The GRADBOOST Procedure

Model Information	
Number of Trees	100
Learning Rate	0.1
Subsampling Rate	0.5
Number of Variables Per Split	92
Number of Bins	50
Number of Input Variables	92
Maximum Number of Tree Nodes	27
Minimum Number of Tree Nodes	17
Maximum Number of Branches	2
Minimum Number of Branches	2
Maximum Depth	4
Minimum Depth	4
Maximum Number of Leaves	14
Minimum Number of Leaves	9
Maximum Leaf Size	763
Minimum Leaf Size	5
Seed	831013527
Lasso (L1) penalty	0
Ridge (L2) penalty	1
Actual Number of Trees	100
Average Number of Leaves	11.41

	Training
Number of Observations Read	1642
Number of Observations Used	1642

Variable Importance			
Variable	Importance	Std Dev Importance	Relative Importance
Past Use: Industrial (arces)	1.392E14	1.757E14	1.0000
2010 % Unemployed	1.119E14	1.759E14	0.8034
Property Size	7.387E13	2.274E14	0.5306
avg_acres_cleaned	5.314E13	1.904E14	0.3817
2010 % Vacant Housing	4.709E13	2.125E14	0.3382
IC Catgry-Proprietary Ctrls	2.164E13	3.005E14	0.1554
2010 % Low Income	2.086E13	2.542E14	0.1499
2010 % Below Poverty	1.877E13	2.421E14	0.1349
EPA Region	1.715E13	1.063E14	0.1232
Photographs are available	1.516E13	5.948E13	0.1089
SFLLP fact into the ownership	1.192E13	2.886E14	0.0857
Ownership Entity	9.063E12	2.903E14	0.0651
IC Catgry-Informational Dev	8.898E12	2.034E14	0.0639
2010 # Vacant Housing	8.02E12	3.694E13	0.0576
2010 Median Income	5.157E12	2.562E13	0.0370
2010 # Low Income	5.104E12	2.279E13	0.0367
Cntmnt Clnd Up-VOCs	3.525E12	6.808E13	0.0253
2010 # Below Poverty	2.939E12	2.471E13	0.0211
ICs in Place?	1.628E12	2.658E13	0.0117
Cntmnt Clnd Up-Other (Descr)	1.566E12	1.811E13	0.0112
Cntmnt Fnd-VOCs	1.438E12	2.632E13	0.0103
2010 # Unemployed	1.154E12	3.701E12	0.0083
Did Ownership Change	8.784E11	6.763E12	0.0063
Cntmnt Clnd Up-Arsenic	8.411E11	0	0.0060
Cntmnt Clnd Up-Lead	7.416E11	5.524E12	0.0053
Media Clnd Up-Surface Water	5.289E11	3.44E12	0.0038

Variable Importance			
Variable	Importance	Std Dev Importance	Relative Importance
Cntmnt Clnd Up-Asbestos	5.234E11	5.173E12	0.0038
Cntmnt Fnd-Petroleum	4.507E11	3.485E12	0.0032
Past Use: Commercial (arces)	4.473E11	2.429E12	0.0032
Cntmnt Clnd Up-SVOCs	3.834E11	4.735E12	0.0028
Media Clnd Up-Sediments	3.636E11	3.181E12	0.0026
Cntmnt Fnd-PCBs	3.369E11	1.298E13	0.0024
Ready For Reuse Ind	2.827E11	5.532E12	0.0020
Cntmnt Fnd-Other	2.779E11	1.593E12	0.0020
Media Clnd Up-Ground Water	2.439E11	3.8E12	0.0018
Cntmnt Fnd-Arsenic	2.432E11	1.041E13	0.0017
Institutional Ctrl (ICs) Req?	2.315E11	3.155E12	0.0017
Cntmnt Clnd Up-PCBs	2.18E11	7.696E12	0.0016
Past Use: Greenspace (arces)	1.539E11	1.274E12	0.0011
Cntmnt Clnd Up-Pesticides	1.326E11	0	0.0010
Media Affected-Ground Water	1.324E11	3.844E12	0.0010
IC Catgry-Govmntal Ctrls	1.153E11	0	0.0008
Cntmnt Fnd-Asbestos	9.993E10	1.042E12	0.0007
Cntmnt Clnd Up-PAHs	9.364E10	2.931E12	0.0007
Cntmnt Clnd Up-Other Metals	7.218E10	0	0.0005
Cntmnt Fnd-Other Metals	5.441E10	1.662E12	0.0004
Cntmnt Clnd Up-Petroleum	4.463E10	1.882E11	0.0003
Media Affected-Sediments	3.748E10	7.857E11	0.0003
avg_acres_grn_created	3.205E10	4.061E11	0.0002
Cntmnt Clnd Up-Chromium	2.124E10	0	0.0002
Media Clnd Up-Indoor Air	2.033E10	0	0.0001
Cntmnt Fnd-Copper	1.932E10	0	0.0001

