

JJI stream

start	end	flow rate	temp	pH	EC	SO4	NO3	Cl	Na	Ca	Mg	K	NH4	$\delta^{15}\text{N}(\text{NO}_3^-)$	$\delta^{18}\text{O}(\text{NO}_3^-)$	$\Delta^{17}\text{O}(\text{NO}_3^-)$	$\delta^2\text{H}(\text{H}_2\text{O})$	$\delta^{18}\text{O}(\text{H}_2\text{O})$
		L/min	°C		mS/m	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$\mu\text{mol/L}$	$^{\circ}/10^3$	$^{\circ}/10^3$	$^{\circ}/10^3$	$^{\circ}/10^3$	$^{\circ}/10^3$
2011/12/26 14:10	2012/01/10 14:00	5.524	6.5	6.96	4.51	162.1	28.1	56.4	95.8	139.4	111.5	5.2	0.6					
2012/01/10 14:00	2012/01/23 13:40	5.709	7	6.97	4.55	161.0	32.6	55.6	92.5	142.5	111.1	5.3	0.0					
2012/01/23 13:40	2012/02/06 13:50	5.524	4.5	6.88	4.53	161.3	27.3	56.6	94.0	145.2	114.9	5.2	1.7					
2012/02/06 13:50	2012/02/20 13:20	5.524	5.5	6.93	4.29	147.5	31.3	56.2	90.2	136.4	115.2	5.1	1.5					
2012/02/20 13:20	2012/03/05 14:00	24.396	8	6.70	3.54	112.8	56.3	45.8	65.6	108.8	101.3	6.2	0.3	-0.66	+2.84	+1.09	-9.21	-53.18
2012/03/05 14:00	2012/03/19 14:10	4.580	8	6.86	3.95	130.2	33.2	55.7	80.9	120.7	112.0	5.8	0.4	+0.53	+6.48	+1.55	-8.65	-51.13
2012/03/19 14:10	2012/04/03 13:50	23.839	9	6.86	3.65	119.5	32.1	59.0	77.1	112.8	103.0	7.1	1.0					
2012/04/03 13:50	2012/04/16 13:30	9.810	11	7.06	3.89	122.3	29.2	59.6	83.6	120.0	112.9	6.5	1.1					
2012/04/16 13:30	2012/05/01 13:40	9.019	13.5	7.05	4.00	126.3	28.8	58.5	86.1	126.0	116.5	7.1	1.1	+0.15	+6.72	+1.95	-8.44	-49.87
2012/05/01 13:40	2012/05/14 13:40	3.546	14	7.06	4.23	148.2	25.3	60.7	93.1	135.6	125.4	7.2	0.7	-0.48	+6.15	+1.73	-8.51	-50.17
2012/05/14 13:40	2012/05/28 13:40	4.040	14.5	6.88	4.52	144.8	23.5	60.3	95.0	144.0	130.2	7.3	0.2					
2012/05/28 13:40	2012/06/11 13:30	3.283	16	6.85	4.77	161.2	37.8	55.8	96.1	150.6	136.2	7.7	0.0					
2012/06/11 13:30	2012/06/25 14:10	12.468	16	6.91	3.76	111.0	24.0	53.6	80.8	116.2	106.6	7.3	0.3	+0.25	+7.41	+2.77	-8.68	-51.78
2012/06/25 14:10	2012/07/09 14:00	14.491	17.5	6.92	3.71	113.1	26.4	52.8	80.4	116.0	106.6	6.8	0.3					
2012/07/09 14:00	2012/07/30 13:50	4.742	20	6.97	3.82	117.7	23.5	56.9	85.0	120.3	110.3	7.4	0.3					
2012/07/30 13:50	2012/08/13 14:10	6.492	21	6.99	4.42	142.9	31.9	58.1	95.3	142.8	128.5	8.4	0.5	-2.22	+3.95	+1.75	-8.59	-52.00
2012/08/13 14:10	2012/08/27 13:40	4.421	20.5	7.04	4.10	127.5	28.2	55.5	89.9	132.3	120.5	7.8	0.6	+0.57	+6.74	+2.01	-8.42	-51.41
2012/08/27 13:40	2012/09/10 14:10	5.898	20.5	7.05	4.41	136.6	41.4	53.6	89.0	143.9	128.6	8.1	0.0					
2012/09/10 14:10	2012/09/24 14:10	8.152	17.5	6.91	3.79	111.8	30.8	54.2	80.8	119.6	110.1	6.8	0.6					
2012/09/24 14:10	2012/10/09 14:10	4.266	16.5	7.04	4.11	129.4	27.2	56.2	87.4	129.8	118.3	6.8	0.6	+0.23	+5.54	+1.52	-8.38	-50.38
2012/10/09 14:10	2012/10/22 14:10	2.365	15	6.95	4.32	145.8	31.7	57.5	92.2	137.5	125.2	6.9	4.1	+0.43	+3.19	+1.19	-8.33	-49.97
2012/10/22 14:10	2012/11/05 14:50	2.167	13	6.99	4.42	158.3	31.3	57.9	92.9	141.9	129.4	6.5	0.9					
2012/11/05 14:50	2012/11/19 14:00	3.753	10.5	6.95	4.41	143.9	45.0	56.9	91.1	141.6	127.1	6.2	0.3					
2012/11/19 14:00	2012/12/03 13:50	2.469	9	6.92	4.43	158.0	30.6	56.6	93.9	140.0	126.9	5.8	0.2	+1.07	+2.66	+1.58	-8.20	-48.55
2012/12/03 13:50	2012/12/17 14:20	10.223	8	6.88	4.00	125.7	46.2	59.2	85.5	125.6	114.5	5.9	0.6	+1.28	+4.21	+1.46	-8.12	-46.81
