



Robin L. Simmons
Regional Land Manager

November 28, 2022

RECEIVED

MAR 07 2023

Oklahoma Water Resources Board

Oklahoma Water Resources Board
3800 N. Classen Boulevard
Oklahoma City, OK 73118
Attn: Mr. Matt Cogburn

Re: Martin Marietta/TXI Mill Creek Limestone Quarry Monitoring Report Q3 2022

Dear Mr. Cogburn:

Attached please find the Q3 2022 Quarterly Monitoring Report for Martin Marietta/TXI's Mill Creek Limestone quarry. The report is summarized on the table labeled Appendix C. Supporting data is also included.

Please call if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads 'Robin L. Simmons'.

Robin L. Simmons
Regional Land Manager

North Texas/Oklahoma District
1503 LBJ Parkway Suite 400, Dallas, Texas 75234
t. (972) 350-8228 m. (214) 213-6024 e. Robin.Simmons@martinmarietta.com
www.martinmarietta.com

RESULTS FROM RUNOFF MODELLING

2022	PPT. Inches	Quarry Monthly Totals				FW Pond Monthly Totals		Re-cycle Recharge (Troy) Monthly Totals		TXI-Mill Creek Totals	
		Sump Direct ppt	In-Quarry Runoff	Runoff from beyond Quarry	Quarry Totals	Direct ppt	Runoff	Direct ppt	Runoff	Direct ppt	Runoff
		ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft
January	0.36	0.750	1.077	0.000	1.83	0.52	0.00	1.06	0.00	2.33	1.08
February	0.89	1.854	4.503	0.162	6.52	1.30	0.00	2.62	0.07	5.77	4.73
March	2.33	0.019	18.855	2.254	21.13	3.39	0.11	6.86	1.01	10.28	22.23
Q1 Subtotal	3.58	2.62	24.43	2.42	29.47	5.21	0.11	10.55	1.07	18.38	28.04
April	2.26	0.019	16.686	1.809	18.51	3.29	0.19	6.66	0.83	9.97	19.52
May	6.01	0.050	77.887	17.499	95.44	8.75	10.32	17.70	9.17	26.51	114.87
June	3.82	0.032	43.050	8.181	51.26	5.56	3.63	11.25	3.17	16.85	58.04
Q2 Subtotal	12.09	0.10	137.62	27.49	165.21	17.61	14.14	35.61	13.17	53.33	192.43
July	0.20	0.00	0.00	0.00	0.00	0.29	0.00	0.59	0.00	0.88	0.00
August	1.60	0.01	19.51	3.78	23.30	2.33	1.41	4.71	1.90	7.06	26.60
September	0.22	0.00	0.05	0.00	0.06	0.32	0.00	0.65	0.00	0.97	0.05
Q3 Subtotal	2.02	0.02	19.56	3.78	23.36	2.94	1.41	5.95	1.90	8.91	26.65
October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Q4 Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANNUAL TOTALS	17.69	2.74	181.62	33.69	218.05	25.77	15.67	52.11	16.15	80.62	247.12

RECEIVED
 MAR 07 2023
 Oklahoma Water Resources Board

RESULTS FROM RUNOFF MODELLING

2022	PPT. Inches	Quarry Monthly Totals				FW Pond Monthly Totals		Re-cycle Recharge (Troy) Monthly Totals		TXI-Mill Creek Totals	
		Sump Direct ppt	In-Quarry Runoff	Runoff from beyond Quarry	Quarry Totals	Direct ppt	Runoff	Direct ppt	Runoff	Direct ppt	Runoff
		ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft
January	0.36	0.750	1.077	0.000	1.83	0.52	0.00	1.06	0.00	2.33	1.08
February	0.89	1.854	4.503	0.162	6.52	1.30	0.00	2.62	0.07	5.77	4.73
March	2.33	0.019	18.855	2.254	21.13	3.39	0.11	6.86	1.01	10.28	22.23
Q1 Subtotal	3.58	2.62	24.43	2.42	29.47	5.21	0.11	10.55	1.07	18.38	28.04
April	2.26	0.019	16.686	1.809	18.51	3.29	0.19	6.66	0.83	9.97	19.52
May	6.01	0.050	77.887	17.499	95.44	8.75	10.32	17.70	9.17	26.51	114.87
June	3.82	0.032	43.050	8.181	51.26	5.56	3.63	11.25	3.17	16.85	58.04
Q2 Subtotal	12.09	0.10	137.62	27.49	165.21	17.61	14.14	35.61	13.17	53.33	192.43
July	0.20	0.00	0.00	0.00	0.00	0.29	0.00	0.59	0.00	0.88	0.00
August	1.60	0.01	19.51	3.78	23.30	2.33	1.41	4.71	1.90	7.06	26.60
September	0.22	0.00	0.05	0.00	0.06	0.32	0.00	0.65	0.00	0.97	0.05
Q3 Subtotal	2.02	0.02	19.56	3.78	23.36	2.94	1.41	5.95	1.90	8.91	26.65

