



December 18, 2023

Ms. Katie Haley
Town Manager
Town of Fryeburg
16 Lovewell Pond Road
Fryeburg, Maine 04037

RE: Q3 2023 Reporting – Rainmaker Spring Site (on behalf of Poland Spring)

INTRODUCTION

Luetje Geological Services (LGS), an independent hydrogeologic consulting firm, has been contracted by Poland Spring to collect and compile the monitoring data from the Rainmaker Spring site. This quarterly report (Q3 – July - September 2023) presents monitoring results for the Rainmaker Spring site and satisfies the requirements under local Town Ordinance 17G: *Groundwater and/or Spring Water Extraction*, the Approved Land Use Authorization. Monitoring activities include the following:

- Weekly depth to water measurements in five monitoring wells and four piezometers;
- Weekly monitoring of surface water elevation on Wards Pond at Route 113 and west of the site proximate to Spring 2, when possible;
- Weekly flow measurements from Spring 1 and 2, when possible;
- Record of groundwater withdrawal (gallons pumped); and
- Precipitation tracking (Fryeburg Eastern Slopes Airport (ICAO Station KIZG, Northeast Regional Climate Center)).

Figure 1 (Site Map) is provided at the end of this letter report and shows all monitoring locations.

GROUNDWATER

Groundwater levels are measured in five monitoring wells at locations shown in Figure 1. All monitoring data is tabulated and located in Table 1. A graphical representation of groundwater elevations, and weekly precipitation, is provided in Figure 2.

As discussed in the Q2 2023 Rainmaker Spring Report, beginning with the June 7th monitoring event and extending to the August 18th monitoring event, erratic groundwater level readings were being observed at most monitoring well locations, caused by a intermittently malfunctioning water level meter. To better visualize groundwater elevations over this time period, Figure 2.1 is included and presents data for the 2023 calendar year. As seen in Figure 2.1, prior to the June 7th monitoring event, groundwater level trends in this monitoring well network clearly track together. This is typical for wells that are screened in the same unconfined sand and gravel aquifer and are in close proximity to one another. During the June 7th monitoring event, an unusual deviation in water levels between MW-1 and MW-2 can be seen. Other erroneous measurements can be identified between June 7 and August 18, 2023. A new water level meter was employed during the August 24th monitoring event, and groundwater elevations once again track together.

Perhaps the most accurate groundwater level trend can be seen from MW-3 data. It appears that only one erroneous measurement was recorded (during the 8/18/2023 monitoring round) and is indicated in Figure 2.1. Using the record from MW-3 to describe water elevations through Q3 2023, a general decline in groundwater levels can be observed. This decline, approximately ½ foot, is representative of typical summer groundwater conditions in the Wards Brook Aquifer.

The Palmer Hydrological Drought Index measures hydrological impacts of drought which take longer to develop and longer to recover from, characterizing groundwater conditions more accurately. According to the Palmer Hydrological Drought Index, the Fryeburg area experienced moderate to very moist conditions from July through September 2023¹, resulting in average to above average groundwater levels across the site for this time of year.

SURFACE WATER

Surface water monitoring is conducted at two locations. SG-1 is located in Wards Pond west of Spring-2. WPMP-1 is located on the upstream side of Route 113 in Wards Pond (see Figure 1). A graphical representation of surface water elevations is shown in Figure 3.

At SG-1, flooded conditions were recorded through the entirety of July. Measurements were able to be made for most of August and September. Surface water elevations over that time ranged from 398.66 feet to 399.92 feet NAVD88. At WPMP-1, surface water elevations ranged between 396.97 to 397.32 feet NAVD88 during Q3 2023.

PIEZOMETER WATER LEVELS

Water levels are measured at two piezometers located adjacent to each spring. PZ-21D and PZ-21S are located near Spring 1 and P-1 and P-2 are located near Spring 2 (see Figure 1). A graphical representation of piezometer water elevations is shown in Figure 3 and Figure 3.1

As discussed in the above groundwater section, similar erroneous water level measurements can be observed in the record for both sets of piezometers, and are indicated in Figure 3.1. Removing these erroneous measurements would indicate that the water levels in all piezometers remained relatively stable over Q3 2023.

SPRING FLOW

During Q3 2023, flow from Spring-1 ranged from 8.57 to 12.00 liters per minute. Spring-2 flow is more difficult to measure due to its lack of gradient; however, flowing conditions were observed throughout Q3 2023. Flow measurement data is presented in Table 1.

PRECIPITATION

Precipitation data has been obtained from the Fryeburg Eastern Slopes Airport (ICAO Station KIZG, Northeast Regional Climate Center), located approximately two miles to the south of the site. Missing data from the airport station are supplemented with data collected from an on-site rain gauge located at the Evergreen Spring load station. During Q3 2023 (between the dates 6/30/2023 – 9/28/2023), KIZG recorded 18.28 inches of precipitation (Figure 2 and Figure 3).

1. <https://www.ncei.noaa.gov/access/monitoring/historical-palmers/>

WITHDRAWALS

Poland Spring did not withdraw any water from the Rainmaker Spring site production well during Q3 2023.

CONCLUSIONS

- During Q3 2023, groundwater elevations demonstrated a typical summer declining trend. Piezometer water levels remained relatively stable during Q3 2023.
- During Q3 2023, surface water levels at SG-1 ranged from 398.66 to 399.92 feet NAVD88. Surface water levels at WPMP-1 ranged from 396.97 to 397.32 feet NAVD88.
- During Q3 2023 (between the dates 6/30/2023 – 9/28/2023), KIZG recorded 18.28 inches of precipitation.
- During Q3 2023, flow from Spring-1 ranged from 8.57 to 12.00 liters per minute. Flow from Spring-2 is more difficult to measure; however, flowing conditions were observed throughout Q3 2023.
- Poland Spring did not withdraw any water from the Rainmaker Spring site production well during Q3 2023.

If you have any questions regarding the data included in this report, please do not hesitate to contact me at (207) 415-9898.

Sincerely,
Luetje Geological Services, LLC

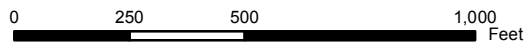


Ed Luetje L.G.

cc: Poland Spring (Mr. Mark Dubois)
Poland Spring (Mr. Iain Kurry)
Town of Fryeburg, CEO ()



FIGURE 1
RAINMAKER SPRING SITE MAP
FRYEBURG, MAINE



Notes:
1. Imagery provided by USDA National Agricultural
Imagery Program 2018.

N
Date:
1/27/2022

LCS
Luetje Geological Services
153 Flying Point Road
Fryeburg, Maine 04032
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FIGURE 2
GROUNDWATER ELEVATION DATA - WEEKLY PRECIPITATION

