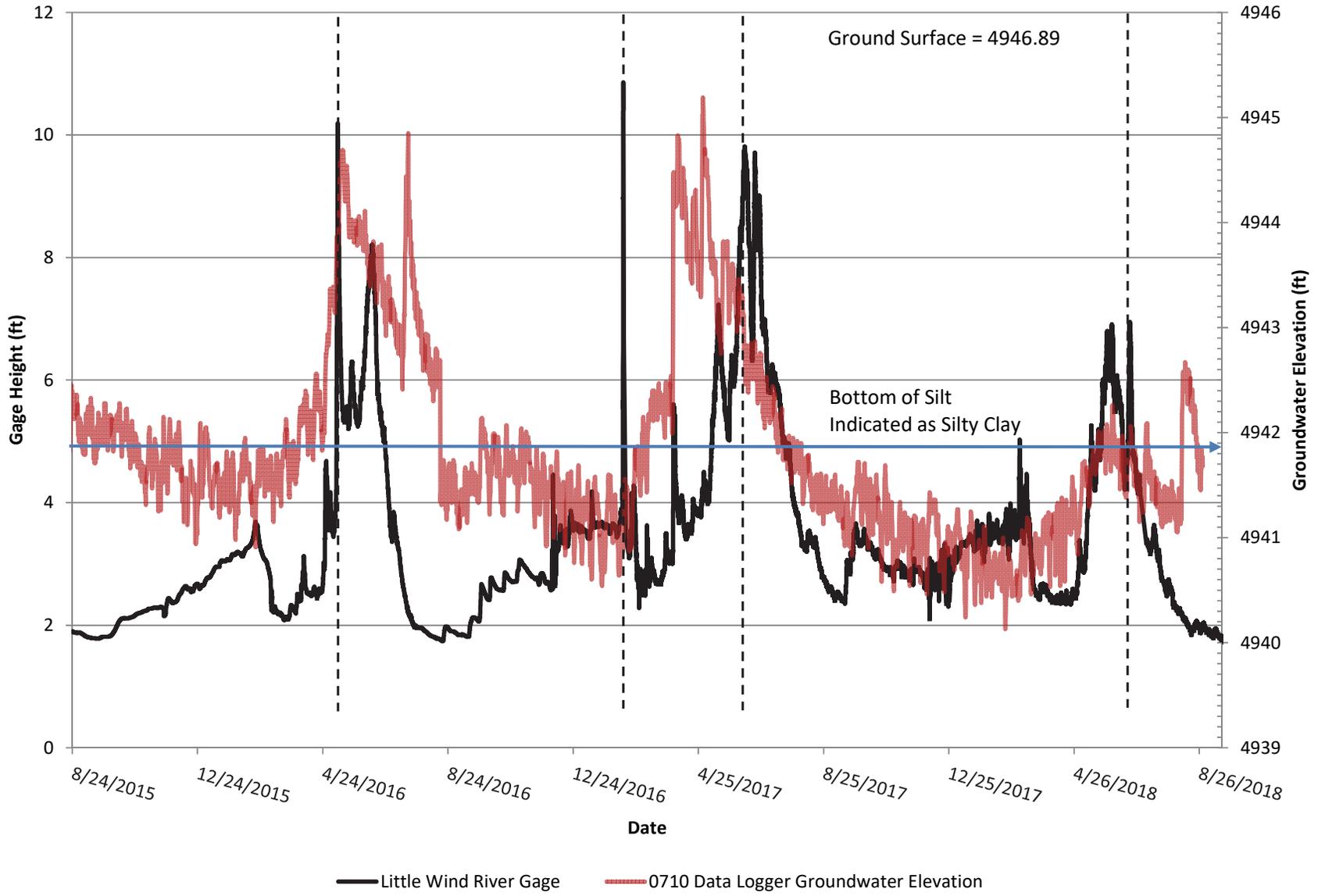


## **Appendix A**

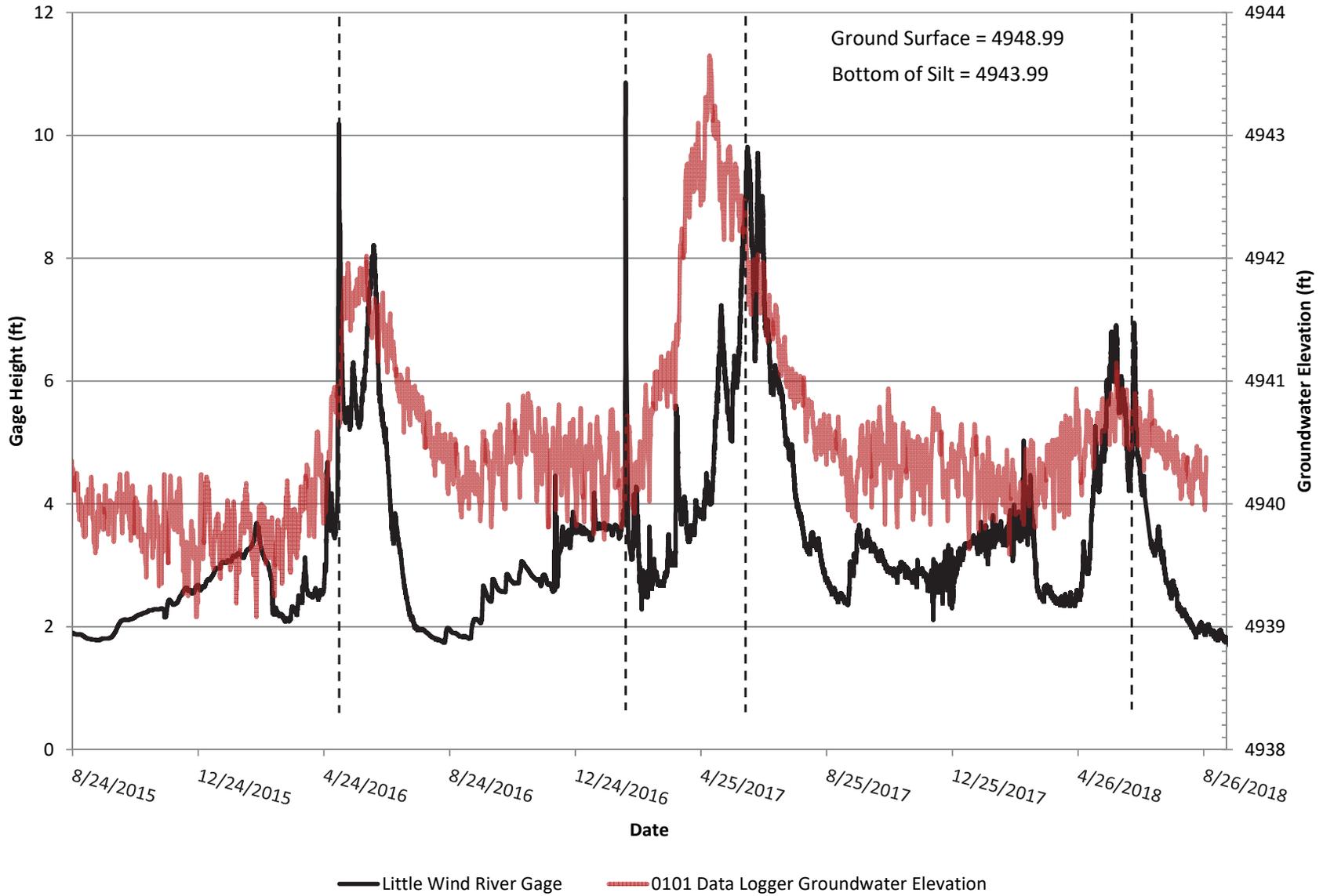
### **Hydrographs for Wells 0710, 0101, and 0722R**

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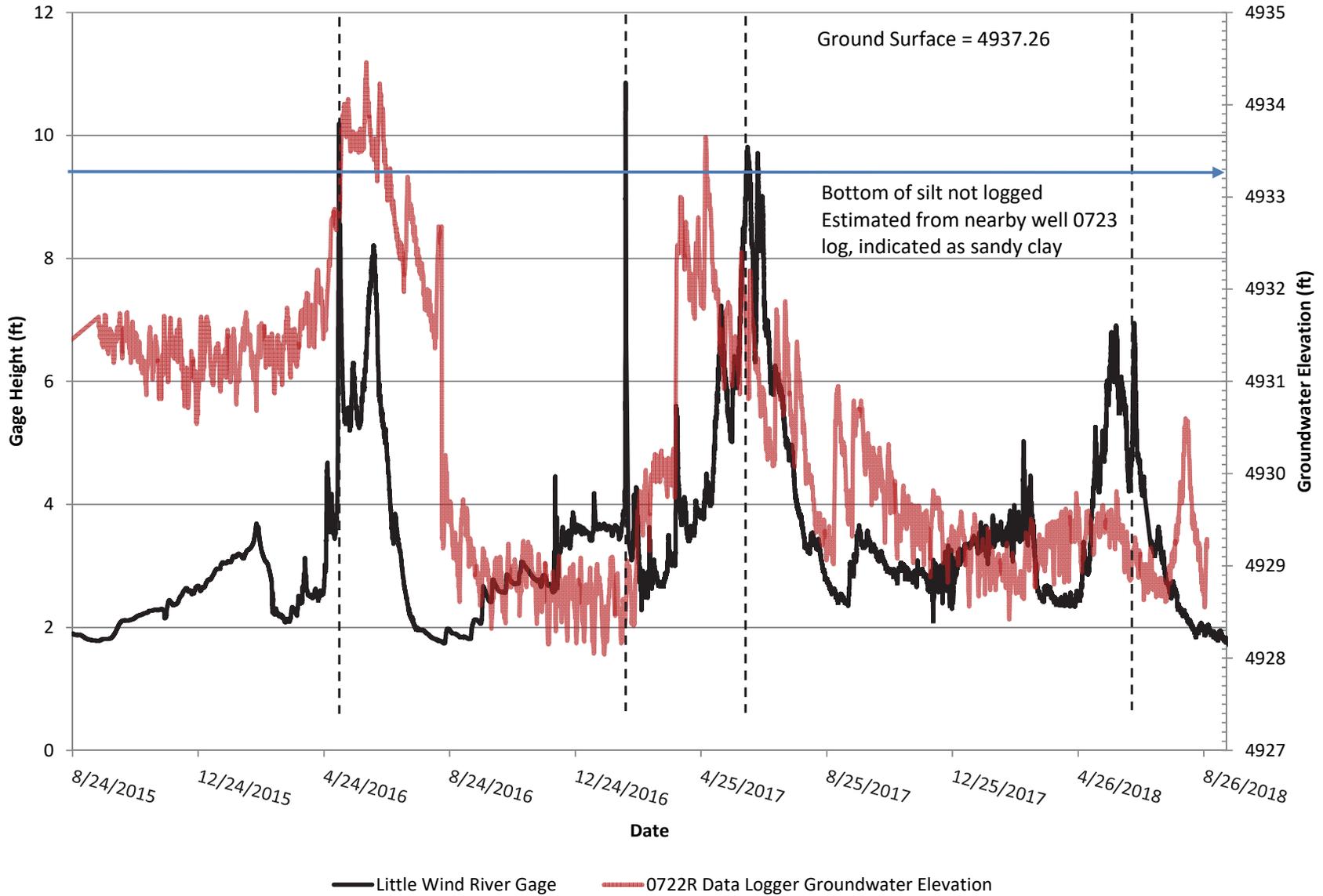
# Little Wind River Gage and Well 0710



# Little Wind River Gage and Well 0101



# Little Wind River Gage and Well 0722R



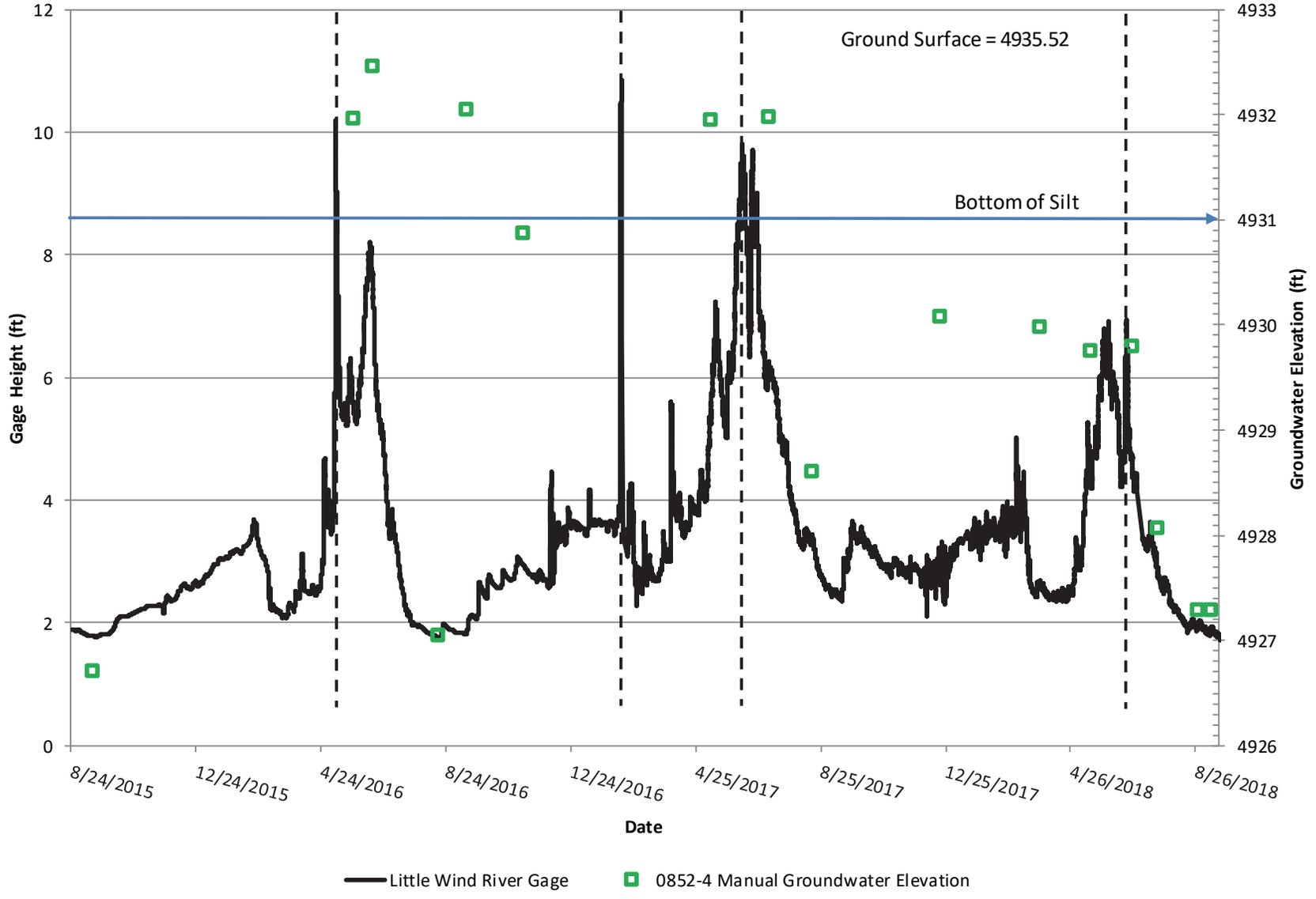
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## **Appendix B**

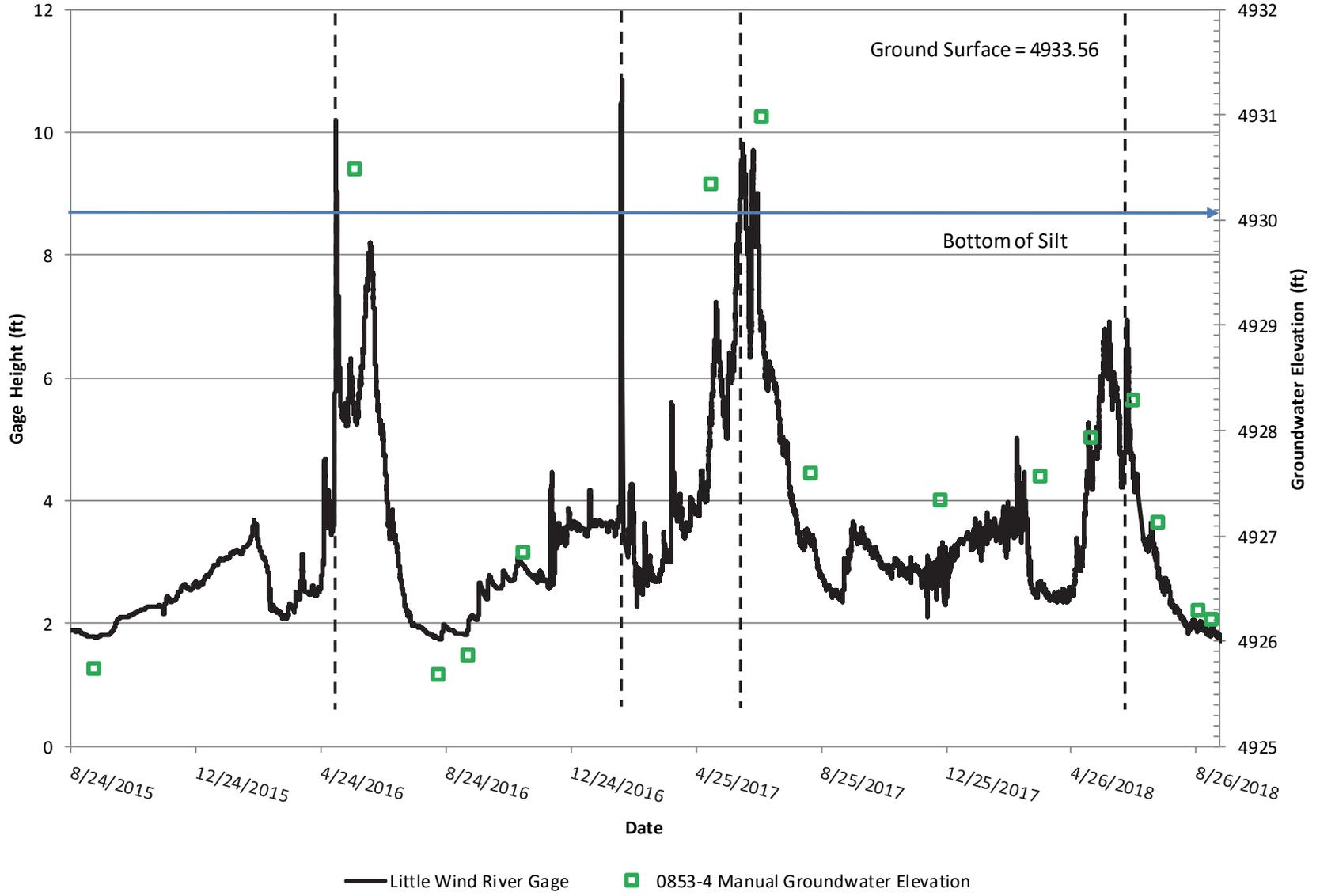
### **Hydrographs for Multilevel Wells**

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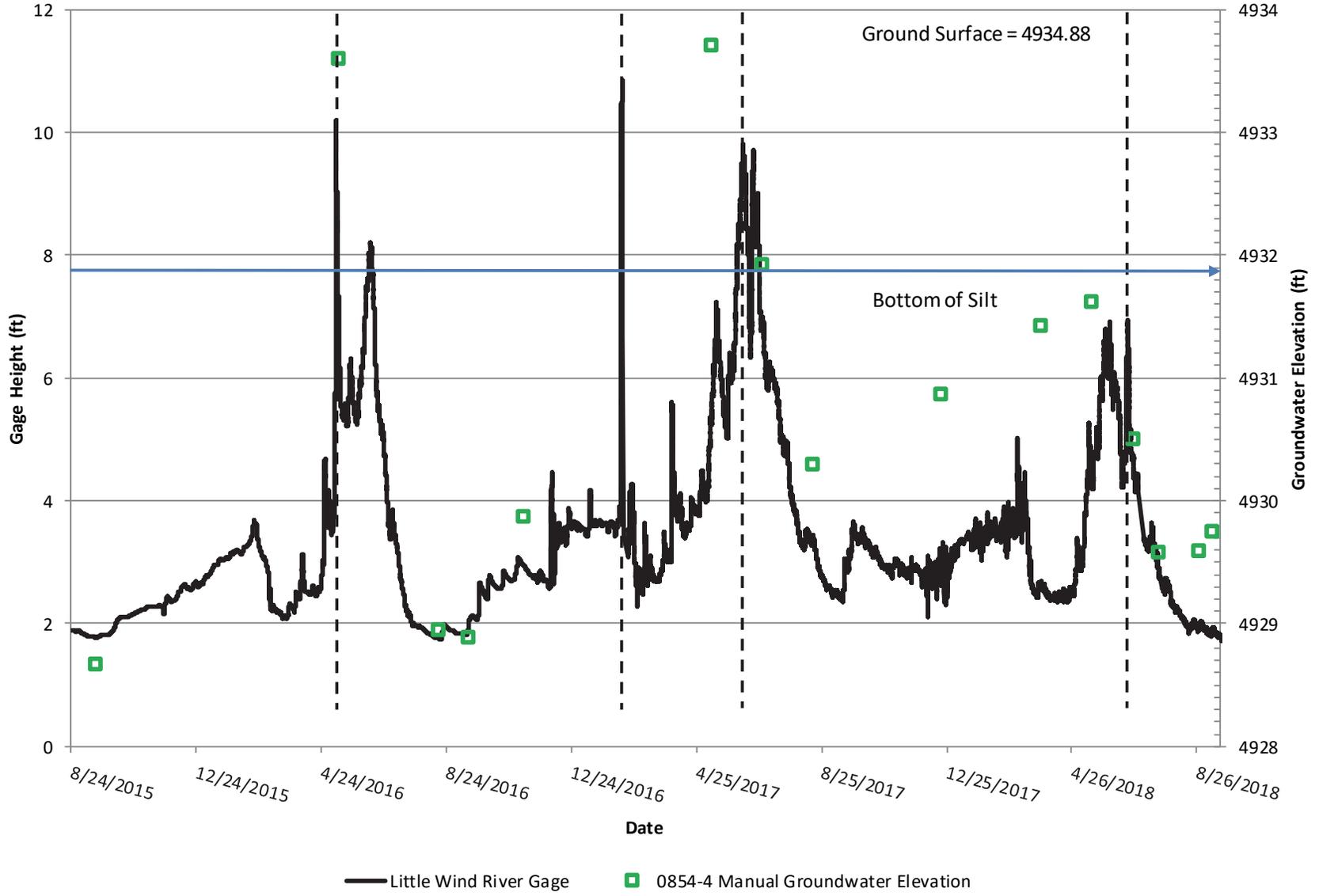
# Little Wind River Gage and Well 0852-4



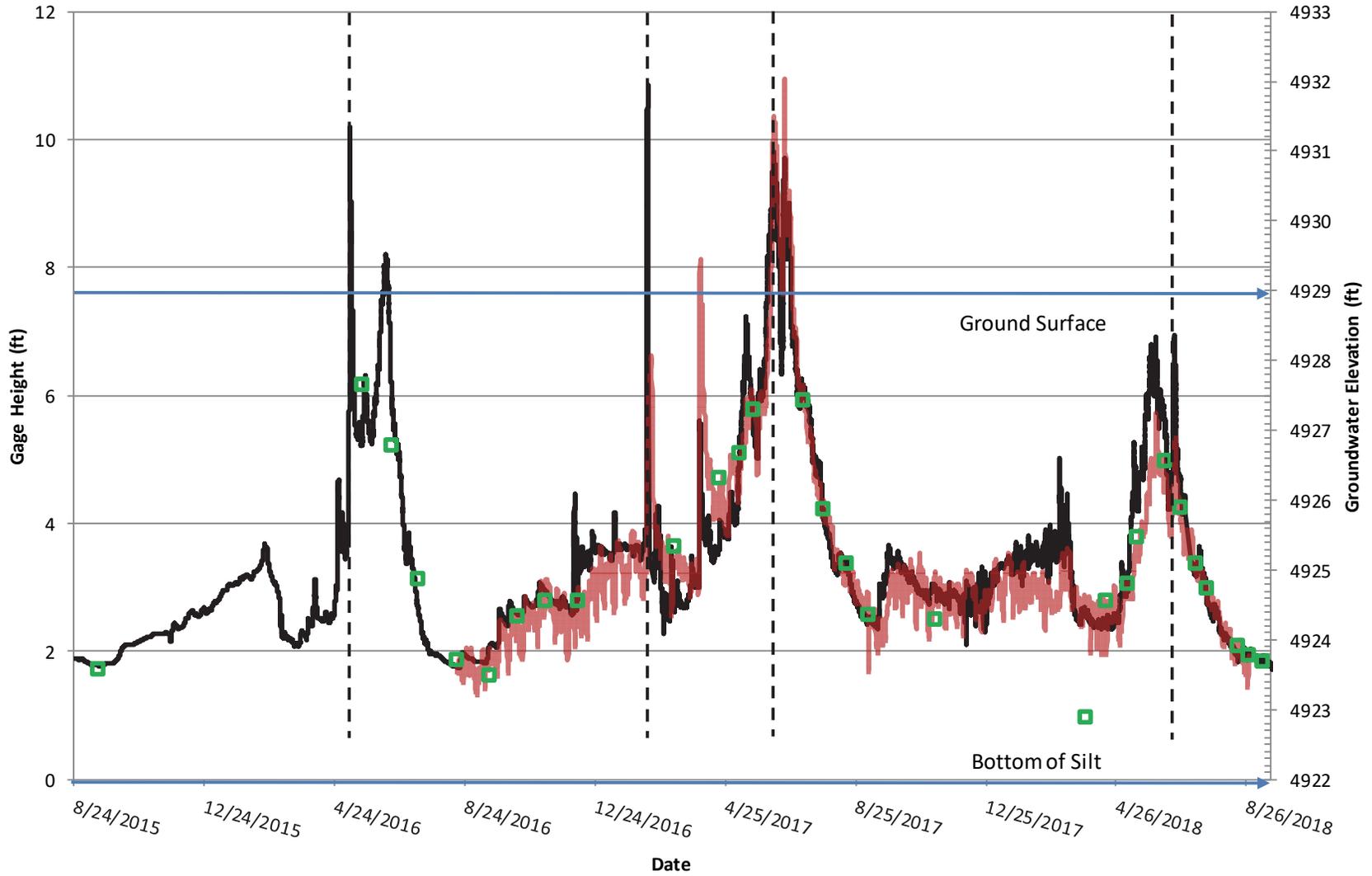
# Little Wind River Gage and Well 0853-4



# Little Wind River Gage and Well 0854-4

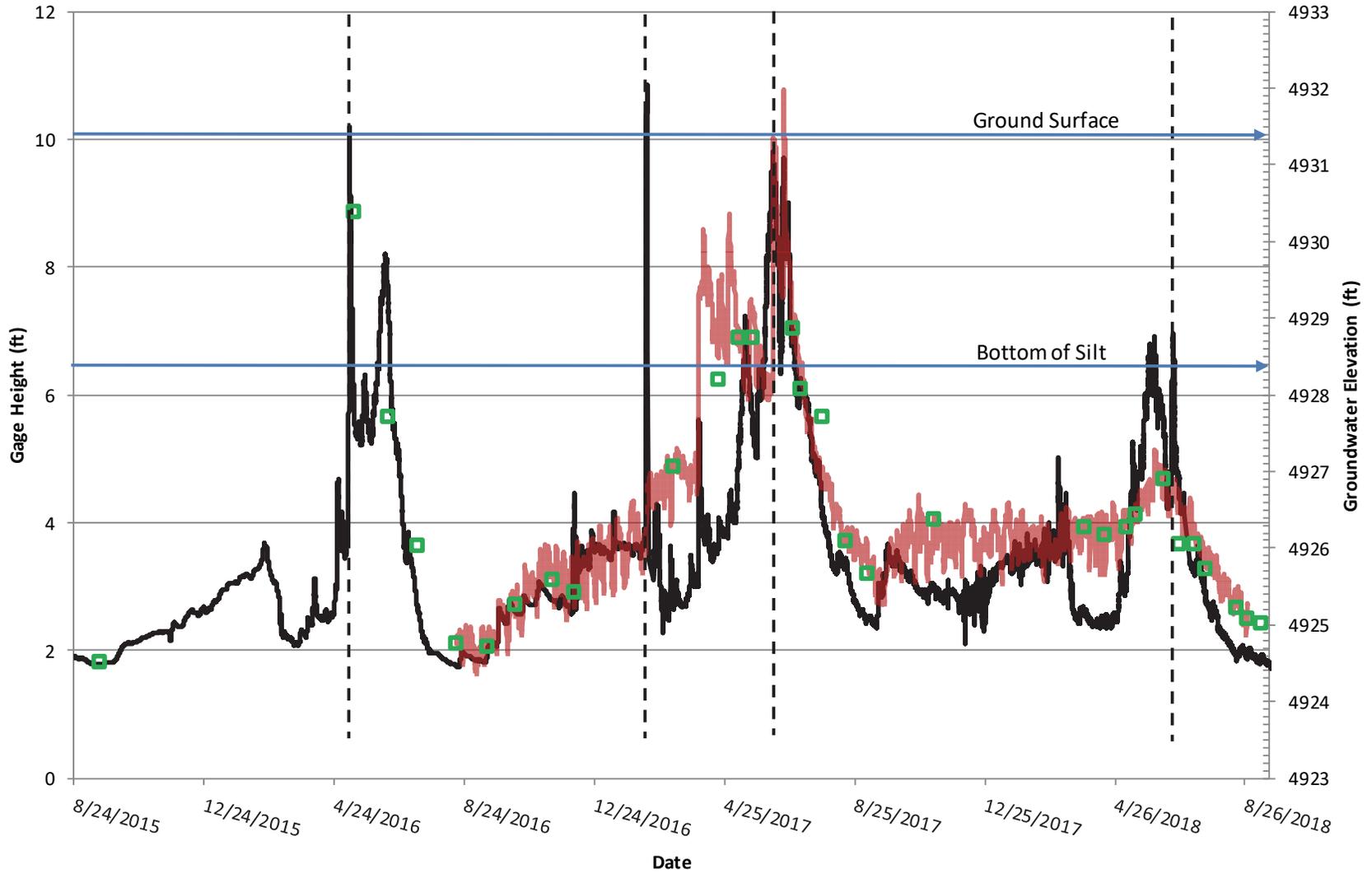


# Little Wind River Gage and Well 0855-4



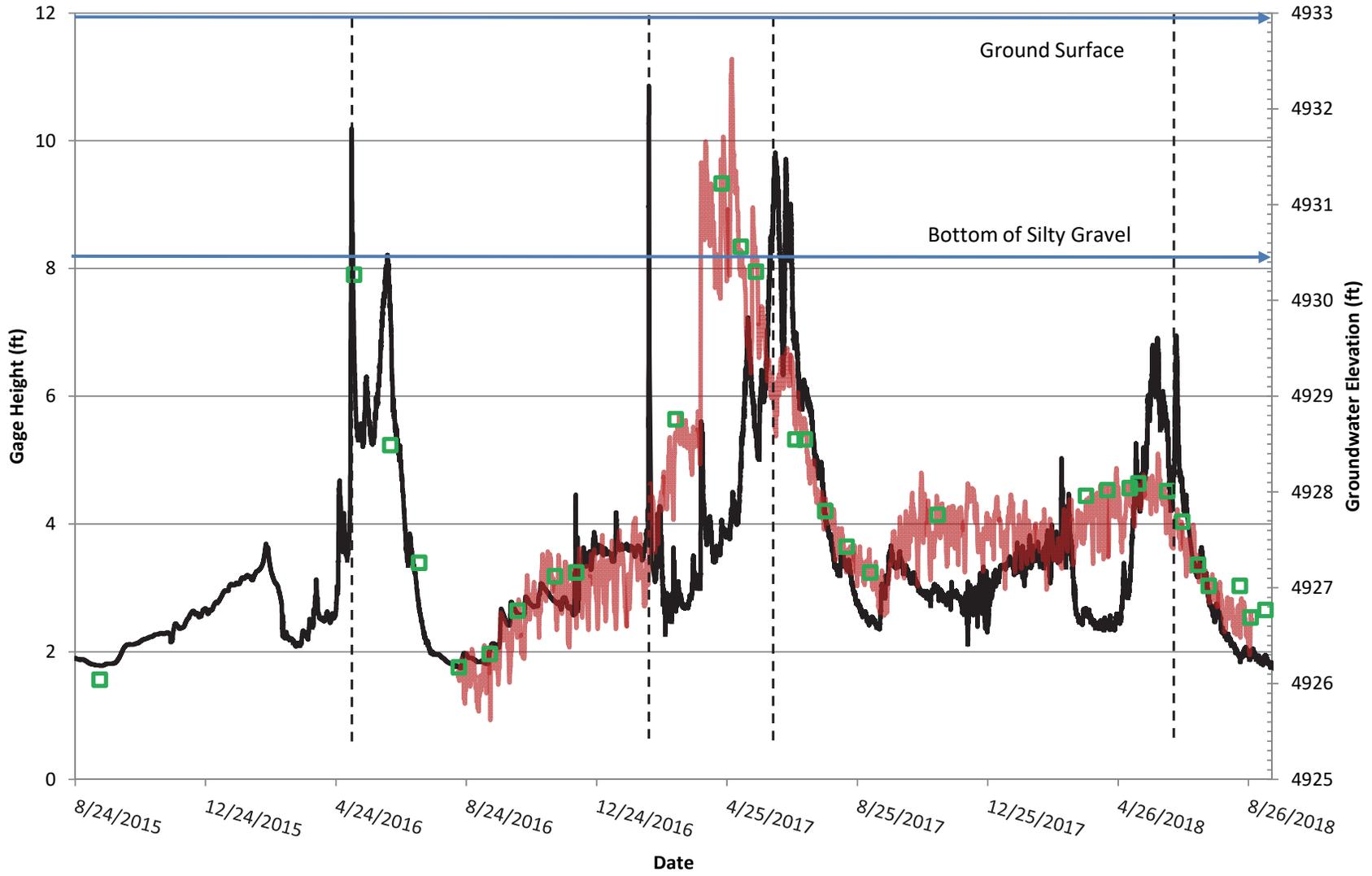
Little Wind River Gage
  0855-4 Data Logger Groundwater Elevation
  0855-4 Manual Groundwater Elevation

# Little Wind River Gage and Well 0856-4



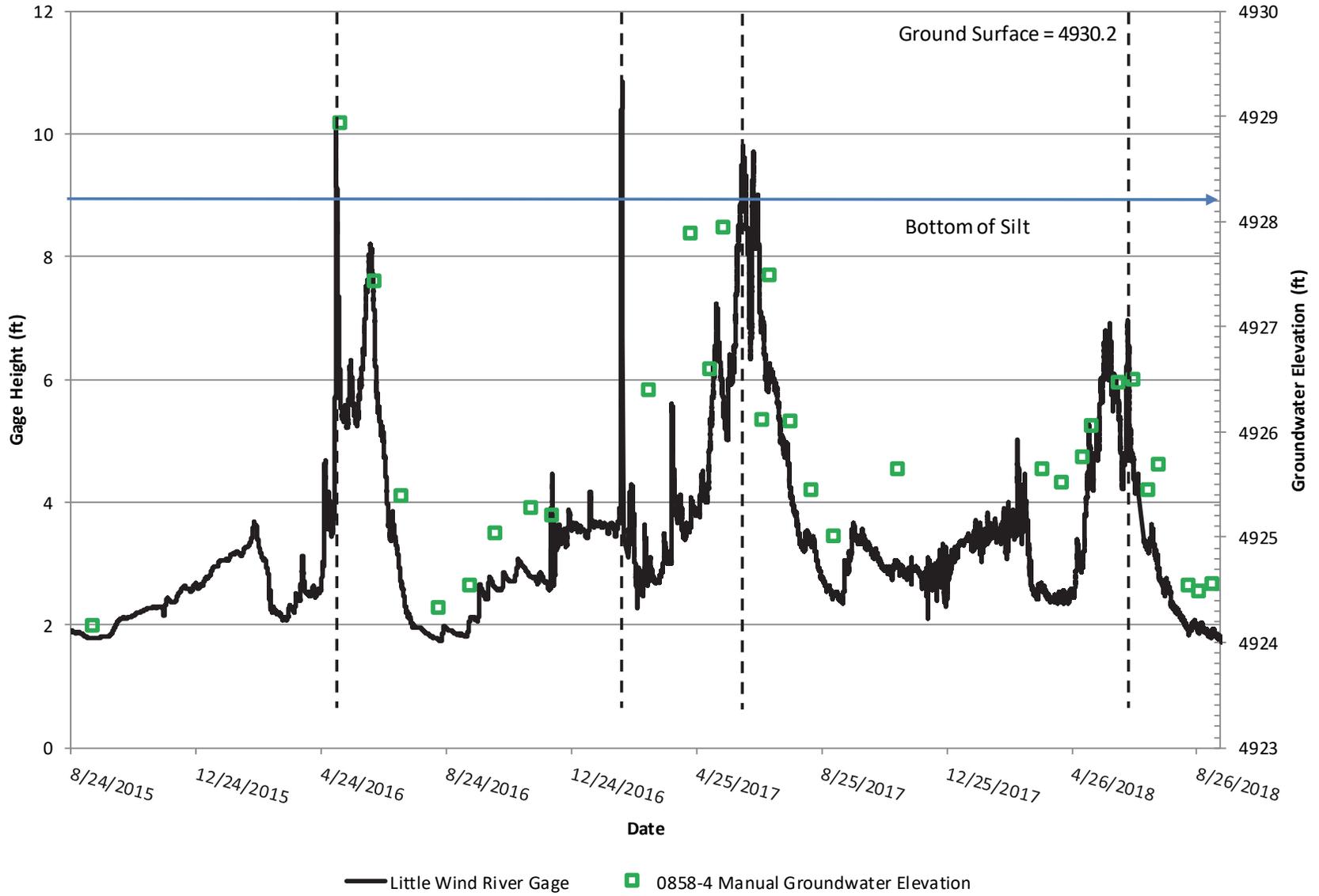
Little Wind River Gage
  0856-4 Data Logger Groundwater Elevation
  0856-4 Manual Groundwater Elevation

# Little Wind River Gage and Well 0857-4



Little Wind River Gage
  0857-4 Data Logger Groundwater Elevation
  0857-4 Manual Groundwater Elevation

# Little Wind River Gage and Well 0858-4



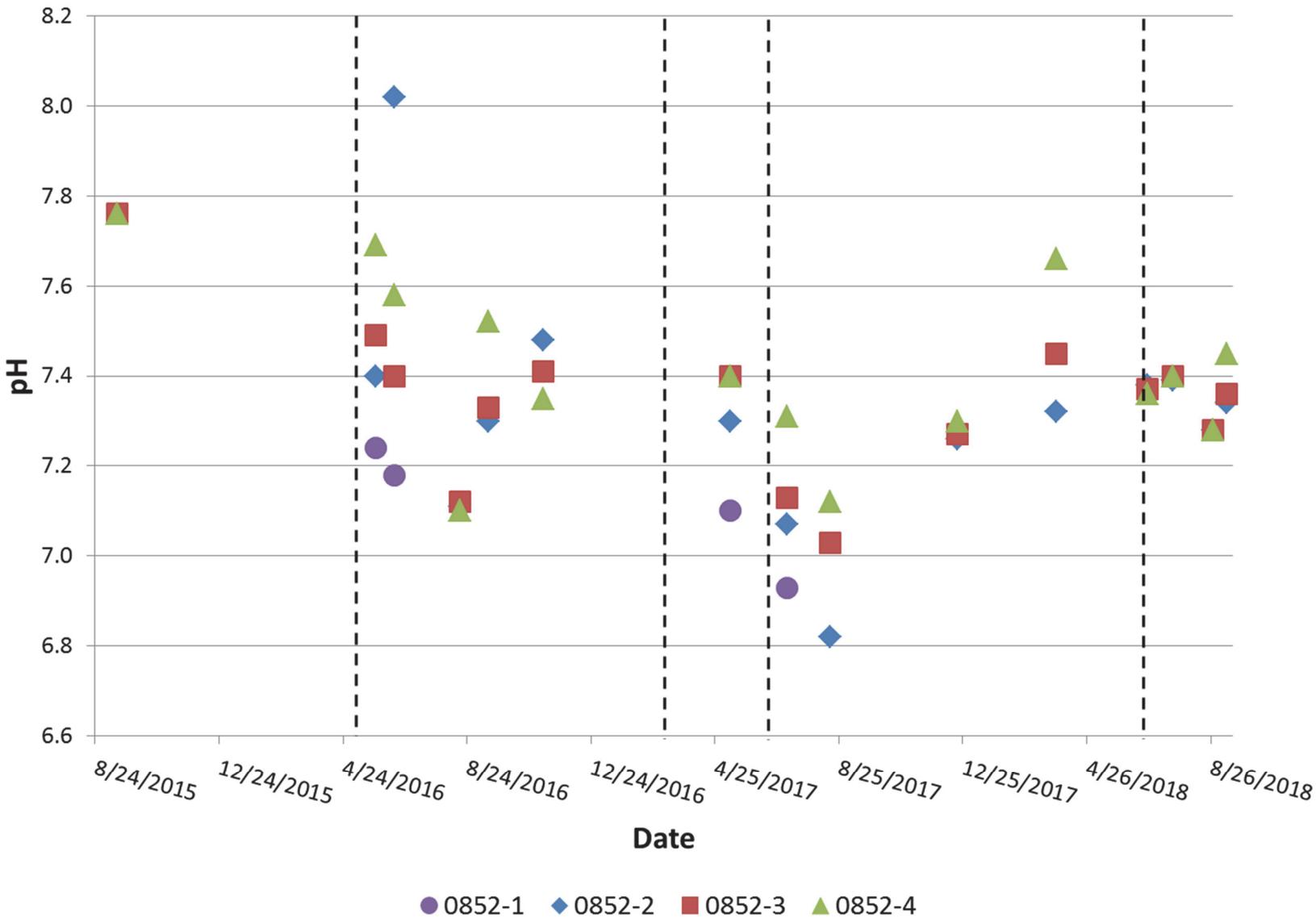
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## **Appendix C**

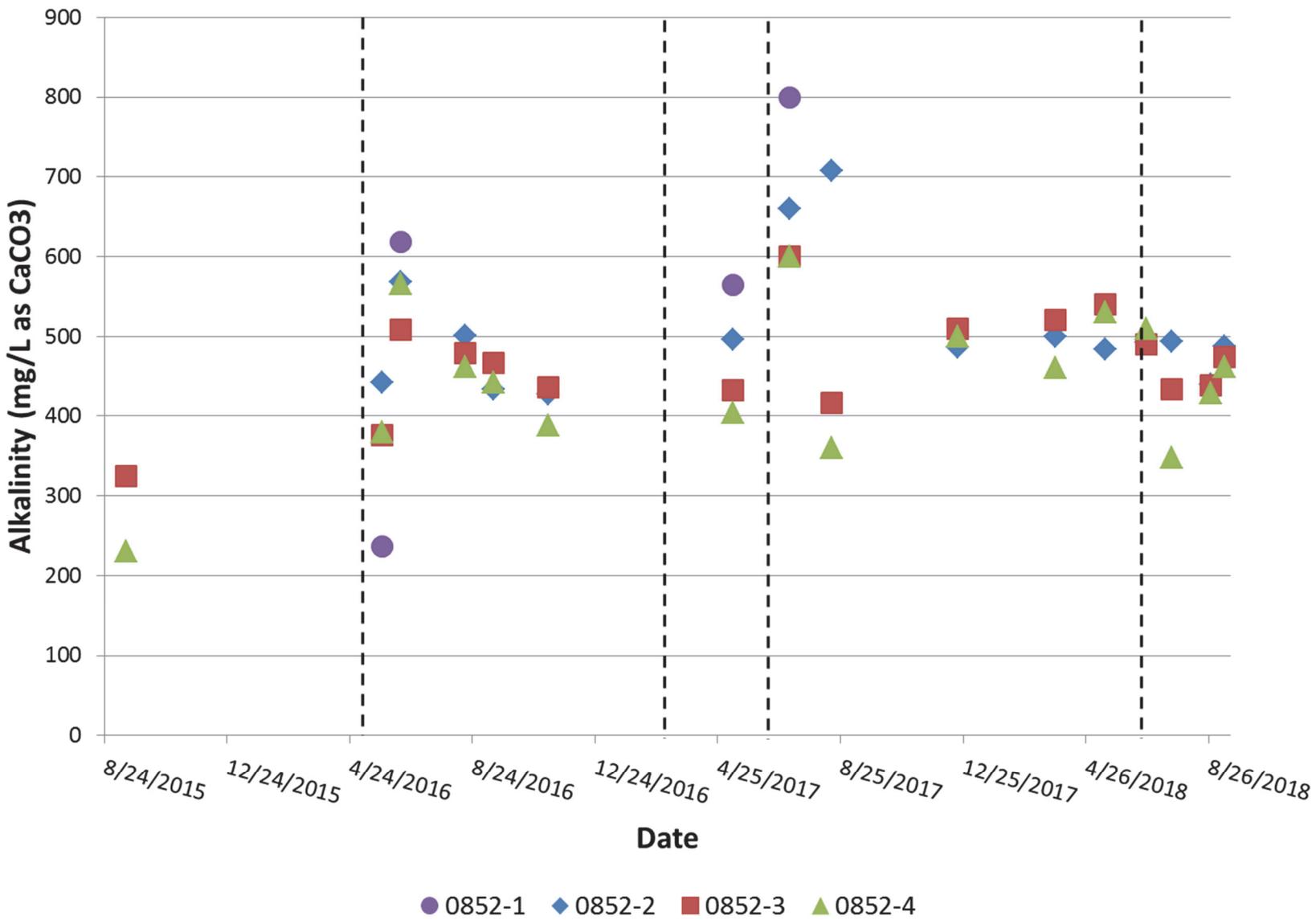
### **Graphs of Geochemistry Data and PHREEQC Results for Multilevel Wells**

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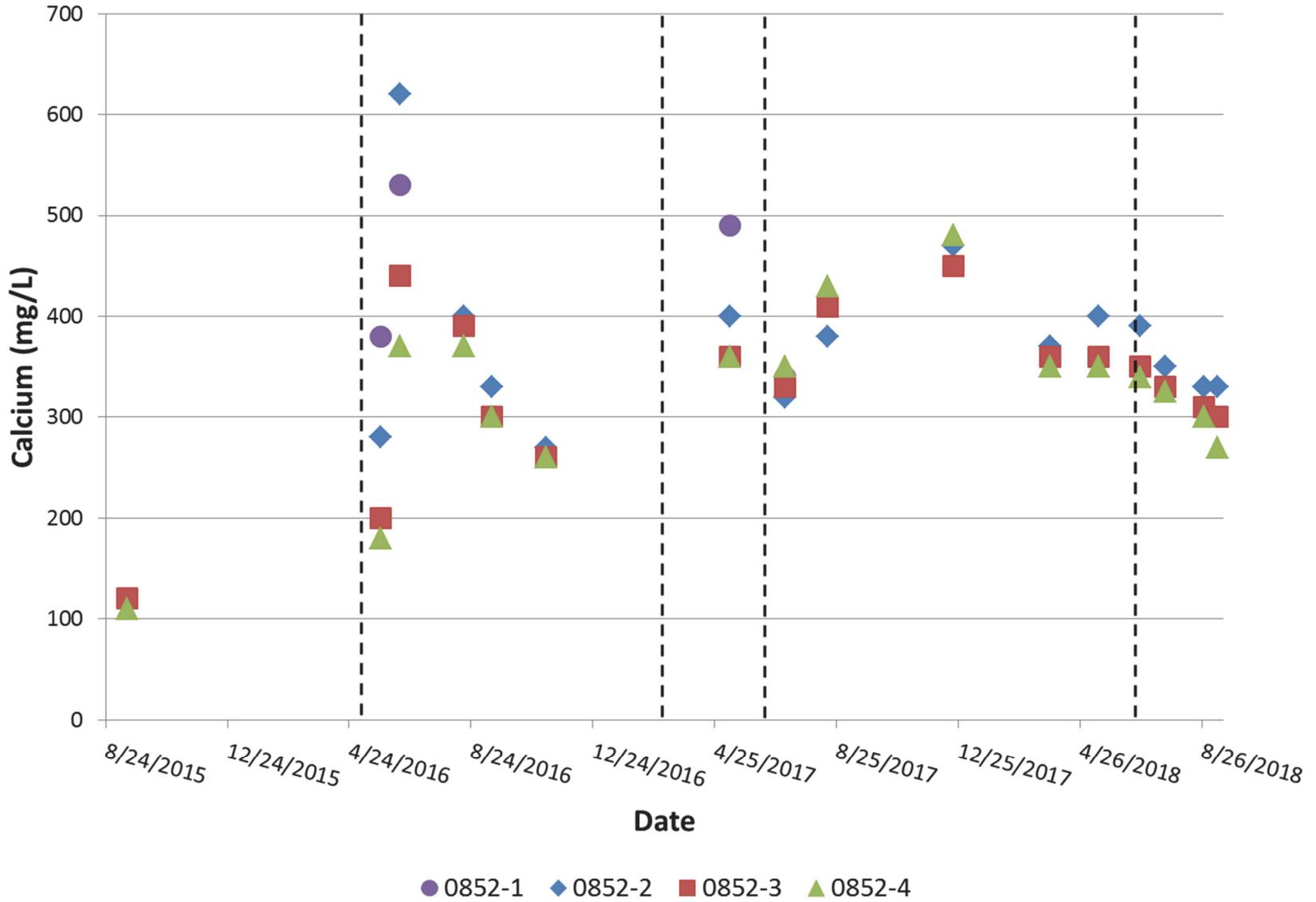
# Well 0852: pH



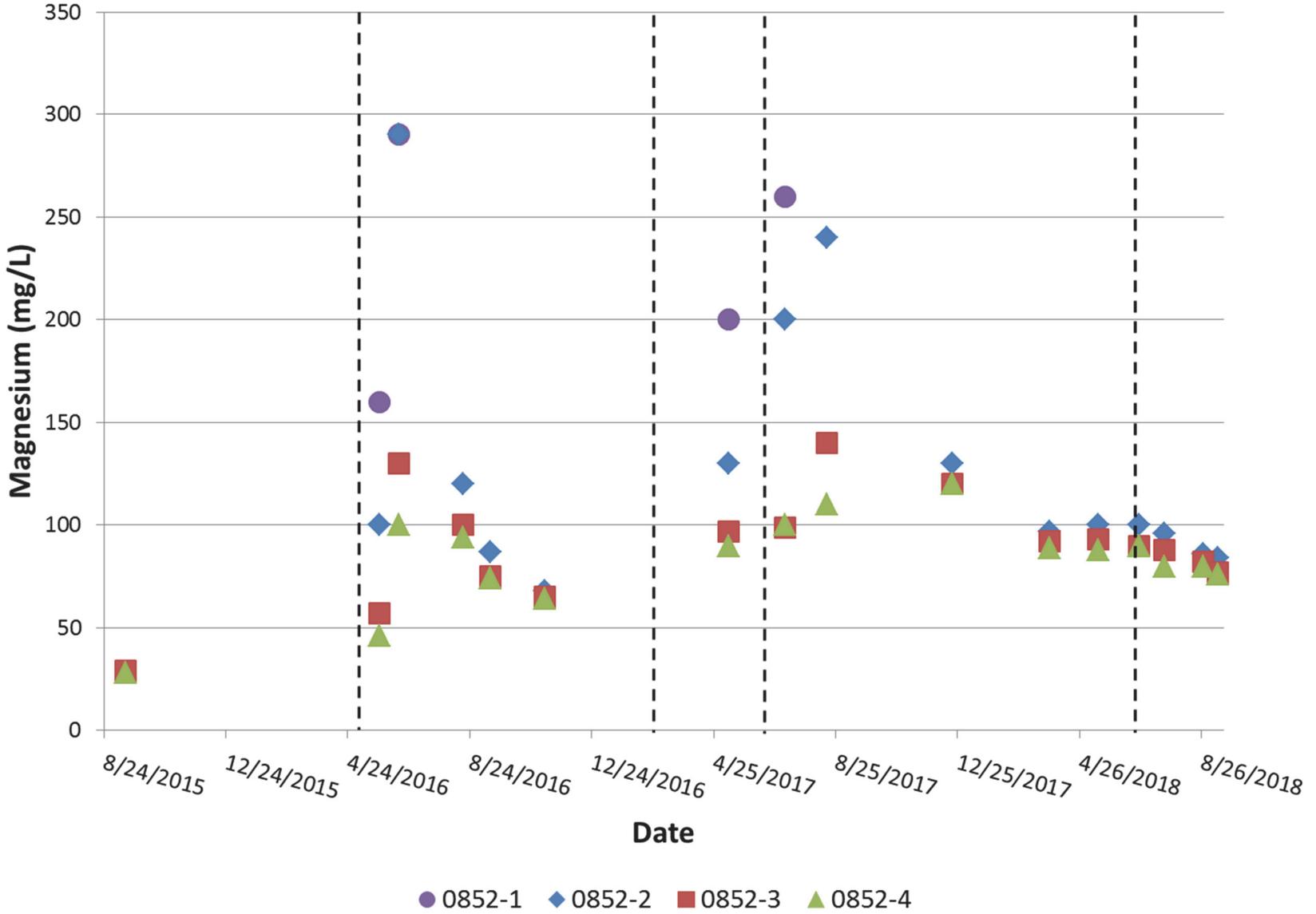
# Well 0852: Alkalinity



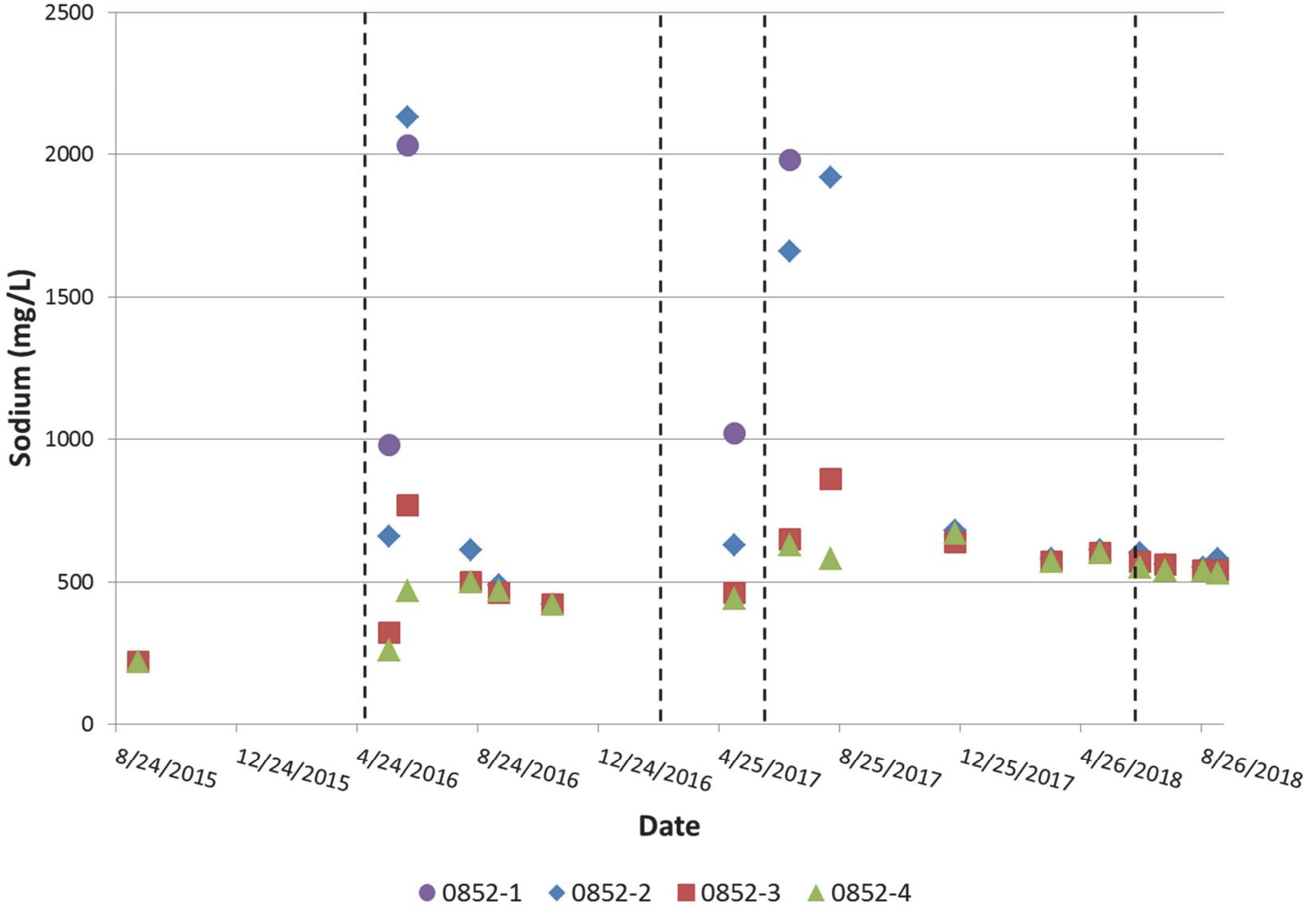
# Well 0852: Calcium



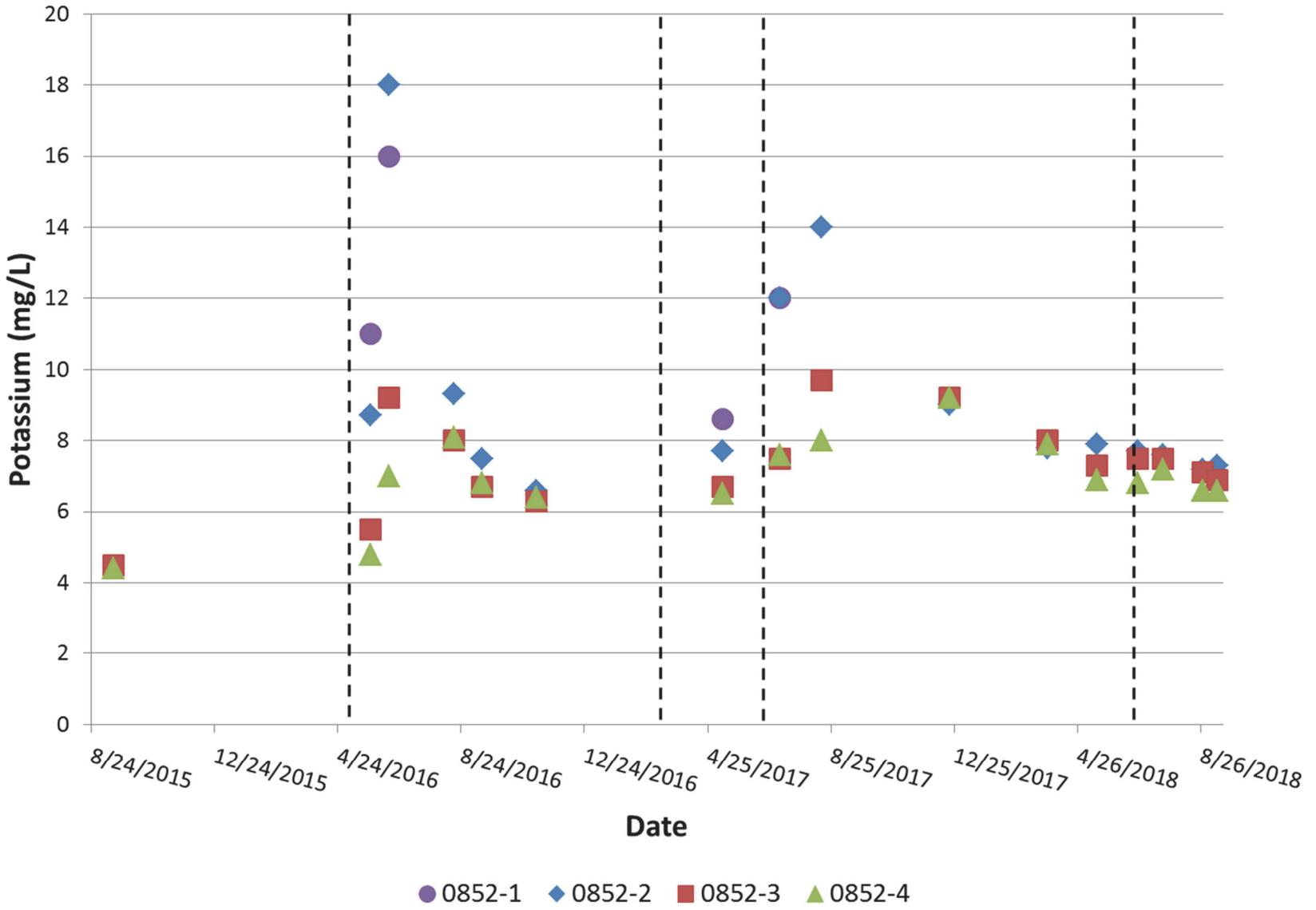
# Well 0852: Magnesium



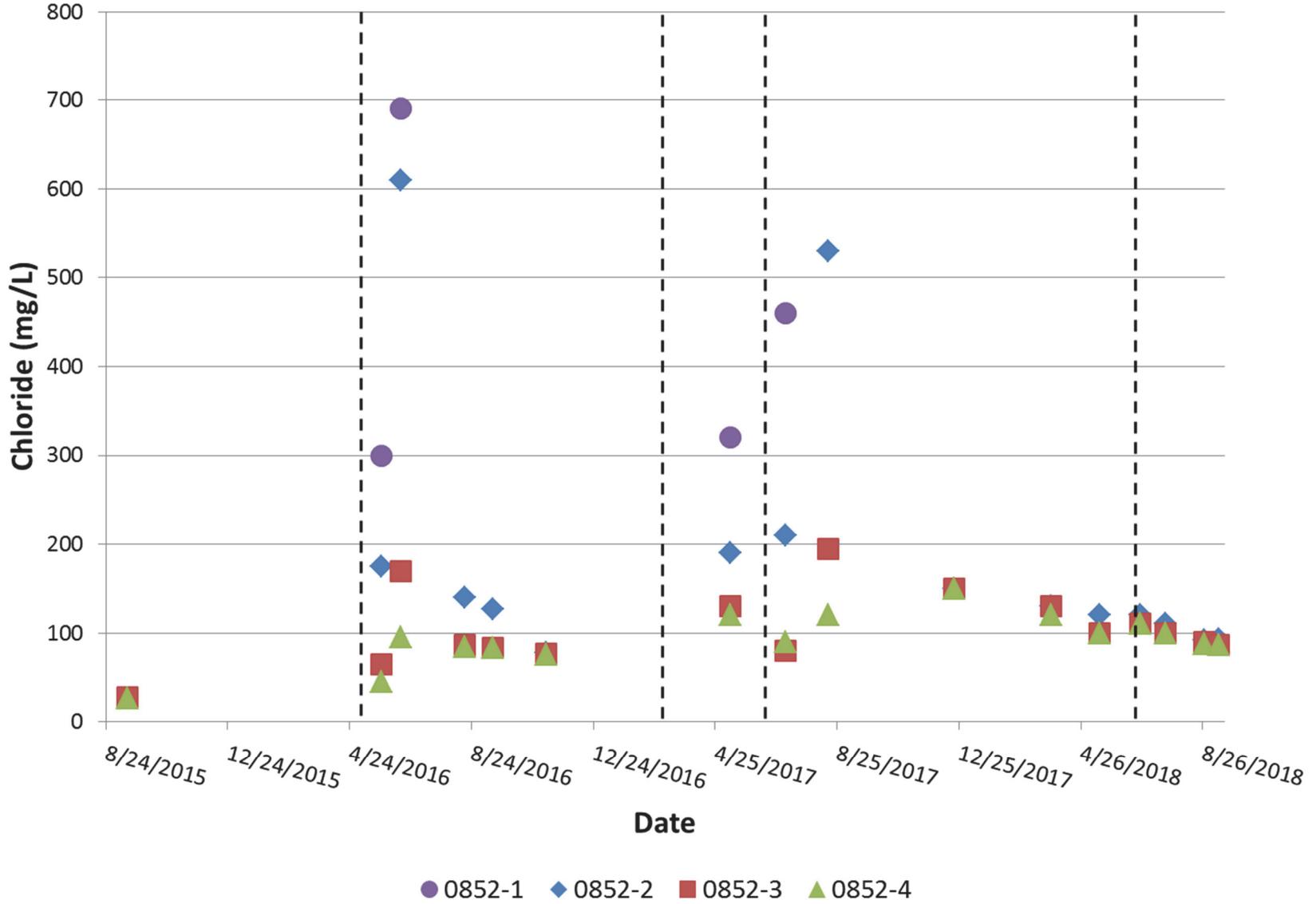
# Well 0852: Sodium



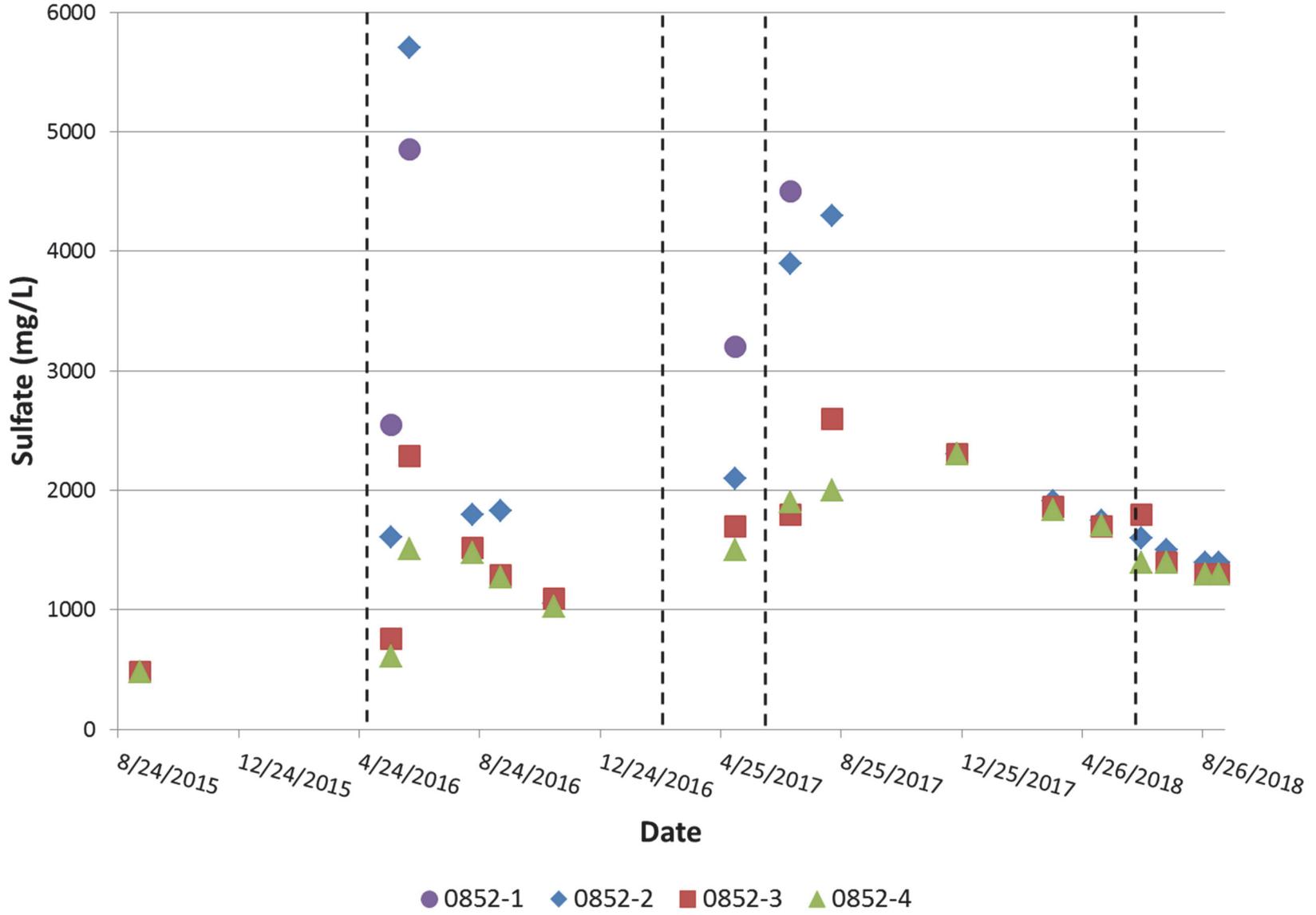
# Well 0852: Potassium



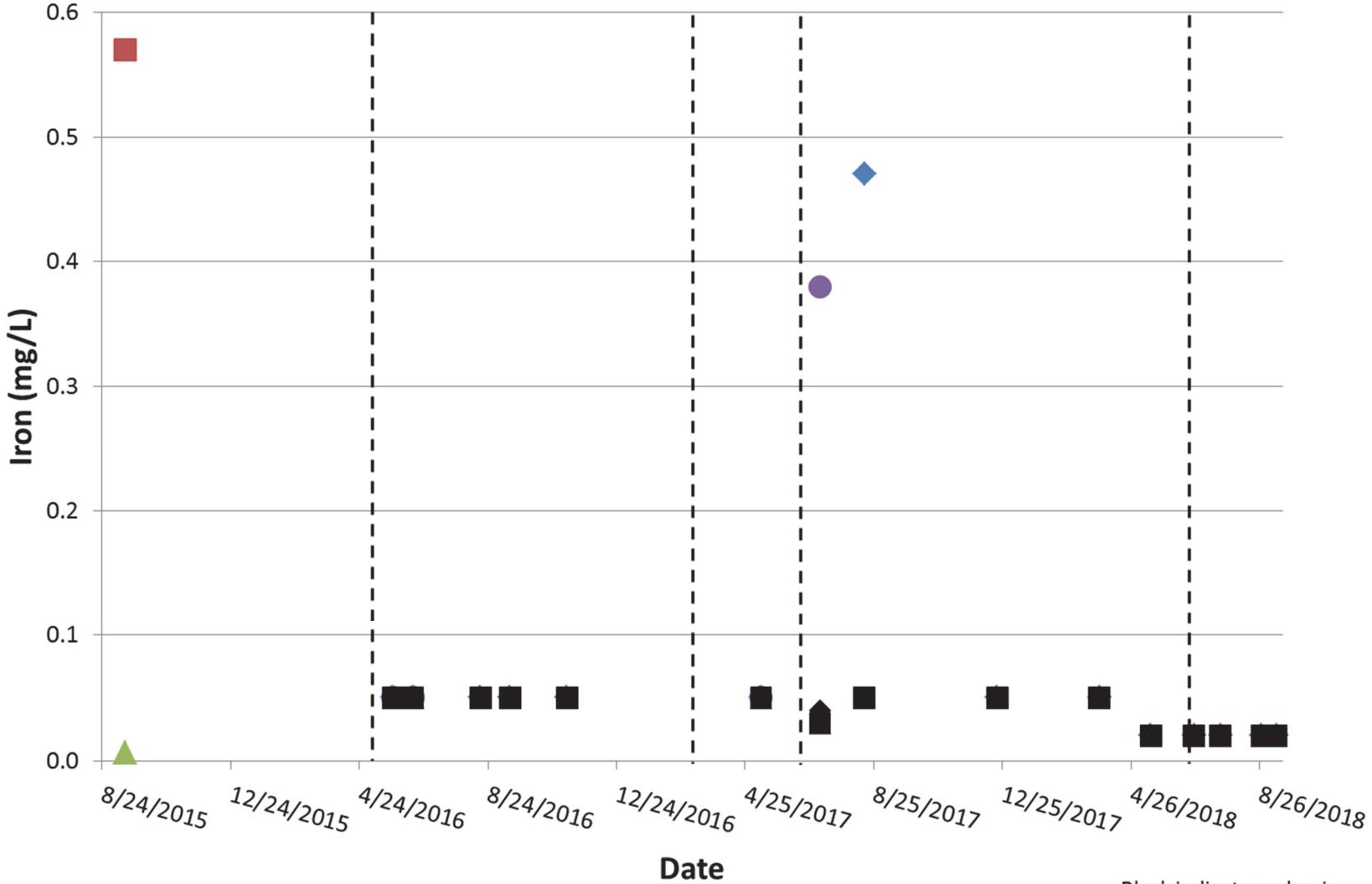
# Well 0852: Chloride



# Well 0852: Sulfate



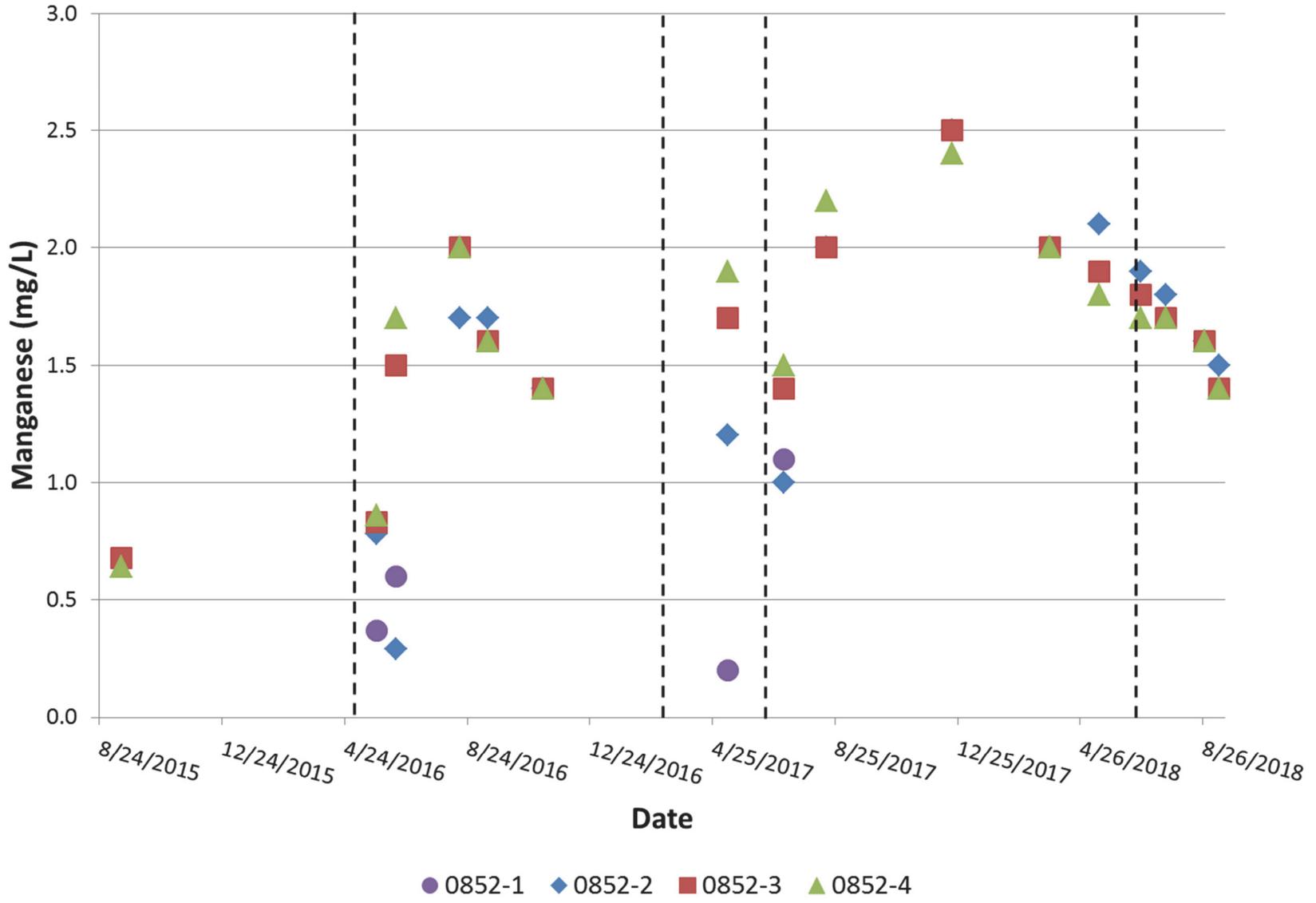
# Well 0852: Iron



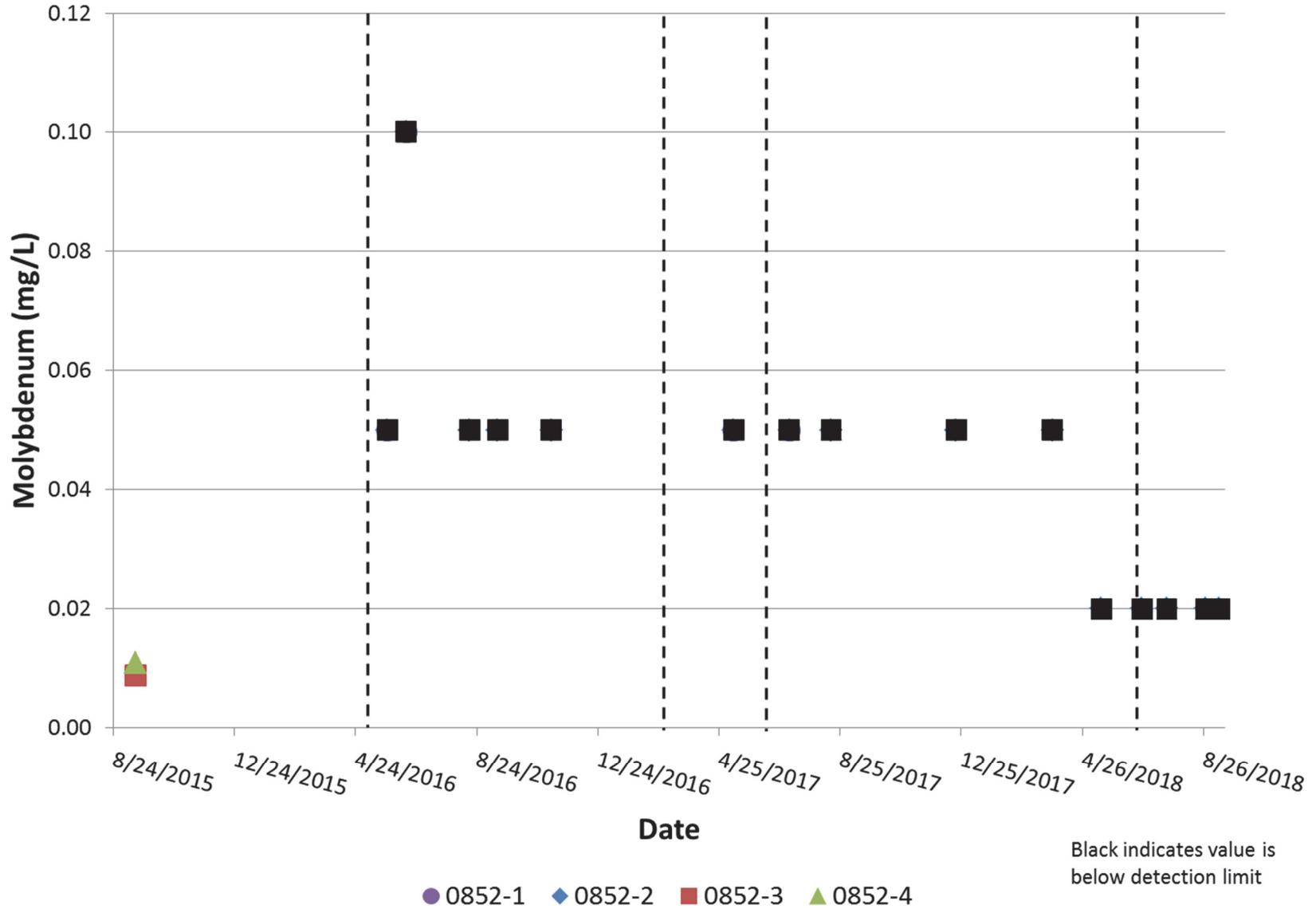
● 0852-1    ◆ 0852-2    ■ 0852-3    ▲ 0852-4

Black indicates value is below detection limit

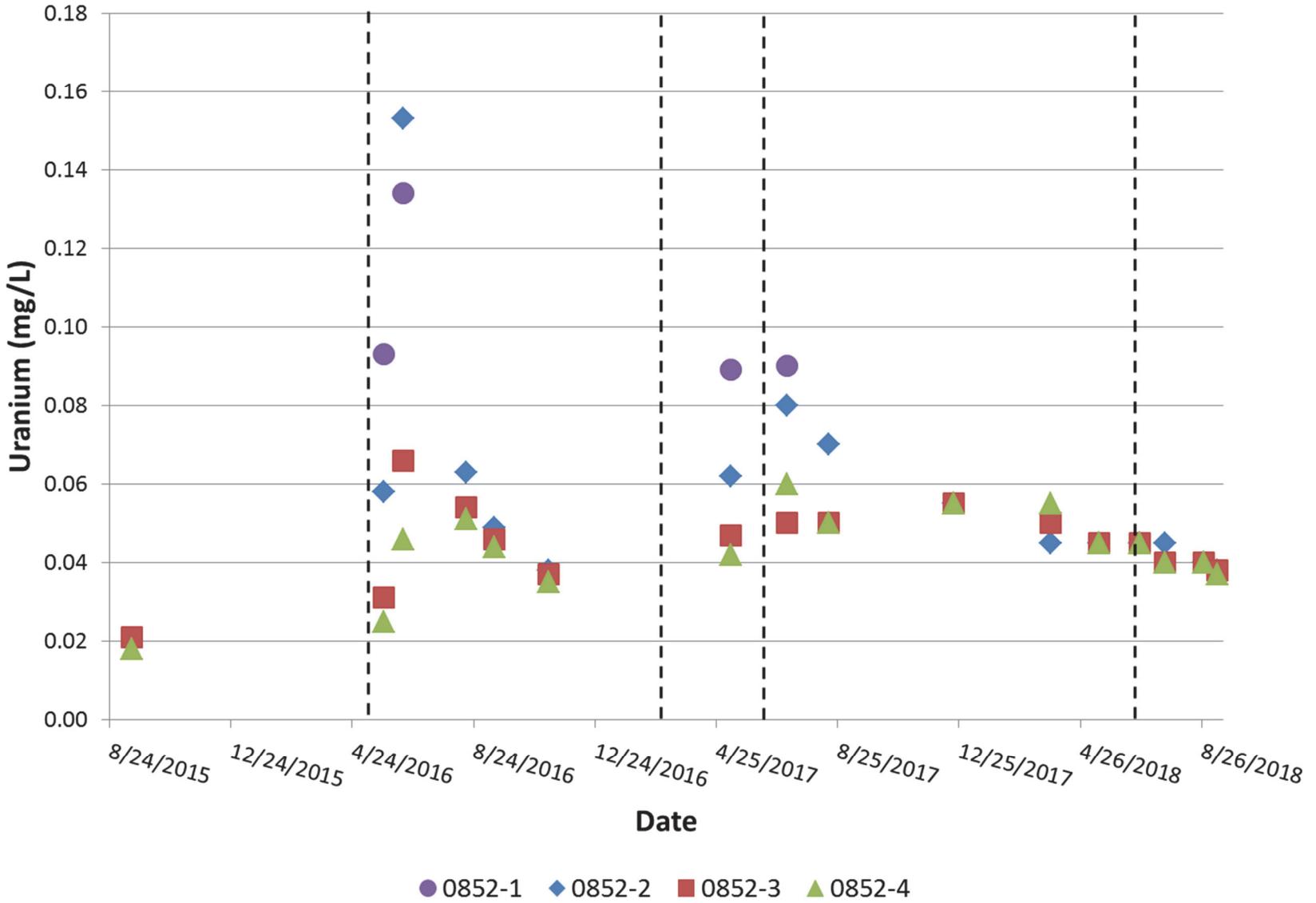
# Well 0852: Manganese



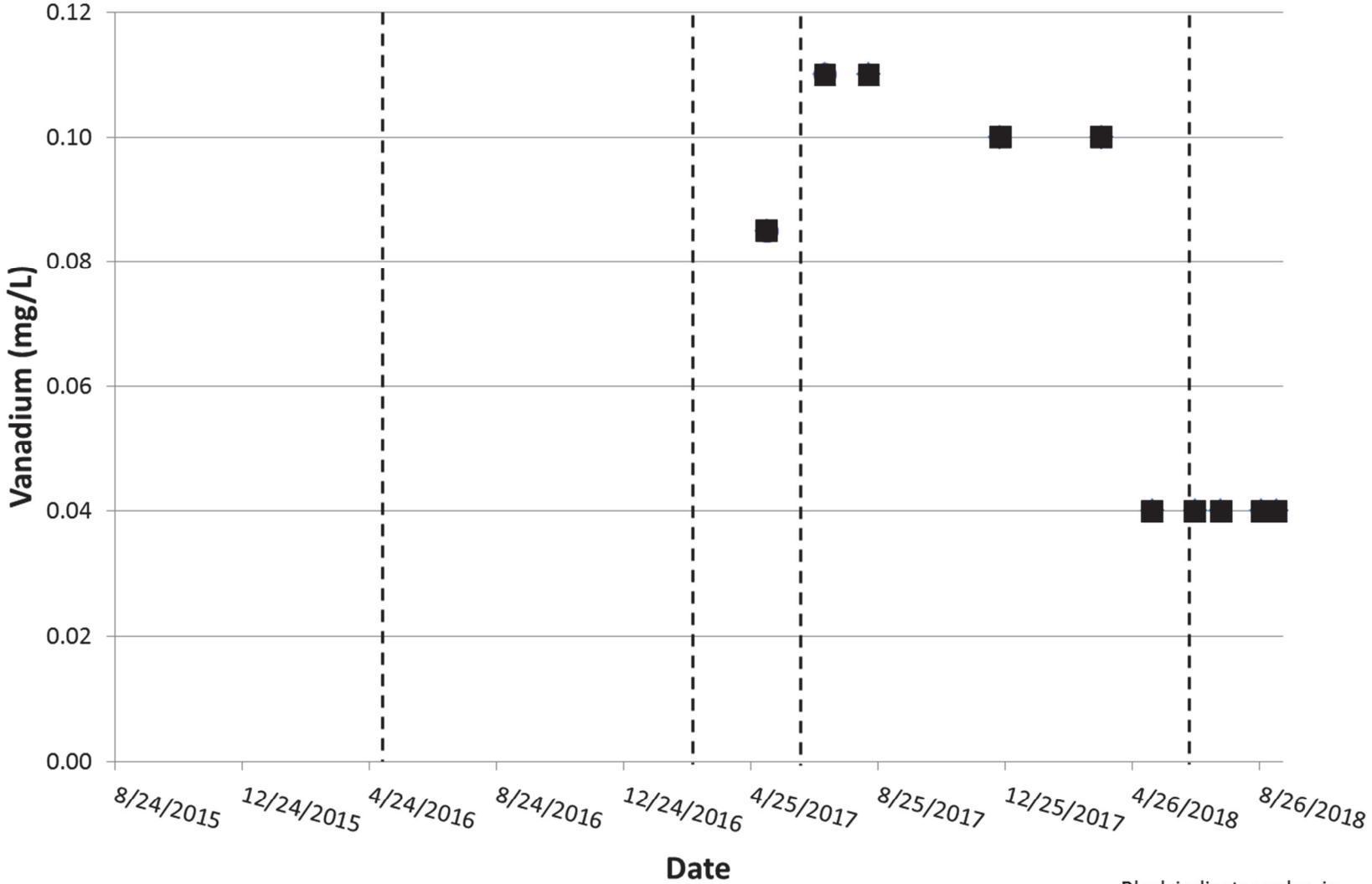
# Well 0852: Molybdenum



# Well 0852: Uranium



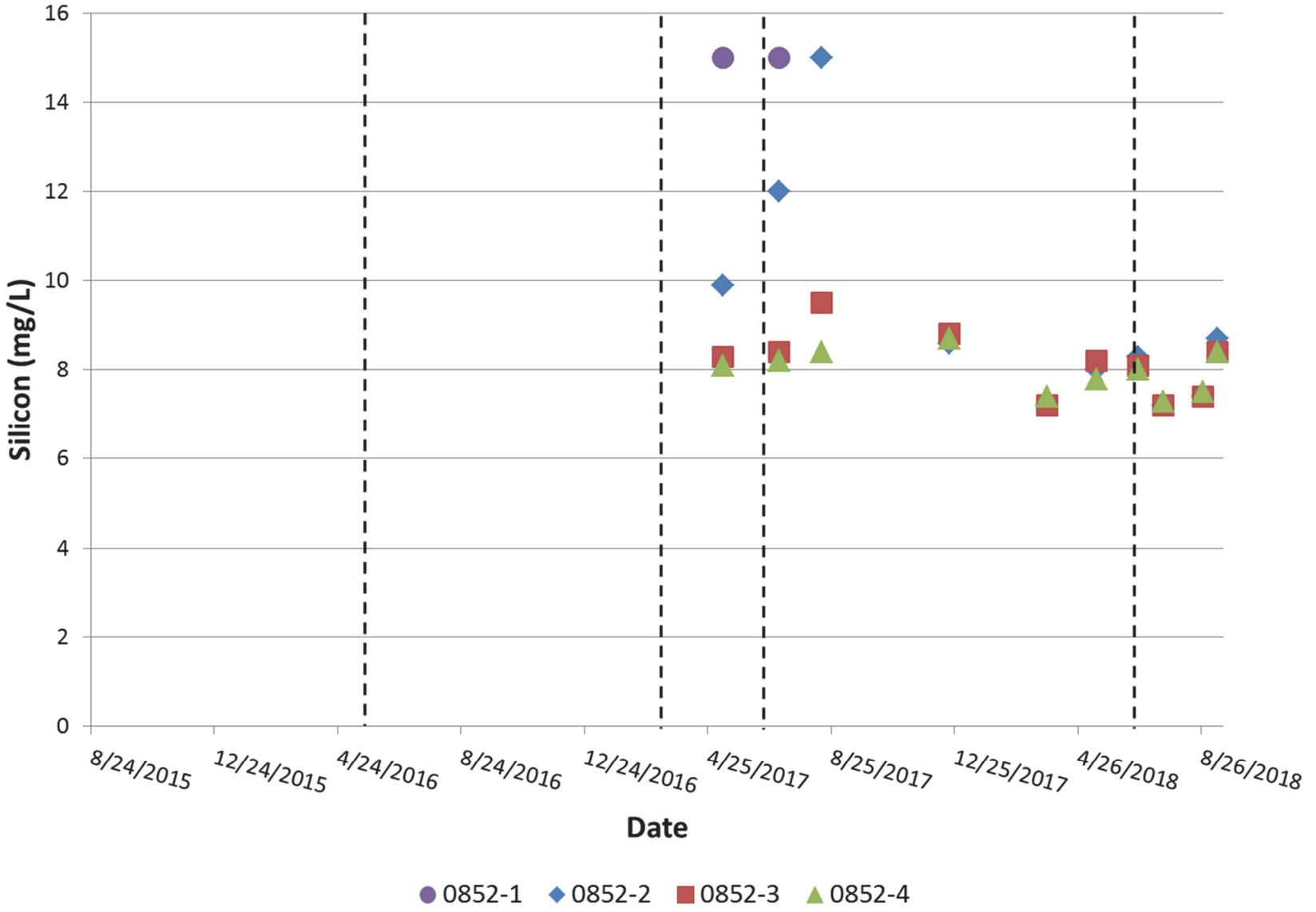
# Well 0852: Vanadium



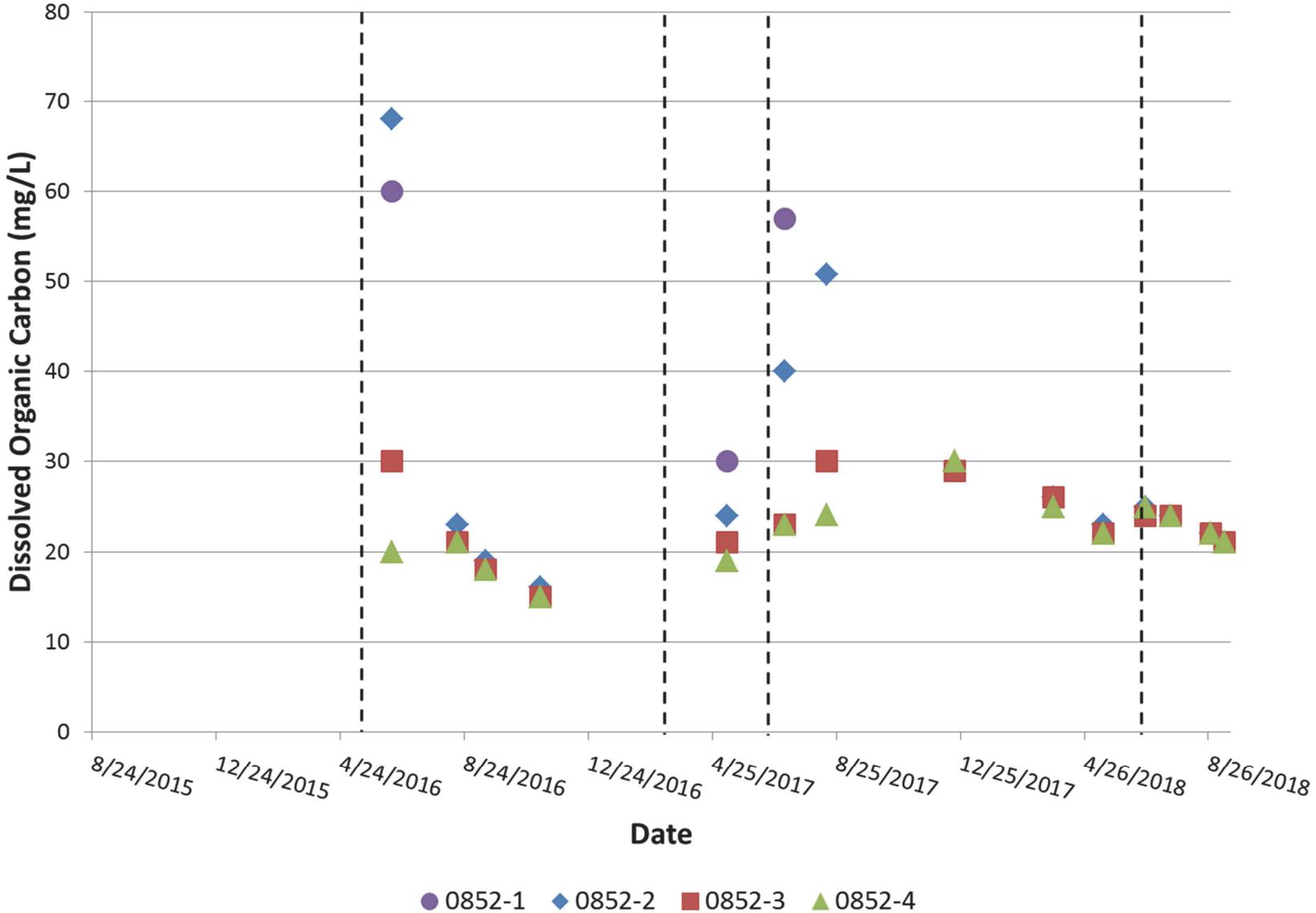
● 0852-1    ◆ 0852-2    ■ 0852-3    ▲ 0852-4

