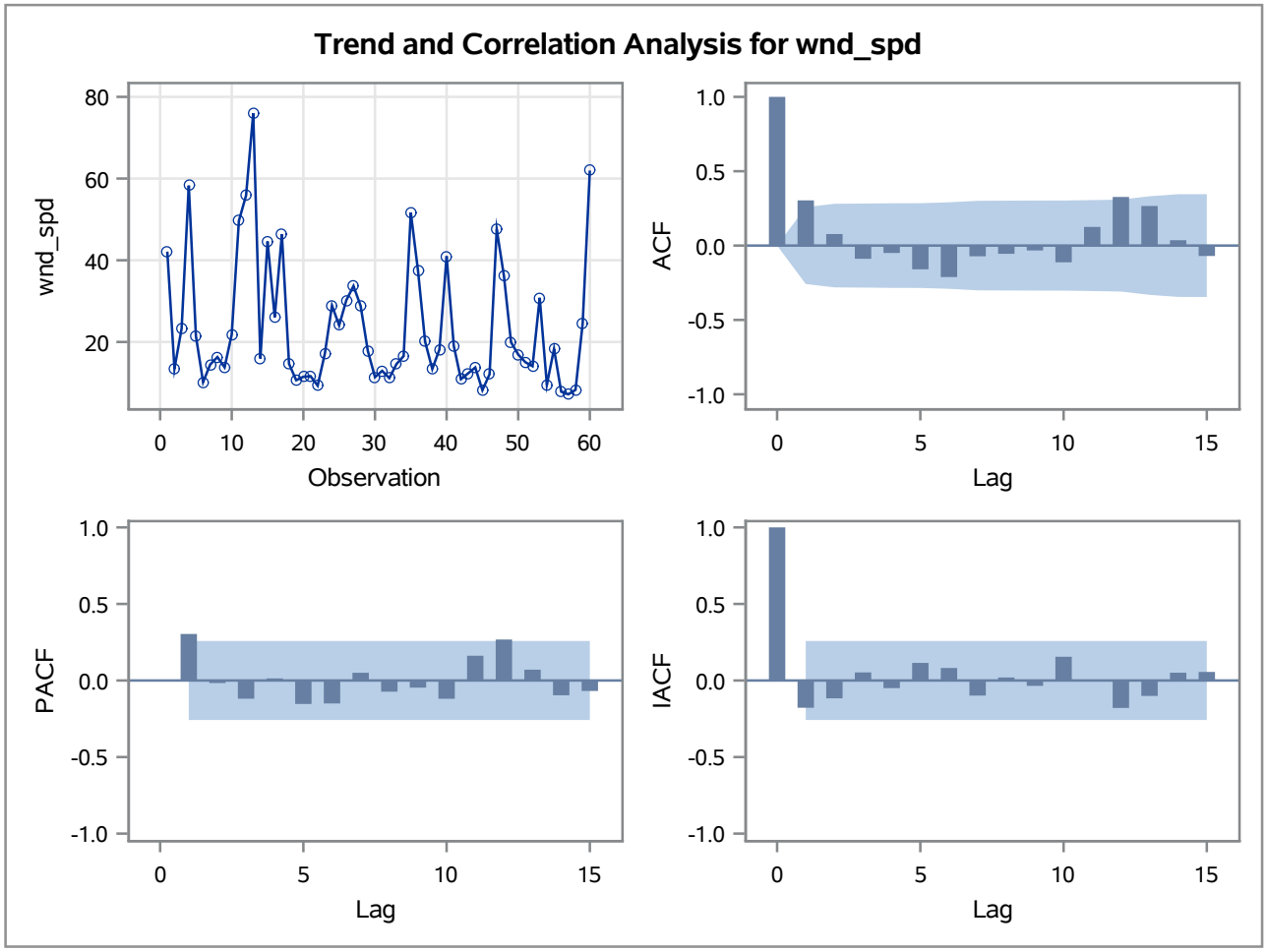
Name of Variable = wnd_spd	
Mean of Working Series	23.84927
Standard Deviation	15.69601
Number of Observations	60

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	11.69	6	0.0692	0.304	0.077	-0.089	-0.050	-0.159	-0.212
12	22.76	12	0.0298	-0.072	-0.055	-0.033	-0.112	0.125	0.327

