

Brewer SO₂ column quality control – Removed records from Level 1.0 to Level 1.5 data

time (UT), month, day, year, SZA, airmass, temp, type, SO₂(DU), std_SO₂	Reason for removal
08:39:56, 3, 3, 2021, 52.275, 1.626, 16, ds, 97.2, 0.8	Bad SO ₂ value (97.2 DU)
08:45:42, 3, 3, 2021, 51.592, 1.601, 16, ds, 99.7, 0.4	Bad SO ₂ value (99.7 DU)
09:14:41, 3, 3, 2021, 48.565, 1.505, 17, ds, 108.9, 0.5	Bad SO ₂ value (108.9 DU)
09:38:30, 3, 3, 2021, 46.658, 1.452, 18, ds, 113.4, 1.1	Bad SO ₂ value (113.4 DU)
09:46:55, 3, 3, 2021, 46.125, 1.438, 18, ds, 115.1, 0.3	Bad SO ₂ value (115.1 DU)
09:52:39, 3, 3, 2021, 45.805, 1.43, 18, ds, 115.4, 0.7	Bad SO ₂ value (115.4 DU)
12:43:22, 3, 7, 2021, 52.238, 1.624, 17, ds, 63.3, 2.4	Bad SO ₂ value (63.3 DU)
13:14:14, 3, 7, 2021, 56.576, 1.802, 18, ds, 11.5, 3.5	Bad SO ₂ value (11.5 DU)
11:15:57, 4, 15, 2021, 30.302, 1.157, 51, ds, -0.7, 0.4	Temperature Spike
09:32:42, 4, 27, 2021, 26.435, 1.116, 51, ds, -1.5, 0.4	Temperature Spike
08:56:19, 5, 4, 2021, 28.843, 1.141, 51, ds, -1, 0.4	Temperature Spike
09:45:02, 5, 9, 2021, 22, 1.078, 51, ds, -2.5, 0.2	Temperature Spike
08:10:03, 5, 16, 2021, 34.104, 1.206, 51, ds, -1.7, 0.2	Temperature Spike
09:29:40, 5, 23, 2021, 20.651, 1.068, 51, ds, -1.3, 0.4	Temperature Spike
11:50:24, 5, 23, 2021, 25.823, 1.11, 51, ds, -0.6, 0.7	Temperature Spike
12:21:28, 5, 26, 2021, 30.697, 1.162, 51, ds, 1.2, 0.7	Temperature Spike
12:27:25, 5, 31, 2021, 31.172, 1.167, 51, ds, -1, 0.7	Temperature Spike
09:19:55, 6, 6, 2021, 20.491, 1.067, 51, ds, -0.1, 0.2	Temperature Spike
11:27:20, 6, 6, 2021, 20.492, 1.067, 51, ds, 0, 0.6	Temperature Spike
08:00:22, 6, 9, 2021, 34.138, 1.206, 51, ds, -1.4, 0.4	Temperature Spike
08:56:30, 6, 11, 2021, 23.984, 1.094, 51, ds, -0.9, 0.5	Temperature Spike
11:34:26, 7, 2, 2021, 20.508, 1.067, 51, ds, -0.6, 0.3	Temperature Spike
08:35:55, 7, 6, 2021, 28.76, 1.14, 51, ds, 0.1, 0.3	Temperature Spike
12:05:01, 7, 11, 2021, 25.816, 1.11, 51, ds, -0.7, 0.3	Temperature Spike
09:37:50, 7, 18, 2021, 20.564, 1.068, 51, ds, -0.4, 0.5	Temperature Spike
11:22:31, 7, 18, 2021, 20.342, 1.066, 51, ds, 0.1, 0.3	Temperature Spike
11:59:53, 7, 18, 2021, 25.635, 1.108, 51, ds, -0.2, 0.5	Temperature Spike
12:32:13, 7, 18, 2021, 31.161, 1.167, 51, ds, -0.1, 0.8	Temperature Spike
09:13:52, 7, 22, 2021, 24.455, 1.098, 51, ds, -0.8, 0.5	Temperature Spike
11:46:06, 7, 25, 2021, 24.554, 1.099, 51, ds, -0.2, 0.5	Temperature Spike
14:19:59, 8, 5, 2021, 54.126, 1.696, 46, ds, 37.9, 0.3	Bad SO ₂ value (37.9 DU)
10:01:36, 8, 15, 2021, 24.85, 1.101, 51, ds, -0.7, 0.2	Temperature Spike
14:44:48, 8, 15, 2021, 61.008, 2.042, 51, ds, -0.9, 0.4	Temperature Spike
09:17:28, 8, 16, 2021, 29.112, 1.143, 51, ds, -0.6, 0.4	Temperature Spike
11:51:16, 8, 16, 2021, 30.468, 1.159, 51, ds, 0.6, 0.4	Temperature Spike
09:52:24, 8, 22, 2021, 27.512, 1.127, 51, ds, -0.3, 0.4	Temperature Spike
06:42:24, 9, 3, 2021, 58.463, 1.896, 28, ds, -3, 0.3	Bad SO ₂ value (-3 DU)
06:50:49, 9, 3, 2021, 56.882, 1.817, 28, ds, -3.5, 0.1	Bad SO ₂ value (-3.5 DU)
07:08:52, 9, 3, 2021, 53.548, 1.673, 29, ds, -3.3, 0.3	Bad SO ₂ value (-3.3 DU)
07:17:18, 9, 3, 2021, 52.019, 1.616, 29, ds, -3.5, 0.1	Bad SO ₂ value (-3.5 DU)
07:23:02, 9, 3, 2021, 50.988, 1.581, 29, ds, -3.7, 0.4	Bad SO ₂ value (-3.7 DU)
07:33:55, 9, 3, 2021, 49.067, 1.52, 30, ds, -3.4, 0.4	Bad SO ₂ value (-3.4 DU)