Black indicates value is below detection limit

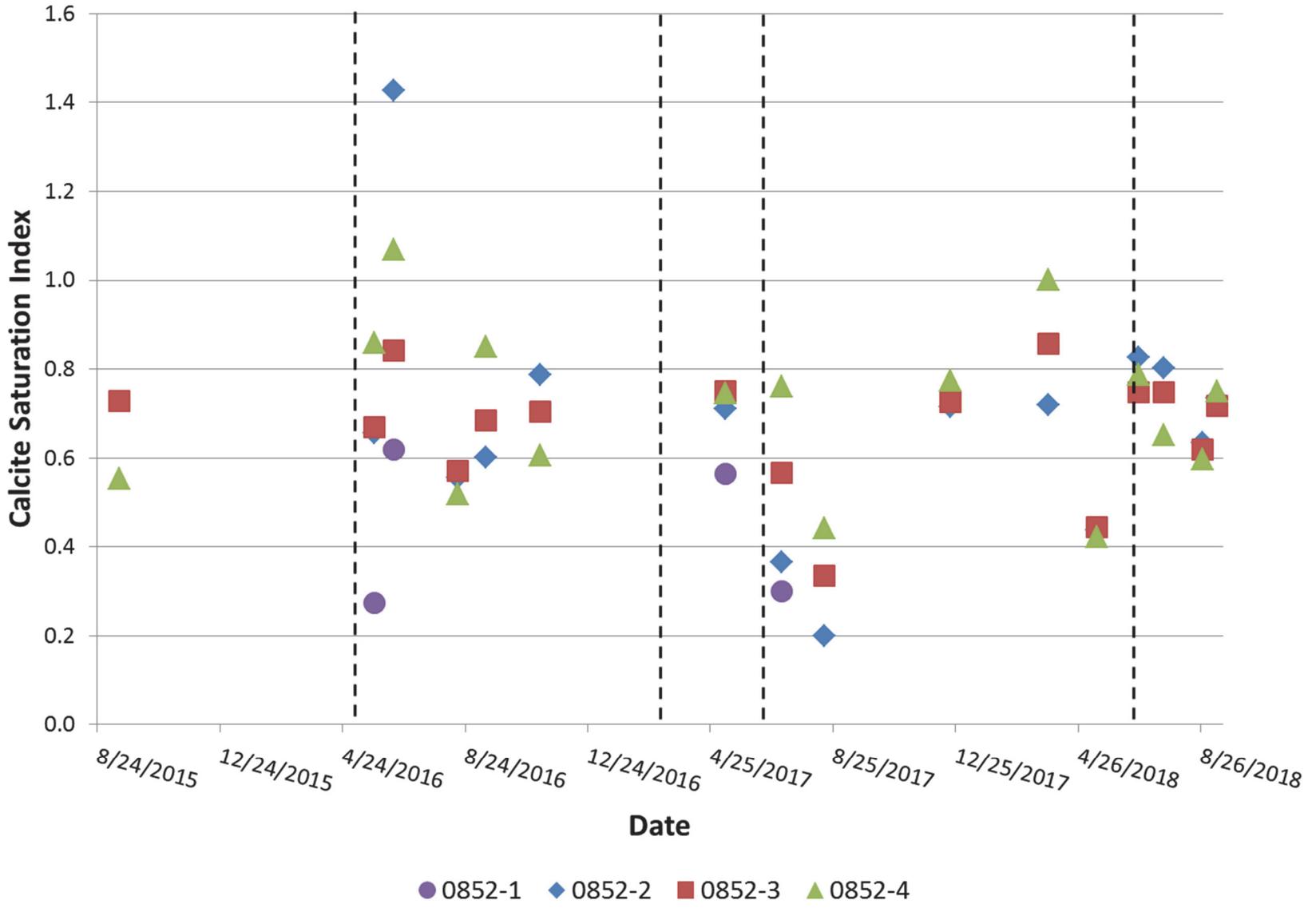
# Well 0852: Silicon



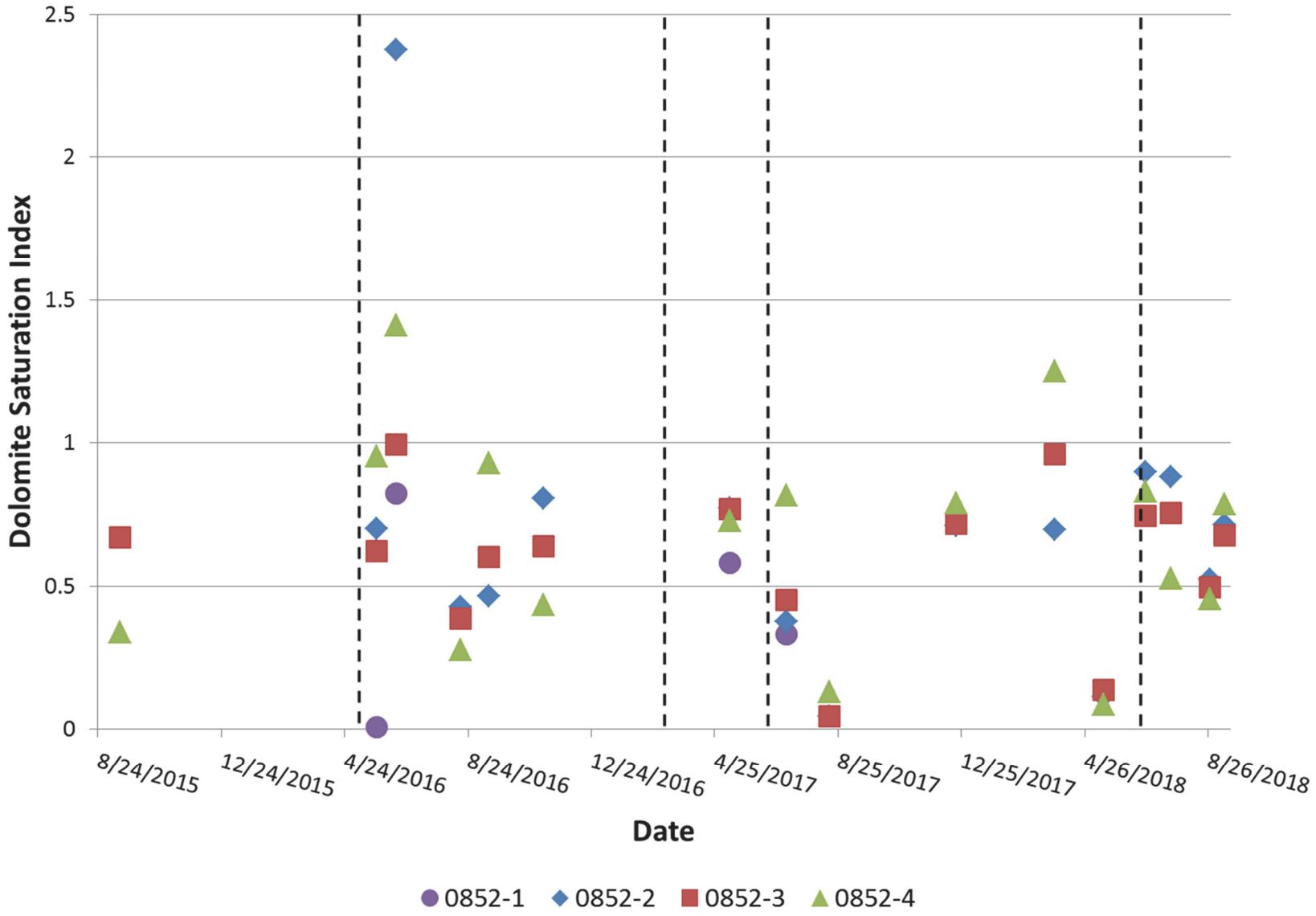
# Well 0852: DOC



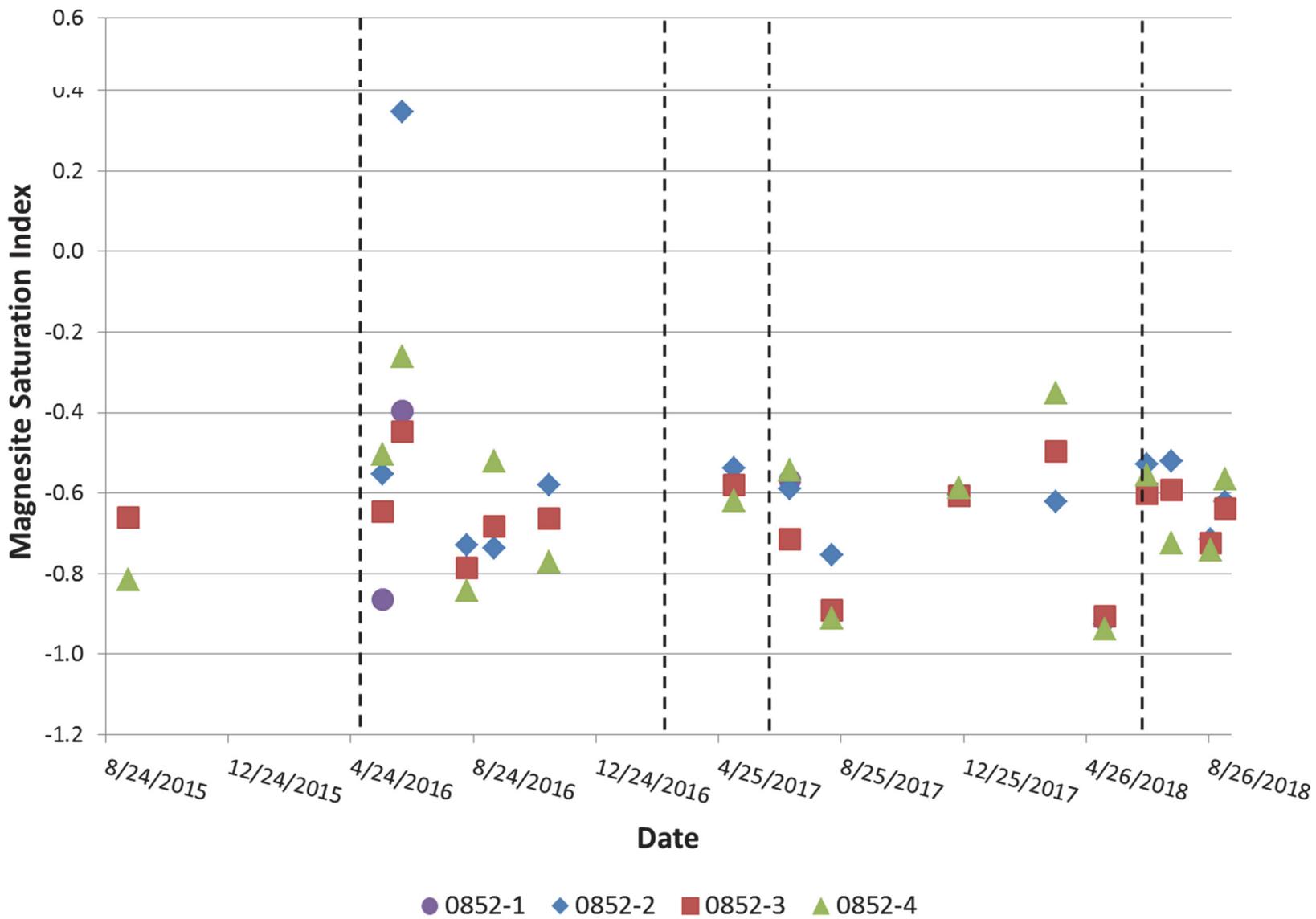
# Well 0852: Calcite Saturation Index



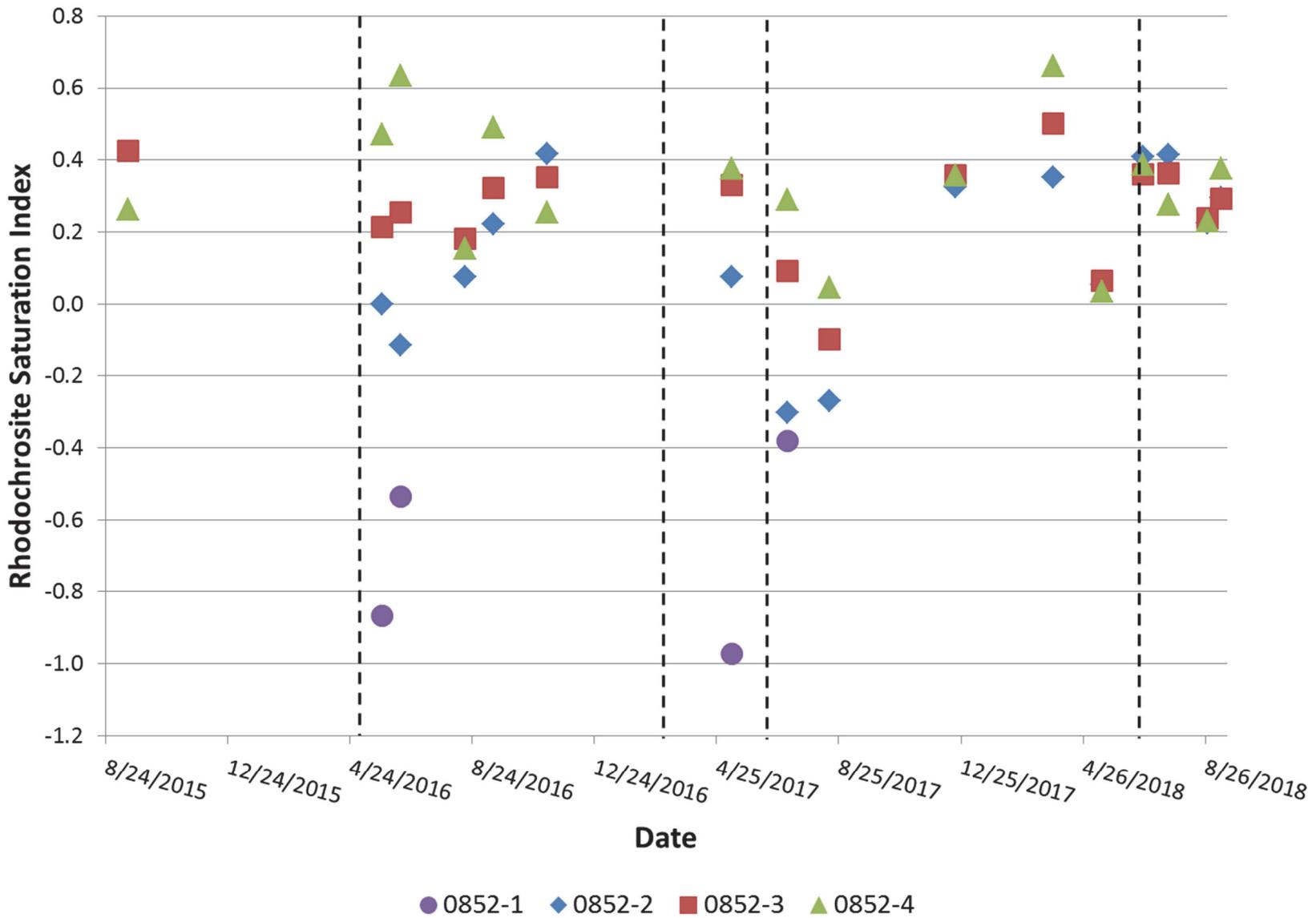
# Well 0852: Dolomite (disordered) Saturation Index



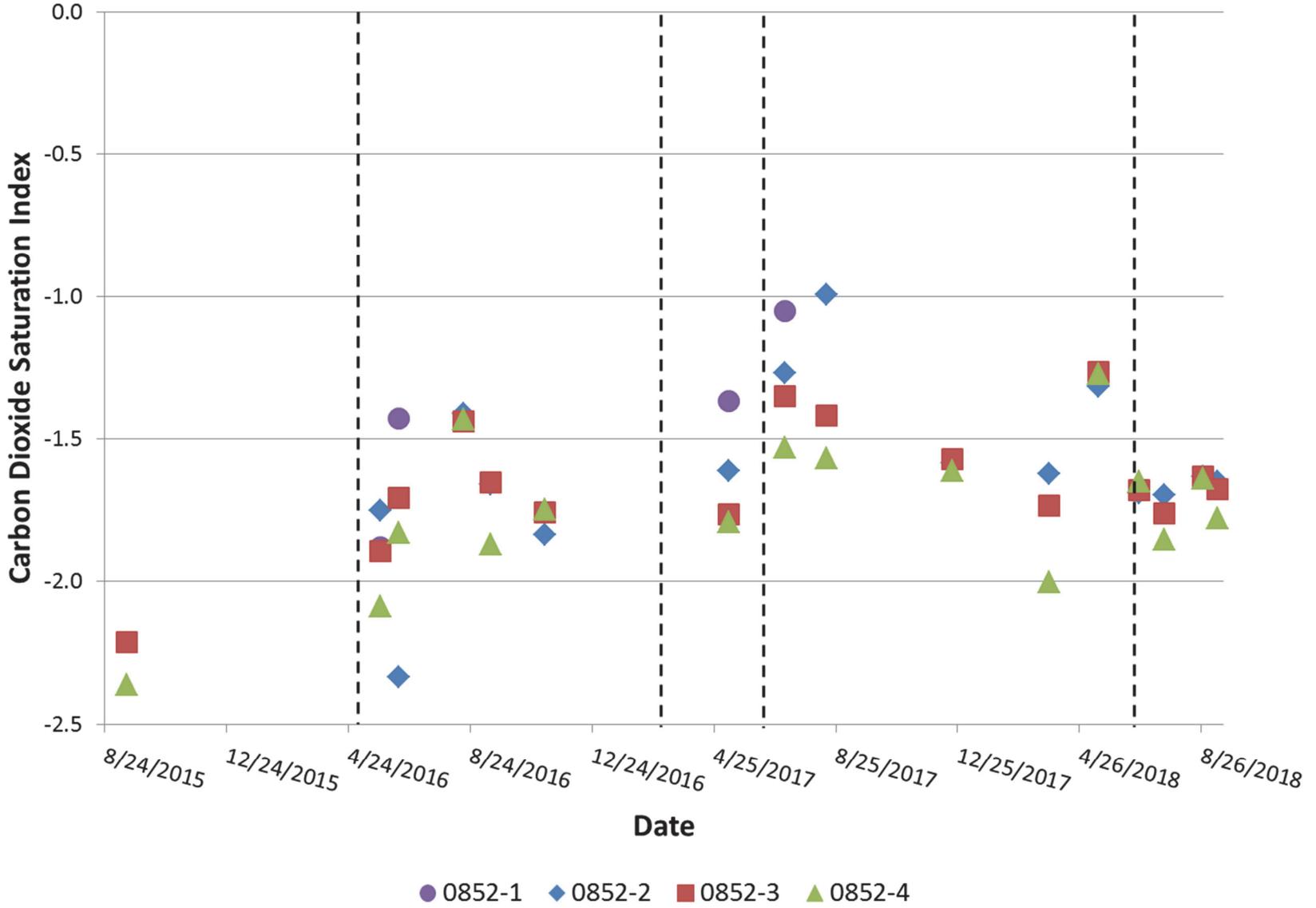
# Well 0852: Magnesite Saturation Index



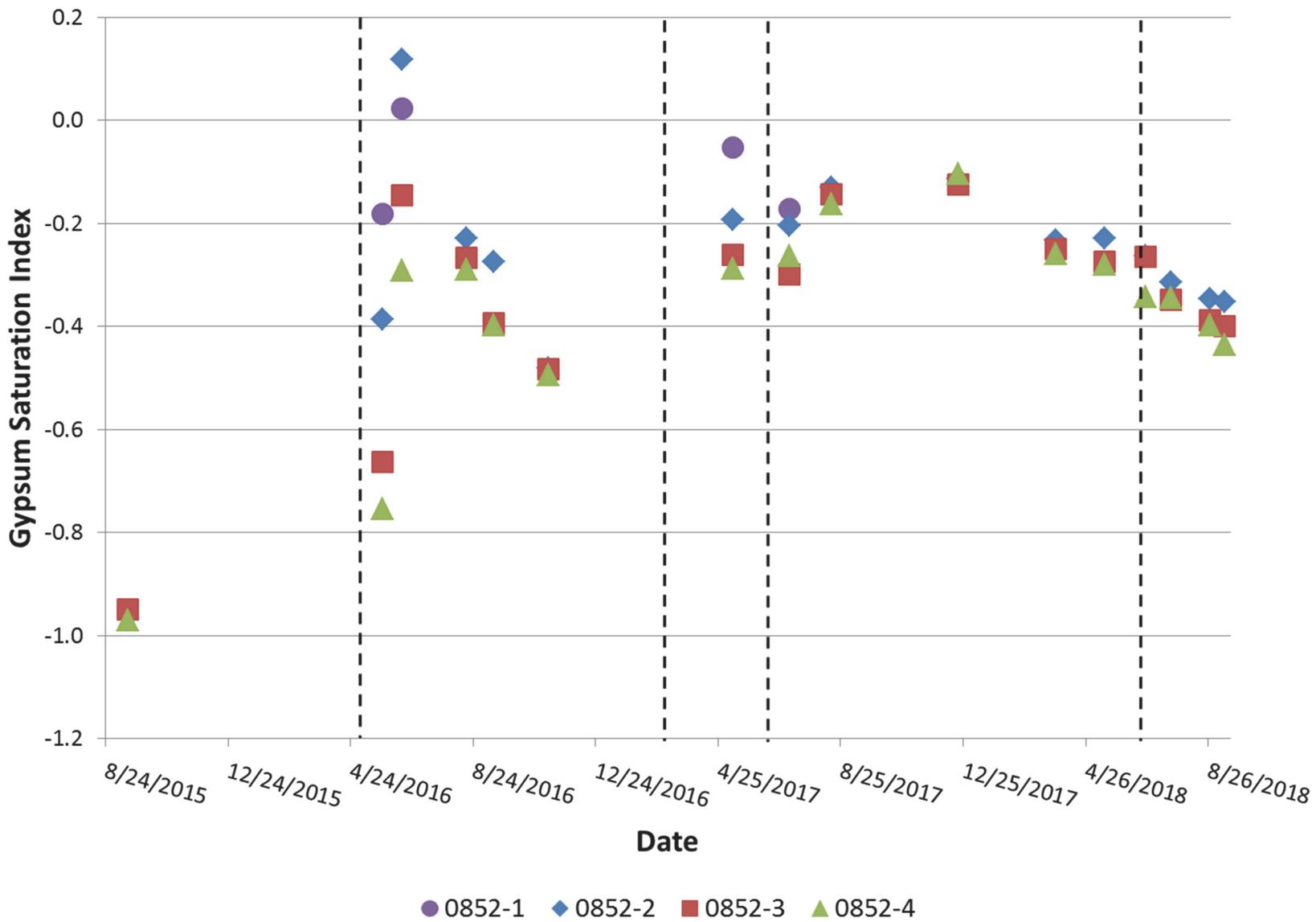
# Well 0852: Rhodochrosite Saturation Index



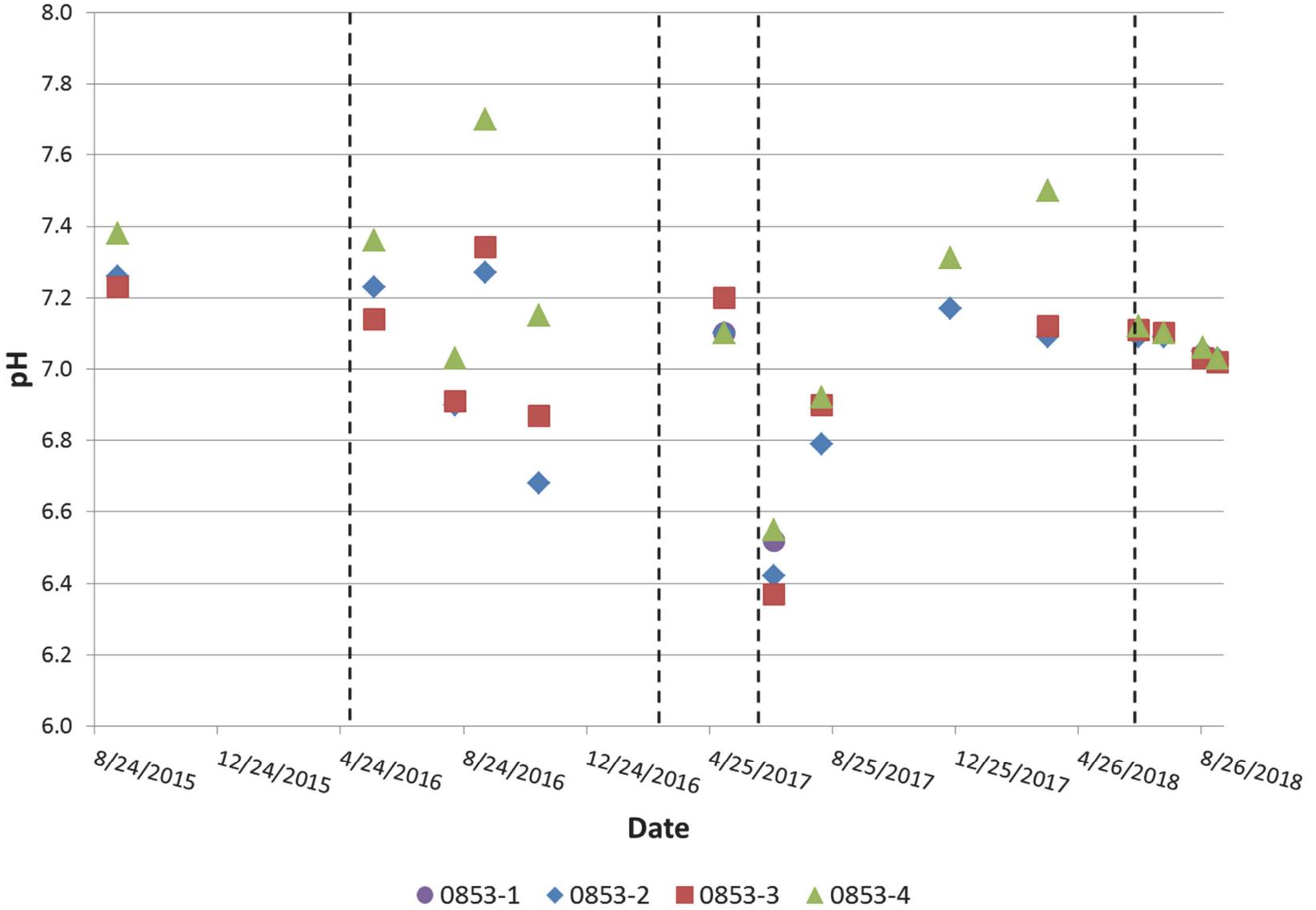
# Well 0852: Carbon Dioxide Saturation Index



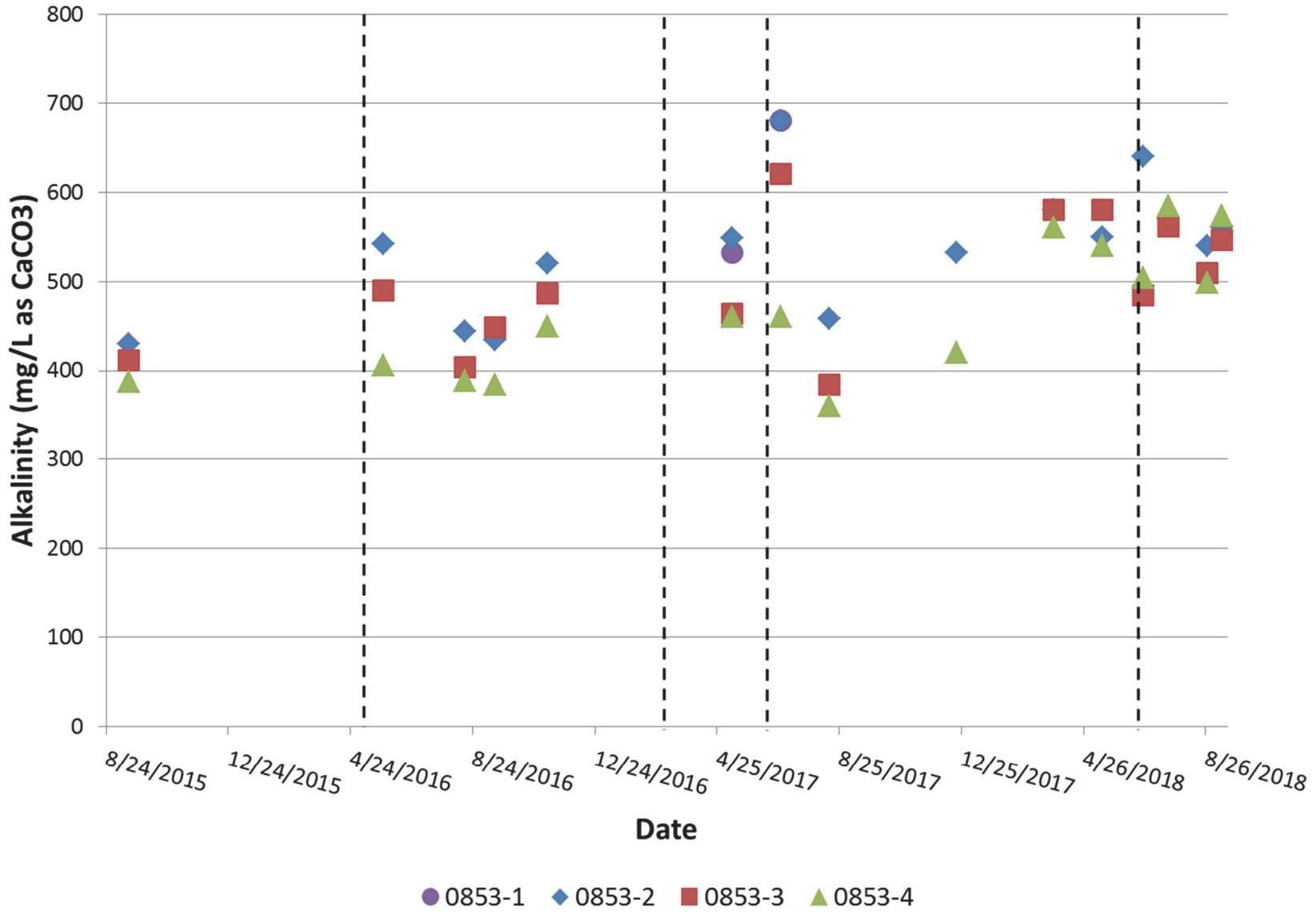
# Well 0852: Gypsum Saturation Index



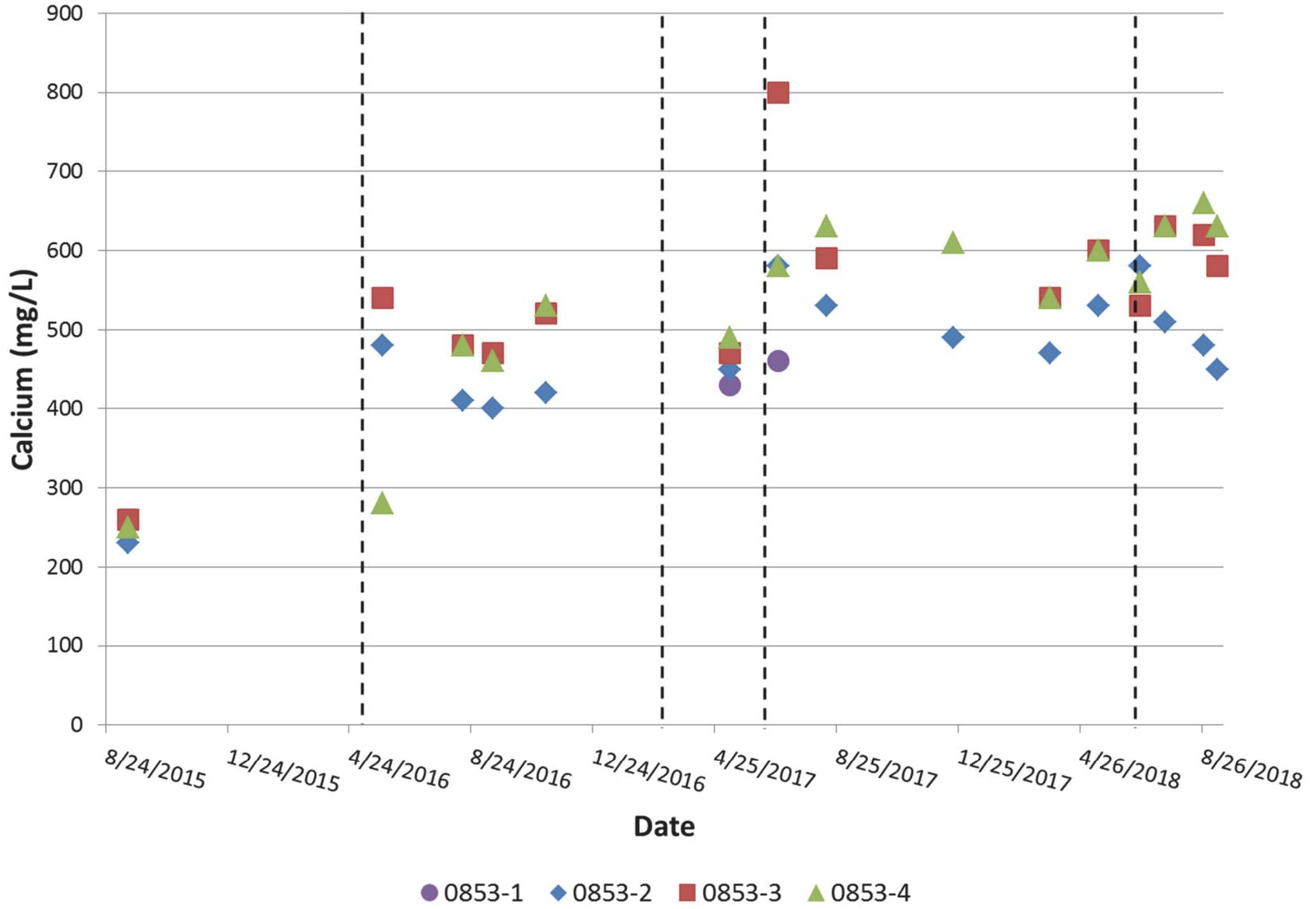
# Well 0853: pH



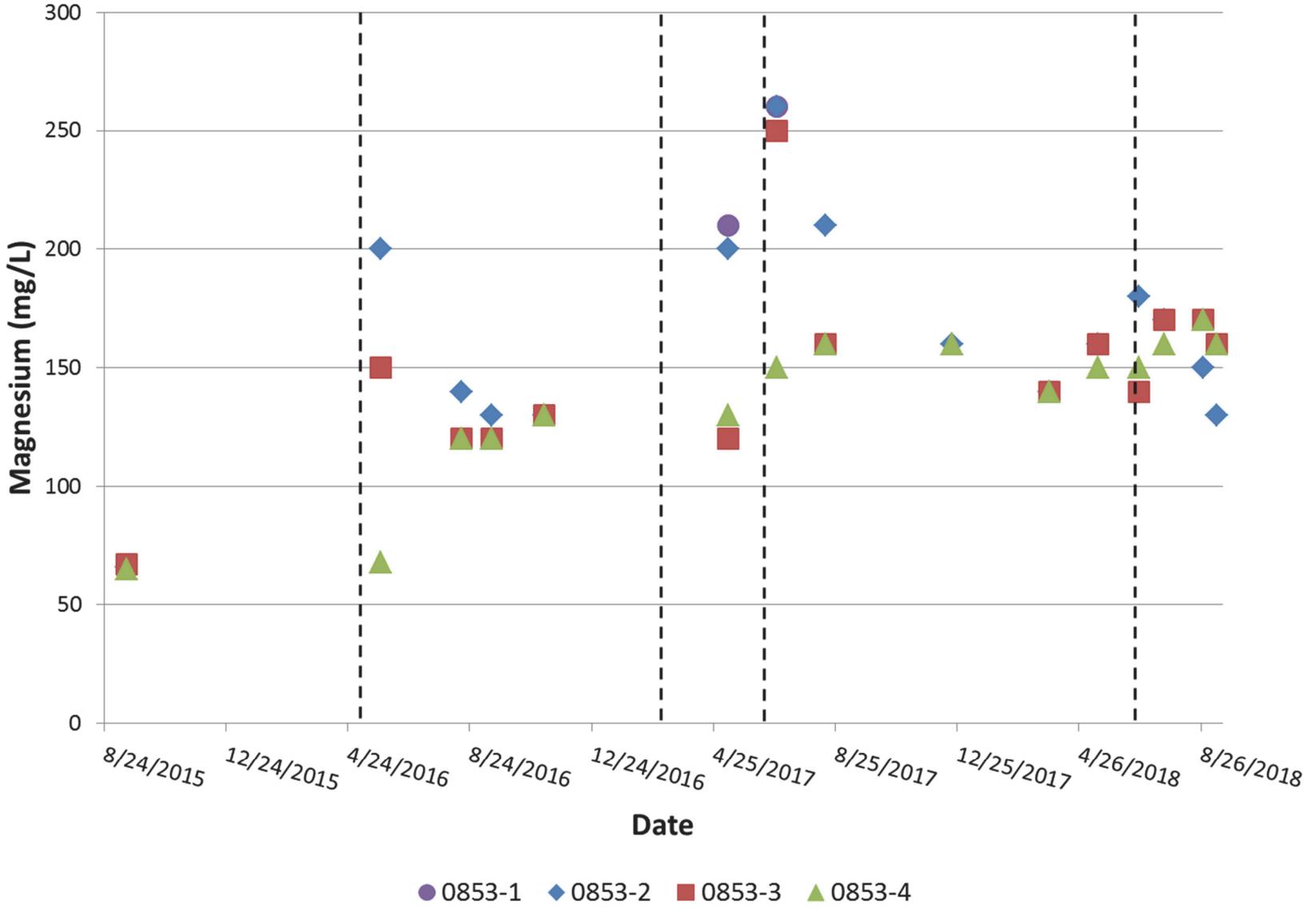
# Well 0853: Alkalinity



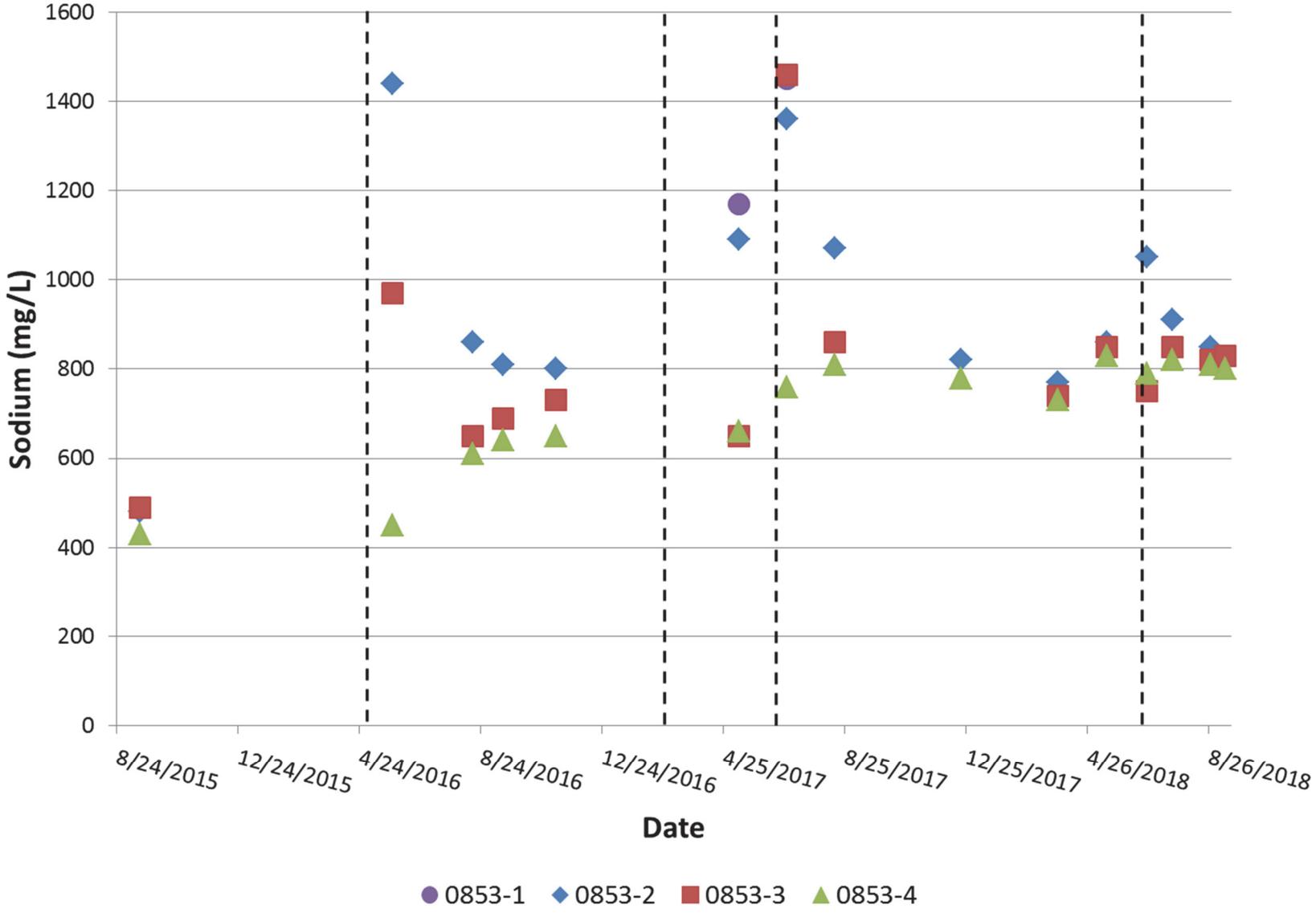
# Well 0853: Calcium



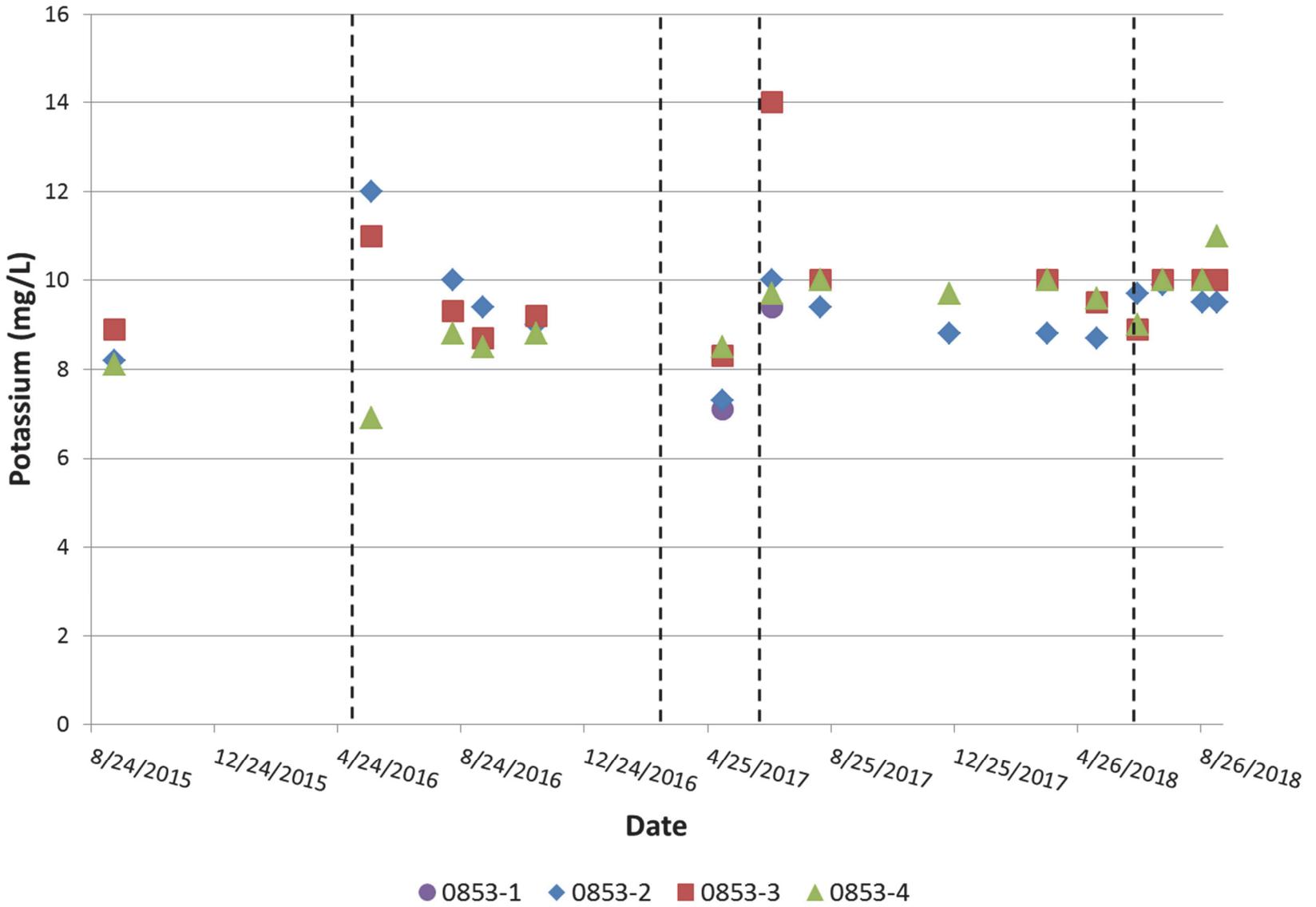
# Well 0853: Magnesium



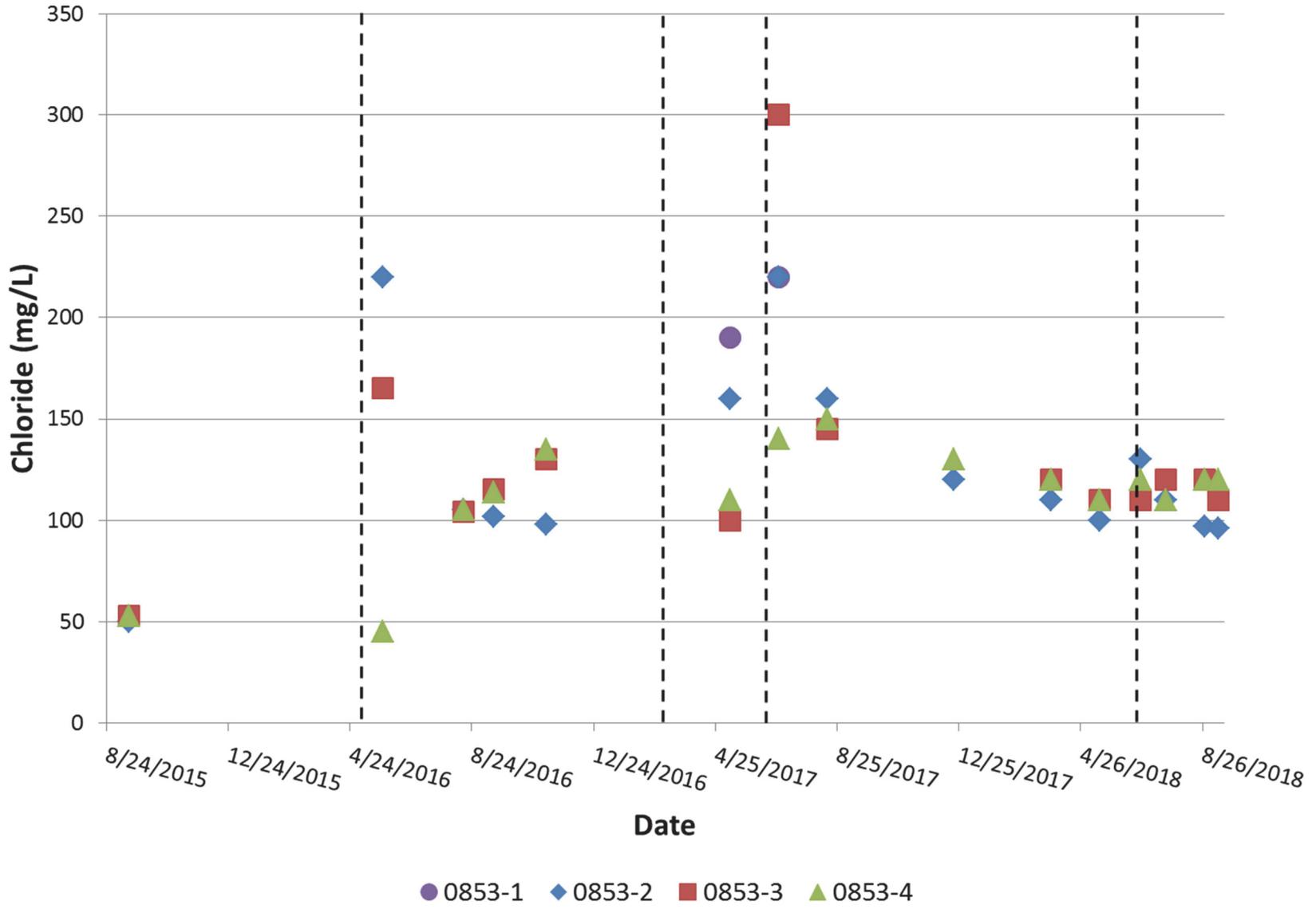
# Well 0853: Sodium



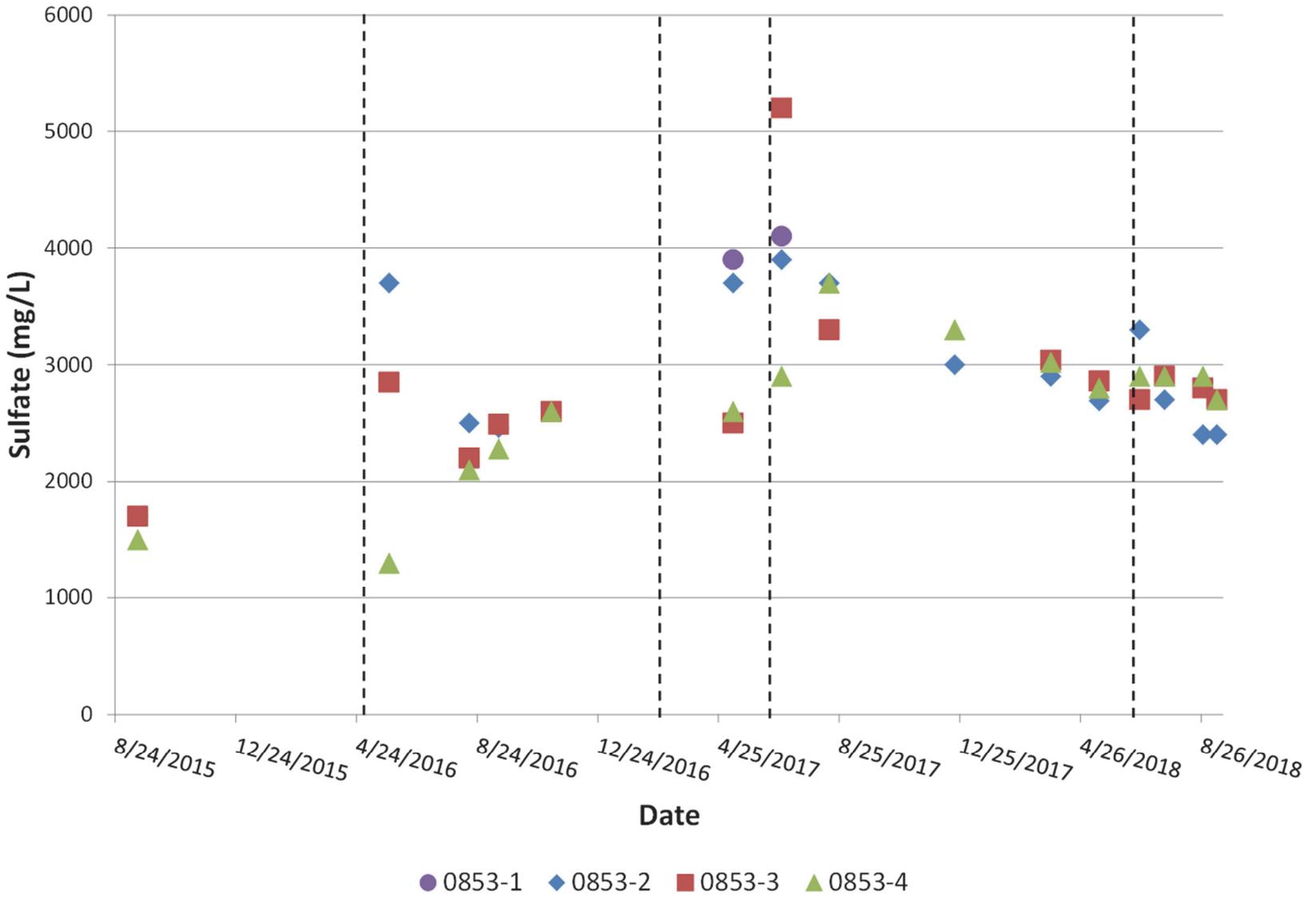
# Well 0853: Potassium



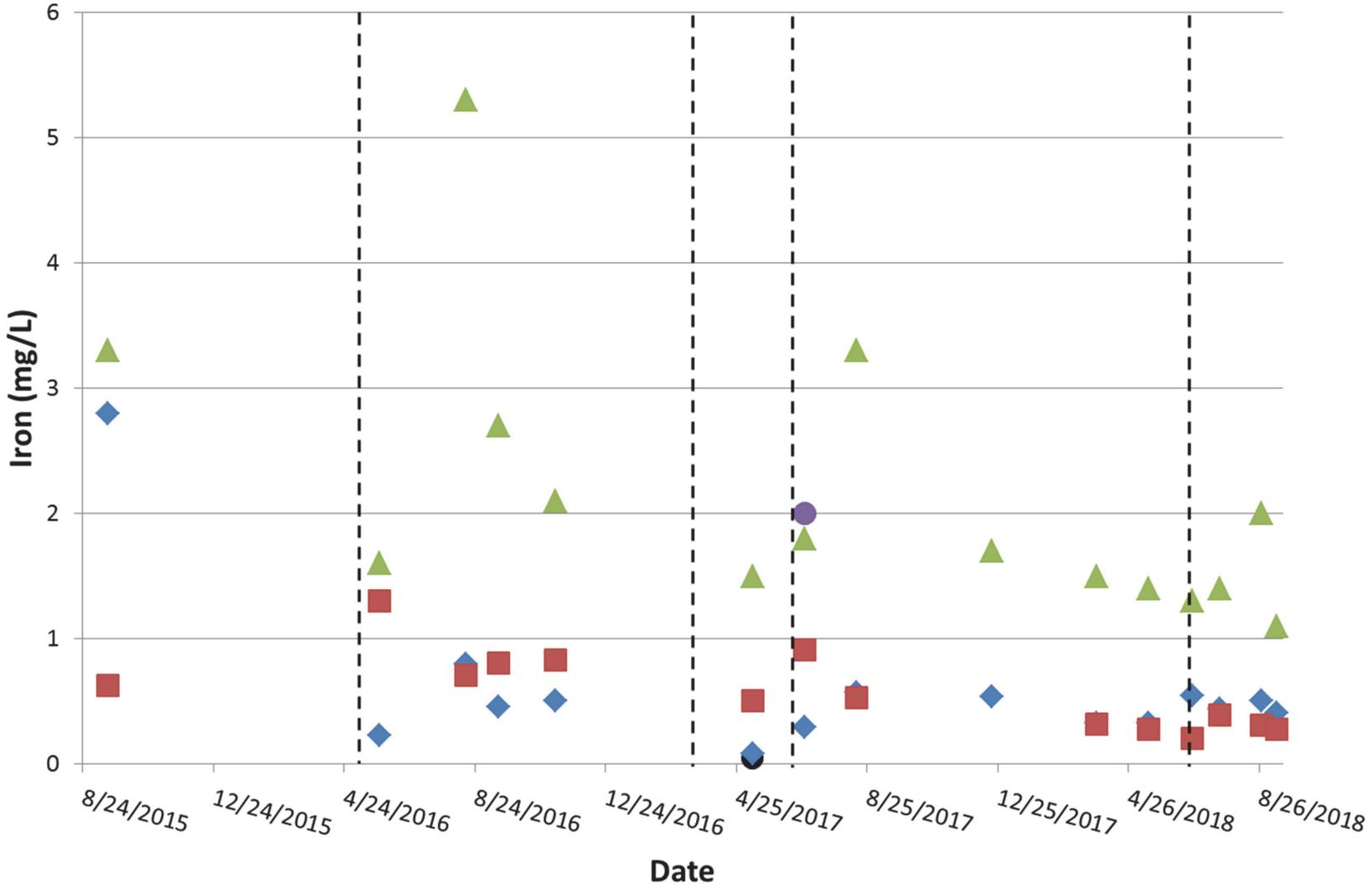
# Well 0853: Chloride



# Well 0853: Sulfate



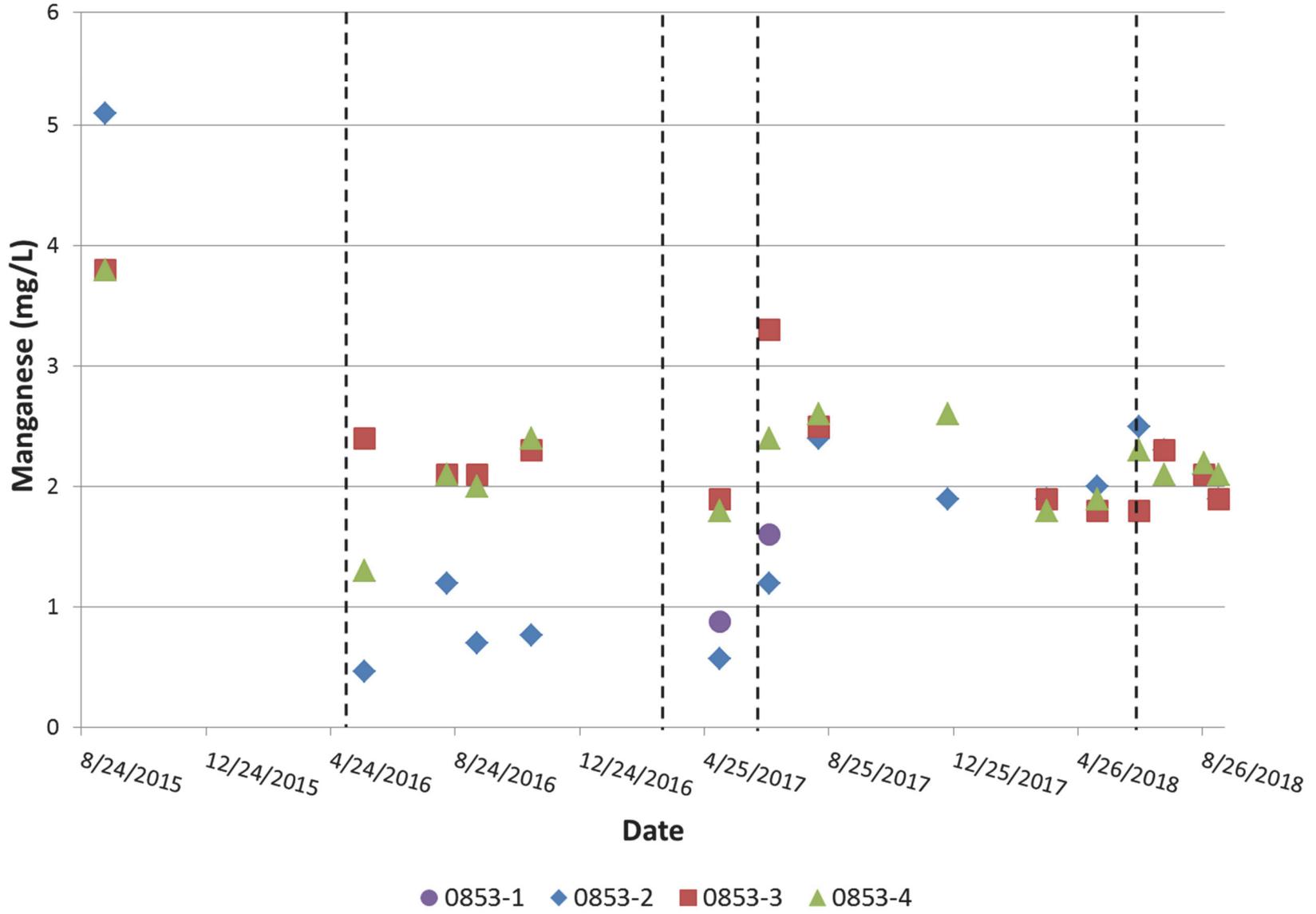
# Well 0853: Iron



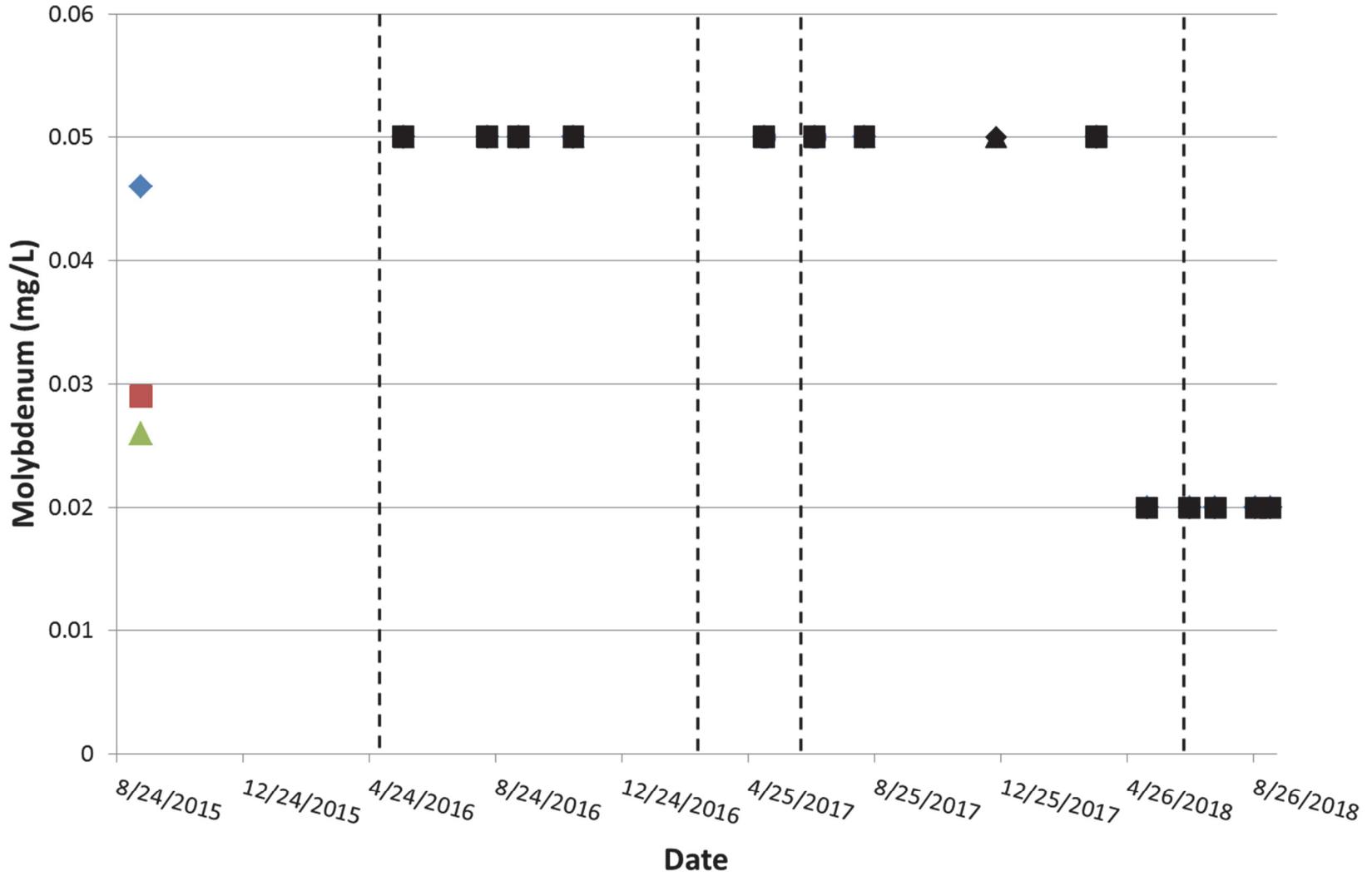
● 0853-1    ◆ 0853-2    ■ 0853-3    ▲ 0853-4

Black indicates value is below detection limit

# Well 0853: Manganese



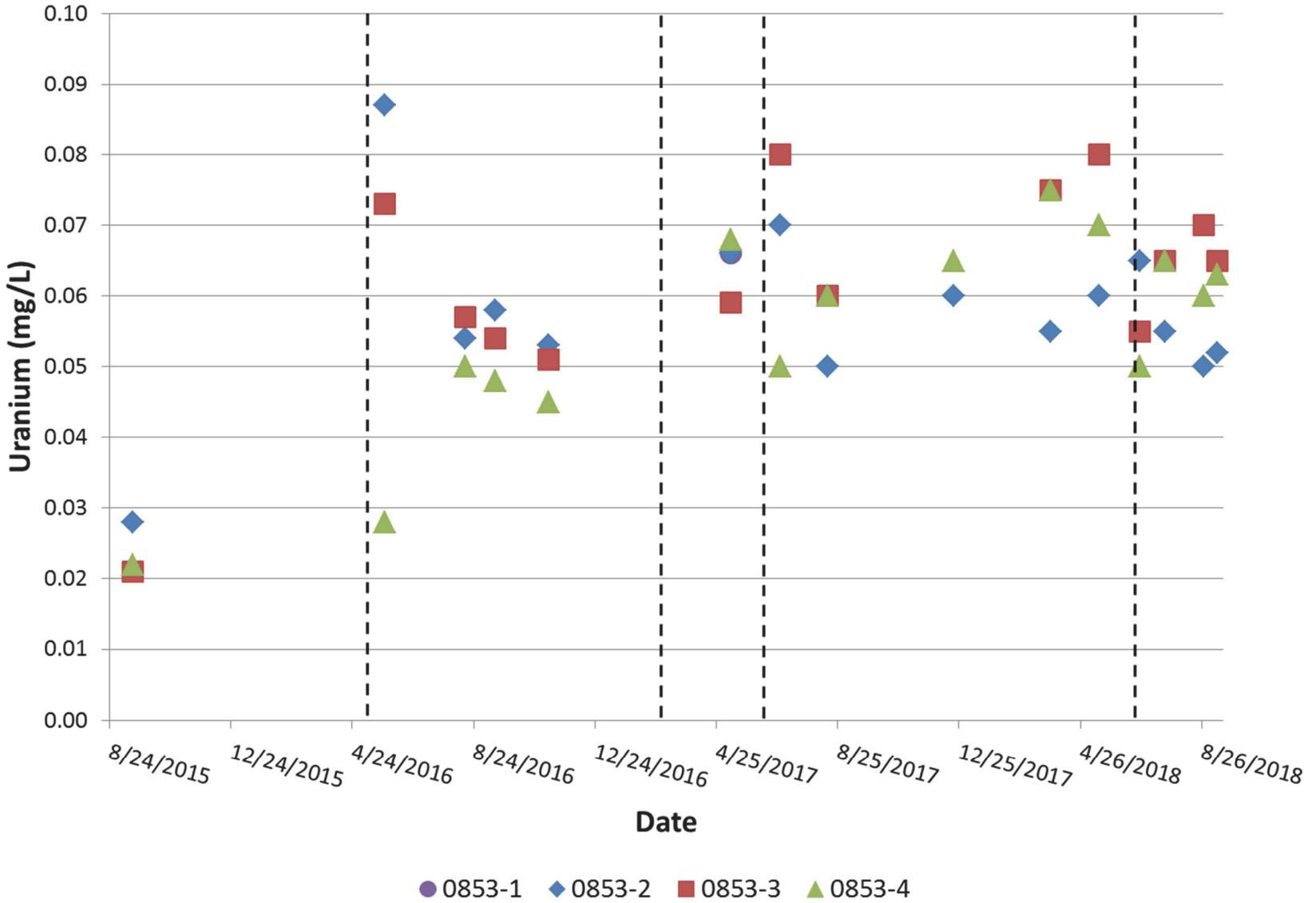
# Well 0853: Molybdenum



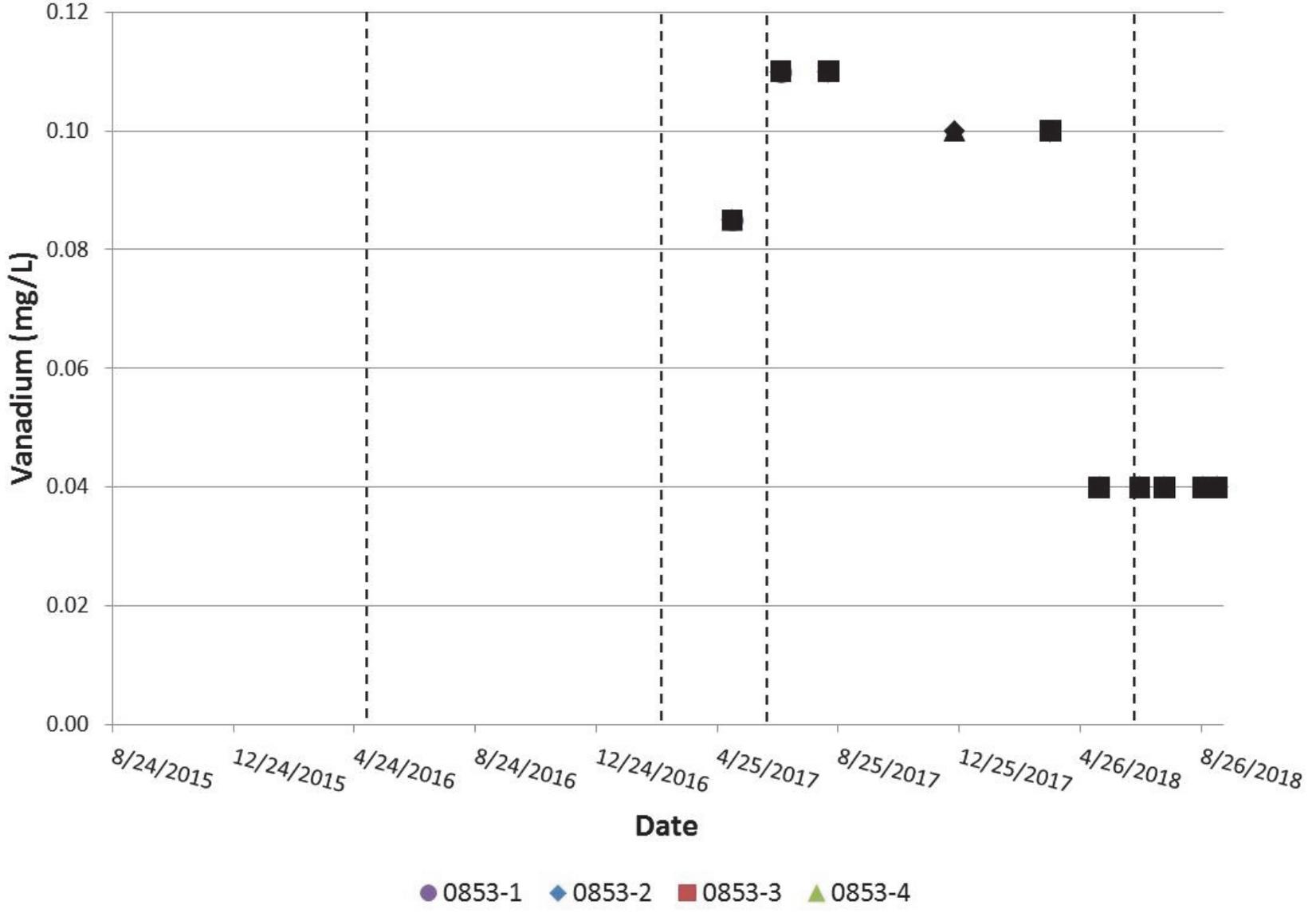
● 0853-1    ◆ 0853-2    ■ 0853-3    ▲ 0853-4

Black indicates value is below detection limit

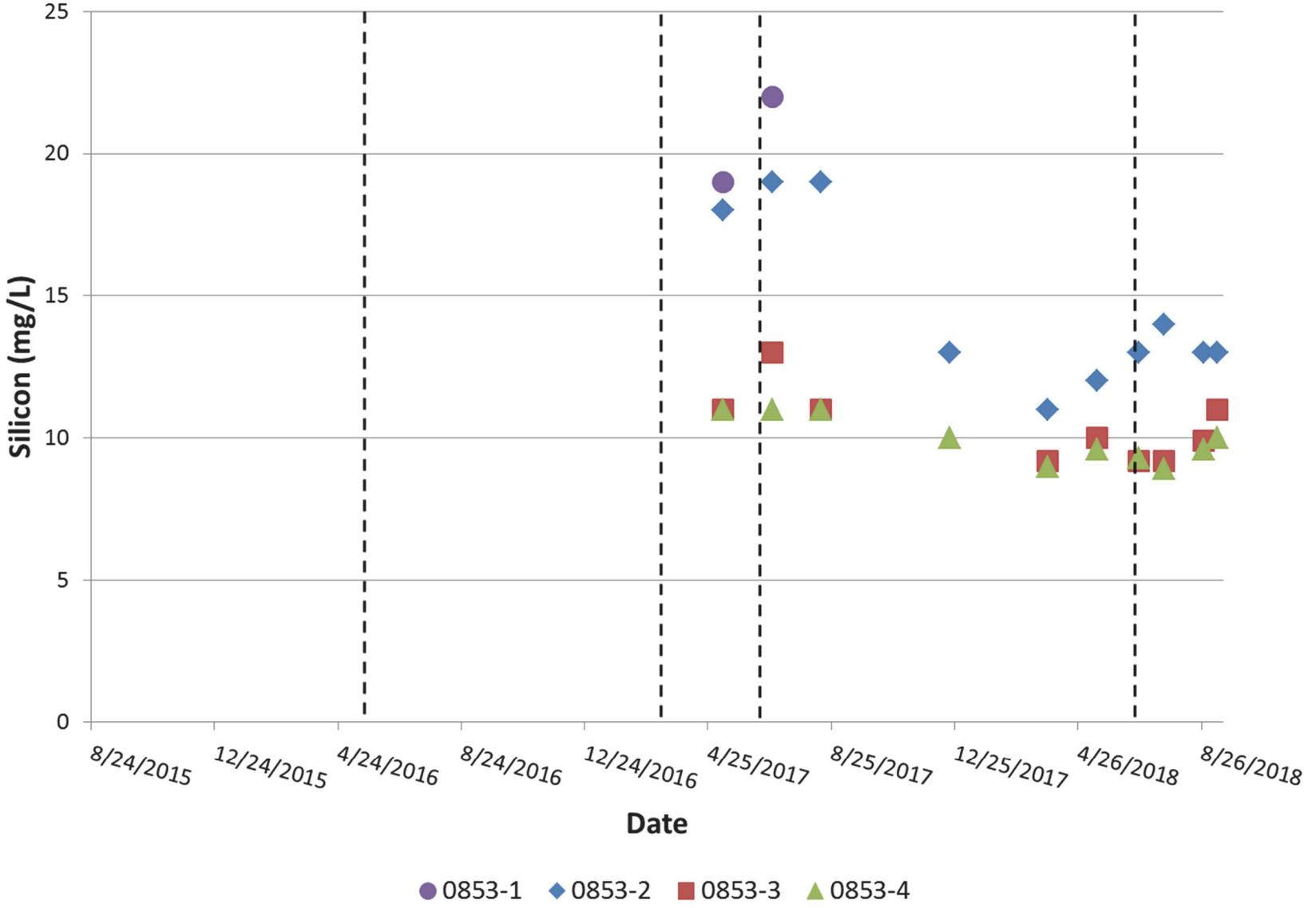
# Well 0853: Uranium



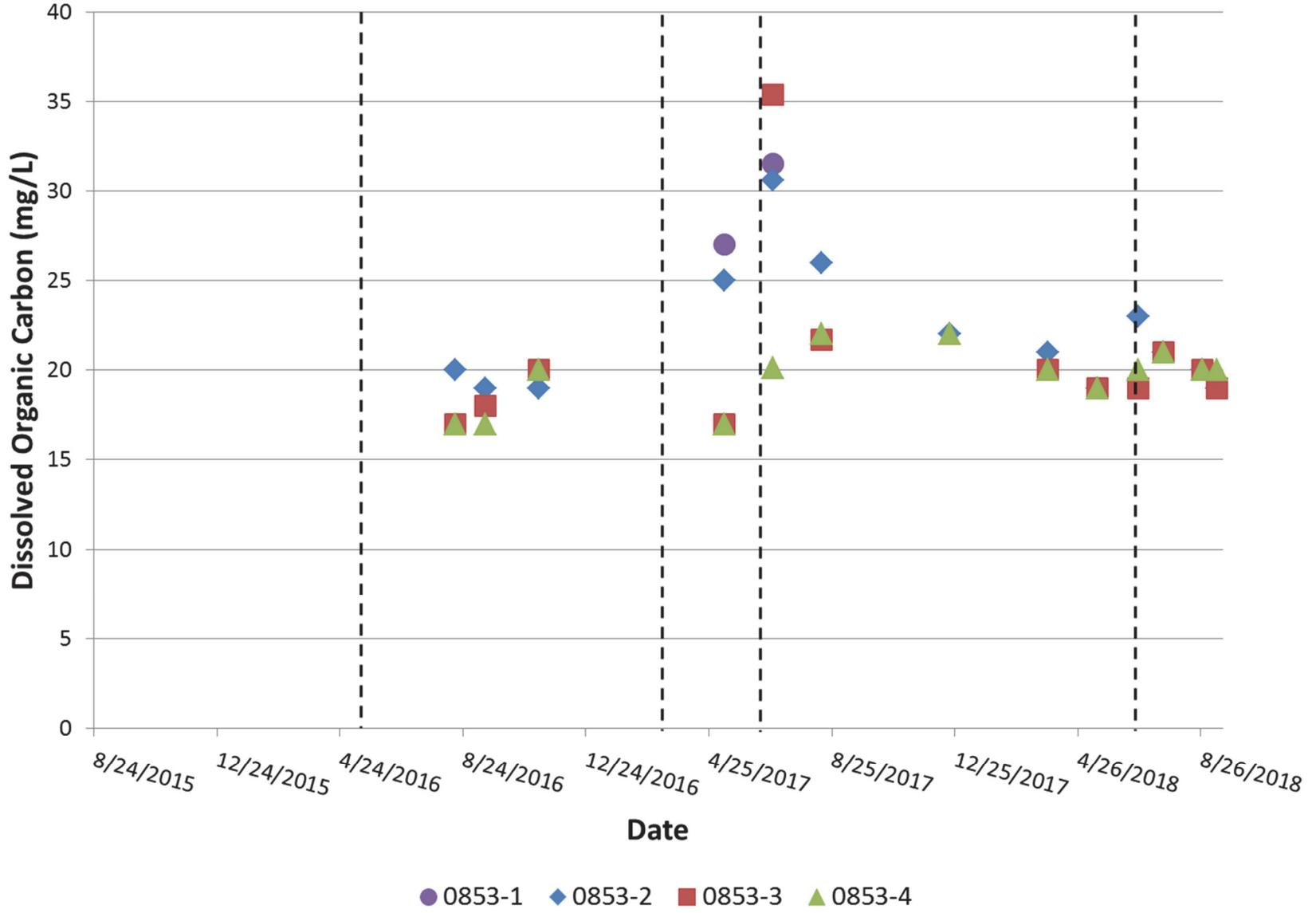
# Well 0853: Vanadium



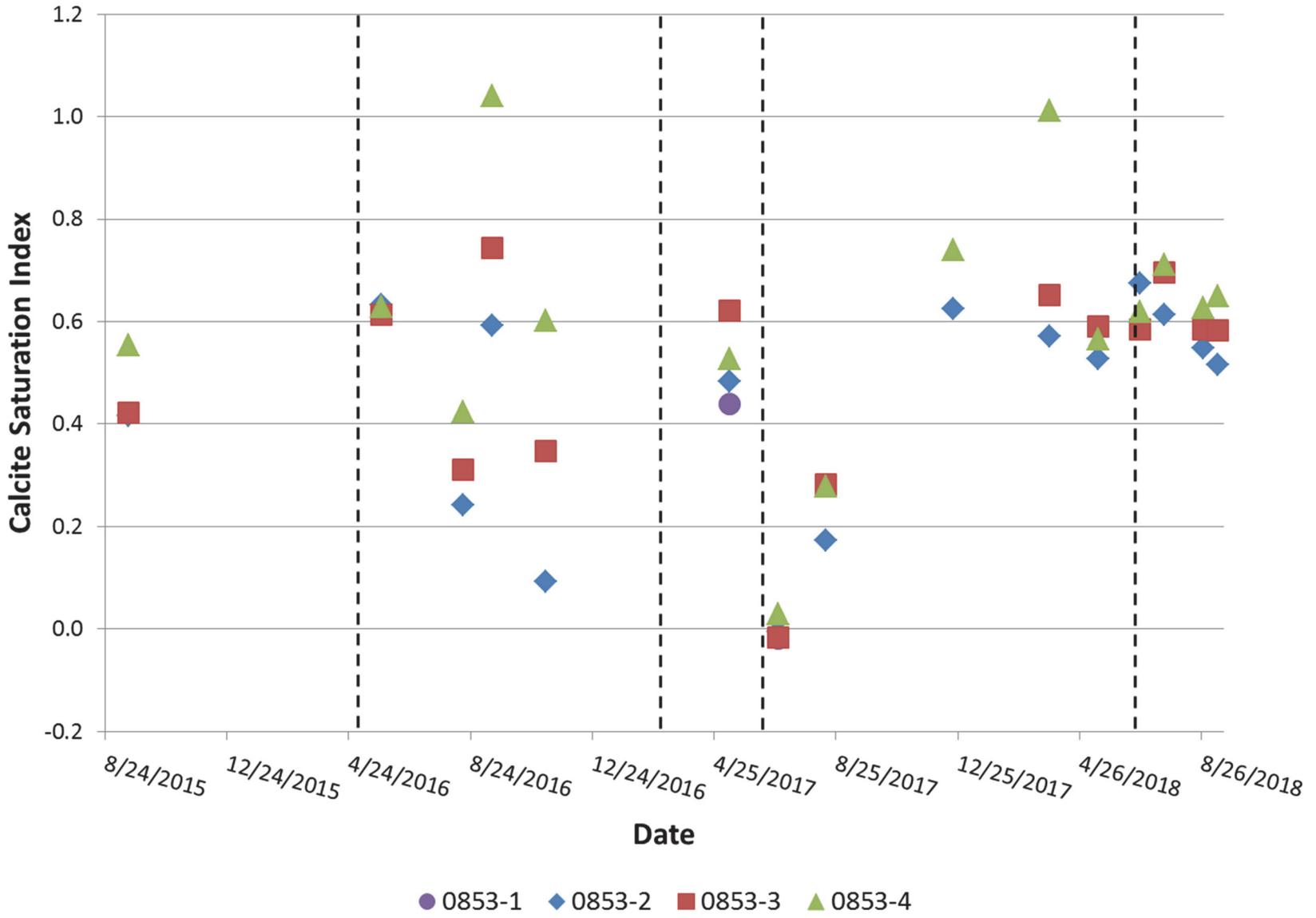
# Well 0853: Silicon



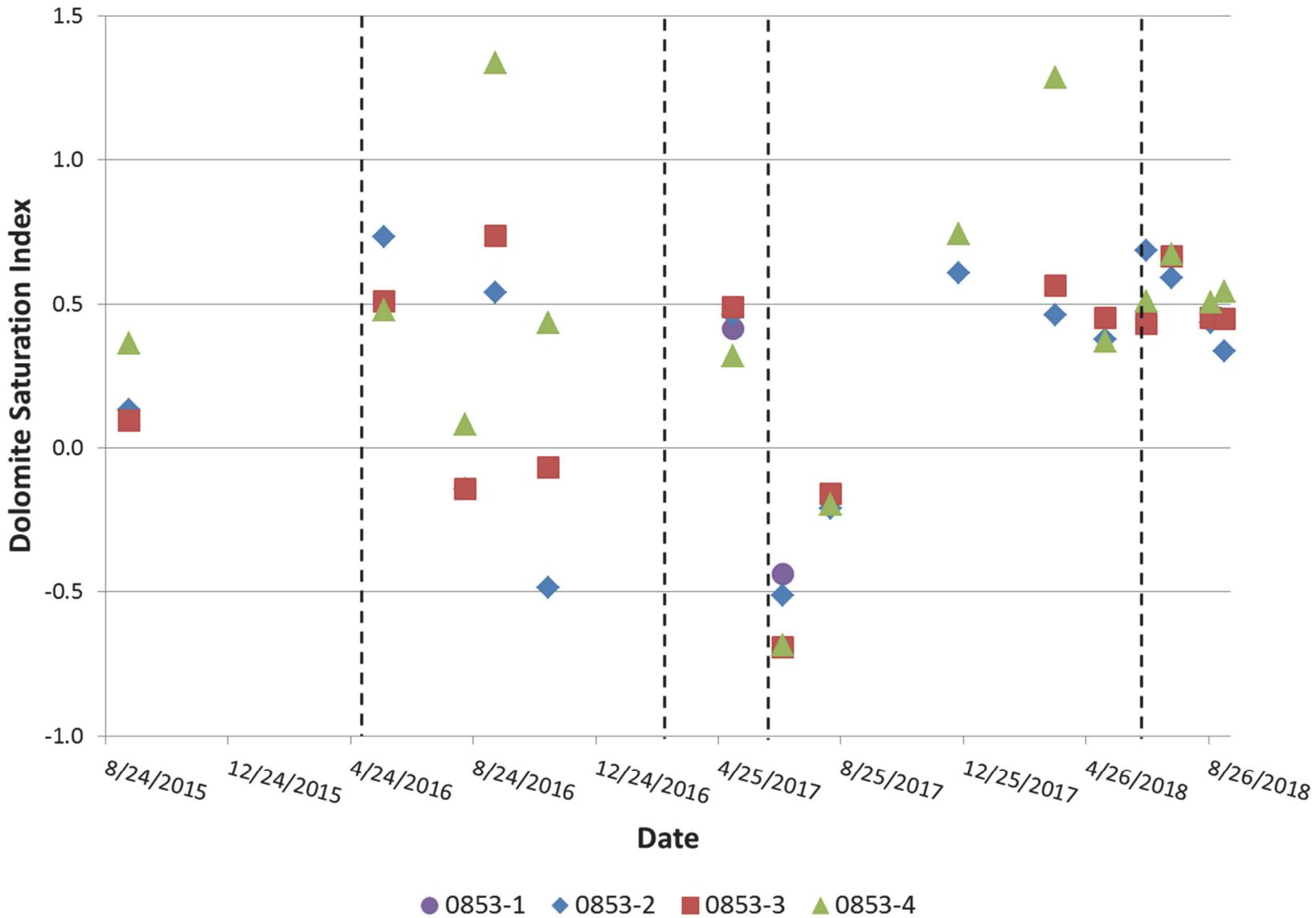
# Well 0853: DOC



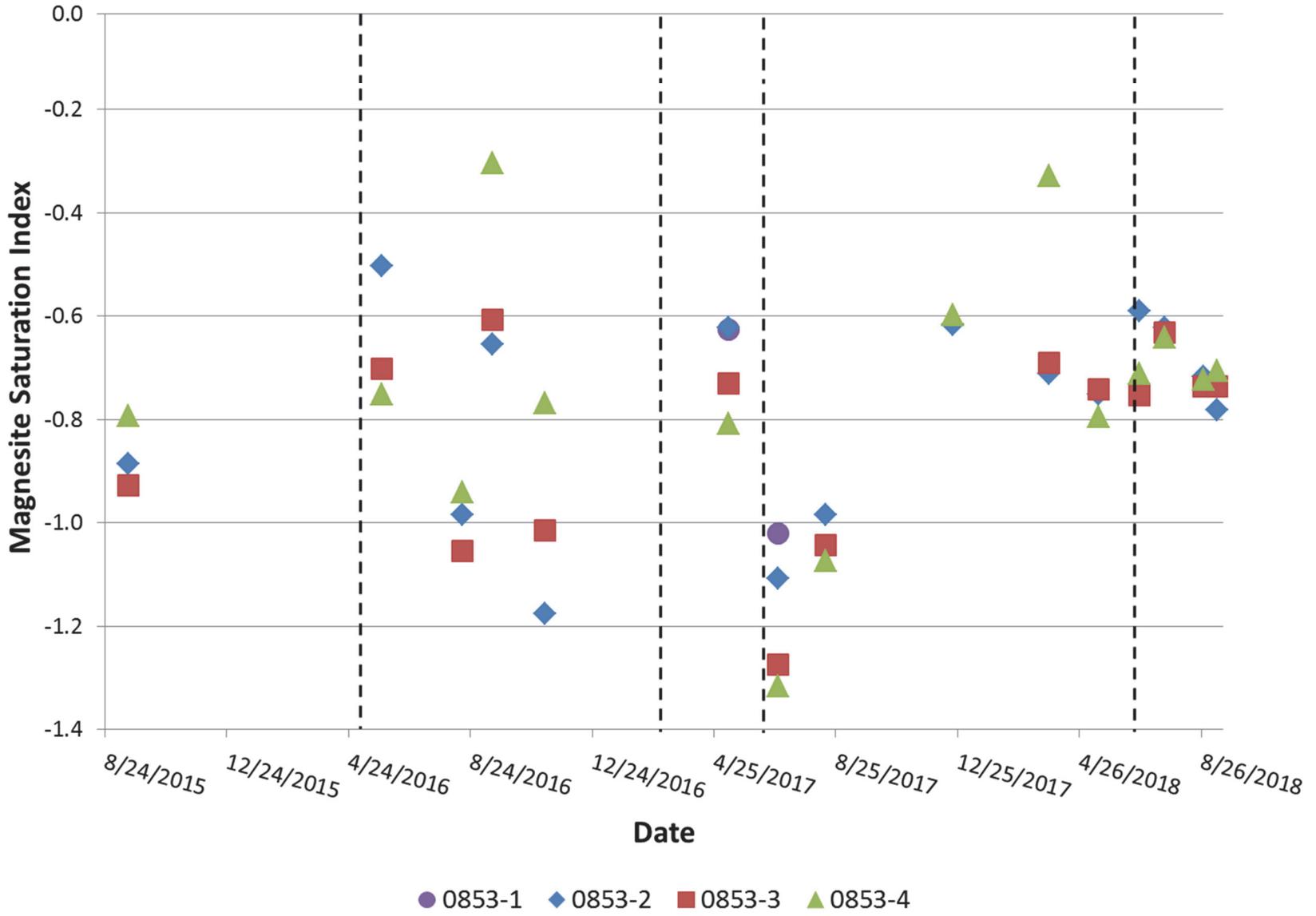
# Well 0853: Calcite Saturation Index



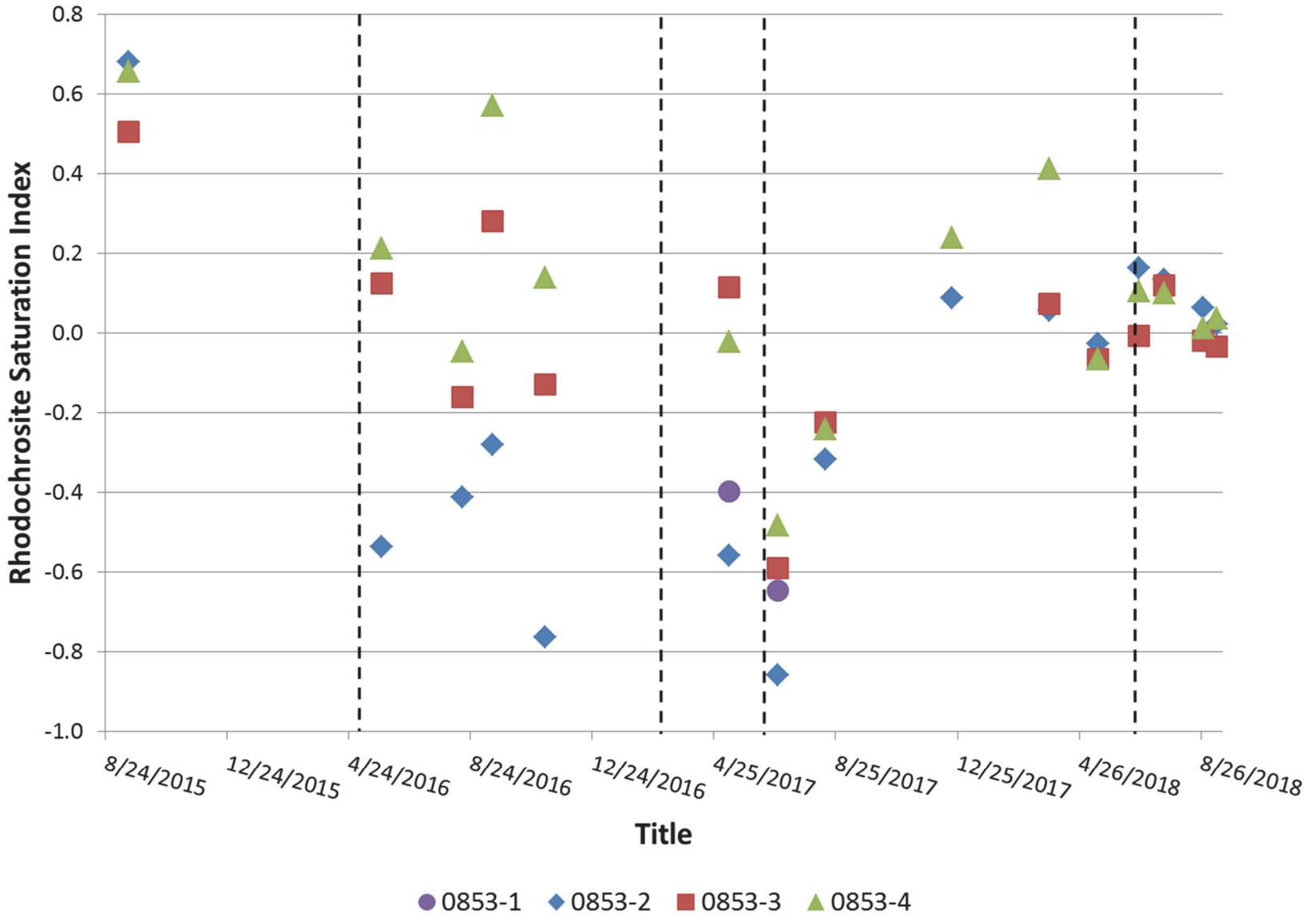
# Well 0853: Dolomite (disordered) Saturation Index



