Robin Simmons
Regional Land Manager

July 25, 2016

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

Re: Martin Marietta/TXI Mill Creek Limestone Quarry Monitoring Report Q2 2016

Dear Mr. Wilkins:

Attached please find the Q2 2016 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,

Robin L. Simmons

Robin L. Simmons, EIT
Regional Land Manager

North Texas/Oklahoma District
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ATTACHMENT 1 (Appendix C)

Martin Marietta (TXI) Mill Creek 2016

Appendix C . Consumptive use of Pitwater

			Q1 2016	Q2 2016
	PIT GROUNDWATER VOLUME			
1	Total volume pumped from producing mine pit(s) (AC-FT)		1413.17	792.76
2	Volume of precipitation that falls onto the surface of producing Mine Pits (AC-FT)		48.48	107.38
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water (AC-FT)		15.03	31.51
4	**(WATER HELD IN PIT FROM PREVIOUS MONTHS) other non pit waters pumped from the producing mining pit (AC-FT)**		682.00	68.00
5	add lines 2 through 4		745.51	206.89
6	**Pit Groundwater Volume (AC-FT)** (line 1 minus Line 5)		**667.66**	**585.87**
	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
8	Vol. of pit groundwater that is carried away with the the mined material transp. off of the mine site (AC-FT)		7.19	5.21
9	Vol. of pit groundwater that evaporates from producing mine pits, process ponds and lined ponds (excluding structures used for augmentation) (AC-FT)		6.18	10.68
10	Volume of pit groundwater that is used for other beneficial uses off of the mine site (AC-FT) (includes on-site dust control)		7.83	6.13
11	**DEFINED ELEMENTS OF CONSUMPTIVE USE** of Pit groundwater (AC-FT) (add lines 7 through 10)		**21.20**	**22.02**
	PIT GROUNDWATER BALANCE			
12	Lines 6 minus 11		646.46	563.85
13	**Groundwater Augmentation** Volume of pit groundwater returned to GW Basin or subbasin. (Troy Recharge AC-FT)	Credits	191.80	149.73
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)	Credits	0.00	0.00
15	**PPT and Runoff** Volume of Precipitation and surface runoff into a recharge pit or holding pond (AC-FT)	Credits	39.50	149.86
16	**Recycled Pit Groundwater** - Volume of ground water returned to the mine pit or holding basin (AC-FT)		528.40	361.38
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)		0.00	0.00
18	add lines 13 through 17		759.70	660.97
19	**OTHER CONSUMPTIVE USE** Line 12 minus Line 18		-113.23	-97.13
	TOTAL REPORTED CONSUMPTIVE USE (AC-FT)			
	TOTAL NET CONSUMPTIVE USE (AC-FT) Line 11 plus line 19		-92.04	-75.10

RESULTS FROM RUNOFF MODELLING

2016	PPT.	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
	Inches	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft
January	0.62	1.671	0.244	0.000	1.91	1.13	0.00	2.10	0.00	4.90	0.24
February	1.11	2.991	7.027	1.678	11.70	2.02	0.48	3.76	2.00	8.77	11.18
March	3.88	10.457	26.093	13.348	49.90	7.06	10.87	13.15	18.49	30.66	68.80
Q1 Subtotal	**5.61**	**15.12**	**33.36**	**15.03**	**63.51**	**10.20**	**11.35**	**19.01**	**20.49**	**44.33**	**80.23**
April	6.12	16.493	41.611	15.570	73.67	11.13	8.64	20.74	20.35	48.36	86.17
May	4.55	0.379	18.483	2.806	21.67	8.27	0.48	15.42	3.10	24.07	24.87
June	3.86	0.322	30.094	13.135	43.55	7.02	8.99	13.08	17.60	20.42	69.82
Q2 Subtotal	**14.53**	**17.19**	**90.19**	**31.51**	**138.89**	**26.42**	**18.10**	**49.24**	**41.06**	**92.86**	**180.86**

Water Volume Movements		January	February	March	April	May	June
Pumped from Pit	(Ac-Ft)	259.3	495.8	658.1	299.1	251.6	242.1
Groundwater Component of Pitwater		207.4	334.1	458.2	225.4	229.9	130.5
Quarry dust suppression		1.5	4.4	3.3	2.3	1.0	3.3
Q- freshwater pond	(Ac-Ft)	257.8	491.4	654.8	296.8	250.6	238.8
To Secondary FM7	(Ac-Ft)	474.7	507.8	535.1	522.2	532.7	460.3
To sand Plant FM8	(Ac-Ft)	73.3	214.2	138.7	145.4	140.5	111.1
to loadout FM6	(Ac-Ft)	363.8	338.1	385.4	435.1	395.8	359.3
to dust control FM9	(Ac-Ft)	0.7	3.4	1.6	2.3	3.0	5.8
to Plant FM7+FM8+FM6	(Ac-Ft)	911.8	1060.1	1059.2	1102.8	1069.0	930.7
to stream Augmentation	Ac-ft	0.00	0.00	0.00	0.00	0.00	0.00
To Troy FM3	(Ac-Ft)	971.8	985.3	1085.3	1135.9	1100.3	951.2
From Troy to Freshwater Pond FM4	+	709.1	749.6	817.7	837.4	813.7	660.9

Quarter Summary	2nd QTR
Total Tons Shipped	1,510,000
Total Acre Feet	32.23
Average Moisture %	2.90%

