

STATE OF
COLORADO

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

M-1980-183 Q3 Report

1 message

Joshua Oliver <joliver@brannan1.com>

Tue, Oct 26, 2021 at 8:36 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>, Kurt Thurmann <kthurmann@brannan1.com>

Cc: Fred Marvel <fmarvel@brannan1.com>

Mr. Lennberg,

Please find the attached groundwater level report for M-1980-183.

Please let me know if you have any questions.

Joshua Oliver

Environmental Manager



joliver@brannan1.com

O: 303.853.5159 |M: 303.472.1736 |F: 303.853.5233

4 attachments

**Q3 2021 MW-4 and Reservoir Graph.pdf**

1032K

**Q3 2021 Piezometer Depth to Groundwater (graph).pdf**

407K

**Q3 2021 Piezometer Depth to Groundwater (table).pdf**

433K

**M-1980-183 Q3 2021 Report.pdf**

124K



October 4, 2021
Colorado Division of Reclamation, Mining and Safety
ATTN: Patrick Lennberg
1313 Sherman St. Suite 215
Denver, CO 80203

Re: M-1980-183 Quarterly Groundwater Monitoring Results Submission

Mr. Lennberg,

Attached is the quarterly groundwater level monitoring for Brannan Sand and Gravel Company's Pit 29 facility for 3rd Quarter 2021.

The hydrologic balance is being kept in check by the French drain, as verified by the readings from MW-4. There have not been any offsite impacts associated with hydrologic balance issues observed since the French drain was installed.

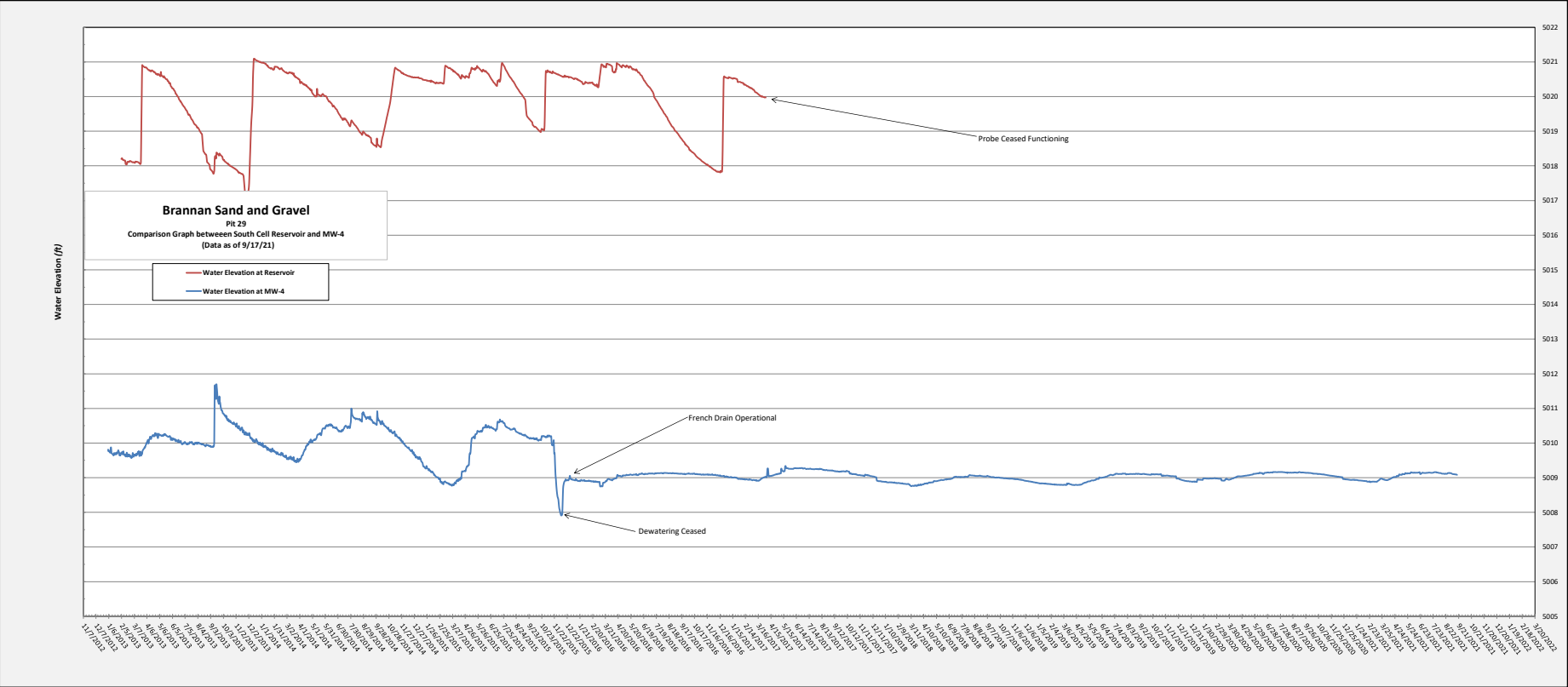
MW-1 and MW-2 both trended deeper below ground surface over the quarter. There is nothing out of the ordinary to report.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that appears to read "Josh Oliver".