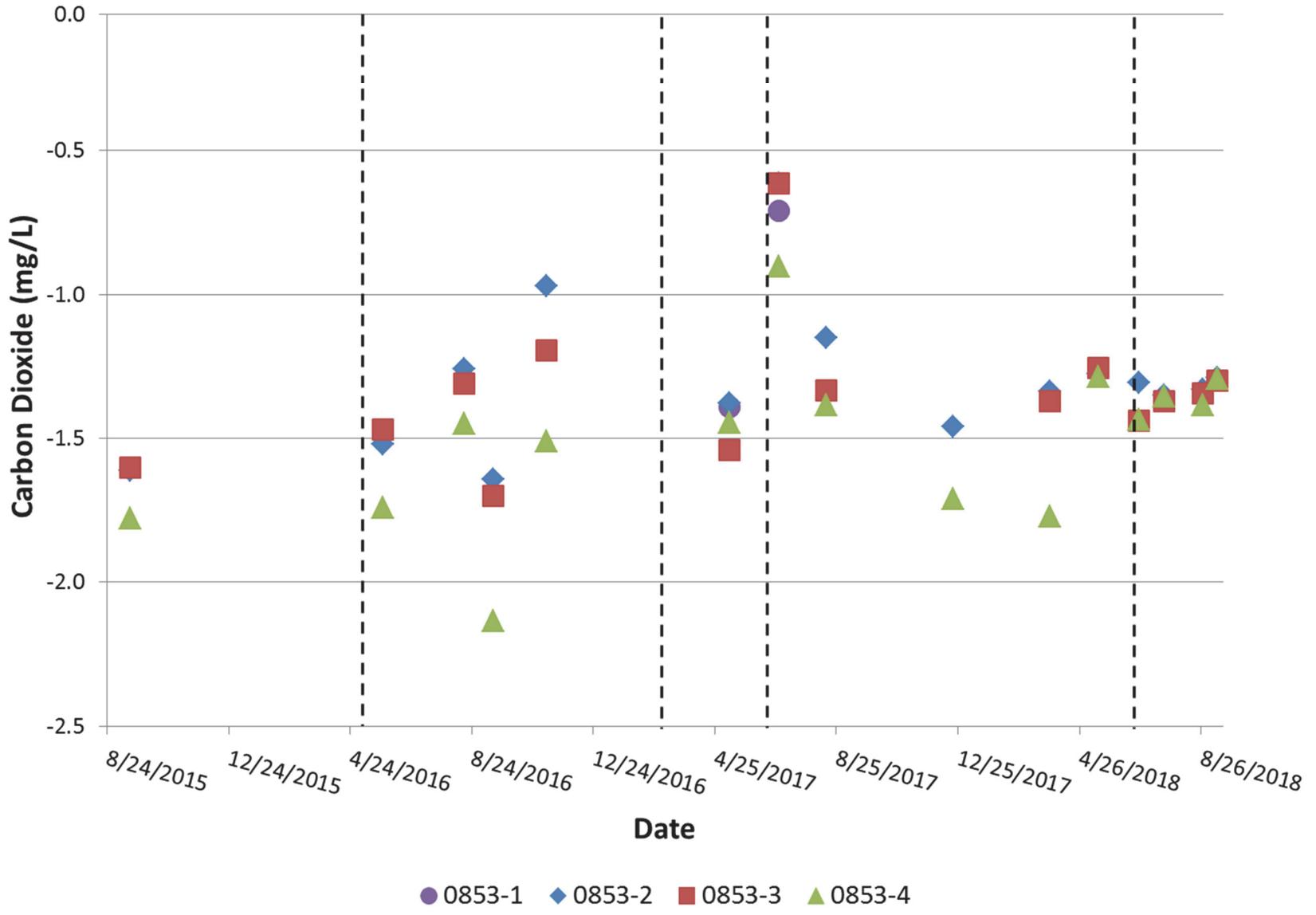
# Well 0853: Magnesite Saturation Index



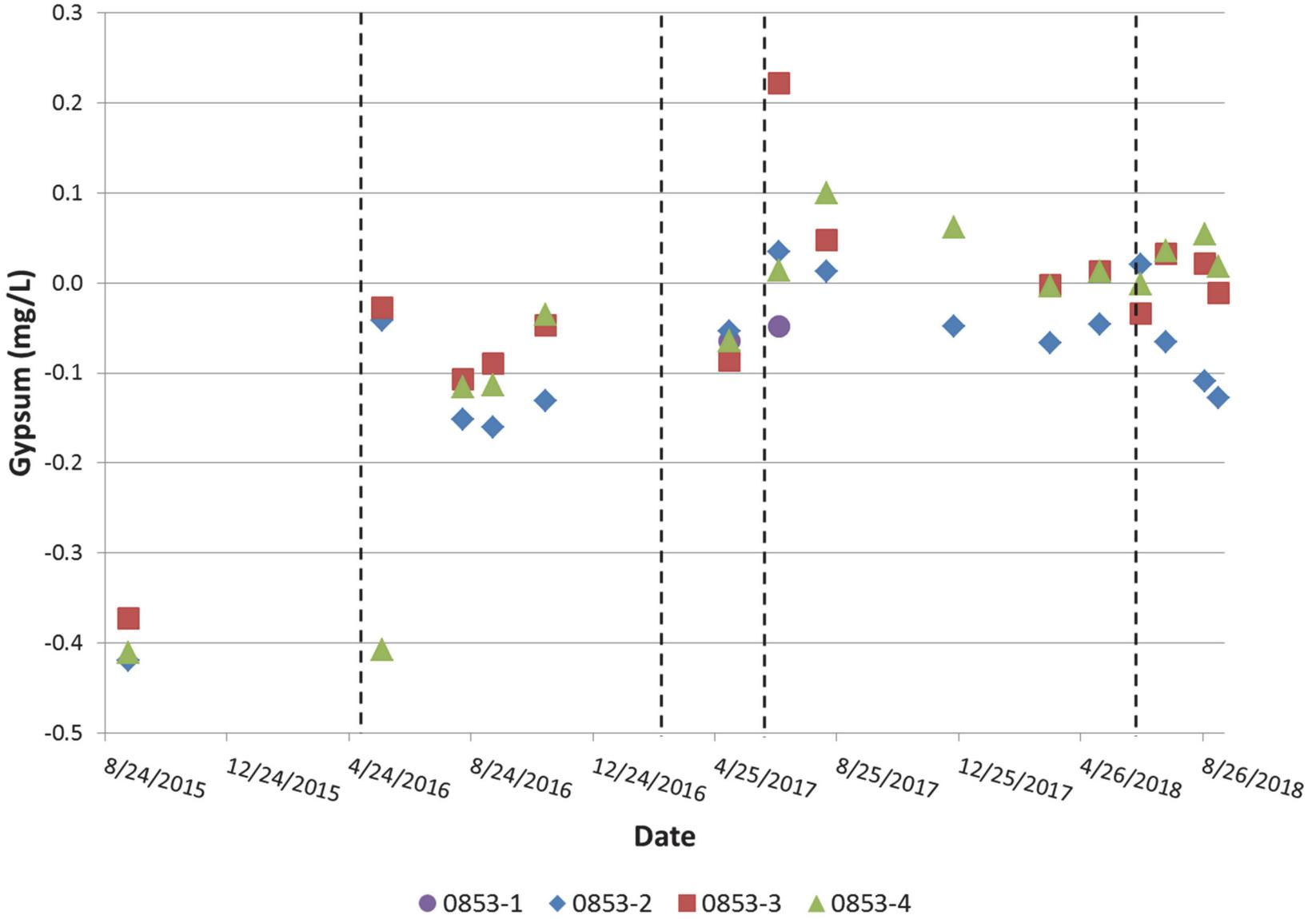
# Well 0853: Rhodochrosite Saturation Index



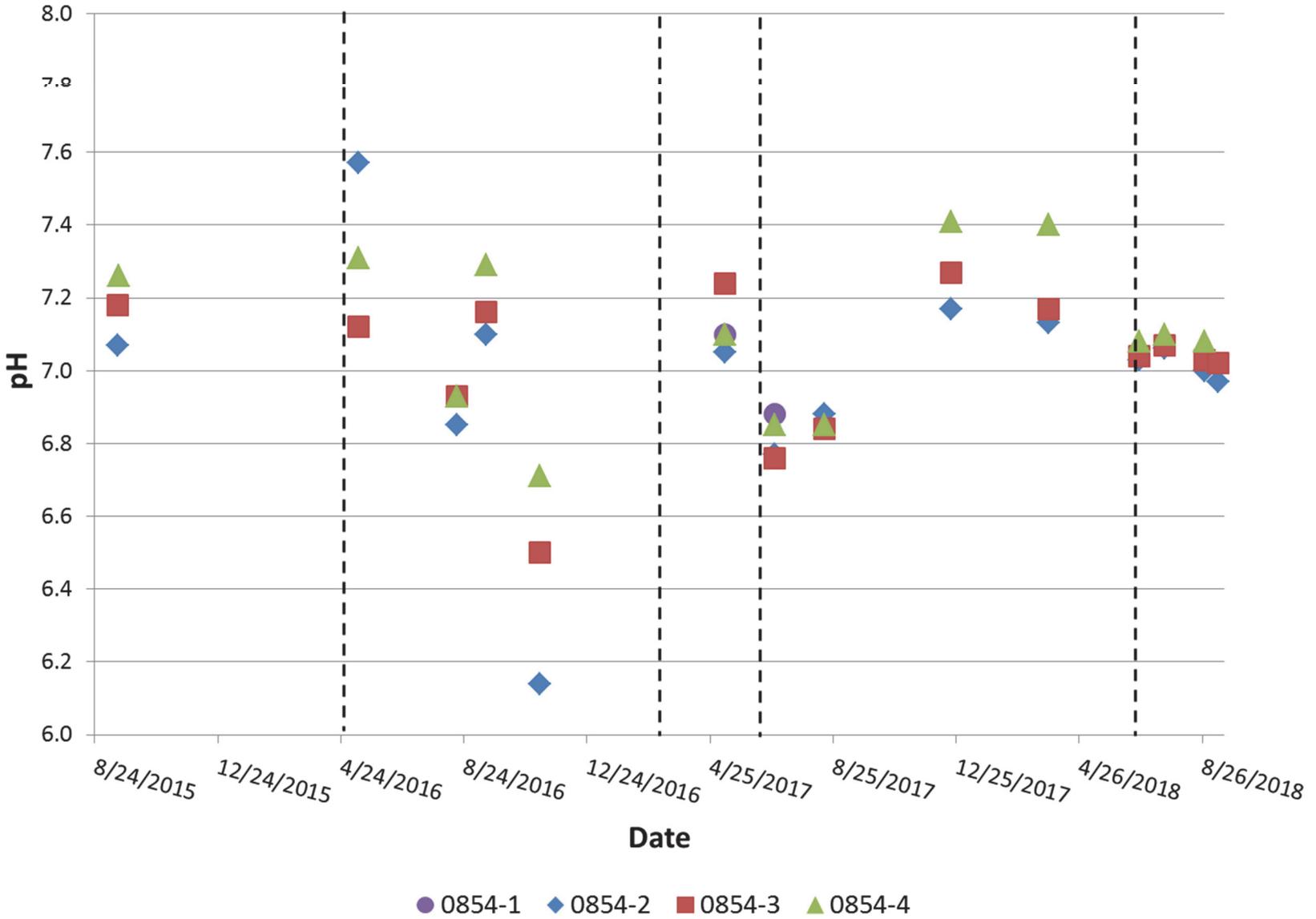
# Well 0853: Carbon Dioxide Saturation Index



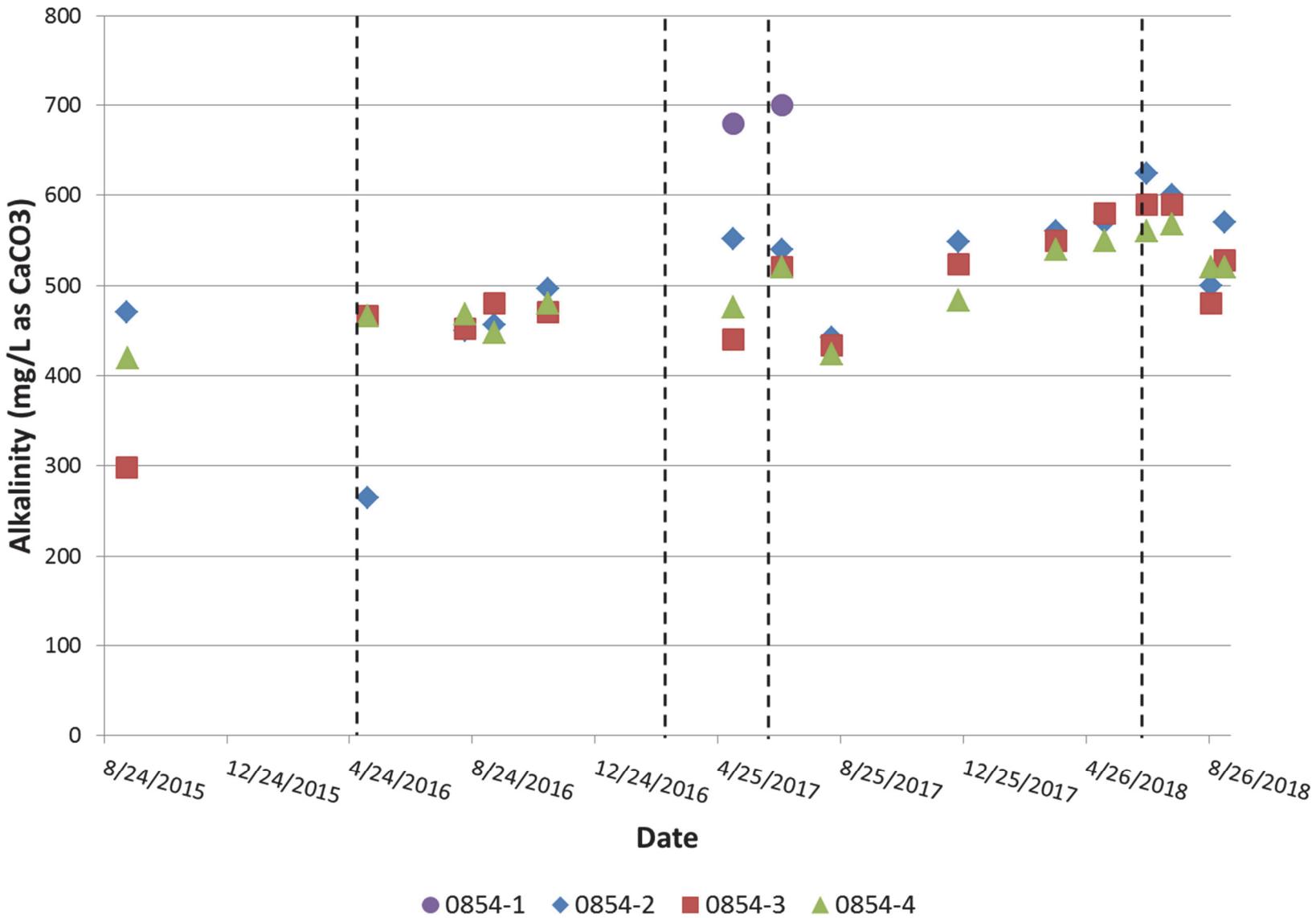
# Well 0853: Gypsum Saturation Index



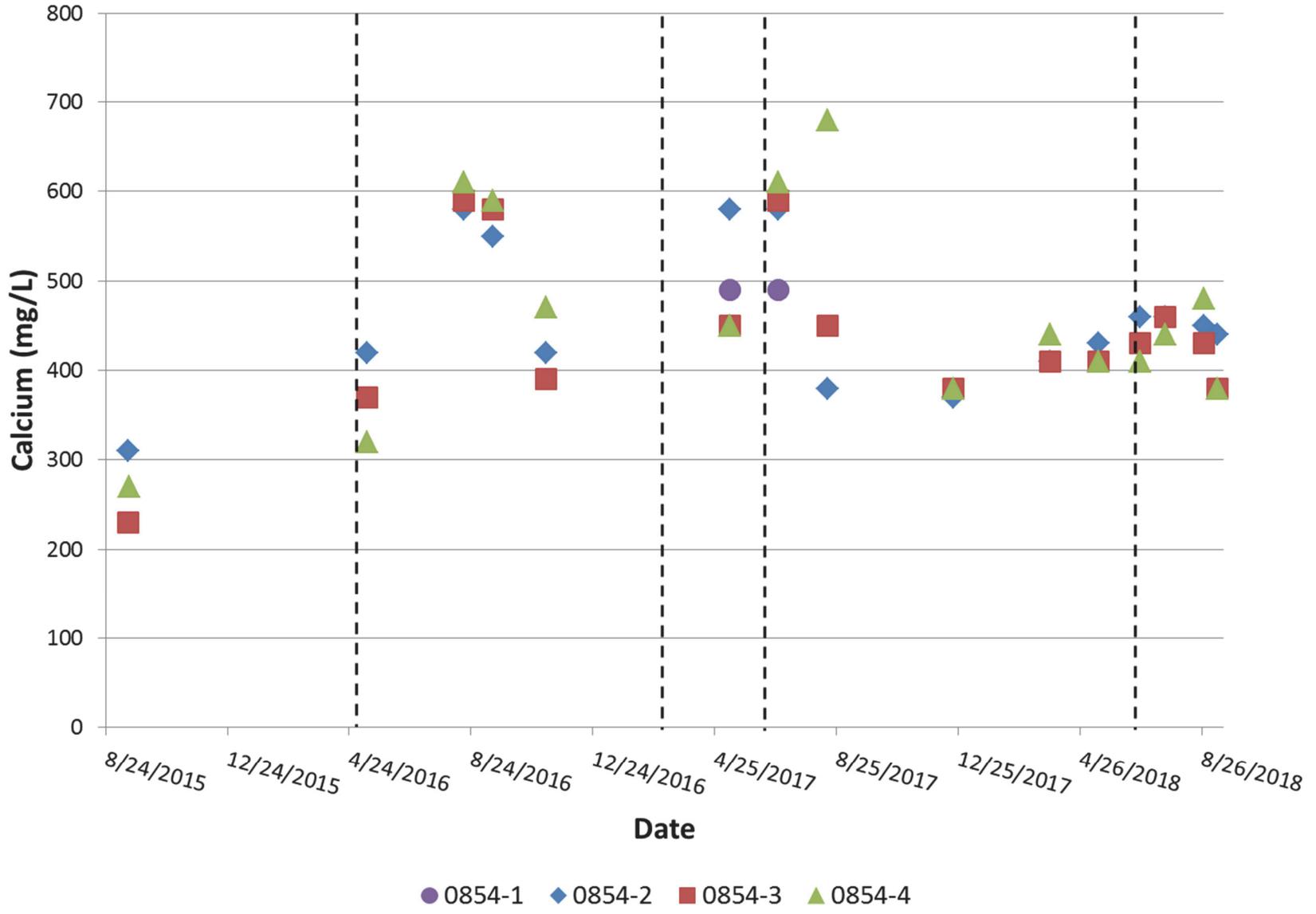
# Well 0854: pH



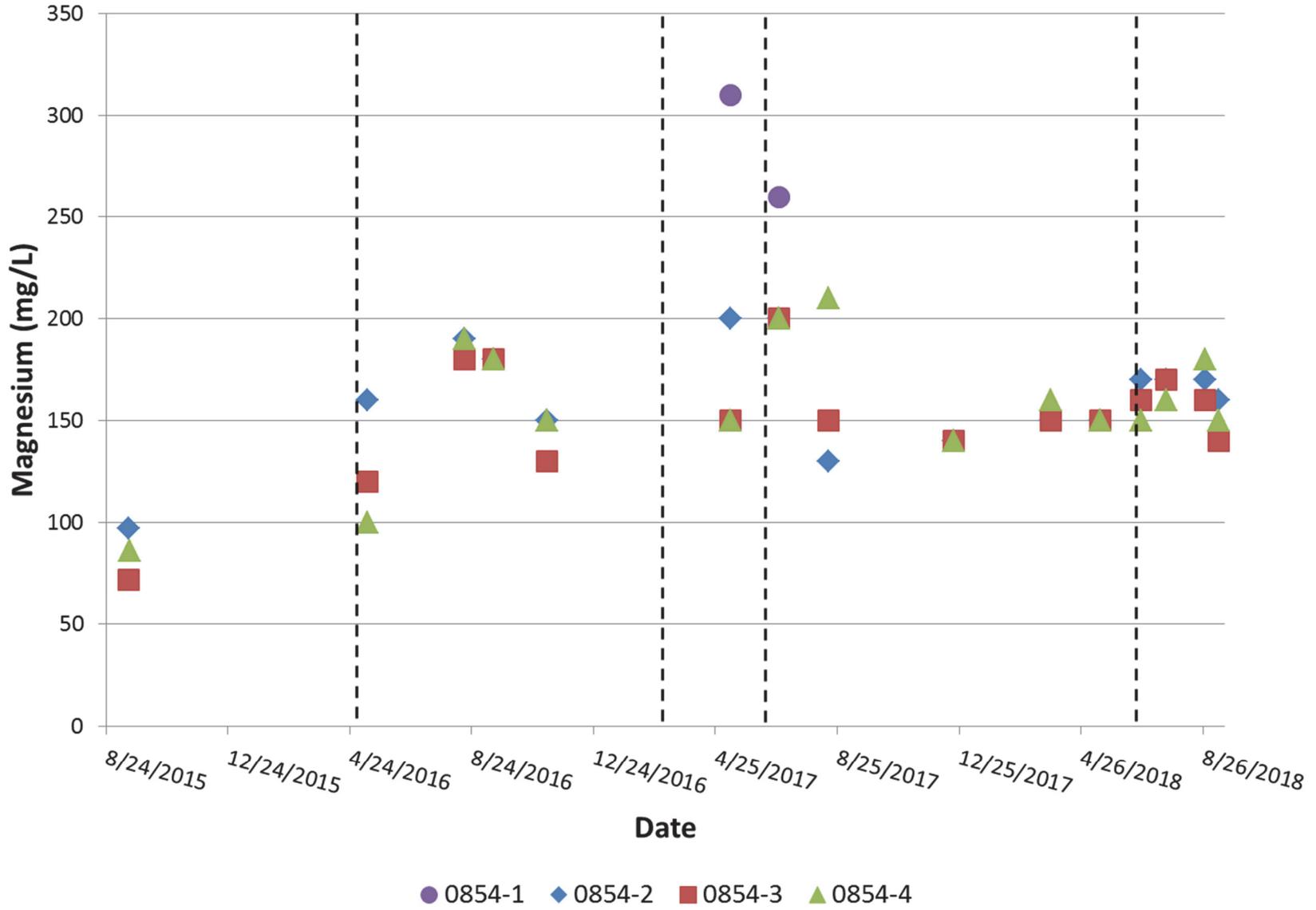
# Well 0854: Alkalinity



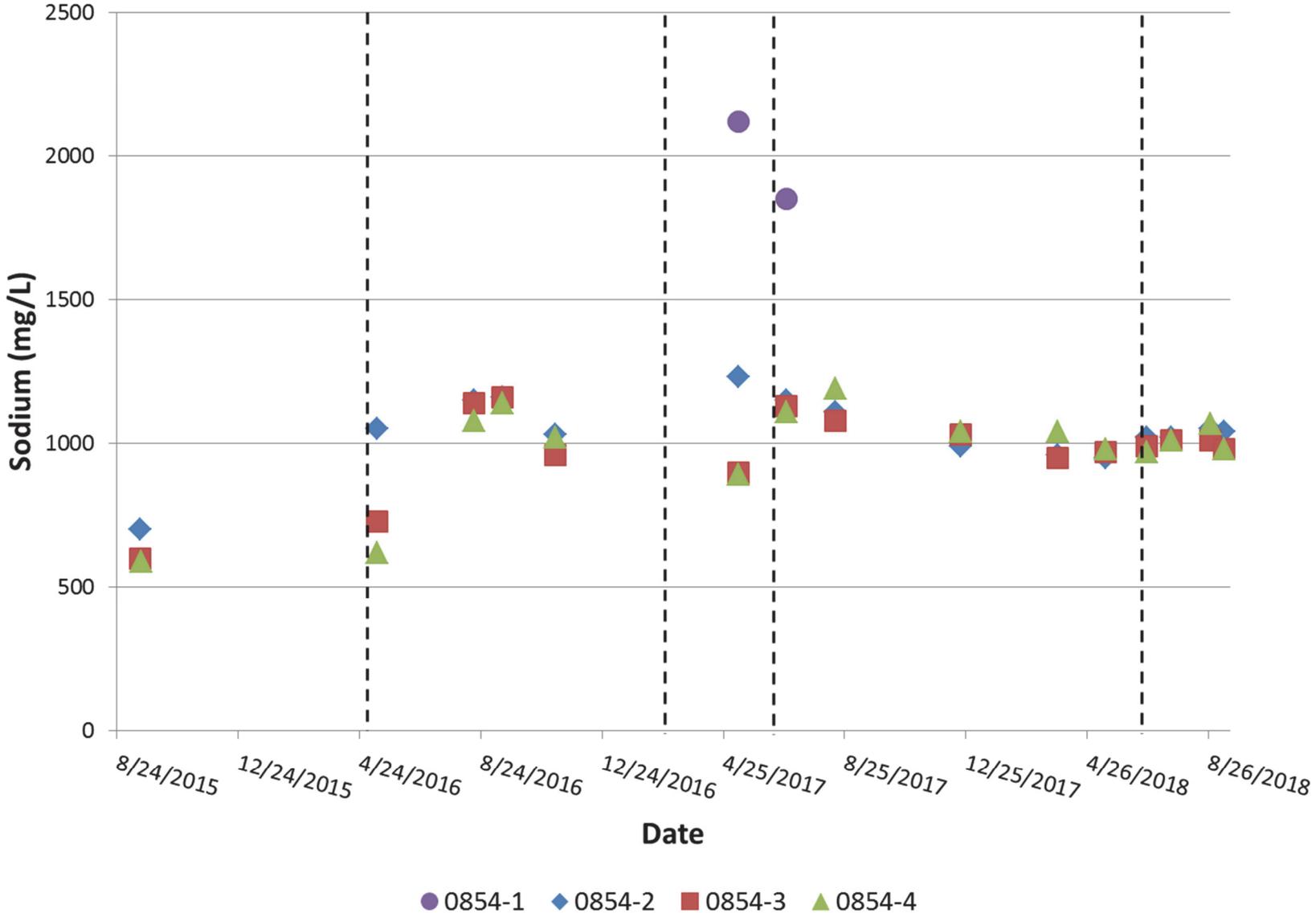
# Well 0854: Calcium



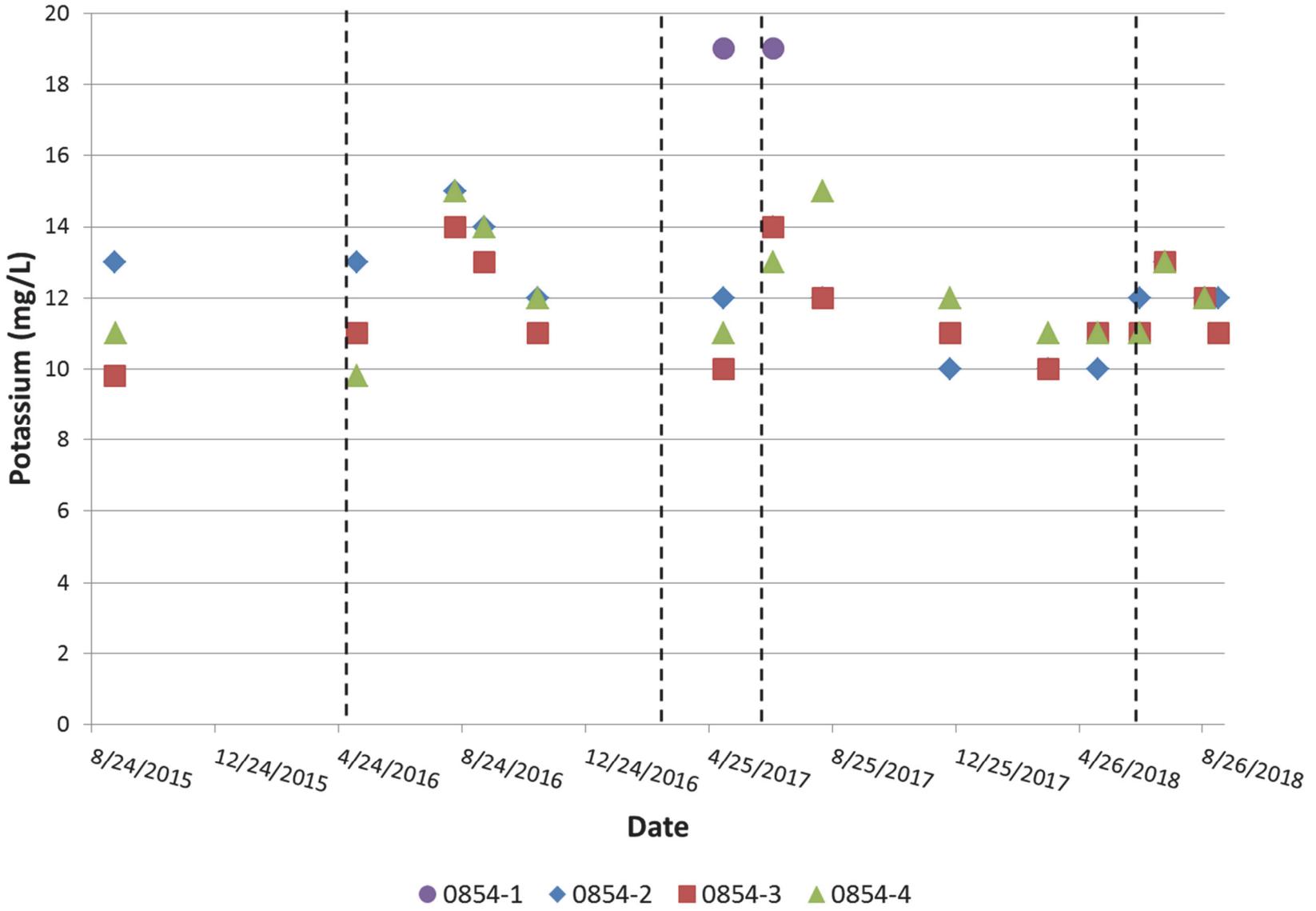
# Well 0854: Magnesium



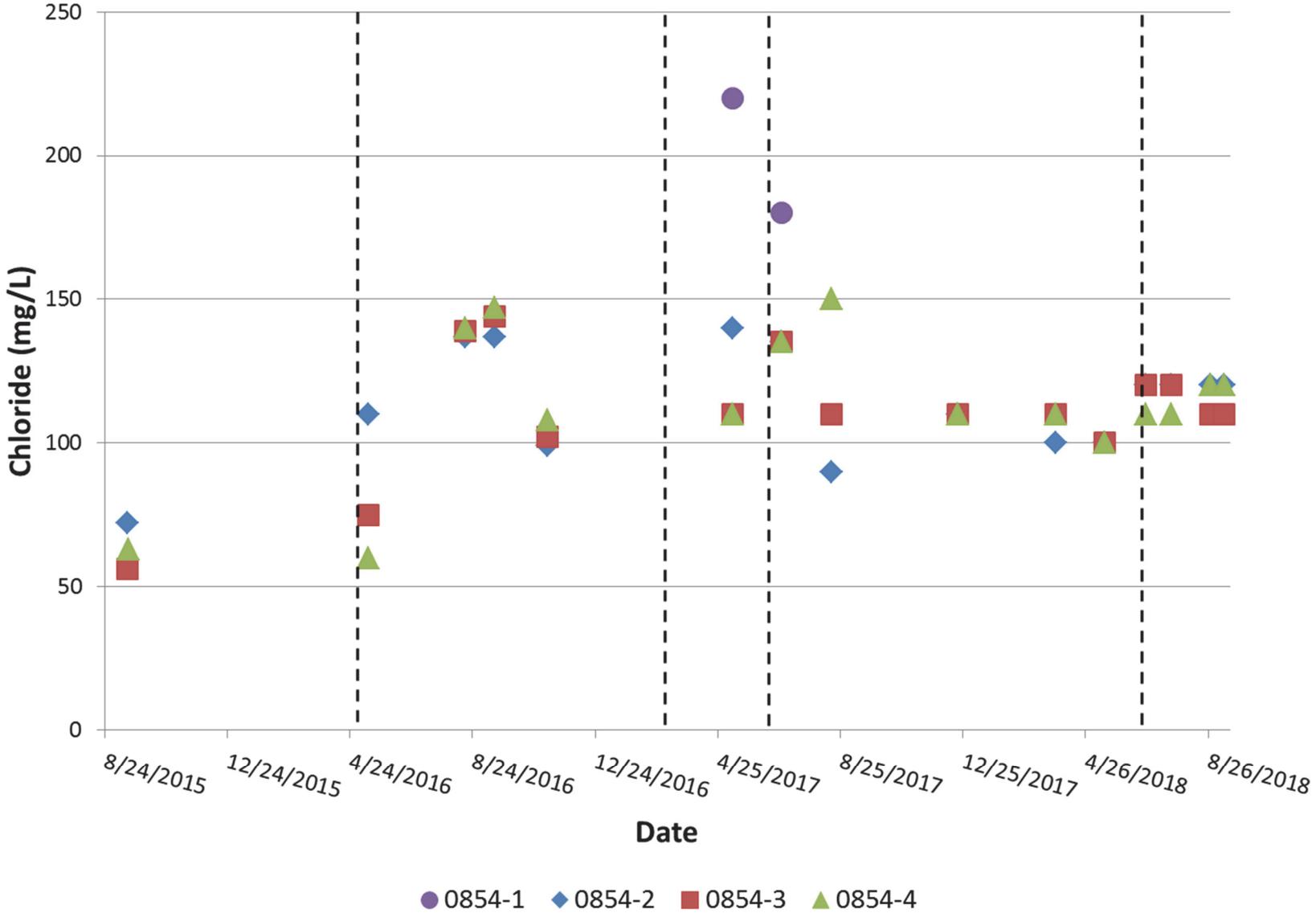
# Well 0854: Sodium



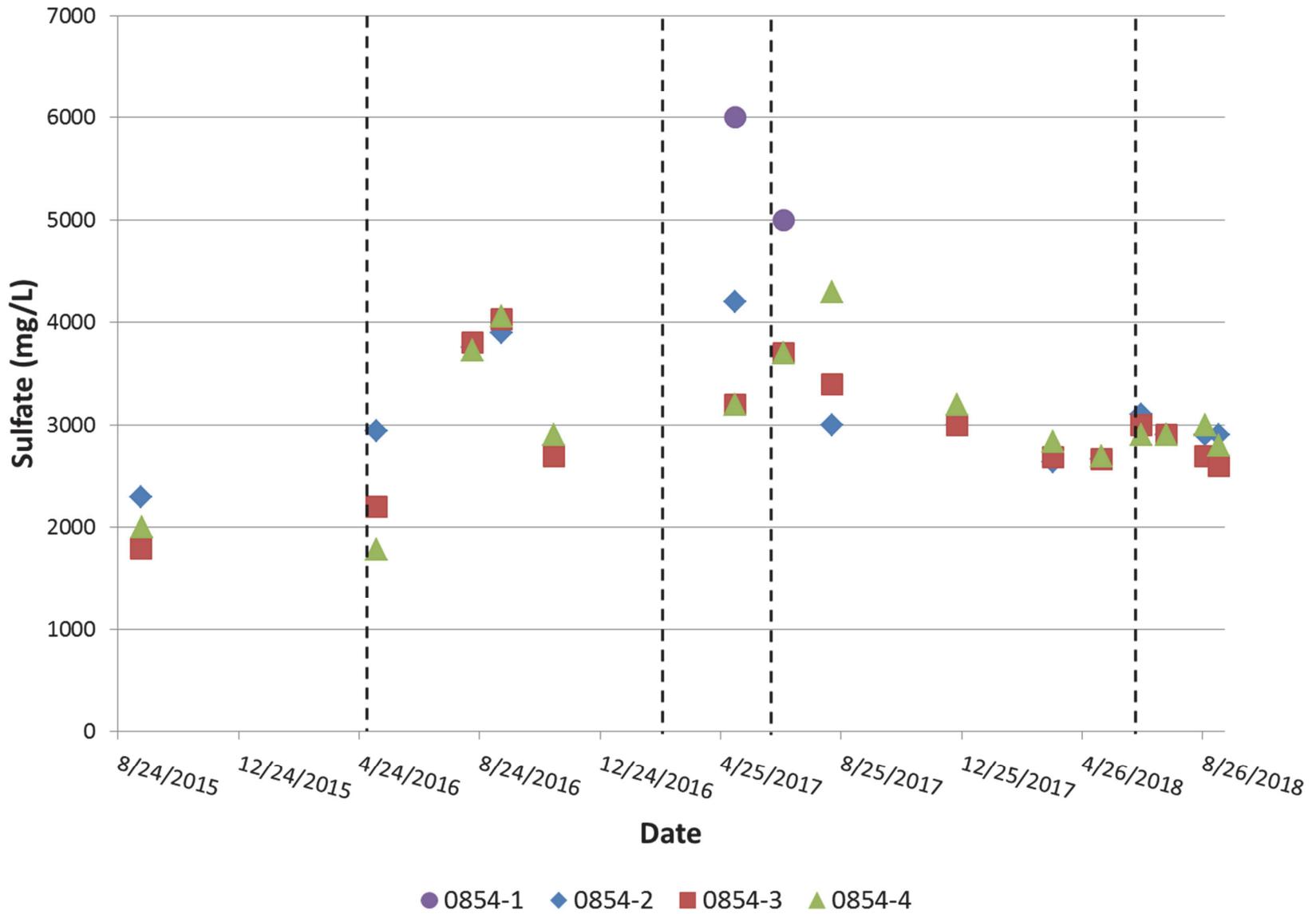
# Well 0854: Potassium



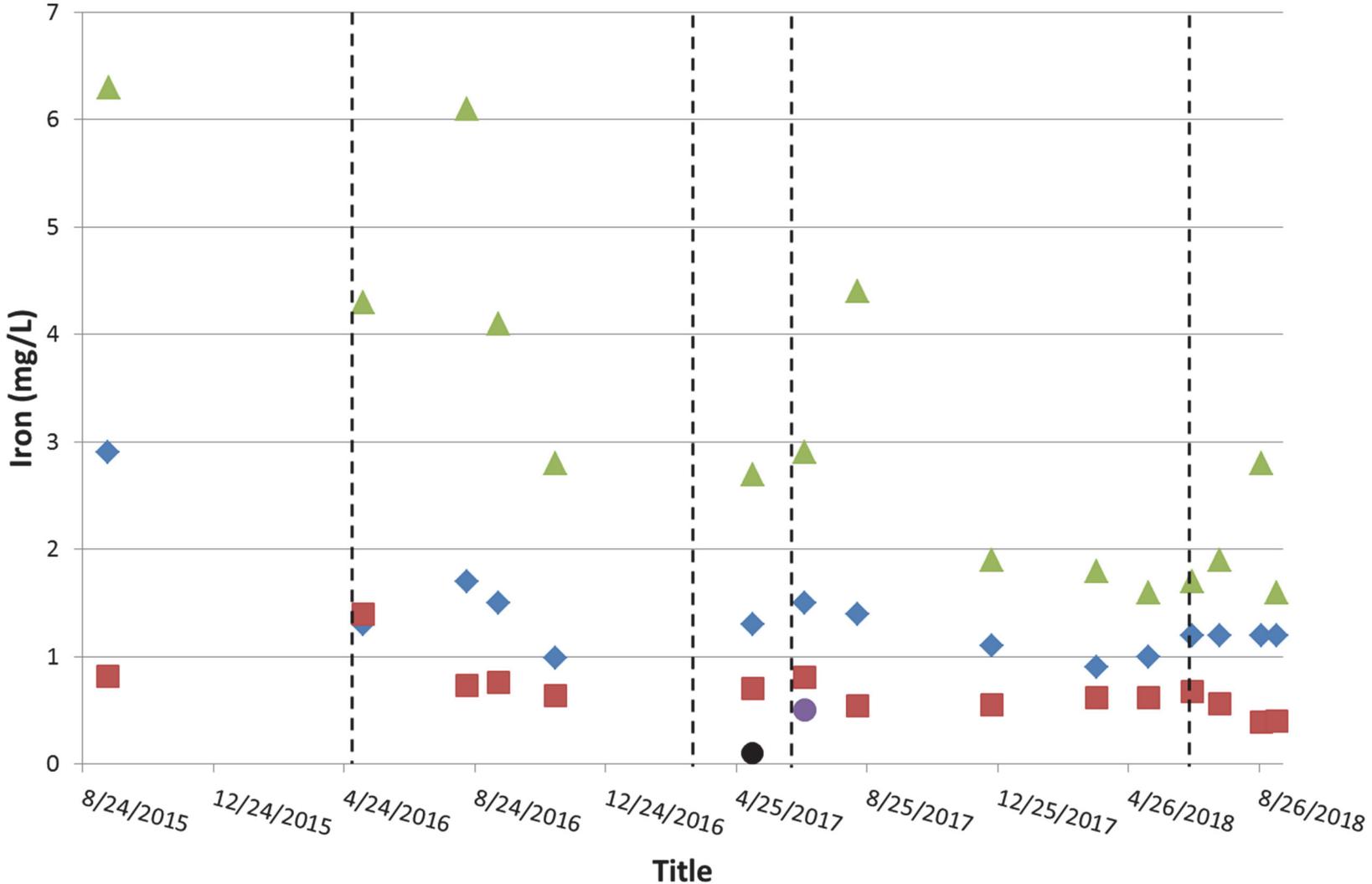
# Well 0854: Chloride



# Well 0854: Sulfate



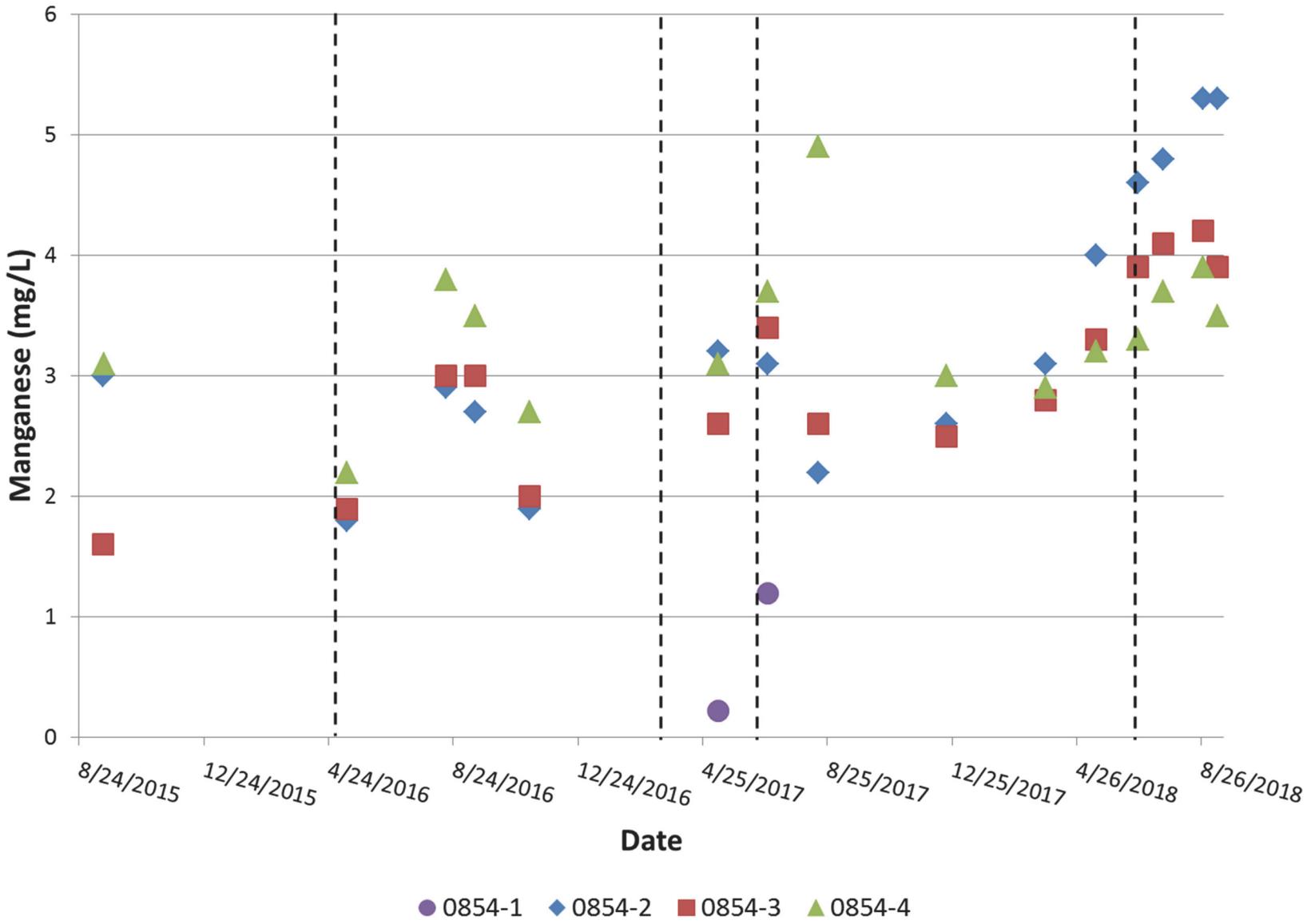
# Well 0854: Iron



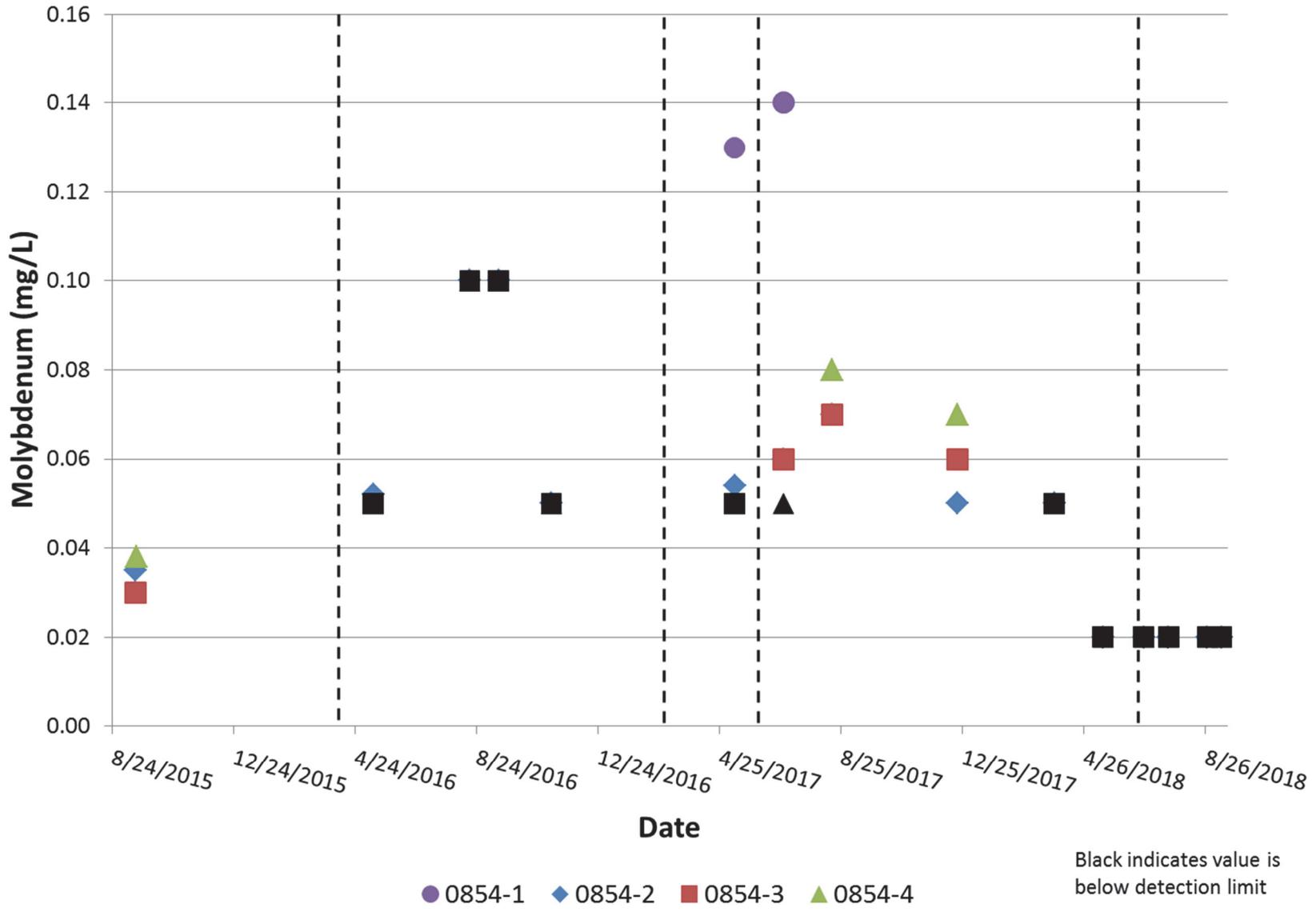
● 0854-1    ◆ 0854-2    ■ 0854-3    ▲ 0854-4

Black indicates value is below detection limit

# Well 0854: Manganese

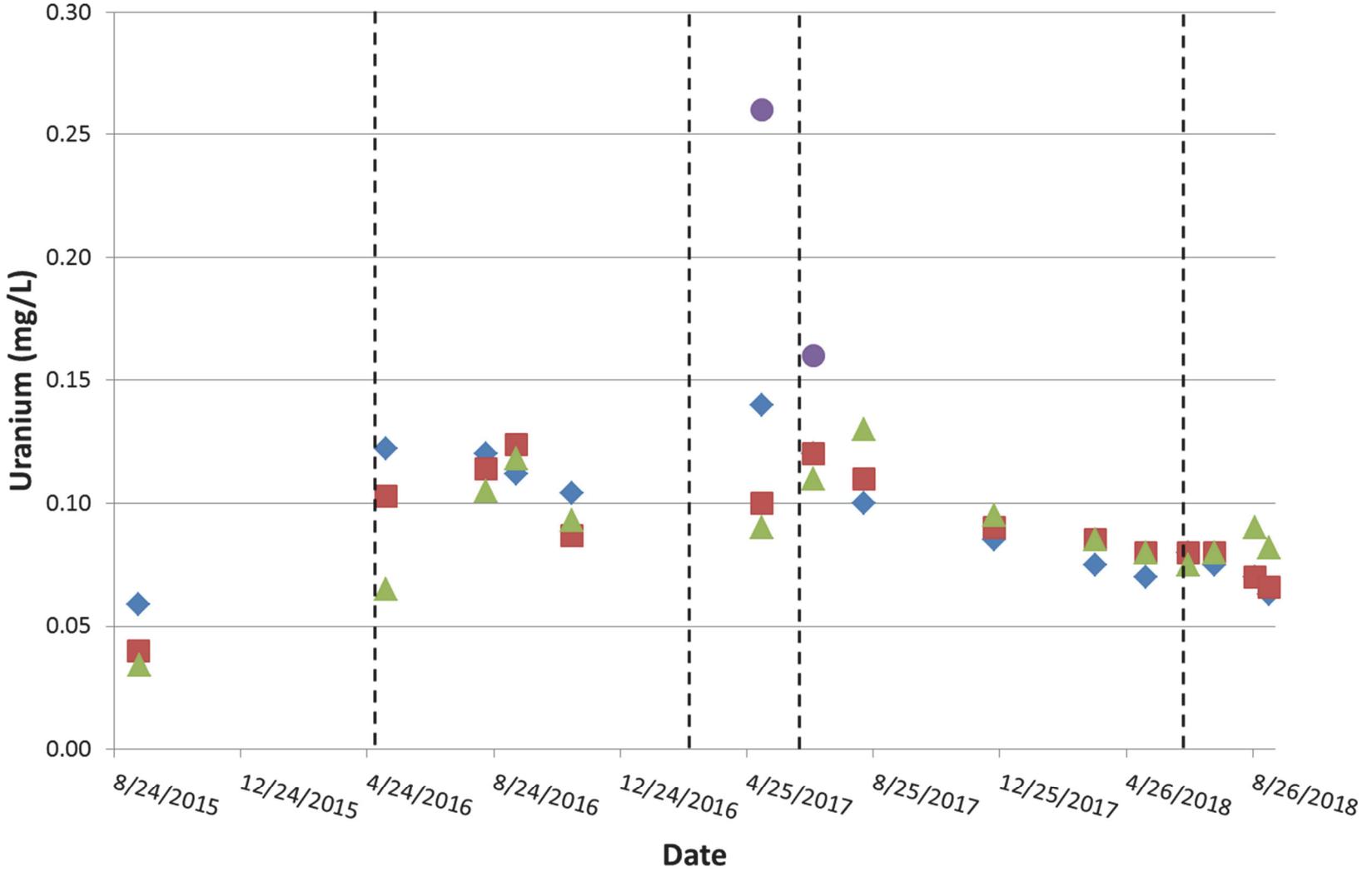


# Well 0854: Molybdenum



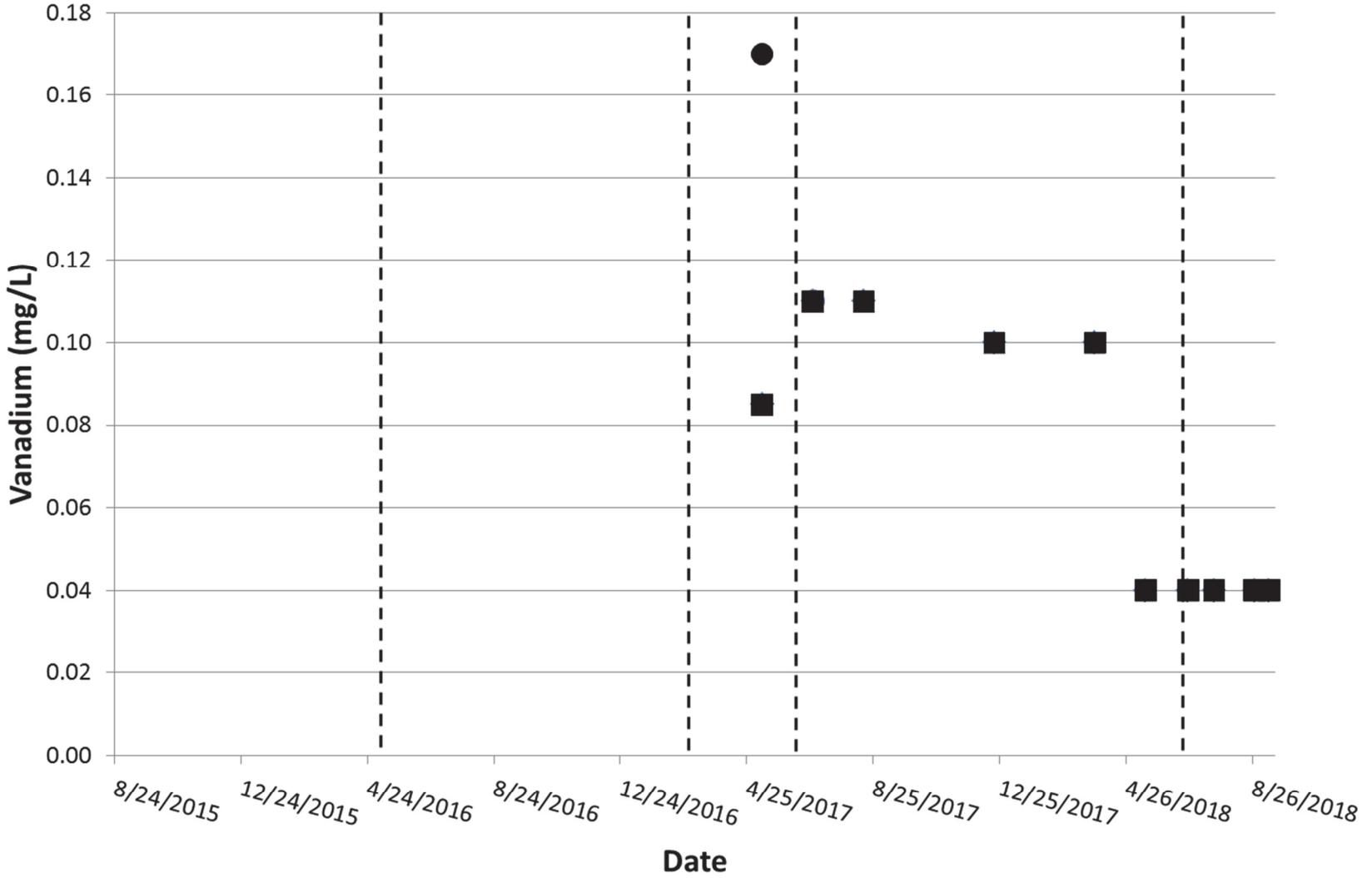
Black indicates value is below detection limit

# Well 0854: Uranium



● 0854-1    ◆ 0854-2    ■ 0854-3    ▲ 0854-4

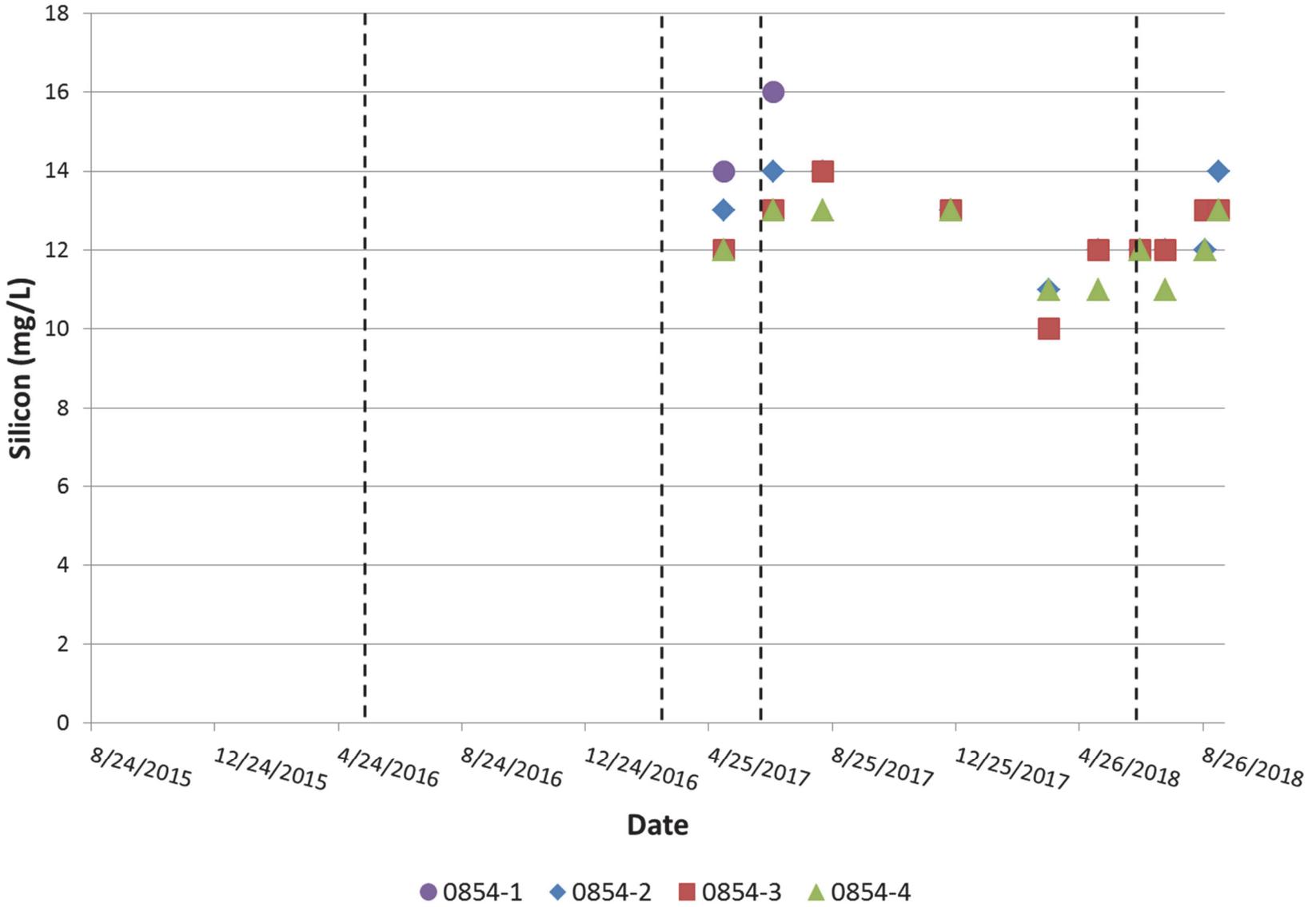
# Well 0854: Vanadium



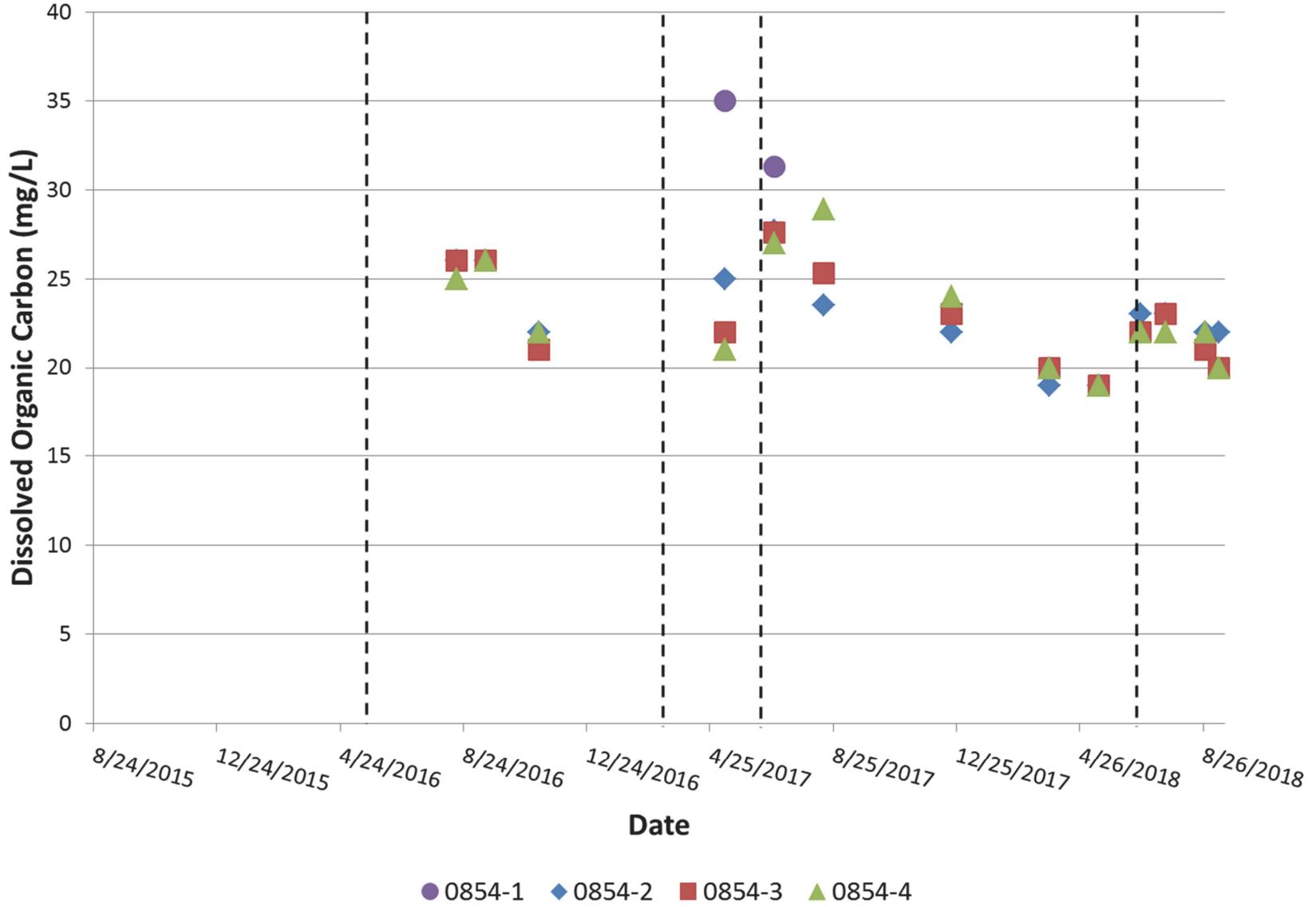
● 0854-1   ♦ 0854-2   ■ 0854-3   ▲ 0854-4

Black indicates value is below detection limit

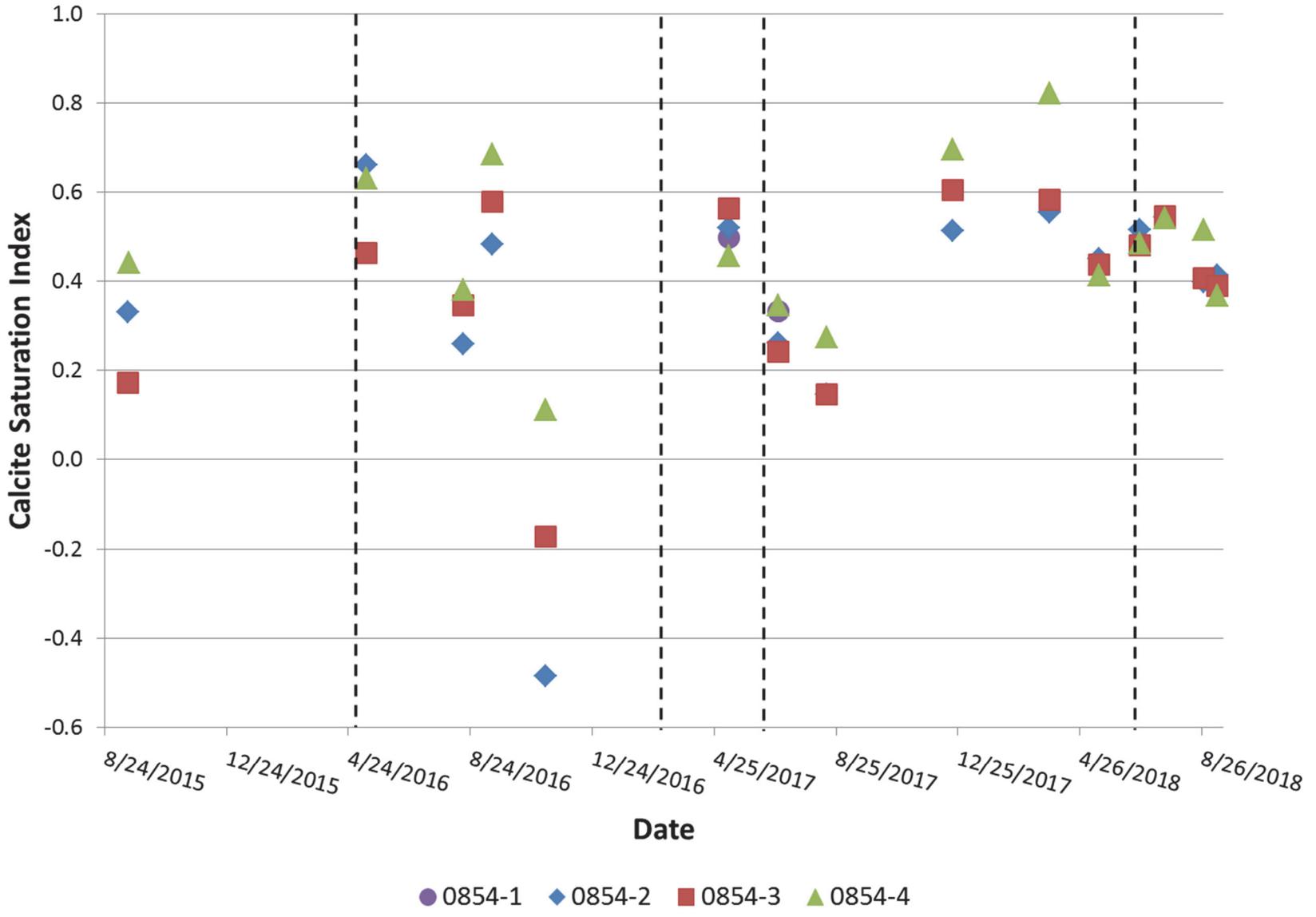
# Well 0854: Silicon



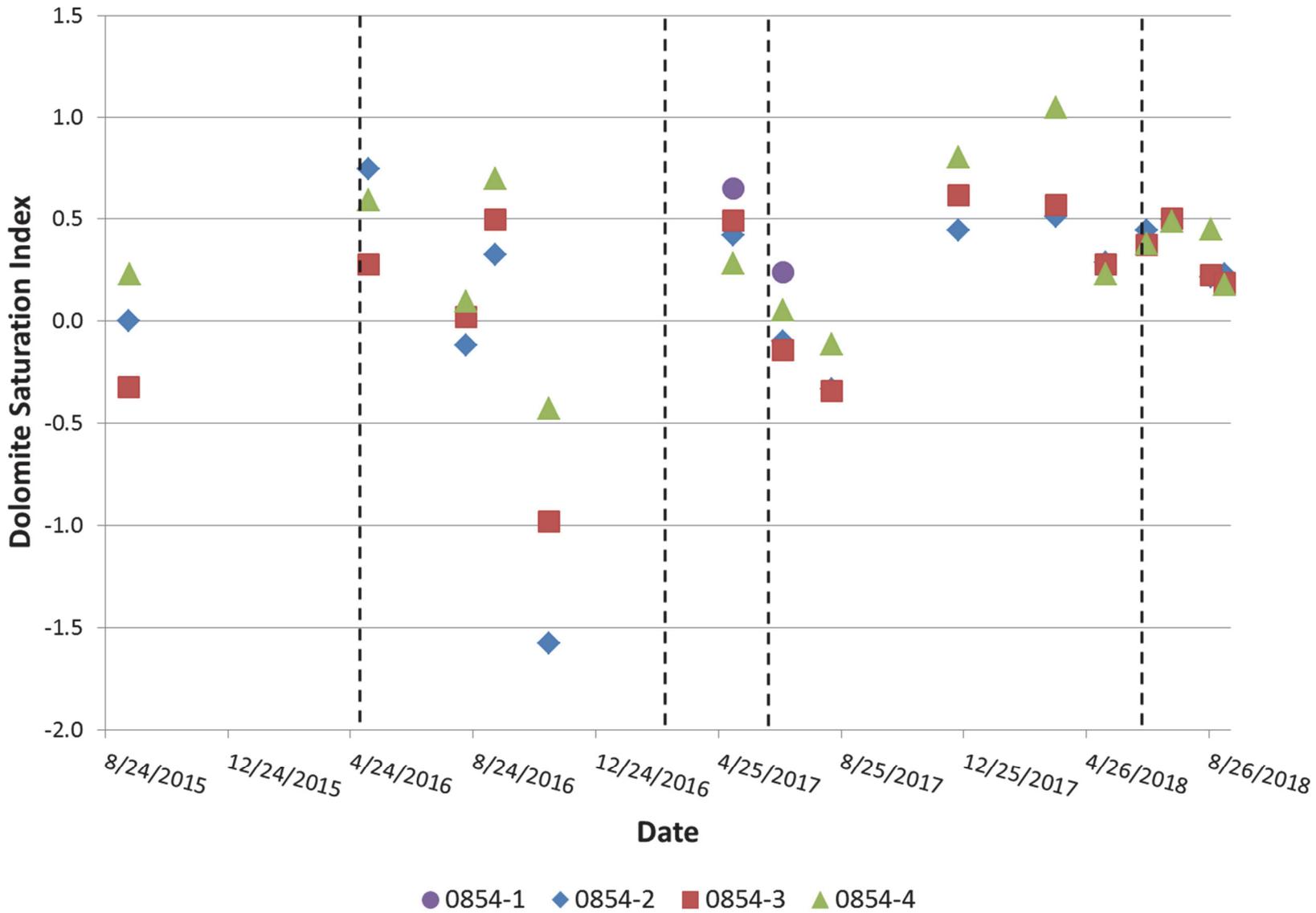
# Well 0854: DOC



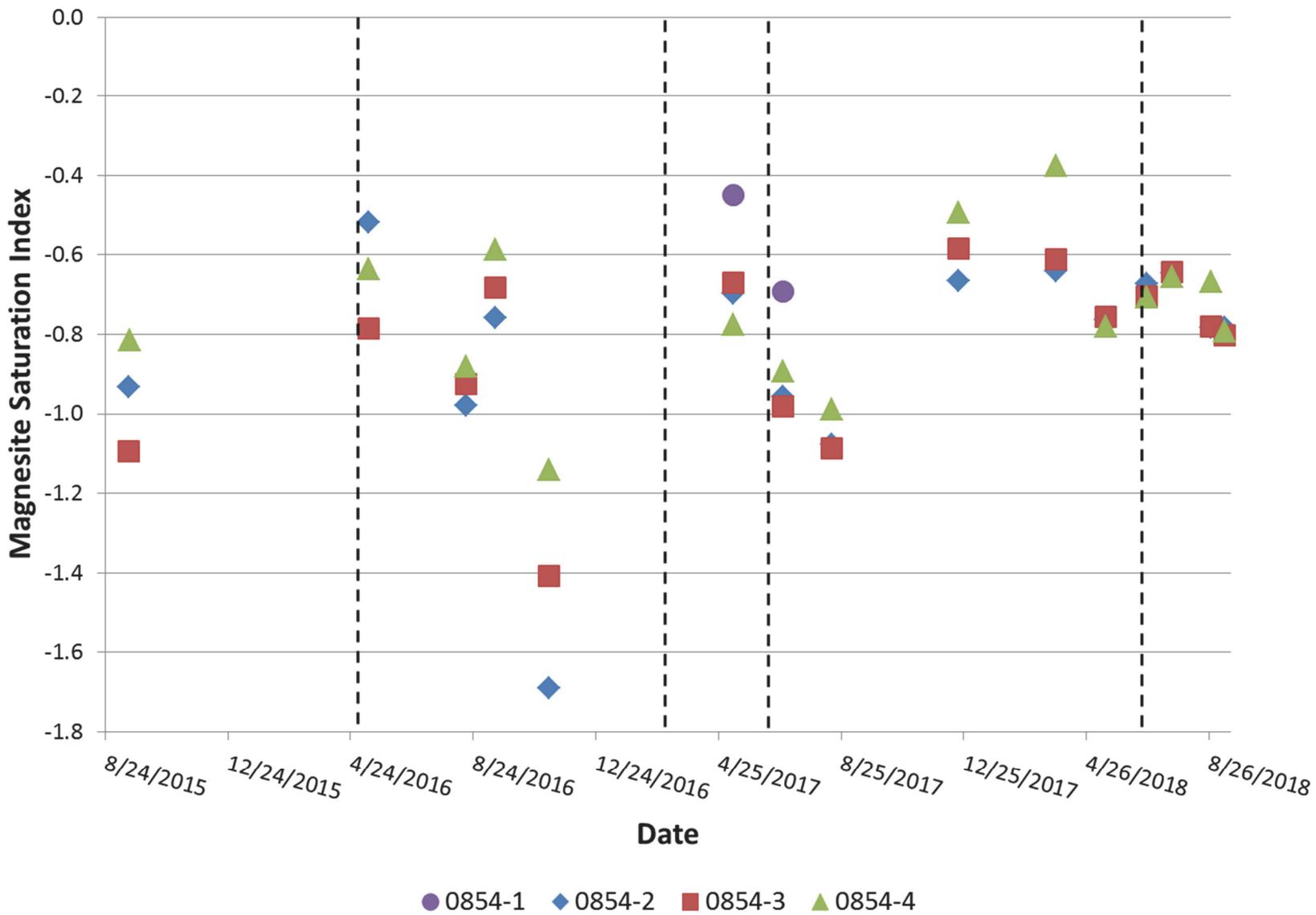
# Well 0854: Calcite Saturation Index



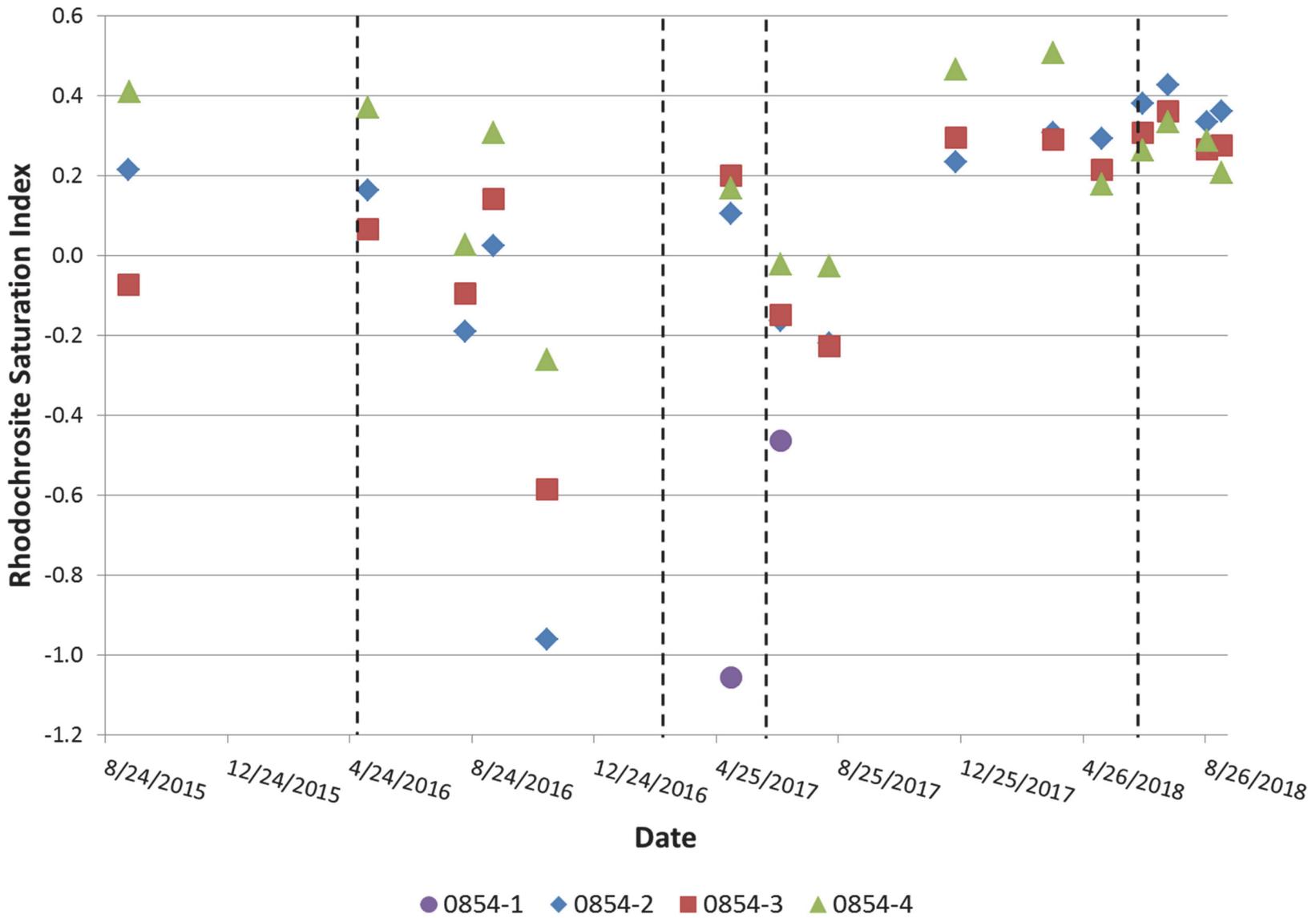
# Well 0854: Dolomite (disordered) Saturation Index



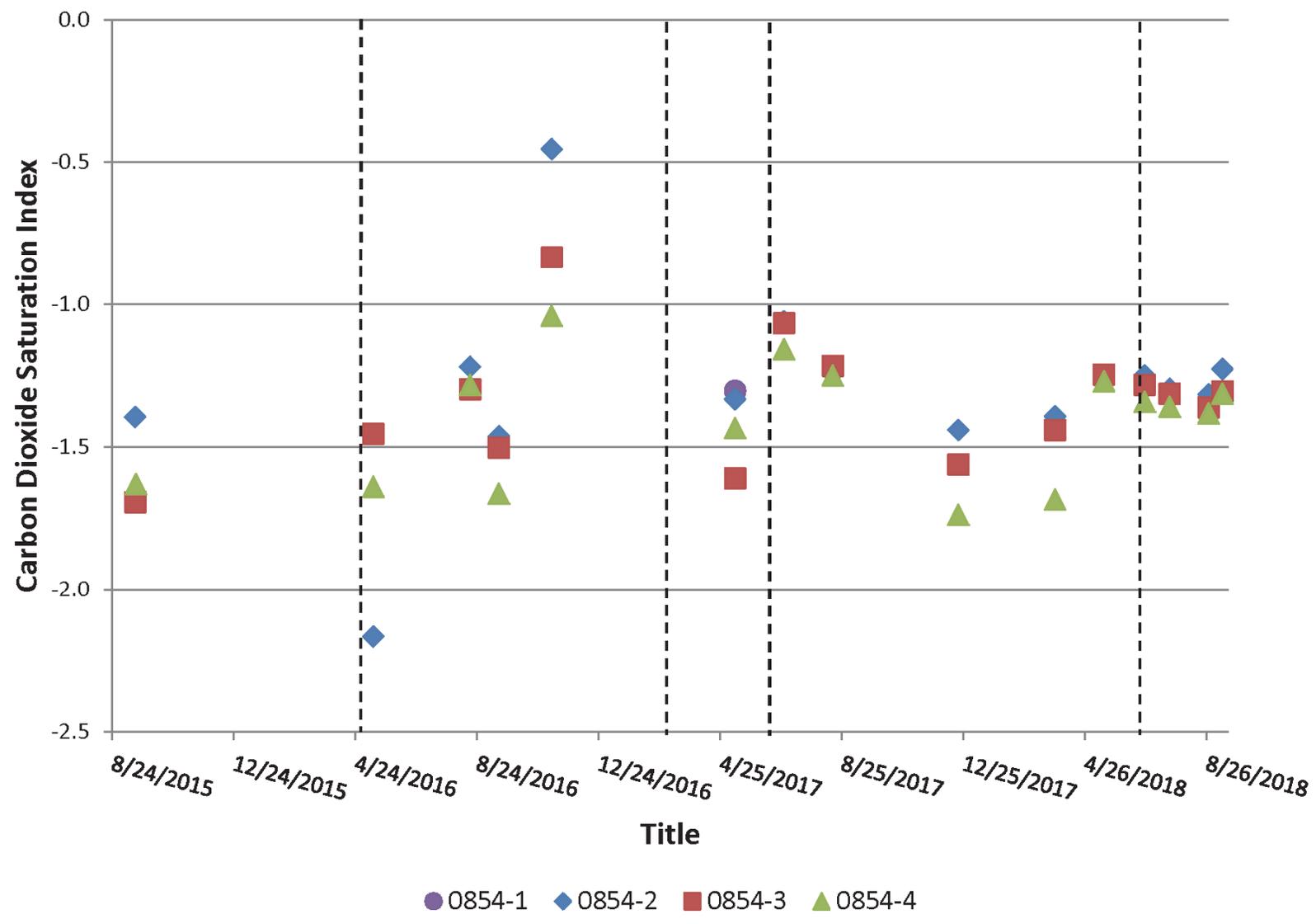
# Well 0854: Magnesite Saturation Index



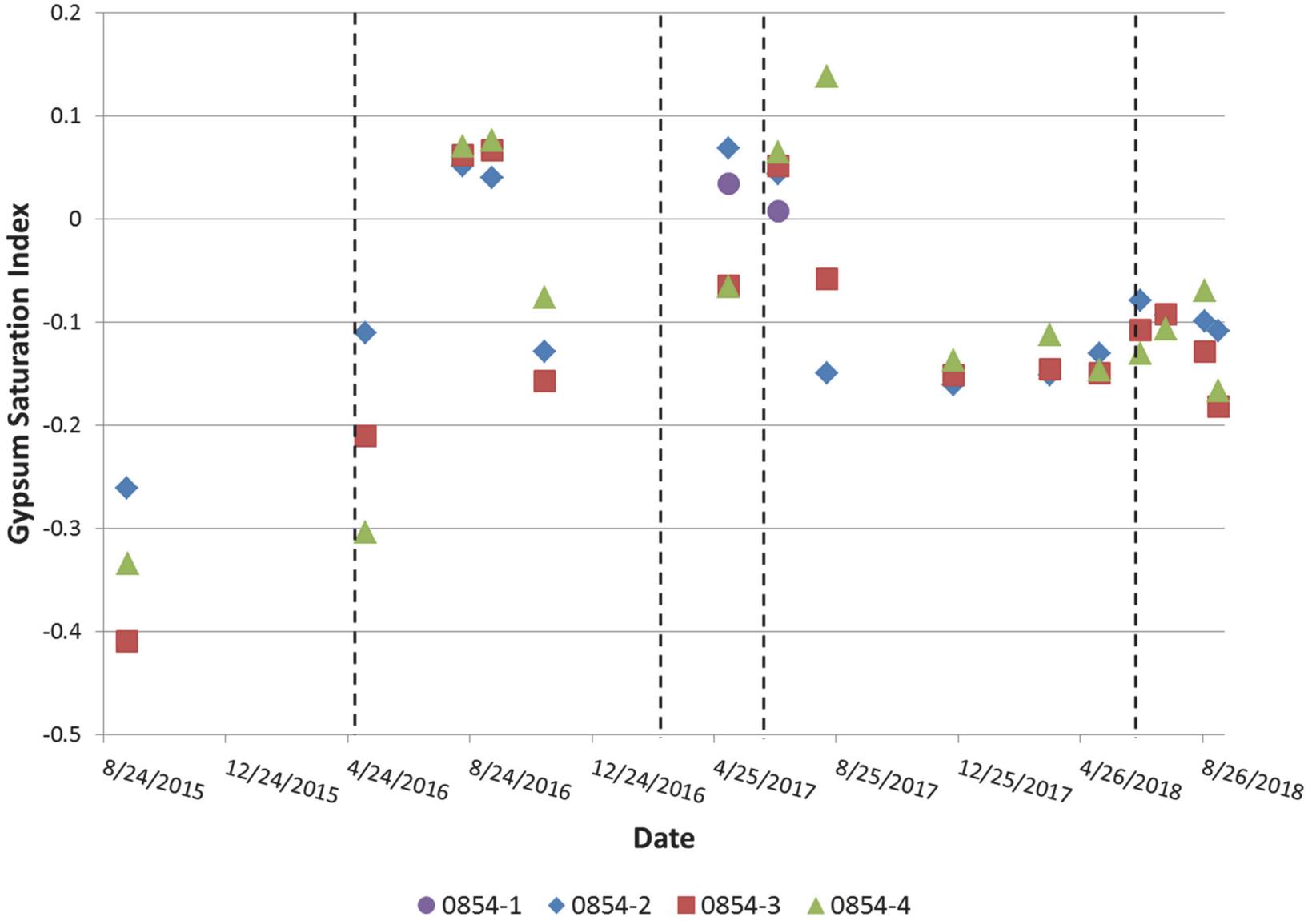
# Well 0854: Rhodochrosite Saturation Index



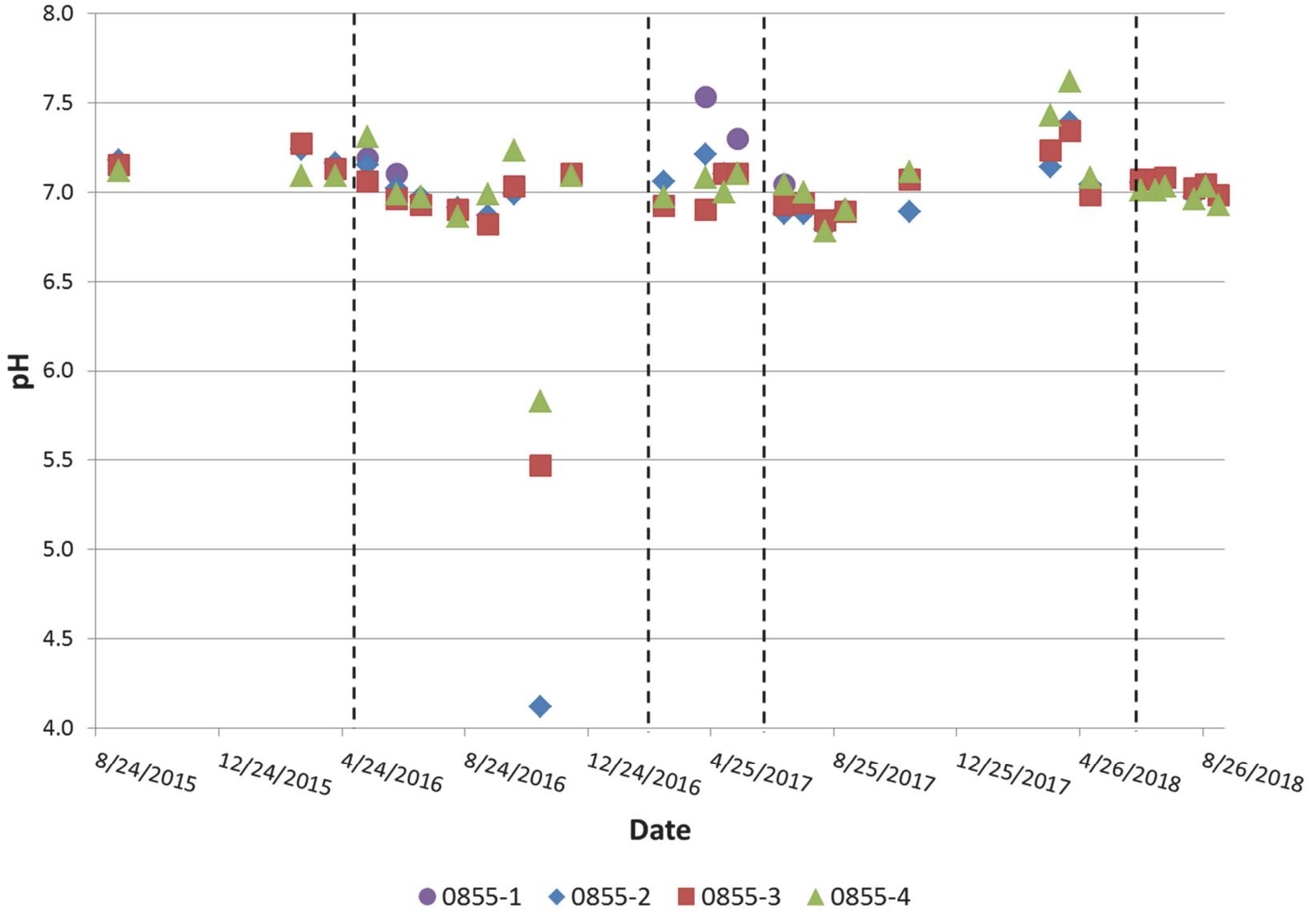
# Well 0854: Carbon Dioxide Saturation Index



