Dependent: LN(PGE Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_PGEGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	9.35182	2.33795	313.51	<.0001
Error	311	2.31920	0.00746		
Corrected Total	315	11.67102			

Root MSE	0.08636	**R-Square**	0.8013
Dependent Mean	1.50036	**Adj R-Sq**	0.7987
Coeff Var	5.75566		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	0.05551	0.04889	1.14	0.2571
log_Henry_Spot	1	1.02217	0.03584	28.52	<.0001
log_Emerson_Bid	1	-0.00630	0.00828	-0.76	0.4476
event_200perc_emerson	1	-0.02168	0.02662	-0.81	0.4161
winter_dummy	1	-0.01296	0.01126	-1.15	0.2509

Dependent: LN(El Paso San Juan Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoSanJuan_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	11.49836	2.87459	339.33	<.0001
Error	311	2.63461	0.00847		
Corrected Total	315	14.13297			

Root MSE	0.09204	**R-Square**	0.8136
Dependent Mean	1.40554	**Adj R-Sq**	0.8112
Coeff Var	6.54837		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.14048	0.05211	-2.70	0.0074
log_Henry_Spot	1	1.08277	0.03819	28.35	<.0001
log_Emerson_Bid	1	-0.00711	0.00882	-0.81	0.4207
event_200perc_emerson	1	-0.01555	0.02837	-0.55	0.5842
winter_dummy	1	0.01766	0.01201	1.47	0.1422

Dependent: LN(El Paso Permian Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoPermian_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	11.36141	2.84035	318.50	<.0001
Error	311	2.77346	0.00892		
Corrected Total	315	14.13487			

Root MSE	0.09443	R-Square	0.8038
Dependent Mean	1.40502	Adj R-Sq	0.8013
Coeff Var	6.72123		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.13443	0.05346	-2.51	0.0124
log_Henry_Spot	1	1.07937	0.03919	27.54	<.0001
log_Emerson_Bid	1	-0.01045	0.00905	-1.15	0.2493
event_200perc_emerson	1	-0.01222	0.02911	-0.42	0.6751
winter_dummy	1	0.01619	0.01232	1.31	0.1897

Dependent: LN(SoCal City Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_SoCalCityGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	8.99728	2.24932	616.89	<.0001
Error	311	1.13398	0.00365		
Corrected Total	315	10.13126			

Root MSE	0.06038	**R-Square**	0.8881
Dependent Mean	1.48422	**Adj R-Sq**	0.8866
Coeff Var	4.06840		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	0.12398	0.03419	3.63	0.0003
log_Henry_Spot	1	0.95260	0.02506	38.02	<.0001
log_Emerson_Bid	1	-0.00341	0.00579	-0.59	0.5562
event_200perc_emerson	1	-0.00444	0.01861	-0.24	0.8115
winter_dummy	1	0.01149	0.00788	1.46	0.1456

Dependent: LN(Dominion South Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dominion_South_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	10.46956	2.61739	446.97	<.0001
Error	311	1.82116	0.00586		
Corrected Total	315	12.29071			

Root MSE	0.07652	**R-Square**	0.8518
Dependent Mean	1.32777	**Adj R-Sq**	0.8499
Coeff Var	5.76328		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.07465	0.04332	-1.72	0.0859
log_Henry_Spot	1	0.97977	0.03176	30.85	<.0001
log_Emerson_Bid	1	0.02579	0.00734	3.52	0.0005
event_200perc_emerson	1	0.03404	0.02359	1.44	0.1501
winter_dummy	1	-0.01331	0.00998	-1.33	0.1832

Dependent: LN(Leidy Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Emerson BID FLOOR Price)

Independent (3): Event Dummy = 1, when Emerson BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Leidy_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	12.71670	3.17918	48.26	<.0001
Error	311	20.48807	0.06588		
Corrected Total	315	33.20477			

Root MSE	0.25667	**R-Square**	0.3830
Dependent Mean	1.10061	**Adj R-Sq**	0.3750
Coeff Var	23.32055		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.24881	0.14531	-1.71	0.0878
log_Henry_Spot	1	0.90928	0.10651	8.54	<.0001
log_Emerson_Bid	1	-0.05277	0.02461	-2.14	0.0328
event_200perc_emerson	1	-0.00236	0.07912	-0.03	0.9763
winter_dummy	1	0.15883	0.03348	4.74	<.0001

Dependent: LN(Iroquois Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Iroquois BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Iroquois_hub

Number of Observations Read	316
Number of Observations Used	315
Number of Observations with Missing Values	1

