**GUIDE WAVE ULTRASONIC TESTING REPORT**

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| **Client:**  **Test Location:** | Ampol Refineries (QLD) Pty. Ltd  South Street, Lytton, QLD 4178 |
| **Report No:** | ALR-009-925 GWT |
| **Project:** | Tanks Bund Penetration Line T2021 |
| **Pipeline:** | 21P365-150-B1, 21P370-150-B1, 21P367-150-B1 |

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| Data Collection and Analysis By: | **Signature** | **Date** |
| Aji Raju |  | 30/01/2024 |
| Report Prepared By: | Signature | Date |
| Aji Raju |  | 30/01/2024 |
| Report Reviewed By: | Signature | Date |
| Rizwan Ali |  | 30/01/2024 |

# General Information & Line Details

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| --- | --- | --- | --- |
| **Client** | Ampol Lytton Refinery | **Ampol Contact** | M.Ansary |
| **Order No.** | 3418368 | **Request No** | R61193 |
| **Line Details** | | **Line Numbers** | **Min. Thickness** |
| 21P365-150-B1, 21P370-150-B1, 21P367-150-B1 | |  | - |

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# Guided Wave Inspection Equipment Details

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| **Equipment** | Guided Ultrasonics | **Equipment Model** | Wavemaker G4 mini |
| **Collar** | Various | **Collar S/N** | Various |

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# Inspection Summary

As advised, Guided Wave Inspection has been carried out for tank bund penetrated lines.

The interested area of the testing was interface/undersurface of the concrete wall.

This inspection was done with Guide Wave Ultrasonic Wavemaker G3 and Medium range ultrasonic testing (where unable to carried out GWT). Tool location was close to flange joint. This inspection will give screening data of pipe with 3 estimating categories severity defect:

1. **Category 1 (severe defect)**

Estimating cross sectional change approximately more than half of the cross sectional of the pipe area

1. **Category 2 (medium defect)**

Estimating cross sectional change approximately less than half of the cross sectional of the pipe area

1. **Category 3 (minor annomaly)**

This level of corrosion is correlate with corrosion for which less than 10% of the cross-sectional area of the pipe have been lost and below reporting level.

High and low frequency were used to collecting data. Based on the collected data the signal responds were satisfied at the interested section.

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| Location | Description | Diameter | Nominal Thickness (mm) | NDT Method | Results |
| 1 | 21P365-150-B1 | DN150 | 7.11 | GWUT | Category 2 (medium anomaly) Corrosion Depth <40%\* |
| 2 | 21P370-150-B1 | DN150 | 7.11 | GWUT | Category 3 (minor anomaly) Corrosion Depth <20%\* |
| 3 | 21P367-150-B1 | DN150 | 7.11 | GWUT | Category 3 (minor anomaly) Corrosion Depth <20%\* |

\*Unable to verify the actual metal loss due to surface coating and concreate, recommending to as detailed visual inspection and ultrasonic corrosion scanning to ensure the actual metal loss.