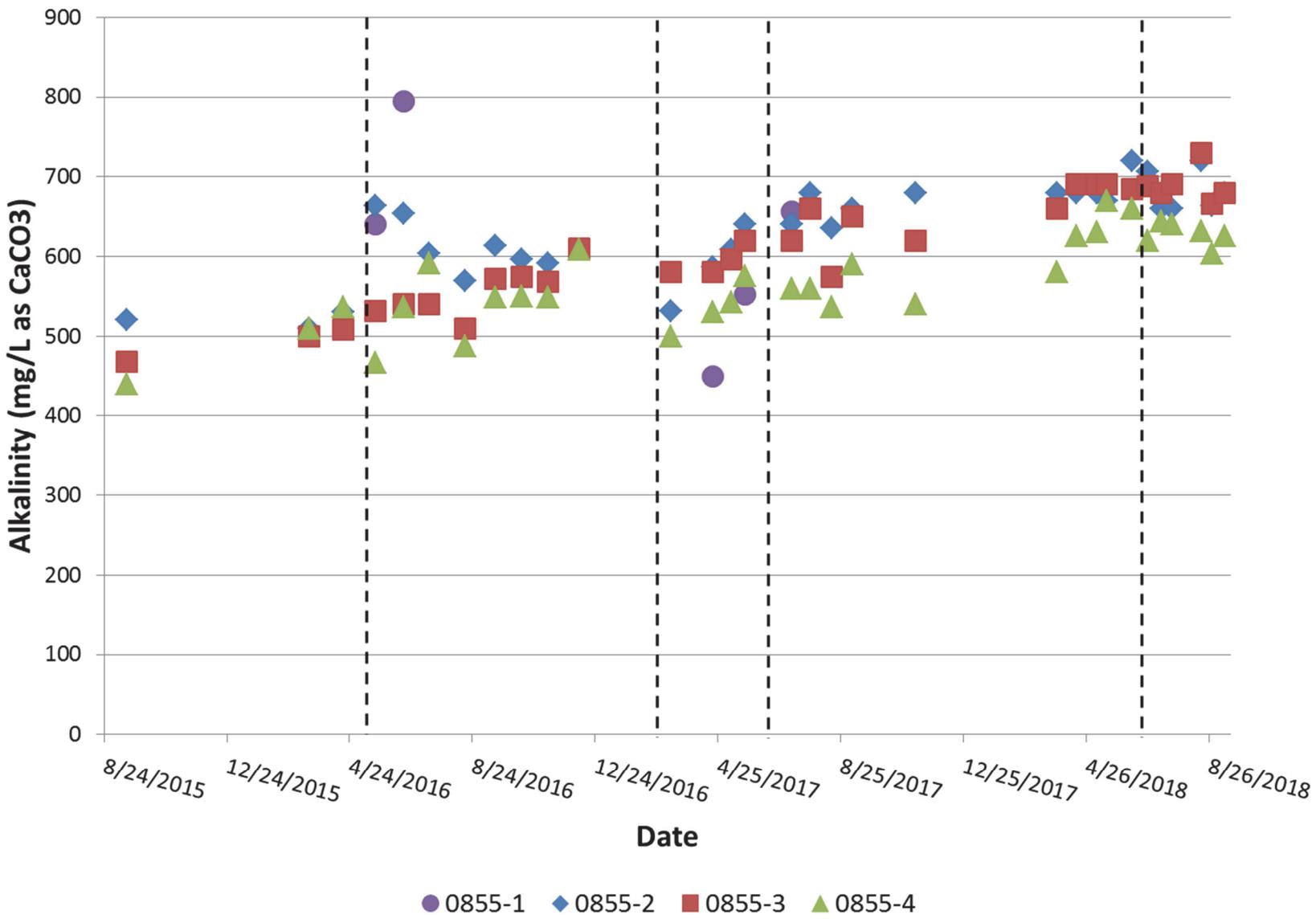
# Well 0854: Gypsum Saturation Index



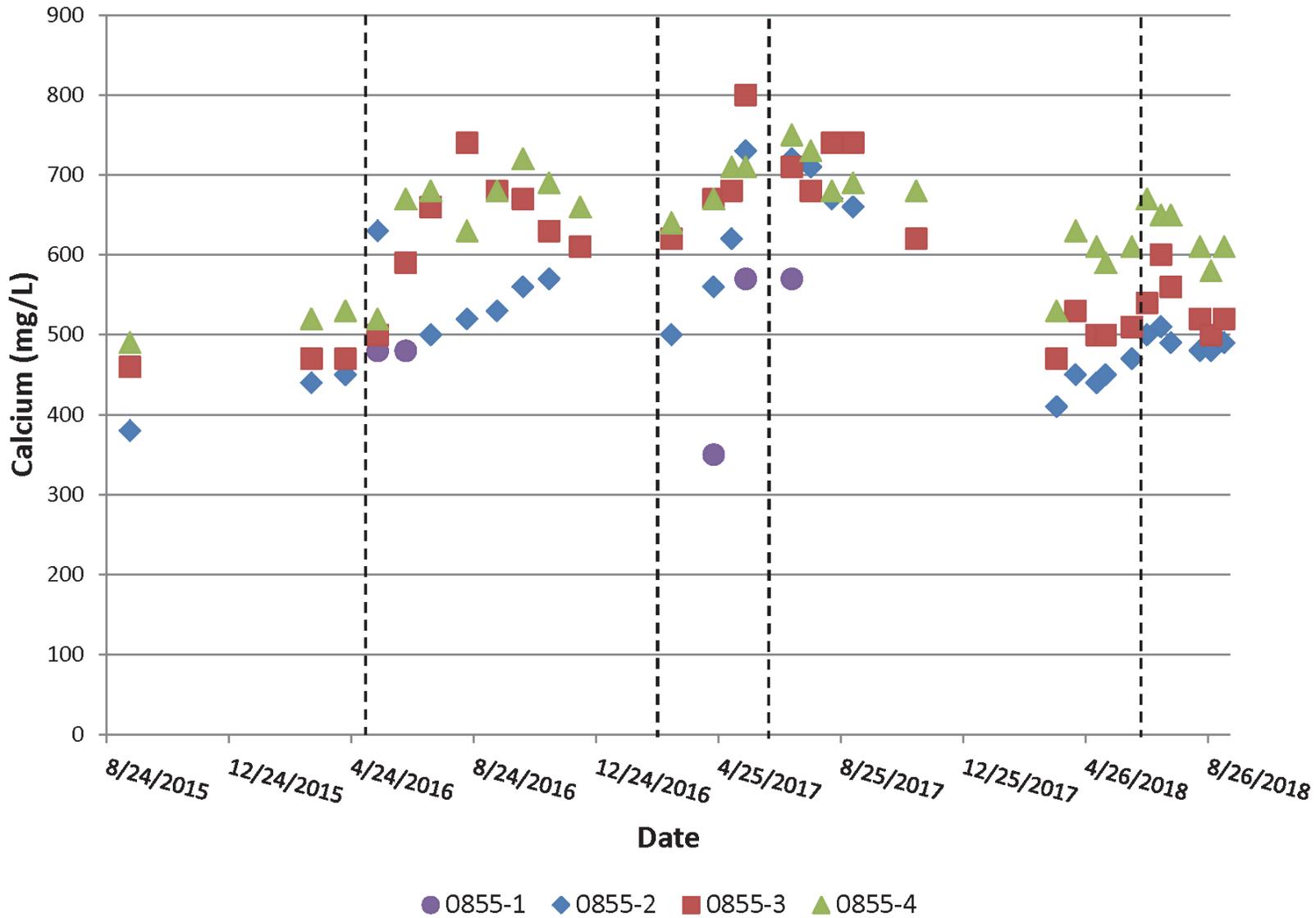
# Well 0855: pH



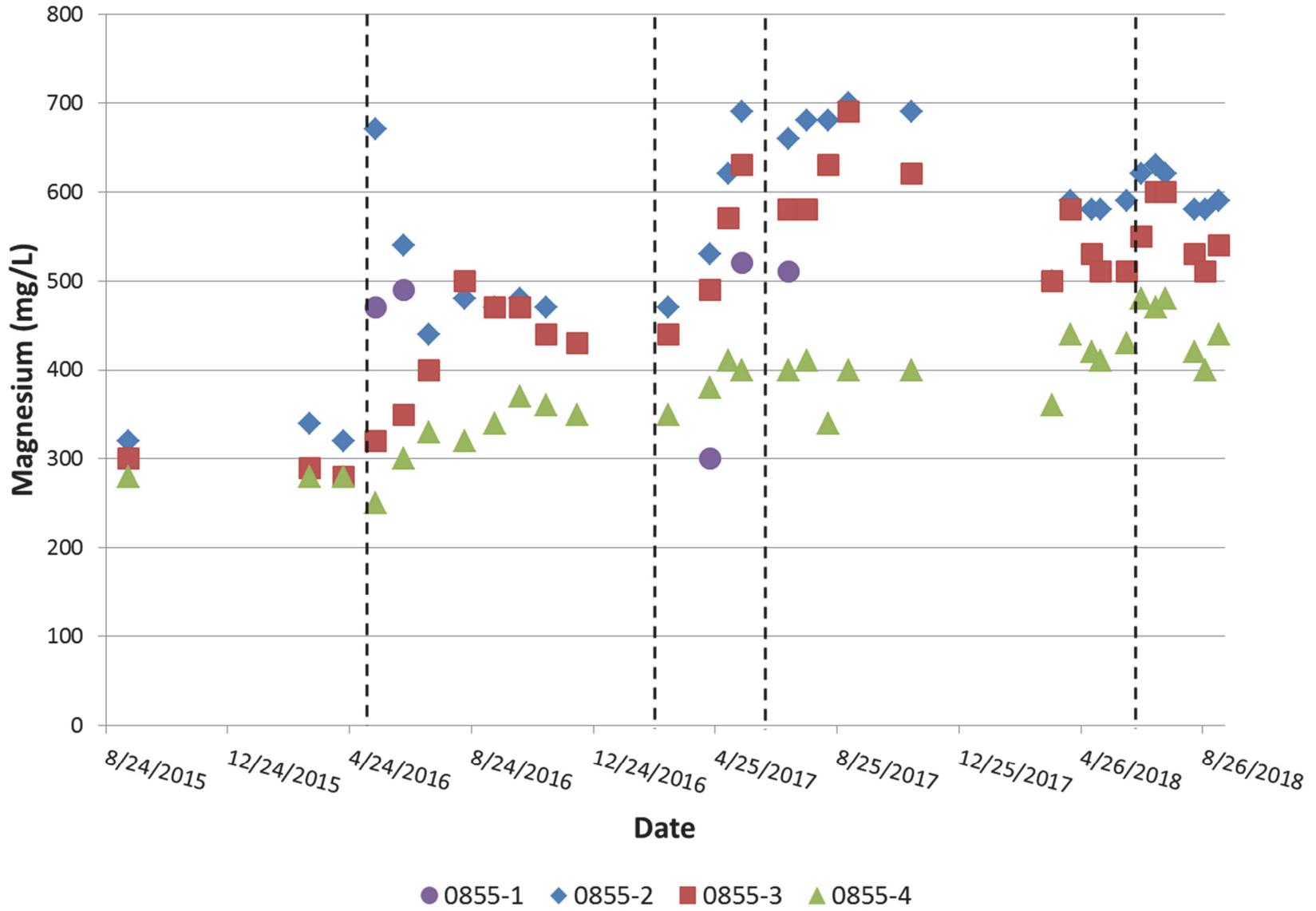
# Well 0855: Alkalinity



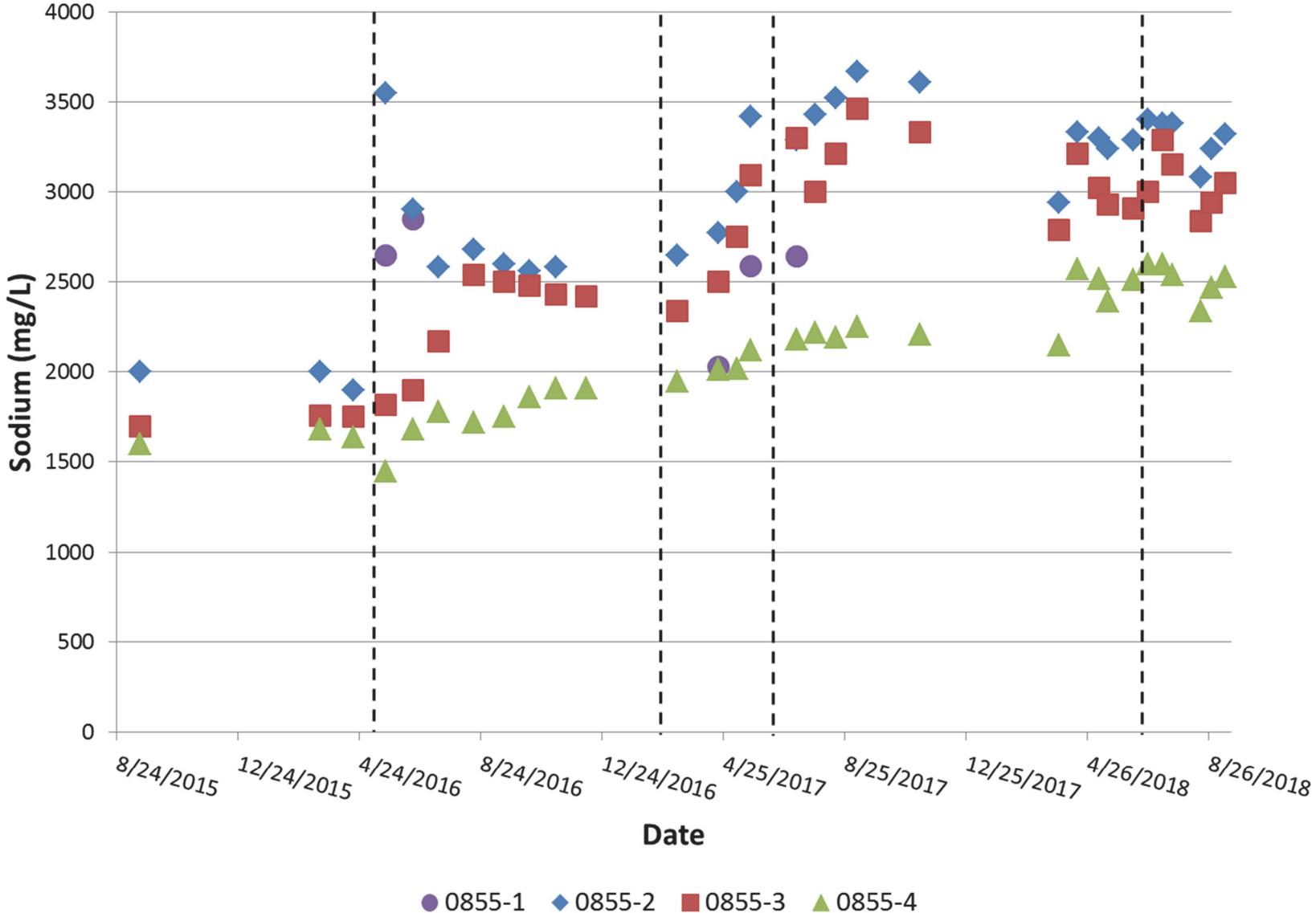
# Well 0855: Calcium



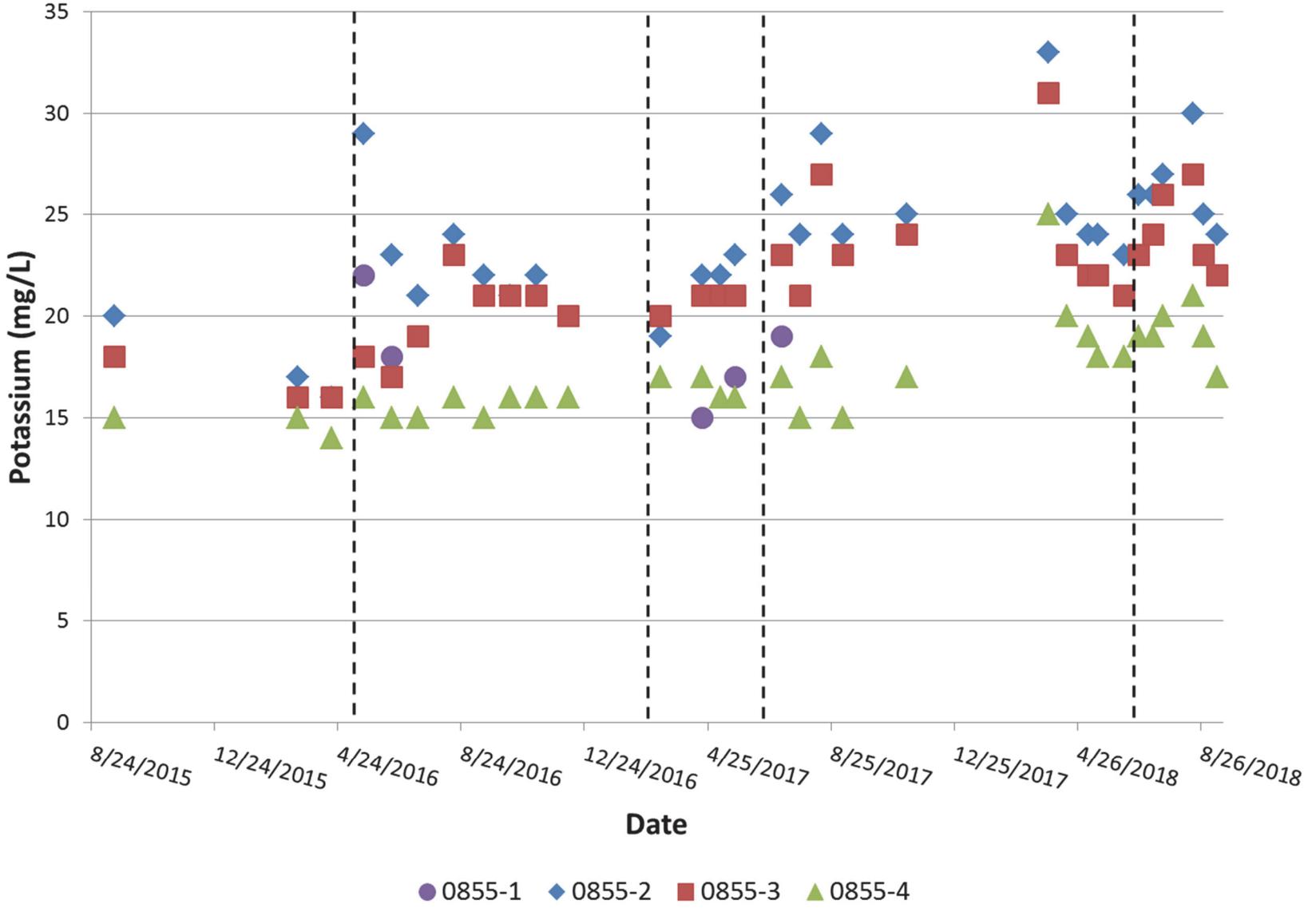
# Well 0855: Magnesium



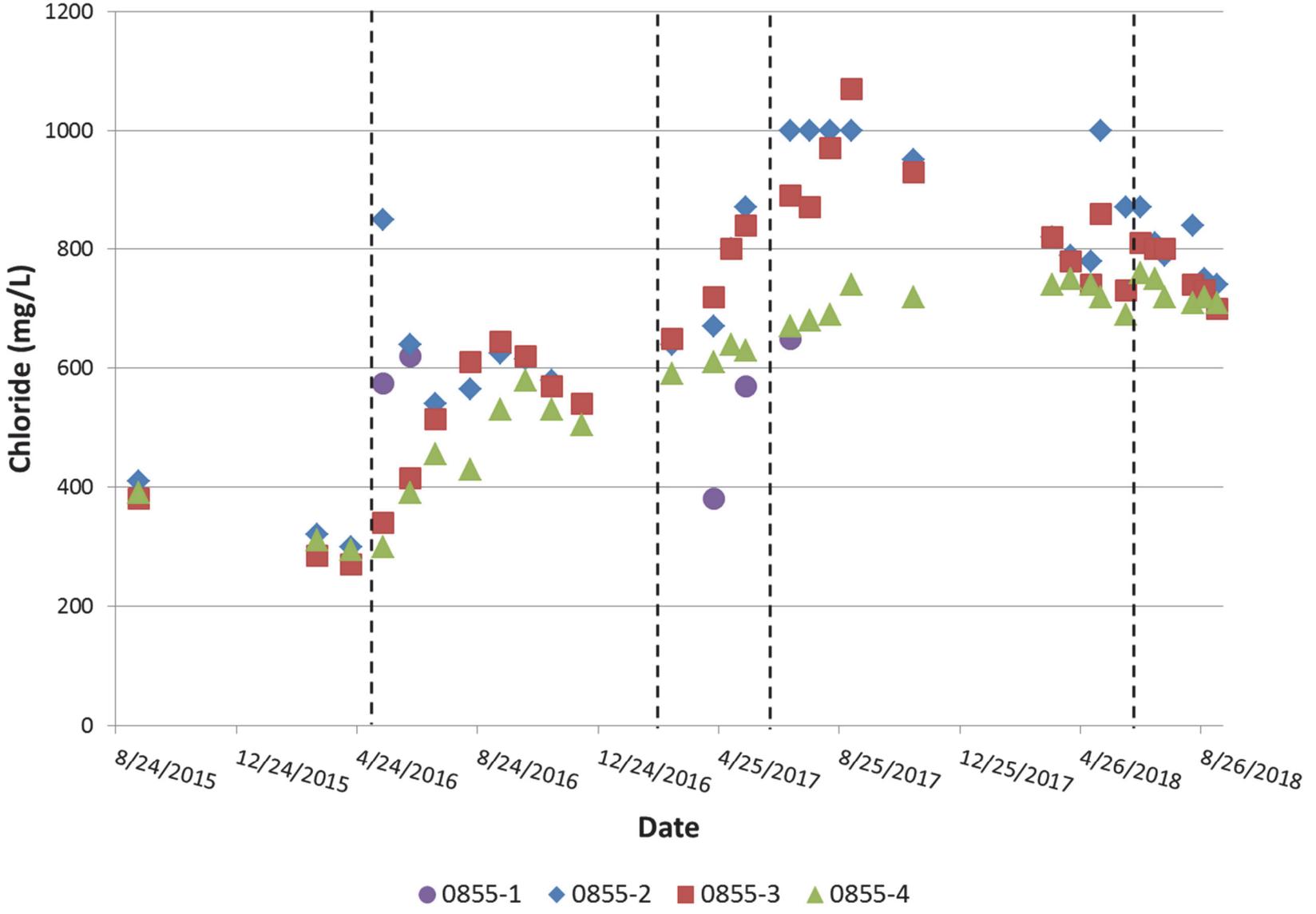
# Well 0855: Sodium



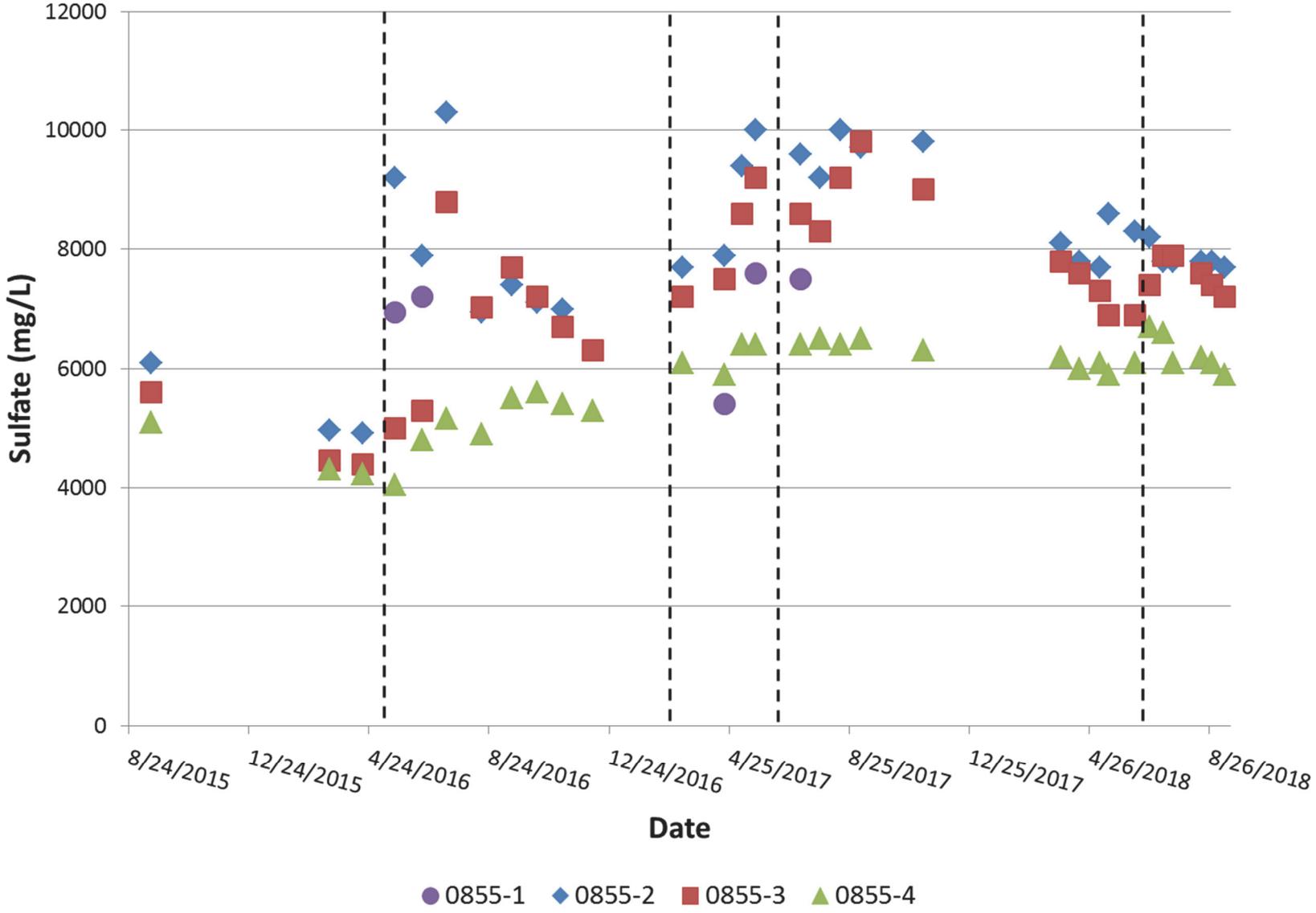
# Well 0855: Potassium



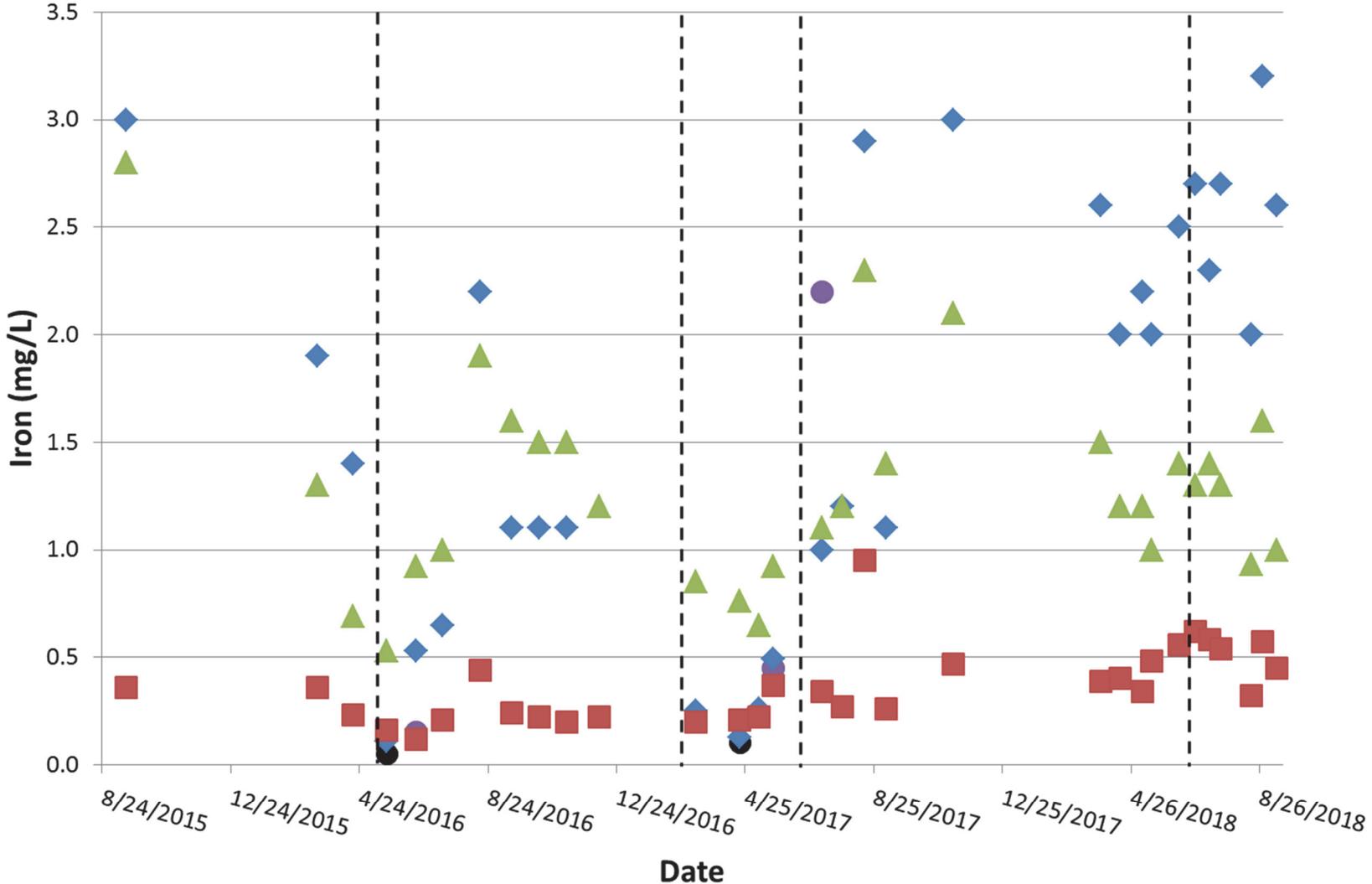
# Well 0855: Chloride



# Well 0855: Sulfate



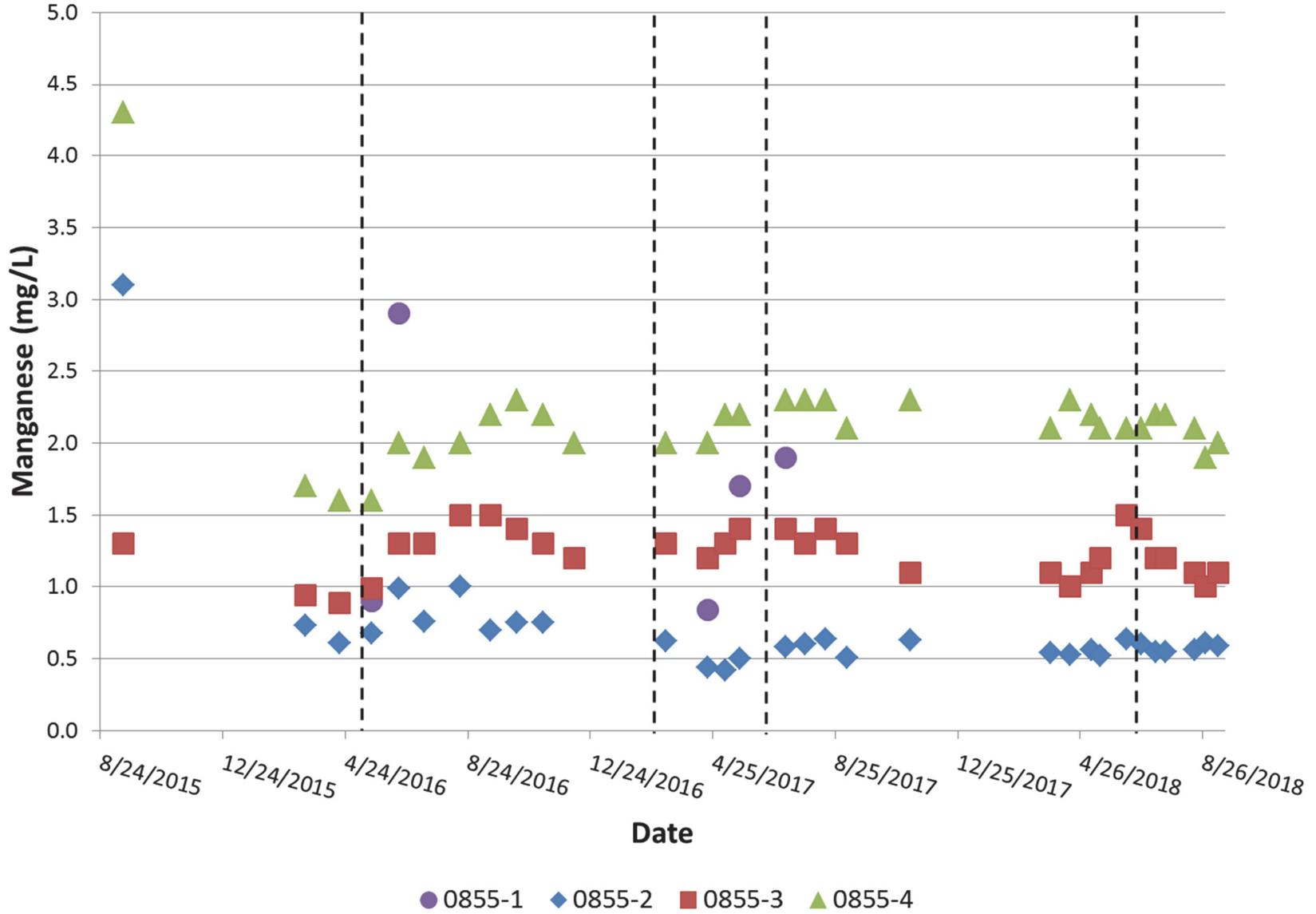
# Well 0855: Iron



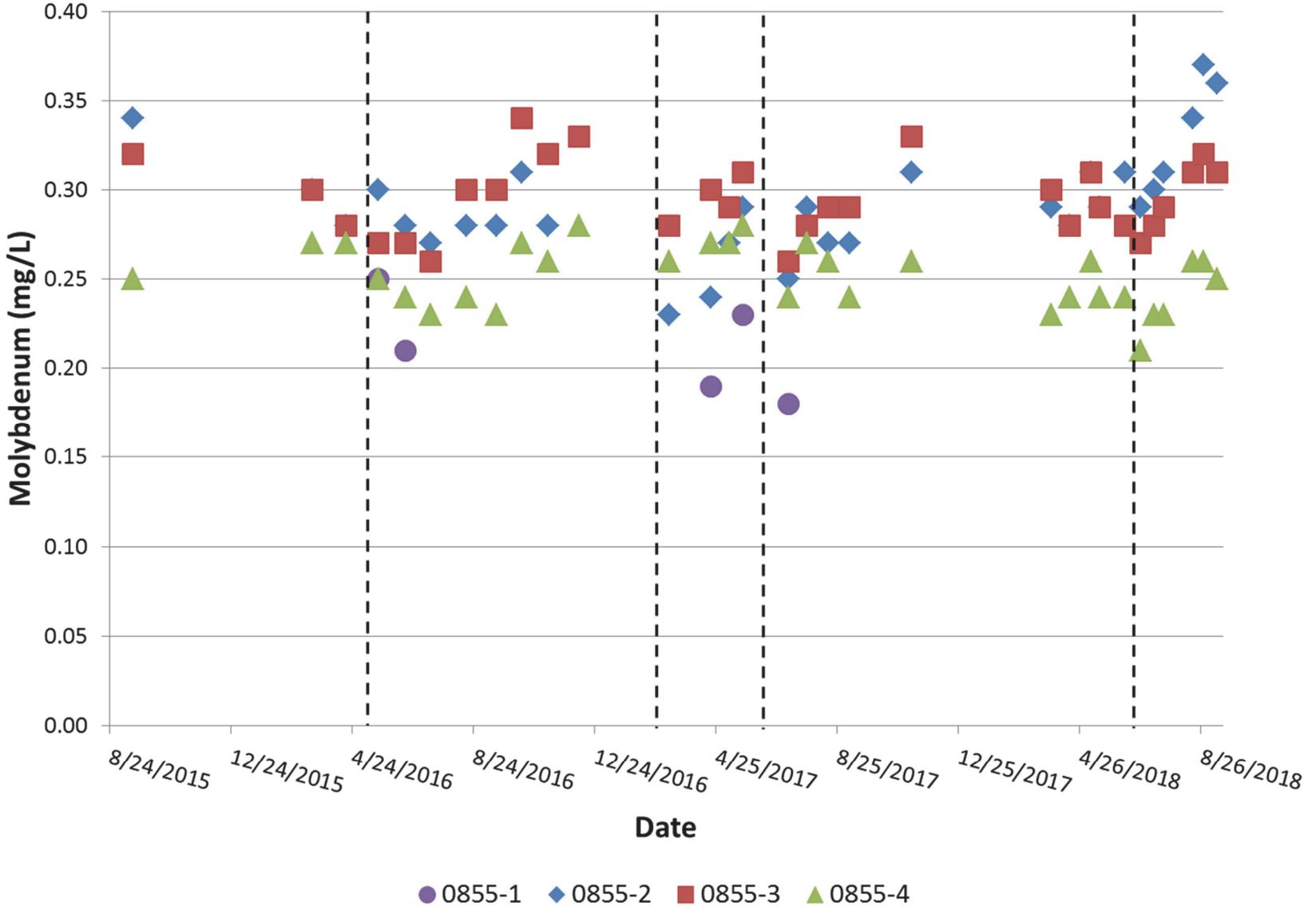
● 0855-1    ◆ 0855-2    ■ 0855-3    ▲ 0855-4

Black indicates value is below detection limit

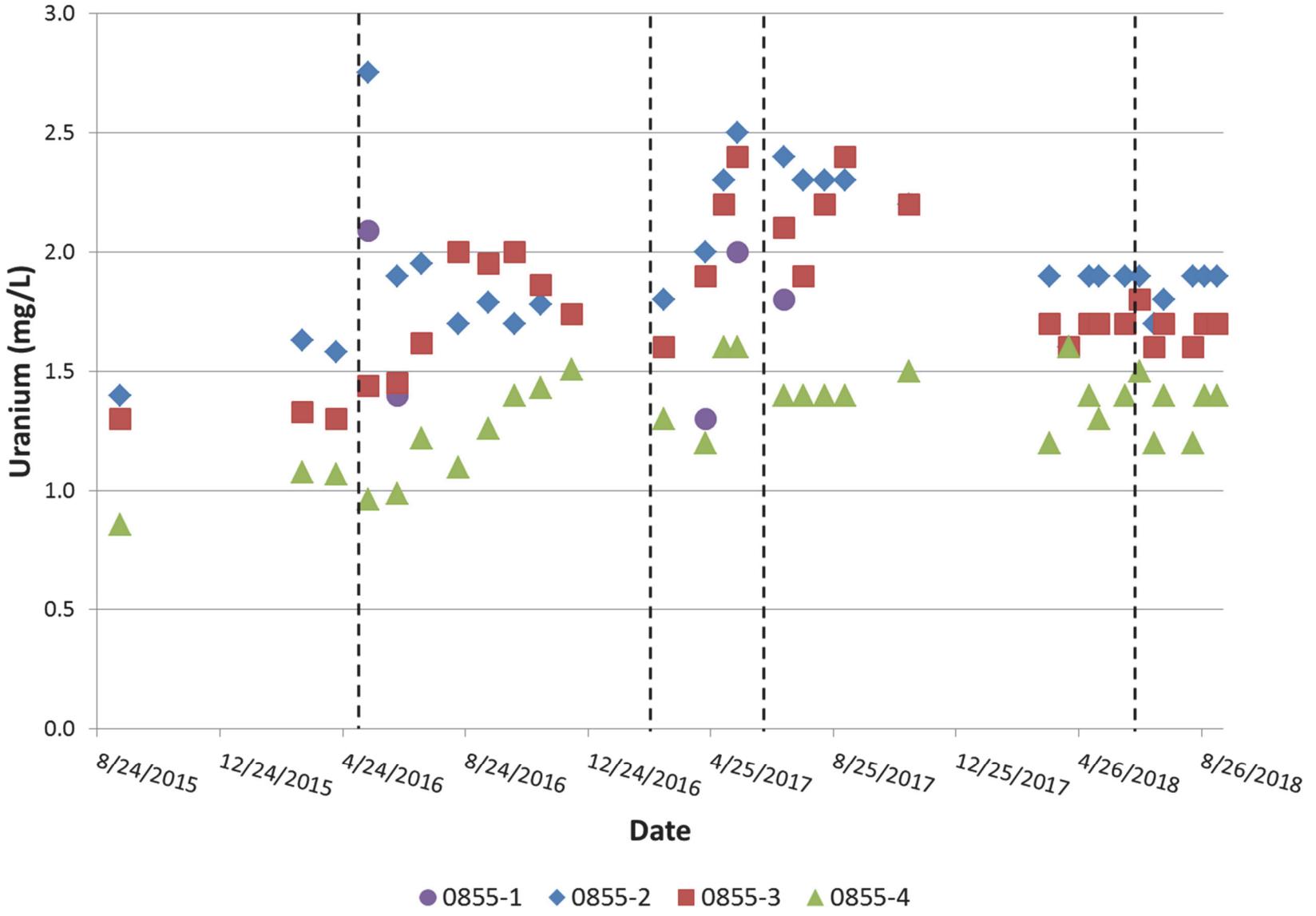
# Well 0855: Manganese



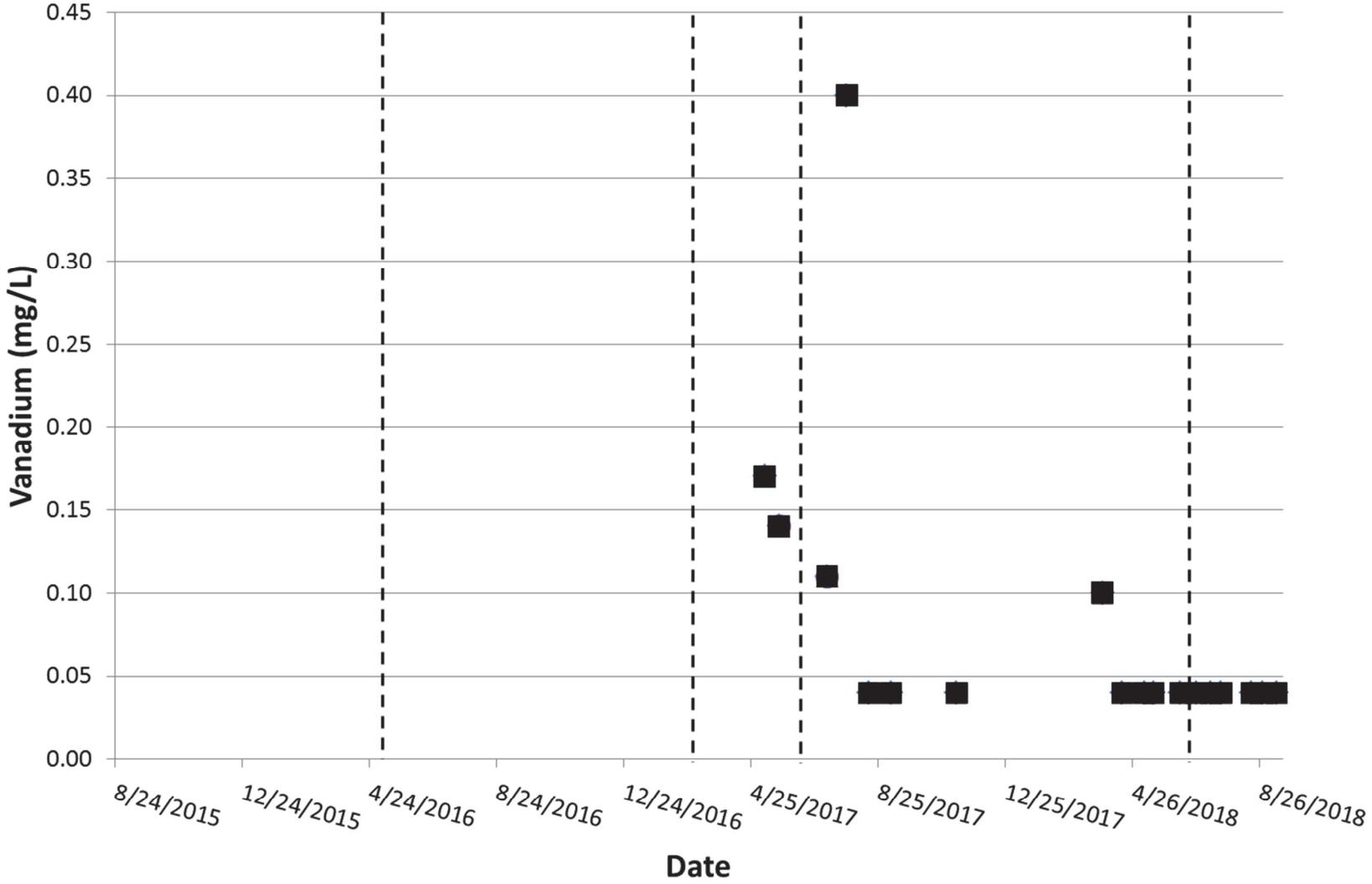
# Well 0855: Molybdenum



# Well 0855: Uranium



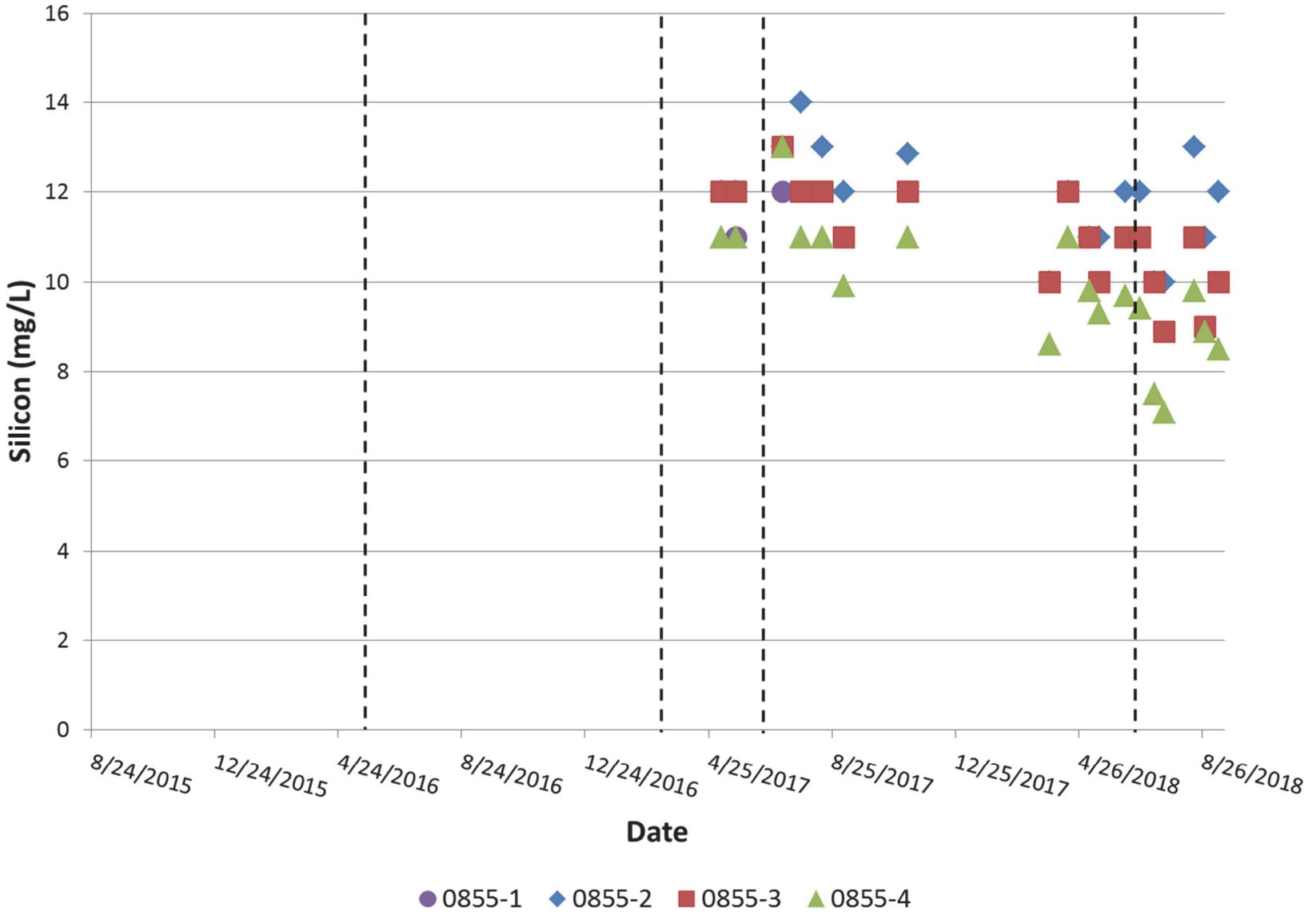
# Well 0855: Vanadium



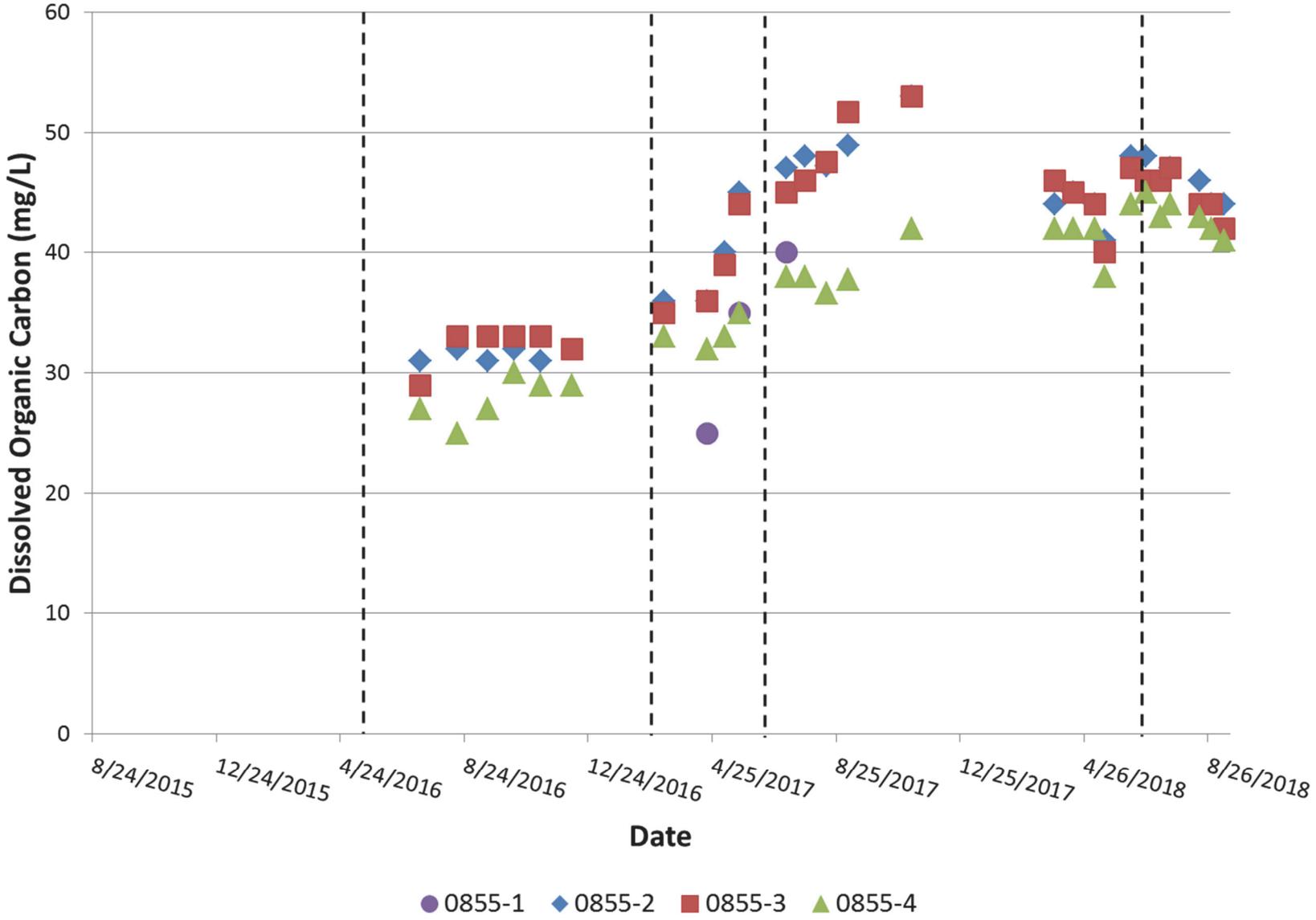
● 0855-1    ◆ 0855-2    ■ 0855-3    ▲ 0855-4

Black indicates value is below detection limit

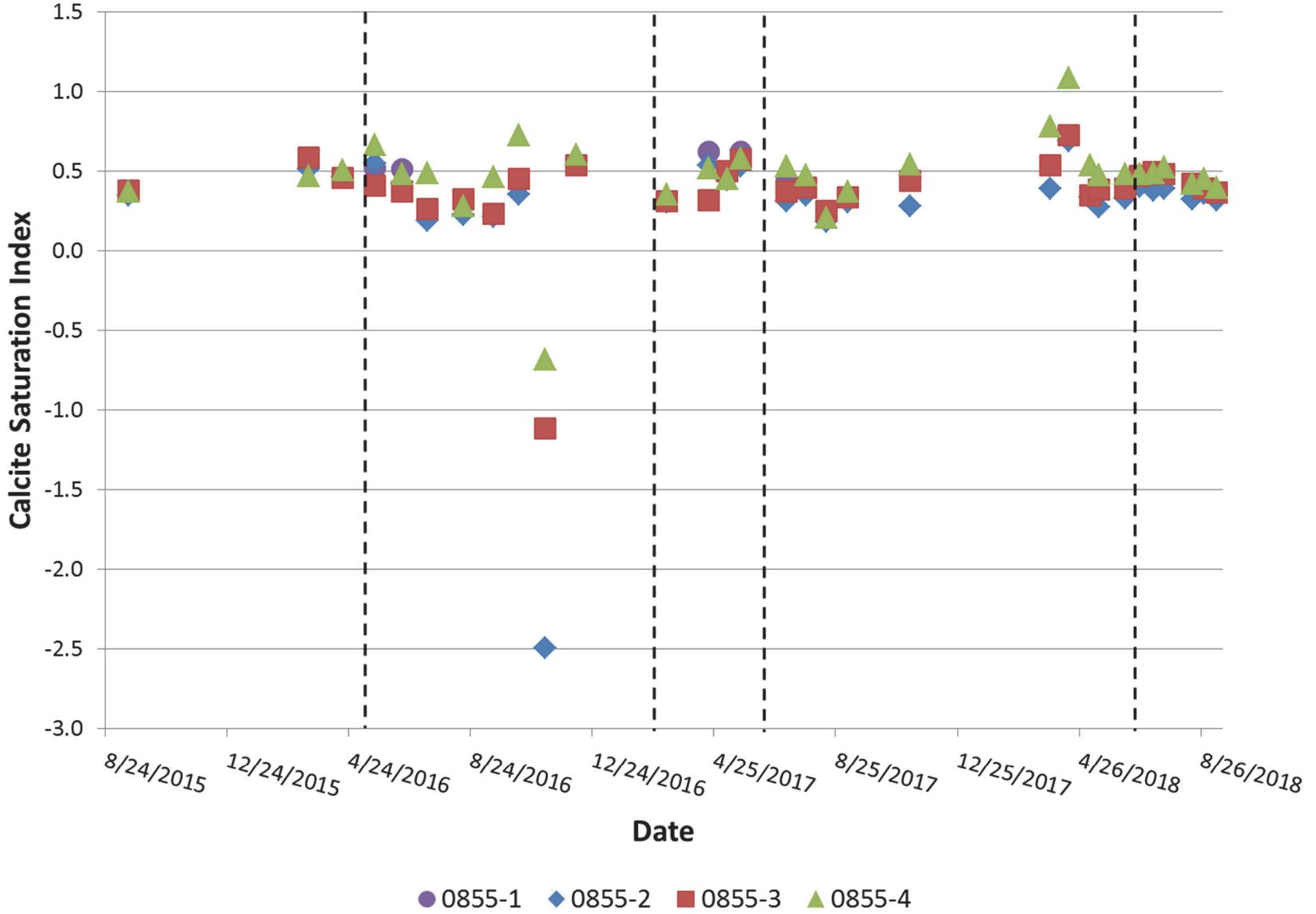
# Well 0855: Silicon



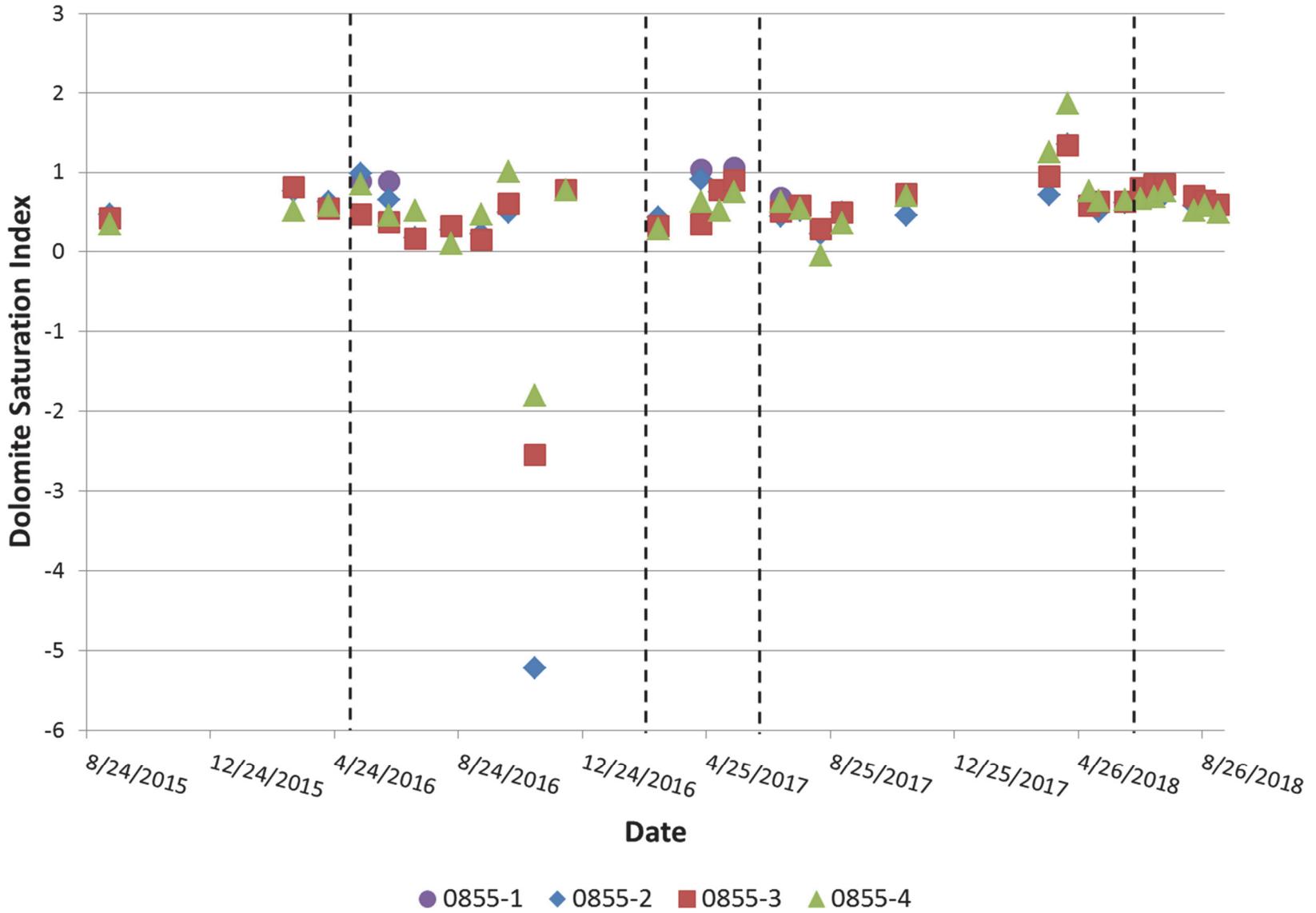
# Well 0855: DOC



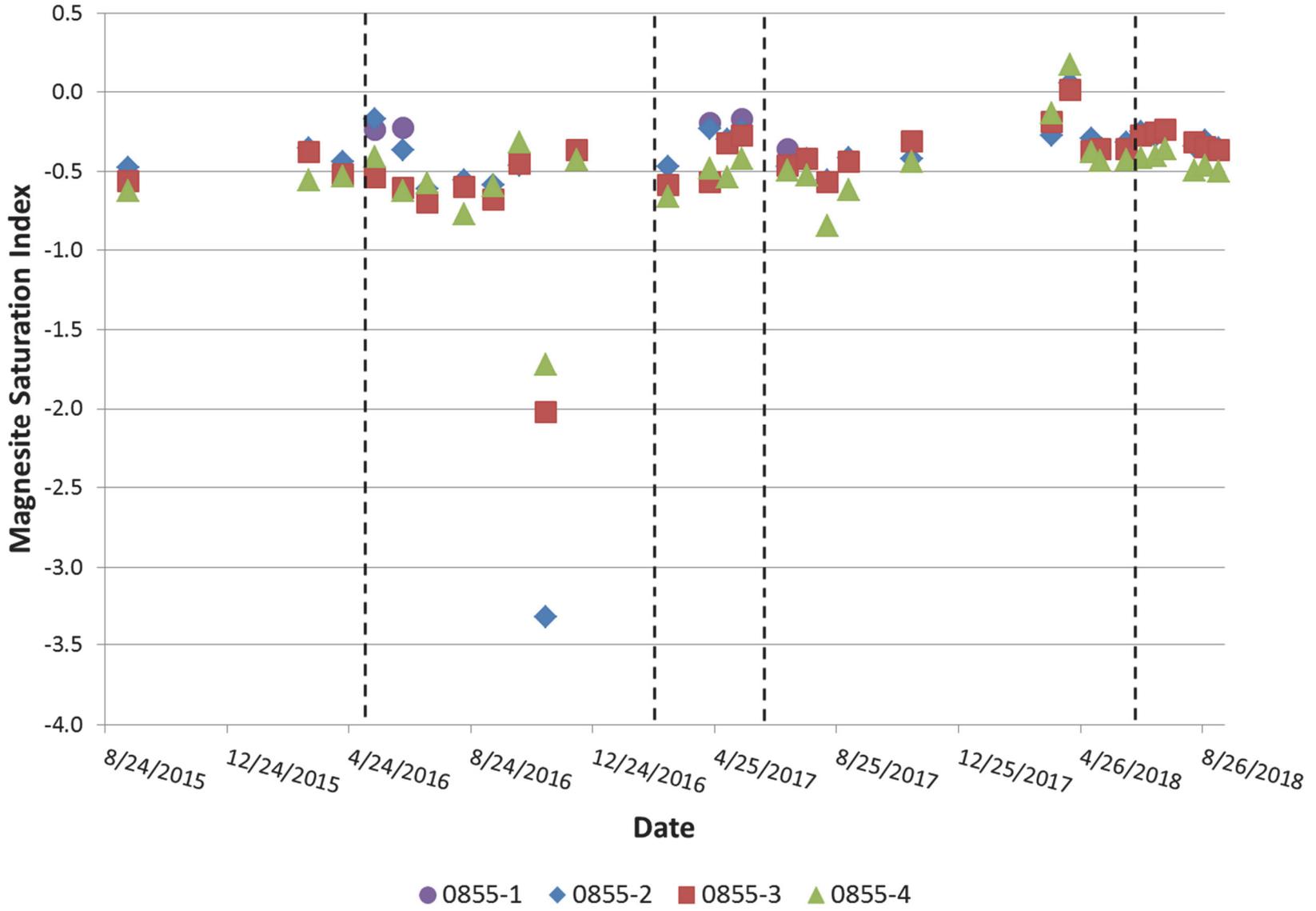
# Well 0855: Calcite Saturation Index



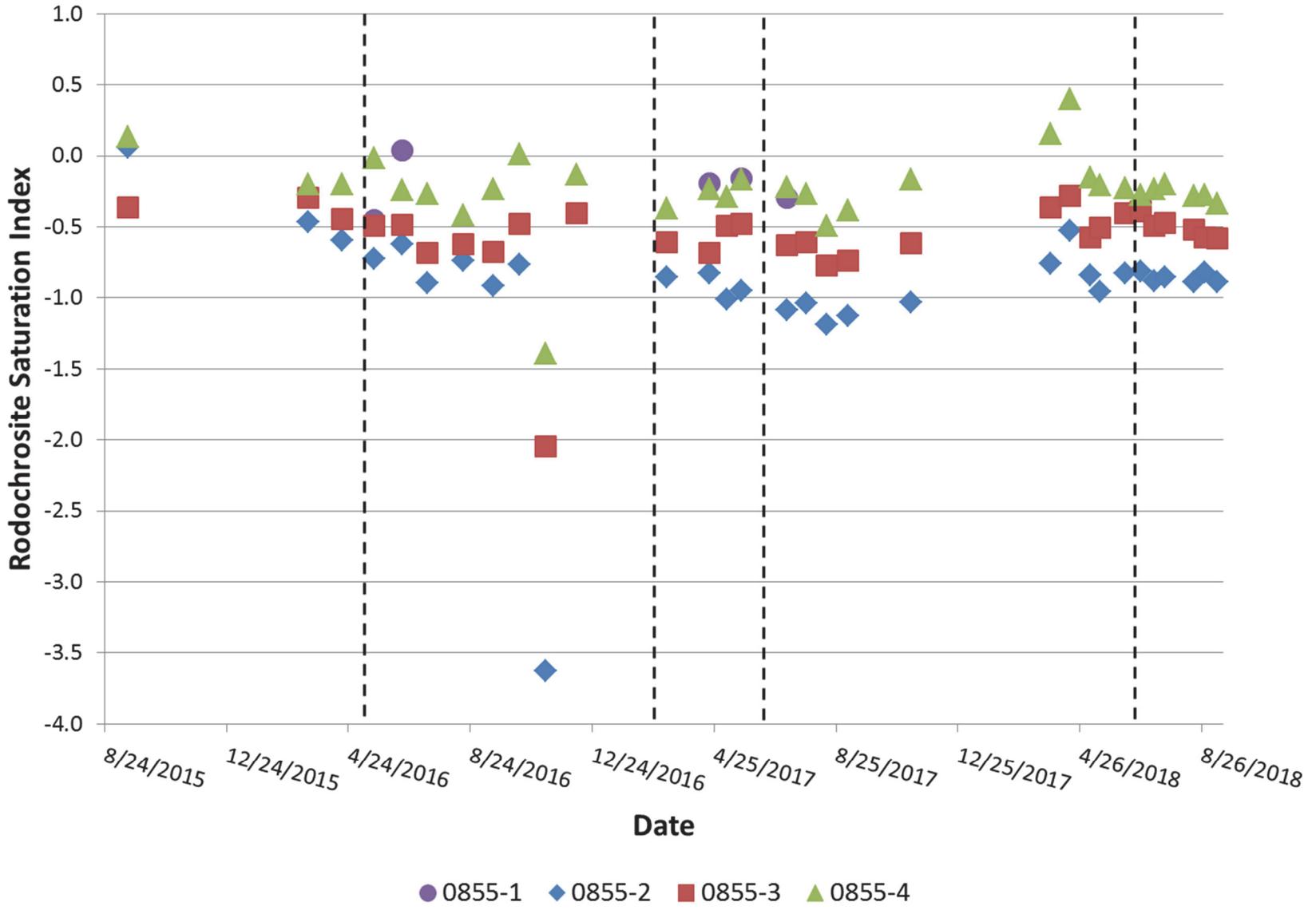
# Well 0855: Dolomite (disordered) Saturation Index



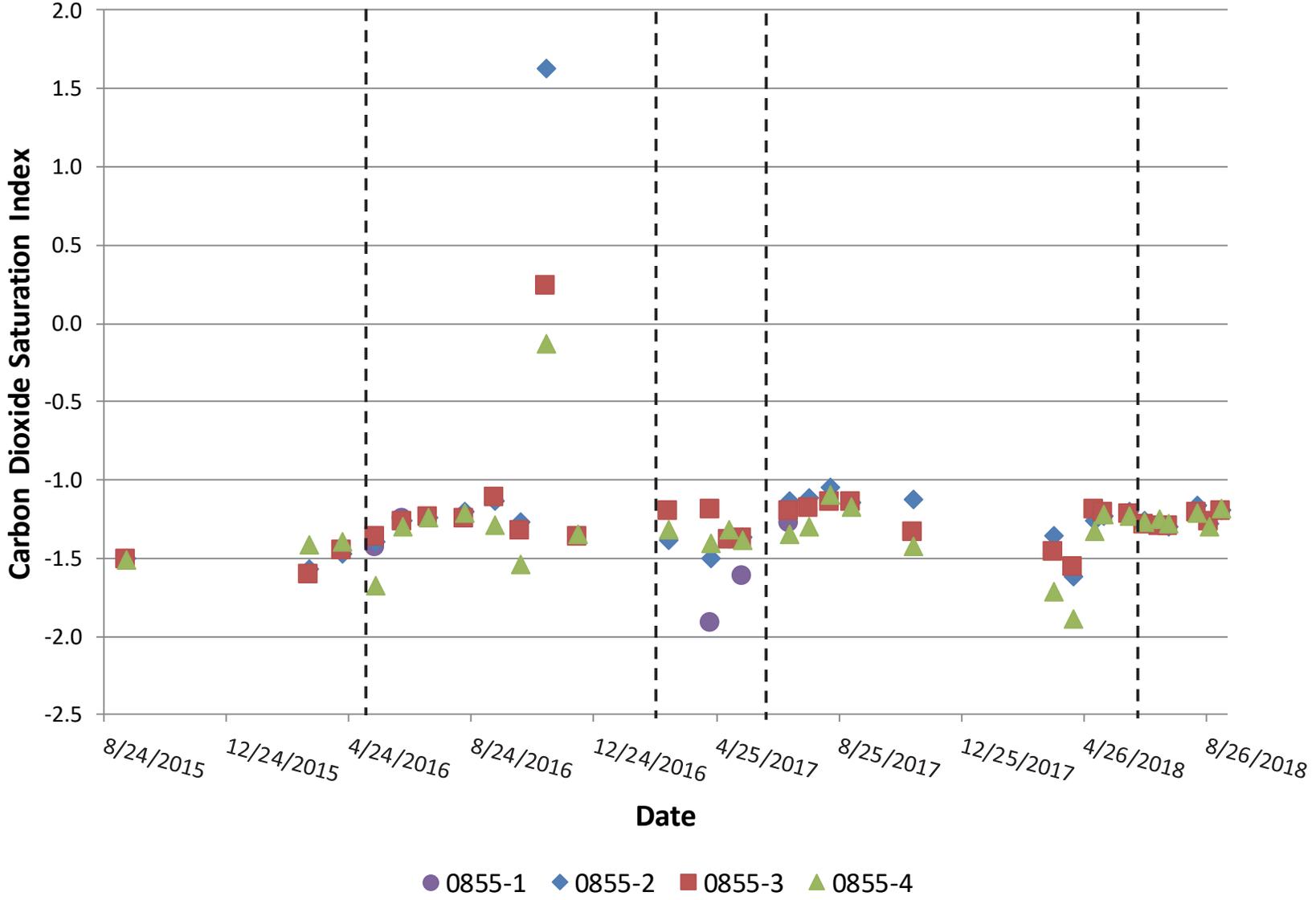
# Well 0855: Magnesite Saturation Index



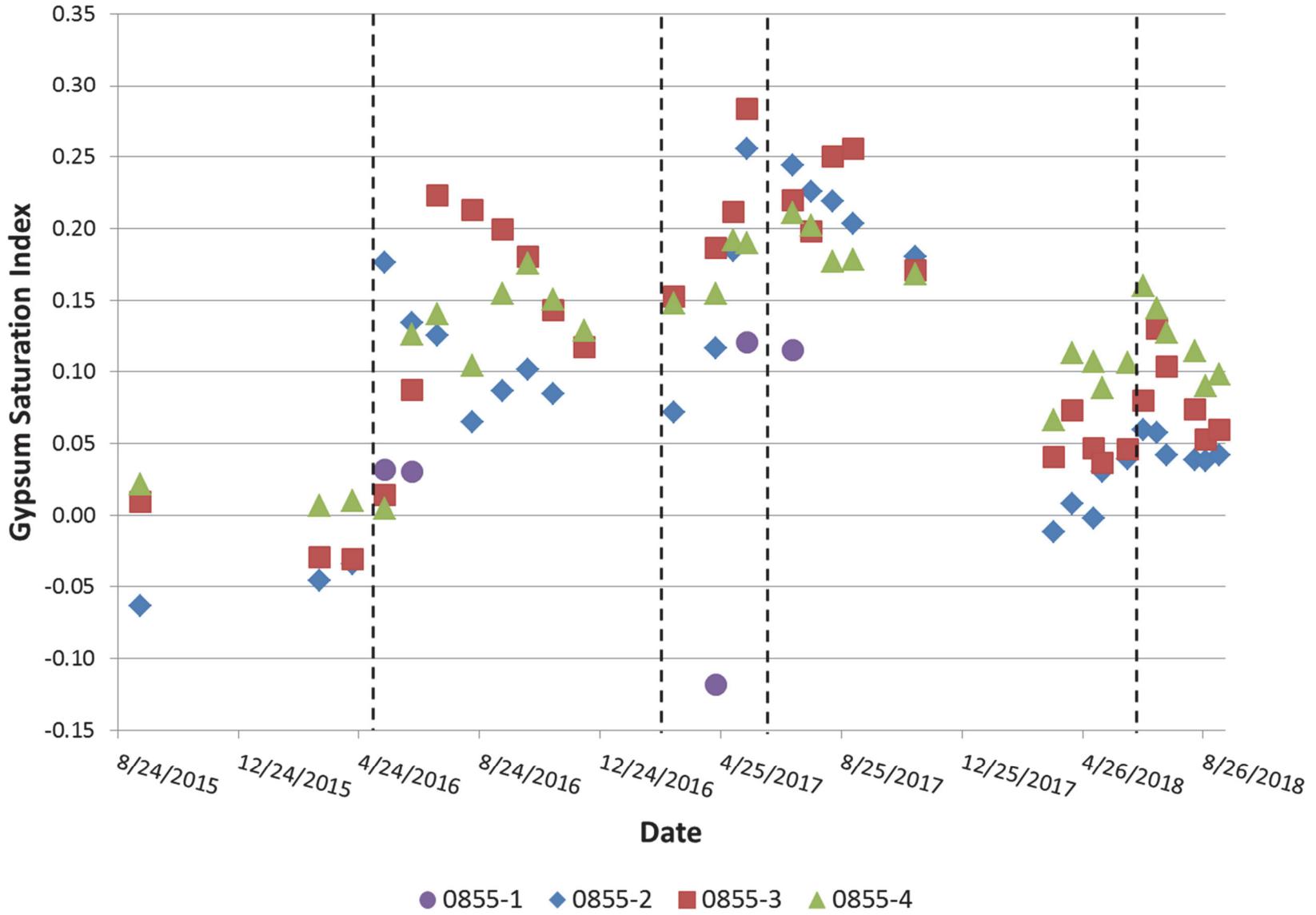
# Well 0855: Rhodochrosite Saturation Index



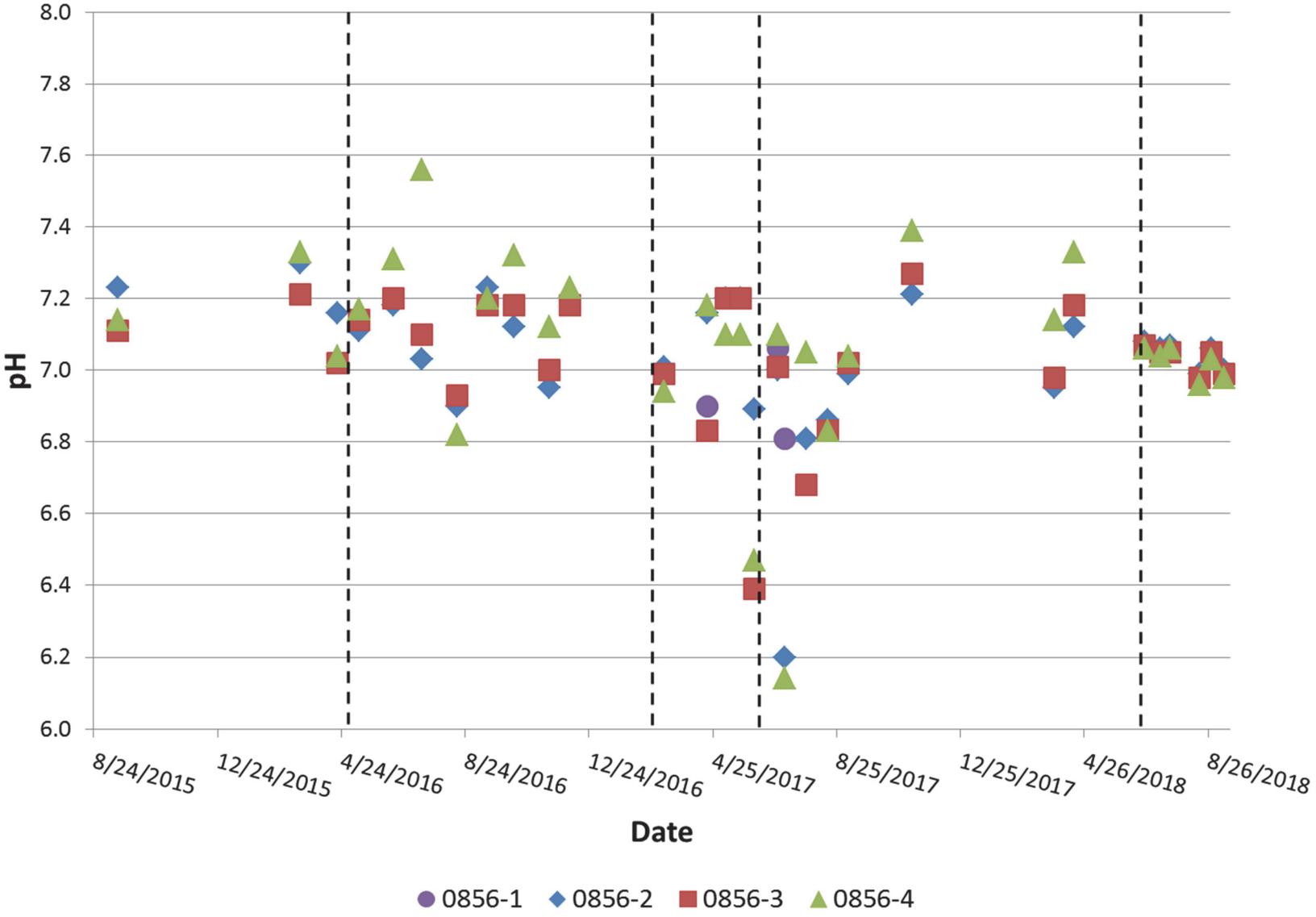
# Well 0855: Carbon Dioxide Saturation Index