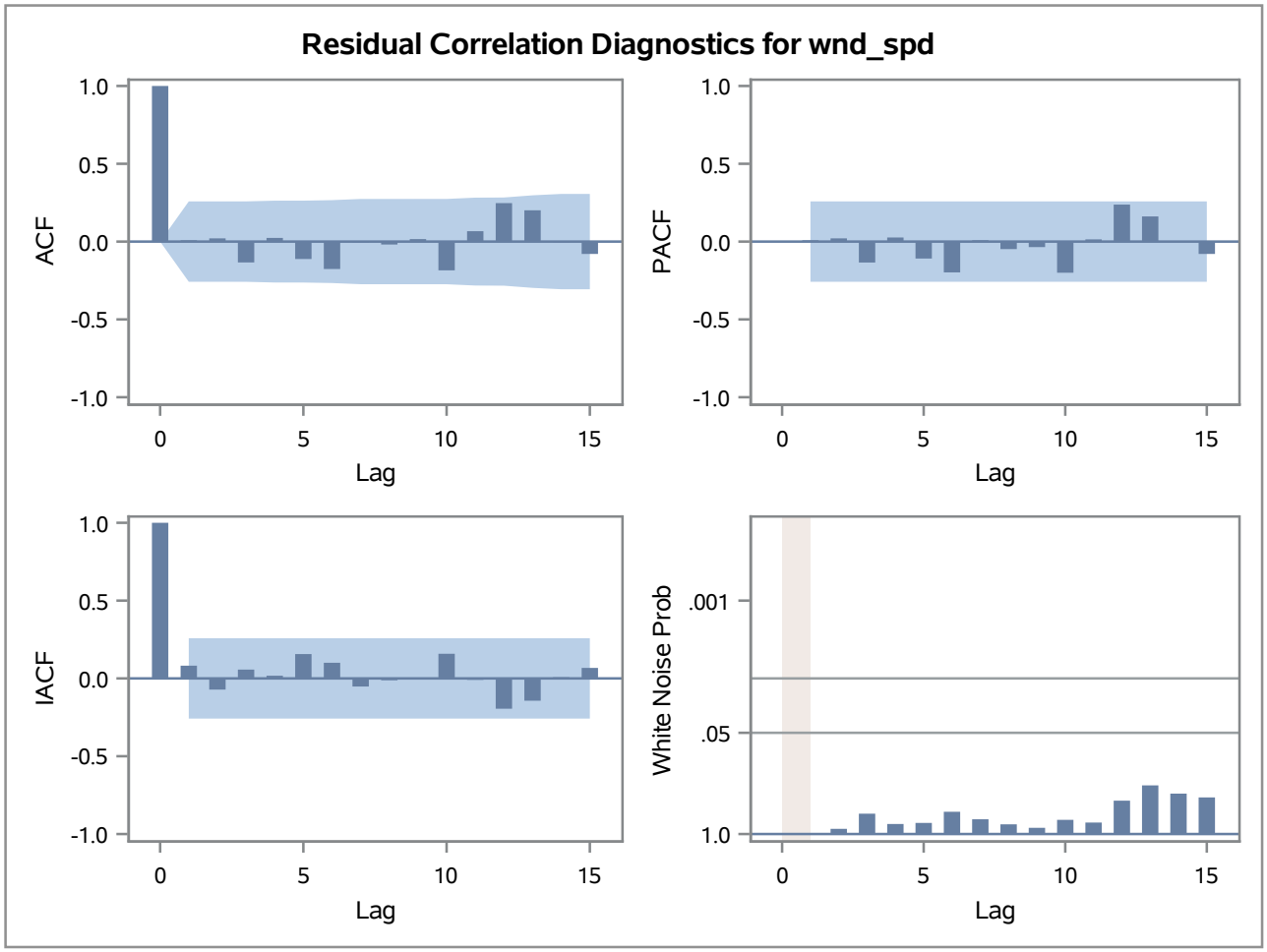


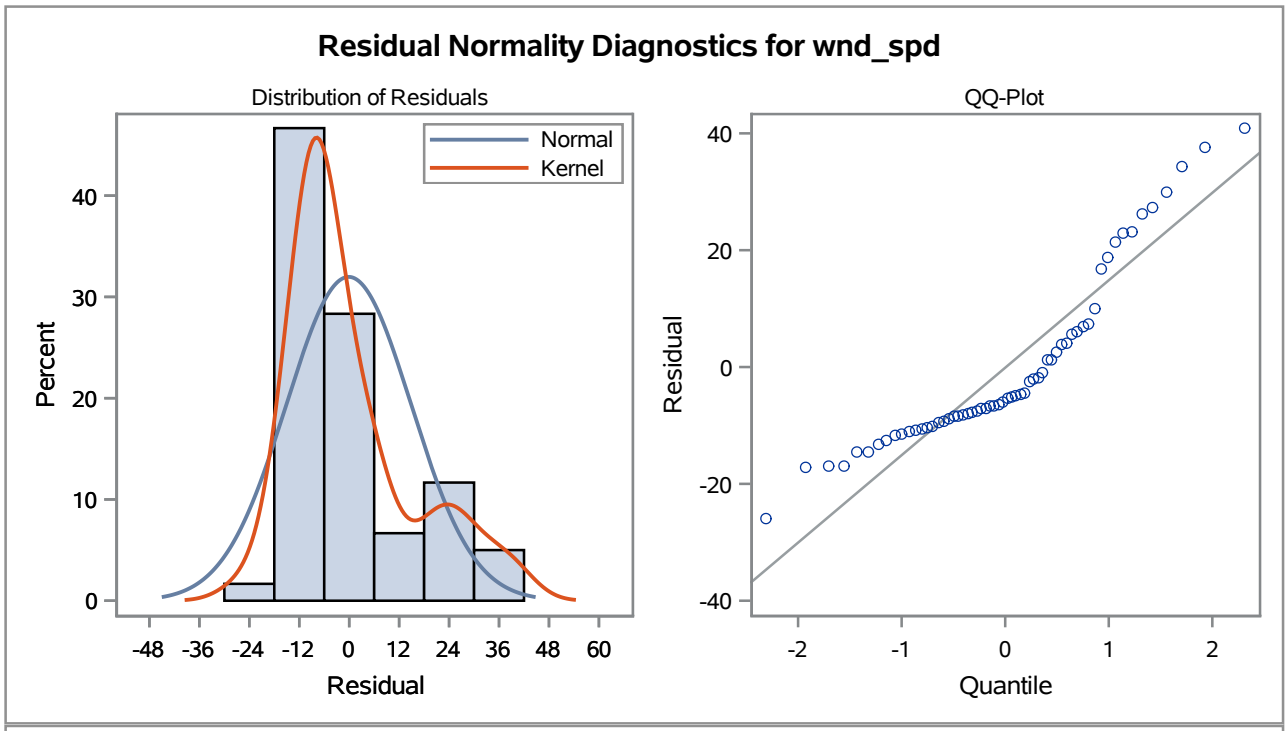
Maximum Likelihood Estimation					
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag
MU	24.32646	2.93401	8.29	<.0001	0
AR1,1	0.34055	0.13046	2.61	0.0090	1

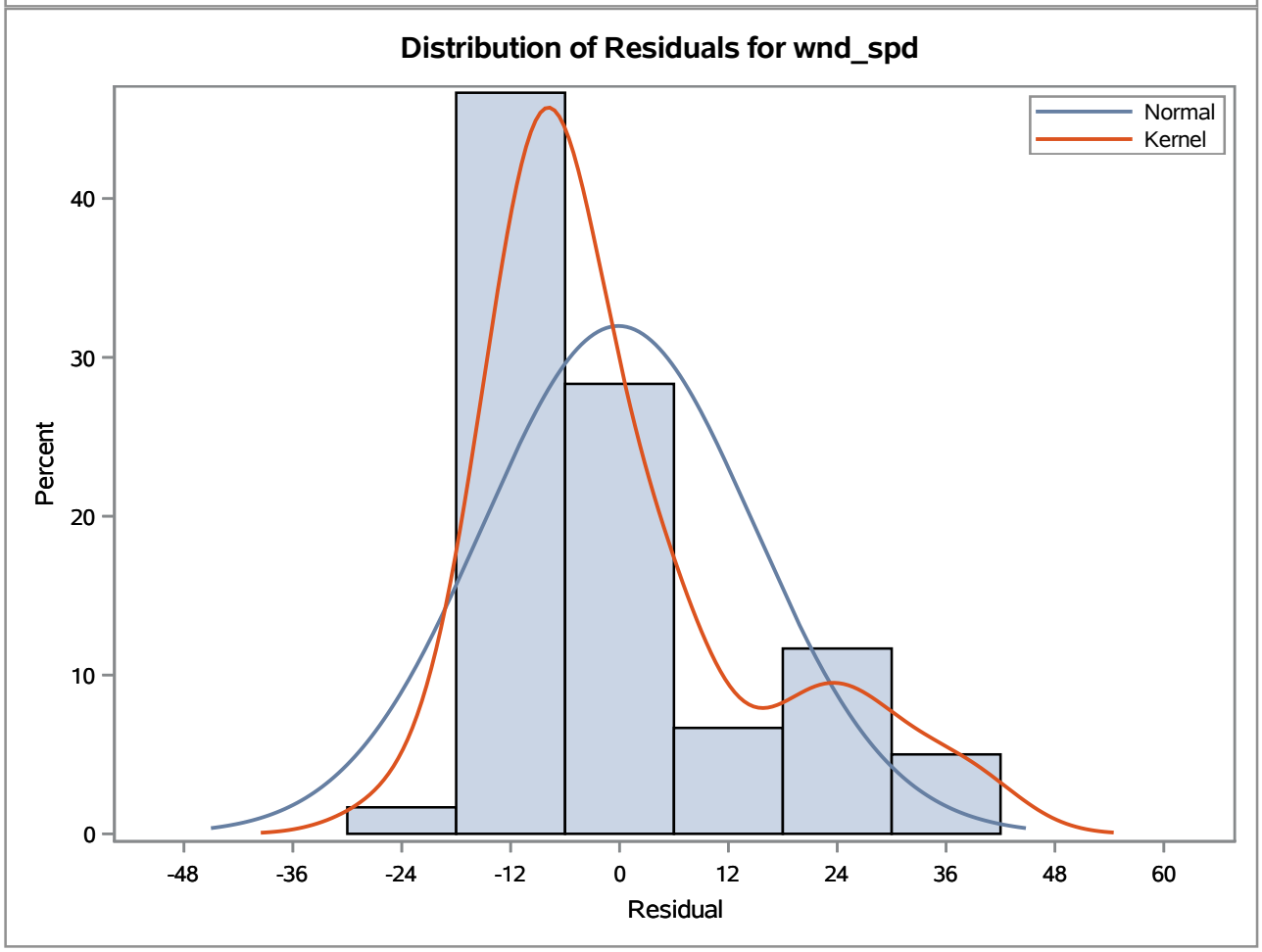
Constant Estimate	16.04205
Variance Estimate	227.9803
Std Error Estimate	15.09902
AIC	498.1173
SBC	502.306
Number of Residuals	60

