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Oklahoma Water Resources Board

February 24, 2021

Oklahoma Water Resources Board
Planning and Management Division
3800 North Classen Boulevard
Oklahoma City, OK 73118-2855

Attn: Matt Cogburn

RE: Arbuckle-Simpson Pit Water Report

Dear Mr. Cogburn,

Enclosed please find US Silica's Pit Water Report for fourth quarter 2020 and the annual report for 2020. Also enclosed are the water discharge reports for the months in which we claimed stream augmentation credits.

Please contact me at matthews@ussilica.com or (580) 618-1421 if there are questions.

Best regards,

George W. Matthews
Plant Manager

CC: David Olchawa, US Silica
Wes Penn, US Silica
Jason Quigley, US Silica
Monty Tolbert, US Silica

P.O. Box 36, 4800 State Highway 1 North, Mill Creek, OK 74856-0036

phone (800) 445-3950 (580) 384-5241 *fax* (580) 384-5216 *web*
www.ussilica.com

PIT WATER MONITORING AND USAGE REPORT

TYPE OF REPORT	<input type="checkbox"/> QUARTERLY	<input checked="" type="checkbox"/> ANNUAL
REPORTING PERIOD	QUARTER ENDING	YEAR ENDING December 31, 2019

COMPANY NAME	US Silica Company	FACILITY	Mill Creek Mine
ADDRESS	PO Box 36 4800 Highway 1 North Mill Creek, OK 74856	COUNTY	Johnston

WATER RIGHT INFORMATION

SOURCE	1190	Arbuckle Simpson
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GROUND WATER PERMIT NUMBER	1974-266	
PERMITTED VOLUME	777	ACRE-FEET PER YEAR *
PERMIT STATUS	<input checked="" type="checkbox"/> PERMANENT	<input type="checkbox"/> TEMPORARY

* Permitted volume includes additional water rights owned and leased applied to MEPS

STREAM WATER PERMIT NUMBER	1973-412	
PERMITTED VOLUME	43	ACRE-FEET PER YEAR
PERMIT STATUS	<input checked="" type="checkbox"/> PERMANENT	<input type="checkbox"/> TEMPORARY

ACCUMULATION AND DISPOSITION OF PIT WATER

	ACRE-FEET *
Total water diverted from the pit	5,887
Surface water entering the pit	233
Groundwater entering the pit	5,654
Groundwater diverted from the pit	5,654
Returned to a mine pit or holding basin	0
Returned to the land surface from which runoff flows into a mine pit	0
Returned to the groundwater basin by recharge	4,508
Discharged to a definite stream for credit	71
Driven off the mined material by drying	43
Evaporated from the active mine pit	42
Total consumptive use of mine pit water	271

* All volumes measured or reasonably estimated

Signature of Water Right Holder or Authorized Agent

Date

2/24/2021

PRINTED NAME	George W. Matthews
TITLE	Plant Manager
TELEPHONE	(580) 384-5241 x3015

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Oklahoma Water Resources Board

U.S. Silica Mill Creek Plant

Discharge Log

Out Fall 006

Oct-20

Day	Time 24 hr Clock	Gate Open/ Closed	Dis charge Depth Inches	Dis charge Rate (CFS)	Dis charge Rate (MGD)	Daily Dischg (Ac-Ft)	Mill Creek Flow Rate (CFS)	Stream Aug- ment Credit (Ac-Ft)	Gist Guage Rod Feet	Johnson Guage Rod Feet
1		Open	4		1.224	3.76	9.02	0.00		
2		Open	2		0.453	1.39	6.24	0.00		
3		Open	1		0.146	0.45	5.64	0.00		
4		Open	0		0	0.00	4.91	0.00		
5	9:30	Open	0		0	0.00	5.16	0.00	4.30	1.80
6		Open	1		0.146	0.45	4.66	0.00		
7	11:55	Open	2		0.453	1.39	4.91	0.00	4.30	2.60
8		Open	2		0.453	1.39	4.91	0.00		
9	11:45	Open	3		0.807	2.48	3.74	2.48	4.30	2.75
10		Open	4		1.224	3.76	6.91	0.00		
11		Open	5		1.757	5.39	8.50	0.00		
12	9:50	Open	7		2.852	8.75	9.88	0.00	4.30	3.25
13		Open	5		1.757	5.39	10.20	0.00		
14	13:20	Open	4		1.224	3.76	6.61	0.00	4.30	2.90
15		Open	3		0.807	2.48	4.70	0.00		
16	10:50	Open	1		0.146	0.45	3.31	0.45	4.30	2.55
17		Open	1		0.146	0.45	2.54	0.45		
18		Open	0		0	0.00	2.54	0.00		
19	10:15	Open	0		0	0.00	2.72	0.00	4.30	2.25
20	8:20	Open	2		0.453	1.39	2.36	1.39	4.30	2.60
21		Open	4		1.224	3.76	2.02	3.76		
22	7:30	Open	6		2.283	7.01	6.03	0.00	4.30	3.00
23	10:40	Open	6		2.283	7.01	7.84	0.00	4.30	3.00
24		Open	4		1.224	3.76	6.03	0.00		
25		Open	2		0.453	1.39	3.97	1.39		
26	15:20	Open	0		0	0.00	4.70	0.00	4.30	2.25
27	10:20	Open	0		0	0.00	3.97	0.00	4.30	2.00
28		Open	0		0	0.00	4.21	0.00		
29	8:25	Open	0		0	0.00	2.72	0.00	4.30	1.80
30	9:15	Open	0		0	0.00	2.72	0.00	4.30	1.60
31		Open	0		0	0.00	3.10	0.00		
					21.515	66.0		9.91		

