

Appendix III Stepwise regression models

Regression Summary

Tdiff-C1 vs. 3 Independents

Step: 2

Inclusion criteria: C1-1 from May10-Nov25-Tdiff-2nd.svd

Count	625
Num. Missing	0
R	.801
R Squared	.641
Adjusted R Squared	.640
RMS Residual	7.293

ANOVA Table

Tdiff-C1 vs. 3 Independents

Step: 2

Inclusion criteria: C1-1 from May10-Nov25-Tdiff-2nd.svd

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	2	59111.538	29555.769	555.677	<.0001
Residual	622	33083.392	53.189		
Total	624	92194.930			

Variables In Model

Tdiff-C1 vs. 3 Independents

Step: 2

Inclusion criteria: C1-1 from May10-Nov25-Tdiff-2nd.svd

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	2.769	1.013	2.769	7.473
Incident Angle	-.089	.014	-.176	41.338
Sol.Rad.	120.791	4.711	.701	657.424

Variables Not In Model

Tdiff-C1 vs. 3 Independents

Step: 2

Inclusion criteria: C1-1 from May10-Nov25-Tdiff-2nd.svd

	Partial Cor.	F-to-Enter
C1-inlet	-.001	4.922E-4

Figure III-1. Stepwise regression output for C1-1

Regression Summary

Tdiff-C1 vs. 3 Independents

Step: 3

Inclusion criteria: C1-2 from May10-Nov25-Tdiff-2nd.svd

Count	3164
Num. Missing	0
R	.705
R Squared	.498
Adjusted R Squared	.497
RMS Residual	9.901

ANOVA Table**Tdiff-C1 vs. 3 Independents****Step: 3****Inclusion criteria: C1-2 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	306721.851	102240.617	1042.954	<.0001
Residual	3160	309774.248	98.030		
Total	3163	616496.098			

Variables In Model**Tdiff-C1 vs. 3 Independents****Step: 3****Inclusion criteria: C1-2 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	-1.907	2.050	-1.907	.865
Incident Angle	-.181	.008	-.324	489.046
C1-inlet	.287	.033	.112	74.423
Sol.Rad.	44.828	1.494	.450	899.933

Figure III-2 Stepwise regression output for C1-2

Regression Summary**Tdiff-C1 vs. 3 Independents****Step: 3****Inclusion criteria: C1-3 from May10-Nov25-Tdiff-2nd.svd**

Count	1175
Num. Missing	0
R	.770
R Squared	.592
Adjusted R Squared	.591
RMS Residual	9.396

ANOVA Table**Tdiff-C1 vs. 3 Independents****Step: 3****Inclusion criteria: C1-3 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	150197.273	50065.758	567.149	<.0001
Residual	1171	103371.440	88.276		
Total	1174	253568.712			

Variables In Model**Tdiff-C1 vs. 3 Independents****Step: 3****Inclusion criteria: C1-3 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	-27.814	5.398	-27.814	26.552
Incident Angle	-.447	.014	-.699	1002.346
C1-inlet	.984	.071	.260	192.678
Sol.Rad.	5.082	2.344	.048	4.703

Figure III-3 Stepwise regression output for C1-3

Regression Summary**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-1 from May10-Nov25-Tdiff-2nd.svd**

Count	857
Num. Missing	0
R	.857
R Squared	.734
Adjusted R Squared	.733
RMS Residual	12.544

ANOVA Table**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-1 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	370901.545	123633.848	785.718	<.0001
Residual	853	134220.833	157.352		
Total	856	505122.378			

Variables In Model**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-1 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	26.151	3.729	26.151	49.178
Incident Angle	-.181	.020	-.183	81.547
C2-inlet	-.421	.085	-.090	24.793
Sol.Rad.	246.806	6.583	.752	1405.772

Figure III-4 Stepwise regression output for C2-1

Regression Summary**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-2 from May10-Nov25-Tdiff-2nd.svd**

Count	3283
Num. Missing	0
R	.763
R Squared	.582
Adjusted R Squared	.582
RMS Residual	18.003

ANOVA Table**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-2 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	1482196.166	494065.389	1524.370	<.0001
Residual	3279	1062760.327	324.111		
Total	3282	2544956.493			

Variables In Model**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-2 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	23.013	3.605	23.013	40.742
Incident Angle	-.417	.015	-.374	797.714
C2-inlet	.213	.059	.042	13.138
Sol.Rad.	93.930	2.597	.489	1307.970

Figure III-5 Stepwise regression output for C2-2

Regression Summary**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-3 from May10-Nov25-Tdiff-2nd.svd**

Count	866
Num. Missing	0
R	.817
R Squared	.667
Adjusted R Squared	.666
RMS Residual	15.295

ANOVA Table**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-3 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	404349.806	134783.269	576.121	<.0001
Residual	862	201664.467	233.949		
Total	865	606014.273			

Variables In Model**Tdiff-C2 vs. 3 Independents****Step: 3****Inclusion criteria: C2-3 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	-2.086	12.210	-2.086	.029
Incident Angle	-.829	.027	-.709	920.973
C2-inlet	1.153	.164	.139	49.172
Sol.Rad.	29.177	4.601	.149	40.216

Figure III-6 Stepwise regression output for C2-3

Regression Summary**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-1 from May10-Nov25-Tdiff-2nd.svd**

Count	847
Num. Missing	0
R	.848
R Squared	.720
Adjusted R Squared	.719
RMS Residual	12.639

ANOVA Table**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-1 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	345509.035	115169.678	720.976	<.0001
Residual	843	134661.993	159.741		
Total	846	480171.028			

Variables In Model**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-1 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	26.289	3.885	26.289	45.781
Incident Angle	-.199	.020	-.205	97.514
C3-inlet	-.404	.088	-.085	21.156
Sol.Rad.	247.060	6.907	.733	1279.501

Figure III-7 Stepwise regression output for C3-1

Regression Summary**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-2 from May10-Nov25-Tdiff-2nd.svd**

Count	3291
Num. Missing	0
R	.755
R Squared	.570
Adjusted R Squared	.570
RMS Residual	18.311

ANOVA Table**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-2 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	1461212.124	487070.708	1452.690	<.0001
Residual	3287	1102094.031	335.289		
Total	3290	2563306.155			

Variables In Model**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-2 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	26.081	3.634	26.081	51.499
Incident Angle	-.448	.015	-.399	883.661
C2-inlet	.215	.059	.043	13.145
Sol.Rad.	87.619	2.637	.456	1103.734

Figure III-8 Stepwise regression output for C3-2

Regression Summary**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-3 from May10-Nov25-Tdiff-2nd.svd**

Count	871
Num. Missing	0
R	.833
R Squared	.693
Adjusted R Squared	.692
RMS Residual	14.630

ANOVA Table**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-3 from May10-Nov25-Tdiff-2nd.svd**

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	3	419875.129	139958.376	653.856	<.0001
Residual	867	185582.070	214.051		
Total	870	605457.199			

Variables In Model**Tdiff-C3 vs. 3 Independents****Step: 3****Inclusion criteria: C3-3 from May10-Nov25-Tdiff-2nd.svd**

	Coefficient	Std. Error	Std. Coeff.	F-to-Remove
Intercept	-.422	11.621	-.422	.001
Incident Angle	-.850	.026	-.743	1082.582
C3-inlet	1.166	.157	.141	55.480
Sol.Rad.	24.264	4.406	.125	30.330

Figure III-9 Stepwise regression output for C3-3