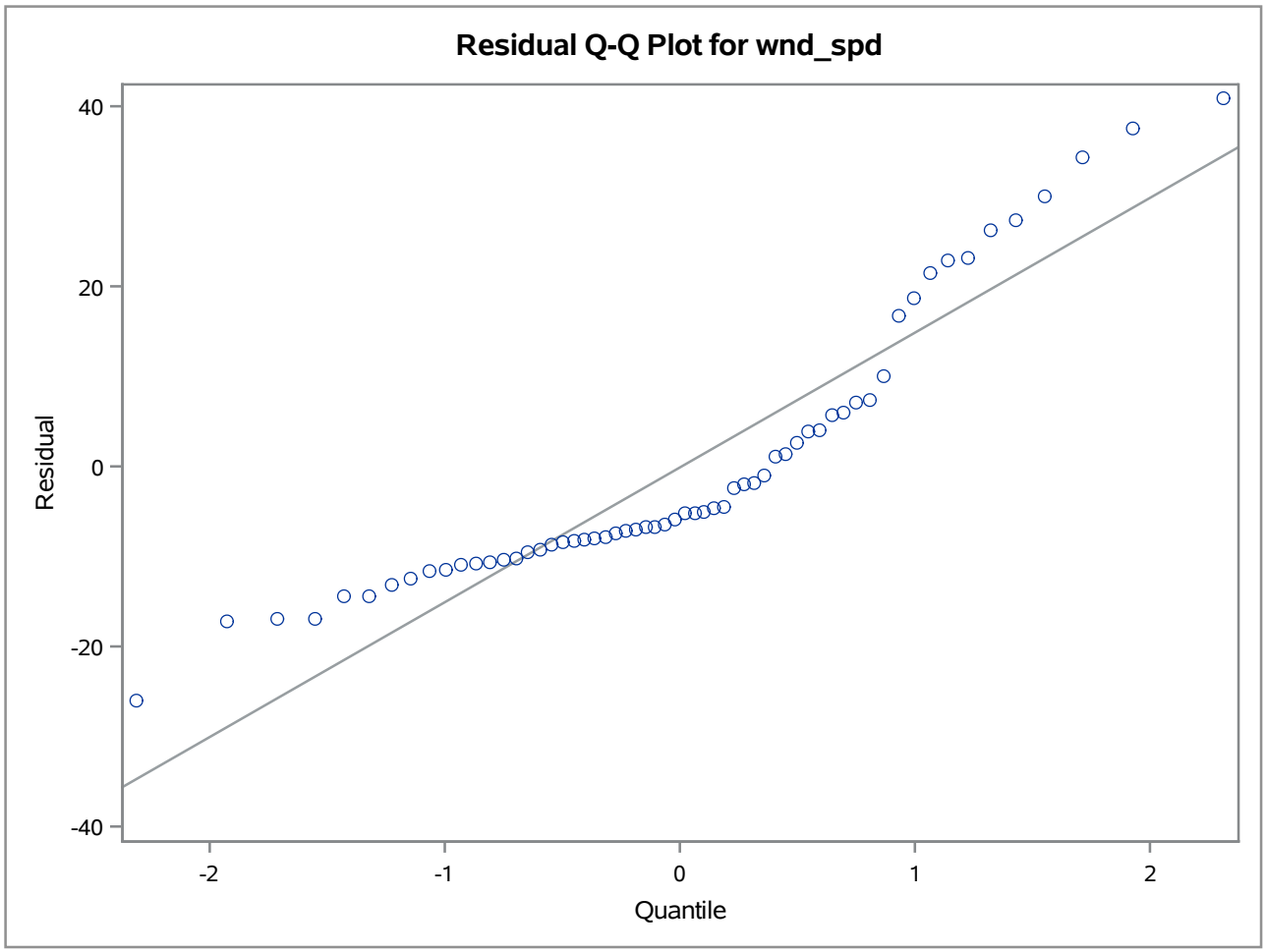
Correlations of Parameter Estimates		
Parameter	**MU**	**AR1,1**
MU	1.000	0.063
AR1,1	0.063	1.000

Autocorrelation Check of Residuals									
To Lag	**Chi-Square**	**DF**	**Pr > ChiSq**	**Autocorrelations**					
6	4.21	5	0.5195	0.009	0.021	-0.134	0.024	-0.111	-0.176
12	11.88	11	0.3729	-0.004	-0.019	0.016	-0.185	0.067	0.247
18	18.52	17	0.3566	0.202	-0.003	-0.079	0.002	-0.161	-0.087
24	27.05	23	0.2538	-0.105	0.129	-0.135	0.010	0.155	0.132




Residual Normality Diagnostics for wnd_spd
Distribution of Residuals
Normal
Kernel
Percent
Residual
QQ-Plot
Residual
Quantile


Distribution of Residuals for wnd_spd
Normal
Kernel
Percent
Residual



Model for variable wnd_spd	
Estimated Mean	24.32646

Autoregressive Factors	
Factor 1:	1 - 0.34055 B**(1)

Name of Variable = pollution	
Mean of Working Series	94.20369
Standard Deviation	27.42528
Number of Observations	60

Autocorrelation Check for White Noise									
To Lag	**Chi-Square**	**DF**	**Pr > ChiSq**	**Autocorrelations**					
6	17.55	6	0.0075	0.127	-0.028	-0.041	-0.061	-0.214	-0.435
12	26.25	12	0.0099	-0.151	0.049	-0.026	-0.113	0.110	0.254

Correlation of pollution and wnd_spd	
Number of Observations	60
Variance of transformed series pollution	773.8499
Variance of transformed series wnd_spd	221.08