2012/12/17 14:20	2012/12/27 14:20	4.500	6	7.00	4.14	141.6	31.7	57.7	89.8	130.9	119.9	5.3	0.4					
2012/12/27 14:20	2013/01/15 14:10	3.479	6	6.97	4.16	146.5	29.3	58.1	95.3	138.0	127.0	5.8	0.8					
2013/01/15 14:10	2013/01/28 14:40	4.190	4.5	6.99	4.11	143.7	28.8	58.8	89.3	130.3	118.9	5.3	0.5	+0.60	+5.81	+1.33	-8.48	-48.77
2013/01/28 14:40	2013/02/12 14:20	4.580	5.5	6.96	3.96	133.8	28.5	57.6	87.5	124.4	114.8	5.2	0.5	+0.44	+6.95	+1.62	-8.39	-49.22
2013/02/12 14:20	2013/02/25 14:30	3.683	5	6.98	4.12	142.3	27.6	58.2	91.3	130.6	120.8	5.2	0.8					
2013/02/25 14:30	2013/03/11 14:00	3.614	6.5	7.02	4.12	139.9	24.4	57.0	88.2	128.8	120.4	5.3	0.5	+1.27	+5.52	+1.71	-7.89	-49.62
2013/03/11 14:00	2013/03/25 14:00	4.040	8.5	7.06	4.27	143.1	20.4	58.3	90.9	133.0	124.3	5.9	0.6					
2013/03/25 14:00	2013/04/09 14:30	3.157	10.5	7.02	4.45	152.7	21.8	57.6	92.8	141.1	131.5	6.1	0.5	-1.16	+3.96	+1.32	-8.21	-50.77
2013/04/09 14:30	2013/04/22 13:50	2.522	10.5	7.09	4.59	165.6	23.7	60.5	98.7	149.4	138.0	6.2	0.8					
2013/04/22 13:50	2013/05/07 14:10	3.753	11.5	7.04	4.26	143.0	13.6	56.6	93.9	134.8	125.4	6.2	0.7	-0.46	+6.92	+1.69	-7.90	-49.30
2013/05/07 14:10	2013/05/20 14:20	4.500	15	7.01	4.43	147.1	27.3	55.3	93.5	146.8	134.5	7.1	1.3					
2013/05/20 14:20	2013/06/03 14:10	4.580	15.5	6.81	4.19	136.7	21.6	57.0	92.0	134.6	124.0	6.8	1.1					
2013/06/03 14:10	2013/06/17 14:10	2.742	19.5	6.97	4.56	156.2	19.0	57.8	100.7	148.4	136.2	7.5	0.6	-0.54	+1.33	+1.09	-7.74	-48.86
2013/06/17 14:10	2013/07/01 14:10	4.580	17	6.91	4.24	132.8		56.6	92.1	141.3	128.5	7.0	1.5					
2013/07/01 14:10	2013/07/16 14:10	5.524	19	6.87	4.01	126.5	21.7	56.9	89.8	130.3	119.7	7.3	1.4	-0.95	+3.84	+1.39	-8.19	-50.56
2013/07/16 14:10	2013/07/29 13:30	48.939	19.5	6.44	3.35	99.1	58.4	35.9	64.4	111.6	98.6	9.5	1.1					
2013/07/29 13:30	2013/08/12 13:50	7.125	20.5	6.90	3.69	112.8	22.6	58.0	85.0	114.3	107.2	6.7	0.5					
2013/08/12 13:50	2013/08/26 14:00	3.220	20	6.83	4.22	134.9	30.1	57.7	96.3	137.8	127.1	7.6	1.4	-0.41	+1.62	+0.67	-7.96	-48.99
2013/08/26 14:00	2013/09/09 13:30	8.394	18.5	6.89	3.72	116.9	27.7	56.1	87.6	119.7	111.0	6.9	1.3					
2013/09/09 13:30	2013/09/24 14:00	13.279	18.5	6.96	3.86	121.8	21.2	58.3	91.0	125.1	116.6	7.0	1.6	+0.29	+4.78	+1.43	-8.40	-50.63
2013/09/24 14:00	2013/10/07 14:00	8.394	18	7.22	4.25	145.0	19.8	59.3	100.1	139.8	129.2	7.4	1.5					
2013/10/07 14:00	2013/10/21 14:00	20.291	16	7.02	3.91	126.5	33.0	55.9	89.3	128.6	118.6	6.8	1.4	+1.04	+2.30	+0.99	-7.95	-49.82
2013/10/21 14:00	2013/11/05 14:00	14.849	13.5	6.98	4.01	136.4	21.9	59.2	93.9	133.0	123.4	6.3	2.8					
2013/11/05 14:00	2013/11/18 14:10	9.019	11.5	6.96	4.21	154.6	22.0	59.9	96.9	138.1	128.4	6.1	2.7	-0.08	+4.15	+1.30	-8.16	-49.85
2013/11/18 14:10	2013/12/02 14:30	8.891	9.5	6.95	4.27	164.5	21.6	60.1	98.4	143.7	134.0	6.0	3.4					
2013/12/02 14:30	2013/12/16 13:50	13.119	7.5	6.92	4.35	160.8	29.4	66.1	94.5	145.9	135.5	5.8	3.2	-0.56	+2.78	+1.39	-7.74	-48.72
2013/12/16 13:50	2014/01/06 13:50	10.223	6	6.89	4.26	165.3	22.8	62.0	96.4	145.8	135.1	5.4	3.4					
2014/01/06 13:50	2014/01/20 14:20	9.409	5	6.87	4.34	172.2	22.4	61.3	98.6	150.0	139.3	5.4	3.9	-1.45	+3.43	+1.91	-8.04	-50.20
