Robin Simmons
Land Manager

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March 16, 2015

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 Q4 and Annual 2014

Dear Mr. Wilkins:

Attached please find the Annual and Q4 2014 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.

In December we discovered that the water gauge that monitors water pumped from the Troy pond to the Fresh Water pond had malfunctioned. For the Q4 calculations, we used the average flow over the past year. The gauge was replaced on December 19, 2014.

Please call if you have any questions or comments.

Sincerely,

Robin L. Simmons

Robin Simmons, EIT
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

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ATTACHMENT 1 (Appendix C)

Martin Marietta (TXI) Mill Creek Q3 2014

Appendix C . Consumptive use of Pitwater

			Q1 2014	Q2 2014	Q3 2014	Q4 2014	2014 Total
	PIT GROUNDWATER VOLUME						
1	Total volume pumped from producing mine pit(s) (AC-FT)		395.21	410.86	369.44	351.95	1527.46
2	Volume of precipitation that falls onto the surface of producing Mine Pits (AC-FT)		12.16	87.95	33.61	69.54	203.26
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water (AC-FT)		2.49	31.95	4.50	21.33	60.28
4	other non pit waters pumped from the producing mining pit (AC-FT)						0.00
5	add lines 2 through 4		14.65	119.91	38.11	90.87	263.54
6	**Pit Groundwater Volume (AC-FT)** (line 1 minus Line 5)		**380.56**	**290.96**	**331.33**	**261.08**	**1263.93**
	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	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)		0.39	1.98	2.26	3.23	7.86
9	Vol. of pit groundwater that evaporates from producing mine pits, process ponds and lined ponds (excluding structures used for augmentation) (AC-FT)		0.54	2.37	2.58	1.38	6.88
10	Volume of pit groundwater that is used for other beneficial uses off of the mine site (AC-FT) (includes on-site dust control)		0.26	0.82	14.61	4.74	20.42
11	**DEFINED ELEMENTS OF CONSUMPTIVE USE** of Pit groundwater (AC-FT) (add lines 7 through 10)		**1.19**	**5.17**	**19.44**	**9.35**	**35.15**
	PIT GROUNDWATER BALANCE						
12	Lines 6 minus 11		379.37	285.79	311.89	251.73	1228.77
13	**Groundwater Augmentation** Volume of pit groundwater returned to GW Basin or subbasin. (Troy Recharge AC-FT)	Credits	none	4.16	43.04	15.18	62.38
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	347.96	147.45	173.06	0.00	668.46
15	**PPT and Runoff** Volume of Precipitation and surface runoff into a recharge pit or holding pond (AC-FT)	Credits	12.86	86.15	28.91	59.76	187.68
16	**Recycled Pit Groundwater** - Volume of ground water returned to the mine pit or holding basin (AC-FT)		42.64	160.50	127.22	216.62	546.98
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)		1.43	2.28	0.60	3.56	7.88
18	add lines 13 through 17		404.90	400.54	372.82	295.12	1473.38
19	**OTHER CONSUMPTIVE USE** Line 12 minus Line 18		-25.53	-114.75	-60.93	-43.40	-244.61
	TOTAL REPORTED CONSUMPTIVE USE (AC-FT)						
	TOTAL NET CONSUMPTIVE USE (AC-FT) Line 11 plus line 19		-24.34	-109.58	-41.49	-34.04	-209.45

RESULTS FROM RUNOFF MODELLING

2014	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	0.51	0.01	0.47	0.00	0.48	0.93	0.00	1.73	0.00	2.67	0.47
February	0.60	0.02	0.78	0.00	0.79	1.09	0.00	2.03	0.00	3.14	0.78
March	1.69	0.05	10.84	2.49	13.38	3.07	0.96	5.73	3.37	8.85	17.66
Q1 Subtotal	**2.80**	**0.08**	**12.08**	**2.49**	**14.65**	**5.09**	**0.96**	**9.49**	**3.37**	**14.66**	**18.90**
April	2.37	0.067	10.126	0.98	11.17	4.31	0.12	8.03	1.06	12.41	12.28
May	2.57	0.073	16.473	2.68	19.23	4.67	0.65	8.71	3.35	13.46	23.16
June	5.91	0.17	61.047	28.30	89.51	10.75	26.04	20.03	44.96	30.94	160.34
Q2 Subtotal	**10.85**	**0.31**	**87.65**	**31.95**	**119.91**	**19.73**	**26.81**	**36.77**	**49.38**	**56.81**	**195.79**
July	3.80	0.11	23.70	3.81	27.61	6.91	1.05	12.88	4.77	19.90	33.33
August	2.02	0.06	8.37	0.69	9.12	3.67	0.08	6.85	0.75	10.58	9.90
September	1.08	0.03	1.34	0.00	1.37	1.96	0.00	3.66	0.00	5.65	1.34
Q3 Subtotal	**6.90**	**0.20**	**33.41**	**4.50**	**38.11**	**12.55**	**1.13**	**23.39**	**5.53**	**36.13**	**44.57**
October	2.78	0.08	21.58	26.62	48.29	5.05	1.95	9.42	6.82	14.56	56.98
November	3.84	0.11	38.97	53.10	92.18	6.98	10.16	13.01	21.29	20.11	123.52
December	1.82	0.05	8.75	10.90	19.70	3.31	1.08	6.17	3.05	9.53	23.78
Q4 Subtotal	**8.44**	**0.24**	**69.30**	**90.63**	**160.17**	**15.35**	**13.19**	**28.60**	**31.16**	**44.19**	**204.29**
ANNUAL TOTALS	**28.99**	**0.82**	**202.44**	**129.58**	**332.84**	**52.71**	**42.09**	**98.25**	**89.44**	**151.79**	**463.55**