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# The data you have obtained from this automated U.S. Geological Survey database
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# United States Government may be held liable for any damages resulting from its use.
# Additional info: http://help.waterdata.usgs.gov/policies/provisional-data-statement
#
# File-format description:  http://help.waterdata.usgs.gov/faq/about-tab-delimited-output
# Automated-retrieval info: http://help.waterdata.usgs.gov/faq/automated-retrievals
#
# Contact:   gs-w_support_nwisweb@usgs.gov
# retrieved: 2016-07-01 13:03:42 EDT       (nadww01)
#
# 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
#    DD parameter statistic   Description
#    02   00060     00003     Discharge, cubic feet per second (Mean)
#
# Data-value qualification codes included in this output:
#     A  Approved for publication -- Processing and review completed.
#
agency_cd       site_no datetime        02_00060_00003  02_00060_00003_cd
5s      15s     20d     14n     10s
USGS    07331200        2016-04-01      19      A
USGS    07331200        2016-04-02      17      A
USGS    07331200        2016-04-03      17      A
USGS    07331200        2016-04-04      16      A
USGS    07331200        2016-04-05      15      A
USGS    07331200        2016-04-06      15      A
USGS    07331200        2016-04-07      16      A
USGS    07331200        2016-04-08      17      A
USGS    07331200        2016-04-09      18      A
USGS    07331200        2016-04-10      19      A
USGS    07331200        2016-04-11      63      A
USGS    07331200        2016-04-12      37      A
USGS    07331200        2016-04-13      27      A
USGS    07331200        2016-04-14      24      A
USGS    07331200        2016-04-15      21      A
USGS    07331200        2016-04-16      17      A
USGS    07331200        2016-04-17      196     A
USGS    07331200        2016-04-18      315     A
USGS    07331200        2016-04-19      126     A
USGS    07331200        2016-04-20      255     A
USGS    07331200        2016-04-21      118     A
USGS    07331200        2016-04-22      86      A
USGS    07331200        2016-04-23      71      A
USGS    07331200        2016-04-24      55      A
USGS    07331200        2016-04-25      44      A
USGS    07331200        2016-04-26      39      A
USGS    07331200        2016-04-27      84      A
USGS    07331200        2016-04-28      61      A
USGS    07331200        2016-04-29      119     A
USGS    07331200        2016-04-30      202     A
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# Automated-retrieval info: http://help.waterdata.usgs.gov/faq/automated-retrievals
#
# Contact:   gs-w_support_nwisweb@usgs.gov
# retrieved: 2016-07-01 13:04:11 EDT       (nadww01)
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#
agency_cd       site_no datetime        02_00060_00003  02_00060_00003_cd
5s      15s     20d     14n     10s
USGS    07331200        2016-05-01      92      A
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USGS    07331200        2016-05-03      52      A
USGS    07331200        2016-05-04      37      A
USGS    07331200        2016-05-05      27      A
USGS    07331200        2016-05-06      19      A