2014/01/20 14:20	2014/02/03 13:20	10.937	7	6.88	4.49	171.0	25.9	60.6	99.4	156.0	144.6	5.7	3.7					
2014/02/03 13:20	2014/02/17 13:40	12.628	5.5	6.96	4.34	170.2	29.2	60.4	96.8	149.0	139.2	5.6	3.6	-1.12	+2.96	+1.29	-7.89	-49.12
2014/02/17 13:40	2014/03/03 13:10	13.119	8	6.96	4.35	158.6	27.0	57.5	93.2	138.3	130.4	5.4	1.9					
2014/03/03 13:10	2014/03/17 14:20	15.583	7.5	6.98	4.13	144.1	27.4	56.0	88.9	130.2	122.9	5.4	1.1	+4.96	+3.85	+1.58	-8.72	-50.98
2014/03/17 14:20	2014/03/26 13:40	19.194	9	6.95	4.10	141.6	25.0	56.2	88.9	132.3	124.0	5.7	0.8					
2014/03/26 13:40	2014/04/15 14:40	11.685	11	6.98	4.15	144.4	21.3	59.2	93.3	132.0	125.2	5.8	2.5	+0.42	+3.64	+1.85	-8.54	-50.15
2014/04/15 14:40	2014/04/30 14:00	36.668	11.5	6.94	3.98	129.2	36.2	49.1	78.7	124.6	114.2	6.5	0.8					
2014/04/30 14:00	2014/05/15 13:53	12.468	13	7.04	4.31	146.3	25.1	54.6	92.2	137.6	126.0	6.3	4.2	+1.10	+3.87	+1.18	-8.23	-47.97
2014/05/15 13:53	2014/05/30 13:41	12.791	15.5	6.99	4.21	139.1	26.1	54.1	88.2	134.7	123.6	6.4	2.0					
2014/05/30 13:41	2014/06/16 13:50	9.675	16.5	7.05	4.57	157.2	21.0	55.7	97.0	145.3	133.1	7.7	2.1	-0.77	+1.13	+0.92	-8.92	-50.70
2014/06/16 13:50																		

IJ2 stream

start	end	flow rate	temp	pH	EC	SO4	NO3	Cl	Na	Ca	Mg	K	NH4	$\delta^{15}\text{N}(\text{NO}_3^-)$	$\delta^{18}\text{O}(\text{NO}_3^-)$	$\Delta^{17}\text{O}(\text{NO}_3^-)$	$\delta^2\text{H}(\text{H}_2\text{O})$	$\delta^{18}\text{O}(\text{H}_2\text{O})$
		L/min	°C		mS/m	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	/10 ³	/10 ³	/10 ³	/10 ³	/10 ³
2011/12/26 14:10	2012/01/10 14:00	—	7.0	6.97	3.78	110	22.2	58.5	101.3	92.2	97	4.53	0.47					
2012/01/10 14:00	2012/01/23 13:40	—	7.5	7.00	3.87	114.4	21.6	59.8	104.2	93.5	103.7	4.59	0					
2012/01/23 13:40	2012/02/06 13:50	—	5.5	6.82	3.87	116.5	19.8	60.3	100.8	95.8	105.7	4.57	1.04					
2012/02/06 13:50	2012/02/20 13:20	—	5.5	6.92	3.68	110.1	21.8	58	99.7	90.4	102.1	4.23	1.97					
2012/02/20 13:20	2012/03/05 14:00	—	8.0	6.64	3.09	81.3	53	47.6	73.2	74	91.1	5.69	0.74	-1.07	+2.58	+0.85	-8.87	-51.35
2012/03/05 14:00	2012/03/19 14:10	—	8.0	6.87	3.39	101.1	22.5	58.6	90.2	80.5	100.9	4.88	0.8	+2.06	+4.34	+1.48	-8.51	-50.19
2012/03/19 14:10	2012/04/03 13:50	—	9.0	6.86	3.29	97.1	21.6	63	88.2	78.7	97.5	6.11	1.02					
2012/04/03 13:50	2012/04/16 13:30	—	11.0	6.99	3.4	96.9	16.2	62.7	93.5	81.4	102.6	5.52	1.37					
2012/04/16 13:30	2012/05/01 13:40	—	13.0	6.99	3.49	99.2	15.9	62.5	94.8	84.6	105.7	5.95	1.16	+0.43	+4.41	+0.82	-8.32	-48.60
2012/05/01 13:40	2012/05/14 13:40	—	13.0	6.91	3.75	110.5	14.4	65.9	104.4	94.5	117.3	6.64	1.38	+2.27	+3.13	+1.90	-8.42	-49.13
2012/05/14 13:40	2012/05/28 13:40	—	14.5	7.02	3.98	105.6	18.9	58.7	104.3	100.1	122.8	6.42	0					
2012/05/28 13:40	2012/06/11 13:30	—	16.0	6.87	4.23	110.3	33.8	60.5	108.9	107.3	132.1	6.94	0.69					
2012/06/11 13:30	2012/06/25 14:10	—	16.0	6.85	3.26	89.7	15.4	56.9	88.5	76.1	95.7	6.28	0.62	+1.01	+4.53	+2.02	-8.47	-50.53
2012/06/25 14:10	2012/07/09 14:00	—	17.0	6.84	3.21	84.9	14.9	56	88.2	77.3	95.4	6.58	0.66					
2012/07/09 14:00	2012/07/30 13:50	—	20.0	6.88	3.44	90.9	15.7	60.7	97.8	83.3	102.5	7.19	0.23					
