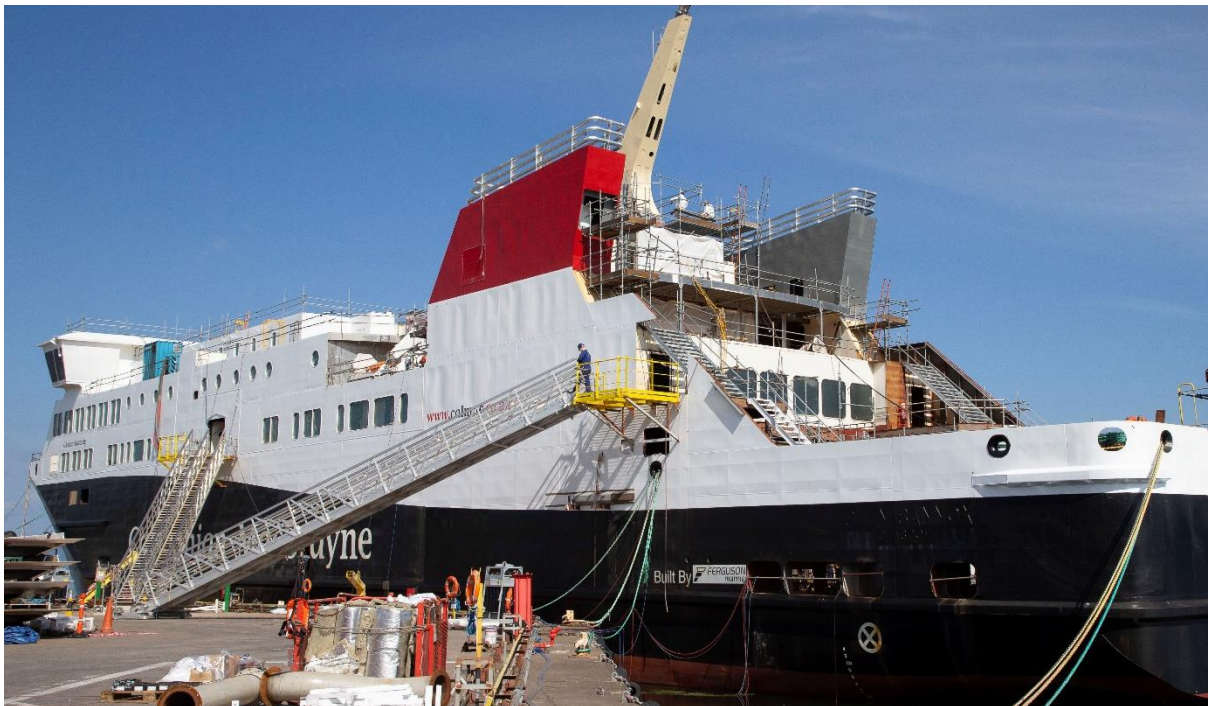
The schedule issued in August 2020 included a series of Cardinal Dates, the first of which was a scope of work agreed with CMAL under the heading "Completion of Structural Work" on 801 and scheduled for 9<sup>th</sup> April 2021. Following the production suspension, this date was revised to 7<sup>th</sup> May 2021 to reflect the loss of 4 weeks of production and I am pleased to report that the final elements of the scope were signed-off on 10<sup>th</sup> May. Having missed the deadline by 3 days I would not claim that this milestone was achieved on time, but I see it as an indication that the capability built over the past 18 months is starting to deliver results.

I am also pleased to report that, in November 2020, a design freeze was agreed with CMAL. This milestone constitutes the agreement between shipyard and customer on the detailed design of the vessels and, for the first time ever, provides a solid technical base for their construction. It was achieved through close collaboration with CMAL and required 10 months of work by over 100 degree-qualified engineers at Ferguson and our design sub-contractor. Design refinements continue, primarily to transfer, where possible, lessons learned from 801 onto the design of 802.

To give an idea of the progress achieved I have included comparison photographs taken of Vessel 801 in January 2020 and in June 2021.



**Vessel 801 – 28<sup>th</sup> January 2020**



**Vessel 801 – 22<sup>nd</sup> June 2021**



In past reports and in evidence to the Rural Economy and Connectivity Committee I have commented on the need for improved leadership and on the inadequacy of business processes and systems at Ferguson. Significant progress has been made in both areas.