Oklahoma Water Resources Board

MAR 07 2023

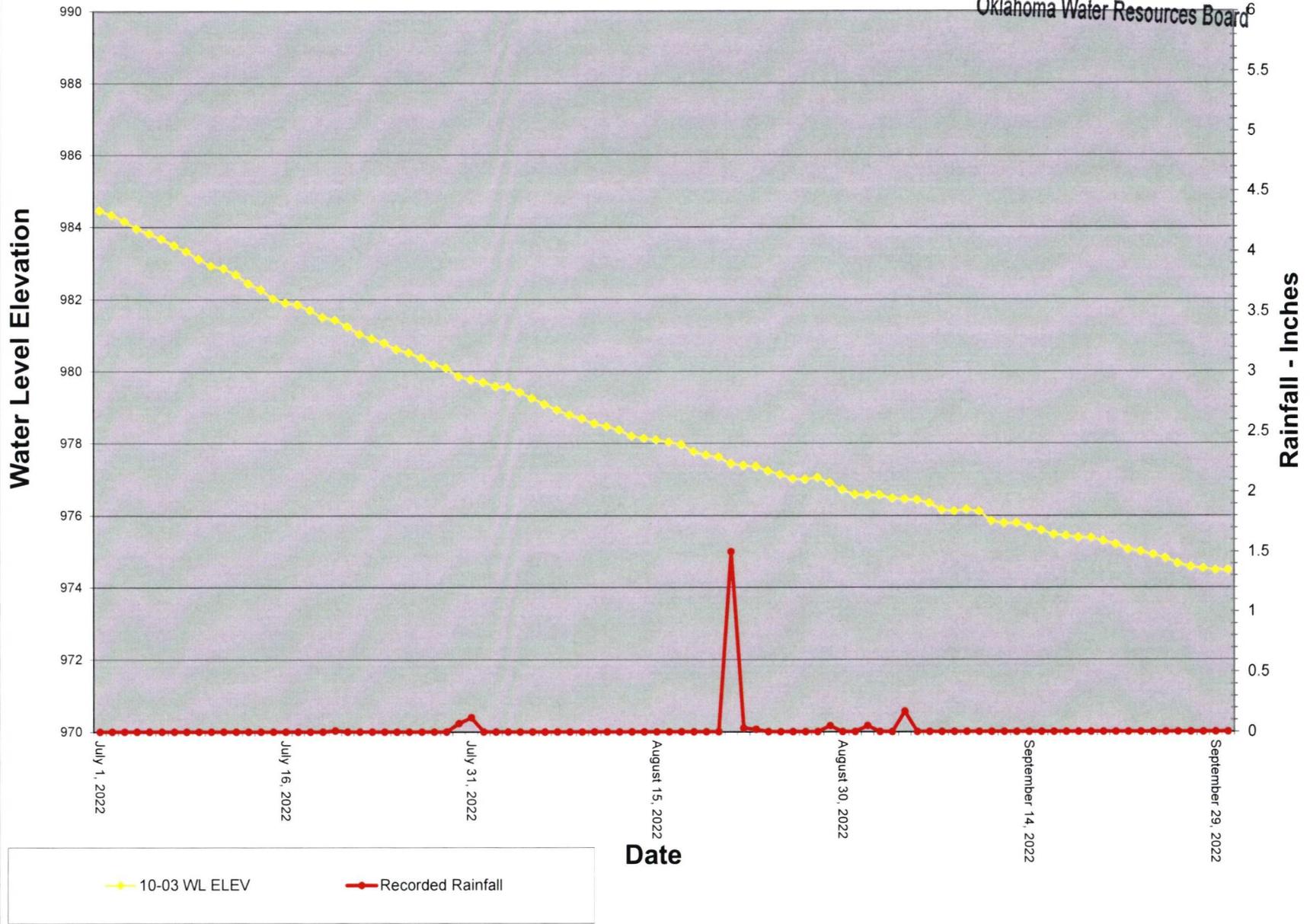
RECEIVED

RECEIVED

Mill Creek Water Levels 3rd Quarter 2022

MAR 07 2023

Oklahoma Water Resources Board⁶



**ATTACHMENT 1 (Appendix C)
Martin Marietta (TXI) Mill Creek 2022**

RECEIVED

MAR 07 2023

Oklahoma Water Resources Board

Appendix C . Consumptive use of Pitwater

Q1 2022 Q2 2022 Q3 2022

PIT GROUNDWATER VOLUME					
1	Total volume pumped from producing mine pit(s) (AC-FT)		537.1	469.8	317.9
2	Volume of precipitation that falls onto the surface of producing Mine Pits (AC-FT)		2.6	0.1	0.0
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water (AC-FT)		26.8	165.1	23.3
4	(WATER HELD IN PIT FROM PREVIOUS MONTHS) other non pit waters pumped from the producing mining pit (AC-FT)		94.9	2.1	-0.2
5	add lines 2 through 4		124.4	167.3	23.2
6	Pit Groundwater Volume (AC-FT) (line 1 minus Line 5)		412.7	302.5	294.8
DEFINED ELEMENTS OF CONSUMPTIVE USE					
7	Vol. of pit groundwater that is driven off (by drying) the mined material transp. off of the mine site (AC-FT)		0.00	0.00	0.00
8	Vol. of pit groundwater that is carried away with the the mined material transp. off of the mine site (AC-FT)		3.65	2.23	2.89
9	Vol. of pit groundwater that evaporates from producing mine pits, process ponds and lined ponds (excluding structures used for augmentation) (AC-FT)		2.83	0.00	0.03
10	Volume of pit groundwater that is used for other beneficial uses off of the mine site (AC-FT) (includes on-site dust control)		15.52	13.26	12.90
11	DEFINED ELEMENTS OF CONSUMPTIVE USE of Pit groundwater (AC-FT) (add lines 7 through 10)		22.00	15.49	15.82
PIT GROUNDWATER BALANCE					
12	Lines 6 minus 11		390.68	287.01	278.94
13	Groundwater Augmentation Volume of pit water returned to GW Basin or subbasin. (Troy Recharge AC-FT)	Credits	286.77	359.42	451.86
14	Stream Augmentation volume of pit water discharged to a definite Stream, during flow conditions that are less than or equal to the accepted exceedance level (AC-FT)		83.45	171.89	0.00
15	PPT and Runoff Volume of Precipitation and surface runoff into a recharge pit or holding pond (AC-FT)		11.62	48.79	7.85
16	Recycled Pit Groundwater - Volume of ground water returned to the mine pit or holding basin (AC-FT)		334.52	258.83	251.91
17	Other Non-Consumptive GW Losses Including pit GW returned to the land surface from which surface runoff flows into a mine pit and other losses (AC-FT)		12.71	0.00	0.00
18	add lines 13 through 17		729.07	838.92	711.62
19	OTHER CONSUMPTIVE USE Line 12 minus Line 18		-338.39	-551.91	-432.68
TOTAL REPORTED CONSUMPTIVE USE (AC-FT)					
TOTAL NET CONSUMPTIVE USE (AC-FT) Line 11 plus line 19			-316.39	-536.42	-416.86