USGS    07331200        2016-05-07      15      A
USGS    07331200        2016-05-08      14      A
USGS    07331200        2016-05-09      36      A
USGS    07331200        2016-05-10      46      A
USGS    07331200        2016-05-11      31      A
USGS    07331200        2016-05-12      20      A
USGS    07331200        2016-05-13      15      A
USGS    07331200        2016-05-14      13      A
USGS    07331200        2016-05-15      12      A
USGS    07331200        2016-05-16      12      A
USGS    07331200        2016-05-17      65      A
USGS    07331200        2016-05-18      46      A
USGS    07331200        2016-05-19      21      A
USGS    07331200        2016-05-20      16      A
USGS    07331200        2016-05-21      12      A
USGS    07331200        2016-05-22      10      A
USGS    07331200        2016-05-23      52      A
USGS    07331200        2016-05-24      42      A
USGS    07331200        2016-05-25      24      A
USGS    07331200        2016-05-26      16      A
USGS    07331200        2016-05-27      33      A
USGS    07331200        2016-05-28      101     A
USGS    07331200        2016-05-29      36      A
USGS    07331200        2016-05-30      22      A
USGS    07331200        2016-05-31      32      A
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# Contact:   gs-w_support_nwisweb@usgs.gov
# retrieved: 2016-07-01 13:04:35 EDT       (nadww01)
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#    USGS 07331200 Mill Creek near Mill Creek, OK
# ------------------------------------------------------------------------------------
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#    DD parameter statistic   Description
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agency_cd       site_no datetime        02_00060_00003  02_00060_00003_cd
5s      15s     20d     14n     10s
USGS    07331200        2016-06-01      46      A
USGS    07331200        2016-06-02      471     A
USGS    07331200        2016-06-03      314     A
USGS    07331200        2016-06-04      181     A
USGS    07331200        2016-06-05      114     A
USGS    07331200        2016-06-06      68      P
USGS    07331200        2016-06-07      40      P
USGS    07331200        2016-06-08      28      P
USGS    07331200        2016-06-09      21      P
USGS    07331200        2016-06-10      16      P
USGS    07331200        2016-06-11      13      P
USGS    07331200        2016-06-12      57      P
USGS    07331200        2016-06-13      101     P
USGS    07331200        2016-06-14      50      P
USGS    07331200        2016-06-15      32      P
USGS    07331200        2016-06-16      21      P
USGS    07331200        2016-06-17      19      P
USGS    07331200        2016-06-18      11      P
USGS    07331200        2016-06-19      9.1     P
USGS    07331200        2016-06-20      8.0     P
USGS    07331200        2016-06-21      8.1     P
USGS    07331200        2016-06-22      7.2     P
USGS    07331200        2016-06-23      6.2     P
USGS    07331200        2016-06-24      5.5     P
USGS    07331200        2016-06-25      4.8     P
USGS    07331200        2016-06-26      4.2     P
USGS    07331200        2016-06-27      4.0     P
USGS    07331200        2016-06-28      3.6     P