A new leadership team has been established and the next-level organisation changed with new managers appointed. Experienced, competent shipbuilders are now in place in key positions across the business and the senior team alone contains over 130 years of shipbuilding experience. Existing high-calibre employees have been promoted but it has been necessary to recruit many of the people in these two management levels from outside the business. Some use of interim managers has been required, but replacement of these is underway and I expect to make permanent appointments soon. Outside the management structure appointments have been made to strengthen the business, notably in Engineering where a capable department has been created in the past 12 months requiring the recruitment of 20 qualified engineers. A notable achievement is the professional development programme which has been implemented, giving apprentices and other young engineers a supported route to gain a degree and achieve registration as professional engineers.

Changes have been made to business processes, policies and procedures which are too extensive to detail in this update. In summary, every activity in every department has been examined and improvements identified. In most cases this has required the complete renewal of the way the business works and it has proved to be a major undertaking. A great deal remains to be done, and there are inevitably teething troubles as changes are implemented. However, since January 2020 we have in effect created a functioning shipyard from a standing start in the face of the restrictions caused by the pandemic, an achievement of which my team is justifiably proud.

## 4 RESOURCING

Since the last update there have been two significant impacts on the resourcing of the project.

### 4.1 HOLIDAY ACCRUAL DURING COVID-19

In my last update I reported that production at the shipyard had been suspended for several months during which, in accordance with Scottish Government policy, the yard employees were placed on special leave on full pay and with full holiday accrual. The arrangement was repeated during the production suspension in January, and with people strongly resistant to taking leave during lockdown this has resulted in an exceptional number of accrued holidays which will adversely affect the resourcing of the project.

The most efficient way to manage this situation would have been by establishing limited shutdown periods as a one-off response to COVID-19 while still allowing a reasonable level of flexible holidays, but this solution proved to be unacceptable. I expect that the combination of accrued holidays and the disruption caused by full flexibility will add 3 weeks to the duration of the project.

## **4.2 AVAILABILITY OF SKILLED WORKERS**

The schedule in the last update included the assumption that it would be possible to recruit the required number of skilled workers locally. This was based on advice that there is a pool of skilled labour readily available for work in the shipyard.

Ferguson started recruiting additional labour in October 2020, with the objective of adding approximately 75 skilled people to our normal weekday shift. Despite significant efforts to recruit, including an 8% pay rise to narrow the differential with other employers, we were only able to attract 30 people to the yard. By December it was clear that an alternative was required, and we developed two parallel approaches – the introduction of a weekend shift at a significant wage premium and the identification of providers of sub-contract labour from overseas. In addition, some packages of work which were intended to be manufactured in the shipyard were subcontracted to local companies.

The weekend shift was announced in February 2021 with widespread local publicity and the target of recruiting 120 people. The shift started as planned in mid-March but we have only been able to recruit 40 workers, leaving us around 100 people below target across both shifts.

In order to avoid excessive delays to the project we have introduced overseas workers to the yard, via well-established sub-contractors, and will ramp up their involvement during June. Their use is cost-neutral, and our initial assessment is that they are diligent workers with high quality standards.

## **5 ASSUMPTIONS**

Issues listed as assumptions in previous reports have been resolved or clarified and moved down to the risk register. The most significant remaining assumption is that the overall emergence from COVID-19 controls progresses broadly in line with current expectations.

## 6 PROGRAMME

Cardinal Date timelines for both vessels are attached as Appendices. As before, the activities within each programme have been re-profiled to take account of the resource issues described above. The overall impact on the project of COVID-19 plus the labour shortage is as follows:

	August 2020 Update		June 2021 Update	
	Delivery Range	Cardinal Date	Delivery Range	Cardinal Date
801	April to June 2022	14 April 2022	July to September 2022	25 July 2022
802	December 2022 to Feb. 2023	8 Dec. 2022	April to July 2023	3 April 2023

The Cardinal Date is the baseline date for the project, based on the most likely duration for each task, and the delivery range is derived from a timescale risk assessment (TRA), effectively reflecting the risk in the programme. The delivery range for 801 has been reduced to reflect progress on the vessel and the reduced uncertainty.

