Analytics Integration Test - Mixed Tags

Test report with both analog and digital tags

Report Period: 1/1/2024, 11:00:00 AM - 1/1/2024, 12:30:00 PM

Generated:	1/24/2026, 10:57:34 AM	**Data Points:**	160
Tags:	FLOW_01, PUMP_STATUS	**Format:**	PDF

Executive Summary

This report analyzes 2 tag(s) over the specified time period, containing a total of 160 data points. The analysis includes statistical summaries, trend analysis, and data quality metrics.

Key Findings:
• FLOW_01: Average 50.92, Range 42.17 - 57.90, Data Quality 100.0%
• PUMP_STATUS: Average 0.49, Range 0.00 - 1.00, Data Quality 100.0%

Tag: FLOW_01

Data Points: 80
Time Range: 1/1/2024, 11:00:00 AM - 1/1/2024, 12:19:00 PM

Statistical Summary:
Minimum: 42.17
Maximum: 57.90
Average: 50.92
Standard Deviation: 8.00
Data Quality: 100.0%

Data Quality Breakdown:
Good Quality: 80 (100.0%)
Bad Quality: 0 (0.0%)
Uncertain Quality: 0 (0.0%)

Tag: PUMP_STATUS

Data Points: 80
Time Range: 1/1/2024, 11:00:00 AM - 1/1/2024, 12:19:00 PM
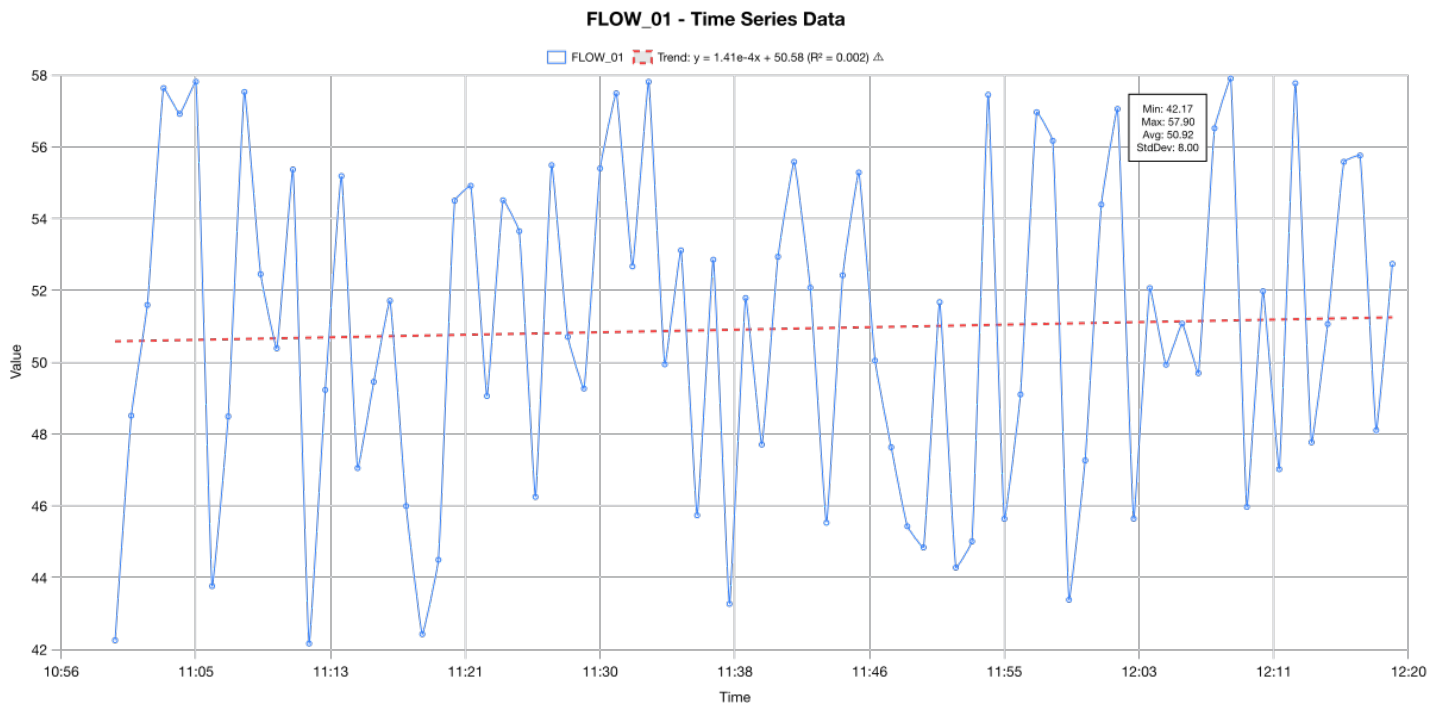
Statistical Summary:
Minimum: 0.00
Maximum: 1.00
Average: 0.49
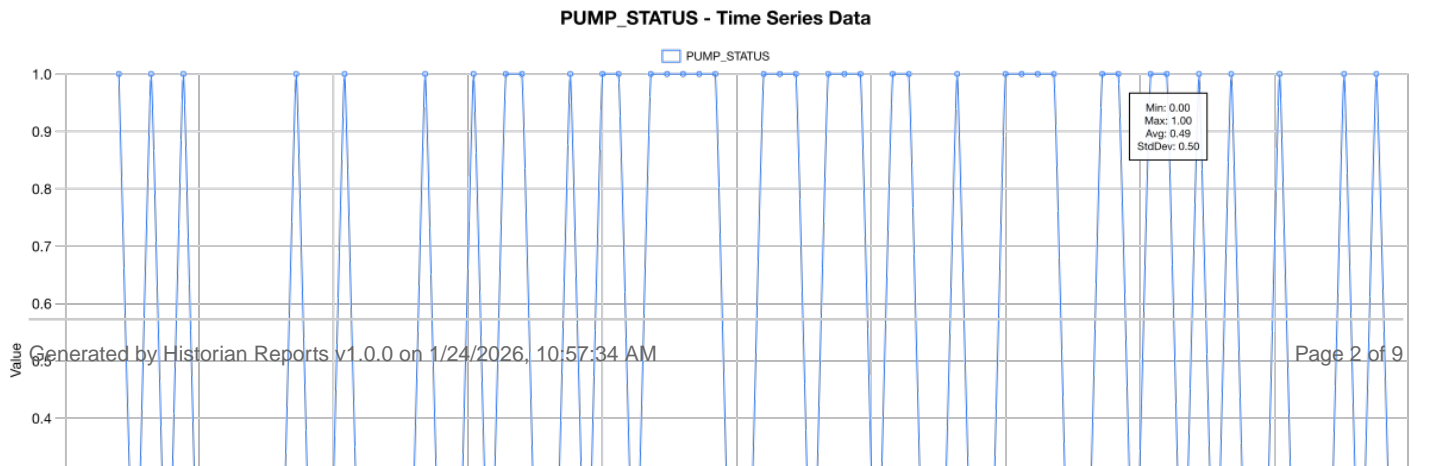Standard Deviation: 0.50
Data Quality: 100.0%