USGS    07331200        2016-06-29      3.1     P
USGS    07331200        2016-06-30      3.4     P
```

Date	Daily Rainfall Total	Total Daily Evaporation
4/1/2016	0	0
4/2/2016	0	0.001
4/3/2016	0	0
4/4/2016	0	0.002
4/5/2016	0	0
4/6/2016	0	0
4/7/2016	0	0
4/8/2016	0	0
4/9/2016	0.02	0.02
4/10/2016	0	0
4/11/2016	1.32	0.24
4/12/2016	0	0
4/13/2016	0.24	0.24
4/14/2016	0.47	0.056
4/15/2016	0	0.136
4/16/2016	0	0.142
4/17/2016	1.49	0.576
4/18/2016	0.31	0.229
4/19/2016	0.5	0.046
4/20/2016	0.48	0.748
4/21/2016	0	0.244
4/22/2016	0	0.233
4/23/2016	0	0.322
4/24/2016	0	0.315
4/25/2016	0	0.238
4/26/2016	0.39	0.357
4/27/2016	0.02	0.17
4/28/2016	0	0.264
4/29/2016	0.87	0.239
4/30/2016	0.01	0.107
5/1/2016	0	0.227
5/2/2016	0.25	0.112
5/3/2016	0	0.186
5/4/2016	0	0.288
5/5/2016	0	0.263
5/6/2016	0	0.243
5/7/2016	0	0.234
5/8/2016	0.11	0.17
5/9/2016	0.95	0.08
5/10/2016	0	0.236
5/11/2016	0	0.25
5/12/2016	0.03	0.264
5/13/2016	0	0.254
5/14/2016	0	0.25
5/15/2016	0	0.092
5/16/2016	0	0.015

5/17/2016	0.77	0.174
5/18/2016	0	0.038
5/19/2016	0.01	0.031
5/20/2016	0	0.106
5/21/2016	0	0.147
5/22/2016	0	0.194
5/23/2016	0.95	0.461
5/24/2016	0.17	0.083
5/25/2016	0	0.095
5/26/2016	0	0.147
5/27/2016	0.41	0.215
5/28/2016	0	0.06
5/29/2016	0.14	0.181
5/30/2016	0.57	0.169
5/31/2016	0.19	0.184
6/1/2016	0.04	0.047
6/2/2016	2.38	0.715
6/3/2016	0.37	0.466
6/4/2016	0.01	0.151
6/5/2016	0	0.36
6/6/2016	0	0.31
6/7/2016	0	0.269
6/8/2016	0	0.326
6/9/2016	0	0.324
6/10/2016	0	0.295
6/11/2016	0	0.201
6/12/2016	0.98	0.446
6/13/2016	0.01	0.019
6/14/2016	0.07	0.093
6/15/2016	0	0.301
6/16/2016	0	0.277
6/17/2016	0	0.297
6/18/2016	0	0.239
6/19/2016	0	0.278
6/20/2016	0	0.208
6/21/2016	0	0.125
6/22/2016	0	0.011
6/23/2016	0	0.015
6/24/2016	0	0.018
6/25/2016	0	0.007
6/26/2016	0	0.012
6/27/2016	0	0.02
6/28/2016	0	0.035
6/29/2016	0	0.013
6/30/2016	0	0.009

MESONET CLIMATOLOGICAL DATA SUMMARY
(TISH) Tishomingo
Latitude: 34-19-57

April 2016
Nearest City: 6.0 N Tishomingo
Longitude: 96-40-44

Time Zone: Midnight-Midnight CST
County: Johnston
Elevation: 879 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	63	43	53.5	33.5	12	0	73	27	49	0.00	29.10	30.04	NNE	9.7	26.4	17.17	58.7	57.4	64	53
2	68	36	52.5	31.8	13	0	87	22	50	0.00	29.23	30.18	NW	6.2	22.2	26.47	57.8	57.2	68	47
3	75	37	57.8	40.4	9	0	96	29	58	0.00	29.15	30.09	S	8.7	31.6	25.91	59.2	59.7	71	50
4	83	45	65.7	43.4	1	0	91	22	50	0.00	29.13	30.08	NE	6.9	16.6	25.94	62.2	64.1	76	53
5	83	51	68.6	46.6	0	2	79	23	48	0.00	29.11	30.06	S	12.1	31.9	24.53	63.9	66.8	77	58
6	74	44	64.2	37.4	6	0	86	18	41	0.00	29.03	29.97	NW	13.6	34.8	26.26	64.0	67.6	75	62
7	80	41	62.3	37.1	4	0	92	22	44	0.00	29.04	29.98	N	9.3	24.3	25.99	62.9	65.5	76	56
8	72	41	57.3	33.0	9	0	90	20	44	0.00	29.22	30.16	NNE	5.2	19.7	25.19	63.1	65.2	75	56
9	67	41	54.6	46.9	11	0	96	44	77	0.06	29.12	30.06	S	5.5	20.2	7.83	60.0	60.6	64	57
10	76	55	66.2	59.6	0	0	92	64	80	0.01	28.91	29.85	S	15.3	33.0	14.68	63.0	63.9	71	58
11	69	52	61.9	57.7	4	0	100	71	87	1.34	29.00	29.94	NE	11.2	30.0	10.75	63.8	63.9	67	59
12	66	49	57.4	48.5	8	0	98	58	73	0.06	29.22	30.17	NNE	7.0	18.3	18.25	62.5	60.5	67	54
13	62	51	55.3	51.4	9	0	97	71	87	0.16	29.15	30.09	E	5.6	18.3	11.85	62.4	60.3	65	58
14	69	53	60.1	53.1	4	0	96	58	79	0.00	29.07	30.01	E	4.5	11.0	19.43	64.7	63.6	70	58