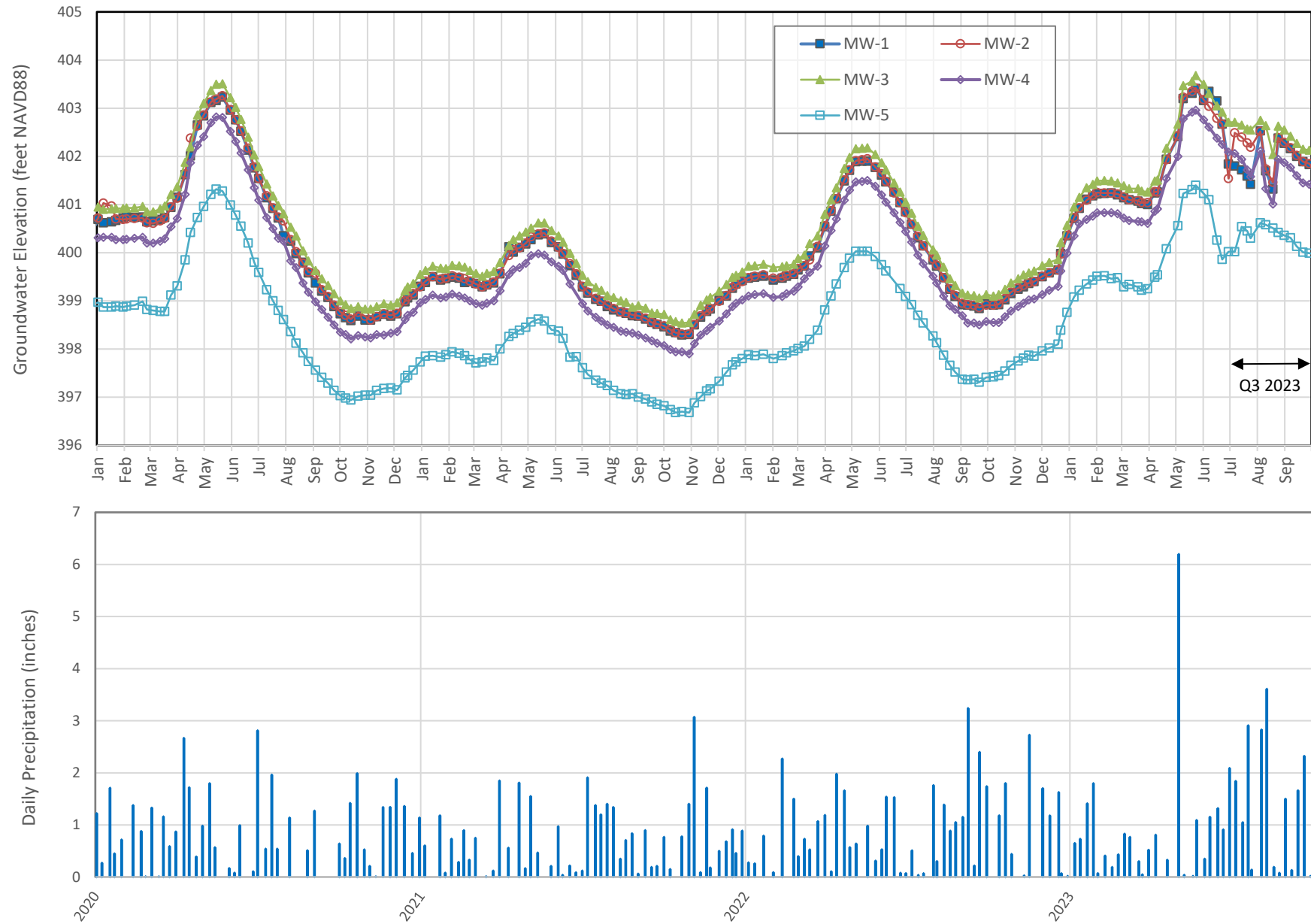


FIGURE 2.1
GROUNDWATER ELEVATION DATA - WEEKLY PRECIPITATION
2023

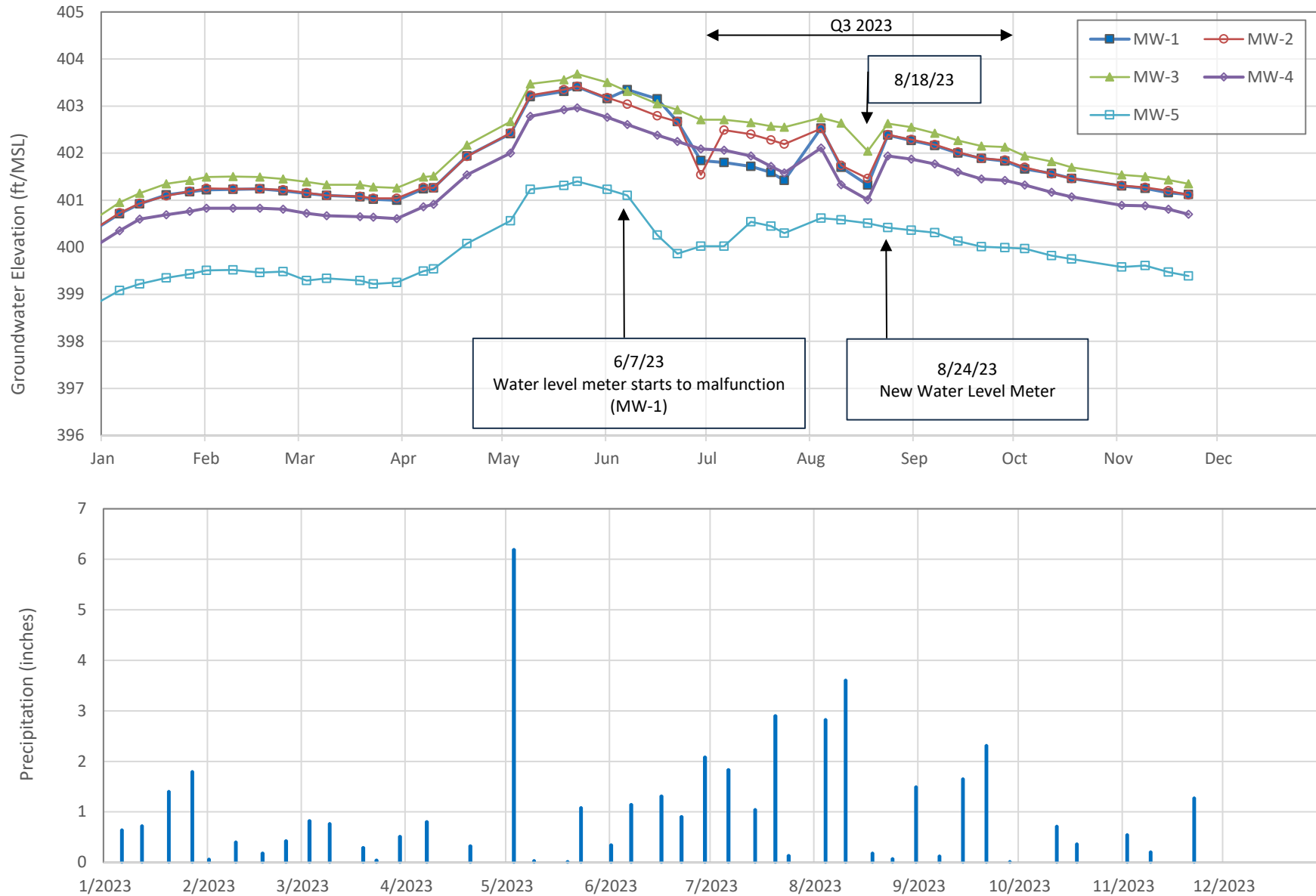


FIGURE 3
SURFACE WATER and PIEZOMETER ELEVATION DATA - WEEKLY PRECIPITATION

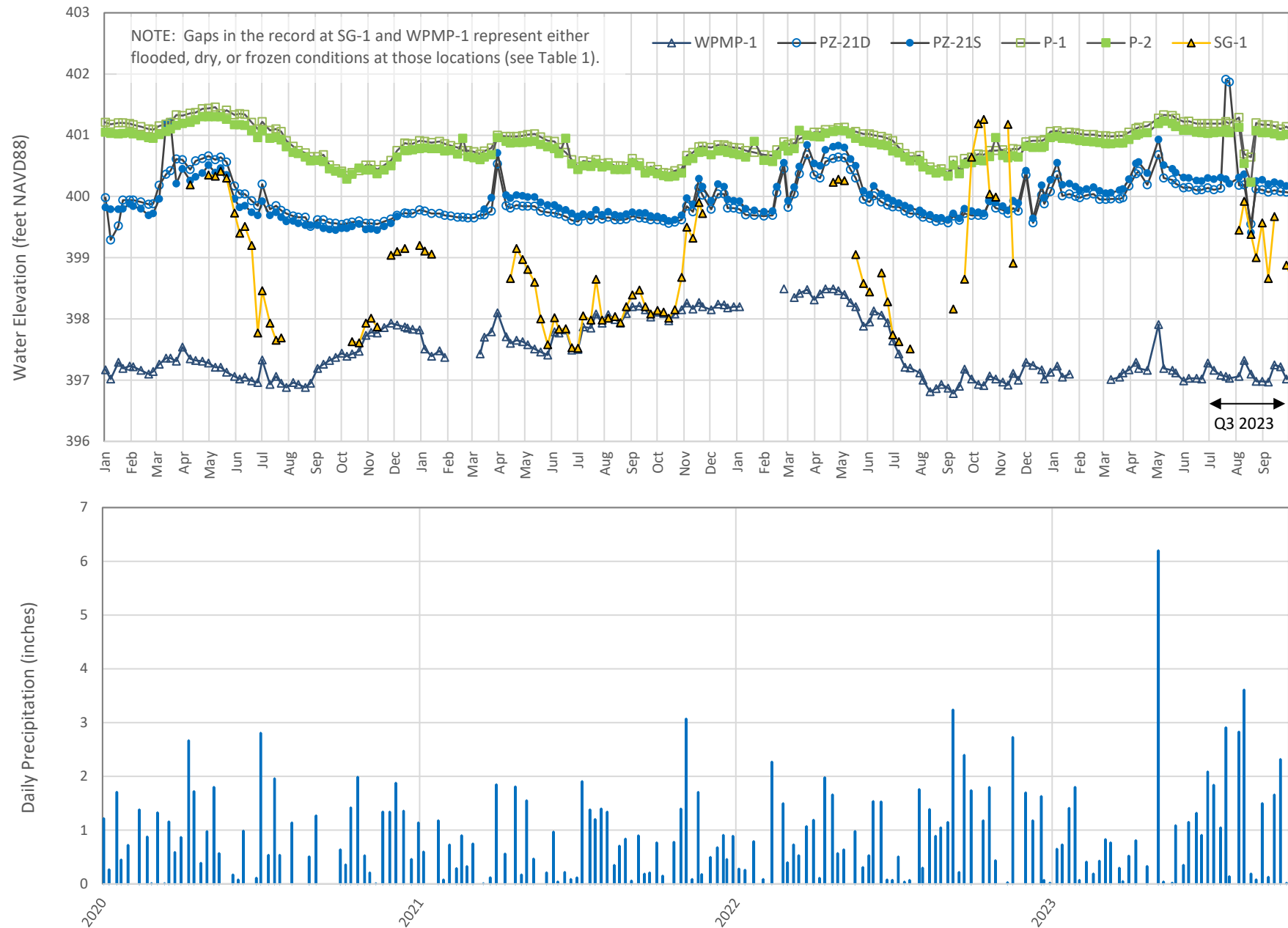


FIGURE 3.1
SURFACE WATER and PIEZOMETER ELEVATION DATA - WEEKLY PRECIPITATION

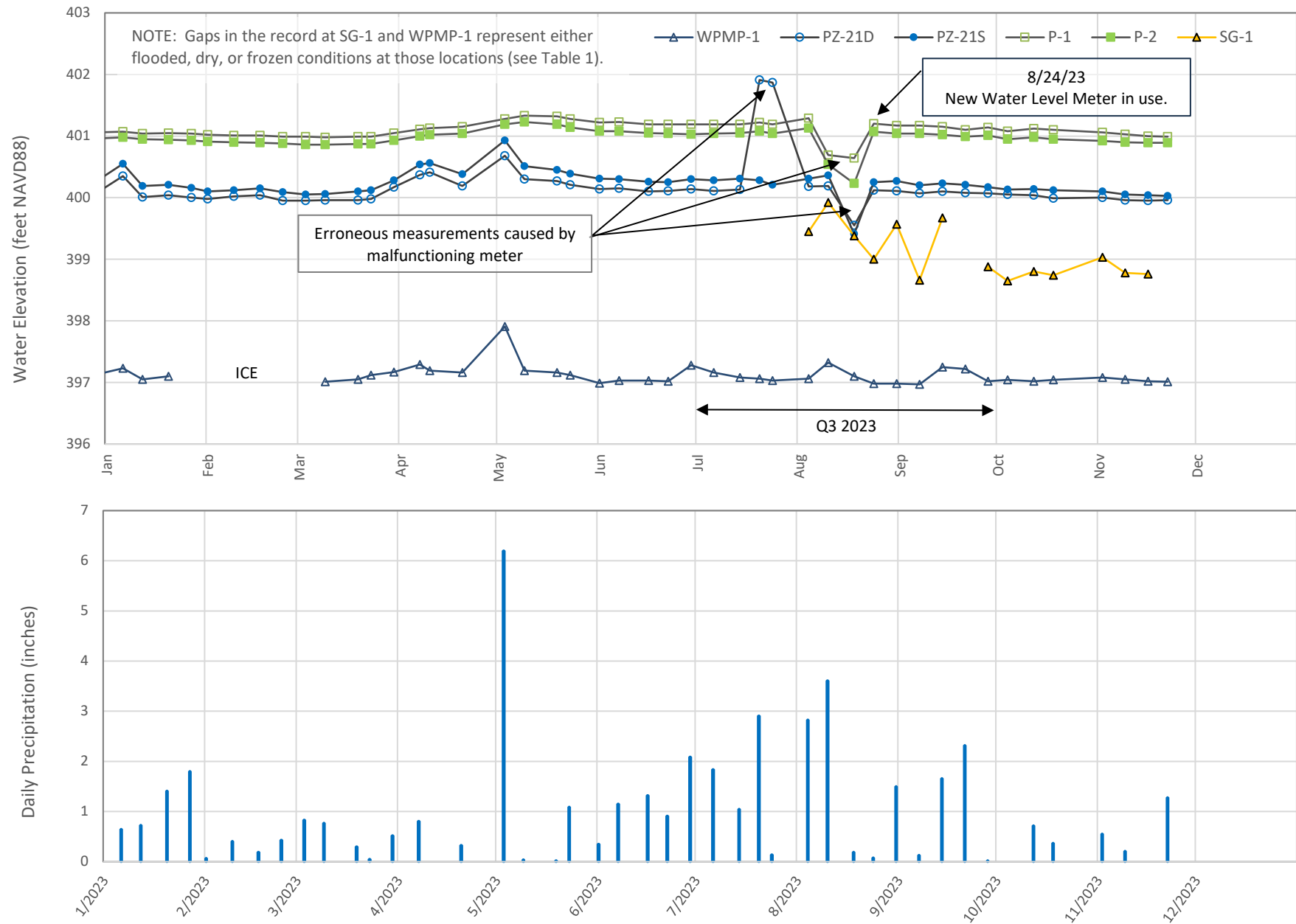


TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

	GROUNDWATER ELEVATION (feet NAVD88)								PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT			
	MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1			Spring-1	Spring-2	KIZG
New Measuring Point (MP)Elevations (feet NAVD88)		418.75		419.59		421.26		419.75		423.11		403.99		405.40		406.03		404.35			SG-1 (2019)	400.08				
Old Measuring Point (MP)Elevation		418.27		419.10		420.79		419.30		422.53		403.27		404.76		405.35		403.67		401.22		SG-1A (2019)	399.49			
Date	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation			Inches	
7/5/2017																									5.12	
7/12/2017																									0.62	
7/19/2017																									1.24	
7/26/2017																									0.34	
8/2/2017																									0.13	
8/9/2017																									0.67	
8/16/2017																									0.04	
8/23/2017	18.56	400.19	19.31	400.28	20.88	400.38	19.88	399.87	24.39	398.72	3.85	400.14	5.45	399.95	5.04	400.99	3.44	400.91	1.44	399.78				UW	1.25	
9/1/2017	18.72	400.03	19.56	400.03	21.04	400.22	20.06	399.69	24.55	398.56	3.98	400.01	5.58	399.82	5.06	400.97	3.48	400.87	NM	NM			UW	0.66	0.00	
9/7/2017	18.79	399.96	19.61	399.98	21.10	400.16	20.12	399.63	24.61	398.50	3.30	400.69	5.00	400.40	4.65	401.38	2.99	401.36	1.41	399.81			UW	1.32	5.78	
9/14/2017	18.88	399.87	19.70	399.89	21.18	400.08	20.22	399.53	24.75	398.36	3.95	400.04	5.55	399.85	5.02	401.01	3.42	400.93	1.43	399.79			UW	1.25	0.03	
9/20/2017	18.89	399.86	19.79	399.80	21.26	400.00	20.30	399.45	24.81	398.30	3.90	400.09	5.58	399.82	5.06	400.97	3.48	400.87	1.46	399.76			UW	1.00	0.45	
9/27/2017	18.98	399.77	20.03	399.56	21.35	399.91	20.39	399.36	24.86	398.25	3.85	400.14	5.61	399.79	5.10	400.93	3.50	400.85	1.51	399.71			UW	0.55	0.00	
10/6/2017	19.28	399.47	20.11	399.48	21.60	399.66	20.80	398.95	25.06	398.05	3.77	400.22	5.55	399.85	5.11	400.92	3.54	400.81	1.55	399.67			UW	0.52	0.01	
10/12/2017	19.46	399.29	20.30	399.29	21.80	399.46	20.78	398.97	25.23	397.88	3.60	400.39	5.18	400.22	5.08	400.95	3.49	400.86	NM	NM			UW	0.65	0.04	
10/18/2017	19.50	399.25	20.34	399.25	21.81	399.45	20.84	398.91	25.28	397.83	3.59	400.40	5.16	400.24	5.11	400.92	3.50	400.85	1.15	400.07	1.56	400.14	400.16	UW	0.65	0.81
10/25/2017	19.30	399.45	20.15	399.44	21.63	399.63	20.74	399.01	25.16	397.95	1.95	402.04	3.74	401.66	NM	NM	NM	NM	NM	UW	UW	uw	UW	UW	2.90	
11/1/2017	19.38	399.37	20.20	399.39	21.68	399.58	20.70	399.05	25.25	397.86	1.45	402.54	2.98	402.42	NM	NM	NM	NM	NM	UW	UW	uw	UW	UW	4.94	
11/8/2017	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.75
11/14/2017	18.86	399.89	19.71	399.88	21.13	400.13	20.21	399.54	24.72	398.39	3.57	400.42	5.17	400.23	4.83	401.20	3.25	401.10	NM	NM		ice	UW	1.20	0.17	