Variable Importance			
Variable	Importance	Std Dev Importance	Relative Importance
Media Clnd Up-Soil	1.746E10	0	0.0001
Cntmnt Fnd-PAHs	1.239E10	0	0.0001
Cntmnt Fnd-Lead	5.9304E9	0	426E-7

Fit Statistics	
Number of Trees	Training Average Square Error
1	7.2377E12
2	7.0191E12
3	6.989E12
4	6.766E12
5	6.7491E12
6	6.6993E12
7	6.7009E12
8	6.6694E12
9	6.6619E12
10	6.6628E12
11	6.6585E12
12	6.6173E12
13	6.615E12
14	6.6143E12
15	6.4283E12
16	6.2699E12
17	6.0852E12
18	5.9478E12
19	5.7875E12

Fit Statistics	
Number of Trees	Training Average Square Error
20	5.7755E12
21	5.6396E12
22	5.5281E12
23	5.3946E12
24	5.3802E12
25	5.2712E12
26	5.2745E12
27	5.2691E12
28	5.2684E12
29	5.1472E12
30	5.0398E12
31	4.9607E12
32	4.9517E12
33	4.9415E12
34	4.9256E12
35	4.9325E12
36	4.7201E12
37	4.6397E12
38	4.6495E12
39	4.5107E12
40	4.522E12
41	4.4273E12
42	4.4184E12
43	4.4215E12
44	4.3179E12
45	4.2364E12

Fit Statistics	
Number of Trees	Training Average Square Error
46	4.2448E12
47	4.2263E12
48	4.1306E12
49	4.0418E12
50	4.0487E12
51	3.9897E12
52	3.9936E12
53	3.9978E12
54	3.9907E12
55	3.9812E12
56	3.9753E12
57	3.9099E12
58	3.8761E12
59	3.8902E12
60	3.8606E12
61	3.8598E12
62	3.8535E12
63	3.7703E12
64	3.7696E12
65	3.7731E12
66	3.7071E12
67	3.6565E12
68	3.5728E12
69	3.5836E12
70	3.5869E12
71	3.6008E12

Fit Statistics	
Number of Trees	Training Average Square Error
72	3.5378E12
73	3.4842E12
74	3.4214E12
75	3.2704E12
76	3.2666E12
77	3.2694E12
78	3.2715E12
79	3.264E12
80	3.2231E12
81	3.2221E12
82	3.1836E12
83	3.1823E12
84	3.1763E12
85	3.187E12
86	3.1918E12
87	3.1966E12
88	3.13E12
89	3.0622E12
90	3.0205E12
91	3.0215E12
92	2.971E12
93	2.9457E12
94	2.8834E12
95	2.8719E12
96	2.8029E12
97	2.7093E12

Fit Statistics	
Number of Trees	Training Average Square Error
98	2.7158E12
99	2.6737E12
100	2.6285E12