15	72	51	61.6	55.6	4	0	100	58	82	0.00	28.96	29.90	ESE	6.8	21.1	20.53	65.2	63.3	71	57
16	73	61	65.9	60.9	0	2	96	69	84	0.00	28.99	29.93	ESE	12.1	29.9	11.59	66.1	64.8	69	62
17	65	59	62.8	61.2	3	0	100	84	95	1.95	29.09	30.04	ESE	10.0	28.3	3.94	64.2	63.3	65	62
18	67	61	63.9	62.9	1	0	100	88	96	0.32	29.19	30.13	NNE	5.6	15.0	8.33	65.4	65.6	69	63
19	73	59	64.2	60.9	0	1	100	63	90	0.77	29.12	30.07	NE	4.1	30.3	13.06	66.6	66.8	73	63
20	70	54	62.0	57.9	3	0	100	60	88	0.24	29.03	29.97	NW	4.3	13.7	20.35	67.9	68.1	75	63
21	75	54	63.0	53.5	1	0	100	38	75	0.00	29.03	29.97	NNW	5.4	18.5	23.65	68.5	67.2	74	62
22	79	51	64.6	51.7	0	0	96	36	68	0.00	29.12	30.07	NW	5.5	18.6	27.07	69.1	66.7	75	59
23	79	50	65.8	53.6	1	0	99	39	69	0.00	29.07	30.01	SSE	5.9	22.2	27.78	69.9	67.4	75	60
24	76	57	67.4	57.6	0	2	93	50	73	0.00	28.89	29.83	SSE	13.5	33.9	26.62	70.1	66.6	73	61
25	82*	64*	72.9*	65.9*	0*	8*	91*	63*	79*	0.00*	28.79*	29.73*	S *	13.5*	29.0*	NA	72.3*	70.0*	76*	65*
26	82	59	73.3	66.4	0	5	99	63	80	0.96	28.72	29.65	SSE	14.2	46.0	19.76	73.2	72.0	77	69
27	76	55	65.4	57.8	0	0	100	47	79	0.00	28.74	29.68	WNW	6.7	18.3	27.05	71.8	70.2	77	64
28	78	52	66.0	54.0	0	0	99	43	68	0.00	28.92	29.86	E	7.7	20.2	27.85	70.8	67.8	75	61
29	75	59	65.2	62.7	0	2	100	67	92	2.18	28.75	29.68	ESE	9.6	27.8	12.33	70.0	68.4	74	65
30	73	56	62.3	57.5	0	0	100	55	86	0.00	28.84	29.77	NW	7.0	17.4	19.14	69.3	68.5	75	64
	73*	51*	62.8*	52.0*	<- Monthly Averages ->						29.02*	29.97*	S *	8.4*	46.0*	19.63*	65.6*	65.1*	72*	59*

Temperature - Highest: 83*
Lowest: 36*

Degree Days - Total HDD: 103*
Total CDD: 24*

Rainfall: Monthly Total: 8.05* in.
Greatest 24 Hr: 2.18* in.

Humidity - Highest: 100*
Lowest: 18*

Number of Days With:
Tmax ≥ 90: 0*
Tmax ≤ 32: 0*
Tmin ≤ 32: 0*
Tmin ≤ 0: 0*
Rainfall ≥ 0.01 inch: 11*
Rainfall ≥ 0.10 inch: 8*
Avg Wind Speed ≥ 10 mph: 9*
Max Wind Speed ≥ 30 mph: 8*

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* Denotes incomplete record

Monthly data generated on Monday, June 06, 2016 at 11:10 [illegible]

MESONET CLIMATOLOGICAL DATA SUMMARY
(TISH) Tishomingo
Latitude: 34-19-57

May 2016
Nearest City: 6.0 N Tishomingo
Longitude: 96-40-44

Time Zone: Midnight-Midnight CST
County: Johnston
Elevation: 879 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	68	51	58.8	47.7	5	0	96	49	68	0.07	29.07	30.02	N	11.1	26.0	28.37	67.9	64.9	71	59
2	61	45	53.2	47.4	12	0	99	59	82	0.00	29.17	30.11	NNW	8.5	22.1	14.38	64.1	60.5	63	57
3	71	41	57.2	46.4	9	0	100	36	72	0.01	29.12	30.07	NW	4.2	15.4	27.72	65.6	62.1	71	53
4	80	49	64.5	50.1	0	0	99	32	65	0.00	29.06	30.00	NW	7.9	21.4	29.02	68.3	64.8	73	57
5	78	46	63.1	47.2	3	0	96	30	62	0.00	29.10	30.04	NW	4.4	14.5	29.67	69.6	65.8	75	56
6	79	47	65.1	51.8	2	0	98	35	66	0.00	29.11	30.05	SE	4.4	15.3	28.51	71.5	67.6	77	58
7	81	50	67.2	56.1	0	0	100	43	71	0.00	29.01	29.95	SSE	8.8	26.7	26.06	71.7	68.4	77	60
8	74	60	65.9	62.4	0	2	97	75	89	0.20	28.86	29.79	SSE	12.0	33.1	7.86	69.2	66.4	69	64
9	78	59	65.8	62.8	0	4	100	67	90	1.01	28.74	29.67	SSE	10.4	38.4	13.30	69.0	67.4	73	64
10	88	60	75.7	68.8	0	9	100	54	81	0.03	28.85	29.78	SSW	9.7	26.5	27.11	73.6	71.5	79	64
11	83	60	73.6	64.8	0	6	97	55	75	0.00	28.99	29.93	S	6.8	23.2	23.79	76.4	73.0	79	67
12	78	55	68.6	58.2	0	2	97	42	72	0.04	29.19	30.14	NNE	9.3	25.6	26.76	75.5	71.9	77	68