Water Volume Movements	January	February	March	April	May	June	July	August	September
Pumped from Pit	210.2	132.3	194.6	137.5	151.0	181.4	110.8	108.6	98.5
Groundwater Component of Pitwater	130.3	107.9	174.5	117.2	55.6	129.7	111.0	85.4	98.3
Quarry dust suppression	5.9	4.6	6.0	5.7	5.0	9.0	6.1	3.7	3.9
Q- freshwater pond	178.6	115.0	143.5	90.8	102.7	84.7	104.7	104.9	94.6
To Secondary FM7	505.8	310.0	494.1	580.0	440.7	491.3	484.6	495.0	406.6
To sand Plant FM8	159.9	95.4	159.0	174.9	149.5	161.1	143.9	152.8	122.1
to loadout FM6	394.7	227.1	397.4	421.7	371.0	424.1	365.5	380.2	319.2
to dust control FM9	0.000	0.000	0.000	0.000	0.000	0.005	-0.005	0.000	0.000
to Plant FM7+FM8+FM6	1060.3	632.5	1050.5	1176.6	961.2	1076.6	994.0	1028.1	847.9
to stream Augmentation	25.79	12.58	45.08	40.89	43.34	87.66	0.00	0.00	0.00
bypass discharge	2.059187	0.5284378	1.5891711	0.3213309	0.674253	0.4962575	0	0.8987574	0.9915698
To Troy FM3	1066.8	636.3	1075.6	1236.7	1010.2	1115.7	1031.1	1082.1	864.7
To Booster FM2	1071.7	641.2	1074.4	1233.1	1034.5	1133.2	1069.5	1102.7	906.8
From Troy to Freshwater Pond FM4	867.3	531.2	858.1	1072.9	842.7	913.3	914.2	971.6	784.7

RECEIVED
 MAR 07 2023
 Oklahoma Water Resources Board

Quarter Summary	3rd Qtr
Total Tons Shipped	1,330,000
Total Acre Feet	30.53
Average Moisture %	3.12%

RECEIVED

MAR 07 2023

Oklahoma Water Resources Board

Site Martin Marietta - MC Limestone
 JID(s) j-GEO-41292
 Date Aug 19th 2022 12:27:06 pm

Mill Creek Weather Station - Daily Total Rain
 Total Rain 0.2

j-GEO-41292

Date	Daily Total Rain (in)	Daily Evaporation (in)	Date	Daily Total	Daily Evaporation (in)	Date	Daily Total	Daily Evaporation (in)
7/1/2022	0	0.2085	8/1/2022	0	0.1829	9/1/2022	0.05	0.1333
7/2/2022	0	0.2101	8/2/2022	0	0.2093	9/2/2022	0	0.113
7/3/2022	0	0.2262	8/3/2022	0	0.22	9/3/2022	0	0.203
7/4/2022	0	0.2153	8/4/2022	0	0.2096	9/4/2022	0.17	0.1238
7/5/2022	0	0.247	8/5/2022	0	0.2239	9/5/2022	0	0.1532
7/6/2022	0	0.2474	8/6/2022	0	0.2155	9/6/2022	0	0.1609
7/7/2022	0	0.2461	8/7/2022	0	0.192	9/7/2022	0	0.2217
7/8/2022	0	0.2452	8/8/2022	0	0.2017	9/8/2022	0	0.1827
7/9/2022	0	0.1554	8/9/2022	0	0.1783	9/9/2022	0	0.1908
7/10/2022	0	0.1815	8/10/2022	0	0.1921	9/10/2022	0	0.1853
7/11/2022	0	0.1736	8/11/2022	0	0.2235	9/11/2022	0	0.1902
7/12/2022	0	0.1694	8/12/2022	0	0.2008	9/12/2022	0	0.1945
7/13/2022	0	0.1767	8/13/2022	0	0.2015	9/13/2022	0	0.2273
7/14/2022	0	0.1485	8/14/2022	0	0.2072	9/14/2022	0	0.1909
7/15/2022	0	0.1323	8/15/2022	0	0.2204	9/15/2022	0	0.2142
7/16/2022	0	0.082	8/16/2022	0	0.2384	9/16/2022	0	0.1877
7/17/2022	0	0.023	8/17/2022	0	0.1662	9/17/2022	0	0.186
7/18/2022	0	0.0398	8/18/2022	0	0.15	9/18/2022	0	0.1831
7/19/2022	0	0.0471	8/19/2022	0	0.183	9/19/2022	0	0.1939
7/20/2022	0.01	0.0271	8/20/2022	0	0.1577	9/20/2022	0	0.2055
7/21/2022	0	0.1207	8/21/2022	1.5	0.1598	9/21/2022	0	0.2015
7/22/2022	0	0.1971	8/22/2022	0.03	0.1128	9/22/2022	0	0.1991
7/23/2022	0	0.2227	8/23/2022	0.02	0.1062	9/23/2022	0	0.2006
7/24/2022	0	0.2319	8/24/2022	0	0.1586	9/24/2022	0	0.1995
7/25/2022	0	0.2092	8/25/2022	0	0.2052	9/25/2022	0	0.2074
7/26/2022	0	0.2501	8/26/2022	0	0.1929	9/26/2022	0	0.1908
7/27/2022	0	0.2157	8/27/2022	0	0.1964	9/27/2022	0	0.194
7/28/2022	0	0.2395	8/28/2022	0	0.169	9/28/2022	0	0.2281
7/29/2022	0	0.1938	8/29/2022	0.05	0.1369	9/29/2022	0	0.2286
7/30/2022	0.07	0.1605	8/30/2022	0	0.0663	9/30/2022	0	0.1696
7/31/2022	0.12	0.1784	8/31/2022	0	0.1682		0.22	5.6602
	0.2	5.4218		1.6	5.6463			