11/20/2017	18.83	399.92	19.65	399.94	21.12	400.14	20.17	399.58	24.68	398.43	3.17	400.82	4.89	400.51	4.75	401.28	3.12	401.23	0.65	400.57		ice	UW	UW	1.22	
11/29/2017	18.85	399.90	19.66	399.93	21.14	400.12	20.21	399.54	24.79	398.32	3.70	400.29	5.27	400.13	4.87	401.16	3.30	401.05	1.33	399.89		uw	UW	UW	0.28	
12/6/2017	18.79	399.96	19.63	399.96	21.08	400.18	20.18	399.57	24.86	398.25	3.41	400.58	5.12	400.28	4.81	401.22	3.21	401.14	0.81	400.41		ice	UW	UW	1.24	
12/15/2017	18.90	399.85	19.68	399.91	21.17	400.09	20.23	399.52	24.97	398.14	3.63	400.36	5.22	400.18	4.90	401.13	3.31	401.04	1.30	399.92		ice	UW	UW	0.86	
12/21/2017	18.87	399.88	19.68	399.91	21.13	400.13	20.26	399.49	24.98	398.13	3.75	400.24	5.38	400.02	4.91	401.12	3.34	401.01	1.42	399.80		ice	UW	0.88	0.06	
12/29/2017	18.80	399.95	19.64	399.95	21.06	400.20	20.19	399.56	24.85	398.26	3.72	400.27	5.35	400.05	4.90	401.13	3.33	401.02	1.41	399.81		ice	ice	0.85	1.12	
1/3/2018	18.79	399.96	19.60	399.99	21.07	400.19	20.18	399.57	24.81	398.30	3.84	400.15	5.45	399.95	4.91	401.12	3.36	400.99	ice	ice		ice	ice	0.83	0.00	
1/9/2018	18.96	399.79	19.75	399.84	21.23	400.03	20.33	399.42	24.83	398.28	3.81	400.18	5.43	399.97	4.95	401.08	3.37	400.98	1.50	399.72		ice	ice	0.81	0.00	
1/19/2018	18.68	400.07	19.50	400.09	20.96	400.30	20.04	399.71	24.60	398.51	3.27	400.72	4.85	400.55	4.77	401.26	3.17	401.18	0.99	400.23		ice	ice	2.63		
1/26/2018	18.50	400.25	19.35	400.24	20.81	400.45	19.91	399.84	24.53	398.58	3.30	400.69	4.87	400.53	4.79	401.24	3.19	401.16	0.99	400.23		ice	ice	ice	1.32	
2/1/2018	18.61	400.14	19.52	400.07	21.07	400.19	20.12	399.63	24.61	398.50	3.42	400.57	4.91	400.49	4.88	401.15	3.24	401.11	1.47	399.75		ice	ice	ice	0.01	
2/9/2018	18.47	400.28	19.31	400.28	20.75	400.51	19.86	399.89	24.60	398.51	3.81	400.18	5.45	399.95	4.87	401.16	3.31	401.04	1.55	399.67		ice	NM	1.55		
2/16/2018	18.43	400.32	19.23	400.36	20.68	400.58	19.79	399.96	24.44	398.67	3.80	400.19	5.41	399.99	4.89	401.14	3.33	401.02	1.51	399.71		ice	NM	0.44		
2/19/2018	18.41	400.34	19.20	400.39	20.55	400.71	19.77	399.98	24.39	398.72	3.81	400.18	5.43	399.97	4.90	401.13	3.33	401.02	1.49	399.73		ice	NM	0.20		
2/28/2018	18.42	400.33	19.27	400.32	20.60	400.66	19.74	400.01	24.37	398.74	3.79	400.20	5.44	399.96	4.92	401.11	3.32	401.03	1.38	399.84		ice	NM	0.53		
3/9/2018	18.30	400.45	19.11	400.48	20.56	400.70	19.70	400.05	24.35	398.76	3.77	400.22	5.25	400.15	4.84	401.19	3.28	401.07	1.38	399.84		ice	UW	NM	1.13	
3/12/2018	18.17	400.58	19.06	400.53	20.51	400.75	19.61	400.14	24.30	398.81	3.74	400.25	5.35	400.05	4.84	401.19	3.27	401.08	1.45	399.77		ice	UW	NM	0.00	
3/20/2018	18.12	400.63	18.95	400.64	20.39	400.87	19.53	400.22	24.18	398.93	3.81	400.18	5.46	399.94	4.86	401.17	3.29	401.06	1.59	399.63		ice	UW	NM	0.66	
3/27/2018	18.10	400.65	18.92	400.67	20.37	400.89	19.50	400.25	24.17	398.94	3.78	400.21	5.40	400.00	4.88	401.15	3.33	401.02	1.48	399.74		ice	UW	NM	0.06	
4/5/2018	17.99	400.76	18.81	400.78	20.25	401.01	19.39	400.36	24.08	399.03	3.13	400.86	4.76	400.64	4.68	401.35	3.05	401.30	0.70	400.52		uw	UW	UW	0.88	
4/13/2018	17.73	401.02	18.60	400.99																						