13	79	49	66.5	53.8	1	0	99	35	69	0.00	29.19	30.14	S	5.5	22.8	29.59	74.6	69.7	78	61
14	66	53	59.2	47.0	6	0	91	46	65	0.00	29.22	30.16	NNE	11.3	31.3	24.49	71.4	67.5	73	63
15	68	54	60.5	49.2	4	0	74	58	66	0.00	29.18	30.12	ESE	7.7	17.8	15.12	68.8	65.5	71	60
16	76	59	65.6	59.4	0	2	92	71	80	0.05	28.99	29.93	SE	7.7	24.0	12.48	70.1	66.6	72	63
17	68	55	61.8	58.7	3	0	98	78	90	1.11	29.07	30.01	N	9.3	28.3	7.50	68.4	66.1	69	63
18	60	54	56.6	52.5	8	0	91	81	86	0.00	29.18	30.13	NNE	9.5	22.0	8.23	64.6	61.6	64	60
19	61	57	58.6	55.7	6	0	97	83	90	0.01	29.08	30.02	E	5.5	17.3	6.53	64.7	61.8	64	60
20	75	58	64.9	59.1	0	2	100	54	83	0.00	29.05	29.99	ENE	3.5	11.7	20.59	68.9	67.4	76	61
21	80	58	69.1	63.0	0	4	100	61	83	0.00	29.12	30.06	ESE	5.6	14.7	23.33	72.6	70.5	78	63
22	80	66	72.3	64.8	0	8	90	65	78	0.00	29.05	29.99	ESE	7.3	20.8	18.50	75.0	72.2	78	68
23	77	62	69.5	66.4	0	5	100	77	90	0.82	28.94	29.88	SE	7.9	38.5	9.94	73.5	71.0	75	67
24	83	65	75.0	70.8	0	9	99	72	87	0.56	28.97	29.91	S	9.9	28.8	19.86	76.1	74.3	80	69
25	83	73	77.4	73.5	0	13	96	76	88	0.00	28.98	29.92	S	11.0	29.5	12.18	77.4	76.0	80	73
26	79	70	75.0	70.7	0	10	100	63	87	0.02	28.91	29.84	SSE	11.5	30.7	8.20	76.4	74.6	77	71
27	78	64	69.5	65.3	0	6	98	68	87	0.39	28.80	29.73	SSE	9.8	47.9	16.11	75.0	72.1	77	69
28	83	64	72.8	67.0	0	8	99	64	83	0.00	28.99	29.93	SSE	6.1	14.9	27.09	78.1	75.6	84	69
29	85	66	74.4	67.4	0	10	99	48	81	0.45	29.12	30.06	E	4.9	24.4	20.93	79.2	77.7	85	72
30	80	64	71.5	66.1	0	7	100	59	84	1.82	29.03	29.97	SSE	5.9	34.0	22.50	78.9	77.8	85	72
31	76	64	68.3	67.1	0	5	100	83	96	0.18	28.96	29.89	ESE	5.1	27.4	8.75	76.6	75.4	78	72
	76	57	66.7	59.4	<- Monthly Averages ->						29.04	29.98	SSE	7.8	47.9	19.18	72.0	69.3	75	64

Temperature - Highest: 88
Lowest: 41

Degree Days - Total HDD: 60
Total CDD: 112

Rainfall: Monthly Total: 6.77 in.
Greatest 24 Hr: 1.82 in.

Humidity - Highest: 100
Lowest: 30

Number of Days With:
Tmax ≥ 90: 0
Tmax ≤ 32: 0
Tmin ≤ 32: 0
Tmin ≤ 0: 0
Rainfall ≥ 0.01 inch: 16
Rainfall ≥ 0.10 inch: 9
Avg Wind Speed ≥ 10 mph: 6
Max Wind Speed ≥ 30 mph: 7

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* Denotes incomplete record

Monthly data generated on Monday, June 06, 2016 at 12:09 UTC

MESONET CLIMATOLOGICAL DATA SUMMARY
(TISH) Tishomingo
Latitude: 34-19-57

June 2016
Nearest City: 6.0 N Tishomingo
Longitude: 96-40-44

Time Zone: Midnight-Midnight CST
County: Johnston
Elevation: 879 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	78	64	69.7	66.1	0	6	100	67	89	0.04	29.01	29.95	E	3.8	14.9	14.54	75.5	74.4	80	70
2	71	64	68.5	67.8	0	3	100	94	98	1.81	29.01	29.95	NE	7.3	18.9	4.60	74.0	72.6	75	71
3	80	67	71.1	68.1	0	8	100	68	91	0.14	28.99	29.93	ENE	5.9	17.1	15.11	74.8	74.9	82	70
4	82	65	73.1	67.7	0	9	100	58	85	0.00	29.01	29.95	NNE	4.4	17.2	22.22	77.6	77.9	85	72
5	83	60	71.6	59.4	0	6	98	40	69	0.00	29.00	29.94	NNE	7.4	23.1	28.84	77.5	75.6	82	68
6	84	59	72.0	60.2	0	6	98	41	71	0.00	28.98	29.91	NW	5.0	18.9	30.72	78.3	76.5	85	68
7	88	59	74.0	61.9	0	9	99	34	71	0.00	28.99	29.93	NW	3.0	10.5	28.98	79.2	77.9	87	69
8	90	61	77.4	64.0	0	11	100	34	68	0.00	29.00	29.94	SSE	5.0	17.6	29.98	80.6	79.3	88	71
9	89	64	78.2	66.7	0	12	100	44	71	0.00	29.00	29.94	SSE	6.7	22.1	27.38	81.1	79.9	88	72
10	90	67	79.6	67.9	0	14	97	46	70	0.00	29.04	29.98	SSE	6.9	22.2	28.50	82.1	82.0	91	74