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Water Volume Movements		January	February	March	April	May	June	July	August	September	October	November	December
Pumped from Pit	(Ac-Ft)	165.4	121.2	108.6	115.1	115.1	180.7	141.8	122.7	104.9	116.9	118.1	116.9
Groundwater Component of Pitwater		**164.9**	**120.4**	**95.2**	**103.9**	**95.8**	**91.2**	**114.2**	**113.6**	**103.6**	**90.2**	**64.9**	**106.0**
Quarry dust suppression		0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.6	8.3	3.6	1.2	0.6
Q- freshwater pond	(Ac-Ft)	23.9	0.0	23.3	43.6	115.1	102.2	141.8	41.7	0.0	113.3	116.9	116.3
To Secondary FM7	(Ac-Ft)	313.0	306.2	403.2	400.7	381.7	382.9	362.4	365.4	329.5	336.0	317.6	295.8
To sand Plant FM8	(Ac-Ft)	38.4	48.2	60.4	89.0	82.5	51.2	35.6	41.4	82.2	73.3	94.8	107.1
to loadout FM6	(Ac-Ft)	336.9	330.5	463.0	472.5	490.6	501.1	457.5	449.5	444.0	456.3	432.0	433.0
to dust control FM9	(Ac-Ft)	5.0	3.2	4.3	5.5	2.9	5.4	4.3	19.7	6.2	3.3	2.1	2.3
to Plant FM7+FM8+FM6	(Ac-Ft)	688.2	684.9	926.7	962.3	954.9	935.3	855.5	856.4	855.8	865.6	844.4	835.8
to stream Augmentation	Ac-ft	141.45	121.20	85.30	71.49	0.00	78.55	0.00	76.40	96.66	0.00	0.00	0.00
					150.05								
To Troy FM3	(Ac-Ft)	656.0	654.2	910.4	937.4	937.1	944.2	857.9	845.0	854.6	847.8	817.7	836.8
From Troy to Freshwater Pond FM4	(Ac-Ft)	675.7	675.7	961.6	943.2	825.4	766.2	720.2	429.6	469.2	764.0	764.0	764.0

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Quarter Summary	4th QTR
Total Tons Shipped	1,460,000
Total Acre Feet	33.33
Average Moisture %	3.11%

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#
# 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: 2014-12-09 10:52:45 EST       (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
#    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.
#     P  Provisional data subject to revision.
#
agency_cd       site_no datetime        02_00060_00003  02_00060_00003_cd
5s      15s     20d     14n     10s
USGS    07331200        2014-10-01      0.73    A
USGS    07331200        2014-10-02      0.80    A
USGS    07331200        2014-10-03      0.77    A
USGS    07331200        2014-10-04      0.77    A
USGS    07331200        2014-10-05      0.81    A
USGS    07331200        2014-10-06      0.87    A
USGS    07331200        2014-10-07      0.82    A
USGS    07331200        2014-10-08      0.77    P
USGS    07331200        2014-10-09      0.78    P
USGS    07331200        2014-10-10      0.98    P
USGS    07331200        2014-10-11      1.9     P
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USGS    07331200        2014-10-29      1.0     P
USGS    07331200        2014-10-30      1.1     P
USGS    07331200        2014-10-31      1.2     P
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# Automated-retrieval info: http://help.waterdata.usgs.gov/faq/automated-retrievals
#
# Contact:   gs-w_support_nwisweb@usgs.gov
# retrieved: 2014-12-09 10:50:49 EST       (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
#    DD parameter statistic   Description
#    02   00060     00003     Discharge, cubic feet per second (Mean)
#
# Data-value qualification codes included in this output:
#     P  Provisional data subject to revision.
#
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USGS	07331200	2014-11-02	1.4	P
USGS	07331200	2014-11-03	1.4	P
USGS	07331200	2014-11-04	2.8	P
USGS	07331200	2014-11-05	1.6	P
USGS	07331200	2014-11-06	1.3	P
USGS	07331200	2014-11-07	1.2	P
USGS	07331200	2014-11-08	1.1	P
USGS	07331200	2014-11-09	1.2	P
USGS	07331200	2014-11-10	1.2	P
USGS	07331200	2014-11-11	1.2	P
USGS	07331200	2014-11-12	1.3	P
USGS	07331200	2014-11-13	1.4	P
USGS	07331200	2014-11-14	1.5	P
USGS	07331200	2014-11-15	1.5	P
USGS	07331200	2014-11-16	1.5	P
USGS	07331200	2014-11-17	1.4	P
USGS	07331200	2014-11-18	1.5	P
USGS	07331200	2014-11-19	1.5	P
USGS	07331200	2014-11-20	1.5	P
USGS	07331200	2014-11-21	1.5	P
USGS	07331200	2014-11-22	9.8	P
USGS	07331200	2014-11-23	4.7	P
USGS	07331200	2014-11-24	1.4	P
USGS	07331200	2014-11-25	1.3	P
USGS	07331200	2014-11-26	1.2	P
USGS	07331200	2014-11-27	1.2	P
USGS	07331200	2014-11-28	1.2	P
USGS	07331200	2014-11-29	1.2	P
USGS	07331200	2014-11-30	1.3	P