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.	GROUNDWATER ELEVATION (feet NAVD88)										PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT
	MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1		Spring-1	Spring-2	KIZG
New Measuring Point (MP)Elevations (feet NAVD88)		418.75		419.59		421.26		419.75		423.11		403.99		405.40		406.03		404.35			SG-1 (2019)	400.08			
Old Measuring Point (MP)Elevation		418.27		419.10		420.79		419.30		422.53		403.27		404.76		405.35		403.67		401.22		SG-1A (2019)	399.49		
Date	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation			Inches
10/7/2018	20.14	398.61	20.96	398.63	22.40	398.86	21.49	398.26	26.02	397.09	4.40	399.59	5.92	399.48	5.59	400.44	3.97	400.38	2.98	398.24	1.70	398.40	5.45	2.48	0.83
10/10/2018	20.16	398.59	20.97	398.62	22.41	398.85	21.50	398.25	25.98	397.13	4.40	399.59	5.93	399.47	5.60	400.43	3.99	400.36	2.91	398.31	1.77	398.33	4.29	1.50	0.00
10/18/2018	20.03	398.72	20.87	398.72	22.35	398.91	21.35	398.40	25.87	397.24	4.37	399.62	5.91	399.49	5.56	400.47	3.96	400.39	2.63	398.59	1.19	398.91	4.29	3.75	1.16
10/23/2018	19.97	398.78	20.80	398.79	22.23	399.03	21.31	398.44	25.75	397.36	4.32	399.67	5.84	399.56	5.41	400.62	3.82	400.53	2.65	398.57	1.09	398.73	3.75	2.14	0.63
11/2/2018	19.91	398.84	20.71	398.88	22.19	399.07	21.28	398.47	25.71	397.40	4.26	399.73	5.76	399.64	5.30	400.73	3.73	400.62	2.05	399.17	0.59	399.23	UW	UW	2.39
11/9/2018	19.73	399.02	20.56	399.03	22.03	399.23	21.06	398.69	25.54	397.57	4.25	399.74	5.79	399.61	5.33	400.70	3.75	400.60	2.06	399.16	0.90	398.92	UW	1.33	2.48
11/18/2018	19.40	399.35	20.26	399.33	21.69	399.57	20.77	398.98	25.26	397.85	4.13	399.86	5.71	399.69	5.19	400.84	3.60	400.75	1.94	399.28	ice	ice	UW	UW	1.84
11/20/2018	19.42	399.33	20.23	399.36	21.71	399.55	20.75	399.00	25.27	397.84	4.13	399.86	5.72	399.68	5.19	400.84	3.61	400.74	1.86	399.36	ice	ice	UW	UW	0.25
11/30/2018	19.41	399.34	20.21	399.38	21.74	399.52	20.73	399.02	25.24	397.87	3.94	400.05	5.53	399.87	5.15	400.88	3.57	400.78	1.61	399.61	ice	ice	ice	ice	1.16
12/6/2018	19.31	399.44	20.13	399.46	21.61	399.65	20.65	399.10	25.18	397.93	4.12	399.87	5.65	399.75	5.14	400.89	3.55	400.80	2.00	399.22	ice	ice	ice	ice	0.88
12/13/2018	19.29	399.46	20.15	399.44	21.66	399.60	20.68	399.07	25.20	397.91	4.17	399.82	5.67	399.73	5.16	400.87	3.56	400.79	ice	ice	ice	ice	ice	ice	0.00
12/20/2018	19.36	399.39	20.15	399.44	21.64	399.62	20.68	399.07	25.22	397.89	4.15	399.84	5.75	399.65	5.17	400.86	3.58	400.77	ice	ice	ice	ice	ice	ice	0.10
12/27/2018	19.26	399.49	20.07	399.52	21.58	399.68	20.60	399.15	25.05	398.06	4.15	399.84	5.75	399.65	5.14	400.89	3.57	400.78	ice	ice	ice	ice	ice	ice	1.64
1/2/2019	19.21	399.54	20.04	399.55	21.54	399.72	20.57	399.18	25.05	398.06	4.29	399.70	5.76	399.64	5.14	400.89	3.58	400.77	ice	ice	ice	ice	ice	ice	1.46
1/8/2019	19.15	399.60	20.02	399.57	21.51	399.75	20.53	399.22	25.08	398.03	4.25	399.74	5.78	399.62	5.14	400.89	3.57	400.78	ice	ice	ice	ice	ice	ice	0.62
1/16/2019	19.11	399.64	19.98	399.61	21.48	399.78	20.51	399.24	25.03	398.08	4.20	399.79	5.79	399.61	5.16	400.87	3.58	400.77	ice	ice	ice	ice	ice	ice	0.83
1/25/2019	19.04	399.71	19.86	399.73	21.35	399.91	20.40	399.35	25.02	398.09	ice	ice	5.41	399.99	5.07	400.96	3.51	400.84	2.02	399.20	ice	ice	ice	ice	3.00
2/2/2019	18.95	399.80	19.79	399.80	21.25	400.01	20.29	399.46	24.87	398.24	ice	ice	5.73	399.67	5.12	400.91	3.51	400.84	ice	ice	ice	ice	ice	ice	0.02
2/9/2019	18.95	399.80	19.76	399.83	21.23	400.03	20.25	399.50	24.85	398.26	ice	ice	5.74	399.66	5.13	400.90	3.53	400.82	ice	ice	ice	ice	ice	ice	0.39
2/15/2019	18.93	399.82	19.73	399.86	21.23	400.03	20.22	399.53	24.85	398.26	4.18	399.81	5.74	399.66	5.14	400.89	3.56	400.79	ice	ice	ice	ice	ice	ice	1.44
2/23/2019	18.90	399.85	19.75	399.84	21.21	400.05	20.19	399.56	24.79	398.32	4.22	399.77	5.72	399.68	5.10	400.93	3.55	400.80	ice	ice	ice	ice	ice	ice	0.29
3/5/2019	could not locate		19.71	399.88	21.15	400.11	20.29	399.46	24.86	398.25	4.21	399.78	5.76	399.64	5.21	400.82	ice	ice	ice	ice	ice	ice	ice	ice	0.99
3/12/2019	could not locate		19.84	399.75	21.25	400.01	20.38	399.37	25.04	398.07	4.21	399.78	5.75	399.65	5.24	400.79	ice	ice	ice	ice	ice	ice	ice	ice	0.51
3/20/2019	could not locate		19.98	399.61	21.44	399.82	20.55	399.20	25.24	397.87	4.19	399.80	5.73	399.67	5.21	400.82	3.63	400.72	2.40	398.82	ice	ice	ice	ice	0.04
3/28/2019	19.12	399.63	19.95	399.64	21.41	399.85	20.50	399.25	25.18	397.93	4.15	399.84	5.68	399.72	5.12	400.91	3.55	400.80	2.23	398.99	ice	ice	ice	ice	0.88
4/4/2019	18.94	399.81	19.76	399.83	21.22	400.04	20.31	399.44	25.03	398.08	3.94	400.05	5.53	399.87	5.04	400.99	3.45	400.90	1.91	399.31	ice	ice	uw	uw	0.46
4/11/2019	18.43	400.32	19.40	400.19	20.82	400.44	19.88	399.87	24.63	398.48	3.56	400.43	5.47	399.93	4.97	401.06	3.37	400.98	2.02	399.20	uw	uw	uw	uw	1.13
4/16/2019	18.29	400.46	19.11	400.48	20.58	400.68	19.64	400.11	24.34	398.77	3.47	400.52	5.16	400.24	4.90	401.13	3.29	401.06	2.15	399.07	uw	uw	uw	uw	0.47
4/26/2019	16.85	401.90	17.70	401.89	19.15	402.11	18.26	401.49	22.96	400.15	3.79	400.20	5.42	399.98	4.81	401.22	3.21	401.14	2.46	398.76	-0.82	398.67	10.00	2.50	2.40
5/2/2019	16.03	402.72	16.85	402.74	18.29	402.97	17.41	402.34	22.21	400.90	3.70	400.29	5.37	400.03	4.70	401.33	3.11	401.24	2.29	398.93	0.02	399.51	uw	5.00	1.45
5/10/2019	15.39	403.36	16.20	403.39	17.61	403.65	16.81	402.94	21.68	401.43	4.07	399.92	5.54	399.86	4.64	401.39	3.11	401.24	2.52	398.70	-0.48	399.01	uw	8.00	0.93
5/22/2019	15.25	403.50	16.08	403.51	17.47	403.79	16.71	403.04	21.68	401.43	4.04	399.95	5.53	399.87	4.67	401.36	3.16	401.19	2.49	398.73	-0.39	399.10	17.22	4.29	1.28
5/30/2019	15.32	403.43	16.15	403.44	17.55	403.71	16.77	402.98	21.76	401.35	4.03	399.96	5.54	399.86	4.66	401.37	3.18	401.17	4.11	397.11	-0.64	398.85	15.00	3.00	1.50
6/6/2019	15.55	403.20	16.36	403.23	17.78	403.48	16.98	402.77	21.96	401.15	3.98	400.01	5.52	399.88	4.68	401.35	3.18	401.17	4.11	397.11	-0.38	399.11	16.67	4.41	0.92
6/14/2019	15.68	403.07	16.52	403.07	17.91	403.35	17.13	402.62	22.13	400.98	3.94	400.05	5.52	399.88	4.71	401.32	3.21	401.14	4.15	397.07	-0.76	399.32	10.71	2.31	1.50
6/19/2019	15.84	402.91	16.69	402.90	18.13	403.13	17.31	402.44	22.31	400.80	3.98	400.01	5.54	399.86	4.73	401.30	3.24	401.11	4.25	396.97	-1.13	398.95	12.00	4.11	0.00
6/26/2019	15.99.																								