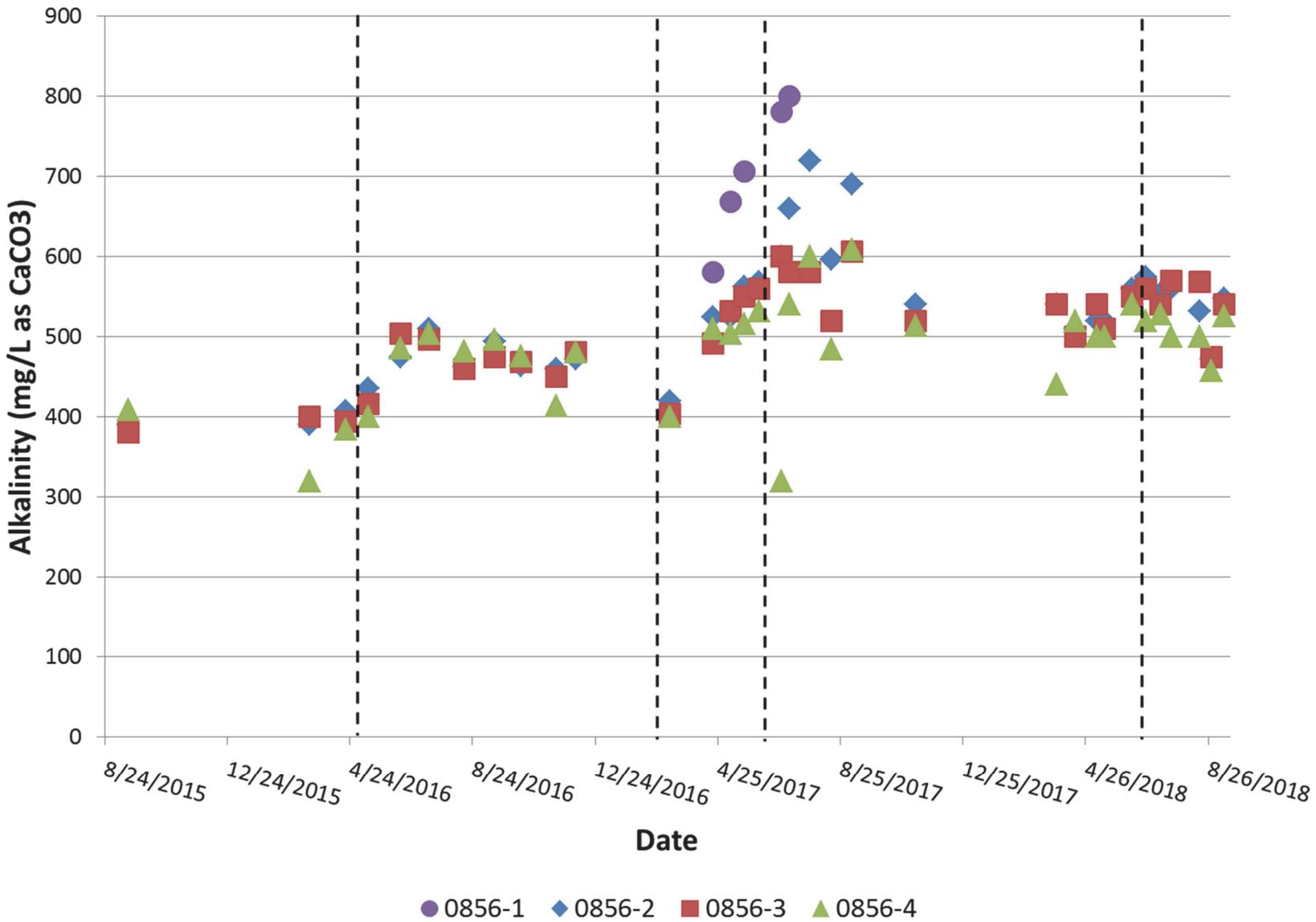
# Well 0855: Gypsum Saturation Index



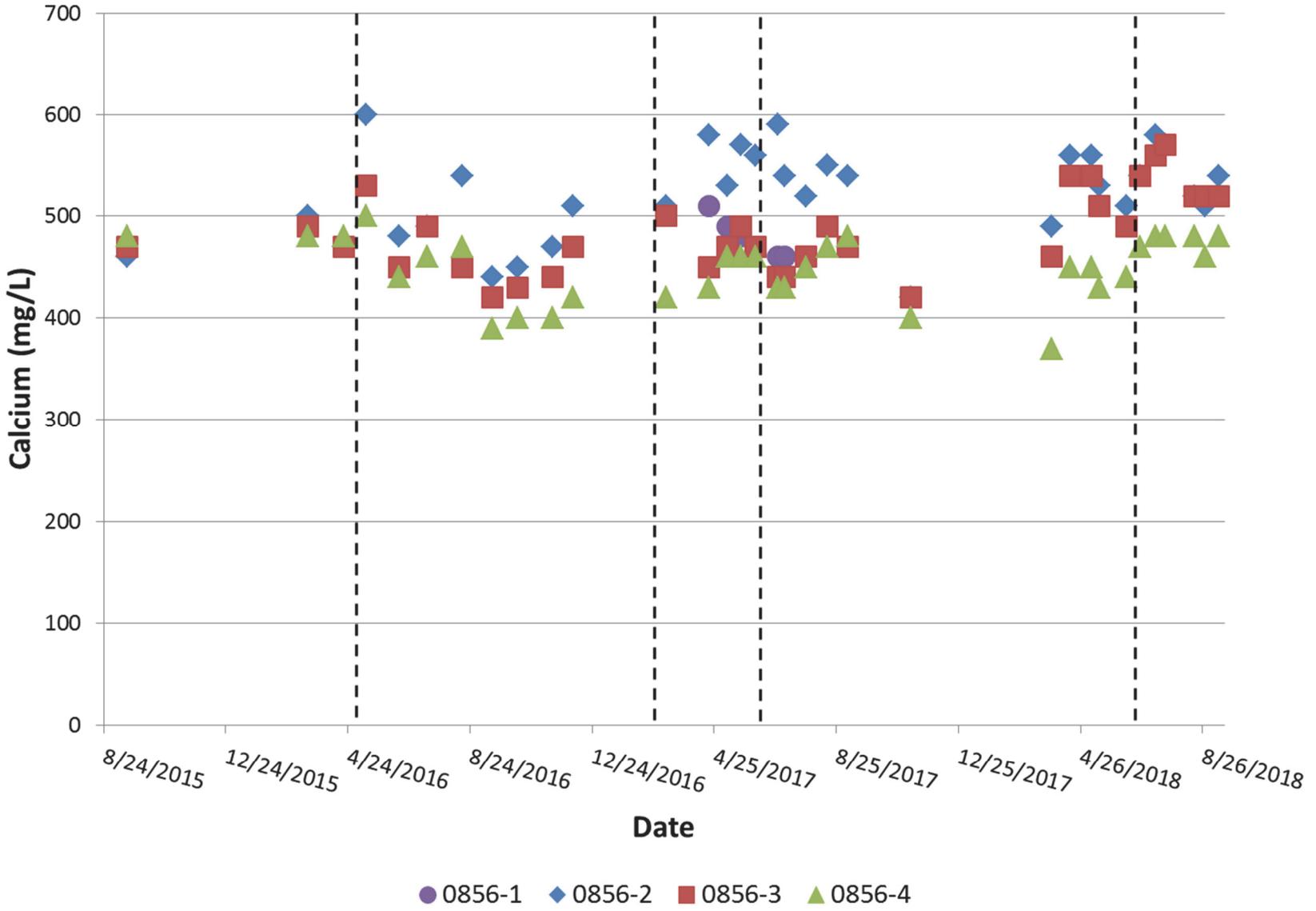
# Well 0856: pH



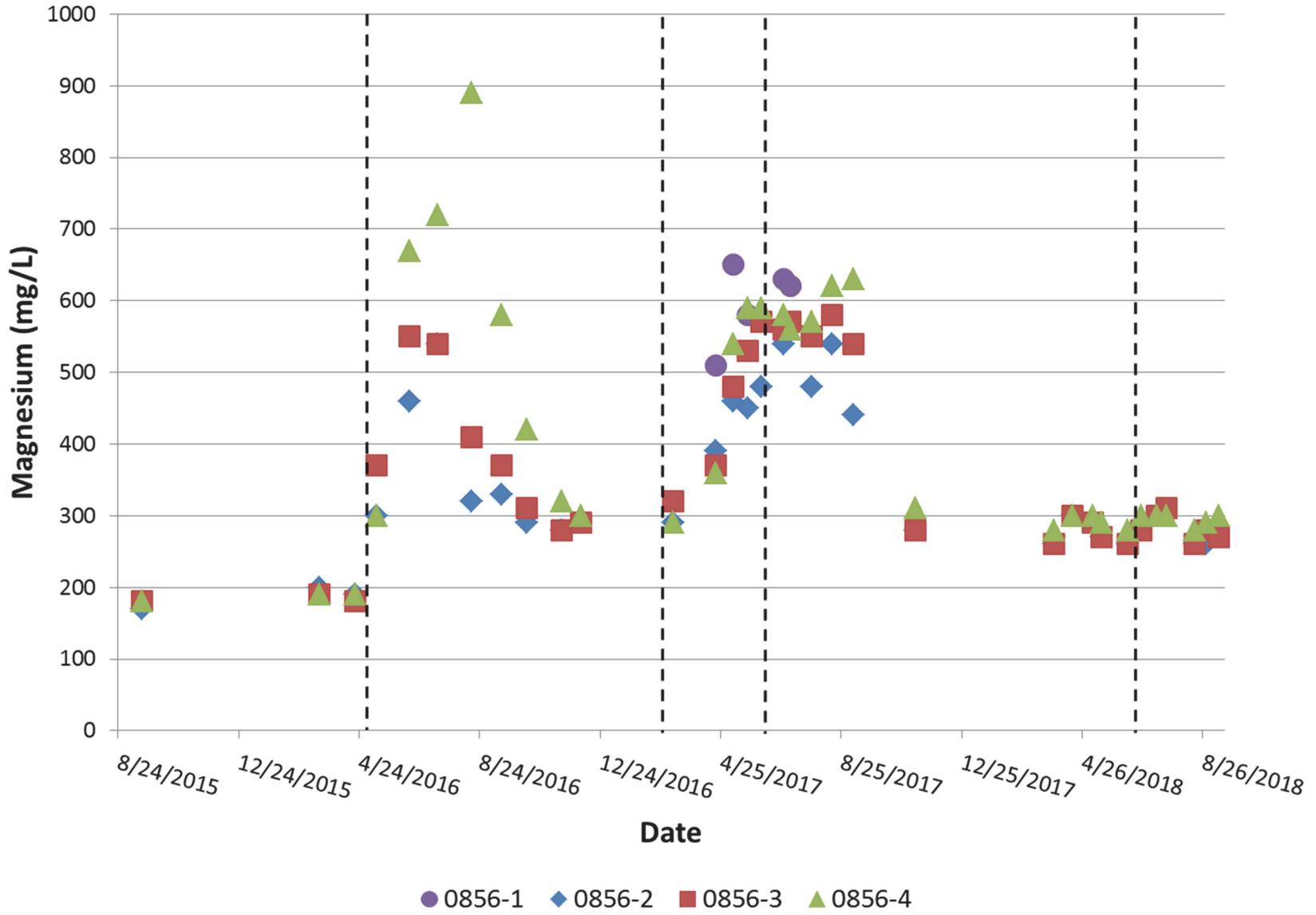
# Well 0856: Alkalinity



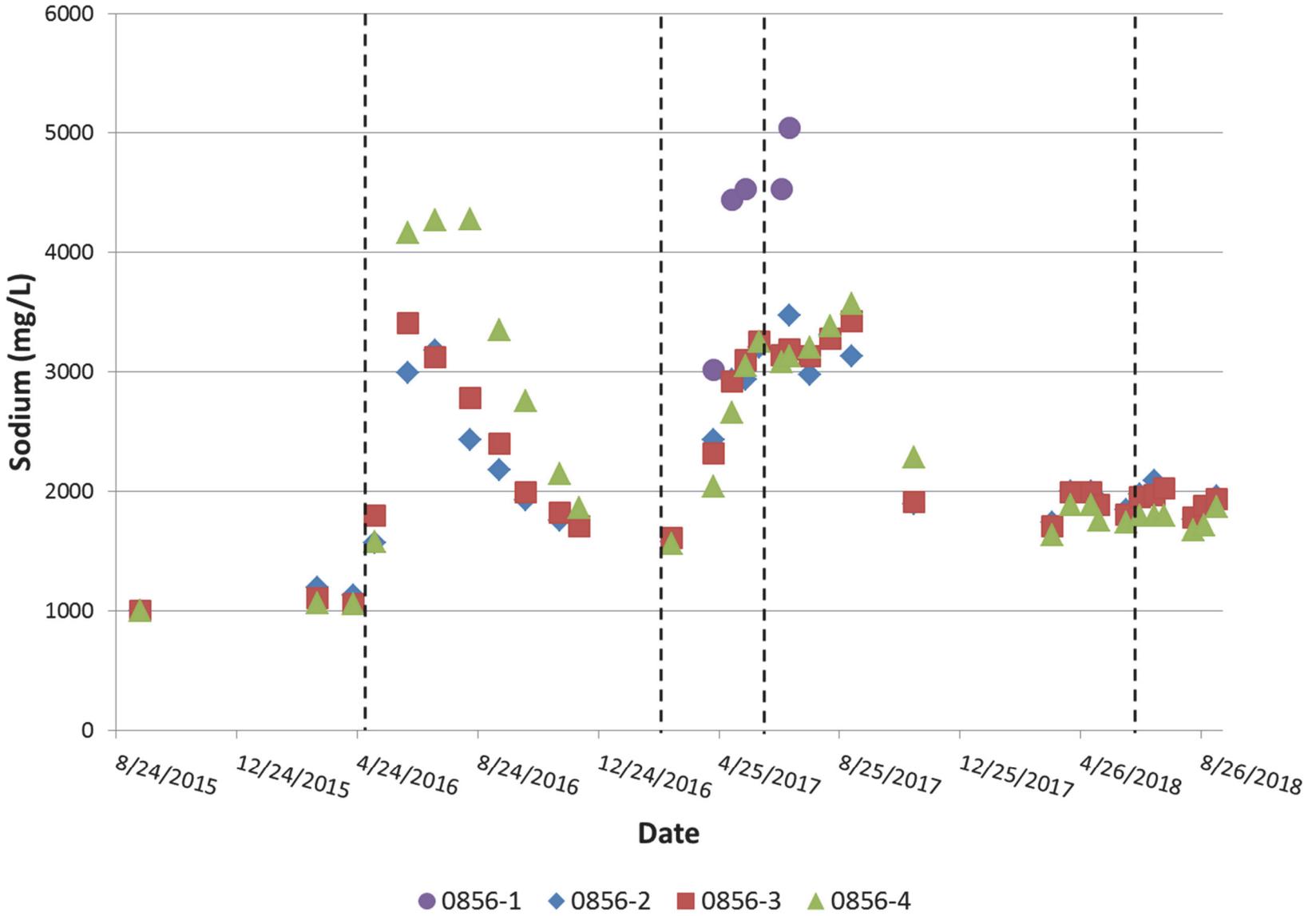
# Well 0856: Calcium



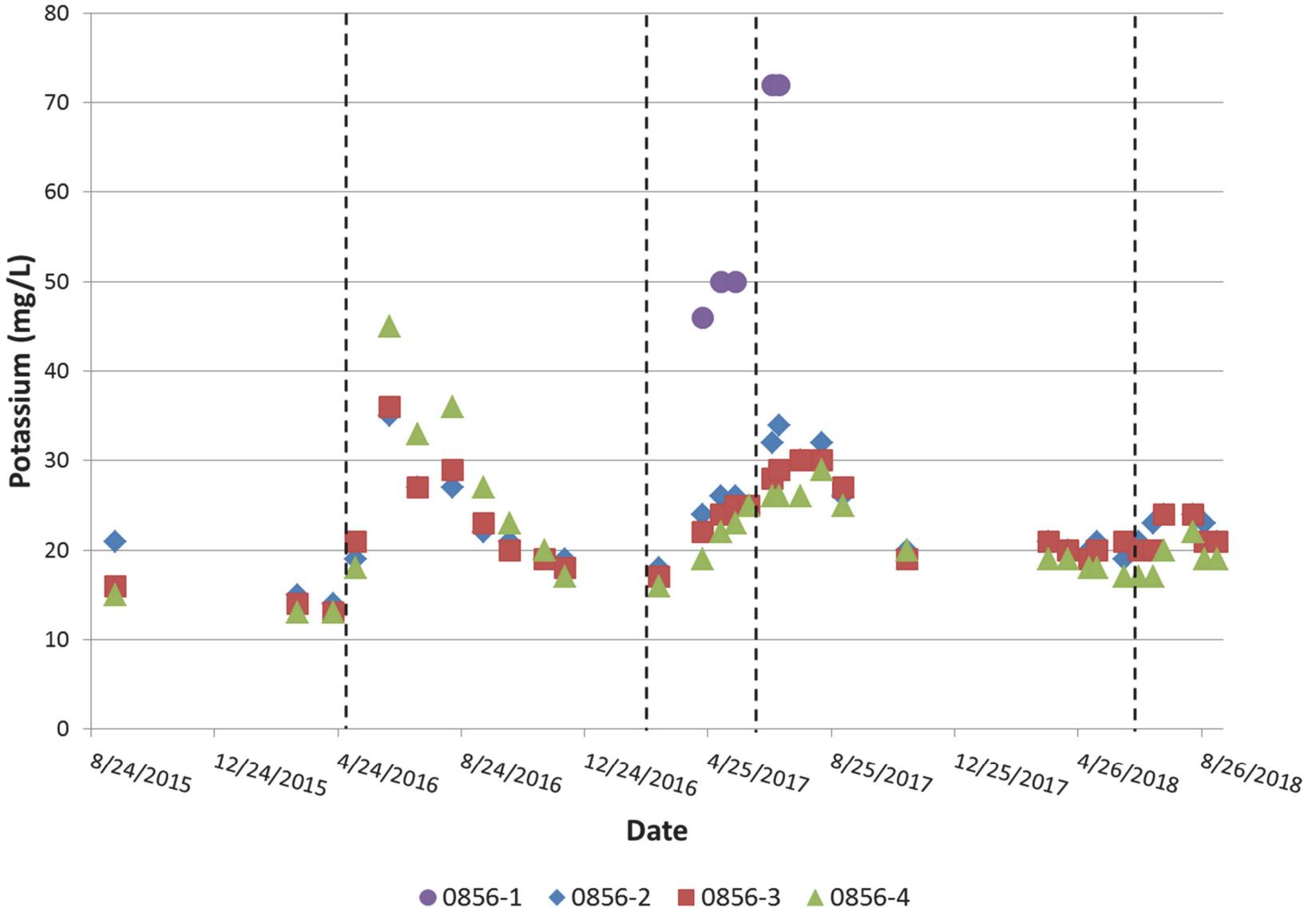
# Well 0856: Magnesium



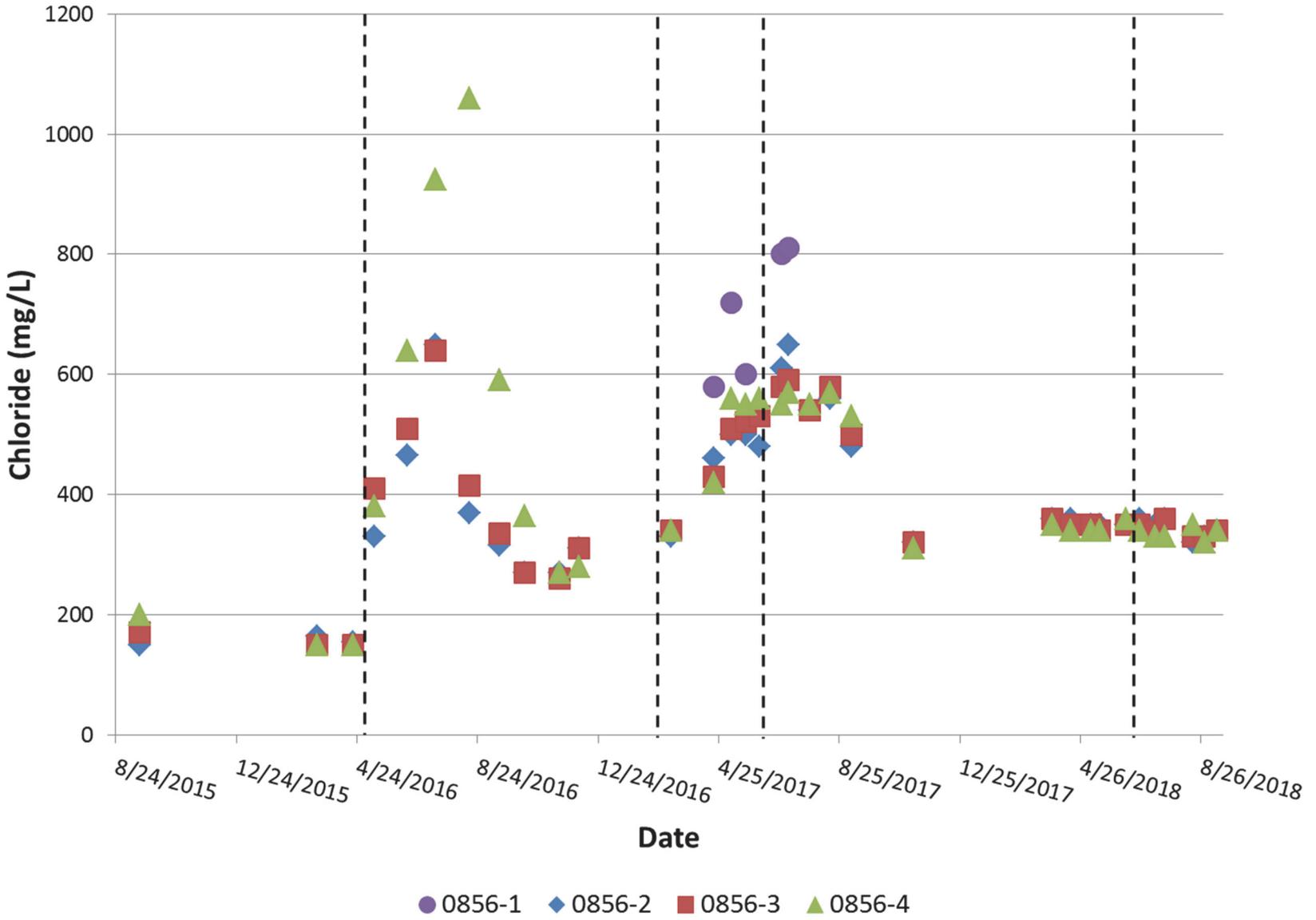
# Well 0856: Sodium



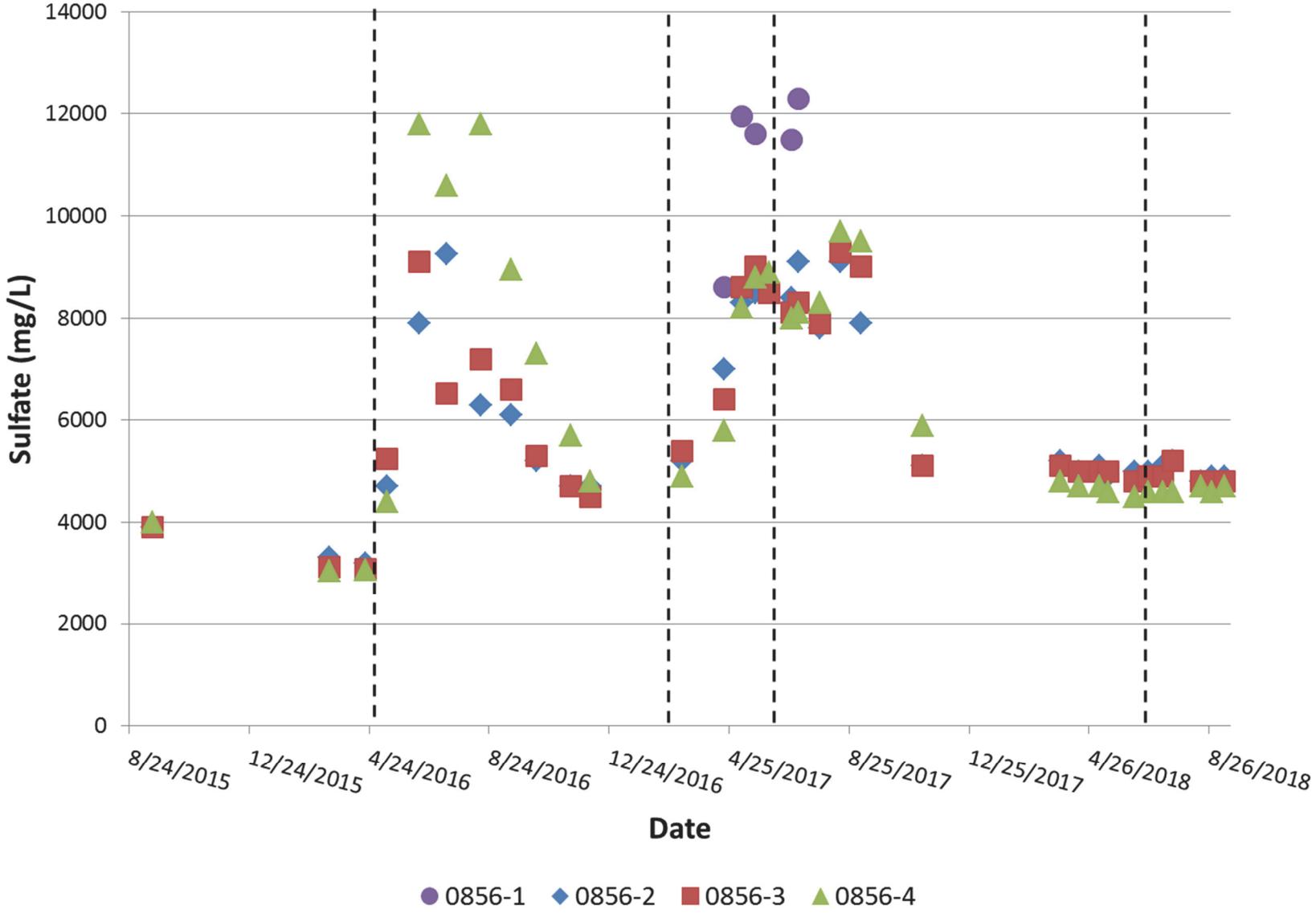
# Well 0856: Potassium



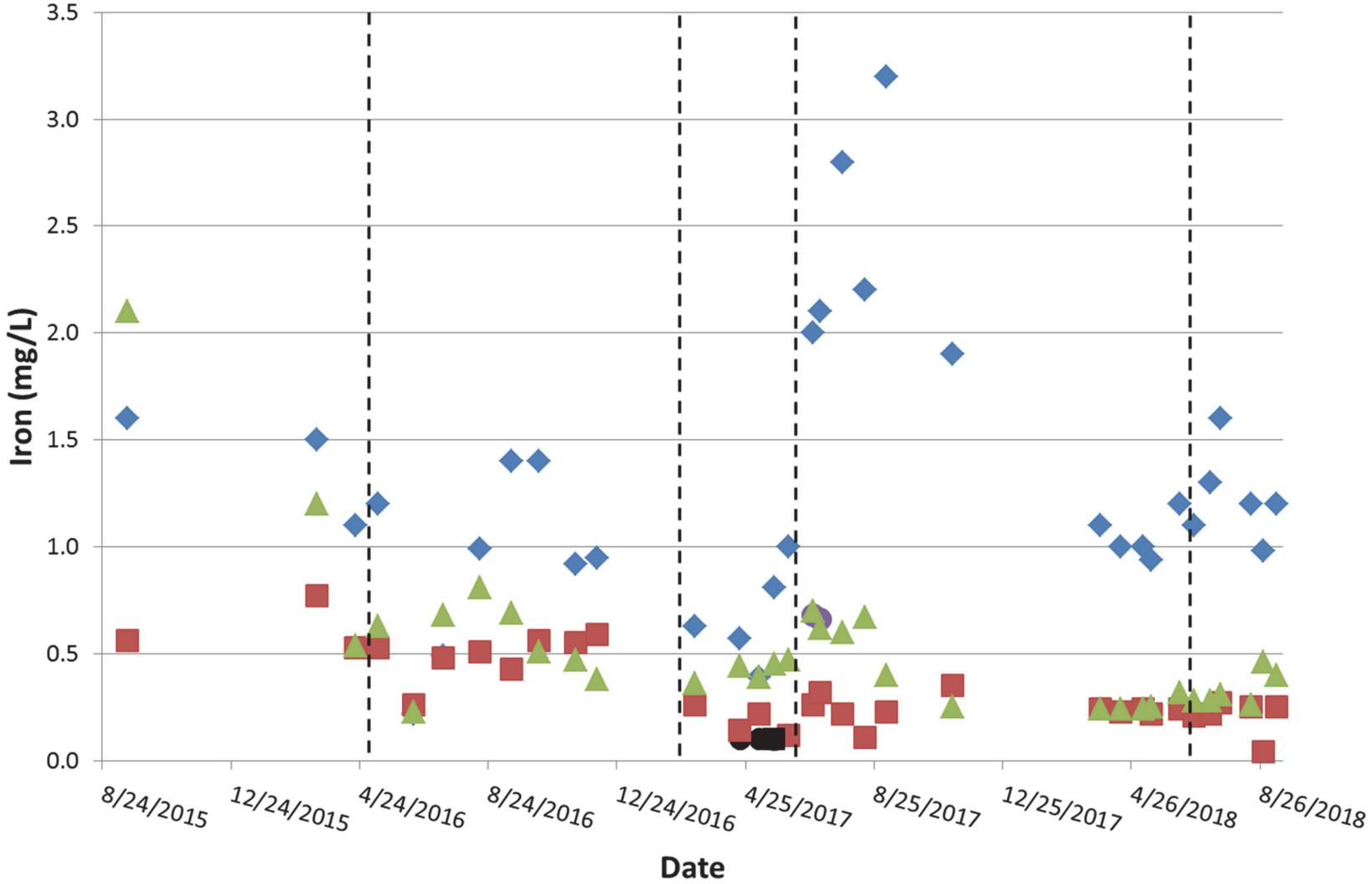
# Well 0856: Chloride



# Well 0856: Sulfate



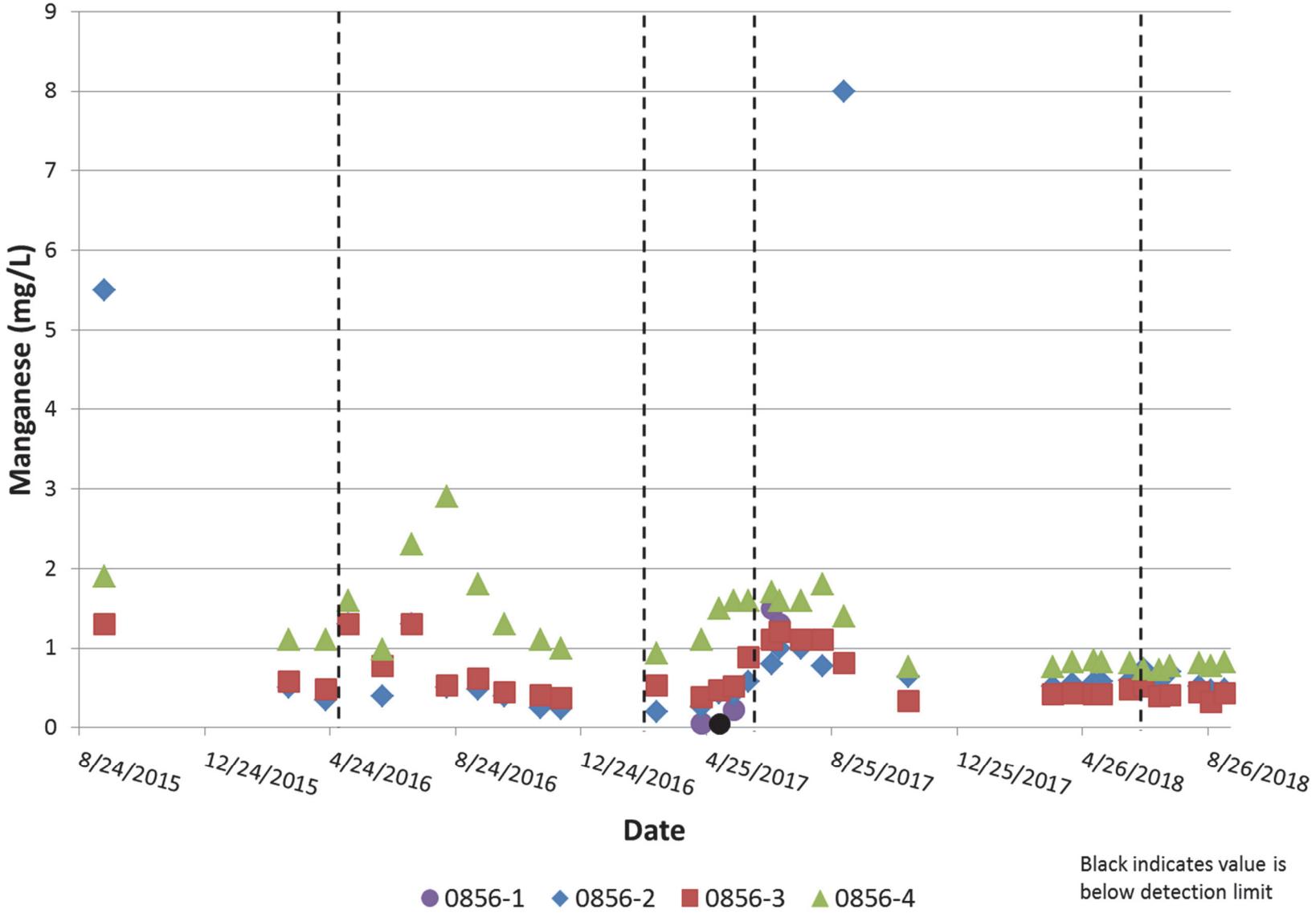
# Well 0856: Iron



● 0856-1    ◆ 0856-2    ■ 0856-3    ▲ 0856-4

Black indicates value is below detection limit

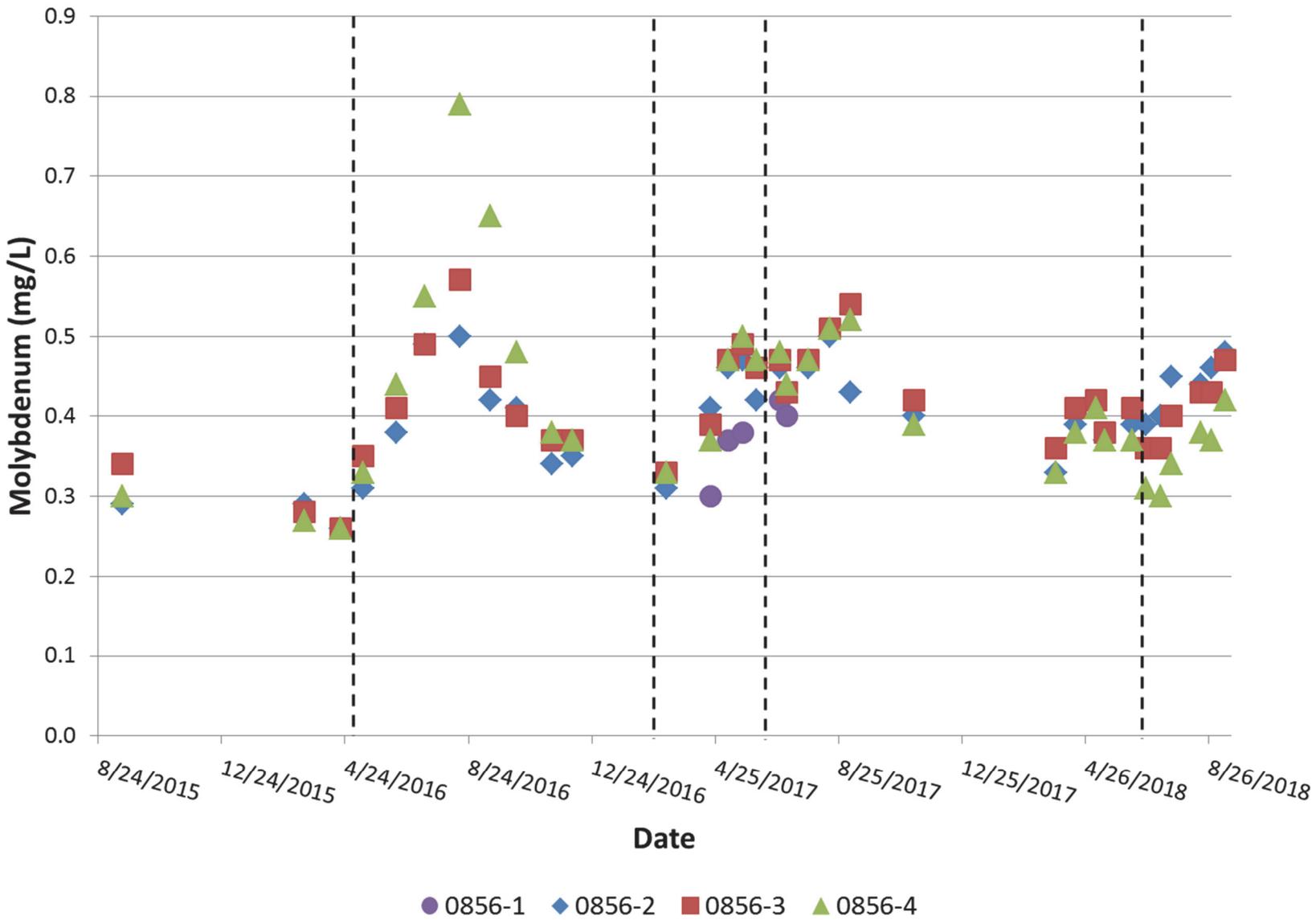
# Well 0856: Manganese



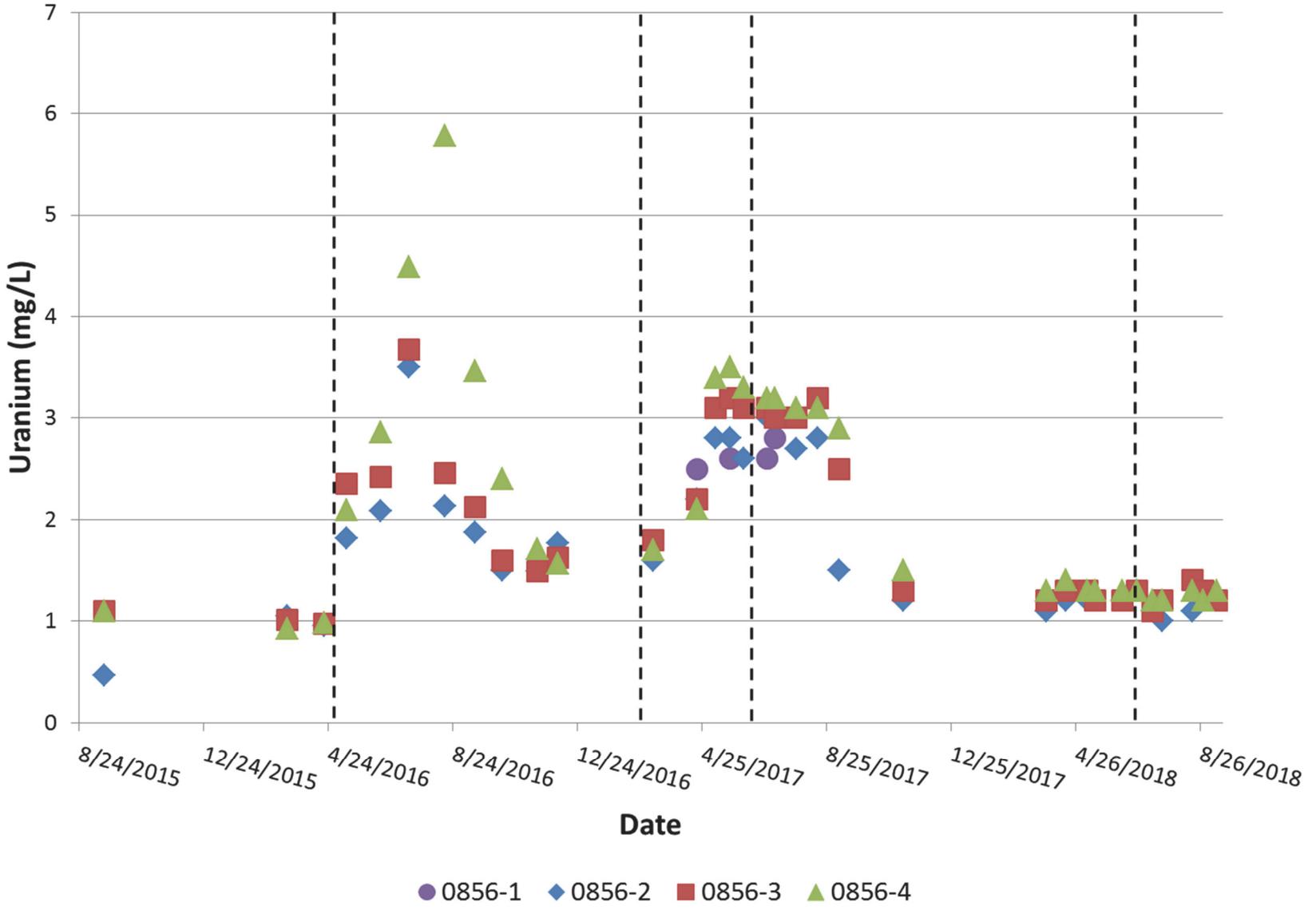
Black indicates value is below detection limit

● 0856-1    ◆ 0856-2    ■ 0856-3    ▲ 0856-4

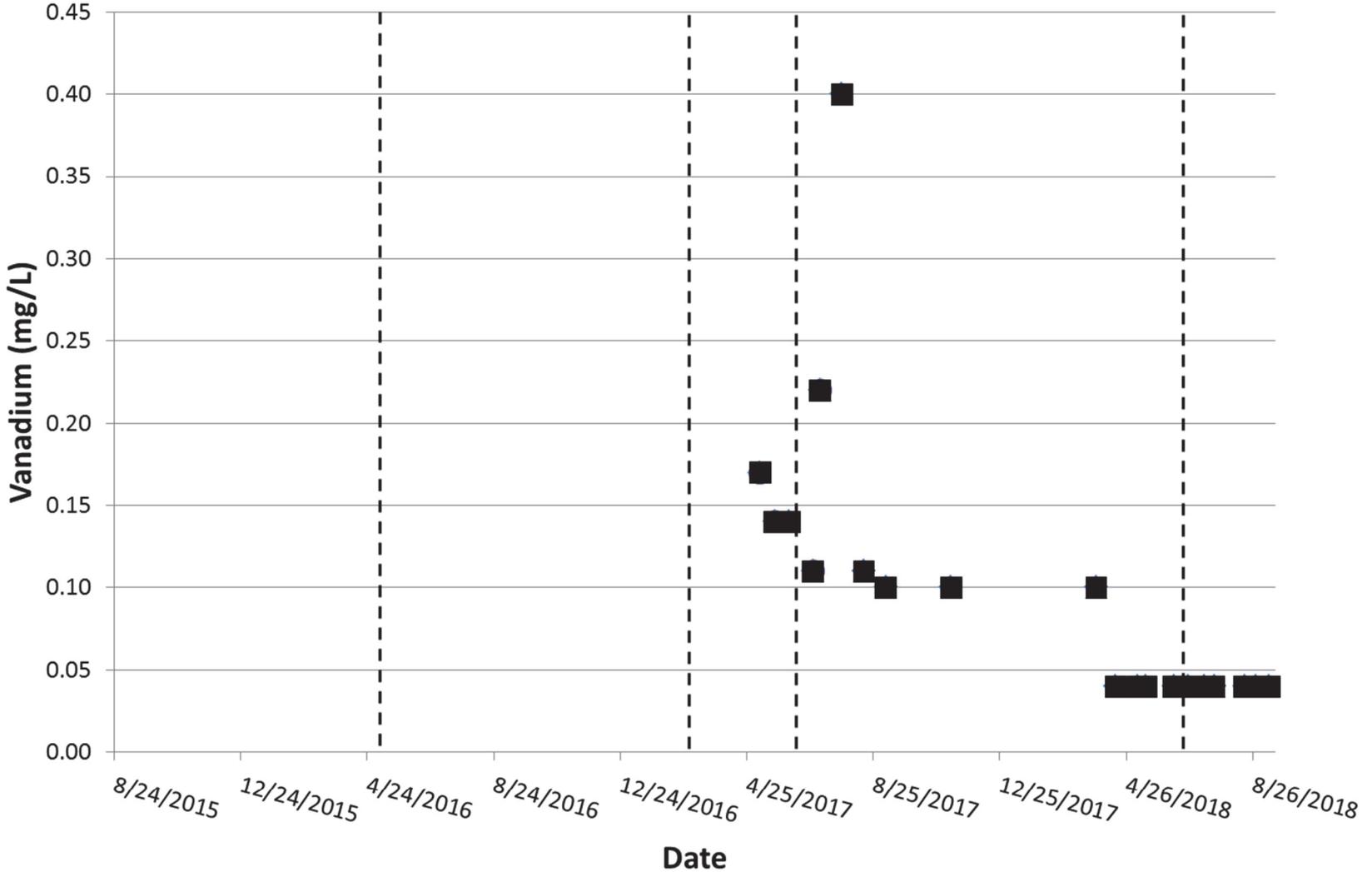
# Well 0856: Molybdenum



# Well 0856: Uranium



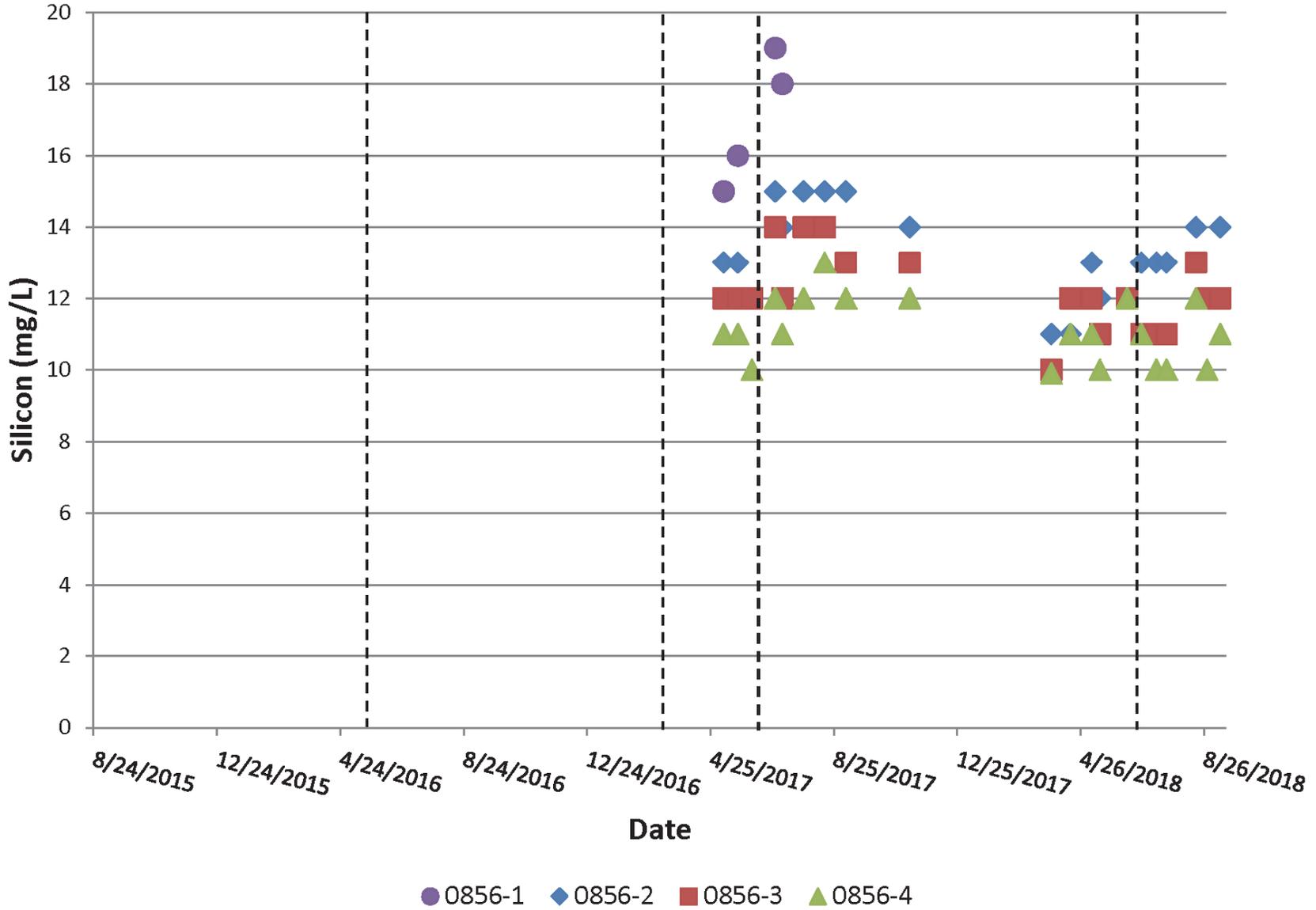
# Well 0856: Vanadium



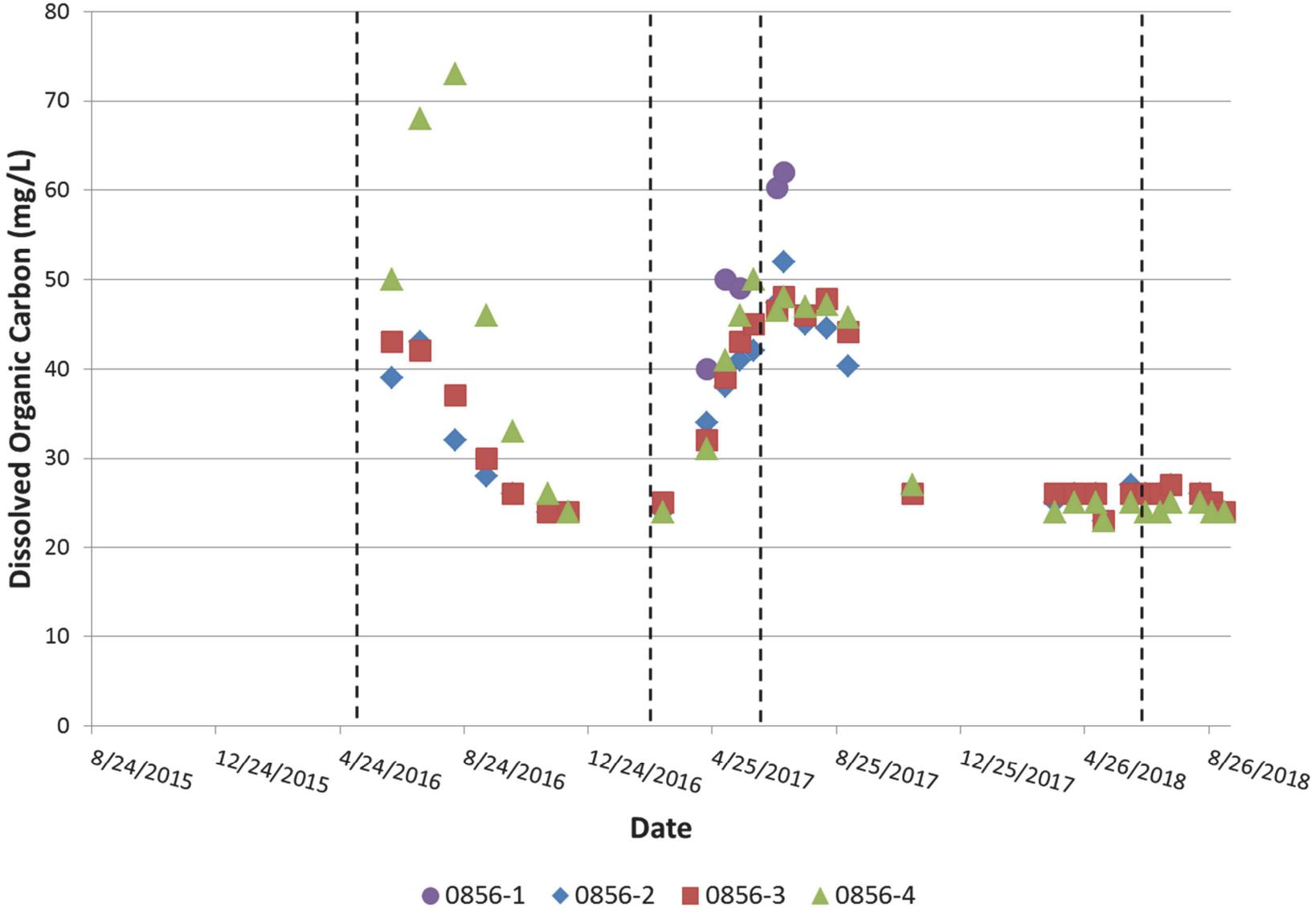
● 0856-1    ◆ 0856-2    ■ 0856-3    ▲ 0856-4

Black indicates value is below detection limit

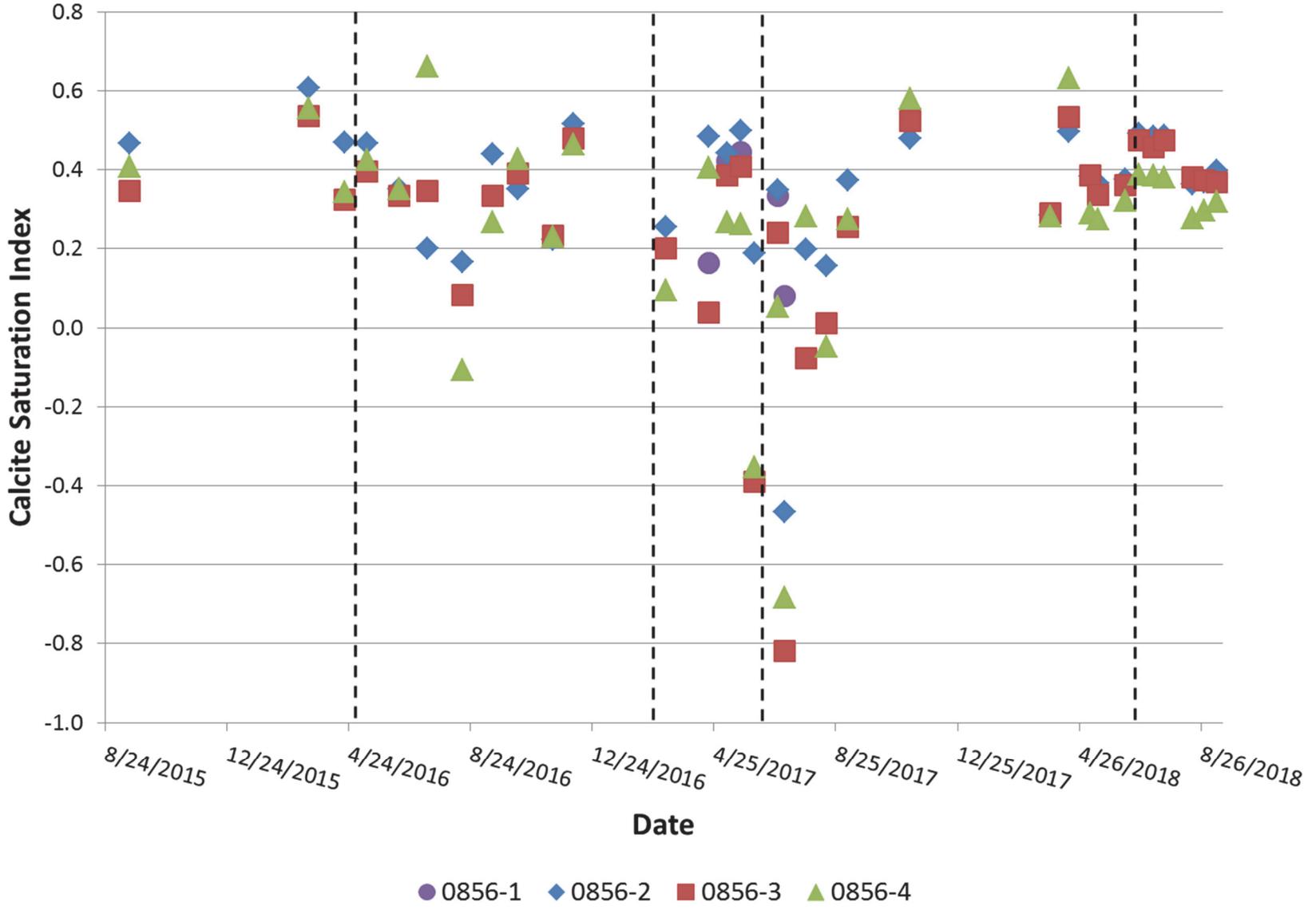
# Well 0856: Silicon



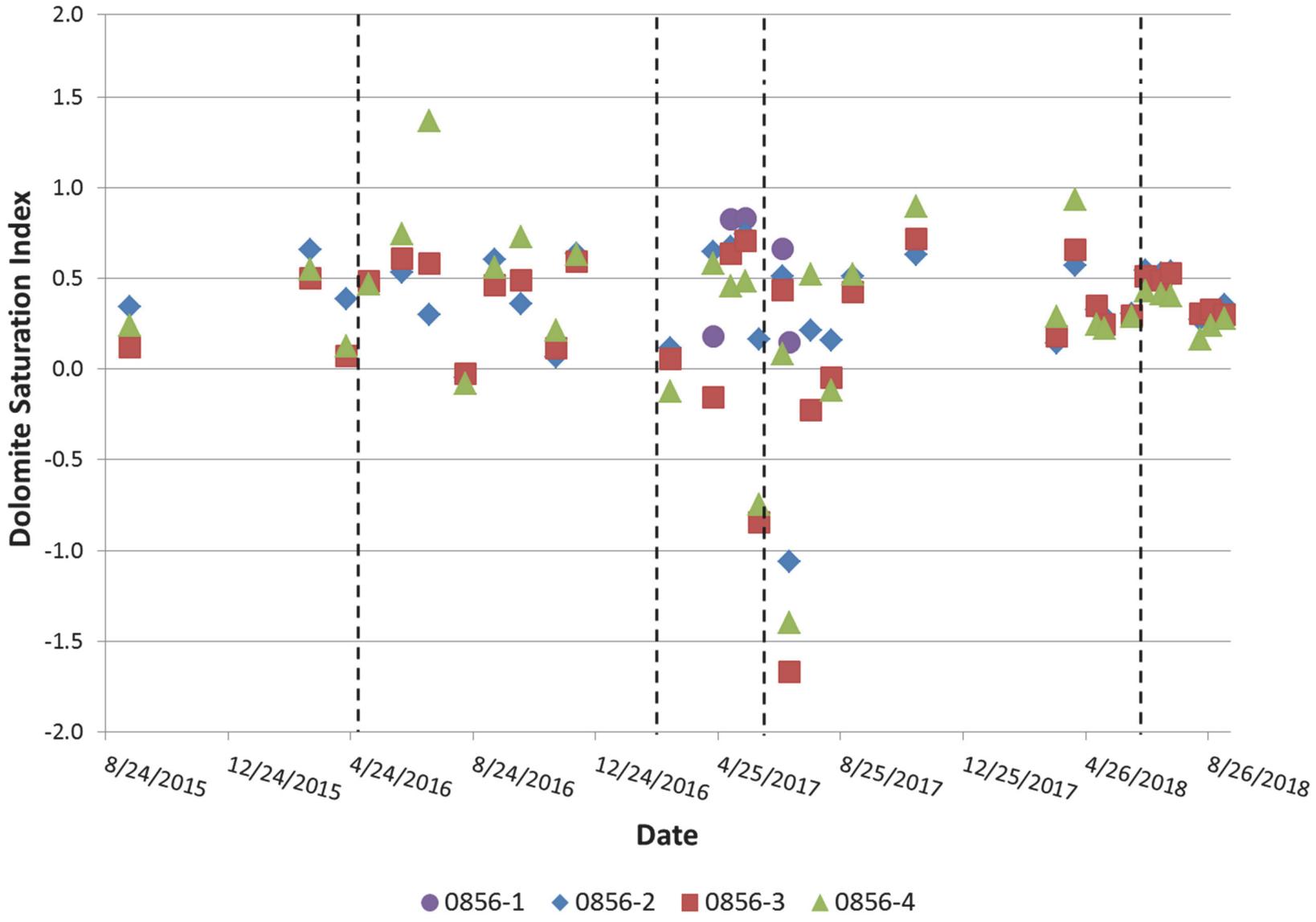
# Well 0856: DOC



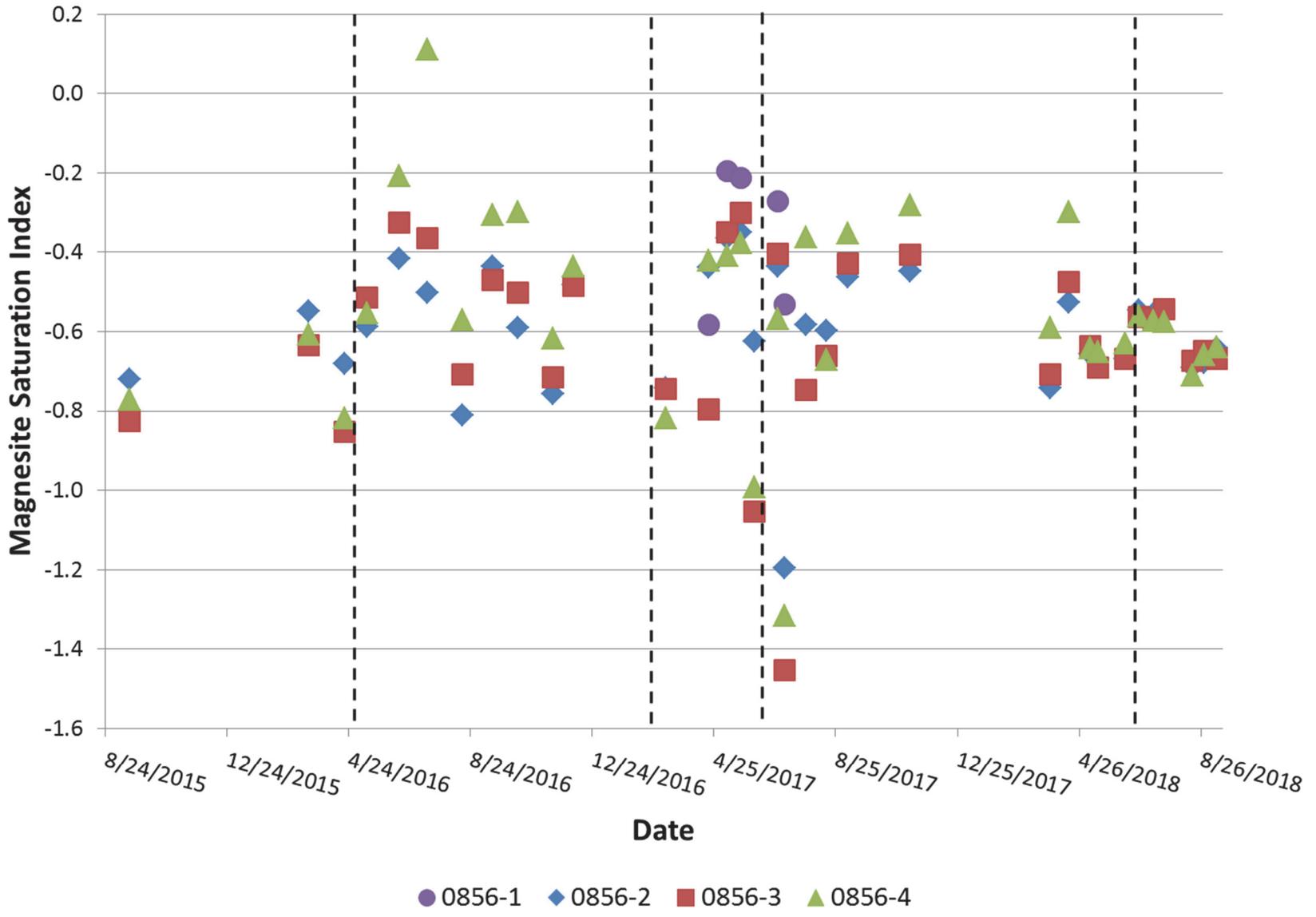
# Well 0856: Calcite Saturation Index



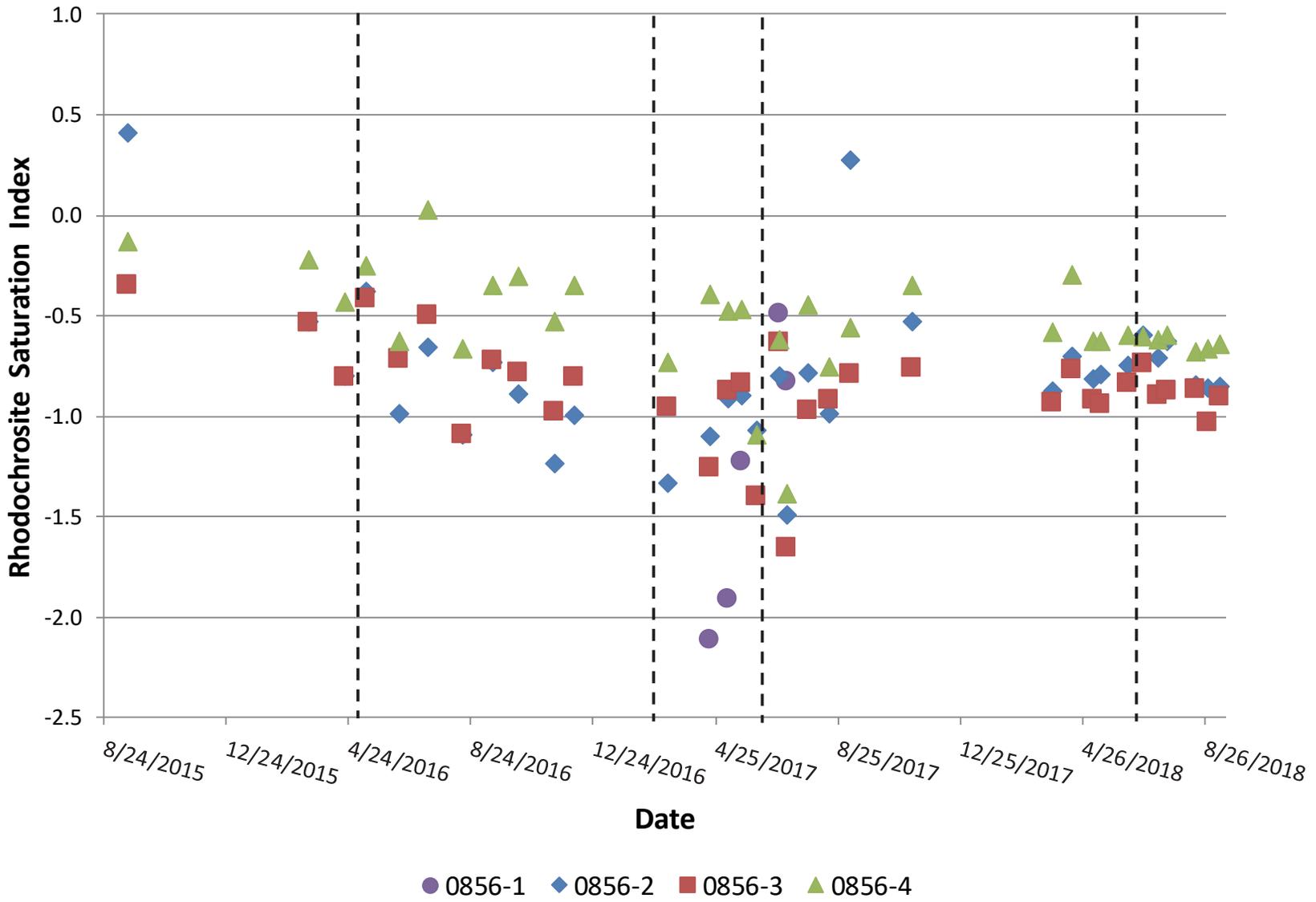
# Well 0856: Dolomite (disordered) Saturation Index



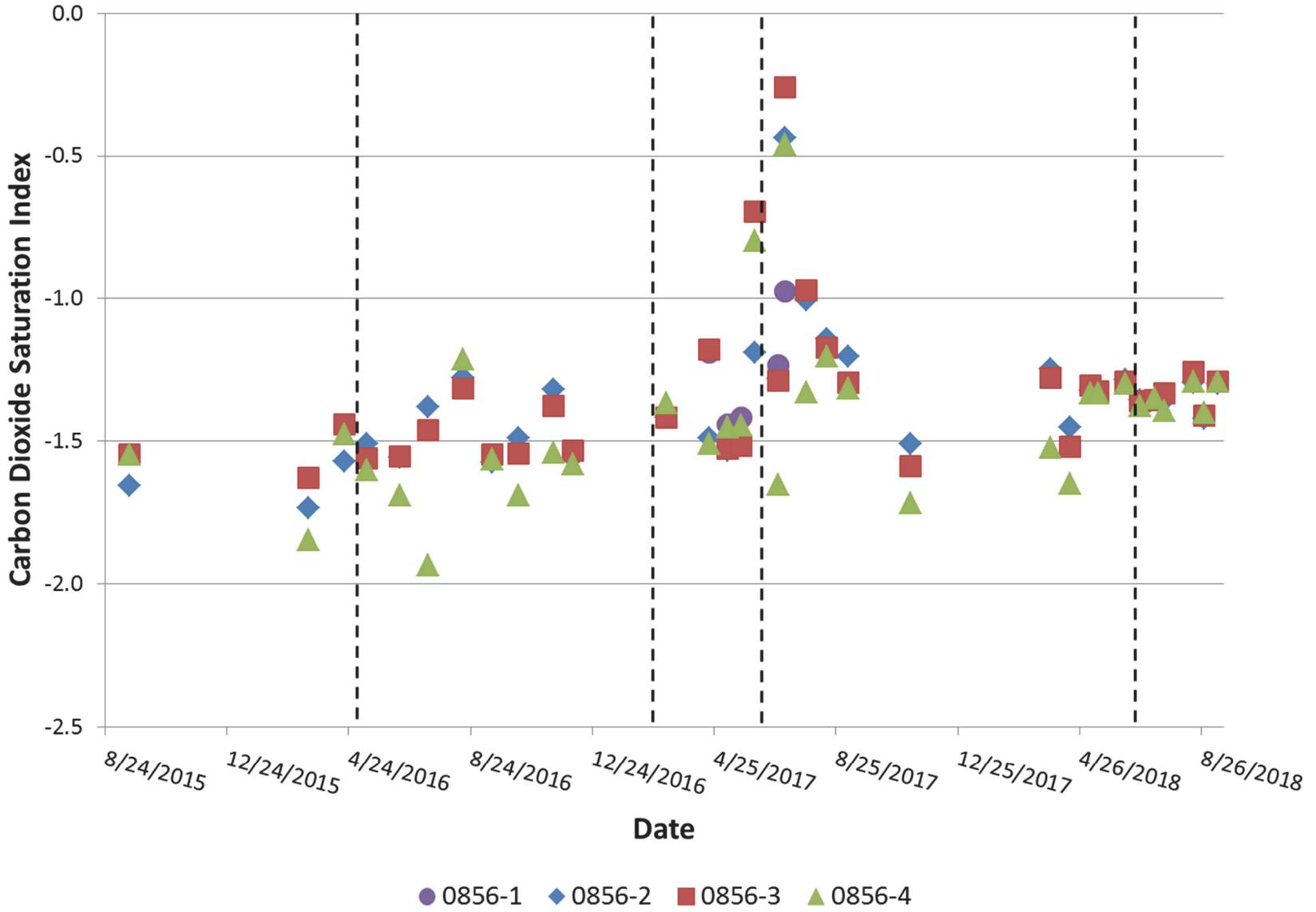
# Well 0856: Magnesite Saturation Index



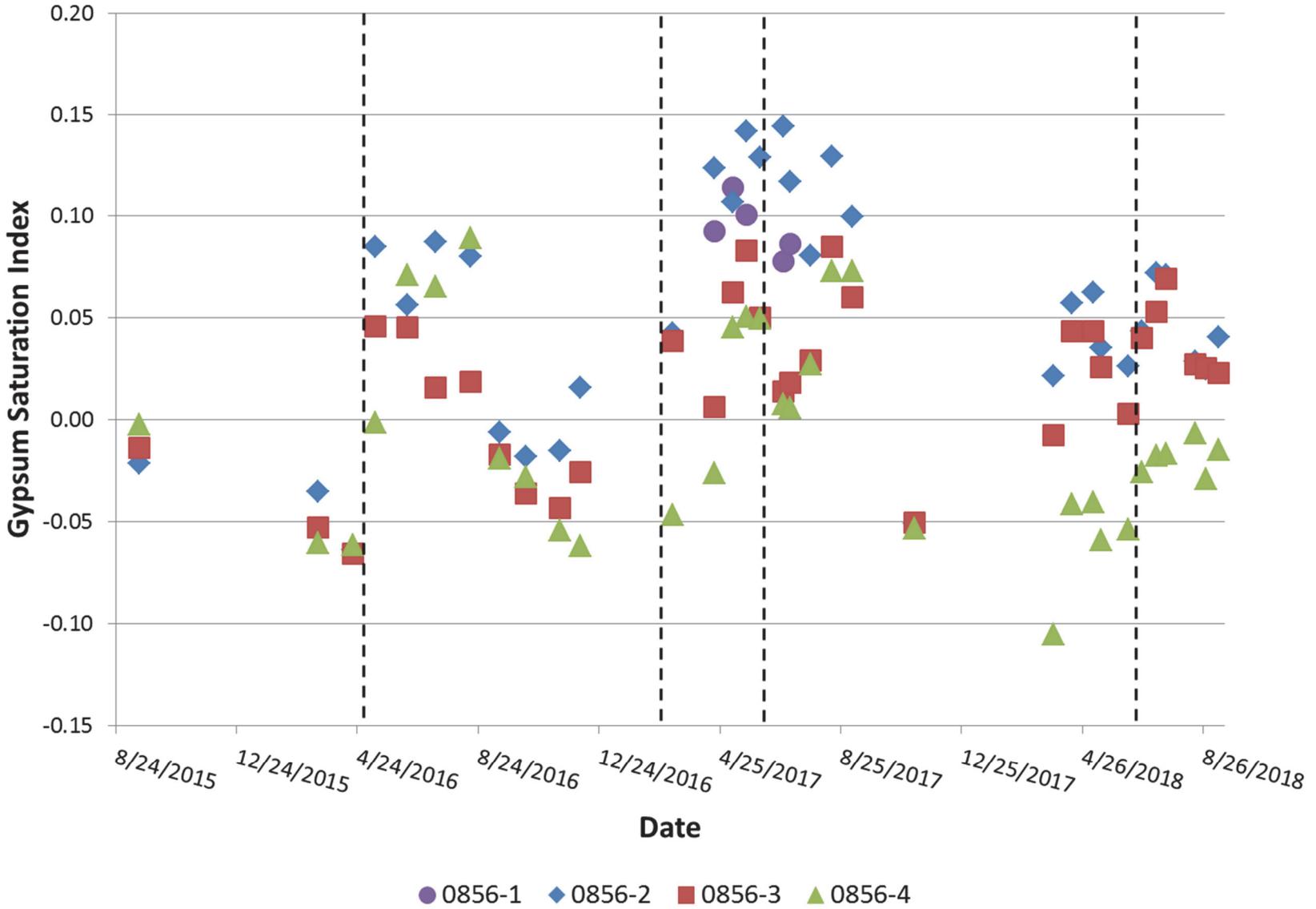
# Well 0856: Rhodochrosite Saturation Index



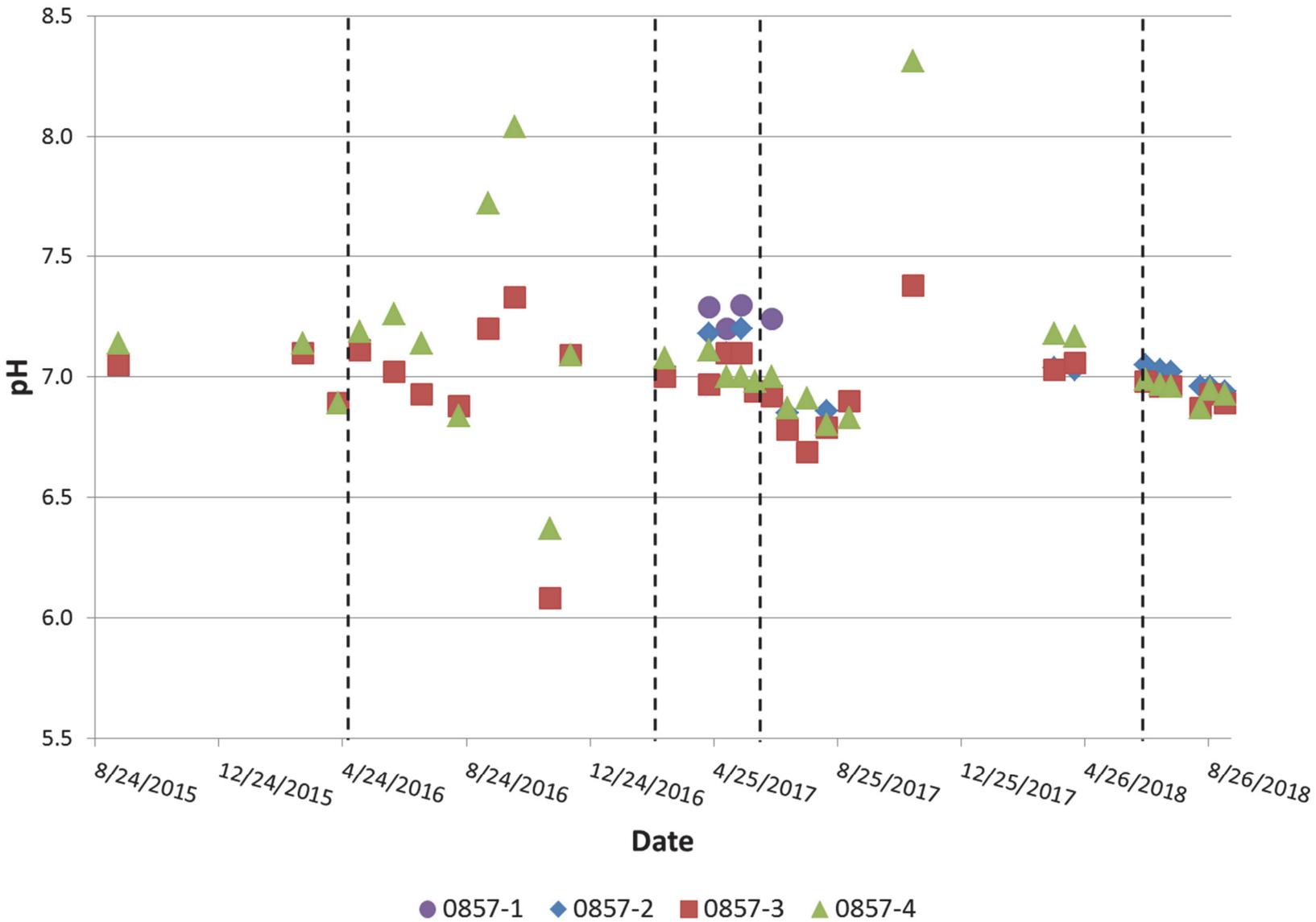
# Well 0856: Carbon Dioxide Saturation Index