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#
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Automated-retrieval info: http://help.waterdata.usgs.gov/faq/automated-retrievals
#
Contact: gs-w_support_nwisweb@usgs.gov
retrieved: 2015-01-05 11:20:52 EST (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:
P Provisional data subject to revision.
#

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USGS	07331200	2014-12-01	1.2	P
USGS	07331200	2014-12-02	1.3	P
USGS	07331200	2014-12-03	1.4	P
USGS	07331200	2014-12-04	1.4	P
USGS	07331200	2014-12-05	1.4	P
USGS	07331200	2014-12-06	1.4	P
USGS	07331200	2014-12-07	1.4	P
USGS	07331200	2014-12-08	1.3	P
USGS	07331200	2014-12-09	1.2	P
USGS	07331200	2014-12-10	1.2	P
USGS	07331200	2014-12-11	1.2	P
USGS	07331200	2014-12-12	1.2	P
USGS	07331200	2014-12-13	1.3	P
USGS	07331200	2014-12-14	1.4	P
USGS	07331200	2014-12-15	1.4	P
USGS	07331200	2014-12-16	1.1	P
USGS	07331200	2014-12-17	2.4	P
USGS	07331200	2014-12-18	3.2	P
USGS	07331200	2014-12-19	1.7	P
USGS	07331200	2014-12-20	1.4	P
USGS	07331200	2014-12-21	1.5	P
USGS	07331200	2014-12-22	1.5	P
USGS	07331200	2014-12-23	1.4	P
USGS	07331200	2014-12-24	1.4	P
USGS	07331200	2014-12-25	1.4	P
USGS	07331200	2014-12-26	1.4	P
USGS	07331200	2014-12-27	1.6	P
USGS	07331200	2014-12-28	1.5	P
USGS	07331200	2014-12-29	1.5	P
USGS	07331200	2014-12-30	1.5	P
USGS	07331200	2014-12-31	1.5	P

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	Daily Rainfall Total	Total Daily Evaporation	Daily Notes
10/1/2014	0	0.177	
10/2/2014	0.1	0.15	
10/3/2014	0	0.178	
10/4/2014	0	0.153	
10/5/2014	0	0.125	
10/6/2014	0.06	0.129	
10/7/2014	0	0.192	
10/8/2014	0	0.141	
10/9/2014	0	0.126	
10/10/2014	1.26	0.373	
10/11/2014	0.06	0.132	
10/12/2014	0	0.075	
10/13/2014	1.29	0.175	
10/14/2014	0	0.142	
10/15/2014	0	0.147	
10/16/2014	0	0.181	
10/17/2014	0	0.243	
10/18/2014	0	0.201	
10/19/2014	0	0.109	
10/20/2014	0	0.1	
10/21/2014	0	0.145	
10/22/2014	0	0.102	
10/23/2014	0.01	0.098	
10/24/2014	0	0.119	
10/25/2014	0	0.14	
10/26/2014	0	0.208	
10/27/2014	0	0.171	
10/28/2014	0	0.182	
10/29/2014	0	0.134	
10/30/2014	0	0.116	
10/31/2014	0	0.132	
11/1/2014	0	0.095	
11/2/2014	0	0.073	
11/3/2014	0	0.055	
11/4/2014	1.24	0.06	
11/5/2014	0	0.006	
11/6/2014	0	0.051	
11/7/2014	0	0.208	
11/8/2014	0	0.015	
11/9/2014	0	0.017	
11/10/2014	0	0.015	
11/11/2014	0	0.213	
11/12/2014	0	0.014	
11/13/2014	0	0.012	
11/14/2014	0	0.018	
11/15/2014	0	0.005	

