

Package: boreholeforensicspumpingtest (via r-universe)

October 9, 2026

Title Borehole Forensics 4 - Pumping Test Data 2018-2024

Version 0.1.0

Description This dataset contains borehole forensic pumping test data, capturing key parameters related to groundwater extraction, borehole performance, and water quality assessments. It includes information on the test conditions, water levels, pumping rates, flow measurement methods, and water quality indicators such as pH, turbidity, and electrical conductivity. The dataset also documents permissions granted for testing, equipment used, and observations on borehole performance.

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URL <https://github.com/openwashdata/boreholeforensicspumpingtest>

BugReports <https://github.com/openwashdata/boreholeforensicspumpingtest/issues>

Repository <https://openwashdata.r-universe.dev>

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Description

This dataset contains borehole forensic pumping test data, capturing key parameters related to groundwater extraction, borehole performance, and water quality assessments. It includes information on the test conditions, water levels, pumping rates, flow measurement methods, and water quality indicators such as pH, turbidity, and electrical conductivity.

Usage

boreholeforensicspumpingtest

Format

- A tibble with 445 rows and 38 variables
- date_of_survey_or_test** Date on which the borehole pumping test was conducted.
 - is_it_possible_to_complete_pumping_test** Indicates whether the pumping test was successfully completed.
 - specify_why_not_possible_to_complete_pumping_test** Reason why the pumping test could not be completed, if applicable.
 - water_point_committee_permission** Whether permission was granted by the water point committee to conduct the test.
 - district_water_office_permission** Whether permission was granted by the district water office to conduct the test.
 - type_of_test** The type of pumping test performed on the borehole.
 - static_water_level_metres_below_reference_point_before_start_of_test** Water level below the reference point before the start of the test (in meters).
 - water_level_reference_point** The reference point used to measure water level (e.g., top of casing, ground level).
 - other_water_level_reference_point** Additional reference point used for measuring water level, if applicable.
 - reference_level_above_or_below_ground_level_in_meters** Measurement of the reference level relative to ground level (in meters).
 - pump_intake_depth_in_meters** Depth at which the pump intake is placed within the borehole (in meters).

total_hole_depth_in_meters Total depth of the borehole (in meters).

was_a_water_level_logger_used Indicates whether a water level logger was used to record measurements.

was_a_flow_meter_used Indicates whether a flow meter was used during the test.

other_flow_meter_used Whether an alternative flow meter was used during the test.

bucket_size_in_litres Capacity of the bucket used for manual flow measurements (in liters).

index_1 A logical index variable for internal tracking.

time_in_mins Whether time was recorded in minutes during the test.

water_level_in_mbrp Whether the water level was measured in meters below reference point.

flowmeter_total Whether the total flowmeter reading was recorded.

flow_rate_in_liters_per_second Whether the flow rate was measured in liters per second.

flow_rate_method Whether the method used to measure flow rate was recorded.

index_2 A second logical index variable for internal tracking.

time_of_sample_in_min Whether the sampling time was recorded in minutes.

ec_in_ms_per_cm Whether electrical conductivity (EC) in millisiemens per centimeter was recorded.

tds_ppt Whether total dissolved solids (TDS) in parts per thousand (ppt) were recorded.

temperature_in_celsius Whether water temperature in degrees Celsius was recorded.

ph Whether pH of the water was measured.

turbidity_ntu Whether turbidity in nephelometric turbidity units (NTU) was measured.

Imhoff_cone_cubic_centimeter_per_liter Whether sediment concentration was measured using an Imhoff cone.

did_water_level_stabilise_while_pumping_at_0.25_liters_per_second Whether the water level stabilized while pumping at 0.25 liters per second.

established_dwl_at_0.25l_per_second_m Depth to the water level (DWL) at 0.25 liters per second pumping rate (in meters).

maximum_successful_pumping_rate_in_liters_per_second Highest pumping rate successfully achieved during the test (in liters per second).

dwl_at_maximum_pumping_rate Depth to the water level at the maximum pumping rate (in meters).

silt_ejected_during_test Whether silt was observed being ejected from the borehole during the test.

did_the_borehole_pass_a_pumping_test Whether the borehole passed the pumping test based on performance criteria.

specify_other_borehole_pass_a_pumping_test Additional details on the borehole's performance in the pumping test.

comments_on_pumping_test Additional comments or observations about the pumping test.

Details

The dataset also documents permissions granted for testing, equipment used, and observations on borehole performance, such as whether the water level stabilized during pumping and whether the borehole passed the test.

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* **datasets**

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