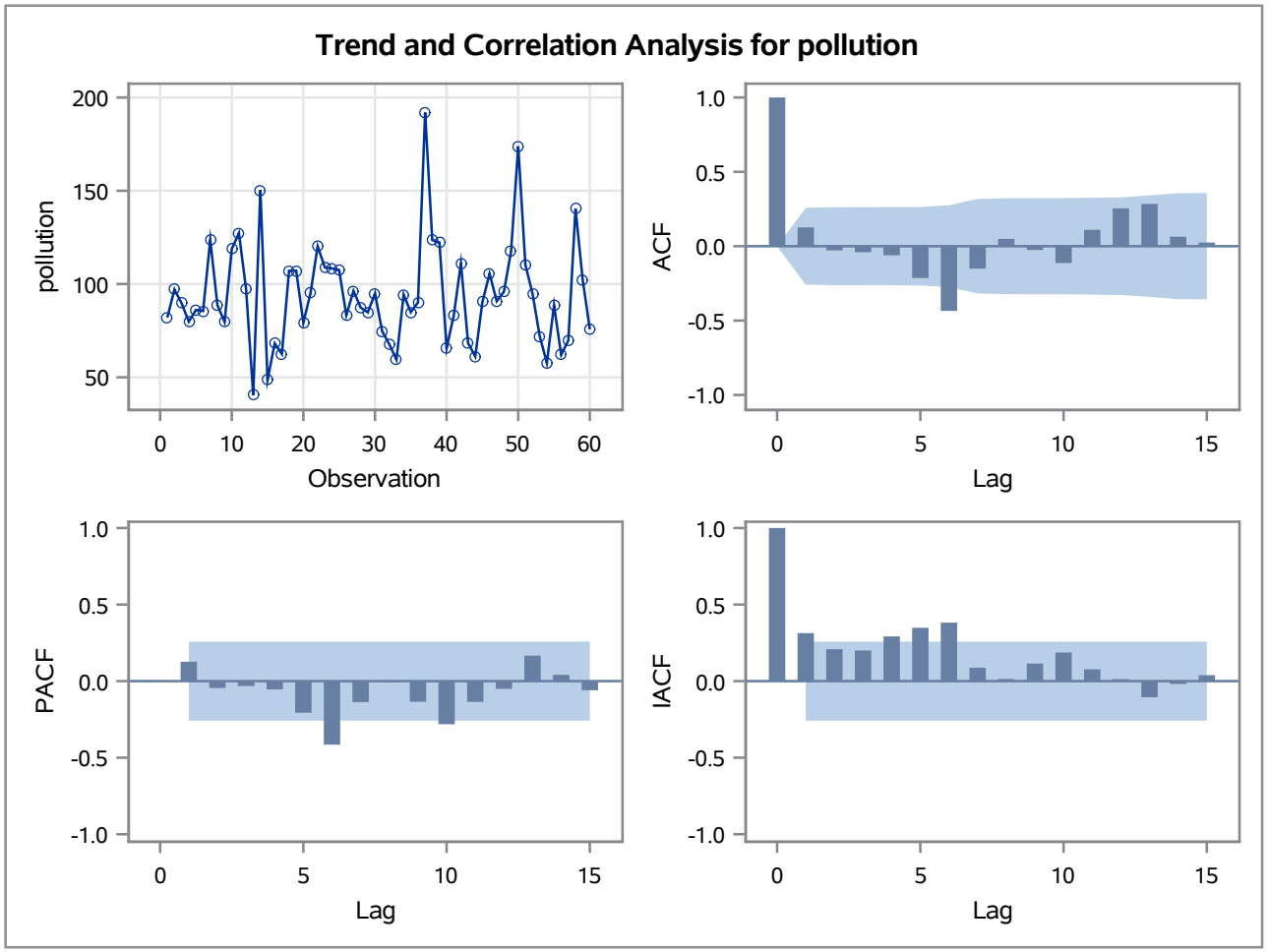
Both series have been prewhitened.

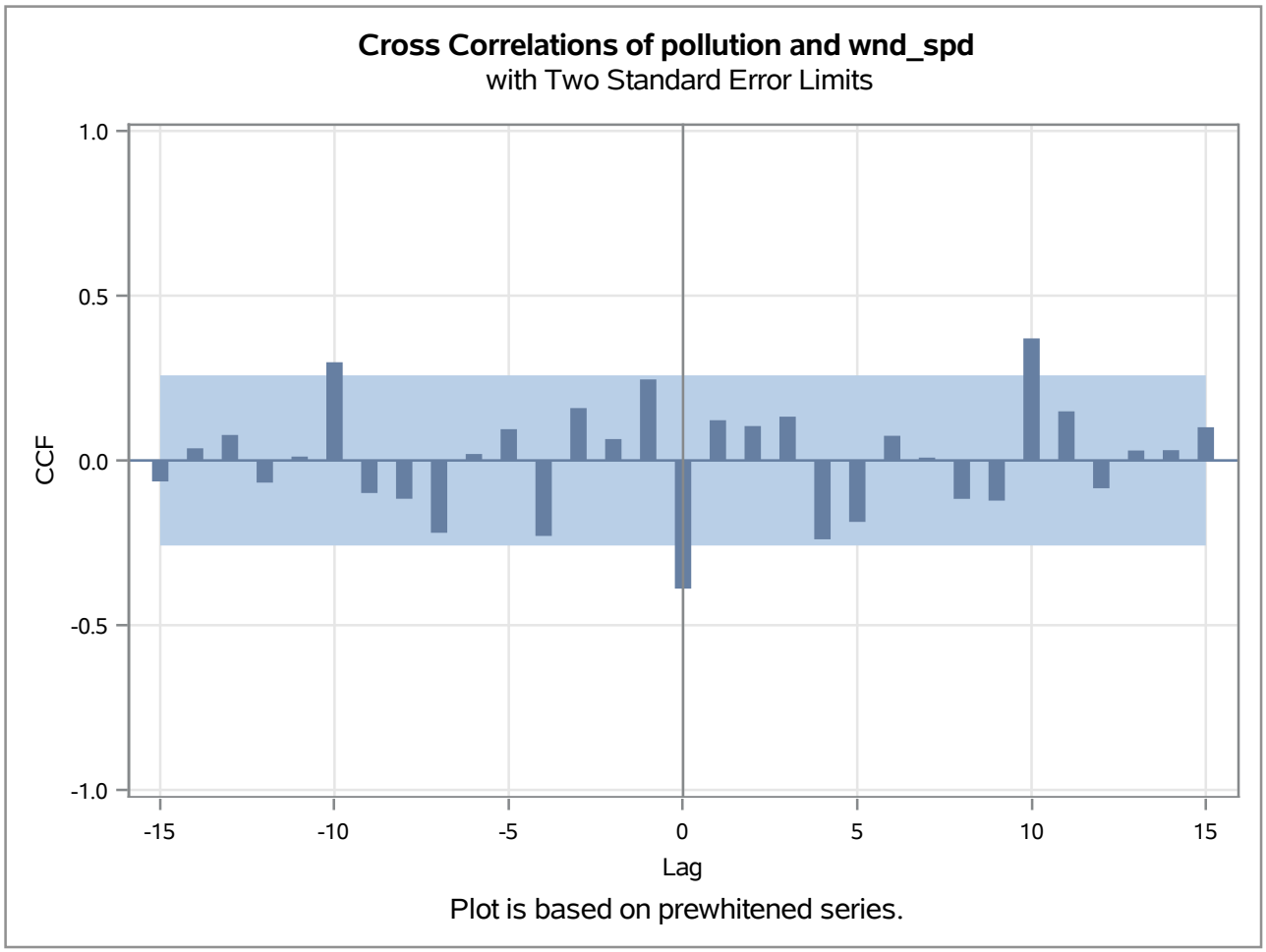
Crosscorrelation Check Between Series									
To Lag	Chi-Square	DF	Pr > ChiSq	Crosscorrelations					
5	17.21	6	0.0085	-0.389	0.122	0.104	0.133	-0.239	-0.186
11	28.82	12	0.0042	0.075	0.009	-0.117	-0.122	0.370	0.149

Both variables have been prewhitened by the following filter:

Prewhitening Filter

Autoregressive Factors	
Factor 1:	1 - 0.34055 B**(1)