Discharge volumes

Depth "	Vol. MGD
1	0.146
2	0.453
3	0.807
4	1.224
5	1.757
6	2.283
7	2.852
8	3.462
9	4.194
10	4.882
11	5.697
12	6.457
13	7.247
14	8.171
15	9.023
16	9.903
17	10.930
18	11.860

Max Discharge 2.852 MGD
Avg. Discharge 0.694 MGD

NOTE:

Pumps are running in hand mode.
Stopped both Johnson Pumps 10/5/20
Started 1 Pump 10/7/20
Stopped 1 Pump 10/9/20
Start both Pumps 10/13/20
Stopped both pumps 10/19/20
Start both Pumps 10/23/20
Stopped both pumps 10/30/20

U.S. Silica Mill Creek Plant
Discharge Log
Out Fall 006
Nov-20

Day	Time 24 hr Clock	Gate Open/ Closed	Dis charge Depth Inches	Dis charge Rate (CFS)	Dis charge Rate (MGD)	Daily Dischg (Ac-Ft)	Mill Creek Flow Rate (CFS)	Stream Aug- ment Credit (Ac-Ft)	Gist Guage Rod Feet	Johnson Guage Rod Feet
1		Open	1		0.146	0.45	3.31	0.45		
2	11:05	Open	1		0.146	0.45	3.31	0.45	4.30	2.50
3		Open	4		1.224	3.76	3.52	3.76		
4	12:20	Open	6		2.283	7.01	4.21	7.01	4.30	3.00
5	11:25	Open	7		2.852	8.75	9.53	0.00	4.30	3.10
6	11:10	Open	6		2.283	7.01	8.84	0.00	4.30	3.00
7		Open	4		1.224	3.76	7.84	0.00		
8		Open	2		0.453	1.39	6.03	0.00		
9	11:05	Open	0		0	0.00	5.21	0.00	4.30	2.25
10	10:30	Open	0		0	0.00	3.97	0.00	4.30	2.00
11		Open	0		0	0.00	4.45	0.00		
12		Open	0		0	0.00	3.74	0.00		
13	8:45	Open	0		0	0.00	4.45	0.00	4.30	2.25
14		Open	2		0.453	1.39	4.45	0.00		
15		Open	4		1.224	3.76	3.97	3.76		
16	11:45	Open	5		1.757	5.39	3.97	5.39	4.30	2.90
17		Open	5		1.757	5.39	9.53	0.00		
18	10:30	Open	7		2.852	8.75	11.80	0.00	4.30	3.10
19		Open	6		2.283	7.01	10.20	0.00		
20	15:00	Open	6		2.283	7.01	9.53	0.00	4.30	3.00
21		Open	4		1.224	3.76	8.84	0.00		
22		Open	2		0.453	1.39	7.22	0.00		
23		Open	0		0	0.00	6.03	0.00		
24		Open	0		0	0.00	10.20	0.00		
25		Open	0		0	0.00	4.95	0.00		
26		Open	0		0	0.00	3.52	0.00		
27		Open	0		0	0.00	3.10	0.00		
28		Open	0		0	0.00	2.91	0.00		
29		Open	0		0	0.00	3.74	0.00		
30	12:30	Open	0		0	0.00	2.72	0.00	4.30	2.20
31		Open				0.00		0.00		
					24.897	76.4		20.81		