Data Quality Breakdown:
Good Quality: 80 (100.0%)
Bad Quality: 0 (0.0%)
Uncertain Quality: 0 (0.0%)

Data Visualizations

FLOW_01 - Data Trend
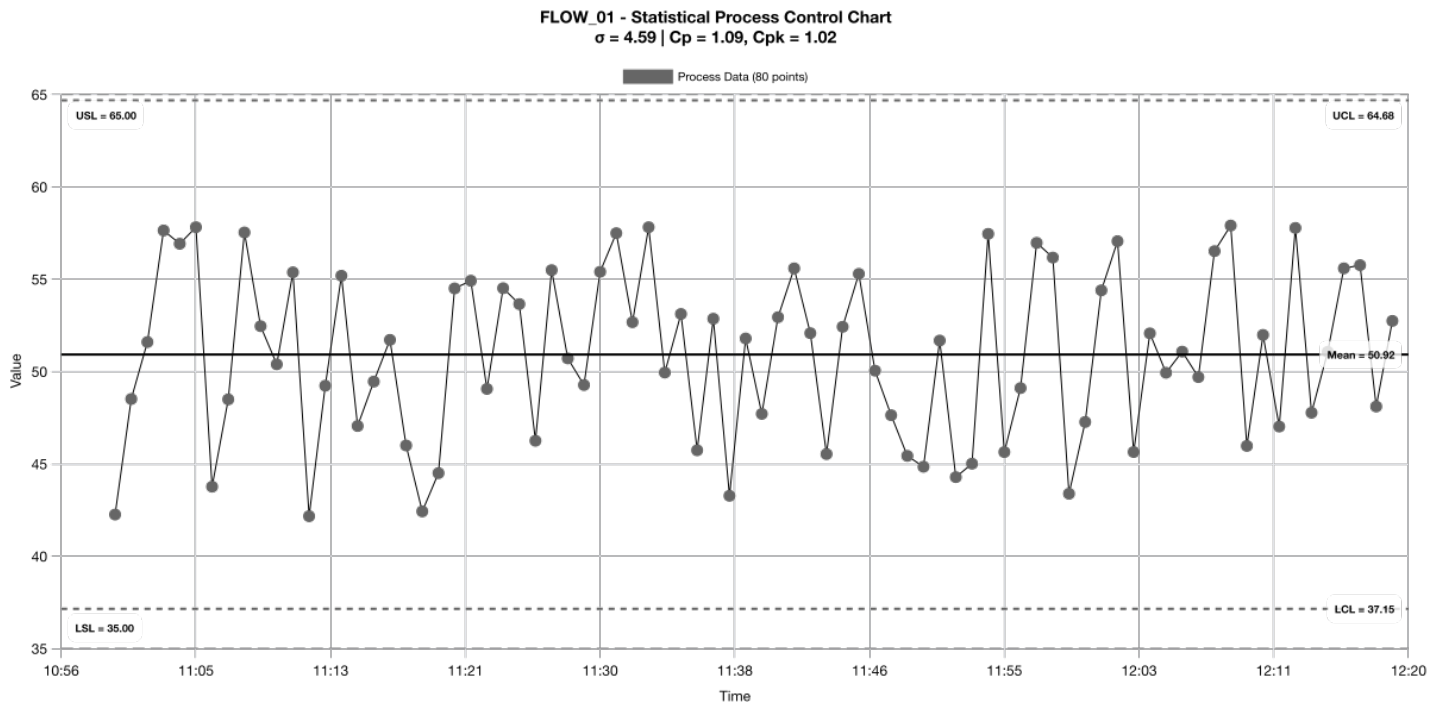

FLOW_01 - Time Series Data

Trend: $y = 1.41\text{e-}4x + 50.58$ ($R^2 = 0.002$) ⚠

Min: 42.17
Max: 57.90
Avg: 50.92
StdDev: 8.00

PUMP_STATUS - Data Trend

PUMP_STATUS - Time Series Data

Min: 0.00
Max: 1.00
Avg: 0.49
StdDev: 0.50

Statistical Process Control Analysis

Data Visualizations

FLOW_01 - SPC Chart

FLOW_01 - Statistical Process Control Chart
σ = 4.59 | Cp = 1.09, Cpk = 1.02

SPC Metrics Summary

Tag Name	Average	Std Dev	LCL	UCL	LSL	USL	Cp	Cpk	Stat
FLOW_01	50.92	4.59	37.15	64.68	35.00	65.00	1.09	1.02	Marginal

Data Table: FLOW_01

Timestamp	Value	Quality Code	Status
1/1/2024, 11:00:00 AM	42.26	192	Good
1/1/2024, 11:01:00 AM	48.51	192	Good
1/1/2024, 11:02:00 AM	51.60	192	Good
1/1/2024, 11:03:00 AM	57.64	192	Good
1/1/2024, 11:04:00 AM	56.92	192	Good
1/1/2024, 11:05:00 AM	57.81	192	Good
1/1/2024, 11:06:00 AM	43.77	192	Good
1/1/2024, 11:07:00 AM	48.49	192	Good
1/1/2024, 11:08:00 AM	57.53	192	Good
1/1/2024, 11:09:00 AM	52.46	192	Good
1/1/2024, 11:10:00 AM	50.39	192	Good
1/1/2024, 11:11:00 AM	55.37	192	Good
1/1/2024, 11:12:00 AM	42.17	192	Good
1/1/2024, 11:13:00 AM	49.23	192	Good
1/1/2024, 11:14:00 AM	55.19	192	Good
1/1/2024, 11:15:00 AM	47.05	192	Good
1/1/2024, 11:16:00 AM	49.46	192	Good
1/1/2024, 11:17:00 AM	51.71	192	Good
1/1/2024, 11:18:00 AM	46.00	192	Good
1/1/2024, 11:19:00 AM	42.43	192	Good
1/1/2024, 11:20:00 AM	44.50	192	Good
1/1/2024, 11:21:00 AM	54.50	192	Good
1/1/2024, 11:22:00 AM	54.92	192	Good
1/1/2024, 11:23:00 AM	49.06	192	Good
1/1/2024, 11:24:00 AM	54.51	192	Good
1/1/2024, 11:25:00 AM	53.65	192	Good
1/1/2024, 11:26:00 AM	46.25	192	Good
1/1/2024, 11:27:00 AM	55.49	192	Good
1/1/2024, 11:28:00 AM	50.71	192	Good
1/1/2024, 11:29:00 AM	49.27	192	Good
1/1/2024, 11:30:00 AM	55.40	192	Good