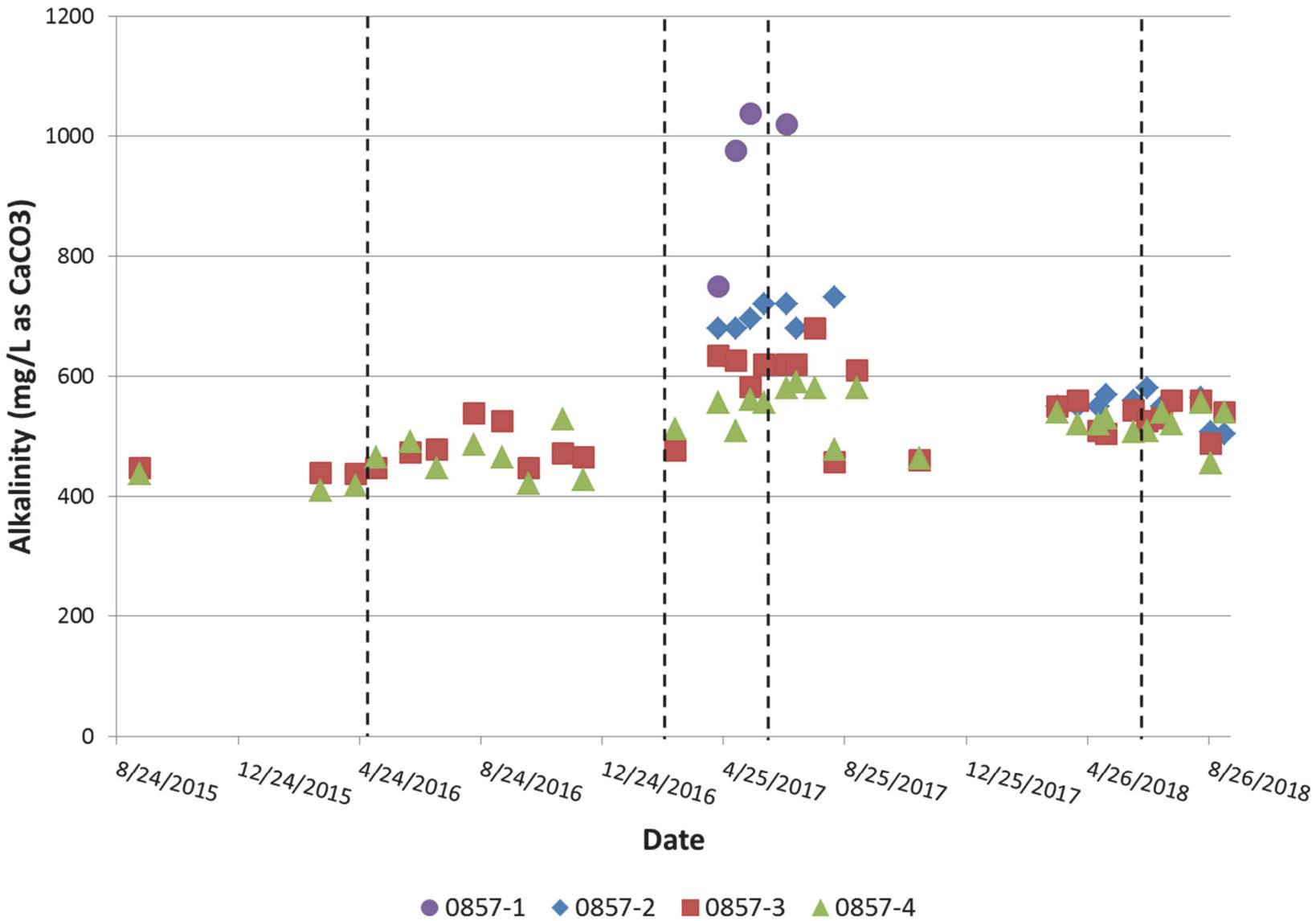
# Well 0856: Gypsum Saturation Index



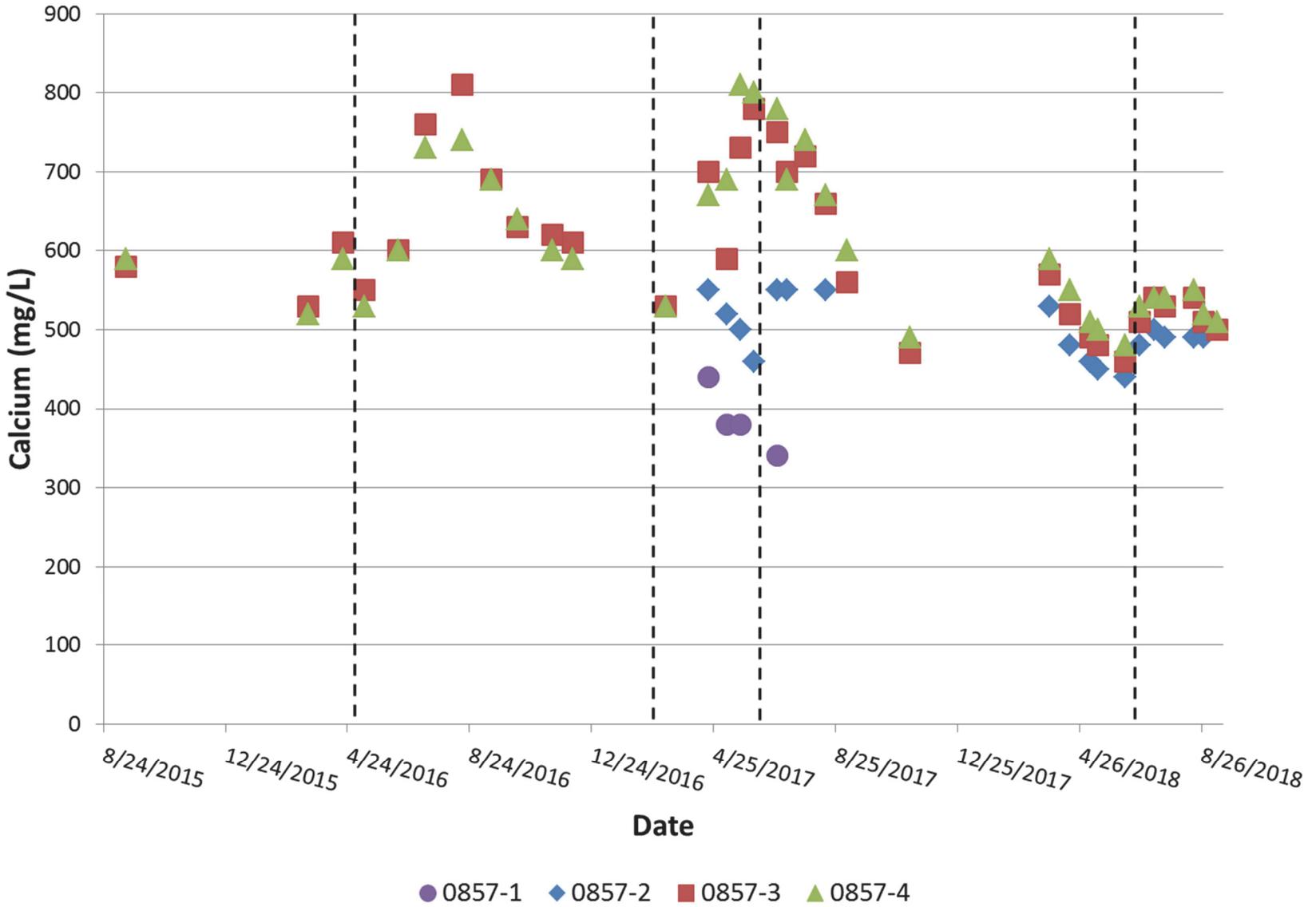
# Well 0857: pH



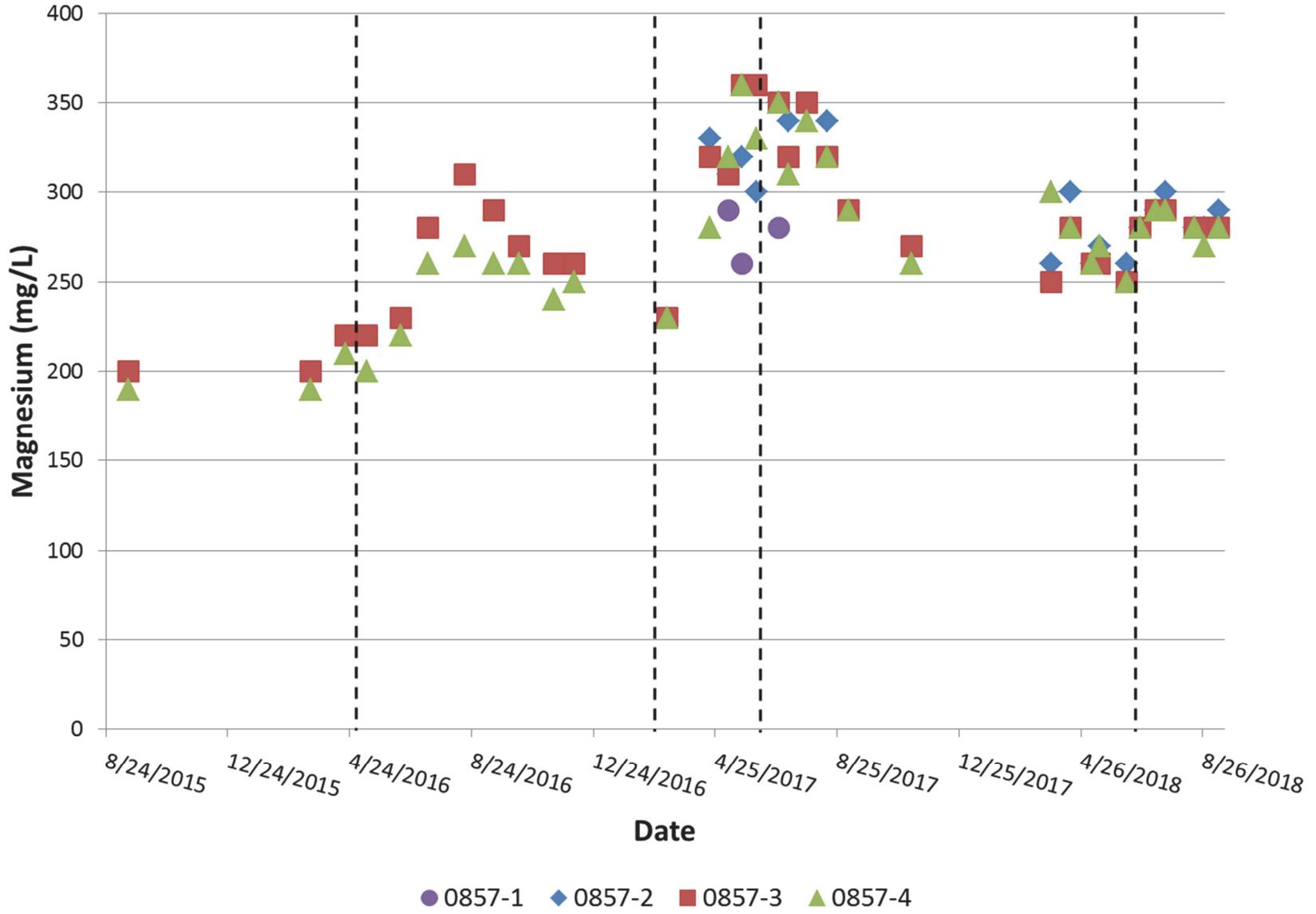
# Well 0857: Alkalinity



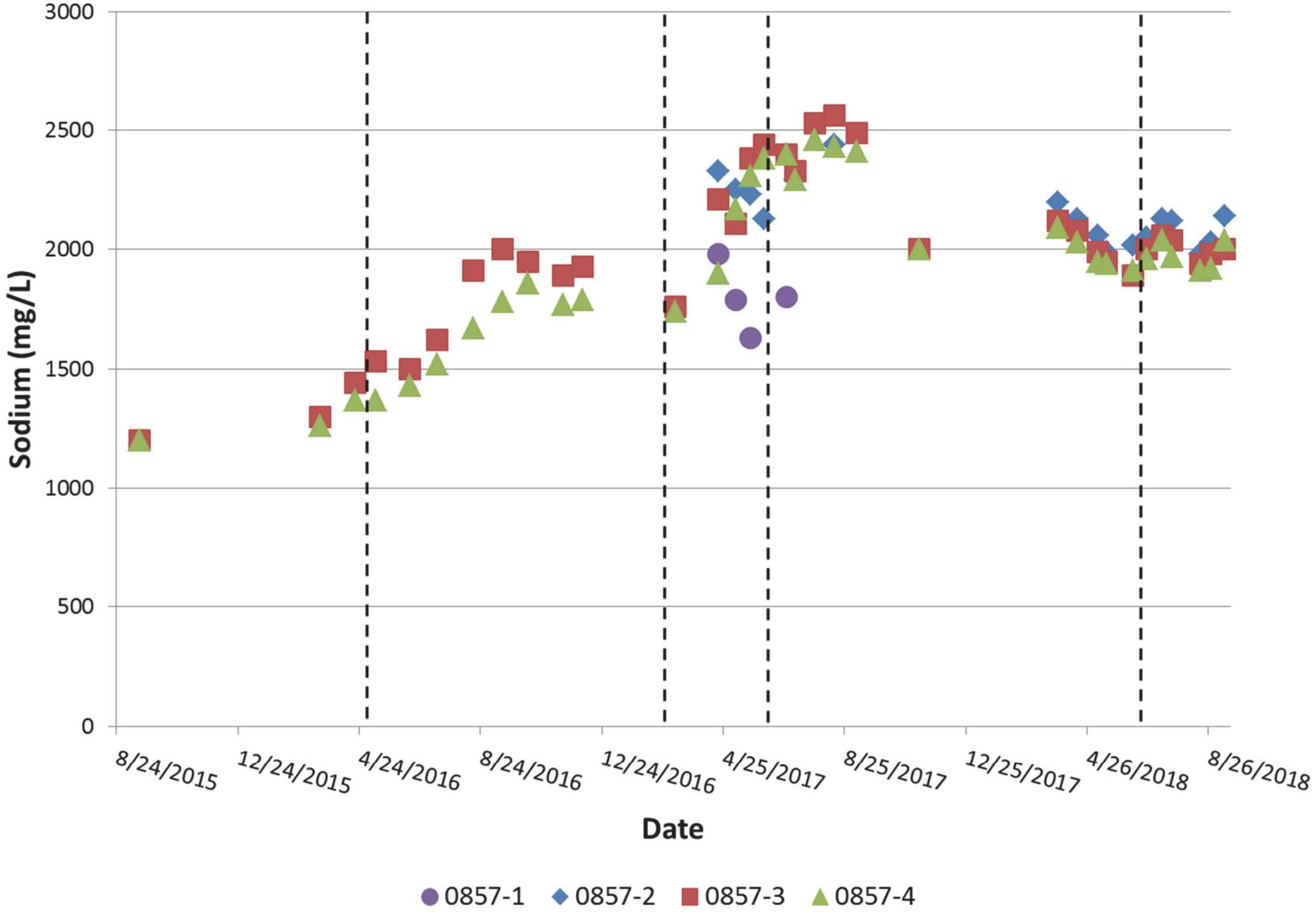
# Well 0857: Calcium



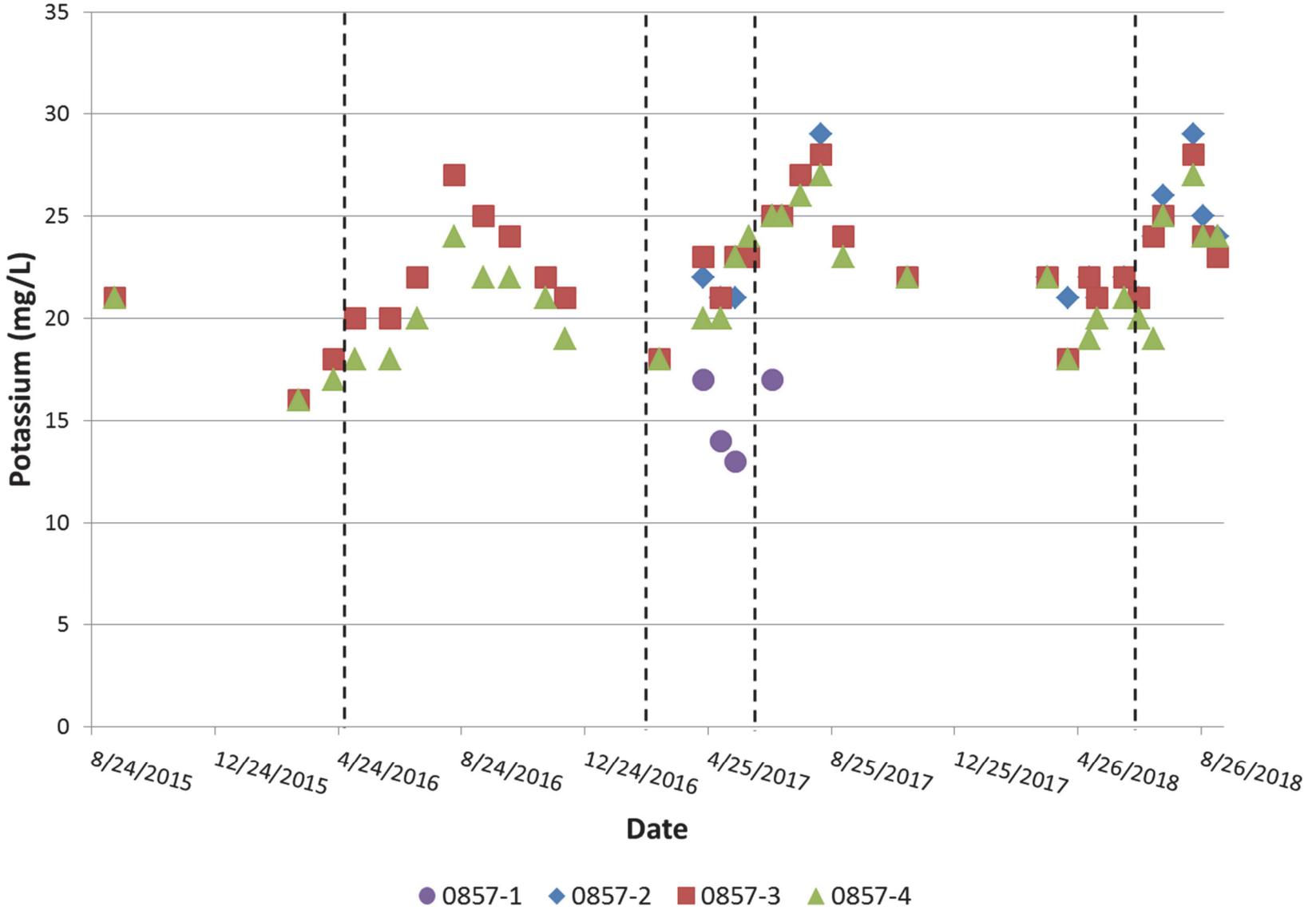
# Well 0857: Magnesium



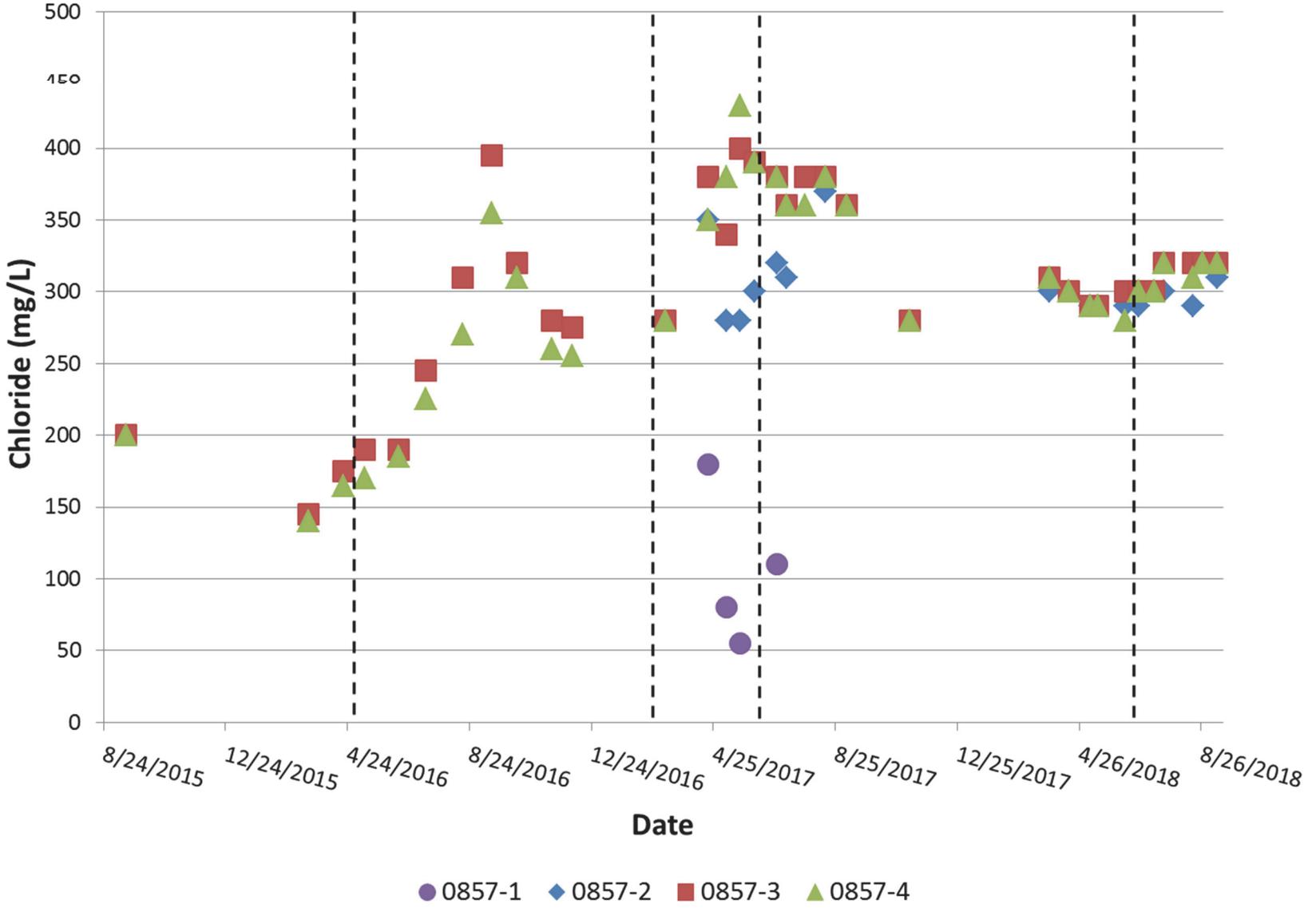
# Well 0857: Sodium



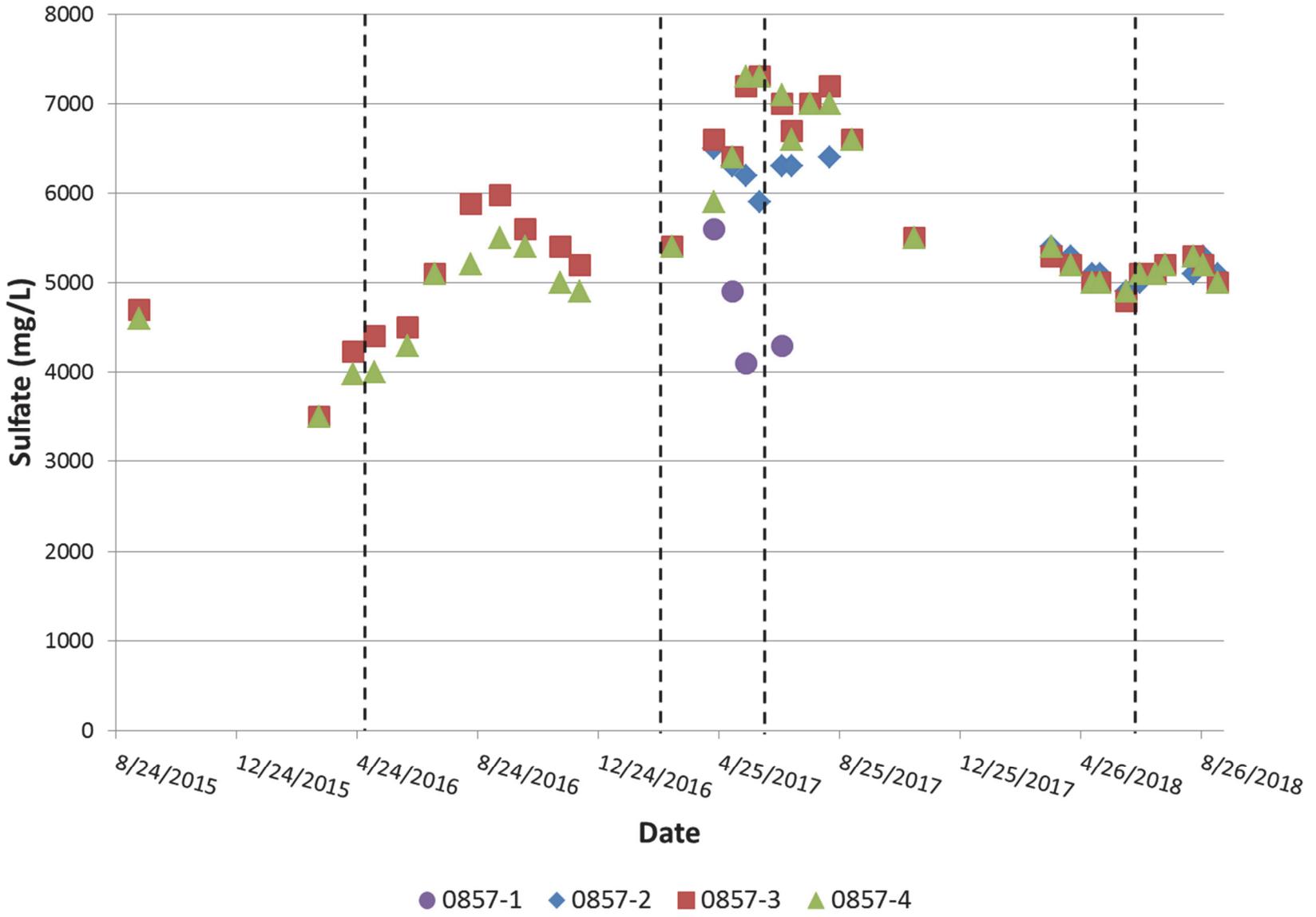
# Well 0857: Potassium



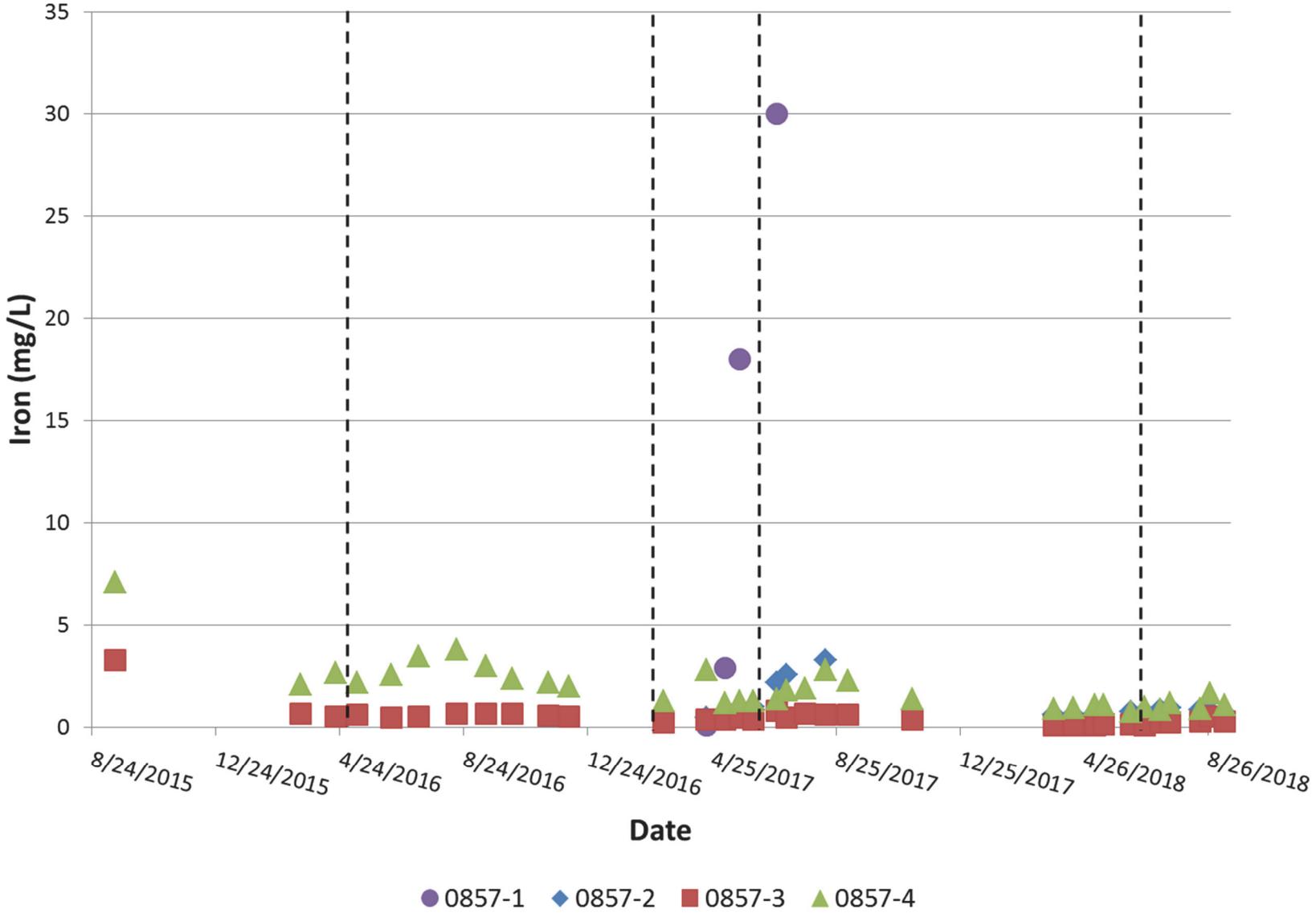
# Well 0857: Chloride



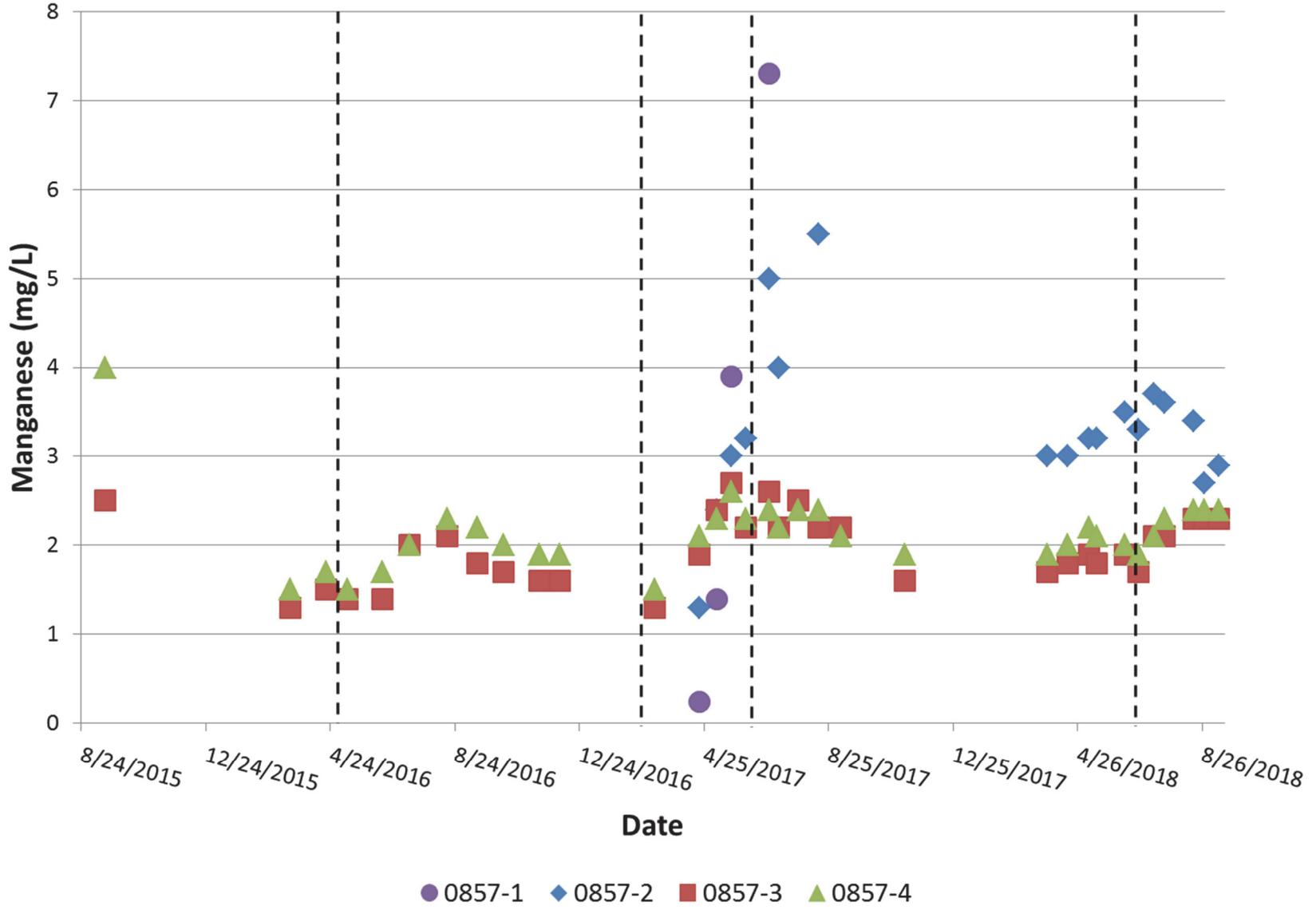
# Well 0857: Sulfate



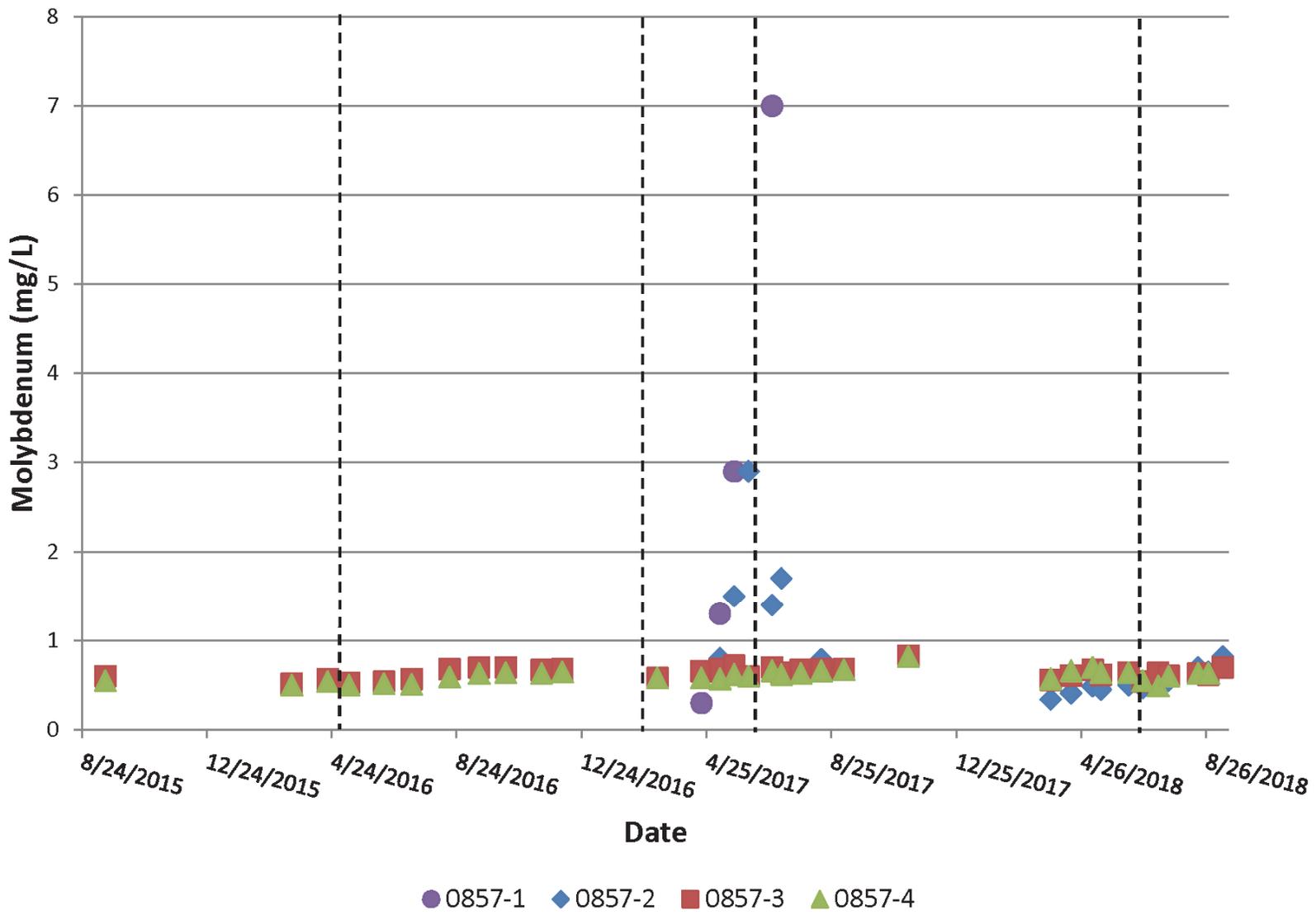
# Well 0857: Iron



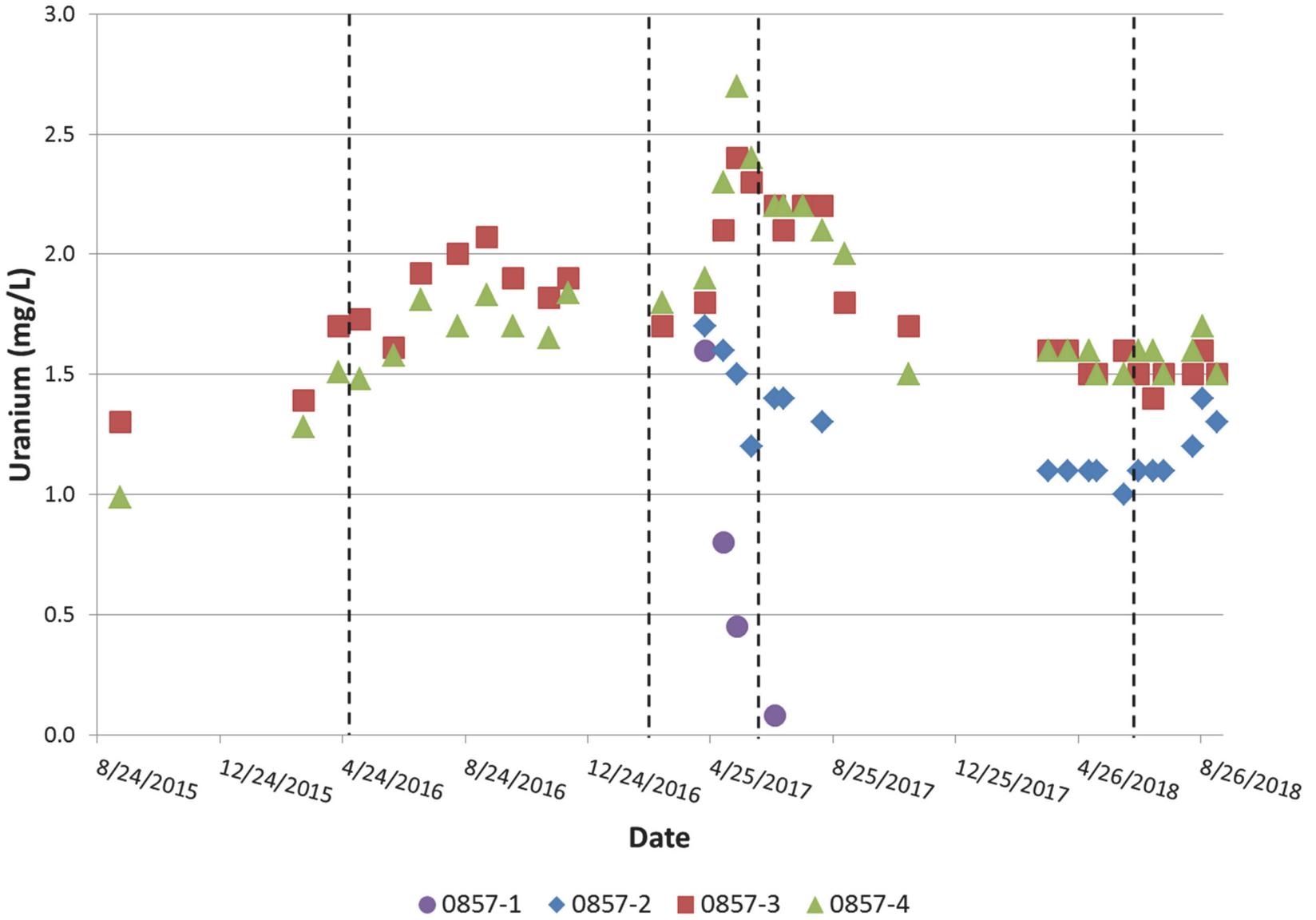
# Well 0857: Manganese



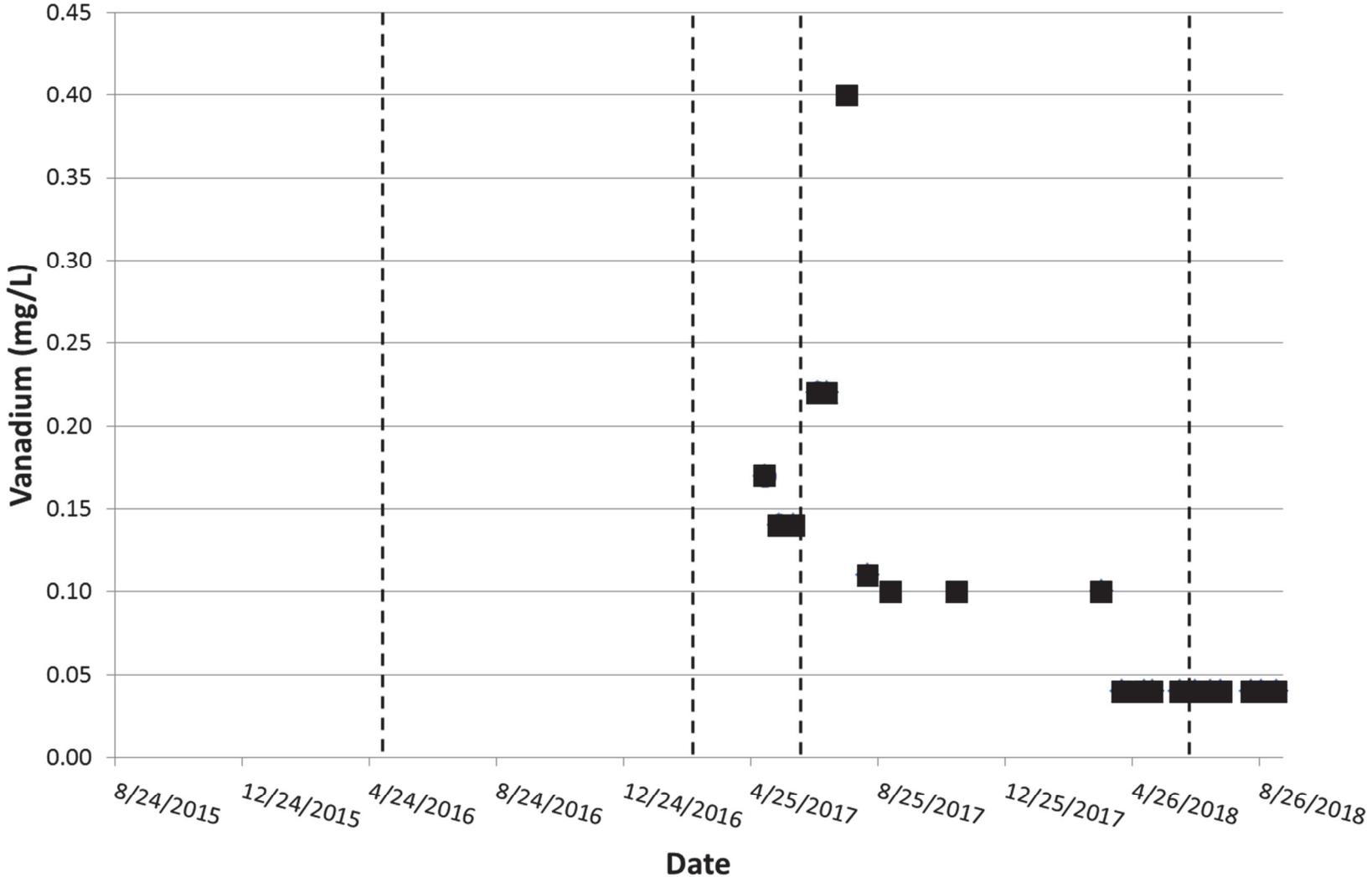
# Well 0857: Molybdenum



# Well 0857: Uranium



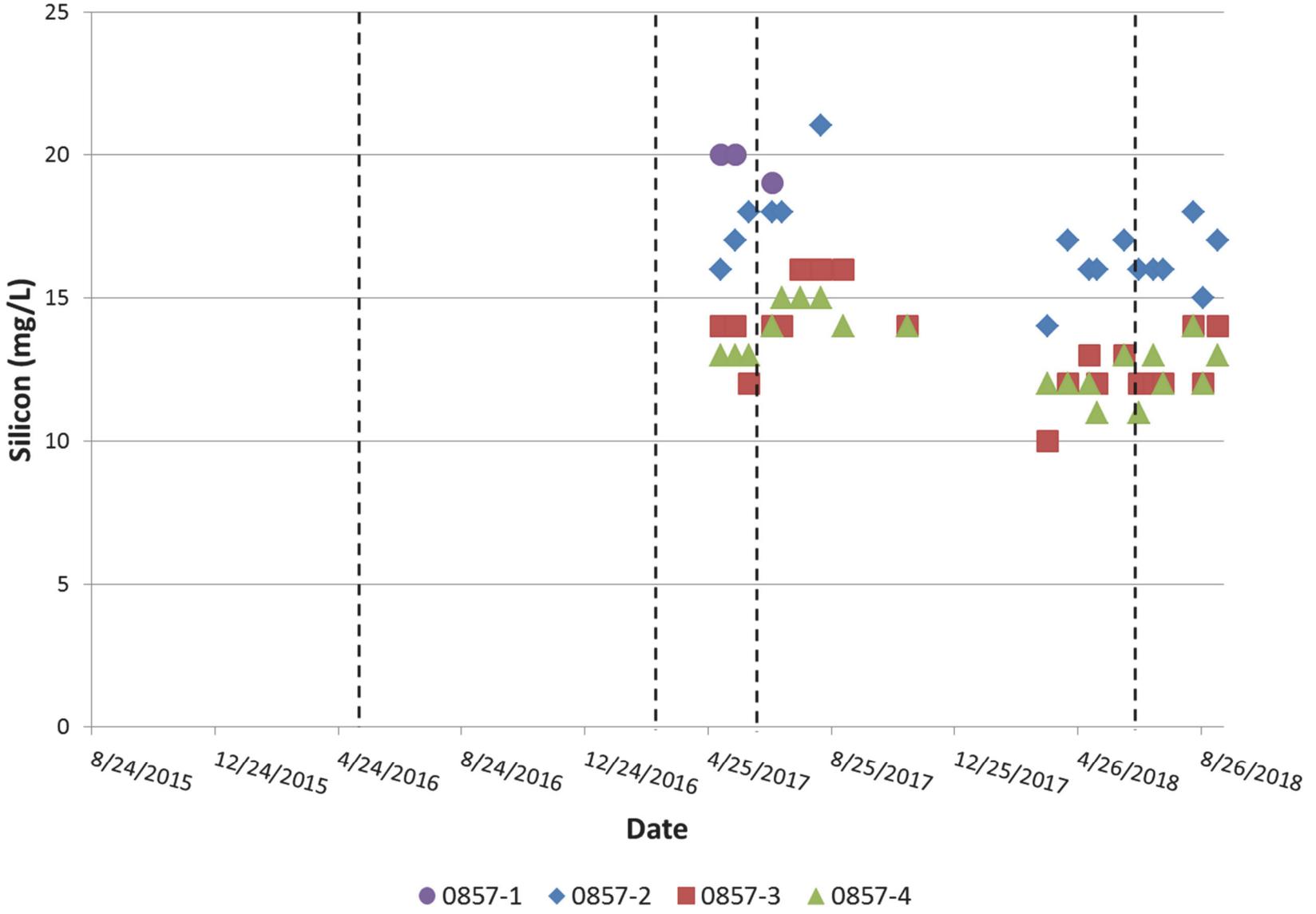
# Well 0857: Vanadium



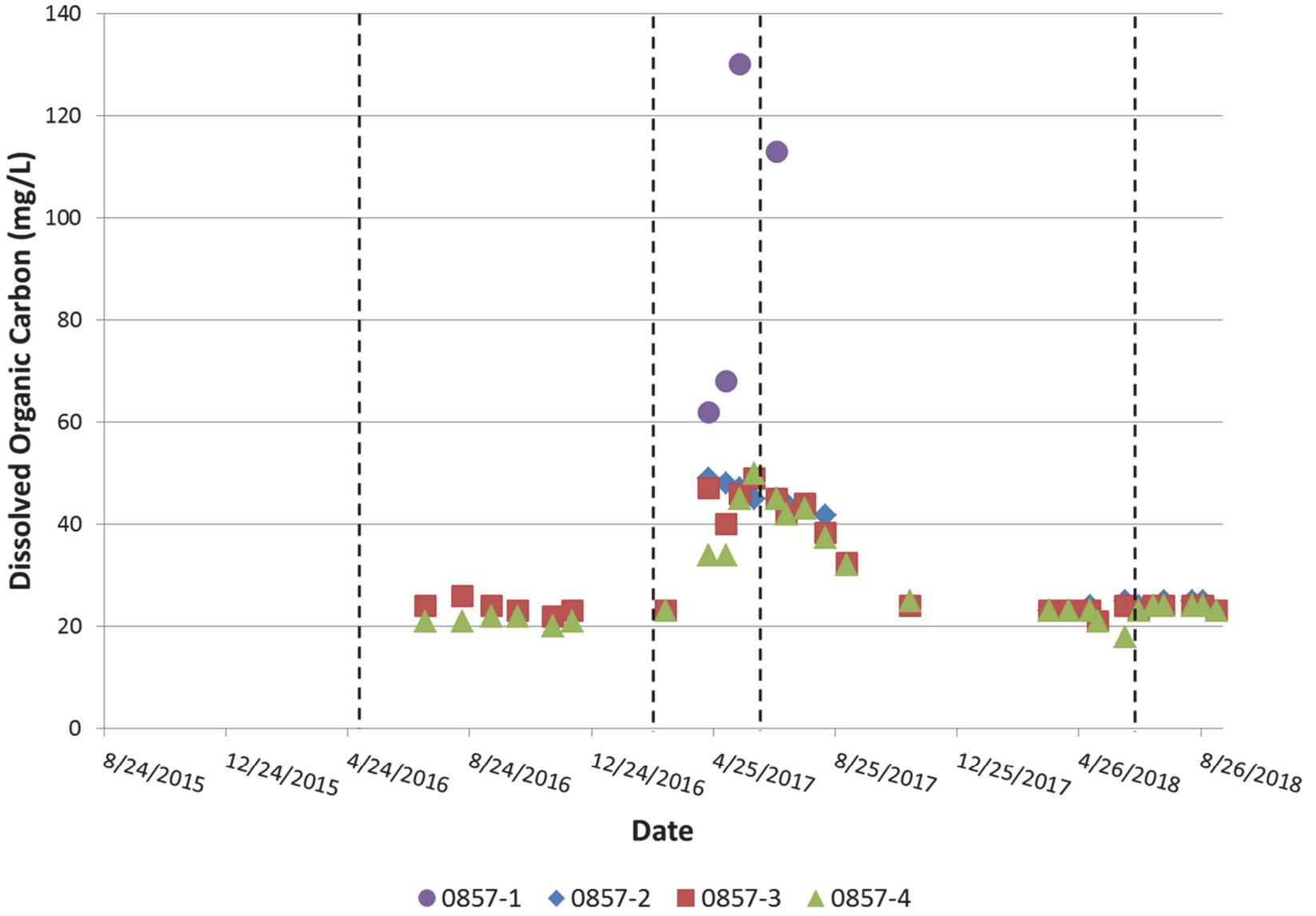
● 0857-1    ◆ 0857-2    ■ 0857-3    ▲ 0857-4

Black indicates value is below detection limit

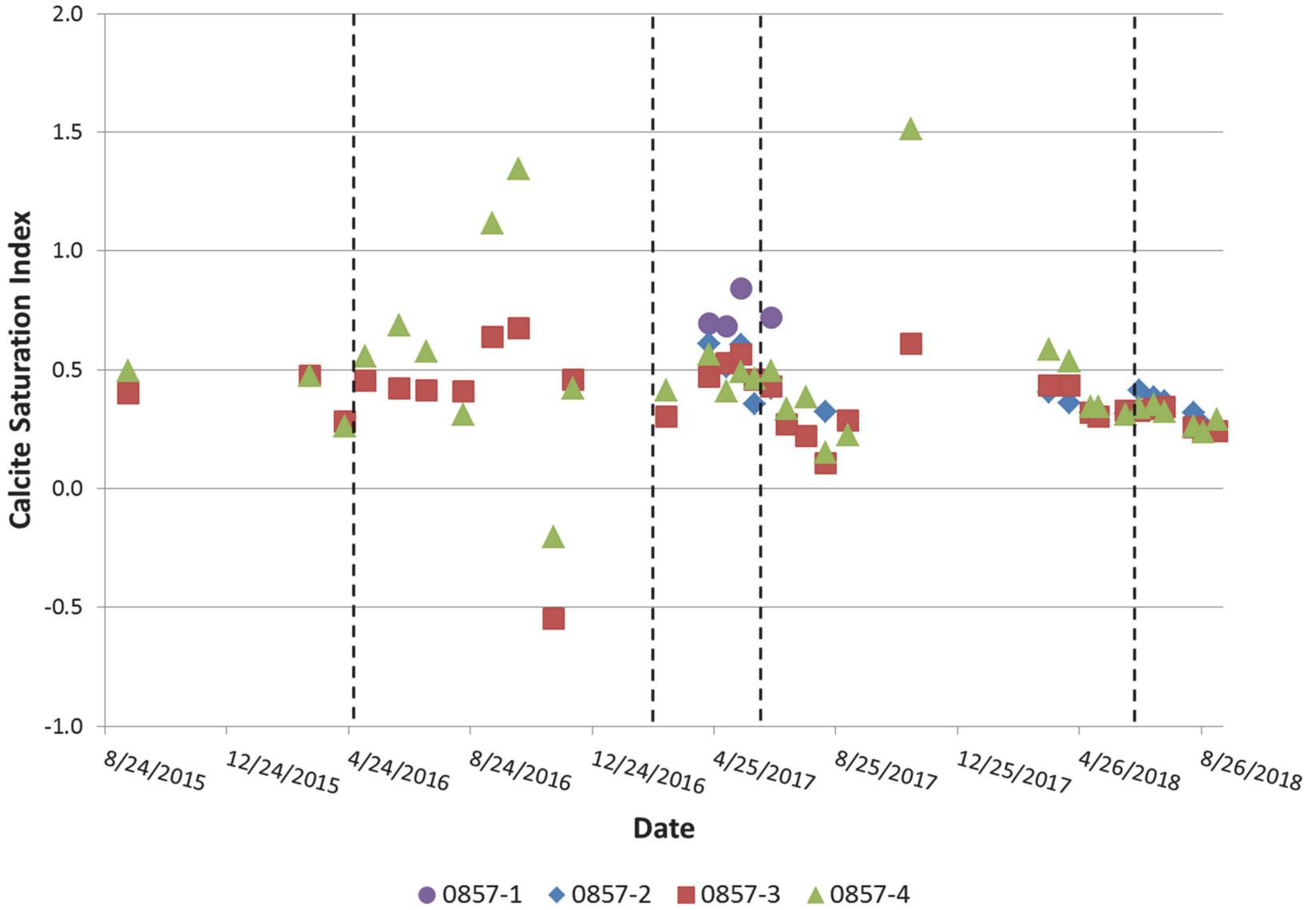
# Well 0857: Silicon



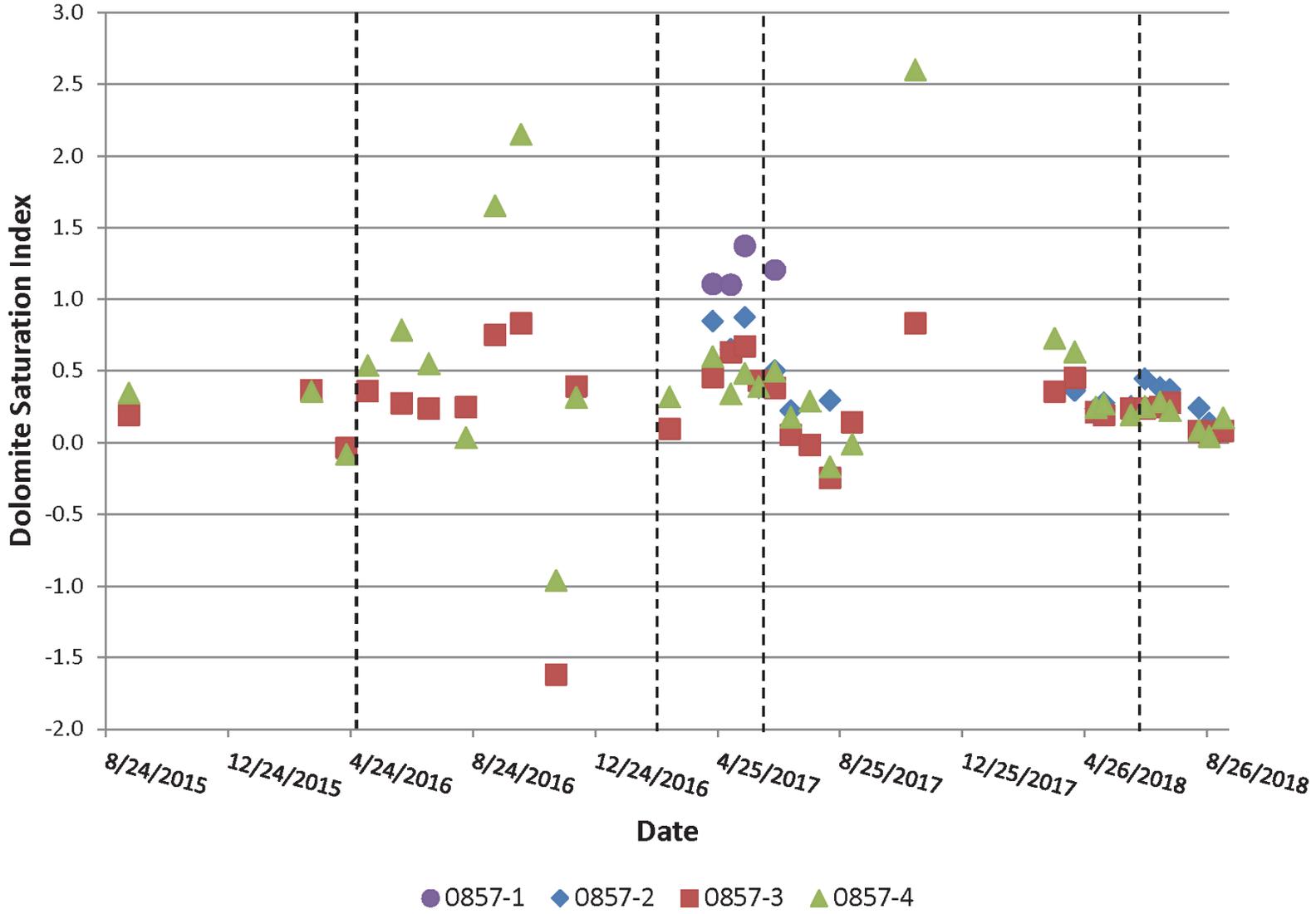
# Well 0857: DOC



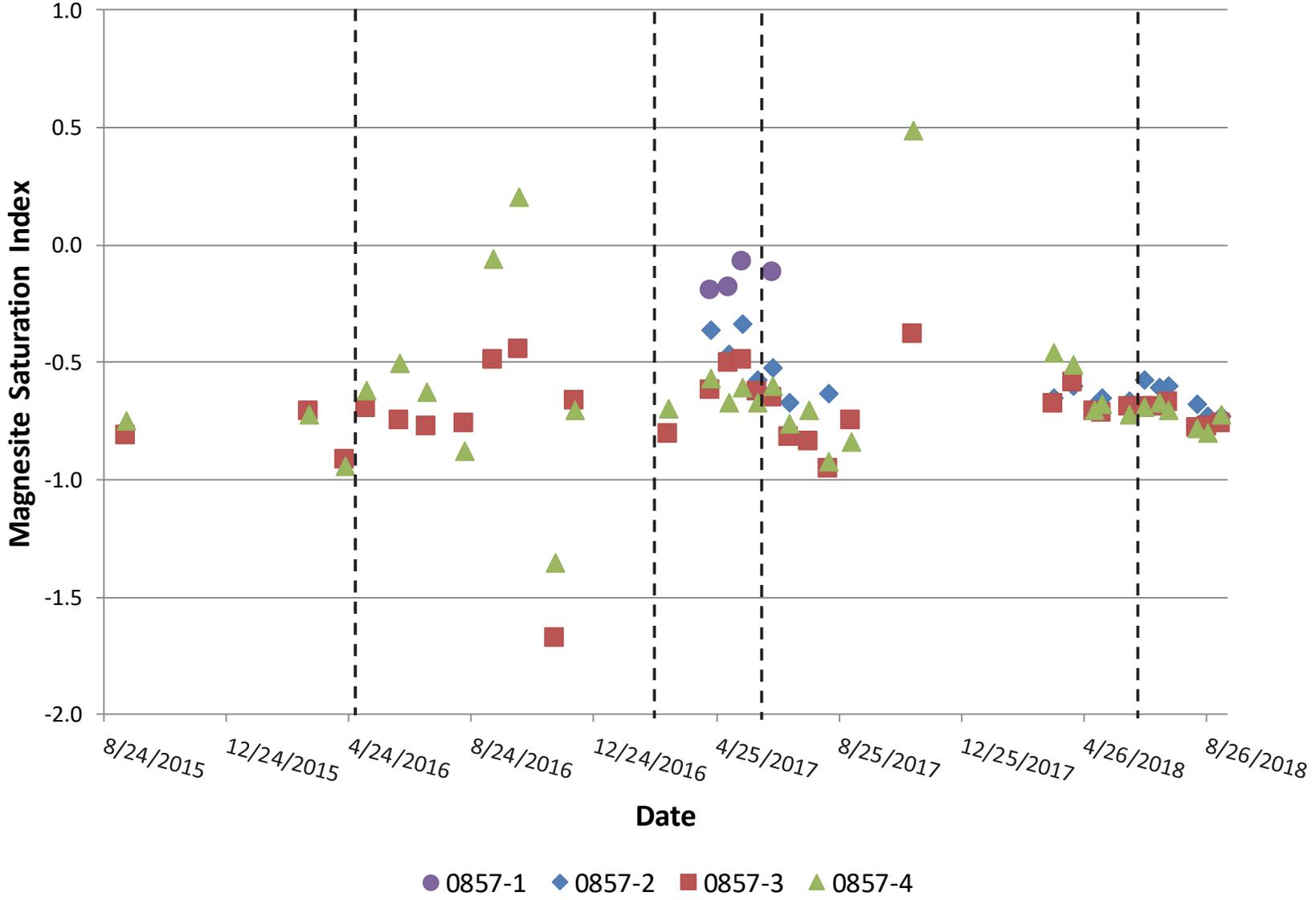
# Well 0857: Calcite Saturation Index



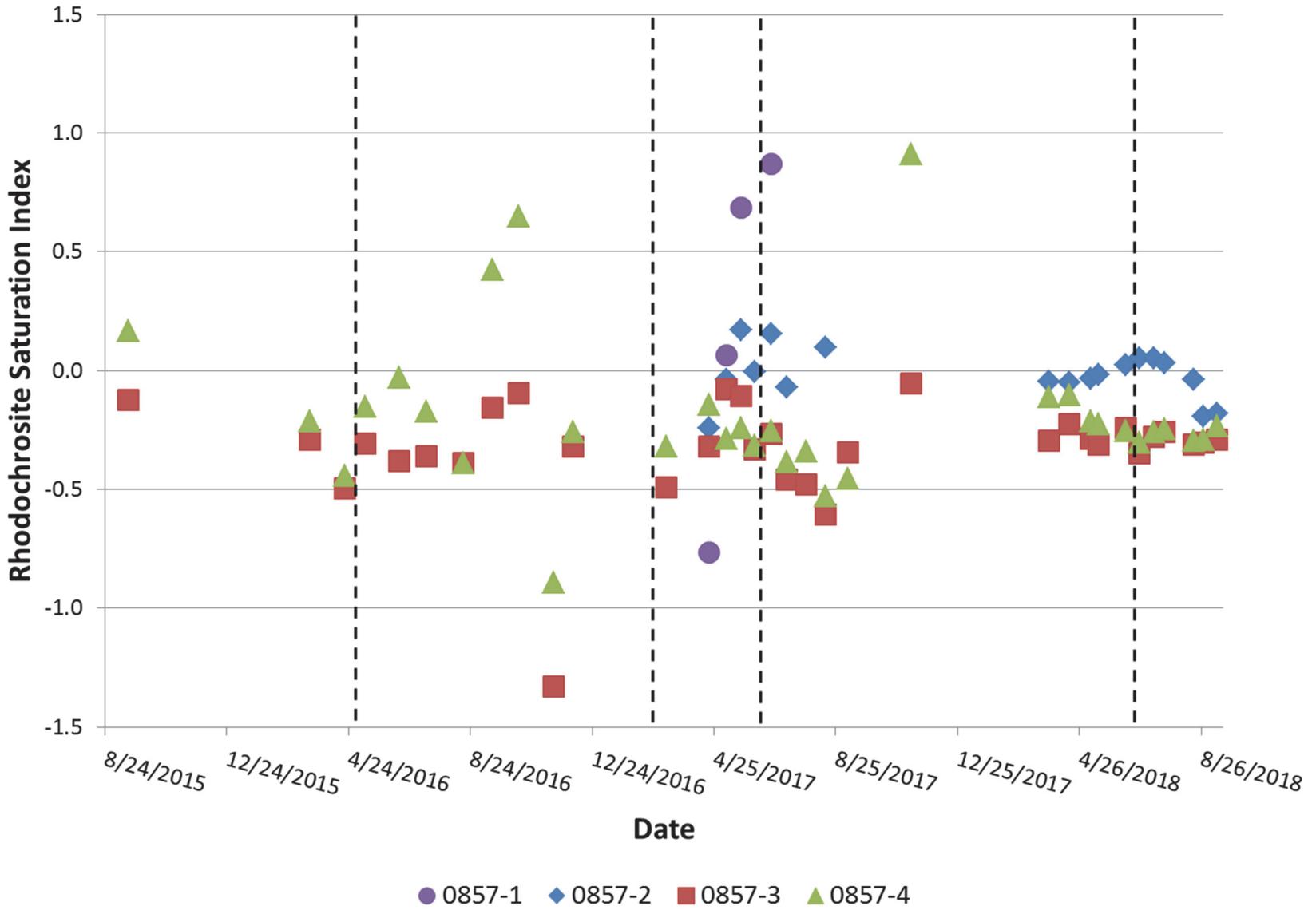
# Well 0857: Dolomite (disordered) Saturation Index



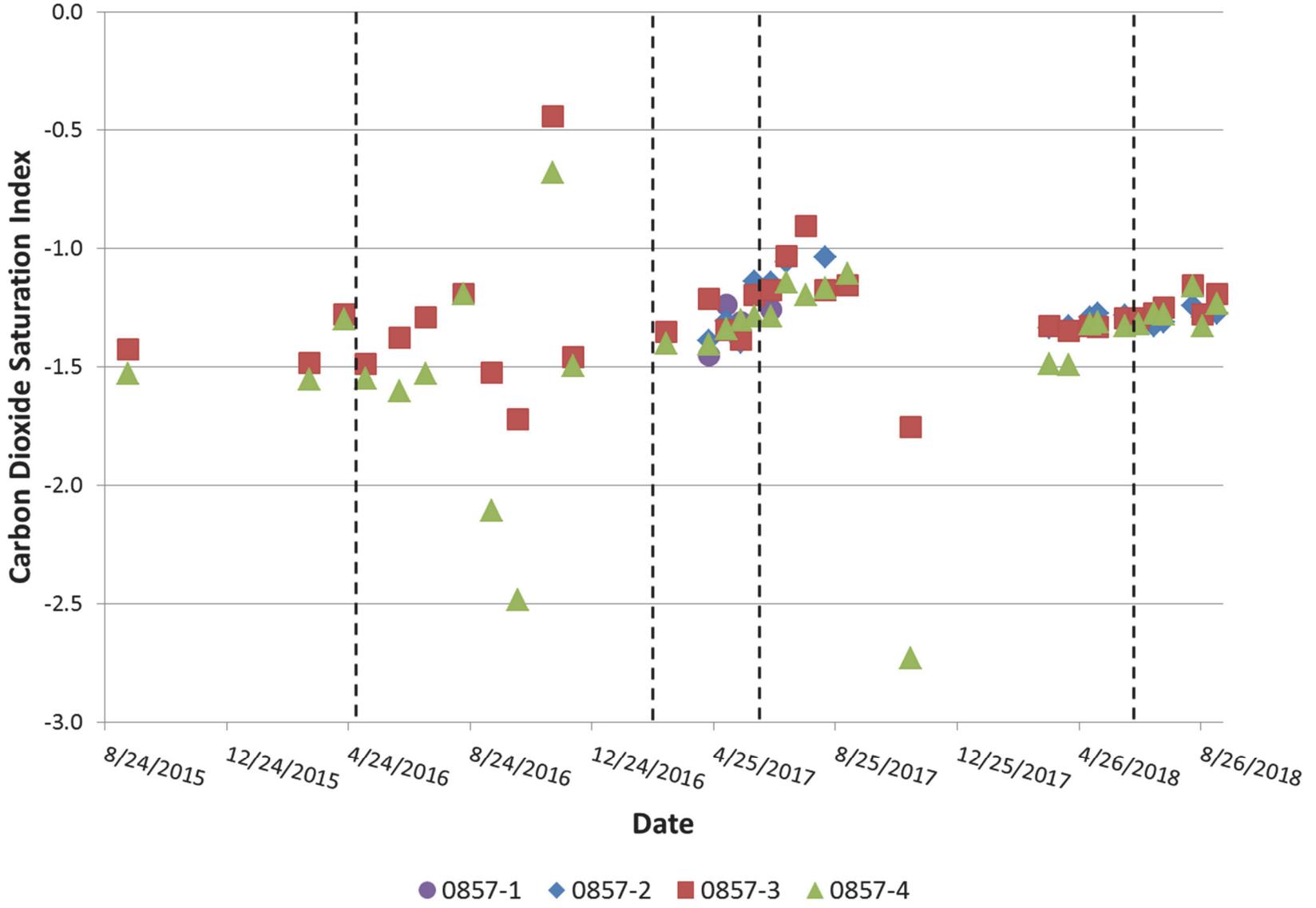
# Well 0857: Magnesite Saturation Index



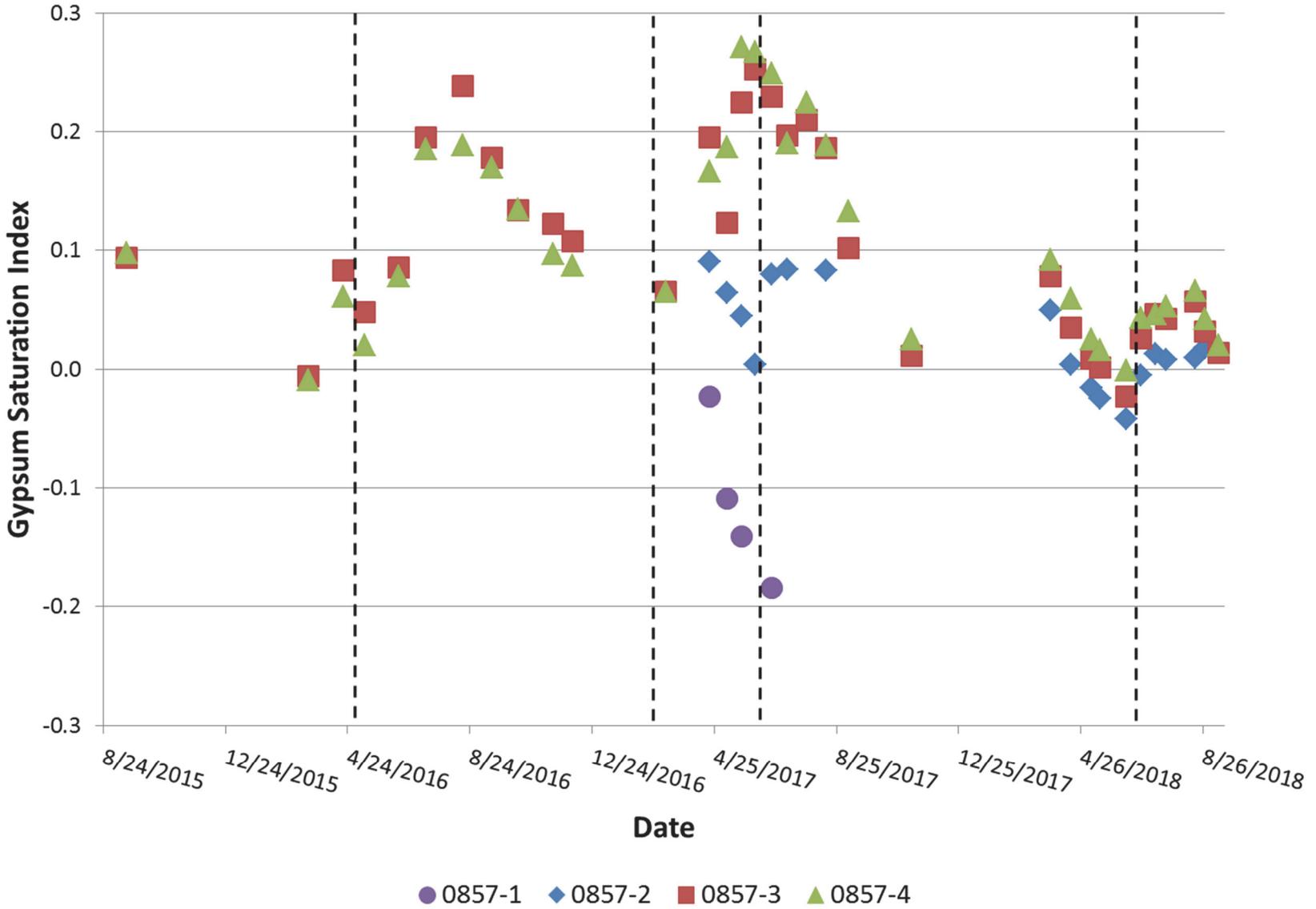
# Well 0857: Rhodochrosite Saturation Index



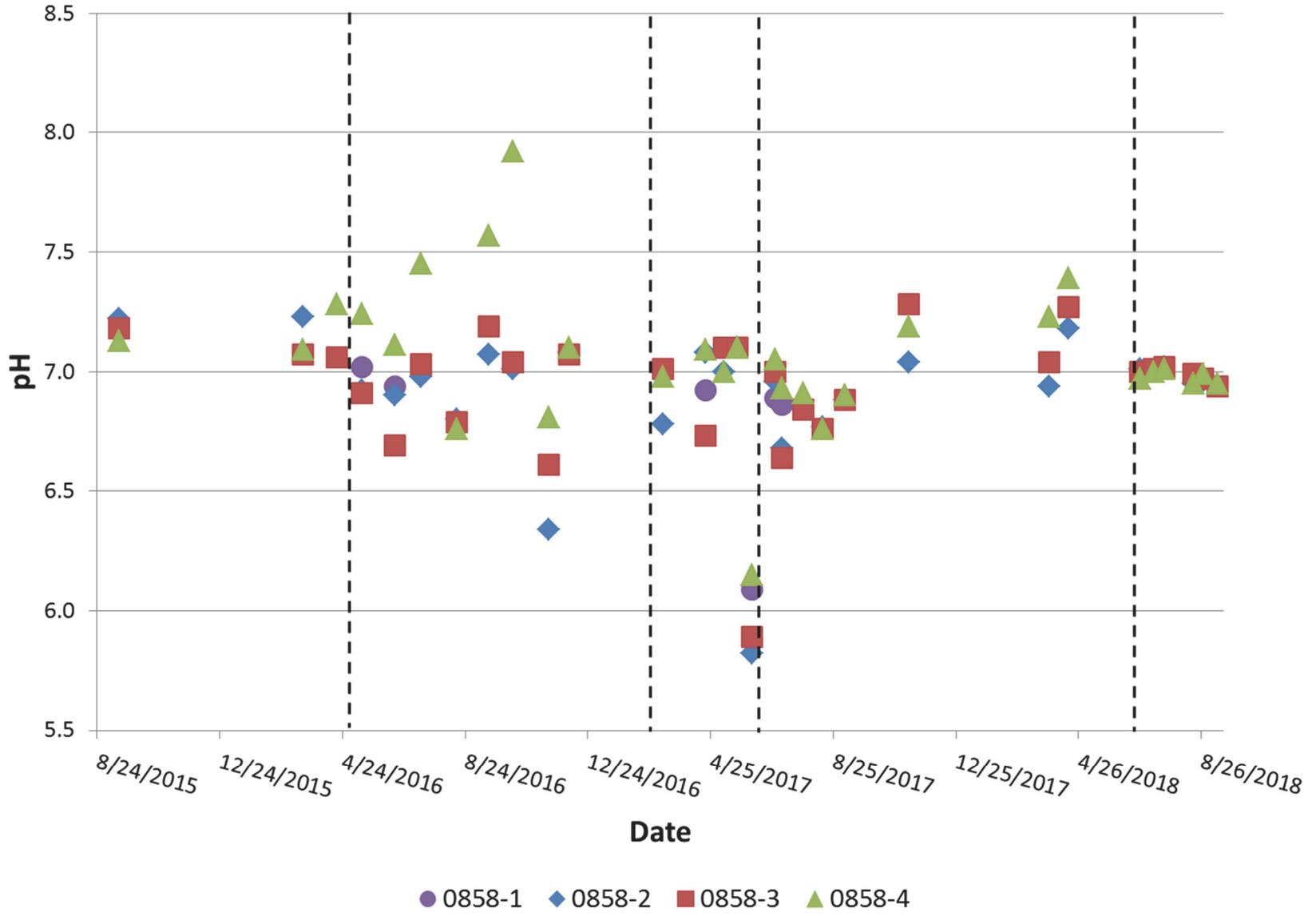
# Well 0857: Carbon Dioxide Saturation Index



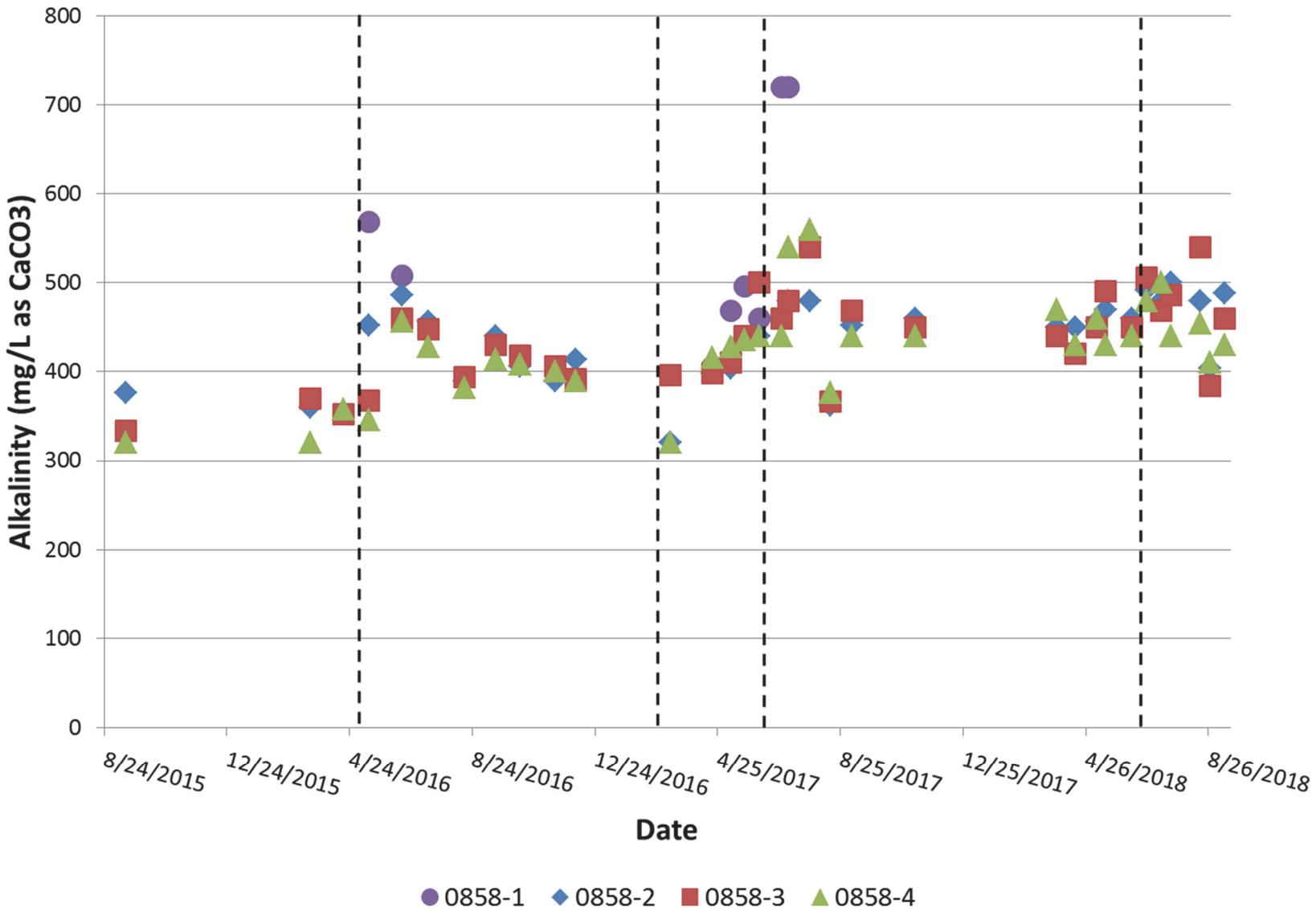
# Well 0857: Gypsum Saturation Index



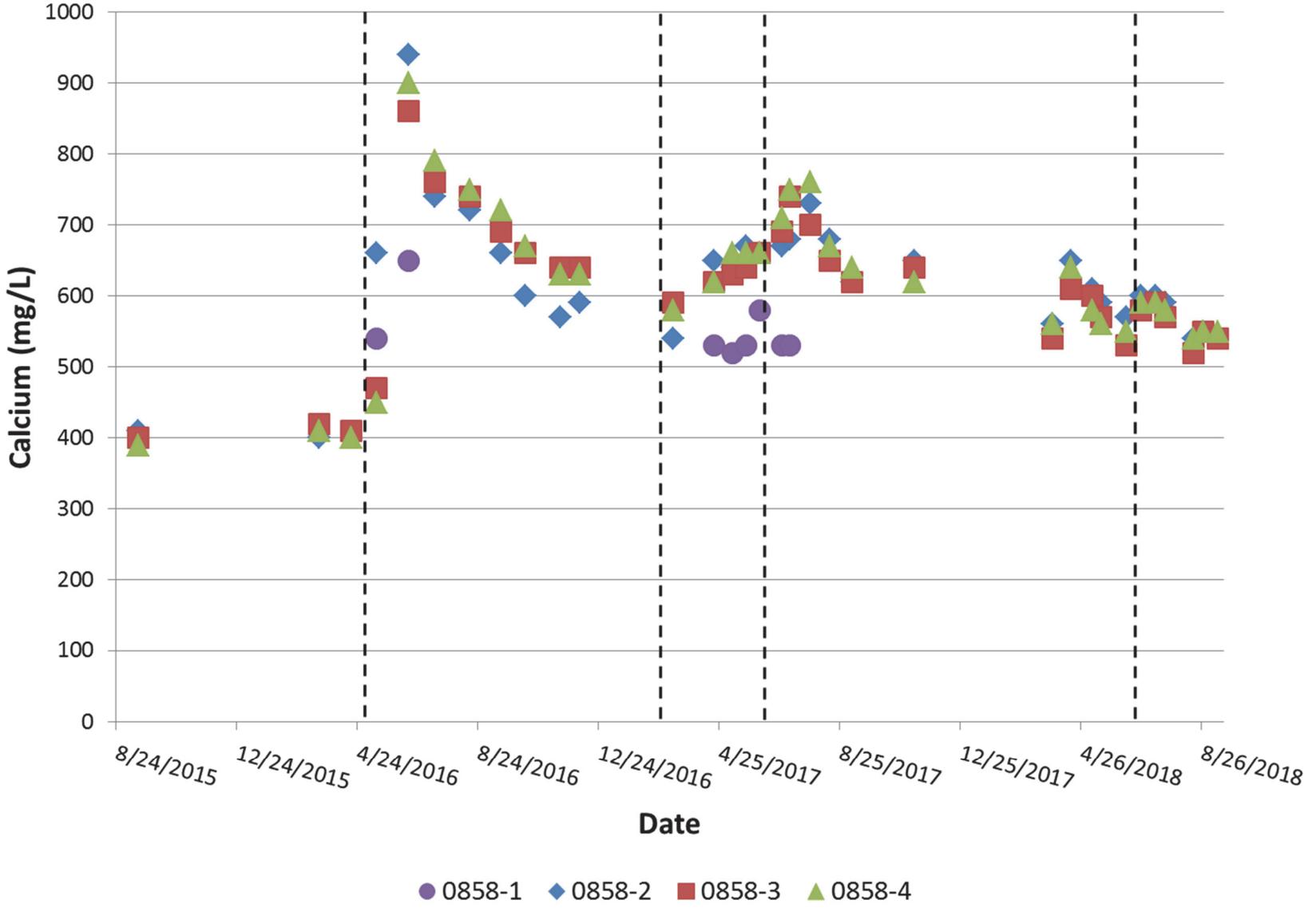
# Well 0858: pH



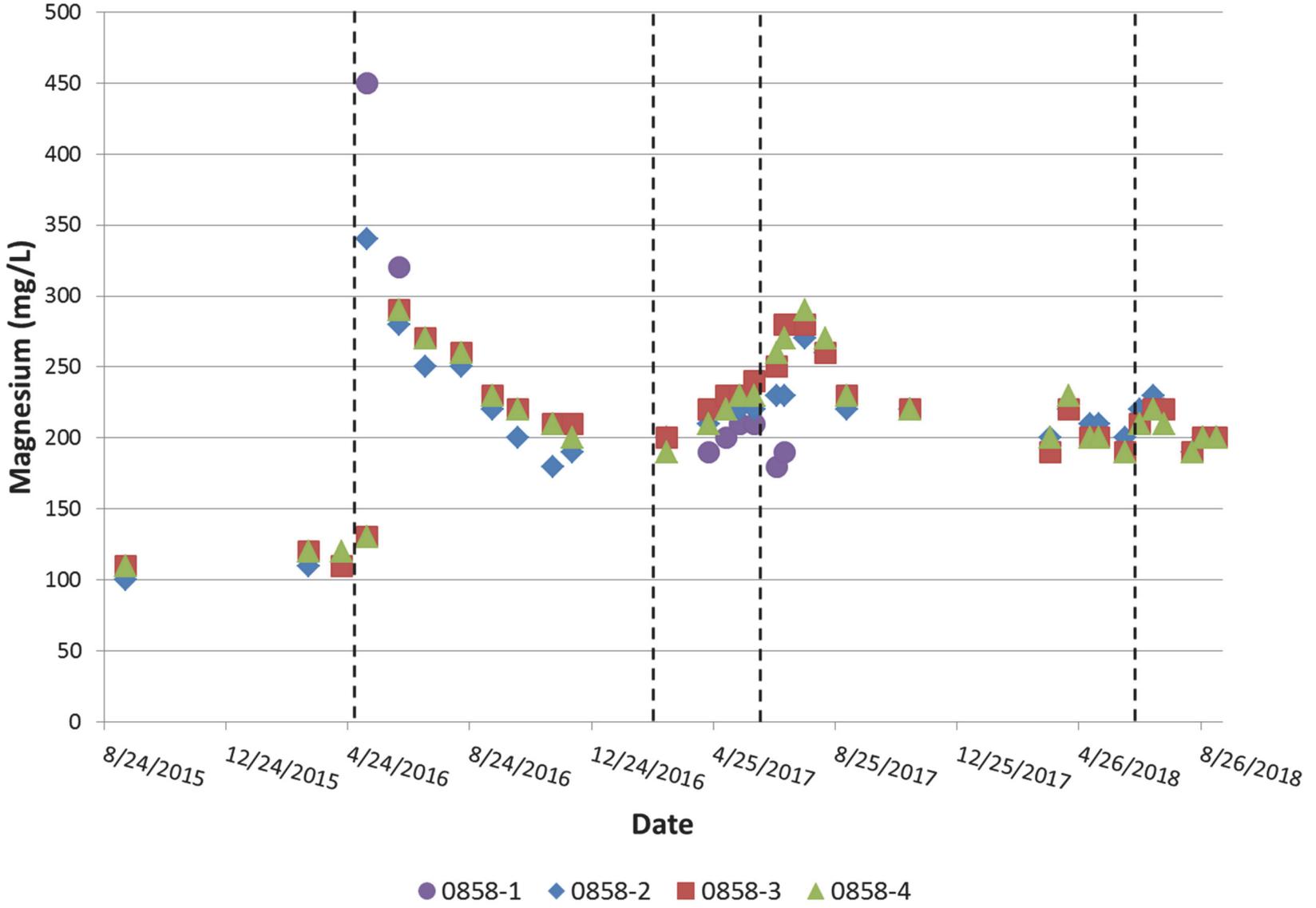
# Well 0858: Alkalinity



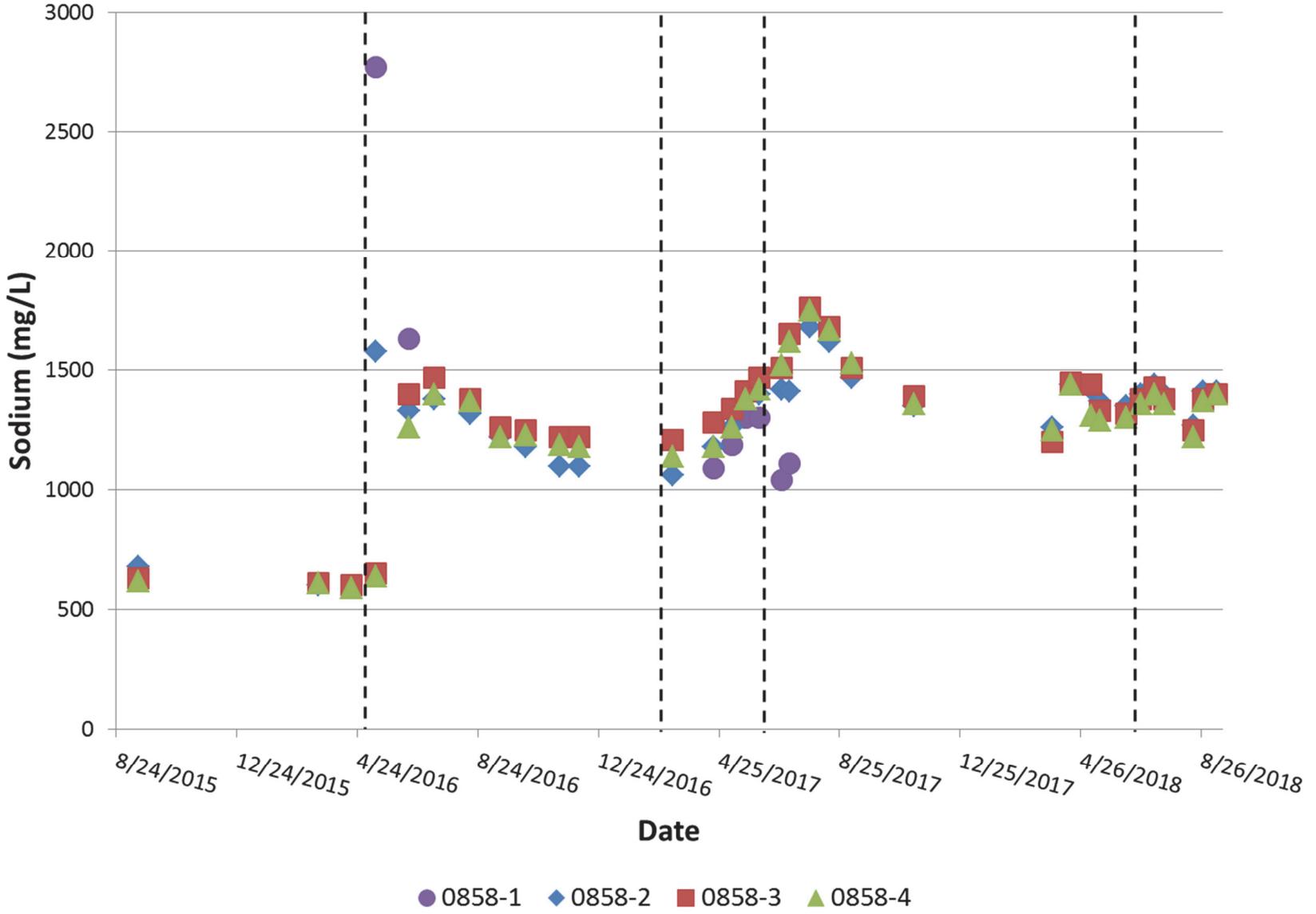
# Well 0858: Calcium



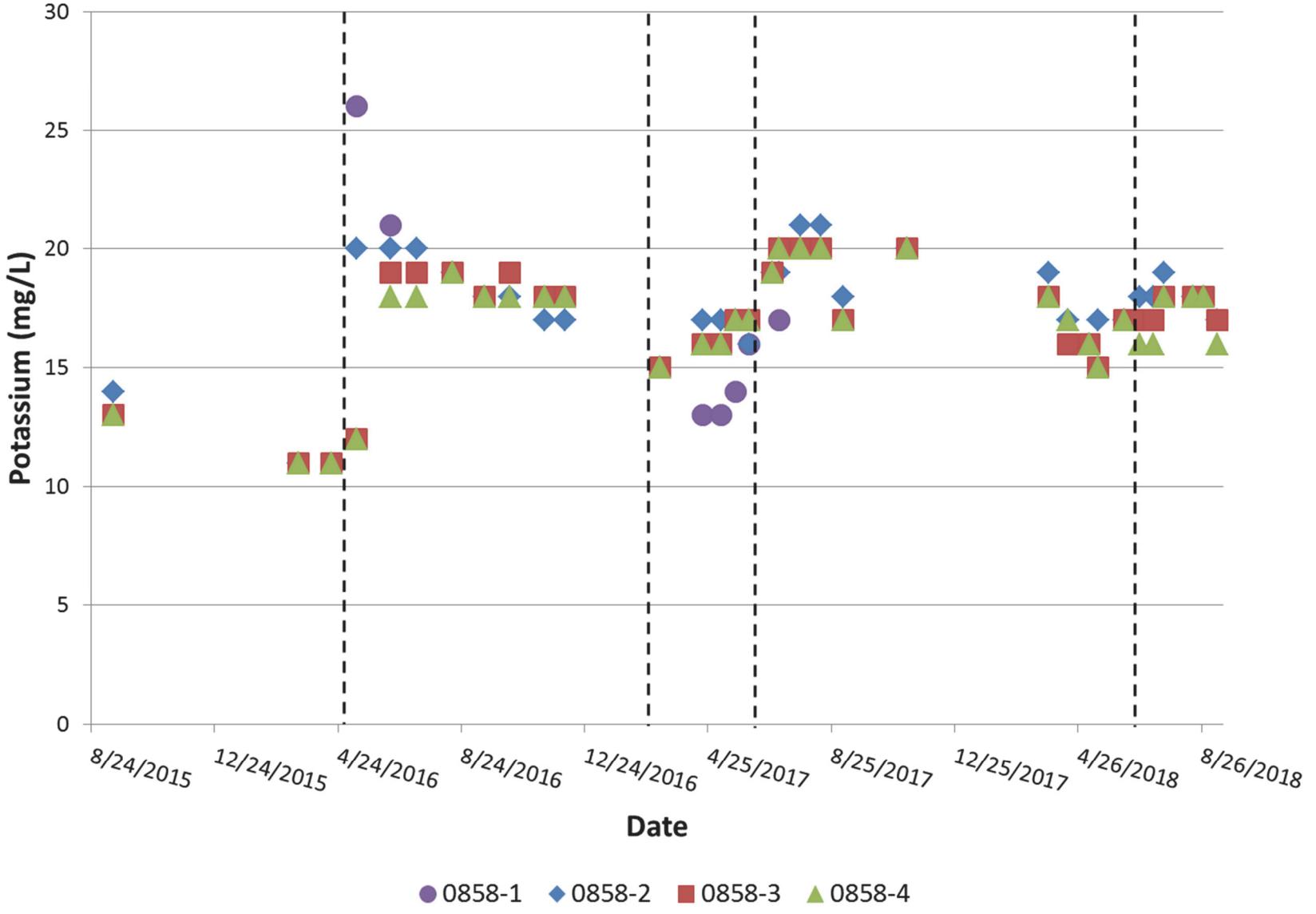
# Well 0858: Magnesium



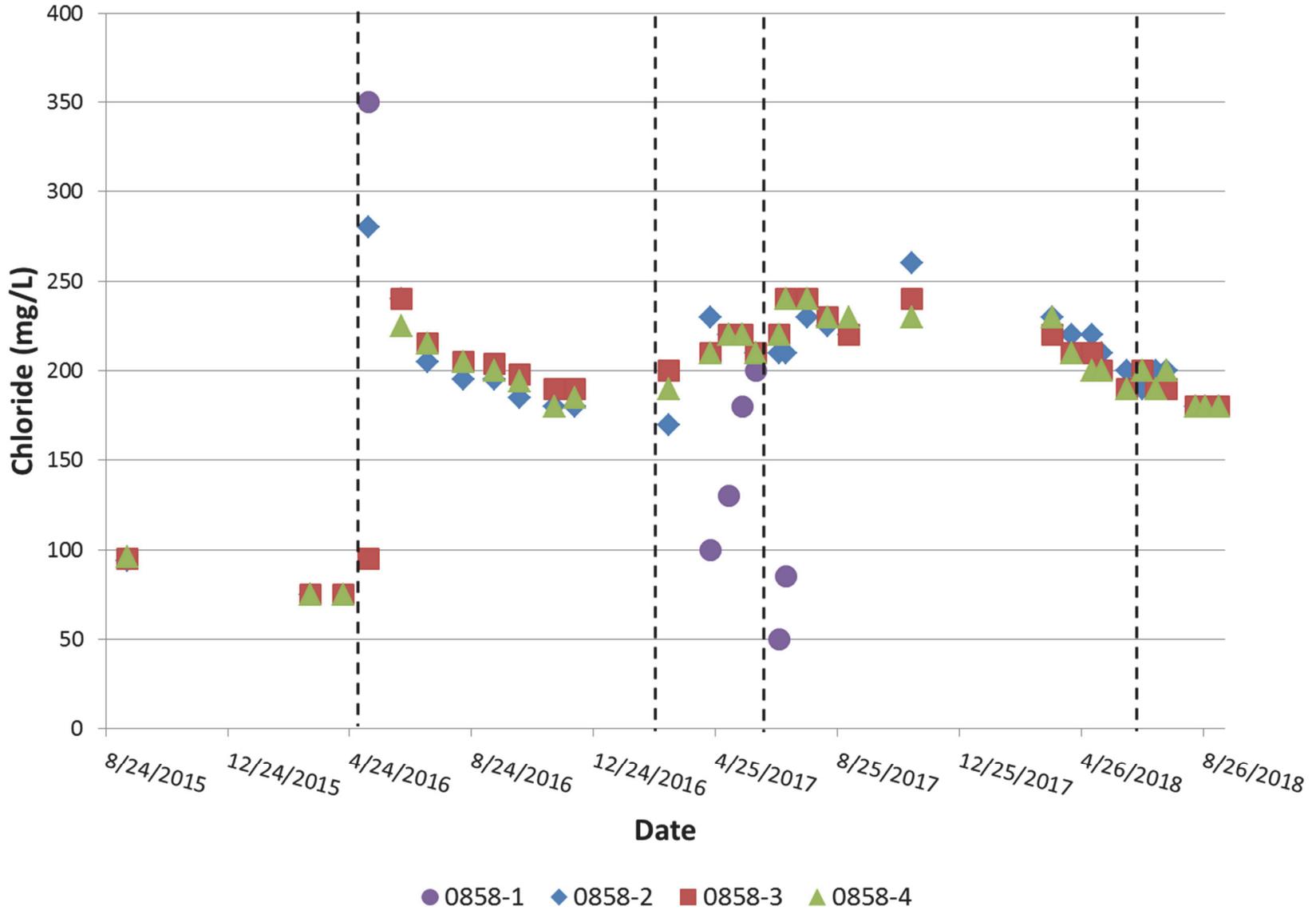
# Well 0858: Sodium



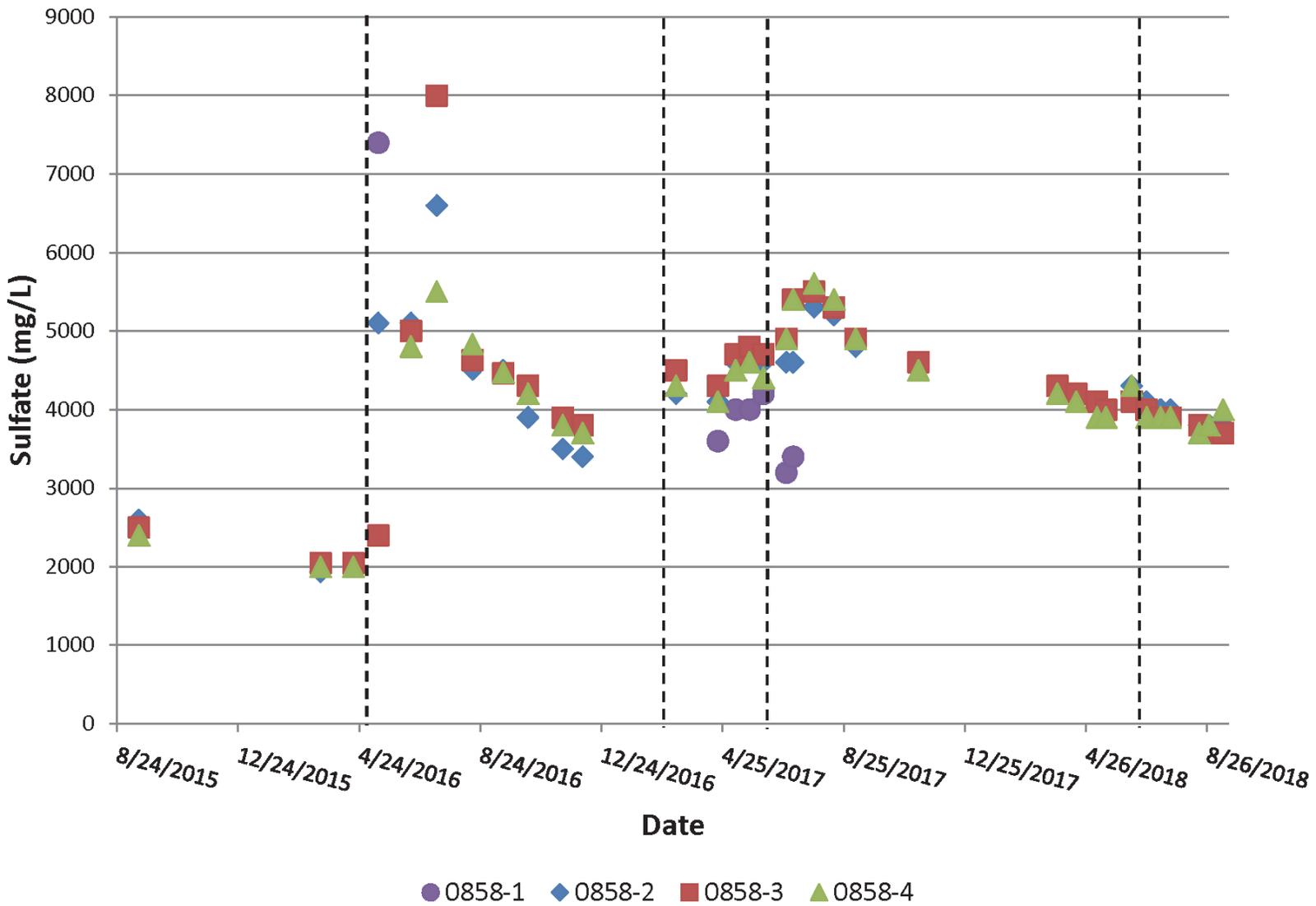
# Well 0858: Potassium



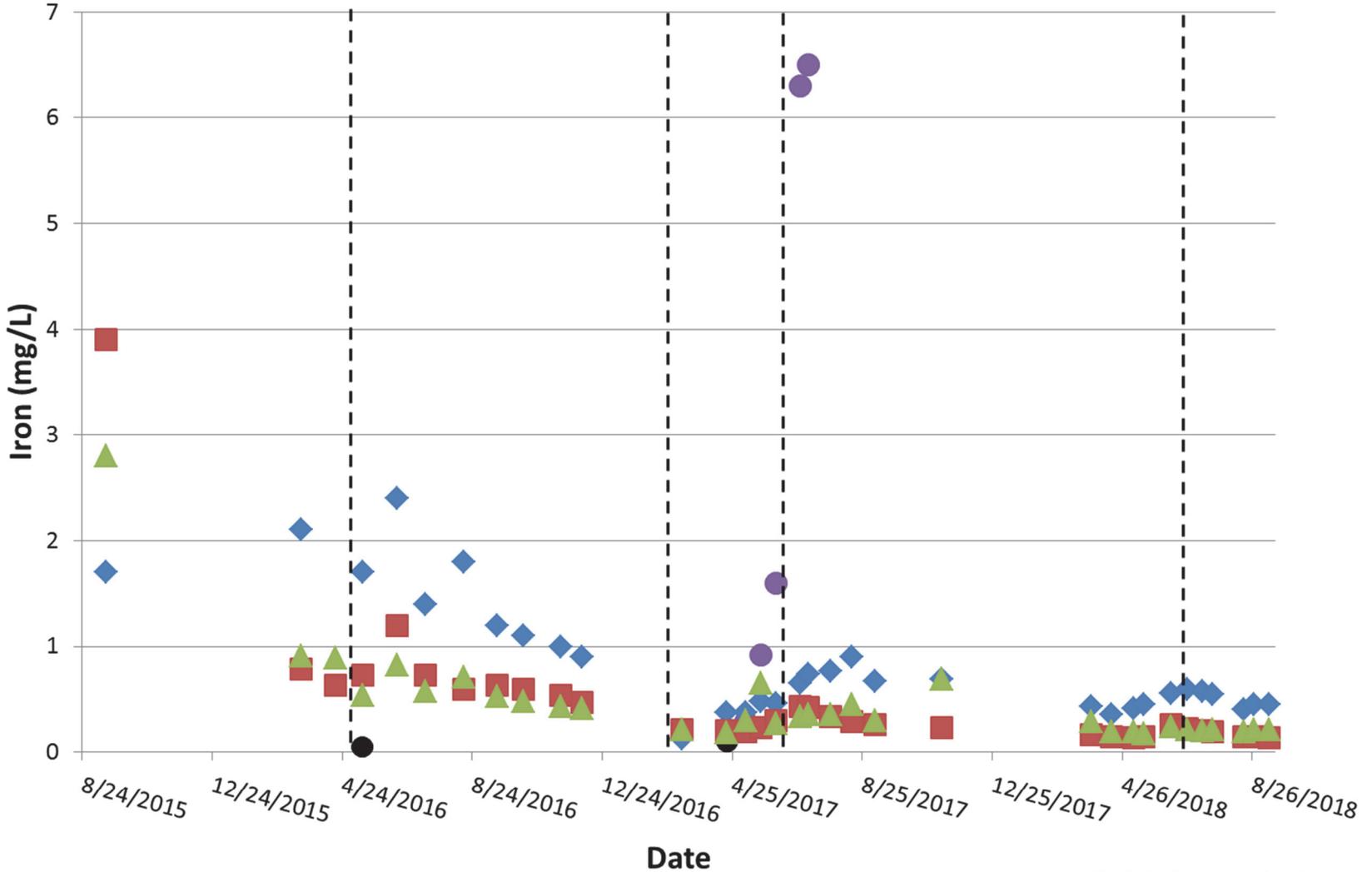
# Well 0858: Chloride



# Well 0858: Sulfate



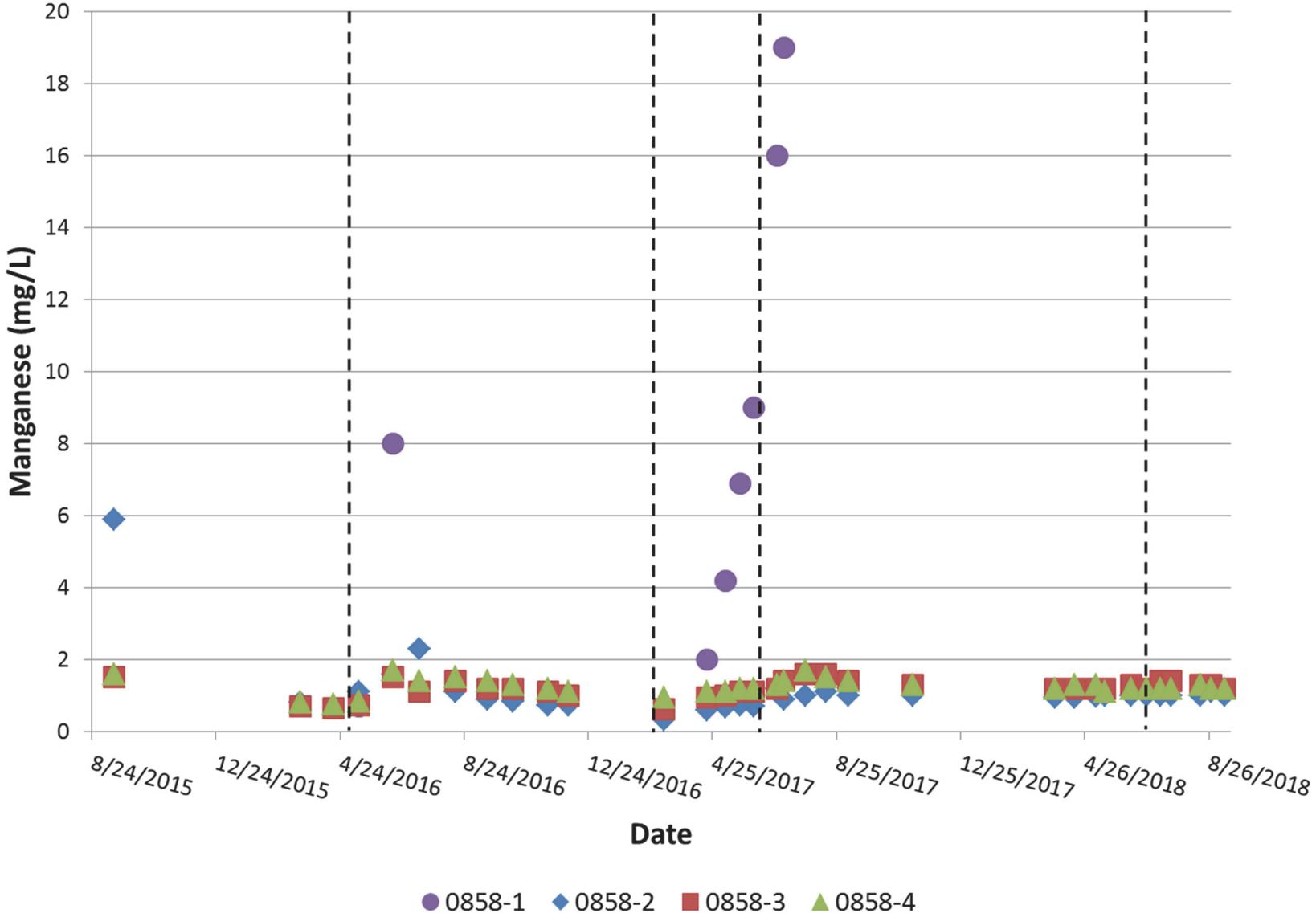
# Well 0858: Iron



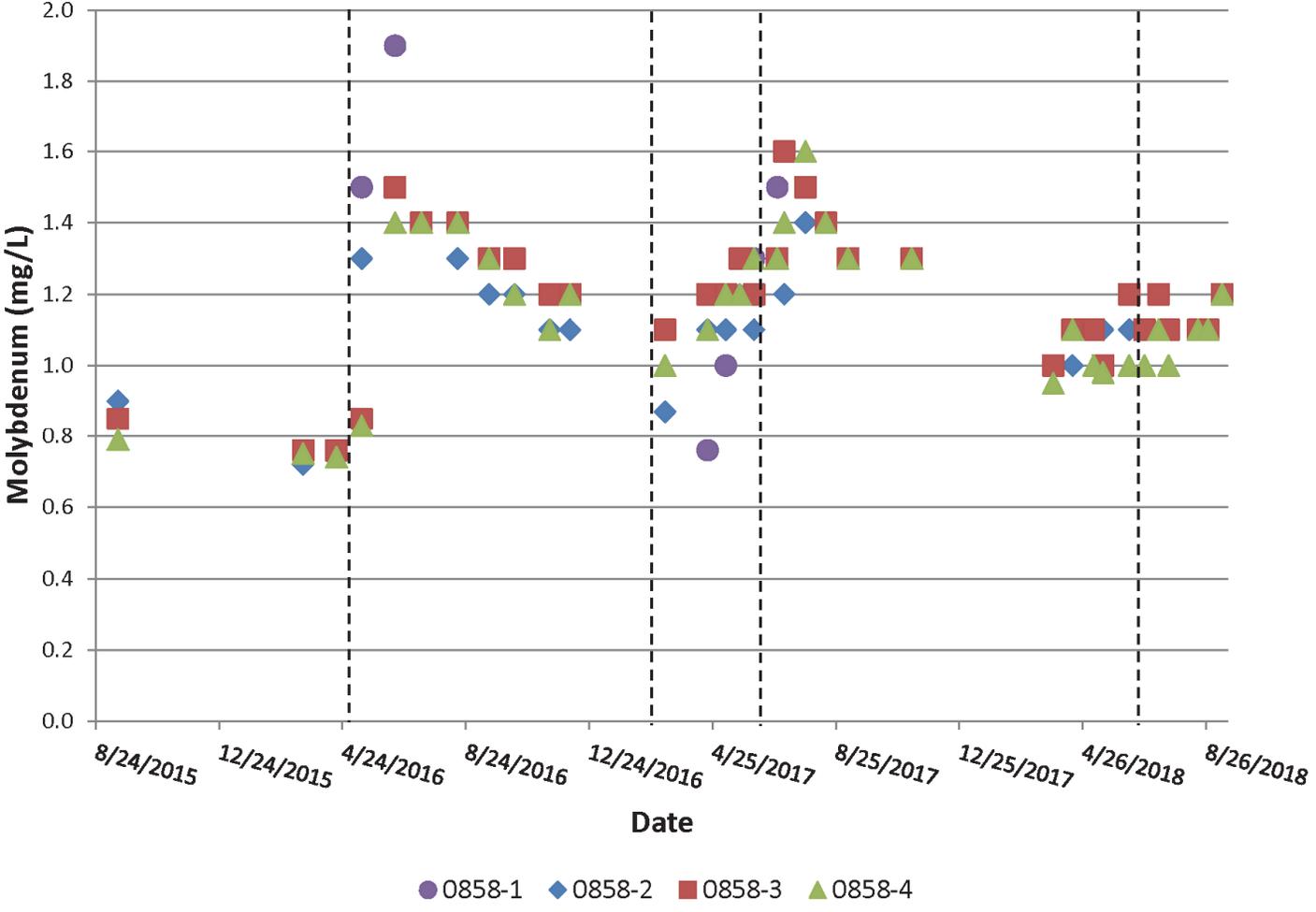
● 0858-1    ◆ 0858-2    ■ 0858-3    ▲ 0858-4