2012/07/30 13:50	2012/08/13 14:10	—	20.5	7.04	4.11	96.9	33.9	62.6	105.6	105.4	127.8	7.9	0	-0.15	+2.27	+1.48	-8.41	-50.32
2012/08/13 14:10	2012/08/27 13:40	—	20.5	7.00	3.65	92	22.2	58.1	101.3	91.3	111.8	7.41	0.8	+1.28	+1.86	+1.23	-8.35	-51.23
2012/08/27 13:40	2012/09/10 14:10	—	20.0	7.04	4.1	95.8	39.1	58.2	105	107.2	129.6	7.87	0.66					
2012/09/10 14:10	2012/09/24 14:10	—	18.0	6.85	3.46	85.6	25.3	56.2	94	83.2	101.9	7	0.87					
2012/09/24 14:10	2012/10/09 14:10	—	17.0	6.99	3.69	98	24.3	59.4	99.5	91	112.4	6.62	0.92	+3.28	+1.23	+0.90	-8.05	-48.85
2012/10/09 14:10	2012/10/22 14:10	—	15.0	7.03	3.83	100.4	25.8	59.6	101.8	95.6	117.8	6.3	0.84	-0.07	+2.51	+0.88	-7.91	-48.54
2012/10/22 14:10	2012/11/05 14:50	—	13.5	6.99	3.87	109.5	28.6	62	103	97.7	120.4	6.1	1.35					
2012/11/05 14:50	2012/11/19 14:00	—	11.5	6.85	3.72	100.8	40.9	59.8	98.9	91.6	112.5	5.51	0.48					
2012/11/19 14:00	2012/12/03 13:50	—	9.5	6.88	3.72	109.8	25.5	59.8	103.1	90.3	112.2	5.37	0.8	+0.36	+2.77	+1.18	-7.84	-47.12
2012/12/03 13:50	2012/12/17 14:20	—	9.0	6.75	3.31	91	32.9	60.4	92.3	78	97.5	5.03	0.5	+0.22	+4.84	+0.83	-7.84	-45.57
2012/12/17 14:20	2012/12/27 14:20	—	7.0	6.92	3.5	106.3	21.7	60.9	98.3	83.2	104.1	4.59	0.38					
2012/12/27 14:20	2013/01/15 14:10	—	6.5	6.95	3.56	109.3	20.5	61.4	100.9	85.9	107	4.6	0.77					
2013/01/15 14:10	2013/01/28 14:40	—	5.0	6.89	3.52	107.2	20.4	62.1	97.4	84.1	104.5	4.31	0.38	+0.89	+3.27	+1.67	-8.23	-47.58
2013/01/28 14:40	2013/02/12 14:20	—	6.0	6.91	3.41	104.9	17.9	60.7	97.7	81.6	103.1	4.39	0.58	+1.21	+5.19	+0.95	-8.10	-47.77
2013/02/12 14:20	2013/02/25 14:30	—	5.0	6.93	3.49	108	18	61.5	99.8	84.4	106.6	4.34	0.8					
2013/02/25 14:30	2013/03/11 14:00	—	7.0	6.93	3.6	108.7	11.1	59.8	99.7	85.5	109.1	4.41	0.94	+0.41	+7.14	+1.25	-7.69	-50.36
2013/03/11 14:00	2013/03/25 14:00	—	8.5	6.98	3.72	110.8	13.2	61.1	102.3	90	115	4.81	1.03					
2013/03/25 14:00	2013/04/09 14:30	—	10.0	6.99	3.89	113.4	15.7	62.8	105.7	96.5	121.6	5.27	1.14	-0.25	+3.23	+0.83	-8.12	-51.64
2013/04/09 14:30	2013/04/22 13:50	—	10.0	7.00	4.01	119.8	16.3	65	108.1	98.6	124.5	5.21	0.26					
2013/04/22 13:50	2013/05/07 14:10	—	11.0	7.02	3.72	111.5	11.4	61.4	104.7	92.4	116.9	5.49	1.62	+3.28	+2.96	+0.63	-7.68	-50.11
2013/05/07 14:10	2013/05/20 14:20	—	13.5	7.07	3.89	107.4	22.7	59.7	105.8	100.4	124.7	5.99	1.12					
2013/05/20 14:20	2013/06/03 14:10	—	15.0	6.92	3.61	105.2	14.3	60	103.1	90.4	113.2	6.04	1.49					
2013/06/03 14:10	2013/06/17 14:10	—	18.5	6.98	4.09	113.3	14.8	61.3	114	106.9	132.6	6.6	1.78	-0.00	+0.33	+0.64	-7.31	-49.19
2013/06/17 14:10	2013/07/01 14:10	—	16.5	6.86	3.63	100.9	14.5	58.8	103	91.3	114.3	6.23	2.04					
2013/07/01 14:10	2013/07/16 14:10	—	19.0	6.85	3.59	96.4	18.1	60.2	102.3	90.8	113.3	6.84	1.98	+0.09	+1.64	+0.62	-7.46	-50.67
2013/07/16 14:10	2013/07/29 13:30	—	19.5	6.46	2.98	68.8	60.9	39.5	74.8	78	93.7	8.15	1.85					
2013/07/29 13:30	2013/08/12 13:50	—	20.0	6.83	3.34	88.4	14.3	60.7	99.1	81.3	102.3	6.78	1.37					
2013/08/12 13:50	2013/08/26 14:00	—	21.0	6.80	3.81	97.1	30.4	62.6	108.6	99.3	122.2	7.27	1.79	+0.46	-0.21	+0.71	-7.36	-49.38
2013/08/26 14:00	2013/09/09 13:30	—	19.0	6.80	3.23	90.9	17	59	95.9	79.4	99.5	6.44	1.89					
2013/09/09 13:30	2013/09/24 14:00	—	18.5	7.06	3.43	96.4	14.9	62.5	104	86.1	107.5	6.65	2.17	+1.23	+1.68	+1.01	-8.13	-51.07