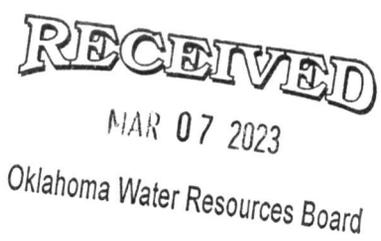
RECEIVED
 MAR 07 2023
 Oklahoma Water Resources Board

----- WARNING -----
 # Some of the data that you have obtained from this U.S. Geological Survey database
 # may not have received Director's approval. Any such data values are qualified
 # as provisional and are subject to revision. Provisional data are released on the
 # condition that neither the USGS nor the United States Government may be held liable
 # for any damages resulting from its use.
 #
 # Additional info: <https://help.waterdata.usgs.gov/policies/provisional-data-statement>
 #
 # File-format description: <https://help.waterdata.usgs.gov/faq/about-tab-delimited-output>
 # Automated-retrieval info: <https://help.waterdata.usgs.gov/faq/automated-retrievals>
 #
 # Contact: gs-w_support_nwisweb@usgs.gov
 # retrieved: 2022-08-19 13:37:08 EDT (caww01)
 #
 # Data for the following 1 site(s) are contained in this file
 # USGS 07331200 Mill Creek near Mill Creek, OK
 # -----

Data provided for site 07331200
 # TS parameter statistic Description
 # 111780 00060 00003 Discharge, cubic feet per second (Mean)
 #

Data-value qualification codes included in this output:
 # P Provisional data subject to revision.
 #

agency_cd	site_no	datetime	111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s
USGS	07331200	2022-07-01	0.59	P
USGS	07331200	2022-07-02	0.66	P
USGS	07331200	2022-07-03	0.73	P
USGS	07331200	2022-07-04	0.69	P
USGS	07331200	2022-07-05	0.60	P
USGS	07331200	2022-07-06	0.43	P
USGS	07331200	2022-07-07	0.35	P
USGS	07331200	2022-07-08	0.30	P
USGS	07331200	2022-07-09	0.45	P
USGS	07331200	2022-07-10	0.73	P
USGS	07331200	2022-07-11	0.71	P
USGS	07331200	2022-07-12	0.48	P
USGS	07331200	2022-07-13	0.26	P
USGS	07331200	2022-07-14	0.48	P
USGS	07331200	2022-07-15	0.67	P
USGS	07331200	2022-07-16	0.57	P
USGS	07331200	2022-07-17	0.70	P
USGS	07331200	2022-07-18	0.65	P
USGS	07331200	2022-07-19	0.51	P
USGS	07331200	2022-07-20	0.44	P
USGS	07331200	2022-07-21	0.70	P
USGS	07331200	2022-07-22	1.02	P
USGS	07331200	2022-07-23	0.74	P
USGS	07331200	2022-07-24	0.77	P
USGS	07331200	2022-07-25	0.69	P
USGS	07331200	2022-07-26	0.47	P
USGS	07331200	2022-07-27	0.17	P
USGS	07331200	2022-07-28	0.14	P
USGS	07331200	2022-07-29	0.13	P
USGS	07331200	2022-07-30	0.67	P
USGS	07331200	2022-07-31	0.89	P



----- WARNING -----
 # Some of the data that you have obtained from this U.S. Geological Survey database
 # may not have received Director's approval. Any such data values are qualified
 # as provisional and are subject to revision. Provisional data are released on the
 # condition that neither the USGS nor the United States Government may be held liable
 # for any damages resulting from its use.
 #
 # Additional info: <https://help.waterdata.usgs.gov/policies/provisional-data-statement>
 #
 # File-format description: <https://help.waterdata.usgs.gov/faq/about-tab-delimited-output>
 # Automated-retrieval info: <https://help.waterdata.usgs.gov/faq/automated-retrievals>
 #
 # Contact: gs-w_waterdata_support@usgs.gov
 # retrieved: 2022-09-16 14:28:03 EDT (sdww01)
 #
 # Data for the following 1 site(s) are contained in this file
 # USGS 07331200 Mill Creek near Mill Creek, OK
 # -----

Data provided for site 07331200
 # TS parameter statistic Description
 # 111780 00060 00003 Discharge, cubic feet per second (Mean)
 #
 # Data-value qualification codes included in this output:
 # P Provisional data subject to revision.
 #

agency_cd	site_no	datetime	111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s
USGS	07331200	2022-08-01	0.75	P
USGS	07331200	2022-08-02	0.78	P
USGS	07331200	2022-08-03	0.46	P
USGS	07331200	2022-08-04	0.19	P
USGS	07331200	2022-08-05	0.21	P
USGS	07331200	2022-08-06	0.34	P
USGS	07331200	2022-08-07	0.40	P
USGS	07331200	2022-08-08	0.45	P
USGS	07331200	2022-08-09	0.36	P
USGS	07331200	2022-08-10	0.22	P
USGS	07331200	2022-08-11	0.20	P
USGS	07331200	2022-08-12	0.09	P
USGS	07331200	2022-08-13	0.38	P
USGS	07331200	2022-08-14	0.42	P
USGS	07331200	2022-08-15	0.31	P
USGS	07331200	2022-08-16	0.09	P
USGS	07331200	2022-08-17	0.02	P
USGS	07331200	2022-08-18	0.05	P
USGS	07331200	2022-08-19	0.07	P
USGS	07331200	2022-08-20	0.07	P
USGS	07331200	2022-08-21	0.81	P
USGS	07331200	2022-08-22	0.81	P
USGS	07331200	2022-08-23	0.55	P
USGS	07331200	2022-08-24	0.35	P
USGS	07331200	2022-08-25	0.33	P
USGS	07331200	2022-08-26	0.31	P
USGS	07331200	2022-08-27	0.24	P
USGS	07331200	2022-08-28	0.28	P
USGS	07331200	2022-08-29	0.32	P
USGS	07331200	2022-08-30	0.15	P
USGS	07331200	2022-08-31	0.15	P