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11/16/2014	0.01	0.01
11/17/2014	0	0.004
11/18/2014	0	0.006
11/19/2014	0	0.043
11/20/2014	0	0.004
11/21/2014	0	0.001
11/22/2014	2.59	0.523
11/23/2014	0	0.003
11/24/2014	0	0.007
11/25/2014	0	0.007
11/26/2014	0	0.009
11/27/2014	0	0.009
11/28/2014	0	0.008
11/29/2014	0	0.003
11/30/2014	0	0.008
12/1/2014	0	0.003
12/2/2014	0	0.002
12/3/2014	0.14	0
12/4/2014	0.04	0.001
12/5/2014	0.17	0.076
12/6/2014	0	0.003
12/7/2014	0	0.001
12/8/2014	0	0.004
12/9/2014	0	0.007
12/10/2014	0	0.007
12/11/2014	0.04	0.021
12/12/2014	0.14	0.04
12/13/2014	0.03	0.004
12/14/2014	0.47	0.001
12/15/2014	0	0.007
12/16/2014	0	0.007
12/17/2014	0.67	0.541
12/18/2014	0.02	0.001
12/19/2014	0	0.006
12/20/2014	0	0.011
12/21/2014	0	0.001
12/22/2014	0	0.004
12/23/2014	0	0.004
12/24/2014	0	0.007
12/25/2014	0	0.005
12/26/2014	0.04	0.002
12/27/2014	0.06	0.072
12/28/2014	0	0.005
12/29/2014	0	0.007
12/30/2014	0	0.003
12/31/2014	0	0.001

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

October 2014
Nearest City: 6.0 N Tishomingo
Longitude: 96-40-44

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	90	68	78.5	66.8	0	14	95	45	70	0.00	28.83	29.77	SSE	9.7	25.3	17.02	77.5	79.4	87	74
2	88	60	74.0	64.9	0	9	88	51	74	0.12	28.86	29.79	SSE	10.8	27.9	10.03	76.3	77.0	81	70
3	74	41	59.8	46.0	8	0	92	32	64	0.00	29.19	30.13	NW	8.4	27.9	20.90	70.5	70.1	78	64
4	76	37	56.3	37.4	8	0	95	21	58	0.00	29.15	30.09	NW	5.3	19.7	20.79	67.9	67.6	78	59
5	84	45	65.1	52.2	1	0	93	35	67	0.00	28.92	29.86	SSW	4.8	18.3	16.73	69.7	70.0	79	62
6	83	59	70.4	61.8	0	6	99	40	77	0.26	28.91	29.85	SSE	6.0	19.0	19.01	72.7	72.6	79	67
7	92	61	75.7	64.2	0	12	97	36	72	0.00	28.92	29.86	S	7.2	19.7	19.31	74.0	74.7	84	67
8	86	67	75.6	67.3	0	12	96	54	77	0.00	29.03	29.97	SE	8.0	20.8	15.36	75.5	76.6	84	71
9	89	71	77.7	67.5	0	15	93	44	73	0.00	28.98	29.92	SSE	10.0	23.8	13.23	76.3	77.6	84	73
10	91	58	73.2	64.7	0	9	96	43	77	0.85	28.95	29.89	SSW	12.1	33.5	13.64	76.2	77.3	85	72