Joshua Oliver
Environmental Manager
Brannan Sand and Gravel Company, L.L.C.
(303) 472-1736
joliver@brannan1.com



Brannan Pit #29				
Water Level Measurements				
Date Month-Year	Depth to Water (ft)			
	MW-1 OUT	MW-2 OUT	MW-3 OUT	MW-4 OUT
12/1/2005	21.50	22.50	11	N/A
1/1/2006	23.00	23.00	13	N/A
3/1/2006	22.00	20.00	11.5	N/A
5/1/2006	21.50	20.00	10.5	N/A
6/1/2010	20.50	17.70	N/A	N/A
9/1/2010	20.00	18.90	N/A	21.40
12/1/2010	20.90	23.17	N/A	26.25
3/1/2011	20.57	19.40	N/A	24.66
6/1/2011	19.40	15.74	N/A	21.80
9/1/2011	18.94	18.63	N/A	21.08
12/1/2011	20.20	21.10	N/A	21.15
3/1/2012	20.95	10.30	N/A	17.75
6/1/2012	20.89	18.47	N/A	14.09
9/12/2012	20.97	19.21	N/A	5.64
11/12/2012	-	-	N/A	4.84
12/12/2012	21.79	20.54	N/A	5.67
4/13/2013	22.84	18.16	N/A	5.61
4/22/2013	22.55	19.70	N/A	5.30
6/13/2013	22.48	18.78	N/A	5.60
9/1/2013	21.66	19.15	N/A	4.52
12/13/2013	23.19	20.60	N/A	5.60
3/14/2014	24.15	16.75	N/A	6.09
6/14/2014	23.32	17.76	N/A	5.18
9/14/2014	22.91	18.80	N/A	4.64
11/14/2014	23.60	19.62	N/A	5.22
12/1/2014	24.85	20.48	N/A	6.02
3/31/2015	26.87	17.50	N/A	6.78
6/15/2015	21.79	16.69	N/A	4.79
9/15/2015	19.94	17.75	N/A	5.27
12/15/2015	21.42	19.15	N/A	6.54
4/6/2016	23.11	20.06	N/A	9.15
7/13/2016	20.66	18.64	N/A	6.33
8/30/2016	20.61	19.86	N/A	9.01
9/27/2016	20.78	20.37	N/A	8.77
10/31/2016	20.53	20.91	N/A	9.09
11/21/2016	20.58	21.05	N/A	9.05
12/28/2016	21.61	21.93	N/A	9.15
1/26/2017	22.49	22.31	N/A	9.20
2/27/2017	23.44	22.60	N/A	9.20
3/28/2017	23.35	19.78	N/A	9.19
5/22/2017	21.12	19.25	N/A	8.90
6/14/2017	20.76	18.88	N/A	8.91

7/17/2017	19.68	18.60	N/A	8.94
8/11/2017	19.81	19.5	N/A	8.11
9/11/2017	19.97	19.60	N/A	8.96
10/16/2017	20.42	20.30	N/A	8.99
11/21/2017	22.48	21.58	N/A	9.12
12/19/2017	22.39	22.14	N/A	9.06
1/19/2018	23.32	22.58	N/A	9.22
2/16/2018	23.90	22.81	N/A	9.27
3/12/2018	24.48	23.00	N/A	9.38
4/30/2018	22.80	20.19	N/A	9.22
5/21/2018	21.95	19.75	N/A	9.18
6/22/2018	20.80	19.08	N/A	9.05
7/12/2018	20.50	19.24	N/A	9.06
8/15/2018	20.60	19.83	N/A	9.01
9/5/2018	21.75	20.11	N/A	9.05
10/18/2018	17.95	20.81	N/A	9.05
11/19/2018	17.04	21.48	N/A	9.15
12/14/2018	17.34	21.87	N/A	9.20
2/28/2019	18.21	22.49	N/A	9.30
3/28/2019	18.44	22.61	N/A	9.31
4/30/2019	18.52	19.60	N/A	9.23
5/31/2019	16.18	19.12	N/A	9.12
6/20/2019	15.56	18.57	N/A	9.05
7/18/2019	15.19	17.86	N/A	9.00
9/27/2019	15.29	19.29	N/A	9.01
10/21/2019	15.40	19.69	N/A	9.01
11/25/2019	15.96	20.95	N/A	9.04
1/3/2020	16.44	21.40	N/A	9.19
1/27/2020	16.73	21.62	N/A	9.19
2/19/2020	17.05	21.77	N/A	9.22
3/10/2020	17.25	21.89	N/A	9.23
4/15/2020	16.53	19.19	N/A	9.13
5/12/2020	15.73	18.53	N/A	9.08
6/15/2020	15.32	18.01	N/A	9.00
7/14/2020	15.07	18.13	N/A	8.98
8/14/2020	15.40	19.10	N/A	8.99
9/14/2020	15.55	19.61	N/A	9.00
10/12/2020	15.70	19.86	N/A	9.02
11/12/2020	16.01	20.95	N/A	9.06
12/21/2020	16.65	21.53	N/A	9.16
1/13/2021	17.00	21.73	N/A	9.23
2/16/2021	17.54	22.05	N/A	9.23
3/12/2021	17.89	22.28	N/A	9.25
4/12/2021	17.82	18.28	N/A	9.18
5/14/2021	16.43	19.65	N/A	9.05
6/21/2021	15.51	17.51	N/A	9.05
7/20/2021	14.93	17.83	N/A	9.08

8/16/2021	14.9	18.53	N/A	9.00
9/17/2021	15.03	19.35	N/A	9.05