11	89	69	78.2	71.2	0	14	97	55	80	0.00	29.08	30.02	SSE	5.5	19.3	22.94	82.2	83.0	92	75
12	84	70	74.9	72.6	0	12	100	74	93	0.20	29.08	30.02	ESE	5.2	24.9	9.25	79.9	79.3	84	77
13	82	69	75.3	72.8	0	11	100	76	92	0.00	28.98	29.92	SE	4.3	18.6	10.28	79.1	78.4	82	75
14	91	70	79.6	74.0	0	16	100	62	84	0.05	28.89	29.83	S	7.7	26.0	22.03	80.8	80.4	88	75
15	93	74	82.7	75.6	0	18	99	61	80	0.00	28.95	29.89	SSE	7.7	21.6	27.13	83.4	85.0	95	76
16	93	74	82.4	74.7	0	18	98	57	79	0.00	28.96	29.90	S	7.4	19.3	21.28	83.8	85.6	94	79
17	94	73	84.0	74.3	0	18	96	54	74	0.00	28.98	29.92	SSE	5.8	16.8	28.64	84.6	88.6	100	78
18	93	72	82.2	74.1	0	18	100	53	78	0.46	29.08	30.02	ENE	5.5	18.6	24.19	84.6	90.1	100	81
19	89	73	80.0	71.2	0	16	98	53	76	0.00	29.18	30.13	ESE	5.8	15.9	21.15	83.3	86.0	91	81
20	91	69	80.4	70.3	0	15	99	45	74	0.00	29.22	30.17	SE	4.1	15.6	23.99	82.9	84.9	94	77
21	94*	71*	82.7*	70.5*	0*	18*	100*	39*	71*	0.00*	29.13*	30.07*	SSE*	4.7*	15.4*	NA	84.7*	87.1*	96*	78*
22	95	76	84.4	72.5	0	20	91	43	70	0.00	29.03	29.97	S	9.9	23.8	27.75	85.7	88.5	97	81
23	94	75	83.8	73.4	0	20	93	47	73	0.00	29.06	30.00	S	8.8	21.4	28.55	86.7	89.7	98	82
24	93	72	82.3	69.7	0	17	96	38	69	0.00	29.07	30.01	SSE	7.8	20.8	29.01	86.8	90.0	99	82
25	94	70	82.3	71.2	0	17	97	44	72	0.00	29.07	30.01	S	8.8	23.3	26.79	86.6	89.5	98	82
26	94	71	82.7	72.0	0	18	96	46	73	0.00	29.13	30.07	S	8.6	38.1	25.46	86.8	89.9	98	83
27	91	69	77.5	72.6	0	15	100	53	86	0.49	29.15	30.09	NNW	3.6	18.1	16.13	84.3	86.0	94	82
28	93	70	81.3	70.3	0	17	99	39	73	0.00	29.12	30.06	NE	5.6	20.5	26.18	84.1	85.0	92	78
29	91	67	79.5	67.7	0	14	97	42	70	0.00	29.09	30.03	S	4.4	16.1	28.74	84.4	86.5	97	77
30	93	67	80.1	69.6	0	15	97	41	73	0.00	29.05	29.99	SSE	4.9	16.2	26.92	85.2	87.9	98	79
	89*	68*	78.4*	69.7*	<- Monthly Averages ->						29.04*	29.98*	SSE*	6.0*	38.1*	23.35*	82.0*	83.1*	91*	76*

Temperature - Highest: 95*
Lowest: 59*

Degree Days - Total HDD: 0*
Total CDD: 411*

Rainfall: Monthly Total: 3.19* in.
Greatest 24 Hr: 1.81* in.

Humidity - Highest: 100*
Lowest: 34*

Number of Days With:
Tmax ≥ 90: 18*
Tmax ≤ 32: 0*
Tmin ≤ 32: 0*
Tmin ≤ 0: 0*
Rainfall ≥ 0.01 inch: 7*
Rainfall ≥ 0.10 inch: 5*
Avg Wind Speed ≥ 10 mph: 0*
Max Wind Speed ≥ 30 mph: 1*

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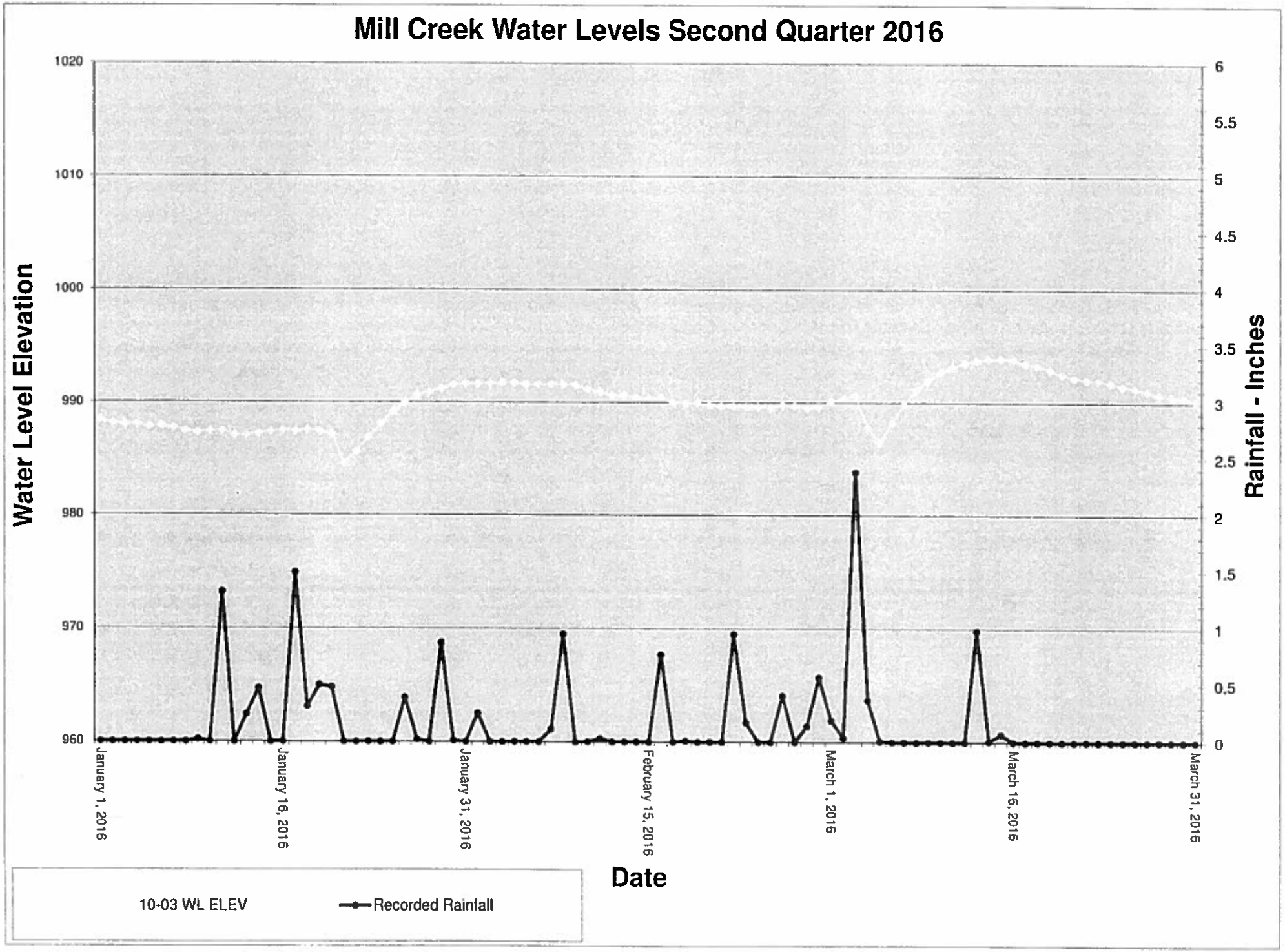
* Denotes incomplete record

Monthly data generated on Friday, July 24, 2017 at 12:12 PM

Date	Reference ET Short [in]	Reference ET Tall [in]	Cool Season Grass ET [in]	Warm Season Grass ET [in]	Pan Evaporation [in]
2016-07-07	0.33	0.44	0.30	0.20	0.46
2016-07-06	0.31	0.41	0.29	0.20	0.43
2016-07-05	0.24	0.30	0.22	0.15	0.31
2016-07-04	0.19	0.22	0.17	0.12	0.23
2016-07-03	0.26	0.34	0.24	0.16	0.35
2016-07-02	0.26	0.32	0.24	0.16	0.33
2016-07-01	0.22	0.25	0.20	0.14	0.26
2016-06-30	0.23	0.27	0.22	0.14	0.28
2016-06-29	0.24	0.27	0.22	0.15	0.29
2016-06-28	0.24	0.28	0.22	0.15	0.29
2016-06-27	0.15	0.17	0.14	0.09	0.18
2016-06-26	0.25	0.31	0.23	0.16	0.32
2016-06-25	0.26	0.32	0.24	0.16	0.33
2016-06-24	0.27	0.32	0.25	0.16	0.34
2016-06-23	0.27	0.33	0.25	0.17	0.35
2016-06-22	0.28	0.35	0.26	0.17	0.36
2016-06-21	0.24	0.28	0.23	0.15	0.30
2016-06-20	0.21	0.23	0.19	0.13	0.25
2016-06-19	0.20	0.23	0.18	0.12	0.24
2016-06-18	0.22	0.25	0.20	0.14	0.27
2016-06-17	0.25	0.29	0.23	0.16	0.31
