



GAEA Technologies

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Borehole Validation Report

Project ID:	Validation QA and QC Examples
Project Name:	Validation QA and QC Examples
Borehole	BH-01 Validation Showcase
X Coordinate:	548320.25
Y Coordinate:	4809125.6
End Depth:	30.00
Date Drilled:	August 5, 2026
Validated By:	Admin
Validation Date:	August 11, 2026
WinLoG Version:	6.10
Validation Engine:	2.0.0

Overall Validation Status

Validation:	Failed
Completeness:	100%
Quality:	Fair
Confidence Score:	70%

Validation Summary

Warnings:	5
Errors:	1

Validation Errors

Message:	RQD cannot exceed TCR
Date Type:	RQD and TCR
First Depth:	19.50
Second Depth:	21.00
Actual Value:	92
Expected Value:	78
Explanation:	The recorded value falls outside an expected or physically valid domain.
Potential Cause:	The value may contain a transcription, unit, calculation, or data-mapping error.



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Potential Resolution: Verify the value and units against the original field or laboratory record. Correct confirmed errors or calculation errors; otherwise document the verified exception.

Validation Warnings

Message:	RQD greater than SCR
Date Type:	RQD and SCR
First Depth:	19.50
Second Depth:	21.00
Actual Value:	92
Expected Value:	65
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.
Message:	Excellent RQD inconsistent with weathering
Date Type:	RQD
Depth:	19.50
Actual Value:	92
Expected Value:	≤ 90
Explanation:	The rule detects an uncommon or internally inconsistent combination that requires review rather than automatic correction.
Potential Cause:	One or more related values, classifications, interval boundaries, or observations may be incorrect, or the condition may be unusual but valid.
Potential Resolution:	Compare the flagged values with the original logs and adjacent intervals. Correct confirmed errors; otherwise document the field or engineering basis for accepting the condition.
Message:	Refusal recorded in soft soil
Date Type:	Samples
First Depth:	9.00
Second Depth:	9.60
Actual Value:	58
Expected Value:	< 50
Explanation:	The rule detects an uncommon or internally inconsistent combination that requires review rather than automatic correction.



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Potential Cause:	One or more related values, classifications, interval boundaries, or observations may be incorrect, or the condition may be unusual but valid.
Potential Resolution:	Compare the flagged values with the original logs and adjacent intervals. Correct confirmed errors; otherwise document the field or engineering basis for accepting the condition.
Message:	High N-value inconsistent with high moisture
Date Type:	Samples
First Depth:	9.60
Second Depth:	9.00
Actual Value:	58
Expected Value:	< 50
Explanation:	The rule detects an uncommon or internally inconsistent combination that requires review rather than automatic correction.
Potential Cause:	One or more related values, classifications, interval boundaries, or observations may be incorrect, or the condition may be unusual but valid.
Potential Resolution:	Compare the flagged values with the original logs and adjacent intervals. Correct confirmed errors; otherwise document the field or engineering basis for accepting the condition.
Message:	Soft clay inconsistent with high recovery
Date Type:	Sample
First Depth:	5.25
Second Depth:	5.85
Actual Value:	98
Expected Value:	<= 95
Explanation:	The rule detects an uncommon or internally inconsistent combination that requires review rather than automatic correction.
Potential Cause:	One or more related values, classifications, interval boundaries, or observations may be incorrect, or the condition may be unusual but valid.
Potential Resolution:	Compare the flagged values with the original logs and adjacent intervals. Correct confirmed errors; otherwise document the field or engineering basis for accepting the condition.

Informational Messages

Message:	Sand highly saturated
Date Type:	WaterContent
Depth:	4.05
Actual Value:	62
Expected Value:	< 40



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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.
Message:	High moisture above water table
Date Type:	WaterContent
Depth:	4.05
Actual Value:	62
Expected Value:	<= 60
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.
Message:	Abrupt water content change
Date Type:	WaterContent
First Depth:	2.55
Second Depth:	4.05
Actual Value:	62
Expected Value:	similar to 21
Explanation:	The rule detects an uncommon or internally inconsistent combination that requires review rather than automatic correction.
Potential Cause:	One or more related values, classifications, interval boundaries, or observations may be incorrect, or the condition may be unusual but valid.
Potential Resolution:	Compare the flagged values with the original logs and adjacent intervals. Correct confirmed errors; otherwise document the field or engineering basis for accepting the condition.
Message:	Water content below plastic limit
Date Type:	AtterbergLimits
Depth:	12.55
Actual Value:	15
Expected Value:	> 22
Explanation:	The rule identifies a condition that should be verified as part of QA/QC review.



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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.
Message:	Negative liquidity index
Date Type:	AtterbergLimits
Depth:	12.55
Actual Value:	-0.318181818181818
Expected Value:	> 0
Explanation:	The recorded value falls outside an expected or physically valid domain.
Potential Cause:	The value may contain a transcription, unit, calculation, or data-mapping error.
Potential Resolution:	Verify the value and units against the original field or laboratory record. Correct confirmed errors or calculation errors; otherwise document the verified exception.

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.