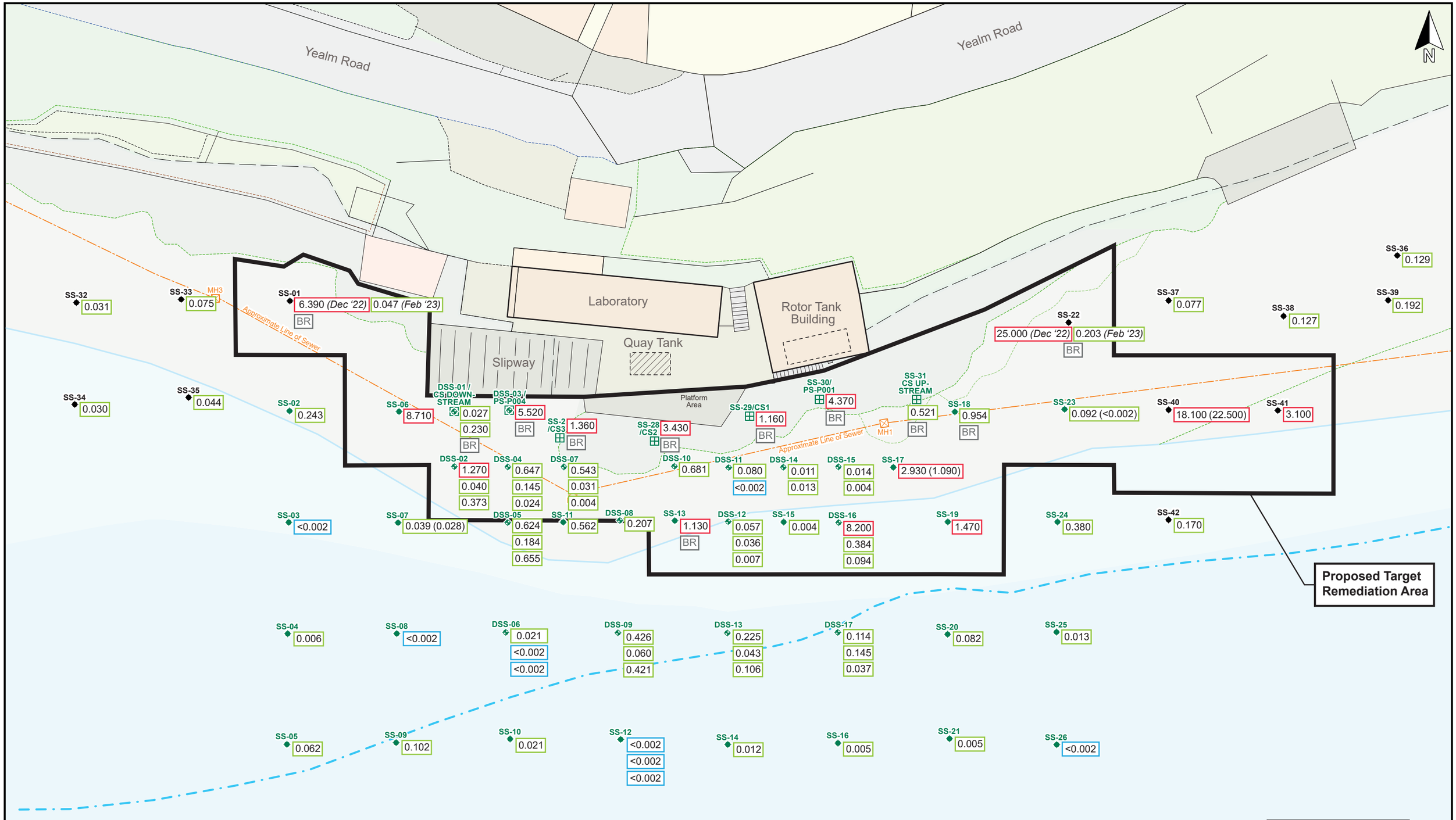

Key

- Approximate Line of Sewer
- Extent of Water at Low Tide (Feb 2023)
- Sample Location (Feb 2023)
- Sample Location (Dec 2022)
- Depth Sample Location (Dec 2022)
- Repeat Near Site Sampling Location (Dec 2022)