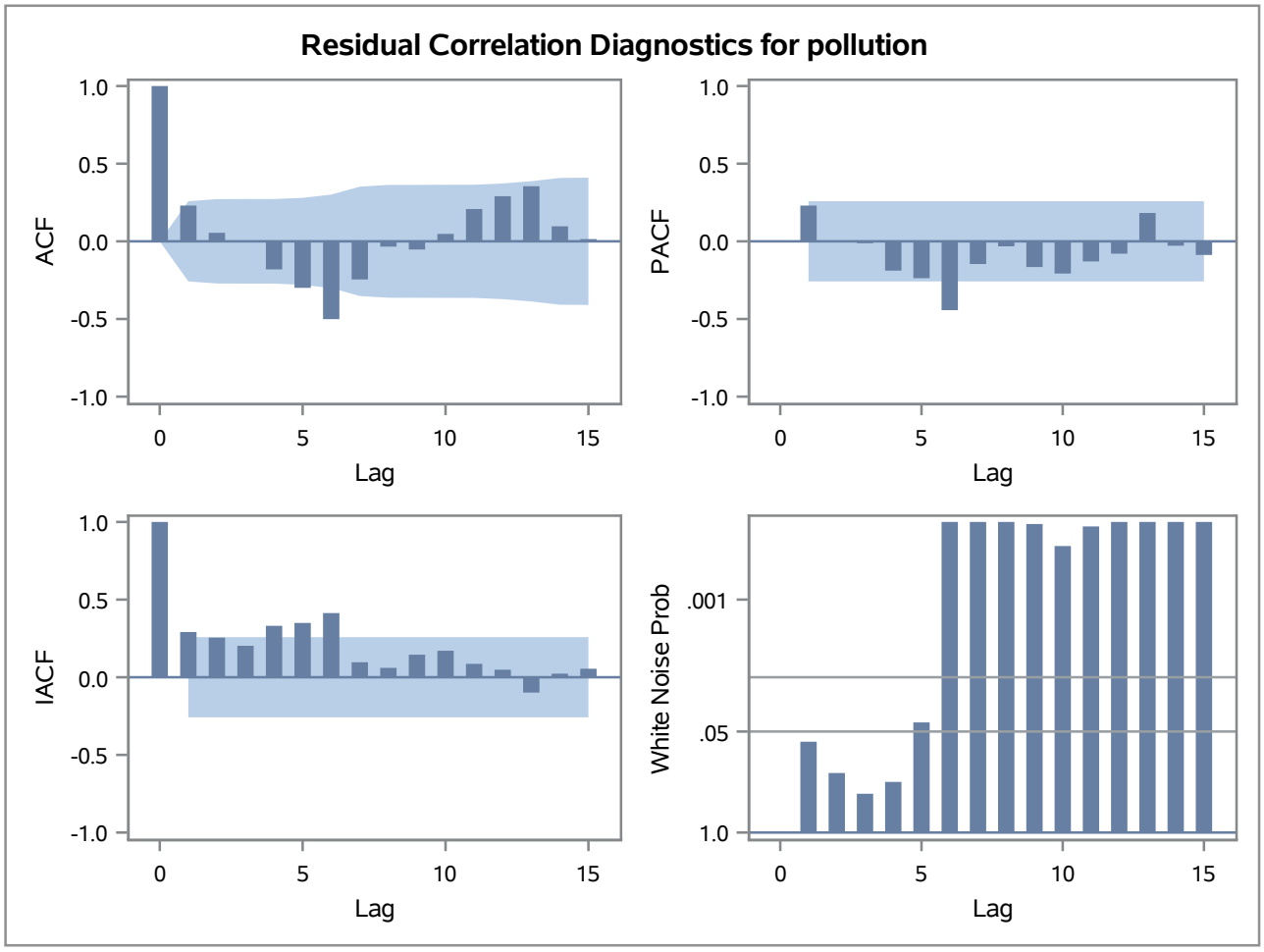


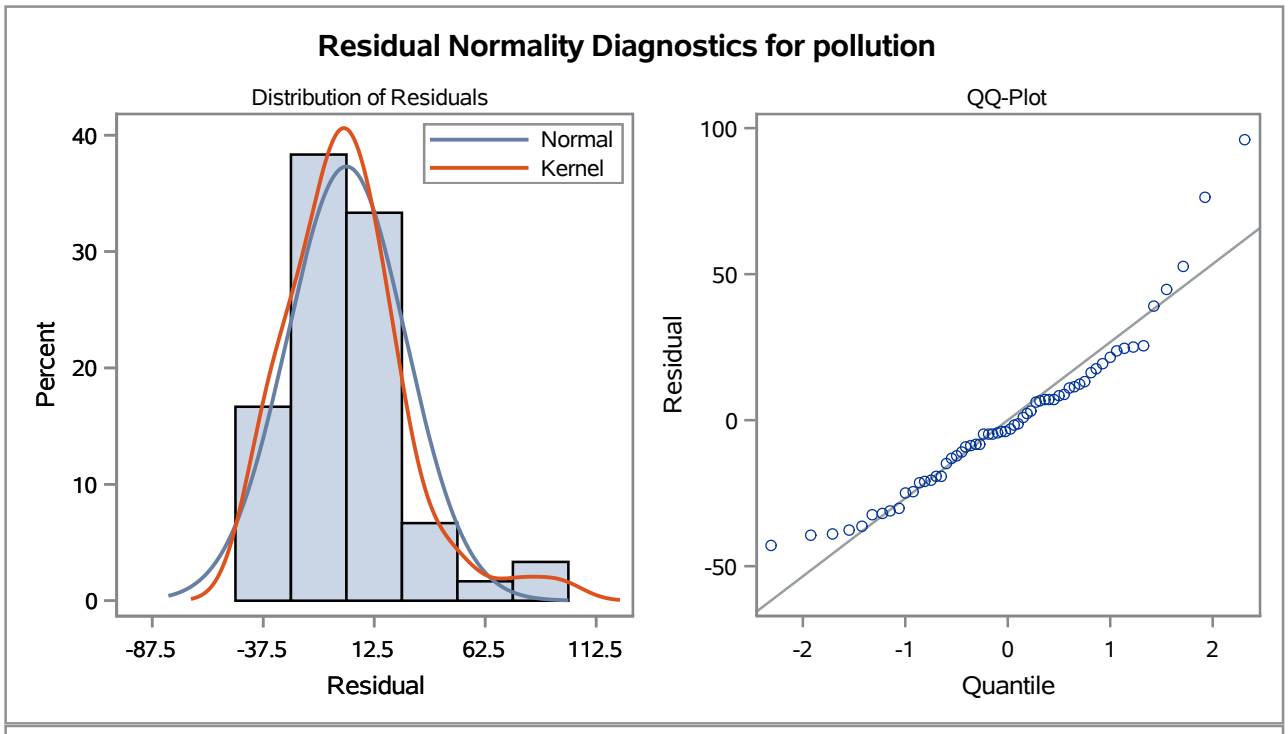
Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
MU	104.88869	6.33139	16.57	<.0001	0	pollution	0
NUM1	-0.44802	0.22176	-2.02	0.0434	0	wnd_spd	0