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.		GROUNDWATER ELEVATION (feet NAVD88)										PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT
		MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1		Spring-1	Spring-2	KIZG
New Measuring Point (MP)Elevations (feet NAVD88)		418.75		419.59		421.26		419.75		423.11		403.99		405.40		406.03		404.35				SG-1 (2020)		400.25		
Old Measuring Point (MP)Elevation		418.27		419.10		420.79		419.30		422.53		403.27		404.76		405.35		403.67		401.22		SG-1A (2020)		398.75		
Date	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation			Inches	
1/2/2020	18.06	400.69	18.87	400.72	20.31	400.95	19.44	400.31	24.14	398.97	4.01	399.98	5.58	399.82	4.82	401.21	3.30	401.05	4.05	397.17	ice		uw	uw	1.22	
1/8/2020	18.13	400.62	18.56	401.03	20.36	400.90	19.43	400.32	24.24	398.87	4.70	399.29	5.61	399.79	4.85	401.18	3.32	401.03	4.20	397.02	ice		11.11	uw	0.27	
1/17/2020	18.11	400.64	18.62	400.97	20.35	400.91	19.43	400.32	24.24	398.87	4.47	399.52	5.61	399.79	4.83	401.20	3.33	401.02	3.93	397.29	ice		12.00	uw	1.71	
1/22/2020	18.08	400.67	18.89	400.70	20.34	400.92	19.48	400.27	24.22	398.89	4.05	399.94	5.60	399.80	4.83	401.20	3.32	401.03	4.03	397.19	ice		12.00	uw	0.45	
1/30/2020	18.03	400.72	18.90	400.69	20.34	400.92	19.48	400.27	24.24	398.87	4.05	399.94	5.52	399.88	4.84	401.19	3.31	401.04	3.99	397.23	ice		12.00	uw	0.72	
2/3/2020	18.00	400.75	18.89	400.70	20.33	400.93	19.47	400.28	24.22	398.89	4.05	399.94	5.56	399.84	4.86	401.17	3.33	401.02	4.00	397.22	ice		10.91	uw	0.00	
2/12/2020	18.02	400.73	18.88	400.71	20.33	400.93	19.45	400.30	24.20	398.91	4.08	399.91	5.60	399.80	4.89	401.14	3.36	400.99	4.06	397.16	ice		10.91	uw	1.38	
2/21/2020	18.01	400.74	18.87	400.72	20.30	400.96	19.43	400.32	24.12	398.99	4.12	399.87	5.71	399.69	4.93	401.10	3.39	400.96	4.12	397.10	ice		10.91	uw	0.88	
2/26/2020	18.11	400.64	18.97	400.62	20.41	400.85	19.55	400.20	24.29	398.82	4.11	399.88	5.68	399.72	4.94	401.09	3.40	400.95	4.08	397.14	ice		15.00	uw	0.01	
3/4/2020	18.09	400.66	18.98	400.61	20.41	400.85	19.55	400.20	24.31	398.80	3.81	400.18	5.44	399.96	4.88	401.15	3.34	401.01	3.96	397.26	uw		uw	uw	1.33	
3/12/2020	18.06	400.69	18.93	400.66	20.35	400.91	19.51	400.24	24.33	398.78	3.63	400.36	4.21	401.19	4.85	401.18	3.29	401.06	3.86	397.36	uw		uw	uw	0.01	
3/17/2020	18.02	400.73	18.88	400.71	20.29	400.97	19.46	400.29	24.33	398.78	3.57	400.42	4.18	401.22	4.82	401.21	3.25	401.10	3.86	397.36	uw		uw	uw	1.16	
3/24/2020	17.81	400.94	18.64	400.95	20.05	401.21	19.21	400.54	23.99	399.12	3.38	400.61	5.19	400.21	4.70	401.33	3.19	401.16	3.91	397.31	uw		uw	uw	0.59	
3/31/2020	17.60	401.15	18.46	401.13	19.89	401.37	19.04	400.71	23.80	399.31	3.39	400.60	4.95	400.45	4.71	401.32	3.16	401.19	3.68	397.54	uw		uw	uw	0.87	
4/9/2020	17.13	401.62	17.95	401.64	19.38	401.88	18.54	401.21	23.26	399.85	3.55	400.44	5.14	400.26	4.67	401.36	3.14	401.21	3.87	397.35	-0.06	400.19	uw	uw	2.67	
4/15/2020	16.74	402.01	17.21	402.38	19.06	402.20	17.88	401.87	22.69	400.42	4.31	400.58	5.08	400.32	4.66	401.37	3.10	401.25	3.90	397.32	uw		uw	uw	1.72	
4/23/2020	16.10	402.65	16.96	402.63	18.40	402.86	17.52	402.23	22.38	400.73	3.37	400.62	5.02	400.38	4.60	401.43	3.05	401.30	3.91	397.31	uw		uw	uw	0.39	
4/30/2020	15.91	402.84	16.73	402.86	18.16	403.10	17.34	402.41	22.15	400.96	3.33	400.66	4.89	400.51	4.59	401.44	3.05	401.30	3.94	397.28	0.10	400.35	uw	uw	0.98	
5/8/2020	15.63	403.12	16.46	403.13	17.89	403.37	17.05	402.70	21.90	401.21	3.39	400.60	5.01	400.39	4.57	401.46	3.05	401.30	4.01	397.21	0.08	400.33	uw	uw	1.80	
5/14/2020	15.59	403.16	16.40	403.19	17.76	403.50	16.93	402.82	21.79	401.32	3.35	400.64	4.94	400.46	4.68	401.35	3.05	401.30	4.01	397.21	0.16	400.41	uw	uw	0.57	
5/21/2020	15.52	403.23	16.33	403.26	17.75	403.51	16.94	402.81	21.83	401.28	3.43	400.56	5.05	400.35	4.62	401.41	3.09	401.26	4.09	397.13	0.05	400.30	uw	uw	0.00	
5/30/2020	15.79	402.96	16.62	402.97	18.04	403.22	17.23	402.52	22.12	400.99	3.82	400.17	5.44	399.96	4.70	401.33	3.18	401.17	4.16	397.06	-0.52	399.73	uw	1.81	0.17	
6/5/2020	15.99	402.76	16.83	402.76	18.24	403.02	17.44	402.31	22.33	400.78	3.95	400.04	5.58	399.82	4.68	401.35	3.18	401.17	4.20	397.02	-0.85	399.40	12.00	1.50	0.08	
6/11/2020	16.23	402.52	17.06	402.53	18.49	402.77	17.68	402.07	22.56	400.55	3.95	400.04	5.55	399.85	4.69	401.34	3.19	401.16	4.17	397.05	-0.74	399.51	uw	1.50	0.99	
6/19/2020	16.62	402.13	17.42	402.17	18.86	402.40	18.03	401.72	22.91	400.20	4.06	399.93	5.66	399.74	4.82	401.21	3.28	401.07	4.23	396.99	-1.05	399.20	12.00	1.50	0.00	
6/26/2020	16.99	401.76	17.81	401.78	19.23	402.03	18.40	401.35	23.31	399.80	4.14	399.85	5.71	399.69	4.93	401.10	3.39	400.96	4.26	396.96	-0.94	397.77	25.00	1.58	0.11	
7/1/2020	17.21	401.54	18.05	401.54	19.47	401.79	18.66	401.09	23.52	399.59	3.79	400.20	5.48	399.92	4.81	401.22	3.28	401.07	3.89	397.33	-0.25	398.46	uw	1.71	2.81	
7/10/2020	17.61	401.14	18.41	401.18	19.83	401.43	19.02	400.73	23.88	399.23	4.20	399.79	5.71	399.69	4.95	401.08	3.40	400.95	4.29	396.93	-0.78	397.93	10.00	1.71	0.54	
7/17/2020	17.83	400.92	18.66	400.93	20.08	401.18	19.25	400.50	24.11	399.00	4.14	399.85	5.66	399.74	4.93	401.10	3.39	400.96	4.16	397.06	-1.06	397.65	10.00	1.58	1.96	
7/23/2020	18.03	400.72	18.85	400.74	20.28	400.98	19.45	400.30	24.31	398.80	4.22	399.77	5.74	399.66	4.97	401.06	3.43	400.92	4.27	396.95	-1.02	397.69	10.00	5.00	0.54	
7/29/2020	18.40	400.35	18.93	400.66	20.45	400.81	19.51	400.24	24.50	398.61	4.27	399.72	5.81	399.59	5.12	400.91	3.54	400.81	4.34	396.88	dry	dry	10.00	2.00	0.00	
8/6/2020	18.51	400.24	19.32	400.27	20.73	400.53	19.92	399.83	24.75	398.36	4.31	399.68	5.80	399.60	5.21	400.82	3.63	400.72	4.26	396.96	dry	dry	10.00	1.67	1.14	
8/12/2020	18.77	399.98	19.57	400.02	20.91	400.35	20.06	399.69	24.99	398.12	4.33	399.66	5.84	399.56	5.28	400.75	3.65	400.70	4.29	396.93	dry	dry	10.00	2.00	0.00	
8/20/2020	18.95	399.80	19.81	399.78	21.22	400.04	20.38	399.37	25.19	397.92	4.33	399.66	5.87	399.53	5.32	400.71	3.71	400.64	4.34	396.88	dry	dry	10.00	3.75	0.00	
8/26/2020	19.17	399.58	19.99	399.60	21.43	399.83	20.57	399.18	25.37	397.74	4.48	399.51	5.87	399.53	5.38	400.65	3.77	400.58	4.27	396.95	dry	dry	4.29	2.40	0.51	
9/3/2020	19.38	399.37	20.02	399.57	21.63	399.63	20.77	398.98	25.55	397.56	4.37	399.62	5.87	399.53	5.38	400.65	3.76	400.59	4.03	397.19	dry	dry	4.00	2.00	1.27	
9/10/2020	19.55	399.20	20.36	399.23	21.80	399.46	20.93	398.82	25.70	397.41	4.37	399.62	5.92	399.48	5.35	400.68	3.78	400.57	3.96	397.26	dry	dry	5.00	2.00	0.00	
9/17/2020																										