2013/09/24 14:00	2013/10/07 14:00	—	18.0	6.92	3.84	105.1	17.7	64.6	112.7	99.7	124	6.81	0.44					
2013/10/07 14:00	2013/10/21 14:00	—	16.0	6.88	3.31	93	21.6	58.2	96.2	80.7	100.4	6.43	1.74	+0.01	+2.38	+0.43	-7.57	-49.77
2013/10/21 14:00	2013/11/05 14:00	—	14.0	6.95	3.52	104.6	14.9	62.9	104.7	89.9	112.1	5.64	2.8					
2013/11/05 14:00	2013/11/18 14:10	—	12.0	6.95	3.62	109.8	15.9	62	106.3	93.7	117.8	5.49	2.99	+0.49	+3.61	+1.45	-7.87	-50.19
2013/11/18 14:10	2013/12/02 14:30	—	10.0	6.93	3.66	116	15.9	62.5	106.9	95.3	119.7	5.24	3.44					
2013/12/02 14:30	2013/12/16 13:50	—	8.0	6.86	3.63	110.2	23.2	67.9	103.4	92.9	116.3	6.28	3.43	-0.18	+1.14	+1.02	-7.57	-49.25
2013/12/16 13:50	2014/01/06 13:50	—	6.5	6.80	3.64	120.6	13.6	65.6	106.5	95.3	120.2	4.68	3.71					
2014/01/06 13:50	2014/01/20 14:20	—	6.0	6.87	3.73	122.4	14.3	63.1	104.5	94.6	119.8	4.38	2.1	-0.86	+2.43	+0.89	-7.72	-50.59
2014/01/20 14:20	2014/02/03 13:20	—	7.0	6.85	3.82	122.9	19	64.3	111.1	102.3	129.2	4.95	4.05					
2014/02/03 13:20	2014/02/17 13:40	—	6.0	6.88	3.56	120.5	21.8	62.7	105.9	93.3	117.9	4.78	4.34	+0.48	+2.12	+0.55	-7.45	-49.55
2014/02/17 13:40	2014/03/03 13:10	—	8.5	6.92	3.7	117.3	17.7	59.8	103.4	88.8	116	4.47	1.8					
2014/03/03 13:10	2014/03/17 14:20	—	7.5	6.91	3.53	109.8	16.4	61.1	98.7	83.9	110	4.42	1.88	+0.49	+5.03	+1.19	-8.74	-51.31
2014/03/17 14:20	2014/03/26 13:40	—	9.0	6.88	3.55	108.7	13.8	59.7	100.1	85.6	111.8	4.88	2.16					
2014/03/26 13:40	2014/04/15 14:40	—	10.5	6.96	3.67	111.4	11.6	67.4	105	89.5	116.6	5.06	2.13	+0.39	+0.87	+0.78	-8.39	-49.44
2014/04/15 14:40	2014/04/30 14:00	—	11.5	6.83	3.4	92.1	28	53.5	91.3	81.2	102.8	5.61	1					
2014/04/30 14:00	2014/05/15 13:53	—	12.5	6.93	3.76	109.2	14.4	57.7	103.9	92.3	116.1	5.58	1.5	+0.30	+2.03	+0.73	-8.43	-47.20
2014/05/15 13:53	2014/05/30 13:41	—	14.8	6.99	3.72	107	17.1	56.1	100.1	91.2	115	5.59	2.21					
2014/05/30 13:41	2014/06/16 13:50	—	16.5	7.12	4.02	112.2	15.5	58.4	107.8	98.4	124.8	6.59	2.33	+0.35	-0.80	+0.54	-8.71	-49.53
2014/06/16 13:50	2014/06/30 15:49	—	17.0	7.08	4.32	109.9	23.8	58.9	117.1	110.2	141.5	7.02	2.59					
2014/06/30 15:49	2014/07/15 13:50	—	18.5	7.00	3.28	89.3	14.5	69.9	94	75.2	96.5	6.82	1.39	+0.20				

KJ stream

start	end	Discharge at the end time	pH	EC	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	NH ₄ ⁺	Na ⁺	K ⁺	Ca ²⁺	Mg ²⁺	δ ² H(H ₂ O)	δ ¹⁸ O(H ₂ O)	δ ¹⁵ N(NO ₃ ⁻)	δ ¹⁸ O(NO ₃ ⁻)	Δ ¹⁷ O(NO ₃ ⁻)
		L/min		μS/cm	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	μmole/L	/10 ³	/10 ³	/10 ³	/10 ³	/10 ³
2012/05/31	2012/06/29	48.23	7.62	112.6	116.0	46.1	479.4	0.0	387.2	24.0	350.5	220.5					
2012/06/29	2012/07/31	40.73	7.49	109.4	100.9	36.7	420.2	0.8	414.2	24.8	362.3	236.0					
2012/07/31	2012/08/31	26.74	7.62	111.8	101.0	33.0	423.3	0.6	392.9	25.1	346.0	233.6					
2012/08/31	2012/09/28	28.97	7.65	113.0	101.9	47.1	423.1	1.9	400.7	26.0	354.6	244.9					
2012/09/28	2012/10/31	26.74	7.65	103.3	101.0	44.0	406.1	1.7	393.6	26.9	350.9	240.4					
2012/10/31	2012/11/30	54.97	7.57	107.8	100.5	63.1	374.5	0.5	374.9	24.3	337.5	222.2					
2012/11/30	2012/12/26	92.71	7.50	103.8	99.0	62.7	375.3	1.1	391.5	22.7	344.1	221.0	-48.16	-8.83	-2.98	+0.09	+1.04
