



**Pinal County
2009 Third Quarter
PM₁₀ Exceptional/Natural Events
Executive summary**

Pinal County is located between Maricopa County (Phoenix) and Pima County (Tucson) in south central Arizona. Pinal county has an estimated population of 324,962¹ and has experienced significant growth since the last census in 2000 (179,727). Central and western portions of Pinal County include significant PM₁₀ sources such as dirt roads, feedlots, agriculture and construction. Additionally, central Arizona experiences periods of significant winds associated with frontal passages and summer monsoon storms. Pinal County Air Quality Control District (PCAQCD) currently runs several continuous Tapered Element Oscillating Microbalance (TEOM) and filter based (47 mm & Hi-Vol) monitors in central and western Pinal County.

In the third quarter of 2009, there were 19 days where Pinal County monitors exceeded the PM₁₀ 24-hr National Ambient Air Quality Standard (NAAQS). Fourteen of the exceedance days can be shown “but for” the particular “exceptional/Natural event” each monitor would NOT have exceeded the PM₁₀ 24-hr NAAQS.

The table below briefly outlines the exceedance, wind speed and exceptional/natural event data. More details of the events can be found in a Technical Support document (TSD). The TSDs should be viewed in their entirety in order to get a complete picture of the particular event which justify flagging each exceedance day as an “exceptional event”. This executive summary combined with the TSDs will be sent to the Environmental Protection Agency (EPA) requesting that EPA concur with PCAQCD’s flagging of these PM₁₀ 24-hr concentrations as associated with an “exceptional event” and thus not be used for compliance determination with the PM₁₀ 24-hr NAAQS.

Table of Third Quarter 2009 Pinal County PM₁₀ 24-hr Exceedances Associated with Exceptional Events

Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m ³)	Max. Wind (mph)	Event
7/13/09	PCH (TEOM)	04-021-3011(3)	213.7	37 mph	Monsoon storm
7/17/09	PCH (TEOM)	04-021-3011(3)	1,444.7	54 mph	Monsoon storm
	Casa Grande (TEOM)	04-021-0001(3)	848.3		
	Stanfield (TEOM)	04-021-3008(3)	814.5		
	Cowtown (TEOM)	04-021-3013(3)	631.0		
	Maricopa (TEOM)	04-021-3010(3)	607.2		
	Combs (TEOM)	04-021-3009(3)	160.7		
7/18/09	Maricopa (TEOM)	04-021-3010(3)	454.2	50 mph	Monsoon storm
	Cowtown (TEOM)	04-021-3013(3)	252.1		
	Stanfield (TEOM)	04-021-3008(3)	179.0		

¹ Central Arizona Association of Governments (CAAG) July 1, 2007 estimate.



Development
Services

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Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m ³)	Max. Wind (mph)	Event
7/19/09	PCH (TEOM)	04-021-3011(3)	167.9	31 mph	Monsoon storm
	Maricopa (TEOM)	04-021-3010(3)	162.8		
7/20/09	Cowtown (TEOM)	04-021-3013(3)	291.2	37 mph	Monsoon storm
	Stanfield (TEOM)	04-021-3008(3)	286.3		
	Maricopa (TEOM)	04-021-3010(3)	268.7		
7/21/09	Cowtown (TEOM)	04-021-3013(3)	260.0	32 mph	Monsoon storm
	Stanfield (TEOM)	04-021-3008(3)	161.4		
7/22/09	Combs (TEOM)	04-021-3009(3)	158.3	24 mph	Lingering PM ₁₀ from 7/21/09 Monsoon storm
8/4/09	Cowtown (TEOM)	04-021-3013(3)	199.6	23 mph	TBD
8/5/09	PCH (TEOM)	04-021-3011(3)	291.1	34 mph	Monsoon storm
	Combs (TEOM)	04-021-3009(3)	180.1		
	PCH _{West} (Filter)	04-021-3011(1)	165.0		
	Cowtown (TEOM)	04-021-3013(3)	158.7		
8/12/09	Stanfield (TEOM)	04-021-3008(3)	315.3	27 mph	Monsoon storm
	Cowtown (TEOM)	04-021-3013(3)	235.3		
	Maricopa (TEOM)	04-021-3010(3)	204.9		
	PCH (TEOM)	04-021-3011(3)	169.0		
8/21/09	Cowtown (TEOM)	04-021-3013(3)	204.7	33 mph	Monsoon storm
	PCH (TEOM)	04-021-3011(3)	168.1		
8/31/09	Cowtown (TEOM)	04-021-3013(3)	224.8	34 mph	Monsoon storm
9/3/09	Cowtown (TEOM)	04-021-3013(3)	426.2	55 mph	Monsoon storm
	Maricopa (TEOM)	04-021-3010(3)	306.2		
	Casa Grande (TEOM)	04-021-0001(3)	155.1		
9/30/09	Cowtown (TEOM)	04-021-3013(3)	242.0	28 mph	Cold Front

Air Quality Control District