Black indicates value is below detection limit

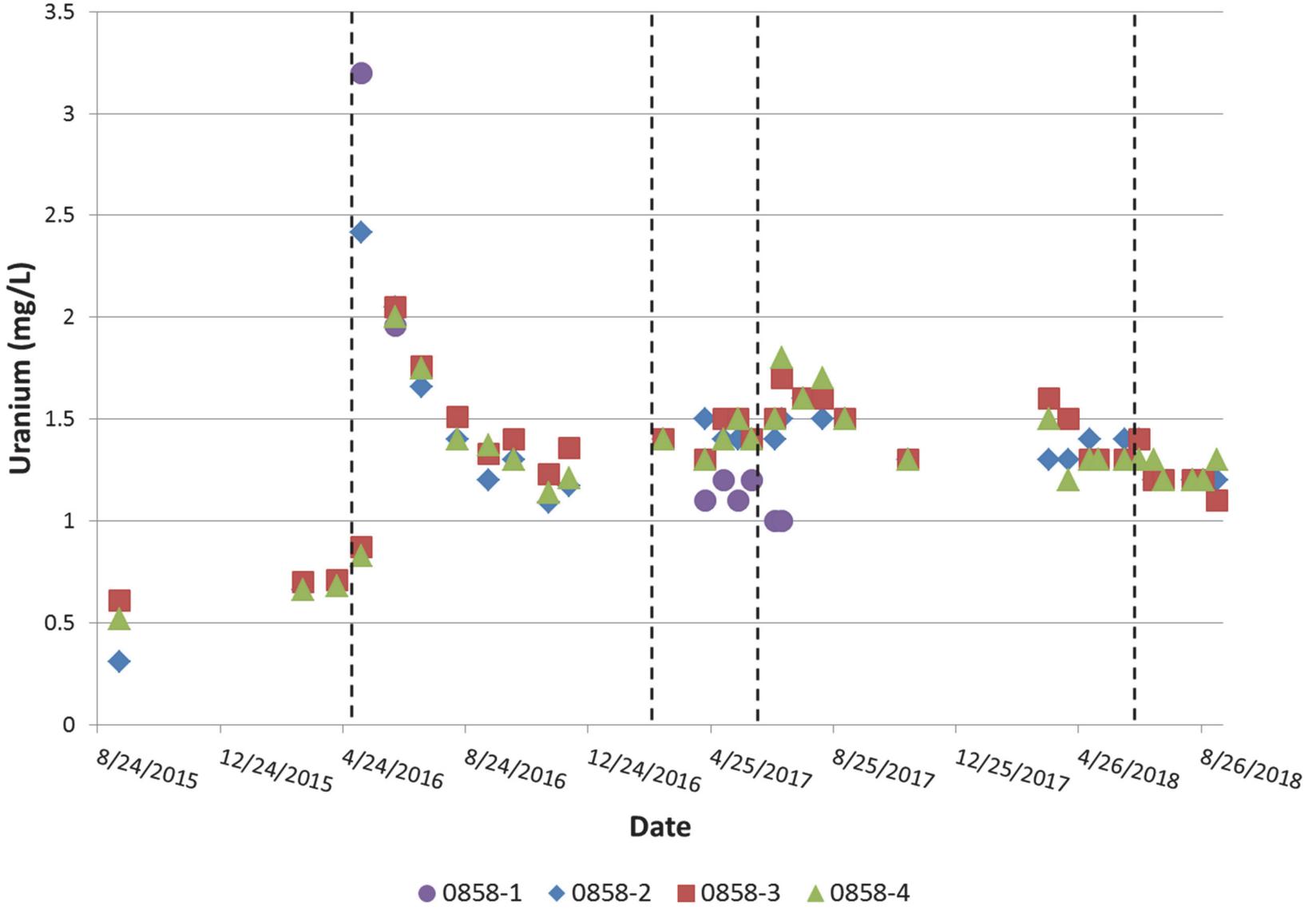
# Well 0858: Manganese



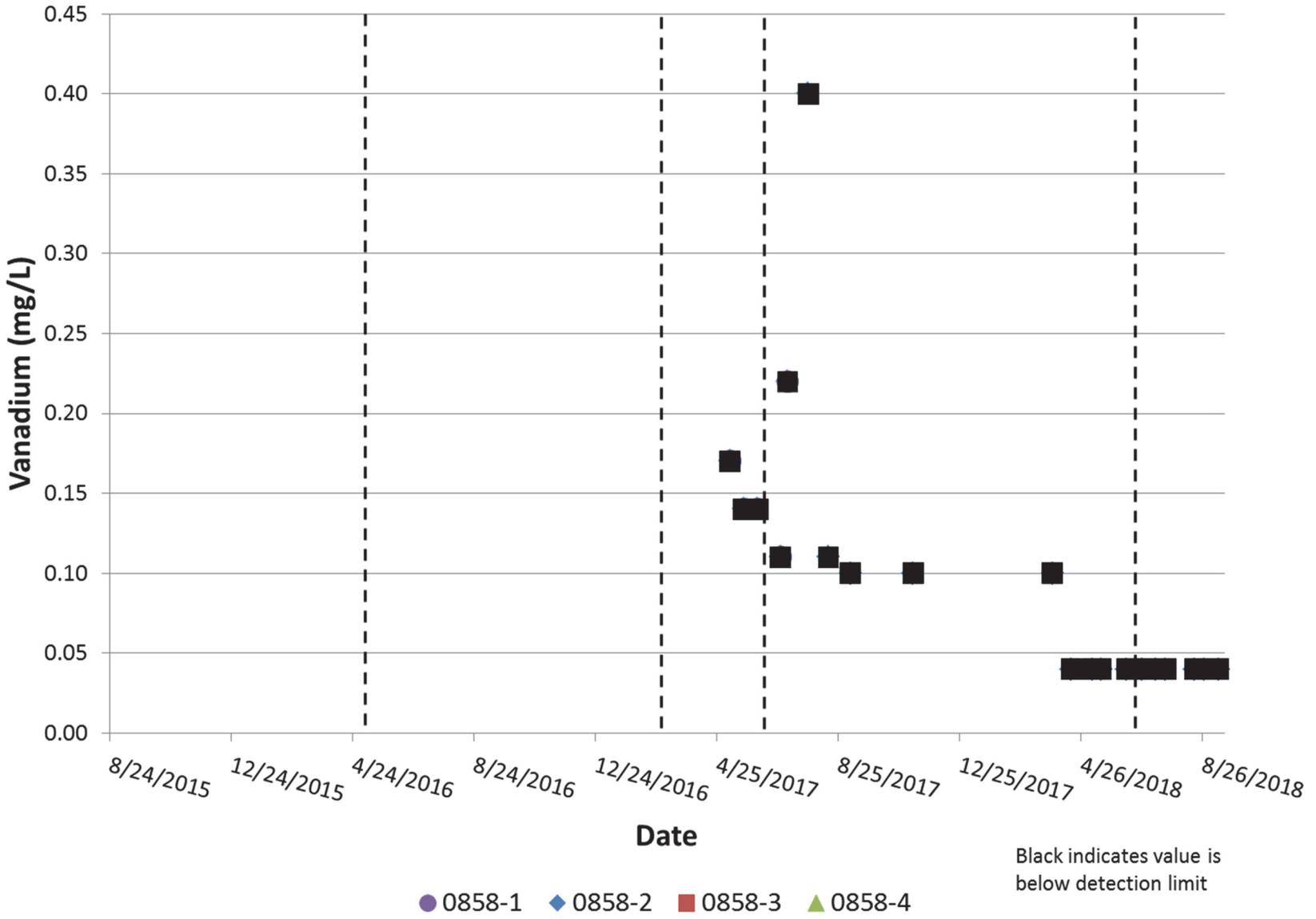
### Well 0858: Molybdenum



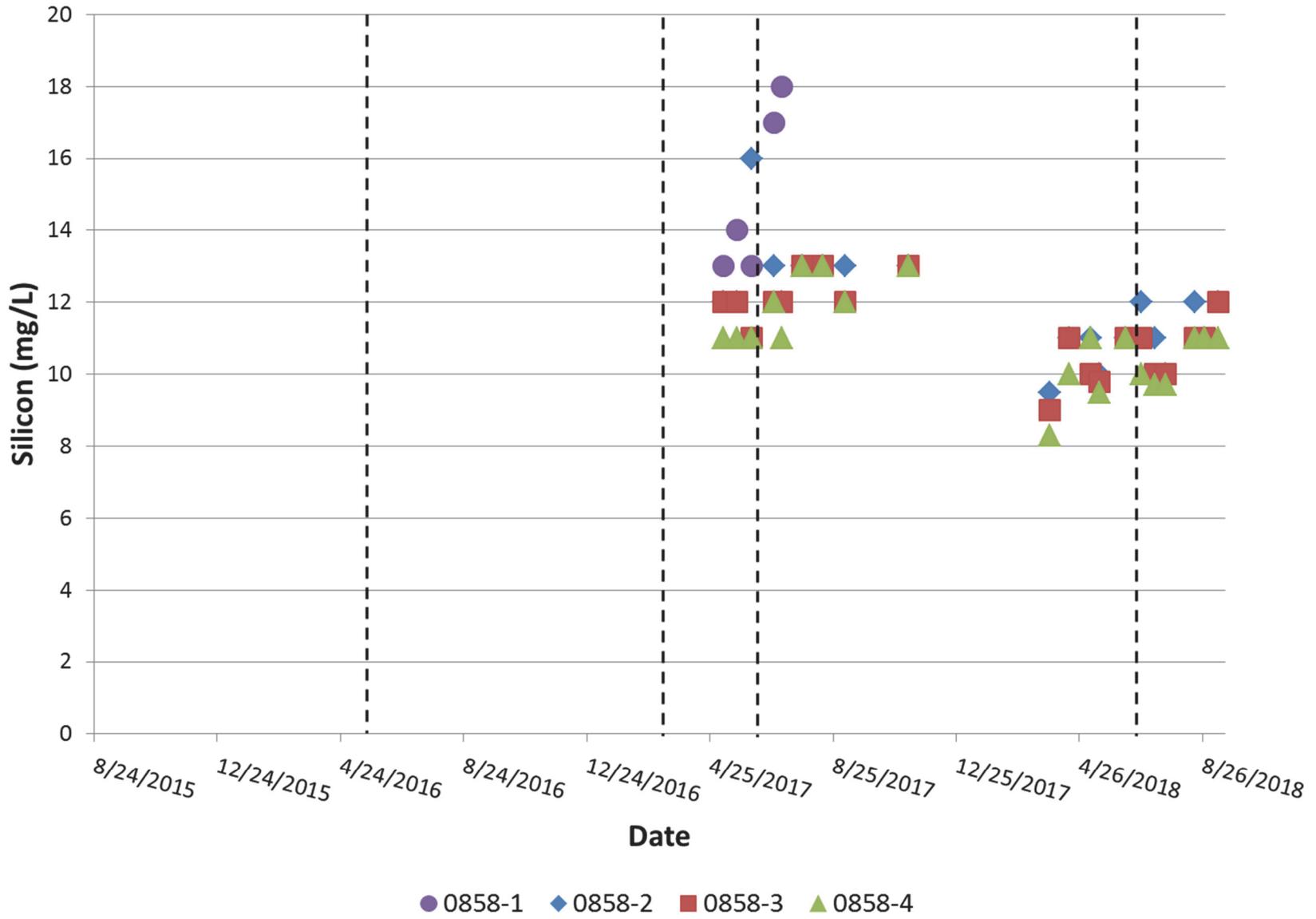
# Well 0858: Uranium



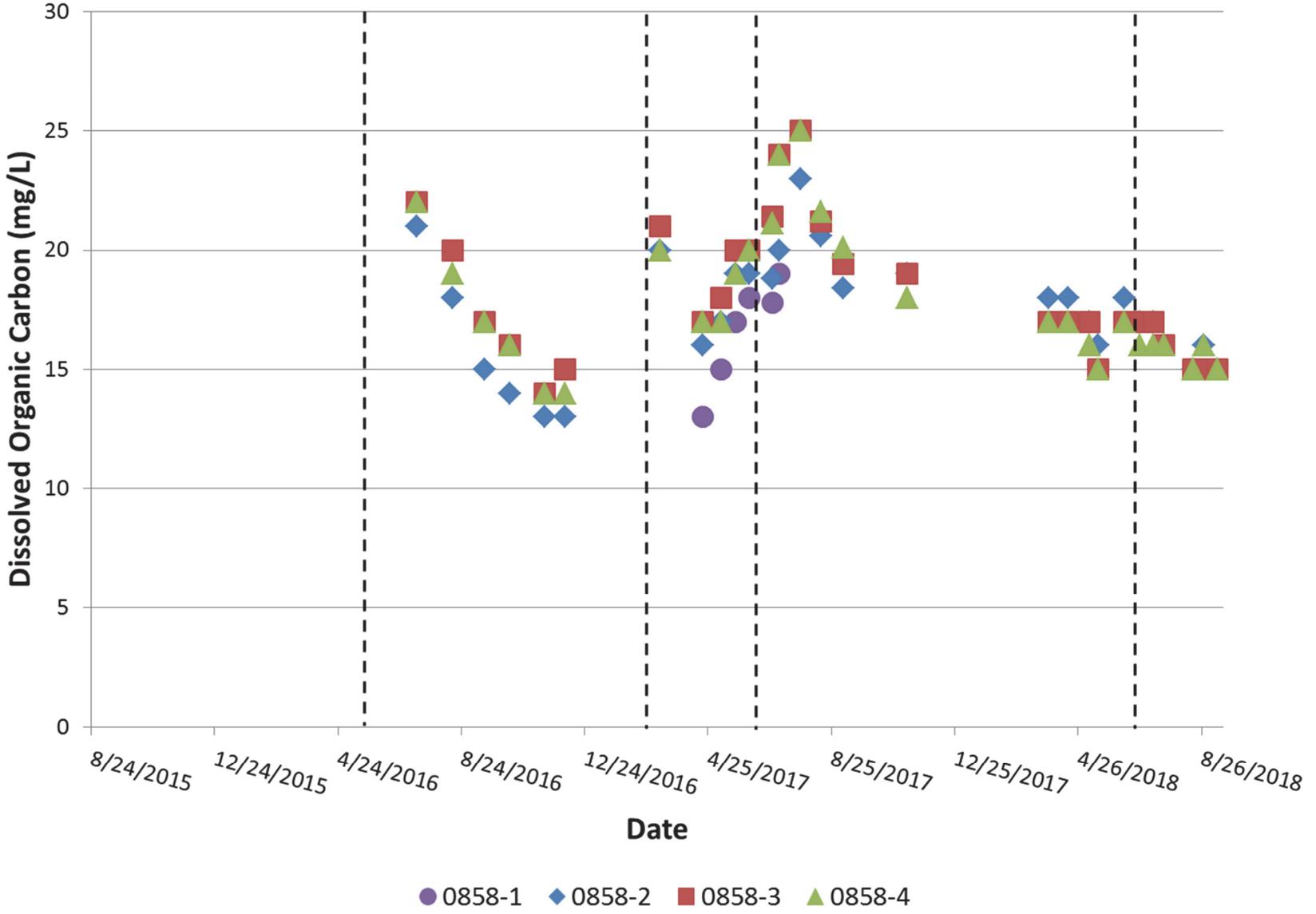
# Well 0858: Vanadium



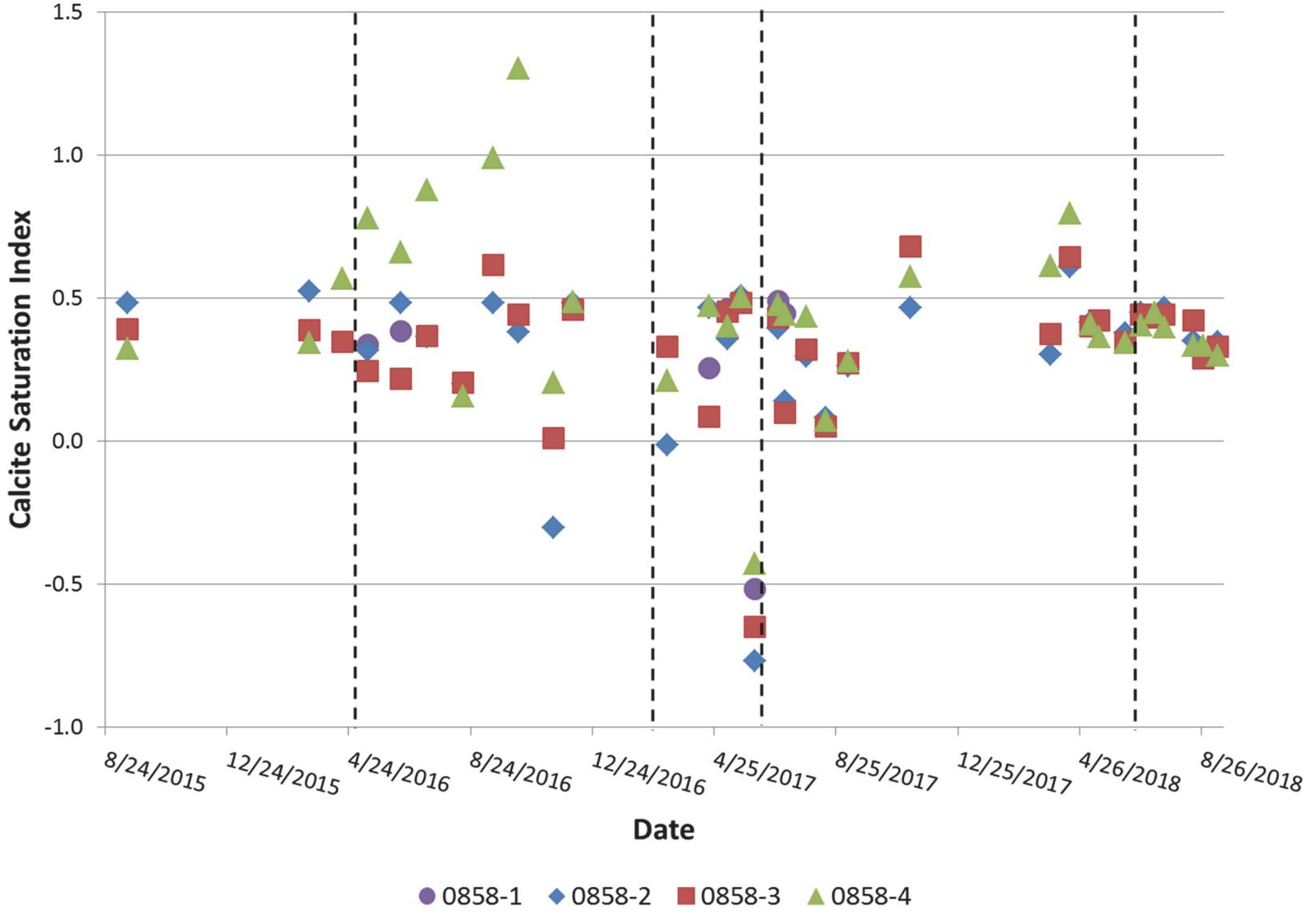
# Well 0858: Silicon



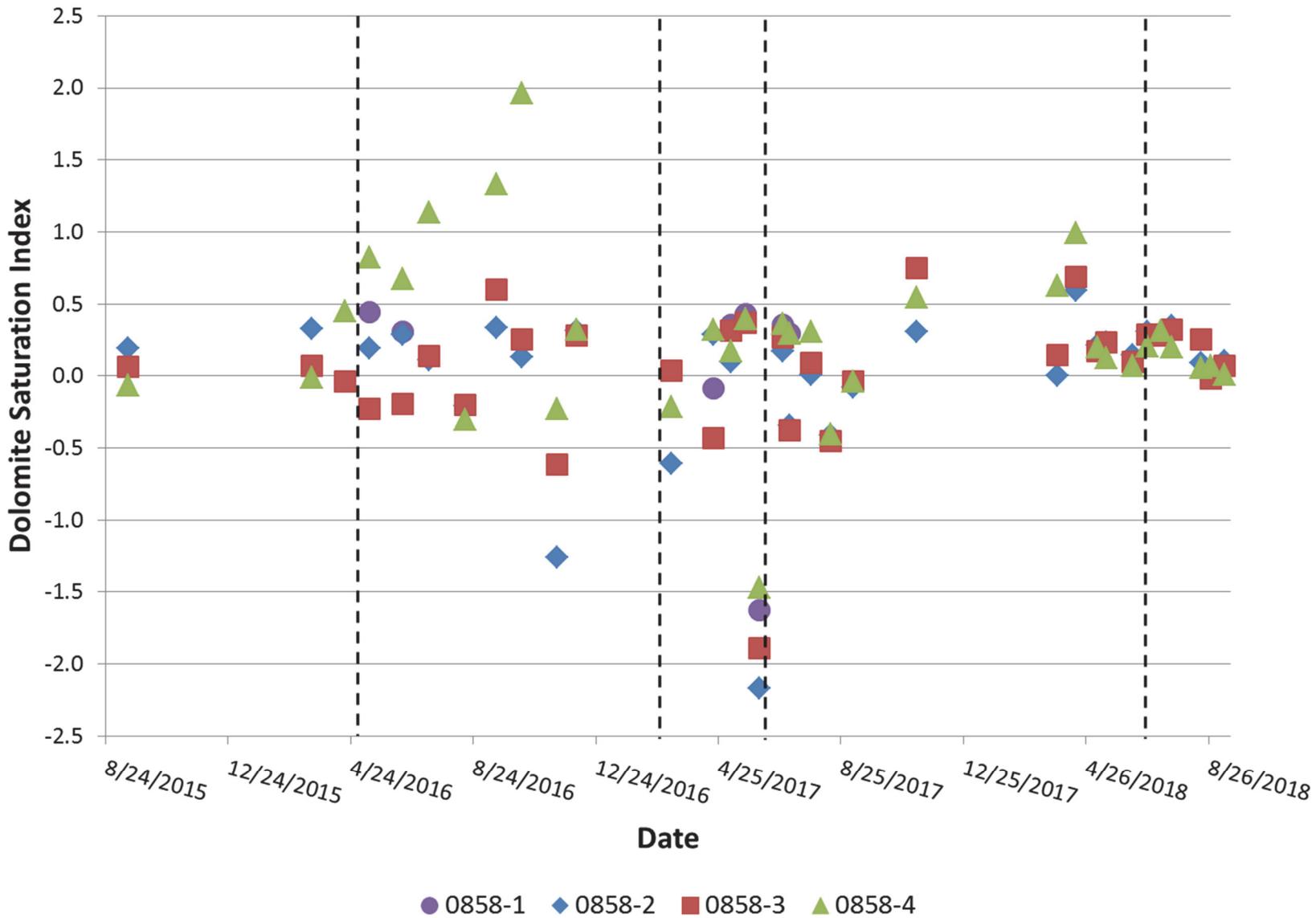
# Well 0858: DOC



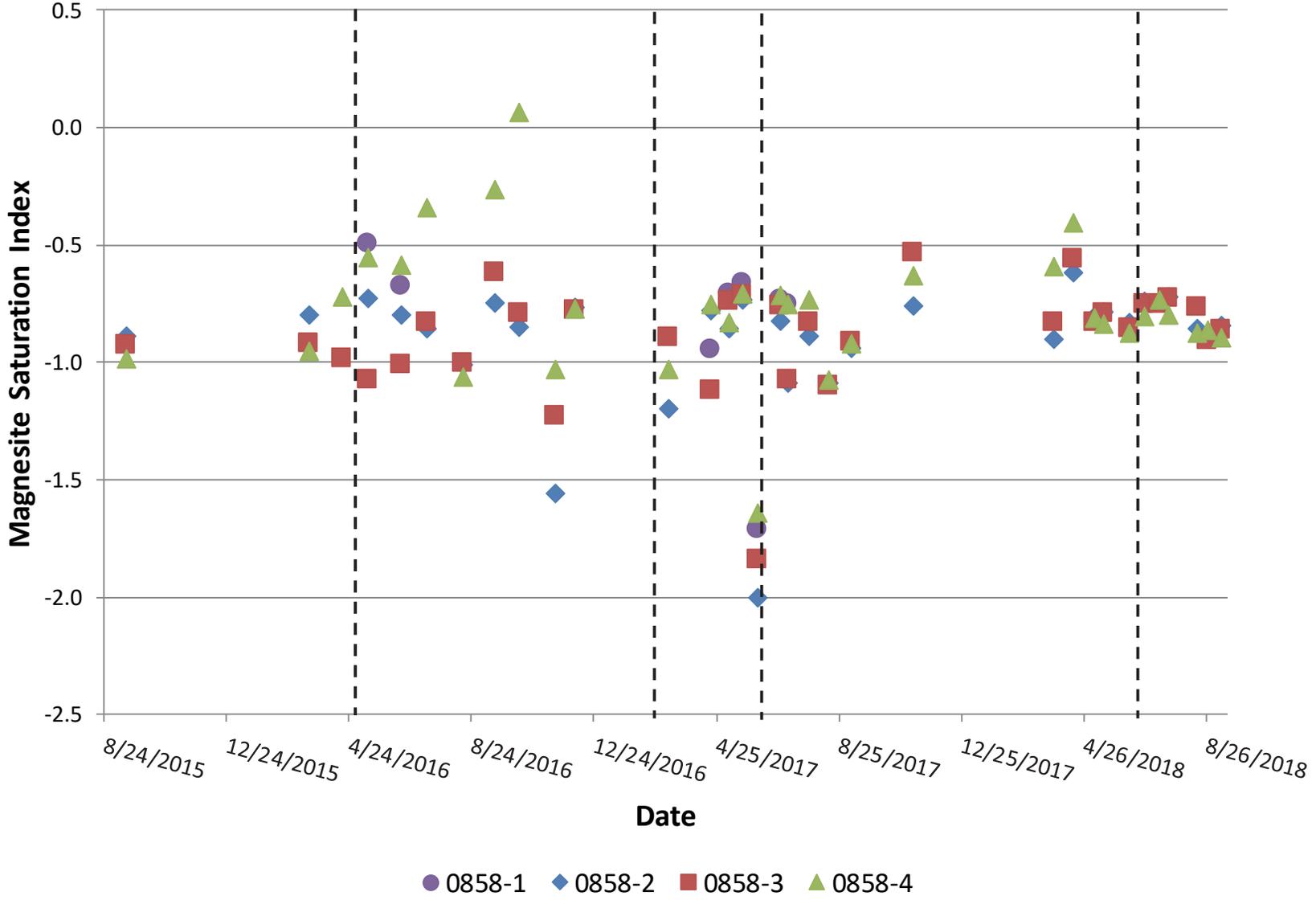
# Well 0858: Calcite Saturation Index



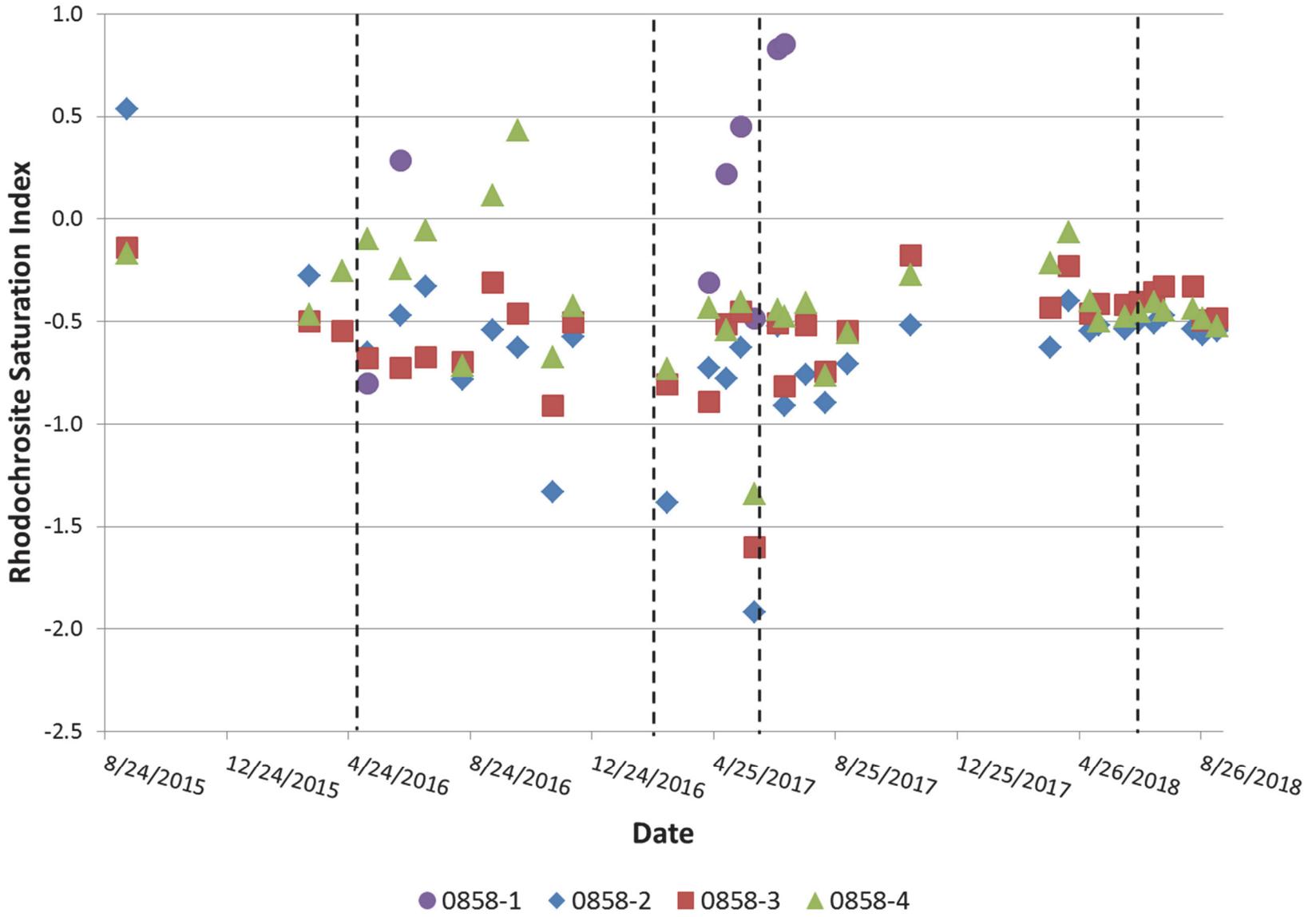
# Well 0858: Dolomite (disordered) Saturation Index



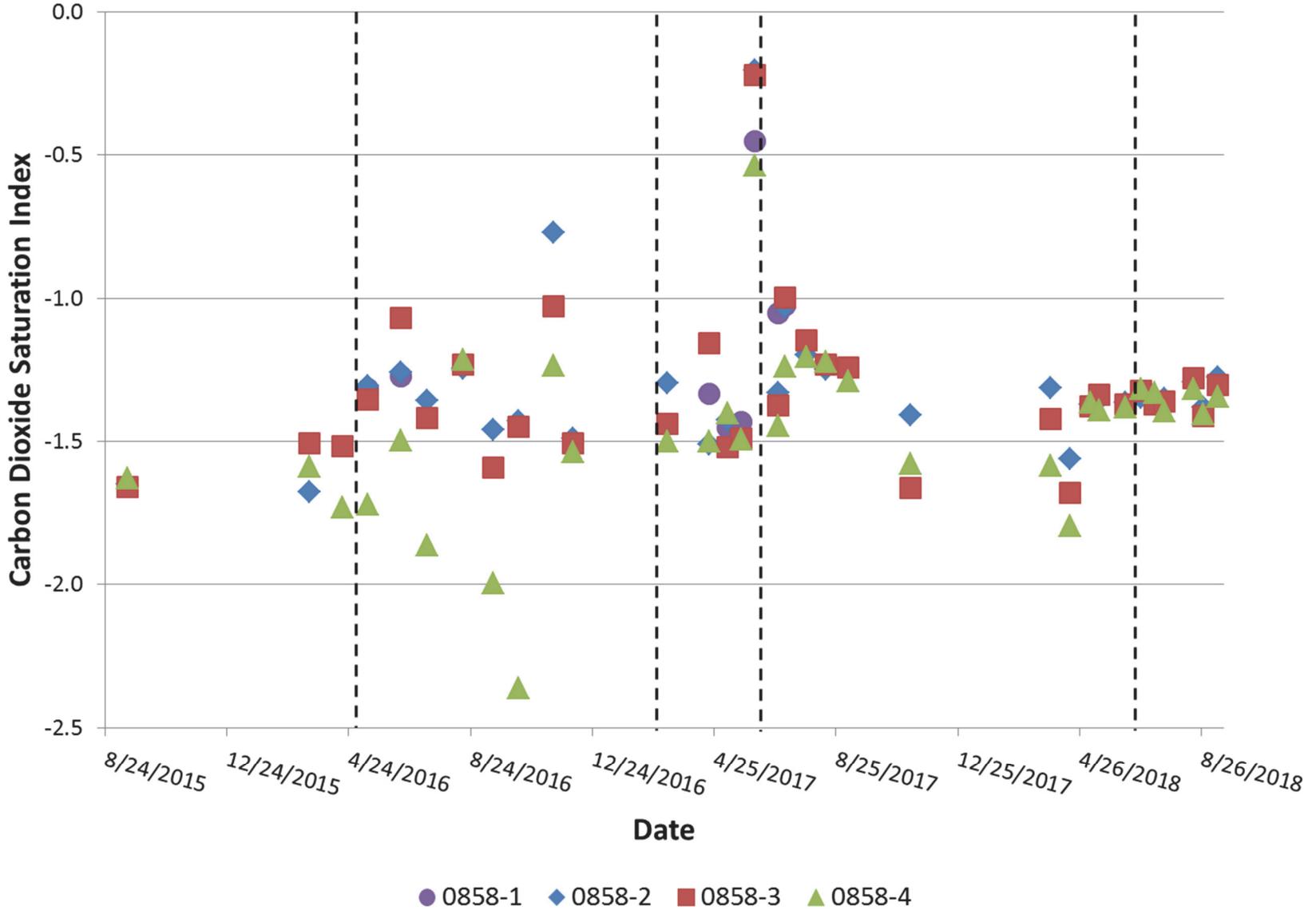
# Well 0858: Magnesite Saturation Index



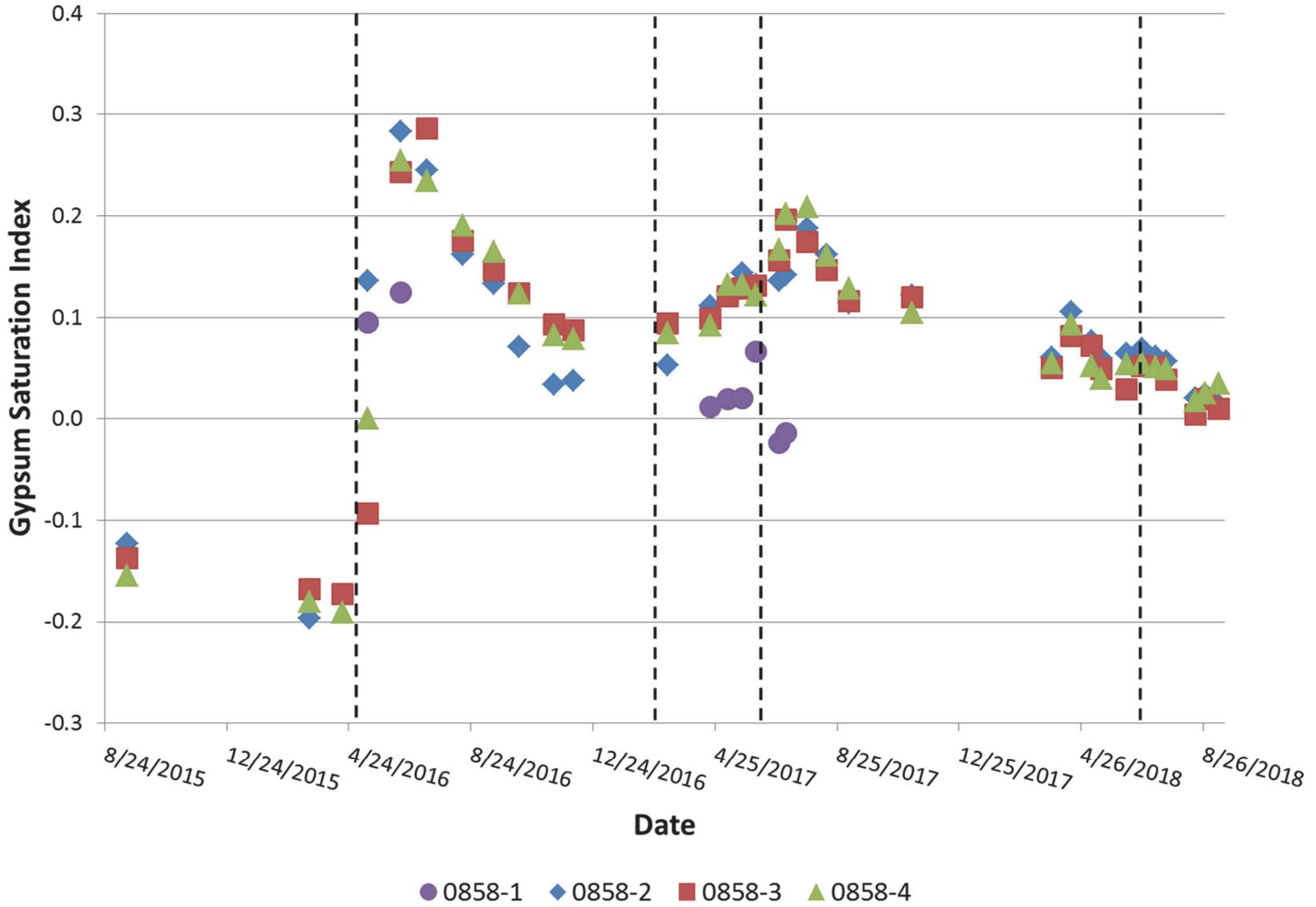
# Well 0858: Rhodochrosite Saturation Index



# Well 0858: Carbon Dioxide Saturation Index



# Well 0858: Gypsum Saturation Index



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## **Appendix D**

### **Geochemistry Data for Multilevel Wells**

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### Geochemistry Data for Well 0852

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0852-01	5/26/2016	15:30				7.24	8.6	5601	236	1.50			300	2550		0.093	<b>0.050</b>
	6/14/2016	12:36				7.18	10.1	9883	618	3.22			690	4850	60	0.13	<b>0.050</b>
	5/10/2017	11:15				7.10	7.6	6451	564	0.32			320	3200	30	0.089	<b>0.050</b>
	7/5/2017	11:15				6.93	11.4	9702	800	0.96			460	4500	57	0.090	0.38
0852-02	5/26/2016	15:00				7.40	8.0	4533	442	5.22			175	1610		0.058	<b>0.050</b>
	6/14/2016	12:01	5.50	4938.00	4932.50	8.02	8.0	4972	568	7.71			610	5700	68	0.15	<b>0.050</b>
	8/17/2016	14:05				7.11	12.0	4085	501	4.55	173.5	1.54	140	1800	23	0.063	<b>0.050</b>
	9/14/2016	14:35				7.30	11.4	3633	434	6.17			127	1830	19	0.049	<b>0.050</b>
	11/7/2016	11:45				7.48	10.5	3111	428	5.26			78	1050	16	0.038	<b>0.050</b>
	5/10/2017	11:10				7.30	7.2	5017	496	6.70			190	2100	24	0.062	<b>0.050</b>
	7/5/2017	11:05				7.07	10.1	8276	660	3.66			210	3900	40	0.080	<b>0.040</b>
	8/16/2017	9:00				6.82	12.0	9497	708	0.43	48.4	1.16	530	4300	51	0.070	0.47
	12/20/2017	12:45				7.26	8.6	5031	486	0.06			150	2300	29	0.055	<b>0.050</b>
	3/27/2018	11:25				7.32	6.9	4438	500	4.12			130	1910	26	0.045	<b>0.050</b>
	5/15/2018	10:35					7.0	3867	484	1.95			120	1750	23	0.045	<b>0.020</b>
	6/25/2018	10:55				7.38	8.7	3939	492	0.73			120	1600	25	0.045	<b>0.020</b>
	7/20/2018	11:00				7.39	9.8	3744	494	0.28			110	1500	24	0.045	<b>0.020</b>
	8/28/2018	9:00				7.28	11.6	3595	440	0.37	171.7	1.11	92	1400	22	0.040	<b>0.020</b>
	9/11/2018	10:52				7.34	11.1	3424	488	0.31			93	1400	21	0.038	<b>0.020</b>
0852-03	9/15/2015	16:40	11.06	4938.00	4926.94	7.76	11.3	1607	325				27	480		0.021	0.57
	5/26/2016	14:30				7.49	7.8	2392	376	4.80			65	760		0.031	<b>0.050</b>
	6/14/2016	11:32	4.52	4938.00	4933.48	7.40	8.4	5036	508	4.49			170	2290	30	0.066	<b>0.050</b>
	8/17/2016	14:55				7.12	12.9	3546	479	1.31	182.4	1.71	86	1520	21	0.054	<b>0.050</b>
	9/14/2016	14:15				7.33	10.7	3380	466	1.07			83	1290	18	0.046	<b>0.050</b>
	11/7/2016	11:25				7.41	10.4	3006	436	0.13			77	1090	15	0.037	<b>0.050</b>
	5/10/2017	10:45				7.40	7.5	4019	432	0.20			130	1700	21	0.047	<b>0.050</b>
	7/5/2017	10:55				7.13	9.4	4146	600	0.02			80	1800	23	0.050	<b>0.030</b>
	8/16/2017	9:20				7.03	12.3	5532	416	0.46	51.8	1.91	195	2600	30	0.050	<b>0.050</b>
	12/20/2017	12:35				7.27	9.1	5016	510	0.13			150	2300	29	0.055	<b>0.050</b>
	3/27/2018	11:16				7.45	6.8	4344	520	0.58			130	1860	26	0.050	<b>0.050</b>
	5/15/2018	10:25					7.1	3752	540	0.16			100	1700	22	0.045	<b>0.020</b>
	6/25/2018	10:45				7.37	8.2	3777	490	0.76			110	1800	24	0.045	<b>0.020</b>
	7/20/2018	10:50				7.40	9.2	3622	434	0.29			100	1400	24	0.040	<b>0.020</b>
	8/28/2018	9:35				7.28	11.3	3534	438	0.28	172.0	1.49	90	1300	22	0.040	<b>0.020</b>
	9/11/2018	10:43				7.36	10.2	3371	474	0.22			87	1300	21	0.038	<b>0.020</b>

**Geochemistry Data for Well 0852 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0852-04	9/15/2015	17:15	11.59	4938.30	4926.71	7.76	10.4	1586	230	0.31			26	480		0.018	0.0065
	5/26/2016	14:00	6.34	4938.30	4931.96	7.69	7.8	2039	380	1.79			45	610		0.025	<b>0.050</b>
	6/14/2016	11:01	5.84	4938.30	4932.46	7.58	8.1	3603	566	2.05			95	1510	20	0.046	<b>0.050</b>
	8/17/2016	13:45	11.26	4938.30	4927.04	7.10	11.2	3510	462	1.42	178.0	1.40	84	1480	21	0.051	<b>0.050</b>
	9/14/2016	13:35	6.25	4938.30	4932.05	7.52	10.2	3354	442	0.37			83	1270	18	0.044	<b>0.050</b>
	11/7/2016	11:05	7.43	4938.30	4930.87	7.35	10.3	2957	388	0.30			76	1030	15	0.035	<b>0.050</b>
	5/10/2017	10:40	6.35	4938.30	4931.95	7.40	7.2	3637	404				120	1500	19	0.042	<b>0.050</b>
	7/5/2017	10:50	6.32	4938.30	4931.98	7.31	9.1	4194	600	0.33			90	1900	23	0.060	<b>0.030</b>
	8/16/2017	9:45	9.70	4938.30	4928.60	7.12	10.7	4212	360	0.40	68.8	1.03	120	2000	24	0.050	<b>0.050</b>
	12/20/2017	12:25	8.23	4938.30	4930.07	7.30	9.4	5019	500	0.07			150	2300	30	0.055	<b>0.050</b>
	3/27/2018	11:06	8.32	4938.30	4929.98	7.66	7.3	4303	460	0.30			120	1840	25	0.055	<b>0.050</b>
	5/15/2018	10:15	8.55	4938.30	4929.75		7.4	3726	530	0.30			100	1710	22	0.045	<b>0.020</b>
	6/25/2018	10:35	8.50	4938.30	4929.80	7.36	7.9	2831	510	0.40			110	1400	25	0.045	<b>0.020</b>
	7/20/2018	10:40	10.24	4938.30	4928.06	7.40	8.6	3583	348	0.26			100	1400	24	0.040	<b>0.020</b>
	8/28/2018	9:55	11.01	4938.30	4927.29	7.28	10.7	3469	429	0.21	173.9	1.5	88	1300	22	0.040	<b>0.020</b>
	9/11/2018	10:32	11.01	4938.30	4927.29	7.45	9.6	3316	462	0.26			86	1300	21	0.037	<b>0.020</b>

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0852-01	5/26/2016	15:30	<b>0.050</b>	380	980	160	11	0.37			7.73	0.27	-0.18	-1.88	0.01	-0.87	-0.86
	6/14/2016	12:36	<b>0.10</b>	530	2030	290	16	0.60			2.89	0.62	0.02	-1.43	0.82	-0.54	-0.40
	5/10/2017	11:15	<b>0.050</b>	490	1020	200	8.6	0.20	15	<b>0.085</b>	-1.05	0.56	-0.05	-1.37	0.58	-0.97	-0.58
	7/5/2017	11:15	<b>0.050</b>	340	1980	260	12	1.1	15	<b>0.11</b>	1.08	0.30	-0.17	-1.05	0.33	-0.38	-0.57
0852-02	5/26/2016	15:00	<b>0.050</b>	280	660	100	8.7	0.78			4.74	0.66	-0.39	-1.75	0.70	0.00	-0.55
	6/14/2016	12:01	<b>0.10</b>	620	2130	290	18	0.29			0.30	1.43	0.12	-2.33	2.38	-0.12	0.35
	8/17/2016	14:05	<b>0.050</b>	400	610	120	9.3	1.7			6.08	0.56	-0.23	-1.41	0.43	0.08	-0.73
	9/14/2016	14:35	<b>0.050</b>	330	490	87	7.5	1.7			-6.73	0.60	-0.27	-1.66	0.46	0.22	-0.74
	11/7/2016	11:45	<b>0.050</b>	270	420	68	6.6	1.4			8.49	0.79	-0.48	-1.84	0.81	0.42	-0.58
	5/10/2017	11:10	<b>0.050</b>	400	630	130	7.7	1.2	9.9	<b>0.085</b>	-0.74	0.71	-0.19	-1.61	0.77	0.08	-0.54
	7/5/2017	11:05	<b>0.050</b>	320	1660	200	12	1.0	12	<b>0.11</b>	2.77	0.37	-0.20	-1.27	0.38	-0.30	-0.59
	8/16/2017	9:00	<b>0.050</b>	380	1920	240	14	2.0	15	<b>0.11</b>	2.05	0.20	-0.13	-1.00	0.05	-0.27	-0.75
	12/20/2017	12:45	<b>0.050</b>	470	680	130	9.0	2.5	8.6	<b>0.10</b>	2.27	0.71	-0.11	-1.58	0.71	0.32	-0.60
	3/27/2018	11:25	<b>0.050</b>	370	580	97	7.8	2.0	7.2	<b>0.10</b>	-1.75	0.72	-0.23	-1.62	0.70	0.35	-0.62
	5/15/2018	10:35	<b>0.020</b>	400	610	100	7.9	2.1	8.0	<b>0.040</b>	6.60	0.44	-0.23	-1.32	0.11	0.05	-0.93
	6/25/2018	10:55	<b>0.020</b>	390	600	100	7.7	1.9	8.3	<b>0.040</b>	9.31	0.83	-0.26	-1.69	0.90	0.41	-0.53
	7/20/2018	11:00	<b>0.020</b>	350	560	96	7.6	1.8	7.2	<b>0.040</b>	7.57	0.80	-0.31	-1.70	0.88	0.41	-0.52

### Geochemistry Data for Well 0852 (continued)

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	8/28/2018	9:00	<b>0.020</b>	330	550	86	7.2	1.6	7.4	<b>0.040</b>	9.97	0.64	-0.35	-1.63	0.52	0.22	-0.71
	9/11/2018	10:52	<b>0.020</b>	330	580	84	7.3	1.5	8.7	<b>0.040</b>	9.89	0.74	-0.35	-1.65	0.71	0.30	-0.62
0852-03	9/15/2015	16:40	0.0089	120	220	29	4.5	0.68			2.71	0.73	-0.95	-2.21	0.67	0.43	-0.66
	5/26/2016	14:30	<b>0.050</b>	200	320	57	5.5	0.83			7.84	0.67	-0.66	-1.89	0.62	0.21	-0.65
	6/14/2016	11:32	<b>0.10</b>	440	770	130	9.2	1.5			3.74	0.84	-0.14	-1.71	0.99	0.25	-0.45
	8/17/2016	14:55	<b>0.050</b>	390	500	100	8.0	2.0			8.18	0.57	-0.27	-1.44	0.39	0.18	-0.79
	9/14/2016	14:15	<b>0.050</b>	300	460	75	6.7	1.6			4.39	0.68	-0.39	-1.65	0.60	0.32	-0.68
	11/7/2016	11:25	<b>0.050</b>	260	420	65	6.3	1.4			5.51	0.70	-0.48	-1.76	0.64	0.35	-0.66
	5/10/2017	10:45	<b>0.050</b>	360	460	97	6.7	1.7	8.3	<b>0.085</b>	-2.02	0.75	-0.26	-1.76	0.77	0.33	-0.58
	7/5/2017	10:55	<b>0.050</b>	330	650	99	7.5	1.4	8.4	<b>0.11</b>	1.65	0.57	-0.30	-1.35	0.45	0.09	-0.72
	8/16/2017	9:20	<b>0.050</b>	410	860	140	9.7	2.0	9.5	<b>0.11</b>	1.62	0.34	-0.14	-1.42	0.04	-0.10	-0.89
	12/20/2017	12:35	<b>0.050</b>	450	640	120	9.2	2.5	8.8	<b>0.10</b>	-1.89	0.73	-0.13	-1.57	0.72	0.36	-0.61
	3/27/2018	11:16	<b>0.050</b>	360	570	92	8	2.0	7.2	<b>0.10</b>	-2.62	0.86	-0.25	-1.74	0.96	0.50	-0.50
	5/15/2018	10:25	<b>0.020</b>	360	600	93	7.3	1.9	8.2	<b>0.040</b>	3.64	0.44	-0.27	-1.26	0.14	0.06	-0.91
	6/25/2018	10:45	<b>0.020</b>	350	570	90	7.5	1.8	8.1	<b>0.040</b>	-0.55	0.75	-0.26	-1.68	0.75	0.36	-0.60
	7/20/2018	10:50	<b>0.020</b>	330	560	88	7.5	1.7	7.2	<b>0.040</b>	10.58	0.75	-0.35	-1.76	0.76	0.36	-0.59
	8/28/2018	9:35	<b>0.020</b>	310	540	82	7.1	1.6	7.4	<b>0.040</b>	10.94	0.62	-0.39	-1.63	0.50	0.24	-0.72
	9/11/2018	10:43	<b>0.020</b>	300	540	77	6.9	1.4	8.4	<b>0.040</b>	8.69	0.72	-0.40	-1.68	0.68	0.29	-0.64
0852-04	9/15/2015	17:15	0.011	110	220	28	4.4	0.64			7.52	0.55	-0.97	-2.36	0.34	0.26	-0.82
	5/26/2016	14:00	<b>0.050</b>	180	260	46	4.8	0.86			6.80	0.86	-0.75	-2.09	0.95	0.47	-0.50
	6/14/2016	11:01	<b>0.10</b>	370	470	100	7.0	1.7			2.63	1.07	-0.29	-1.83	1.41	0.64	-0.26
	8/17/2016	13:45	<b>0.050</b>	370	500	94	8.1	2.0			8.02	0.52	-0.29	-1.43	0.28	0.15	-0.84
	9/14/2016	13:35	<b>0.050</b>	300	470	74	6.8	1.6			6.34	0.85	-0.40	-1.87	0.93	0.49	-0.52
	11/7/2016	11:05	<b>0.050</b>	260	420	64	6.4	1.4			9.50	0.61	-0.49	-1.75	0.44	0.25	-0.77
	5/10/2017	10:40	<b>0.050</b>	360	440	90	6.5	1.9	8.1	<b>0.085</b>	2.96	0.75	-0.29	-1.79	0.73	0.38	-0.62
	7/5/2017	10:50	<b>0.050</b>	350	630	100	7.6	1.5	8.2	<b>0.11</b>	-0.85	0.76	-0.26	-1.53	0.82	0.29	-0.54
	8/16/2017	9:45	<b>0.050</b>	430	580	110	8	2.2	8.4	<b>0.11</b>	4.51	0.44	-0.16	-1.57	0.13	0.05	-0.91
	12/20/2017	12:25	<b>0.050</b>	480	670	120	9.2	2.4	8.7	<b>0.10</b>	1.22	0.77	-0.10	-1.61	0.79	0.36	-0.59
	3/27/2018	11:06	<b>0.050</b>	350	570	89	7.9	2.0	7.4	<b>0.10</b>	-1.27	1.00	-0.26	-2.00	1.25	0.66	-0.35
	5/15/2018	10:15	<b>0.020</b>	350	600	88	6.9	1.8	7.8	<b>0.040</b>	2.51	0.42	-0.28	-1.27	0.08	0.03	-0.94
	6/25/2018	10:35	<b>0.020</b>	340	550	90	6.8	1.7	8.0	<b>0.040</b>	8.20	0.79	-0.34	-1.65	0.83	0.39	-0.56
	7/20/2018	10:40	<b>0.020</b>	320	540	80	7.2	1.7	7.3	<b>0.040</b>	10.95	0.65	-0.34	-1.85	0.53	0.28	-0.72
	8/28/2018	9:55	<b>0.020</b>	300	540	80	6.6	1.6	7.5	<b>0.040</b>	10.40	0.60	-0.40	-1.64	0.45	0.23	-0.74
	9/11/2018	10:32	<b>0.020</b>	270	530	76	6.6	1.4	8.4	<b>0.040</b>	6.30	0.75	-0.44	-1.78	0.79	0.38	-0.56

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

µS/cm = microsiemens per centimeter

mV = millivolt

NR = not recorded

NTU = nephelometric turbidity unit

SI = saturation index

TOC = top of casing

### Geochemistry Data for Well 0853

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0853-01	5/10/2017	10:10				7.10	9.3	7090	532	0.54			190	3900	27	0.066	<b>0.050</b>
	6/28/2017	14:30				6.52	14.1	7947	680	1.60			220	4100	32	0.080	2.0
0853-02	9/16/2015	13:40	10.12	4935.81	4925.69	7.26	14.4	3359	430	1.78			50	1700		0.028	2.8
	5/27/2016	12:00				7.23	9.0	7841	542	8.06			220	3700		0.087	0.23
	8/16/2016	16:40				6.90	14.7	4993	444	1.61	-32.4	1.15	105	2500	20	0.054	0.80
	9/15/2016	12:05				7.27	13.3	5045	434	0.57			102	2460	19	0.058	0.46
	11/7/2016	13:20				6.68	11.8	4934	520	2.80			98	2600	19	0.053	0.51
	5/10/2017	10:05				7.10	8.0	6609	548	9.70			160	3700	25	0.066	0.086
	6/28/2017	14:20				6.42	11.6	7870	680	3.02			220	3900	31	0.070	0.30
	8/15/2017	13:55				6.79	14.1	6565	458	1.22	-13.1	0.60	160	3700	26	0.050	0.57
	12/20/2017	13:35				7.17	8.8	5625	532	2.66			120	3000	22	0.060	0.54
	3/27/2018	12:25				7.09	5.5	5534	580	1.30			110	2900	21	0.055	0.33
	5/15/2018	11:30					7.5	5088	550	5.17			100	2690	19	0.060	0.33
	6/25/2018	11:45				7.09	10.3	5958	640	2.76			130	3300	23	0.065	0.55
	7/20/2018	11:50				7.09	10.5	5509	570	0.19			110	2700	21	0.055	0.44
	8/28/2018	10:25				7.05	14.1	5093	540	2.87	41.5	0.67	97	2400	20	0.050	0.51
	9/11/2018	11:42				7.03	13.4	4922	560	0.29			96	2400	19	0.052	0.41
0853-03	9/16/2015	14:30	10.14	4935.81	4925.67	7.23	12.8	3417	412	1.50			53	1700		0.021	0.63
	5/27/2016	11:25				7.14	8.4	5985	490	8.14			165	2850		0.073	1.3
	8/16/2016	17:10				6.91	14.5	4376	404	1.37	-5.2	1.76	104	2200	17	0.057	0.71
	9/15/2016	11:40				7.34	11.7	4753	448	0.55			115	2490	18	0.054	0.81
	11/7/2016	12:55				6.87	11.8	4879	486	0.24			130	2600	20	0.051	0.83
	5/10/2017	9:55				7.20	8.0	4817	464	0.29			100	2500	17	0.059	0.51
	6/28/2017	14:15				6.37	10.0	8714	620	0.04			300	5200	35	0.080	0.91
	8/15/2017	14:25				6.9	13.3	5725	384	0.55	-9.7	1.85	145	3300	22	0.060	0.53
	3/27/2018	12:15				7.12	6.7	5631	580	0.31			120	3040	20	0.075	0.32
	5/15/2018	11:20					7.5	5220	580	0.25			110	2860	19	0.080	0.28
	6/25/2018	11:35				7.11	9.1	4958	484	0.62			110	2700	19	0.055	0.21
	7/20/2018	11:40				7.10	10.0	5483	562	0.27			120	2900	21	0.065	0.39
	8/28/2018	10:50				7.03	12.1	5432	509	0.23	-32.5	0.09	120	2800	20	0.070	0.31
9/11/2018	11:36				7.02	11.8	5271	546	0.34			110	2700	19	0.065	0.28	
0853-04	9/16/2015	15:10	10.25	4935.98	4925.73	7.38	11.9	3059	388	1.29			53	1500		0.022	3.3
	5/27/2016	10:50	5.50	4935.98	4930.48	7.36	8.4	3135	406	8.18			45	1300		0.028	1.6
	8/16/2016	15:50	10.30	4935.98	4925.68	7.03	13.0	4087	389	1.98	-81.8	3.03	105	2100	17	0.050	5.3
	9/15/2016	11:15	10.12	4935.98	4925.86	7.70	11.1	4526	384	0.26			114	2280	17	0.048	2.7
	11/7/2016	12:30	9.14	4935.98	4926.84	7.15	11.4	4796	450	0.19			135	2600	20	0.045	2.1

**Geochemistry Data for Well 0853 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	5/10/2017	9:50	5.64	4935.98	4930.34	7.10	7.9	4982	460	0.51			110	2600	17	0.068	1.5
	6/28/2017	14:15	5.00	4935.98	4930.98	6.55	9.5	5366	460	0.09			140	2900	20	0.050	1.8
	8/15/2017	14:50	8.39	4935.98	4927.59	6.92	11.8	5648	360	0.37	-66.9	1.98	150	3700	22	0.060	3.3
	12/20/2017	13:25	8.64	4935.98	4927.34	7.31	10.2	5795	420	0.44			130	3300	22	0.065	1.7
	3/27/2018	12:05	8.42	4935.98	4927.56	7.50	7.5	5608	560	1.39			120	3020	20	0.075	1.5
	5/15/2018	11:12	8.05	4935.98	4927.93		7.6	5160	540	0.57			110	2800	19	0.070	1.4
	6/25/2018	11:25	7.70	4935.98	4928.28	7.12	8.6	5248	504	0.29			120	2900	20	0.050	1.3
	7/20/2018	11:30	8.86	4935.98	4927.12	7.10	9.5	5352	584	0.17			110	2900	21	0.065	1.4
	8/28/2018	11:10	9.70	4935.98	4926.28	7.06	11.5	5484	498	0.30	-1.6	1.03	120	2900	20	0.060	2.0
	9/11/2018	11:28	9.78	4935.98	4926.20	7.03	11.0	5297	574	0.22			120	2700	20	0.063	1.1

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0853-01	5/10/2017	10:10	0.050	430	1170	210	7.1	0.88	19	0.085	-5.00	0.44	-0.06	-1.39	0.41	-0.40	-0.63
	6/28/2017	14:30	0.050	460	1450	260	9.4	1.6	22	0.11	1.58	-0.02	-0.05	-0.71	-0.44	-0.65	-1.02
0853-02	9/16/2015	13:40	0.046	230	480	66	8.2	5.1			-10.32	0.42	-0.42	-1.61	0.13	0.68	-0.89
	5/27/2016	12:00	0.050	480	1440	200	12	0.47			5.94	0.63	-0.04	-1.52	0.73	-0.54	-0.50
	8/16/2016	16:40	0.050	410	860	140	10	1.2			5.51	0.24	-0.15	-1.26	-0.14	-0.41	-0.98
	9/15/2016	12:05	0.050	400	810	130	9.4	0.70			3.33	0.59	-0.16	-1.64	0.54	-0.28	-0.65
	11/7/2016	13:20	0.050	420	800	130	9.0	0.77			-0.52	0.09	-0.13	-0.97	-0.48	-0.76	-1.18
	5/10/2017	10:05	0.050	450	1090	200	7.3	0.57	18	0.085	-4.26	0.48	-0.05	-1.38	0.46	-0.56	-0.62
	6/28/2017	14:20	0.050	580	1360	260	10	1.2	19	0.11	5.43	0.00	0.03	-0.61	-0.51	-0.86	-1.11
	8/15/2017	13:55	0.050	530	1070	210	9.4	2.4	19	0.11	-0.06	0.17	0.01	-1.15	-0.21	-0.32	-0.98
	12/20/2017	13:35	0.050	490	820	160	8.8	1.9	13	0.10	-2.49	0.63	-0.05	-1.46	0.61	0.09	-0.62
	3/27/2018	12:25	0.050	470	770	140	8.8	1.9	11	0.10	-5.64	0.57	-0.07	-1.34	0.46	0.06	-0.71
	5/15/2018	11:30	0.020	530	860	160	8.7	2.0	12	0.040	6.62	0.53	-0.05	-1.28	0.38	-0.03	-0.75
	6/25/2018	11:45	0.020	580	1050	180	9.7	2.5	13	0.040	3.44	0.67	0.02	-1.31	0.68	0.16	-0.59
	7/20/2018	11:50	0.020	510	910	170	9.9	2.3	14	0.040	7.44	0.61	-0.07	-1.35	0.59	0.13	-0.62
	8/28/2018	10:25	0.020	480	850	150	9.5	2.1	13	0.040	9.42	0.55	-0.11	-1.33	0.43	0.06	-0.72
	9/11/2018	11:42	0.020	450	820	130	9.5	1.9	13	0.040	5.03	0.52	-0.13	-1.29	0.33	0.02	-0.78
0853-03	9/16/2015	14:30	0.029	260	490	67	8.9	3.8			-7.06	0.42	-0.37	-1.60	0.10	0.50	-0.93
	5/27/2016	11:25	0.050	540	970	150	11	2.4			6.70	0.61	-0.03	-1.47	0.51	0.12	-0.70
	8/16/2016	17:10	0.050	480	650	120	9.3	2.1			6.11	0.31	-0.11	-1.31	-0.14	-0.16	-1.05
	9/15/2016	11:40	0.050	470	690	120	8.7	2.1			-0.38	0.74	-0.09	-1.70	0.74	0.28	-0.61
	11/7/2016	12:55	0.050	520	730	130	9.2	2.3			1.18	0.35	-0.05	-1.19	-0.07	-0.13	-1.01
	5/10/2017	9:55	0.050	470	650	120	8.3	1.9	11	0.085	-2.31	0.62	-0.09	-1.54	0.49	0.11	-0.73

**Geochemistry Data for Well 0853 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	6/28/2017	14:15	<b>0.050</b>	800	1460	250	14	3.3	13	<b>0.11</b>	-2.44	-0.02	0.22	-0.61	-0.69	-0.59	-1.27
	8/15/2017	14:25	<b>0.050</b>	590	860	160	10	2.5	11	<b>0.11</b>	-0.07	0.28	0.05	-1.33	-0.16	-0.22	-1.04
	3/27/2018	12:15	<b>0.050</b>	540	740	140	10	1.9	9.2	<b>0.10</b>	-6.39	0.65	0.00	-1.37	0.56	0.07	-0.69
	5/15/2018	11:20	<b>0.020</b>	600	850	160	9.5	1.8	10	<b>0.040</b>	5.24	0.59	0.01	-1.26	0.45	-0.07	-0.74
	6/25/2018	11:35	<b>0.020</b>	530	750	140	8.9	1.8	9.2	<b>0.040</b>	1.78	0.58	-0.03	-1.44	0.43	-0.01	-0.75
	7/20/2018	11:40	<b>0.020</b>	630	850	170	10	2.3	9.2	<b>0.040</b>	6.52	0.70	0.03	-1.37	0.66	0.12	-0.63
	8/28/2018	10:50	<b>0.020</b>	620	820	170	10	2.1	9.9	<b>0.040</b>	7.89	0.59	0.02	-1.34	0.45	-0.02	-0.74
	9/11/2018	11:36	<b>0.020</b>	580	830	160	10	1.9	11	<b>0.040</b>	7.33	0.58	-0.01	-1.30	0.45	-0.03	-0.74
0853-04	9/16/2015	15:10	0.026	250	430	65	8.1	3.8			-5.57	0.55	-0.41	-1.78	0.36	0.66	-0.79
	5/27/2016	10:50	<b>0.050</b>	280	450	68	6.9	1.3			4.76	0.63	-0.41	-1.74	0.48	0.21	-0.75
	8/16/2016	15:50	<b>0.050</b>	480	610	120	8.8	2.1			7.15	0.42	-0.12	-1.45	0.08	-0.05	-0.94
	9/15/2016	11:15	<b>0.050</b>	460	640	120	8.5	2.0			2.88	1.04	-0.11	-2.13	1.34	0.57	-0.30
	11/7/2016	12:30	<b>0.050</b>	530	650	130	8.8	2.4			-1.13	0.60	-0.04	-1.51	0.44	0.14	-0.77
	5/10/2017	9:50	<b>0.050</b>	490	660	130	8.5	1.8	11	<b>0.085</b>	-2.24	0.53	-0.06	-1.45	0.32	-0.02	-0.81
	6/28/2017	14:15	<b>0.050</b>	580	760	150	9.7	2.4	11	<b>0.11</b>	1.09	0.03	0.01	-0.90	-0.69	-0.48	-1.32
	8/15/2017	14:50	<b>0.050</b>	630	810	160	10	2.6	11	<b>0.11</b>	-6.52	0.28	0.10	-1.38	-0.20	-0.24	-1.07
	12/20/2017	13:25	<b>0.050</b>	610	780	160	9.7	2.6	10	<b>0.10</b>	-2.41	0.74	0.06	-1.71	0.74	0.24	-0.60
	3/27/2018	12:05	<b>0.050</b>	540	730	140	10	1.8	9.0	<b>0.10</b>	-6.10	1.01	0.00	-1.77	1.28	0.41	-0.33
	5/15/2018	11:12	<b>0.020</b>	600	830	150	9.6	1.9	9.6	<b>0.040</b>	5.72	0.57	0.01	-1.29	0.37	-0.07	-0.79
	6/25/2018	11:25	<b>0.020</b>	560	790	150	9.0	2.3	9.3	<b>0.040</b>	1.03	0.62	0.00	-1.43	0.51	0.11	-0.71
	7/20/2018	11:30	<b>0.020</b>	630	820	160	10	2.1	8.9	<b>0.040</b>	4.68	0.71	0.04	-1.35	0.67	0.10	-0.64
	8/28/2018	11:10	<b>0.020</b>	660	810	170	10	2.2	9.6	<b>0.040</b>	7.58	0.63	0.05	-1.39	0.50	0.01	-0.72
	9/11/2018	11:28	<b>0.020</b>	630	800	160	11	2.1	10	<b>0.040</b>	7.65	0.65	0.02	-1.29	0.54	0.04	-0.70

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

μS/cm = microsiemens per centimeter  
mV = millivolt  
NR = not recorded  
NTU = nephelometric turbidity unit  
SI = saturation index  
TOC = top of casing

### Geochemistry Data for Well 0854

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0854-01	5/10/2017	9:20				7.10	9.5	10469	680	0.80			220	6000	35	0.26	0.10
	6/28/2017	13:25				6.88	13.6	9195	700	0.43			180	5000	31	0.16	0.51
0854-02	9/16/2015	16:40	8.50	4937.19	4928.69	7.07	13.2	4441	470	1.49			72	2300		0.059	2.9
	5/12/2016	13:05				7.57	7.6	6099	265	2.01			110	2945		0.12	1.3
	8/17/2016	16:10				6.85	14.5	6345	450	2.03	-15.9	0.35	137	3760	26	0.12	1.7
	9/15/2016	13:18				7.10	12.9	6770	456	0.42			137	3900	26	0.11	1.5
	11/7/2016	14:50				6.14	11.3	5904	496	0.27			99	2800	22	0.10	0.99
	5/10/2017	9:15				7.05	7.8	7108	552	0.70			140	4200	25	0.14	1.3
	6/28/2017	13:20				6.77	10.9	6901	540	0.21			135	3700	28	0.12	1.5
	8/16/2017	11:55				6.88	13.8	5575	442	0.40	-52.7	0.88	90	3000	24	0.10	1.4
	12/20/2017	14:25				7.17	8.0	5740	548	0.10			110	3000	22	0.085	1.1
	3/27/2018	13:20				7.13	4.6	5334	560	0.24			100	2640	19	0.075	0.9
	5/15/2018	12:20					7.2	5208	570	0.20			100	2670	19	0.070	1.0
	6/25/2018	12:30				7.03	10.2	5830	624	0.21			120	3100	23	0.080	1.2
	7/20/2018	12:30				7.06	11.7	5679	600	0.20			120	2900	23	0.075	1.2
	8/28/2018	13:20				7.00	14.8	5841	500	0.33	-15.1	0.47	120	2900	22	0.070	1.2
	9/11/2018	12:27				6.97	13.1	5764	570	0.28			120	2900	22	0.063	1.2
0854-03	9/16/2015	17:10	8.52	4937.19	4928.67	7.18	13.1	3586	298	1.19			56	1800		0.040	0.82
	5/12/2016	12:35				7.12	7.3	4672	466	0.34			75	2200		0.10	1.4
	8/17/2016	16:40				6.93	13.9	6268	452	5.27	15.5	1.88	139	3800	26	0.11	0.73
	9/15/2016	13:02				7.16	12.2	6900	480	5.81			144	4030	26	0.12	0.76
	11/7/2016	14:20				6.50	11.4	5516	470	4.04			102	2700	21	0.087	0.64
	5/10/2017	8:55				7.24	7.5	5726	440	3.20			110	3200	22	0.10	0.71
	6/28/2017	13:15				6.76	10.0	6891	520	2.64			135	3700	28	0.12	0.81
	8/16/2017	12:10				6.84	13.2	6160	434	0.77	-17.9	1.25	110	3400	25	0.11	0.54
	12/20/2017	14:15				7.27	8.9	5820	524	0.17			110	3000	23	0.090	0.55
	3/27/2018	13:10				7.17	5.4	5365	550	0.50			110	2690	20	0.085	0.62
	5/15/2018	12:10					6.8	5206	580	0.19			100	2670	19	0.080	0.62
	6/25/2018	12:20				7.04	9.7	5705	590	0.49			120	3000	22	0.080	0.68
	7/20/2018	12:20				7.07	10.6	5700	590	0.36			120	2900	23	0.080	0.56
	8/28/2018	13:40				7.03	14.8	5502	480	0.32	-40.7	1.11	110	2700	21	0.070	0.39
	9/11/2018	12:17				7.02	12.2	5335	528	0.26			110	2600	20	0.066	0.40
0854-04	9/17/2015	8:30	8.75	4937.42	4928.67	7.26	10.7	3819	420	1.41			63	2000		0.034	6.3
	5/12/2016	12:10	3.82	4937.42	4933.60	7.31	7.3	4013	466	0.37			60	1785		0.065	4.3
	8/17/2016	15:45	8.48	4937.42	4928.94	6.93	12.7	6210	468	0.98	-77.9	1.76	140	3730	25	0.11	6.1
	9/15/2016	12:47	8.54	4937.42	4928.88	7.29	11.5	6813	448	0.38			147	4060	26	0.12	4.1

**Geochemistry Data for Well 0854 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	11/7/2016	14:00	7.55	4937.42	4929.87	6.71	11.3	6027	480	0.20			108	2900	22	0.093	2.8
	5/10/2017	8:50	3.72	4937.42	4933.70	7.10	7.2	5787	476	0.60			110	3200	21	0.090	2.7
	6/28/2017	13:15	5.50	4937.42	4931.92	6.85	9.6	6772	520	0.06			135	3700	27	0.11	2.9
	8/16/2017	12:30	7.13	4937.42	4930.29	6.85	12.8	7393	424	0.65	-72.5	2.02	150	4300	29	0.13	4.4
	12/20/2017	14:05	6.56	4937.42	4930.86	7.41	9.4	6056	484	0.54			110	3200	24	0.095	1.9
	3/27/2018	13:00	6.00	4937.42	4931.42	7.4	5.9	5630	540	1.26			110	2840	20	0.085	1.8
	5/15/2018	12:00	5.80	4937.42	4931.62		6.7	5263	550	0.29			100	2700	19	0.080	1.6
	6/25/2018	12:15	6.92	4937.42	4930.50	7.08	8.7	5578	560	0.18			110	2900	22	0.075	1.7
	7/20/2018	12:10	7.84	4937.42	4929.58	7.1	10.0	5675	568	0.29			110	2900	22	0.080	1.9
	8/28/2018	13:55	7.83	4937.42	4929.59	7.08	14.2	5912	520	0.21	-50.1	0.57	120	3000	22	0.090	2.8
	9/11/2018	12:10	7.67	4937.42	4929.75	7.02	11.5	5550	520	0.35			120	2800	20	0.082	1.6

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0854-01	5/10/2017	9:20	0.13	490	2120	310	19	0.22	14	0.17	-0.90	0.50	0.03	-1.30	0.65	-1.06	-0.45
	6/28/2017	13:25	0.14	490	1850	260	19	1.2	16	0.11	1.88	0.33	0.01	-1.07	0.24	-0.46	-0.69
0854-02	9/16/2015	16:40	0.035	310	700	97	13	3.0			-5.29	0.33	-0.26	-1.40	0.00	0.21	-0.93
	5/12/2016	13:05	0.052	420	1050	160	13	1.8			8.90	0.66	-0.11	-2.17	0.74	0.16	-0.52
	8/17/2016	16:10	0.10	580	1150	190	15	2.9			2.82	0.26	0.05	-1.22	-0.12	-0.19	-0.98
	9/15/2016	13:18	0.10	550	1160	180	14	2.7			-0.66	0.48	0.04	-1.46	0.32	0.03	-0.76
	11/7/2016	14:50	0.050	420	1030	150	12	1.9			6.32	-0.48	-0.13	-0.45	-1.57	-0.96	-1.69
	5/10/2017	9:15	0.054	580	1230	200	12	3.2	13	0.085	-1.98	0.52	0.07	-1.33	0.42	0.10	-0.70
	6/28/2017	13:20	0.060	580	1150	200	14	3.1	14	0.11	3.01	0.26	0.04	-1.06	-0.10	-0.16	-0.96
	8/16/2017	11:55	0.070	380	1110	130	12	2.2	14	0.11	3.70	0.15	-0.15	-1.24	-0.33	-0.22	-1.08
	12/20/2017	14:25	0.050	370	990	140	10	2.6	13	0.10	-2.56	0.51	-0.16	-1.44	0.45	0.23	-0.66
	3/27/2018	13:20	0.050	410	960	150	10	3.1	11	0.10	5.22	0.55	-0.15	-1.39	0.51	0.31	-0.64
	5/15/2018	12:20	0.020	430	950	150	10	4	12	0.040	5.00	0.45	-0.13	-1.26	0.29	0.29	-0.76
	6/25/2018	12:30	0.020	460	1020	170	12	4.6	12	0.040	1.12	0.52	-0.08	-1.25	0.44	0.38	-0.67
	7/20/2018	12:30	0.020	460	1020	170	13	4.8	12	0.040	4.92	0.54	-0.09	-1.30	0.50	0.43	-0.65
	8/28/2018	13:20	0.020	450	1050	170	12	5.3	12	0.040	7.22	0.40	-0.10	-1.32	0.22	0.33	-0.78
	9/11/2018	12:27	0.020	440	1040	160	12	5.3	14	0.040	4.65	0.41	-0.11	-1.23	0.23	0.36	-0.78
0854-03	9/16/2015	17:10	0.030	230	600	72	9.8	1.6			-1.60	0.17	-0.41	-1.69	-0.32	-0.07	-1.09
	5/12/2016	12:35	0.050	370	730	120	11	1.9			3.46	0.46	-0.21	-1.45	0.28	0.06	-0.79
	8/17/2016	16:40	0.10	590	1140	180	14	3.0			1.59	0.35	0.06	-1.30	0.02	-0.10	-0.92
	9/15/2016	13:02	0.10	580	1160	180	13	3.0			-1.96	0.58	0.07	-1.50	0.50	0.14	-0.68

### Geochemistry Data for Well 0854 (continued)

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	11/7/2016	14:20	<b>0.050</b>	390	960	130	11	2.0			3.38	-0.17	-0.16	-0.83	-0.98	-0.59	-1.41
	5/10/2017	8:55	<b>0.050</b>	450	900	150	10	2.6	12	<b>0.085</b>	-3.53	0.56	-0.06	-1.61	0.49	0.20	-0.67
	6/28/2017	13:15	0.060	590	1130	200	14	3.4	13	<b>0.11</b>	3.04	0.24	0.05	-1.07	-0.14	-0.15	-0.98
	8/16/2017	12:10	0.070	450	1080	150	12	2.6	14	<b>0.11</b>	-0.28	0.15	-0.06	-1.22	-0.34	-0.23	-1.09
	12/20/2017	14:15	0.060	380	1030	140	11	2.5	13	<b>0.10</b>	-0.30	0.60	-0.15	-1.56	0.62	0.29	-0.59
	3/27/2018	13:10	<b>0.050</b>	410	950	150	10	2.8	10	<b>0.10</b>	3.83	0.58	-0.15	-1.44	0.57	0.29	-0.61
	5/15/2018	12:10	<b>0.020</b>	410	970	150	11	3.3	12	<b>0.040</b>	4.67	0.44	-0.15	-1.25	0.28	0.22	-0.76
	6/25/2018	12:20	<b>0.020</b>	430	990	160	11	3.9	12	<b>0.040</b>	0.40	0.48	-0.11	-1.28	0.38	0.31	-0.70
	7/20/2018	12:20	<b>0.020</b>	460	1010	170	13	4.1	12	<b>0.040</b>	4.72	0.55	-0.09	-1.31	0.50	0.36	-0.64
	8/28/2018	13:40	<b>0.020</b>	430	1010	160	12	4.2	13	<b>0.040</b>	8.63	0.41	-0.13	-1.36	0.23	0.27	-0.78
	9/11/2018	12:17	<b>0.020</b>	380	980	140	11	3.9	13	<b>0.040</b>	5.07	0.39	-0.18	-1.31	0.19	0.28	-0.80
0854-04	9/17/2015	8:30	0.038	270	590	86	11	3.1			-6.27	0.44	-0.33	-1.63	0.23	0.41	-0.81
	5/12/2016	12:10	<b>0.050</b>	320	620	100	9.8	2.2			4.25	0.63	-0.30	-1.64	0.59	0.37	-0.64
	8/17/2016	15:45	<b>0.10</b>	610	1080	190	15	3.8			2.01	0.38	0.07	-1.28	0.10	0.03	-0.88
	9/15/2016	12:47	<b>0.10</b>	590	1140	180	14	3.5			-2.18	0.68	0.08	-1.66	0.70	0.31	-0.59
	11/7/2016	14:00	<b>0.050</b>	470	1020	150	12	2.7			6.33	0.11	-0.08	-1.04	-0.43	-0.26	-1.14
	5/10/2017	8:50	<b>0.050</b>	450	890	150	11	3.1	12	<b>0.085</b>	-4.40	0.46	-0.07	-1.43	0.28	0.17	-0.78
	6/28/2017	13:15	<b>0.050</b>	610	1110	200	13	3.7	13	<b>0.11</b>	3.18	0.35	0.06	-1.16	0.05	-0.02	-0.89
	8/16/2017	12:30	0.080	680	1190	210	15	4.9	13	<b>0.11</b>	0.95	0.28	0.14	-1.25	-0.11	-0.03	-0.99
	12/20/2017	14:05	0.070	380	1040	140	12	3.0	13	<b>0.10</b>	-2.58	0.69	-0.14	-1.74	0.80	0.46	-0.49
	3/27/2018	13:00	<b>0.050</b>	440	1040	160	11	2.9	11	<b>0.10</b>	6.38	0.82	-0.11	-1.69	1.04	0.51	-0.38
	5/15/2018	12:00	<b>0.020</b>	410	980	150	11	3.2	11	<b>0.040</b>	5.03	0.41	-0.15	-1.27	0.23	0.18	-0.78
	6/25/2018	12:15	<b>0.020</b>	410	970	150	11	3.3	12	<b>0.040</b>	0.65	0.48	-0.13	-1.34	0.38	0.26	-0.71
	7/20/2018	12:10	<b>0.020</b>	440	1010	160	13	3.7	11	<b>0.040</b>	3.89	0.54	-0.11	-1.36	0.49	0.33	-0.65
	8/28/2018	13:55	<b>0.020</b>	480	1070	180	12	3.9	12	<b>0.040</b>	7.57	0.52	-0.07	-1.38	0.45	0.29	-0.67
	9/11/2018	12:10	<b>0.020</b>	380	980	150	12	3.5	13	<b>0.040</b>	2.00	0.37	-0.17	-1.31	0.18	0.21	-0.79

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

μS/cm = microsiemens per centimeter  
mV = millivolt  
NR = not recorded  
NTU = nephelometric turbidity unit  
SI = saturation index  
TOC = top of casing

### Geochemistry Data for Well 0855

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0855-01	5/20/2016	13:02				7.19	9.7	12508	640	4.16			575	6950		2.1	<b>0.050</b>
	6/17/2016	12:08				7.10	13.3	13071	794	13.48			620	7200		1.4	0.15
	4/20/2017	14:00				7.53	9.1	9896	450	8.85			380	5400	25	1.3	<b>0.10</b>
	5/22/2017	18:15				7.30	9.9	12504	552	6.90			570	7600	35	2.0	0.45
	7/7/2017	11:45				7.04	14.5	13247	656	6.44			650	7500	40	1.8	2.2
0855-02	9/16/2015	9:33	7.44	4931.02	4923.58	7.18	14.7	10540	520	1.91			410	6100		1.4	3.0
	3/15/2016	12:30				7.24	6.6	9676	510	5.92			320	4960		1.6	1.9
	4/18/2016	12:30				7.16	6.9	9365	530	8.26			300	4910		1.6	1.4
	5/20/2016	12:27				7.15	8.7	16441	664	4.26			850	9200		2.8	0.11
	6/17/2016	11:36				7.02	10.4	13586	654	2.43			640	7900		1.9	0.53
	7/12/2016	14:10				6.97	12.0	11746	604	8.91			540	10300	31	2.0	0.65
	8/17/2016	9:20				6.91	14.2	11710	569	1.39	-40.1	2.19	565	6950	32	1.7	2.2
	9/16/2016	13:30				6.87	13.8	12606	614	0.70			625	7400	31	1.8	1.1
	10/12/2016	13:23				6.99	13.0	12476	596	7.23			615	7100	32	1.7	1.1
	11/7/2016	14:49				4.12	12.3	12110	592	0.14			580	7000	31	1.8	1.1
	3/9/2017	12:46				7.06	6.3	12973	532	0.19			640	7700	36	1.8	0.25
	4/20/2017	14:00				7.21	7.8	13490	586	0.42			670	7900	36	2.0	0.13
	5/8/2017	16:55				7.10	7.8	14975	608	0.61			800	9400	40	2.3	0.26
	5/22/2017	18:10				7.10	8.3	15870	640	1.20			870	10000	45	2.5	0.49
	7/7/2017	11:40				6.88	11.3	15866	640	0.22			1000	9600	47	2.4	1.0
	7/26/2017	11:35				6.88	12.5	16101	680	0.05			1000	9200	48	2.3	1.2
	8/16/2017	15:15				6.79	15.6	16081	636	0.5	-55.2	3.23	1000	10000	47	2.3	2.9
	9/6/2017	14:20				6.90	13.8	16287	660	0.14			1000	9700	49	2.3	1.1
	11/8/2017	14:20				6.89	11.4	16812	680	0.42			950	9800	53	2.2	3.0
	3/28/2018	11:30				7.14	6.2	14816	680	0.27			820	8100	44	1.9	2.6
	4/16/2018	11:15				7.39	7.1	14540	680	0.12			790	7800	45	1.6	2.0
	5/7/2018	11:20				7.04	7.8	14367	680	0.2			780	7700	44	1.9	2.2
	5/16/2018	11:45					8.3	14425	670	0.28			1000	8600	41	1.9	2.0
	6/11/2018	13:25					9.7	14725	720	0.22			870	8300	48	1.9	2.5
	6/26/2018	11:25				7.05	10.7	15545	706	0.41			870	8200	48	1.9	2.7
	7/10/2018	13:45				7.03	11.7	14347	660	0.32			810	7800	46	1.7	2.3
	7/20/2018	15:15				7.06	12.4	14409	660	0.42			790	7800	47	1.8	2.7
	8/18/2018	11:25				6.97	13.1	14138	720	0.22			840	7800	46	1.9	2.0
	8/29/2018	9:35				7.04	13.8	14298	664	0.16	-27.4	1.21	750	7800	44	1.9	3.2
	9/11/2018	15:25				6.97	13.9	14071	680	0.18			740	7700	44	1.9	2.6

**Geochemistry Data for Well 0855 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0855-03	9/16/2015	10:14	7.44	4931.02	4923.58	7.15	13.9	9531	468	0.44			380	5600		1.3	0.36
	3/15/2016	12:15				7.27	6.6	8609	500	5.54			285	4460		1.3	0.36
	4/18/2016	12:00				7.13	7.6	8615	508	8.70			270	4400		1.3	0.23
	5/20/2016	11:54				7.06	8.7	9558	532	2.97			340	5000		1.4	0.16
	6/17/2016	11:05				6.96	9.5	9986	540	0.18			415	5300		1.5	0.12
	7/12/2016	13:40				6.93	10.5	10577	540	1.60			515	8800	29	1.6	0.21
	8/17/2016	10:05				6.90	14.0	11801	509	3.38	34.3	2.96	610	7020	33	2.0	0.44
	9/16/2016	13:00				6.82	12.1	12726	572	5.95			645	7700	33	2.0	0.24
	10/12/2016	12:52				7.03	11.8	12433	574	8.53			620	7200	33	2.0	0.22
	11/7/2016	14:20				5.47	12.0	12010	568	4.48			570	6700	33	1.9	0.20
	12/8/2016	13:10				7.10	10.1	11650	610	3.30			540	6300	32	1.7	0.22
	3/9/2017	12:16				6.92	8.1	12246	580	0.51			650	7200	35	1.6	0.20
	4/20/2017	13:35				6.90	7.8	13072	580	2.95			720	7500	36	1.9	0.21
	5/8/2017	16:35				7.10	8.1	13587	596	2.00			800	8600	39	2.2	0.22
	5/22/2017	17:50				7.10	8.1	14718	620	1.70			840	9200	44	2.4	0.37
	7/7/2017	11:30				6.93	10.2	14610	620	0.14			890	8600	45	2.1	0.34
	7/26/2017	11:30				6.94	10.8	14707	660	0.19			870	8300	46	1.9	0.27
	8/16/2017	15:30				6.84	15.1	15224	574	2.90	-25.9	1.32	970	9200	48	2.2	0.95
	9/6/2017	14:15				6.89	11.9	16054	650	2.17			1070	9800	52	2.4	0.26
	11/8/2017	14:15				7.07	11.3	15929	620	2.81			930	9000	53	2.2	0.47
	3/28/2018	11:45				7.23	7.5	14386	660	2.73			820	7800	46	1.7	0.39
	4/16/2018	11:05				7.34	8.2	14162	690	3.66			780	7600	45	1.6	0.40
	5/7/2018	11:30				6.98	8.2	13587	690	0.59			740	7300	44	1.7	0.34
	5/16/2018	11:35					8.4	13458	690	5.50			860	6900	40	1.7	0.48
	6/11/2018	13:16					9.1	13445	684	3.03			730	6900	47	1.7	0.56
	6/26/2018	11:15				7.07	9.6	14629	688	3.34			810	7400	46	1.8	0.62
	7/10/2018	13:25				7.07	10.6	13857	680	2.68			800	7900	46	1.6	0.58
	7/20/2018	15:10				7.08	10.9	14021	690	3.30			800	7900	47	1.7	0.54
	8/18/2018	11:15				7.02	11.2	13687	730	3.57			740	7600	44	1.6	0.32
	8/29/2018	9:50				7.04	12.4	13716	666	0.16	-62.0	1.28	730	7400	44	1.7	0.57
	9/11/2018	15:15				6.98	12.0	13319	680	0.25			700	7200	42	1.7	0.45
0855-04	9/16/2015	10:40	7.91	4931.48	4923.57	7.12	11.3	8929	440	0.23			390	5100		0.86	2.8
	3/15/2016	12:00				7.09	8.3	8410	510	0.53			310	4320		1.1	1.3
	4/18/2016	10:55				7.09	8.2	8221	536	0.28			295	4230		1.1	0.69
	5/20/2016	11:18	3.82	4931.48	4927.66	7.31	7.3	4013	466	0.37			300	4050		0.97	0.53
	6/17/2016	10:33	4.70	4931.48	4926.78	6.99	9.3	9132	536	0.30			390	4800		0.99	0.92
	7/12/2016	13:15	6.62	4931.48	4924.86	6.97	9.7	9305	592	1.67			455	5160	27	1.2	1.0
	8/17/2016	8:55	7.78	4931.48	4923.70	6.86	11.3	8888	487	1.46	-37.8	7.40	430	4900	25	1.1	1.9

**Geochemistry Data for Well 0855 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	9/16/2016	12:35	8.00	4931.48	4923.48	6.99	10.9	9800	548	2.02			530	5500	27	1.3	1.6
	10/12/2016	12:23	7.15	4931.48	4924.33	7.23	10.8	10259	550	6.93			580	5600	30	1.4	1.5
	11/7/2016	13:50	6.92	4931.48	4924.56	5.83	11.4	10176	548	0.16			530	5400	29	1.4	1.5
	12/8/2016	12:40	6.92	4931.48	4924.56	7.09	10.1	10094	608	0.10			505	5300	29	1.5	1.2
	3/9/2017	11:48	6.15	4931.48	4925.33	6.97	9.0	10713	500	0.18			590	6100	33	1.3	0.85
	4/20/2017	13:35	5.17	4931.48	4926.31	7.08	8.6	10919	530	0.24			610	5900	32	1.2	0.76
	5/8/2017	16:30	4.82	4931.48	4926.66	7.00	8.4	11503	542	0.54			640	6400	33	1.6	0.65
	5/22/2017	17:45	4.18	4931.48	4927.30	7.10	8.3	11347	576	1.00			630	6400	35	1.6	0.92
	7/7/2017	11:25	4.06	4931.48	4927.42	7.04	9.5	11674	560	0.23			670	6400	38	1.4	1.1
	7/26/2017	11:25	5.60	4931.48	4925.88	7	10.0	11569	560	0.23			680	6500	38	1.4	1.2
	8/16/2017	15:50	6.40	4931.48	4925.08	6.78	12.1	11240	536	0.35	-44.7	1.39	690	6400	37	1.4	2.3
	9/6/2017	14:40	7.12	4931.48	4924.36	6.90	11.2	12697	590	0.57			740	6500	38	1.4	1.4
	11/8/2017	14:00	7.20	4931.48	4924.28	7.11	10.8	11686	540	0.23			720	6300	42	1.5	2.1
	3/28/2018	11:15	8.60	4931.48	4922.88	7.43	8.3	12025	580	0.37			740	6200	42	1.2	1.5
	4/16/2018	10:50	6.92	4931.48	4924.56	7.62	8.6	11970	626	0.21			750	6000	42	1.6	1.2
	5/7/2018	10:40	6.67	4931.48	4924.81	7.08	8.5	11883	630	0.23			740	6100	42	1.4	1.2
	5/16/2018	10:30	6.02	4931.48	4925.46		8.5	11816	670	0.17			720	5900	38	1.3	1.0
	6/11/2018	13:06	4.92	4931.48	4926.56		9.4	12499	660	0.55			690	6100	44	1.4	1.4
	6/26/2018	11:05	5.58	4931.48	4925.90	7.01	9.1	13181	620	0.68			760	6700	45	1.5	1.3
	7/10/2018	13:15	6.40	4931.48	4925.08	7.01	9.6	12228	644	0.45			750	6600	43	1.2	1.4
	7/20/2018	15:05	6.74	4931.48	4924.74	7.03	9.8	12220	640	0.20			720	6100	44	1.4	1.3
	8/18/2018	10:50	7.57	4931.48	4923.91	6.96	10.2	11857	632	0.20			710	6200	43	1.2	0.93
	8/29/2018	10:05	7.70	4931.48	4923.78	7.03	11.7	12381	604	0.22	-36.1	3.25	720	6100	42	1.4	1.6
	9/11/2018	15:05	7.80	4931.48	4923.68	6.93	10.9	11687	626	0.22			710	5900	41	1.4	1.0

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0855-01	5/20/2016	13:02	0.25	480	2650	470	22	0.90			1.76	0.52	0.03	-1.43	0.88	-0.46	-0.24
	6/17/2016	12:08	0.21	480	2850	490	18	2.90			1.93	0.51	0.03	-1.25	0.89	0.03	-0.23
	4/20/2017	14:00	0.19	350	2030	300	15	0.84			-0.60	0.62	-0.12	-1.91	1.03	-0.19	-0.19
	5/22/2017	18:15	0.23	570	2590	520	17	1.7	11	<b>0.14</b>	-0.33	0.62	0.12	-1.61	1.05	-0.16	-0.17
	7/7/2017	11:45	0.18	570	2640	510	19	1.9	12	<b>0.11</b>	-0.60	0.44	0.12	-1.28	0.68	-0.30	-0.36
0855-02	9/16/2015	9:33	0.34	380	2000	320	20	3.1			-7.13	0.35	-0.06	-1.50	0.47	0.06	-0.48
	3/15/2016	12:30	0.30	440	2000	340	17	0.73			7.32	0.51	-0.05	-1.57	0.76	-0.47	-0.35
	4/18/2016	12:30	0.28	450	1900	320	16	0.61			5.35	0.46	-0.03	-1.47	0.62	-0.60	-0.44
	5/20/2016	12:27	0.30	630	3550	670	29	0.68			3.68	0.55	0.18	-1.40	0.98	-0.73	-0.17

**Geochemistry Data for Well 0855 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	6/17/2016	11:36	0.28	590	2900	540	23	0.99			1.69	0.42	0.13	-1.26	0.66	-0.62	-0.37
	7/12/2016	14:10	0.27	500	2580	440	21	0.76			-21.23	0.19	0.13	-1.24	0.18	-0.89	-0.61
	8/17/2016	9:20	0.28	520	2680	480	24	1.0			3.93	0.23	0.07	-1.20	0.27	-0.74	-0.56
	9/16/2016	13:30	0.28	530	2600	470	22	0.70			-1.83	0.21	0.09	-1.13	0.22	-0.92	-0.59
	10/12/2016	13:23	0.31	560	2560	480	21	0.75			0.86	0.35	0.10	-1.26	0.49	-0.77	-0.46
	11/7/2016	14:49	0.28	570	2580	470	22	0.75			2.23	-2.49	0.08	1.63	-5.22	-3.62	-3.33
	3/9/2017	12:46	0.23	500	2650	470	19	0.62			-3.37	0.30	0.07	-1.38	0.43	-0.85	-0.47
	4/20/2017	14:00	0.24	560	2770	530	22	0.44			-0.83	0.54	0.12	-1.50	0.91	-0.83	-0.23
	5/8/2017	16:55	0.27	620	3000	620	22	0.42	12	<b>0.17</b>	-5.25	0.45	0.18	-1.38	0.75	-1.01	-0.30
	5/22/2017	18:10	0.29	730	3420	690	23	0.50	12	<b>0.14</b>	-0.81	0.53	0.26	-1.36	0.89	-0.95	-0.24
	7/7/2017	11:40	0.25	720	3290	660	26	0.58	13	<b>0.11</b>	-1.92	0.31	0.24	-1.14	0.44	-1.09	-0.47
	7/26/2017	11:35	0.29	710	3430	680	24	0.60	14	<b>0.40</b>	2.25	0.34	0.23	-1.11	0.52	-1.04	-0.42
	8/16/2017	15:15	0.27	670	3520	680	29	0.64	13	<b>0.040</b>	-1.56	0.18	0.22	-1.05	0.22	-1.18	-0.56
	9/6/2017	14:20	0.27	660	3670	700	24	0.51	12	<b>0.040</b>	2.04	0.31	0.20	-1.15	0.49	-1.13	-0.41
	11/8/2017	14:20	0.31	620	3610	690	25	0.63	13	<b>0.040</b>	0.30	0.28	0.18	-1.12	0.46	-1.03	-0.42
	3/28/2018	11:30	0.29	410	2940	500	33	0.54	10	<b>0.10</b>	-4.82	0.39	-0.01	-1.36	0.72	-0.76	-0.27
	4/16/2018	11:15	0.28	450	3330	590	25	0.53	12	<b>0.040</b>	5.70	0.69	0.01	-1.62	1.35	-0.53	0.06
	5/7/2018	11:20	0.31	440	3300	580	24	0.56	11	<b>0.040</b>	5.67	0.34	0.00	-1.26	0.64	-0.84	-0.29
	5/16/2018	11:45	0.29	450	3240	580	24	0.52	11	<b>0.040</b>	-2.63	0.27	0.03	-1.23	0.51	-0.96	-0.36
	6/11/2018	13:25	0.31	470	3290	590	23	0.64	12	<b>0.040</b>	1.24	0.33	0.04	-1.20	0.61	-0.82	-0.32
	6/26/2018	11:25	0.29	500	3400	620	26	0.60	12	<b>0.040</b>	4.58	0.40	0.06	-1.26	0.75	-0.81	-0.25
	7/10/2018	13:45	0.30	510	3380	630	26	0.55	10	<b>0.040</b>	8.20	0.38	0.06	-1.27	0.70	-0.88	-0.28
	7/20/2018	15:15	0.31	490	3380	620	27	0.55	10	<b>0.040</b>	7.85	0.39	0.04	-1.30	0.73	-0.85	-0.26
	8/18/2018	11:25	0.34	480	3080	580	30	0.56	13	<b>0.040</b>	1.93	0.32	0.04	-1.17	0.58	-0.89	-0.34
	8/29/2018	9:35	0.37	480	3240	580	25	0.61	11	<b>0.040</b>	5.24	0.36	0.04	-1.27	0.66	-0.82	-0.31
	9/11/2018	15:25	0.36	490	3320	590	24	0.59	12	<b>0.040</b>	7.34	0.31	0.04	-1.20	0.56	-0.89	-0.35
0855-03	9/16/2015	10:14	0.32	460	1700	300	18	1.3			-7.20	0.38	0.01	-1.51	0.42	-0.36	-0.56
	3/15/2016	12:15	0.30	470	1760	290	16	0.94			7.27	0.59	-0.03	-1.61	0.81	-0.30	-0.38
	4/18/2016	12:00	0.28	470	1750	280	16	0.89			7.48	0.46	-0.03	-1.46	0.54	-0.45	-0.52
	5/20/2016	11:54	0.27	500	1820	320	18	0.99			3.34	0.41	0.01	-1.37	0.47	-0.49	-0.54
	6/17/2016	11:05	0.27	590	1900	350	17	1.3			4.06	0.37	0.09	-1.27	0.37	-0.49	-0.61
	7/12/2016	13:40	0.26	660	2170	400	19	1.3			-17.19	0.27	0.22	-1.24	0.17	-0.68	-0.70
	8/17/2016	10:05	0.30	740	2540	500	23	1.5			5.79	0.32	0.21	-1.25	0.33	-0.63	-0.60
	9/16/2016	13:00	0.30	680	2500	470	21	1.5			-2.85	0.23	0.20	-1.11	0.16	-0.68	-0.68
	10/12/2016	12:52	0.34	670	2480	470	21	1.4			0.64	0.45	0.18	-1.32	0.60	-0.48	-0.45
	11/7/2016	14:20	0.32	630	2430	440	21	1.3			2.71	-1.12	0.14	0.24	-2.54	-2.05	-2.02
	12/8/2016	13:10	0.33	610	2420	430	20	1.2			5.16	0.54	0.12	-1.36	0.77	-0.41	-0.36
	3/9/2017	12:16	0.28	620	2340	440	20	1.3			-3.88	0.31	0.15	-1.20	0.33	-0.61	-0.58