TBT Concentration

- <0.002 blue outline indicates non-detect TBT concentration
- 0.426 green outline indicates TBT concentration <1 mg/kg
- 1.130 red outline indicates TBT concentration ≥1 mg/kg

Sample Depth

DSS-13
- 0.225 — 0.00-0.20 mBGL
- 0.043 — 0.20-0.40 mBGL
- 0.106 — 0.40-0.60 mBGL

SUMMARY INFORMATION	TBT Mass Estimate (kg)	Area Estimate (m^2)	Volume Estimate (m^3)
Dec 2022 & Feb 2023 Sediment Characterisation	1.87	4450	1157
Within Proposed Remediation Target Area	1.73	1494	278
Outside Proposed Remediation Target Area	0.14	2956	879
% of TBT Removed	93%	34%	24%

Notes:
1. SS-01 and SS-22 were sampled in Dec 2022 and Feb 2023.

2. TBT concentrations are presented in milligrams per kilogram (mg/kg).

3. Duplicate results are shown in parenthesis.

BR - bedrock encountered within target sample depth.

mBGL - meters below ground level

TBT - tributyltin

Scale 0m 5m 10m

2022 and 2023 Concentrations of TBT in Sediment

Newton Ferrers	GCU0192031	
Geosyntec consultants	International Paint Limited	Figure 1
Delph, UK	June 2023	

Target Remediation Area
Supporting Narrative

Remediation is proposed to remove impacted sediment from the foreshore of the former International Paint Limited site in Newton Ferrers (the Site). A Remediation Strategy Sounding Board meeting was held in June 2023 to seek initial feedback on the proposed remediation strategy from community stakeholder representatives. Figure 1 and this Supporting Narrative have been prepared in response to discussions at the Sounding Board meeting. Broader community engagement is planned for later in 2023.

In December 2022 and February 2023 sediment samples were collected from the Site for independent laboratory analysis. The sampling was primarily conducted to assess tributyltin (TBT) and associated impacts in foreshore sediments. The subsequent sampling results were used to define the target remediation area. The laboratory results confirmed that TBT is the main compound of interest in foreshore sediment at the Site, and that other associated compounds, including inorganic mercury, are present generally within the same area as TBT.

Figure 1 presents the December 2022 and February 2023 TBT concentrations in milligrams per kilogram (mg/kg) and the target remediation area. A total of 92 samples were collected from 59 locations, including 4 duplicate and 2 repeat samples. The samples were collected across an approximate area of 4,450 square metres (m^2). Shallow samples were collected from the upper 0.2 metres (m) of sediment at all locations, deeper samples were collected from sediment up to 0.6 m at a subset of locations.

Based on the sampling results, it is estimated that the foreshore sediment close to the Site contains approximately 2 kilogrammes (kg) of TBT. Within the target remediation area, approximately 300 cubic metres (m^3) of sediment will be removed across an estimated area of 1,500 m^2. Sediment with TBT concentrations greater than 1 mg/kg will be removed. This will reduce the mass of TBT-impacted sediment associated with the Site foreshore by more than 90%.

Some TBT will remain beneath the Site foreshore (estimated to be less than 0.15 kg, with an average TBT concentration of 0.1 mg/kg). For reference, sediment with TBT concentrations up to 0.1 mg/kg typically receive regulatory approval from the Marine Management Organisation (MMO) for disposal at sea and is therefore allowed to remain within the marine environment. The TBT remaining in the Site foreshore sediment after remediation will naturally biodegrade, as it does elsewhere in the estuary and other marine environments.

If you have any questions about the results presented in Figure 1 or the proposed remediation activities, please contact Newton.Ferrers@AkzoNobel.com.