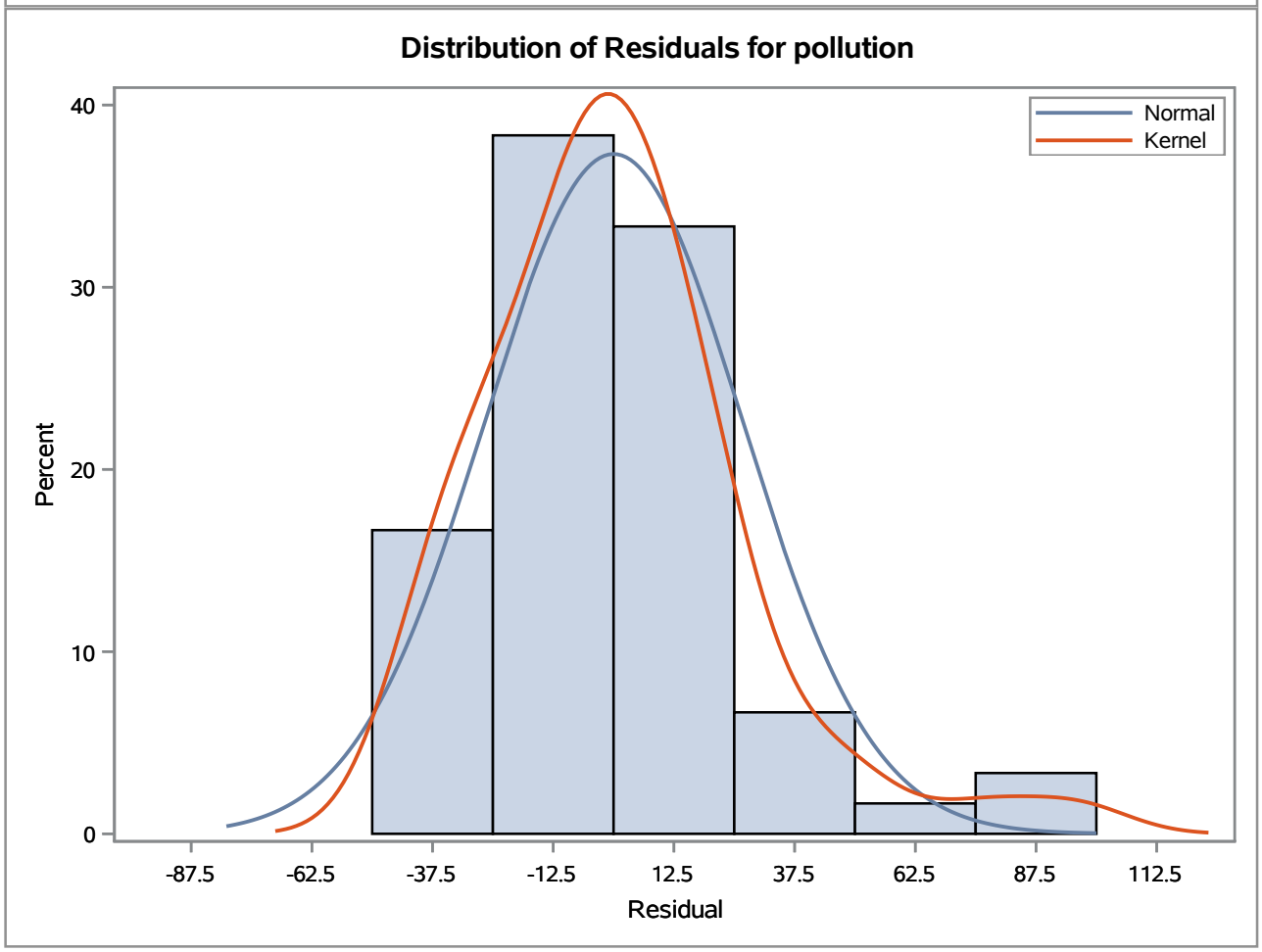
Constant Estimate	104.8887
Variance Estimate	726.9254
Std Error Estimate	26.96155
AIC	567.568
SBC	571.7566
Number of Residuals	60

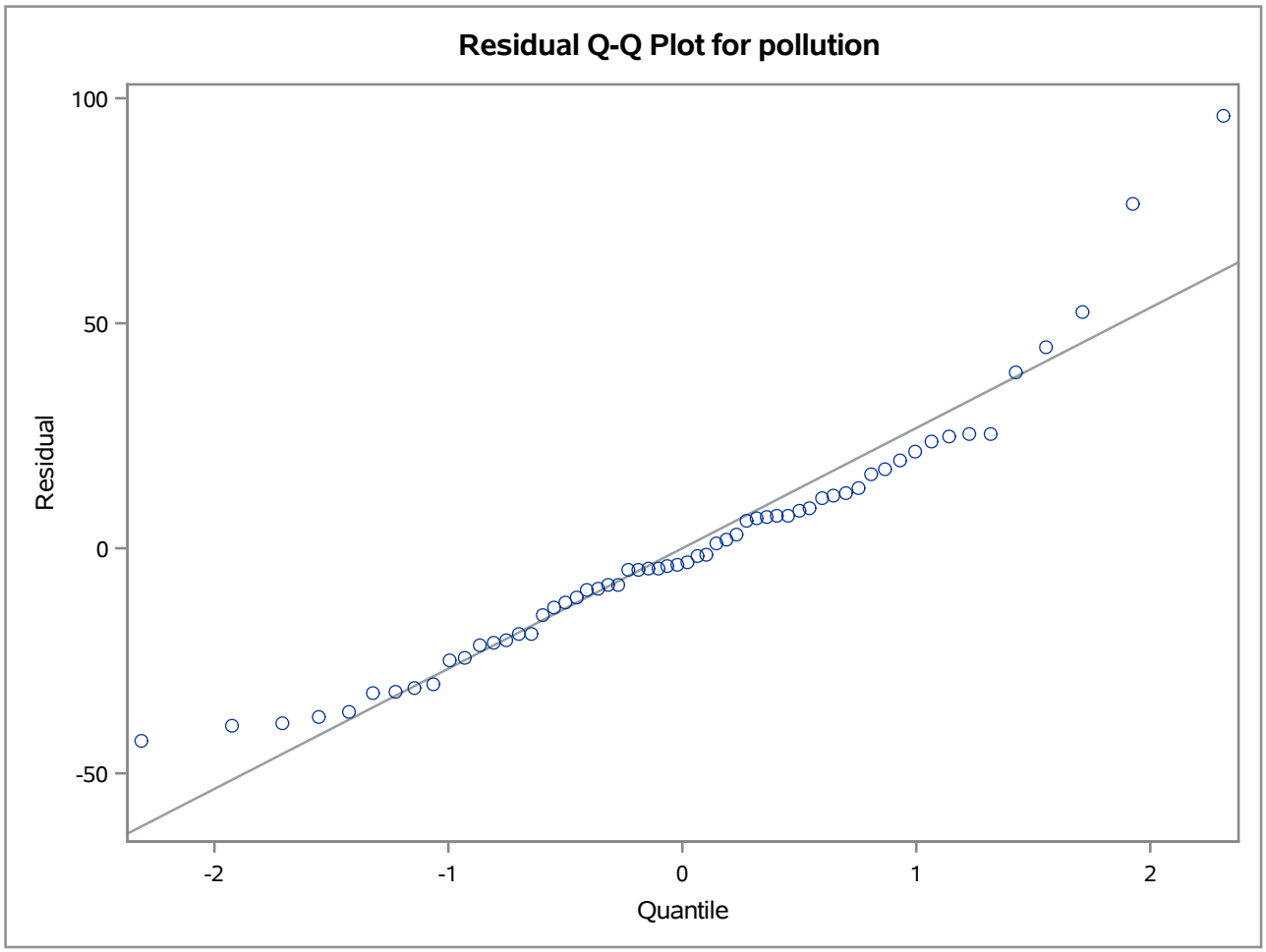
Correlations of Parameter Estimates			
Variable	Parameter	pollution MU	wnd_spd NUM1
pollution	MU	1.000	-0.835
wnd_spd	NUM1	-0.835	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	29.05	6	<.0001	0.230	0.055	0.002	-0.181	-0.299	-0.501
12	43.56	12	<.0001	-0.245	-0.034	-0.053	0.048	0.208	0.290
18	62.35	18	<.0001	0.355	0.097	0.014	-0.023	-0.236	-0.190
24	73.47	24	<.0001	-0.216	-0.108	-0.032	-0.131	0.189	0.064