Discharge volumes

Depth "	Vol. MGD
1	0.146
2	0.453
3	0.807
4	1.224
5	1.757
6	2.283
7	2.852
8	3.462
9	4.194
10	4.882
11	5.697
12	6.457
13	7.247
14	8.171
15	9.023
16	9.903
17	10.930
18	11.860

Max Discharge 2.852 MGD
Avg. Discharge 0.83 MGD

NOTE:

Pumps are running in hand mode.

10/30/20 Stopped both Johnson Pumps

11/05/20 Start East Pump

11/06/20 Start West Pump - Both Pumps Running

11/10/20 Stop West Pump - East Pump Running

11/13/20 Stop East Pump - Both Pumps Down

11/18/20 Start Both Pumps

11/28/20 Stopped Both Pumps

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U.S. Silica Mill Creek Plant
Discharge Log
Out Fall 006
Dec-20

Day	Time 24 hr Clock	Gate Open/ Closed	Dis charge Depth Inches	Dis charge Rate (CFS)	Dis charge Rate (MGD)	Daily Dischg (Ac-Ft)	Mill Creek Flow Rate (CFS)	Stream Aug- ment Credit (Ac-Ft)	Gist Guage Rod Feet	Johnson Guage Rod Feet
1	13:00	Open	1		0.146	0.45	2.54	0.45	4.30	2.30
2		Open	3		0.807	2.48	2.54	2.48	4.30	
3	11:30	Open	4		1.224	3.76	2.54	3.76	4.30	2.70
4	12:15	Open	3		0.807	2.48	2.36	2.48	4.30	2.60
5		Open	2		0.453	1.39	4.21	1.39	4.30	
6		Open	1		0.146	0.45	3.52	0.45	4.30	
7	12:30	Open	1		0.146	0.45	2.54	0.45	4.30	2.30
8		Open	3		0.807	2.48	2.19	2.48	4.30	
9	10:45	Open	4		1.224	3.76	2.36	3.76	4.30	2.75
10		Open	3		0.807	2.48	4.95	0.00	4.30	
11	11:40	Open	2		0.453	1.39	3.77	1.39	4.30	2.60
12		Open	1		0.146	0.45	2.92	0.45	4.30	
13		Open	1		0.146	0.45	4.49	0.00	4.30	
14	14:00	Open	0		0	0.00	2.02	0.00	4.30	1.80
15		Open	1		0.146	0.45	1.87	0.45	4.30	
16	10:15	Open	2		0.453	1.39	1.57	1.39	4.30	2.60
17		Open	4		1.224	3.76	1.43	3.76	4.30	
18	9:45	Open	6		2.283	7.01	6.67	0.00	4.30	2.95
19		Open	4		1.224	3.76	4.74	0.00	4.30	
20		Open	2		0.453	1.39	2.92	1.39	4.30	
21	7:00	Open	1		0.146	0.45	1.87	0.45	4.30	2.70
22		Open	1		0.146	0.45	1.87	0.45	4.30	
23		Open	1		0.146	0.45	1.04	0.45	4.30	
24		Open	0		0	0.00	1.17	0.00	4.30	
25		Open	0		0	0.00	1.17	0.00	4.30	
26		Open	0		0	0.00	1.04	0.00	4.30	
27	10:25	Open	0		0	0.00	1.87	0.00	4.30	1.75
28		Open	0		0	0.00	1.87	0.00	4.30	
29		Open	2		0.453	1.39	1.71	1.39	4.30	
30		Open	4		1.224	3.76	1.71	3.76	4.30	
31		Open	6		2.283	7.01	2.36	7.01	4.30	3.00
					17.493	53.7		40.00		

Discharge volumes

Depth "	Vol. MGD
1	0.146
2	0.453
3	0.807
4	1.224
5	1.757
6	2.283
7	2.852
8	3.462
9	4.194
10	4.882
11	5.697
12	6.457
13	7.247
14	8.171
15	9.023
16	9.903
17	10.930
18	11.860

Max Discharge 2.283 MGD
 Avg. Discharge 0.564 MGD

NOTE:
 Pumps are running in hand mode.
 11/30/20 Both Pumps Down

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