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	73.92076	24.64025	343.39	<.0001
Error	311	22.31595	0.07176		
Corrected Total	314	96.23671			

Root MSE	0.26787	**R-Square**	0.7681
Dependent Mean	1.78501	**Adj R-Sq**	0.7659
Coeff Var	15.00674		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.88366	0.14224	-6.21	<.0001
log_Henry_Spot	1	1.53648	0.11549	13.30	<.0001
log_Iroquois_Bid	1	0.19784	0.02281	8.67	<.0001
winter_dummy	1	0.23876	0.03617	6.60	<.0001

Dependent: LN(Dominion South Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Dawn BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dominion_South_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	10.49789	3.49930	608.97	<.0001
Error	312	1.79282	0.00575		
Corrected Total	315	12.29071			

Root MSE	0.07580	**R-Square**	0.8541
Dependent Mean	1.32777	**Adj R-Sq**	0.8527
Coeff Var	5.70910		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.03913	0.04047	-0.97	0.3343
log_Henry_Spot	1	0.91294	0.03279	27.85	<.0001
log_Dawn_Bid	1	0.04288	0.00639	6.71	<.0001
winter_dummy	1	-0.02185	0.01013	-2.16	0.0318

Dependent: LN(Leidy Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Dawn BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Leidy_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	12.66863	4.22288	64.16	<.0001
Error	312	20.53614	0.06582		
Corrected Total	315	33.20477			

Root MSE	0.25656	R-Square	0.3815
Dependent Mean	1.10061	Adj R-Sq	0.3756
Coeff Var	23.31045		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.33137	0.13696	-2.42	0.0161
log_Henry_Spot	1	1.02587	0.11096	9.25	<.0001
log_Dawn_Bid	1	-0.06091	0.02164	-2.81	0.0052
winter_dummy	1	0.16924	0.03430	4.93	<.0001

Dependent: LN(Emerson Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Emerson_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	56.01724	18.67241	299.66	<.0001
Error	312	19.44131	0.06231		
Corrected Total	315	75.45855			

Root MSE	0.24962	**R-Square**	0.7424
Dependent Mean	1.60276	**Adj R-Sq**	0.7399
Coeff Var	15.57456		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.64675	0.14034	-4.61	<.0001
log_Henry_Spot	1	1.44193	0.10631	13.56	<.0001
log_Centram_Bid	1	0.20596	0.01946	10.58	<.0001
winter_dummy	1	0.07981	0.03272	2.44	0.0153

Dependent: LN(Dawn Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dawn_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	3	59.56373	19.85458	312.31	<.0001
Error	312	19.83484	0.06357		
Corrected Total	315	79.39858			

Root MSE	0.25214	**R-Square**	0.7502
Dependent Mean	1.66360	**Adj R-Sq**	0.7478
Coeff Var	15.15608		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.64085	0.14176	-4.52	<.0001
log_Henry_Spot	1	1.48075	0.10738	13.79	<.0001
log_Centram_Bid	1	0.22612	0.01966	11.50	<.0001
winter_dummy	1	0.04674	0.03305	1.41	0.1582

Dependent: LN(Iroquois Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Iroquois_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	74.23376	24.74459	350.77	<.0001
Error	312	22.00982	0.07054		
Corrected Total	315	96.24358			

Root MSE	0.26560	**R-Square**	0.7713
Dependent Mean	1.78475	**Adj R-Sq**	0.7691
Coeff Var	14.88174		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.68007	0.14933	-4.55	<.0001
log_Henry_Spot	1	1.53845	0.11312	13.60	<.0001
log_Centram_Bid	1	0.18905	0.02071	9.13	<.0001
winter_dummy	1	0.26990	0.03481	7.75	<.0001

Dependent: LN(Niagara Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Niagara_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	3	50.51331	16.83777	300.33	<.0001
Error	312	17.49199	0.05606		
Corrected Total	315	68.00530			

Root MSE	0.23678	**R-Square**	0.7428
Dependent Mean	1.61356	**Adj R-Sq**	0.7403
Coeff Var	14.67427		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.47231	0.13312	-3.55	0.0004
log_Henry_Spot	1	1.33339	0.10084	13.22	<.0001
log_Centram_Bid	1	0.21089	0.01846	11.42	<.0001
winter_dummy	1	0.05291	0.03103	1.70	0.0892

Dependent: LN(AECONIT Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_AECONIT_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	27.54382	9.18127	361.84	<.0001
Error	312	7.91654	0.02537		
Corrected Total	315	35.46036			