2012/12/26	2013/01/31	69.60	7.53	105.7	98.1	60.0	388.9	1.6	376.3	22.0	334.9	209.0					
2013/01/31	2013/02/25	66.82	7.60	107.9	97.9	56.0	398.8	1.5	364.3	21.7	340.0	212.7	-47.88	-9.30	-3.24	+0.70	+0.84
2013/02/25	2013/03/29	126.92	7.47	102.8	94.7	54.5	400.9	1.1	365.3	20.9	321.6	196.1					
2013/03/29	2013/04/30	78.08	7.52	107.1	97.6	47.5	412.6	0.4	375.9	20.8	340.0	209.1	-47.68	-9.11	-3.18	+0.83	+1.44
2013/04/30	2013/05/31	75.22	7.56	107.8	99.5	66.9	420.9	0.0	382.8	23.0	339.6	214.0					
2013/05/31	2013/06/28	58.67	7.51	108.7	100.8	63.4	426.8	3.5	392.3	23.3	342.3	222.6					
2013/06/28	2013/07/30	95.71	7.31	102.2	105.8	50.3	410.1	3.5	375.9	22.2	327.5	200.0	-48.56	-9.05	-1.75	+1.13	+1.52
2013/07/30	2013/08/30	123.71	7.21	96.3	100.3	57.7	389.7	2.4	349.1	25.4	302.7	183.6	-48.20	-8.84	-1.99	-0.94	+0.90
2013/08/30	2013/09/30	83.86	7.46	107.9	98.7	42.7	412.5	2.5	388.5	23.3	344.3	214.9					
2013/09/30	2013/10/31	107.94	7.50	106.3	98.7	57.0	385.5	1.4	382.4	23.4	337.6	208.4	-48.18	-8.91	-2.67	-0.46	+0.93
2013/10/31	2013/11/29	149.97	7.41	94.0	91.7	96.1	333.8	1.1	336.7	19.9	295.7	175.2					
2013/11/29	2013/12/25	205.92	7.36	98.1	99.2	84.8	403.6	2.5	367.2	20.6	310.3	182.2	-48.06	-8.89	-2.87	-0.06	+1.74
2013/12/25	2014/01/31	170.44	7.38	104.4	104.3	76.1	472.0	3.2	389.1	21.0	340.8	201.9					
2014/01/31	2014/02/27	111.05	7.42	109.4	98.6	61.6	450.5	1.6	384.3	21.9	353.5	211.6					
2014/02/27	2014/03/31	149.97	7.36	103.3	96.1	51.3	424.8	0.9	365.3	20.2	325.4	190.7					
2014/03/31	2014/04/30	101.78	7.43	110.7	101.7	45.4	462.6	3.4	390.6	22.2	351.8	213.1	-47.02	-9.05	-1.95	+2.17	+2.01
2014/04/30	2014/05/30	58.67	7.46	111.4	99.6	40.9	452.3	5.4	395.4	23.4	352.7	217.8	-47.48	-8.87	-1.77	+1.94	+1.82
2014/05/30	2014/06/30	166.99	7.32	89.0	87.8	66.4	336.8	0.5	327.8	20.8	283.6	165.8	-59.12	-9.95	-1.33	+2.07	+1.52
2014/06/30	2014/07/31	72.40	7.46	108.6	99.0	41.7	436.5	5.6	384.9	22.4	335.0	214.3	-48.15	-9.32	+1.35	+2.15	+1.62
2014/07/31	2014/08/29	80.95	7.54	110.5	102.6	40.6	440.5	3.7	397.5	24.3	357.1	232.6	-47.96	-9.23	+1.55	+1.07	+1.07
2014/08/29	2014/09/30	53.39	7.53	112.2	99.2	36.7	431.3	0.0	392.5	24.7	350.7	234.1					
2014/09/30	2014/10/31	50.79	7.58	111.6	101.2	41.7	417.9	1.2	387.0	24.7	348.5	232.2	-46.20	-8.70	-1.50	-0.72	+1.18
2014/10/31	2014/11/27	72.40	7.61	107.7	94.8	64.2	375.9	1.3	376.1	23.5	336.5	222.7	-47.43	-8.93	-1.98	-2.32	+1.42
2014/11/27	2014/12/26	133.41	7.47	100.6	92.7	70.8	366.5	2.1	351.4	20.9	313.7	188.9	-48.57	-9.53	-1.86	-1.71	+1.07
2014/12/26	2015/01/30	136.68	7.42	104.4	103.2	58.7	451.2	1.4	362.5	21.0	332.2	201.0					

IJ_deposition

	2013	2013	2013	2013	2014	2014	2014	2014	2014-15 avg	2014-15 avg	2014-15 avg	2014-15 avg
	wet (nitrate)	HNO ₃ gas	particle (nitrate)	total	wet (nitrate)	HNO ₃ gas	particle	total	wet (nitrate)	HNO ₃ gas	particle (nitrate)	total
	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²	mmol m ⁻²
Jan	2.77	0.05	0.01	2.84	3.29	0.09	0.01	3.40	3.03	0.07	0.01	3.12
Feb	4.22	0.04	0.01	4.27	1.20	0.12	0.02	1.34	2.71	0.08	0.02	2.81
Mar	3.60	0.27	0.08	3.95	4.53	0.33	0.05	4.91	4.07	0.30	0.07	4.43
Apr	2.48	0.43	0.02	2.93	1.45	0.42	0.04	1.92	1.96	0.43	0.03	2.42