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.		GROUNDWATER ELEVATION (feet NAVD88)										PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT	
		MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1		400.25	Spring-1	Spring-2	KIZG
Measuring Point (MP) Elevations (feet NAVD88)																						SG-1 (2020)		400.25			
																						SG-1 (2021)		401.14			
Date		Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation	Depth to Water below msp (ft)	Water Elevation				Inches
1/5/2021		19.37	399.38	20.18	399.41	21.63	399.63	20.72	399.03	25.26	397.85	4.23	399.76			5.13	400.90	3.56	400.79	3.71	397.51	-1.14	399.11	6.00	uw	0.60	
1/13/2021		19.25	399.50	20.09	399.50	21.54	399.72	20.63	399.12	25.25	397.86	4.27	399.72			5.15	400.88	3.57	400.78	3.83	397.39	-1.19	399.06	5.45	2.00	0.00	
1/22/2021		19.32	399.43	20.14	399.45	21.58	399.68	20.69	399.06	25.28	397.83	4.27	399.72			5.13	400.90	3.57	400.78	3.74	397.48	ice		ice	ice	1.18	
1/28/2021		19.29	399.46	20.12	399.47	21.59	399.67	20.67	399.08	25.23	397.88	4.30	399.69			5.17	400.86	3.61	400.74	3.85	397.37	ice		ice	ice	0.08	
2/4/2021		19.26	399.49	20.07	399.52	21.52	399.74	20.61	399.14	25.17	397.94	4.31	399.68			5.20	400.83	3.60	400.75		ice	ice		ice	ice	0.73	
2/12/2021		19.28	399.47	20.10	399.49	21.53	399.73	20.65	399.10	25.20	397.91	4.33	399.66			5.23	400.80	3.66	400.69		ice	ice		4.44	ice	0.29	
2/18/2021		19.37	399.38	20.13	399.46	21.56	399.70	20.69	399.06	25.25	397.86	4.33	399.66			5.28	400.75	3.40	400.95	ice		ice		4.44	ice	0.90	
2/24/2021		19.35	399.40	20.18	399.41	21.63	399.63	20.75	399.00	25.33	397.78	4.34	399.65			5.28	400.75	3.70	400.65		ice	ice		4.44	ice	0.33	
3/3/2021		19.39	399.36	20.24	399.35	21.69	399.57	20.81	398.94	25.40	397.71	4.34	399.65			5.30	400.73	3.72	400.63	ice		ice		4.00	ice	0.75	
3/10/2021		19.46	399.29	20.30	399.29	21.75	399.51	20.84	398.91	25.38	397.73	4.29	399.70			5.34	400.69	3.75	400.60		3.79	ice		2.86	nm	0.00	
3/15/2021		19.42	399.33	20.26	399.33	21.69	399.57	20.80	398.95	25.30	397.81	4.29	399.70	4.53	399.79	5.29	400.74	3.71	400.64	3.52		ice		2.86	nm	0.01	
3/23/2021		19.38	399.37	20.20	399.39	21.65	399.61	20.75	399.00	25.35	397.76	4.23	399.76	4.34	399.98	5.24	400.79	3.67	400.68	3.43		ice		5.45	nm	0.12	
3/30/2021		19.19	399.56	20.02	399.57	21.46	399.80	20.54	399.21	25.11	398.00	3.46	400.53	3.61	400.71	5.03	401.00	3.39	400.96	3.12	398.10	flooded		flooded	flooded	1.85	
4/9/2021		18.63	400.12	19.65	399.94	21.11	400.15	20.20	399.55	24.85	398.26	4.14	399.85	4.30	400.02	5.05	400.98	3.45	400.90	3.51	397.71	flooded		6.00	6.00	0.56	
4/14/2021		18.74	400.01	19.53	400.06	20.99	400.27	20.10	399.65	24.79	398.32	4.18	399.81	4.35	399.97	5.05	400.98	3.48	400.87	3.62	397.60	-2.48	398.66	6.00	9.23	0.00	
4/21/2021		18.64	400.11	19.49	400.10	20.91	400.35	20.06	399.69	24.72	398.39	4.13	399.86	4.30	400.02	5.05	400.98	3.47	400.88	3.57	397.65	-1.99	399.15	8.00	2.40	1.81	
4/28/2021		18.57	400.18	19.39	400.20	20.83	400.43	19.97	399.78	24.66	398.45	4.15	399.84	4.31	400.01	5.04	400.99	3.47	400.88	3.59	397.63	-2.17	398.97	6.00	1.50	0.17	
5/4/2021		18.48	400.27	19.26	400.33	20.75	400.51	19.81	399.94	24.55	398.56	4.15	399.84	4.33	399.99	5.02	401.01	3.46	400.89	3.64	397.58	-2.33	398.81	6.00	1.82	1.55	
5/12/2021		18.38	400.37	19.20	400.39	20.64	400.62	19.77	399.98	24.49	398.62	4.15	399.84	4.33	399.99	5.01	401.02	3.45	400.90	3.71	397.51	-2.54	398.60	6.00	1.82	0.47	
5/19/2021		18.36	400.39	19.18	400.41	20.64	400.62	19.80	399.95	24.53	398.58	4.23	399.76	4.42	399.90	5.06	400.97	3.50	400.85	3.76	397.46	-3.14	398.00	6.00	1.71	0.00	
5/27/2021		18.54	400.21	19.35	400.24	20.80	400.46	19.94	399.81	24.71	398.40	4.25	399.74	4.46	399.86	5.12	400.91	3.54	400.81	3.81	397.41	-3.56	397.58	6.00	6.00	0.21	
6/4/2021		18.63	400.12	19.48	400.11	20.91	400.35	20.03	399.72	24.74	398.37	4.26	399.73	4.46	399.86	5.13	400.90	3.57	400.78	3.43	397.79	-3.12	398.02	6.00	6.00	0.97	
6/9/2021		18.78	399.97	19.61	399.98	21.04	400.22	20.12	399.63	24.89	398.22	4.28	399.71	4.51	399.81	5.23	400.80	3.65	400.70	3.45	397.77	-3.31	397.83	6.00	5.00	0.04	
6/17/2021		19.02	399.73	19.82	399.77	21.27	399.99	20.40	399.35	25.28	397.83	4.32	399.67	4.54	399.78	5.31	400.72	3.40	400.95	3.40	397.82	-3.30	397.84	6.00	2.73	0.22	
6/24/2021		19.22	399.53	20.03	399.56	21.48	399.78	NM	NM	25.27	397.84	4.38	399.61	4.60	399.72	5.43	400.60	3.82	400.53	3.73	397.49	-3.61	397.53	6.00	5.00	0.09	
7/1/2021		19.46	399.29	20.29	399.30	21.73	399.53	20.81	398.94	25.50	397.61	4.40	399.59	4.65	399.67	5.55	400.48	3.91	400.44	3.72	397.50	-3.62	397.52	6.00	2.73	0.12	
7/7/2021		19.59	399.16	20.41	399.18	21.86	399.40	20.96	398.79	25.64	397.47	4.31	399.68	4.61	399.71	5.45	400.58	3.85	400.50	3.35	397.87	-3.09	398.05	6.00	2.73	1.91	
7/16/2021		19.72	399.03	20.54	399.05	21.98	399.28	21.09	398.66	25.76	397.35	4.37	399.62	4.62	399.70	5.47	400.56	3.86	400.49	3.37	397.85	-3.16	397.98	5.00	6.00	1.38	
7/22/2021		19.76	398.99	20.60	398.99	22.04	399.22	21.17	398.58	25.82	397.29	4.31	399.68	4.54	399.78	5.43	400.60	3.81	400.54	3.14	398.08	-2.49	398.65	6.00	2.72	1.20	
7/29/2021		19.87	398.88	20.68	398.91	22.15	399.11	21.25	398.50	25.87	397.24	4.36	399.63	4.62	399.70	5.49	400.54	3.87	400.48	3.29	397.93	-3.16	397.98	5.45	2.86	1.40	
8/5/2021		19.94	398.81	20.75	398.84	22.19	399.07	21.30	398.45	25.97	397.14	4.33	399.66	4.57	399.75	5.48	400.55	3.85	400.50	3.15	398.07	-3.13	398.01	5.45	1.62	1.34	
8/13/2021		19.98	398.77	20.82	398.77	22.26	399.00	21.38	398.37	26.04	397.07	4.37	399.62	4.62	399.70	5.53	400.50	3.91	400.44	3.23	397.99	-3.10	398.04	5.45	1.62	0.35	
8/19/2021		20.01	398.74	20.84	398.75	22.29	398.97	21.40	398.35	26.06	397.05	4.37	399.62	4.64	399.68	5.53	400.50	3.91	400.44	3.29	397.93	-3.20	397.94	4.66	nf	0.71	
8/26/2021		20.06	398.69	20.88	398.71	22.39	398.87	21.42	398.33	26.04	397.07	4.36	399.63	4.61	399.71	5.54	400.49	3.91	400.44	3.13	398.09	-2.94	398.20	4.29	nf	0.84	
9/2/2021		20.07	398.68	20.90	398.69	22.36	398.90	21.46	398.29	26.11	397.00	4.31	399.68	4.58	399.74	5.41	400.62	3.80	400.55	3.02	398.20	-2.75	398.39	4.29	nf	0.06	
9/10/2021		20.13	398.62	20.95	398.64	22.41	398.85	21.52	398.23	26.15	396.96	4.34	399.65	4.59	399.73	5.48	400.55	3.85	400.50	3.01	398.21	-2.67	398.47	4.29	nf	0.90	
9/17/2021		20.20	398.55	21.04	398.55	22.51	398.75	21.58	398.17	26.21	396.90	4.35	399.64	4.59	399.73	5.61	400.42	3.97	400.38	3.07	398.15	-2.94	398.20	4.29	nf	0.19	
9/23/2021		20.24	398.51	21.07	398.52	22.52	398.74	21.																			