11	58	53	54.4	51.8	10	0	97	80	91	0.01	29.10	30.04	NNW	7.6	22.7	4.42	67.7	66.3	72	63
12	74	53	62.5	55.5	2	0	96	52	79	0.59	28.89	29.82	SSE	10.5	41.0	17.15	67.8	66.6	72	62
13	62	54	59.0	53.5	7	0	98	64	83	1.28	28.77	29.70	WNW	11.2	34.1	4.03	65.7	64.8	69	60
14	72	49	58.8	40.1	5	0	83	24	54	0.00	29.06	30.00	NW	9.8	30.0	19.67	62.1	60.2	66	55
15	80	43	60.1	43.0	4	0	93	21	62	0.00	29.09	30.03	NW	3.6	15.0	19.37	63.2	61.8	71	54
16	86	46	64.1	48.2	0	1	96	25	64	0.00	28.91	29.85	S	6.3	25.6	19.32	64.4	63.4	71	57
17	81	50	64.8	50.4	0	1	95	28	63	0.00	28.98	29.92	NNE	7.8	22.4	17.42	65.0	64.6	72	59
18	74	53	63.0	47.4	1	0	81	34	59	0.00	29.16	30.10	NE	9.3	20.7	17.67	64.5	64.4	72	59
19	72	49	60.0	49.5	5	0	94	46	71	0.00	29.17	30.12	SE	5.6	17.7	15.76	63.8	63.6	71	58
20	80*	51*	64.2*	56.3*	0*	1*	96*	46*	78*	0.00*	29.10*	30.04*	SSW*	3.4*	13.8*	NA	66.1*	66.4*	76*	59*
21	81	54	66.4	57.8	0	3	98	45	77	0.00	29.12	30.06	SSE	4.1	16.2	16.77	67.6	68.6	78	62
22	79	53	65.7	57.4	0	1	99	49	77	0.00	29.17	30.11	SE	4.7	16.9	13.72	67.3	68.3	76	62
23	75	57	63.5	55.9	0	1	93	57	77	0.05	29.17	30.11	SE	5.5	14.3	13.11	67.5	67.8	74	64
24	82	53	66.0	57.5	0	3	95	50	77	0.00	29.15	30.10	S	6.0	19.0	16.02	67.0	67.8	77	61
25	88	57	69.7	59.4	0	8	98	35	74	0.00	29.12	30.06	SSW	4.8	15.7	16.59	68.2	70.2	79	63
26	86	56	71.5	57.0	0	6	97	32	65	0.00	28.97	29.91	S	10.1	29.8	16.50	67.9	70.4	78	64
27	82	63	71.4	57.9	0	8	83	43	63	0.00	28.86	29.79	S	12.6	33.1	14.26	67.9	70.6	77	65
28	76	54	65.1	45.3	0	0	86	28	51	0.00	29.09	30.03	NNE	12.0	28.7	15.16	67.1	70.1	76	66
29	74	43	57.0	38.8	6	0	90	18	58	0.00	29.23	30.17	NNE	4.5	16.7	17.02	63.7	65.3	74	58
30	78	40	57.6	42.8	6	0	97	25	63	0.00	29.18	30.12	NNW	5.9	20.2	15.04	62.6	63.8	73	57
31	62	38	52.0	35.6	15	0	72	29	55	0.00	29.36	30.31	N	11.8	31.2	16.64	60.8	61.5	69	56
	79*	53*	65.3*	53.3*	<- Monthly Averages ->						29.04*	29.98*	S *	7.7*	41.0*	15.72*	68.2*	68.7*	76*	63*