May	2.50	0.38	0.03	2.91	3.64	0.25	0.02	3.92	3.07	0.32	0.03	3.42
June	3.50	0.26	0.01	3.77	2.01	0.26	0.01	2.28	2.76	0.26	0.01	3.02
July	7.06	0.24	0.00	7.30	7.50	0.15	0.00	7.65	7.28	0.19	0.00	7.48
Aug	4.49	0.20	0.00	4.69	9.77	0.07	0.00	9.85	7.13	0.13	0.00	7.27
Sept	2.29	0.02	0.00	2.31	1.83	--	--	1.83	2.06	0.02	0.00	2.08
Oct	2.36	0.01	0.00	2.37	4.50	0.02	0.01	4.53	3.43	0.01	0.00	3.45
Nov	2.84	0.04	0.01	2.89	1.71	--	--	1.71	2.28	0.04	0.01	2.32
Dec	2.10	0.03	0.01	2.13	3.24	0.01	0.00	3.25	2.67	0.02	0.00	2.69
Annual	40.21	1.98	0.17	42.36	44.68	1.71	0.18	46.57	42.45	1.87	0.18	44.50
	0.949	0.047	0.004	1.000	0.959	0.037	0.004	1.000	0.954	0.042	0.004	1.000

KJ deposition

start	end	Precipitation	H ⁺	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	NH ₄ ⁺	Na ⁺	K ⁺	Ca ²⁺	Mg ²⁺
		mm	molc/ha	molc/ha	molc/ha	molc/ha	molc/ha	molc/ha	molc/ha	molc/ha	molc/ha
2012/05/31	2012/06/29	25.46	0.16	21.59	26.85	19.69	44.10	16.03	15.12	3.82	3.29
2012/06/29	2012/07/31	229.18	22.45	54.85	46.46	9.85	84.69	11.89	5.38	5.64	3.16
2012/07/31	2012/08/31	20.37	16.11	10.60	17.88	8.07	5.46	7.21	1.40	3.33	3.00
2012/08/31	2012/09/28	144.83	34.19	28.57	29.60	18.27	9.77	11.91	2.44	10.90	9.06
2012/09/28	2012/10/31	263.88	51.93	69.40	46.60	200.73	27.68	169.51	5.55	20.62	44.78
2012/10/31	2012/11/30	245.74	36.26	147.05	44.57	570.23	14.96	486.87	27.84	73.83	152.69
2012/11/30	2012/12/26	302.39	107.79	266.52	51.54	1323.98	50.86	1182.57	32.62	87.33	284.36
2012/12/26	2013/01/31	282.98	132.05	230.97	82.28	669.41	84.96	584.00	17.16	55.63	143.61
2013/01/31	2013/02/25	117.14	47.06	102.63	35.40	290.20	37.80	248.20	8.16	34.69	64.02
2013/02/25	2013/03/29	100.27	10.24	118.86	55.50	195.53	59.66	177.88	8.53	76.23	53.29
2013/03/29	2013/04/30	179.53	39.28	113.86	54.79	160.15	62.27	141.99	8.84	50.60	44.08
2013/04/30	2013/05/31	57.93	0.79	45.86	23.08	70.78	36.24	60.78	8.88	22.66	20.35
2013/05/31	2013/06/28	72.89	7.65	17.41	16.76	4.75	23.08	2.77	2.06	6.74	3.93
2013/06/28	2013/07/30	334.23	53.96	102.46	67.11	40.48	98.28	26.93	4.81	17.40	17.14
2013/07/30	2013/08/30	122.23	13.19	38.98	23.89	21.59	38.27	16.18	2.44	8.13	7.34
2013/08/30	2013/09/30	55.39	2.81	10.48	5.94	23.81	11.39	19.85	1.09	3.60	5.27
2013/09/30	2013/10/31	221.54	27.38	76.48	29.01	280.39	28.13	243.18	10.74	28.23	60.63
2013/10/31	2013/11/29	327.86	87.84	171.18	49.55	685.20	37.50	574.03	22.73	61.02	151.72
2013/11/29	2013/12/25	296.66	104.30	165.90	57.72	713.48	51.70	605.40	16.26	49.03	144.75
2013/12/25	2014/01/31	103.77	46.14	99.18	37.53	278.11	43.28	237.23	8.55	29.74	59.26
2014/01/31	2014/02/27	91.67	36.58	67.85	24.66	187.41	30.57	162.63	5.79	20.39	40.67
2014/02/27	2014/03/31	95.49	29.78	46.19	26.28	131.87	20.94	117.73	4.00	16.83	27.39
2014/03/31	2014/04/30	51.57	4.30	31.32	19.52	41.00	26.09	37.20	5.19	11.72	9.92
2014/04/30	2014/05/30	87.22	0.90	53.50	25.02	115.41	44.80	102.82	9.79	33.53	25.27
2014/05/30	2014/06/30	171.89	1.76	21.43	21.91	12.28	35.15	11.51	3.19	19.24	4.39
2014/06/30	2014/07/31	310.03	34.31	54.58	41.03	24.76	56.13	16.99	4.64	15.91	4.94
2014/07/31	2014/08/29	171.89	25.13	29.05	29.42	18.10	17.53	15.75	3.96	16.26	11.86
2014/08/29	2014/09/30	77.67	22.35	16.43	25.95	21.32	2.78	19.91	2.28	7.92	7.67