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.		GROUNDWATER ELEVATION (feet NAVD88)										PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT
		MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1		Spring-1	Spring-2	KIZG
Measuring Point (MP) Elevations (feet NAVD88)			418.75		419.59		421.26		419.75		423.11		403.99		404.32		406.03		404.35			SG-1 (2021)	401.14			
																						SG-1 (2022)	399.44			
Date	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Depth to Water below m.g. (ft.)	Water Elevation	Inches	
1/4/2022	19.28	399.47	20.11	399.48	21.54	399.72	20.65	399.10	25.23	397.88	4.20	399.79	4.40	399.92	5.24	400.79	3.67	400.68		3.02	398.20			flooded	ice	0.28
1/11/2022	19.26	399.49	20.08	399.51	21.53	399.73	20.62	399.13	25.25	397.86	4.29	799.70	4.52	399.80	5.28	400.75	3.71	400.64	ice				ice	4.00	ice	0.26
1/21/2022	19.24	399.51	20.05	399.54	21.50	399.76	20.60	399.15	25.22	397.89	4.30	399.69	4.55	399.77	5.31	400.72	3.45	400.90	ice				ice	4.00	ice	0.79
2/1/2022	19.32	399.43	20.12	399.47	21.57	399.69	20.68	399.07	25.31	397.80	4.31	399.68	4.57	399.75	5.35	400.68	3.76	400.59	ice				ice	4.00	ice	0.09
2/11/2022	19.28	399.47	20.10	399.49	21.55	399.71	20.66	399.09	25.25	397.86	4.30	399.69	4.56	399.76	5.36	400.67	3.78	400.57		ice			ice	4.00	ice	2.27
2/16/2022	19.24	399.51	20.06	399.53	21.53	399.73	20.60	399.15	25.19	397.92	3.93	400.06	4.16	400.16	5.27	400.76	3.67	400.68	ice				ice	4.00	ice	0.00
2/24/2022	19.20	399.55	20.03	399.56	21.50	399.76	20.55	399.20	25.15	397.96	3.54	400.45	3.77	400.55	5.14	400.89	3.53	400.82		2.73	398.49	ice		flooded	ice	1.50
3/1/2022	19.11	399.64	19.92	399.67	21.38	399.88	20.46	399.29	25.10	398.01	4.17	399.82	4.39	399.93	5.18	400.85	3.61	400.74	ice				ice	6.00	ice	0.40
3/8/2022	19.03	399.72	19.86	399.73	21.31	399.95	20.29	399.46	25.05	398.06	3.95	400.04	4.17	400.15	5.16	400.87	3.57	400.78		2.87	398.35	ice		flooded	ice	0.73
3/14/2022	18.82	399.93	19.74	399.85	21.07	400.19	20.16	399.59	24.91	398.20	3.62	400.37	3.83	400.49	5.09	400.94	3.27	401.08	ice				ice	flooded	flooded	0.53
3/23/2022	18.65	400.10	19.46	400.13	20.91	400.35	20.03	399.72	24.72	398.39	3.31	400.68	3.48	400.84	5.03	401.00	3.35	401.00	ice				ice	flooded	flooded	1.07
3/31/2022	18.21	400.54	19.03	400.56	20.46	400.80	19.61	400.14	24.30	398.81	3.64	400.35	3.78	400.54	4.98	401.05	3.37	400.98	ice				ice	flooded	flooded	3.33
4/7/2022	17.89	400.86	18.72	400.87	20.16	401.10	19.29	400.46	24.01	399.10	3.69	400.30	3.82	400.50	4.98	401.05	3.38	400.97	ice				ice	flooded	flooded	0.11
4/13/2022	17.63	401.12	18.47	401.12	19.91	401.35	19.05	400.70	23.76	399.35	3.42	400.57	3.56	400.76	4.94	401.09	3.32	401.03	ice				ice	flooded	flooded	1.98
4/22/2022	17.26	401.49	18.08	401.51	19.51	401.75	18.66	401.09	23.42	399.69	3.37	400.62	3.51	400.81	4.94	401.09	3.29	401.06	ice				ice	flooded	flooded	1.66
4/28/2022	17.04	401.71	17.87	401.72	19.28	401.98	18.45	401.30	23.22	399.89	3.35	400.64	3.49	400.83	4.91	401.12	3.27	401.08	ice				ice	flooded	flooded	0.57
5/5/2022	16.86	401.89	17.68	401.91	19.10	402.16	18.28	401.47	23.08	400.03	3.36	400.63	3.52	400.80	4.90	401.13	3.28	401.07	ice				ice	flooded	flooded	0.64
5/12/2022	16.85	401.90	17.66	401.93	19.09	402.17	18.27	401.48	23.08	400.03	3.55	400.44	3.71	400.61	4.99	401.04	3.33	401.02	ice				ice	flooded	flooded	0.00
5/18/2022	16.85	401.90	17.64	401.95	19.08	402.18	18.25	401.50	23.08	400.03	3.69	400.30	3.82	400.50	4.97	401.06	3.40	400.95	ice				ice	flooded	flooded	0.98
5/27/2022	16.98	401.77	17.81	401.78	19.22	402.04	18.37	401.38	23.19	399.92	4.04	399.95	4.23	400.09	5.01	401.02	3.45	400.90	ice				ice	flooded	flooded	0.31
6/3/2022	17.14	401.61	17.95	401.64	19.39	401.87	18.55	401.20	23.36	399.75	4.08	399.91	4.29	400.03	5.01	401.02	3.47	400.88	ice				ice	flooded	flooded	0.53
6/8/2022	17.28	401.47	18.11	401.48	19.54	401.72	18.70	401.05	23.49	399.62	3.98	400.01	4.15	400.17	5.03	401.00	3.48	400.87	ice				ice	flooded	flooded	1.54
6/17/2022	17.49	401.26	18.35	401.24	19.81	401.45	18.92	400.83	nr		4.08	399.91	4.28	400.04	5.05	400.98	3.51	400.84	ice				ice	flooded	flooded	1.53
6/24/2022	17.71	401.04	18.55	401.04	20.00	401.26	19.12	400.63	23.85	399.26	4.13	399.86	4.34	399.98	5.08	400.95	3.52	400.83	ice				ice	flooded	flooded	0.08
6/30/2022	17.90	400.85	18.76	400.83	20.21	401.05	19.31	400.44	24.02	399.09	4.16	399.83	4.39	399.93	5.12	400.91	3.61	400.74	ice				ice	flooded	flooded	0.07
7/7/2022	18.16	400.59	19.00	400.59	20.44	400.82	19.53	400.22	24.19	398.92	4.16	399.83	4.43	399.89	5.23	400.80	3.64	400.71	ice				ice	flooded	flooded	0.51
7/14/2022	18.44	400.31	19.25	400.34	20.71	400.55	19.80	399.95	24.41	398.70	4.23	399.76	4.47	399.85	5.33	400.70	3.71	400.64	ice				ice	flooded	flooded	0.04
7/20/2022	18.61	400.14	19.45	400.14	20.90	400.36	19.98	399.77	24.57	398.54	4.27	399.72	4.51	399.81	5.38	400.65	3.77	400.58	ice				ice	flooded	flooded	0.07
7/31/2022	18.90	399.85	19.72	399.87	21.20	400.06	20.24	399.51	24.84	398.27	4.28	399.71	4.55	399.77	5.36	400.67	3.77	400.58	ice				ice	flooded	flooded	1.76
8/4/2022	19.03	399.72	19.85	399.74	21.31	399.95	20.38	399.37	24.98	398.13	4.33	399.66	4.59	399.73	5.49	400.54	3.87	400.48	ice				ice	flooded	flooded	0.30
8/12/2022	19.27	399.48	20.11	399.48	21.56	399.70	20.65	399.10	25.24	397.87	4.35	399.64	4.62	399.70	5.55	400.48	3.92	400.43	ice				ice	flooded	flooded	1.39
8/19/2022	19.51	399.24	20.34	399.25	21.80	399.46	20.85	398.90	25.45	397.66	4.40	399.59	4.67	399.65	5.60	400.43	3.97	400.38	ice				ice	flooded	flooded	0.89
8/25/2022	19.66	399.09	20.48	399.11	21.94	399.32	20.93	398.82	25.59	397.52	4.38	399.61	4.67	399.65	5.58	400.45	3.95	400.40	ice				ice	flooded	flooded	1.05
9/2/2022	19.83	398.92	20.64	398.95	22.10	399.16	21.06	398.69	25.74	397.37	4.42	399.57	4.70	399.62	5.65	400.38	4.02	400.33	ice				ice	flooded	flooded	1.15
9/8/2022	19.84	398.91	20.67	398.92	22.14	399.12	21.21	398.54	25.75	397.36	4.31	399.68	4.60	399.72	5.44	400.59	3.84	400.51	ice				ice	flooded	flooded	3.24
9/15/2022	19.86	398.89	20.68	398.91	22.15	399.11	21.21	398.54	25.74	397.37	4.38	399.61	4.68	399.64	5.60	400.43	3.98	400.37	ice				ice	flooded	flooded	0.22
9/21/2022	19.91	398.84	20.73	398.86	22.20	399.06	21.25	398.50	25.80	397.31	4.27	399.72	4.52	399.80	5.41	400.62	3.82	400.53	ice				ice	flooded	flooded	2.40
9/29/2022	19.81	398.94	20.68	398.91	22.13	399.13	21.18	398.57	25.70	397.41	4.30	399.69	4.56	399.76	5.39	400.64	3.80	400.55	ice				ice	flooded	flooded	1.74
10/7/2022	19.84	398.91	20.68	398.91	22.16	399.10	21.20	398.55	25.69	397.42	4.30	399.69	4.58	399.74	5.34	400.69	3.76	400.59	ice							