Root MSE	0.15929	**R-Square**	0.7767
Dependent Mean	1.23822	**Adj R-Sq**	0.7746
Coeff Var	12.86444		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.95248	0.08956	-10.64	<.0001
log_Henry_Spot	1	1.49996	0.06784	22.11	<.0001
log_Centram_Bid	1	-0.00342	0.01242	-0.28	0.7830
winter_dummy	1	0.11999	0.02088	5.75	<.0001

Dependent: LN(Chicago Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Chicago_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	41.10771	13.70257	227.73	<.0001
Error	312	18.77311	0.06017		
Corrected Total	315	59.88082			

Root MSE	0.24530	**R-Square**	0.6865
Dependent Mean	1.57046	**Adj R-Sq**	0.6835
Coeff Var	15.61934		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.47790	0.13791	-3.47	0.0006
log_Henry_Spot	1	1.32894	0.10447	12.72	<.0001
log_Centram_Bid	1	0.15117	0.01913	7.90	<.0001
winter_dummy	1	0.08357	0.03215	2.60	0.0098

Dependent: LN(PGE Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_PGEGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	9.32841	3.10947	414.13	<.0001
Error	312	2.34261	0.00751		
Corrected Total	315	11.67102			

Root MSE	0.08665	R-Square	0.7993
Dependent Mean	1.50036	Adj R-Sq	0.7973
Coeff Var	5.77535		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	0.10371	0.04872	2.13	0.0341
log_Henry_Spot	1	0.98375	0.03690	26.66	<.0001
log_Centram_Bid	1	0.00563	0.00676	0.83	0.4057
winter_dummy	1	-0.01792	0.01136	-1.58	0.1156

Dependent: LN(El Paso San Juan Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoSanJuan_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	11.47489	3.82496	448.97	<.0001
Error	312	2.65808	0.00852		
Corrected Total	315	14.13297			

Root MSE	0.09230	R-Square	0.8119
Dependent Mean	1.40554	Adj R-Sq	0.8101
Coeff Var	6.56693		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.10973	0.05189	-2.11	0.0353
log_Henry_Spot	1	1.05825	0.03931	26.92	<.0001
log_Centram_Bid	1	0.00210	0.00720	0.29	0.7704
winter_dummy	1	0.01395	0.01210	1.15	0.2498

Dependent: LN(El Paso Permian Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoPermian_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	11.32608	3.77536	419.37	<.0001
Error	312	2.80879	0.00900		
Corrected Total	315	14.13487			

Root MSE	0.09488	R-Square	0.8013
Dependent Mean	1.40502	Adj R-Sq	0.7994
Coeff Var	6.75305		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.11521	0.05334	-2.16	0.0316
log_Henry_Spot	1	1.06396	0.04041	26.33	<.0001
log_Centram_Bid	1	-0.00131	0.00740	-0.18	0.8596
winter_dummy	1	0.01278	0.01244	1.03	0.3048

Dependent: LN(SoCal City Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_SoCalCityGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	3	8.99331	2.99777	821.93	<.0001
Error	312	1.13794	0.00365		
Corrected Total	315	10.13126			

Root MSE	0.06039	**R-Square**	0.8877
Dependent Mean	1.48422	**Adj R-Sq**	0.8866
Coeff Var	4.06897		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	0.13379	0.03395	3.94	0.0001
log_Henry_Spot	1	0.94467	0.02572	36.73	<.0001
log_Centram_Bid	1	0.00048430	0.00471	0.10	0.9182
winter_dummy	1	0.01007	0.00792	1.27	0.2044

Dependent: LN(Dominion South Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dominion_South_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	10.63763	3.54588	669.24	<.0001
Error	312	1.65308	0.00530		
Corrected Total	315	12.29071			

Root MSE	0.07279	R-Square	0.8655
Dependent Mean	1.32777	Adj R-Sq	0.8642
Coeff Var	5.48209		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	0.02775	0.04092	0.68	0.4982
log_Henry_Spot	1	0.89275	0.03100	28.80	<.0001
log_Centram_Bid	1	0.04921	0.00568	8.67	<.0001
winter_dummy	1	-0.01894	0.00954	-1.98	0.0480

Dependent: LN(Leidy Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Leidy_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	12.78497	4.26166	65.12	<.0001
Error	312	20.41980	0.06545		
Corrected Total	315	33.20477			

Root MSE	0.25583	R-Square	0.3850
Dependent Mean	1.10061	Adj R-Sq	0.3791
Coeff Var	23.24433		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.40086	0.14383	-2.79	0.0056
log_Henry_Spot	1	1.03332	0.10896	9.48	<.0001
log_Centram_Bid	1	-0.06228	0.01995	-3.12	0.0020
winter_dummy	1	0.16273	0.03353	4.85	<.0001