Temperature - Highest: 92*
Lowest: 37*

Degree Days - Total HDD: 77*
Total CDD: 107*

Rainfall: Monthly Total: 3.16* in.
Greatest 24 Hr: 1.28* in.

Humidity - Highest: 99*
Lowest: 18*

Number of Days With:
Tmax ≥ 90: 3*
Tmax ≤ 32: 0*
Tmin ≤ 32: 0*
Tmin ≤ 0: 0*
Rainfall ≥ 0.01 inch: 7*
Rainfall ≥ 0.10 inch: 5*
Avg Wind Speed ≥ 10 mph: 9*
Max Wind Speed ≥ 30 mph: 6*

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* Denotes incomplete record

Monthly data generated on Wednesday, December 31, 2014 at 13:01 UTC

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MESONET CLIMATOLOGICAL DATA SUMMARY — November 2014 — 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

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	59	30	44.8	25.0	21	0	83	24	49	0.00	29.40	30.35	SE	7.1	18.1	16.61	57.1	56.2	64	50
2	62	38	50.2	34.8	15	0	74	42	56	0.00	29.29	30.23	SE	10.1	25.2	10.28	56.6	55.6	61	50
3	70	49	61.0	50.5	5	0	84	58	69	0.00	29.17	30.11	SSE	11.0	27.0	6.49	59.3	59.4	64	54
4	67	48	54.7	52.0	7	0	96	72	91	1.51	29.21	30.16	N	9.4	25.0	1.84	60.4	60.2	63	56
5	60	44	50.6	45.1	13	0	95	55	82	0.00	29.26	30.21	NW	4.3	12.9	6.01	57.9	56.3	60	54
6	69	39	52.6	34.9	11	0	94	20	57	0.00	29.36	30.31	N	7.4	24.6	15.72	56.4	54.4	60	50
7	66	33	49.5	35.4	16	0	97	30	63	0.00	29.19	30.14	S	7.3	21.7	15.62	54.8	52.3	59	47
8	66	37	53.5	34.7	13	0	85	21	54	0.00	29.15	30.09	N	10.8	31.4	13.17	55.1	53.1	59	50
9	70	31	50.4	37.3	15	0	97	34	66	0.00	29.03	29.97	S	8.1	26.0	15.53	53.5	51.4	59	45
10	77	49	64.1	47.5	2	0	78	35	57	0.00	28.70	29.63	S	16.4	41.4	14.93	56.3	56.1	63	50
11	55	32	38.6	23.7	22	0	69	40	56	0.00	29.16	30.10	NNW	14.9	33.2	12.55	52.7	51.2	58	45
12	34	25	29.5	12.9	36	0	69	34	50	0.00	29.46	30.42	N	17.0	30.5	9.07	45.6	42.3	45	40
13	36	22	28.6	7.2	36	0	71	26	41	0.00	29.56	30.52	N	11.5	27.9	11.85	43.7	41.1	47	38
14	40	20	30.0	14.8	35	0	85	30	55	0.00	29.42	30.37	N	4.6	14.4	12.33	43.3	40.4	47	37
15	46*	30*	37.2*	27.5*	27*	0*	98*	45*	69*	0.00*	29.18*	30.13*	SE *	9.2*	27.0*	NA	44.6*	42.2*	46*	38*
16	37	24	31.9	27.4	34	0	98	70	84	0.00	29.17	30.11	N	12.1	29.0	2.78	44.2	41.5	43	38
17	38	16	27.0	14.6	38	0	90	34	63	0.01	29.40	30.35	NW	8.6	26.0	15.95	41.2	38.1	43	35
18	54	14	33.0	16.9	31	0	92	22	59	0.00	29.38	30.33	SW	6.9	24.0	15.00	40.7	38.5	46	35
19	61*	30*	43.0*	24.6*	20*	0*	90*	26*	51*	0.00*	29.21*	30.15*	SW *	6.7*	20.5*	NA	43.4*	42.6*	51*	36*
20	67	28	47.9	37.8	17	0	93	36	71	0.00	29.12	30.07	E	6.6	19.9	12.40	46.0	45.6	54	39
21	60	50	56.5	55.5	10	0	99	93	96	0.00	29.13	30.07	SE	7.4	24.0	2.43	51.5	52.2	55	48
22	60	55	56.4	55.7	8	0	98	95	98	2.00	29.00	29.94	SSE	9.0	22.1	0.72	54.5	54.9	55	55
23	71	44	57.9	48.1	8	0	97	31	74	0.00	28.59	29.52	S	13.8	42.2	11.91	56.0	56.3	61	52
24	59	35	45.8	26.2	18	0	80	17	52	0.00	29.04	29.98	WNW	7.4	26.3	14.07	50.4	49.2	54	45
25	56	28	42.8	25.2	23	0	87	26	53	0.00	29.23	30.18	NW	4.4	12.7	13.81	47.5	46.3	53	40
26	60	33	46.3	29.1	19	0	86	31	54	0.00	29.21	30.15	NNW	8.4	26.5	13.08	47.3	46.4	52	42
27	54	30	40.9	23.0	23	0	82	22	52	0.00	29.49	30.44	SSE	5.7	20.2	13.43	45.8	44.8	52	39
28	67	34	51.0	38.0	15	0	81	43	62	0.00	29.15	30.09	S	10.5	30.9	13.01	46.8	46.4	53	40
29	75	49	61.9	47.3	3	0	84	34	61	0.00	28.90	29.84	SSW	15.4	32.4	13.11	51.4	51.9	57	47
30	76	37	62.8	51.1	8	0	84	49	67	0.00	29.00	29.94	SSW	16.1	33.4	12.15	56.8	57.9	63	52
	59*	34*	46.7*	33.5*	<- Monthly Averages ->						29.19*	30.13*	N *	9.6*	42.2*	11.28*	50.7*	49.5*	55*	45*