07:42:20, 9, 3, 2021, 47.61, 1.478, 30, ds, -3.6, 0.4	Bad SO ₂ value (-3.6 DU)
07:48:05, 9, 3, 2021, 46.632, 1.451, 30, ds, -3.3, 0.7	Bad SO ₂ value (-3.3 DU)
08:07:17, 9, 3, 2021, 43.474, 1.374, 31, ds, -4.4, 0.2	Bad SO ₂ value (-4.4 DU)
08:15:42, 9, 3, 2021, 42.153, 1.345, 31, ds, -3.9, 0.5	Bad SO ₂ value (-3.9 DU)
08:43:00, 9, 3, 2021, 38.189, 1.27, 32, ds, -4.4, 0.4	Bad SO ₂ value (-4.4 DU)
09:12:06, 9, 3, 2021, 34.663, 1.214, 33, ds, -4.5, 0.5	Bad SO ₂ value (-4.5 DU)
09:54:04, 9, 3, 2021, 31.348, 1.17, 33, ds, -5.2, 0.5	Bad SO ₂ value (-5.2 DU)
10:36:41, 9, 3, 2021, 30.738, 1.162, 34, ds, -5.3, 0.5	Bad SO ₂ value (-5.3 DU)
10:51:01, 9, 3, 2021, 31.208, 1.168, 34, ds, -4.4, 0.3	Bad SO ₂ value (-4.4 DU)
11:17:22, 9, 3, 2021, 32.898, 1.189, 35, ds, -4.5, 0.6	Bad SO ₂ value (-4.5 DU)
11:45:36, 9, 3, 2021, 35.735, 1.23, 35, ds, -4.6, 0.4	Bad SO ₂ value (-4.6 DU)
11:49:01, 9, 3, 2021, 36.139, 1.236, 35, ds, -4.4, 0.3	Bad SO ₂ value (-4.4 DU)
12:21:24, 9, 3, 2021, 40.497, 1.312, 35, ds, -4.6, 0.4	Bad SO ₂ value (-4.6 DU)
12:27:13, 9, 3, 2021, 41.364, 1.329, 35, ds, -4.3, 0.5	Bad SO ₂ value (-4.3 DU)
12:40:47, 9, 3, 2021, 43.476, 1.374, 35, ds, -4.4, 0.2	Bad SO ₂ value (-4.4 DU)
13:05:28, 9, 3, 2021, 47.567, 1.476, 35, ds, -4.4, 0.2	Bad SO ₂ value (-4.4 DU)
13:11:12, 9, 3, 2021, 48.559, 1.505, 35, ds, -4.4, 0.3	Bad SO ₂ value (-4.4 DU)
13:26:54, 9, 3, 2021, 51.328, 1.592, 35, ds, -4, 0.5	Bad SO ₂ value (-4 DU)
13:35:20, 9, 3, 2021, 52.849, 1.647, 35, ds, -3.7, 0.4	Bad SO ₂ value (-3.7 DU)
13:41:05, 9, 3, 2021, 53.898, 1.687, 35, ds, -3.8, 0.4	Bad SO ₂ value (-3.8 DU)
13:55:15, 9, 3, 2021, 56.521, 1.8, 35, ds, -3.7, 0.1	Bad SO ₂ value (-3.7 DU)
13:58:40, 9, 3, 2021, 57.157, 1.83, 35, ds, -3.6, 0.3	Bad SO ₂ value (-3.6 DU)
14:07:05, 9, 3, 2021, 58.741, 1.911, 35, ds, -3.4, 0.2	Bad SO ₂ value (-3.4 DU)
14:12:50, 9, 3, 2021, 59.83, 1.971, 35, ds, -3.5, 0.5	Bad SO ₂ value (-3.5 DU)
14:20:15, 9, 3, 2021, 61.244, 2.057, 34, ds, -3.2, 0.4	Bad SO ₂ value (-3.2 DU)
14:28:37, 9, 3, 2021, 62.845, 2.165, 34, ds, -2.9, 0.5	Bad SO ₂ value (-2.9 DU)
14:36:02, 9, 3, 2021, 64.274, 2.273, 34, ds, -3.4, 0.4	Bad SO ₂ value (-3.4 DU)
09:11:20, 9, 5, 2021, 35.342, 1.224, 50, ds, -0.5, 0.3	Temperature Spike
10:11:59, 9, 11, 2021, 33.668, 1.2, 51, ds, -0.8, 0.2	Temperature Spike
10:23:38, 12, 5, 2021, 60.421, 2.006, 43, ds, -1.1, 0.2	Temperature Spike