RECEIVED
 MAR 07 2023
 Oklahoma Water Resources Board

```
# ----- WARNING -----
# Some of the data that you have obtained from this U.S. Geological Survey database
# may not have received Director's approval. Any such data values are qualified
# as provisional and are subject to revision. Provisional data are released on the
# condition that neither the USGS nor the United States Government may be held liable
# for any damages resulting from its use.
#
# Additional info: https://help.waterdata.usgs.gov/policies/provisional-data-statement
#
# File-format description: https://help.waterdata.usgs.gov/faq/about-tab-delimited-output
# Automated-retrieval info: https://help.waterdata.usgs.gov/faq/automated-retrievals
#
# Contact: gs-w_waterdata_support@usgs.gov
# retrieved: 2022-10-21 14:42:35 EDT (vaww01)
```

```
# Data for the following 1 site(s) are contained in this file
# USGS 07331200 Mill Creek near Mill Creek, OK
```

```
# Data provided for site 07331200
# TS parameter statistic Description
# 111780 00060 00003 Discharge, cubic feet per second (Mean)
```

```
# Data-value qualification codes included in this output:
```

```
# P Provisional data subject to revision.
# 4 Statistic computed from less than expected number of instantaneous values for the period
```

agency_cd	site_no	datetime	111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s
USGS	07331200		2022-09-01	0.48 P
USGS	07331200		2022-09-02	0.70 P
USGS	07331200		2022-09-03	0.52 P
USGS	07331200		2022-09-04	0.36 P
USGS	07331200		2022-09-05	0.32 P
USGS	07331200		2022-09-06	0.26 P
USGS	07331200		2022-09-07	0.17 P
USGS	07331200		2022-09-08	0.10 P
USGS	07331200		2022-09-09	0.03 P
USGS	07331200		2022-09-10	0.01 P
USGS	07331200		2022-09-11	0.12 P
USGS	07331200		2022-09-12	0.37 P
USGS	07331200		2022-09-13	0.24 P
USGS	07331200		2022-09-14	0.32 P
USGS	07331200		2022-09-15	0.17 P
USGS	07331200		2022-09-16	0.14 P
USGS	07331200		2022-09-17	0.05 P
USGS	07331200		2022-09-18	0.13 P
USGS	07331200		2022-09-19	0.07 P
USGS	07331200		2022-09-20	0.06 P
USGS	07331200		2022-09-21	0.00 P:[4]
USGS	07331200		2022-09-22	0.00 P:[4]
USGS	07331200		2022-09-23	
USGS	07331200		2022-09-24	0.24 P
USGS	07331200		2022-09-25	0.36 P
USGS	07331200		2022-09-26	0.14 P
USGS	07331200		2022-09-27	0.14 P
USGS	07331200		2022-09-28	0.09 P
USGS	07331200		2022-09-29	0.29 P
USGS	07331200		2022-09-30	0.18 P

RECEIVED

MAR 07 2023

Oklahoma Water Resources Board

RECEIVED

MAR 07 2023

MESONET CLIMATOLOGICAL DATA SUMMARY July 2022 Time Zone: Midnight-Midnight CST
 (TISH) Tishomingo Nearest City: 6.0 N Tishomingo County: Johnston Oklahoma Water Resources Board
 Latitude: 34-19-57 Longitude: 96-40-44 Elevation: 879 feet