1/1/2024, 11:31:00 AM	57.49	192	Good
1/1/2024, 11:32:00 AM	52.67	192	Good
1/1/2024, 11:33:00 AM	57.81	192	Good
1/1/2024, 11:34:00 AM	49.94	192	Good
1/1/2024, 11:35:00 AM	53.12	192	Good
1/1/2024, 11:36:00 AM	45.74	192	Good
1/1/2024, 11:37:00 AM	52.86	192	Good
1/1/2024, 11:38:00 AM	43.27	192	Good
1/1/2024, 11:39:00 AM	51.79	192	Good
1/1/2024, 11:40:00 AM	47.71	192	Good
1/1/2024, 11:41:00 AM	52.94	192	Good
1/1/2024, 11:42:00 AM	55.58	192	Good
1/1/2024, 11:43:00 AM	52.08	192	Good
1/1/2024, 11:44:00 AM	45.53	192	Good
1/1/2024, 11:45:00 AM	52.42	192	Good
1/1/2024, 11:46:00 AM	55.29	192	Good
1/1/2024, 11:47:00 AM	50.05	192	Good
1/1/2024, 11:48:00 AM	47.63	192	Good
1/1/2024, 11:49:00 AM	45.43	192	Good
1/1/2024, 11:50:00 AM	44.84	192	Good
1/1/2024, 11:51:00 AM	51.68	192	Good
1/1/2024, 11:52:00 AM	44.28	192	Good
1/1/2024, 11:53:00 AM	45.01	192	Good
1/1/2024, 11:54:00 AM	57.45	192	Good
1/1/2024, 11:55:00 AM	45.64	192	Good
1/1/2024, 11:56:00 AM	49.10	192	Good
1/1/2024, 11:57:00 AM	56.97	192	Good
1/1/2024, 11:58:00 AM	56.17	192	Good
1/1/2024, 11:59:00 AM	43.38	192	Good
1/1/2024, 12:00:00 PM	47.27	192	Good
1/1/2024, 12:01:00 PM	54.39	192	Good
1/1/2024, 12:02:00 PM	57.05	192	Good
1/1/2024, 12:03:00 PM	45.64	192	Good
1/1/2024, 12:04:00 PM	52.07	192	Good

1/1/2024, 12:05:00 PM	49.93	192	Good
1/1/2024, 12:06:00 PM	51.08	192	Good
1/1/2024, 12:07:00 PM	49.70	192	Good
1/1/2024, 12:08:00 PM	56.52	192	Good
1/1/2024, 12:09:00 PM	57.90	192	Good
1/1/2024, 12:10:00 PM	45.97	192	Good
1/1/2024, 12:11:00 PM	51.98	192	Good
1/1/2024, 12:12:00 PM	47.02	192	Good
1/1/2024, 12:13:00 PM	57.77	192	Good
1/1/2024, 12:14:00 PM	47.77	192	Good
1/1/2024, 12:15:00 PM	51.06	192	Good
1/1/2024, 12:16:00 PM	55.58	192	Good
1/1/2024, 12:17:00 PM	55.76	192	Good
1/1/2024, 12:18:00 PM	48.11	192	Good
1/1/2024, 12:19:00 PM	52.74	192	Good

