



Analysis and Testing Report - Walker Quarries Bi Annual Groundwater & Surface Monitoring, May 2025

Report To: Wayne Chapman

Address: Lot 6 Great Western Highway,
Wallerawang NSW 2845

Report On: Walker Quarries
Bi Annual Groundwater & Surface
Monitoring, May 2025

Report No: 2400-7481-05

Report Status: Final Report

Date Sampled: 6/05/2025


Unique ID of Sample(s): As per Result tab

Sampled By: B. Collins & C. Buck

Testing & Analysis Requirements: Client Instructions

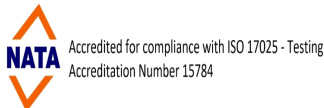
Report Prepared By: T. MacPhee

Date Reported: 13/05/2025

Reported By : 
Adriana Hernandez
Environmental Project/Quality Officer -
Lithgow NSW

These reported results only relate to the items sampled and tested.

Sampling performed by: ACIRL Lithgow NSW NATA Accreditation No. 15784, Site No. 11436 in accordance with AS Standards listed on Page 4.



right solutions.
right partner.

ACIRL Lithgow NSW
ABN 66 003 451 876



**Analysis and Testing Report-
Walker Quarries
Quarterly Groundwater Monitoring**

| | Units | | | | | | | |
|--|---------|---------------------------|-------------------|------------------------------------|-------------------------------------|-------|-------|-------|
| Date of Sample | | 6/05/2025 | | | | | | |
| Report No: | | 2400-7481-05 | | | | | | |
| ALS Sydney Report No. | | ES2513152 | | | | | | |
| Site Reference | | SD3 Cox River Upstream | SD4 Downstream | SD1 | SB2 | GW1 | GW2 | GW3 |
| Sampled by | | B. Collins & C. Buck | | | | | | |
| General Comments/ Observations | | Mod flow/Clear | Mod flow Clear | Mod Level No Discharge Clear | Low Level No Discharge Cloudy | Clear | Clear | Clear |
| Standing Water Level | m | | | | | 43.90 | 26.35 | 15.19 |
| Total Volume Purged | L | | | | | 2.0 | 2.0 | 2.0 |
| pH | pH Unit | 7.5 | 8.0 | 8.6 | 7.1 | 7.0 | 6.5 | 6.2 |
| Electrical Conductivity | µS/cm | 1682 | 457 | 607 | 237 | 664 | 553 | 318 |
| Total Suspended Solids | mg/L | <5 | <5 | 17 | 12 | | | |
| Turbidity | NTU | 2.7 | 1.0 | 13 | 70 | | | |
| ED037P: Alkalinity by PC Titrator | | | | | | | | |
| Hydroxide Alkalinity as CaCO3 | mg/L | | | | | <1 | <1 | <1 |
| Carbonate Alkalinity as CaCO3 | mg/L | | | | | <1 | <1 | <1 |
| Bicarbonate Alkalinity as CaCO3 | mg/L | | | | | 329 | 254 | 130 |
| Total Alkalinity as CaCO3 | mg/L | | | | | 329 | 254 | 130 |
| ED045G: Chloride by Discrete Analyser | | | | | | | | |
| Chloride | mg/L | | | | | 18 | 16 | 18 |
| ED093F: Dissolved Major Cations | | | | | | | | |
| Calcium | mg/L | | | | | 85 | 79 | 25 |
| Magnesium | mg/L | | | | | 14 | 5 | 6 |
| Sodium | mg/L | | | | | 49 | 44 | 35 |
| Potassium | mg/L | | | | | 5 | 3 | 1 |
| Sulfate (Turbidimetric) as SO4 | | | | | | | | |
| Sulfate as SO4 - Turbidimetric | mg/L | 212 | 131 | 258 | 28 | 38 | 43 | 13 |



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| Dissolved Metals by ICP-MS | | | | | | | | |
| Arsenic | mg/L | 0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Cadmium | mg/L | <0.0001 | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 |
| Chromium | mg/L | <0.001 | <0.001 | | | 0.003 | 0.003 | <0.001 |
| Copper | mg/L | 0.002 | 0.002 | | | <0.001 | 0.003 | 0.002 |
| Lead | mg/L | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Nickel | mg/L | 0.018 | 0.01 | | | 0.004 | 0.012 | 0.014 |
| Zinc | mg/L | <0.005 | <0.005 | | | 0.017 | 0.124 | 0.113 |
| Dissolved Mercury by FIMS | | | | | | | | |
| Mercury | mg/L | <0.0001 | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 |
| Ionic Balance | | | | | | | | |
| Total Anions | meq/L | | | | | 7.87 | 6.42 | 3.38 |
| Total Cations | meq/L | | | | | 7.65 | 6.34 | 3.29 |
| Ionic Balance | % | | | | | 1.41 | 0.6 | 1.3 |
| Oil and Grease (O&G) | | | | | | | | |
| Oil & Grease | mg/L | <5 | <5 | | | | | |



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METHODS OF ANALYSIS

Tests for results issued in this report have been carried out at the following NATA accredited laboratories in accordance with the methods as detailed below:-

| TEST | METHOD | ACIRL Lithgow NATA Accreditation #11436 | Measure of Uncertainty |
|-------------------------------|----------|---|------------------------|
| Electrical Conductivity uS/cm | CBM-E006 | APHA 2510 B | 2.0% |
| pH value | CBM-E005 | APHA 4500 H | 0.10 pH Units |

The remaining analysis performed at ALS Environmental, 277-289 Woodpark Rd, Smithfield, NSW 2164.

Low yielding bores have been purged to dryness, otherwise bores purged to constant Electrical Conductivity

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ALS Sydney Report No. ES2513152

Samples were analysed in accordance with the following Australian Standards or equivalent:

| Australian Standards | Description |
|----------------------|---|
| AS/NZS 5667.1 | Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples |
| ISO 5667-3 | Part 3: Preservation and handling of water samples |
| AS/NZS 5667.11 | Part 11: Guidance on sampling of ground waters |