DAY	TEMPERATURE (F)				DEG DAYS		HUMIDITY (%)			RAIN (in)	PRESSURE (in)		WIND SPEED (mph)			SOLAR (MJ/m2)	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG		STN	MSL	DIR	AVG	MAX		SOD	BARE	MAX	MIN
1	95	70	82.7	68.5	0	17	92	37	65	0.00	29.02	29.96	ESE	5.6	16.9	29.09	82.6	92.6	104	82
2	95	70	83.3	69.8	0	17	95	43	66	0.00	29.00	29.93	ESE	5.0	16.3	29.03	83.5	93.8	106	83
3	97	72	82.5	71.9	0	20	96	39	73	0.00	29.04	29.98	SSE	5.0	23.3	23.67	83.9	93.0	104	84
4	98	72	86.1	67.3	0	20	95	30	58	0.00	29.05	29.99	SSE	8.5	24.3	29.36	84.2	93.4	104	84
5	99	69	85.6	65.8	0	19	91	29	55	0.00	29.01	29.94	SSE	7.9	23.4	29.33	84.5	93.6	105	83
6	101	71	87.0	66.8	0	21	86	31	54	0.00	28.98	29.92	SSE	7.8	23.0	28.93	84.9	94.1	105	84
7	102	71	87.3	67.7	0	21	89	30	56	0.00	28.99	29.92	SSE	8.2	24.6	29.12	85.5	94.6	106	84
8	105	71	88.0	68.2	0	23	92	28	57	0.01	29.03	29.97	SSW	6.1	23.9	27.69	86.0	95.5	107	85
9	101	75	86.9	69.4	0	23	93	31	60	0.00	29.09	30.03	NNE	7.5	21.3	27.77	87.0	95.3	106	86
10	99	72	84.6	66.6	0	21	90	29	58	0.00	29.05	29.99	NNE	7.0	17.9	29.53	87.0	95.2	106	85
11	100	72	84.7	66.1	0	21	93	20	59	0.00	28.96	29.90	SE	4.2	15.1	29.66	87.0	95.8	108	86
12	101	66	85.6	65.7	0	18	90	30	56	0.00	29.00	29.94	NE	6.8	18.5	28.81	87.0	95.2	106	84
13	101	75	87.2	61.3	0	23	63	21	44	0.00	29.05	29.99	NNE	7.3	19.4	28.87	88.0	96.1	108	86
14	101	73	85.2	66.7	0	22	84	29	56	0.00	29.08	30.02	ESE	7.2	23.6	28.80	88.0	95.9	107	86
15	100	68	84.2	64.3	0	19	89	27	56	0.00	29.11	30.05	SSE	5.3	19.9	29.38	87.7	95.4	107	85
16	99	67	84.7	66.5	0	18	93	31	59	0.00	29.03	29.97	SSE	6.1	25.7	27.57	87.4	94.9	106	85
17	104	71	88.3	66.6	0	23	91	24	54	0.00	28.94	29.88	SSE	6.2	21.2	24.82	87.6	95.3	105	86
18	105	75	89.9	63.9	0	25	77	25	45	0.00	28.91	29.85	ENE	5.0	16.7	28.43	88.7	97.2	109	87
19	109	75	92.6	63.7	0	27	71	19	42	0.00	28.86	29.80	S	9.7	26.8	25.59	88.7	96.6	107	87
20	96	80	86.9	70.7	0	23	81	43	60	0.00	28.90	29.84	SSW	5.0	18.9	7.61	86.3	91.3	94	89
21	88	74	81.7	71.6	0	16	86	54	72	0.01	28.99	29.93	E	4.4	21.9	6.54	84.1	86.9	89	84
22	101	72	85.3	68.1	0	22	92	28	60	0.00	29.04	29.98	SSE	7.6	27.9	25.64	85.5	90.7	102	81
23	99	71	85.7	66.6	0	20	93	31	57	0.00	29.05	29.99	SSE	8.5	24.6	27.40	87.1	92.7	103	83
24	101	76	88.7	65.8	0	23	77	29	49	0.00	29.04	29.98	SSE	8.5	22.2	26.91	88.1	94.2	105	85
25	103	71	88.2	64.0	0	22	82	25	49	0.00	29.01	29.95	SSE	7.5	23.6	27.31	88.3	94.7	105	85
26	103	73	88.9	62.5	0	23	81	22	45	0.00	29.00	29.94	SSE	8.4	25.7	27.95	88.5	94.9	106	86
27	103	72	88.1	65.9	0	23	83	27	51	0.00	28.99	29.93	SSE	7.8	27.5	23.03	88.3	94.2	104	86
28	103	76	89.5	66.1	0	25	76	24	49	0.00	28.99	29.93	S	7.8	26.5	27.28	89.1	95.5	106	86
29	95	74	84.3	70.4	0	20	87	45	65	0.00	29.06	30.00	NE	6.7	20.8	17.40	88.7	93.2	101	87
30	88	73	80.3	72.6	0	15	95	56	78	0.06	29.11	30.05	ESE	4.8	15.1	12.84	86.1	88.0	91	85
31	97	75	83.8	68.7	0	21	90	35	64	0.03	29.09	30.03	SSE	7.0	18.9	12.45	84.2	86.5	93	83
	100	72	86.1	67.1	←- Monthly Averages →-						29.02	29.95	SSE	6.8	27.9	25.09	86.6	93.7	104	85

Temperature - Highest: 109 Lowest: 66	Degree Days - Total HDD: 0 Total CDD: 650	Number of Days With: Tmax ≥ 90: 29 Tmax ≤ 32: 0 Tmin ≤ 32: 0 Tmin ≤ 0: 0	Rainfall ≥ 0.01 inch: 4 Rainfall ≥ 0.10 inch: 0 Avg Wind Speed ≥ 10 mph: 0 Max Wind Speed ≥ 30 mph: 0
Rainfall: Monthly Total: 0.11 in. Greatest 24 Hr: 0.06 in.	Humidity - Highest: 96 Lowest: 19		

RECEIVED

MAR 07 2023

MESONET CLIMATOLOGICAL DATA SUMMARY August 2022 Time Zone: Midnight-Midnight CST
 (TISH) Tishomingo Nearest City: 6.0 N Tishomingo County: Johnston
 Latitude: 34-19-57 Longitude: 96-40-44 Elevation: 879 feet
 Oklahoma Water Resources Board

