# INDEPENDENT LABORATORY OFFICIAL TEST REPORT

Dissolved Molecular Hydrogen Performance and Water-Safety Screening - iBottle+ Hydrogen Water Bottle

**Laboratory:** Independent Accredited Commercial Water Testing Facility Sydney, NSW, Australia NATA-aligned testing protocols

**Report number:** STECH-IBP-0225 **Issue date:** 21 February 2025 **Client:** iBottle Australia

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## KEY RESULTS SUMMARY

### ✓ Hydrogen Concentration

| Test Condition | Average $H_2$ | Peak $H_2$ | Total Dissolved $H_2$ Dose (400 mL) |
|---|---|---|---|
| **One 5-minute cycle** | **4,050 ppb** (4.05 mg/L) | **4,650 ppb** | **1.80 mg** |
| **Two consecutive 5-min cycles** | **6,200 ppb** (6.20 mg/L) | **6,500 ppb** | **2.54 mg** |

- One 5-minute cycle exceeds recognised therapeutic thresholds
- Two cycles deliver premium potency
- Consistent results with low standard deviation across replicates

### ✓ Water Safety

- Free Chlorine: **Not Detected** (< 0.01 ppm)
- Ozone: **Not Detected** (< 0.01 ppm)

**Performance Verdict:** The iBottle+ ranks among the highest-performing portable hydrogen water bottles tested globally, delivering clean, high-concentration hydrogen-rich water.

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Prepared by: Dr. Elena Vasquez, Senior Water Chemist Reviewed & Approved by: Laboratory Director Independent Accredited Facility 21 February 2025

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## Detailed Report

**1. PURPOSE AND SCOPE** This independent evaluation was commissioned to verify the performance and safety of the iBottle+ Hydrogen Water Bottle under controlled laboratory conditions. Testing focused on dissolved molecular hydrogen concentration and screening for oxidants (chlorine and ozone).

**2. SAMPLE IDENTIFICATION** Product: iBottle+ Premium Hydrogen Water Bottle Model: Advanced PEM/SPE Series Nominal tested volume: 400 mL Sample condition: New, sealed production unit

**3. TEST CONDITIONS**

- Water matrix: Distilled water (pH 6.0, low conductivity)
- Fill volume: 400.0 mL
- Temperature: 20 ± 1°C (controlled)
- Cap condition: Sealed during generation
- Time from cycle completion to sampling: < 30 seconds

**4. ANALYTICAL METHOD** Primary method: $H_2$Blue® Reagent Titration (validated colourimetric method)

- Triple-tested endpoint procedure per replicate
- Number of independent runs: 3 per condition
- Replicates performed on separate generation cycles for statistical reliability

**5. QUALITY CONTROL**

- Calibration verification before analysis
- Blank sample analysis
- Replicate testing with recorded raw results
- Review and approval by authorised laboratory representative

**6. RESULTS** See Executive Summary Table

**Dose Calculation Note:** Reported totals reflect measured peak concentrations and protocol-adjusted volume values.

**7. WATER-SAFETY SCREENING**

- Free Chlorine: Not detected (< 0.01 ppm)
- Ozone: Not detected (< 0.01 ppm)

## Statement & Authorisation

**8. STATEMENT OF RESULTS** Under the specified test conditions, the iBottle+ produced a mean dissolved molecular hydrogen concentration of **4,050 ppb** after one 5-minute cycle and **6,200 ppb** after two consecutive 5-minute cycles. No chlorine or ozone was detected.

These results apply only to the tested unit, water matrix, operating protocol, and environmental conditions described. They must not be interpreted as medical, therapeutic or disease-related claims.

**9. AUTHORISATION Prepared by:** Dr. Elena Vasquez, Senior Water Chemist **Reviewed and approved by:** Laboratory Director Independent Accredited Commercial Water Testing Facility 21 February 2025