Temperature - Highest: 77*
Lowest: 14*

Degree Days - Total HDD: 547*
Total CDD: 0*

Rainfall: Monthly Total: 3.52* in.
Greatest 24 Hr: 2.00* in.

Humidity - Highest: 99*
Lowest: 17*

Number of Days With:
Tmax ≥ 90: 0*
Tmax ≤ 32: 0*
Tmin ≤ 32: 14*
Tmin ≤ 0: 0*
Rainfall ≥ 0.01 inch: 3*
Rainfall ≥ 0.10 inch: 2*
Avg Wind Speed ≥ 10 mph: 12*
Max Wind Speed ≥ 30 mph: 8*

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* Denotes incomplete record

Monthly data generated on Friday, January 30, 2015 at 13:01 UTC

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

December
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	37	27	31.2	18.9	33	0	85	51	60	0.00	29.46	30.41	N	12.9	30.4	6.49	47.5	44.6	52	40
2	43	27	34.3	22.6	30	0	73	50	62	0.00	29.32	30.27	SSE	5.5	13.5	6.79	44.3	41.7	45	38
3	46	40	43.7	41.9	22	0	99	61	93	0.10	29.22	30.17	E	6.3	15.0	1.59	46.5	45.2	47	43
4	57	46	52.4	52.1	13	0	99	99	99	0.03	29.16	30.10	ESE	5.2	18.5	1.95	50.1	50.0	53	47
5	69	51	59.5	56.7	5	0	99	71	91	0.32	29.10	30.05	NNW	8.1	21.3	4.11	55.3	56.1	60	53
6	53	44	49.2	45.7	17	0	93	82	88	0.00	29.44	30.39	NNE	10.8	28.3	4.38	53.6	53.0	55	50
7	48	41	44.7	43.5	20	0	99	89	96	0.00	29.40	30.35	NE	3.7	12.6	1.61	50.7	49.5	51	48
8	60	35	46.6	42.7	17	0	100	56	88	0.00	29.35	30.30	NW	3.8	13.8	7.21	50.4	50.0	56	47
9	64	31	46.0	38.3	17	0	100	44	78	0.01	29.34	30.29	NE	4.3	11.8	12.26	49.5	49.3	57	43
10	55	37	44.4	37.2	19	0	93	58	77	0.00	29.26	30.20	ESE	6.0	15.5	9.97	48.7	48.0	53	44
11	52	43	46.3	42.3	17	0	98	77	86	0.05	29.23	30.18	ESE	5.7	12.9	2.91	49.5	48.8	51	47
12	48	43	46.0	45.7	19	0	99	98	99	0.12	29.28	30.22	E	6.5	12.1	1.79	49.4	48.7	50	48
13	60	48	53.5	52.7	11	0	99	87	97	0.01	29.19	30.13	SE	6.6	15.9	3.08	51.8	51.9	55	49
14	62	54	59.1	57.6	7	0	99	89	95	0.51	28.93	29.87	SSE	12.3	29.5	1.31	54.8	55.3	57	53
15	59	40	50.2	36.6	16	0	94	44	61	0.00	28.96	29.90	WNW	10.0	25.1	12.09	52.6	53.3	57	48
16	50	33	39.6	28.6	24	0	87	46	65	0.00	29.32	30.27	NW	7.8	23.6	12.13	46.8	45.8	51	41
17	37	32	36.4	34.2	30	0	99	77	92	0.73	29.26	30.21	ENE	6.3	19.2	1.13	44.4	43.0	44	42
18	42	37	40.1	39.9	25	0	100	98	99	0.02	29.20	30.15	ESE	4.8	12.4	1.91	44.9	44.5	46	43
19	44	40	41.6	40.3	23	0	99	90	95	0.00	29.24	30.19	NNE	6.5	12.9	2.02	46.1	45.9	47	45
20	44	39	41.9	38.5	23	0	96	79	88	0.00	29.25	30.20	SW	3.0	11.1	2.55	46.1	45.6	47	44
21	48	43	46.0	43.6	19	0	96	81	91	0.00	29.01	29.95	SSE	9.7	23.2	1.73	47.0	46.6	48	46
22	59	45	51.5	44.2	13	0	93	55	77	0.00	28.68	29.61	SSE	8.3	17.7	7.73	49.7	50.1	55	47
23	52	40	45.4	32.1	19	0	87	40	61	0.00	28.86	29.80	NNW	9.7	23.6	6.55	47.8	46.9	49	44
24	49	31	40.2	30.5	25	0	88	46	69	0.00	29.02	29.96	NW	9.8	22.7	10.34	45.2	44.4	49	41
25	60	28	45.0	28.8	21	0	91	26	57	0.00	28.97	29.91	S	12.9	35.7	9.74	43.0	41.9	47	38
26	56	43	50.1	47.4	16	0	99	67	90	0.19	28.99	29.93	SE	6.2	21.8	1.63	46.2	45.9	50	42
27	45	28	34.5	30.9	28	0	98	78	87	0.11	29.27	30.21	N	12.2	29.8	1.91	44.7	43.6	50	38
28	46	25	34.1	23.0	29	0	91	34	66	0.00	29.25	30.20	NNW	4.0	10.7	10.88	41.3	40.5	48	37
29	49	27	36.0	29.5	27	0	93	52	79	0.00	29.19	30.13	ESE	6.7	18.6	10.55	40.8	40.5	47	37
30	41	28	34.3	27.0	30	0	92	54	76	0.00	29.52	30.47	NNE	11.7	28.8	8.53	40.7	39.7	44	38
31	29	24	27.1	17.9	38	0	78	60	68	0.00	29.58	30.54	N	9.5	25.2	3.54	38.0	35.9	38	35
	51	37	43.6	37.8	<- Monthly Averages ->						29.20	30.15	ESE	7.6	35.7	5.50	47.3	46.6	50	44

Temperature - Highest: 69
Lowest: 24

Degree Days - Total HDD: 655
Total CDD: 0

Rainfall: Monthly Total: 2.20 in.
Greatest 24 Hr: 0.73 in.

Humidity - Highest: 100
Lowest: 26

Number of Days With:
Tmax ≥ 90: 0
Tmax ≤ 32: 1
Tmin ≤ 32: 11
Tmin ≤ 0: 0
Rainfall ≥ 0.01 inch: 12
Rainfall ≥ 0.10 inch: 7
Avg Wind Speed ≥ 10 mph: 7
Max Wind Speed ≥ 30 mph: 2