DAY	TEMPERATURE (F)				DEG DAYS		HUMIDITY (%)			RAIN (in)	PRESSURE (in)		WIND SPEED (mph)			SOLAR (MJ/m2)	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG		STN	MSL	DIR	AVG	MAX		SOD	BARE	MAX	MIN
1	95	77	85.7	66.9	0	21	72	39	54	0.00	29.08	30.03	SSE	6.8	15.7	12.13	83.9	87.8	93	83
2	101	72	88.7	66.3	0	22	91	28	51	0.00	29.00	29.94	SSE	8.9	29.0	25.45	86.0	91.6	101	83
3	102	76	89.6	64.3	0	24	71	26	46	0.00	28.93	29.86	SSE	9.0	28.2	27.07	87.5	93.1	103	84
4	100	73	86.6	68.1	0	22	82	34	56	0.00	28.98	29.92	ESE	6.5	21.4	20.83	87.7	92.5	102	85
5	104	75	89.9	66.6	0	25	84	23	50	0.00	29.02	29.96	SSE	8.1	23.2	26.23	88.9	94.3	105	85
6	100	76	87.0	67.7	0	23	78	35	55	0.00	29.08	30.02	SSE	8.3	23.3	26.55	89.8	94.7	105	86
7	98	74	86.5	67.3	0	21	87	34	56	0.00	29.11	30.05	SSE	8.5	24.4	24.80	89.3	93.8	103	86
8	100	76	86.2	67.3	0	23	76	31	56	0.00	29.08	30.02	S	6.7	27.9	16.79	88.2	92.1	101	86
9	89	71	80.0	70.3	0	15	92	51	74	0.00	29.10	30.04	ESE	6.0	19.8	17.01	87.2	89.8	97	84
10	99	73	84.4	67.8	0	21	94	31	62	0.00	29.12	30.06	NE	5.4	17.8	20.20	87.6	91.3	102	83
11	98	69	83.8	61.9	0	18	93	24	53	0.00	29.11	30.05	NE	7.1	25.3	27.80	88.2	92.2	103	82
12	97	70	83.6	64.9	0	19	90	31	57	0.00	29.12	30.06	E	5.3	18.5	25.33	88.5	92.6	103	83
13	99	72	84.4	62.7	0	21	85	23	53	0.00	29.10	30.04	SE	4.9	19.3	26.84	89.0	93.7	105	84
14	100	66	84.4	61.0	0	18	81	21	49	0.00	29.03	29.97	S	5.1	19.2	27.01	88.5	93.3	105	83
15	101	71	85.6	65.3	0	21	86	30	55	0.00	28.99	29.93	S	5.6	23.8	25.83	89.1	94.2	105	85
16	103	68	86.6	62.8	0	21	84	24	50	0.00	28.97	29.91	SSW	5.8	21.1	22.42	88.5	93.4	104	84
17	87	75	79.1	69.3	0	16	84	55	73	0.00	29.05	29.99	NNE	9.0	22.4	17.24	88.2	90.4	98	86
18	85*	69*	75.5*	68.3*	0*	12*	93*	57*	79*	0.00*	29.05*	29.99*	NNE*	5.7*	22.0*	NA	86.6*	87.3*	94*	83*
19	93	64	77.4	63.5	0	14	99	32	68	0.00	29.01	29.95	SSE	4.1	18.6	24.16	86.3	89.2	101	80
20	95	68	81.5	67.4	0	17	93	37	65	0.00	29.04	29.98	SSE	5.7	19.4	19.49	86.5	89.6	99	81
21	77	69	73.8	69.6	0	8	96	73	87	1.20	29.09	30.03	ENE	5.7	15.4	7.23	83.0	81.6	88	78
22	84	72	75.4	70.3	0	13	97	60	85	0.05	29.01	29.95	NE	9.4	27.5	9.88	81.2	78.1	81	76
23	85	71	76.4	70.2	0	13	97	59	82	0.02	28.99	29.92	NNE	7.3	21.9	12.18	81.5	78.2	82	75
24	90	71	78.1	68.2	0	15	96	43	74	0.00	29.04	29.98	ENE	5.1	17.9	16.08	81.9	80.4	89	75
25	91	66	78.7	65.1	0	14	95	36	67	0.00	29.09	30.03	ENE	4.1	16.5	22.00	81.7	83.6	94	74
26	94	67	80.8	66.5	0	16	96	34	66	0.00	29.07	30.01	SE	4.1	22.7	22.83	82.2	86.7	99	76
27	94	70	80.3	70.6	0	17	96	43	75	0.00	28.96	29.89	SE	5.9	19.8	20.13	82.5	87.5	98	79
28	96	74	84.2	72.0	0	20	95	44	69	0.00	28.88	29.82	SSE	9.6	26.7	20.35	82.8	88.1	98	80
29	94	72	81.7	71.4	0	18	93	45	73	0.03	28.98	29.91	SSE	8.5	22.4	20.32	83.3	88.7	99	81
30	90	72	79.6	72.4	0	16	96	53	80	0.00	29.08	30.02	ENE	5.0	16.2	12.12	82.6	85.2	91	80
31	91	71	80.2	71.5	0	16	99	50	77	0.00	29.11	30.05	S	4.6	17.1	17.39	82.7	87.1	96	80
	95*	71*	82.4*	67.3*	<- Monthly Averages ->						29.04*	29.98*	SSE*	6.5*	29.0*	20.46*	85.8*	89.1*	98*	82*

Temperature - Highest: 104*	Degree Days - Total HDD: 0*	Number of Days With:
Lowest: 64*	Total CDD: 558*	Tmax ≥ 90: 25*
		Tmax ≤ 32: 0*
Rainfall: Monthly Total: 1.30* in.	Humidity - Highest: 99*	Tmin ≤ 32: 0*
Greatest 24 Hr: 1.20* in.	Lowest: 21*	Tmin ≤ 0: 0*
		Rainfall ≥ 0.01 inch: 4*
		Rainfall ≥ 0.10 inch: 1*
		Avg Wind Speed ≥ 10 mph: 0*
		Max Wind Speed ≥ 30 mph: 0*

RECEIVED

MAR 07 2023

MESONET CLIMATOLOGICAL DATA SUMMARY September 2022 Time Zone: Midnight-Midnight CST
 (TISH) Tishomingo Nearest City: 6.0 N Tishomingo County: Oklahoma
 Latitude: 34-19-57 Longitude: 96-40-44 Elevation: 879 feet