Residual Normality Diagnostics for pollution
Distribution of Residuals
Normal
Kernel
Percent
Residual
QQ-Plot
Residual
Quantile


Distribution of Residuals for pollution
Normal
Kernel
Percent
Residual



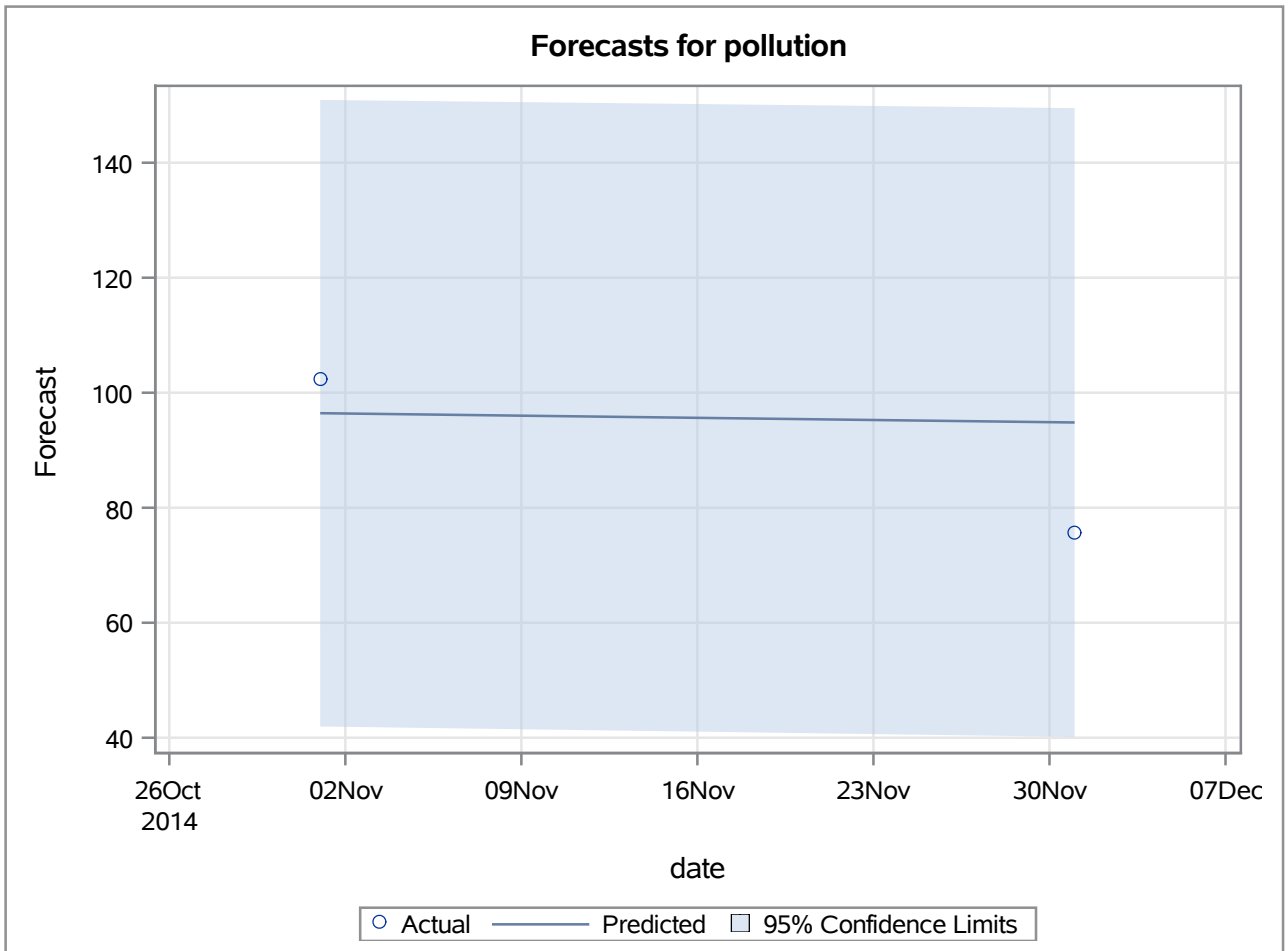
Crosscorrelation Check of Residuals with Input wnd_spd									
To Lag	Chi-Square	DF	Pr > ChiSq	Crosscorrelations					
5	11.09	6	0.0857	-0.058	0.111	0.153	0.159	-0.192	-0.289
11	23.34	12	0.0250	-0.066	-0.014	-0.131	-0.171	0.283	0.270
17	30.50	18	0.0328	0.068	0.102	0.071	0.110	-0.217	-0.201
23	36.46	24	0.0495	-0.115	-0.197	-0.105	-0.122	0.117	0.089

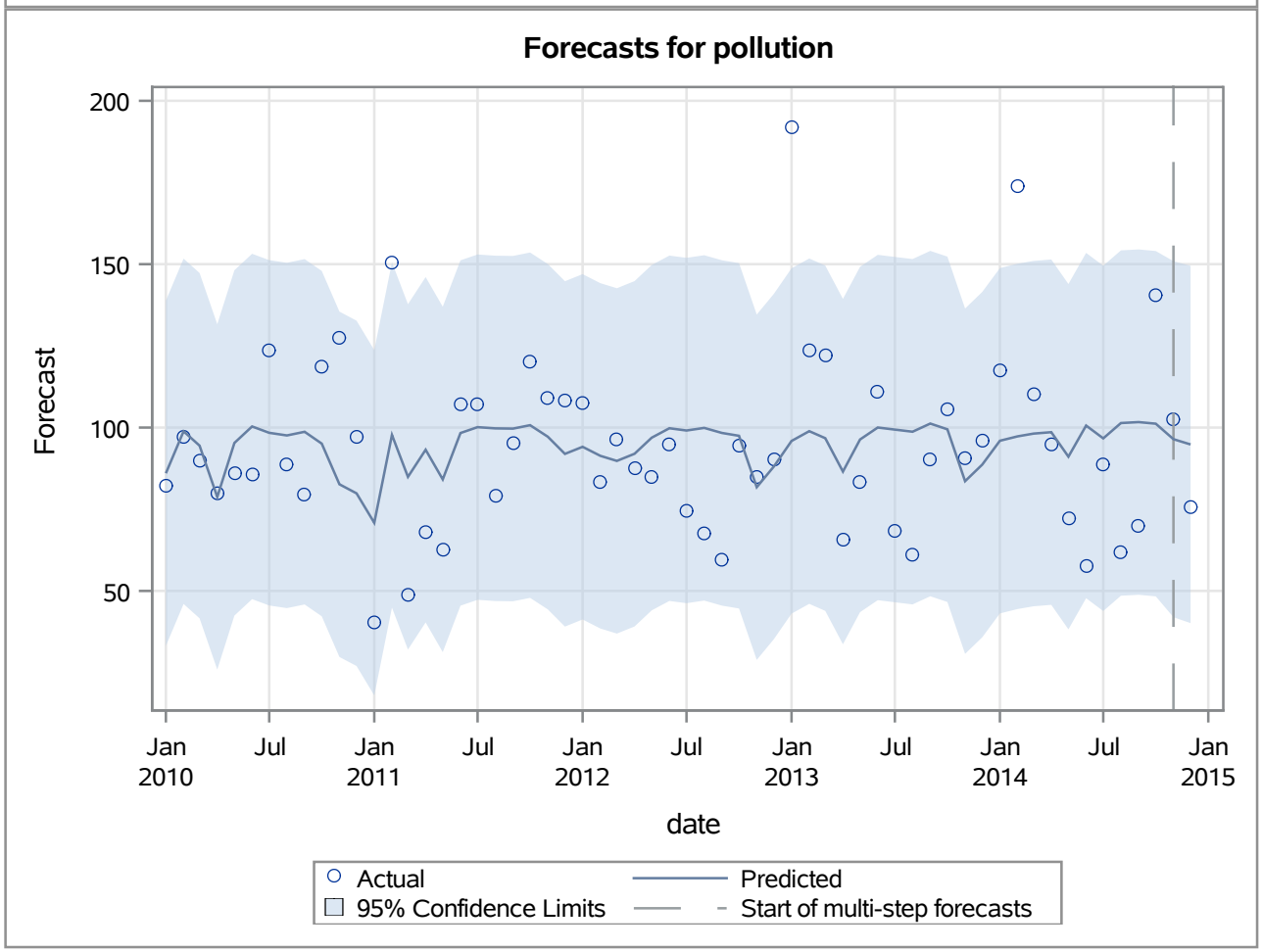
Model for variable pollution	
Estimated Intercept	104.8887