2014/09/30	2014/10/31	240.32	47.29	65.17	42.90	228.97	15.46	196.35	6.38	26.53	50.73
2014/10/31	2014/11/27	226.00	60.13	108.41	43.92	444.52	26.36	383.03	12.74	36.82	87.15
2014/11/27	2014/12/26	334.23	61.24	171.98	37.36	893.59	30.24	760.35	31.70	60.31	184.41
2014/12/26	2015/01/30	184.62	97.79	183.61	75.38	552.31	70.99	433.18	12.53	35.51	102.43

KJ_soil

end		$\delta^2\text{H}(\text{H}_2\text{O})$	$\delta^{18}\text{O}(\text{H}_2\text{O})$	NO_3^-	$\delta^{15}\text{N}(\text{NO}_3^-)$	$\delta^{18}\text{O}(\text{NO}_3^-)$	$\Delta^{17}\text{O}(\text{NO}_3^-)$
		/10 ³	/10 ³	μmol/L	/10 ³	/10 ³	/10 ³
2012/12/26	SMS20	- 30.8	- 6.65	141.6	- 0.76	+ 6.30	+ 1.74
2013/4/30	SMS20	- 48.1	- 8.70	100.1	- 3.13	+ 1.24	+ 1.75
2013/7/30	SMS20	- 43.8	- 7.01	185.6	- 1.15	+ 1.37	+ 0.33
2013/9/2	SMS20	- 53.3	- 8.31	372.4	- 1.91	- 0.02	+ 0.40
2013/10/31	SMS20	- 60.9	- 9.66	100.3	- 0.56	+ 0.94	+ 0.38
2013/12/25	SMS20	- 44.1	- 9.75	47.9	- 2.48	+ 11.05	+ 5.70
2014/4/30	SMS20	- 56.3	- 8.00	97.6	- 3.73	+ 5.79	+ 4.58
2014/5/30	SMS20	- 54.0	- 7.50	160.2	- 3.31	+ 0.80	+ 2.21
2014/6/30	SMS20	- 88.0	- 11.70	156.0	- 3.14	- 2.35	+ 1.01
2014/7/31	SMS20	- 70.2	- 9.40	74.0	- 2.42	- 4.22	+ 0.77
2014/8/29	SMS20	- 55.9	- 7.50	317.4	- 3.26	+ 3.24	+ 0.68
2014/9/30	SMS20	- 47.5	- 6.70	83.1	+ 1.24	+ 2.82	+ 0.71
2014/10/31	SMS20	- 51.1	- 8.58	6.5	- 0.63	- 0.22	+ 1.60
2014/11/27	SMS20	- 44.8	- 7.21	36.0	- 3.55	- 0.68	+ 0.69
2014/12/26	SMS20	- 27.7	- 6.57	39.4	- 5.24	- 3.09	+ 1.17
2012/12/26	SLS20	- 50.3	- 10.83	126.2	- 8.22	- 2.60	+ 1.49
2013/4/30	SLS20	- 44.1	- 8.26	126.0	- 4.17	+ 3.78	+ 2.46
2013/7/30	SLS20	- 56.3	- 8.55	595.0	- 2.82	- 1.91	+ 0.63
2013/9/2	SLS20	- 55.8	- 8.49	1,623.7	- 1.67	- 2.04	+ 0.10
2013/10/31	SLS20	- 64.0	- 10.02	1,465.9	- 1.25	- 1.36	+ 0.16
2013/12/25	SLS20	- 47.7	- 10.07	81.7	- 2.24	+ 9.41	+ 5.16
2014/4/30	SLS20	- 72.2	- 9.90	357.9	- 0.72	+ 0.45	+ 2.40
2014/5/30	SLS20	- 55.2	- 7.70	647.7	- 2.28	- 2.92	+ 1.09
2014/6/30	SLS20	- 71.0	- 9.40	815.9	- 1.59	- 4.24	+ 0.34
2014/7/31	SLS20	- 69.5	- 9.30	619.0	- 5.11	- 2.30	+ 0.39
2014/8/29	SLS20	- 54.4	- 7.30	1,296.0	- 1.23	- 2.32	+ 0.43
2014/9/30	SLS20	- 56.0	- 7.70	1,564.4	+ 0.80	- 1.89	+ 0.50
2014/10/31	SLS20	- 59.2	- 9.41	319.2	- 4.13	- 7.13	+ 0.49
2014/11/27	SLS20	- 41.0	- 7.17	297.8	- 3.24	- 4.09	+ 0.36
2014/12/26	SLS20	- 28.7	- 7.07	168.6	- 4.35	- 5.75	+ 0.88
2012/12/26	SLS60	- 38.1	- 8.83	134.8	- 1.86	+ 4.09	+ 2.74
2013/4/30	SLS60	- 46.1	- 8.89	113.4	- 2.81	+ 6.71	+ 3.76
2013/7/30	SLS60	- 48.7	- 7.73	272.5	- 1.86	- 2.51	+ 0.46
2013/9/2	SLS60	- 49.0	- 7.62	467.8	- 0.55	- 1.01	+ 0.37
2013/10/31	SLS60	- 57.4	- 9.11	732.9	- 0.22	- 2.66	+ 0.13
2013/12/25	SLS60	- 43.9	- 9.63	85.4	- 0.51	+ 5.78	+ 3.84
2014/4/30	SLS60	- 62.4	- 10.40	132.0	- 0.84	+ 7.27	+ 2.62
2014/5/30	SLS60	- 138.7	- 18.40	143.7	- 4.04	+ 6.16	+ 3.05
2014/6/30	SLS60	- 140.0	- 18.50	104.9	- 0.56	- 0.43	+ 1.06
2014/7/31	SLS60	- 59.0	- 10.15	71.9	- 1.35	- 2.13	+ 0.22
2014/8/29	SLS60	- 57.6	- 8.84	539.4	+ 0.13	+ 0.88	+ 0.09
2014/9/30	SLS60	- 78.8	- 11.43	1,055.5	- 1.03	- 1.04	+ 0.75
2014/10/31	SLS60	- 51.2	- 7.79	874.8	- 1.40	- 2.49	+ 0.34
2014/11/27	SLS60	- 57.1	- 9.43	475.3	- 2.42	- 3.89	+ 0.56
2014/12/26	SLS60	- 41.4	- 7.06	249.3	- 4.73	- 4.05	+ 0.88