DAY	TEMPERATURE (F)				DEG DAYS		HUMIDITY (%)			RAIN		PRESSURE (in)			WIND SPEED (mph)			SOLAR	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG	(in)	STN	MSL	DIR	AVG	MAX	(MJ/m2)	SOD	BARE	MAX	MIN		
1	85	71	76.2	70.5	0	13	97	56	84	0.01	29.06	30.01	SW	4.2	20.3	9.29	81.4	83.8	90	80		
2	92	69	78.2	71.1	0	15	99	51	81	0.01	29.04	29.98	S	6.6	20.6	18.08	81.0	84.4	93	77		
3	98	67	81.8	65.8	0	18	99	27	65	0.00	29.11	30.05	ENE	5.1	21.2	22.42	82.1	87.4	98	78		
4	88	69	75.9	66.3	0	13	95	43	74	0.05	29.05	29.99	S	4.1	18.5	11.37	80.3	82.8	88	80		
5	92	61	77.0	60.6	0	12	98	30	62	0.00	29.01	29.95	NNE	4.1	17.8	20.51	79.7	83.9	95	74		
6	94	67	79.6	64.4	0	15	96	34	63	0.00	29.08	30.02	NE	4.2	16.2	20.47	80.7	86.4	97	77		
7	95	69	81.1	63.4	0	17	91	29	59	0.00	29.10	30.04	NNE	8.0	22.9	22.56	81.8	87.1	97	79		
8	90	65	77.2	60.5	0	13	84	35	59	0.00	28.97	29.91	NE	5.4	16.8	20.69	81.5	86.5	97	78		
9	90	60	73.9	58.9	0	10	97	33	64	0.00	28.90	29.84	SSE	4.4	23.7	22.44	80.5	85.1	96	76		
10	92	59	75.9	57.4	0	10	94	27	58	0.00	29.04	29.98	N	5.4	25.5	19.19	80.0	84.5	95	75		
11	83	58	69.9	53.1	0	6	89	30	59	0.00	29.21	30.16	N	10.3	24.4	20.01	80.1	82.3	91	76		
12	87	51	68.9	48.7	0	4	88	23	54	0.00	29.11	30.06	N	4.8	17.4	22.89	78.3	80.9	93	71		
13	90	53	72.9	55.0	0	6	92	32	58	0.00	29.03	29.97	SSE	6.3	21.1	21.95	78.5	81.5	92	72		
14	89	55	74.3	53.0	0	7	89	25	51	0.00	29.10	30.04	SE	6.2	21.3	22.11	79.3	82.2	93	73		
15	89	56	73.9	54.1	0	8	90	28	54	0.00	29.13	30.07	SSE	7.1	22.3	22.11	79.0	81.5	92	73		
16	92	61	77.1	61.7	0	11	91	39	62	0.00	29.08	30.02	SSE	8.9	25.1	20.23	79.5	82.2	92	74		
17	94	67	80.7	67.6	0	16	91	44	66	0.00	29.03	29.97	SSE	9.7	24.7	18.21	80.9	84.2	93	77		
18	97	72	82.7	67.3	0	20	91	34	63	0.00	29.04	29.99	SSE	8.7	22.0	20.59	82.4	86.2	96	79		
19	97	65	81.3	65.3	0	16	95	26	63	0.00	29.07	30.01	S	5.7	22.2	21.05	82.4	86.5	97	78		
20	98	65	81.2	64.3	0	16	94	29	61	0.00	29.07	30.01	SSE	6.5	25.7	20.36	82.6	86.5	96	78		
21	99	65	81.2	60.7	0	17	93	24	56	0.00	29.05	29.99	S	5.3	21.2	20.33	82.6	86.7	96	78		
22	96	65	80.1	59.9	0	15	84	29	53	0.00	29.07	30.01	NNE	6.6	18.9	20.33	82.8	86.6	97	78		
23	94	63	77.2	58.5	0	13	83	33	55	0.00	29.06	30.00	SSE	7.3	21.9	20.11	82.3	84.9	94	77		
24	97	65	81.4	60.0	0	16	94	26	53	0.00	29.03	29.97	SSW	5.9	21.6	19.86	82.5	86.1	96	78		
25	95	66	79.2	52.6	0	16	78	19	44	0.00	29.06	30.00	NNE	8.2	29.4	19.97	82.8	85.6	94	79		
26	87*	55*	70.7*	39.9*	0*	6*	61*	17*	36*	0.00*	29.18*	30.12*	N *	6.7*	24.7*	20.72*	80.1*	81.3*	91*	73*		
27	89	50	70.2	40.8	0	5	73	17	40	0.00	29.19	30.14	SSE	6.1	18.3	20.17	78.5	79.5	90	71		
28	92	55	74.0	46.3	0	8	79	20	42	0.00	29.25	30.20	SE	6.1	26.3	19.42	78.7	80.2	90	72		
29	80	56	67.2	43.2	0	3	70	27	44	0.00	29.26	30.21	ESE	6.7	22.5	20.08	78.0	78.5	88	72		
30	82	48	64.0	42.1	0	0	79	23	49	0.00	29.14	30.08	ESE	4.3	15.5	20.23	76.5	76.6	87	68		
91* 62* 76.2* 57.8*				<- Monthly Averages ->							29.08* 30.03*		SSE* 6.3* 29.4*			19.93*	80.6* 83.7* 94* 76*					

Temperature - Highest: 99*	Degree Days - Total HDD: 0*	Number of Days With:
Lowest: 48*	Total CDD: 345*	Tmax ≥ 90: 20*
		Rainfall ≥ 0.01 inch: 3*
Rainfall: Monthly Total: 0.07* in.	Humidity - Highest: 99*	Tmax ≤ 32: 0*
Greatest 24 Hr: 0.05* in.	Lowest: 17*	Rainfall ≥ 0.10 inch: 0*
		Tmin ≤ 32: 0*
		Avg Wind Speed ≥ 10 mph: 1*
		Tmin ≤ 0: 0*
		Max Wind Speed ≥ 30 mph: 0*

© 1993,2022 Oklahoma Climatological Survey

* Denotes incomplete record

Monthly data generated on Friday, October 21, 2022 at 17:07 UTC