Dependent: LN(Emerson Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Emerson_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	59.87562	14.96891	298.75	<.0001
Error	311	15.58293	0.05011		
Corrected Total	315	75.45855			

Root MSE	0.22384	**R-Square**	0.7935
Dependent Mean	1.60276	**Adj R-Sq**	0.7908
Coeff Var	13.96609		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.74885	0.12638	-5.93	<.0001
log_Henry_Spot	1	1.48963	0.09549	15.60	<.0001
log_Centram_Bid	1	0.30317	0.02067	14.66	<.0001
event_200perc_centram	1	-0.47897	0.05458	-8.78	<.0001
winter_dummy	1	0.10627	0.02949	3.60	0.0004

Dependent: LN(Dawn Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dawn_hub

Number of Observations Read	316
Number of Observations Used	316

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	63.50238	15.87560	310.60	<.0001
Error	311	15.89619	0.05111		
Corrected Total	315	79.39858			

Root MSE	0.22608	R-Square	0.7998
Dependent Mean	1.66360	Adj R-Sq	0.7972
Coeff Var	13.58990		

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.74399	0.12765	-5.83	<.0001
log_Henry_Spot	1	1.52894	0.09644	15.85	<.0001
log_Centram_Bid	1	0.32433	0.02088	15.53	<.0001
event_200perc_centram	1	-0.48393	0.05513	-8.78	<.0001
winter_dummy	1	0.07348	0.02979	2.47	0.0142

Dependent: LN(Iroquois Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Iroquois_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	74.23421	18.55855	262.24	<.0001
Error	311	22.00937	0.07077		
Corrected Total	315	96.24358			

Root MSE	0.26603	**R-Square**	0.7713
Dependent Mean	1.78475	**Adj R-Sq**	0.7684
Coeff Var	14.90549		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.68118	0.15020	-4.54	<.0001
log_Henry_Spot	1	1.53897	0.11348	13.56	<.0001
log_Centram_Bid	1	0.19010	0.02457	7.74	<.0001
event_200perc_centram	1	-0.00520	0.06487	-0.08	0.9361
winter_dummy	1	0.27019	0.03505	7.71	<.0001

Dependent: LN(Niagara Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Niagara_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	53.24139	13.31035	280.38	<.0001
Error	311	14.76391	0.04747		
Corrected Total	315	68.00530			

Root MSE	0.21788	R-Square	0.7829
Dependent Mean	1.61356	Adj R-Sq	0.7801
Coeff Var	13.50313		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.55816	0.12302	-4.54	<.0001
log_Henry_Spot	1	1.37350	0.09295	14.78	<.0001
log_Centram_Bid	1	0.29262	0.02012	14.54	<.0001
event_200perc_centram	1	-0.40275	0.05313	-7.58	<.0001
winter_dummy	1	0.07517	0.02871	2.62	0.0093

Dependent: LN(AECONIT Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_AECONIT_hub

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	27.80558	6.95139	282.42	<.0001
Error	311	7.65478	0.02461		
Corrected Total	315	35.46036			

Root MSE	0.15689	**R-Square**	0.7841
Dependent Mean	1.23822	**Adj R-Sq**	0.7814
Coeff Var	12.67030		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.97907	0.08858	-11.05	<.0001
log_Henry_Spot	1	1.51238	0.06693	22.60	<.0001
log_Centram_Bid	1	0.02189	0.01449	1.51	0.1318
event_200perc_centram	1	-0.12475	0.03826	-3.26	0.0012
winter_dummy	1	0.12688	0.02067	6.14	<.0001

Dependent: LN(Chicago Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Chicago_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	42.45425	10.61356	189.41	<.0001
Error	311	17.42656	0.05603		
Corrected Total	315	59.88082			

Root MSE	0.23671	**R-Square**	0.7090
Dependent Mean	1.57046	**Adj R-Sq**	0.7052
Coeff Var	15.07292		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.53821	0.13365	-4.03	<.0001
log_Henry_Spot	1	1.35711	0.10098	13.44	<.0001
log_Centram_Bid	1	0.20859	0.02186	9.54	<.0001
event_200perc_centram	1	-0.28295	0.05772	-4.90	<.0001
winter_dummy	1	0.09921	0.03119	3.18	0.0016

Dependent: LN(PGE Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_PGEGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	9.33150	2.33288	310.12	<.0001
Error	311	2.33952	0.00752		
Corrected Total	315	11.67102			