2016-06-16	0.21	0.24	0.19	0.13	0.25
2016-06-15	0.24	0.28	0.22	0.15	0.30
2016-06-14	0.20	0.23	0.19	0.12	0.25
2016-06-13	0.09	0.10	0.09	0.06	0.11
2016-06-12	0.10	0.11	0.09	0.06	0.11
2016-06-11	0.20	0.23	0.18	0.12	0.24
2016-06-10	0.24	0.29	0.23	0.15	0.31
2016-06-09	0.23	0.28	0.22	0.14	0.29
2016-06-08	0.24	0.27	0.22	0.15	0.29
2016-06-07	0.21	0.23	0.20	0.13	0.26
2016-06-06	0.23	0.26	0.21	0.14	0.28
2016-06-05	0.23	0.28	0.21	0.14	0.29
2016-06-04	0.17	0.19	0.16	0.11	0.21
2016-06-03	0.13	0.15	0.12	0.08	0.16
2016-06-02	0.04	0.04	0.04	0.02	0.05
2016-06-01	0.12	0.13	0.11	0.07	0.14
2016-05-31	0.08	0.09	0.07	0.05	0.09
2016-05-30	0.17	0.20	0.16	0.11	0.21
2016-05-29	0.17	0.20	0.16	0.11	0.21
2016-05-28	0.20	0.23	0.19	0.13	0.25
2016-05-27	0.13	0.16	0.13	0.08	0.17
2016-05-26	0.09	0.11	0.08	0.06	0.12
2016-05-25	0.12	0.15	0.11	0.08	0.16
2016-05-24	0.15	0.17	0.14	0.09	0.19
2016-05-23	0.09	0.11	0.08	0.06	0.11
2016-05-22	0.16	0.20	0.15	0.10	0.20
2016-05-21	0.17	0.19	0.16	0.10	0.20
2016-05-20	0.15	0.16	0.14	0.09	0.17
2016-05-19	0.06	0.07	0.05	0.04	0.07
2016-05-18	0.07	0.09	0.06	0.04	0.09

2016-05-17	0.07	0.08	0.06	0.04	0.09
2016-05-16	0.13	0.16	0.12	0.08	0.16
2016-05-15	0.14	0.18	0.13	0.08	0.18
2016-05-14	0.17	0.22	0.16	0.11	0.23
2016-05-13	0.20	0.24	0.19	0.12	0.25
2016-05-12	0.19	0.24	0.18	0.12	0.25
2016-05-11	0.18	0.21	0.17	0.11	0.23
2016-05-10	0.21	0.24	0.19	0.13	0.26
2016-05-09	0.13	0.16	0.12	0.08	0.16
2016-05-08	0.09	0.11	0.08	0.05	0.11
2016-05-07	0.20	0.25	0.18	0.12	0.25
2016-05-06	0.19	0.22	0.18	0.12	0.23
2016-05-05	0.20	0.24	0.18	0.12	0.25
2016-05-04	0.22	0.28	0.20	0.14	0.28
2016-05-03	0.16	0.19	0.15	0.10	0.20
2016-05-02	0.09	0.11	0.09	0.06	0.12
2016-05-01	0.19	0.24	0.17	0.12	0.25
2016-04-30	0.14	0.16	0.13	0.09	0.17
2016-04-29	0.10	0.13	0.10	0.07	0.13
2016-04-28	0.20	0.25	0.19	0.12	0.26
2016-04-27	0.18	0.21	0.17	0.11	0.22
2016-04-26	0.15	0.19	0.14	0.09	0.21
2016-04-25	0.19	0.25	0.18	0.12	0.26
2016-04-24	0.20	0.25	0.18	0.12	0.27
2016-04-23	0.19	0.23	0.18	0.12	0.24
2016-04-22	0.19	0.23	0.18	0.12	0.24
2016-04-21	0.17	0.20	0.15	0.10	0.20
2016-04-20	0.13	0.14	0.12	0.08	0.15
2016-04-19	0.10	0.12	0.09	0.06	0.12
2016-04-18	0.06	0.06	0.06	0.04	0.07
2016-04-17	0.04	0.04	0.03	0.02	0.05
2016-04-16	0.12	0.15	0.11	0.07	0.15
2016-04-15	0.13	0.16	0.12	0.08	0.16
2016-04-14	0.13	0.15	0.12	0.08	0.15
2016-04-13	0.08	0.09	0.07	0.05	0.10
2016-04-12	0.12	0.16	0.12	0.08	0.16
2016-04-11	0.08	0.10	0.07	0.05	0.10
2016-04-10	0.13	0.18	0.12	0.08	0.18
2016-04-09	0.08	0.10	0.07	0.05	0.09
2016-04-08	0.18	0.23	0.16	0.11	0.24
2016-04-07	0.23	0.32	0.21	0.14	0.32
2016-04-06	0.24	0.36	0.23	0.15	0.38
2016-04-05	0.25	0.36	0.23	0.16	0.36
2016-04-04	0.22	0.29	0.20	0.13	0.29
2016-04-03	0.19	0.26	0.18	0.12	0.25
2016-04-02	0.16	0.22	0.15	0.10	0.22
2016-04-01	0.16	0.23	0.15	0.10	0.22
2016-03-31	0.17	0.23	0.16	0.11	0.23
2016-03-30	0.10	0.14	0.10	0.06	0.14
2016-03-29	0.17	0.24	0.16	0.10	0.23
2016-03-28	0.15	0.19	0.14	0.09	0.19


Mill Creek Water Levels Second Quarter 2016
Water Level Elevation
1020
1010
1000
990
980
970
960
Rainfall - Inches
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
January 1, 2016
January 16, 2016
January 31, 2016
February 15, 2016
March 1, 2016
March 16, 2016
March 31, 2016
Date
10-03 WL ELEV
Recorded Rainfall