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.	GROUNDWATER ELEVATION (feet NAVD88)										PIEZOMETERS @ SPRING 1 (feet NAVD88)				PIEZOMETERS @ SPRING 2 (feet NAVD88)				SURFACE WATER				SPRING FLOW (lt/min)		PRECIPITATION EASTERN SLOPES AIRPORT		
	MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPMP-1		SG-1		Spring-1	Spring-2			
Measuring Point (MP) Elevations (feet NAVD88)		418.75		419.59		421.26		419.75		423.11		403.99		404.32		406.03		404.35				SG-1 (2022)	399.44				
																						SG-1 (2023)	399.41				
Date	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation	Depth to Water below mp (ft)	Water Elevation			Inches		
1/6/2023	18.04	400.71	18.86	400.73	20.31	400.95	19.40	400.35	24.03	399.08	3.64	400.35	3.77	400.55	4.96	401.07	3.37	400.98	3.99	397.23	ice			flooded	flowing	0.65	
1/12/2023	17.83	400.92	18.66	400.93	20.11	401.15	19.15	400.60	23.89	399.22	3.98	400.01	4.13	400.19	4.99	401.04	3.40	400.95	4.17	397.05	ice			5.45	flowing	0.73	
1/20/2023	17.64	401.11	18.50	401.09	19.91	401.35	19.06	400.69	23.76	399.35	3.95	400.04	4.11	400.21	4.98	401.05	3.41	400.94	4.12	397.10	ice			12.63	flowing	1.41	
1/27/2023	17.57	401.18	18.40	401.19	19.84	401.42	18.99	400.76	23.68	399.43	3.99	400.00	4.16	400.16	4.99	401.04	3.42	400.93	ice		ice			8.57	flowing	1.80	
2/1/2023	17.53	401.22	18.34	401.25	19.77	401.49	18.92	400.83	23.60	399.51	4.01	399.98	4.22	400.10	5.01	401.02	3.44	400.91	ice		ice			8.22	flowing	0.07	
2/9/2023	17.52	401.23	18.35	401.24	19.76	401.50	18.92	400.83	23.59	399.52	3.97	400.02	4.20	400.12	5.02	401.01	3.45	400.90	ice		ice			7.38	flowing	0.41	
2/17/2023	17.51	401.24	18.35	401.24	19.77	401.49	18.92	400.83	23.65	399.46	3.95	400.04	4.17	400.15	5.02	401.01	3.46	400.89	ice		ice			7.33	flowing	0.19	
2/24/2023	17.55	401.20	18.37	401.22	19.81	401.45	18.94	400.81	23.63	399.48	4.04	399.95	4.23	400.09	5.04	400.99	3.47	400.88	ice		ice			8.57	flowing	0.43	
3/3/2023	17.61	401.14	18.43	401.16	19.87	401.39	19.03	400.72	23.82	399.29	4.04	399.95	4.27	400.05	5.04	400.99	3.49	400.86	ice		ice			7.32	flowing	0.83	
3/9/2023	17.65	401.10	18.49	401.10	19.93	401.33	19.08	400.67	23.77	399.34	4.03	399.96	4.26	400.06	5.05	400.98	3.49	400.86		4.21	397.01	ice		13.33	flowing	0.77	
3/19/2023	17.68	401.07	18.51	401.08	19.93	401.33	19.10	400.65	23.82	399.29	4.03	399.96	4.22	400.10	5.04	400.99	3.48	400.87		4.17	397.05	ice		13.33	flowing	0.30	
3/23/2023	17.73	401.02	18.55	401.04	19.98	401.28	19.11	400.64	23.89	399.22	4.01	399.98	4.20	400.12	5.04	400.99	3.48	400.87		4.10	397.12	ice			flowing	0.05	
3/30/2023	17.75	401.00	18.55	401.04	20.00	401.26	19.14	400.61	23.86	399.25	3.82	400.17	4.04	400.28	4.98	401.05	3.42	400.93		4.05	397.17	flooded			flowing	0.52	
4/7/2023	17.51	401.24	18.32	401.27	19.77	401.49	18.89	400.86	23.62	399.49	3.62	400.37	3.78	400.54	4.92	401.11	3.35	401.00		3.93	397.29	flooded			flowing	0.81	
4/10/2023	17.49	401.26	18.33	401.26	19.75	401.51	18.84	400.91	23.57	399.54	3.58	400.41	3.76	400.56	4.90	401.13	3.33	401.02		4.03	397.19	flooded			flowing	0.00	
4/20/2023	16.81	401.94	17.66	401.93	19.09	402.17	18.21	401.54	23.03	400.08	3.80	400.19	3.94	400.38	4.88	401.15	3.31	401.04		4.06	397.16	flooded			flowing	0.33	
5/3/2023	16.34	402.41	17.16	402.43	18.59	402.67	17.75	402.00	22.55	400.56	3.31	400.68	3.39	400.93	4.75	401.28	3.16	401.19		3.31	397.91	flooded			flooded	6.20	
5/9/2023	15.55	403.20	16.36	403.23	17.79	403.47	16.97	402.78	21.88	401.23	3.69	400.30	3.81	400.51	4.70	401.33	3.12	401.23		4.03	397.19	flooded			8.57	flowing	0.04
5/19/2023	15.44	403.31	16.24	403.35	17.70	403.56	16.83	402.92	21.80	401.31	3.72	400.27	3.87	400.45	4.71	401.32	3.16	401.19		4.06	397.16	flooded			8.57	flowing	0.02
5/23/2023	15.34	403.41	16.17	403.42	17.58	403.68	16.79	402.96	21.71	401.40	3.78	400.21	3.93	400.39	4.75	401.28	3.21	401.14		4.10	397.12	flooded			10.00	flowing	1.09
6/1/2023	15.59	403.16	16.41	403.18	17.76	403.50	16.99	402.76	21.88	401.23	3.85	400.14	4.01	400.31	4.81	401.22	3.27	401.08		4.23	396.99	flooded			8.57	flowing	0.35
6/7/2023	15.40	403.35	16.55	403.04	17.95	403.31	17.14	402.61	22.01	401.10	3.84	400.15	4.02	400.30	4.80	401.23	3.27	401.08		4.19	397.03	flooded			8.57	flowing	1.15
6/16/2023	15.60	403.15	16.80	402.79	18.21	403.05	17.37	402.38	22.85	400.26	3.89	400.10	4.06	400.26	4.84	401.19	3.30	401.05		4.19	397.03	flooded			10.00	flowing	1.32
6/22/2023	16.08	402.67	16.92	402.67	18.34	402.92	17.50	402.25	23.25	399.86	3.88	400.11	4.07	400.25	4.84	401.19	3.31	401.04		4.20	397.02	flooded			10.00	flowing	0.91
6/29/2023	16.91	401.84	18.05	401.54	18.55	402.71	17.66	402.09	23.09	400.02	3.85	400.14	4.02	400.30	4.84	401.19	3.32	401.03		3.94	397.28	flooded			10.00	flowing	2.09
7/6/2023	16.95	401.80	17.10	402.49	18.55	402.71	17.69	402.06	23.09	400.02	3.88	400.11	4.04	400.28	4.84	401.19	3.31	401.04		4.06	397.16	flooded			8.57	flowing	1.84
7/14/2023	17.03	401.72	17.19	402.40	18.61	402.65	17.81	401.94	22.57	400.54	3.86	400.13	4.01	400.31	4.84	401.19	3.30	401.05		4.14	397.08	flooded			10.00	flowing	1.05
7/20/2023	17.16	401.59	17.31	402.28	18.69	402.57	18.03	401.72	22.66	400.45	2.08	401.91	4.04	400.28	4.81	401.22	3.27	401.08		4.16	397.06	flooded			8.57	flowing	2.91
7/24/2023	17.33	401.42	17.40	402.19	18.71	402.55	18.17	401.58	22.81	400.30	2.12	401.87	4.11	400.21	4.84	401.19	3.31	401.04		4.19	397.03	flooded			8.57	flowing	0.14
8/4/2023	16.22	402.53	17.07	402.52	18.51	402.75	17.64	402.11	22.49	400.62	3.81	400.18	4.01	400.31	4.74	401.29	3.22	401.13		4.16	397.06		0.04	399.45	10.00	flowing	2.83
8/10/2023	17.05	401.70	17.85	401.74	18.62	402.64	18.42	401.33	22.53	400.58	3.80	400.19	3.96	400.36	5.34	400.69	3.81	400.54		3.90	397.32		0.51	399.92	12.00	flowing	3.61
8/18/2023	17.43	401.32	18.13	401.46	19.22	402.04	18.74	401.01	22.60	400.51	4.44	399.55	4.91	399.41	5.39	400.64	4.12	400.23		4.12	397.10		-0.03	399.38	10.00	flowing	0.19
8/24/2023	16.37	402.38	17.20	402.39	18.63	402.63	17.81	401.94	22.69	400.42	3.87	400.12	4.07	400.25	4.83	401.20	3.28	401.07		4.24	396.98		-0.41	399.00	10.90	flowing	0.08
8/31/2023	16.48	402.27	17.30	402.29	18.71	402.55	17.88	401.87	22.75	400.36	3.88	400.11	4.05	400.27	4.86	401.17	3.31	401.04		4.24	396.98		0.16	399.57	10.90	flowing	1.50
9/7/2023	16.59	402.16	17.41	402.18	18.84	402.42	17.98	401.77	22.80	400.31	3.92	400.07	4.12	400.20	4.86	401.17	3.31	401.04		4.25	396.97		-0.75	398.66	10.00	flowing	0.13
9/14/2023	16.75	402.00	17.57	402.02	18.99	402.27	18.15	401.60	22.98	400.13	3.89	400.10	4.09	400.23	4.88	401.15	3.33	401.02		3.97	397.25		0.26	399.67	8.57	flowing	1.66
9/21/2023	16.86	401.89	17.70	401.89	19.11	402.15	18.30	401.45	23.10	400.01	3.91	400.08	4.11	400.21	4.93	401.10	3.36	400.99		4.00	397.22	flooded			10.91	flowing	2.32
9/28/2023	16.92	401.83	17.74	401.85	19.13	402.13	18.33	401.42	23.12	399.99	3.92	400.07	4.15	400.17	4.89	401.14	3.34	401.01		4.20	397.02		-0.53	398.88	8.57	flowing	0.02