



H2 Analytics
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Report #: H2A-23102401

Laboratory Report

Introduction

This report summarizes the analysis of the Hydra Deluxe hydrogen water machine distributed by Healthy Hydration, Richland, WA.

Tests requested: Dissolved H₂ (25°C)

Product Description

Type: Hydrogen Water Machine Model Name: Hydra Deluxe Model #: HWM-01 Serial#: HWM20230922US002

The product was received for testing on 10/16/2023 in an unopened box in factory-new condition. The product is offered in two cabinet colors, Rose & Gray. An e-manual is available for download.

Materials & Methods

Water: distilled, pH 5.45; starting temperature 25.1°C ± 1.5 EC: 3 us/cm
Laboratory elevation: 883 meters (0.90 atm); all measurements adjusted to sea level where applicable.
Gas Chromatograph: SRI 8610C; column: Hayesep-D 6M; column/oven temp: 60°C; detector: tungsten-rhenium TCD; carrier gas: nitrogen (99.999%)
GC Test Method: Static headspace analysis (HS-GC); headspace vial, 30 mL borosilicate w/septum
Calibration: Performed on day of testing using H₂-saturated water standard (two-point cal curve, 1.57 mg/L & 3.14 mg/L, adjusted to SATP)

Prior to testing, the rear drinking-water tank and internal electrolysis-water reservoir were filled with distilled water. The unit was powered up and the filters were flushed with a total of 15 liters of distilled water. The waste-water tank was emptied and the drinking-water tank was refilled as necessary during flushing and throughout the testing period. For each test, a 250 mL beaker was filled from the dispenser spout after allowing 5 seconds for the flow to stabilize and produce hydrogen water. A 1000 uL sample of the water was immediately drawn using a gas-tight syringe and then injected into the headspace vial. The headspace vial was then placed on a 2400 rpm centrifuge for three minutes to permit the dissolved H₂ in the water sample to equilibrate with the headspace. After equilibration, a 1000 uL sample of the vial's headspace was drawn using a gas-tight syringe and injected into the GC for analysis. Three tests were conducted, results recorded, and the mean and standard deviations of the dissolved H₂ were calculated. Based on the mean dissolved H₂ concentration and a 250 mL volume of water, the average amount of H₂ that would be ingested was calculated and reported as "Available H₂".

Attachment 1 shows a sample GC chromatogram.

Results

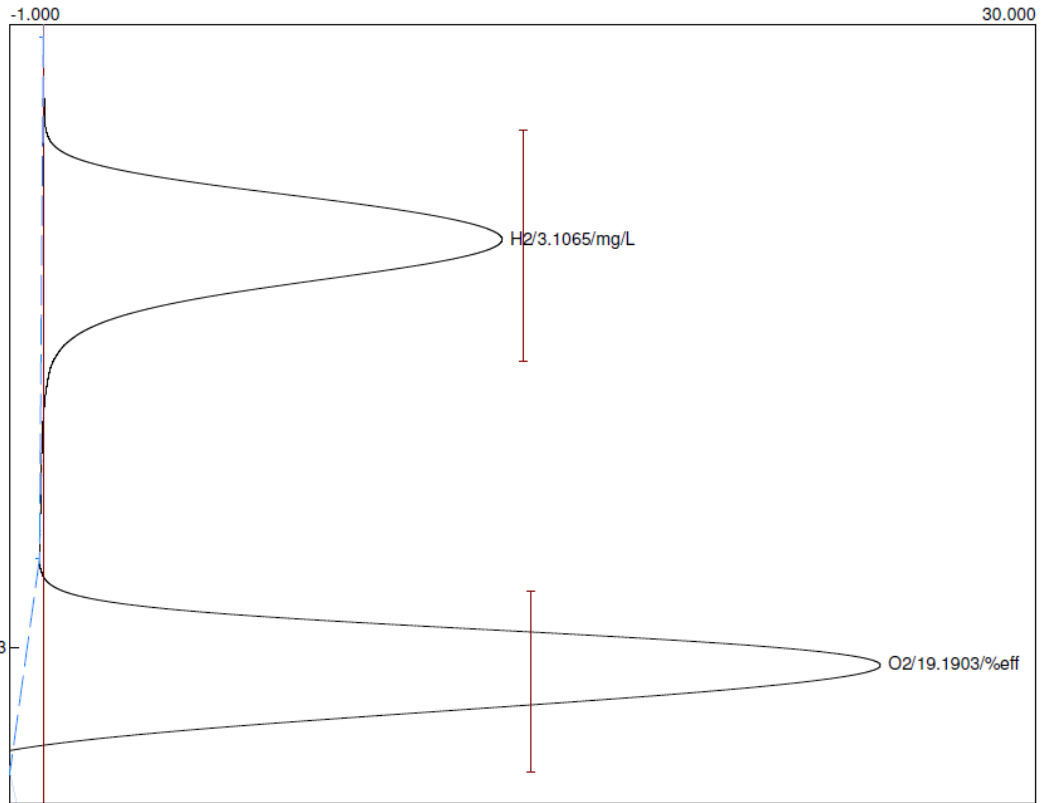
Mean Dissolved H₂: 3.07 mg/L (3070 ppb) SD - 0.11 mg/L Available H₂: - 0.77 mg



Approved By: *RSS Sharpe* Title: Director of Testing

Report Date: 10/24/2023

Lab name: H2 Analytics
Client: Healy Hydration
Client ID: H2A-1012
Collected: 10-23-23
Holding time: 300
Analysis date: 10/23/2023 11:31:35
Method: Static HS Analysis (GCHS)
Lab ID: HNV
Description: TCD CH1 60C
Column: Hayesep-D 6 meters 60C
Carrier: N2 @ 20psi (20 mL/min)
Components: AqH2O2.cpt
Integration: Peak sens=90.0 Base sens=90.0 Min area= 0.10 Standard= 1.000 Sample= 1.000 Tangents=off
Control filename: E:\peak454-64bit\win10\Healthy Hydration.CON
Data file: HH Hydra Deluxe (wht)02..CHR ()
Sample: H2 water (DW)
Operator: rs
Comments: DH2 Test Run
QC batch: Deluxe(cto)



Component	Retention	Area	External	Units
H2	2.343	134.5504	3.1065	mg/L
O2	3.026	223.3960	19.1903	%eff