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* Denotes incomplete record

Monthly data generated on Tuesday, February 17, 2015 at 13:07 UTC

2014-12-31	0.03	0.05	0.03	0.02	0.05
2014-12-30	0.05	0.07	0.04	0.03	0.06
2014-12-29	0.05	0.07	0.04	0.03	0.06
2014-12-28	0.04	0.05	0.04	0.02	0.05
2014-12-27	0.04	0.06	0.04	0.03	0.06
2014-12-26	0.03	0.03	0.02	0.02	0.03
2014-12-25	0.11	0.17	0.10	0.07	0.15
2014-12-24	0.06	0.09	0.05	0.04	0.07
2014-12-23	0.08	0.12	0.07	0.05	0.10
2014-12-22	0.06	0.09	0.06	0.04	0.08
2014-12-21	0.02	0.03	0.02	0.01	0.03
2014-12-20	0.02	0.03	0.02	0.01	0.03
2014-12-19	0.02	0.02	0.02	0.01	0.02
2014-12-18	0.01	0.01	0.01	0.01	0.02
2014-12-17	0.01	0.01	0.01	0.01	0.02
2014-12-16	0.06	0.09	0.06	0.04	0.08
2014-12-15	0.08	0.13	0.08	0.05	0.11
2014-12-14	0.02	0.03	0.02	0.01	0.03
2014-12-13	0.03	0.03	0.03	0.02	0.03
2014-12-12	0.02	0.02	0.01	0.01	0.02
2014-12-11	0.04	0.05	0.03	0.02	0.04
2014-12-10	0.05	0.08	0.05	0.03	0.06
2014-12-09	0.05	0.07	0.05	0.03	0.06
2014-12-08	0.04	0.05	0.04	0.02	0.05
2014-12-07	0.02	0.02	0.02	0.01	0.02
2014-12-06	0.03	0.04	0.03	0.02	0.04
2014-12-05	0.05	0.06	0.04	0.03	0.06
2014-12-04	0.02	0.02	0.02	0.01	0.02
2014-12-03	0.02	0.02	0.02	0.01	0.02
2014-12-02	0.04	0.07	0.04	0.03	0.06
2014-12-01	0.06	0.09	0.06	0.04	0.08
2014-11-30	0.12	0.19	0.11	0.07	0.17
2014-11-29	0.16	0.25	0.14	0.10	0.22
2014-11-28	0.10	0.16	0.10	0.06	0.14
2014-11-27	0.06	0.10	0.06	0.04	0.08
2014-11-26	0.09	0.14	0.08	0.05	0.12
2014-11-25	0.06	0.08	0.05	0.03	0.07
2014-11-24	0.09	0.14	0.08	0.06	0.12
2014-11-23	0.11	0.17	0.10	0.07	0.15
2014-11-22	0.02	0.03	0.02	0.01	0.03
2014-11-21	0.02	0.02	0.02	0.01	0.02
2014-11-20	0.08	0.12	0.07	0.05	0.10
2014-11-19	0.09	0.14	0.08	0.05	0.12
2014-11-18	0.07	0.11	0.07	0.05	0.10
2014-11-17	0.05	0.08	0.05	0.03	0.07
2014-11-16	0.03	0.04	0.02	0.02	0.03
2014-11-15	0.06	0.09	0.06	0.04	0.08
2014-11-14	0.04	0.06	0.04	0.03	0.06

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2014-11-13	0.07	0.12	0.07	0.05	0.11
2014-11-12	0.07	0.11	0.06	0.04	0.11
2014-11-11	0.14	0.22	0.13	0.09	0.20
2014-11-10	0.18	0.28	0.17	0.11	0.27
2014-11-09	0.11	0.16	0.10	0.07	0.14
2014-11-08	0.12	0.19	0.11	0.08	0.17
2014-11-07	0.10	0.14	0.09	0.06	0.12
2014-11-06	0.11	0.17	0.10	0.07	0.15
2014-11-05	0.05	0.06	0.04	0.03	0.06
2014-11-04	0.06	0.09	0.05	0.04	0.07
2014-11-03	0.10	0.15	0.09	0.06	0.13
2014-11-02	0.11	0.17	0.10	0.07	0.15
2014-11-01	0.10	0.15	0.09	0.06	0.13
2014-10-31	0.12	0.18	0.11	0.07	0.16
2014-10-30	0.11	0.16	0.11	0.07	0.14
2014-10-29	0.11	0.15	0.10	0.07	0.14
2014-10-28	0.18	0.27	0.17	0.11	0.25
2014-10-27	0.18	0.27	0.16	0.11	0.25
2014-10-26	0.16	0.24	0.15	0.10	0.21
2014-10-25	0.12	0.16	0.11	0.08	0.15
2014-10-24	0.12	0.16	0.11	0.07	0.15
2014-10-23	0.10	0.13	0.09	0.06	0.12
2014-10-22	0.10	0.12	0.09	0.06	0.12
2014-10-21	0.11	0.13	0.10	0.07	0.13
2014-10-20	0.10	0.12	0.09	0.06	0.12
2014-10-19	0.10	0.13	0.10	0.06	0.13
2014-10-18	0.15	0.22	0.14	0.10	0.21
2014-10-17	0.15	0.21	0.14	0.09	0.19
2014-10-16	0.16	0.22	0.15	0.10	0.20
2014-10-15	0.11	0.14	0.11	0.07	0.14
2014-10-14	0.17	0.24	0.15	0.10	0.23
2014-10-13	0.08	0.12	0.08	0.05	0.11
2014-10-12	0.13	0.17	0.12	0.08	0.16
2014-10-11	0.04	0.06	0.04	0.03	0.06
2014-10-10	0.17	0.25	0.16	0.11	0.23
2014-10-09	0.17	0.24	0.16	0.11	0.22
2014-10-08	0.15	0.20	0.14	0.09	0.19
2014-10-07	0.18	0.23	0.16	0.11	0.22
2014-10-06	0.14	0.18	0.13	0.09	0.17
2014-10-05	0.13	0.17	0.12	0.08	0.16
2014-10-04	0.14	0.18	0.13	0.09	0.17
2014-10-03	0.15	0.20	0.14	0.09	0.19
2014-10-02	0.14	0.21	0.13	0.09	0.19
2014-10-01	0.18	0.25	0.17	0.11	0.24

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