Input Number 1	
Input Variable	wnd_spd
Overall Regression Factor	-0.44802

Forecasts for variable pollution						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
1	86.0182	26.9616	33.1745	138.8618	82.0264	-3.9918
2	98.8553	26.9616	46.0116	151.6989	97.0893	-1.7660
3	94.4582	26.9616	41.6145	147.3019	89.6734	-4.7848
4	78.7776	26.9616	25.9339	131.6213	79.8069	1.0294
5	95.2924	26.9616	42.4488	148.1361	86.0820	-9.2105
6	100.3298	26.9616	47.4861	153.1735	85.5375	-14.7923
7	98.3942	26.9616	45.5505	151.2379	123.6478	25.2536
8	97.5822	26.9616	44.7385	150.4258	88.6815	-8.9007
9	98.7069	26.9616	45.8632	151.5506	79.6319	-19.0750
10	95.0857	26.9616	42.2420	147.9294	118.6626	23.5769
11	82.6334	26.9616	29.7897	135.4771	127.3778	44.7444
12	79.8640	26.9616	27.0203	132.7077	97.3333	17.4694
13	70.8587	26.9616	18.0150	123.7023	40.5470	-30.3116
14	97.7420	26.9616	44.8983	150.5857	150.3214	52.5794
15	84.9070	26.9616	32.0633	137.7506	48.6546	-36.2524
16	93.2114	26.9616	40.3677	146.0550	68.1806	-25.0308
17	84.1289	26.9616	31.2852	136.9725	62.5121	-21.6168
18	98.3270	26.9616	45.4833	151.1707	107.1111	8.7841
19	100.1265	26.9616	47.2828	152.9702	107.1384	7.0119
20	99.7487	26.9616	46.9050	152.5924	79.2366	-20.5122
21	99.6764	26.9616	46.8327	152.5201	95.1403	-4.5361
22	100.7217	26.9616	47.8780	153.5653	120.2406	19.5189
23	97.2024	26.9616	44.3587	150.0461	108.8708	11.6684
24	91.9373	26.9616	39.0936	144.7809	108.3737	16.4364
25	94.1090	26.9616	41.2654	146.9527	107.4435	13.3345
26	91.3498	26.9616	38.5061	144.1935	83.2730	-8.0768
27	89.7906	26.9616	36.9469	142.6343	96.3360	6.5454
28	91.9773	26.9616	39.1336	144.8209	87.3972	-4.5800
29	96.8978	26.9616	44.0542	149.7415	84.7782	-12.1196
30	99.7860	26.9616	46.9424	152.6297	94.9861	-4.7999
31	99.0957	26.9616	46.2520	151.9393	74.6707	-24.4250
32	99.8924	26.9616	47.0488	152.7361	67.7137	-32.1787
33	98.3545	26.9616	45.5108	151.1981	59.5014	-38.8531
34	97.4758	26.9616	44.6321	150.3194	94.3293	-3.1465
35	81.7431	26.9616	28.8994	134.5868	84.8806	3.1374
36	88.0730	26.9616	35.2293	140.9167	90.1169	2.0439

Forecasts for variable pollution						
Obs	Forecast	Std Error	95% Confidence Limits		Actual	Residual
37	95.8975	26.9616	43.0539	148.7412	191.9745	96.0769
38	98.8929	26.9616	46.0492	151.7366	123.6176	24.7247
39	96.7452	26.9616	43.9015	149.5888	122.2379	25.4927
40	86.5294	26.9616	33.6857	139.3731	65.6542	-20.8752
41	96.3474	26.9616	43.5037	149.1911	83.1801	-13.1673
42	100.0147	26.9616	47.1711	152.8584	111.1069	11.0922
43	99.3739	26.9616	46.5302	152.2176	68.3347	-31.0392
44	98.7239	26.9616	45.8802	151.5676	61.1586	-37.5653
45	101.2175	26.9616	48.3738	154.0611	90.3694	-10.8480
46	99.4661	26.9616	46.6224	152.3098	105.5901	6.1239
47	83.5884	26.9616	30.7448	136.4321	90.7931	7.2046
48	88.6532	26.9616	35.8095	141.4969	95.8629	7.2097
49	95.9596	26.9616	43.1159	148.8033	117.4422	21.4826
50	97.3080	26.9616	44.4643	150.1516	173.8378	76.5298
51	98.1512	26.9616	45.3076	150.9949	110.3374	12.1861
52	98.5852	26.9616	45.7416	151.4289	94.8361	-3.7491
53	91.0839	26.9616	38.2403	143.9276	72.0605	-19.0234
54	100.6134	26.9616	47.7697	153.4570	57.6875	-42.9259
55	96.6881	26.9616	43.8444	149.5317	88.6142	-8.0738
56	101.3798	26.9616	48.5361	154.2235	62.0121	-39.3677
57	101.6677	26.9616	48.8240	154.5114	69.8056	-31.8622
58	101.1824	26.9616	48.3387	154.0260	140.3669	39.1846
59	96.4393	27.7972	41.9577	150.9209	102.3486	5.9093
60	94.8240	27.8925	40.1557	149.4924	75.6882	-19.1359


Forecasts for pollution
Forecast
140
120
100
80
60
40
26Oct
2014
02Nov
09Nov
16Nov
23Nov
30Nov
07Dec
date
Actual
Predicted
95% Confidence Limits


Forecasts for pollution
Forecast
200
150
100
50
Jan
2010
Jul
Jan
2011
Jul
Jan
2012
Jul
Jan
2013
Jul
Jan
2014
Jul
Jan
2015
date
Actual
95% Confidence Limits
Predicted
Start of multi-step forecasts

Outlier Detection Summary	
Maximum number searched	2
Number found	2
Significance used	0.05

Outlier Details

Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
37	Additive	96.07694	19.00	<.0001
50	Additive	76.52984	14.84	0.0001