**Geochemistry Data for Well 0855 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	4/20/2017	13:35	0.30	670	2500	490	21	1.2			-1.77	0.32	0.19	-1.19	0.35	-0.68	-0.57
	5/8/2017	16:35	0.29	680	2750	570	21	1.3	12	0.17	-4.03	0.50	0.21	-1.38	0.78	-0.49	-0.32
	5/22/2017	17:50	0.31	800	3090	630	21	1.4	12	0.14	-0.25	0.57	0.28	-1.37	0.90	-0.48	-0.28
	7/7/2017	11:30	0.26	710	3300	580	23	1.4	13	0.11	3.24	0.37	0.22	-1.20	0.51	-0.63	-0.47
	7/26/2017	11:30	0.28	680	3000	580	21	1.3	12	0.40	0.70	0.40	0.20	-1.18	0.58	-0.61	-0.42
	8/16/2017	15:30	0.29	740	3210	630	27	1.4	12	0.040	-0.35	0.25	0.25	-1.15	0.28	-0.78	-0.57
	9/6/2017	14:15	0.29	740	3460	690	23	1.3	11	0.040	-0.64	0.34	0.26	-1.14	0.50	-0.74	-0.44
	11/8/2017	14:15	0.33	620	3330	620	24	1.1	12	0.040	0.44	0.44	0.17	-1.34	0.73	-0.61	-0.31
	3/28/2018	11:45	0.30	470	2790	500	31	1.1	10	0.10	-3.98	0.53	0.04	-1.46	0.95	-0.36	-0.19
	4/16/2018	11:05	0.28	530	3210	580	23	1.0	12	0.040	6.50	0.72	0.07	-1.56	1.34	-0.28	0.01
	5/7/2018	11:30	0.31	500	3020	530	22	1.1	11	0.040	4.64	0.35	0.05	-1.19	0.58	-0.58	-0.37
	5/16/2018	11:35	0.29	500	2930	510	22	1.2	10	0.040	4.52	0.38	0.04	-1.21	0.62	-0.51	-0.36
	6/11/2018	13:16	0.28	510	2910	510	21	1.5	11	0.040	5.77	0.39	0.05	-1.22	0.63	-0.41	-0.36
	6/26/2018	11:15	0.27	540	3000	550	23	1.4	11	0.040	4.19	0.47	0.08	-1.29	0.80	-0.39	-0.27
	7/10/2018	13:25	0.28	600	3290	600	24	1.2	10	0.040	6.96	0.50	0.13	-1.30	0.84	-0.49	-0.25
	7/20/2018	15:10	0.29	560	3150	600	26	1.2	8.9	0.040	4.49	0.48	0.10	-1.30	0.84	-0.47	-0.24
	8/18/2018	11:15	0.31	520	2840	530	27	1.1	11	0.040	0.05	0.42	0.07	-1.21	0.70	-0.52	-0.32
	8/29/2018	9:50	0.32	500	2940	510	23	1.0	9	0.040	2.52	0.39	0.05	-1.27	0.64	-0.57	-0.35
	9/11/2018	15:15	0.31	520	3050	540	22	1.1	10	0.040	6.84	0.37	0.06	-1.20	0.60	-0.58	-0.37
0855-04	9/16/2015	10:40	0.25	490	1600	280	15	4.3			-4.35	0.37	0.02	-1.51	0.35	0.13	-0.62
	3/15/2016	12:00	0.27	520	1680	280	15	1.7			7.56	0.47	0.01	-1.42	0.51	-0.20	-0.55
	4/18/2016	10:55	0.27	530	1640	280	14	1.6			7.95	0.50	0.01	-1.39	0.57	-0.20	-0.53
	5/20/2016	11:18	0.25	520	1450	250	16	1.6			4.83	0.66	0.00	-1.67	0.85	-0.02	-0.41
	6/17/2016	10:33	0.24	670	1680	300	15	2.0			5.20	0.48	0.13	-1.30	0.45	-0.24	-0.62
	7/12/2016	13:15	0.23	680	1780	330	15	1.9			3.35	0.49	0.14	-1.24	0.51	-0.27	-0.58
	8/17/2016	8:55	0.24	630	1720	320	16	2.0			4.71	0.28	0.10	-1.21	0.11	-0.42	-0.77
	9/16/2016	12:35	0.23	680	1750	340	15	2.2			-0.88	0.46	0.15	-1.29	0.47	-0.23	-0.59
	10/12/2016	12:23	0.27	720	1860	370	16	2.3			1.76	0.72	0.18	-1.54	1.00	0.01	-0.32
	11/7/2016	13:50	0.26	690	1910	360	16	2.2			4.30	-0.68	0.15	-0.13	-1.80	-1.39	-1.72
	12/8/2016	12:40	0.28	660	1910	350	16	2.0			3.99	0.60	0.13	-1.35	0.77	-0.13	-0.43
	3/9/2017	11:48	0.26	640	1950	350	17	2.0			-3.29	0.35	0.15	-1.31	0.29	-0.37	-0.66
	4/20/2017	13:35	0.27	670	2010	380	17	2.0			0.88	0.52	0.15	-1.40	0.63	-0.23	-0.48
	5/8/2017	16:30	0.27	710	2020	410	16	2.2	11	0.17	-1.90	0.45	0.19	-1.31	0.51	-0.29	-0.54
	5/22/2017	17:45	0.28	710	2120	400	16	2.2	11	0.14	-0.59	0.58	0.19	-1.39	0.75	-0.16	-0.42
	7/7/2017	11:25	0.24	750	2180	400	17	2.3	13	0.11	0.96	0.53	0.21	-1.34	0.63	-0.22	-0.50
	7/26/2017	11:25	0.27	730	2220	410	15	2.3	11	0.40	0.62	0.47	0.20	-1.30	0.55	-0.27	-0.53
	8/16/2017	15:50	0.26	680	2190	340	18	2.3	11	0.040	-2.27	0.21	0.18	-1.10	-0.04	-0.49	-0.84
	9/6/2017	14:40	0.24	690	2250	400	15	2.1	9.9	0.040	-0.89	0.37	0.18	-1.18	0.36	-0.38	-0.62

### Geochemistry Data for Well 0855 (continued)

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	11/8/2017	14:00	0.26	680	2210	400	17	2.3	11	<b>0.040</b>	0.53	0.54	0.17	-1.43	0.70	-0.16	-0.44
	3/28/2018	11:15	0.23	530	2150	360	25	2.1	8.6	<b>0.10</b>	-4.59	0.78	0.07	-1.71	1.25	0.16	-0.14
	4/16/2018	10:50	0.24	630	2570	440	20	2.3	11	<b>0.040</b>	8.19	1.08	0.11	-1.89	1.86	0.40	0.18
	5/7/2018	10:40	0.26	610	2520	420	19	2.2	9.8	<b>0.040</b>	5.66	0.54	0.11	-1.33	0.76	-0.15	-0.38
	5/16/2018	10:30	0.24	590	2390	410	18	2.1	9.3	<b>0.040</b>	4.43	0.48	0.09	-1.22	0.65	-0.21	-0.43
	6/11/2018	13:06	0.24	610	2510	430	18	2.1	9.7	<b>0.040</b>	6.14	0.48	0.11	-1.23	0.66	-0.23	-0.42
	6/26/2018	11:05	0.21	670	2600	480	19	2.1	9.4	<b>0.040</b>	4.85	0.48	0.16	-1.27	0.67	-0.28	-0.41
	7/10/2018	13:15	0.23	650	2600	470	19	2.2	7.5	<b>0.040</b>	4.91	0.49	0.14	-1.25	0.69	-0.24	-0.40
	7/20/2018	15:05	0.23	650	2540	480	20	2.2	7.1	<b>0.040</b>	8.72	0.52	0.13	-1.28	0.77	-0.20	-0.36
	8/18/2018	10:50	0.26	610	2340	420	21	2.1	9.8	<b>0.040</b>	2.25	0.42	0.11	-1.21	0.52	-0.28	-0.50
	8/29/2018	10:05	0.26	580	2470	400	19	1.9	8.9	<b>0.040</b>	4.10	0.45	0.09	-1.30	0.59	-0.28	-0.46
	9/11/2018	15:05	0.25	610	2530	440	17	2.0	8.5	<b>0.040</b>	8.48	0.40	0.10	-1.18	0.50	-0.34	-0.50

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

μS/cm = microsiemens per centimeter  
 mV = millivolt  
 NR = not recorded  
 NTU = nephelometric turbidity unit  
 SI = saturation index  
 TOC = top of casing

### Geochemistry Data for Well 0856

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0856-01	4/20/2017	15:05				6.90	8.2	14791	580	5.18			580	8600	40	2.5	0.10
	5/8/2017	18:20				7.20	9.6	18215	668	2.40			720	11950	50	3.1	0.10
	5/22/2017	19:20				7.20	10.6	18324	706	0.70			600	11600	49	2.6	0.10
	6/28/2017	12:15				7.06	15.3	19312	780	0.6			800	11500	60	2.6	0.68
	7/5/2017	14:00				6.81	16.7	19436	800	6.09			810	12300	62	2.8	0.66
0856-02	9/17/2015	9:22				7.23	13.9	6439	390	1.49			150	3900		0.47	1.6
	3/15/2016	14:50				7.30	5.7	6585	390	0.40			165	3320		1.1	1.5
	4/20/2016	12:25				7.16	7.5	6439	408	0.29			155	3190		0.95	1.1
	5/12/2016	15:20				7.11	8.3	8462	436	0.14			330	4700		1.8	1.2
	6/14/2016	14:17	5.98	4933.63	4927.65	7.18	11.6	13273	474	1.68			465	7900	39	2.1	0.22
	7/12/2016	12:00				7.03	13.7	11401	510	1.53			650	9250	43	3.5	0.49
	8/16/2016	14:05				6.90	17.3	10623	462	1.29	25.3	1.05	370	6290	32	2.1	0.99
	9/15/2016	15:44				7.23	15.1	10168	494	8.79			315	6100	28	1.9	1.4
	10/11/2016	13:00				7.12	13.8	9214	464	11.74			270	5200	26	1.5	1.4
	11/15/2016	11:40				6.95	11.8	8895	460	0.36			270	4700	24	1.5	0.92
	12/5/2016	13:25				7.20	9.2	9104	472	0.40			310	4700	24	1.8	0.95
	3/8/2017	13:52				7.01	5.4	8898	420	0.17			330	5200	24	1.6	0.63
	4/20/2017	15:00				7.16	7.3	12071	524	0.53			460	7000	34	2.2	0.57
	5/8/2017	18:15				7.20	8.0	13908	524	0.35			500	8300	38	2.8	0.39
	5/22/2017	19:15				7.20	9.2	14352	562	1.10			500	8500	41	2.8	0.81
	6/5/2017					6.89	10.3	14386	568				480	8500	42	2.6	1.0
	6/28/2017	12:10				7	12.8	14490	600	0.03			610	8400	47	3.0	2.0
	7/5/2017	13:50				6.2	13.6	15597	660	0.06			650	9100	52	3.0	2.1
	7/26/2017	13:40				6.81	15.1	13810	720	0.11			540	7800	45	2.7	2.8
	8/16/2017	13:35				6.86	16.6	14669	596	0.42	-33.4	0.89	560	9100	45	2.8	2.2
	9/6/2017	12:17				6.99	16.0	13610	690	0.17			480	7900	40	1.5	3.2
	11/8/2017	12:20				7.21	10.8	9603	540	0.18			320	5100	26	1.2	1.9
	3/28/2018	12:25				6.95	5.0	9624	540	0.33			360	5200	25	1.1	1.1
	4/16/2018	12:55				7.12	6.3	9609	510	0.32			360	5000	26	1.2	1.0
	5/7/2018	13:05					7.9	9460	520	0.20			350	5100	26	1.2	1.0
	5/15/2018	13:50					8.4	8966	520	0.27			350	4900	23	1.2	0.94
	6/11/2018	11:45					10.9	9380	560	0.20			350	5000	27	1.2	1.2
	6/25/2018	14:00				7.08	12.4	9240	574	0.16			360	5000	26	1.3	1.1
	7/10/2018	12:00				7.06	13.6	9364	554	0.24			350	5100	26	1.1	1.3
	7/20/2018	13:55				7.07	14.6	9654	560	0.27			360	5200	27	1.0	1.6
	8/18/2018	14:54				6.99	15.4	9244	532	0.26			320	4800	26	1.1	1.2
	8/29/2018	8:25				7.06	13.8	9205	472	0.30	51.4	0.70	330	4900	25	1.2	0.98
	9/11/2018	13:48				7	15.4	9210	548	0.19			340	4900	24	1.2	1.2

**Geochemistry Data for Well 0856 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0856-03	9/17/2015	9:52	9.11	4933.63	4924.52	7.11	13.2	6453	381	1.39			170	3900		1.1	0.56
	3/15/2016	15:05				7.21	6.3	6251	400	0.27			150	3110		1.0	0.77
	4/20/2016	12:00				7.02	7.3	6239	394	0.25			150	3090		0.97	0.53
	5/12/2016	15:00				7.14	6.3	9884	416	0.16			410	5250		2.4	0.53
	6/14/2016	13:55	5.97	4933.63	4927.66	7.20	10.5	14835	504	1.26			510	9100	43	2.4	0.26
	7/12/2016	11:25				7.10	12.3	13471	496	1.98			640	6520	42	3.7	0.48
	8/16/2016	14:40				6.93	16.2	11814	460	2.86	59.4	3.18	415	7200	37	2.5	0.51
	9/15/2016	15:22				7.18	14.3	10901	474	4.75			335	6600	30	2.1	0.43
	10/11/2016	12:45				7.18	13.6	9412	468	10.02			270	5300	26	1.6	0.56
	11/15/2016	11:26				7.00	12.2	8786	450	1.49			260	4700	24	1.5	0.55
	12/5/2016	13:10				7.18	10.1	8804	480	1.80			310	4500	24	1.6	0.59
	3/8/2017	13:32				6.99	6.2	9200	404	2.33			340	5400	25	1.8	0.26
	4/20/2017	14:45				6.83	7.1	11100	492	1.50			430	6400	32	2.2	0.14
	5/8/2017	17:45				7.20	7.8	13762	532	0.80			510	8600	39	3.1	0.22
	5/22/2017	19:00				7.20	9.0	14414	550	2.50			520	9000	43	3.2	<b>0.10</b>
	6/5/2017					6.39	10.0	14330	560				530	8500	45	3.1	0.12
	6/28/2017	12:00				7.01	11.5	14187	600	2.01			580	8100	47	3.1	0.26
	7/5/2017	13:40				5.97	13.3	14583	580	1.27			590	8300	48	3.0	0.32
	7/26/2017	13:32				6.68	13.5	13900	580	1.82			540	7900	46	3.0	0.22
	8/16/2017	13:45				6.83	15.5	14653	520	0.70	27.3	0.80	580	9300	48	3.2	0.11
	9/6/2017	12:10				7.02	14.7	14490	606	0.81			500	9000	44	2.5	0.23
	11/8/2017	12:09				7.27	11.3	9614	520	0.79			320	5100	26	1.3	0.35
	3/28/2018	13:15				6.98	5.3	9478	540	0.51			360	5100	26	1.2	0.24
	4/16/2018	12:45				7.18	6.5	9455	500	0.72			350	5000	26	1.3	0.23
	5/7/2018	12:55					7.5	9390	540	1.89			350	5000	26	1.3	0.24
	5/15/2018	12:40					8.2	8835	510	1.70			340	5000	23	1.2	0.22
	6/11/2018	11:35					9.9	9329	550	0.62			350	4800	26	1.2	0.24
	6/25/2018	13:50				7.07	11.3	9201	560	0.72			350	4900	26	1.3	0.21
	7/10/2018	11:50				7.05	12.3	9230	540	0.64			340	4900	26	1.1	0.22
	7/20/2018	13:45				7.05	13.3	9657	570	0.71			360	5200	27	1.2	0.27
	8/18/2018	14:48				6.98	14.4	9147	568	0.69			330	4800	26	1.4	0.25
	8/29/2018	8:45				7.05	13.1	9203	474	1.36	48.0	1.04	330	4800	25	1.3	0.04
	9/11/2018	13:42				6.99	15.5	9127	540	0.19			340	4800	24	1.2	0.25
0856-04	9/17/2015	10:20	9.35	4933.87	4924.52	7.14	12.7	6554	409	1.26			200	4000		1.1	2.1
	3/15/2016	14:35				7.33	6.5	6147	320	0.56			150	3050		0.93	1.2
	4/20/2016	11:25				7.04	7.4	6167	384	0.26			150	3060		0.98	0.54
	5/12/2016	14:40	3.48	4933.87	4930.39	7.17	8.0	8759	400	0.18			380	4400		2.1	0.63

**Geochemistry Data for Well 0856 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	6/14/2016	13:30	6.17	4933.87	4927.70	7.31	9.8	17483	486	0.59			640	11800	50	2.9	0.23
	7/12/2016	11:20	7.84	4933.87	4926.03	7.56	11.3	17322	504	0.95			925	10600	68	4.5	0.68
	8/16/2016	13:30	9.11	4933.87	4924.76	6.82	15.7	17581	482	2.38	52.7	4.77	1060	11800	73	5.8	0.81
	9/15/2016	15:00	9.16	4933.87	4924.71	7.20	13.6	15230	496	0.92			590	8950	46	3.5	0.69
	10/11/2016	12:32	8.62	4933.87	4925.25	7.32	13.2	12459	476	8.26			365	7300	33	2.4	0.51
	11/15/2016	11:10	8.29	4933.87	4925.58	7.12	12.2	10557	414	0.35			270	5700	26	1.7	0.47
	12/5/2016	12:55	8.45	4933.87	4925.42	7.23	10.1	9336	480	0.57			280	4800	24	1.6	0.38
	3/8/2017	13:10	6.80	4933.87	4927.07	6.94	6.9	8555	400	0.22			340	4900	24	1.7	0.36
	4/20/2017	14:44	5.67	4933.87	4928.20	7.18	7.3	10500	510	0.45			420	5800	31	2.1	0.44
	5/8/2017	17:40	5.13	4933.87	4928.74	7.10	7.6	13233	504	0.61			560	8200	41	3.4	0.39
	5/22/2017	18:50	5.12	4933.87	4928.75	7.10	8.2	14140	516	1.20			550	8800	46	3.5	0.45
	6/5/2017					6.47	9.6	14921	532				560	8900	50	3.3	0.47
	6/28/2017	11:55	5.00	4933.87	4928.87	7.1	10.8	14018	320	0.04			550	8000	47	3.2	0.70
	7/5/2017	13:35	5.80	4933.87	4928.07	6.14	11.4	14453	540	0.11			570	8100	48	3.2	0.62
	7/26/2017	13:17	6.17	4933.87	4927.70	7.05	12.4	14147	600	0.37			550	8300	47	3.1	0.60
	8/16/2017	14:05	7.78	4933.87	4926.09	6.83	14.4	14937	484	0.26	-11.4	1.49	570	9700	47	3.1	0.67
	9/6/2017	12:03	8.20	4933.87	4925.67	7.04	13.8	15161	608	0.17			530	9500	46	2.9	0.40
	11/8/2017	12:00	7.50	4933.87	4926.37	7.39	11.5	10982	514	0.21			310	5900	27	1.5	0.25
	3/28/2018	13:05	7.60	4933.87	4926.27	7.14	5.8	9135	440	0.53			350	4800	24	1.3	0.24
	4/16/2018	12:35	7.70	4933.87	4926.17	7.33	6.6	9136	520	0.37			340	4700	25	1.4	0.24
	5/7/2018	12:45	7.60	4933.87	4926.27		7.4	9052	500	0.24			340	4700	25	1.3	0.24
	5/15/2018	12:30	7.43	4933.87	4926.44		7.5	8529	500	0.34			340	4600	23	1.3	0.25
	6/11/2018	11:25	6.97	4933.87	4926.90		10.0	8864	540	0.26			360	4500	25	1.3	0.32
	6/25/2018	13:40	7.82	4933.87	4926.05	7.06	10.3	8606	520	0.22			340	4600	24	1.3	0.28
	7/10/2018	11:40	7.82	4933.87	4926.05	7.04	11.2	8621	528	0.22			330	4600	24	1.2	0.28
	7/20/2018	13:37	8.15	4933.87	4925.72	7.06	12.1	8829	500	0.33			330	4600	25	1.2	0.31
	8/18/2018	14:39	8.65	4933.87	4925.22	6.96	13.5	8850	500	0.20			350	4700	25	1.3	0.26
	8/29/2018	9:05	8.79	4933.87	4925.08	7.03	12.8	8727	458	0.22	19.0	1.40	320	4600	24	1.2	0.46
	9/11/2018	13:33	8.86	4933.87	4925.01	6.98	13.6	8843	526	0.19			340	4700	24	1.3	0.40

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0856-01	4/20/2017	15:05	0.30	510	3020	510	46	0.050			-2.25	0.16	0.09	-1.19	0.18	-2.12	-0.58
	5/8/2017	18:20	0.37	490	4440	650	50	<b>0.050</b>	15	<b>0.17</b>	-2.40	0.42	0.11	-1.44	0.83	-1.91	-0.19
	5/22/2017	19:20	0.38	480	4530	580	50	0.22	16	<b>0.14</b>	-0.60	0.45	0.10	-1.42	0.83	-1.23	-0.21
	6/28/2017	12:15	0.42	460	4530	630	72	1.5	19	<b>0.11</b>	-0.90	0.33	0.08	-1.23	0.66	-0.49	-0.27
	7/5/2017	14:00	0.40	460	5040	620	72	1.3	18	<b>0.22</b>	0.05	0.08	0.09	-0.97	0.15	-0.83	-0.53

**Geochemistry Data for Well 0856 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0856-02	9/17/2015	9:22	0.29	460	1000	170	21	5.5			-8.86	0.47	-0.02	-1.66	0.35	0.41	-0.72
	3/15/2016	14:50	0.29	500	1200	200	15	0.51			9.12	0.61	-0.04	-1.73	0.66	-0.53	-0.55
	4/20/2016	12:25	0.26	470	1130	190	14	0.35			7.40	0.47	-0.06	-1.57	0.39	-0.80	-0.68
	5/12/2016	15:20	0.31	600	1570	300	19	1.3			4.18	0.47	0.08	-1.51	0.48	-0.38	-0.59
	6/14/2016	14:17	0.38	480	2990	460	35	0.40			1.95	0.35	0.06	-1.56	0.53	-0.99	-0.42
	7/12/2016	12:00	0.49	490	3180	540	27	1.30			-4.00	0.20	0.09	-1.38	0.30	-0.66	-0.50
	8/16/2016	14:05	0.50	540	2430	320	27	0.50			3.75	0.17	0.08	-1.28	-0.05	-1.09	-0.81
	9/15/2016	15:44	0.42	440	2180	330	22	0.48			-0.52	0.44	-0.01	-1.58	0.60	-0.73	-0.44
	10/11/2016	13:00	0.41	450	1930	290	21	0.40			2.84	0.35	-0.02	-1.49	0.36	-0.89	-0.59
	11/15/2016	11:40	0.34	470	1760	280	19	0.25			4.77	0.22	-0.02	-1.32	0.07	-1.23	-0.76
	12/5/2016	13:25	0.35	510	1750	290	19	0.24			5.26	0.52	0.02	-1.56	0.64	-1.00	-0.48
	3/8/2017	13:52	0.31	510	1580	290	18	0.20			-3.93	0.26	0.04	-1.42	0.11	-1.33	-0.74
	4/20/2017	15:00	0.41	580	2430	390	24	0.26			-0.69	0.48	0.12	-1.49	0.65	-1.10	-0.44
	5/8/2017	18:15	0.46	530	2940	460	26	0.43	13	<b>0.17</b>	-1.49	0.44	0.11	-1.53	0.68	-0.91	-0.37
	5/22/2017	19:15	0.47	570	2940	450	26	0.42	13	<b>0.14</b>	-2.71	0.50	0.14	-1.50	0.75	-0.90	-0.35
	6/5/2017		0.42	560	3200	480	25	0.58	12	<b>0.14</b>	1.75	0.19	0.13	-1.19	0.16	-1.07	-0.62
	6/28/2017	12:10	0.46	590	3160	540	32	0.8	15	<b>0.11</b>	2.59	0.35	0.14	-1.28	0.51	-0.80	-0.44
	7/5/2017	13:50	0.43	540	3470	560	34	1.0	14	<b>0.22</b>	1.17	-0.47	0.12	-0.44	-1.06	-1.49	-1.20
	7/26/2017	13:40	0.46	520	2980	480	30	1.0	15	<b>0.40</b>	1.33	0.20	0.08	-1.00	0.22	-0.78	-0.58
	8/16/2017	13:35	0.50	550	3310	540	32	0.77	15	<b>0.11</b>	-0.11	0.16	0.13	-1.14	0.16	-0.98	-0.60
	9/6/2017	12:17	0.43	540	3130	440	26	8.0	15	<b>0.10</b>	2.82	0.37	0.10	-1.20	0.51	0.28	-0.46
	11/8/2017	12:20	0.40	420	1900	280	20	0.64	14	<b>0.10</b>	0.62	0.48	-0.05	-1.51	0.63	-0.53	-0.45
	3/28/2018	12:25	0.33	490	1740	260	21	0.52	11	<b>0.10</b>	-3.58	0.28	0.02	-1.25	0.14	-0.88	-0.74
	4/16/2018	12:55	0.39	560	2000	300	20	0.56	11	<b>0.040</b>	7.62	0.50	0.06	-1.45	0.57	-0.70	-0.53
	5/7/2018	13:05	0.41	560	2000	290	20	0.57	13	<b>0.040</b>	6.22	0.38	0.06	-1.32	0.33	-0.81	-0.66
	5/15/2018	13:50	0.37	530	1930	270	21	0.58	12	<b>0.040</b>	5.44	0.37	0.04	-1.32	0.29	-0.79	-0.68
	6/11/2018	11:45	0.39	510	1850	260	19	0.59	12	<b>0.040</b>	1.36	0.38	0.03	-1.28	0.31	-0.74	-0.67
	6/25/2018	14:00	0.39	540	1980	280	21	0.74	13	<b>0.040</b>	5.33	0.49	0.04	-1.36	0.54	-0.60	-0.55
	7/10/2018	12:00	0.40	580	2090	300	23	0.57	13	<b>0.040</b>	8.50	0.48	0.07	-1.36	0.53	-0.71	-0.56
	7/20/2018	13:55	0.45	570	2010	300	24	0.70	13	<b>0.040</b>	5.52	0.49	0.07	-1.36	0.54	-0.63	-0.55
	8/18/2018	14:54	0.44	520	1770	260	24	0.52	14	<b>0.040</b>	2.82	0.36	0.03	-1.30	0.27	-0.84	-0.69
	8/29/2018	8:25	0.46	510	1850	260	23	0.47	12	<b>0.040</b>	3.68	0.37	0.02	-1.42	0.29	-0.86	-0.68
	9/11/2018	13:48	0.48	540	1960	280	21	0.48	14	<b>0.040</b>	6.54	0.40	0.04	-1.30	0.36	-0.85	-0.64
0856-03	9/17/2015	9:52	0.34	470	1000	180	16	1.3			-8.36	0.35	-0.01	-1.55	0.12	-0.35	-0.82
	3/15/2016	15:05	0.28	490	1110	190	14	0.58			9.14	0.53	-0.05	-1.63	0.50	-0.53	-0.64
	4/20/2016	12:00	0.26	470	1060	180	13	0.48			6.60	0.32	-0.07	-1.44	0.07	-0.80	-0.85
	5/12/2016	15:00	0.35	530	1800	370	21	1.3			3.26	0.40	0.05	-1.56	0.48	-0.41	-0.51

**Geochemistry Data for Well 0856 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	6/14/2016	13:55	0.41	450	3410	550	36	0.77			0.94	0.33	0.05	-1.56	0.61	-0.72	-0.32
	7/12/2016	11:25	0.49	490	3120	540	27	1.3			14.49	0.35	0.02	-1.46	0.58	-0.50	-0.36
	8/16/2016	14:40	0.57	450	2780	410	29	0.53			2.61	0.08	0.02	-1.31	-0.02	-1.09	-0.71
	9/15/2016	15:22	0.45	420	2400	370	23	0.61			0.04	0.33	-0.02	-1.55	0.46	-0.73	-0.47
	10/11/2016	12:45	0.40	430	1990	310	20	0.45			3.28	0.39	-0.04	-1.55	0.49	-0.78	-0.50
	11/15/2016	11:26	0.37	440	1820	280	19	0.41			5.57	0.23	-0.04	-1.38	0.12	-0.98	-0.72
	12/5/2016	13:10	0.37	470	1710	290	18	0.37			5.53	0.48	-0.03	-1.53	0.59	-0.81	-0.49
	3/8/2017	13:32	0.33	500	1610	320	17	0.53			-4.29	0.20	0.04	-1.42	0.06	-0.96	-0.74
	4/20/2017	14:45	0.39	450	2320	370	22	0.38			-0.33	0.04	0.01	-1.18	-0.16	-1.26	-0.80
	5/8/2017	17:45	0.47	470	2920	480	24	0.47	12	<b>0.17</b>	-4.42	0.39	0.06	-1.53	0.64	-0.88	-0.35
	5/22/2017	19:00	0.49	490	3100	530	25	0.52	12	<b>0.14</b>	-2.97	0.41	0.08	-1.52	0.71	-0.84	-0.30
	6/5/2017		0.46	470	3250	570	25	0.88	12	<b>0.14</b>	2.93	-0.39	0.05	-0.70	-0.84	-1.40	-1.05
	6/28/2017	12:00	0.47	440	3140	560	28	1.1	14	<b>0.11</b>	2.72	0.24	0.01	-1.29	0.44	-0.64	-0.40
	7/5/2017	13:40	0.43	440	3190	570	29	1.2	12	<b>0.22</b>	2.35	-0.82	0.02	-0.26	-1.67	-1.66	-1.45
	7/26/2017	13:32	0.47	460	3130	550	30	1.1	14	<b>0.40</b>	4.55	-0.08	0.03	-0.97	-0.23	-0.97	-0.75
	8/16/2017	13:45	0.51	490	3280	580	30	1.1	14	<b>0.11</b>	-1.41	0.01	0.09	-1.17	-0.05	-0.92	-0.66
	9/6/2017	12:10	0.54	470	3420	540	27	0.81	13	<b>0.10</b>	1.15	0.26	0.06	-1.29	0.43	-0.79	-0.43
	11/8/2017	12:09	0.42	420	1910	280	19	0.34	13	<b>0.10</b>	0.99	0.52	-0.05	-1.59	0.72	-0.76	-0.41
	3/28/2018	13:15	0.36	460	1710	260	21	0.42	10	<b>0.10</b>	-4.02	0.29	-0.01	-1.28	0.18	-0.93	-0.71
	4/16/2018	12:45	0.41	540	1990	300	20	0.43	12	<b>0.040</b>	7.19	0.53	0.04	-1.52	0.66	-0.77	-0.48
	5/7/2018	12:55	0.42	540	1990	290	19	0.42	12	<b>0.040</b>	6.37	0.39	0.04	-1.30	0.35	-0.92	-0.64
	5/15/2018	12:40	0.38	510	1890	270	20	0.42	11	<b>0.040</b>	3.27	0.34	0.03	-1.33	0.25	-0.94	-0.69
	6/11/2018	11:35	0.41	490	1810	260	21	0.48	12	<b>0.040</b>	2.24	0.36	0.00	-1.29	0.29	-0.84	-0.67
	6/25/2018	13:50	0.36	540	1950	280	20	0.52	11	<b>0.040</b>	6.05	0.48	0.04	-1.36	0.51	-0.74	-0.56
	7/10/2018	11:50	0.36	560	1970	300	20	0.39	11	<b>0.040</b>	8.07	0.46	0.05	-1.36	0.49	-0.90	-0.57
	7/20/2018	13:45	0.40	570	2030	310	24	0.41	11	<b>0.040</b>	6.16	0.47	0.07	-1.33	0.53	-0.87	-0.54
	8/18/2018	14:48	0.43	520	1780	260	24	0.45	13	<b>0.040</b>	2.49	0.38	0.03	-1.26	0.31	-0.87	-0.67
	8/29/2018	8:45	0.43	520	1880	280	21	0.32	12	<b>0.040</b>	6.42	0.37	0.03	-1.41	0.33	-1.03	-0.65
	9/11/2018	13:42	0.47	520	1940	270	21	0.43	12	<b>0.040</b>	6.40	0.37	0.02	-1.29	0.30	-0.91	-0.67
0856-04	9/17/2015	10:20	0.30	480	1000	180	15	1.9			-10.29	0.41	0.00	-1.55	0.24	-0.13	-0.77
	3/15/2016	14:35	0.27	480	1070	190	13	1.1			9.94	0.55	-0.06	-1.85	0.55	-0.22	-0.61
	4/20/2016	11:25	0.26	480	1060	190	13	1.1			8.33	0.34	-0.06	-1.47	0.13	-0.43	-0.82
	5/12/2016	14:40	0.33	500	1580	300	18	1.6			4.82	0.42	0.00	-1.60	0.47	-0.25	-0.55
	6/14/2016	13:30	0.44	440	4160	670	45	0.98			-3.53	0.35	0.07	-1.69	0.74	-0.63	-0.21
	7/12/2016	11:20	0.55	460	4270	720	33	2.3			3.03	0.66	0.07	-1.94	1.37	0.02	0.11
	8/16/2016	13:30	0.79	470	4280	890	36	2.9			-0.30	-0.11	0.09	-1.21	-0.08	-0.67	-0.57
	9/15/2016	15:00	0.65	390	3350	580	27	1.8			0.25	0.27	-0.02	-1.56	0.56	-0.35	-0.31
	10/11/2016	12:32	0.48	400	2760	420	23	1.3			1.27	0.43	-0.03	-1.69	0.73	-0.30	-0.30

**Geochemistry Data for Well 0856 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	11/15/2016	11:10	0.38	400	2150	320	20	1.1			2.68	0.23	-0.05	-1.54	0.21	-0.53	-0.62
	12/5/2016	12:55	0.37	420	1860	300	17	0.99			4.97	0.46	-0.06	-1.58	0.63	-0.35	-0.44
	3/8/2017	13:10	0.33	420	1560	290	16	0.94			-3.54	0.09	-0.05	-1.37	-0.13	-0.73	-0.82
	4/20/2017	14:44	0.37	430	2040	360	19	1.1			-1.09	0.41	-0.03	-1.51	0.58	-0.39	-0.42
	5/8/2017	17:40	0.47	460	2660	540	22	1.5	11	<b>0.17</b>	-4.43	0.27	0.05	-1.45	0.46	-0.47	-0.41
	5/22/2017	18:50	0.50	460	3050	590	23	1.6	11	<b>0.14</b>	-1.33	0.26	0.05	-1.44	0.49	-0.47	-0.38
	6/5/2017		0.47	460	3250	590	25	1.6	10	<b>0.14</b>	0.58	-0.35	0.05	-0.80	-0.75	-1.09	-0.99
	6/28/2017	11:55	0.48	430	3080	580	26	1.7	12	<b>0.11</b>	5.15	0.05	0.01	-1.65	0.09	-0.62	-0.57
	7/5/2017	13:35	0.44	430	3130	560	26	1.6	11	<b>0.22</b>	2.90	-0.68	0.01	-0.46	-1.40	-1.38	-1.32
	7/26/2017	13:17	0.47	450	3200	570	26	1.6	12	<b>0.40</b>	2.87	0.28	0.03	-1.33	0.52	-0.44	-0.36
	8/16/2017	14:05	0.51	470	3380	620	29	1.8	13	<b>0.11</b>	-1.57	-0.05	0.07	-1.20	-0.12	-0.76	-0.67
	9/6/2017	12:03	0.52	480	3570	630	25	1.4	12	<b>0.10</b>	2.00	0.27	0.07	-1.32	0.52	-0.56	-0.35
	11/8/2017	12:00	0.39	400	2290	310	20	0.76	12	<b>0.10</b>	1.65	0.58	-0.05	-1.72	0.90	-0.35	-0.28
	3/28/2018	13:05	0.33	370	1640	280	19	0.76	9.9	<b>0.10</b>	-2.83	0.28	-0.11	-1.52	0.29	-0.58	-0.59
	4/16/2018	12:35	0.38	450	1890	300	19	0.82	11	<b>0.040</b>	6.15	0.63	-0.04	-1.65	0.93	-0.30	-0.30
	5/7/2018	12:45	0.41	450	1890	300	18	0.85	11	<b>0.040</b>	6.35	0.29	-0.04	-1.33	0.25	-0.63	-0.64
	5/15/2018	12:30	0.37	430	1760	290	18	0.82	10	<b>0.040</b>	3.73	0.27	-0.06	-1.33	0.22	-0.63	-0.65
	6/11/2018	11:25	0.37	440	1740	280	17	0.81	12	<b>0.040</b>	3.49	0.32	-0.05	-1.30	0.29	-0.60	-0.63
	6/25/2018	13:40	0.31	470	1800	300	17	0.74	11	<b>0.040</b>	5.84	0.39	-0.03	-1.38	0.43	-0.60	-0.56
	7/10/2018	11:40	0.30	480	1800	300	17	0.73	10	<b>0.040</b>	6.17	0.38	-0.02	-1.35	0.41	-0.62	-0.57
	7/20/2018	13:37	0.34	480	1800	300	20	0.78	10	<b>0.040</b>	6.52	0.38	-0.02	-1.39	0.41	-0.60	-0.58
	8/18/2018	14:39	0.38	480	1680	280	22	0.81	12	<b>0.040</b>	1.58	0.28	-0.01	-1.29	0.17	-0.68	-0.71
	8/29/2018	9:05	0.37	460	1720	290	19	0.77	10	<b>0.040</b>	4.43	0.30	-0.03	-1.40	0.24	-0.66	-0.66
	9/11/2018	13:33	0.42	480	1870	300	19	0.82	11	<b>0.040</b>	6.42	0.32	-0.01	-1.29	0.28	-0.64	-0.64

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

μS/cm = microsiemens per centimeter  
mV = millivolt  
NR = not recorded  
NTU = nephelometric turbidity unit  
SI = saturation index  
TOC = top of casing

### Geochemistry Data for Well 0857

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0857-01	4/20/2017	11:41				7.29	8.0	10003	750	4.33			180	5600	62	1.6	0.10
	5/8/2017	14:40				7.20	10.0	8560	976	1.20			80	4900	68	0.8	2.9
	5/22/2017	16:00				7.30	10.6	7944	1038	0.30			55	4100	130	0.45	18
	6/21/2017	13:10				7.24	17.7	9548	1020	6.85			110	4300	113	0.080	30
0857-02	4/20/2017	11:35				7.18	7.1	11355	680	0.57			350	6500	49	1.7	0.51
	5/8/2017	14:30				7.10	8.4	10906	680	0.40			280	6300	48	1.6	0.52
	5/22/2017	15:55				7.20	9.6	10788	696	0.90			280	6200	47	1.5	0.96
	6/5/2017	11:45				6.96	11.6	10621	720				300	5900	45	1.2	1.0
	6/21/2017	13:05				6.96	14.0	11139	720	0.19			320	6300	45	1.4	2.2
	7/7/2017	13:05				6.85	15.2	11126	680	0.16			310	6300	44	1.4	2.6
	8/15/2017	9:55				6.86	18.0	11648	731		-71.2	2.76	370	6400	42	1.3	3.3
	3/27/2018	14:10				7.04	4.5	9823	550	0.94			300	5400	23	1.1	0.63
	4/16/2018	13:35				7.03	6.3	9816	550	0.38			300	5300	23	1.1	0.63
	5/7/2018	13:50					8.5	9657	550	0.16			290	5100	24	1.1	0.67
	5/15/2018	13:05					9.2	9163	570	0.15			290	5100	21	1.1	0.63
	6/11/2018	10:52					12.3	9624	560	0.17			290	4900	25	1.0	0.77
	6/25/2018	13:20				7.05	14.0	9275	580	0.19			290	5000	24	1.1	0.77
	7/10/2018	11:10				7.03	15.5	9504	550	0.24			300	5100	24	1.1	0.89
	7/20/2018	13:15				7.02	16.8	9668	556	0.25			300	5200	25	1.1	0.96
	8/18/2018	14:05				6.96	18.2	9814	564	0.31			290	5100	25	1.2	0.86
	8/28/2018	14:30				6.96	18.9	9909	508	0.21	4.8	0.44	320	5300	25	1.4	0.83
	9/11/2018	13:08				6.94	17.8	9570	504	0.37			310	5100	23	1.3	0.71
0857-03	9/16/2015	10:12	9.44	4935.51	4926.07	7.05	15.6	7690	447	2.09			200	4700		1.3	3.3
	3/16/2016	14:30				7.10	5.7	7044	440	7.58			145	3500		1.4	0.70
	4/20/2016	14:15				6.89	7.5	7860	438	3.74			175	4230		1.7	0.56
	5/11/2016	13:30				7.11	8.2	8322	448	1.23			190	4400		1.7	0.65
	6/14/2016	15:05	7.00	4935.51	4928.51	7.02	11.9	8150	474	3.01			190	4500		1.6	0.51
	7/11/2016	15:30				6.93	14.3	8994	478	1.55			245	5100	24	1.9	0.55
	8/17/2016	11:30				6.88	18.2	9498	539	5.33	30.1	2.10	310	5880	26	2.0	0.67
	9/15/2016	14:13				7.20	16.5	10284	526	5.94			395	5980	24	2.1	0.69
	10/11/2016	11:48				7.33	14.7	9845	448	9.84			320	5600	23	1.9	0.69
	11/15/2016	15:31				6.08	13.1	9666	472	4.27			280	5400	22	1.8	0.59
	12/5/2016	12:20				7.09	9.2	9778	466	4.85			275	5200	23	1.9	0.54
	3/8/2017	11:28				7.00	4.9	9245	476	8.19			280	5400	23	1.7	0.25
	4/20/2017	11:15				6.97	6.8	11100	634	6.02			380	6600	47	1.8	0.38
	5/8/2017	14:10				7.10	8.4	10667	626	2.50			340	6400	40	2.1	0.38
	5/22/2017	15:35				7.10	9.2	11328	582	3.10			400	7200	46	2.4	0.48

**Geochemistry Data for Well 0857 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	6/5/2017	11:35				6.94	10.7	12158	620				390	7300	49	2.3	0.40
	6/21/2017	12:50				6.92	12.9	11831	620	3.38			380	7000	45	2.2	0.84
	7/7/2017	12:55				6.78	14.0	11617	620	4.14			360	6700	42	2.1	0.47
	7/26/2017	14:02				6.69	16.1	11959	680	4.60			380	7000	44	2.2	0.66
	8/15/2017	11:15				6.79	18.1	11991	458	0.41	-10.9	1.37	380	7200	38	2.2	0.65
	9/6/2017	11:30				6.9	17.1	11256	610	0.13			360	6600	33	1.8	0.62
	11/8/2017	11:30				7.38	12.2	9831	460	0.21			280	5500	24	1.7	0.38
	3/27/2018	13:59				7.03	4.7	9667	550	0.13			310	5300	23	1.6	0.13
	4/16/2018	13:25				7.06	6.2	9563	560	0.16			300	5200	23	1.6	0.12
	5/7/2018	13:40					8.0	9476	510	0.32			290	5000	23	1.5	0.11
	5/15/2018	12:55					8.4	8950	504	0.21			290	5000	21	1.5	0.14
	6/11/2018	10:42					11.1	9358	544	0.35			300	4800	24	1.6	0.16
	6/25/2018	13:10				6.98	12.9	9233	526	0.31			300	5100	23	1.5	0.13
	7/10/2018	11:02				6.96	14.2	9329	530	0.19			300	5100	24	1.4	0.25
	7/20/2018	13:10				6.96	15.5	9532	560	0.37			320	5200	24	1.5	0.23
	8/18/2018	13:49				6.87	17.0	9738	560	0.17			320	5300	24	1.5	0.30
	8/28/2018	14:50				6.93	18.4	9821	488	0.23	9.8	0.45	320	5200	24	1.6	0.53
	9/11/2018	12:59				6.89	17.0	9382	540	0.21			320	5000	23	1.5	0.28
0857-04	9/16/2015	11:02	9.72	4935.76	4926.04	7.14	15.5	7475	437	1.57			200	4600		0.99	7.1
	3/16/2016	14:15				7.14	5.8	6841	410	0.28			140	3500		1.3	2.1
	4/20/2016	13:45				6.89	7.4	7454	418	0.26			165	3980		1.5	2.7
	5/11/2016	13:30	5.49	4935.76	4930.27	7.19	8.0	7651	466	0.50			170	4000		1.5	2.2
	6/14/2016	14:47	7.27	4935.76	4928.49	7.26	11.2	7793	492	1.28			185	4300		1.6	2.6
	7/11/2016	15:16	8.50	4935.76	4927.26	7.14	13.5	8475	448	2.02			225	5100	21	1.8	3.5
	8/17/2016	11:00	9.59	4935.76	4926.17	6.84	16.3	8537	486	1.34	-51.3	2.08	270	5210	21	1.7	3.8
	9/15/2016	14:00	9.45	4935.76	4926.31	7.72	15.5	9473	466	0.75			355	5500	22	1.8	3.0
	10/11/2016	11:36	9.00	4935.76	4926.76	8.04	14.4	9345	422	7.19			310	5400	22	1.7	2.4
	11/15/2016	15:19	8.64	4935.76	4927.12	6.37	13.2	8965	528	0.27			260	5000	20	1.7	2.2
	12/5/2016	12:10	8.60	4935.76	4927.16	7.09	9.7	9077	428	0.37			255	4900	21	1.8	2.0
	3/8/2017	11:03	7.00	4935.76	4928.76	7.08	5.4	9143	512	0.22			280	5400	23	1.8	1.3
	4/20/2017	11:00	4.54	4935.76	4931.22	7.11	7.5	10075	556	0.26			350	5900	34	1.9	2.8
	5/8/2017	14:00	5.20	4935.76	4930.56	7.00	8.1	10720	510	2.80			380	6400	34	2.3	1.2
	5/22/2017	15:30	5.46	4935.76	4930.30	7.00	8.7	11895	562	0.50			430	7300	45	2.7	1.3
	6/5/2017	11:30				6.98	10.4	12116	556				390	7300	50	2.4	1.3
	6/21/2017	12:37	6.28	4935.76	4929.48	7	12.3	11829	580	0.45			380	7100	45	2.2	1.4
	7/7/2017	12:45	7.21	4935.76	4928.55	6.87	13.1	11395	590	0.24			360	6600	42	2.2	1.8
	7/26/2017	13:56	7.96	4935.76	4927.80	6.91	15.0	11590	580	0.55			360	7000	43	2.2	1.9
	8/15/2017	11:50	8.33	4935.76	4927.43	6.8	17.3	11728	478	0.57	-57.1	3.02	380	7000	37	2.1	2.8

**Geochemistry Data for Well 0857 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	9/6/2017	11:20	8.60	4935.76	4927.16	6.83	16.2	10977	580	0.22			360	6600	32	2.0	2.3
	11/8/2017	11:15	8.00	4935.76	4927.76	8.31	12.2	9819	464	0.47			280	5500	25	1.5	1.4
	3/27/2018	13:49	7.80	4935.76	4927.96	7.18	4.9	9608	540	0.79			310	5400	23	1.6	0.92
	4/16/2018	13:20	7.74	4935.76	4928.02	7.17	6.4	9604	520	0.44			300	5200	23	1.6	0.98
	5/7/2018	13:30	7.72	4935.76	4928.04		7.9	9449	520	0.27			290	5000	23	1.6	1.1
	5/15/2018	12:45	7.67	4935.76	4928.09		8.2	8932	530	0.40			290	5000	21	1.5	1.1
	6/11/2018	10:34	7.75	4935.76	4928.01		10.5	9350	508	0.43			280	4900	18	1.5	0.8
	6/25/2018	13:00	8.07	4935.76	4927.69	6.99	12.0	9185	510	0.25			300	5100	23	1.6	1.0
	7/10/2018	10:55	8.52	4935.76	4927.24	6.97	13.3	9213	540	0.26			300	5100	24	1.6	0.86
	7/20/2018	12:59	8.74	4935.76	4927.02	6.96	1439.0	9453	520	0.26			320	5200	24	1.5	1.2
	8/18/2018	13:26	8.74	4935.76	4927.02	6.87	16.1	9682	556	0.22			310	5300	24	1.6	0.93
	8/28/2018	15:15	9.07	4935.76	4926.69	6.95	17.5	9797	456	0.36	-22.0	0.40	320	5200	24	1.7	1.7
	9/11/2018	12:51	8.99	4935.76	4926.77	6.93	16.2	9389	540	0.31			320	5000	23	1.5	1.1

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0857-01	4/20/2017	11:41	0.30	440	1980	320	17	0.24			-0.84	0.70	-0.02	-1.45	1.10	-0.76	-0.19
	5/8/2017	14:40	1.3	380	1790	290	14	1.4	20	<b>0.17</b>	-1.34	0.68	-0.11	-1.24	1.10	0.07	-0.18
	5/22/2017	16:00	2.9	380	1630	260	13	3.9	20	<b>0.14</b>	2.54	0.84	-0.14	-1.31	1.37	0.69	-0.07
	6/21/2017	13:10	7.0	340	1800	280	17	7.3	19	<b>0.22</b>	3.53	0.72	-0.18	-1.26	1.20	0.87	-0.11
0857-02	4/20/2017	11:35	0.65	550	2330	330	22	1.3			-0.90	0.61	0.09	-1.39	0.85	-0.24	-0.36
	5/8/2017	14:30	0.80	520	2250	310	21	2.4	16	<b>0.17</b>	-1.13	0.51	0.06	-1.31	0.65	-0.04	-0.46
	5/22/2017	15:55	1.5	500	2230	320	21	3.0	17	<b>0.14</b>	-0.83	0.61	0.04	-1.40	0.87	0.17	-0.34
	6/5/2017	11:45	2.9	460	2130	300	23	3.2	18	<b>0.14</b>	-2.07	0.36	0.00	-1.14	0.38	-0.01	-0.58
	6/21/2017	13:05	1.4	550	2400	350	25	5.0	18	<b>0.22</b>	2.82	0.42	0.08	-1.15	0.50	0.16	-0.52
	7/7/2017	13:05	1.7	550	2290	340	25	4.0	18	<b>0.22</b>	0.99	0.29	0.08	-1.06	0.22	-0.07	-0.67
	8/15/2017	9:55	0.79	550	2440	340	29	5.5	21	<b>0.11</b>	1.72	0.32	0.08	-1.04	0.29	0.10	-0.63
	3/27/2018	14:10	0.34	530	2200	260	22	3.0	14	<b>0.10</b>	5.66	0.41	0.05	-1.34	0.35	-0.05	-0.65
	4/16/2018	13:35	0.41	480	2130	300	21	3.0	17	<b>0.040</b>	5.67	0.36	0.00	-1.33	0.36	-0.05	-0.60
	5/7/2018	13:50	0.49	460	2060	260	22	3.2	16	<b>0.040</b>	4.49	0.32	-0.02	-1.29	0.24	-0.03	-0.68
	5/15/2018	13:05	0.45	450	1990	270	21	3.2	16	<b>0.040</b>	3.01	0.32	-0.02	-1.28	0.27	-0.02	-0.65
	6/11/2018	10:52	0.50	440	2020	260	22	3.5	17	<b>0.040</b>	5.20	0.32	-0.04	-1.28	0.25	0.02	-0.66
	6/25/2018	13:20	0.47	480	2050	280	21	3.3	16	<b>0.040</b>	6.28	0.41	-0.01	-1.32	0.44	0.05	-0.57
	7/10/2018	11:10	0.49	500	2130	290	24	3.7	16	<b>0.040</b>	7.85	0.39	0.01	-1.33	0.38	0.05	-0.60
	7/20/2018	13:15	0.55	490	2120	300	26	3.6	16	<b>0.040</b>	6.73	0.37	0.01	-1.31	0.37	0.03	-0.60
	8/18/2018	14:05	0.70	490	1980	280	29	3.4	18	<b>0.040</b>	4.33	0.32	0.01	-1.24	0.24	-0.04	-0.68

**Geochemistry Data for Well 0857 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	8/28/2018	14:30	0.65	490	2030	280	25	2.7	15	0.040	3.35	0.26	0.02	-1.29	0.13	-0.19	-0.73
	9/11/2018	13:08	0.82	500	2140	290	24	2.9	17	0.040	8.34	0.26	0.01	-1.27	0.13	-0.18	-0.73
0857-03	9/16/2015	10:12	0.60	580	1200	200	21	2.5			-8.77	0.40	0.09	-1.43	0.19	-0.12	-0.81
	3/16/2016	14:30	0.52	530	1300	200	16	1.3			9.81	0.47	-0.01	-1.48	0.37	-0.29	-0.71
	4/20/2016	14:15	0.57	610	1440	220	18	1.5			6.09	0.28	0.08	-1.28	-0.04	-0.50	-0.92
	5/11/2016	13:30	0.53	550	1530	220	20	1.4			3.99	0.45	0.05	-1.49	0.36	-0.31	-0.70
	6/14/2016	15:05	0.54	600	1500	230	20	1.4			3.60	0.42	0.09	-1.38	0.27	-0.38	-0.75
	7/11/2016	15:30	0.57	760	1620	280	22	2.0			4.97	0.41	0.20	-1.29	0.24	-0.36	-0.78
	8/17/2016	11:30	0.68	810	1910	310	27	2.1			3.62	0.41	0.24	-1.19	0.25	-0.39	-0.76
	9/15/2016	14:13	0.70	690	2000	290	25	1.8			-0.06	0.64	0.18	-1.52	0.75	-0.16	-0.49
	10/11/2016	11:48	0.70	630	1950	270	24	1.7			2.18	0.67	0.13	-1.72	0.83	-0.10	-0.45
	11/15/2016	15:31	0.67	620	1890	260	22	1.6			2.66	-0.55	0.12	-0.44	-1.62	-1.33	-1.68
	12/5/2016	12:20	0.68	610	1930	260	21	1.6			5.46	0.46	0.11	-1.46	0.39	-0.32	-0.67
	3/8/2017	11:28	0.58	530	1760	230	18	1.3			-3.74	0.30	0.07	-1.35	0.10	-0.49	-0.81
	4/20/2017	11:15	0.66	700	2210	320	23	1.9			-1.12	0.47	0.20	-1.21	0.46	-0.32	-0.62
	5/8/2017	14:10	0.68	590	2110	310	21	2.4	14	0.17	-3.41	0.53	0.12	-1.35	0.63	-0.08	-0.50
	5/22/2017	15:35	0.72	730	2380	360	23	2.7	14	0.14	-0.97	0.56	0.22	-1.39	0.67	-0.11	-0.49
	6/5/2017	11:35	0.60	780	2440	360	23	2.2	12	0.14	0.00	0.46	0.25	-1.20	0.43	-0.33	-0.63
	6/21/2017	12:50	0.70	750	2400	350	25	2.6	14	0.22	0.99	0.43	0.23	-1.18	0.38	-0.27	-0.65
	7/7/2017	12:55	0.64	700	2330	320	25	2.2	14	0.22	0.53	0.27	0.20	-1.03	0.05	-0.46	-0.82
	7/26/2017	14:02	0.67	720	2530	350	27	2.5	16	0.40	2.10	0.22	0.21	-0.91	-0.02	-0.48	-0.84
	8/15/2017	11:15	0.68	660	2560	320	28	2.2	16	0.11	0.64	0.11	0.19	-1.18	-0.25	-0.61	-0.96
	9/6/2017	11:30	0.68	560	2490	290	24	2.2	16	0.10	0.43	0.29	0.10	-1.16	0.14	-0.34	-0.75
	11/8/2017	11:30	0.83	470	2000	270	22	1.6	14	0.10	0.81	0.61	0.01	-1.76	0.83	-0.05	-0.38
	3/27/2018	13:59	0.56	570	2120	250	22	1.7	10	0.10	5.51	0.43	0.08	-1.33	0.36	-0.30	-0.68
	4/16/2018	13:25	0.61	520	2080	280	18	1.8	12	0.040	5.73	0.44	0.04	-1.35	0.45	-0.23	-0.59
	5/7/2018	13:40	0.67	490	1990	260	22	1.9	13	0.040	5.22	0.32	0.01	-1.33	0.21	-0.29	-0.71
	5/15/2018	12:55	0.62	480	1950	260	21	1.8	12	0.040	4.20	0.30	0.00	-1.33	0.19	-0.31	-0.71
	6/11/2018	10:42	0.64	460	1890	250	22	1.9	13	0.040	3.63	0.33	-0.02	-1.30	0.24	-0.24	-0.69
	6/25/2018	13:10	0.54	510	2000	280	21	1.7	12	0.040	5.32	0.33	0.03	-1.29	0.24	-0.35	-0.69
	7/10/2018	11:02	0.64	540	2060	290	24	2.1	12	0.040	7.61	0.33	0.05	-1.27	0.25	-0.28	-0.69
	7/20/2018	13:10	0.61	530	2040	290	25	2.1	12	0.040	5.37	0.34	0.04	-1.25	0.28	-0.26	-0.67
	8/18/2018	13:49	0.63	540	1940	280	28	2.3	14	0.040	2.23	0.26	0.06	-1.16	0.08	-0.31	-0.78
	8/28/2018	14:50	0.62	510	1980	280	24	2.3	12	0.040	4.02	0.24	0.03	-1.28	0.07	-0.30	-0.77
	9/11/2018	12:59	0.70	500	2000	280	23	2.3	14	0.040	5.74	0.24	0.01	-1.19	0.08	-0.29	-0.76

**Geochemistry Data for Well 0857 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium mg/L	Sodium mg/L	Magnesium mg/L	Potassium mg/L	Manganese mg/L	Silicon mg/L	Vanadium mg/L	PHREEQC Charge Balance Percent Error	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0857-04	9/16/2015	11:02	0.55	590	1200	190	21	4.0			-7.54	0.49	0.10	-1.53	0.34	0.17	-0.75
	3/16/2016	14:15	0.50	520	1260	190	16	1.5			8.40	0.48	-0.01	-1.55	0.36	-0.22	-0.72
	4/20/2016	13:45	0.54	590	1370	210	17	1.7			7.08	0.26	0.06	-1.30	-0.08	-0.44	-0.94
	5/11/2016	13:30	0.50	530	1370	200	18	1.5			3.65	0.56	0.02	-1.55	0.53	-0.15	-0.62
	6/14/2016	14:47	0.52	600	1430	220	18	1.7			3.79	0.69	0.08	-1.60	0.78	-0.03	-0.50
	7/11/2016	15:16	0.51	730	1520	260	20	2.0			1.71	0.57	0.19	-1.53	0.55	-0.17	-0.63
	8/17/2016	11:00	0.59	740	1670	270	24	2.3			3.51	0.31	0.19	-1.19	0.03	-0.39	-0.88
	9/15/2016	14:00	0.63	690	1780	260	22	2.2			0.06	1.11	0.17	-2.10	1.65	0.42	-0.06
	10/11/2016	11:36	0.64	640	1860	260	22	2.0			2.62	1.35	0.14	-2.48	2.15	0.65	0.20
	11/15/2016	15:19	0.63	600	1770	240	21	1.9			2.78	-0.20	0.10	-0.68	-0.96	-0.89	-1.36
	12/5/2016	12:10	0.65	590	1790	250	19	1.9			5.62	0.42	0.09	-1.50	0.31	-0.26	-0.71
	3/8/2017	11:03	0.58	530	1740	230	18	1.5			-4.52	0.41	0.06	-1.40	0.32	-0.32	-0.70
	4/20/2017	11:00	0.58	670	1900	280	20	2.1			-1.85	0.56	0.17	-1.41	0.60	-0.15	-0.57
	5/8/2017	14:00	0.57	690	2170	320	20	2.3	13	<b>0.17</b>	0.70	0.41	0.19	-1.34	0.34	-0.29	-0.67
	5/22/2017	15:30	0.62	810	2310	360	23	2.6	13	<b>0.14</b>	-1.58	0.49	0.27	-1.30	0.48	-0.24	-0.61
	6/5/2017	11:30	0.60	800	2380	330	24	2.3	13	<b>0.14</b>	-1.05	0.46	0.27	-1.29	0.39	-0.32	-0.67
	6/21/2017	12:37	0.66	780	2400	350	25	2.4	14	<b>0.22</b>	1.07	0.50	0.25	-1.29	0.49	-0.25	-0.60
	7/7/2017	12:45	0.62	690	2290	310	25	2.2	15	<b>0.22</b>	0.40	0.34	0.19	-1.14	0.18	-0.39	-0.76
	7/26/2017	13:56	0.63	740	2460	340	26	2.4	15	<b>0.40</b>	2.03	0.39	0.22	-1.20	0.29	-0.34	-0.70
	8/15/2017	11:50	0.66	670	2430	320	27	2.4	15	<b>0.11</b>	0.13	0.15	0.19	-1.17	-0.17	-0.53	-0.92
	9/6/2017	11:20	0.67	600	2410	290	23	2.1	14	<b>0.10</b>	0.09	0.23	0.13	-1.11	-0.01	-0.45	-0.84
	11/8/2017	11:15	0.82	490	2000	260	22	1.9	14	<b>0.10</b>	0.87	1.51	0.03	-2.73	2.60	0.91	0.49
	3/27/2018	13:49	0.57	590	2090	300	22	1.9	12	<b>0.10</b>	6.37	0.59	0.09	-1.49	0.73	-0.11	-0.46
	4/16/2018	13:20	0.66	550	2030	280	18	2.0	12	<b>0.040</b>	5.87	0.54	0.06	-1.49	0.63	-0.10	-0.51
	5/7/2018	13:30	0.70	510	1950	260	19	2.2	12	<b>0.040</b>	4.77	0.34	0.03	-1.32	0.24	-0.21	-0.70
	5/15/2018	12:45	0.64	500	1940	270	20	2.1	11	<b>0.040</b>	4.63	0.34	0.02	-1.31	0.27	-0.23	-0.68
	6/11/2018	10:34	0.64	480	1910	250	21	2.0	13	<b>0.040</b>	4.15	0.31	0.00	-1.33	0.19	-0.26	-0.72
	6/25/2018	13:00	0.55	530	1960	280	20	1.9	11	<b>0.040</b>	5.16	0.34	0.04	-1.32	0.25	-0.30	-0.69
	7/10/2018	10:55	0.49	540	2040	290	19	2.1	13	<b>0.040</b>	7.07	0.35	0.05	-1.28	0.28	-0.26	-0.67
	7/20/2018	12:59	0.60	540	1970	290	25	2.3	12	<b>0.040</b>	4.63	0.32	0.05	-1.28	0.22	-0.25	-0.70
	8/18/2018	13:26	0.63	550	1910	280	27	2.4	14	<b>0.040</b>	2.03	0.26	0.07	-1.16	0.08	-0.29	-0.78
	8/28/2018	15:15	0.63	520	1920	270	24	2.4	12	<b>0.040</b>	2.98	0.24	0.04	-1.33	0.04	-0.29	-0.80
	9/11/2018	12:51	0.70	510	2040	280	24	2.4	13	<b>0.040</b>	6.80	0.29	0.02	-1.23	0.17	-0.23	-0.72

**Note:** Bold values indicate data that is below the method detection limit.

**Abbreviations:**

µS/cm = microsiemens per centimeter  
mV = millivolt  
NR = not recorded  
NTU = nephelometric turbidity unit  
SI = saturation index  
TOC = top of casing

### Geochemistry Data for Well 0858

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0858-01	5/13/2016	12:35	--	--	--	7.02	9.6	12614	568	1.49	--	--	350	7400	--	3.2	<b>0.050</b>
	6/15/2016	12:33	4.69	4932.14	4927.45	6.94	13.0	9040	508	2.00	--	--	240	5000	--	2.0	1.2
	4/20/2017	11:00	--	--	--	6.92	7.2	6453	406	6.08	--	--	100	3600	13	1.1	<b>0.10</b>
	5/8/2017	16:00	--	--	--	7.10	8.4	7214	468	0.85	--	--	130	4000	15	1.2	0.29
	5/22/2017	17:15	--	--	--	7.10	9.4	7173	496	0.40	--	--	180	4000	17	1.1	0.92
	6/5/2017	14:10	--	--	--	6.09	11.6	7675	460	--	--	--	200	4200	18	1.2	1.60
	6/28/2017	13:10	--	--	--	6.89	14.3	6217	720	0.12	--	--	50	3200	18	1.0	6.3
	7/5/2017	12:40	--	--	--	6.86	14.6	6620	720	0.35	--	--	85	3400	19	1.0	6.5
0858-02	9/15/2015	9:27	7.98	4932.14	4924.16	7.22	15.2	4519	376	--	--	--	94	2600	--	0.31	1.7
	3/16/2016	NR	--	--	--	7.23	7.2	3655	360	6.42	--	--	75	1940	--	0.66	2.1
	5/13/2016	12:10	--	--	--	6.92	7.6	9213	452	2.53	--	--	280	5100	--	2.4	1.7
	6/15/2016	12:03	4.64	4932.14	4927.50	6.90	10.0	8525	486	2.70	--	--	240	5100	--	2.1	2.4
	7/11/2016	14:48	--	--	--	6.98	11.2	8187	456	5.63	--	--	205	6600	21	1.7	1.4
	8/16/2016	10:40	--	--	--	6.80	13.6	7410	389	2.27	38.1	1.50	195	4510	18	1.4	1.8
	9/16/2016	11:50	--	--	--	7.07	12.4	7428	440	0.73	--	--	195	4500	15	1.2	1.2
	10/11/2016	14:30	--	--	--	7.01	12.4	7055	406	9.45	--	--	185	3900	14	1.3	1.1
	11/15/2016	13:08	--	--	--	6.34	11.7	6615	390	0.21	--	--	180	3500	13	1.1	1.0
	12/5/2016	14:50	--	--	--	7.08	9.9	6617	414	0.17	--	--	180	3400	13	1.2	0.9
	3/9/2017	14:44	--	--	--	6.78	5.2	6881	320	0.20	--	--	170	4200	20	1.4	0.13
	4/20/2017	12:47	--	--	--	7.08	6.0	7410	398	0.20	--	--	230	4100	16	1.5	0.37
	5/8/2017	15:55	--	--	--	7.00	6.6	7854	404	0.38	--	--	220	4600	17	1.4	0.37
	5/22/2017	17:10	--	--	--	7.10	7.4	8114	438	0.80	--	--	220	4700	19	1.4	0.48
	6/5/2017	14:00	--	--	--	5.82	8.9	8031	440	--	--	--	210	4600	19	1.4	0.46
	6/28/2017	11:10	--	--	--	6.96	10.7	8046	460	--	--	--	210	4600	19	1.4	0.65
	7/5/2017	12:30	--	--	--	6.68	11.3	8301	480	0.20	--	--	210	4600	20	1.5	0.74
	7/26/2017	12:45	--	--	--	6.84	12.0	9106	480	0.08	--	--	230	5300	23	1.6	0.77
	8/15/2017	16:05	--	--	--	6.77	14.5	8745	362	0.41	-5.8	0.71	225	5200	21	1.5	0.90
	9/6/2017	13:20	--	--	--	6.88	12.5	8250	452	0.10	--	--	220	4800	18	1.5	0.67
	11/8/2017	13:25	--	--	--	7.04	10.6	8076	460	0.14	--	--	260	4500	19	1.3	0.69
	3/28/2018	12:40	--	--	--	6.94	4.7	7897	450	0.11	--	--	230	4300	18	1.3	0.43
	4/16/2018	12:10	--	--	--	7.18	5.5	7808	450	0.39	--	--	220	4200	18	1.3	0.36
	5/7/2018	12:25	--	--	--	--	6.1	7678	456	0.19	--	--	220	4100	17	1.4	0.41
	5/16/2018	11:40	--	--	--	--	6.5	7637	470	0.24	--	--	210	4000	16	1.3	0.45
	6/11/2018	12:35	--	--	--	--	8.2	7552	460	0.29	--	--	200	4300	18	1.4	0.56
	6/26/2018	12:20	--	--	--	7.01	9.3	7847	492	0.28	--	--	190	4100	17	1.4	0.59
	7/10/2018	12:45	--	--	--	7.00	10.0	7405	480	0.20	--	--	200	4000	17	1.2	0.58
	7/20/2018	14:40	--	--	--	7.02	10.6	7422	500	0.17	--	--	200	4000	16	1.2	0.55
	8/18/2018	12:55	--	--	--	6.95	11.2	7262	480	0.12	--	--	180	3800	15	1.2	0.40

**Geochemistry Data for Well 0858 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
	8/28/2018	15:45	--	--	--	6.96	13.4	7339	404	0.57	31.3	0.35	180	3800	16	1.2	0.45
	9/11/2018	14:35	--	--	--	6.94	11.8	7109	488	0.53	--	--	180	3800	15	1.2	0.45
0858-03	9/15/2015	10:26	7.98	4932.14	4924.16	7.18	13.6	4495	334	2.85	--	--	95	2500	--	0.61	3.9
	3/16/2016	12:35	--	--	--	7.07	7.5	4196	370	4.67	--	--	75	2050	--	0.70	0.79
	4/18/2016	14:14	--	--	--	7.06	6.8	4222	352	7.94	--	--	75	2050	--	0.71	0.63
	5/13/2016	11:45	--	--	--	6.91	7.1	4757	368	2.11	--	--	95	2400	--	0.87	0.73
	6/15/2016	11:32	4.64	4932.14	4927.50	6.69	8.7	8607	460	2.95	--	--	240	5000	--	2.1	1.2
	7/11/2016	14:20	--	--	--	7.03	9.3	8575	448	5.65	--	--	215	8000	22	1.8	0.73
	8/16/2016	11:15	--	--	--	6.79	13.7	7644	394	2.44	53.2	1.92	205	4630	20	1.5	0.59
	9/16/2016	11:25	--	--	--	7.19	11.1	7786	430	4.22	--	--	204	4460	17	1.3	0.63
	10/11/2016	14:08	--	--	--	7.04	11.7	7532	418	9.80	--	--	198	4300	16	1.4	0.59
	11/15/2016	12:45	--	--	--	6.61	11.7	7221	406	0.63	--	--	190	3900	14	1.2	0.54
	12/5/2016	14:25	--	--	--	7.07	10.6	7175	392	1.23	--	--	190	3800	15	1.4	0.47
	3/9/2017	14:14	--	--	--	7.01	6.5	7442	396	3.84	--	--	200	4500	21	1.4	0.21
	4/20/2017	12:15	--	--	--	6.73	6.0	7645	398	2.84	--	--	210	4300	17	1.3	0.20
	5/8/2017	15:35	--	--	--	7.10	6.7	8003	410	0.52	--	--	220	4700	18	1.5	0.19
	5/22/2017	16:50	--	--	--	7.10	7.0	8246	440	0.50	--	--	220	4800	20	1.5	0.23
	6/5/2017	13:55	--	--	--	5.89	8.1	8218	500	--	--	--	210	4700	20	1.4	0.30
	6/28/2017	11:00	--	--	--	7.00	8.8	8534	460	0.14	--	--	220	4900	21	1.5	0.43
	7/5/2017	12:20	--	--	--	6.64	9.3	9300	480	0.43	--	--	240	5400	24	1.7	0.42
	7/26/2017	12:35	--	--	--	6.84	10.1	9434	540	1.42	--	--	240	5500	25	1.6	0.34
	8/15/2017	16:35	--	--	--	6.76	13.0	8836	366	1.18	20.0	0.83	230	5300	21	1.6	0.29
	9/6/2017	13:12	--	--	--	6.88	11.1	8355	468	0.55	--	--	220	4900	19	1.5	0.26
	11/8/2017	13:15	--	--	--	7.28	10.9	8118	450	0.95	--	--	240	4600	19	1.3	0.23
	3/28/2018	12:33	--	--	--	7.04	5.7	7844	440	0.57	--	--	220	4300	17	1.6	0.16
	4/16/2018	12:00	--	--	--	7.27	6.0	7763	420	1.00	--	--	210	4200	17	1.5	0.15
	5/7/2018	12:15	--	--	--	--	5.9	7617	450	0.80	--	--	210	4100	17	1.3	0.14
	5/16/2018	12:30	--	--	--	--	6.1	7587	490	1.76	--	--	200	4000	15	1.3	0.15
	6/11/2018	12:25	--	--	--	--	6.9	7507	450	0.45	--	--	190	4100	17	1.3	0.26
	6/26/2018	12:10	--	--	--	7.00	7.8	7855	506	2.42	--	--	200	4000	17	1.4	0.22
	7/10/2018	12:35	--	--	--	7.01	8.6	7392	468	1.82	--	--	190	3900	17	1.2	0.20
	7/20/2018	14:30	--	--	--	7.02	9.1	7388	486	0.39	--	--	190	3900	16	1.2	0.19
	8/18/2018	12:39	--	--	--	6.99	10.6	7168	540	0.18	--	--	180	3800	15	1.2	0.15
	8/28/2018	16:00	--	--	--	6.97	13.0	7270	384	0.90	32.3	0.46	180	3700	15	1.2	0.15
	9/11/2018	14:25	--	--	--	6.94	10.7	7077	460	0.69	--	--	180	3700	15	1.1	0.14

**Geochemistry Data for Well 0858 (continued)**

Sample Port	Date	Time	Depth to Water (ft below top of casing)	TOC Elevation (ft above mean sea level)	Groundwater Elevation (ft above mean sea level)	pH	Temperature (°C)	Specific Conductance (µS/cm)	Alkalinity (mg/L as CaCO <sub>3</sub> )	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Organic Carbon (mg/L)	Uranium (mg/L)	Iron (mg/L)
0858-04	9/15/2015	11:31	8.23	4932.39	4924.16	7.13	12.7	4420	320	1.55	--	--	96	2400	--	0.52	2.8
	3/16/2016	12:20	--	--	--	7.09	8.0	4162	320	0.27	--	--	75	2000	--	0.66	0.91
	4/18/2016	14:47	--	--	--	7.28	7.2	4150	358	0.25	--	--	75	2000	--	0.68	0.89
	5/13/2016	11:15	3.46	4932.39	4928.93	7.24	7.3	4708	346	1.25	--	--	--	--	--	0.83	0.54
	6/15/2016	11:00	4.96	4932.39	4927.43	7.11	8.5	8190	456	1.43	--	--	225	4800	--	2.0	0.82
	7/11/2016	13:50	7	4932.39	4925.39	7.45	8.9	8456	428	3.53	--	--	215	5500	22	1.8	0.58
	8/16/2016	9:20	8.06	4932.39	4924.33	6.76	10.8	7649	382	2.12	41.6	0.93	205	4830	19	1.4	0.71
	9/16/2016	11:01	7.85	4932.39	4924.54	7.57	10.5	7616	414	0.45	--	--	200	4470	17	1.4	0.53
	10/11/2016	13:45	7.36	4932.39	4925.03	7.92	11.1	7428	408	9.47	--	--	194	4200	16	1.3	0.48
	11/15/2016	12:20	7.12	4932.39	4925.27	6.81	11.3	7010	400	0.20	--	--	180	3800	14	1.1	0.43
	12/5/2016	14:00	7.18	4932.39	4925.21	7.10	10.6	7040	390	0.37	--	--	185	3700	14	1.2	0.41
	3/9/2017	13:45	6	4932.39	4926.39	6.98	7.6	7169	320	0.19	--	--	190	4300	20	1.4	0.21
	4/20/2017	12:23	4.51	4932.39	4927.88	7.09	6.6	7472	416	0.23	--	--	210	4100	17	1.3	0.18
	5/8/2017	15:30	5.79	4932.39	4926.60	7.00	6.9	7748	428	0.43	--	--	220	4500	17	1.4	0.30
	5/22/2017	16:45	4.45	4932.39	4927.94	7.10	7.1	8031	436	0.80	--	--	220	4600	19	1.5	0.65
	6/5/2017	13:50	--	--	--	6.15	8.1	8150	440	--	--	--	210	4400	20	1.4	0.27
	6/28/2017	10:55	4.21	4932.39	4928.18	7.05	8.3	8600	440	0.02	--	--	220	4900	21	1.5	0.34
	7/5/2017	12:15	4.9	4932.39	4927.49	6.93	8.7	9261	540	0.58	--	--	240	5400	24	1.8	0.36
	7/26/2017	12:30	6.29	4932.39	4926.10	6.91	9.4	9446	560	0.19	--	--	240	5600	25	1.6	0.36
	8/15/2017	16:55	6.95	4932.39	4925.44	6.76	11.5	8919	376	0.35	-1.3	0.90	230	5400	22	1.7	0.45
	9/6/2017	13:05	7.38	4932.39	4925.01	6.9	10.5	8315	440	0.07	--	--	230	4900	20	1.5	0.3
	11/8/2017	13:00	6.75	4932.39	4925.64	7.19	10.6	8056	440	1.10	--	--	230	4500	18	1.3	0.69
	3/28/2018	12:23	6.75	4932.39	4925.64	7.23	6.5	7766	470	0.44	--	--	230	4200	17	1.5	0.29
	4/16/2018	11:50	6.88	4932.39	4925.51	7.39	6.6	7599	430	0.42	--	--	210	4100	17	1.2	0.19
	5/7/2018	12:10	6.63	4932.39	4925.76	--	6.3	7450	460	0.23	--	--	200	3900	16	1.3	0.19
	5/16/2018	12:20	6.33	4932.39	4926.06	--	6.3	7423	430	0.26	--	--	200	3900	15	1.3	0.17
	6/11/2018	--	5.92	4932.39	4926.47	--	6.9	7452	440	0.20	--	--	190	4300	17	1.3	0.24
	6/26/2018	12:05	5.89	4932.39	4926.50	6.97	7.4	7767	480	0.33	--	--	200	3900	16	1.3	0.21
	7/10/2018	12:25	6.95	4932.39	4925.44	7.00	8.1	7391	500	0.18	--	--	190	3900	16	1.3	0.20
	7/20/2018	14:24	6.7	4932.39	4925.69	7.01	8.6	7393	440	0.20	--	--	200	3900	16	1.2	0.21
	8/18/2018	12:19	7.85	4932.39	4924.54	6.95	9.0	7168	454	0.18	--	--	180	3700	15	1.2	0.19
	8/28/2018	16:15	7.91	4932.39	4924.48	6.99	11.3	7306	410	0.10	19.0	0.49	180	3800	16	1.2	0.21
	9/11/2018	14:18	7.84	4932.39	4924.55	6.95	10.2	6999	430	0.39	--	--	180	4000	15	1.3	0.21

**Geochemistry Data for Well 0858 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium (mg/L)	Sodium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Manganese (mg/L)	Silicon (mg/L)	Vanadium (mg/L)	PHREEQC Charge Balance (percent error)	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0858-01	5/13/2016	12:35	1.5	540	2770	450	26	0.70	--	--	3.57	0.34	0.10	-1.32	0.44	-0.80	-0.49
	6/15/2016	12:33	1.9	650	1630	320	21	8.0	--	--	5.01	0.38	0.12	-1.27	0.31	0.28	-0.68
	4/20/2017	11:00	0.76	530	1090	190	13	2.0	--	--	2.98	0.26	0.01	-1.33	-0.09	-0.31	-0.95
	5/8/2017	16:00	1.0	520	1190	200	13	4.2	13	<b>0.17</b>	-1.12	0.46	0.02	-1.45	0.35	0.22	-0.71
	5/22/2017	17:15	1.3	530	1300	210	14	6.9	14	<b>0.14</b>	1.70	0.49	0.02	-1.43	0.43	0.45	-0.66
	6/5/2017	14:10	1.3	580	1300	210	16	9.0	13	<b>0.14</b>	0.81	-0.52	0.07	-0.45	-1.63	-0.49	-1.71
	6/28/2017	13:10	1.5	530	1040	180	19	16	17	<b>0.11</b>	4.05	0.49	-0.02	-1.05	0.36	0.83	-0.73
	7/5/2017	12:40	1.6	530	1110	190	17	19	18	<b>0.22</b>	2.96	0.45	-0.01	-1.02	0.29	0.85	-0.75
0858-02	9/15/2015	9:27	0.90	410	680	100	14	5.9	--	--	-5.62	0.48	-0.12	-1.65	0.20	0.53	-0.89
	3/16/2016	NR	0.72	400	600	110	11	0.80	--	--	6.99	0.53	-0.20	-1.68	0.33	-0.28	-0.80
	5/13/2016	12:10	1.3	660	1580	340	20	1.1	--	--	3.76	0.32	0.14	-1.31	0.19	-0.65	-0.72
	6/15/2016	12:03	1.5	940	1330	280	20	1.6	--	--	3.20	0.48	0.28	-1.26	0.29	-0.47	-0.80
	7/11/2016	14:48	1.4	740	1380	250	20	2.3	--	--	-17.06	0.36	0.25	-1.36	0.11	-0.33	-0.85
	8/16/2016	10:40	1.3	720	1320	250	19	1.1	--	--	4.45	0.20	0.16	-1.24	-0.21	-0.79	-1.01
	9/16/2016	11:50	1.2	660	1220	220	18	0.90	--	--	-2.11	0.48	0.13	-1.46	0.34	-0.54	-0.75
	10/11/2016	14:30	1.2	600	1180	200	18	0.84	--	--	2.53	0.38	0.07	-1.43	0.13	-0.63	-0.85
	11/15/2016	13:08	1.1	570	1100	180	17	0.74	--	--	4.30	-0.30	0.03	-0.77	-1.26	-1.33	-1.56
	12/5/2016	14:50	1.1	590	1100	190	17	0.73	--	--	6.82	0.48	0.04	-1.49	0.31	-0.57	-0.77
	3/9/2017	14:44	0.87	540	1060	200	15	0.32	--	--	-6.09	-0.01	0.05	-1.30	-0.61	-1.39	-1.20
	4/20/2017	12:47	1.1	650	1180	210	17	0.60	--	--	1.12	0.47	0.11	-1.51	0.29	-0.73	-0.78
	5/8/2017	15:55	1.1	640	1260	220	17	0.68	12	<b>0.17</b>	-2.92	0.36	0.13	-1.42	0.10	-0.78	-0.86
	5/22/2017	17:10	1.2	670	1380	220	17	0.73	12	<b>0.14</b>	-0.46	0.51	0.14	-1.49	0.38	-0.63	-0.73
	6/5/2017	14:00	1.1	660	1400	220	16	0.69	16	<b>0.14</b>	1.12	-0.77	0.13	-0.21	-2.17	-1.92	-2.00
	6/28/2017	11:10	1.3	670	1420	230	19	1.2	13	<b>0.11</b>	2.21	0.39	0.14	-1.33	0.17	-0.53	-0.82
	7/5/2017	12:30	1.2	680	1410	230	19	0.9	12	<b>0.22</b>	2.01	0.14	0.14	-1.03	-0.34	-0.91	-1.08
	7/26/2017	12:45	1.4	730	1680	270	21	0.99	13	<b>0.40</b>	3.03	0.30	0.19	-1.20	0.01	-0.76	-0.89
	8/15/2017	16:05	1.4	680	1620	260	21	1.1	13	<b>0.11</b>	2.43	0.08	0.16	-1.25	-0.41	-0.89	-1.09
	9/6/2017	13:20	1.3	620	1470	220	18	0.99	13	<b>0.10</b>	-0.96	0.26	0.11	-1.26	-0.08	-0.71	-0.94
	11/8/2017	13:25	1.3	650	1350	220	20	1.0	13	<b>0.10</b>	-0.24	0.47	0.12	-1.41	0.31	-0.52	-0.76
	3/28/2018	12:40	0.99	560	1260	200	19	0.95	9.5	<b>0.10</b>	-3.34	0.30	0.06	-1.31	0.00	-0.63	-0.90
	4/16/2018	12:10	1.0	650	1440	220	17	0.94	11	<b>0.040</b>	6.66	0.61	0.11	-1.56	0.59	-0.40	-0.62
	5/7/2018	12:25	1.1	610	1420	210	16	0.98	11	<b>0.040</b>	5.71	0.41	0.08	-1.37	0.21	-0.55	-0.80
	5/16/2018	11:40	1.1	590	1370	210	17	0.99	10	<b>0.040</b>	5.17	0.42	0.06	-1.36	0.23	-0.52	-0.79
	6/11/2018	12:35	1.1	570	1350	200	17	1.0	11	<b>0.040</b>	-0.16	0.38	0.06	-1.36	0.15	-0.54	-0.83
	6/26/2018	12:20	1.1	600	1400	220	18	1.0	12	<b>0.040</b>	5.51	0.45	0.07	-1.35	0.31	-0.49	-0.74
	7/10/2018	12:45	1.2	600	1440	230	18	1.0	11	<b>0.040</b>	8.32	0.44	0.06	-1.35	0.30	-0.51	-0.74
	7/20/2018	14:40	1.1	590	1400	220	19	1.0	10	<b>0.040</b>	6.27	0.46	0.06	-1.35	0.35	-0.47	-0.72
	8/18/2018	12:55	1.1	540	1270	190	18	1.0	12	<b>0.040</b>	3.04	0.35	0.02	-1.29	0.09	-0.54	-0.86

**Geochemistry Data for Well 0858 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium (mg/L)	Sodium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Manganese (mg/L)	Silicon (mg/L)	Vanadium (mg/L)	PHREEQC Charge Balance (percent error)	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
	8/28/2018	15:45	1.1	550	1410	200	18	1.1	11	0.040	8.74	0.30	0.02	-1.38	0.00	-0.56	-0.90
	9/11/2018	14:35	1.2	540	1410	200	17	1.0	12	0.040	7.24	0.35	0.01	-1.28	0.11	-0.55	-0.84
0858-03	9/15/2015	10:26	0.85	400	630	110	13	1.5	--	--	-4.89	0.39	-0.14	-1.66	0.06	-0.14	-0.93
	3/16/2016	12:35	0.76	420	610	120	11	0.69	--	--	6.43	0.39	-0.17	-1.51	0.07	-0.50	-0.92
	4/18/2016	14:14	0.76	410	600	110	11	0.66	--	--	4.87	0.35	-0.17	-1.52	-0.04	-0.55	-0.99
	5/13/2016	11:45	0.85	470	650	130	12	0.73	--	--	2.94	0.24	-0.09	-1.35	-0.23	-0.68	-1.07
	6/15/2016	11:32	1.5	860	1400	290	19	1.5	--	--	4.53	0.22	0.24	-1.07	-0.19	-0.73	-1.01
	7/11/2016	14:20	1.4	760	1470	270	19	1.1	--	--	-25.15	0.37	0.29	-1.42	0.14	-0.67	-0.83
	8/16/2016	11:15	1.4	740	1380	260	19	1.4	--	--	5.21	0.20	0.18	-1.23	-0.20	-0.70	-1.01
	9/16/2016	11:25	1.3	690	1260	230	18	1.2	--	--	0.91	0.61	0.15	-1.59	0.60	-0.31	-0.62
	10/11/2016	14:08	1.3	660	1250	220	19	1.2	--	--	1.58	0.44	0.12	-1.45	0.25	-0.46	-0.79
	11/15/2016	12:45	1.2	640	1220	210	18	1.1	--	--	5.43	0.01	0.09	-1.03	-0.62	-0.91	-1.23
	12/5/2016	14:25	1.2	640	1220	210	18	1.0	--	--	7.08	0.46	0.09	-1.51	0.28	-0.50	-0.78
	3/9/2017	14:14	1.1	590	1210	200	15	0.62	--	--	-5.29	0.33	0.09	-1.44	0.04	-0.81	-0.89
	4/20/2017	12:15	1.2	620	1280	220	16	0.95	--	--	1.11	0.09	0.10	-1.16	-0.43	-0.89	-1.12
	5/8/2017	15:35	1.2	630	1340	230	16	1.0	12	0.17	-1.88	0.45	0.12	-1.52	0.31	-0.52	-0.74
	5/22/2017	16:50	1.3	640	1410	230	17	1.1	12	0.14	-1.31	0.48	0.13	-1.49	0.37	-0.45	-0.71
	6/5/2017	13:55	1.2	660	1470	240	17	1.1	11	0.14	1.90	-0.65	0.13	-0.22	-1.89	-1.60	-1.84
	6/28/2017	11:00	1.3	690	1510	250	19	1.2	12	0.11	2.11	0.43	0.16	-1.37	0.27	-0.51	-0.76
	7/5/2017	12:20	1.6	740	1650	280	20	1.4	12	0.22	1.80	0.10	0.20	-1.00	-0.37	-0.82	-1.07
	7/26/2017	12:35	1.5	700	1760	280	20	1.6	13	0.40	1.50	0.32	0.17	-1.15	0.09	-0.52	-0.83
	8/15/2017	16:35	1.4	650	1680	260	20	1.6	13	0.11	1.74	0.05	0.15	-1.23	-0.45	-0.74	-1.10
	9/6/2017	13:12	1.3	620	1510	230	17	1.4	12	0.10	-0.86	0.27	0.12	-1.24	-0.04	-0.55	-0.91
	11/8/2017	13:15	1.3	640	1390	220	20	1.3	13	0.10	-0.28	0.68	0.12	-1.66	0.75	-0.18	-0.54
	3/28/2018	12:33	1.0	540	1200	190	18	1.2	9.0	0.10	-5.99	0.37	0.05	-1.42	0.14	-0.43	-0.83
	4/16/2018	12:00	1.1	610	1450	220	16	1.2	11	0.040	6.27	0.64	0.08	-1.68	0.69	-0.23	-0.56
	5/7/2018	12:15	1.1	600	1440	200	16	1.2	10	0.040	5.68	0.40	0.07	-1.38	0.17	-0.46	-0.83
	5/16/2018	12:30	1.0	570	1330	200	15	1.2	9.8	0.040	2.86	0.42	0.05	-1.34	0.23	-0.42	-0.79
	6/11/2018	12:25	1.2	530	1320	190	17	1.3	11	0.040	0.17	0.35	0.03	-1.37	0.09	-0.42	-0.85
	6/26/2018	12:10	1.1	580	1380	210	17	1.2	11	0.040	4.84	0.44	0.05	-1.32	0.29	-0.41	-0.75
	7/10/2018	12:35	1.2	590	1430	220	17	1.4	10	0.040	8.99	0.43	0.05	-1.37	0.28	-0.36	-0.75
	7/20/2018	14:30	1.1	570	1380	220	18	1.4	10	0.040	6.88	0.44	0.04	-1.36	0.32	-0.33	-0.73
	8/18/2018	12:39	1.1	520	1250	190	18	1.3	11	0.040	0.99	0.42	0.00	-1.28	0.25	-0.33	-0.77
	8/28/2018	16:00	1.1	550	1380	200	18	1.3	11	0.040	9.69	0.29	0.02	-1.41	-0.02	-0.49	-0.91
	9/11/2018	14:25	1.2	540	1400	200	17	1.2	12	0.040	8.79	0.33	0.01	-1.30	0.07	-0.48	-0.86

**Geochemistry Data for Well 0858 (continued)**

Sample Port	Date	Time	Molybdenum (mg/L)	Calcium (mg/L)	Sodium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Manganese (mg/L)	Silicon (mg/L)	Vanadium (mg/L)	PHREEQC Charge Balance (percent error)	Calcite SI	Gypsum SI	CO <sub>2</sub> (g) SI	Dolomite (disordered) SI	Rhodochrosite SI	Magnesite SI
0858-04	9/15/2015	11:31	0.79	390	620	110	13	1.6	--	--	-3.48	0.32	-0.16	-1.63	-0.06	-0.17	-0.99
	3/16/2016	12:20	0.75	410	610	120	11	0.81	--	--	8.42	0.34	-0.18	-1.59	-0.01	-0.47	-0.95
	4/18/2016	14:47	0.74	400	590	120	11	0.77	--	--	5.90	0.57	-0.19	-1.73	0.45	-0.25	-0.72
	5/13/2016	11:15	0.83	450	640	130	12	0.83	--	--	81.73	0.78	NA	-1.72	0.83	-0.10	-0.55
	6/15/2016	11:00	1.4	900	1260	290	18	1.7	--	--	5.07	0.66	0.25	-1.50	0.67	-0.25	-0.59
	7/11/2016	13:50	1.4	790	1400	270	18	1.4	--	--	-3.29	0.88	0.23	-1.86	1.14	-0.06	-0.34
	8/16/2016	9:20	1.4	750	1370	260	19	1.5	--	--	2.90	0.16	0.19	-1.21	-0.30	-0.72	-1.06
	9/16/2016	11:01	1.3	720	1220	230	18	1.4	--	--	0.91	0.99	0.16	-2.00	1.33	0.11	-0.26
	10/11/2016	13:45	1.2	670	1230	220	18	1.3	--	--	2.89	1.30	0.12	-2.36	1.97	0.43	0.06
	11/15/2016	12:20	1.1	630	1190	210	18	1.2	--	--	6.02	0.20	0.08	-1.24	-0.23	-0.67	-1.03
	12/5/2016	14:00	1.2	630	1180	200	18	1.1	--	--	6.72	0.49	0.08	-1.54	0.32	-0.43	-0.77
	3/9/2017	13:45	1.0	580	1140	190	15	0.94	--	--	-4.50	0.21	0.08	-1.50	-0.21	-0.73	-1.03
	4/20/2017	12:23	1.1	620	1180	210	16	1.1	--	--	0.26	0.47	0.09	-1.50	0.32	-0.43	-0.75
	5/8/2017	15:30	1.2	660	1260	220	16	1.1	11	<b>0.17</b>	-1.33	0.40	0.13	-1.40	0.17	-0.54	-0.83
	5/22/2017	16:45	1.2	660	1380	230	17	1.2	11	<b>0.14</b>	1.00	0.50	0.13	-1.49	0.40	-0.41	-0.71
	6/5/2017	13:50	1.3	660	1420	230	17	1.2	11	<b>0.14</b>	4.65	-0.43	0.12	-0.54	-1.47	-1.34	-1.64
	6/28/2017	10:55	1.3	710	1520	260	19	1.3	12	<b>0.11</b>	3.58	0.48	0.17	-1.44	0.36	-0.44	-0.71
	7/5/2017	12:15	1.4	750	1620	270	20	1.4	11	<b>0.22</b>	0.35	0.44	0.20	-1.24	0.29	-0.48	-0.75
	7/26/2017	12:30	1.6	760	1750	290	20	1.7	13	<b>0.40</b>	1.92	0.44	0.21	-1.20	0.30	-0.41	-0.73
	8/15/2017	16:55	1.4	670	1670	270	20	1.5	13	<b>0.11</b>	1.26	0.07	0.16	-1.22	-0.40	-0.77	-1.08
	9/6/2017	13:05	1.3	640	1530	230	17	1.4	12	<b>0.10</b>	0.34	0.28	0.13	-1.29	-0.04	-0.56	-0.92
	11/8/2017	13:00	1.3	620	1360	220	20	1.3	13	<b>0.10</b>	-0.12	0.57	0.10	-1.58	0.54	-0.27	-0.63
	3/28/2018	12:23	0.95	560	1250	200	18	1.2	8.3	<b>0.10</b>	-2.59	0.61	0.06	-1.59	0.62	-0.21	-0.59
	4/16/2018	11:50	1.1	640	1440	230	17	1.3	10	<b>0.040</b>	8.63	0.80	0.09	-1.79	0.99	-0.07	-0.40
	5/7/2018	12:10	1.0	580	1310	200	16	1.3	11	<b>0.040</b>	4.44	0.41	0.05	-1.36	0.20	-0.40	-0.81
	5/16/2018	12:20	0.98	560	1290	200	15	1.1	9.5	<b>0.040</b>	3.63	0.36	0.04	-1.39	0.13	-0.50	-0.84
	6/11/2018	NR	1.0	550	1300	190	17	1.2	11	<b>0.040</b>	-2.26	0.34	0.05	-1.38	0.07	-0.48	-0.87
	6/26/2018	12:05	1.0	590	1360	210	16	1.2	10	<b>0.040</b>	6.33	0.40	0.05	-1.32	0.20	-0.45	-0.80
	7/10/2018	12:25	1.1	590	1400	220	16	1.2	9.7	<b>0.040</b>	7.78	0.45	0.05	-1.33	0.32	-0.41	-0.73
	7/20/2018	14:24	1.0	580	1360	210	18	1.2	9.7	<b>0.040</b>	6.59	0.40	0.05	-1.39	0.20	-0.45	-0.80
	8/18/2018	12:19	1.1	540	1220	190	18	1.3	11	<b>0.040</b>	3.42	0.33	0.02	-1.32	0.06	-0.44	-0.88
	8/28/2018	16:15	1.1	550	1370	200	18	1.2	11	<b>0.040</b>	7.61	0.33	0.03	-1.40	0.07	-0.49	-0.86
	9/11/2018	14:18	1.2	550	1400	200	16	1.2	11	<b>0.040</b>	5.28	0.30	0.03	-1.34	0.01	-0.52	-0.89

Note: Bold values indicate data that is below the method detection limit.

**Abbreviations:**

µS/cm = microsiemens per centimeter  
mV = millivolt  
NR = not recorded  
NTU = nephelometric turbidity unit  
SI = saturation index  
TOC = top of casing