The impact of the above factors on the cardinal dates can be summarised as follows:

	801 Delivery Cardinal Date	802 Delivery Cardinal Date
August 2020 Update	14 April 2022	8 December 2022
COVID-19 Production Suspension	4 weeks	4 weeks
COVID-19 Holiday Accrual	3 weeks	3 weeks
Availability Of Skilled Workers	7.6 weeks	8.1 weeks *
June 2021 Update	25 July 2022	3 April 2023

\* Includes allowance of 1.5 weeks for Christmas shutdown

## 7 COST

### 7.1 COVID-19

The lockdown for COVID-19 will cost Ferguson Marine approximately £4.3m. This is made up of £2.3m of payroll cost for direct labour who were unable to work during periods of lockdown, plus £2.0m of facility cost and overhead. Payroll costs for employees and contractors who were working are not included in these figures and will be charged to the relevant projects. A successful furlough claim was made to HMRC in relation to direct labour who were planned and allocated to private sector work on Hulls 803, 804 and 805, which provided funding of £0.2m, resulting in the net COVID-19 cost being £4.1m.

This cost will be treated as an exceptional item and not a project cost.



## 7.2 801 & 802

The cost in the original report was based on a detailed assessment of the scope of work required to rework the vessels, turnaround the yard and deliver the ferries and included a range to account for the cost risk analysis. It has been regularly re-visited since the submission of the report and, like any developing project, there have been variances identified which are both favourable and unfavourable. Main variations are:

- Net decrease in Direct Labour cost of £1.7m, resulting from certain packages of work being sub-contracted out to 3rd parties due to shortage of local trades and skills in the Labour market
- Net increase in Material cost of £1.1m. This resulted from the inclusion of the cost of those sub-contracted work packages
- Net increase in Overhead/S&GA due to additional time in project schedule of £0.7m

In the August update I reported that the original technical contingency of £8.8m had been reduced to £5.6m and the contingency has been maintained at this level.

Our assessment is that, continuing to treat the direct COVID-19 impact as exceptional, the ferries can be delivered in line with the commitment in the initial report. This included the results of a cost risk analysis (CRA) and was therefore presented as a range.

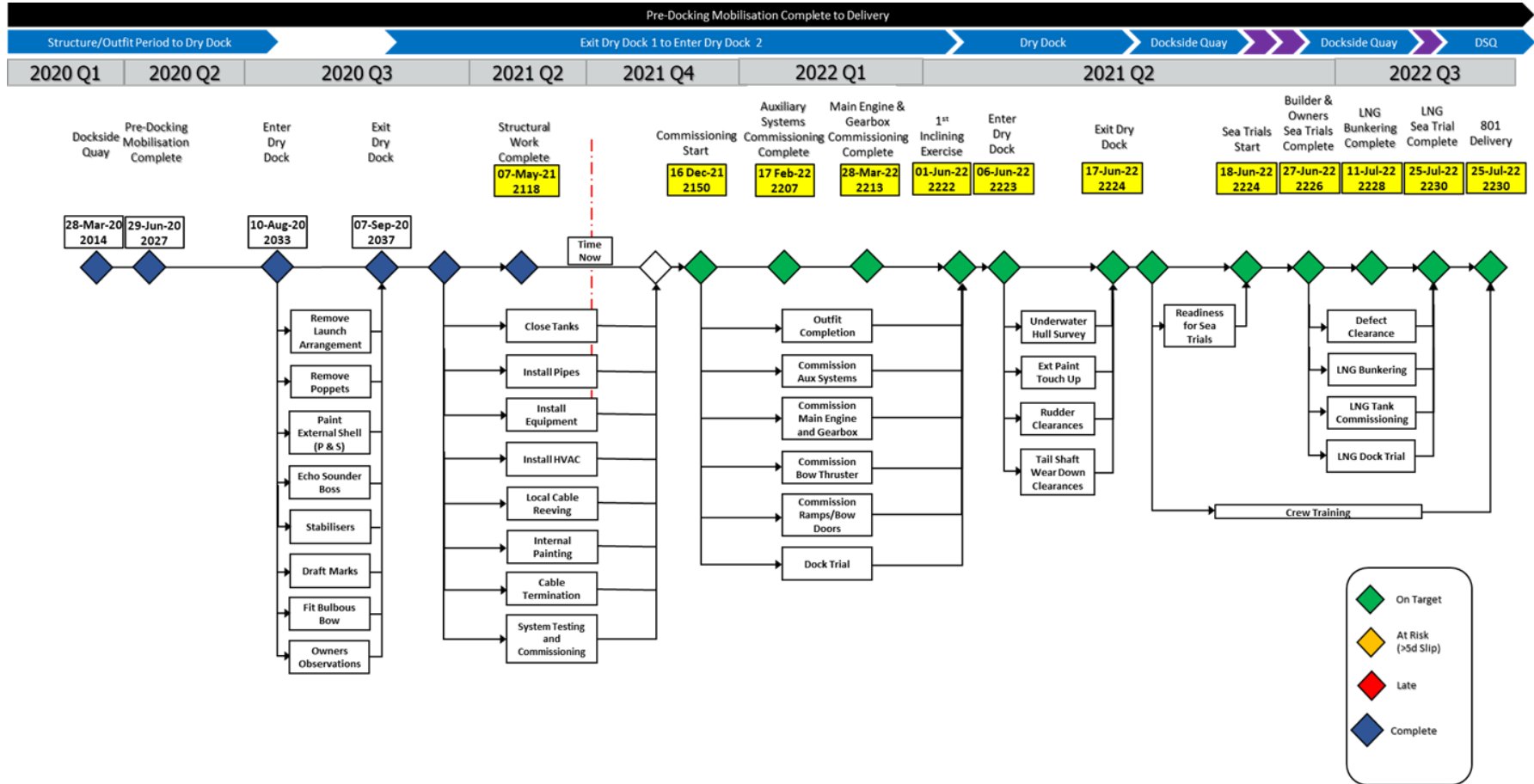
**The cost range to complete the vessels is £110.3m to £114.3m.**