Root MSE	0.08673	**R-Square**	0.7995
Dependent Mean	1.50036	**Adj R-Sq**	0.7970
Coeff Var	5.78081		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	0.10082	0.04897	2.06	0.0404
log_Henry_Spot	1	0.98510	0.03700	26.62	<.0001
log_Centram_Bid	1	0.00838	0.00801	1.05	0.2963
event_200perc_centram	1	-0.01357	0.02115	-0.64	0.5217
winter_dummy	1	-0.01717	0.01143	-1.50	0.1340

Dependent: LN(El Paso San Juan Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoSanJuan_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	11.51774	2.87944	342.42	<.0001
Error	311	2.61523	0.00841		
Corrected Total	315	14.13297			

Root MSE	0.09170	**R-Square**	0.8150
Dependent Mean	1.40554	**Adj R-Sq**	0.8126
Coeff Var	6.52424		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.09897	0.05178	-1.91	0.0569
log_Henry_Spot	1	1.05323	0.03912	26.92	<.0001
log_Centram_Bid	1	-0.00814	0.00847	-0.96	0.3371
event_200perc_centram	1	0.05048	0.02236	2.26	0.0247
winter_dummy	1	0.01116	0.01208	0.92	0.3564

Dependent: LN(El Paso Permian Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_ElPasoPermian_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	11.39942	2.84985	324.01	<.0001
Error	311	2.73546	0.00880		
Corrected Total	315	14.13487			

Root MSE	0.09379	**R-Square**	0.8065
Dependent Mean	1.40502	**Adj R-Sq**	0.8040
Coeff Var	6.67502		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-0.10113	0.05295	-1.91	0.0571
log_Henry_Spot	1	1.05739	0.04001	26.43	<.0001
log_Centram_Bid	1	-0.01471	0.00866	-1.70	0.0904
event_200perc_centram	1	0.06603	0.02287	2.89	0.0042
winter_dummy	1	0.00913	0.01236	0.74	0.4603

Dependent: LN(SoCal City Gate Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_SoCalCityGate_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	8.99626	2.24906	616.26	<.0001
Error	311	1.13500	0.00365		
Corrected Total	315	10.13126			

Root MSE	0.06041	**R-Square**	0.8880
Dependent Mean	1.48422	**Adj R-Sq**	0.8865
Coeff Var	4.07023		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	0.13097	0.03411	3.84	0.0001
log_Henry_Spot	1	0.94599	0.02577	36.71	<.0001
log_Centram_Bid	1	0.00317	0.00558	0.57	0.5705
event_200perc_centram	1	-0.01323	0.01473	-0.90	0.3699
winter_dummy	1	0.01080	0.00796	1.36	0.1759

Dependent: LN(Dominion South Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Dominion_South_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	10.63933	2.65983	500.92	<.0001
Error	311	1.65138	0.00531		
Corrected Total	315	12.29071			

Root MSE	0.07287	**R-Square**	0.8656
Dependent Mean	1.32777	**Adj R-Sq**	0.8639
Coeff Var	5.48807		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	0.02561	0.04114	0.62	0.5341
log_Henry_Spot	1	0.89376	0.03109	28.75	<.0001
log_Centram_Bid	1	0.05125	0.00673	7.62	<.0001
event_200perc_centram	1	-0.01005	0.01777	-0.57	0.5722
winter_dummy	1	-0.01838	0.00960	-1.91	0.0565

Dependent: LN(Leidy Hub Price)

Independent (1): LN(Henry Spot HUB Price)

Independent (2): LN(Centram BID FLOOR Price)

Independent (3): Event Dummy = 1, when Centram BID FLOOR Price is >= 200% of Rolling 30-Day Average

Independent (4): Winter Dummy = 1, when Month is Nov., Dec., Jan., Feb., Mar.

Limited to Discretionary Period: July 1, 2013 - May 12, 2014

The REG Procedure

Model: model

Dependent Variable: log_Leidy_Spot

Number of Observations Read	316
Number of Observations Used	316

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	4	13.94930	3.48733	56.32	<.0001
Error	311	19.25547	0.06191		
Corrected Total	315	33.20477			

Root MSE	0.24883	**R-Square**	0.4201
Dependent Mean	1.10061	**Adj R-Sq**	0.4126
Coeff Var	22.60817		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-0.45694	0.14049	-3.25	0.0013
log_Henry_Spot	1	1.05952	0.10615	9.98	<.0001
log_Centram_Bid	1	-0.00888	0.02298	-0.39	0.6995
event_200perc_centram	1	-0.26311	0.06067	-4.34	<.0001
winter_dummy	1	0.17727	0.03279	5.41	<.0001