



GAEA Technologies

221 Laurel St
Cambridge, ON N3H 3Y6
Canada
Phone: 613-900-1950 Email: sales@gaeatech.com

Borehole Validation Report

Project ID:	Validation QA and QC Examples
Project Name:	Validation QA and QC Examples
Borehole	BH-06 MW-QAQC
X Coordinate:	568510.4
Y Coordinate:	4812520.7
End Depth:	10.00
Date Drilled:	August 16, 2026
Validated By:	Admin
Validation Date:	August 16, 2026
WinLoG Version:	6.10
Validation Engine:	2.0.0

Overall Validation Status

Validation:	Failed
Completeness:	100%
Quality:	Poor
Confidence Score:	52%

Validation Summary

Warnings:	3
Errors:	3

Validation Errors

Message:	Water depth must be within borehole
Data Type:	MW-06 Water Level
Depth:	10.80
Actual Value:	10.8
Expected Value:	≤ 10
Explanation:	The rule identifies a condition that should be verified as part of QA/QC review.
Potential Cause:	The source value or related record may contain an entry, calculation, classification, or mapping error.
Potential Resolution:	Review the source data and related records, correct verified errors, and document any valid exception before approval.



GAEA Technologies

221 Laurel St
Cambridge, ON N3H 3Y6
Canada
Phone: 613-900-1950 Email: sales@gaeatech.com

Borehole Validation Report

Message:	Duplicate sample ID detected
Data Type:	Sample
Depth:	8.15
Actual Value:	GW06-01
Expected Value:	Unique sample ID
Explanation:	Duplicate identifiers can associate results with the wrong sample and compromise traceability.
Potential Cause:	The identifier may have been copied to another sample, reused during import, or assigned before the final sample sequence was known.
Potential Resolution:	Compare the affected samples with field sheets and chain-of-custody records, assign the correct unique identifiers, and update all linked laboratory data.
Message:	Well screen, construction component, or annotation extends beyond the borehole depth
Data Type:	Cap
First Depth:	10.50
Second Depth:	10.80
Actual Value:	10.8
Expected Value:	≤ 10
Explanation:	A monitoring-well screen or construction element cannot defensibly extend below the recorded borehole termination depth.
Potential Cause:	The borehole termination depth, screen interval, construction component, or annotation interval may have been entered using an incorrect value, datum, unit, or well record.
Potential Resolution:	Compare the well construction log with the drilling and installation records, correct the verified interval or borehole depth, and confirm that all construction elements fall within the completed borehole.

Validation Warnings

Message:	Water level variation too large
Data Type:	WaterLevels
First Depth:	3.30
Second Depth:	10.80
Actual Value:	10.8
Expected Value:	near 3.3
Explanation:	The rule identifies a condition that should be verified as part of QA/QC review.
Potential Cause:	The source value or related record may contain an entry, calculation, classification, or mapping error.



GAEA Technologies

221 Laurel St
Cambridge, ON N3H 3Y6
Canada
Phone: 613-900-1950 Email: sales@gaeatech.com

Borehole Validation Report

Potential Resolution:	Review the source data and related records, correct verified errors, and document any valid exception before approval.
Message:	Groundwater TDS exceeds the applicable criterion
Data Type:	TDS
Depth:	8.00
Actual Value:	620
Expected Value:	<= TDS 500 mg/L
Explanation:	TDS above the applicable criterion may indicate degraded groundwater quality and requires review in the monitoring-program context.
Potential Cause:	The TDS result, sample linkage, units, applicable criterion, or criterion jurisdiction may be incorrect, or the groundwater may contain elevated dissolved solids.
Potential Resolution:	Verify the TDS result and units, sample and depth linkage, and applicable criterion, then document the exceedance and complete the required technical review.
Message:	Groundwater laboratory concentration exceeds the applicable criterion
Data Type:	Groundwater Concentration
Depth:	5.50
Actual Value:	Benzene 0.012 mg/L (J)
Expected Value:	<= Benzene 0.005 mg/L
Explanation:	Groundwater laboratory results above applicable criteria require documented technical review and may require follow-up action.
Potential Cause:	The concentration, qualifier, sample linkage, units, analyte identity, or selected criterion may be incorrect, or the groundwater concentration may exceed the applicable standard.
Potential Resolution:	Verify the laboratory certificate, qualifier and units, confirm the sample and criterion linkage and document the exceedance and required technical or regulatory response.

This report summarizes automated validation checks performed by WinLoG Professional. It is not a formal QA/QC certificate and does not constitute approval of the borehole record.