Data Table: PUMP_STATUS

Timestamp	Value	Quality Code	Status
1/1/2024, 11:00:00 AM	1.00	192	Good
1/1/2024, 11:01:00 AM	0.00	192	Good
1/1/2024, 11:02:00 AM	1.00	192	Good
1/1/2024, 11:03:00 AM	0.00	192	Good
1/1/2024, 11:04:00 AM	1.00	192	Good
1/1/2024, 11:05:00 AM	0.00	192	Good
1/1/2024, 11:06:00 AM	0.00	192	Good
1/1/2024, 11:07:00 AM	0.00	192	Good
1/1/2024, 11:08:00 AM	0.00	192	Good
1/1/2024, 11:09:00 AM	0.00	192	Good
1/1/2024, 11:10:00 AM	0.00	192	Good
1/1/2024, 11:11:00 AM	1.00	192	Good
1/1/2024, 11:12:00 AM	0.00	192	Good
1/1/2024, 11:13:00 AM	0.00	192	Good
1/1/2024, 11:14:00 AM	1.00	192	Good
1/1/2024, 11:15:00 AM	0.00	192	Good
1/1/2024, 11:16:00 AM	0.00	192	Good
1/1/2024, 11:17:00 AM	0.00	192	Good
1/1/2024, 11:18:00 AM	0.00	192	Good
1/1/2024, 11:19:00 AM	1.00	192	Good
1/1/2024, 11:20:00 AM	0.00	192	Good
1/1/2024, 11:21:00 AM	0.00	192	Good
1/1/2024, 11:22:00 AM	1.00	192	Good
1/1/2024, 11:23:00 AM	0.00	192	Good
1/1/2024, 11:24:00 AM	1.00	192	Good
1/1/2024, 11:25:00 AM	1.00	192	Good
1/1/2024, 11:26:00 AM	0.00	192	Good
1/1/2024, 11:27:00 AM	0.00	192	Good
1/1/2024, 11:28:00 AM	1.00	192	Good
1/1/2024, 11:29:00 AM	0.00	192	Good
1/1/2024, 11:30:00 AM	1.00	192	Good

1/1/2024, 11:31:00 AM	1.00	192	Good
1/1/2024, 11:32:00 AM	0.00	192	Good
1/1/2024, 11:33:00 AM	1.00	192	Good
1/1/2024, 11:34:00 AM	1.00	192	Good
1/1/2024, 11:35:00 AM	1.00	192	Good
1/1/2024, 11:36:00 AM	1.00	192	Good
1/1/2024, 11:37:00 AM	1.00	192	Good
1/1/2024, 11:38:00 AM	0.00	192	Good
1/1/2024, 11:39:00 AM	0.00	192	Good
1/1/2024, 11:40:00 AM	1.00	192	Good
1/1/2024, 11:41:00 AM	1.00	192	Good
1/1/2024, 11:42:00 AM	1.00	192	Good
1/1/2024, 11:43:00 AM	0.00	192	Good
1/1/2024, 11:44:00 AM	1.00	192	Good
1/1/2024, 11:45:00 AM	1.00	192	Good
1/1/2024, 11:46:00 AM	1.00	192	Good
1/1/2024, 11:47:00 AM	0.00	192	Good
1/1/2024, 11:48:00 AM	1.00	192	Good
1/1/2024, 11:49:00 AM	1.00	192	Good
1/1/2024, 11:50:00 AM	0.00	192	Good
1/1/2024, 11:51:00 AM	0.00	192	Good
1/1/2024, 11:52:00 AM	1.00	192	Good
1/1/2024, 11:53:00 AM	0.00	192	Good
1/1/2024, 11:54:00 AM	0.00	192	Good
1/1/2024, 11:55:00 AM	1.00	192	Good
1/1/2024, 11:56:00 AM	1.00	192	Good
1/1/2024, 11:57:00 AM	1.00	192	Good
1/1/2024, 11:58:00 AM	1.00	192	Good
1/1/2024, 11:59:00 AM	0.00	192	Good
1/1/2024, 12:00:00 PM	0.00	192	Good
1/1/2024, 12:01:00 PM	1.00	192	Good
1/1/2024, 12:02:00 PM	1.00	192	Good
1/1/2024, 12:03:00 PM	0.00	192	Good
1/1/2024, 12:04:00 PM	1.00	192	Good

1/1/2024, 12:05:00 PM	1.00	192	Good
1/1/2024, 12:06:00 PM	0.00	192	Good
1/1/2024, 12:07:00 PM	1.00	192	Good
1/1/2024, 12:08:00 PM	0.00	192	Good
1/1/2024, 12:09:00 PM	1.00	192	Good
1/1/2024, 12:10:00 PM	0.00	192	Good
1/1/2024, 12:11:00 PM	0.00	192	Good
1/1/2024, 12:12:00 PM	1.00	192	Good
1/1/2024, 12:13:00 PM	0.00	192	Good
1/1/2024, 12:14:00 PM	0.00	192	Good
1/1/2024, 12:15:00 PM	0.00	192	Good
1/1/2024, 12:16:00 PM	1.00	192	Good
1/1/2024, 12:17:00 PM	0.00	192	Good
1/1/2024, 12:18:00 PM	1.00	192	Good
1/1/2024, 12:19:00 PM	0.00	192	Good

Statistical Summary

Tag	Min	Max	Average	Std Dev	Quality %
FLOW_01	42.17	57.90	50.92	8.00	100.0%
PUMP_STATUS	0.00	1.00	0.49	0.50	100.0%