## 8 RISKS

The following are the updated top 10 risks for the project:

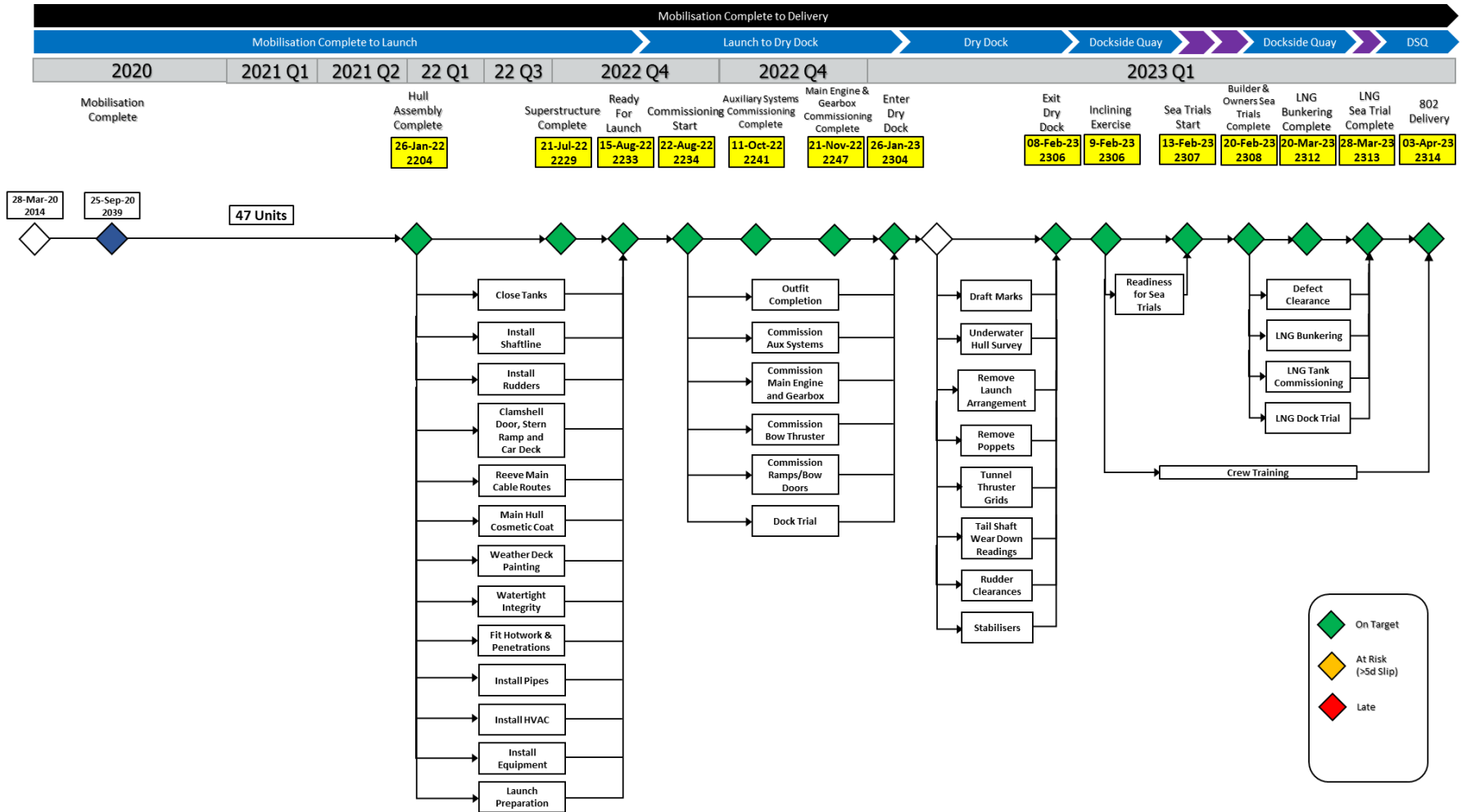
	<b>RISK</b>	<b>STATUS</b>
1	COVID-19 - there is a risk that the ongoing effect may impact the yard or its suppliers	This risk is diminishing as the pandemic slowly recedes
2	Ability to recruit or retain production staff in the required numbers, with suitable qualifications and experience	A new company, GMES, is now supplying overseas labour to meet the programme demand
3	Insufficient capacity for pipe manufacture and installation to support the programme	Currently the manufacturing demand is being supported by 3 suppliers. Further suppliers have been identified if required. Installation has 3 suppliers on a framework agreement to support as required.
4	Level of rework not sufficiently scoped. Known rework not fully scoped. Unknown rework will occur particularly during the test and commissioning phase	Rework continues to be identified across the ship. Structure and pipework are the main rework areas.
5	Failure of equipment during warranty period. Supplier guarantees have expired	Engines have been recently inspected and minor remedial work is required. HVAC rotating equipment has been inspected and changes made.
6	Vessel may not meet contract deadweight	A complete and detailed appraisal of weight is being done. This currently projects weight above the contracted level but includes contingencies for areas still to be assessed
7	Lack of robust Stop Work Process	There is an increase in rework within design and a new process has been implemented
8	Cryogenic pipework remains to be installed	This is currently in manufacture and weekly meetings to prepare for installation are currently being held with the supplier
9	Equipment in stores cannot be located in a timely manner to support work packages	An exercise is currently ongoing to reconcile the inventory with the planning requirements
10	Impact to the programme of the implementation of the Public Procurement process	A key number of public procurements have now taken place and the process is well embedded within the business

# 9 APPENDIX – VESSEL 801 CARDINAL DATE TIMELINE



Updated 31<sup>st</sup> May 2021

# 10 APPENDIX – VESSEL 802 CARDINAL DATE TIMELINE



Updated 31<sup>st</sup> May 2021

## 11 APPENDIX – SUMMARY OF COSTS

FERGUSON MARINE (PORT GLASGOW) LIMITED							May 2021	
<b>FUNDING REQUIREMENT</b>				2019/20	2020/21	2021/22	2022/23	Total
				Actual	Actual	Forecast	Forecast	
<b>801 Costs</b>								
Labour			0.5	2.7	8.3	0.6	12.1	
Material			0.5	8.9	14.7	0.4	24.5	
801 - Contingency for performance penalties							0.4	0.4
								37.0
<b>802 Costs</b>								
Labour			0.3	1.1	8.0	6.7	16.1	
Material			0.0	2.3	10.3	13.3	25.9	
802 - Contingency for performance penalties							0.4	0.4
								42.4
<b>General</b>								
Consumables			0.2	0.3	0.3	0.2	1.0	
Overheads			1.9	4.8	8.3	6.2	21.2	
SGA			0.4	2.7	2.3	1.7	7.1	
CAPEX				0.7	0.9		1.6	
<b>Total</b>				<b>3.8</b>	<b>23.5</b>	<b>53.1</b>	<b>29.9</b>	<b>110.3</b>